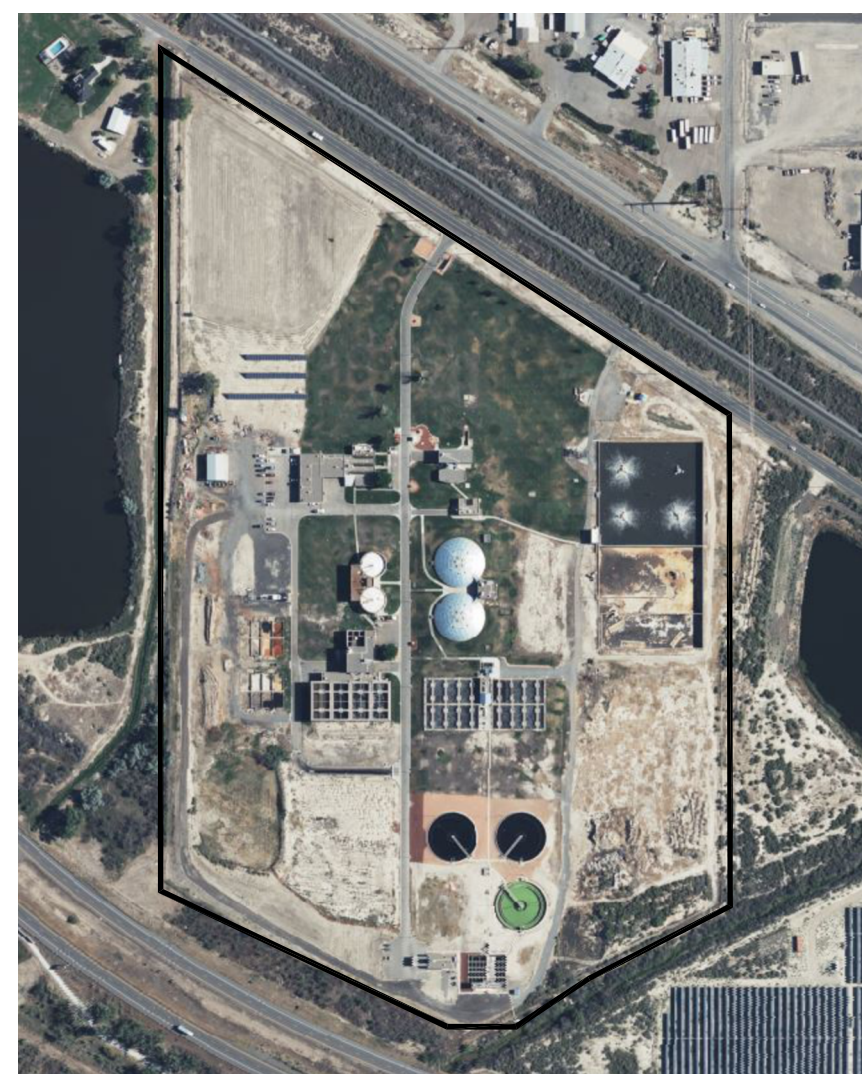


CITY OF GRAND JUNCTION, CO

PERSIGO WASTEWATER TREATMENT PLANT MEDIUM VOLTAGE DISTRIBUTION LOOP EXPANSION

2145 RIVER ROAD
GRAND JUNCTION, CO
81505



REVISION			
No.	DESCRIPTION	DATE	BY
A	60% ISSUED FOR REVIEW	11/29/23	NM
B	90% ISSUED FOR REVIEW	02/21/24	ML
C	REVISED FOR CLIENT COMMENTS	03/06/24	RC
0	ISSUED FOR CONSTRUCTION	03/21/24	JG
1	UPDATED PER STURGEON ELECTRIC REDLINES	06/18/24	JG

REFERENCE DRAWING	
DRAWING No.	DRAWING TITLE

PERMIT STAMP:	ENGINEERING STAMP:

CLIENT:

CONSULTANT:

