NEW 1-INCH NG (UG) SERVICE LATERAL FROM BLDG 23 A AND 23 B REGULATOR/METER ASSEMBLY TO CONNECTION TO THE BUILDING ENTRANCE.

1 – BUILDING #23A AND #23B SERVICE LATERAL ROUTING

NO SCALE

LIMIT OF CONSTRUCTION. REMOVE EXISTING SERVICE UPSTREAM OF UNION AND REPLACE WITH ANODELESS RISER AND 1-INCH PIPE FROM METER/REGULATOR ASSEMBLY FOR EACH SERVICE.

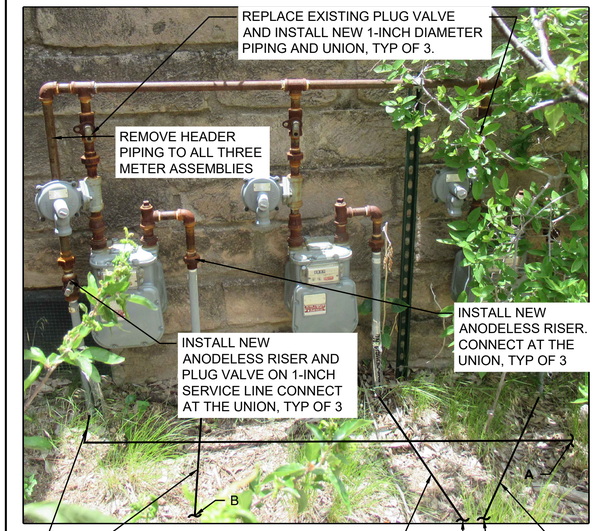
2 – BUILDING #23A AND #23B SERVICE CONNECTION

NO SCALE

LIMIT OF CONSTRUCTION. REPLACE EXISTING PLUG VALVE AND INSTALL ANODELEES RISER TO THIS POINT.

3 – BUILDING #24A SERVICE CONNECTION

NO SCALE



NEW 1-INCH NG (UG) SERVICE LATERAL FROM BLDG 24 D REGULATOR/METER ASSEMBLY TO CONNECTION TO THE BUILDING ENTRANCE.

NEW 1-INCH NG (UG) SERVICE LATERAL FROM BLDG 24 D, 27 B, AND 27 C REGULATOR/METER ASSEMBLY TO CONNECTION TO THE 2-INCH DIAMETER MAIN IN THE SERVICE ROAD NORTHWEST OF BLDG. 27.

NEW 1-INCH NG (UG) SERVICE LATERAL FROM BLDG 27 B AND 27 C REGULATOR/METER ASSEMBLY TO CONNECTION TO THE BUILDING ENTRANCE.

4 – BUILDING #24D, #27B, AND #27C SERVICE CONNECTION

NO SCALE

NEW 1-INCH NG (UG) SERVICE LATERAL FROM BLDG 24 D REGULATOR/METER ASSEMBLY TO CONNECTION TO THE BUILDING ENTRANCE.

5 – BUILDING #24D SERVICE CONNECTION

NO SCALE

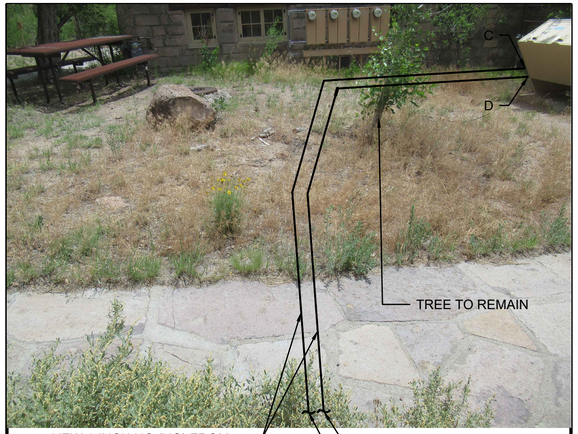
NOTE:
BUILDING 24 D, 27 B, AND 27 C SERVICE LINE ROUTING FROM REGULATOR METER ASSEMBLY TO 2-INCH MAIN IN SERVICE ROAD NW OF BLDG 27.

6 – BUILDING 24 D, 27 B, AND 27 C SERVICE LATERAL ROUTING

NO SCALE

NEW 1-INCH NG (UG) SERVICE LATERAL FROM 2-INCH MAIN TO BLDGS. 24 D, 27 B, AND 27 C REGULATOR/METER ASSEMBLY.

1-INCH LINE VALVE ON SERVICE LATERAL IN 6-INCH VALVE ACCESS SLEEVE



NEW 1-INCH NG (UG) FROM BLDGS. 27 B, AND 27 C REGULATOR/METER ASSEMBLY TO BUILDING CONNECTION.

NOTE:
BUILDING 27 B, AND 27 C SERVICE LINE ROUTING FROM REGULATOR METER ASSEMBLY TO BUILDING CONNECTIONS.

7 – BUILDING 27 B, AND 27 C SERVICE LATERAL ROUTING

NO SCALE

MICAH E. JOHNSON
NEW MEXICO
25223
Digitally signed by Micah E. Johnson
Date: 2025.04.08 12:17:57-06'00'
PROFESSIONAL ENGINEER

DESIGNED: D. STIEB	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD E. SHERIFI	02C506	CIVIL NATURAL GAS DETAILS (6 OF 7)	315 / 182751
TECH. REVIEW: T. PRICE			PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 95 OF 203

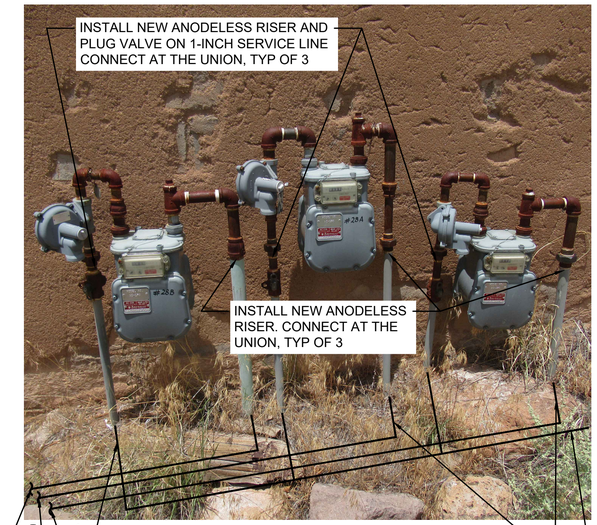
3/30/2025 9:22 PM FIGUEROA,I R24 02C506_D3167658_DETAILS.DWG XG-Border_BAND

1 BUILDING #27 B AND C SERVICE CONNECTION
NO SCALE

2 BUILDING #27A SERVICE CONNECTION
NO SCALE

NOTE:
BUILDING 27 A SERVICE LINE ROUTING FROM REGULATOR METER ASSEMBLY TO BUILDING CONNECTION.

3 BUILDING #27 SERVICE LATERAL ROUTING
NO SCALE



4 BUILDING #27A, #28A AND B SERVICE CONNECTION
NO SCALE

5 BUILDING #28 A AND B SERVICE LATERAL ROUTING
NO SCALE

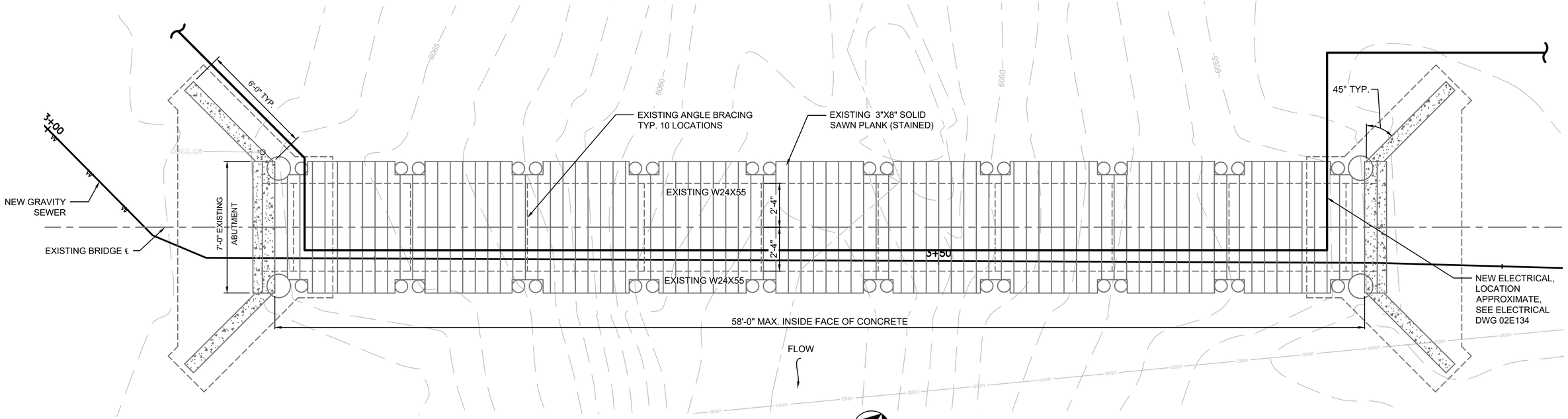
6 BUILDING #28 A AND B SERVICE CONNECTION
NO SCALE

7 BUILDING #29 A AND B SERVICE CONNECTION
NO SCALE

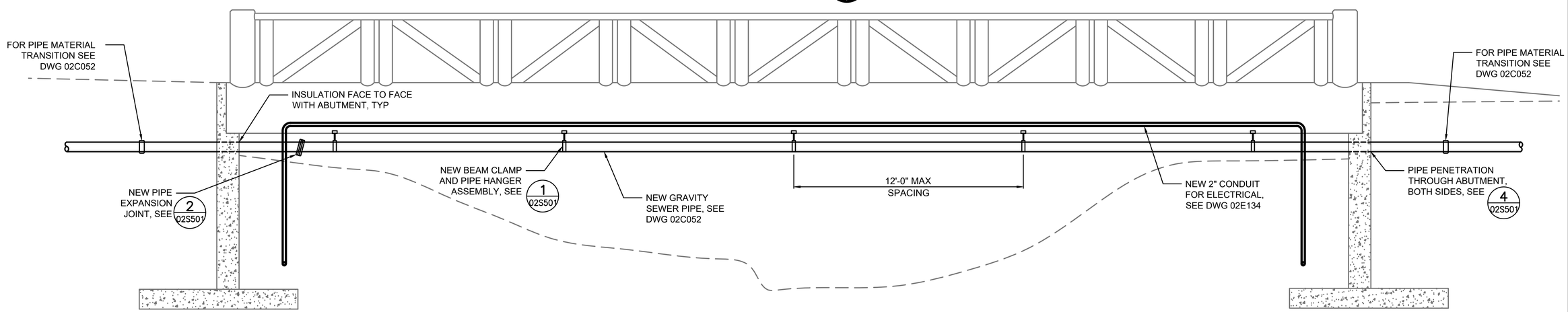
MICAH E. JOHNSON
NEW MEXICO
25223
Digitally signed by Micah E. Johnson
Date: 2025.04.08 14:18:33-06'00'
PROFESSIONAL ENGINEER

DESIGNED: D. STIEB	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD E. SHERIFI	02C507	CIVIL NATURAL GAS DETAILS (7 OF 7)	315 182751
TECH. REVIEW: T. PRICE			PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 96 OF 203

3/30/2025 9:29 PM FIGUEROAJ R24 02C507_D3167658_DETAILS.DWG XG-Border_BAND



PLAN



ELEVATION

BRIDGE 2
VISITOR CENTER
BANDELIER NATIONAL MONUMENT

CLIN OPTION M - COTTONWOOD COMFORT STATION (BLDG #1) UTILITY CONNECTIONS: GRAVITY SEWER AND ELECTRICAL CREEK CROSSING SUSPENDED FROM BRIDGE. SEE ALSO DWG 02C052. FOR DETAILS SEE SPECIFICATION 01 27 00.

GENERAL BRIDGE NOTES:

1. RECORD DRAWING OF THE BRIDGE MAY BE OBTAINED FROM THE PARK SERVICE, DRAWINGS PMIS NO. 258864.
2. DESIGN SPECIFICATIONS
   2021 INTERNATIONAL BUILDING CODE.
3. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO STARTING CONSTRUCTION WORK.
4. FOR PIPE HANGER SUBMITTAL REQUIREMENTS SEE PROJECT SPECIFICATION SECTION 40 05 15, PIPING SUPPORT SYSTEMS.

FULL SIZE DRAWINGS = 22"x34" BAR MEASURES 1" LONG 0" 1"

HORIZONTAL: 12" 0' 1' 5' SCALE OF FEET 3/8" = 1'-0"

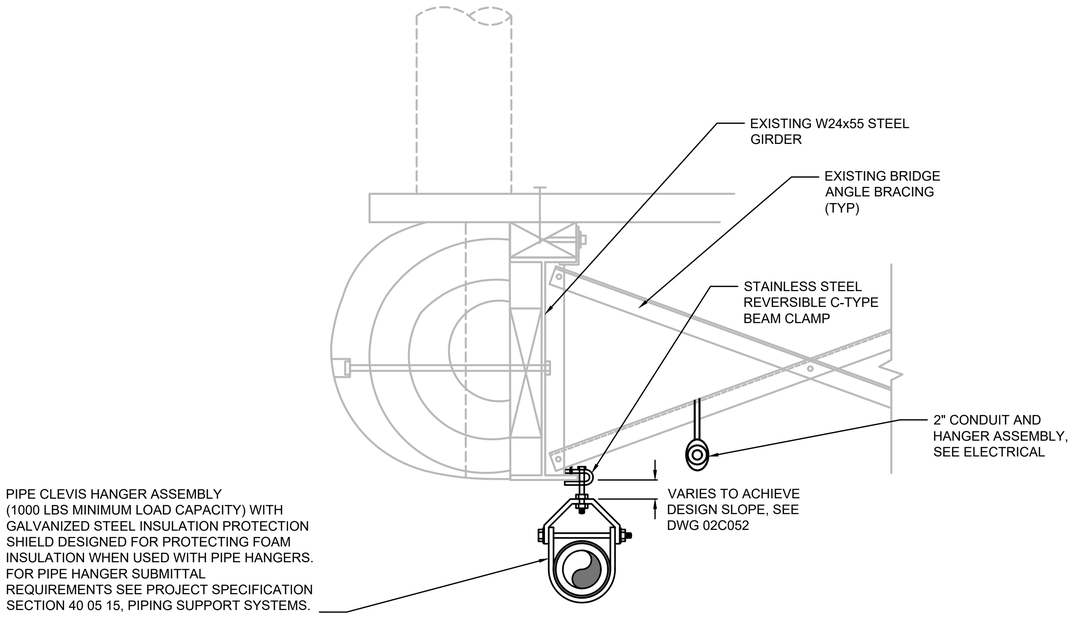
VERTICAL: 12" 0' 1' 5' SCALE OF FEET 3/8" = 1'-0"

DAVID G. JOHNSON NEW MEXICO 21069 PROFESSIONAL ENGINEER

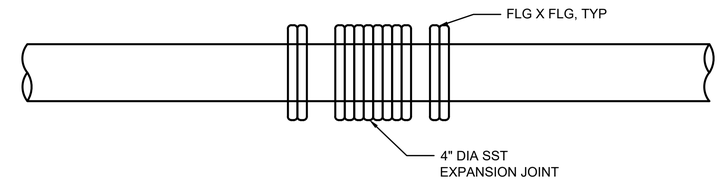
Digitally signed by David G Johnson Date: 2025.04.09 18:01:35-06'00'

DESIGNED: B. BLASEN	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 315
CADD C. MUCHMORE	02S101	STRUCTRUAL BRIDGE CROSSING PLAN & ELEVATION	182751
TECH. REVIEW: D. JOHNSON			PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 97 OF 203

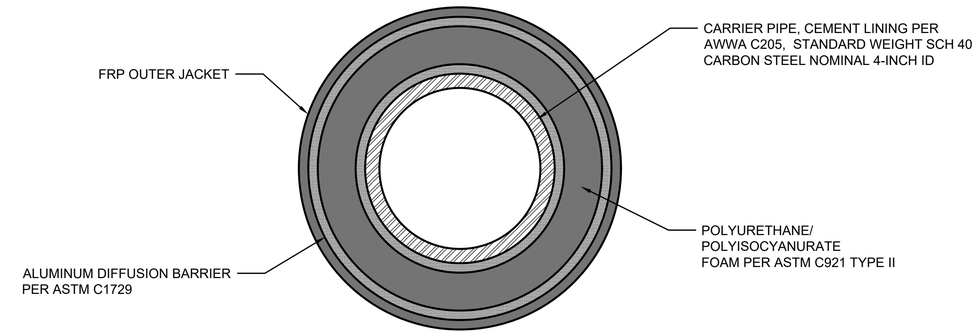
XC-LAYOUT-Sheet: 1 s
XC-A-FLOOR PLANS
XE-Electrical Proposed and Existing Master
XC-UTILITY SITE
XC-BAND-GIS APE & Park boundary
BLASEN-PC-Sheet Index
XS-BRIDGE02_D3167658
XS-BRIDGE01_D3167658
XC-BAND_02-EG-Master
XC-CLOUDWALK
4/8/2025 12:33 PM FIGUEROAJ R24 02_S101_D3167658.DWG



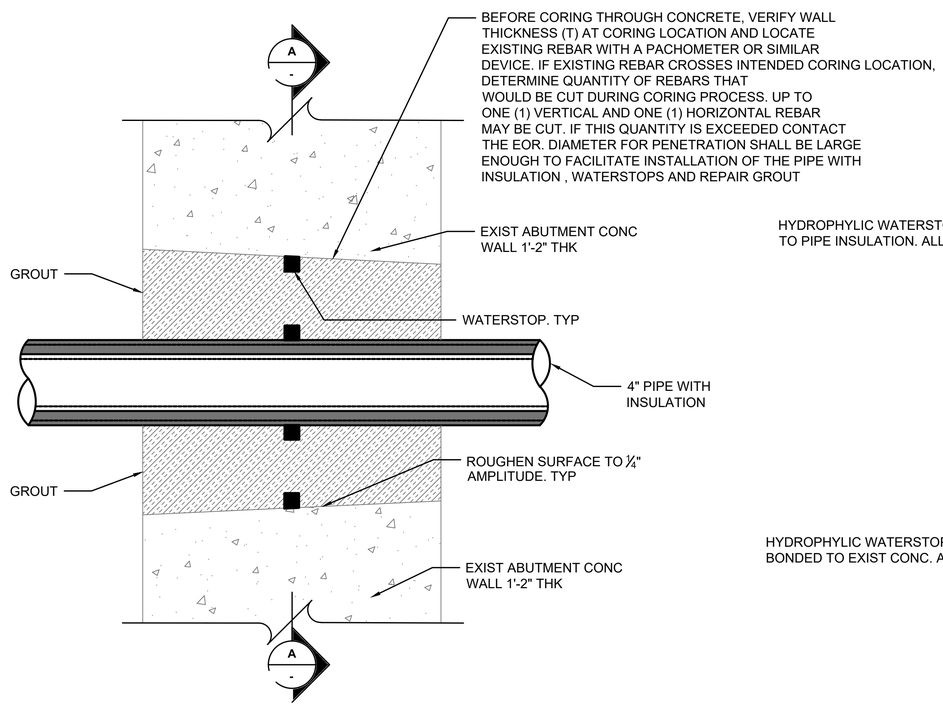
1 PIPE CONNECTION DETAIL
1 1/2" = 1'-0"



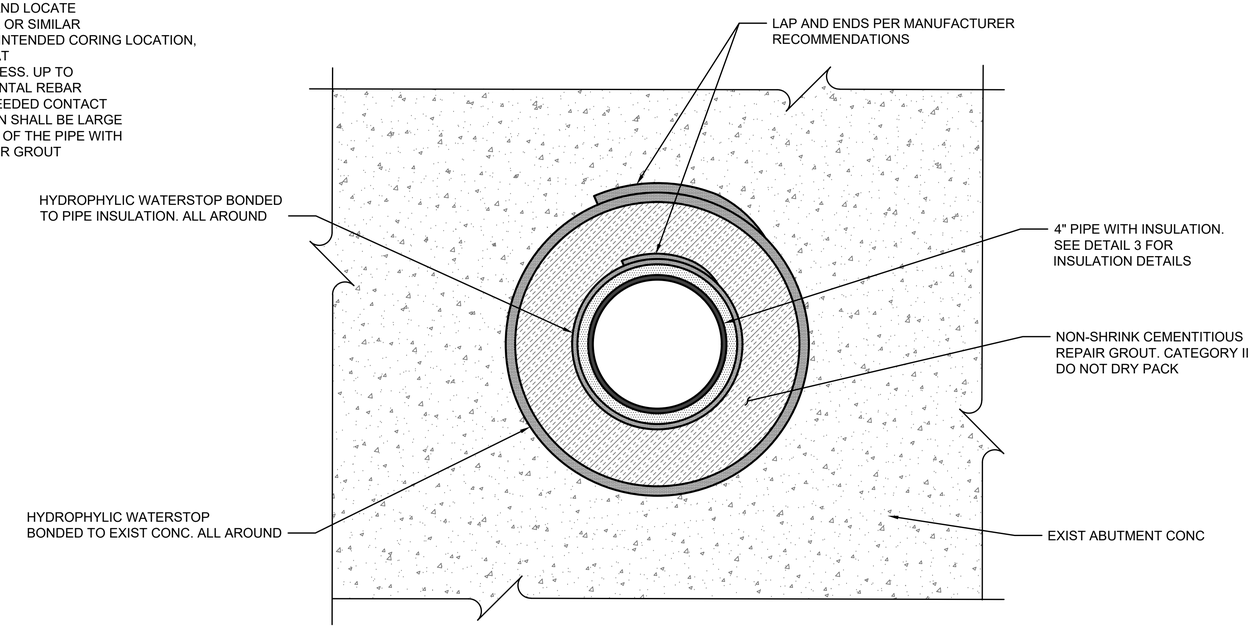
2 4" W EXPANSION JOINT
1 1/2" = 1'-0"



3 TYPICAL INSULATED PIPE SECTION
1 1/2" = 1'-0"



4 SECTION AT CONCRETE ABUTMENT WALL PIPE PENETRATION
1 1/2" = 1'-0"



A SECTION
NTS

PIPE PENETRATION

Digitally signed by David G Johnson
Date: 2025.04.06 18:01:54-06'00'

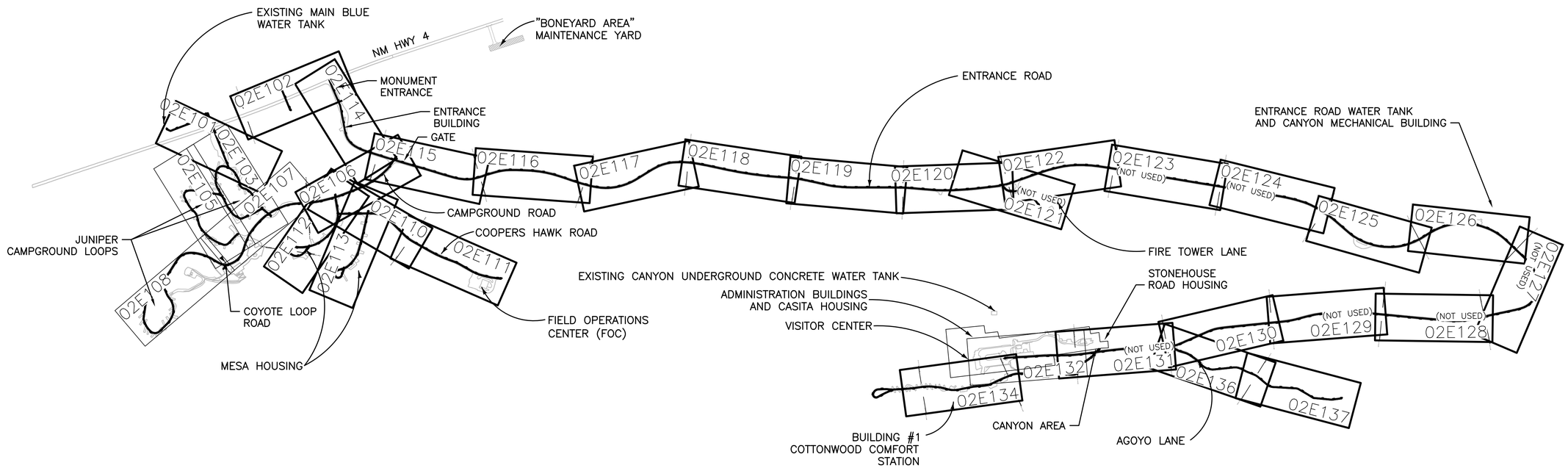
DAVID G. JOHNSON NEW MEXICO 21069 PROFESSIONAL ENGINEER

DESIGNED: B. BLASEN	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD C. MUCHMORE	02S501	STRUCTURAL BRIDGE HANGER AND PIPE DETAILS	315 / 182751
TECH. REVIEW: D. JOHNSON			PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 98 OF 203

3/30/2025 11:56 AM FIGUEROAJ R24 02_S501_D3167658.DWG XS-BridgeB_BANO XS-BRIDGE02_D3167658

GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.
3. REFER TO CIVIL DRAWING 02C001 FOR CORRESPONDING CIVIL SITE DRAWING NUMBERS.

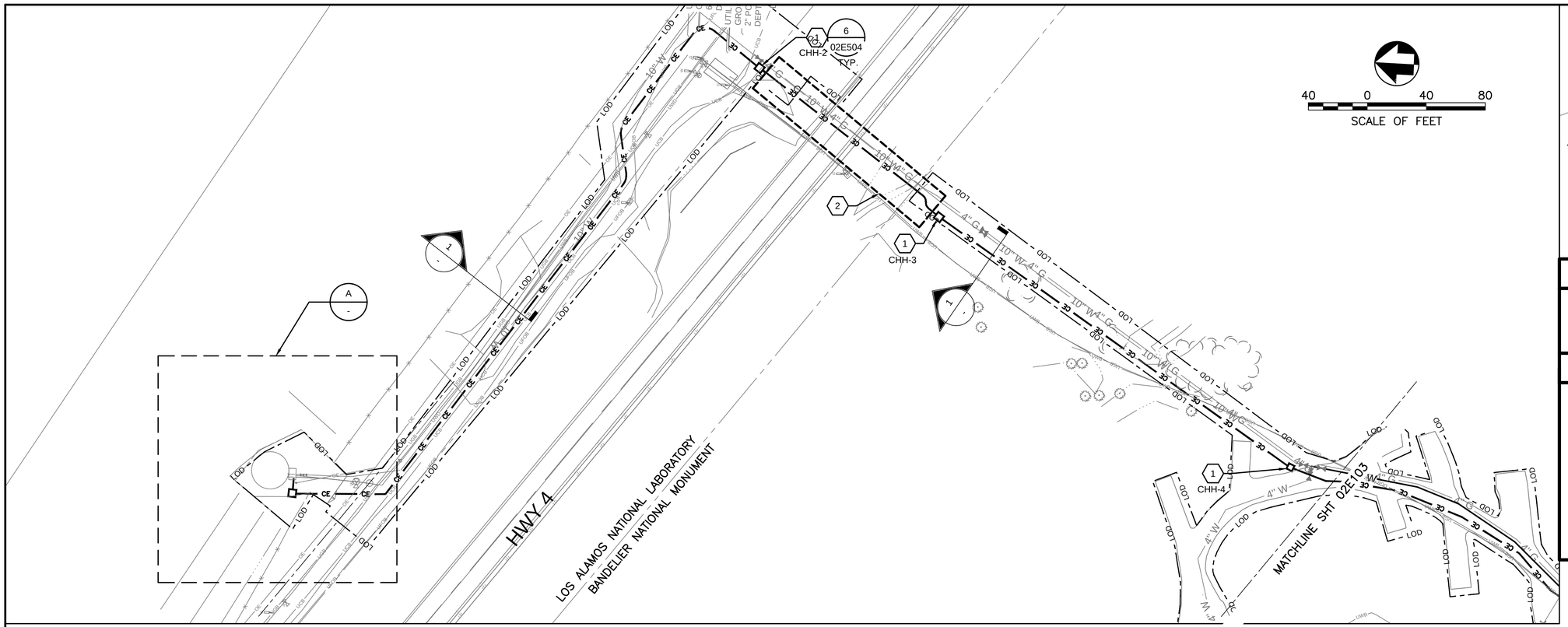


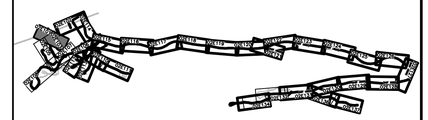
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:20:52-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 315
CADD A. CUGLIAT	02E100	ELECTRICAL SITE PLAN SHEET INDEX	182751
TECH. REVIEW: J. LANDMAN			PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 99 OF 203

3/25/2025 7:30 AM acugliat R24 02E100_D3167658.DWG XE-LAYOUT-SHEETS XG-Border_BAND





KEYPLAN

GENERAL NOTES

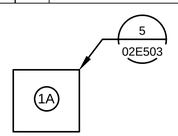
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

SHEET KEYNOTES

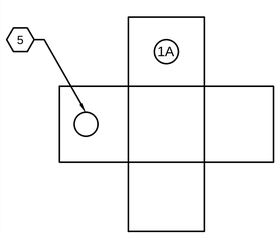
1. 4'X4'X4' COMMUNICATIONS HANDHOLE.
2. SEE CIVIL DRAWINGS 02C005 FOR COMBINED UTILITY ROAD CROSSING DETAILS.
3. EXISTING ELECTRICAL UTILITY OVERHEAD DISTRIBUTION LINE.
4. WIRE PRESSURE TRANSMITTER TO CELLULAR DIALER LOCATED IN ABERT'S SQUIRREL COMFORT STATION VIA UNDERGROUND CONDUIT SYSTEM.
5. FIELD ROUTE CONDUIT FROM INSTRUMENT TO COMMUNICATIONS HANDHOLE. CORE-DRILL EXISTING VALVE VAULT WALL FOR CONDUIT PENETRATION.

DUCT BANK SCHEDULE

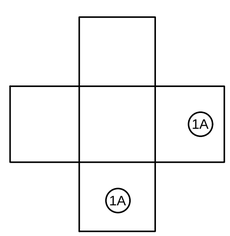
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
1	CHH-01	CHH-02	1A	4"	1-1" INNERDUCT WITH 1-TYPE 3
	CHH-02	CHH-03			2-1" INNERDUCT WITH PULLSTRING
	CHH-03	CHH-04			
	CHH-04	CHH-07			



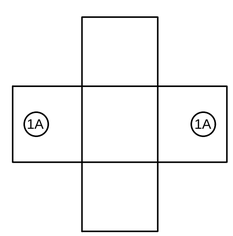
1 - DUCT SECTION
NOT TO SCALE



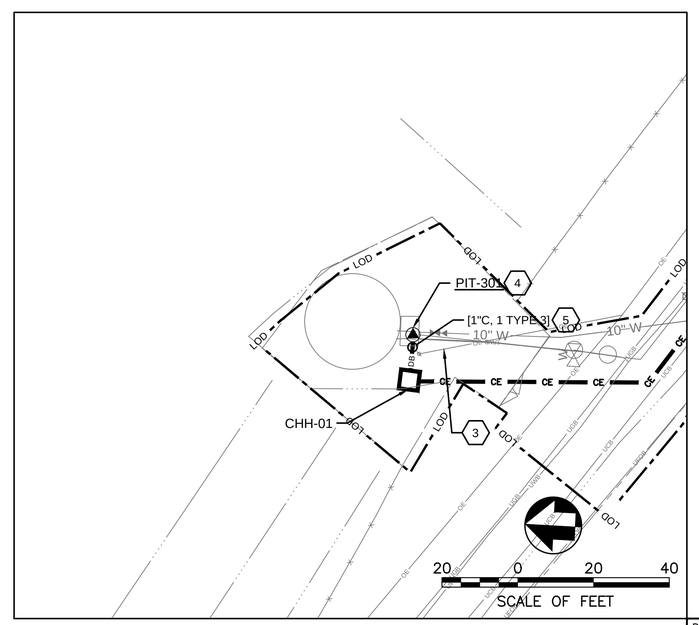
CCH-1
BUTTERFLY DIAGRAM
NOT TO SCALE



CCH-2
BUTTERFLY DIAGRAM
NOT TO SCALE



CCH-3 & CHH-04
BUTTERFLY DIAGRAM
NOT TO SCALE



A - BLUE TANK
ENLARGED PLAN
1"=20'

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:20:52-06'00'

DESIGNED:	J. JAMES
CADD	I. KHAN
TECH. REVIEW:	J. LANDMAN
DATE:	04/11/2025

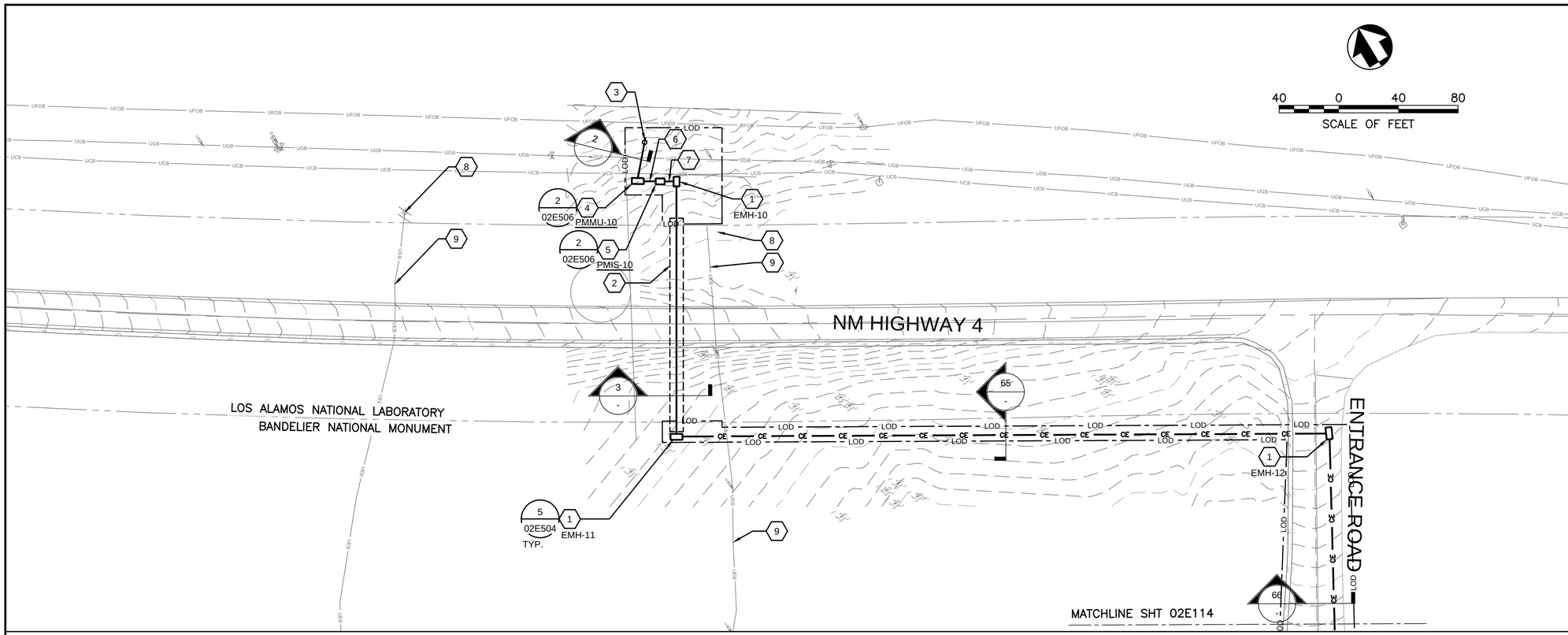
SUB SHEET NO. 02E101

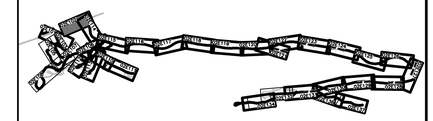
TITLE OF SHEET
ELECTRICAL

PRIMARY DISTRIBUTION
HWY 4 CROSSING 1
BANDELIER NATIONAL MONUMENT

DRAWING NO. 315
182751
PMIS/PKG NO. 266697
SHEET 100 OF 203

3/25/2025 7:30 AM acuglist R24 02E101 D3167658.DWG





KEYPLAN

GENERAL NOTES

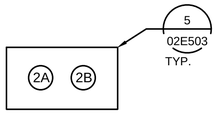
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

SHEET KEYNOTES

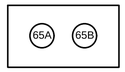
1. 4x8x4 MANHOLE.
2. SEE CIVIL DRAWING 02C006 FOR UTILITY ROAD CROSSING DETAILS.
3. NEW UTILITY POLE RISER, CONDUIT, AND SERVICE CONDUCTORS PROVIDE BY ELECTRICAL UTILITY.
4. PAD MOUNT PRIMARY METERING CABINET. COORDINATE WITH ELECTRICAL UTILITY FOR SPECIFIC SERVICE DISCONNECT SWITCH REQUIREMENTS. PROVIDE FIBERGLASS GROUND SLEEVE.
5. PAD MOUNT PRIMARY SERVICE DISCONNECT SWITCH COORDINATE WITH ELECTRICAL UTILITY FOR SPECIFIC SERVICE DISCONNECT SWITCH REQUIREMENTS. PROVIDE FIBERGLASS GROUND SLEEVE.
6. PROVIDE TWO 5-INCH CONDUITS BETWEEN METERING CABINET AND SERVICE DISCONNECT SWITCH.
7. PROVIDE TWO 5-INCH CONDUITS BETWEEN SERVICE DISCONNECT SWITCH AND ELECTRICAL MANHOLE.
8. DEMOLISH EXISTING THREE PHASE PRIMARY SERVICE AND SINGLE PHASE SECONDARY SERVICE, POLES, AND OVERHEAD CONDUCTORS AFTER NEW PRIMARY SERVICE IS PROVIDED AND ACCEPTED BY CONTRACTING OFFICER.
9. DEMOLISH EXISTING CONDUCTORS WHERE INSTALLED IN BELOW GRADE CONDUIT. BELOW GRADE CONDUIT TO BE ABANDONED IN PLACE. ABANDON DIRECT BURIED CONDUCTORS AND CONDUCTORS NOT REMOVABLE FROM BELOW GRADE CONDUIT IN PLACE.

DUCT BANK SCHEDULE

SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
2	RISER POLE	PMS-4	2A	5"	BY LANL
			2B	5"	PULLSTRING
3	EMH-10	EMH-11	3A	5"	3#4/0 15KV, 1#1/0G 600V
			3B	5"	PULLSTRING
65	EMH-11	EMH-12	65A	5"	3#4/0 15KV, 1#1/0G 600V
			65B	5"	PULLSTRING
66	EMH-12	EMH-13	66A	5"	3#4/0 15KV, 1#1/0G 600V
			66B	5"	PULLSTRING



2 / - DUCT SECTION
NOT TO SCALE



65 / - DUCT SECTION
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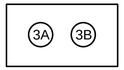
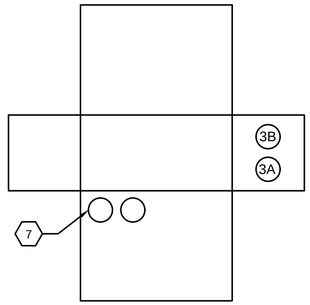
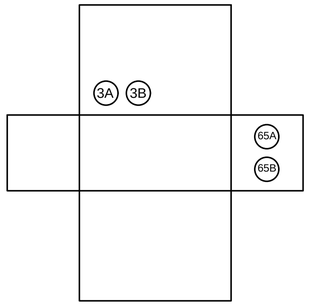


3 / - DUCT SECTION
NOT TO SCALE

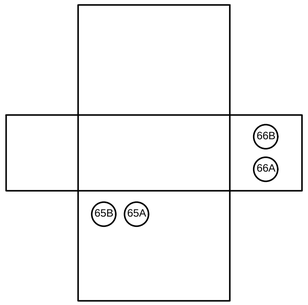
66 / - DUCT SECTION
NOT TO SCALE



EMH-10
BUTTERFLY DIAGRAM
NOT TO SCALE



EMH-11
BUTTERFLY DIAGRAM
NOT TO SCALE



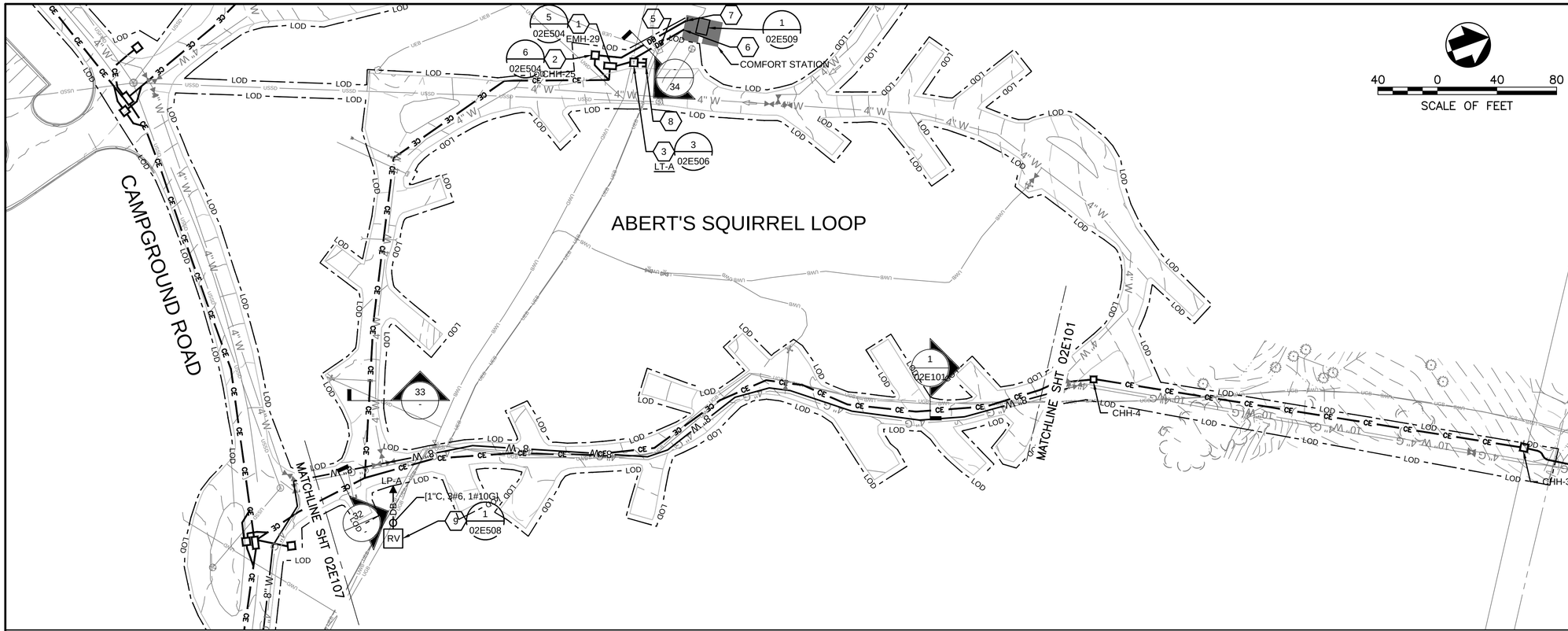
EMH-12
BUTTERFLY DIAGRAM
NOT TO SCALE

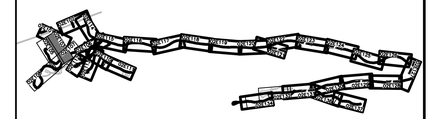
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:20:53-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E102	ELECTRICAL	315 182751
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION HWY 4 CROSSING 2	PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 101 OF 203

3/25/2025 7:30 AM acuglait R24 02E102 D3167658.DWG





KEYPLAN

GENERAL NOTES

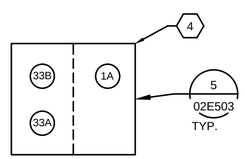
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

SHEET KEYNOTES

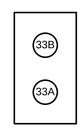
1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.
3. PAD-MOUNTED LOOP FEED TRANSFORMER.
4. COMBINE DUCT BANKS 1 AND 33 INTO COMMON DUCT BANK.
5. DEMOLISH 480V RACK-MOUNTED DISCONNECTS FEEDING ABERT'S SQUIRREL AND BLACK BEAR COMFORT STATIONS.
6. FIELD ROUTE COMFORT STATION SECONDARY FEED FROM TRANSFORMER INTO COMFORT STATION UTILITY ROOM AND RE-FEED EXISTING PANEL LP-A.
7. PENETRATE FIBER COMMUNICATIONS CONDUIT INTO COMFORT STATION UTILITY ROOM.
8. STUB OUT 4 INCH PRIMARY CONDUIT FOR FUTURE EXPANSION.
9. RV PEDESTAL FOR NEW CAMP HOST SITE. FIELD ROUTE FEEDER CONDUIT TO ABERT'S SQUIRREL COMFORT STATION. COORDINATE LOCATION WITH FINAL SITE ORIENTATION. INSTALL RV PEDESTAL ADJACENT TO WATER AND SEWER HOOKUPS.

