

Y:\2020\200206- CP20171 EM Structural and Civil Engineering Services Blanket\Other Structural Projects\CP221871-Power Plant-Replace Three Entrance Motorized Vehicle Drive Gates\Civil\CAAD Files\Construction Plans\200206 Gates Site Base - Structural.dwg



SITE MAP
NOT TO SCALE

UTILITY COMPANIES:

LOCATES:

MISSOURI ONE CALL INC.
1022 B NORTHEAST DRIVE
JEFFERSON CITY, MO 65205
1-800-344-7483

TELEPHONE:

CENTURYLINK
625 CHERRY STREET
COLUMBIA, MO 65205
573-886-3700

UNIVERSITY OF MISSOURI, DIVISION OF I.T.
615 LOCUST ST.
COLUMBIA, MO 65211
573-882-5000

CABLE TELEVISION:

CHARTER COMMUNICATIONS
1510 CHARTER BOONE
INDUSTRIAL BOULEVARD
COLUMBIA, MO 65202
573-875-8875



ELECTRIC:

CITY OF COLUMBIA
P.O. BOX 6015
WATER & LIGHT DEPARTMENT
COLUMBIA, MO 65205
573-874-7325

WATER:

ENERGY MANAGEMENT
417 S. 5TH ST.
COLUMBIA, MO 65211
573-882-3094

**STORM/SANITARY SEWER
& SECONDARY ELECTRIC:**

UNIVERSITY CAMPUS FACILITY OPERATIONS
180 GENERAL SERVICES BUILDING
COLUMBIA, MO 65211
573-882-8211

NATURAL GAS:

AMEREN MISSOURI
2001 MAGUIRE BLVD.
COLUMBIA, MO 65201
573-876-3030



UNIVERSITY OF MISSOURI POWER PLANT REPLACE THREE MOTORIZED VEHICLE DRIVE GATES FOR THE CURATORS OF THE UNIVERSITY OF MISSOURI PROJECT NO. CP221871

LEGEND OF SYMBOLS:

---	EXISTING CURB	-----	100 YEAR FLOOD PLAIN
~~~~~	EXISTING TREELINE		FLOODWAY
---o---o---	EDGE OF WATERWAY	-----■-----	EXISTING MINOR CONTOUR
---W---	EXISTING WATERLINE	-----■-----	EXISTING MAJOR CONTOUR
---W---	EXISTING WATER VALVE	-----■-----	PROPOSED MINOR CONTOUR
---W---	EXISTING WATER METER	-----■-----	PROPOSED MAJOR CONTOUR
---G---	EXISTING FIRE HYDRANT	○	EXISTING TREE
---G---	EXISTING GAS LINE	⊗	EXISTING LIGHT POLE
---G---	EXISTING GAS METER	∅	EXISTING UTILITY POLE
---S---	EXISTING SANITARY SEWER	---OEVT---	EXISTING OVERHEAD TELECOM
●	MANHOLE	---OE---	EXISTING OVERHEAD ELECTRIC
---S---	EXISTING SANITARY SEWER LATERAL	---UT---	EXISTING UNDERGROUND TELECOM
---OE---	EXISTING OVERHEAD ELECTRIC	---UE---	EXISTING UNDERGROUND ELECTRIC
---S---	SILT FENCE	AC	EXISTING AIR CONDITIONER
---	LIMITS OF DISTURBANCE	TP	EXISTING TELEPHONE PEDESTAL
=====	EXISTING STORM SEWER	EM	EXISTING ELECTRICAL TRANSFORMER
---	BUILDING LINE	EM	EXISTING ELECTRIC METER
---	EASEMENT	→	EXISTING GUY WIRE
+++++	UTILITY TO BE ABANDONED	CONCRETE	EXISTING CONCRETE
Y	UTILITY CAP	ASPHALT	EXISTING ASPHALT
○	EXISTING SIGN	DEMOLITION	DEMOLITION AREA
×	EXISTING FENCE	LP.	GRADING LOW POINT
---	CONSTRUCTION FENCE		
---	TREE PROTECTION FENCE		

**GENERAL NOTES:**

CONTRACTOR WILL BE RESPONSIBLE FOR PLACEMENT AND MAINTENANCE OF TRAFFIC CONTROL DEVICES NECESSARY TO COMPLETE THEIR PORTION OF WORK. THE DEVICES AND METHODS EMPLOYED WILL COMPLY WITH THE CURRENT VERSION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).

EXISTING UTILITIES SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL COORDINATE LOCATES PRIOR TO ANY EXCAVATION.

ALL EXCAVATION TO BE IN ACCORDANCE WITH SECTIONS 319.010-319.050, REVISED STATUTES OF THE STATE OF MISSOURI. SUCH COMPLIANCE SHALL NOT, HOWEVER, EXCUSE ANY PERSON MAKING ANY EXCAVATION FROM DOING SO IN A CAREFUL AND PRUDENT MANNER, NOR SHALL IT EXCUSE SUCH PERSON FROM LIABILITY FOR ANY DAMAGE OR INJURY TO UNDERGROUND UTILITIES RESULTING FROM THE EXCAVATION.

