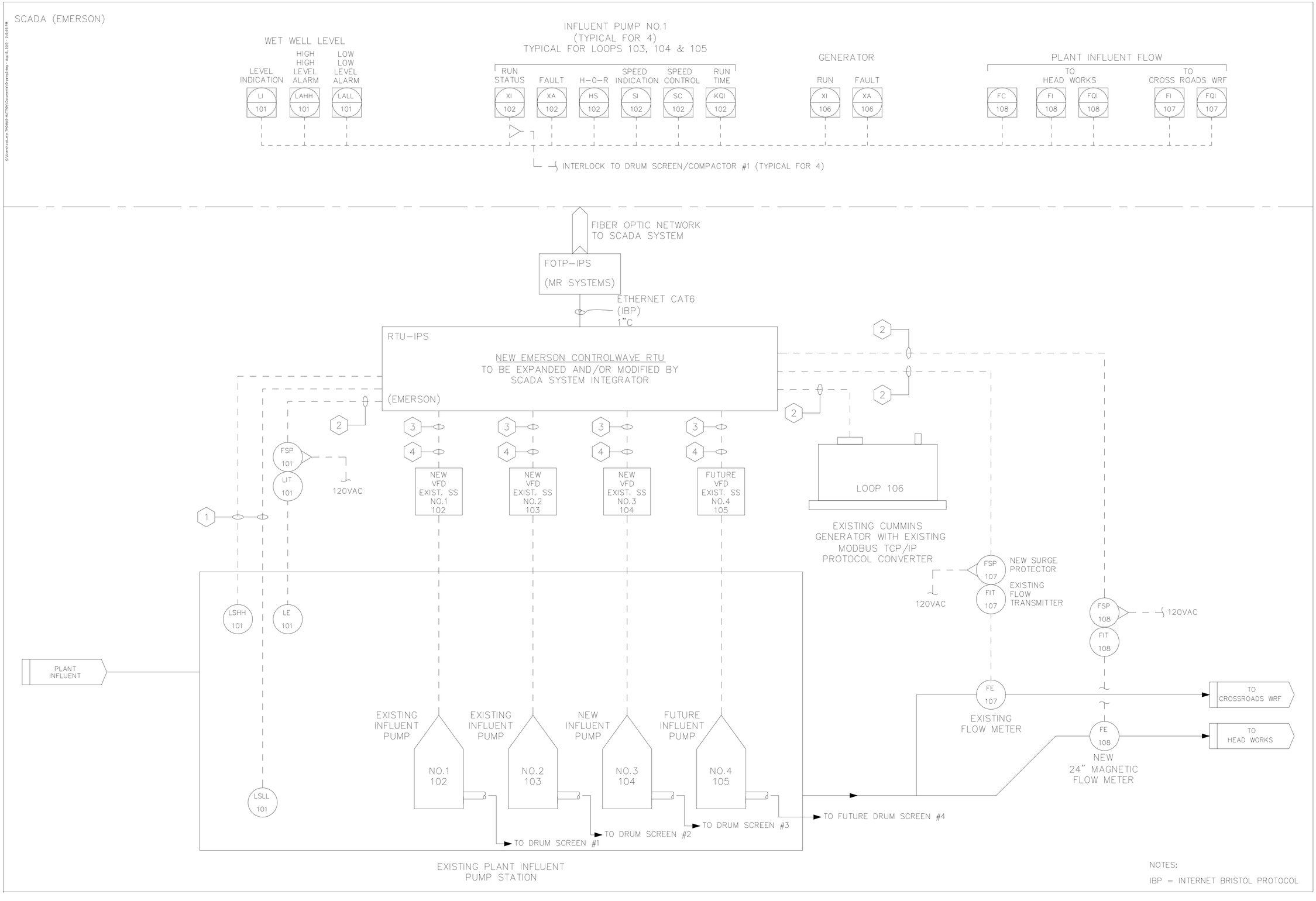

NOTES:

IBP = INTERNET BRISTOL PROTOCOL

BID SET - NOT FOR CONSTRUCTION

NO.	BY	DATE
1	CDR	6-25-19
0	CDR	5-01-19

REVISIONS

1 REVISED PER ADDENDUM #4
0 ISSUED FOR BIDS

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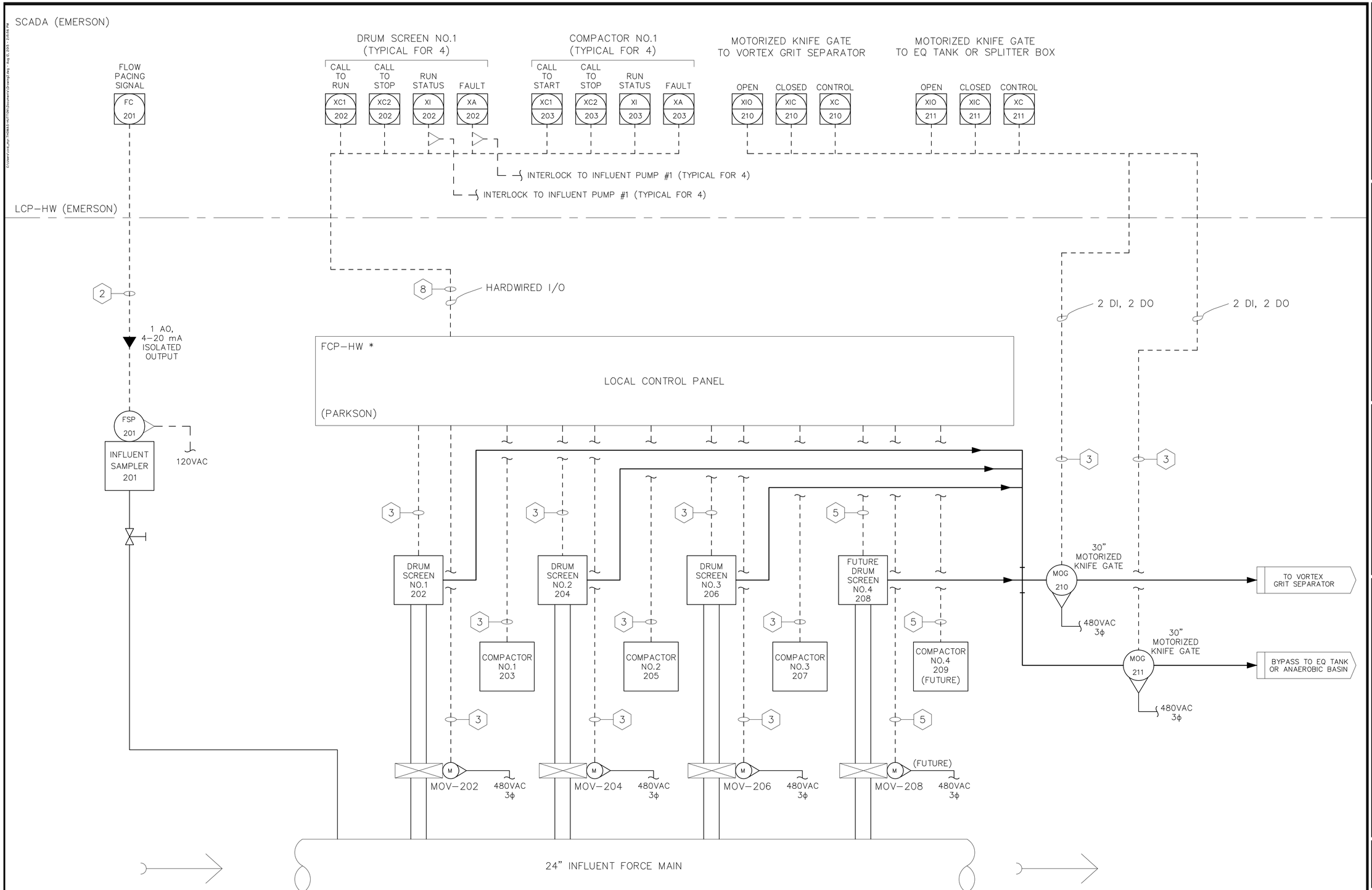
TRAVIS FIELD WATER RECLAMATION FACILITY

EXISTING INFLUENT PUMP STATION

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-1



NOTES:

* SUPPLIED BY EQUIP.VENDOR

BID SET - NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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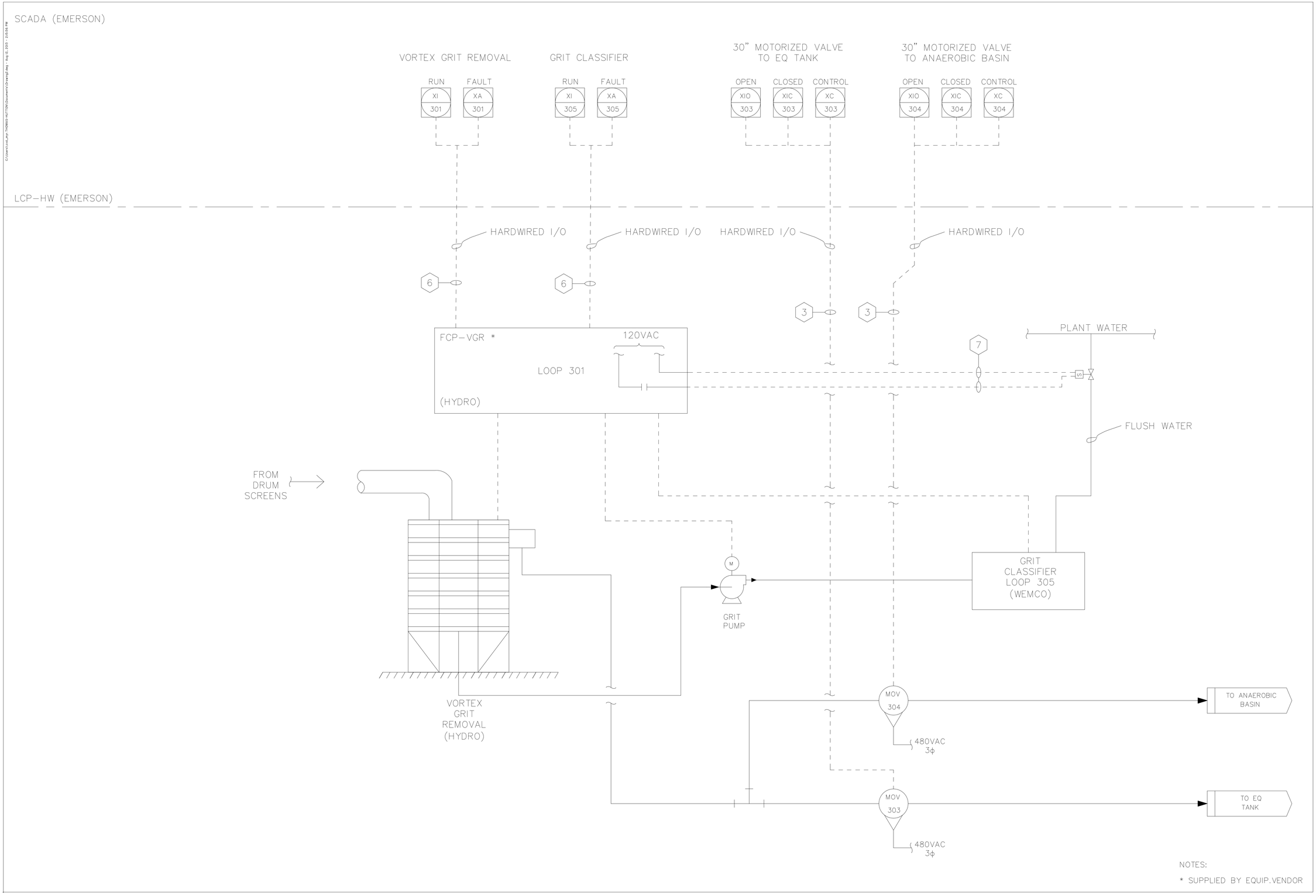
TRAVIS FIELD WATER RECLAMATION FACILITY

HEADWORKS

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-2



NOTES:

* SUPPLIED BY EQUIP. VENDOR

BID SET - NOT FOR CONSTRUCTION

NO	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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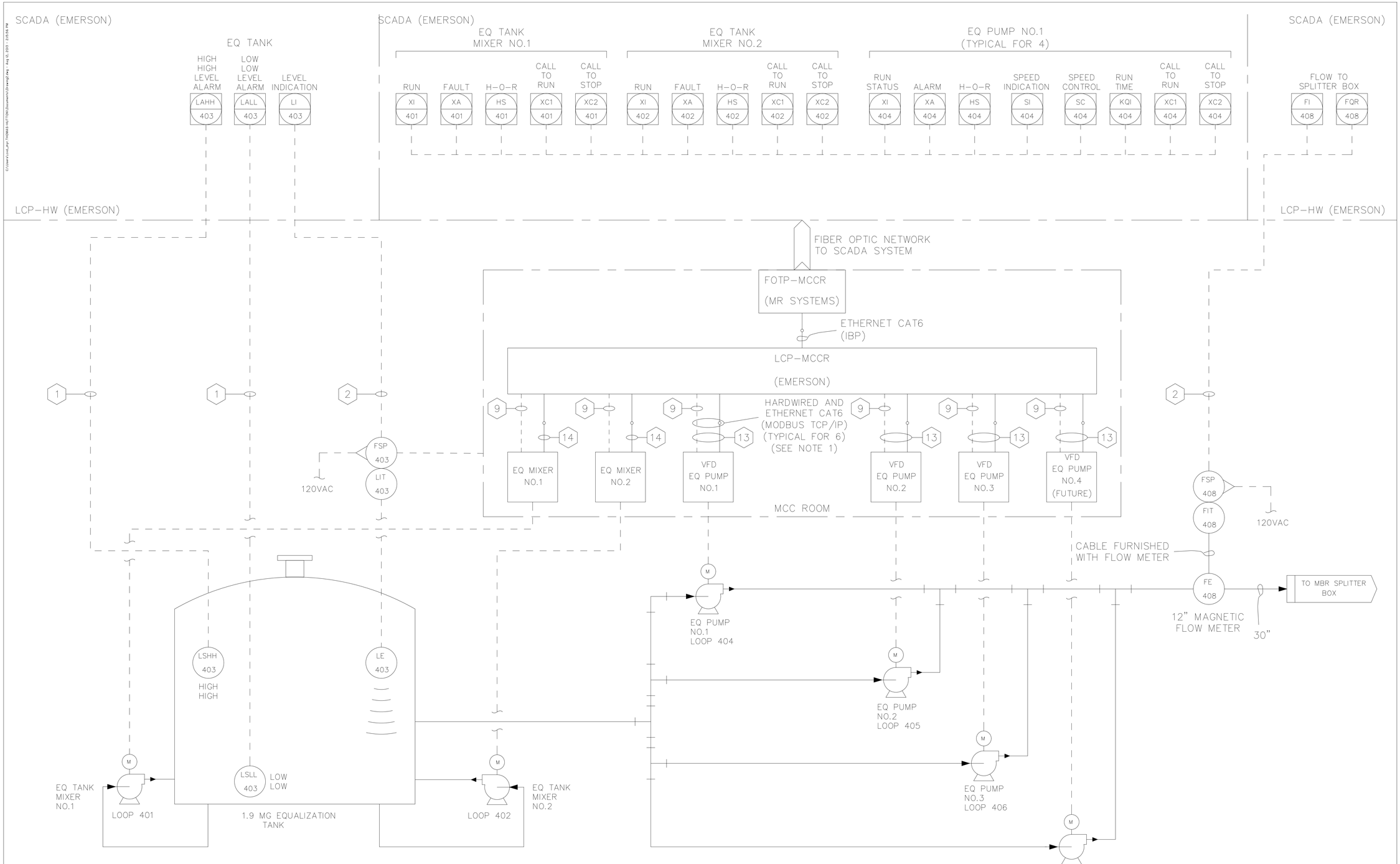
TRAVIS FIELD WATER RECLAMATION FACILITY

HEADWORKS

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-3



NOTES:

1. TO BE DETERMINED BASED ON ACTUAL EQUIPMENT SUPPLIED
2. IBP = INTERNET BRISTOL PROTOCOL

BID SET - NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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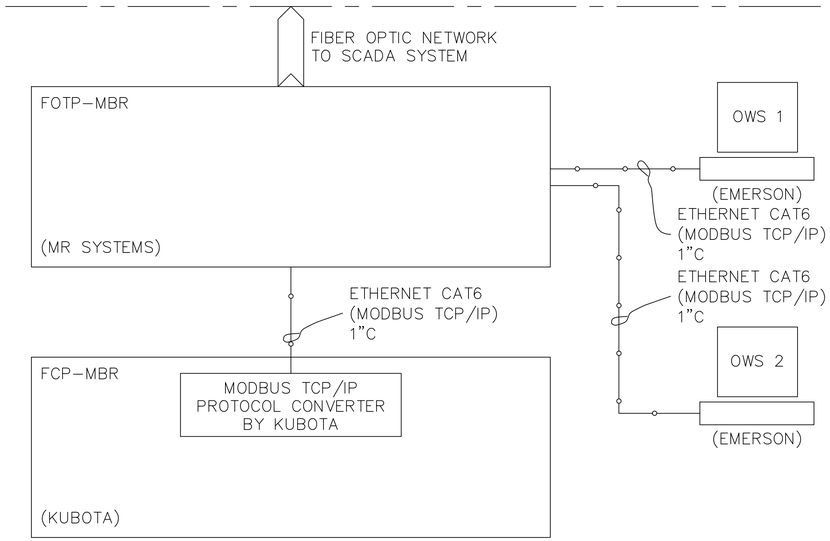
TRAVIS FIELD WATER RECLAMATION FACILITY

EQUALIZATION TANK & PUMP STATION

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-4

SCADA (EMERSON)



NOTE: SEE KUBOTA P&ID DRAWINGS.