DUCT BANK SCHEDULE

SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
32	EMH-27	SECTION 33	33A	4"	1#2 15KV, 1#6G 600V
	CHH-07	SECTION 33	33B	4"	1-1" INNERDUCT WITH 1-TYPE 3 2-1" INNERDUCT WITH PULLSTRING
		SECTION 1	1A	4"	1-1" INNERDUCT WITH 1-TYPE 3 2-1" INNERDUCT WITH PULLSTRING
33	SECTION 32	EMH-29	33A	4"	1#2 15KV, 1#6G 600V
	SECTION 32	CHH-25	33B	4"	1-1" INNERDUCT WITH 1-TYPE 3 2-1" INNERDUCT WITH PULLSTRING
34	EMH-29	LT-A	34A	4"	1#2 15KV, 1#6G 600V
	CHH-09	COMFORT STATION	34B	4"	1-1" INNERDUCT WITH 1-TYPE 3 2-1" INNERDUCT WITH PULLSTRING

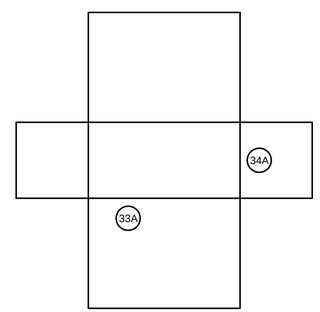


32 - DUCT SECTION
NOT TO SCALE

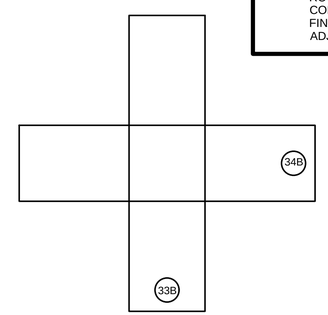


33 - DUCT SECTION
NOT TO SCALE

34 - DUCT SECTION
NOT TO SCALE



EMH-29
BUTTERFLY DIAGRAM
NOT TO SCALE



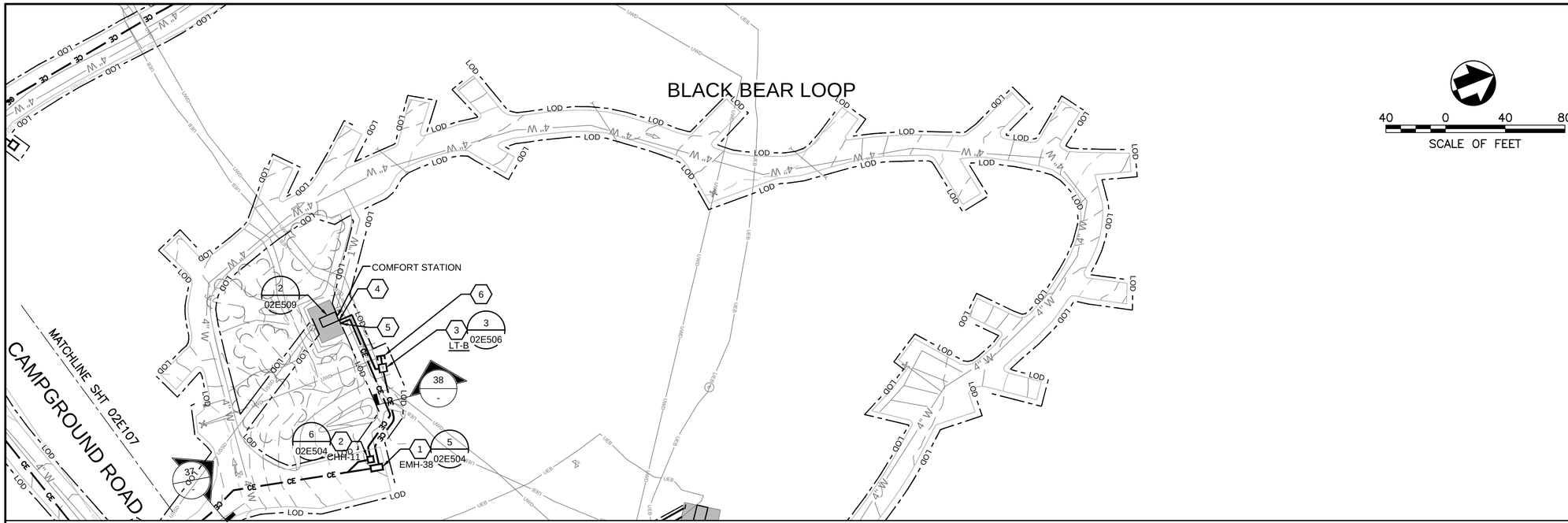
CHH-25
BUTTERFLY DIAGRAM
NOT TO SCALE

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:20:54-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E103	ELECTRICAL	315
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION ABERT'S SQUIRREL LOOP	182751
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
			SHEET 102 OF 203

3/25/2025 7:30 AM aoujilat R24 02E103 D3161658.DWG



40 0 40 80
SCALE OF FEET

KEYPLAN

GENERAL NOTES

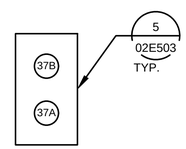
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

SHEET KEYNOTES

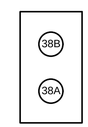
1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.
3. PAD-MOUNTED LOOP FEED TRANSFORMER.
4. FIELD ROUTE COMFORT STATION SECONDARY FEED FROM TRANSFORMER INTO COMFORT STATION UTILITY ROOM AND RE-FEED EXISTING PANEL LP-B.
5. PENETRATE FIBER COMMUNICATIONS CONDUIT INTO COMFORT STATION UTILITY ROOM.
6. STUB OUT 4 INCH PRIMARY CONDUIT FOR FUTURE EXPANSION.

DUCT BANK SCHEDULE

SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
37	EMH-28	EMH-38	37A	4"	1#2 15KV, 1#6G 600V
	CHH-08	CHH-11	37B	4"	PULLSTRING
38	EMH-31	LT-B	38A	4"	1#2 15KV, 1#6G 600V
	CHH-11	COMFORT STATION	38B	4"	PULLSTRING



37 - DUCT SECTION
NOT TO SCALE



38 - DUCT SECTION
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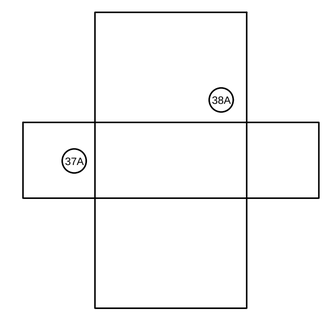
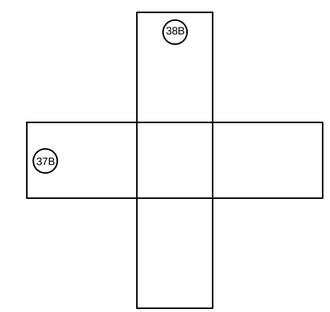


EMH-38
BUTTERFLY DIAGRAM
NOT TO SCALE



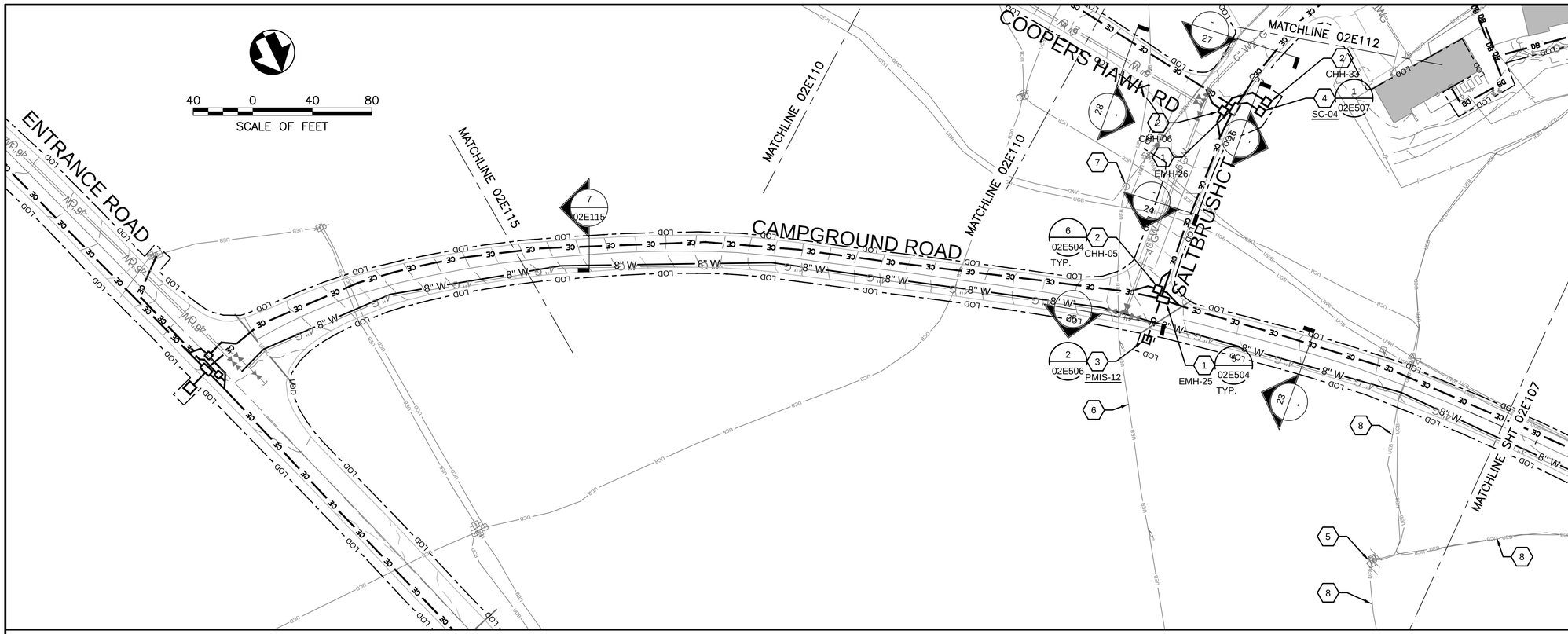
CHH-11
BUTTERFLY DIAGRAM
NOT TO SCALE

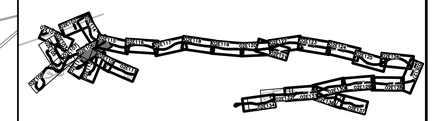
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:20:55-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET ELECTRICAL	DRAWING NO. 315 182751
CADD I. KHAN	02E105	PRIMARY DISTRIBUTION BLACK BEAR LOOP BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
TECH. REVIEW: J. LANDMAN			SHEET 103 OF 203
DATE: 04/11/2025			

3/26/2025 7:29 AM aaugilat R:\24 02E105_D3167658.DWG





KEYPLAN

GENERAL NOTES

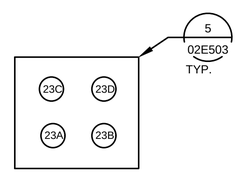
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

SHEET KEYNOTES

1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.
3. PAD-MOUNTED SWITCH CABINET WITH FIBERGLASS GROUND SLEEVE.
4. PAD-MOUNTED SECTIONALIZING CABINET WITH FIBERGLASS GROUND SLEEVE.
5. DEMOLISH 480V ABOVE-GRADE DISCONNECT RACK. ABANDON IN PLACE UNDERGROUND CONDUITS AND DIRECT BURIED CONDUCTORS.
6. ABANDON IN PLACE UNDERGROUND PRIMARY CONDUCTORS.
7. DEMOLISH ACCESSIBLE PRIMARY CONDUCTORS FROM MANHOLE. ABANDON IN PLACE MANHOLE.
8. ABANDON IN PLACE LOW-VOLTAGE UNDERGROUND SECONDARY CONDUCTORS.

DUCT BANK SCHEDULE

SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
23	EMH-25	SECTION 29	23A	5"	3#4/0 15KV, 1#1/0G 600V
			23B	5"	PULLSTRING
	CHH-05	SECTION 29	23C	4"	PULLSTRING
			23D	4"	PULLSTRING
24	EMH-25	EMH-26	24A	5"	3#4/0 15KV, 1#1/0G 600V
			24B	5"	3#4/0 15KV, 1#1/0G 600V
	CHH-05	CHH-06	24C	4"	1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH PULLSTRING
			24D	4"	PULLSTRING
25	EMH-25	PMS-12	25A	5"	3#4/0 15KV, 1#1/0G 600V
			25B	5"	3#4/0 15KV, 1#1/0G 600V
			25C	5"	3#4/0 15KV, 1#1/0G 600V
			25D	5"	3#4/0 15KV, 1#1/0G 600V
26	EMH-26	SC-04	26A	5"	3#4/0 15KV, 1#1/0G 600V
			26B	5"	1#2 15KV, 1#6G 600V
			26C	5"	1#2 15KV, 1#6G 600V
			26D	5"	PULLSTRING
	CHH-06	CHH-33	26E	4"	PULLSTRING
27	EMH-26	LT-SB1	27A	4"	1#2 15KV, 1#6G 600V
28	EMH-26	EMH-33	28A	5"	3#4/0 15KV, 1#1/0G 600V
			28B	5"	1#2 15KV, 1#6G 600V
	CHH-06	CHH-23	28C	4"	1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH PULLSTRING
			28D	4"	PULLSTRING



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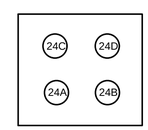

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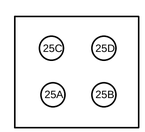

25 - DUCT SECTION
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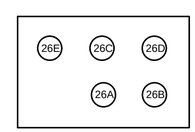
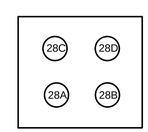


26 - DUCT SECTION
NOT TO SCALE

27 - DUCT SECTION
NOT TO SCALE



28 - DUCT SECTION
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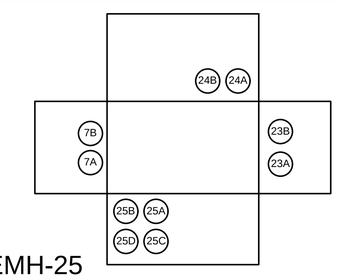
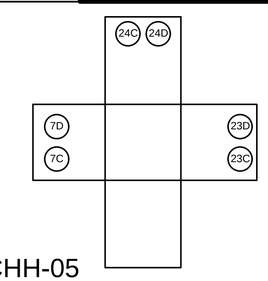


EMH-25 BUTTERFLY DIAGRAM
NOT TO SCALE



CHH-05 BUTTERFLY DIAGRAM
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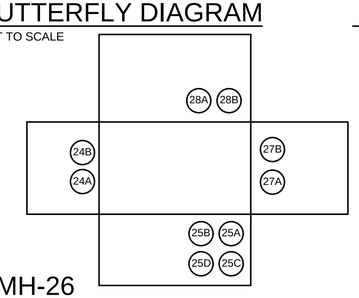
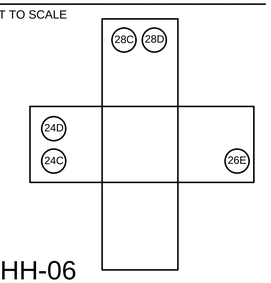


EMH-26 BUTTERFLY DIAGRAM
NOT TO SCALE



CHH-06 BUTTERFLY DIAGRAM
NOT TO SCALE

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:20:55-06'00'

DESIGNED:	J. JAMES
CADD	I. KHAN
TECH. REVIEW:	J. LANDMAN
DATE:	04/11/2025

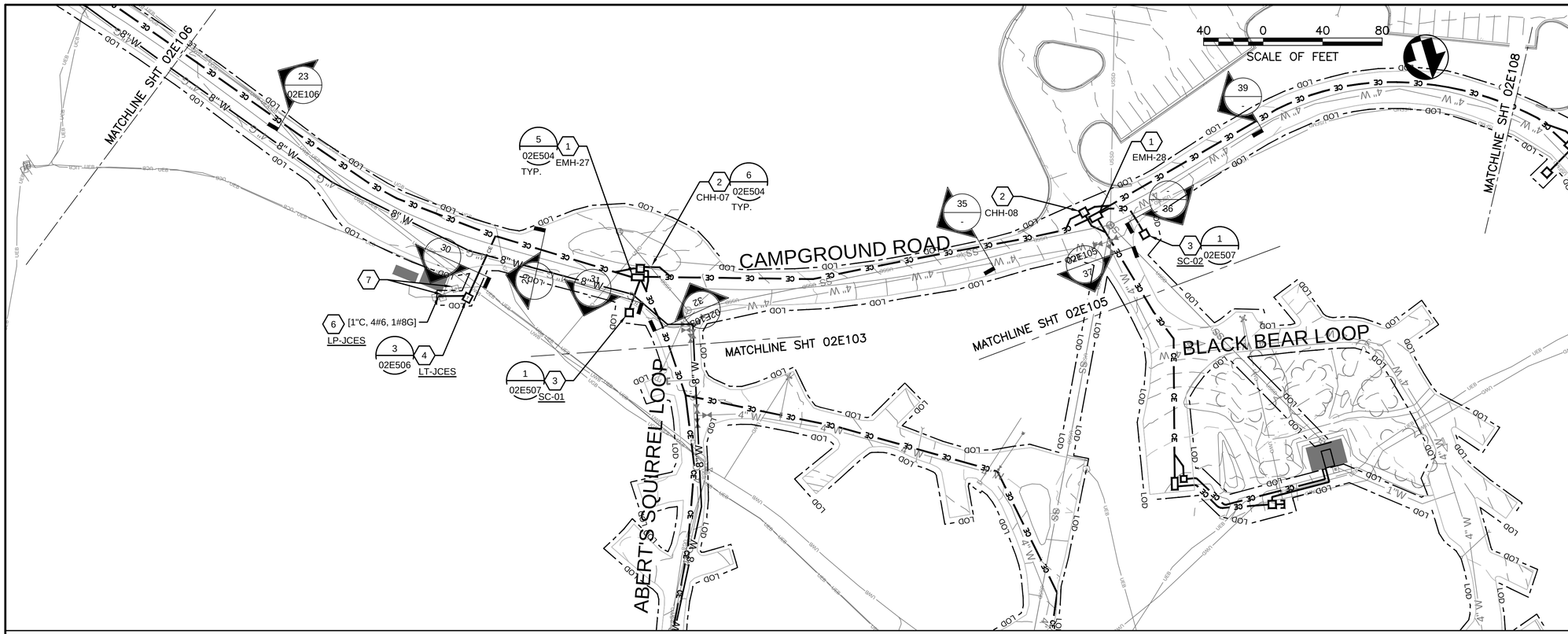
SUB SHEET NO. 02E106

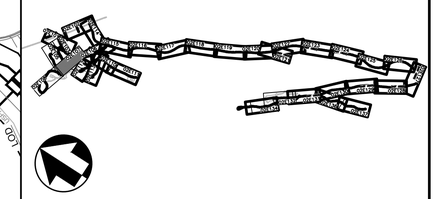
TITLE OF SHEET
ELECTRICAL

PRIMARY DISTRIBUTION
CAMPGROUND ROAD 1
BANDELIER NATIONAL MONUMENT

DRAWING NO. 315
182751
PMIS/PKG NO. 266697
SHEET 104 OF 203

3/25/2025 7:59 AM acuglait R24 02E106 D3167658.DWG





KEYPLAN

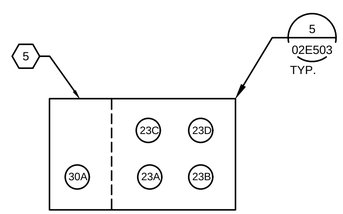
GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGEND, NOTES AND ABBREVIATIONS.

SHEET KEYNOTES

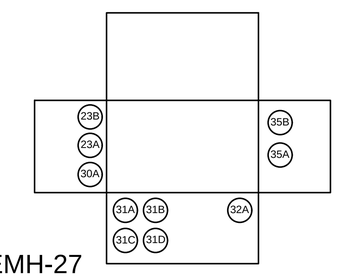
1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.
3. PAD-MOUNTED SECTIONALIZING CABINET WITH FIBERGLASS GROUND SLEEVE.
4. PAD-MOUNTED LOOP FEED TRANSFORMER.
5. COMBINE DUCT BANKS 23 AND 30 INTO COMMON DUCT BANK.
6. REFEED EXISTING PANELBOARD AT CAMPGROUND PAY STATION. EXISTING PANEL HAS SOLAR GENERATION FEED.
7. DEMOLISH RACK-MOUNTED LOW VOLTAGE DISCONNECT AND TRANSFORMER. RACK AND PANELBOARD TO REMAIN..

DUCT BANK SCHEDULE					
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
29	SECTION 23	EMH-27	23A	5"	3#4/0 15KV, 1#1/0G 600V
			23B	5"	PULLSTRING
	SECTION 23	CHH-07	23C	4"	PULLSTRING
			23D	4"	PULLSTRING
	SECTION 30	LT-JCES	30A	4"	1#2 15KV, 1#6G 600V
30	SECTION 29	LT-JCES	30A	4"	1#2 15KV, 1#6G 600V
31	EMH-27	SC-01	31A	5"	3#4/0 15KV, 1#1/0G 600V
			31B	5"	3#4/0 15KV, 1#1/0G 600V
			31C	5"	1#2 15KV, 1#6G 600V
			31D	5"	1#2 15KV, 1#6G 600V
35	EMH-27	EMH-28	35A	5"	3#4/0 15KV, 1#1/0G 600V
			35B	5"	PULLSTRING
	CCH-07	CCH-08	35C	4"	PULLSTRING
			35D	4"	PULLSTRING
36	EMH-28	SC-02	36A	5"	3#4/0 15KV, 1#1/0G 600V
			36B	5"	3#4/0 15KV, 1#1/0G 600V
			36C	5"	1#2 15KV, 1#6G 600V
			36D	5"	PULLSTRING
39	EMH-28	EMH-29	39A	5"	3#4/0 15KV, 1#1/0G 600V
			39B	5"	PULLSTRING
	CCH-08	CCH-09	39C	4"	PULLSTRING
			39D	4"	PULLSTRING

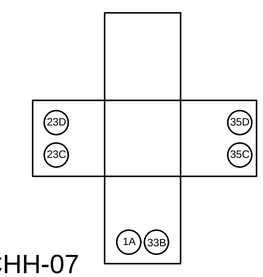


29 - DUCT SECTION
NOT TO SCALE

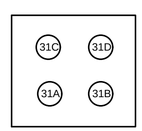
30 - DUCT SECTION
NOT TO SCALE



EMH-27 BUTTERFLY DIAGRAM
NOT TO SCALE



CHH-07 BUTTERFLY DIAGRAM
NOT TO SCALE



31 - DUCT SECTION
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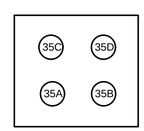

35 - DUCT SECTION
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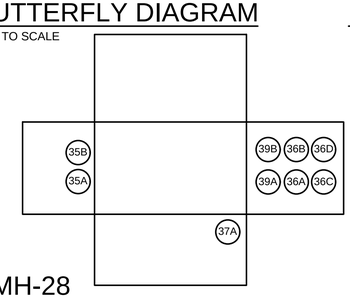
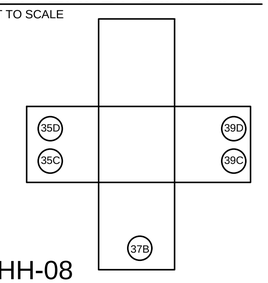
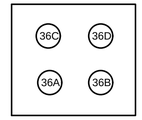


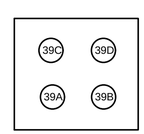
EMH-28 BUTTERFLY DIAGRAM
NOT TO SCALE



CHH-08 BUTTERFLY DIAGRAM
NOT TO SCALE



36 - DUCT SECTION
NOT TO SCALE



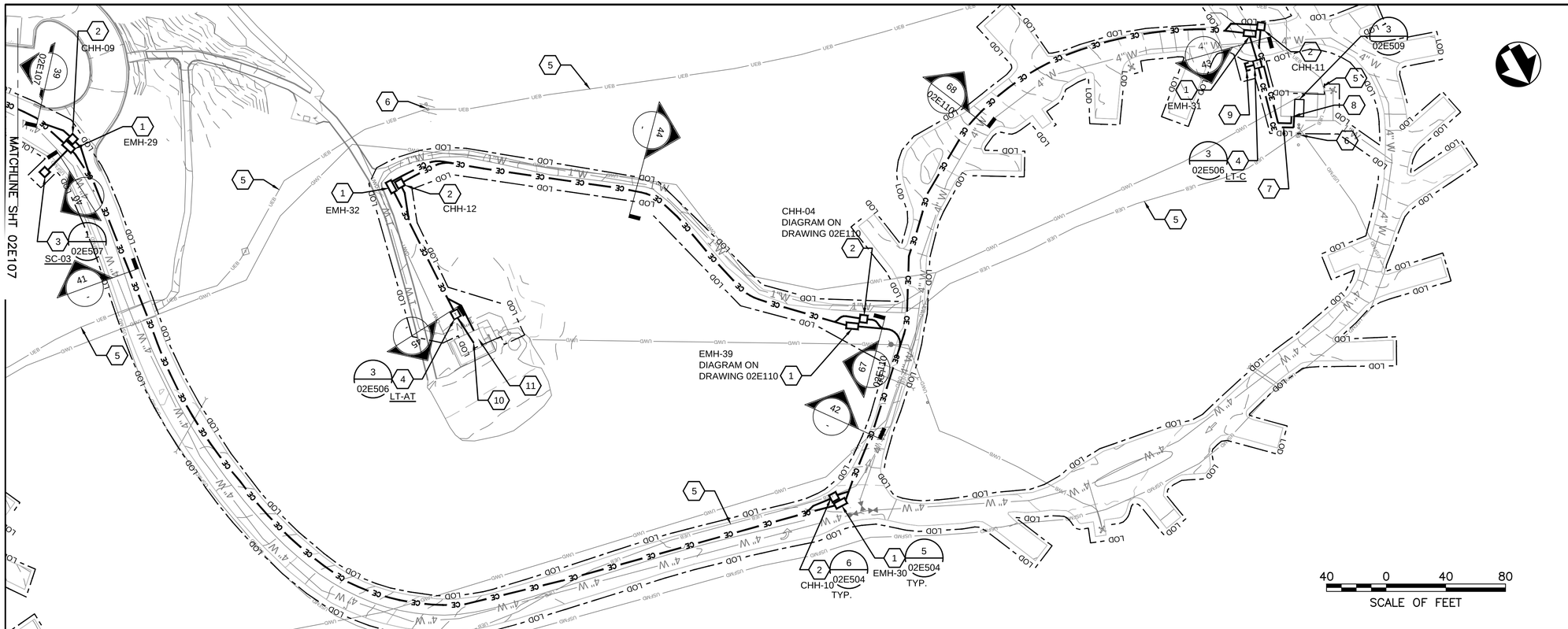
39 - DUCT SECTION
NOT TO SCALE

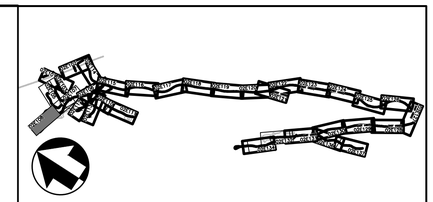
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:20:56-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET ELECTRICAL	DRAWING NO. 315 182751
CADD I. KHAN	02E107	PRIMARY DISTRIBUTION CAMPGROUND ROAD 2 BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
TECH. REVIEW: J. LANDMAN			SHEET 105 OF 203
DATE: 04/11/2025			

3/25/2025 8:00 AM acuglat R24 02E107 D3167858.DWG





KEYPLAN

GENERAL NOTES

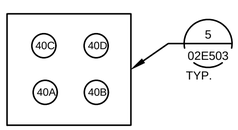
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGEND, NOTES AND ABBREVIATIONS.

SHEET KEYNOTES

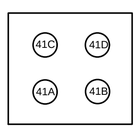
1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.
3. PAD-MOUNTED SECTIONALIZING CABINET WITH FIBERGLASS GROUND SLEEVE.
4. PAD-MOUNTED LOOP FEED TRANSFORMER.
5. LOCATE, DISCONNECT, AND REMOVE LOW-VOLTAGE CONDUCTORS TO 36 INCHES BELOW GRADE. ABANDON IN PLACE REMAINING UNDERGROUND CONDUCTORS.
6. DEMOLISH ABOVE-GRADE TRANSFORMER.
7. FIELD ROUTE COMFORT STATION SECONDARY FEED FROM TRANSFORMER INTO COMFORT STATION UTILITY ROOM AND RE-FEED EXISTING PANEL LP-C.
8. PENETRATE FIBER COMMUNICATIONS CONDUIT INTO COMFORT STATION UTLITY ROOM.
9. STUB OUT 4 INCH PRIMARY CONDUIT FOR FUTURE EXPANSION.
10. FIELD ROUTE AMPHITEATER SECONDARY FEED FROM TRANSFORMER INTO STAGE BUILDING AND RE-FEED EXISTING PANEL LP-AT.
11. STUB COMMUNICATIONS CONDUIT INTO AMPHITEATER STAGE BUILDING.

DUCT BANK SCHEDULE

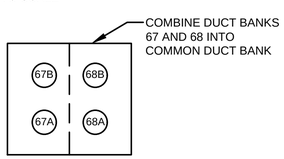
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
40	EMH-29	SC-03	40A	5"	3#4/0 15KV, 1#1/0G 600V
			40B	5"	1#2 15KV, 1#6G 600V
			40C	5"	1#2 15KV, 1#6G 600V
			40D	5"	PULLSTRING
41	EMH-29	EMH-30	42A	5"	1#2 15KV, 1#6G 600V
			42B	5"	1#2 15KV, 1#6G 600V
	CCH-09	CCH-10	42C	4"	PULLSTRING
			42D	4"	PULLSTRING
42	EMH-30	SECTION 68	68A	5"	1#2 15KV, 1#6G 600V
	CCH-10	SECTION 68	68B	4"	PULLSTRING
	EMH-30	SECTION 67	67A	5"	1#2 15KV, 1#6G 600V
	CHH-10	SECTION 67	67B	4"	PULLSTRING
43	EMH-31	LT-C	44A	5"	1#2 15KV, 1#6G 600V
	CCH-11	COMFORT STATION	44B	4"	PULLSTRING
44	EMH-39	EMH-32	40A	5"	1#2 15KV, 1#6G 600V
	CCH-04	CCH-12	40B	4"	PULLSTRING
45	EMH-32	LT-AS	41A	5"	1#2 15KV, 1#6G 600V
	CCH-12	AMPHITHEATER	41B	4"	PULLSTRING



40 - DUCT SECTION
NOT TO SCALE



41 - DUCT SECTION
NOT TO SCALE

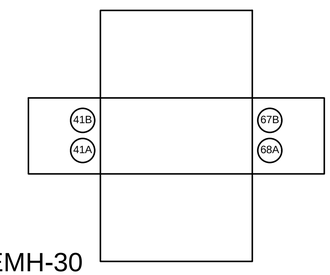


42 - DUCT SECTION
NOT TO SCALE

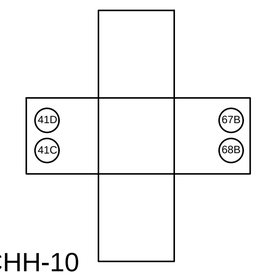
43 - DUCT SECTION
NOT TO SCALE

44 - DUCT SECTION
NOT TO SCALE

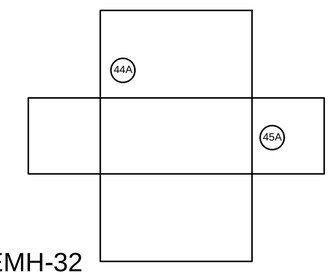
45 - DUCT SECTION
NOT TO SCALE



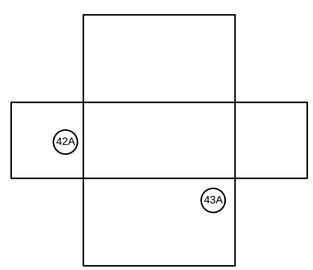
EMH-30
BUTTERFLY DIAGRAM
NOT TO SCALE



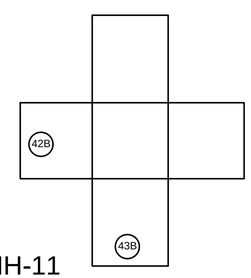
CHH-10
BUTTERFLY DIAGRAM
NOT TO SCALE



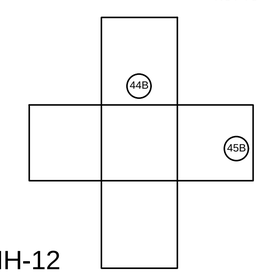
EMH-32
BUTTERFLY DIAGRAM
NOT TO SCALE



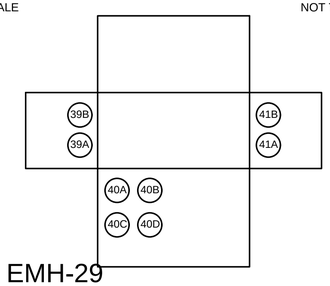
EMH-31
BUTTERFLY DIAGRAM
NOT TO SCALE



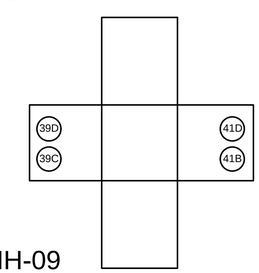
CHH-11
BUTTERFLY DIAGRAM
NOT TO SCALE



CHH-12
BUTTERFLY DIAGRAM
NOT TO SCALE



EMH-29
BUTTERFLY DIAGRAM
NOT TO SCALE



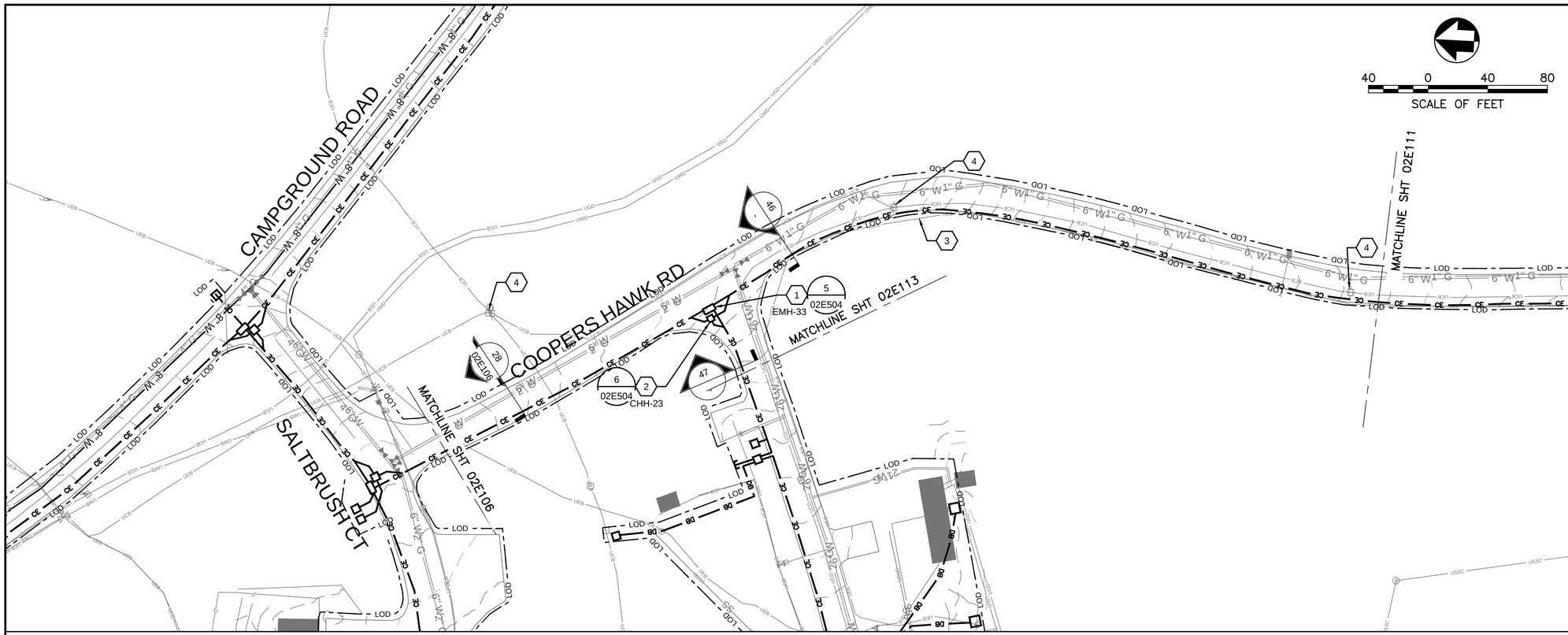
CHH-09
BUTTERFLY DIAGRAM
NOT TO SCALE

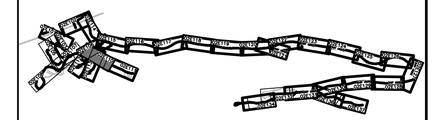
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:20:57-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E108	ELECTRICAL	315
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION COYOTE LOOP	182751
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
			SHEET 106 OF 203

3/25/2025 8:05 AM acuglial R24 02E108 D3167658.DWG





KEYPLAN

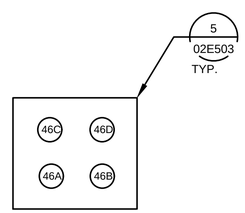
GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGEND, NOTES AND ABBREVIATIONS.

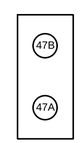
SHEET KEYNOTES

1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.
3. ABANDON IN PLACE UNDERGROUND PRIMARY CONDUCTORS. DEMOLISH AS NEEDED FOR INSTALLATION OF NEW DUCT BANK TO FIELD OPERATIONS CENTER.
4. EXISTING COMMUNICATIONS HANDHOLE AND DUCT BANK TO REMAIN.

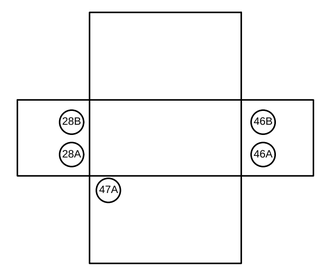
DUCT BANK SCHEDULE					
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
46	EMH-33	EMH-34	46A	5"	3#2 15KV, 1#6G 600V
			46B	5"	PULLSTRING
	CHH-23	CHH-24	46C	4"	1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH PULLSTRING
			46D	4"	PULLSTRING
47	EMH-33	LT-PB1	47A	4"	1#2 15KV, 1#6G 600V
	CHH-23	CHH-32	47B	4"	PULLSTRING
67	SECTION 42	EMH-39	67A	5"	1#2 15KV, 1#6G 600V
	SECTION 42	CHH-04	67B	4"	PULLSTRING
68	SECTION 42	EMH-31	43A	5"	1#2 15KV, 1#6G 600V
	SECTION 42	CCH-11	43B	4"	PULLSTRING



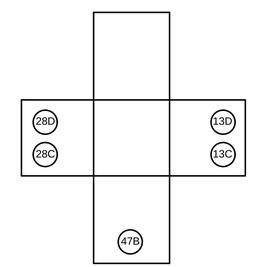
46 / - DUCT SECTION
NOT TO SCALE



47 / - DUCT SECTION
NOT TO SCALE



EMH-33
BUTTERFLY DIAGRAM
NOT TO SCALE



CHH-23
BUTTERFLY DIAGRAM
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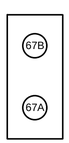
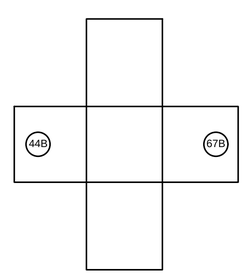
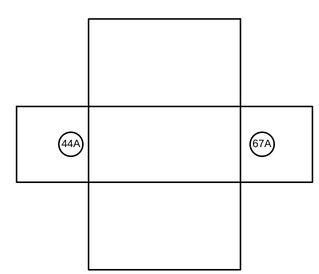


67 / - DUCT SECTION
NOT TO SCALE

68 / - DUCT SECTION
NOT TO SCALE



CHH-04
BUTTERFLY DIAGRAM
NOT TO SCALE



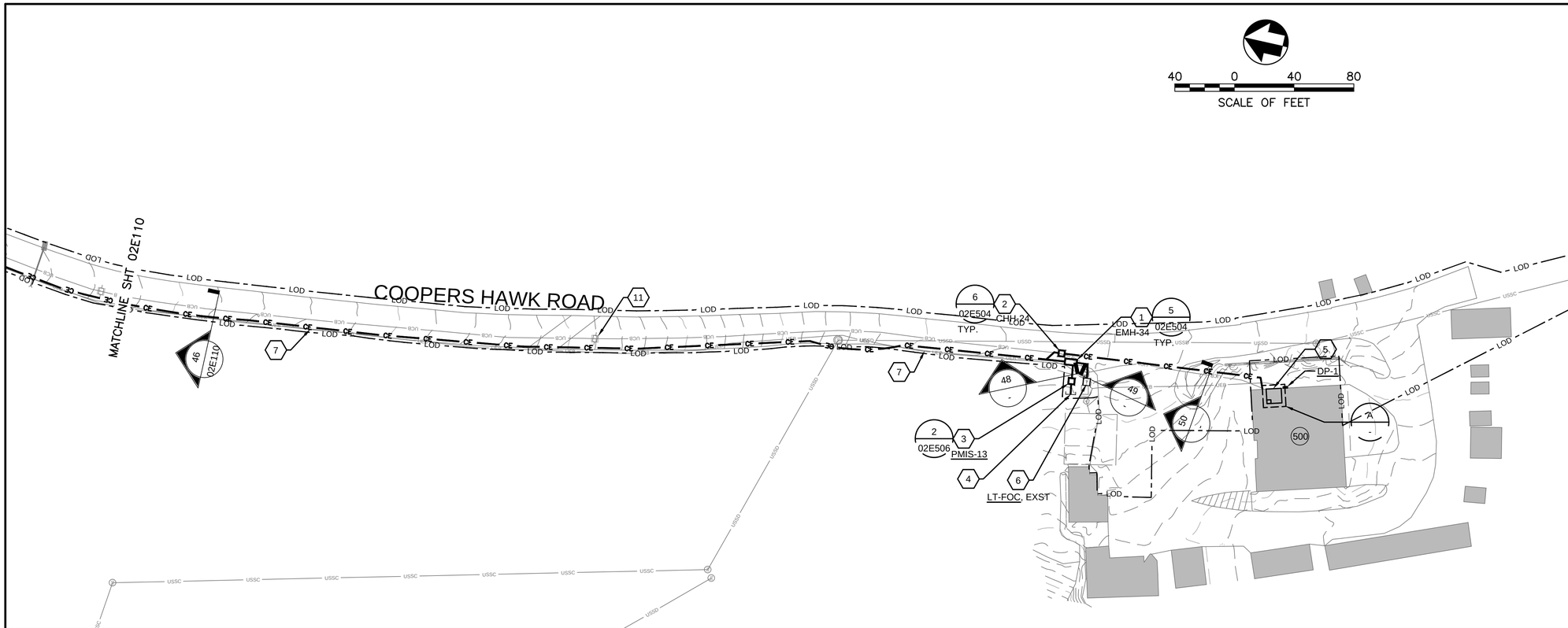
EMH-39
BUTTERFLY DIAGRAM
NOT TO SCALE

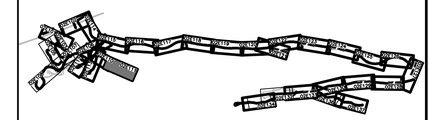
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:20:57-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET ELECTRICAL	DRAWING NO. 315
CADD I. KHAN	02E110	PRIMARY DISTRIBUTION COOPERS HAWK RD 1	182751
TECH. REVIEW: J. LANDMAN		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
DATE: 04/11/2025			SHEET 107 OF 203

3/25/2025 8:10 AM jhumes R24 02E110 D3167658.DWG





KEYPLAN

GENERAL NOTES

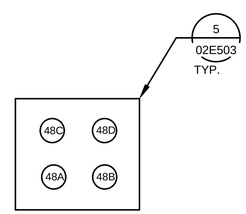
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGEND, NOTES AND ABBREVIATIONS.
3. REFER TO SHEET 02C200 FOR BUILDING NUMBER INDEX TABLE.