LOCATION: COLORADO SITE: GRAND JUNCTION WWTP

PROJECT NAME: **MV LOOP EXTENSION DESIGN**

DRAWING TITLE: **COVER SHEET**

SCALE: NONE	DRAWN: NM 2023-11-10
PROJ No.: 62-122492	DESIGN: SM 2023-11-10
	APPR'D: MW 2023-11-10

DRAWING No. 62-122492-E-01-001	SHEET NO. 1	OF SHEET 10	REV. 1
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ISSUED FOR CONSTRUCTION

TIME :
PLOT SCALE :
USER :
DATE :
FILE INFO :

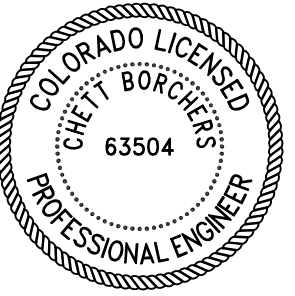
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DRAWING INDEX			
SHEET NO.	DRAWING NO.	REV	DRAWING TITLE
001	62-122492-E-01-001	1	COVER SHEET
002	62-122492-E-01-002	1	DRAWING INDEX
003	62-122492-E-00-001	1	LEGEND AND ABBREVIATIONS
004	62-122492-E-02-001	1	SINGLE LINE DIAGRAM DEMOLITION
005	62-122492-E-02-002	1	SINGLE LINE DIAGRAM NEW CONSTRUCTION
006	62-122492-E-05-001	1	SITE PLAN DEMOLITION
007	62-122492-E-05-002	1	SITE PLAN NEW CONSTRUCTION
008	62-122492-E-05-003	1	TRANSFORMER AND MANHOLE DETAILS
009	62-122492-E-05-004	1	TAP BOX AND ROUTING DETAILS
010	62-122492-E-52-001	1	DUCT BANK SECTION DETAILS

REVISION			
No.	DESCRIPTION	DATE	BY
A	90% ISSUED FOR REVIEW	02/21/24	ML
B	REVISED FOR CLIENT COMMENTS	03/06/24	RC
0	ISSUED FOR CONSTRUCTION	03/21/24	JG
1	UPDATED PER STURGEON ELECTRIC REDLINES	06/18/24	JG

REFERENCE DRAWING	
DRAWING No.	DRAWING TITLE

PERMIT STAMP:	ENGINEERING STAMP:
	

CLIENT:



CONSULTANT:



LOCATION: COLORADO SITE: GRAND JUNCTION WWTP

PROJECT NAME: MV LOOP EXTENSION DESIGN

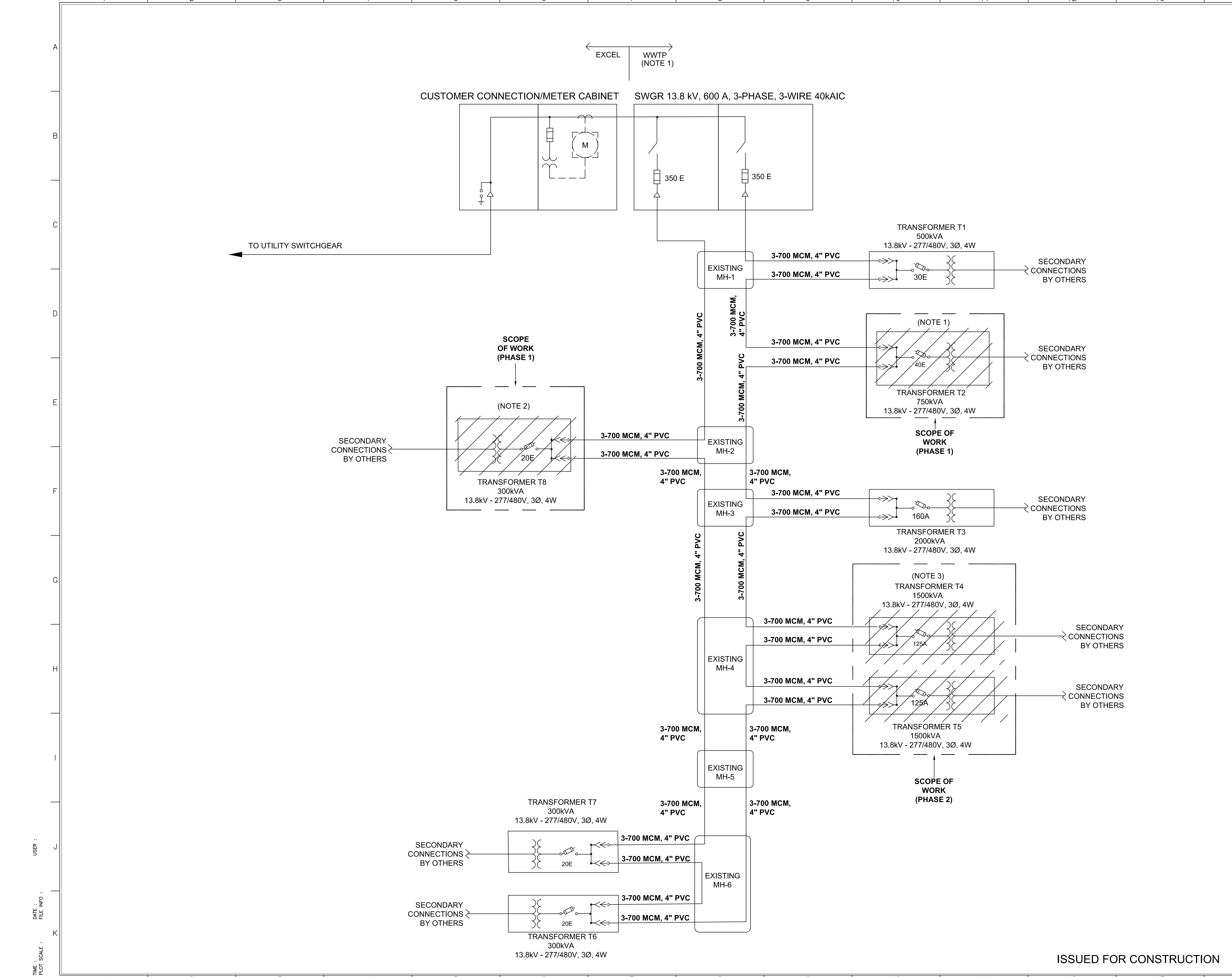
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SCALE: NONE	DRAWN: NM	2023-11-16
PROJ No.: 62-122492	DESIGN: SM	2023-11-10
	APPR'D: MW	2023-11-16

DRAWING No.	SHEET NO.	OF SHEET	REV.
62-122492-E-01-002	2	10	1

ISSUED FOR CONSTRUCTION

TIME :
PLOT SCALE :
DATE :
FILE INFO :
USER :



NOTES:


- DISCONNECT AND REMOVE TRANSFORMER T2. PRESERVE AND PROTECT PRIMARY FEEDERS FOR REUSE. SEE ONE-LINE DIAGRAM SHEET E-02-002 FOR NEW CONSTRUCTION. TAKE EXTRA PRECAUTION WHILE HANDLING MEDIUM VOLTAGE CONDUCTORS SO AS NOT TO DAMAGE INSULATION. SECONDARY CONNECTIONS SHALL BE DONE BY OTHERS.
- DISCONNECT AND REMOVE TRANSFORMER T8. PRESERVE AND PROTECT PRIMARY FEEDERS FOR REUSE. SEE ONE-LINE DIAGRAM SHEET E-02-002 FOR NEW WORK. TAKE EXTRA PRECAUTION WHILE HANDLING MEDIUM VOLTAGE CONDUCTORS SO AS NOT TO DAMAGE INSULATION. SECONDARY CONNECTIONS SHALL BE DONE BY OTHERS.
- DISCONNECT AND REMOVE TRANSFORMERS T4 AND T5. SEE ONE-LINE DIAGRAM SHEET E-02-002 FOR NEW CONSTRUCTION. TAKE EXTRA PRECAUTION WHILE HANDLING MEDIUM VOLTAGE CONDUCTORS SO AS NOT TO DAMAGE INSULATION. THIS WORK SHALL BE PERFORMED AS PART OF PHASE 2 CONSTRUCTION. SEE SHEET E-00-001 FOR PHASING NOTES PERTAINING TO PHASE 2.