MEMBRANE SYSTEM

BID SET - NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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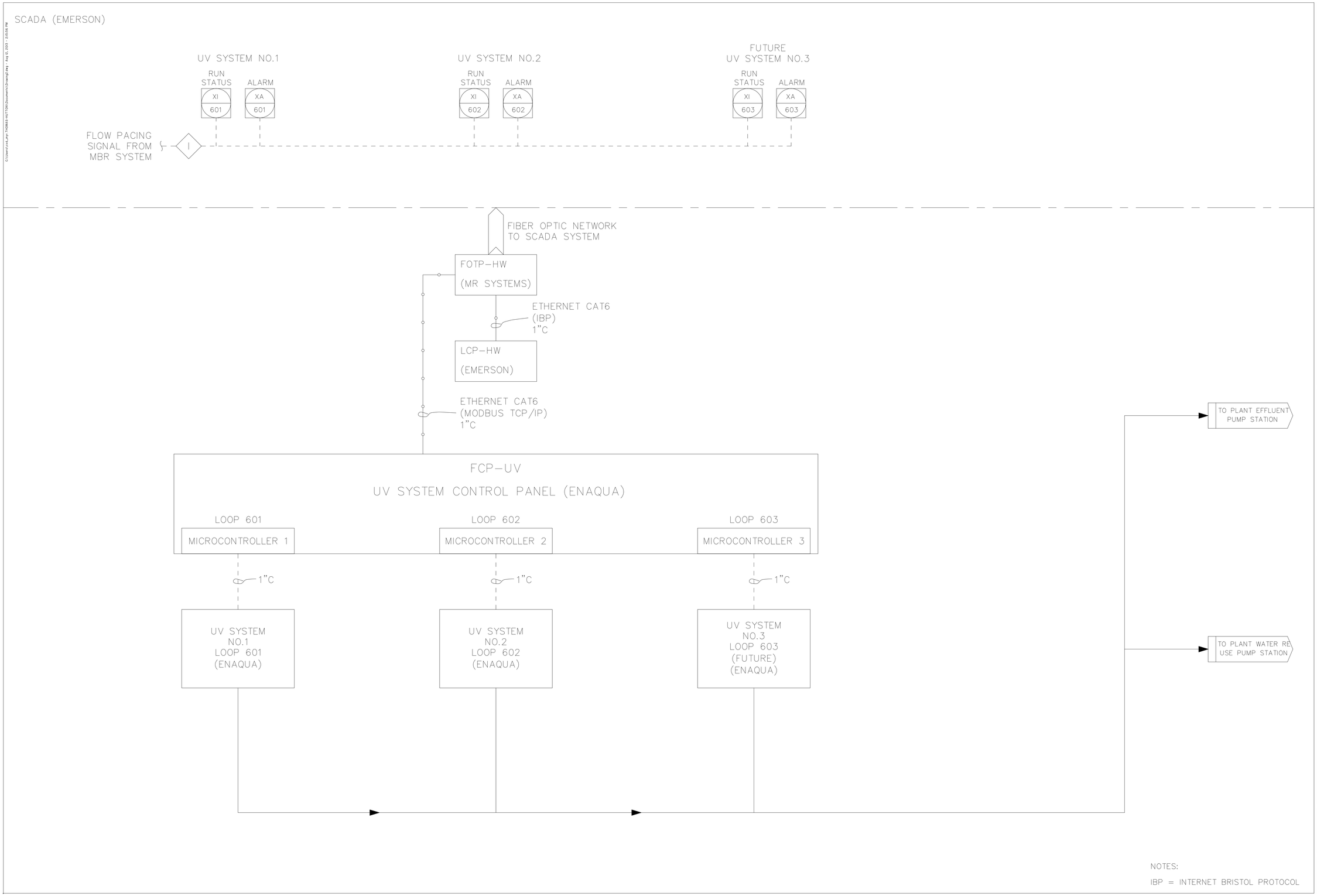
MEMBRANE SYSTEM

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-5



NOTES:

IBP = INTERNET BRISTOL PROTOCOL

BID SET - NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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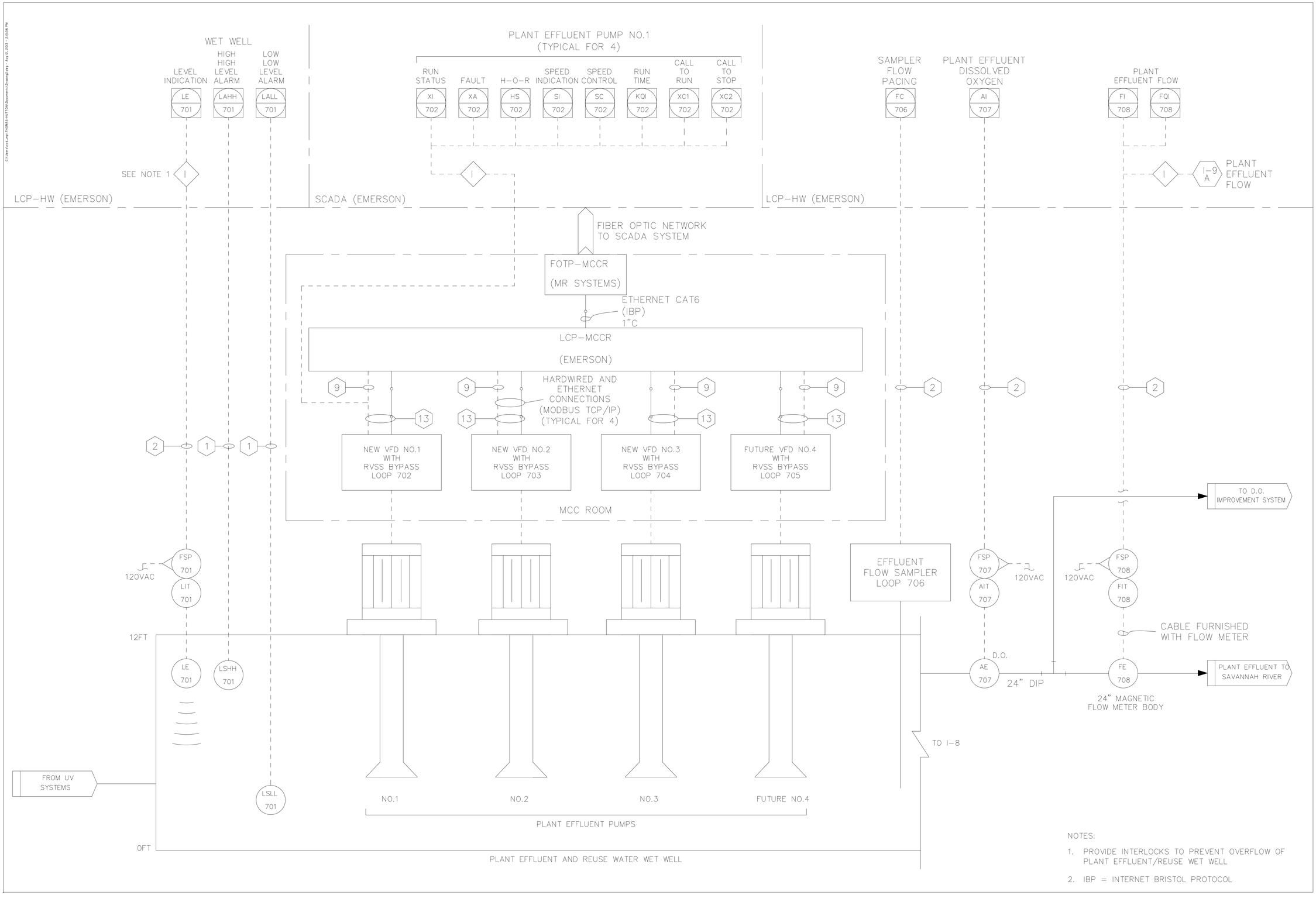
TRAVIS FIELD WATER RECLAMATION FACILITY