SHEET KEYNOTES

1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.
3. PAD-MOUNTED SWITCH CABINET WITH FIBERGLASS GROUND SLEEVE.
4. ONE 4-INCH PVC CONDUIT, STUB OUT AND CAP FOR FUTURE SOLAR PV AND EV VEHICLE CHARGER CONNECTION.
5. PENETRATE CONDUITS INTO BUILDING ABOVE GRADE TO MECHANICAL ROOM AND IT CLOSET ADJACENT TO EXISTING.
6. RECONNECT EXISTING PAD-MOUNTED TRANSFORMER.
7. ABANDON IN PLACE UNDERGROUND PRIMARY CONDUCTORS. DEMOLISH AS NEEDED FOR INSTALLATION OF NEW DUCT BANK TO FIELD OPERATIONS CENTER.
8. RECONNECT EXISTING PAD-MOUNTED TRANSFORMER.
9. TWO 2-INCH CONDUITS FROM LCP TO IT CLOSET.
10. MOUNT LCP TO WALL WITH CHANNEL STRUT. RELOCATE HOSE RACK, COORINATE NEW LOCATION WITH CONTRACTING OFFICER.
11. EXISTING COMMUNICATIONS HANDHOLE AND DUCT BANK TO REMAIN.

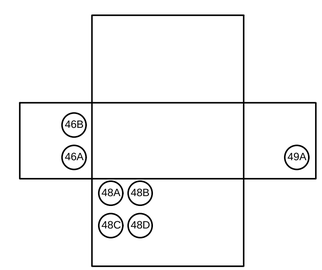
DUCT BANK SCHEDULE

SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
48	EMH-34	PMS-13	46A	5"	3#4/0 15KV, 1#1/0G 600V
			46B	5"	3#2 15KV, 1#6G 600V
			46C	5"	PULLSTRING
			46D	5"	PULLSTRING
49	EMH-34	LT-FOC	49A	5"	3#2 15KV, 1#6G 600V
50	CHH-24	FOC	50A	4"	1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH PULLSTRING
			50B	4"	PULLSTRING

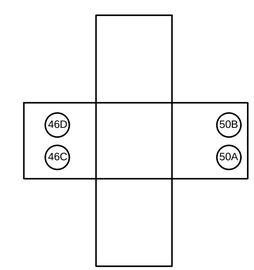


48 / - DUCT SECTION
NOT TO SCALE

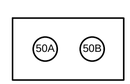
49 / - DUCT SECTION
NOT TO SCALE



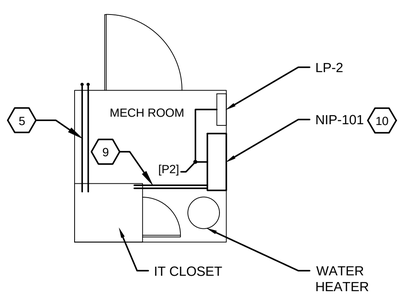
EMH-34
BUTTERFLY DIAGRAM
NOT TO SCALE



CHH-24
BUTTERFLY DIAGRAM
NOT TO SCALE



50 / - DUCT SECTION
NOT TO SCALE



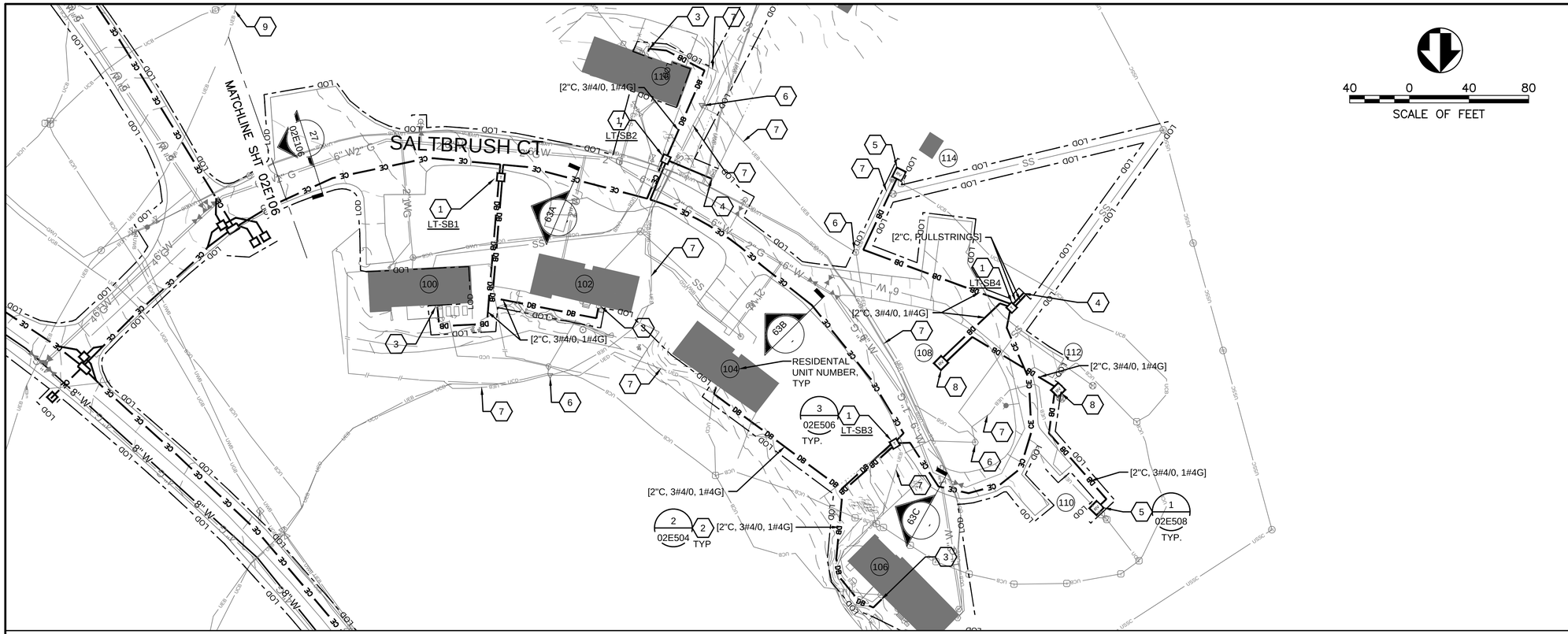
A FOC ENLARGED PLAN
SCALE 1/4"=1'-0"

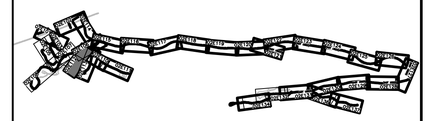
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:20:58-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E111	ELECTRICAL	315 182751
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION COOPERS HAWK RD 2	PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 108 OF 203

3/25/2025 8:13 AM acuglial R24 02E111 D3167658.DWG





KEYPLAN

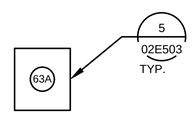
GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGEND, NOTES AND ABBREVIATIONS.

SHEET KEYNOTES

1. PAD MOUNTED LOOP FEED TRANSFORMER.
2. DIRECT BURIED CONDUIT FOR SECONDARY SERVICE TO RESIDENTAIL UNITS.
3. REFEED EXISTING UTILITY METER AND 120/240V, 200A, SERVICE PANEL ON BUILDING EXTERIOR.
4. STUB, CAP, AND MARK 2" CONDUIT FOR FUTURE SECONDARY SERVICE.
5. REPLACE RV PEDESTAL WITH SERVICE-ENTRANCE RATED RV PEDESTAL WITH METER.
6. DEMOLISH PAD-MOUNTED TRANSFORMER.
7. LOCATE, DISCONNECT, AND REMOVE LOW-VOLTAGE CONDUCTORS TO 36 INCH BELOW GRADE. ABANDON IN PLACE REMAINING UNDERGROUND CONDUCTORS.
8. SERVICE ENTRANCE RATED RV PEDESTAL WITH METER.
9. ABANDON IN PLACE UNDERGROUND PRIMARY CONDUCTORS.

DUCT BANK SCHEDULE					
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
63A	LT-SB1	LT-SB2	63A	4"	1#2 15KV, 1#6G 600V
63B	LT-SB2	LT-SB3	63B	4"	1#2 15KV, 1#6G 600V
63C	LT-SB3	LT-SB4	63C	4"	1#2 15KV, 1#6G 600V



63A / - DUCT SECTION
NOT TO SCALE

63B / - DUCT SECTION
NOT TO SCALE

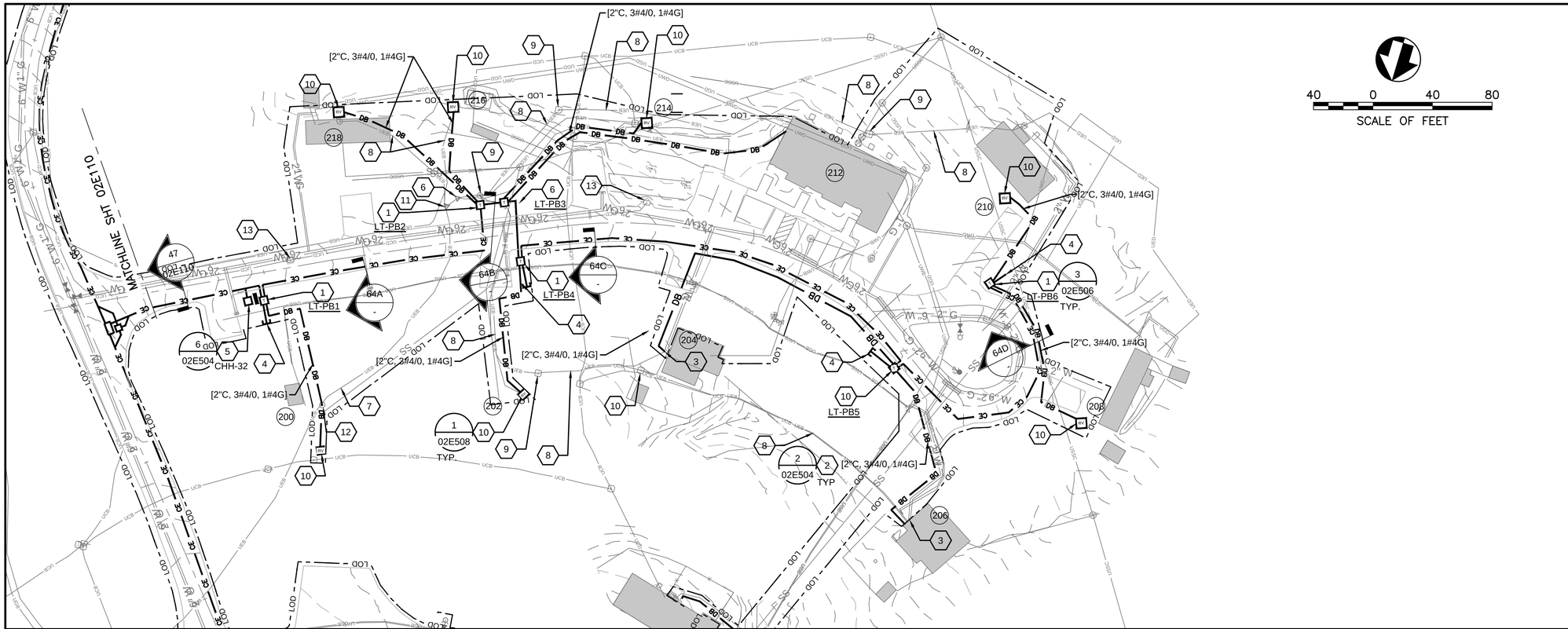
63C / - DUCT SECTION
NOT TO SCALE

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

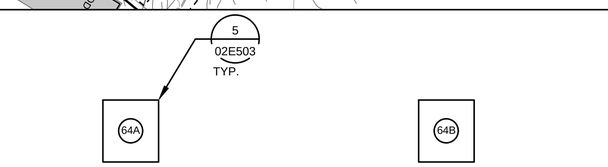
JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:20:59-06'00'

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
J. JAMES	02E112	ELECTRICAL	315
CADD: I. KHAN		PRIMARY DISTRIBUTION SALTBRUSH CT	182751
TECH. REVIEW: J. LANDMAN		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
DATE: 04/11/2025			SHEET 109 OF 203

3/25/2025 8:49 AM acuglial R24 02E112 D3167858.DWG



DUCT BANK SCHEDULE					
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
64A	LT-PB1	LT-PB2	64A	4"	1#2 15KV, 1#6G 600V
64B	LT-PB2	LT-PB3	64B	4"	1#2 15KV, 1#6G 600V
64C	LT-PB3	LT-PB4	64C	4"	1#2 15KV, 1#6G 600V
64D	LT-PB4	LT-PB5	64D	4"	1#2 15KV, 1#6G 600V
64E	LT-PB5	LT-PB6	64E	4"	1#2 15KV, 1#6G 600V

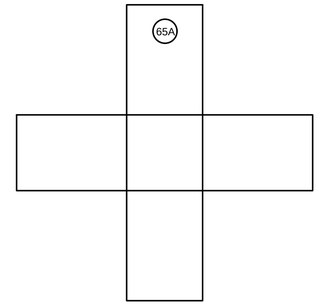


64A - DUCT SECTION
NOT TO SCALE

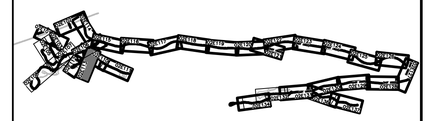
64B - DUCT SECTION
NOT TO SCALE

64C - DUCT SECTION
NOT TO SCALE

64D - DUCT SECTION
NOT TO SCALE



CHH-32
BUTTERFLY DIAGRAM
NOT TO SCALE



KEYPLAN

GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGEND, NOTES AND ABBREVIATIONS.

SHEET KEYNOTES

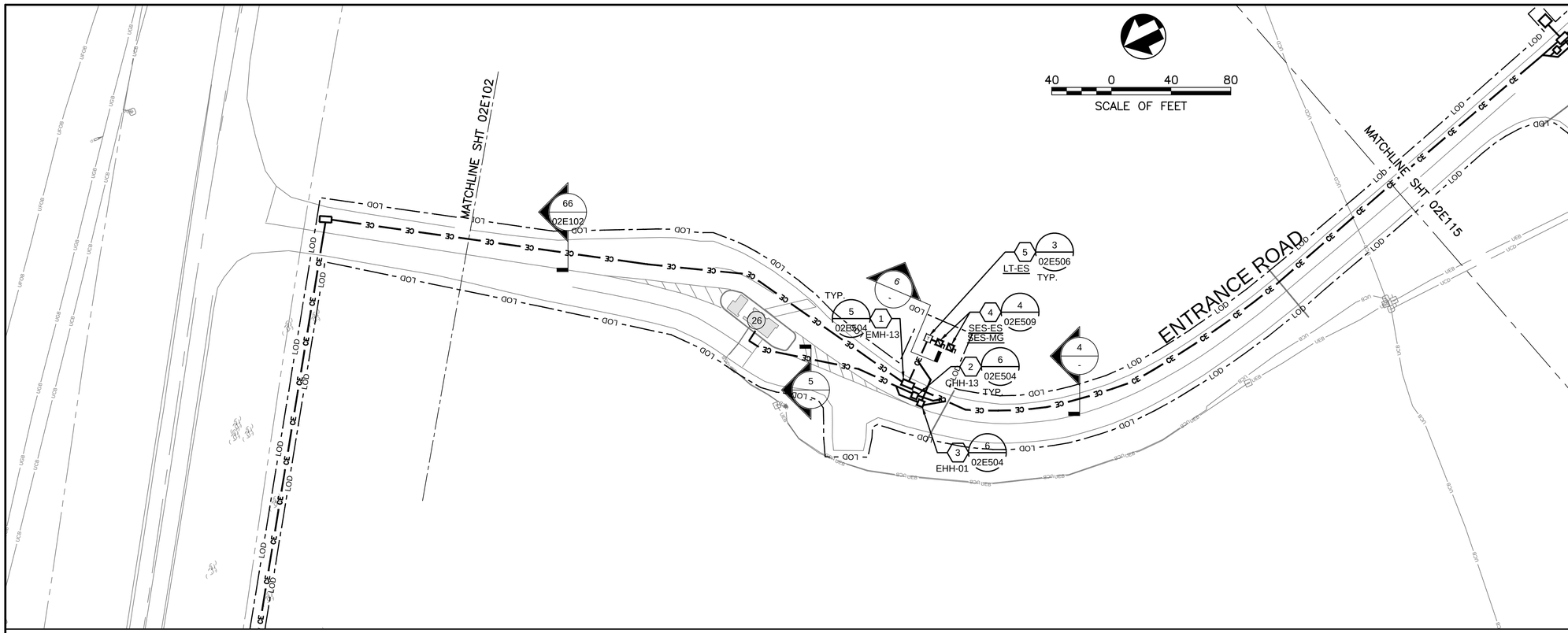
1. PAD-MOUNT LOOP FEED TRANSFORMER.
2. DIRECT BURIED CONDUIT FOR SECONDARY SERVICE TO RESIDENTIAL UNITS.
3. PROVIDE NEW UTILITY METER AND 120/240V, 200A, NEMA 3R SERVICE RATED PANEL ON BUILDING EXTERIOR. SUBFEED EXISTING UNIT PANEL FROM NEW PANEL. FIELD INVESTIGATE REQUIRED SUBFEED SIZE. COORDINATE UNIT ACCESS WITH CONTRACTING OFFICER. PROVIDE GROUND ROD AT PANEL LOCATION AND BOND WITH #2 AWG BARE COPPER CONDUCTOR.
4. STUB, CAP, AND MARK 2" CONDUIT FOR FUTURE SECONDARY SERVICE.
5. 4'X4'X4' COMMUNICATIONS MANHOLE.
6. REPLACE EXISTING PAD-MOUNT TRANSFORMER SERVING EXISTING TRIPLEX HOUSING UNIT. PROVIDE NEW SECONDARY CONDUCTORS TO EXISTING METERING EQUIPMENT.
7. ABANDON IN PLACE UNDERGROUND PRIMARY CONDUCTORS.
8. LOCATE, DISCONNECT, AND REMOVE LOW-VOLTAGE CONDUCTORS TO 36 INCHES BELOW GRADE. ABANDON IN PLACE REMAINING UNDERGROUND CONDUCTORS.
9. DEMOLISH ABOVE GRADE LOW-VOLTAGE ELECTRICAL EQUIPMENT.
10. SERVICE ENTRANCE RATED RV PEDISTAL WITH METER AND 100A MAIN BREAKER.
11. DEMOLISH PAD-MOUNTED TRANSFORMER.
12. PROVIDE NEW UTILITY METER AND 120/240V, 100A, NEMA 3R SERVICE RATED PANEL ON LAUNDRY BUILDING EXTERIOR. SUBFEED EXISTING BUILDING PANEL. PROVIDE 50A CIRCUIT FOR RV PEDESTAL.
13. EXISTING COMMUNICATIONS HANDHOLE AND DUCT BANK TO REMAIN.

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:21:00-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E113	ELECTRICAL	315 182751
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION PAINTBRUSH CT	PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 110 OF 203

3/25/2025 8:52 AM aaughlatt R24 02E113_D3167658.DWG



KEYPLAN

GENERAL NOTES

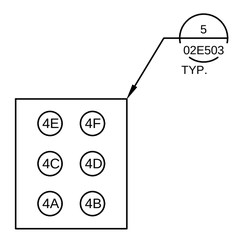
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.
3. REFER TO SHEET 02C200 FOR BUILDING NUMBER INDEX TABLE.

SHEET KEYNOTES

1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.
3. 4x4x4 SECONDARY ELECTRIC HANDHOLE.
4. PROVIDE TWO SERVICE ENTRANCE RATED NEMA 3R FUSED DISCONNECTS FOR ENTRANCE STATION AND MOTORIZED GATE SECONDARY POWER. SEE ONE-LINE DIAGRAM FOR SIZES. PROVIDE FIELD FABRICATED SUPPORT RACK.
5. PAD-MOUNTED LOOP FEED TRANSFORMER.

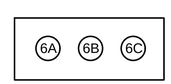
DUCT BANK SCHEDULE

SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
4	EMH-13	EMH-14	4A	5"	3#4/0 15KV, 1#1/0G 600V
			4B	5"	1#2 15KV, 1#6G 600V
	CHH-13	CHH-14	4C	4"	1-1" INNERDUCT WITH FO CABLE 2-1" INNERDUCT WITH PULLSTRING
			4D	4"	PULLSTRING
	EHH-6	EHH-7	4E	2"	2#8, 1#10G
			4F	2"	PULLSTRING
5	CHH-13	ENTRANCE STATION	5A	2"	FO CABLE
	EHH-6	ENTRANCE STATION	5B	2"	3#2, 1#8G
6	EMH-13	LT-ES	6A	5"	1#2 15KV, 1#6G 600V
	SES-ES SES-MG	EHH-6	6B	2"	3#2, 1#8G 2#8, 1#10G
	LT-ES	EHH-6	6C	2"	PULLSTRING



4 / - DUCT SECTION
NOT TO SCALE

5 / - DUCT SECTION
NOT TO SCALE



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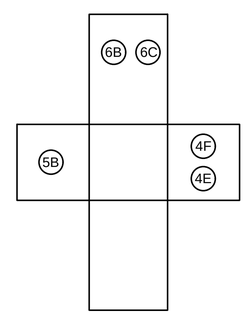
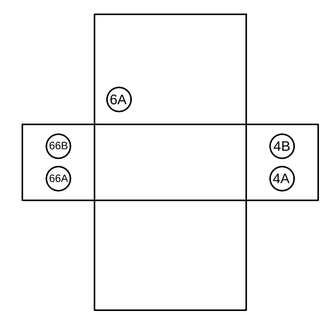
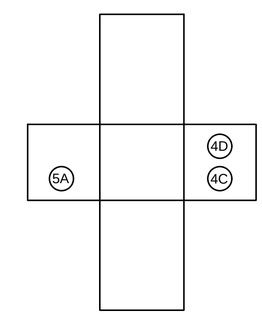


EHH-01
BUTTERFLY DIAGRAM
NOT TO SCALE



EMH-13
BUTTERFLY DIAGRAM
NOT TO SCALE



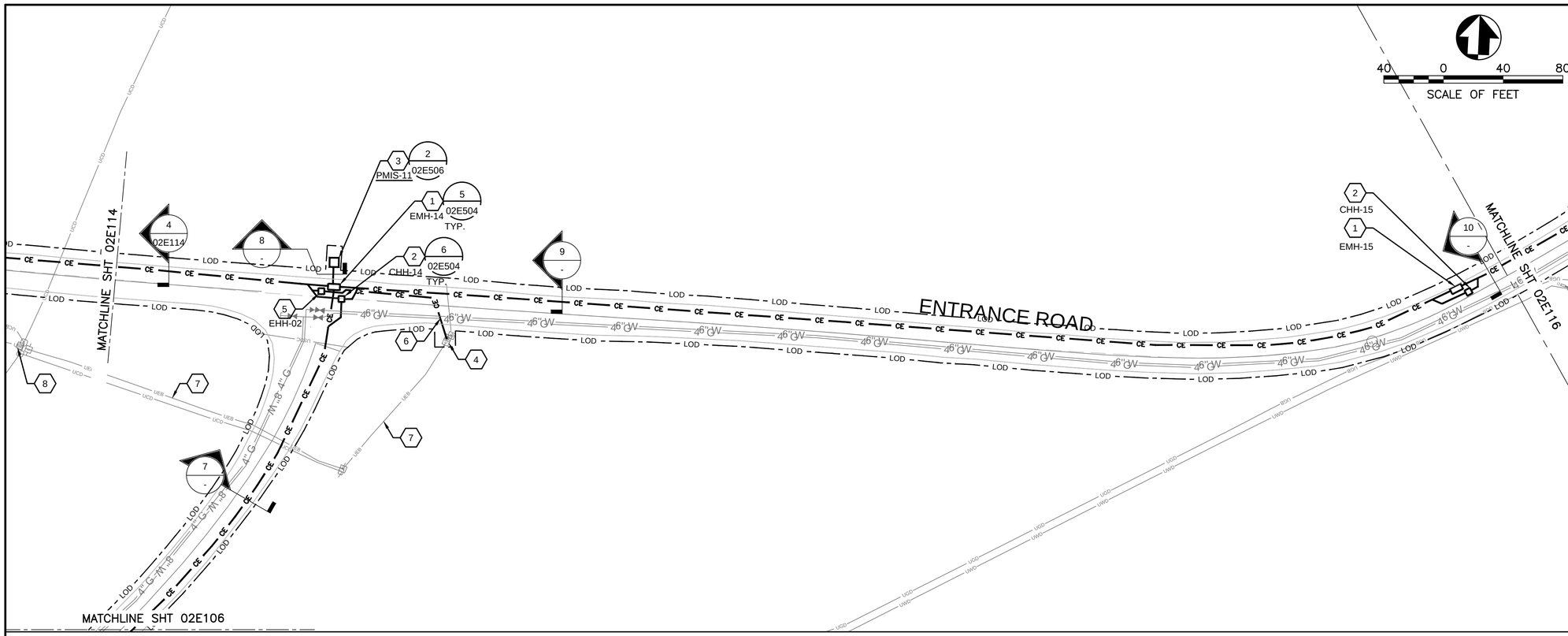
CHH-13
BUTTERFLY DIAGRAM
NOT TO SCALE

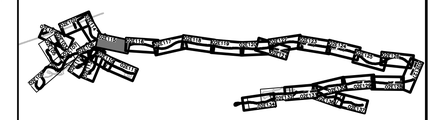
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:21:01-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E114	ELECTRICAL	315
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION ENTRANCE STATION	182751
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
			SHEET 111 OF 203

3/25/2025 8:59 AM acuglisit R24 02E114 D3167658.DWG





KEYPLAN

GENERAL NOTES

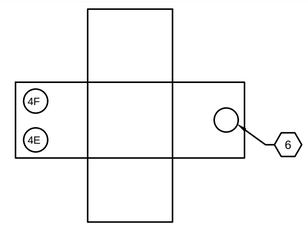
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

SHEET KEYNOTES

1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.
3. PAD MOUNTED SWITCH CABINET AND FIBERGLASS GROUND SLEEVE.
4. RECONNECT SECONDARY POWER TO EXISTING GATE OPERATOR.
5. 4x4x4 SECONDARY ELECTRIC HANDHOLE.
6. 1 INCH CONDUIT FROM HANDHOLE TO GATE OPERATOR CONTROL PANEL FIELD LOCATE EXISTING GATE VEHICLE DETECTION LOOPS AND ADJUST CONDUIT ROUTE ACCORDINGLY.
7. ABANDON IN PLACE LOW-VOLTAGE UNDERGROUND SECONDARY CONDUCTORS.
8. DEMOLISH ABOVE-GRADE TRANSFORMER AND DISCONNECTS.

DUCT BANK SCHEDULE

SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
7	EMH-14	EMH-25	7A	5"	3#4/0 15KV, 1#1/0G 600V
			7B	5"	PULLSTRING
	CHH-14	CHH-05	7C	4"	1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH PULLSTRING
			7D	4"	PULLSTRING
8	EMH-14	PMS-11	8A	5"	3#4/0 15KV, 1#1/0G 600V
			8B	5"	3#2 15KV, 1#6G 600V
			8C	5"	3#4/0 15KV, 1#1/0G 600V
			8D	5"	PULLSTRING
9	EMH-14	EMH-15	9A	5"	PULLSTRING
			9B	5"	PULLSTRING
	CHH-14	CHH-15	9C	4"	1-1" INNERDUCT WITH FO CABLE 2-1" INNERDUCT WITH PULLSTRING.
			9D	4"	PULLSTRING
10	EMH-15	EMH-16	10A	5"	PULLSTRING
			10B	5"	PULLSTRING
	CHH-15	CHH-16	10C	4"	1-1" INNERDUCT WITH FO CABLE 2-1" INNERDUCT WITH PULLSTRING.
			10D	4"	PULLSTRING



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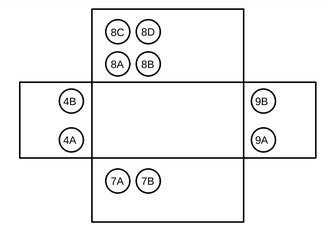

EMH-14
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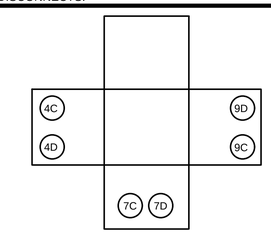

CHH-14
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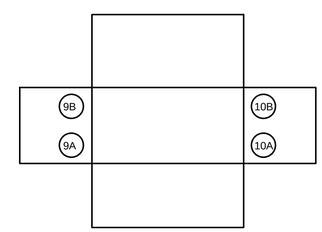

EMH-15
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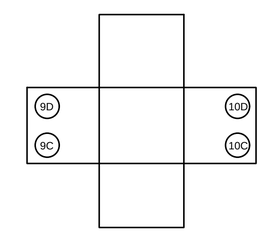

CHH-15
BUTTERFLY DIAGRAM
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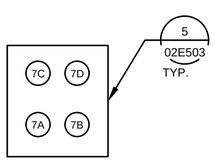

7 - DUCT SECTION
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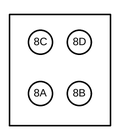

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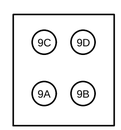

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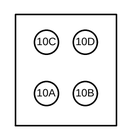


10 - DUCT SECTION
NOT TO SCALE

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:21:02-06'00'

DESIGNED:	J. JAMES
CADD	I. KHAN
TECH. REVIEW:	J. LANDMAN
DATE:	04/11/2025

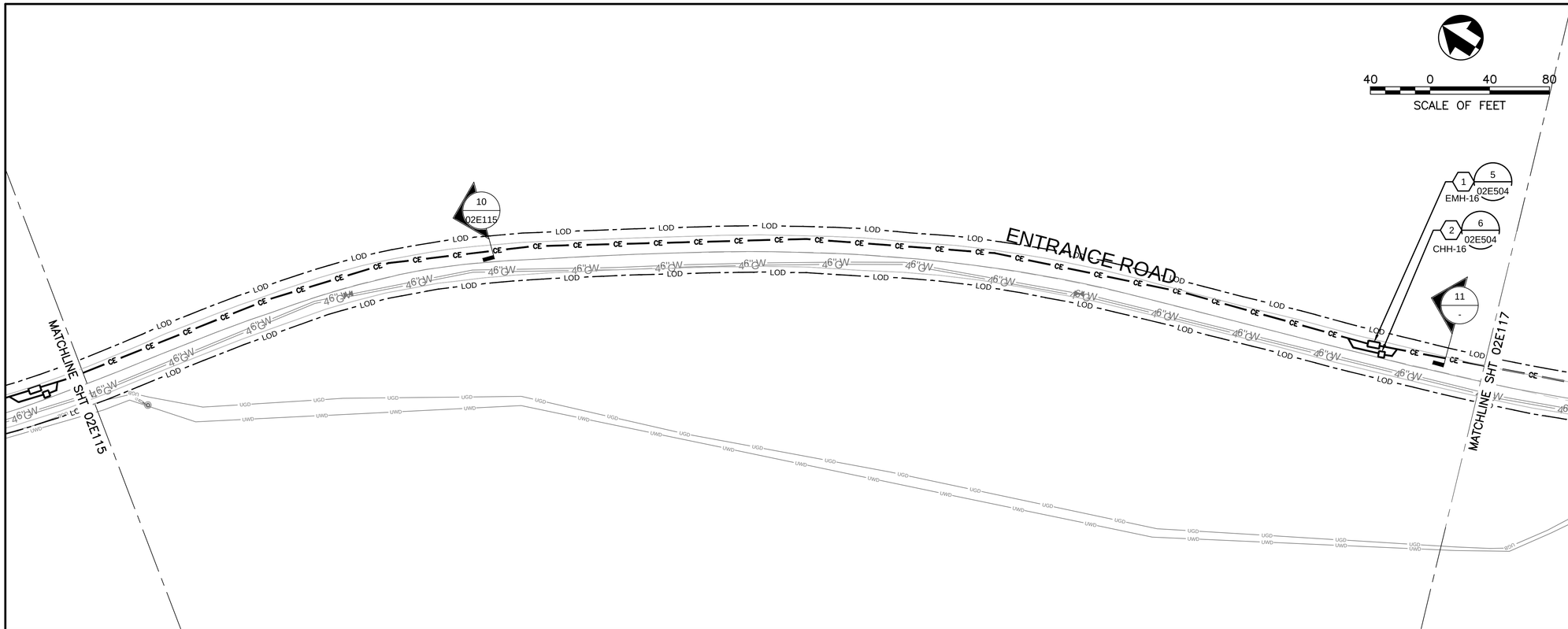
SUB SHEET NO. 02E115

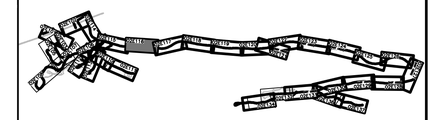
TITLE OF SHEET
ELECTRICAL

PRIMARY DISTRIBUTION
ENTRANCE ROAD 1
BANDELIER NATIONAL MONUMENT

DRAWING NO. 315
182751
PMIS/PKG NO. 266697
SHEET 112 OF 203

3/25/2025 9:00 AM acuglias R24 02E115 D3167258.DWG





KEYPLAN

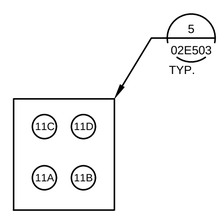
GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

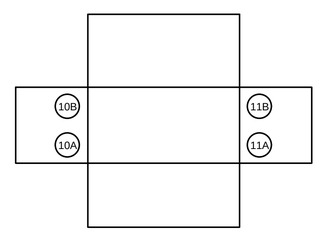
SHEET KEYNOTES

1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.

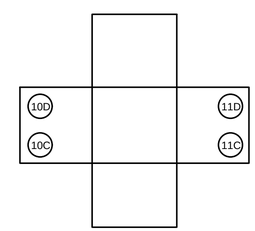
DUCT BANK SCHEDULE					
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
11	EMH-16	EMH-17	11A	5"	PULLSTRING
			11B	5"	PULLSTRING
	CHH-16	CHH-17	11C	4"	1-1" INNERDUCT WITH FO CABLE 2-1" INNERDUCT WITH PULLSTRING.
			11D	4"	PULLSTRING



11 - DUCT SECTION
NOT TO SCALE



EMH-16
BUTTERFLY DIAGRAM
NOT TO SCALE



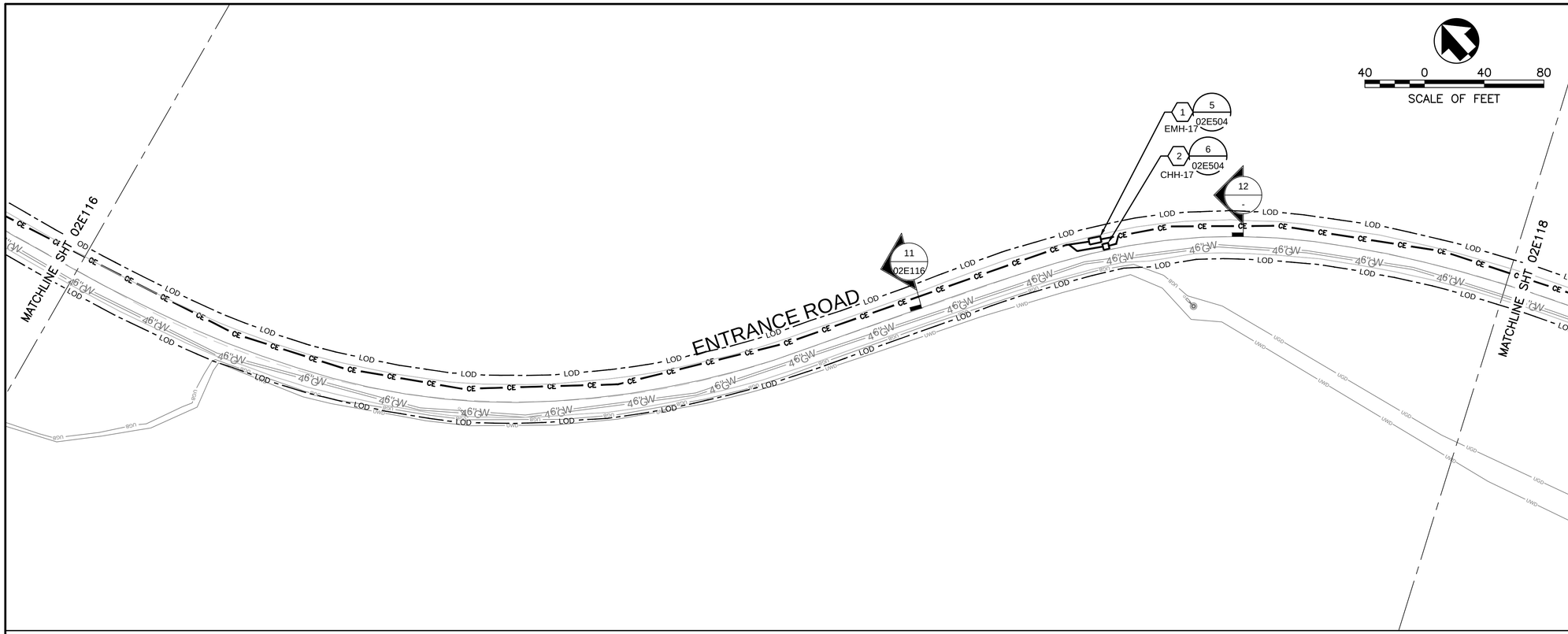
CHH-16
BUTTERFLY DIAGRAM
NOT TO SCALE

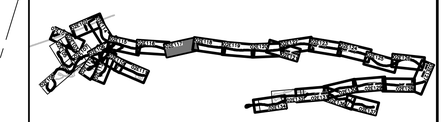
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:21:03-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E116	ELECTRICAL	315
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION ENTRANCE ROAD 2	182751
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
			SHEET 113 OF 203

3/25/2025 9:02 AM acuglial R24 02E116 D3167658.DWG





KEYPLAN

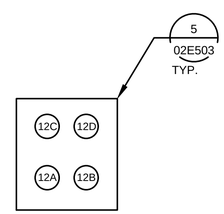
GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

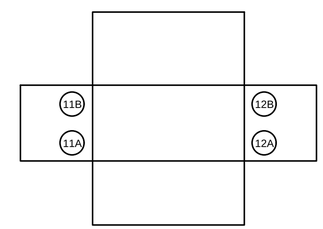
SHEET KEYNOTES

1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.