REVISION			
No.	DESCRIPTION	DATE	BY
A	30% ISSUED FOR REVIEW	11/29/23	NM
B	60% ISSUED FOR REVIEW	12/15/23	NM
C	90% ISSUED FOR REVIEW	02/21/24	JG
0	ISSUED FOR CONSTRUCTION	03/21/24	JG
1	UPDATED PER STURGEON ELECTRIC REDLINES	06/18/24	JG

REFERENCE DRAWING	
DRAWING No.	DRAWING TITLE
E-300	OVERALL SITE PLAN

PERMIT STAMP: _____

ENGINEERING STAMP:



CLIENT:



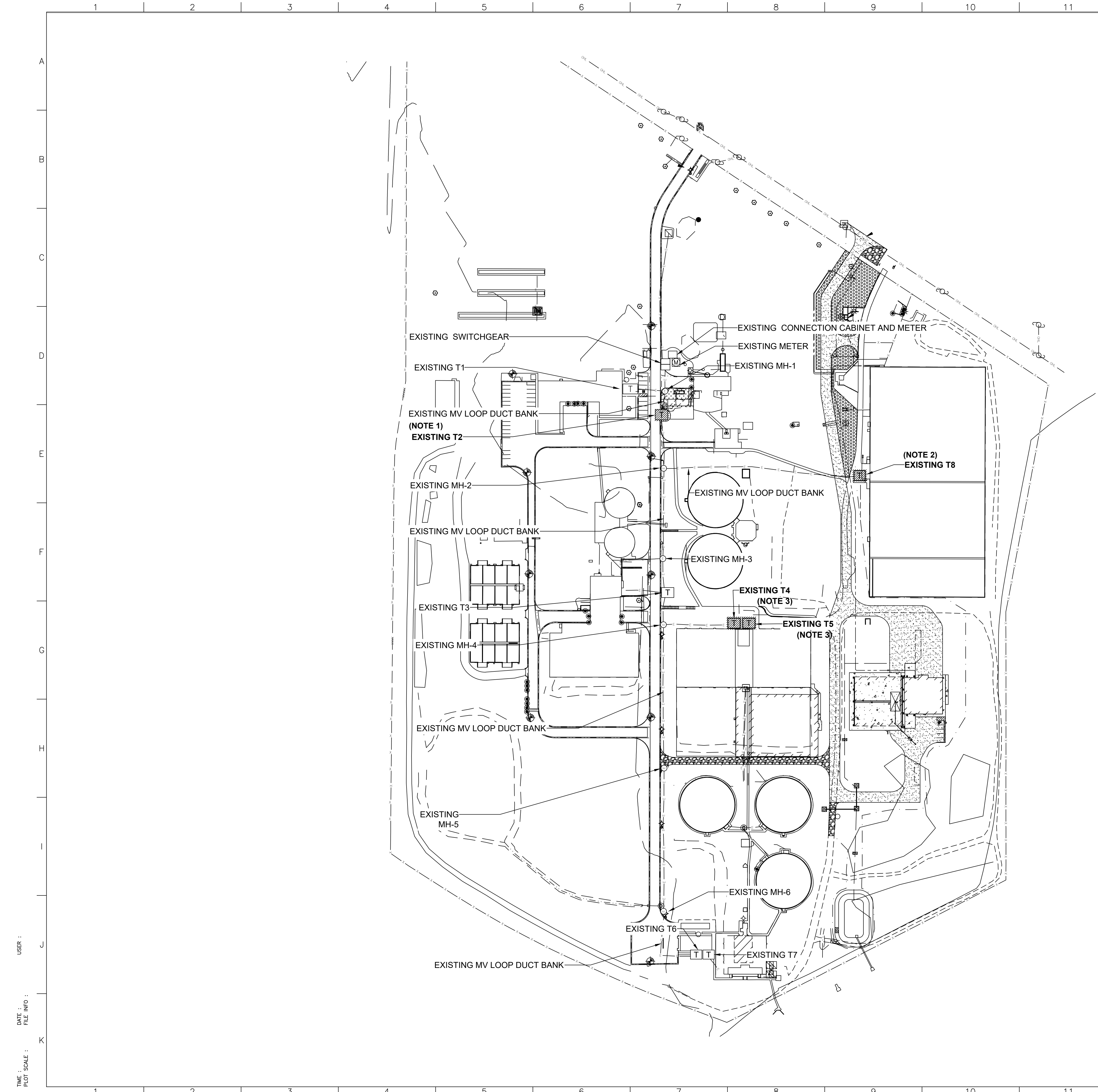
CONSULTANT:



LOCATION:	COLORADO	SITE:	GRAND JUNCTION WWTP
PROJECT NAME:	MV LOOP EXTENSION DESIGN		
DRAWING TITLE:	ELECTRICAL SINGLE LINE DIAGRAM DEMOLITION		
SCALE:	NONE	DRAWN:	NM 2023-11-16
PROJ No.:	62-122492	DESIGN:	SM 2023-11-10
		APPR'D:	MW 2023-11-16
DRAWING No.	62-122492-E-02-001	SHEET NO.	4
		OF SHEET	10
		REV.	1

ISSUED FOR CONSTRUCTION

USER : _____
 DATE : _____
 FILE INFO : _____
 TIME : _____
 PLOT SCALE : _____



- NOTES:
1. DISCONNECT AND REMOVE EXISTING TRANSFORMER T2. PRESERVE AND PROTECT MEDIUM VOLTAGE FEEDERS FOR REUSE. TAKE EXTRA PRECAUTION WHILE HANDLING MEDIUM VOLTAGE CONDUCTORS SO AS NOT TO DAMAGE INSULATION. SEE SITE PLAN SHEET E-05-002 FOR NEW CONSTRUCTION.
 2. DISCONNECT AND REMOVE EXISTING TRANSFORMER T8. PRESERVE AND PROTECT MEDIUM VOLTAGE CONDUCTORS FOR REUSE. TAKE EXTRA PRECAUTION WHILE HANDLING MEDIUM VOLTAGE CONDUCTORS SO AS NOT TO DAMAGE INSULATION. SEE SITE PLAN SHEET E-05-002 FOR NEW CONSTRUCTION.
 3. DISCONNECT AND REMOVE TRANSFORMERS T4 AND T5. PRESERVE AND PROTECT MEDIUM VOLTAGE CONDUCTORS AND TRANSFORMER PAD FOR REUSE. TAKE EXTRA PRECAUTION WHILE HANDLING MEDIUM VOLTAGE CONDUCTORS SO AS NOT TO DAMAGE INSULATION. SEE SITE PLAN SHEET E-05-002 FOR NEW CONSTRUCTION. THIS WORK SHALL BE PERFORMED AS PART OF PHASE 2 CONSTRUCTION. SEE SHEET E-00-001 FOR PHASING NOTES. T4 AND T5 SHALL NOT BE REMOVE UNTIL AFTER PHASE 1 IS COMPLETE.

REVISION			
No.	DESCRIPTION	DATE	BY
A	30% ISSUED FOR REVIEW	11/29/23	NM
B	60% ISSUED FOR REVIEW	12/15/23	NM
C	90% ISSUED FOR REVIEW	02/21/24	JG
D	REVISED FOR CLIENT COMMENTS	03/06/24	RC
0	ISSUED FOR CONSTRUCTION	03/21/24	JG
1	UPDATED PER STURGEON ELECTRIC REDLINES	06/18/24	JG

REFERENCE DRAWING	
DRAWING No.	DRAWING TITLE
E-300	OVERALL SITE PLAN

PERMIT STAMP: _____

ENGINEERING STAMP:

CLIENT:

CONSULTANT:

LOCATION: COLORADO SITE: GRAND JUNCTION WWTP

PROJECT NAME: MV LOOP EXTENSION DESIGN

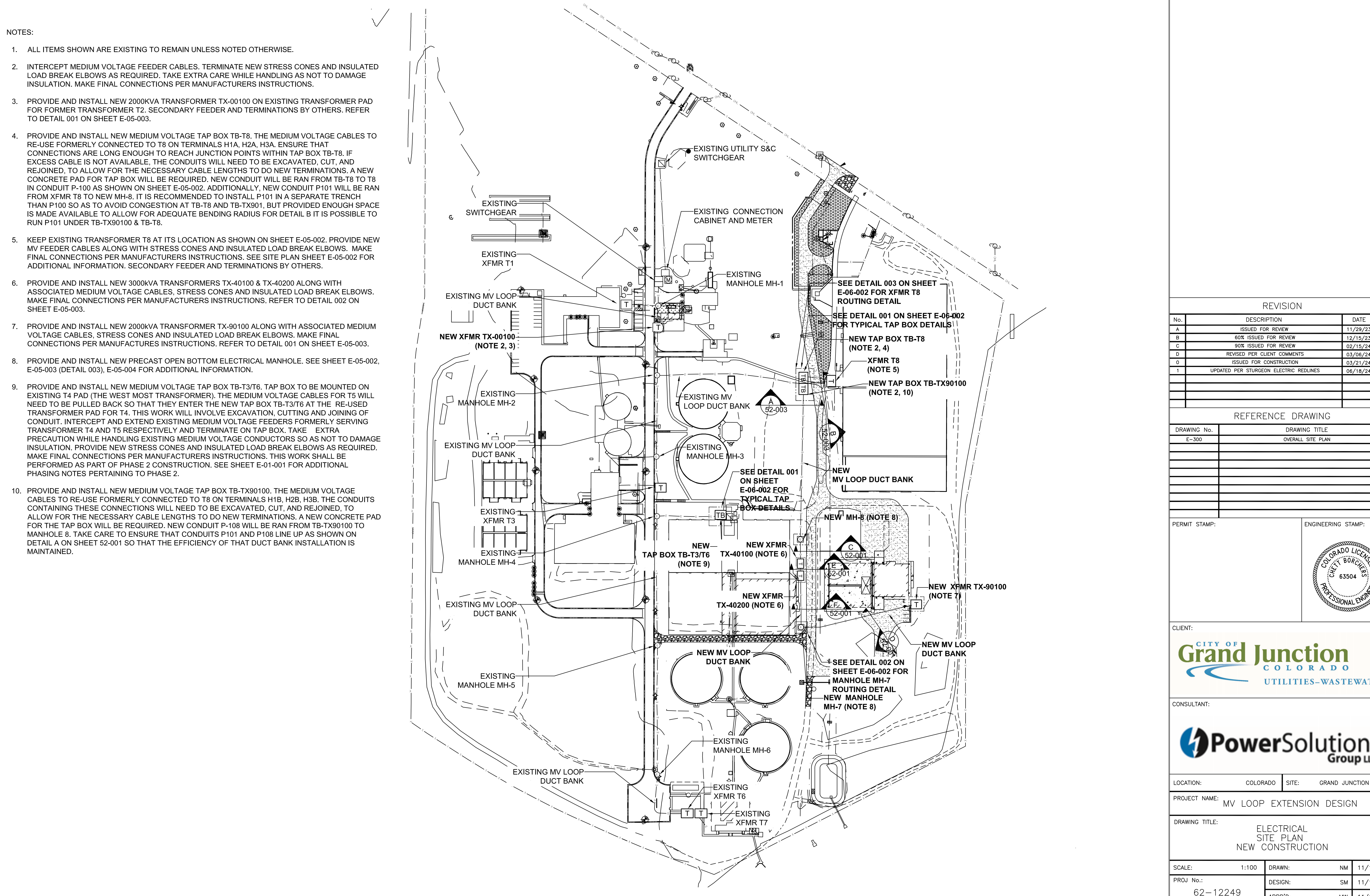
DRAWING TITLE: ELECTRICAL SITE PLAN DEMOLITION