UV DISINFECTION

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-6



NOTES:

1. PROVIDE INTERLOCKS TO PREVENT OVERFLOW OF PLANT EFFLUENT/REUSE WET WELL
2. IBP = INTERNET BRISTOL PROTOCOL

BID SET - NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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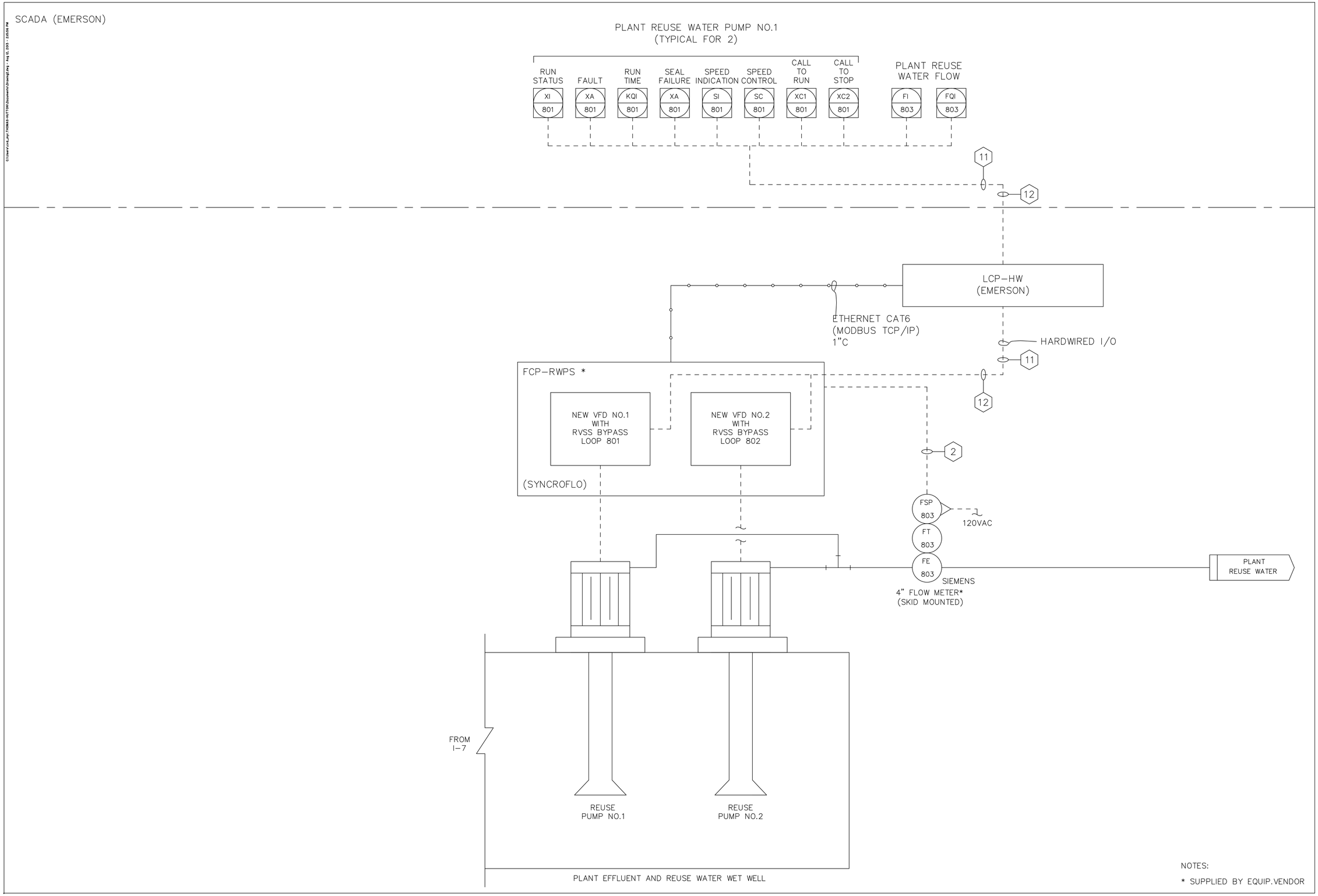
PLANT EFFLUENT PUMP STATION

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-7



NOTES:

* SUPPLIED BY EQUIP.VENDOR

BID SET - NOT FOR CONSTRUCTION

NO.	REVISIONS		DATE
1	REVISED PER ADDENDUM #4	CDR	6-26-19
0	ISSUED FOR BIDS	CDR	5-01-19
		B1	

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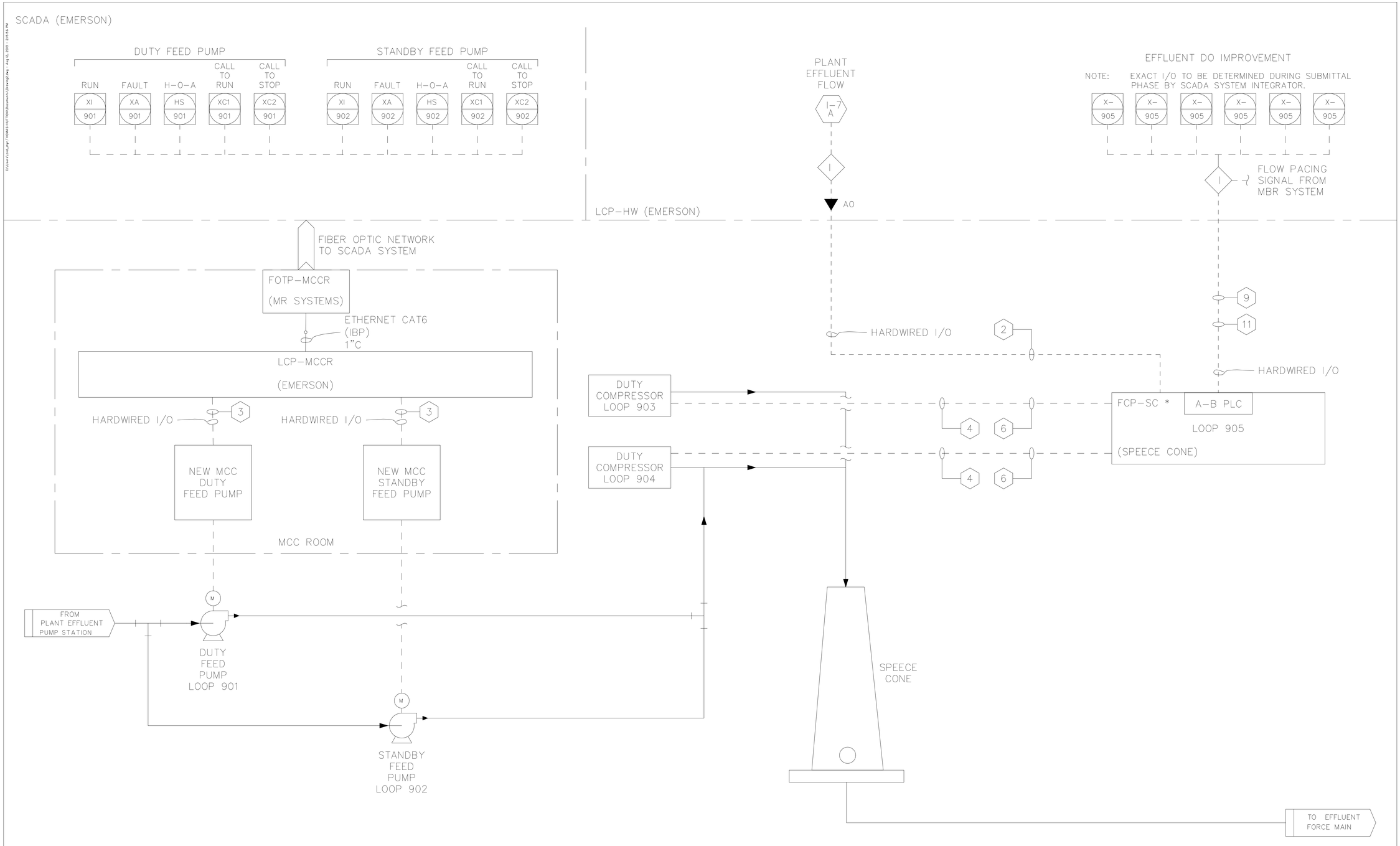
TRAVIS FIELD WATER RECLAMATION FACILITY