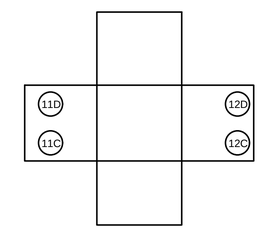
DUCT BANK SCHEDULE					
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
12	EMH-17	EMH-18	12A	5"	PULLSTRING
			12B	5"	PULLSTRING
	CHH-17	CHH-18	12C	4"	1-1" INNERDUCT WITH FO CABLE 2-1" INNERDUCT WITH PULLSTRING.
			12D	4"	PULLSTRING



12 / - DUCT SECTION
NOT TO SCALE



EMH-17
BUTTERFLY DIAGRAM
NOT TO SCALE



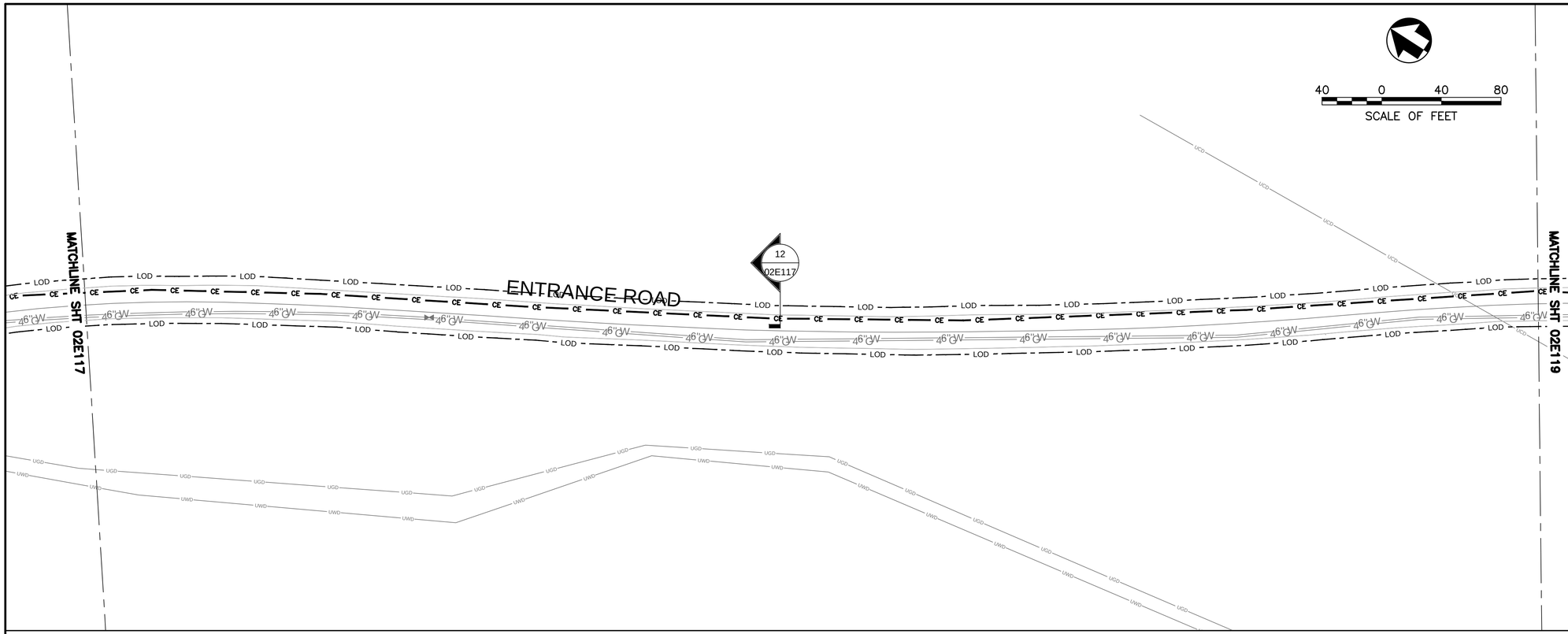
CHH-17
BUTTERFLY DIAGRAM
NOT TO SCALE

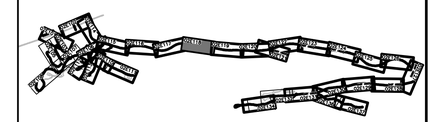
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:21:04-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 315
CADD I. KHAN	02E117	ELECTRICAL	182751
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION ENTRANCE ROAD 3	PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 114 OF 203

3/25/2025 9:05 AM acuglial R24 02E117 03167658.DWG





KEYPLAN

GENERAL NOTES

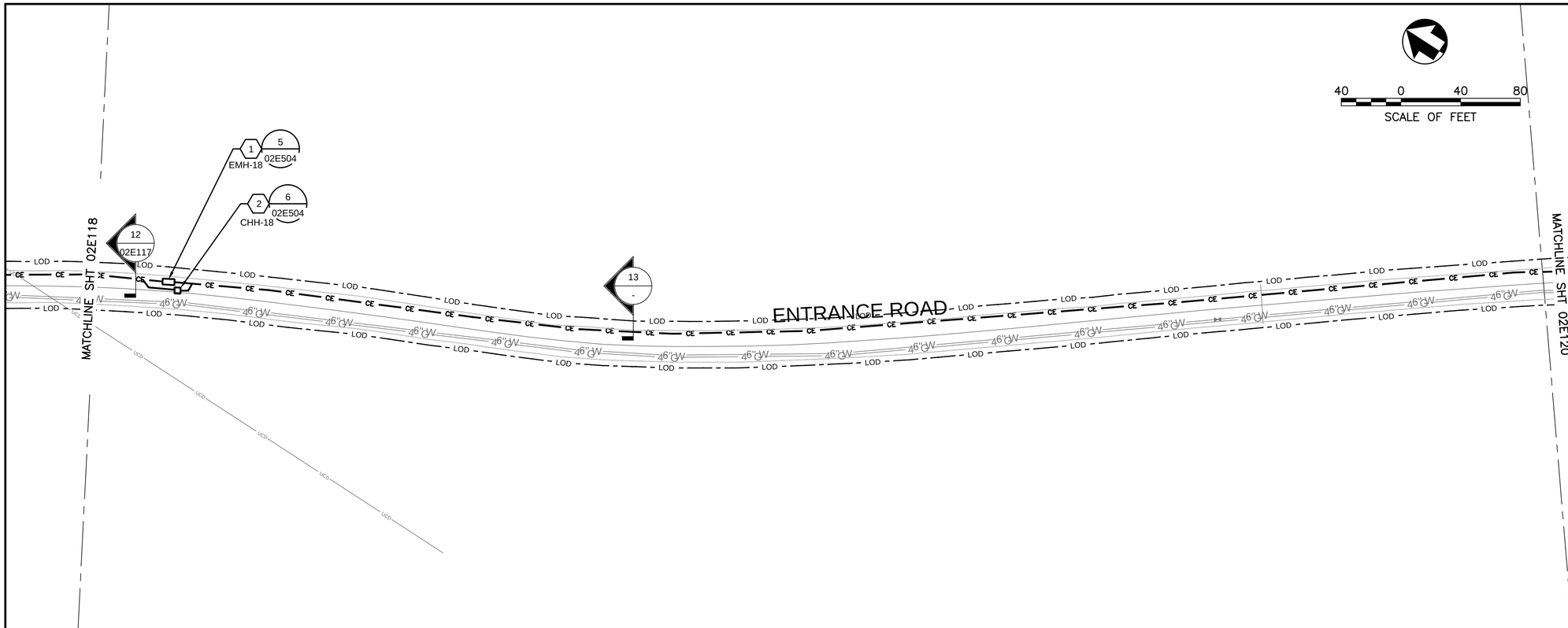
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

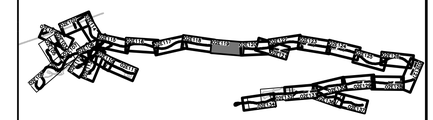
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:21:05-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E118	ELECTRICAL	315 / 182751
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION ENTRANCE ROAD 4	PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 115 OF 203

3/25/2025 9:07 AM acuglia R24 02E118 D3167658.DWG





KEYPLAN

GENERAL NOTES

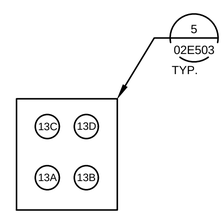
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

SHEET KEYNOTES

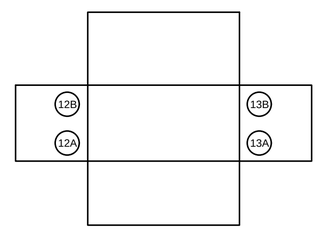
1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.

DUCT BANK SCHEDULE

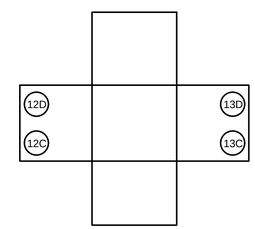
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
13	EMH-18	EMH-19	13A	5"	PULLSTRING
			13B	5"	PULLSTRING
	CHH-18	CHH-19	13C	4"	1-1" INNERDUCT WITH FO CABLE 2-1" INNERDUCT WITH PULLSTRING.
			13D	4"	PULLSTRING



13 / - DUCT SECTION
NOT TO SCALE



EMH-18
BUTTERFLY DIAGRAM
NOT TO SCALE



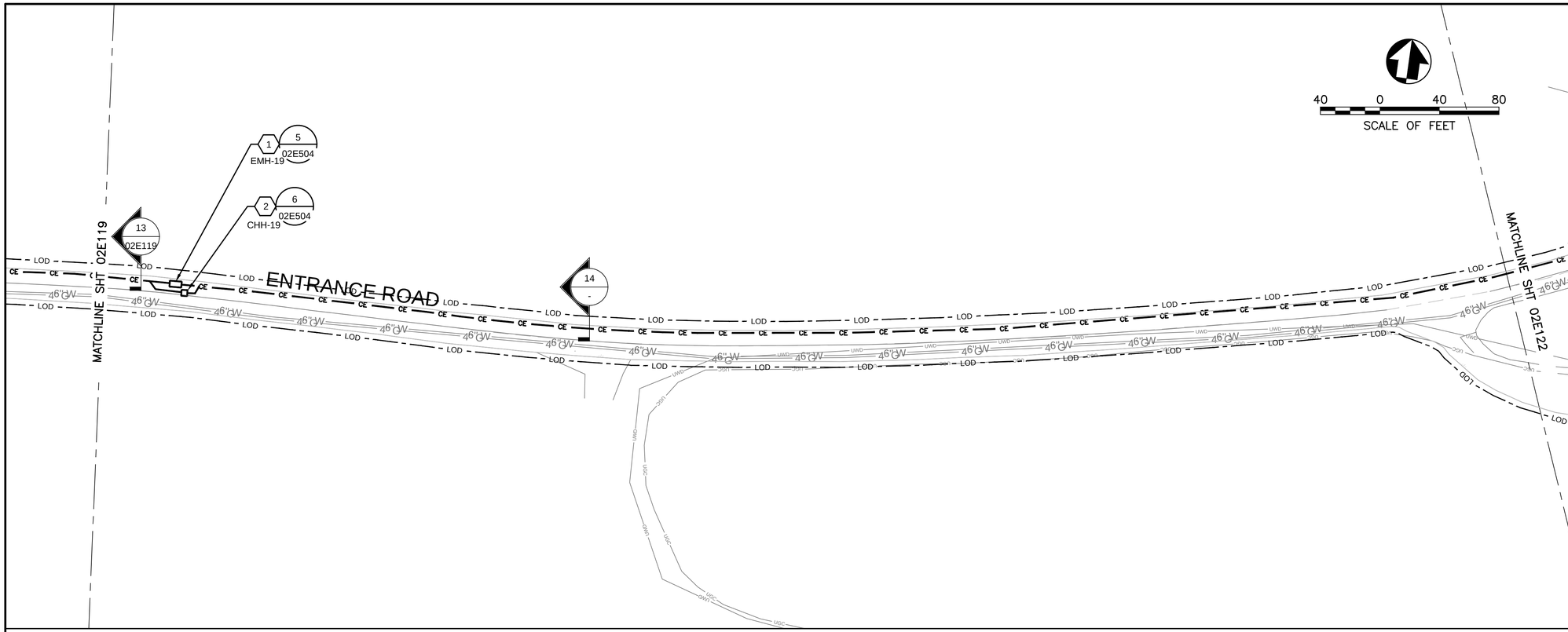
CHH-18
BUTTERFLY DIAGRAM
NOT TO SCALE

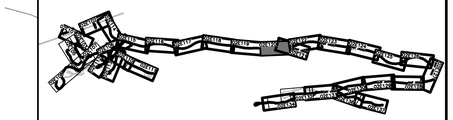
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:21:06-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E119	ELECTRICAL	315
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION ENTRANCE ROAD 5	182751
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
			SHEET 116 OF 203

3/25/2025 9:09 AM acuglial R24 02E119 D3167658.DWG





KEYPLAN

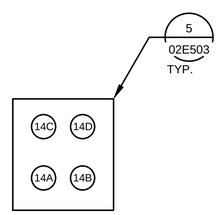
GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

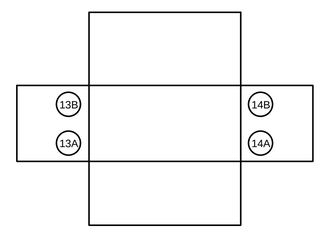
SHEET KEYNOTES

1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.

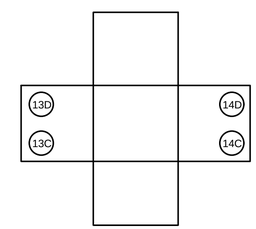
DUCT BANK SCHEDULE					
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
14	EMH-19	EMH-20	14A	5"	PULLSTRING
			14B	5"	PULLSTRING
	CHH-19	CHH-20	14C	4"	1-1" INNERDUCT WITH FO CABLE 2-1" INNERDUCT WITH PULLSTRING.
			14D	4"	PULLSTRING



14 / - DUCT SECTION
NOT TO SCALE



EMH-19
BUTTERFLY DIAGRAM
NOT TO SCALE



CHH-19
BUTTERFLY DIAGRAM
NOT TO SCALE

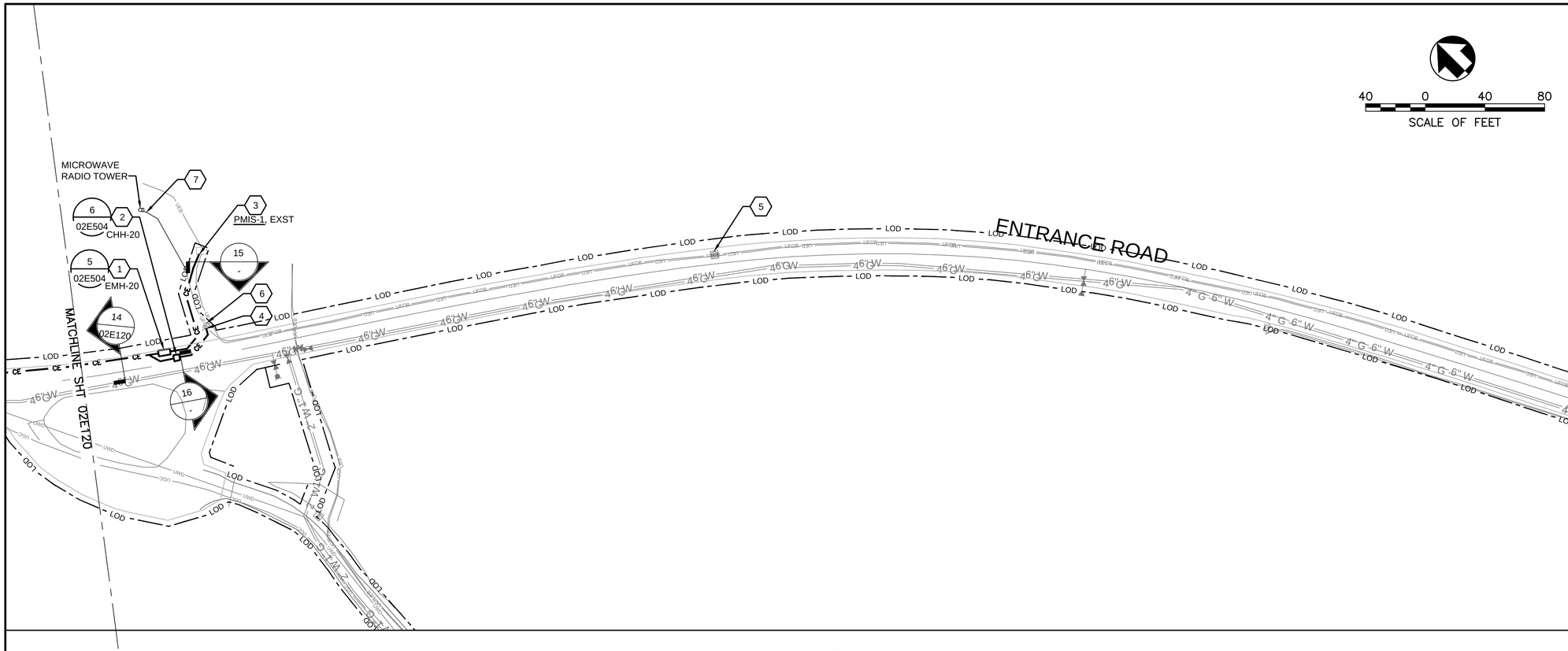
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

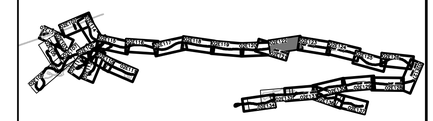
JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:25:14-06'00'

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
J. JAMES	02E120	ELECTRICAL	315
CADD: I. KHAN		PRIMARY DISTRIBUTION ENTRANCE ROAD 6	182751
TECH. REVIEW: J. LANDMAN		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
DATE: 04/11/2025			SHEET 117 OF 203

3/25/2025 9:12 AM acuglial R24 02E120 D3167658.DWG





KEYPLAN

GENERAL NOTES

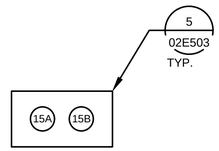
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

SHEET KEYNOTES

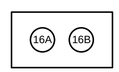
1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. 4x4x4 COMMUNICATIONS HANDHOLE.
3. TERMINATE CONDUITS AT EXISTING PAD MOUNTED SWTICH CABINET IN SPARE FUSED SWITCH COMPARTMENT. COORDINATE SWITCH SHUT DOWN WITH ELECTRIC UTILITY AND CONTRACTING OFFICER.
4. PENETRATE CONDUITS INTO EXISTING FIBER OPTIC HAND HOLE.
5. EXISTING PRIMARY ELECTRIC MANHOLE.
6. EXISTING FIBER OPTIC HAND HOLE.
7. INSTALL THREE-CELL INNERDUCT WITHIN EXISTING 4-INCH CONDUIT TO MICROWAVE RADIO TOWER JUNCTION BOX. UTILIZE ONE INNERDUCT CELL FOR NEW FIBER CABLE. PROVIDE FIBER PATCH PANEL IN JUNCTION BOX.

DUCT BANK SCHEDULE

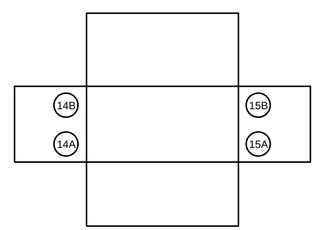
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
15	EMH-20	PMS-1	15A	5"	PULLSTRING
			15B	5"	PULLSTRING
16	CHH-20	EXST FIBER HANDHOLE	16A	4"	1-1" INNERDUCT WITH FO CABLE 2-1" INNERDUCT WITH PULLSTRING.
			16B	4"	PULLSTRING



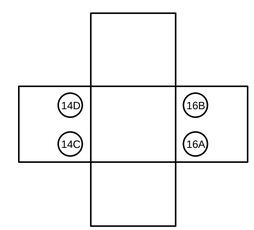
15 - DUCT SECTION
NOT TO SCALE



16 - DUCT SECTION
NOT TO SCALE



EMH-20 BUTTERFLY DIAGRAM
NOT TO SCALE



CHH-20 BUTTERFLY DIAGRAM
NOT TO SCALE

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:25:15-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E122	ELECTRICAL	315
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION ENTRANCE ROAD 7	182751
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
			SHEET 118 OF 203

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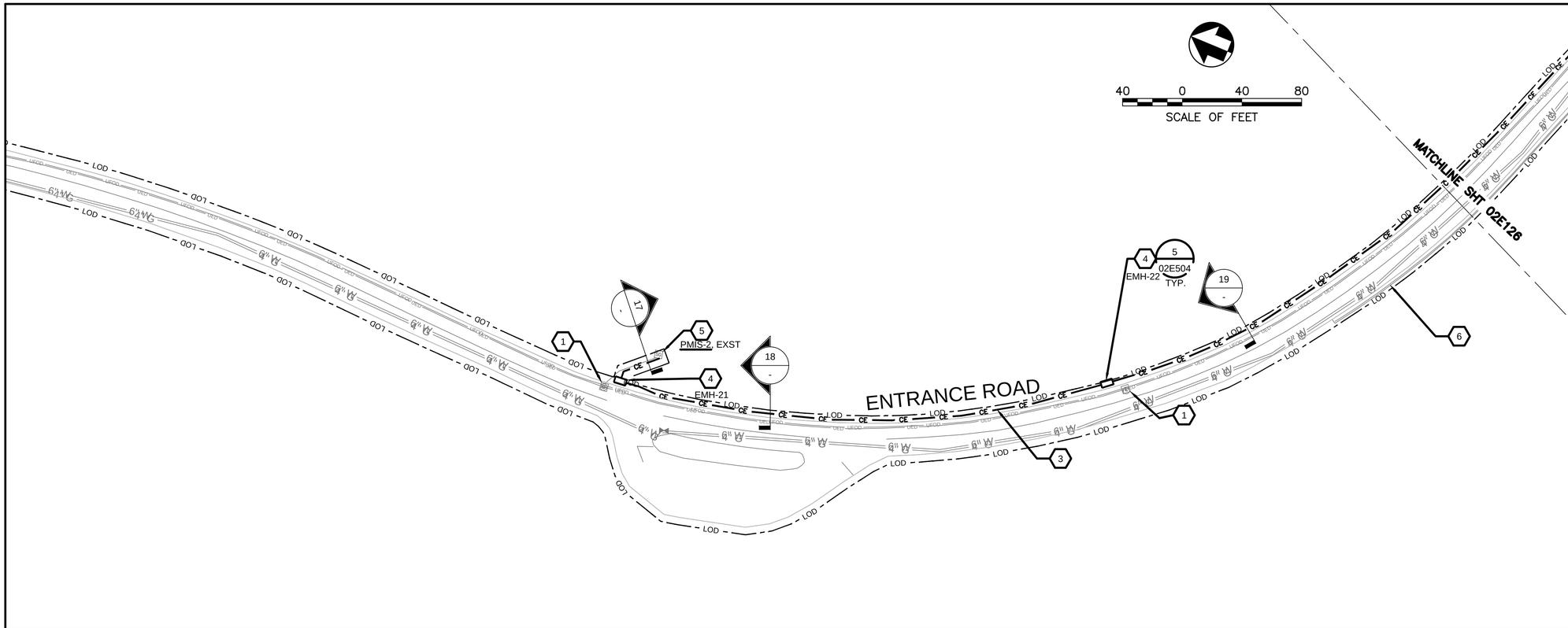


KEYPLAN

GENERAL NOTES

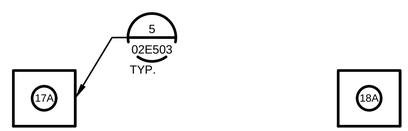
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

SHEET KEYNOTES

1. EXISTING PRIMARY ELECTRIC MANHOLE.
2. EXISTING FIBER OPTIC HAND HOLE.
3. NEW DUCT BANK PARALLELING EXISTING.
4. 4x8x4 PRIMARY ELECTRIC MANHOLE. LOCATE MANHOLE ADJACENT TO EXISTING DUCT BANKS.
5. TERMINATE CONDUITS AT EXISTING PAD MOUNTED SWITCH CABINET PMS-2 IN SPARE FUSED SWITCH COMPARTMENT. COORDINATE SWITCH SHUT DOWN WITH CONTRACTING OFFICER.
6. PROTECT HISTORIC STONE GUTTER IN-PLACE. SEE NOTES ON SHEET 00G003 AND SPECIFICATION 01 35 91.

DUCT BANK SCHEDULE

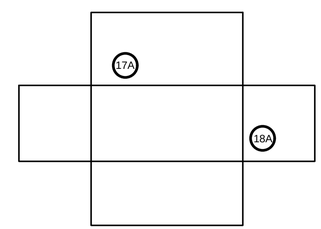
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
17	PMS-2	EMH-21	17A	4"	1#2 15KV, 1#6G 600V
18	EMH-21	EMH-22	18A	4"	1#2 15KV, 1#6G 600V
19	EMH-22	EMH-23	19A	4"	1#2 15KV, 1#6G 600V



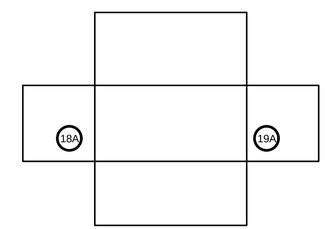
17 - DUCT SECTION
NOT TO SCALE

18 - DUCT SECTION
NOT TO SCALE

19 - DUCT SECTION
NOT TO SCALE



EMH-21
BUTTERFLY DIAGRAM
NOT TO SCALE



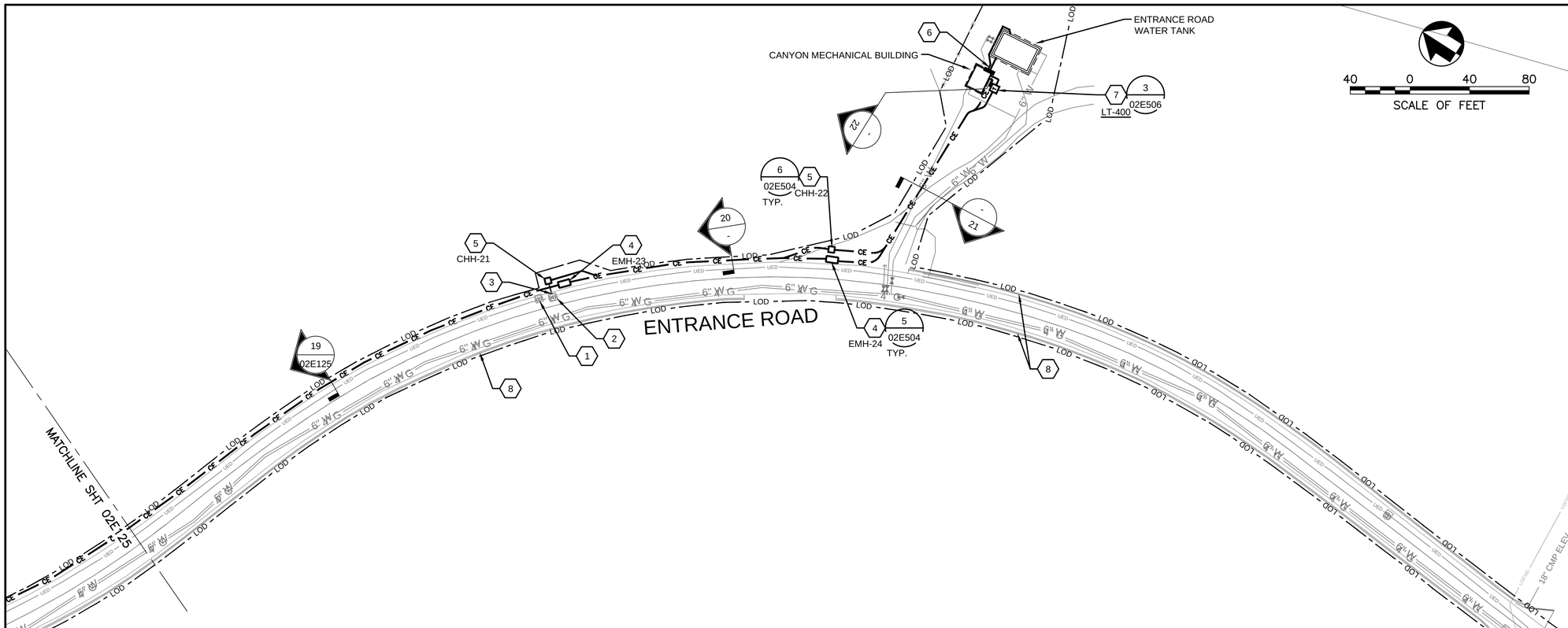
EMH-22
BUTTERFLY DIAGRAM
NOT TO SCALE

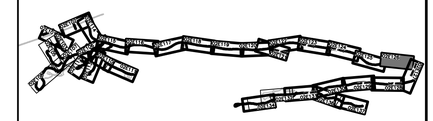
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:25:16-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E125	ELECTRICAL	315
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION ENTRANCE ROAD 10	182751
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
			SHEET 119 OF 203

3/25/2025 9:19 AM acuglati R24 02E125 D3167658.DWG





KEYPLAN

GENERAL NOTES

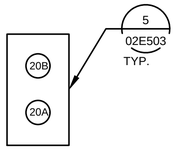
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

SHEET KEYNOTES

1. EXISTING PRIMARY ELECTRIC MANHOLE.
2. EXISTING FIBER OPTIC HAND HOLE.
3. PROVIDE 4-INCH DUCT FROM CHH-21 TO EXISTING HANDHOLE. PENETRATE INTO EXISTING HANDHOLE.
4. 4x8x4 PRIMARY ELECTRIC MANHOLE. LOCATE MANHOLE ADJACENT TO EXISTING DUCT BANKS.
5. 4x4x4 COMMUNICATIONS HANDHOLE. LOCATE MANHOLE ADJACENT TO EXISTING DUCT BANKS.
6. FIELD ROUTE FOUR 1-INCH CONDUITS FROM CANYON MECHANICAL BUILDING TO ENTRANCE ROAD WATER TANK FOR RECEPTACLE POWER AND INSTRUMENTATION. SEE DRAWINGS 10E101 AND 15E101.
7. PAD MOUNT TRANSFORMER. PROVIDE TRANSFORMER PAD IN ACCORDANCE WITH LOS ALAMOS COUNTY ELECTRICAL UTILITY STANDARDS.
8. PROTECT HISTORIC STONE GUTTER IN PLACE. SEE NOTES ON SHEET 00G003 AND SPECIFICATION 01 35 91.

DUCT BANK SCHEDULE

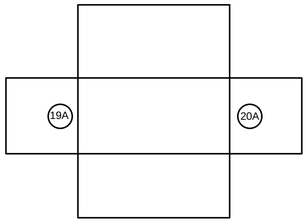
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
20	EMH-23	EMH-24	20A	4"	1#2 15KV, 1#6G 600V
	CCH-21	CCH-22	20B	4"	1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH PULLSTRING
21	EMH-24	LT-400	21A	4"	1#2 15KV, 1#6G 600V
	CCH-22	SECTION 22	21B	4"	1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH PULLSTRING
22	LT-400	SES-400	22A	4"	1#2 15KV, 1#6G 600V
	SECTION 21	LCP-400	22B	4"	1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH FO CABLE 1-1" INNERDUCT WITH PULLSTRING



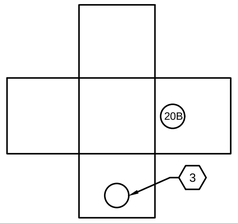
20 - DUCT SECTION
NOT TO SCALE

21 - DUCT SECTION
NOT TO SCALE

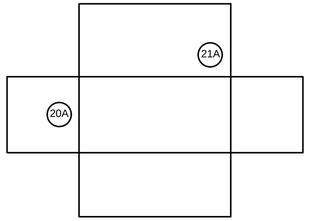
22 - DUCT SECTION
NOT TO SCALE



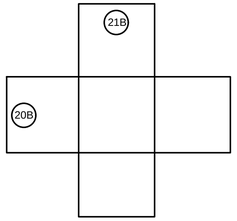
EMH-23
BUTTERFLY DIAGRAM
NOT TO SCALE



CHH-21
BUTTERFLY DIAGRAM
NOT TO SCALE



EMH-24
BUTTERFLY DIAGRAM
NOT TO SCALE



CHH-22
BUTTERFLY DIAGRAM
NOT TO SCALE

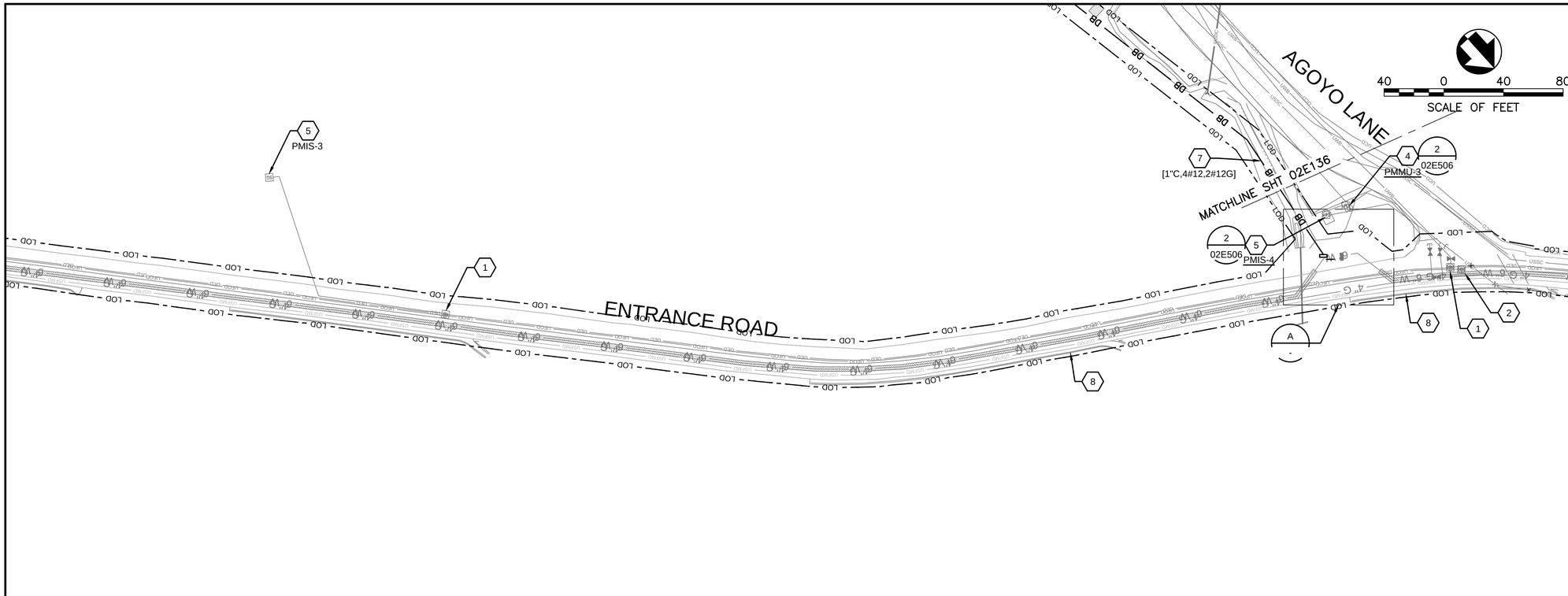
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

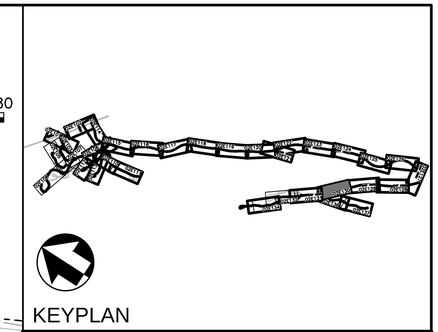
JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:25:16-06'00'

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
J. JAMES	02E126	ELECTRICAL	315
CADD: I. KHAN		PRIMARY DISTRIBUTION ENTRANCE ROAD 11	182751
TECH. REVIEW: J. LANDMAN		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
DATE: 04/11/2025			SHEET 120 OF 203

3/25/2025 10:03 AM acuglial R24 02E126 03167658.DWG





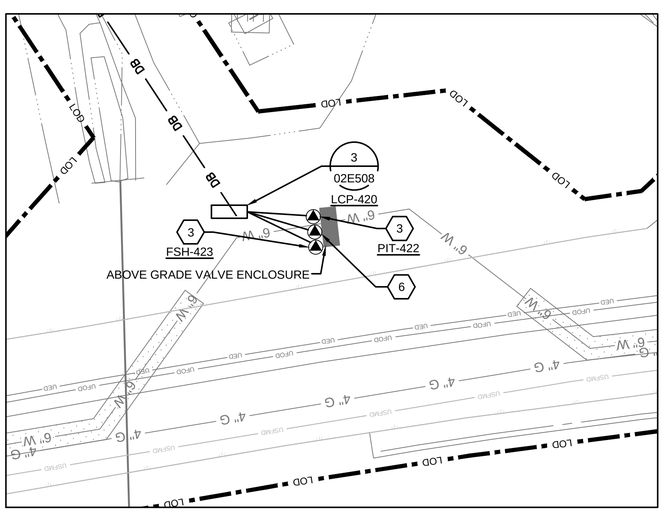
KEYPLAN

GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.

SHEET KEYNOTES

1. EXISTING PRIMARY ELECTRIC MANHOLE.
2. EXISTING FIBER OPTIC HAND HOLE.
3. FIELD ROUTE [A1] CIRCUIT FROM PIT-422 BELOW GRADE TO LCP-420.
4. EXISTING PAD MOUNT METERING CABINET.
5. EXISTING PAD MOUNT SWITCH CABINET.
6. FIELD ROUTE [P15] CIRCUIT FROM TOGGLE DISCONNECT ON LCP-420 RACK TO VALVE ENCLOSURE HEATER CONNECTION.
7. POWER CIRCUITS FOR VALVE ENCLOSURE HEATER AND LCP-420 SOURCED FROM EXISTING PANEL AT BUILDING 25.
8. PROTECT HISTORIC STONE GUTTER IN PLACE. SEE NOTES ON SHEET 00G003 AND SPECIFICATION 01 35 91.



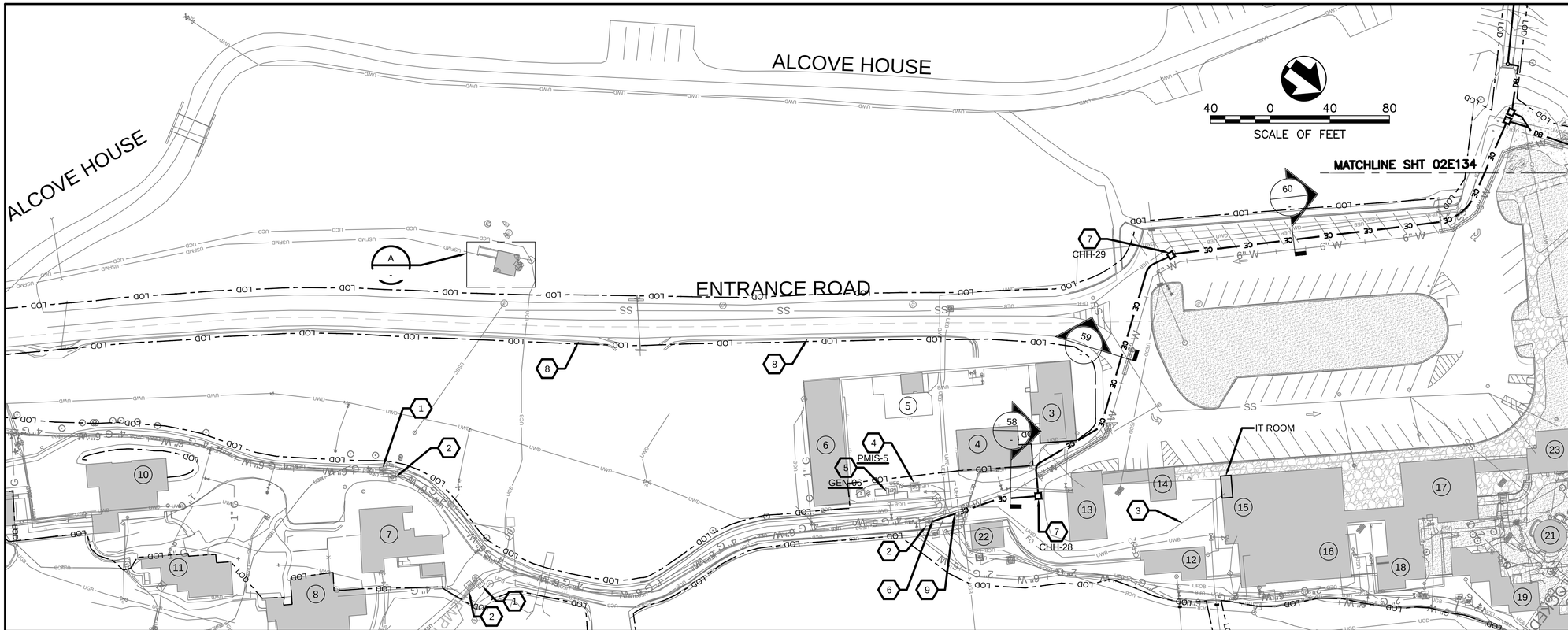
A / - VALVE ENCLOSURE ENLARGED PLAN
1" = 10'

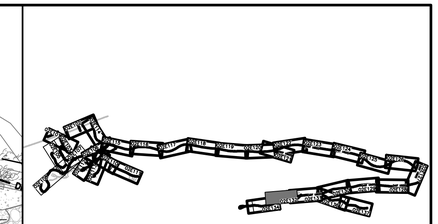
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:25:17-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET ELECTRICAL	DRAWING NO. 315 182751
CADD I. KHAN	02E130	PRIMARY DISTRIBUTION ENTRANCE ROAD 15 BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
TECH. REVIEW: J. LANDMAN			SHEET 121 OF 203
DATE: 04/11/2025			

3/25/2025 10:06 AM acuglilat R24 02E130_D316T658.DWG





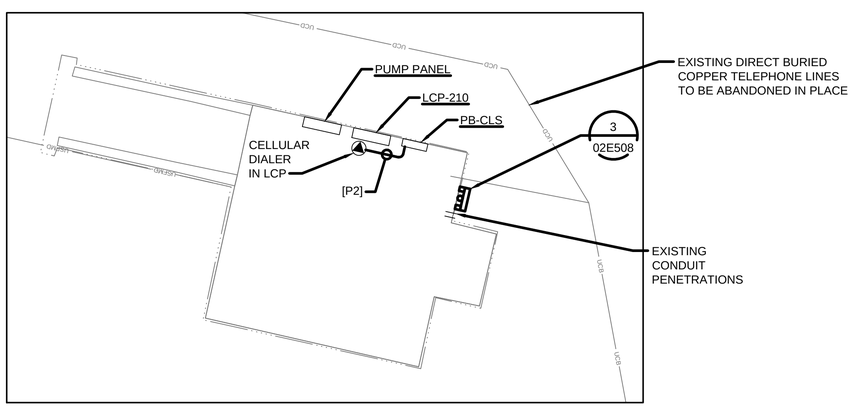
KEYPLAN

GENERAL NOTES

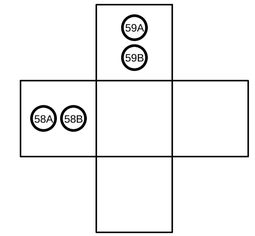
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.
3. REFER TO SHEET 02C200 FOR BUILDING NUMBER INDEX TABLE.

SHEET KEYNOTES

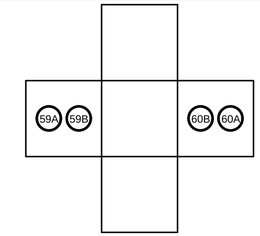
1. EXISTING PRIMARY ELECTRIC MANHOLE.
2. EXISTING FIBER COMMUNICATIONS HANDHOLE
3. UTILIZE EXISTING COMMUNICATIONS DUCT BANK FOR NEW FIBER OPTIC CABLES. PROVIDE THREE-CELL INNERDUCT IN 4-INCH DUCT. INSTALL FIBER IN NEW INNERDUCT.
4. EXISTING PAD MOUNT SWITCH CABINET.
5. DEMOLISH DIESEL STANDBY GENERATOR AND REPLACE WITH NATURAL GAS GENERATOR SET.
6. PENETRATE NEW CONDUITS INTO EXISTING COMMUNICATIONS HANDHOLE.
7. 4x4x4 COMMUNICATIONS HANDHOLE.
8. PROTECT HISTORIC STONE GUTTER IN PLACE. SEE NOTES ON SHEET 00G003 AND SPECIFICATION 01 35 91.
9. FIELD COORDINATE UTILITIES IN CONGESTED AREAS. ADJUST ROUTE AND LOCATIONS TO AVOID EXISTING VAULTS, VALVES, AND OTHER UTILITIES.