SCALE: NONE	DRAWN: NM	11/16/23
PROJ No.: 62-12249	DESIGN: SM	11/10/23
	APPR'D: MW	11/16/23

DRAWING No. 62-122492-E-05-001	SHEET NO. 6	OF SHEET 10	REV. 1
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ISSUED FOR CONSTRUCTION

USER :
DATE :
FILE INFO :
TIME :
PLOT SCALE :



NOTES:

1. ALL ITEMS SHOWN ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. INTERCEPT MEDIUM VOLTAGE FEEDER CABLES. TERMINATE NEW STRESS CONES AND INSULATED LOAD BREAK ELBOWS AS REQUIRED. TAKE EXTRA CARE WHILE HANDLING AS NOT TO DAMAGE INSULATION. MAKE FINAL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.
3. PROVIDE AND INSTALL NEW 2000KVA TRANSFORMER TX-00100 ON EXISTING TRANSFORMER PAD FOR FORMER TRANSFORMER T2. SECONDARY FEEDER AND TERMINATIONS BY OTHERS. REFER TO DETAIL 001 ON SHEET E-05-003.
4. PROVIDE AND INSTALL NEW MEDIUM VOLTAGE TAP BOX TB-T8. THE MEDIUM VOLTAGE CABLES TO RE-USE FORMERLY CONNECTED TO T8 ON TERMINALS H1A, H2A, H3A. ENSURE THAT CONNECTIONS ARE LONG ENOUGH TO REACH JUNCTION POINTS WITHIN TAP BOX TB-T8. IF EXCESS CABLE IS NOT AVAILABLE, THE CONDUITS WILL NEED TO BE EXCAVATED, CUT, AND REJOINED, TO ALLOW FOR THE NECESSARY CABLE LENGTHS TO DO NEW TERMINATIONS. A NEW CONCRETE PAD FOR TAP BOX WILL BE REQUIRED. NEW CONDUIT WILL BE RAN FROM TB-T8 TO T8 IN CONDUIT P-100 AS SHOWN ON SHEET E-05-002. ADDITIONALLY, NEW CONDUIT P101 WILL BE RAN FROM XFMR T8 TO NEW MH-8. IT IS RECOMMENDED TO INSTALL P101 IN A SEPARATE TRENCH THAN P100 SO AS TO AVOID CONGESTION AT TB-T8 AND TB-TX901. BUT PROVIDED ENOUGH SPACE IS MADE AVAILABLE TO ALLOW FOR ADEQUATE BENDING RADIUS FOR DETAIL B IT IS POSSIBLE TO RUN P101 UNDER TB-TX90100 & TB-T8.
5. KEEP EXISTING TRANSFORMER T8 AT ITS LOCATION AS SHOWN ON SHEET E-05-002. PROVIDE NEW MV FEEDER CABLES ALONG WITH STRESS CONES AND INSULATED LOAD BREAK ELBOWS. MAKE FINAL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS. SEE SITE PLAN SHEET E-05-002 FOR ADDITIONAL INFORMATION. SECONDARY FEEDER AND TERMINATIONS BY OTHERS.
6. PROVIDE AND INSTALL NEW 3000KVA TRANSFORMERS TX-40100 & TX-40200 ALONG WITH ASSOCIATED MEDIUM VOLTAGE CABLES, STRESS CONES AND INSULATED LOAD BREAK ELBOWS. MAKE FINAL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS. REFER TO DETAIL 002 ON SHEET E-05-003.
7. PROVIDE AND INSTALL NEW 2000KVA TRANSFORMER TX-90100 ALONG WITH ASSOCIATED MEDIUM VOLTAGE CABLES, STRESS CONES AND INSULATED LOAD BREAK ELBOWS. MAKE FINAL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS. REFER TO DETAIL 001 ON SHEET E-05-003.
8. PROVIDE AND INSTALL NEW PRECAST OPEN BOTTOM ELECTRICAL MANHOLE. SEE SHEET E-05-002, E-05-003 (DETAIL 003), E-05-004 FOR ADDITIONAL INFORMATION.
9. PROVIDE AND INSTALL NEW MEDIUM VOLTAGE TAP BOX TB-T3/T6. TAP BOX TO BE MOUNTED ON EXISTING T4 PAD (THE WEST MOST TRANSFORMER). THE MEDIUM VOLTAGE CABLES FOR T5 WILL NEED TO BE PULLED BACK SO THAT THEY ENTER THE NEW TAP BOX TB-T3/T6 AT THE RE-USED TRANSFORMER PAD FOR T4. THIS WORK WILL INVOLVE EXCAVATION, CUTTING AND JOINING OF CONDUIT. INTERCEPT AND EXTEND EXISTING MEDIUM VOLTAGE FEEDERS FORMERLY SERVING TRANSFORMER T4 AND T5 RESPECTIVELY AND TERMINATE ON TAP BOX. TAKE EXTRA PRECAUTION WHILE HANDLING EXISTING MEDIUM VOLTAGE CONDUCTORS SO AS NOT TO DAMAGE INSULATION. PROVIDE NEW STRESS CONES AND INSULATED LOAD BREAK ELBOWS AS REQUIRED. MAKE FINAL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS. THIS WORK SHALL BE PERFORMED AS PART OF PHASE 2 CONSTRUCTION. SEE SHEET E-01-001 FOR ADDITIONAL PHASING NOTES PERTAINING TO PHASE 2.
10. PROVIDE AND INSTALL NEW MEDIUM VOLTAGE TAP BOX TB-TX90100. THE MEDIUM VOLTAGE CABLES TO RE-USE FORMERLY CONNECTED TO T8 ON TERMINALS H1B, H2B, H3B. THE CONDUITS CONTAINING THESE CONNECTIONS WILL NEED TO BE EXCAVATED, CUT, AND REJOINED, TO ALLOW FOR THE NECESSARY CABLE LENGTHS TO DO NEW TERMINATIONS. A NEW CONCRETE PAD FOR THE TAP BOX WILL BE REQUIRED. NEW CONDUIT P-108 WILL BE RAN FROM TB-TX90100 TO MANHOLE 8. TAKE CARE TO ENSURE THAT CONDUITS P101 AND P108 LINE UP AS SHOWN ON DETAIL A ON SHEET 52-001 SO THAT THE EFFICIENCY OF THAT DUCT BANK INSTALLATION IS MAINTAINED.