PLANT REUSE WATER PUMP STATION

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-8



NOTES:

* SUPPLIED BY EQUIP.VENDOR

IBP = INTERNET BRISTOL PROTOCOL

BID SET - NOT FOR CONSTRUCTION

NO	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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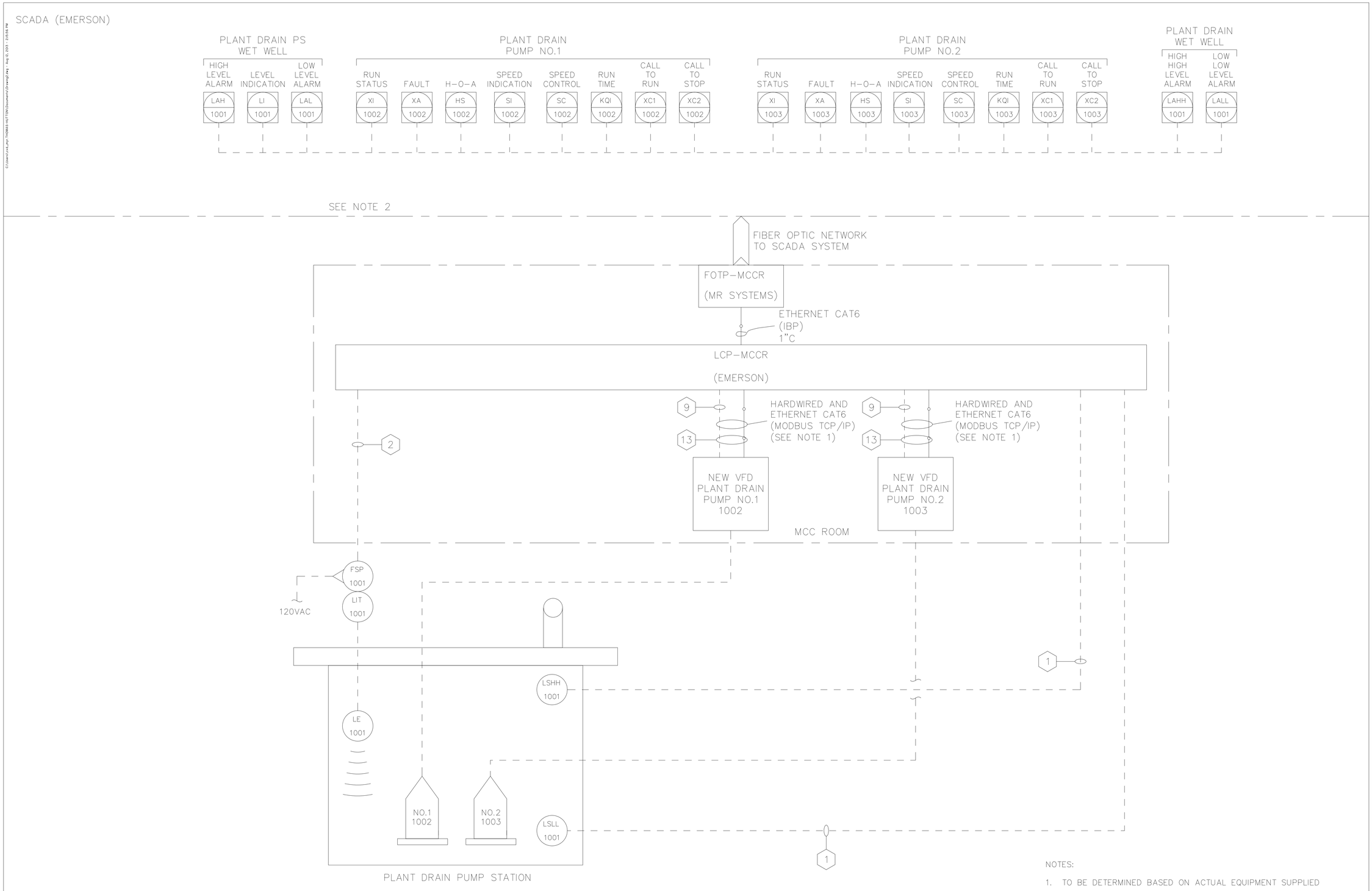
TRAVIS FIELD WATER RECLAMATION FACILITY

DO IMPROVEMENT SYSTEM

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-9



NOTES:

1. TO BE DETERMINED BASED ON ACTUAL EQUIPMENT SUPPLIED
2. PLANT DRAIN PUMPS TO BE CONTROLLED BY PID LOOPS
3. IBP = INTERNET BRISTOL PROTOCOL

BID SET - NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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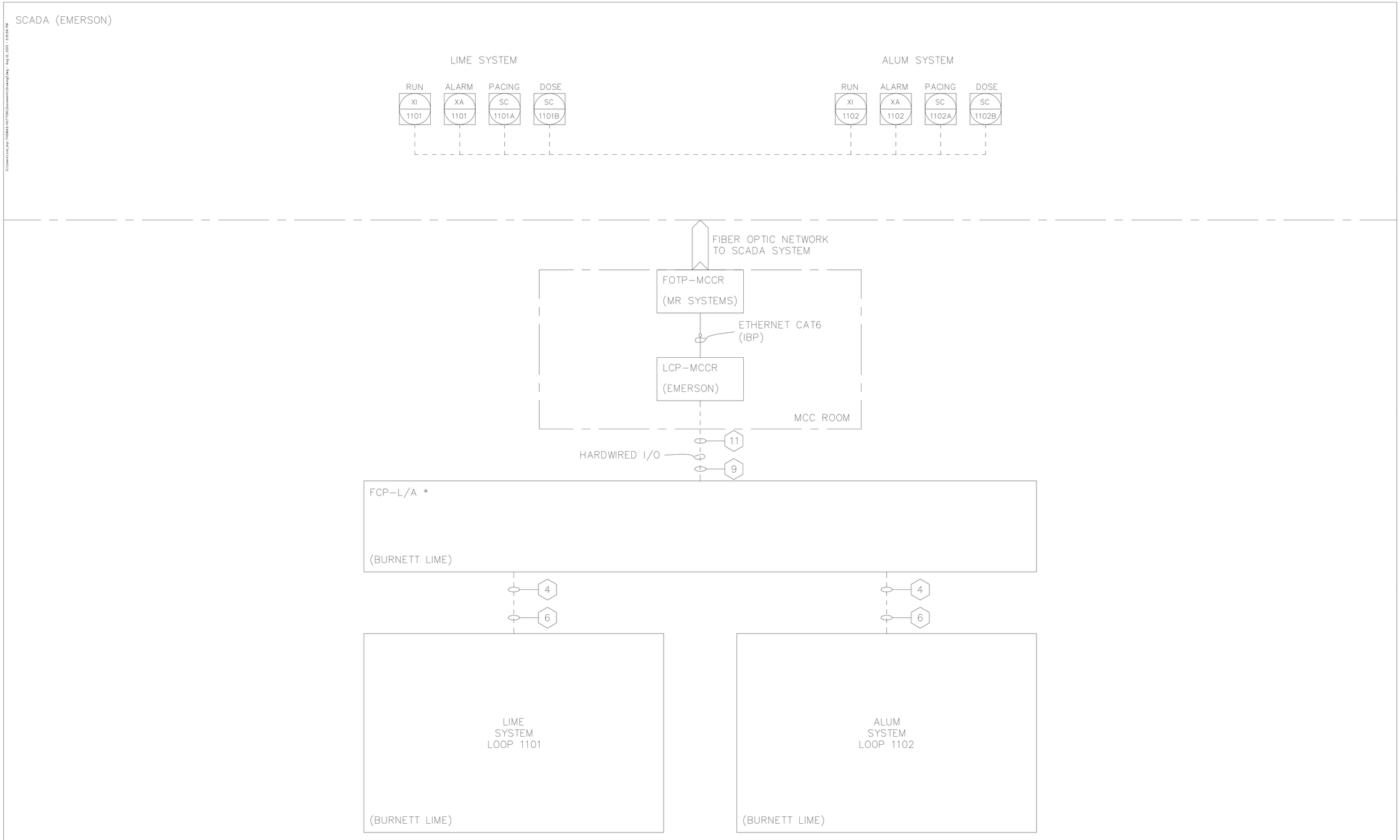
TRAVIS FIELD WATER RECLAMATION FACILITY