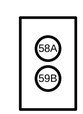
A / - CANYON LIFT STATION ENLARGED PLAN
SCALE: 1" = 5'



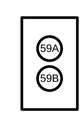
CHH-28 BUTTERFLY DIAGRAM
NOT TO SCALE



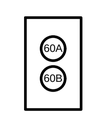
CHH-29 BUTTERFLY DIAGRAM
NOT TO SCALE



58 / - DUCT SECTION
NOT TO SCALE



59 / - DUCT SECTION
NOT TO SCALE



60 / - DUCT SECTION
NOT TO SCALE

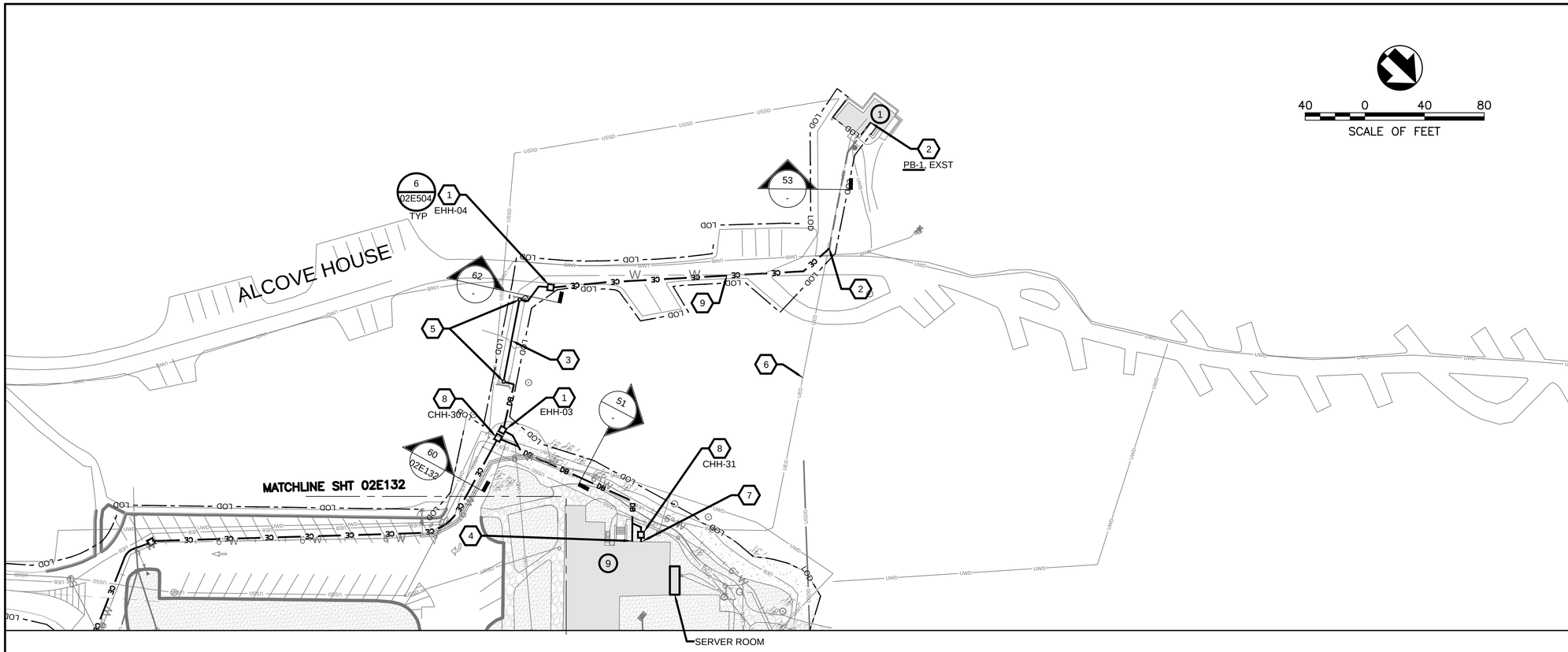
DUCT BANK SCHEDULE					
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
58	EXISTING CHH	CHH-28	58A	4"	PULLSTRING
			58B	4"	PULLSTRING
59	CHH-28	CHH-29	59A	4"	PULLSTRING
			59B	4"	PULLSTRING
60	CHH-29	CHH-30	60A	4"	PULLSTRING
			60B	4"	PULLSTRING

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

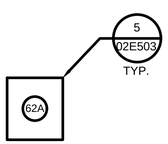
JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:25:19-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET ELECTRICAL	DRAWING NO. 315 182751
CADD I. KHAN	02E132	PRIMARY DISTRIBUTION ENTRANCE ROAD 17 BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
TECH. REVIEW: J. LANDMAN			SHEET 122 OF 203
DATE: 04/11/2025			

3/25/2025 10:07 AM acuglist P24 02E132 03167858.DWG

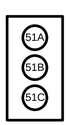


DUCT BANK SCHEDULE					
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
62	EHH-03	EHH-04	62A	2"	3#2 600V, 1#8G 600V
53	EHH-04	PB-1	53A	2"	3#2 600V, 1#8G 600V
51	BLDG 9 PANEL VC	EHH-04	51A	2"	3#2 600V, 1#8G 600V
	CHH-30	CHH-31	51B	4"	PULLSTRING
			51C	4"	PULLSTRING

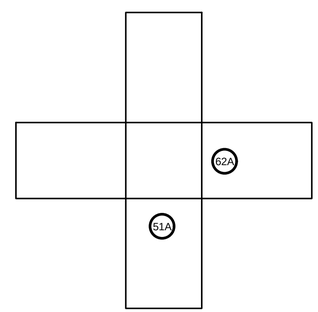


62 - DUCT SECTION
NOT TO SCALE

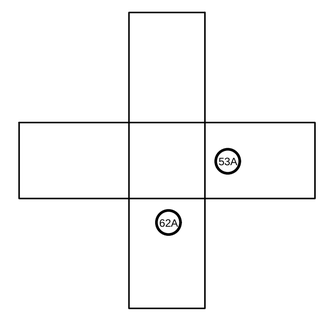
53 - DUCT SECTION
NOT TO SCALE



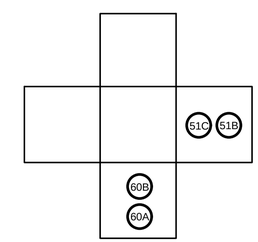
51 - DUCT SECTION
NOT TO SCALE



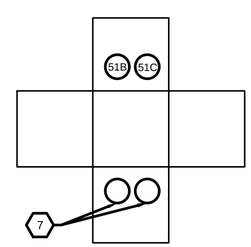
EHH-03
BUTTERFLY DIAGRAM
NOT TO SCALE



EHH-04
BUTTERFLY DIAGRAM
NOT TO SCALE

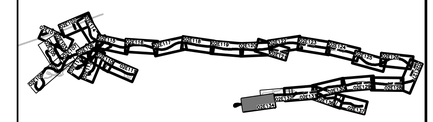


CHH-30
BUTTERFLY DIAGRAM
NOT TO SCALE



CHH-31
BUTTERFLY DIAGRAM
NOT TO SCALE

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG



KEYPLAN

GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.
3. REFER TO SHEET 02C200 FOR BUILDING NUMBER INDEX TABLE.

SHEET KEYNOTES

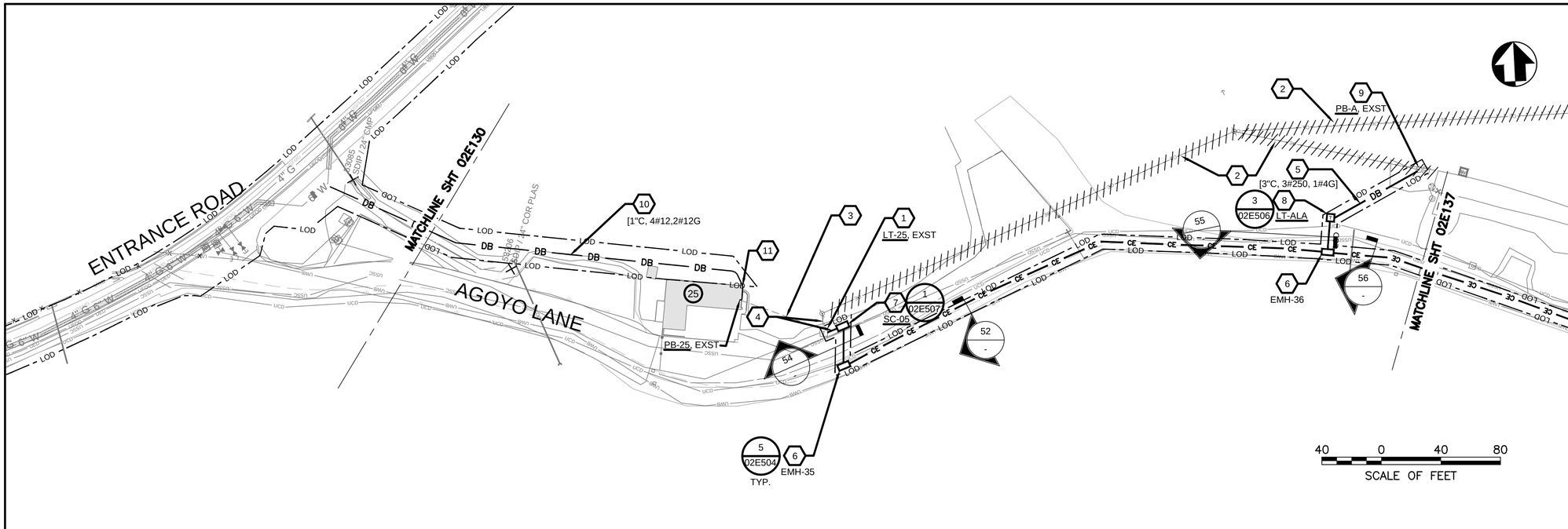
1. 4x4x4 SECONDARY ELECTRIC HANDHOLE.
2. INTERCEPT EXISTING FEED TO COMFORT STATION AND RE-USE CONDUIT IF IN USABLE CONDITION. COORDINATE WITH CONTRACTING OFFICER FOR PENETRATION INTO BUILDING IF EXISTING CONDUIT IS NOT IN USABLE CONDITION.
3. ROUTE CONDUIT UNDER PEDESTRIAN BRIDGE. SEE DRAWINGS 02S101 AND 02S501.
4. PENETRATE INTO BUILDING CRAWL SPACE BELOW GRADE AND FIELD ROUTE TO EXISTING ELECTRICAL PANELBOARD "VC" IN BASEMENT. FIELD VERIFY ROUTE IN CRAWL SPACE.
5. ROUTE UNDERGROUND CONDUIT BELOW BRIDGE AND ADJACENT TO BRIDGE SUPPORT STRUCTURE. BRING UP ABOVE GRADE, PROVIDE BRIDGE ABUTMENT MOUNTED PULL POINTS, AND EXPANSION FITTINGS ON EACH END TO ALLOW DIFFERENTIAL MOVEMENT BETWEEN UNDERGROUND CONDUIT AND BRIDGE STRUCTURE. PROVIDE RGS CONDUIT FOR ABOVE-GRADE PORTIONS.
6. LOCATE AND INVESTIGATE EXISTING FEED BETWEEN VISITOR CENTER PANEL "VC" AND COMFORT STATION PANEL PB-1. IF CONDUCTORS ARE CONTINUOUS, CONDUCT INSULATION RESISTANCE TEST ON EACH CONDUCTOR TO VERIFY INTEGRITY. PROVIDE INVESTIGATION AND TEST RESULTS TO CONTRACTING OFFICER TO DETERMINE IF CONDUCTORS MAY BE USED IN LIEU OF NEW INSTALLATION.
7. PENETRATE TWO 4-INCH CONDUITS FROM HANDHOLE INTO BUILDING CRAWL SPACE BELOW GRADE AND FIELD ROUTE TO SERVER ROOM. COORDINATE STUB UP LOCATION IN SERVER ROOM WITH CONTRACTING OFFICER.
8. 4x4x4 COMMUNICATION HANDHOLE.
9. CONCRETE ENCASE PORTION LOCATED UNDER ROADWAY AND DRIVEABLE SURFACES.

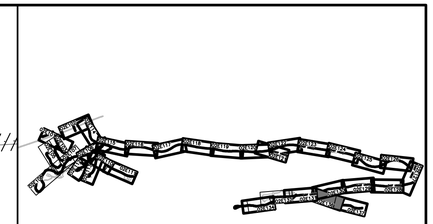
JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:25:19-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E134	ELECTRICAL	315
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION ALCOVE HOUSE 2 BANDELIER NATIONAL MONUMENT	182751
DATE: 04/11/2025			PMIS/PKG NO. 266697
			SHEET 123 OF 203

3/25/2025 10:10 AM acuglait R24 02E134 D3167658.DWG





KEYPLAN

GENERAL NOTES

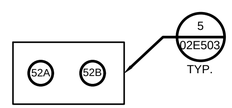
1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.
3. REFER TO SHEET 02C200 FOR BUILDING NUMBER INDEX TABLE.

SHEET KEYNOTES

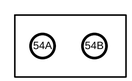
1. EXISTING PAD-MOUNT TRANSFORMER TO REMAIN.
2. DEMOLISH SINGLE-PHASE OVERHEAD PRIMARY AND SECONDARY CONDUCTORS, POLE-MOUNTED TRANSFORMERS, AND POLES.
3. EXISTING UNDERGROUND SECONDARY FEEDER TO REMAIN.
4. INTERCEPT PRIMARY CONDUCTORS FROM PMIS-4 TO OVERHEAD POLE AND REROUTE AND EXTEND TO SC-05. RE-FEED PAD-MOUNT TRANSFORMER.
5. FIELD ROUTE FROM TRANSFORMER TO PANEL "A". COORDINATE ROUTE LOCATION WITH CONTRACTING OFFICER.
6. 4x8x4 PRIMARY ELECTRIC MANHOLE.
7. PAD MOUNTED SECTIONALIZING CABINET WITH FIBERGLASS GROUND SLEEVE.
8. PAD-MOUNTED LOOP FEED TRANSFORMER.
9. RE-FEED PANEL "A" MOUNTED ON OVERHEAD POLE. REMOVE PORTION OF POLE ABOVE PANEL AND RADIO ANTENNA ONLY.
10. DIRECT BURIED CONDUIT FOR VALVE ENCLOSURE.
11. STUB UP AT BUILDING CORNER. PROVIDE EXPANSION FITTING, AND FIELD ROUTE ABOVE GRADE CONDUIT TO PANELBOARD.

DUCT BANK SCHEDULE

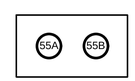
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
52	EMH-35	EMH-36	52A	4"	1#2 15KV, 1#6G 600V
			52B	4"	PULLSTRING
54	SC-05	EMH-35	54A	4"	1#2 15KV, 1#6G 600V
			54B	4"	PULLSTRING
55	EMH-36	LT-ALA	55A	4"	1#2 15KV, 1#6G 600V
			55B	4"	1#2 15KV, 1#6G 600V
56	EMH-36	EMH-37	52A	4"	1#2 15KV, 1#6G 600V
			52B	4"	PULLSTRING



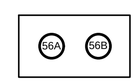
52 - DUCT SECTION
NOT TO SCALE



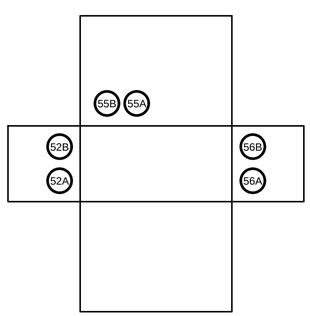
54 - DUCT SECTION
NOT TO SCALE



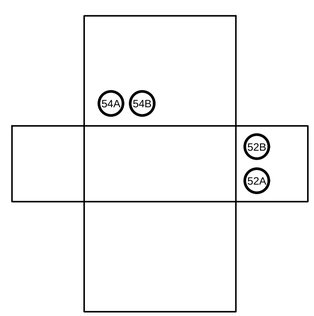
55 - DUCT SECTION
NOT TO SCALE



56 - DUCT SECTION
NOT TO SCALE



EMH-36
BUTTERFLY DIAGRAM
NOT TO SCALE



EMH-35
BUTTERFLY DIAGRAM
NOT TO SCALE

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:25:20-06'00'

DESIGNED:	J. JAMES
CADD	I. KHAN
TECH. REVIEW:	J. LANDMAN
DATE:	04/11/2025

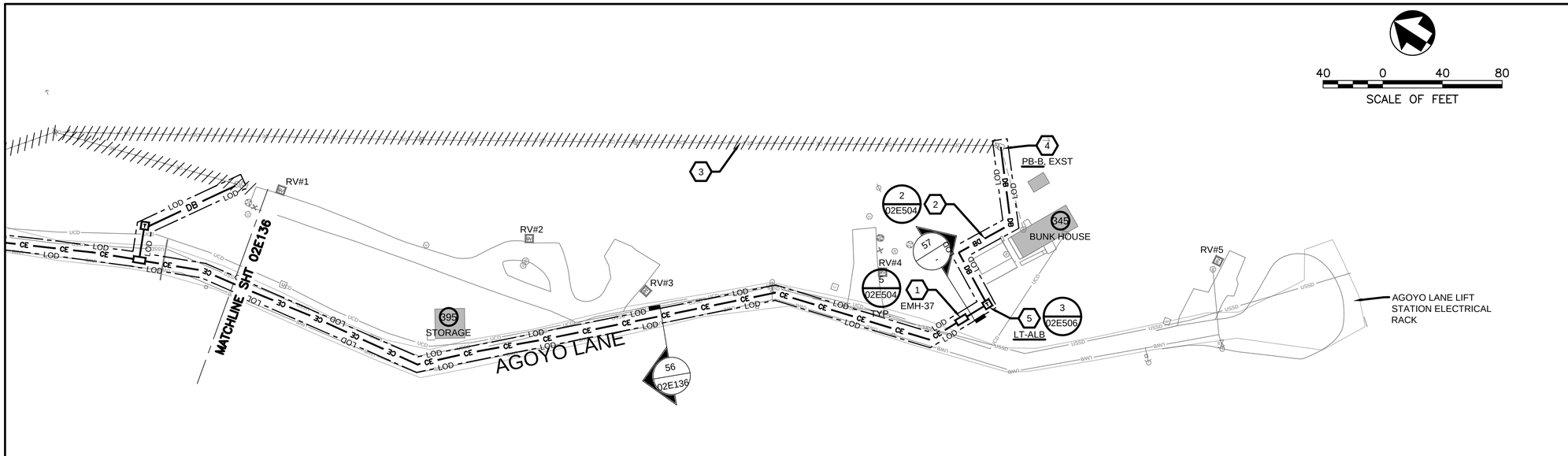
SUB SHEET NO. 02E136

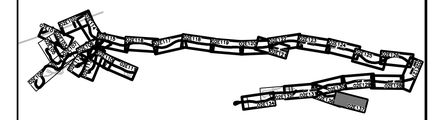
TITLE OF SHEET
ELECTRICAL

PRIMARY DISTRIBUTION AGOYO LANE 1
BANDELIER NATIONAL MONUMENT

DRAWING NO. 315 182751
PMIS/PKG NO. 266697
SHEET 124 OF 203

3/25/2025 10:11 AM acuglist R24 02E136 D3167858.DWG





KEYPLAN

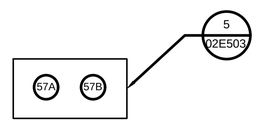
GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.
3. REFER TO SHEET 02C200 FOR BUILDING NUMBER INDEX TABLE.

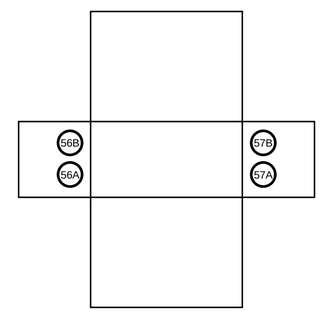
SHEET KEYNOTES

1. 4x8x4 PRIMARY ELECTRIC MANHOLE.
2. FIELD ROUTE CONDUIT FROM TRANSFORMER TO PANEL "B". COORDINATE ROUTE LOCATION WITH CONTRACTING OFFICER.
3. DEMOLISH SINGLE-PHASE OVERHEAD PRIMARY AND SECONDARY CONDUCTORS, POLE-MOUNTED TRANSFORMERS, AND POLES.
4. RE-FEED PANEL "B" MOUNTED ON OVERHEAD POLE. REMOVE PORTION OF POLE ABOVE PANEL LEVEL ONLY.
5. PAD-MOUNTED LOOP FEED TRANSFORMER.

DUCT BANK SCHEDULE					
SECTION	START	END	DUCT ID	SIZE	CONDUCTOR/CABLE
57	EMH-36	LT-ALB	57A	4"	1#2 15KV, 1#6G 600V
			57B	4"	PULLSTRING



57 - DUCT SECTION
NOT TO SCALE



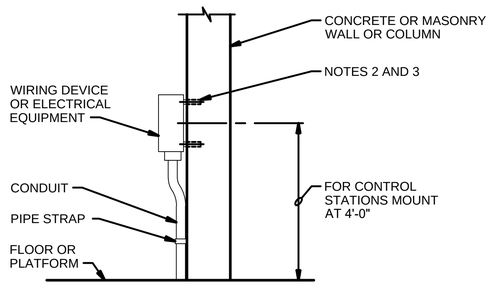
EMH-37
BUTTERFLY DIAGRAM
NOT TO SCALE

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:25:21-06'00'

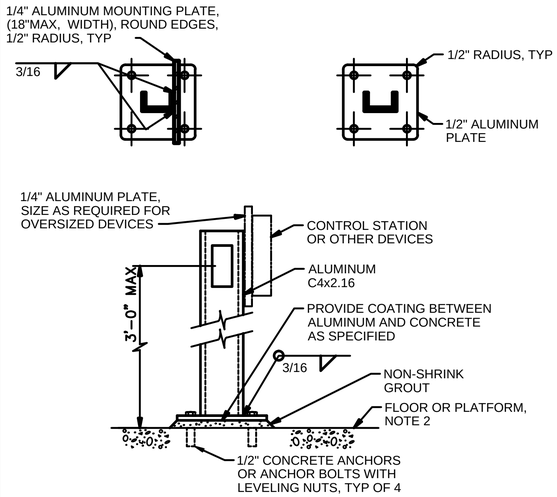
DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E137	ELECTRICAL	315
TECH. REVIEW: J. LANDMAN		PRIMARY DISTRIBUTION AGOYO LANE 2	182751
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
			SHEET 125 OF 203

3/25/2025 10:13 AM acuplat R24 02E137 D3167858.DWG



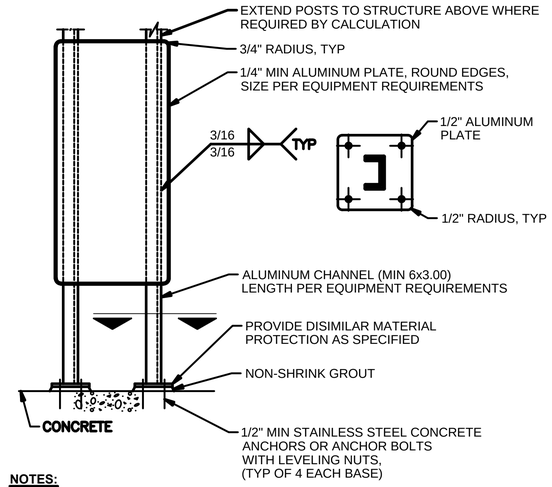
NOTES:
1. MOUNTING HARDWARE SHALL BE STAINLESS STEEL. USE BOTH WASHER AND LOCK WASHERS UNDER ALL NUTS.
2. ON CONCRETE WALLS USE STAINLESS STEEL CONCRETE ANCHORS. MOUNT ENCLOSURE ON SPACERS OF MIN 1/2" SCHEDULE 80 PVC CONDUIT.
3. BOXES 6 INCHES SQUARE AND SMALLER SHALL BE SUPPORTED BY TWO ANCHORS, MIN. LARGER BOXES SHALL BE SUPPORTED AS REQUIRED BY CALCULATION; FOUR ANCHORS MIN.
4. SUBMIT FINAL DESIGN AND CALCULATIONS FOR SUPPORT AND ANCHORAGE AS SPECIFIED.

1 – DEVICE MOUNTING, WALL OR COLUMN
NO SCALE



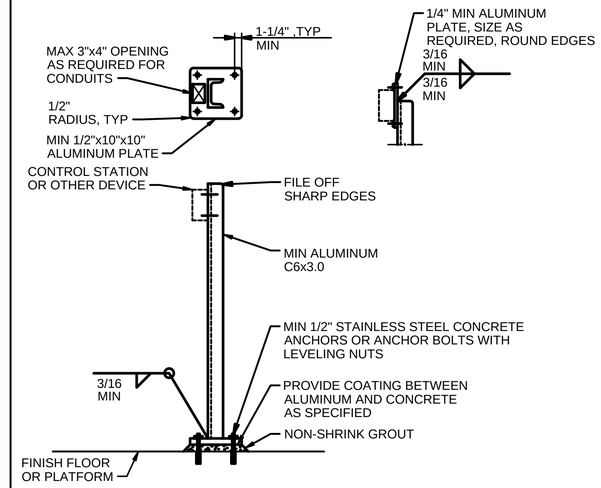
NOTES:
1. USE STAINLESS STEEL MOUNTING HARDWARE. USE WASHERS AND SPLIT-LOCK WASHERS UNDER NUTS.
2. FOR YARD LOCATIONS, PROVIDE 2'-0" SQUARE x 6" THICK CONCRETE PAD AT GRADE WITH 3#4 REBAR EACH WAY, CENTERED.
3. CONTROL STATIONS DEVICES AND EQUIPMENT HAVING A FRONTAL AREA NOT GREATER THAN 2'-0" SQ FT SHALL BE PEDESTAL MOUNTED UNLESS OTHERWISE INDICATED.

2 – DEVICE MOUNTING, MOTOR CONTROL STATION
NO SCALE



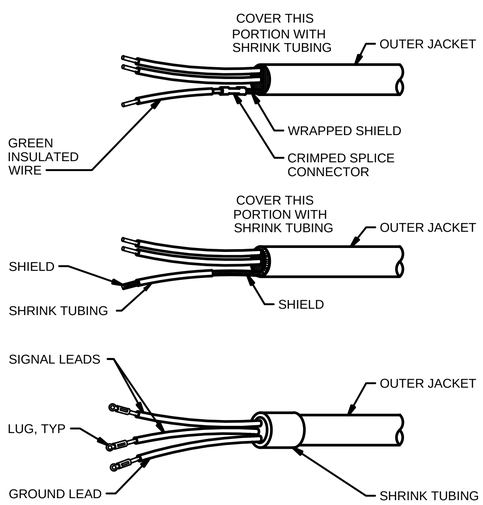
NOTES:
1. USE STAINLESS STEEL MOUNTING HARDWARE. USE WASHER AND SPLIT LOCK WASHER UNDER NUTS.
2. MINIMUM COMPONENT AND CONNECTION SIZES SHOWN. FURNISH LARGER SIZES AS REQUIRED BY CALCULATIONS.
3. SUBMIT FINAL DESIGN AND CALCULATIONS FOR SUPPORT AND ANCHORAGE AS SPECIFIED.

3 – DEVICE MOUNTING, SIDE MOUNTED PEDESTAL - ALUMINUM
NO SCALE



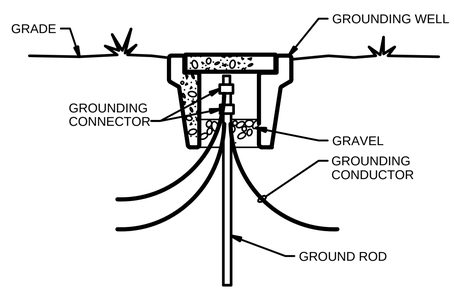
NOTES:
1. MOUNTING HARDWARE SHALL BE STAINLESS STEEL. USE WASHERS AND LOCK WASHERS UNDER ALL NUTS AND BOLTS.
2. EXTEND POSTS TO STRUCTURE ABOVE WHERE REQUIRED BY CALCULATION. EXTENSION SHALL ACCOMODATE DEFLECTION OF THE SUPPORTING STRUCTURE.
3. MINIMUM COMPONENT AND CONNECTION SIZES SHOWN. FURNISH LARGER SIZES AS REQUIRED BY CALCULATIONS.
4. SUBMIT FINAL DESIGN AND CALCULATIONS FOR SUPPORT AND ANCHORAGE AS SPECIFIED.

4 – DEVICE MOUNTING, PEDESTAL
NO SCALE



NOTES:
1. SHIELDED INSTRUMENTATION CABLE SHALL BE TERMINATED IN ACCORDANCE WITH THIS DETAIL WHERE GROUNDING IS REQUIRED.

5 – TERMINATION OF SHIELDED INSTRUMENTATION CABLE
NO SCALE



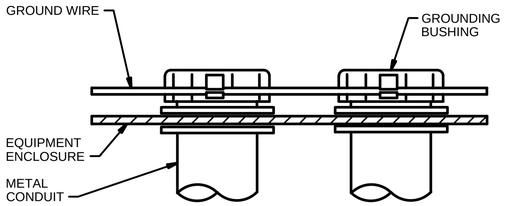
6 – GROUND TEST WELL
NO SCALE

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:28:53-06'00'

DESIGNED: J JAMES	SUB SHEET NO.	TITLE OF SHEET ELECTRICAL ELECTRICAL DETAILS	DRAWING NO. 315 182751
CADD A. CUGLIAT	02E501		PMIS/PKG NO. 266697
TECH. REVIEW: J LANDMAN			SHEET 126 OF 203
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	

4/8/2025 11:04 AM lehsin1 P24 02E501_D3167658.DWG XG-Border_BAND

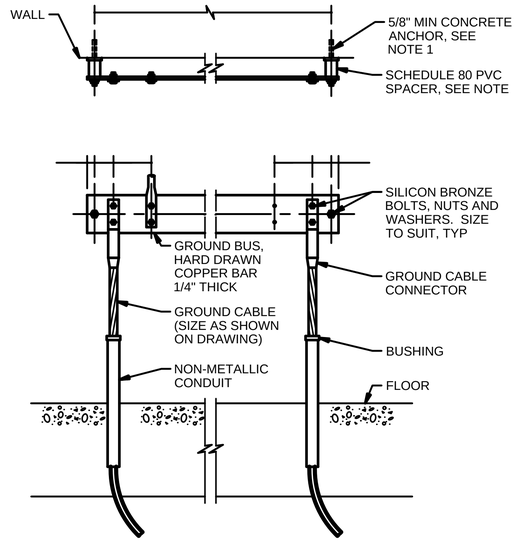


NOTES:

1. THE ENDS OF CONDUITS REQUIRED TO BE GROUNDED BY THE SPECIFICATIONS SHALL BE GROUNDED IN ACCORDANCE WITH THIS DETAIL.

1 CONDUIT GROUNDING

NO SCALE

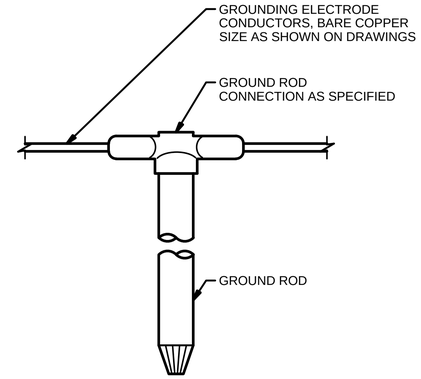


NOTES:

1. MAXIMUM SPAN BETWEEN SUPPORTS NOT TO EXCEED 24".
2. FACTORY MADE GROUND BUS KIT IS ACCEPTABLE. LENGTH AS REQUIRED, MINIMUM 16".

2 GROUND BUS

NO SCALE

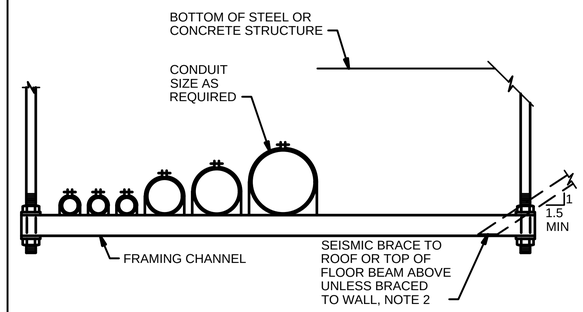


NOTES:

1. TOP OF GROUND ROD SHALL BE SAND BEDDED 6" MIN BELOW GRADE.

3 GROUND ROD CONNECTION

NO SCALE



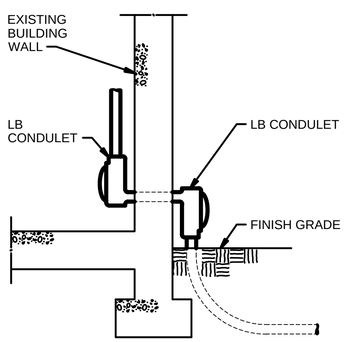
SINGLE RACK

NOTES:

1. LENGTH VARIES WITH NUMBER OF CONDUITS TO BE SUPPORTED AND SPACING BETWEEN CONDUITS.
2. SUBMIT FINAL DESIGN AND CALCULATIONS FOR SUPPORT AND ANCHORAGE AS SPECIFIED.
3. USE STAINLESS STEEL HARDWARE IN WET AND/OR CORROSIVE AREAS.
4. SPACE CONDUIT SUFFICIENTLY TO ALLOW REMOVAL OF ONE CONDUIT WITHOUT DISTURBING ADJACENT CONDUITS.

4 CONDUIT RACKING SYSTEM

NO SCALE

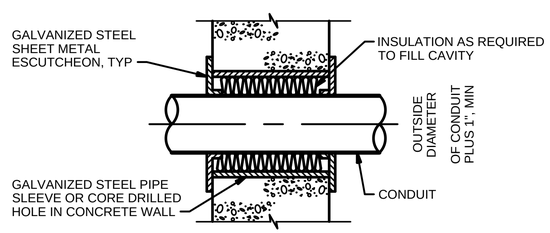


NOTES:

1. INSTALL CONDUITS THROUGH EXISTING WALLS IN ACCORDANCE WITH THIS DETAIL IF NOT OTHERWISE INDICATED.
2. DRILL HOLE USING METHODS THAT LEAVE A SMOOTH OPENING. SEAL OPENING AROUND CONDUIT, INSIDE, AND OUTSIDE, WITH ONE PART POLYURETHANE IMMERSIBLE SEALANT.

5 CONDUIT ENTRANCE

NO SCALE



NOTES:

1. CONDUITS WHICH INDIVIDUALLY PASS THRU AN INTERIOR WALL SHALL BE INSTALLED IN ACCORDANCE WITH THIS DETAIL. IF WALL IS A FIRE WALL, FILL CAVITY WITH FIRE STOP SEALANT AS SPECIFIED.

6 INTERIOR WALL PENETRATION

NO SCALE

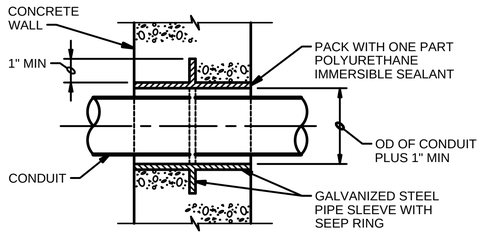
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:28:54-06'00'

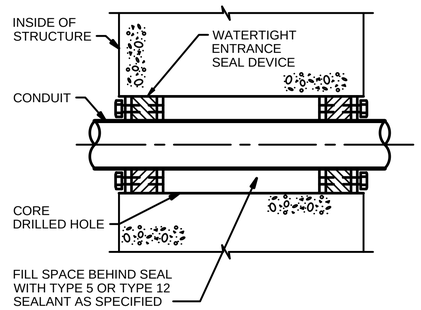
DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET ELECTRICAL ELECTRICAL DETAILS	DRAWING NO. 315
CADD A. CUGLIAT	02E502		182751
TECH. REVIEW: J LANDMAN			PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 127 OF 203

4/8/2025 12:02 PM lehsm1 P24 02E502_D3167658.DWG XG:Border BAND



1 – CONDUIT UNDERGROUND ENTRANCE

NO SCALE

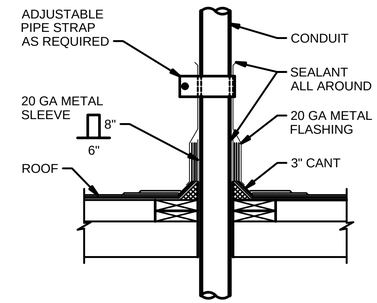


NOTES:

1. USE WATERTIGHT CONDUIT SEAL WHERE CONDUIT PENETRATIONS OF EXISTING BUILDING EXTERIOR WALLS ARE BELOW GRADE.

2 – WATERTIGHT WALL CONDUIT SEAL

NO SCALE

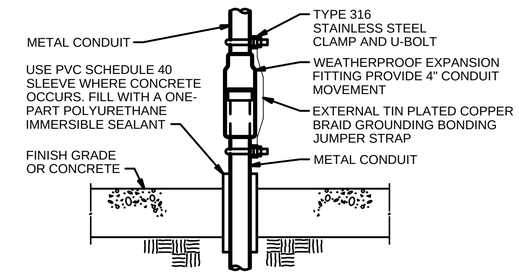


NOTES:

1. CONDUITS WHICH PASS THROUGH A ROOF SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS DETAIL.

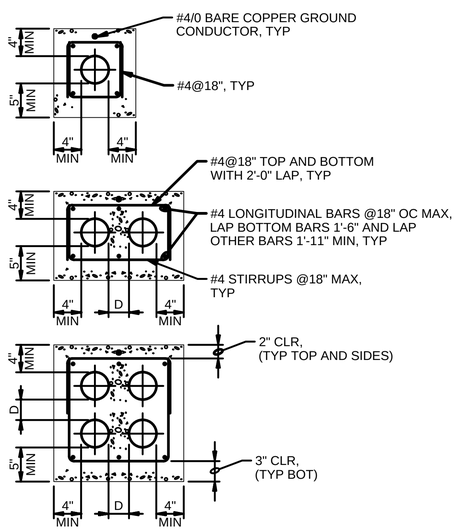
3 – CONDUIT ROOF PENETRATIONS

NO SCALE



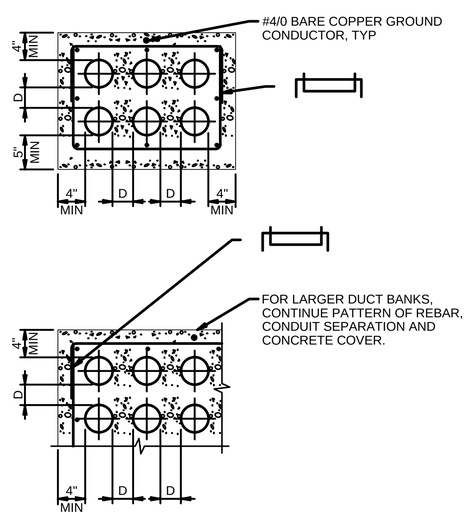
4 – EXPANSION FITTING FOR SOIL MOVEMENT

NO SCALE



D = 3" FOR 2" AND LARGER CONDUITS

D = 2" FOR 1 1/2" AND SMALLER CONDUITS



NOTES:

1. PROVIDE 6" MINIMUM COMPACTED GRAVEL, 3/4" MINUS, UNDER COMPACTED ENCASED DUCT RUNS.
2. DUCT BANK SHALL HAVE STEEL REINFORCING BARS AS SHOWN WHEN LOCATED UNDER ROADWAYS, DRIVEWAYS, AND PARKING AREAS. DUCT BANK IN NON-DRIVEABLE AREAS MAY OMIT REINFORCING BARS.

5 – CONCRETE ENCASED DUCTBANK

NO SCALE

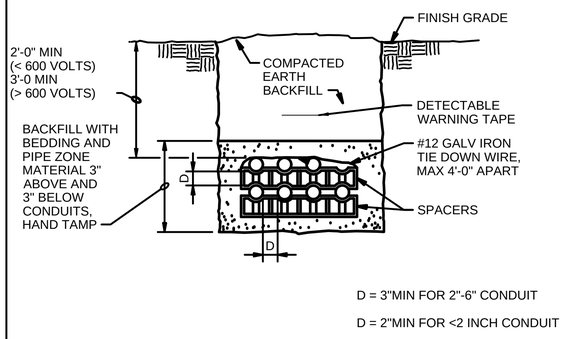
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:28:54-06'00'

DESIGNED: J. JAMES	SUB SHEET NO. 02E503	TITLE OF SHEET ELECTRICAL ELECTRICAL DETAILS BANDELIER NATIONAL MONUMENT	DRAWING NO. 315 182751
CADD A. CUGLIAT			PMIS/PKG NO. 266697
TECH. REVIEW: J LANDMAN			SHEET 128 OF 203
DATE: 04/11/2025			

4/8/2025 12:01 PM lehsm1 P24 02E503 D3167658.DWG XG:Border, BAND

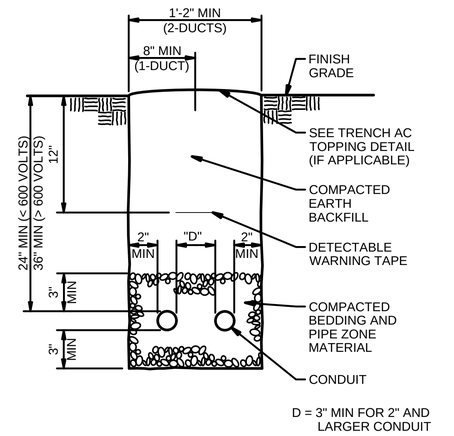


NOTES:

1. INSTALLATION OF DIRECT BURIAL DUCT BANKS WHICH INCLUDE THREE OR MORE CONDUITS OR DUCTS SHALL BE MADE IN ACCORDANCE WITH THIS DETAIL.
2. PROVIDE REINFORCED CONCRETE ENCASED DUCT BANK FOR PORTIONS UNDER ROADWAYS, DRIVEWAYS, AND PARKING AREAS. SEE DETAIL 5/02E503

1 UNDERGROUND CONDUIT IN NON-PAVED AREAS

NO SCALE

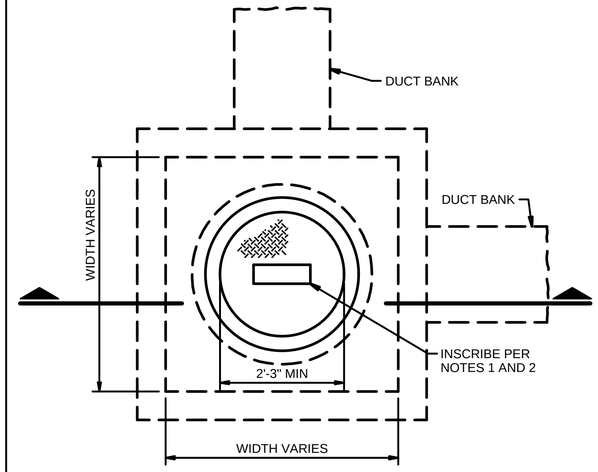


NOTES:

1. INSTALLATION OF DIRECT BURIAL DUCT BANKS WHICH INCLUDE ONE OR TWO CONDUITS OR DUCTS SHALL BE MADE IN ACCORDANCE WITH THIS DETAIL.
2. PROVIDE REINFORCED CONCRETE ENCASED DUCT BANK FOR PORTIONS UNDER ROADWAYS, DRIVEWAYS, AND PARKING AREAS. SEE DETAIL 5/02E503

2 TRENCH AND CONDUIT PLACEMENT

NO SCALE

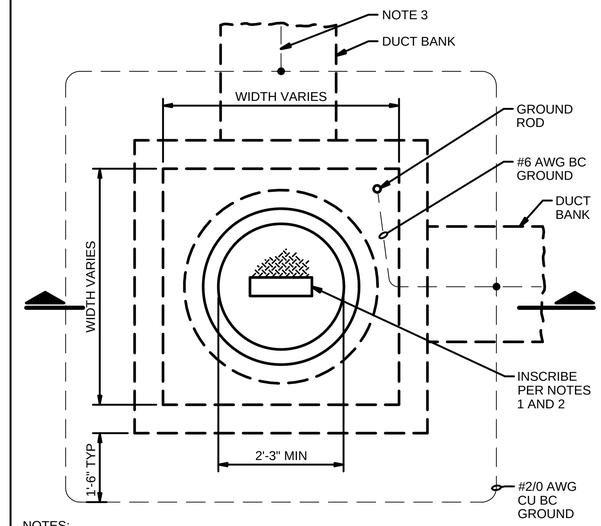


NOTES:

1. INSCRIBE "ELECTRICAL HIGH VOLTAGE" IF ANY CIRCUIT IN MANHOLE IS ABOVE 600V.
2. INSCRIBE "ELECTRICAL LOW VOLTAGE" IF ALL CIRCUITS IN MANHOLE ARE 600V OR LESS.