IT IS THE INTENT OF THESE PLANS TO COMPLY WITH THE REQUIREMENTS OF THE MODNR CLEAN WATER COMMISSION.

CONTRACTOR TO PROTECT ALL EXISTING UTILITIES, STRUCTURES, AND PAVEMENT THAT IS TO REMAIN. ALL DAMAGED ITEMS OUTSIDE THE SCOPE OF WORK TO BE REPLACED OR REPAIRED TO ORIGINAL CONDITION AT THE CONTRACTORS EXPENSE.

ALL PAVEMENTS, SIDEWALKS, ABANDONED SEWERS, PIPELINES, EXCESS EARTHWORK, OR OTHER OBSTRUCTIONS TO CONSTRUCTION THAT ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFICALLY NOTED AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH STATE REGULATION 10 CSR 80-2.010 (9)(A)1.

MISSOURI DNR LAND DISTURBANCE PERMIT NOT NEEDED FOR THIS PROJECT.

DESIGN SPECIFICATIONS  
2021 INTERNATIONAL BUILDING CODE

**DEFERRED SUBMITTAL**

CANTILEVER MOTORIZED GATE SHOP DRAWINGS

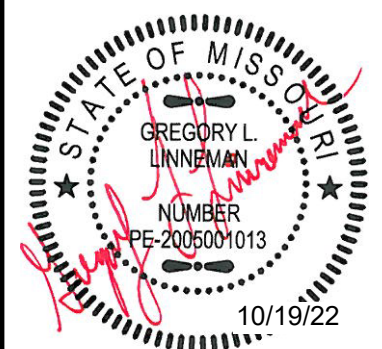
I HEREBY CERTIFY THESE DRAWINGS AND/OR SPECIFICATIONS HAVE BEEN PREPARED BY ME, OR UNDER MY SUPERVISION. I FURTHER CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND/OR SPECIFICATIONS ARE AS REQUIRED BY AND IN COMPLIANCE WITH THE BUILDING CODES OF THE UNIVERSITY OF MISSOURI.

SIGNATURE

**REVISIONS:**

NO.	DATE
BID SET	10/19/22

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY



GREGORY L. LINNEMAN - PE  
MO LICENSE - 2005001013

**CROCKETT**  
ENGINEERS & ARCHITECTS  
1000 W. N. Highway Blvd.  
Columbia, Missouri 65203  
(314) 447-0292  
www.crockettengineering.com  
Crockett Engineering Consultants, LLC  
Missouri Certificate of Authority  
#000000001

**OWNER:**  
CURATORS OF THE UNIVERSITY OF MISSOURI  
225 UNIVERSITY HALL  
C/O BUSINESS SERVICES  
COLUMBIA, MO 65211

**UNIVERSITY OF MISSOURI POWER PLANT  
REPLACE THREE MOTORIZED VEHICLE DRIVE GATES**  
UNIVERSITY OF MISSOURI - COLUMBIA PROJECT: CP221871  
COLUMBIA, BOONE COUNTY, MISSOURI

**DRAWING INCLUDES:**

COVER SHEET

DESIGNED: GLL

DRAWN: RCA

CEC PROJECT NO.: 200206

SHEET:  
CE1