PLANT DRAIN PUMP STATION

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-10



NOTES:

* SUPPLIED BY EQUIP.VENDOR

IBP = INTERNET BRISTOL PROTOCOL

BID SET - NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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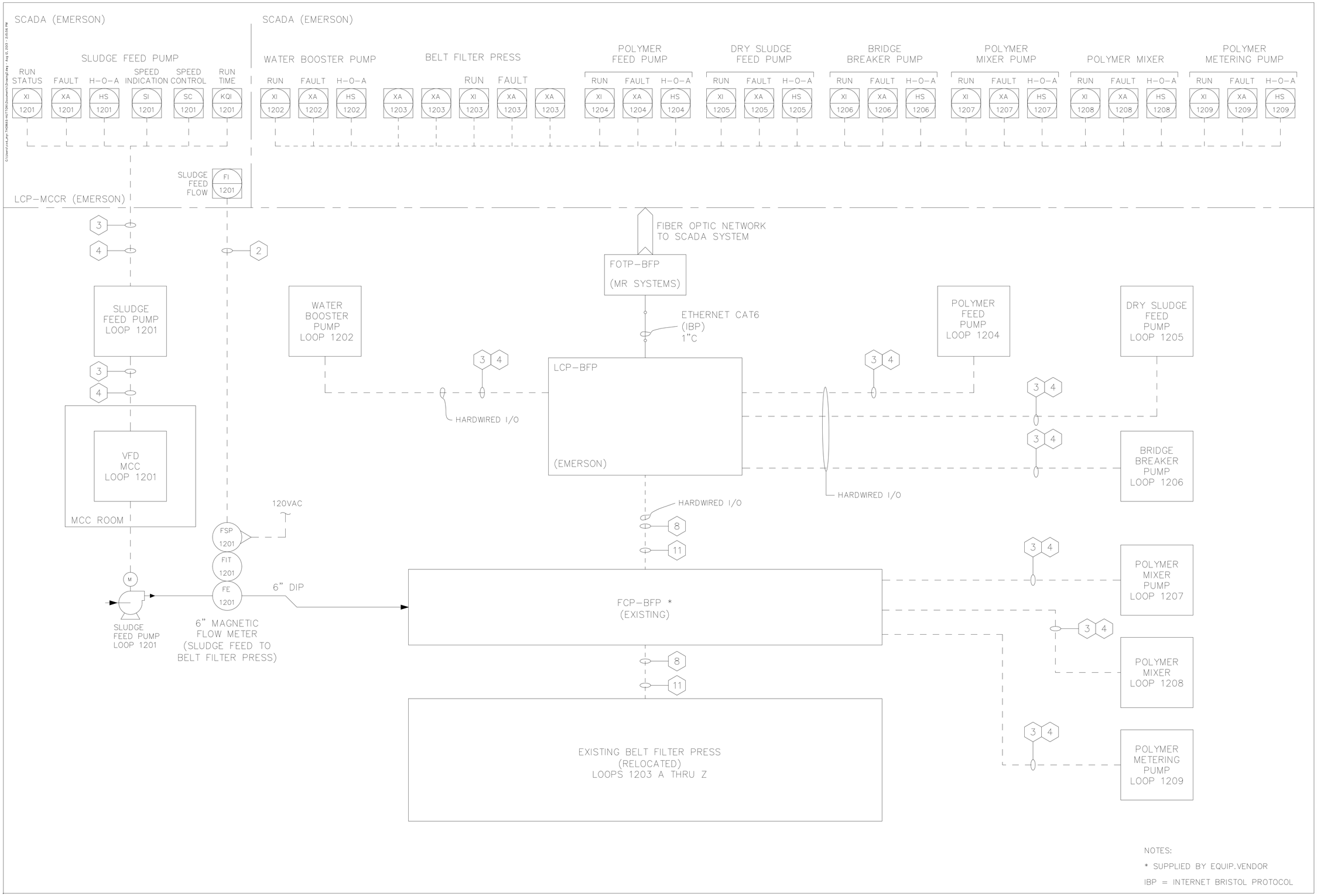
LIME SLURRY / ALUM SYSTEM

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-11



NOTES:

* SUPPLIED BY EQUIP.VENDOR

IBP = INTERNET BRISTOL PROTOCOL

BID SET - NOT FOR CONSTRUCTION

NO	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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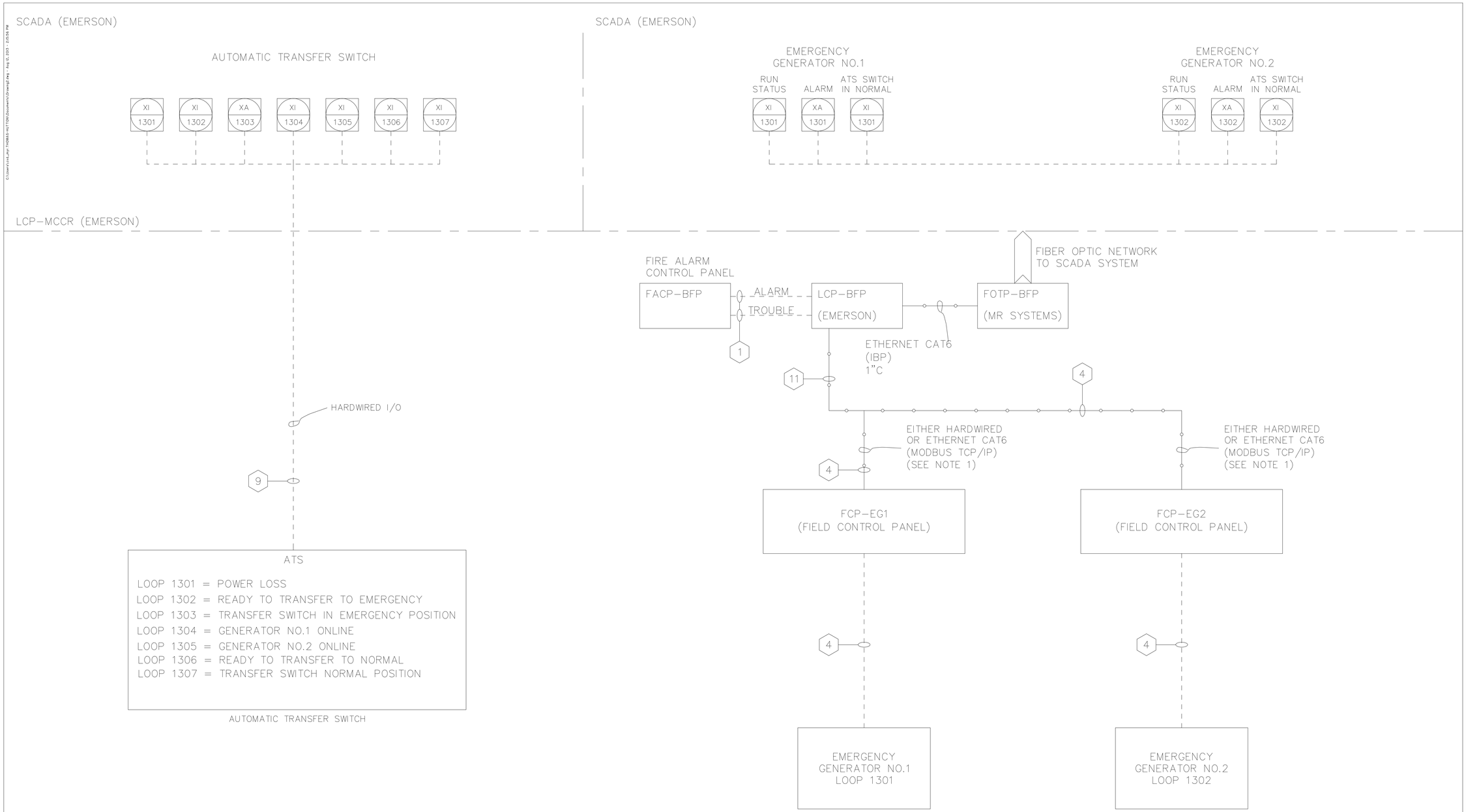
TRAVIS FIELD WATER RECLAMATION FACILITY