3 MANHOLE WITHOUT GROUNDING

NO SCALE

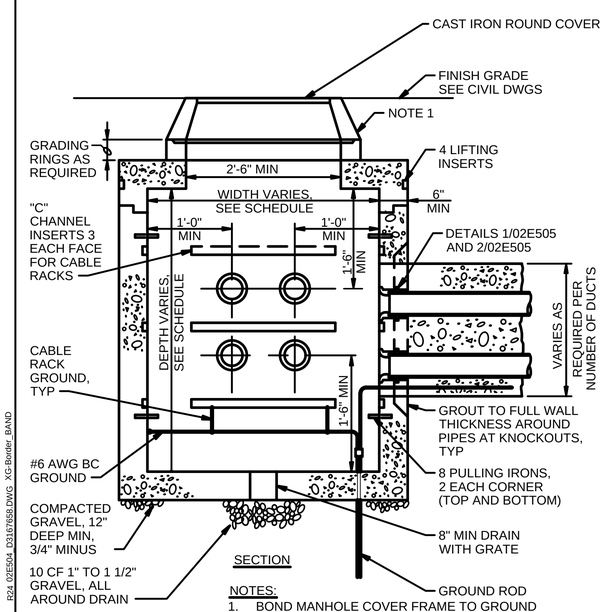


NOTES:

1. INSCRIBE "ELECTRICAL HIGH VOLTAGE" IF ANY CIRCUIT IN MANHOLE IS ABOVE 600V.
2. INSCRIBE "ELECTRICAL LOW VOLTAGE" IF ALL CIRCUITS IN MANHOLE ARE 600V OR LESS.
3. INSTALL #2/0 AWG BARE COPPER GROUND CENTERED ON TOP OF ALL DUCT RUNS.

4 MANHOLE WITH GROUNDING

NO SCALE

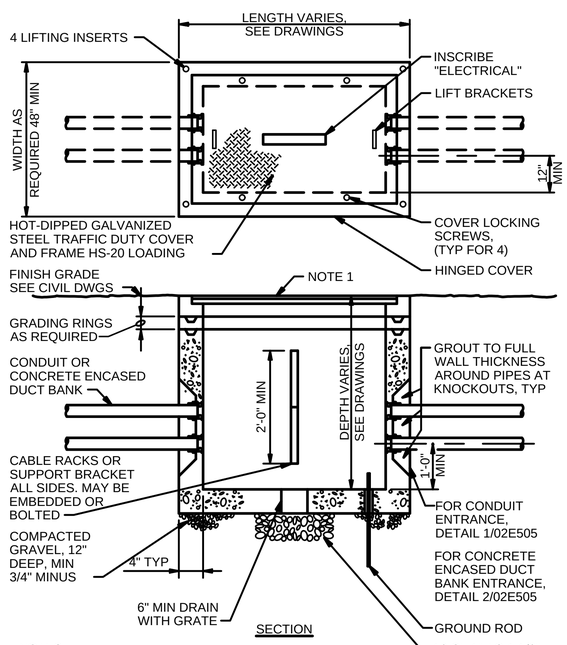


NOTES:

1. BOND MANHOLE COVER FRAME TO GROUND ROD WITH #6 AWG BARE COPPER CONDUCTOR.

5 MANHOLE WITH GROUNDING

NO SCALE



NOTES:

1. BOND MANHOLE COVER FRAME TO GROUND ROD WITH #6 AWG BARE COPPER CONDUCTOR.

6 HANDHOLE

NO SCALE

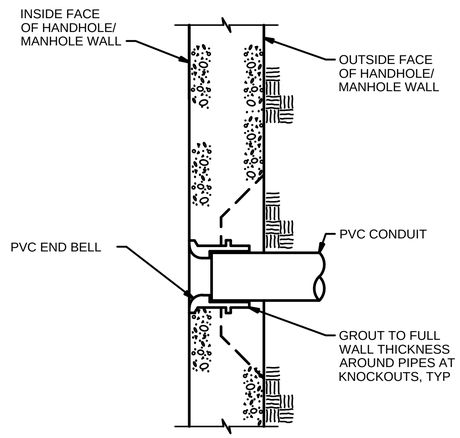
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:28:55-06'00'

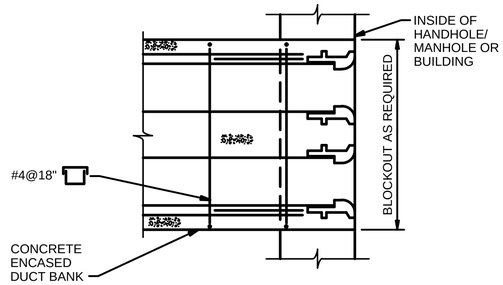
DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD A. CUGLIAT	02E504	ELECTRICAL ELECTRICALDETAILS	315
TECH. REVIEW: J LANDMAN			182751
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
			SHEET 129 OF 203

4/8/2025 12:00 PM lehsin1 R24 02E504_D3167658.DWG XG-Border_BAND



1 – CONDUIT MANHOLE/HANDHOLE ENTRANCE

NO SCALE

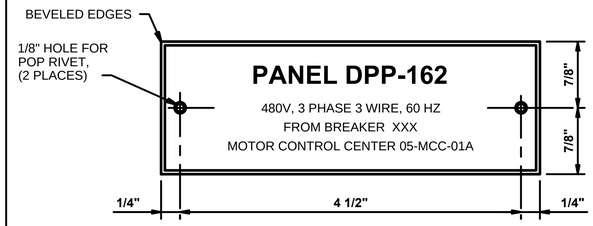


NOTES:

1. EXTEND REBAR A MINIMUM OF 2' BEYOND THE LIMIT OF EXCAVATION.

2 – CONDUIT MANHOLE/HANDHOLE ENTRANCE

NO SCALE



TOP ROW: 3/8 " LETTERS
OTHER ROWS: 1/8 " LETTERS
1/4 " SPACING BETWEEN FIRST 2 ROWS
1/8 " SPACING BETWEEN OTHER ROWS

COLOR SCHEDULE		
PANEL TYPE	BACKGROUND	LETTERING
208/120 VOLT, 60 HZ	WHITE	BLACK
480 VOLT, 60 HZ	WHITE	BLACK
EMERGENCY SERVICES	RED	BLACK

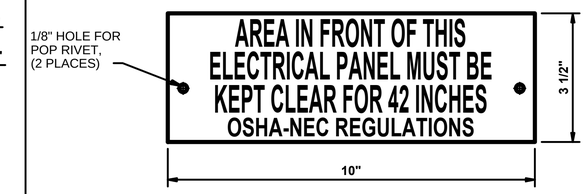
REQUIRED DATA

FIRST LINE: PANEL DESIGNATION
SECOND LINE: PHASE, VOLTAGE, FREQUENCY
THIRD AND FOURTH LINES: POWER SOURCE AND BREAKER

XXX = BASED ON FINAL DESIGN SHOP DRAWING

3 – PANELBOARD NAMEPLATE

NO SCALE



TOP 3 ROWS: 3/4 " LETTERS
BOTTOM ROW: 1/2 " LETTERS
BLACK LETTERING ON WHITE BACKGROUND

4 – OSHA/NEC PLACARD

NO SCALE

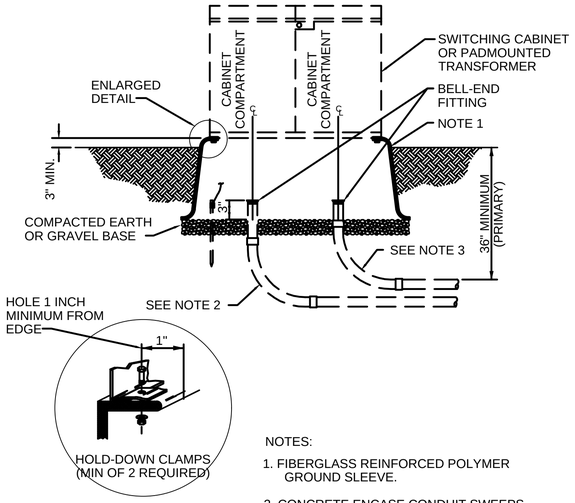
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:28:56-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET ELECTRICAL ELECTRICAL DETAILS	DRAWING NO. 315 182751
CADD A. CUGLIAT	02E505		PMIS/PKG NO. 266697
TECH. REVIEW: J LANDMAN			SHEET 130 OF 203
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	

4/8/2025 12:00 PM lehsin1 R24 02E505_D3167658.DWG XG:Border_BAND



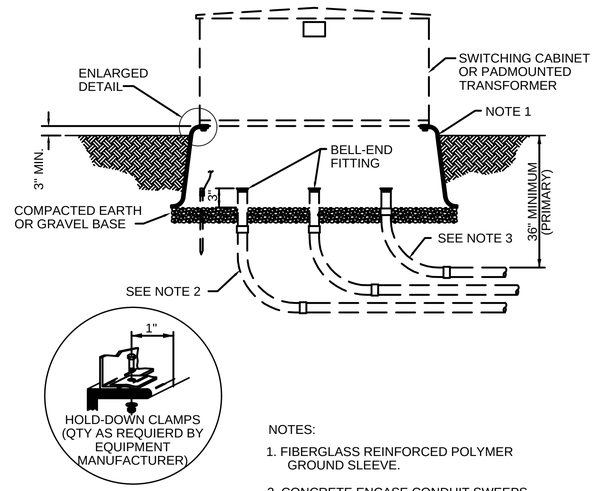
ENLARGED DETAIL

NOTES:

1. FIBERGLASS REINFORCED POLYMER GROUND SLEEVE.
2. CONCRETE ENCASE CONDUIT SWEEPS WHERE CONCRETE ENCASED DUCT BANK IS SHOWN.
3. REFER TO SITE PLANS FOR CONDUIT QUANTITY AND SIZES.

1 SINGLE PHASE EQUIPMENT FOUNDATION

NO SCALE



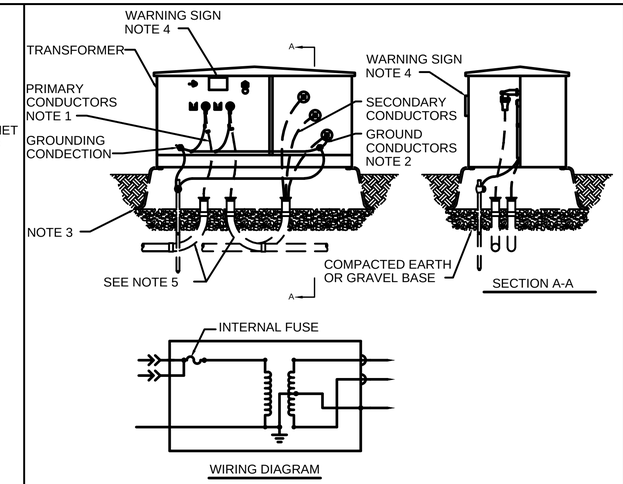
ENLARGED DETAIL

NOTES:

1. FIBERGLASS REINFORCED POLYMER GROUND SLEEVE.
2. CONCRETE ENCASE CONDUIT SWEEPS WHERE CONCRETE ENCASED DUCT BANK IS SHOWN.
3. REFER TO SITE PLANS FOR CONDUIT QUANTITY AND SIZES.

2 THREE PHASE EQUIPMENT FOUNDATION

NO SCALE



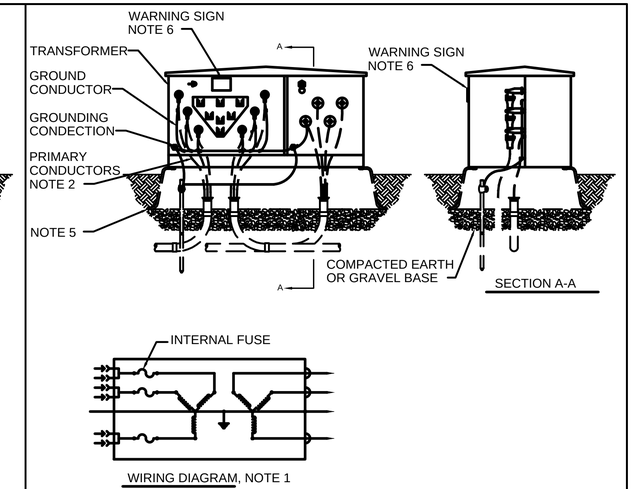
WIRING DIAGRAM

NOTES:

1. PROVIDE SUFFICIENT PRIMARY NEUTRAL PIGTAIL AND CABLE SLACK TO PERMIT READY DISCONNECTION OF ELBOW AND MOUNTING ON PARKING STAND.
2. SEE GROUNDING DETAIL 5/02E506.
3. SEE FOUNDATION DETAIL 1/02E506.
4. INSTALL SAFETY SIGNS ON TRANSFORMER INSIDE AND OUTSIDE ENCLOSURE ACCORDINGLY.
5. REFER TO SITE PLANS FOR CONDUIT QUANTITY AND SIZES.

3 SINGLE PHASE LOOP FEED TRANSFORMER

NO SCALE



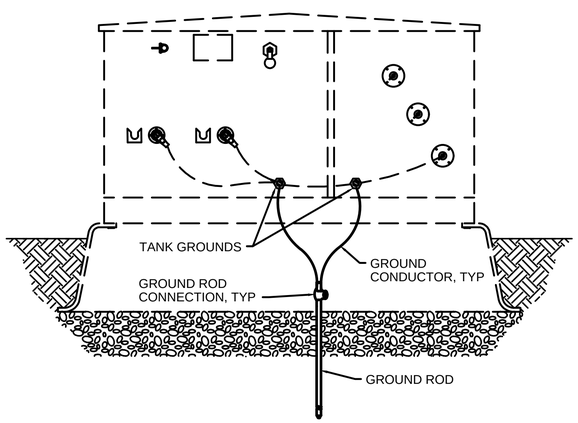
WIRING DIAGRAM, NOTE 1

NOTES:

1. USE WYE-WYE CONNEDCTION TO REDUCE FERRORESONANCE.
2. PROVIDE SUFFICIENT PRIMARY NEUTRAL PIGTAIL AND CABLE SLACK TO PERMIT READY DISCONNECTION OF ELBOW AND MOUNTING ON PARKING STAND.
3. SEE GROUNDING DETAIL 6/02E506.
4. REFER TO ONE-LINE DIAGRAM FOR TRANSFORMER KVA SIZES.
5. SEE FOUNDATION DETAIL 1/02E506.
6. NSTALL SAFETY SIGNS ON TRANSFORMER INSIDE AND OUTSIDE ENCLOSURE ACCORDINGLY.

4 THREE PHASE LOOP FEED TRANSFORMER

NO SCALE

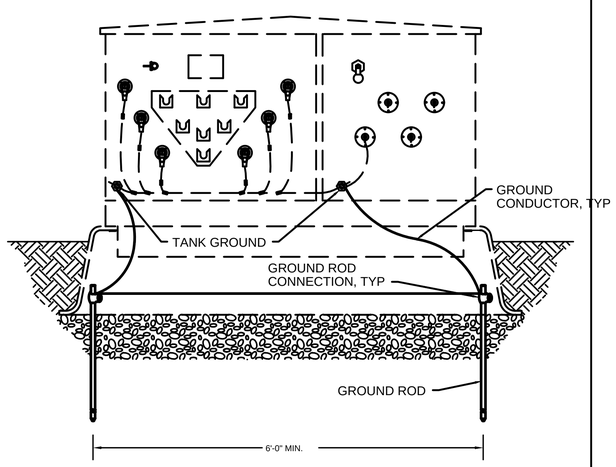


NOTES:

1. BOND CONCENTRIC NEUTRALS TOGETHER BEFORE TAP TO GROUND LOOP OR SIZE GROUND LOOP LARGE ENOUGH TO ASSURE SAME CONDUCTIVITY AS CABLE NEUTRAL.

5 SINGLE PHASE TRANSFORMER GROUNDING

NO SCALE



NOTES:

1. BOND CONCENTRIC NEUTRALS TOGETHER BEFORE TAP TO GROUND LOOP OR SIZE GROUND LOOP LARGE ENOUGH TO ASSURE SAME CONDUCTIVITY AS CABLE NEUTRAL.
2. MULTIPLE RODS MAY NOT FIT INSIDE ENCLOSURE. ONLY ONE ROD MUST BE INSTALLED INSIDE ENCLOSURE.

6 THREE PHASE TRANSFORMER GROUNDING

NO SCALE

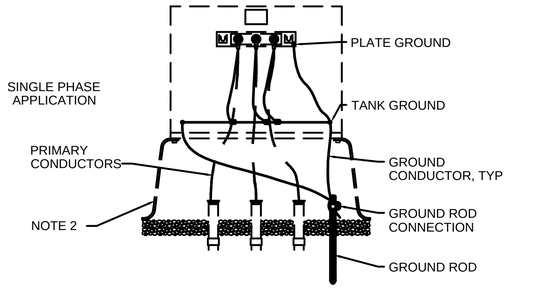
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

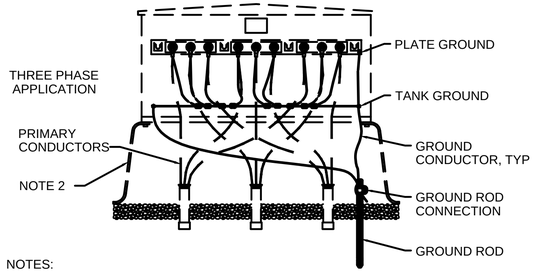
JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:28:56-06'00'

DESIGNED: J JAMES	SUB SHEET NO.	TITLE OF SHEET ELECTRICAL ELECTRICAL DETAILS	DRAWING NO. 315 182751
CADD A. CUGLIAT	02E506		PMIS/PKG NO. 266697
TECH. REVIEW: J LANDMAN			SHEET 131 OF 203
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	

4/8/2025 11:59 AM lehsm1 P24 02E506_D3167658.DWG XG:Border_BAND



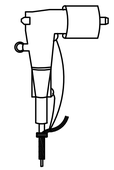


NOTES:

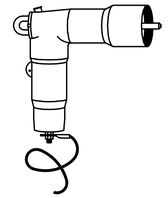
1. BOND CONCENTRIC NEUTRALS TOGETHER BEFORE TAP TO GROUND LOOP OR SIZE GROUND LOOP LARGE ENOUGH TO ASSURE SAME CONDUCTIVITY AS CABLE NEUTRAL.
2. SEE FOUNDATION DETAILS 1/02E506 & 2/02E506.
3. SEE ONE-LINE DIAGRAMS FOR CONNECTION QUANTITY.

1 – SECTIONALIZING ENCLOSURES

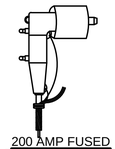
NO SCALE



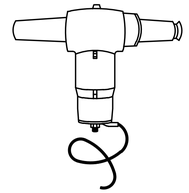
200 AMP LOAD BREAK ELBOW



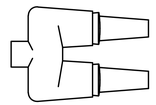
ELBOW ARRESTER



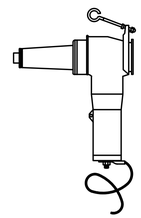
200 AMP FUSED LOAD BREAK ELBOW



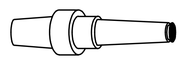
BUSHING ARRESTER



200 AMP LOAD BREAK FEED THROUGH INSERT



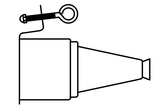
PARKING STAND ARRESTER



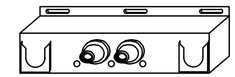
200 AMP LOAD BREAK INSERT

2 – MEDIUM VOLTAGE CONNECTORS

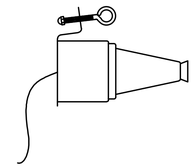
NO SCALE



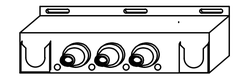
STAND-OFF INSULATOR



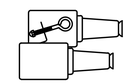
200A TWO-POINT LOAD BREAK TERMINATION



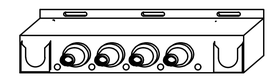
SINGLE-POINT GROUND



200A THREE-POINT LOAD BREAK TERMINATION



FEED THROUGH STAND-OFF INSULATOR



200A FOUR-POINT LOAD BREAK TERMINATION

3 – MEDIUM VOLTAGE CONNECTORS

NO SCALE

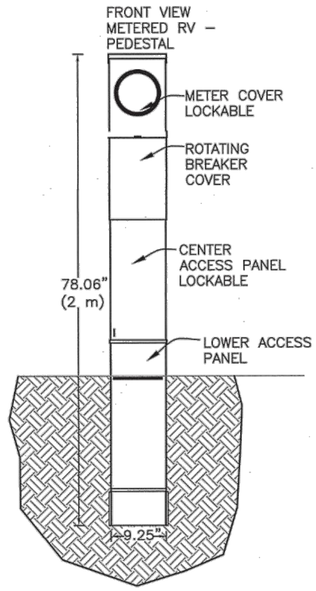
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

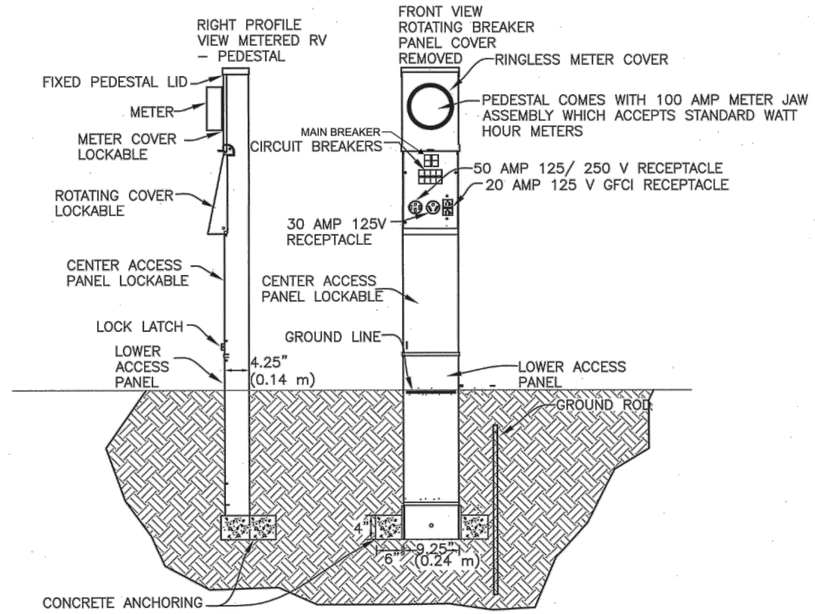
JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:28:57-06'00'

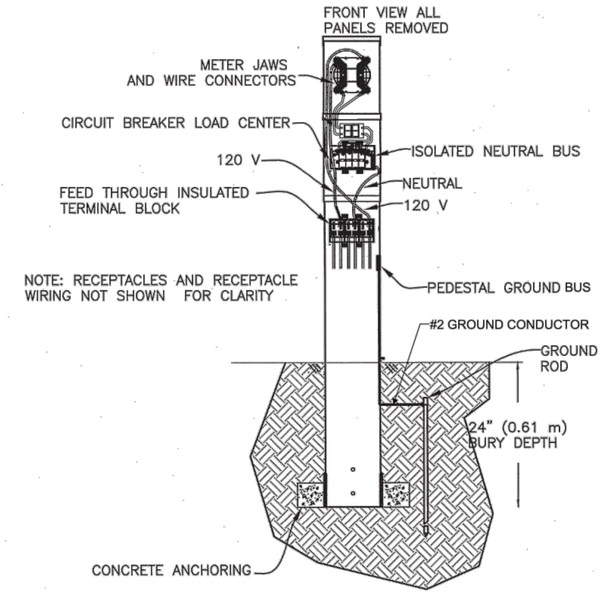
DESIGNED: J JAMES	SUB SHEET NO.	TITLE OF SHEET ELECTRICAL ELECTRICAL DETAILS	DRAWING NO. 315 182751
CADD A. CUGLIAT	02E507		PMIS/PKG NO. 266697
TECH. REVIEW: J LANDMAN			SHEET 132 OF 203
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	

4/8/2025 11:59 AM lehsm1 P24 02E507 D3167658.DWG XC-Border_BAND





FRONT AND SIDE VIEW
(DOOR AND COVER REMOVED)

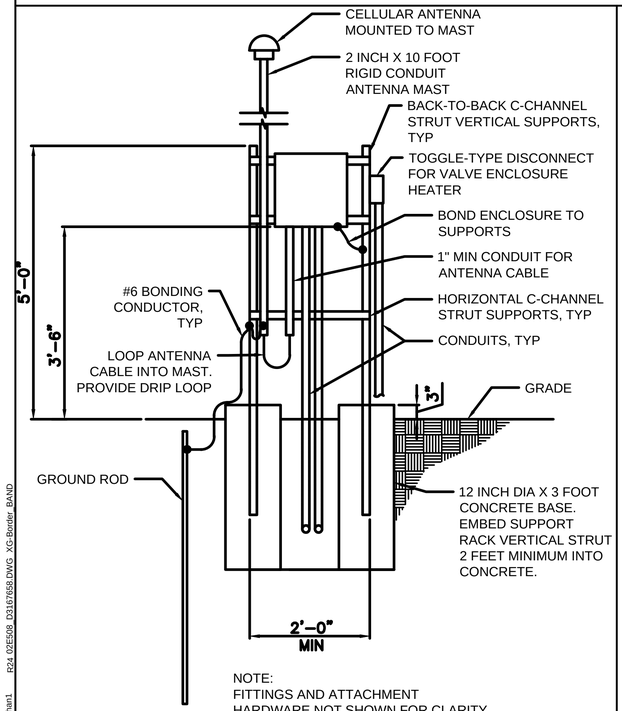


FRONT VIEW
(FRONT PANEL COVER REMOVED)

1. CONTRACTOR SHALL PROVIDE ALL NECESSARY HARDWARE, ACCESSORIES, AND APPURTENANCES FOR A COMPLETE INSTALLATION OF RV PEDESTAL. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS NECESSARY FOR A COMPLETE INSTALLATION.
2. METER, METER BASE, SOCKET SHALL BE PROVIDED AS PART OF THE RV PEDESTAL.

1 / – RV METER INSTALLATION DETAIL

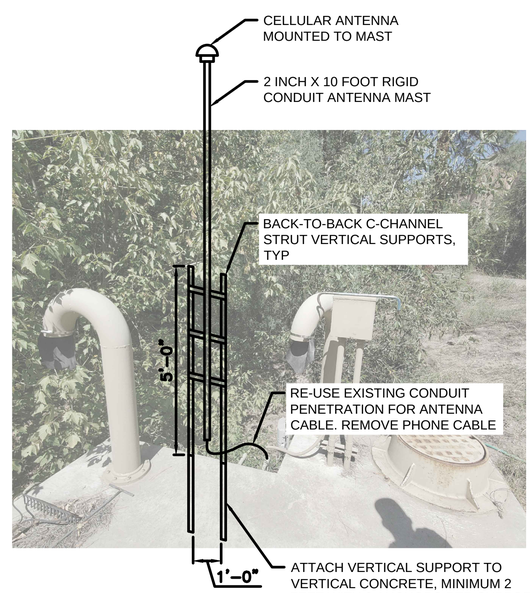
NO SCALE



NOTE:
FITTINGS AND ATTACHMENT
HARDWARE NOT SHOWN FOR CLARITY

2 / – FREE STANDING CELLULAR DIALER SUPPORT RACK

NO SCALE



NOTES:
1. FITTINGS AND ATTACHMENT HARDWARE NOT SHOWN FOR CLARITY.
2. PROVIDE LOCAL GROUND ROD WITH #6 BONDING CONDUCTOR TO ANTENNA MAST. PROVIDE #6 BONDING CONDUCTOR FROM ROD TO POWER PANEL INSIDE THE LIFT STATION PUMP ROOM.

3 / – MAIN LIFT STATION ANTENNA SUPPORT

NO SCALE

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER

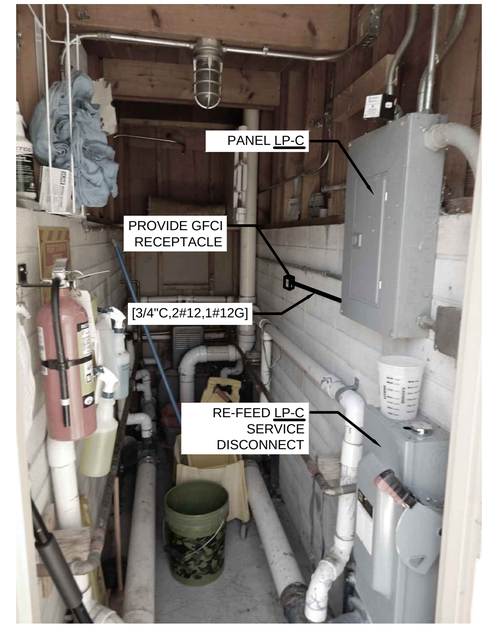
Digitally signed by Jonathan James
Date: 2025.04.11 12:28:58-06'00'

DESIGNED: J JAMES	SUB SHEET NO.	TITLE OF SHEET ELECTRICAL ELECTRICAL DETAILS	DRAWING NO. 315 182751
CADD A. CUGLIAT	02E508		PMIS/PKG NO. 266697
TECH. REVIEW: J LANDMAN			SHEET 133 OF 203
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	

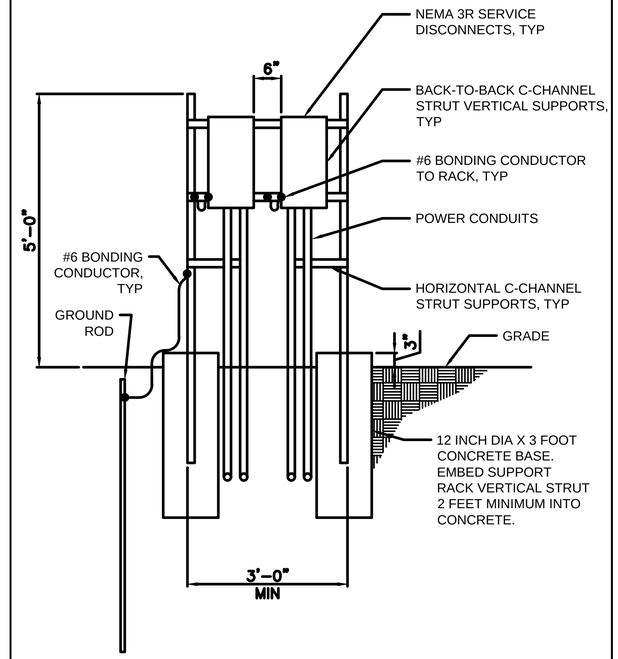
4/8/2025 11:57 AM ikhan1 R24 02E509_D3167658.DWG XG-Bandlr_BAND

1 – ABERT'S SQUIRREL
COMFORT STATION UTILITY ROOM
NO SCALE

2 – BLACK BEAR
COMFORT STATION UTILITY ROOM
NO SCALE



3 – COYOTE COMFORT STATION UTILITY ROOM
NO SCALE



4 – FREE STANDING DISCONNECT SUPPORT RACK
NO SCALE

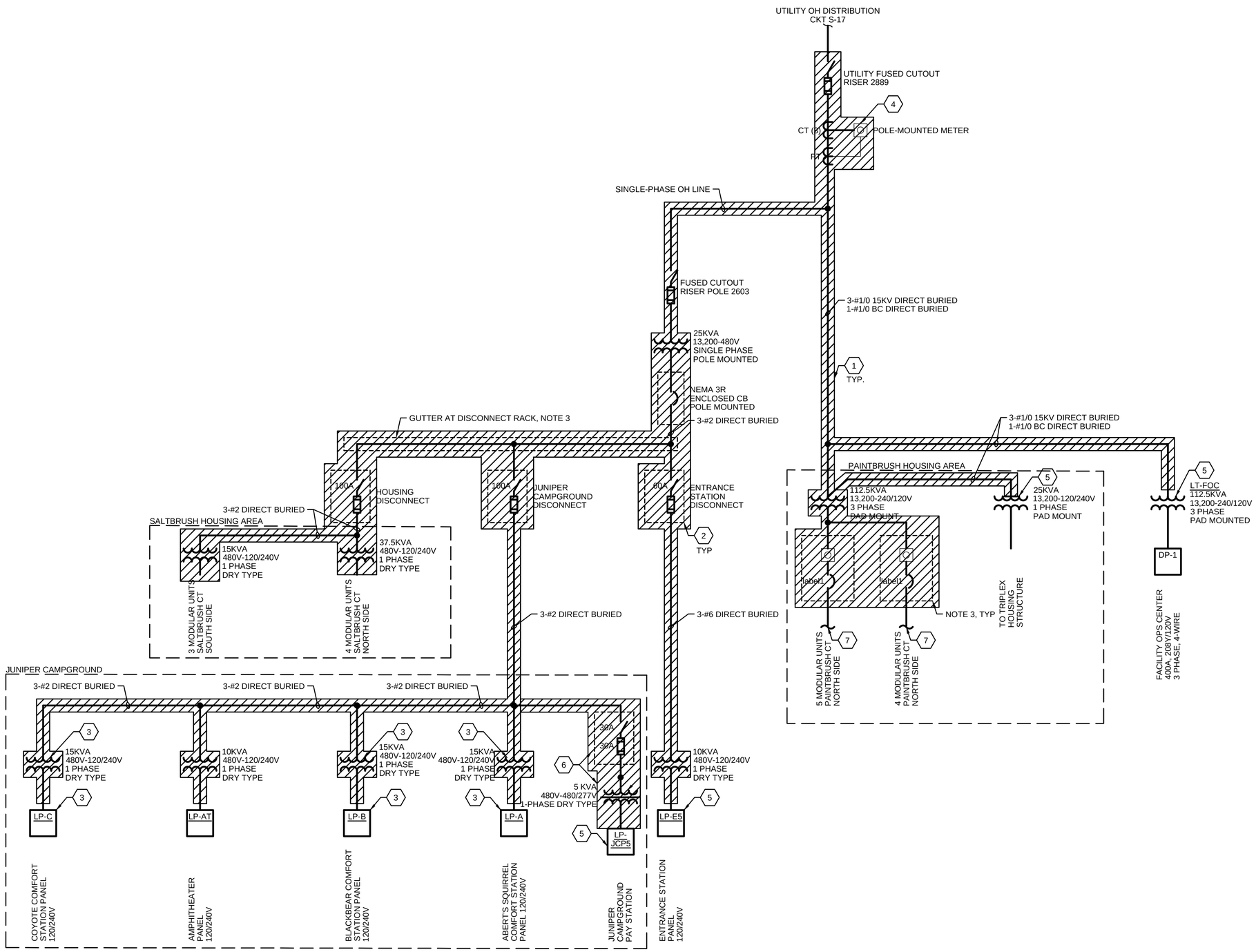
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:28:58-06'00'

DESIGNED: J JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD A. CUGLIAT	02E509	ELECTRICAL	315
TECH. REVIEW: J LANDMAN		ELECTRICAL DETAILS	182751
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
			SHEET 134 OF 203

4/8/2025 11:01 AM lehsm1 P24 02E509_D3167658.DWG XG-Border_BAND



GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.
3. INFORMATION PRESENTED IS BASED ON AVAILABLE RECORD DRAWINGS AND LIMITED, NON-INVASIVE FIELD OBSERVATIONS. VERIFY DATA BY QUALIFIED PERSONNEL.

SHEET KEYNOTES

1. DEMOLISH DIRECT BURIED CONDUCTOR IN AREAS WHERE NEW UTILITY INSTALLATION WILL OCCUR. ABANDON IN PLACE IN OTHER AREAS. CUT AND REMOVE DIRECT BURIED CONDUCTOR WHERE ACCESSIBLE IN HANDHOLES. COORDINATE WORK WITH CONTRACTING OFFICER.
2. DEMOLISH ABOVE GRADE ELECTRICAL EQUIPMENT.
3. DEMOLISH WALL MOUNTED TRANSFORMER IN COMFORT STATION UTILITY ROOM. PANEL TO BE RE-FED FROM NEW ELECTRICAL DISTRIBUTION PANEL.
4. COORDINATE REMOVAL OF UTILITY METER AND CUTOUTS WITH UTILITY ELECTRICAL DEPARTMENT.
5. REMOVE EXISTING TRANSFORMER AND SALVAGE FOR RE-USE. CONTRACTOR TO VERIFY PRIMARY VOLTAGE AND REUSE WHERE APPLICABLE IN THE NEW DISTRIBUTION SYSTEM.
6. DEMOLISH RACK MOUNTED DISCONNECT AND TRANSFORMER AT CAMPGROUND PAY STATION.
7. ABANDON IN PLACE DIRECT BURIED FEEDS TO INDIVIDUAL HOUSING UNITS.

MESA TOP AREA DEMOLITION ONE-LINE DIAGRAM

NTS

WORK SHOWN ON THIS DRAWING IS IN CLIN 0003

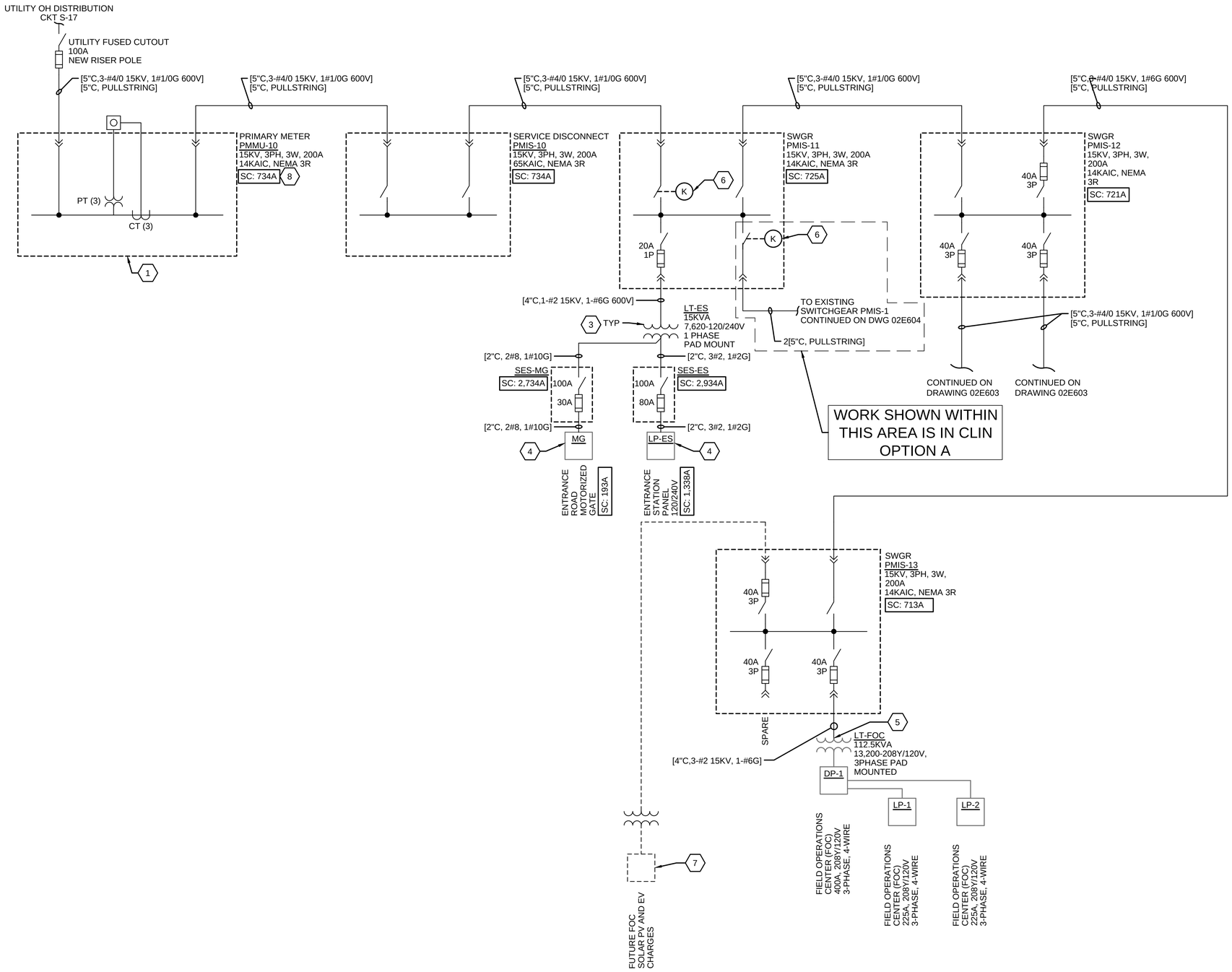
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:31:02-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E601	ELECTRICAL	315 / 182751
TECH. REVIEW: J. LANDMAN		MESA TOP DEMOLITION ONE-LINE DIAGRAM	PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 135 OF 203

3/25/2025 11:43 AM ACUGUAT R24 02E601_D3167540.DWG XG Border_BAND



GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.
3. INFORMATION PRESENTED IS BASED ON AVAILABLE RECORD DRAWINGS AND LIMITED, NON-INVASIVE FIELD OBSERVATIONS. VERIFY DATA BY QUALIFIED PERSONNEL.
4. INSTALLATION SHALL COMPLY WITH LOS ALAMOS COUNTY ELECTRICAL REQUIREMENTS, NATIONAL ELECTRICAL CODE (NFPA 70), AND NATIONAL ELECTRICAL SAFETY CODE (IEEE C2).