REVISION			
No.	DESCRIPTION	DATE	BY
A	ISSUED FOR REVIEW	11/29/23	NM
B	60% ISSUED FOR REVIEW	12/15/23	NM
C	90% ISSUED FOR REVIEW	02/15/24	NM
D	REVISED PER CLIENT COMMENTS	03/06/24	JG
0	ISSUED FOR CONSTRUCTION	03/21/24	JG
1	UPDATED PER STURGEON ELECTRIC REDLINES	06/18/24	JG

REFERENCE DRAWING	
DRAWING No.	DRAWING TITLE
E-300	OVERALL SITE PLAN

PERMIT STAMP: _____ ENGINEERING STAMP: _____

CLIENT:

CONSULTANT:

LOCATION: COLORADO SITE: GRAND JUNCTION WWTP

PROJECT NAME: MV LOOP EXTENSION DESIGN

DRAWING TITLE: ELECTRICAL SITE PLAN NEW CONSTRUCTION

SCALE: 1:100	DRAWN: NM	11/16/23
PROJ No.: 62-12249	DESIGN: SM	11/10/23
	APPR'D: MW	11/16/23

DRAWING No. 62-12249-E-05-002	SHEET NO. 7	OF SHEET 10	REV. 1
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USER : _____ DATE : _____ FILE INFO : _____
 TIME : _____ PLOT SCALE : _____