BELT FILTER PRESS

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-12



NOTES:

1. TO BE DETERMINED BASED ON ACTUAL EQUIPMENT SUPPLIED
2. IBP = INTERNET BRISTOL PROTOCOL

BID SET - NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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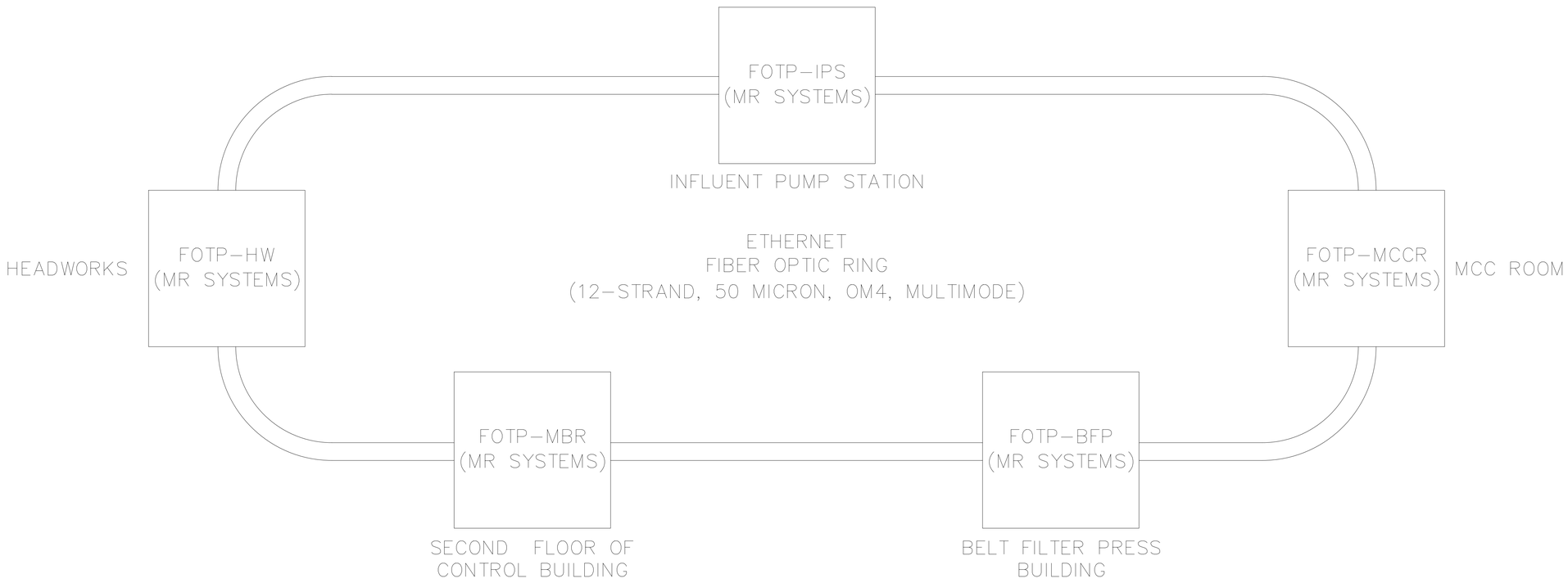
TRAVIS FIELD WATER RECLAMATION FACILITY

GENERATORS

JOB NO:	J-GENERATORS
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-13



NOTE: ALL ETHERNET COMMUNICATIONS TO BE MODBUS TCP/IP. NO EXCEPTIONS.

BID SET - NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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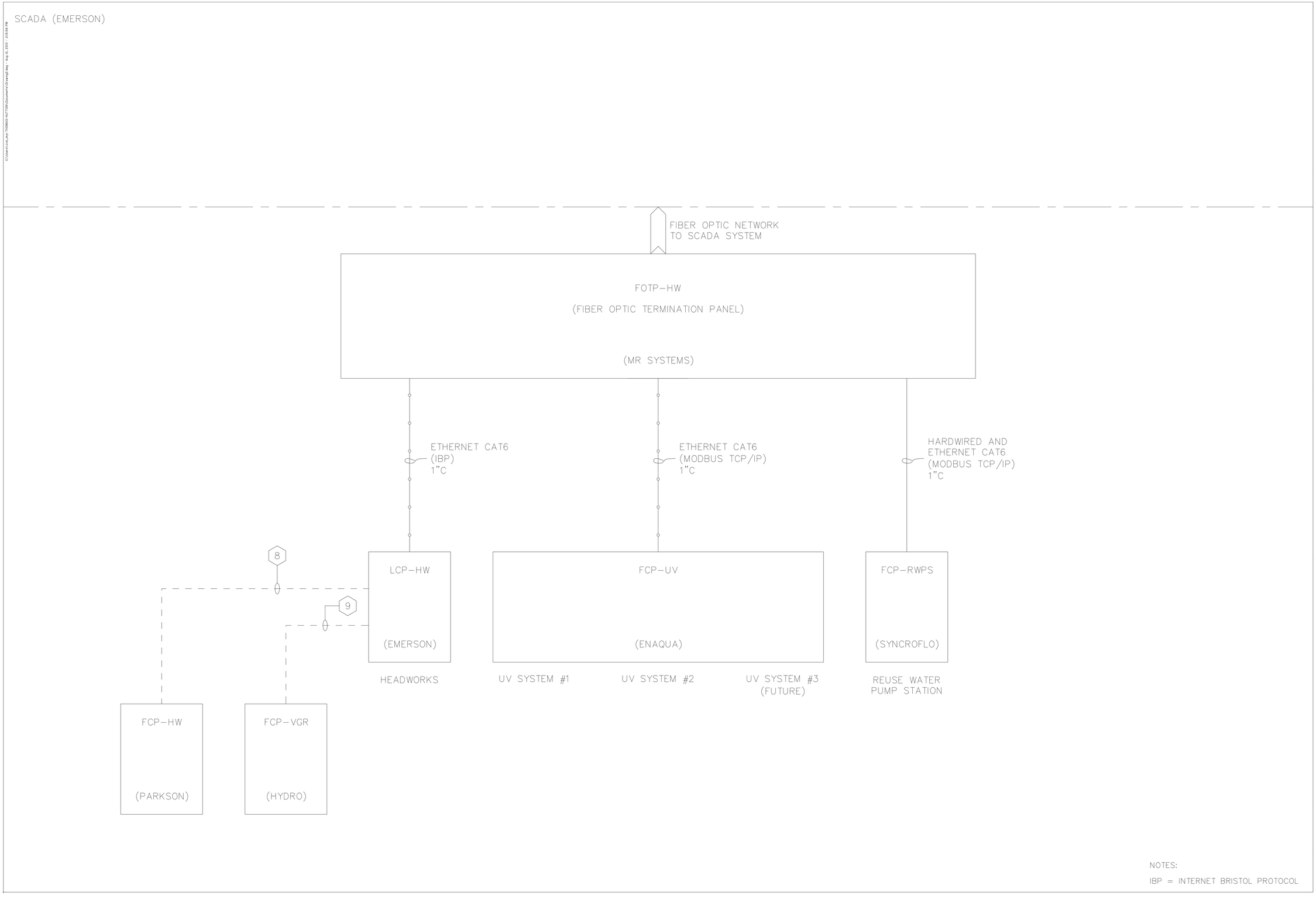
TRAVIS FIELD WATER RECLAMATION FACILITY

SCADA NETWORK DIAGRAM

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-14



NOTES:

IBP = INTERNET BRISTOL PROTOCOL

BID SET - NOT FOR CONSTRUCTION

NO	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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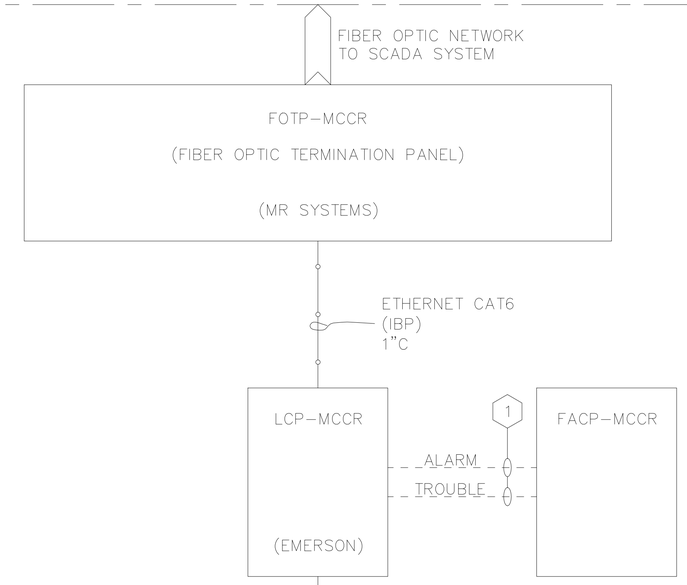
TRAVIS FIELD WATER RECLAMATION FACILITY

HEADWORKS LOCAL NETWORKING

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-15

SCADA (EMERSON)



THE FOLLOWING EQUIPMENT IS EITHER HARDWIRED OR CONNECTED VIA ETHERNET CAT6 (MODBUS TCP/IP) TO LCP–MCCR:

EQ MIXER NO. 1	PLANT EFFLUENT PUMP #1 VFD	SPECE CONE DUTY FEED PUMP
EQ MIXER NO. 2	PLANT EFFLUENT PUMP #2 VFD	SPECE CONE STANDBY FEED PUMP
EQ PUMP NO. 1 VFD	PLANT EFFLUENT PUMP #3 VFD	PLANT DRAIN PUMP #1 VFD
EQ PUMP NO. 2 VFD	FUTURE PLANT EFFLUENT PUMP #4 VFD	PLANT DRAIN PUMP #2 VFD
EQ PUMP NO. 3 VFD	SLUDGE FEED PUMP VFD	
FUTURE EQ PUMP NO. 4 VFD		

NOTES:

IBP = INTERNET BRISTOL PROTOCOL

BID SET - NOT FOR CONSTRUCTION

NO	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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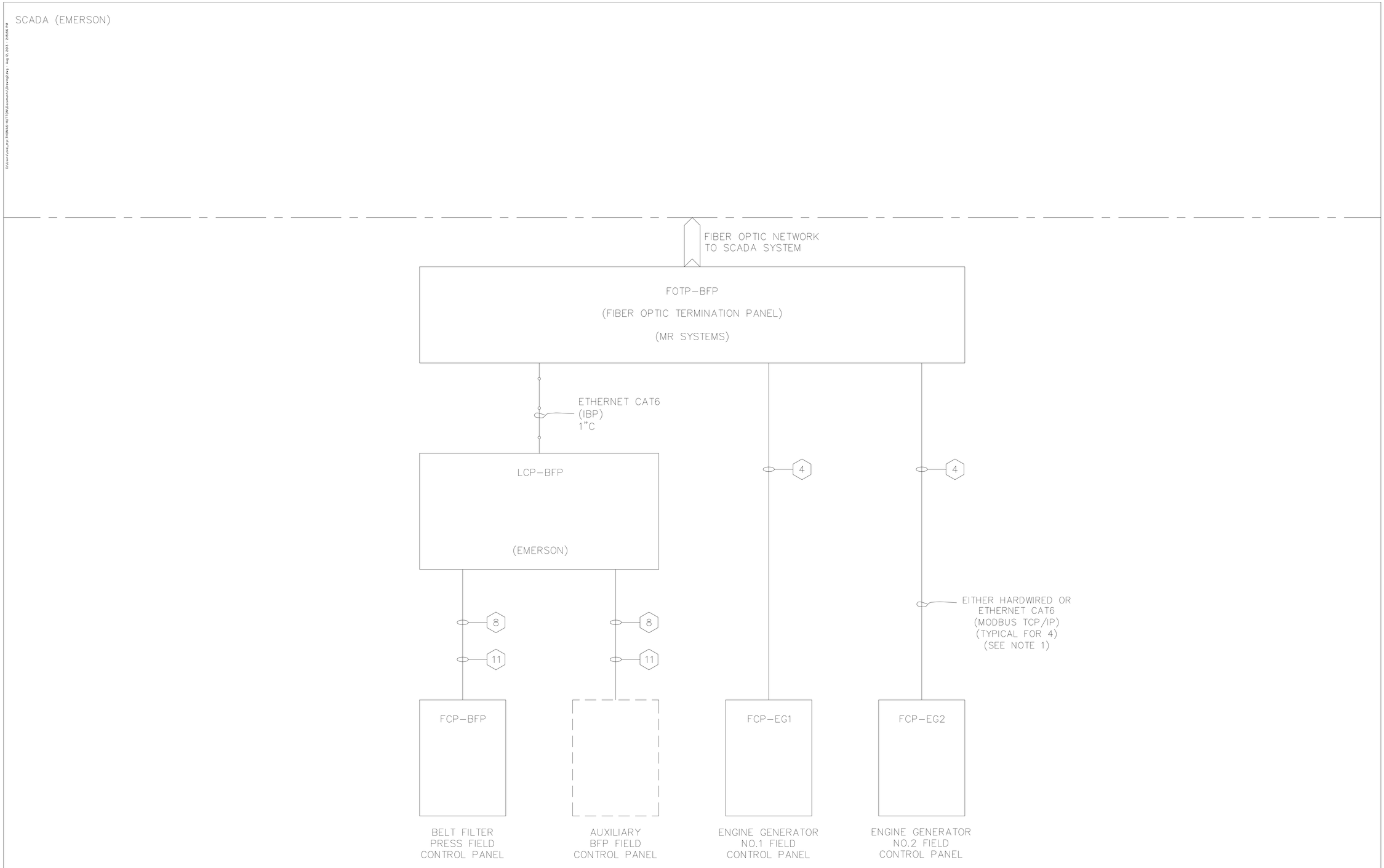
TRAVIS FIELD WATER RECLAMATION FACILITY

MCC ROOM EQUIPMENT MONITORED

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-16



NOTES:

1. TO BE DETERMINED BASED ON ACTUAL EQUIPMENT SUPPLIED
2. IBP = INTERNET BRISTOL PROTOCOL

BID SET - NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	6-25-19
0	ISSUED FOR BIDS	CDR	5-01-19

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TRAVIS FIELD WATER RECLAMATION FACILITY

BELT FILTER PRESS LCP-BFP EQUIPMENT MONITORED

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-17

CONTROL CIRCUIT LEGEND

MARK	CONDUIT (SEE NOTE A)	CONDUCTORS (SEE NOTES B, C, D)
1	3/4"	2 NO. 16, 1 NO. 16 (G)
2	3/4"	2C TSP NO. 16
3	3/4"	12 NO. 16, 1 NO. 16 (G)
4	3/4"	2 – 2C TSP NO. 16
5	3/4"	FUTURE WIRING
6	3/4"	4 NO. 16, 1 NO. 16 (G)
7	3/4"	2 NO. 12, 1 NO. 12 (G)
8	3"	144 NO. 16, 1 NO. 16 (G)
9	1"	16 NO. 16, 1 NO. 16 (G)
10	1"	FUTURE WIRING
11	1–1/2"	8 – 2C TSP NO. 16
12	1–1/2"	30 NO. 16, 1 NO. 16 (G)
13	3/4"	2 – 2C TSP NO. 16, 1 CAT6
14	3/4"	1 CAT6

NOTES:

A. REFER TO ELECTRICAL SPECIFICATION DIVISION 26 FOR CONDUIT TYPES ALLOWED.

B. ALL WIRING INSTALLED BELOW GRADE SHALL BE RATED FOR WET LOCATIONS. BUILDING WIRE SHALL BE THWN.

C. ALL WIRING SHALL BE LABELLED TO MATCH CONTROL EQUIPMENT ID NUMBERS AND TERMINAL STRIPS.

D. NO SPLICES SHALL BE ALLOWED IN FIELD. REWIRE TERMINATIONS USING TERMINAL STRIPS ONLY.

BID SET - NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM #4	CDR	
0	ISSUED FOR BIDS	CDR	5-01-19

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TRAVIS FIELD WATER RECLAMATION FACILITY

BELT FILTER PRESS LCP-BFP EQUIPMENT MONITORED

JOB NO:	J-26963.0000
DATE:	1-16-19
DRAWN:	TH
DESIGNED:	TH
REVIEWED:	FS
APPROVED:	TH
SCALE:	1" = 1'

I-18