SHEET KEYNOTES

1. PAD MOUNT PRIMARY METERING CABINET SHALL BE PROVIDED IN ACCORDANCE WITH LAS ALAMOS COUNTY ELECTRICAL UTILITY.
2. 200A, 15KV PAD-MOUNT THREE-PHASE SECTIONALIZING CABINET WITH FUSED LOAD-BREAK ELBOWS.
3. PAD MOUNT TRANSFORMERS SHALL INCLUDE PRIMARY FUSES.
4. RE-FEED EXISTING LOW-VOLTAGE ELECTRICAL EQUIPMENT.
5. RE-FEED EXISTING PAD-MOUNT TRANSFORMER.
6. PROVIDE KEY INTERLOCK ON SWITCH. KEY TO MATCH NEW INTERLOCKS ON PMS-1 ON DRAWING 02E604 FOR MAIN-TIE-TIE MAIN CONFIGURATION.
7. FUTURE CONDUIT, FEEDERS, EQUIPMENT, AND SERVICES IS NOT IN SCOPE.
8. CALCULATED SHORT CIRCUIT FAULT CURRENTS SHOWN ARE BASED ON EQUIPMENT AND CONDUCTORS SHOWN. CONTRACTOR TO PROVIDE FINAL SHORT CIRCUIT FAULT CURRENT CALCULATIONS PER SPECIFICATION 26 05 70.

MESA TOP AREA PRIMARY DISTRIBUTION ONE-LINE DIAGRAM 1

NTS

WORK SHOWN ON THIS DRAWING IS IN CLIN 0003 EXCEPT AS NOTED

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES
NEW MEXICO
18614
PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:31:03-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 315
CADD I. KHAN	02E602	ELECTRICAL MESA TOP PRIMARY DISTRIBUTION ONE-LINE DIAGRAM 1 BANDELIER NATIONAL MONUMENT	182751
TECH. REVIEW: J. LANDMAN			PMIS/PKG NO. 266697
DATE: 04/11/2025			SHEET 136 OF 203

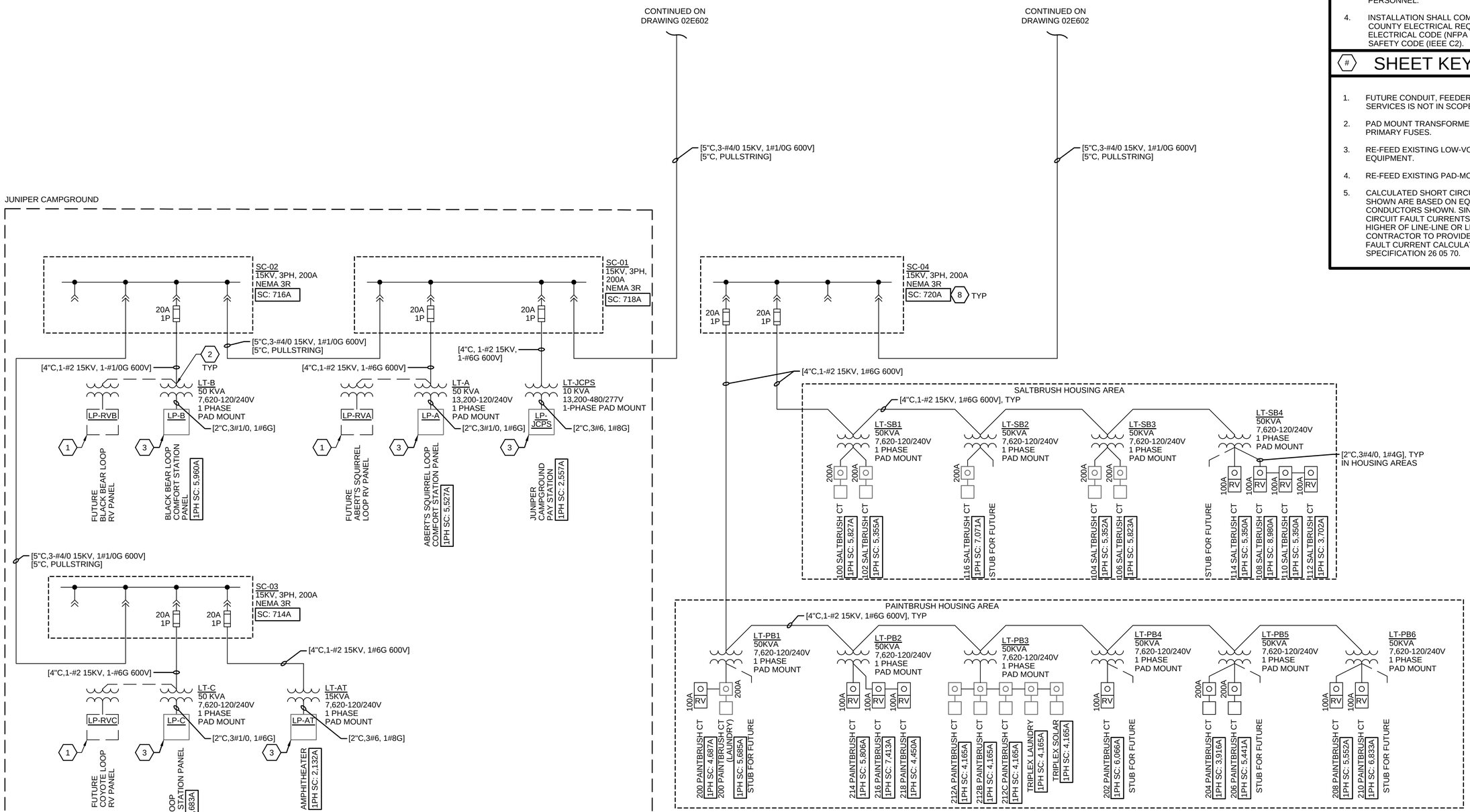
3/25/2025 11:45 AM ACUGLIAT R24 02E602_D3167640.DWG XG-Border_BAND

GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGENDS, NOTES, AND ABBREVIATIONS.
3. INFORMATION PRESENTED IS BASED ON AVAILABLE RECORD DRAWINGS AND LIMITED, NON-INVASIVE FIELD OBSERVATIONS. VERIFY DATA BY QUALIFIED PERSONNEL.
4. INSTALLATION SHALL COMPLY WITH LOS ALAMOS COUNTY ELECTRICAL REQUIREMENTS, NATIONAL ELECTRICAL CODE (NFPA 70), AND NATIONAL ELECTRICAL SAFETY CODE (IEEE C2).

SHEET KEYNOTES

1. FUTURE CONDUIT, FEEDERS, EQUIPMENT, AND SERVICES IS NOT IN SCOPE.
2. PAD MOUNT TRANSFORMERS SHALL INCLUDE PRIMARY FUSES.
3. RE-FEED EXISTING LOW-VOLTAGE ELECTRICAL EQUIPMENT.
4. RE-FEED EXISTING PAD-MOUNT TRANSFORMER.
5. CALCULATED SHORT CIRCUIT FAULT CURRENTS SHOWN ARE BASED ON EQUIPMENT AND CONDUCTORS SHOWN. SINGLE PHASE SHORT CIRCUIT FAULT CURRENTS SHOWN ARE THE HIGHER OF LINE-LINE OR LINE-GROUND FAULTS. CONTRACTOR TO PROVIDE FINAL SHORT CIRCUIT FAULT CURRENT CALCULATIONS PER SPECIFICATION 26 05 70.



MESA TOP AREA
PRIMARY DISTRIBUTION ONE-LINE DIAGRAM 2

NTS

WORK SHOWN ON THIS DRAWING IS IN CLIN 0003

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:31:04-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E603	ELECTRICAL MESA TOP PRIMARY DISTRIBUTION ONE-LINE DIAGRAM 2	315 182751
TECH. REVIEW: J. LANDMAN		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
DATE: 04/11/2025			SHEET 137 OF 203

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

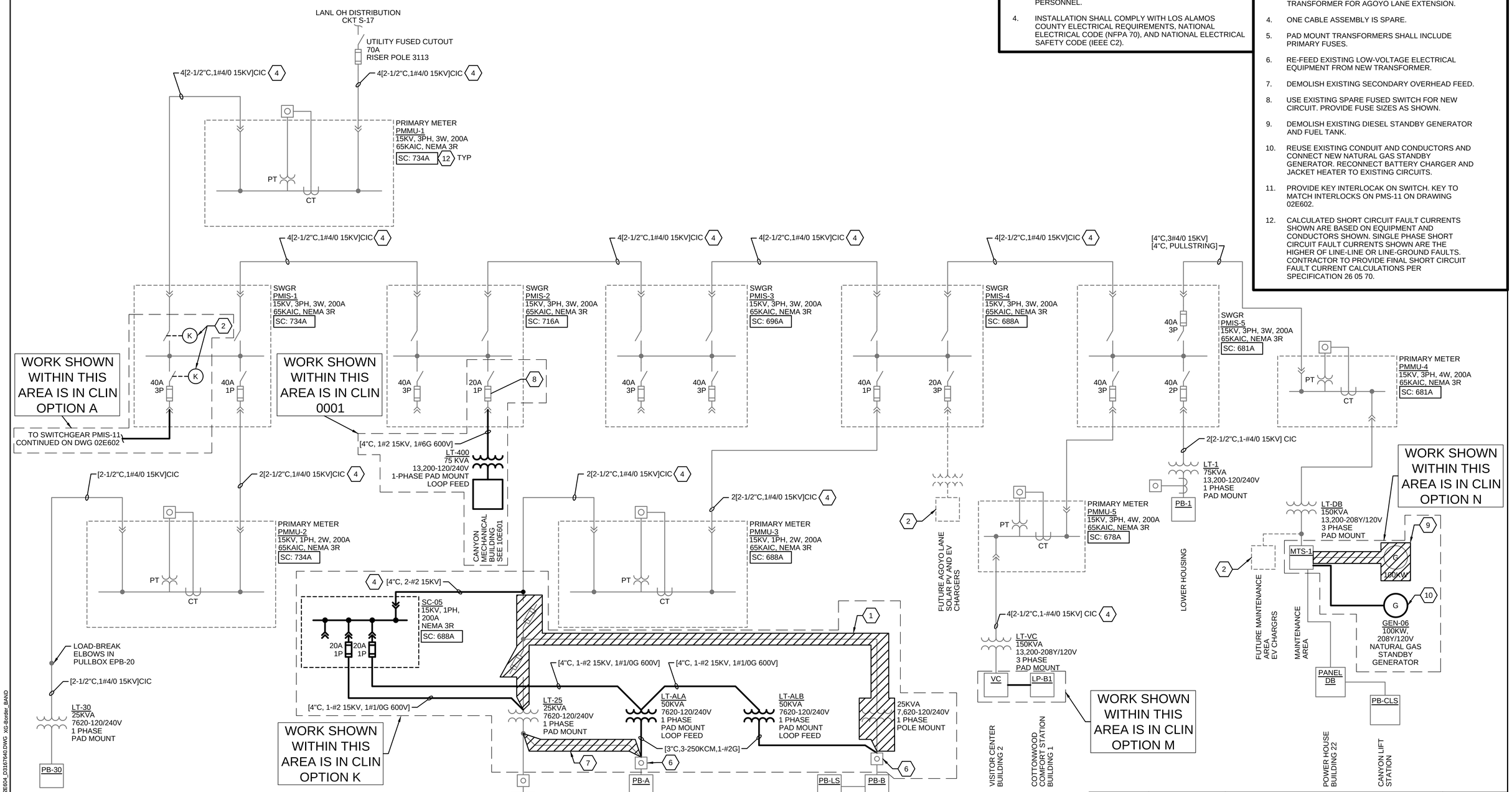
3/25/2025 11:49 AM ACUGLAT R24 02E603_D3167540.DWG XG-Border_BAND

GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR CONSTRUCTION PHASING AND UTILITY CORRIDOR COORDINATION.
2. REFER TO GENERAL DRAWINGS FOR LEGEND, NOTES AND ABBREVIATIONS.
3. INFORMATION PRESENTED IS BASED ON AVAILABLE RECORD DRAWINGS AND LIMITED, NON-INVASIVE FIELD OBSERVATIONS. VERIFY DATA BY QUALIFIED PERSONNEL.
4. INSTALLATION SHALL COMPLY WITH LOS ALAMOS COUNTY ELECTRICAL REQUIREMENTS, NATIONAL ELECTRICAL CODE (NFPA 70), AND NATIONAL ELECTRICAL SAFETY CODE (IEEE C2).

SHEET KEYNOTES

1. DEMOLISH OVERHEAD PRIMARY SINGLE-PHASE FEED AND TRANSFORMER. REMOVE WOOD POLES AS NOTED ON PLAN DRAWINGS.
2. FUTURE CONDUIT, FEEDERS, EQUIPMENT, AND SERVICES IS NOT IN SCOPE.
3. INTERCEPT PRIMARY FEED NEAR PAD-MOUNT TRANSFORMER FOR AGOYO LANE EXTENSION.
4. ONE CABLE ASSEMBLY IS SPARE.
5. PAD MOUNT TRANSFORMERS SHALL INCLUDE PRIMARY FUSES.
6. RE-FEED EXISTING LOW-VOLTAGE ELECTRICAL EQUIPMENT FROM NEW TRANSFORMER.
7. DEMOLISH EXISTING SECONDARY OVERHEAD FEED.
8. USE EXISTING SPARE FUSED SWITCH FOR NEW CIRCUIT. PROVIDE FUSE SIZES AS SHOWN.
9. DEMOLISH EXISTING DIESEL STANDBY GENERATOR AND FUEL TANK.
10. REUSE EXISTING CONDUIT AND CONDUCTORS AND CONNECT NEW NATURAL GAS STANDBY GENERATOR. RECONNECT BATTERY CHARGER AND JACKET HEATER TO EXISTING CIRCUITS.
11. PROVIDE KEY INTERLOCAK ON SWITCH. KEY TO MATCH INTERLOCKS ON PMS-11 ON DRAWING 02E602.
12. CALCULATED SHORT CIRCUIT FAULT CURRENTS SHOWN ARE BASED ON EQUIPMENT AND CONDUCTORS SHOWN. SINGLE PHASE SHORT CIRCUIT FAULT CURRENTS SHOWN ARE THE HIGHER OF LINE-LINE OR LINE-GROUND FAULTS. CONTRACTOR TO PROVIDE FINAL SHORT CIRCUIT FAULT CURRENT CALCULATIONS PER SPECIFICATION 26 05 70.



FRIJOLES CANYON
PRIMARY DISTRIBUTION ONE-LINE DIAGRAM

NTS

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER

Digitally signed by Jonathan James
Date: 2025.04.11 12:31:05-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 315 182751
CADD I. KHAN	02E604	ELECTRICAL CANYON PRIMARY DISTRIBUTION ONE-LINE DIAGRAM BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
TECH. REVIEW: J. LANDMAN			SHEET 138 OF 203
DATE: 04/11/2025			

3/25/2025 11:50 AM ACUGLIAT R24 02E604_D3167640.DWG XG-Border_BANID

PANEL NAME: LP-A
SERVICE VOLTAGE: 120/240
TOTAL LOAD KVA: 20.7
ENCLOSURE TYPE: NEMA 1
REMARKS: EXISTING PANEL

LOCATION: ABERT'S SQUIRREL COMFORT STATION
PHASE: 1 WIRE: 3 SCCR: 10,000
BUS SIZE: 100A MAIN SIZE: 100A TYPE: BRKR
NEUTRAL: FULL MOUNTING: FLUSH
SOURCE: LT-A

LOAD IN VA A	LOAD IN VA B	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN VA A	LOAD IN VA B	
1500		RADIENT HEAT WOMENS RR	20/2	1	2	20/2	CHASE (UTILITY ROOM) HEATER	1500		
	1500			3	4				1500	
1500		RADIENT HEAT MENS RR	20/2	5	6	30/2	CAMPGROUND HOST #1 SITE	1800		
	1500			7	8				1800	
250		EXT LIGHTS, RR LIGHTS	20/1	9	10	20/1	WATER HEATER	1500		
	1180	MENS RR RCPT & HAND DRYER	20/1	11	12	20/1	CHASE LIGHTS & RCPTS		280	
1180		WOMENS RR RCPT & HAND DRYER	20/1	13	14	**20/1**	**LCP-300 CELLULAR DIALER**	**100**		**NOTE 1**
	1800	**CAMPGROUND HOST #2**	**50/2**	15	16		SPACE			**NOTE 2**
1800				17	18		SPACE			
		SPACE		19	20		SPACE			
		SPACE		21	22		SPACE			
		SPACE		23	24		SPACE			
6230	5980	TOTALS						4900	3580	

PANEL NOTES:
1. USE EXISTING SPARE BREAKER FOR NEW CIRCUIT.
2. PROVIDE NEW CIRCUIT BREAKER.

PANEL LOAD CALCULATION

ACTUAL	DEMAND	DEMAND			PHASE A	PHASE B	
			NON-CONTINUOUS LOADS	PHASE LOADING	11130	9560	
540	1.00	540	RECEPTACLES		MIN	ACTUAL	STATUS
12500	1.00	12500	APPLIANCES	PANEL FEEDER AMPACITY	87	95	OK
7200	1.00	7200	OTHER (HOST RVS)	MAIN/UPSTREAM OC DEVICE	87	100	OK
20240	-	**20240**	SUBTOTAL	NOTES:			
			CONTINUOUS LOADS				
350	1.25	438	GENERAL LIGHTING				
100	1.25	125	CONTROL PANELS				
450	-	**563**	SUBTOTAL				
			MOTOR LOADS				
0	1.25	0	LARGEST MOTOR				
0	1.00	0	REMAINING MOTORS				
0	-	**0**	SUBTOTAL				
			TOTAL LOADS				
20690	-	**20803**	VA				
86	-	**87**	AMPS				

PANEL NAME: PB-25
SERVICE VOLTAGE: 120/240
TOTAL LOAD KVA: 17.4
ENCLOSURE TYPE: NEMA 3R
REMARKS: EXISTING PANEL, INTEGRAL METER

LOCATION: BUILDING 25 (STABLES)
PHASE: 1 WIRE: 3 SCCR: 10,000
BUS SIZE: 150A MAIN SIZE: 100A TYPE: BRKR
NEUTRAL: FULL MOUNTING: SURFACE
SOURCE: LT-25

LOAD IN VA A	LOAD IN VA B	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	
500		UNLABELED CIRCUIT	20/1	1	
	500	UNLABELED CIRCUIT	20/1	2	
250		LIGHTS	20/1	3	
	2500	UNLABELED CIRCUIT	70/2	4	
2500				5	
	500	UNLABELED CIRCUIT	20/1	6	
500		UNLABELED CIRCUIT	20/1	7	
	500	C&C CONTROL	15/2	8	
500				9	
	4000	UNLABELED CIRCUIT	100/3	10	
4000				11	
		UNUSABLE		12	
100		**LCP-420 CELLULAR DIALER**	**20/1**	13	**NOTE 1**
	1000	**PRV/PCV ENCLOSURE HEATER**	**20/1**	14	**NOTE 1**
		SPACE		15	
		SPACE		16	
8350	9000	TOTALS			

PANEL NOTES:
1. PROVIDE NEW SINGLE-POLE GFCI CIRCUIT BREAKER

PANEL LOAD CALCULATION

ACTUAL VA	DEMAND	DEMAND			PHASE A	PHASE B	
			NON-CONTINUOUS LOADS	PHASE LOADING	8350	9000	
0	1.00	0	RECEPTACLES		MIN	ACTUAL	STATUS
0	1.00	0	APPLIANCES	PANEL FEEDER AMPACITY	70	95	OK
15000	1.00	15000	OTHER	MAIN/UPSTREAM OC DEVICE	87	100	OK
15000	-	**15000**	SUBTOTAL	NOTES:			
			CONTINUOUS LOADS	EXISTING CIRCUIT LOADS ESTIMATED BASED ON CIRCUIT SIZE.			
250	1.25	313	GENERAL LIGHTING				
1100	1.25	1375	CONTROL PANELS				
1350	-	**1688**	SUBTOTAL				
			MOTOR LOADS				
0	1.25	0	LARGEST MOTOR				
0	1.00	0	REMAINING MOTORS				
0	-	**0**	SUBTOTAL				
			TOTAL LOADS				
16350	-	**16688**	VA				
68	-	**70**	AMPS				

PANEL NAME: PB-CLS
SERVICE VOLTAGE: 208/120V
TOTAL LOAD KVA: 38.4
ENCLOSURE TYPE: NEMA 3R
REMARKS: EXISTING

LOCATION: CANYON LIFT STATION PUMP ROOM
PHASE: 3 WIRE: 3 SCCR: 10,000A
BUS SIZE: 225A MAIN SIZE: N/A TYPE: MLO
NEUTRAL: FULL MOUNTING: SURFACE
SOURCE: DB (200A BKR) IN BLDG 22

LOAD IN VA A	LOAD IN VA B	LOAD IN VA C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN VA A	LOAD IN VA B	LOAD IN VA C	
			SPACE	-	1	2	-	SPACE				
			SPACE	-	3	4	-	SPACE				
			SPACE	-	5	6	-	SPACE				
11024			LIFT PUMPS & GRINDERS PANEL	100/3	7	8	20/1	LTS & RCPTS	700			
	11024				9	10	20/1	BLOWER		667		
		11024			11	12	20/1	**LCP-210 CELLULAR DIALER**			**100**	**NOTE 1**
1273			BLENDER	20/3	13	14	-	SPACE				
	1273				15	16	-	SPACE				
		1273			17	18	-	SPACE				
			SPACE	-	19	20	-	SPACE				
12297	12297	12297	SUBTOTAL						700	667	100	

PANEL NOTES:
1. USE SPARE CIRCUIT BREAKER.

PANEL LOAD CALCULATION

ACTUAL VA	DEMAND	DEMAND			PHASE A	PHASE B	PHASE C	
			NON-CONTINUOUS LOADS	PHASE LOADING	12997	12964	12397	
540	1.00	540	RECEPTACLES		MIN	ACTUAL	STATUS	
0	1.00	0	APPLIANCES	FEEDER AMPACITY	116	200	OK	
0	1.00	0	OTHER	MAIN/UPSTREAM OC DEVICE	145	200	OK	
540	-	**540**	SUBTOTAL	NOTES:				
			CONTINUOUS LOADS					
160	1.25	200	GENERAL LIGHTING					
100	1.25	125	CONTROL PANELS					
260	-	**325**	SUBTOTAL					
			MOTOR LOADS					
13474	1.25	16843	LARGEST MOTOR					
24084	1.00	24084	REMAINING MOTORS					
37558	-	**40927**	SUBTOTAL					
			TOTAL LOADS					
38358	-	**41792**	VA					
106	-	**116**	AMPS					

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:32:43-06'00'

DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD I. KHAN	02E610	ELECTRICAL	315 / 182751
TECH. REVIEW: J. LANDMAN		SITE PANEL SCHEDULES BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
DATE: 04/11/2025			SHEET 139 OF 203

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

3/25/2025 11:51 AM ACUGLIAT R24 02E610_D3167640.DWG XG-Border_BAND

PANEL NAME: LP-C
SERVICE VOLTAGE: 120/240
TOTAL LOAD KVA: 15.1
ENCLOSURE TYPE: 1
REMARKS: EXISTING

LOCATION: COYOTE COMFORT STATION
PHASE: 1 WIRE: 3 SCCR: 10,000
BUS SIZE: 100A MAIN SIZE: MLO TYPE: BRKR
NEUTRAL: FULL MOUNTING: SURFACE
SOURCE: LT-C VIA 100A FUSED SWIT

	LOAD IN VA			BKR	CK	CK	BKR		LOAD IN VA	
	A	B	CIRCUIT DESCRIPTION	A/P	NO.	NO.	A/P	CIRCUIT DESCRIPTION	A	B
	125		LIGHTS	20/1	1	2	20/1	EXTERIOR LIGHTS	100	
		180	MENS RR GFCI RCPT	20/1	3	4	30/2	LIFT STATION		2500
	1000		MENS DRYER	20/1	5	6			2500	
		180	WOMENS RR GFCI	20/1	7	8	20/1	LIGHTS		125
	1000		WOMENS DRYER	20/1	9	10	20/1	CHASE LIGHT & RCPT	280	
		1500	RADIANT HEATER WOMENS RR	20/2	11	12	20/2	RADIANT HEATER MENS RR		1500
	1500				13	14			1500	
NOTE 1		**1092**	**PRESSURE BOOSTER RCPT**	**20/1**	15	16		SPACE		
			SPACE		17	18		SPACE		
			SPACE		19	20		SPACE		
			SPACE		21	22		SPACE		
			SPACE		23	24		SPACE		
			SPACE		25	26		SPACE		
			SPACE		27	28		SPACE		
			SPACE		29	30		SPACE		
	3625	2952	TOTALS						4380	4125

PANEL NOTES:
1. PROVIDE NEW CIRCUIT BREAKER.

PANEL LOAD CALCULATION

ACTUAL VA	DEMAND	DEMAND			PHASE A	PHASE B	
			NON-CONTINUOUS LOADS	**PHASE LOADING**	8005	7077	
540	1.00	540	RECEPTACLES		**MIN**	**ACTUAL**	**STATUS**
8000	1.00	8000	APPLIANCES	**PANEL FEEDER AMPACITY**	**66**	**95**	**OK**
0	1.00	0	OTHER	**MAIN/UPSTREAM OC DEVICE**	**83**	**100**	**OK**
8540	**-**	**8540**	**SUBTOTAL**	NOTES:			
			CONTINUOUS LOADS				
450	1.25	563	GENERAL LIGHTING				
400	1.25	500	CONTROL PANELS				
850	**-**	**1063**	**SUBTOTAL**				
			MOTOR LOADS				
2300	1.25	2875	LARGEST MOTOR				
3392	1.00	3392	REMAINING MOTORS				
5692	**-**	**6267**	**SUBTOTAL**				
			TOTAL LOADS				
15082	**-**	**15870**	**VA**				
63	**-**	**66**	**AMPS**				

PANEL NAME: LP-2
SERVICE VOLTAGE: 208/120V
TOTAL LOAD KVA: 45.5
ENCLOSURE TYPE: NEMA 3R
REMARKS: EXISTING

LOCATION: FOC MECH ROOM
PHASE: 3 WIRE: 4 SCCR: 10,000
BUS SIZE: 225A MAIN SIZE: N/A TYPE: MLO
NEUTRAL: FULL MOUNTING: SURFACE
SOURCE: DP-1 (200A)

	LOAD IN VA			BKR	CK	CK	BKR		LOAD IN VA			
	A	B	C	CIRCUIT DESCRIPTION	A/P	NO.	NO.	A/P	CIRCUIT DESCRIPTION	A	B	C	
	100			LTS - MECH RM	20/1	1	2	20/1	MECH RM HEATER	1000			
		540		RCPT - WORKOUT RM E & S	20/1	3	4	20/1	RCPT - MECH RM		540		
			540	RCPT - WORKOUT RM N	20/1	5	6	20/1	**NIP-101 NETWORK PANEL**			**100**	**NOTE 1**
	1200			STORAGE RM GARAGE DOOR	20/1	7	8	20/1	SPARE				
		540		RCPT - STORAGE RM	20/1	9	10	20/1	RECEIVING		1440		
			180	RCPT BATHROOM	20/1	11	12	20/1	RECEIVING			1440	
	500			UNLABELED CIRCUIT	20/1	13	14	20/1	CONCESSIONS	1440			
		500		LTS - BATH, HALL, WORKOUT	20/1	15	16	20/1	CONCESSIONS		1440		
			500	LTS - STORAGE	20/1	17	18	30/2	WATER HEATER			2000	
	1000			TREADMILL	20/1	19	20			2000			
		1500		STORAGE RM HEATER	20/2	21	22	-	SPACE				
			1500			23	24	-	SPACE				
	1500			WORKOUT RM HEATER	20/2	25	26	-	SPACE				
		1500				27	28	-	SPACE				
				SPACE	-	29	30	125/6	GARAGE BAY PANEL			3750	
				SPACE	-	31	32			3750			
				SPACE	-	33	34				3750		
				SPACE	-	35	36					3750	
				SPACE	-	37	38			3750			
				SPACE	-	39	40				3750		
				SPACE	-	41	42	-	UNUSABLE				
	4300	4580	2720	SUBTOTAL						11940	10920	11040	

PANEL NOTES:
1. USE EXISTING SPARE BREAKER FOR NEW CIRCUIT.

PANEL LOAD CALCULATION

ACTUAL VA	DEMAND	DEMAND			PHASE A	PHASE B	PHASE C
			NON-CONTINUOUS LOADS	**PHASE LOADING**	16240	15500	13760
10600	1.00	10600	RECEPTACLES		**MIN**	**ACTUAL**	**STATUS**
11200	1.00	11200	APPLIANCES	**FEEDER AMPACITY**	**127**	**200**	**OK**
22500	1.00	22500	OTHER	**MAIN/UPSTREAM OC DEVICE**	**159**	**200**	**OK**
44300	**-**	**44300**	**SUBTOTAL**	NOTES:			
			CONTINUOUS LOADS	EXISTING CIRCUIT LOADS BASED ON BREAKER SIZE AND TYPICAL			
1100	1.25	1375	GENERAL LIGHTING				
100	1.25	125	CONTROL PANELS				
1200	**-**	**1500**	**SUBTOTAL**				
			MOTOR LOADS				
0	1.25	0	LARGEST MOTOR				
0	1.00	0	REMAINING MOTORS				
0	**-**	**0**	**SUBTOTAL**				
			TOTAL LOADS				
45500	**-**	**45800**	**VA**				
126	**-**	**127**	**AMPS**				

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JONATHAN B. JAMES NEW MEXICO 18614 PROFESSIONAL ENGINEER
Digitally signed by Jonathan James
Date: 2025.04.11 12:32:42-06'00'

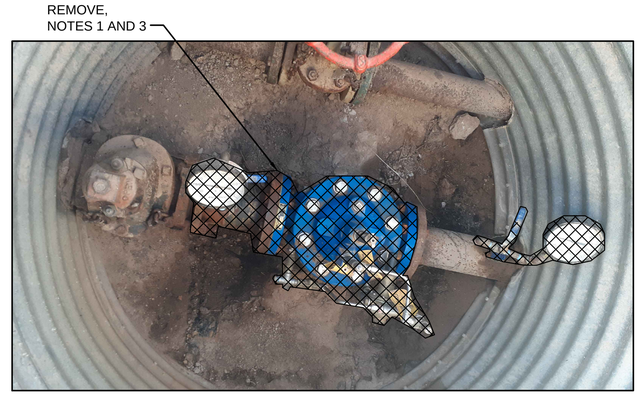
DESIGNED: J. JAMES	SUB SHEET NO.	TITLE OF SHEET ELECTRICAL	DRAWING NO. 315 182751
CADD I. KHAN	02E611	SITE PANEL SCHEDULES BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
TECH. REVIEW: J. LANDMAN			SHEET 140 OF 203
DATE: 04/11/2025			

3/25/2025 11:53 AM ACUGLIAT R24 02E611_D3167640.DWG XG-Border_BAND

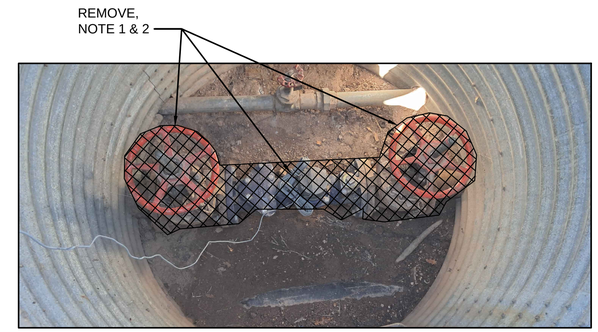
NOTES:

1. REPRESENTATIVE FROM LOS ALAMOS NATIONAL LABORATORY (LANL) TO BE PRESENT FOR REMOVAL AND INSTALLATION OF NEW EQUIPMENT ON LANL OWNED INFRASTRUCTURE, AND SIMILAR FOR LOS ALAMOS COUNTY.
2. LOS ALAMOS COUNTY TO SUPPLY FLOW METER AND CONTRACTOR TO INSTALL.
3. CONTRACTOR TO INSTALL NEW COMBINATION RATE OF FLOW AND PRV AND SET AT APPROXIMATELY 25 PSI. FIELD ADJUSTMENTS ARE REQUIRED WITH BOTH MANUFACTURER AND ENGINEER TO ADVISE.

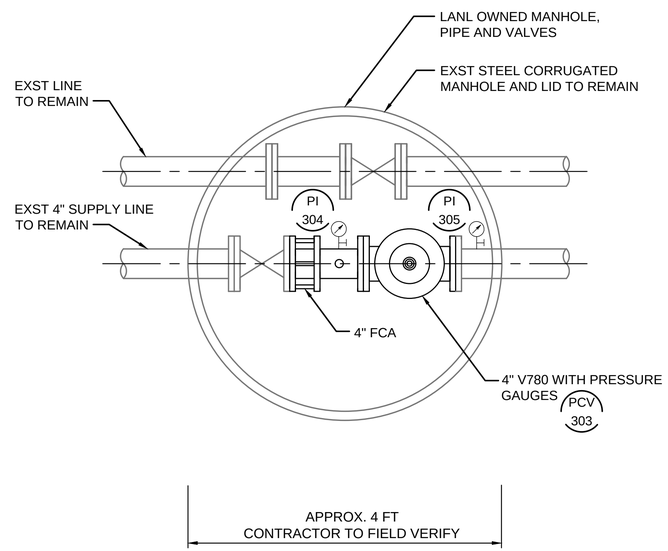
OVERVIEW AND VAULT LOCATION PHOTO
NTS



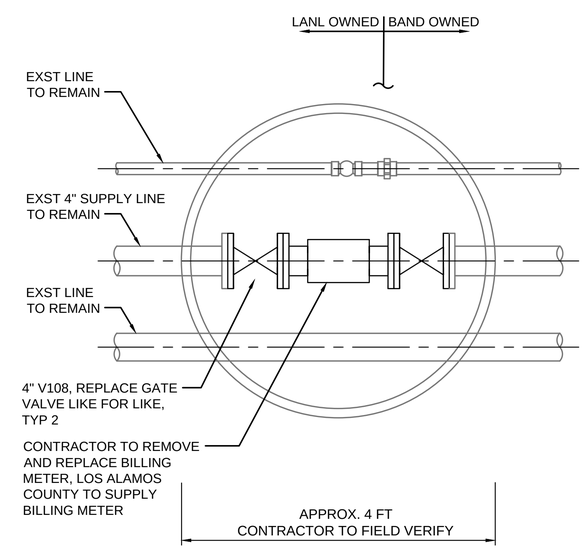
1 FLOW CONTROL VAULT
NTS



2 FLOW METER VAULT PHOTO
NTS



FLOW CONTROL VAULT PLAN
NTS



FLOW METER VAULT PLAN
NTS

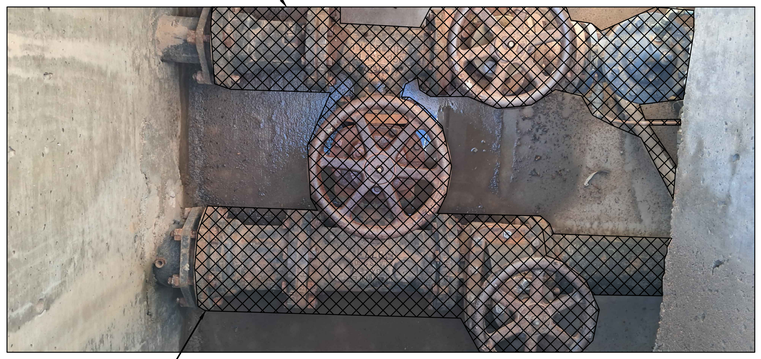
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

BRYOR WAYNE PRICE NEW MEXICO 27845 PROFESSIONAL ENGINEER
04-09-2025

DESIGNED: J WICKS	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD J WILCOX	03M401	PROCESS MECHANICAL	315
TECH. REVIEW: J MICAH		EXISTING	182751
DATE: 04/11/2025		MAIN BLUE WATER TANK VALVE VAULTS 1	PMIS/PKG NO. 266697
		BANDELIER NATIONAL MONUMENT	SHEET 141 OF 203

4/4/2025 10:55 AM SMETCALFR24 03M401_D3167658.DWG XG-Border_BAND

REMOVE ALL HATCHED,
SEE NOTE 3



PROVIDE NEW SST
FASTENERS AT
EXISTING FLANGE,
TYP FOR ALL

1 DEMO PHOTO
NTS

2 DEMO PHOTO
NTS

3 DEMO PHOTO
NTS

PIPING TO BE DISCONNECTED

EXISTING DRAIN
PIPE TO REMAIN

EXISTING OVERFLOW
PIPE TO REMAIN

ALL PROCESS PIPING IDENTIFIED
IN HATCH TO BE DISCONNECTED
AS SHOWN AND INSTALL NEW
PIPING WITH SST FASTENERS
AND ISOLATION KITS

4 DEMO PHOTO
NTS

DEMOLISH
EXISTING
LADDER

WATER SAMPLER. REFER
TO CIVIL STANDARD DETAILS

CONCRETE BASE

1'-0"

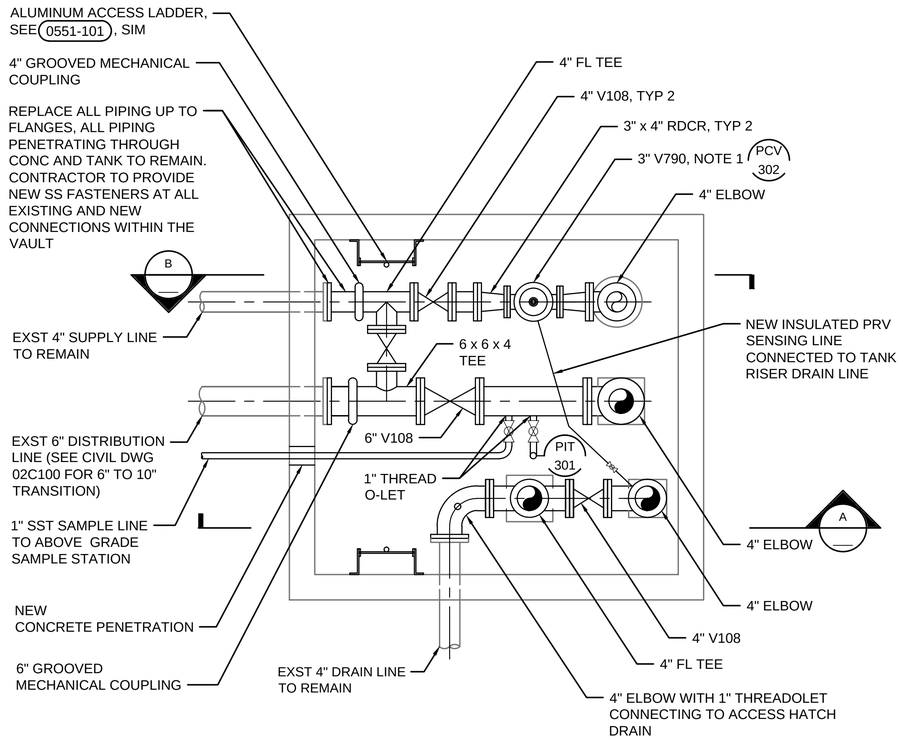
5 DEMO PHOTO
NTS

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

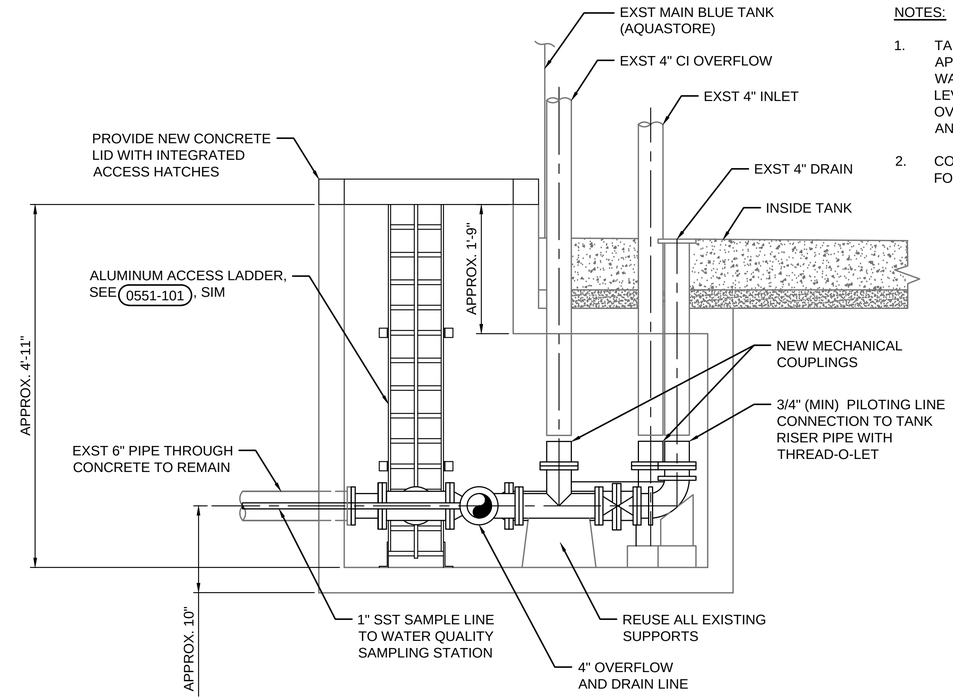
BRYAN WAYNE PRICE
NEW MEXICO
27845
PROFESSIONAL ENGINEER
04-09-2025

DESIGNED: J WICKS	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD S METCALF	03M402	PROCESS MECHANICAL EXISTING MAIN BLUE WATER TANK VALVE VAULTS 2 BANDELIER NATIONAL MONUMENT	315 182751
TECH. REVIEW: J MICAH			PMIS/PKG NO. 266697
DATE: 04/11/2025			SHEET 142 OF 203

4/4/2025 10:55 AM SMETCALFR24 03M402_03167658.DWG XG:Border, BAND



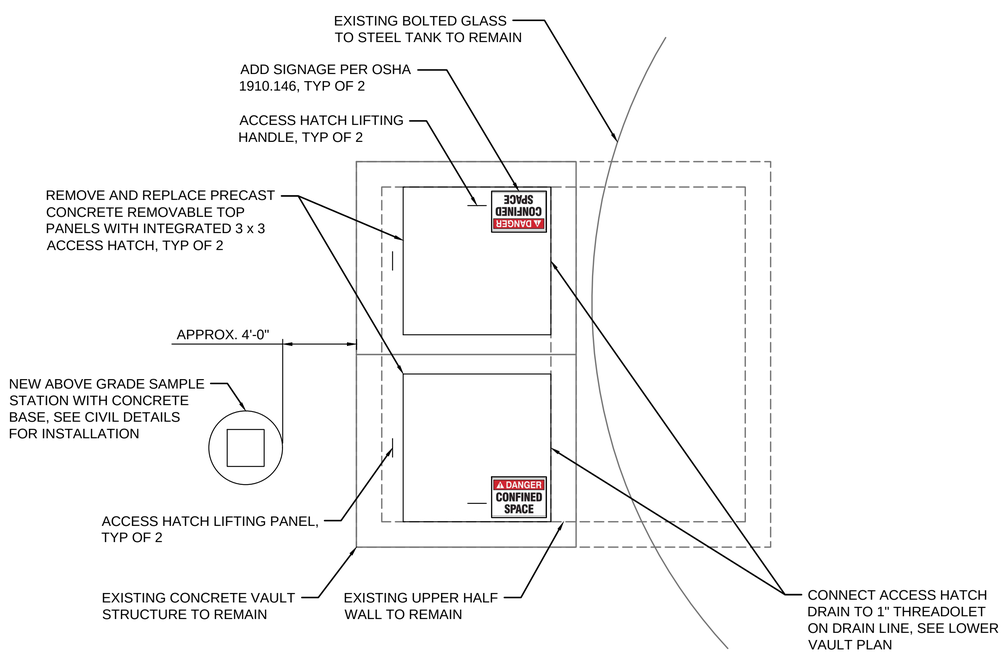
LOWER VAULT PLAN
NTS



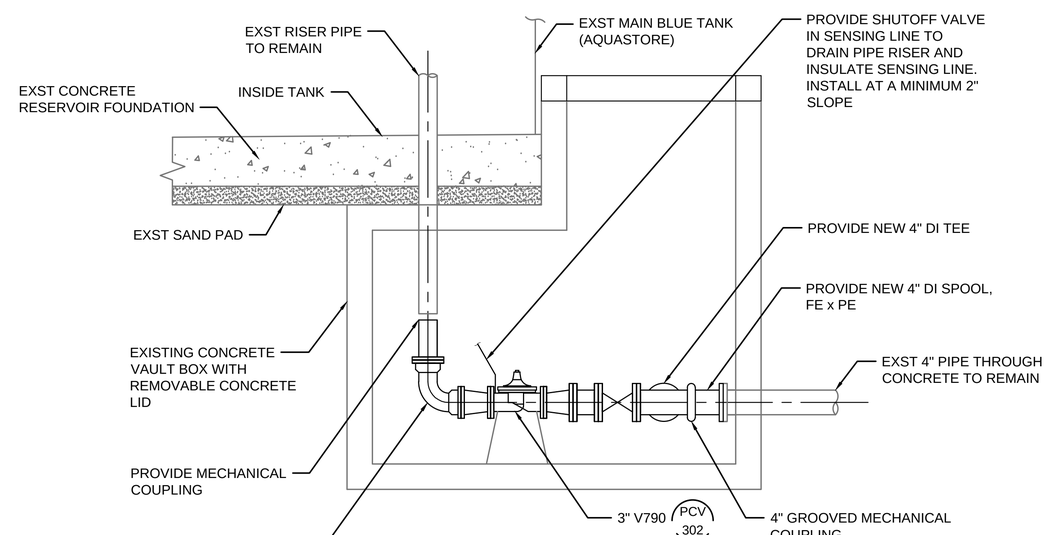
A SECTION
NTS

NOTES:

1. TANK ALTITUDE VALVE TO BE SET TO APPROXIMATELY 4.0 PSI TO MATCH HIGH WATER LEVEL IN THE TANK. HIGH WATER LEVEL TO BE APPROXIMATELY 2 FEET FROM OVERFLOW. CONTRACTOR TO FIELD ADJUST AND ENGINEER TO ADVISE.
2. CONTRACTOR TO REUSE EXISTING SUPPORTS FOR PIPING AND VALVING WHERE POSSIBLE.