INDEX OF SHEETS	
COVER SHEET	CE1
FUEL ROAD GATE PLAN (BASE BID)	CE2
SOUTH 5TH STREET GATE PLAN - ALT. #1	CE3
NORTH 5TH STREET GATE PLAN - ALT. #2	CE4

SCOPE OF WORK:

1. NEW ELEMENTS INCLUDE BUT ARE NOT LIMITED TO:
- 1.1. 8" TALL PICKET GATES, SAFETY DEVICES, RAILS, POSTS, CONCRETE (FULL GATE REPLACEMENT).

1.2. NEW PAVEMENT GATE SENSOR LOOPS.

1.3. NEW OPERATORS @ ALL OPERATING & SAFETY COMPONENTS.

1.4. NEW 6x6 EXTERIOR RATED ELECTRICAL PULL BOX & CONDUIT TO OPERATOR.

1.5. NEW ORNAMENTAL FENCE SECTION @ INCREASED CANTILEVER.

1.6. RELOCATED/NEW FENCE SECTION OF CHAIN LINK FENCE TO MATCH EXISTING w/ VERTICAL SLATS.
2. ELEMENTS THAT ARE BEING REPLACED:
- 2.1. ENTIRE GATE (TRACK, SLIDES, TROLLEYS, ETC.)

2.2. OPERATOR PAD

2.3. OPERATOR DEVICE
3. ELEMENTS THAT MAY STAY @ INSTALLER'S DISCRETION:
- 3.1. EXISTING FENCES OUTSIDE OF GATE.

3.2. CARD READERS / REMOTE OPERATORS & WIRING.

3.3. GATE POSTS

3.4. EXISTING EMERGENCY TRUCK SIREN SENSOR & WIRING.

CONTRACTOR NOTES:

THE INTENT OF THESE REQUIREMENTS IS TO HAVE A TURNKEY GATE INSTALLATION. ONLY ITEMS SPECIFICALLY CALLED OUT TO BE PROVIDED BY THE OWNER ARE EXCLUDED.

WE ENCOURAGE ALL BIDDERS TO VISIT THE SITES PRIOR TO BID DURING NORMAL BUSINESS HOURS. ARRANGEMENTS CAN BE MADE WITH KEVIN STEWARD 573-882-5934.

DAILY OPERATIONS AND SECURITY IS VERY IMPORTANT FOR THE MU POWER PLANT COMPLEX. CARE SHALL BE TAKEN TO MINIMIZE THE AMOUNT OF TIME EITHER GATE IS NOT IN SERVICE.



EXISTING OPERATOR



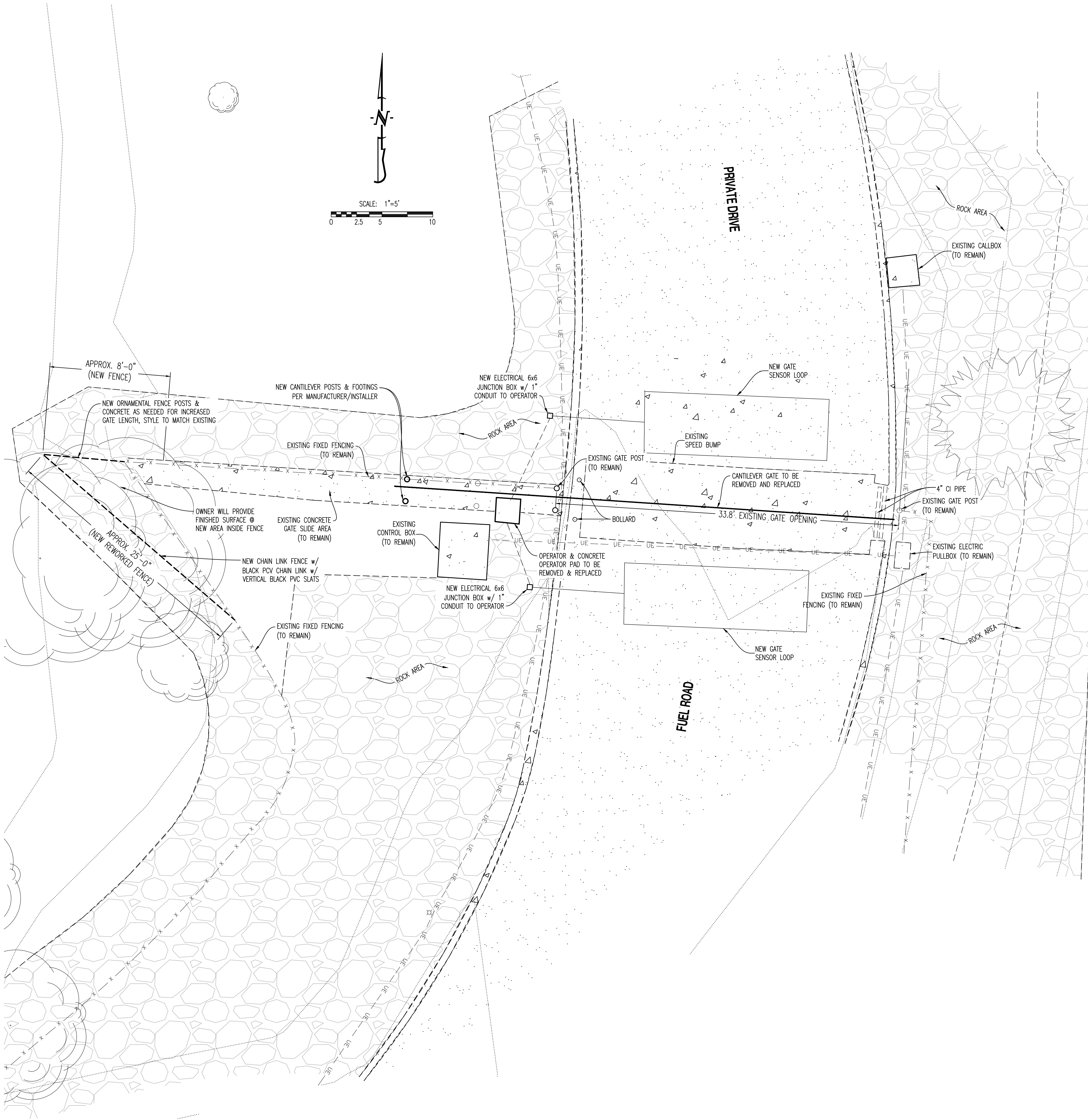
EXISTING FENCE @ CANTILEVER



EXISTING FENCE @ CANTILEVER



EXISTING CANTILEVERED GATE



REVISIONS:

NO.	DATE
BID SET	10/19/22

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STATE OF MISSOURI

GREGORY L. LINNEMAN

REGISTERED PROFESSIONAL ENGINEER

NUMBER PE-2005001013

10/19/22

GREGORY L. LINNEMAN - PE

MO LICENSE - 2005001013

PREPARED BY: CROCKETT ENGINEERS & ARCHITECTS

1000 W. Kings Blvd., Ste. 200

Columbia, Missouri 65203