UPPER VAULT PLAN
NTS



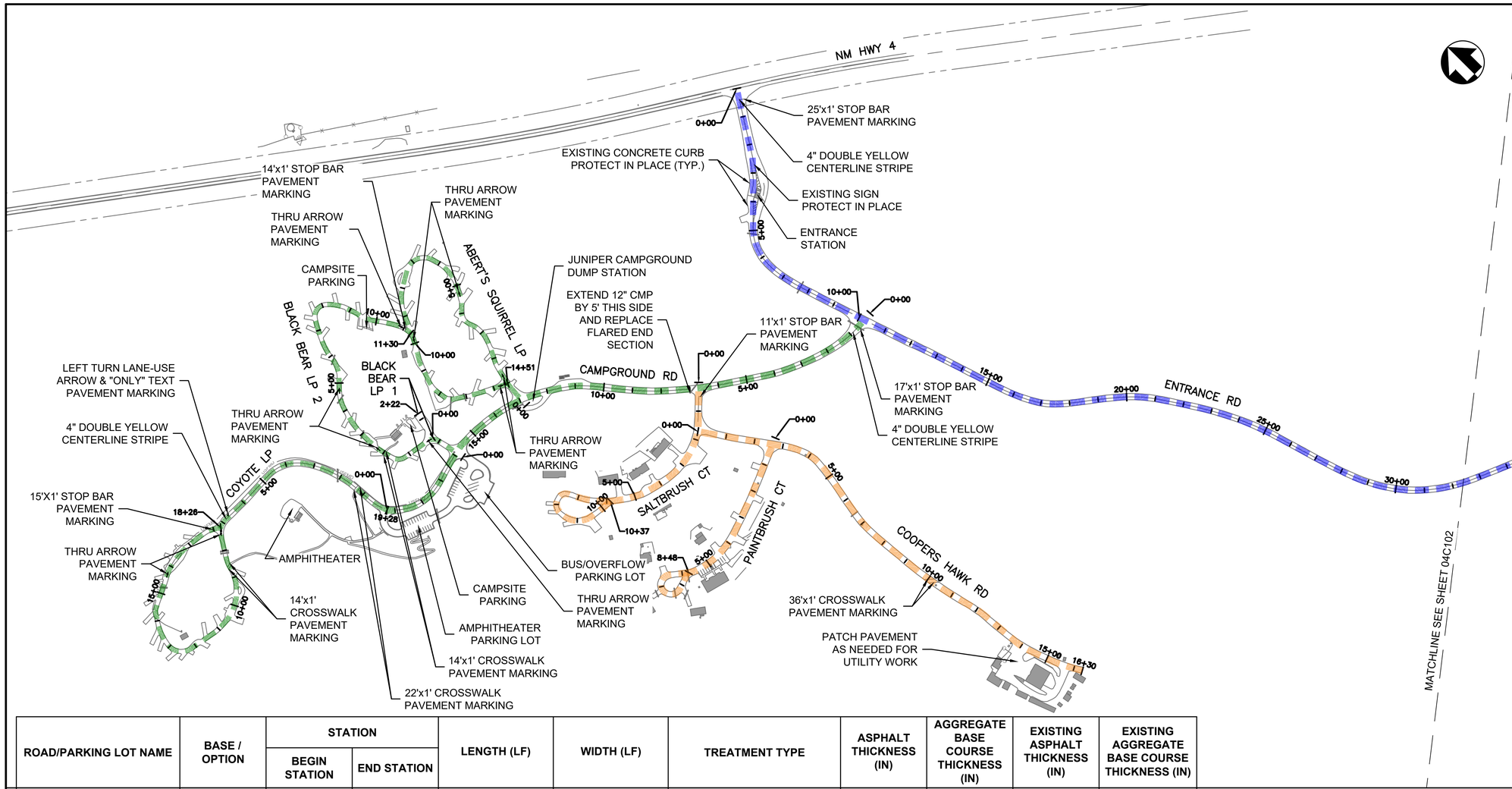
B SECTION
NTS

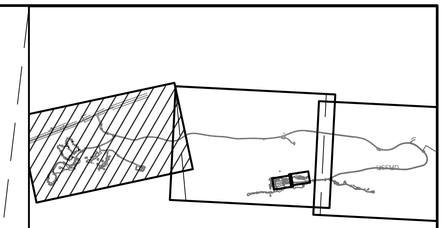
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

BRYAN WAYNE PRICE
NEW MEXICO
27845
PROFESSIONAL ENGINEER
04-09-2025

DESIGNED: J WICKS	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 315
CADD S METCALF	03M403	PROCESS MECHANICAL	182751
TECH. REVIEW: B PRICE		EXISTING MAIN BLUE WATER TANK VALVE VAULTS 3	PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 143 OF 203

4/4/2025 10:56 AM SMETCALFR24 03M403_D3167658.DWG XG:Border, BAND





KEYPLAN

NOTES

1. REFER TO SHEETS 04C301 TO 04C303 FOR TYPICAL SECTIONS.
2. REFER TO SHEETS 04C501 TO 04C503 FOR PAVEMENT MARKING DETAILS.
3. TIE IN AND PROVIDE A GRADUAL SMOOTH VERTICAL TRANSITION AT ALL INTERSECTING ROADS, DRIVEWAYS, PULLOUTS, AND CAMPGROUND SLIPS. TAPER THE TRANSITION OVER A MINIMUM HORIZONTAL DISTANCE OF 5'-0" WITH SLOPES AND GRADE BREAKS NOT TO EXCEED 10%.
4. ADJUST ALL EXISTING MANHOLE LIDS, AND VALVE COVERS TO MATCH THE FINISH GRADE OF THE NEW ASPHALT PAVEMENT SURFACE UNLESS THEY ARE TO BE ABANDONED AND/OR REMOVED AS PER THE UTILITY PLANS.
5. HISTORIC STONE RETAINING WALLS ALONG ROADS IN THE ENTIRETY OF THE PROJECT AREA ARE TO BE PROTECTED BY PLACEMENT OF PROTECTIVE VEHICULAR BARRIERS AND STYROFOAM BACKING IN AREAS OF ACTIVE CONSTRUCTION. REFER TO SPECIFICATION 01 35 91.
6. HISTORIC STONE GUTTER ALONG THE ENTIRETY OF THE PROJECT AREA IS TO BE PROTECTED IN AREAS OF ACTIVE CONSTRUCTION. REFER TO SPECIFICATION 01 35 91.
7. PROTECT IN PLACE EXISTING CONCRETE CURB SURROUNDING ENTRANCE STATION.
8. ORIENT ALL THRU ARROW PAVEMENT MARKINGS IN THE DIRECTION OF THE ONE WAY LOOP TRAVEL.
9. EXISTING LENGTHS, WIDTHS, AND THICKNESSES SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER AND ARE APPROXIMATE.

ROAD/PARKING LOT NAME	BASE / OPTION	STATION		LENGTH (LF)	WIDTH (LF)	TREATMENT TYPE	ASPHALT THICKNESS (IN)	AGGREGATE BASE COURSE THICKNESS (IN)	EXISTING ASPHALT THICKNESS (IN)	EXISTING AGGREGATE BASE COURSE THICKNESS (IN)
		BEGIN STATION	END STATION							
ABERT'S SQUIRREL LOOP	BASE	0+40	14+51	1411	17	PULVERIZE PAVEMENT	3	0	4	4
BLACK BEAR LOOP 1	BASE	0+41	1+26	85	18	PULVERIZE PAVEMENT	3	0	4	4
BLACK BEAR LOOP 2	BASE	0+00	11+30	1130	18	PULVERIZE PAVEMENT	3	0	4	4
CAMPGROUND ROAD	BASE	0+40	19+28	1888	23	PULVERIZE PAVEMENT	3	0	3	5
COOPERS HAWK ROAD	BASE	0+25	16+30	1605	24	TRENCH PATCHING	3	4	3	5
COYOTE LOOP	BASE	0+00	18+26	1826	18	PULVERIZE PAVEMENT	3	0	4	3
ENTRANCE ROAD	BASE	0+10	168+20	16810	22	REMOVE & REPLACE	5	0	4 TO 5	1 TO 6
PAINTBRUSH COURT	BASE	0+30	8+48	818	24	TRENCH PATCHING	3	4	4	5
SALTBRUSH COURT	BASE	0+31	10+37	1006	24	TRENCH PATCHING	3	4	5	0
VISITOR CENTER LOT/STONEHOUSE ROAD	BASE	-	-	50790 SF		REMOVE & REPLACE	5	0	5	0
ALCOVE HOUSE	OPTION M	11+56	14+25	269	12	TRENCH PATCHING	3	4	2	0
AGOYO LANE	OPTION K	0+12	16+40	1628	14	TRENCH PATCHING	3	4	2	0
FIRE TOWER LANE	OPTION L	0+13	5+78	565	12	TRENCH PATCHING	3	4	2.5	0

LEGEND

- REMOVE & REPLACE
- PULVERIZE PAVEMENT
- TRENCH PATCHING

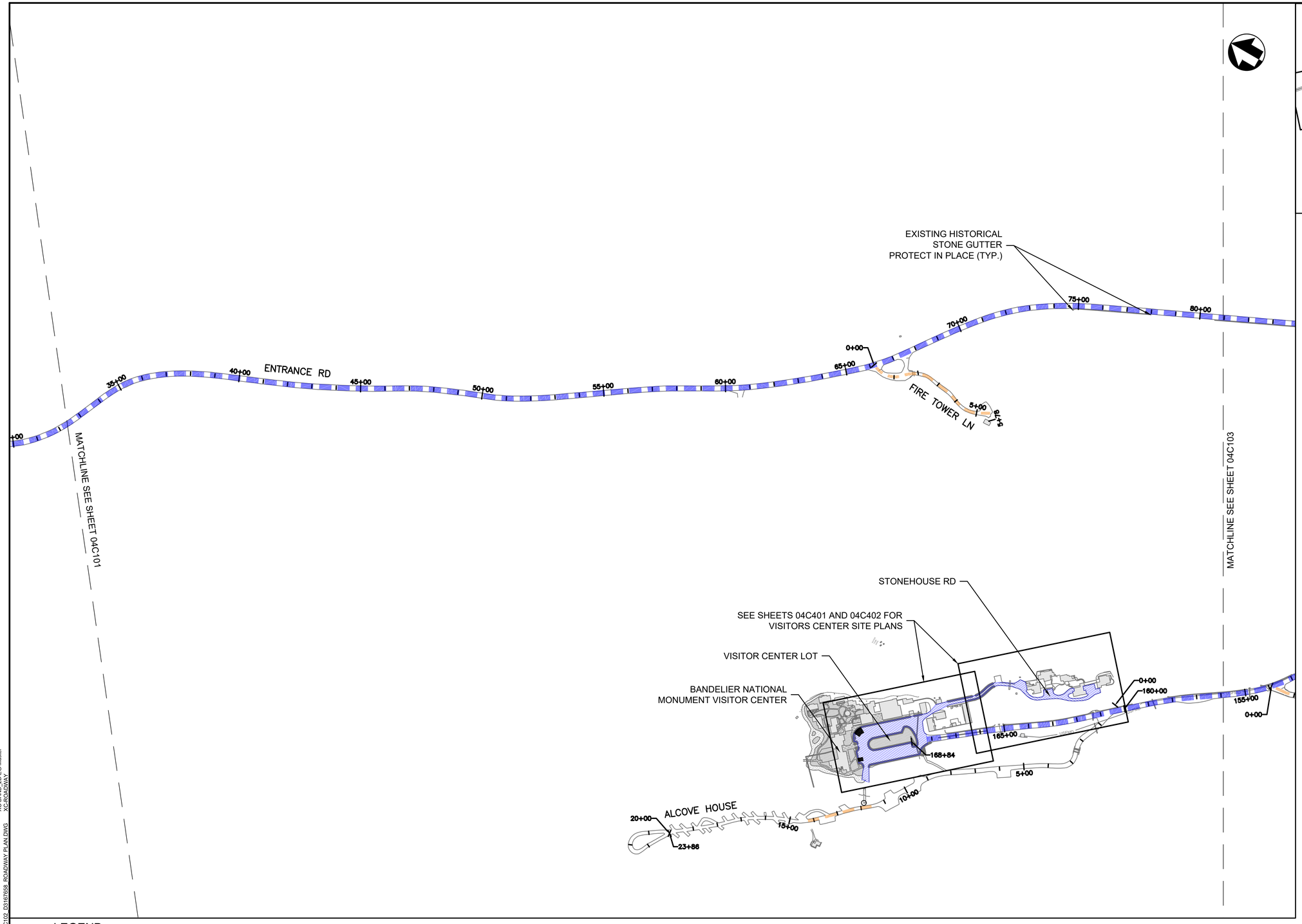
200 0 200 400
SCALE OF FEET

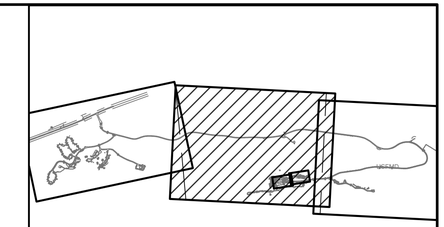
FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JAMES MILLS NEW MEXICO 29711 PROFESSIONAL ENGINEER
James Mills
2025.04.11 10:18:59 -06'00'

DESIGNED: C. MEYER	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD C. MEYER	04C101	CIVIL	315 / 182751
TECH. REVIEW: J. MILLS		ROADWAY PLAN	PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 144 OF 203

3/25/2025 4:14 PM MARQUEA R24 04C101 03167658 ROADWAY PLAN.DWG
XG-Border BAND
XG-LAYOUT-SHEETS
XG-BAND PROFILES
XG-BAND_20-EG-Master
XG-ROADWAY





KEYPLAN

NOTES

1. REFER TO SHEETS 04C301 TO 04C303 FOR TYPICAL SECTIONS.
2. REFER TO SHEETS 04C501 TO 04C503 FOR PAVEMENT MARKING DETAILS.
3. TIE IN AND PROVIDE A GRADUAL SMOOTH VERTICAL TRANSITION AT ALL INTERSECTING ROADS, DRIVEWAYS, PULLOUTS, AND CAMPGROUND SLIPS. TAPER THE TRANSITION OVER A MINIMUM HORIZONTAL DISTANCE OF 5'-0" WITH SLOPES AND GRADE BREAKS NOT TO EXCEED 10%.
4. ADJUST ALL EXISTING MANHOLE LIDS, AND VALVE COVERS TO MATCH THE FINISH GRADE OF THE NEW ASPHALT PAVEMENT SURFACE UNLESS THEY ARE TO BE ABANDONED AND/OR REMOVED AS PER THE UTILITY PLANS.
5. HISTORIC STONE RETAINING WALLS ALONG ROADS IN THE ENTIRETY OF THE PROJECT AREA ARE TO BE PROTECTED BY PLACEMENT OF PROTECTIVE VEHICULAR BARRIERS AND STYROFOAM BACKING IN AREAS OF ACTIVE CONSTRUCTION. REFER TO SPECIFICATION 01 35 91.
6. HISTORIC STONE GUTTER ALONG THE ENTIRETY OF THE PROJECT AREA IS TO BE PROTECTED IN AREAS OF ACTIVE CONSTRUCTION. REFER TO SPECIFICATION 01 35 91.

LEGEND

- REMOVE & REPLACE
- PULVERIZE PAVEMENT
- TRENCH PATCHING
- REMOVE & REPLACE

FULL SIZE DRAWINGS = 22"x34" BAR MEASURES 1" LONG

0" 1"

200 0 200 400
SCALE OF FEET

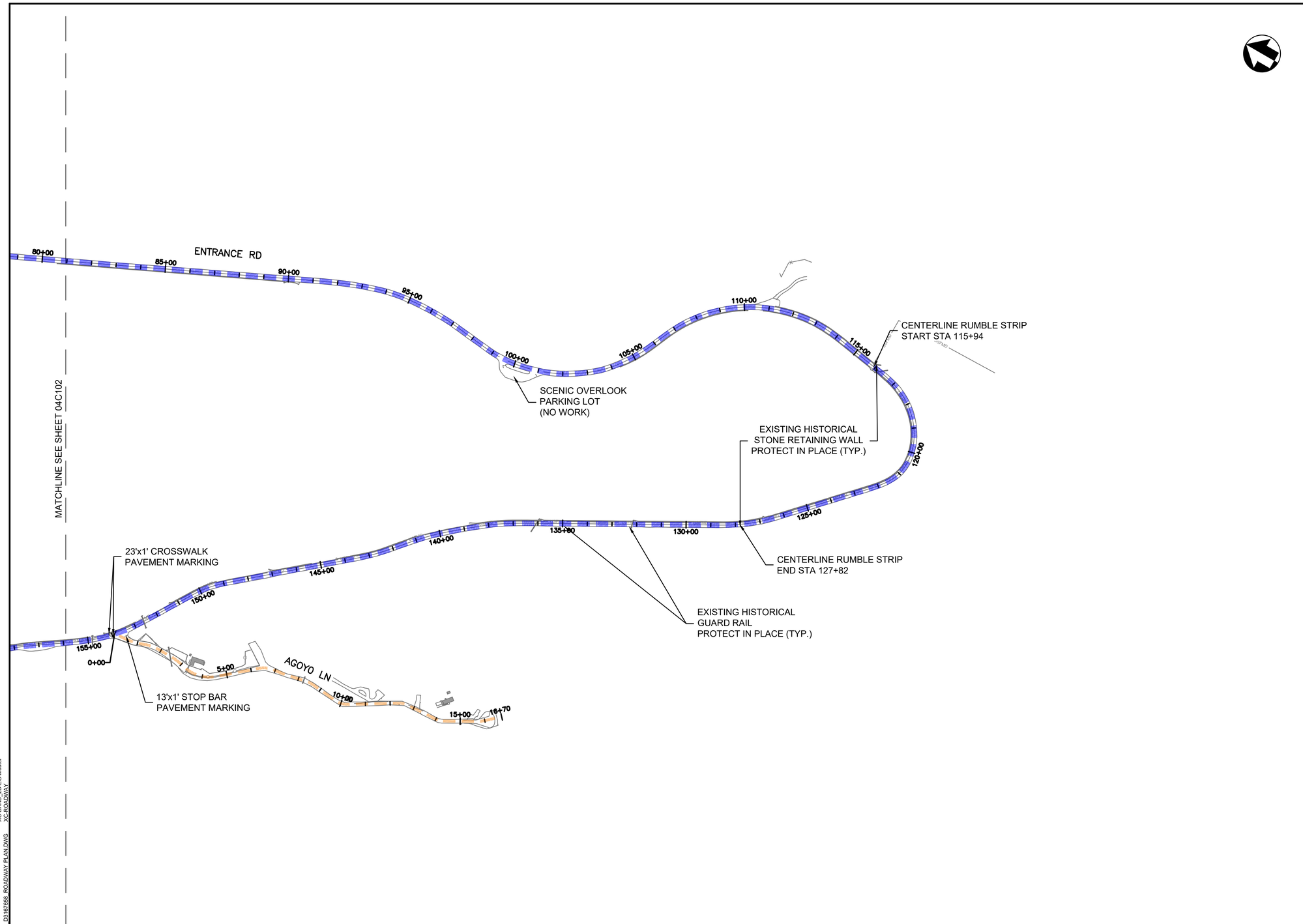
JAMES MILLS NEW MEXICO 29711 PROFESSIONAL ENGINEER

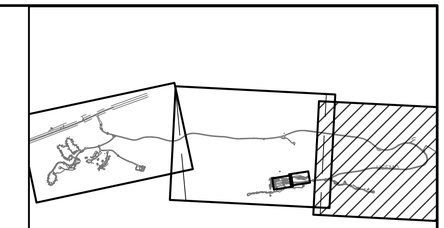
James Mills
2025.04.11
10:21:06-06'00'

DESIGNED: C. MEYER	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD C. MEYER	04C102	CIVIL ROADWAY PLAN	315 / 182751
TECH. REVIEW: J. MILLS			PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 145 OF 203

XC-Border_BAND
XC-LAYOUT-SHEETS
XC-BAND PROFILES
XC-BAND_20-EG-Master
XC-ROADWAY

3/24/2025 2:31 PM MARQUEA R24 04C102 D3187658 ROADWAY PLAN.DWG





KEYPLAN

NOTES

1. REFER TO SHEETS 04C301 TO 04C303 FOR TYPICAL SECTIONS.
2. REFER TO SHEETS 04C501 TO 04C503 FOR PAVEMENT MARKING DETAILS.
3. TIE IN AND PROVIDE A GRADUAL SMOOTH VERTICAL TRANSITION AT ALL INTERSECTING ROADS, DRIVEWAYS, PULLOUTS, AND CAMPGROUND SLIPS. TAPER THE TRANSITION OVER A MINIMUM HORIZONTAL DISTANCE OF 5'-0" WITH SLOPES AND GRADE BREAKS NOT TO EXCEED 10%.
4. ADJUST ALL EXISTING MANHOLE LIDS, AND VALVE COVERS TO MATCH THE FINISH GRADE OF THE NEW ASPHALT PAVEMENT SURFACE UNLESS THEY ARE TO BE ABANDONED AND/OR REMOVED AS PER THE UTILITY PLANS.
5. HISTORIC STONE RETAINING WALLS ALONG ROADS IN THE ENTIRETY OF THE PROJECT AREA ARE TO BE PROTECTED BY PLACEMENT OF PROTECTIVE VEHICULAR BARRIERS AND STYROFOAM BACKING IN AREAS OF ACTIVE CONSTRUCTION. REFER TO SPECIFICATION 01 35 91.
6. HISTORIC STONE GUTTER ALONG THE ENTIRETY OF THE PROJECT AREA IS TO BE PROTECTED IN AREAS OF ACTIVE CONSTRUCTION. REFER TO SPECIFICATION 01 35 91.

LEGEND

- REMOVE & REPLACE
- PULVERIZE PAVEMENT
- TRENCH PATCHING

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

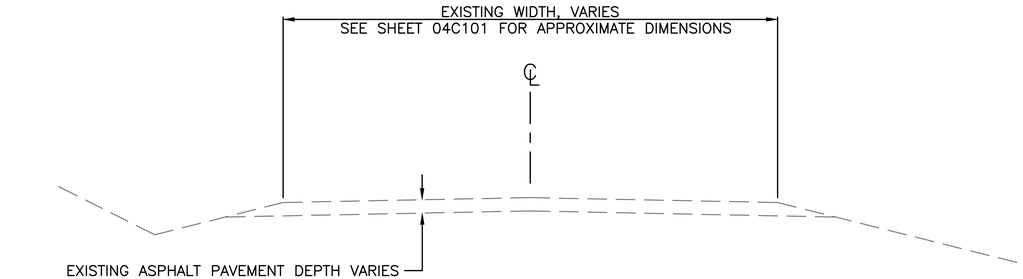
200 0 200 400
SCALE OF FEET

JAMES MILLS
NEW MEXICO
29711
PROFESSIONAL ENGINEER

James Mills
2025.04.11
10:22:47 -06'00'

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
C. MEYER	04C103	CIVIL ROADWAY PLAN	315
CADD: C. MEYER			182751
TECH. REVIEW: J. MILLS			PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 146 OF 203

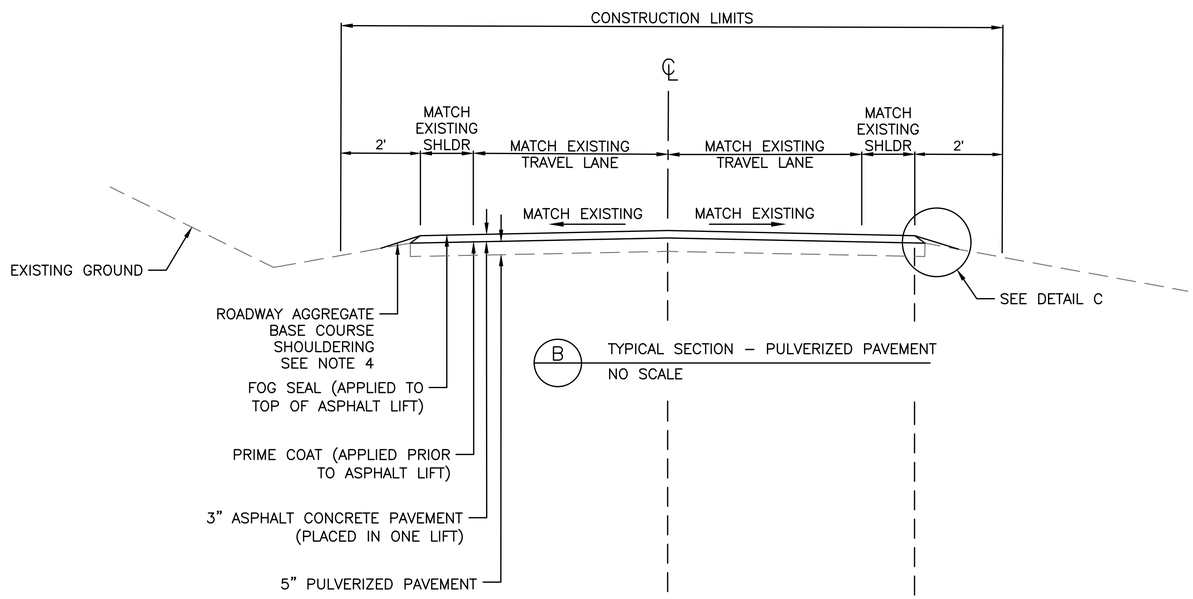
XC-Border_BAND
XC-LAYOUT-SHEETS
XC-BAND PROFILES
XC-BAND_20-EG-Master
XC-ROADWAY
3/24/2025 2:36 PM MARQUEA R24 04C103_03167658_ROADWAY PLAN.DWG



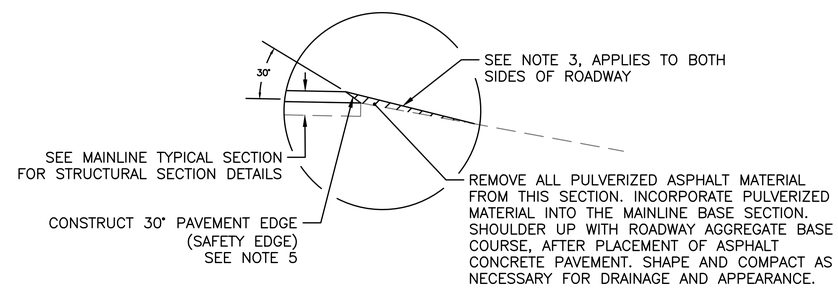
A — EXISTING TYPICAL SECTION
NO SCALE

NOTES:

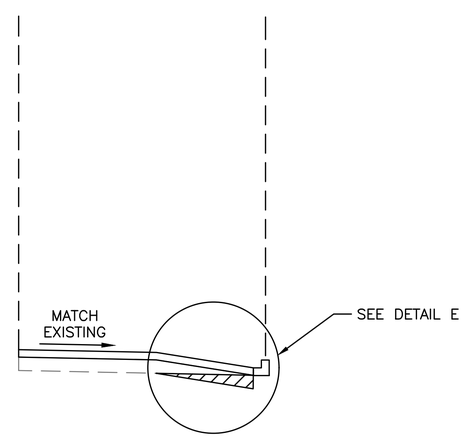
1. EXISTING SUPERELEVATED AND WIDENED SECTIONS ARE NOT SHOWN.
2. DIMENSIONS SHOWN ARE APPROXIMATE, FINAL WIDTH AS DIRECTED BY THE CO.
3. CONSTRUCT A 4H:1V OR FLATTER FORESLOPE. STEEPEN THE FORESLOPES AS NECESSARY, BUT NOT STEEPER THAN 2H:1V, TO STAY ON THE EXISTING BENCH.
4. REFER TO SECTION 32 11 23 AGGREGATE BASE COURSE. ASSUMED QUANTITIES FOR IMPORTED ROADWAY AGGREGATE SHOWN IN THE SURFACING SUMMARY.
5. SAFETY EDGE REQUIRED ONLY ON THE PARK ENTRANCE ROAD.
6. TAPER PULVERIZED PAVEMENT A MINIMUM OF 6' WIDTH AT CURBS, GUTTERS AND SIDEWALKS AS DIRECTED BY THE CO. INCREASE WIDTH AT ABA AREAS TO MAINTAIN SLOPES OF LESS THAN 2%.



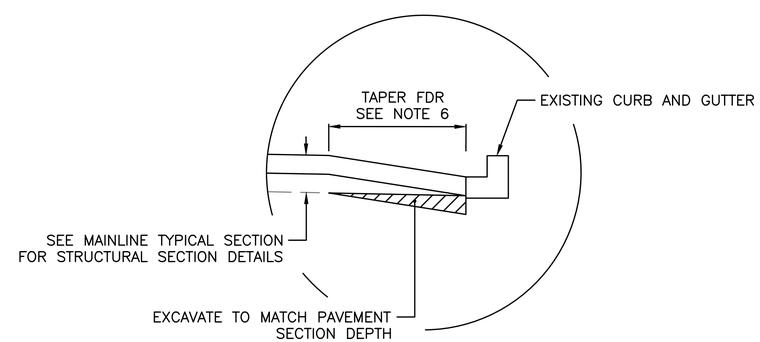
B — TYPICAL SECTION – PULVERIZED PAVEMENT
NO SCALE



C — SHOULDERING AND SAFETY EDGE DETAIL
NO SCALE



D — TYPICAL SECTION – PULVERIZED PAVEMENT TAPER
NO SCALE



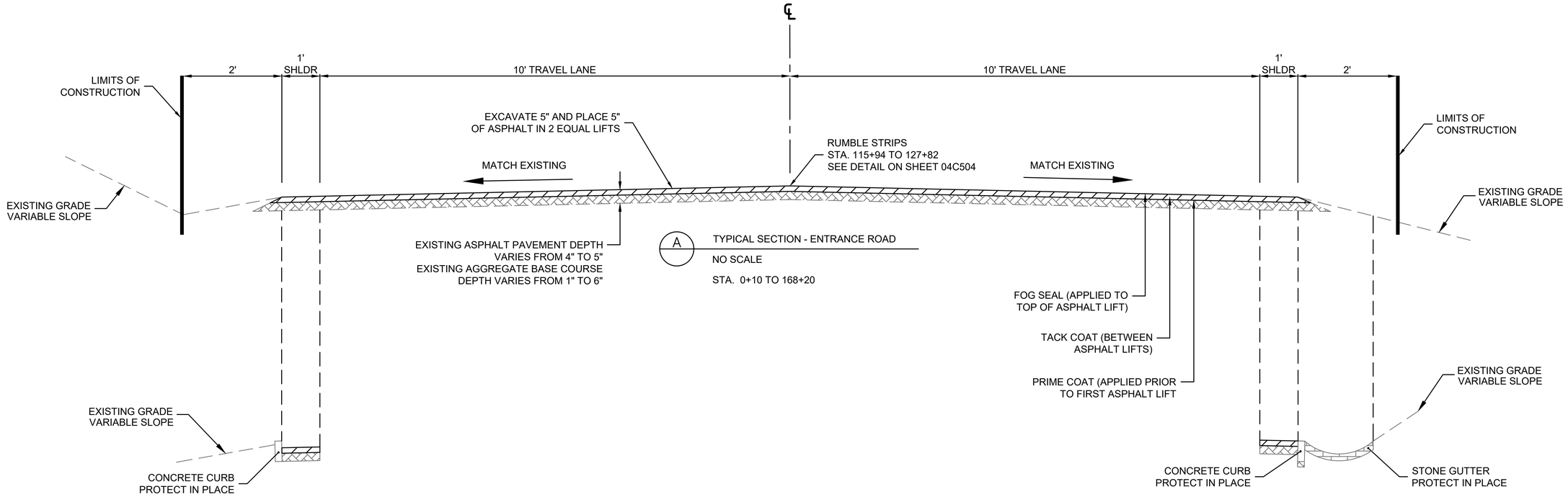
E — PULVERIZED PAVEMENT TAPER DETAIL
NO SCALE

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JAMES MILLS NEW MEXICO 29711 PROFESSIONAL ENGINEER
James Mills
2025.04.11
10:46:01-06'00'

DESIGNED: C. MEYER	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD C. MEYER	04C301	CIVIL PULVERIZED PAVEMENT TYPICAL SECTION	315
TECH. REVIEW: J. MILLS			182751
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
			SHEET 147 OF 203

XC-Border_BAND
XC-BAND_2D-EG-Master
XC-ALIGN_BAND
XC-GIS STRUCTURES
XC-GROUNDWAT
3/24/2025 2:41 PM MARQUEA R24 04C301_D3167658_TYPICAL SECTIONS.DWG



A TYPICAL SECTION - ENTRANCE ROAD

NO SCALE

STA. 0+10 TO 168+20

B EXISTING CONCRETE CURB - PROTECT IN PLACE

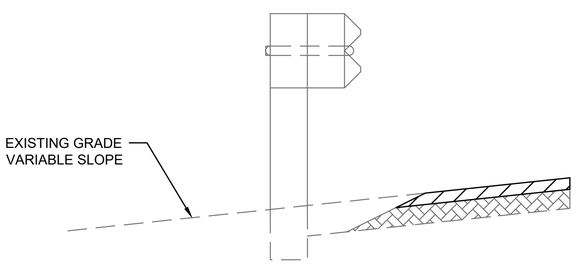
NO SCALE

STA. 3+24 TO 4+28, RT
STA. 3+41 TO 4+14, LT
STA. 138+60 TO 141+10, LT
STA. 147+30 TO 149+70, LT
STA. 156+35 TO 157+88, LT

C EXISTING HISTORICAL STONE GUTTER - PROTECT IN PLACE

NO SCALE

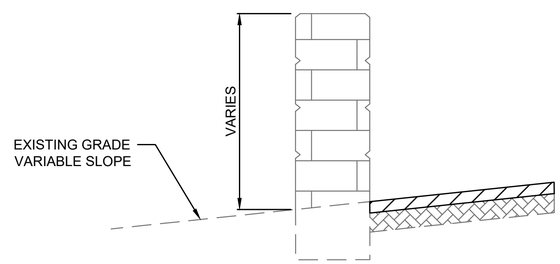
STA. 74+81 TO 78+03, RT
STA. 80+66 TO 90+48, RT
STA. 104+36 TO 110+18, RT
STA. 110+80 TO 138+78, RT
STA. 111+27 TO 115+98, LT
STA. 140+99 TO 144+40, RT
STA. 145+40 TO 147+16, RT
STA. 149+31 TO 151+41, RT
STA. 152+95 TO 154+37, RT
STA. 154+94 TO 158+22, RT
STA. 159+68 TO 165+09, RT
STA. 165+39 TO 167+28, RT



D EXISTING HISTORICAL GUARD RAIL - PROTECT IN PLACE

NO SCALE

STA. 81+00 TO 88+83, RT
STA. 132+30 TO 134+95, LT
STA. 138+80 TO 141+00, RT
STA. 138+55 TO 141+15, LT
STA. 147+20 TO 149+30, RT
STA. 147+25 TO 149+75, LT



E EXISTING HISTORICAL STONE RETAINING WALL - PROTECT IN PLACE

NO SCALE

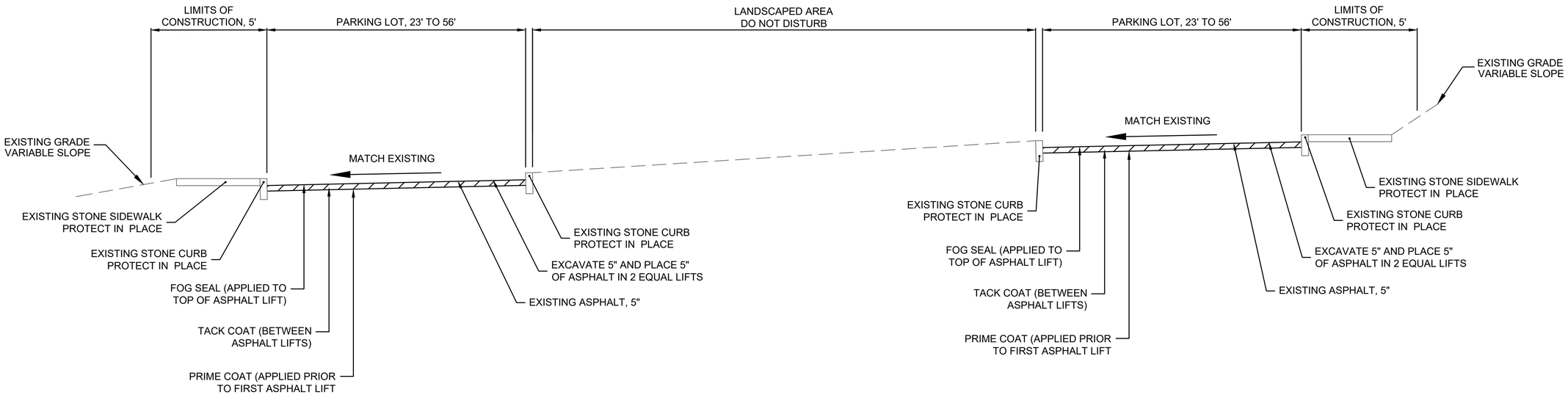
STA. 115+98 TO 127+80, LT

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JAMES MILLS NEW MEXICO 29711 PROFESSIONAL ENGINEER
James Mills
2025.04.11
10:47:53 -06'00'

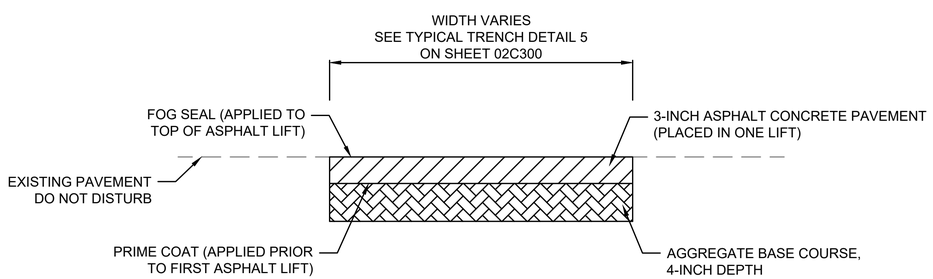
DESIGNED: C. MEYER	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD C. MEYER	04C302	CIVIL ENTRANCE ROAD TYPICAL SECTION	315
TECH. REVIEW: J. MILLS			182751
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	PMIS/PKG NO. 266697
			SHEET 148 OF 203

XC-Border_BAND
XC-BAND_2D-EG-Master
XC-ALIGN BAND
XC-GIS STRUCTURES
XC-FIGURDWY
3/24/2025 2:43 PM MARQUEA R24 04C302 D3187658_TYPICAL SECTIONS.DWG



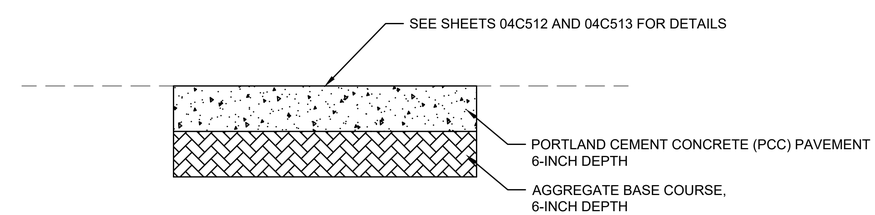
A TYPICAL SECTION - VISITOR CENTER PARKING

NO SCALE



B TYPICAL SECTION - TRENCH PATCHING

NO SCALE



C TYPICAL SECTION - ABA PARKING CONCRETE PAVEMENT

NO SCALE

FULL SIZE DRAWINGS = 22"x34" 0" 1"
BAR MEASURES 1" LONG

JAMES MILLS NEW MEXICO 29711 PROFESSIONAL ENGINEER

James Mills
2025.04.11
10:49:20-06'00'

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
C. MEYER	04C303	CIVIL VISITOR CENTER TYPICAL SECTION	315
CADD: C. MEYER			182751
TECH. REVIEW: J. MILLS			PMIS/PKG NO. 266697
DATE: 04/11/2025		BANDELIER NATIONAL MONUMENT	SHEET 149 OF 203

XG-Border_BAND
XC-BAND_2D-EG-Master
XC-ALIGN_BAND
XC-GIS STRUCTURES
XC-ROADWAY

3/24/2025 2:48 PM MARQUEA R24 04C303_D3167658_TYPICAL SECTIONS.DWG XC-ROADWAY