(372) 447-0292

www.crockettengineering.com

Crockett Engineering Consultants, LLC

Missouri Certificate of Authority

0000000001

OWNER:

CURATORS OF THE UNIVERSITY OF MISSOURI

225 UNIVERSITY HALL

C/O BUSINESS SERVICES

COLUMBIA, MO 65211

UNIVERSITY OF MISSOURI POWER PLANT

REPLACE THREE MOTORIZED VEHICLE DRIVE GATES

UNIVERSITY OF MISSOURI - COLUMBIA PROJECT: CP221871

COLUMBIA, BOONE COUNTY, MISSOURI

DRAWING INCLUDES:

FUEL ROAD

GATE PLAN

(BASE BID)

DESIGNED: GLL

DRAWN: RCA

CEC PROJECT NO.: 2002006

SHEET: CE2

1. NEW ELEMENTS INCLUDE BUT ARE NOT LIMITED TO:
  - 1.1. 8' TALL PICKET GATES, SAFETY DEVICES, RAILS, POSTS, CONCRETE FOUNDATIONS, CONDUIT (FULL GATE REPLACEMENT).
- 1.2. NEW FENCE SCREENING AS NEEDED TO MEET SAFETY REQUIREMENTS, MATCH SCREENING ON NEW GATE.
- 1.3. REPAIR DAMAGED FENCE TO POST CONNECTIONS ON SECTIONS TO RECEIVE SCREENING.
- 1.4. NEW PAVEMENT GATE SENSOR LOOPS.
- 1.5. NEW OPERATORS @ ALL OPERATING & SAFETY COMPONENTS.
- 1.6. NEW 6x6 EXTERIOR RATED ELECTRICAL PULL BOX FOR SENSOR LOOPS & CONDUIT TO OPERATOR.

2. ELEMENTS THAT ARE BEING REPLACED:

- 2.1. ENTIRE GATE (TRACK, SLIDES, TROLLEYS, ETC.)
- 2.2. ALL POSTS @ GATES.
- 2.3. OPERATOR DEVICE

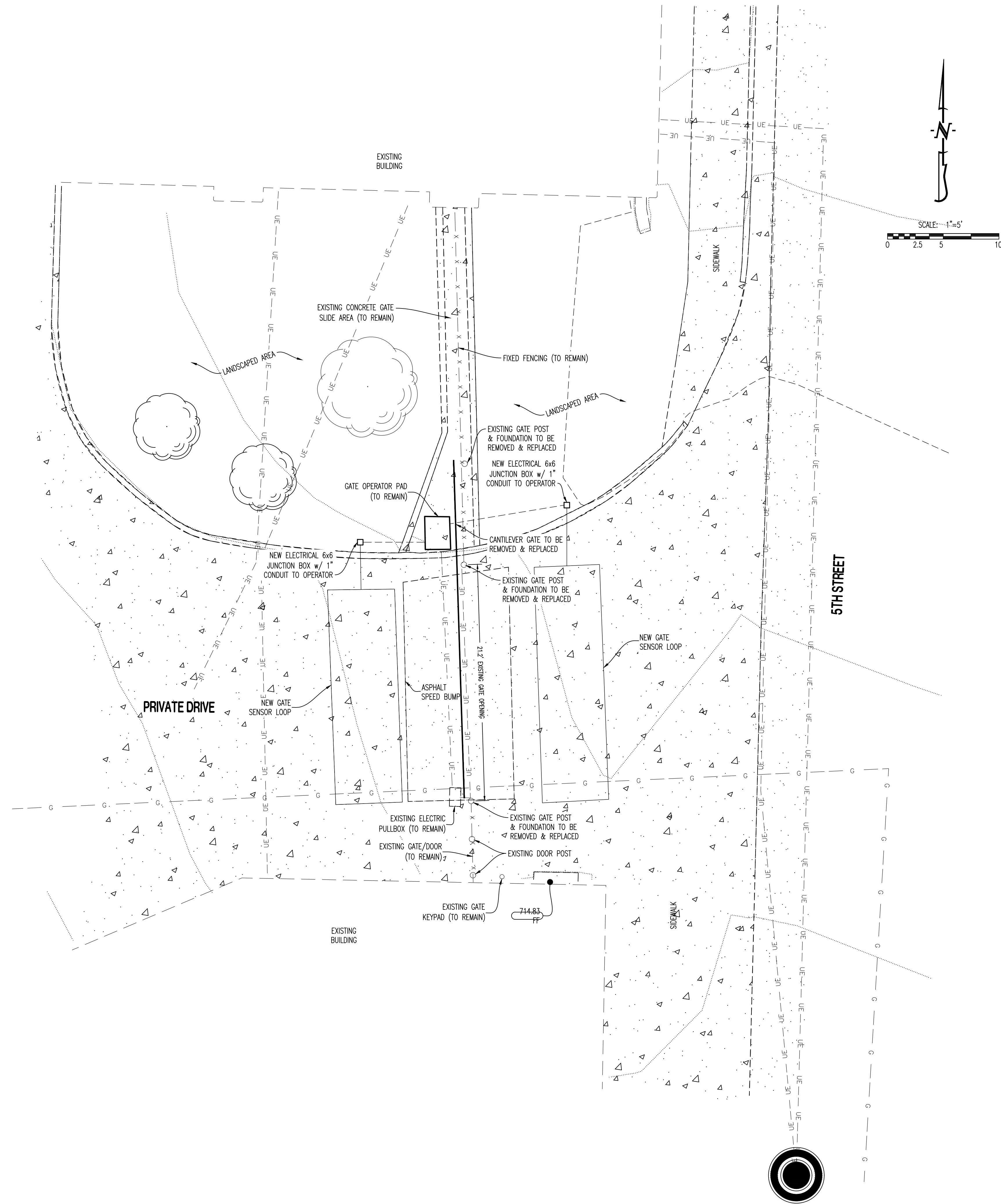
3. ELEMENTS THAT MAY STAY @ INSTALLER'S DISCRETION:

- 3.1. EXISTING FENCES ADJACENT TO GATE.
- 3.2. CARD READERS / REMOTE OPERATORS & WIRING.
- 3.3. CONCRETE PAD @ OPERATOR.
- 3.4. EXISTING EMERGENCY TRUCK SIREN SENSOR & WIRING.

THE INTENT OF THESE REQUIREMENTS IS TO HAVE A TURNKEY GATE INSTALLATION. ONLY ITEMS SPECIFICALLY CALLED OUT TO BE PROVIDED BY THE OWNER ARE EXCLUDED.

WE ENCOURAGE ALL BIDDERS TO VISIT THE SITES PRIOR TO BID DURING NORMAL BUSINESS HOURS. ARRANGEMENTS CAN BE MADE WITH KEVIN STEWARD 573-882-5934.

DAILY OPERATIONS AND SECURITY IS VERY IMPORTANT FOR THE MU POWER PLANT COMPLEX. CARE SHALL BE TAKEN TO MINIMIZE THE AMOUNT OF TIME EITHER GATE IS NOT IN SERVICE.



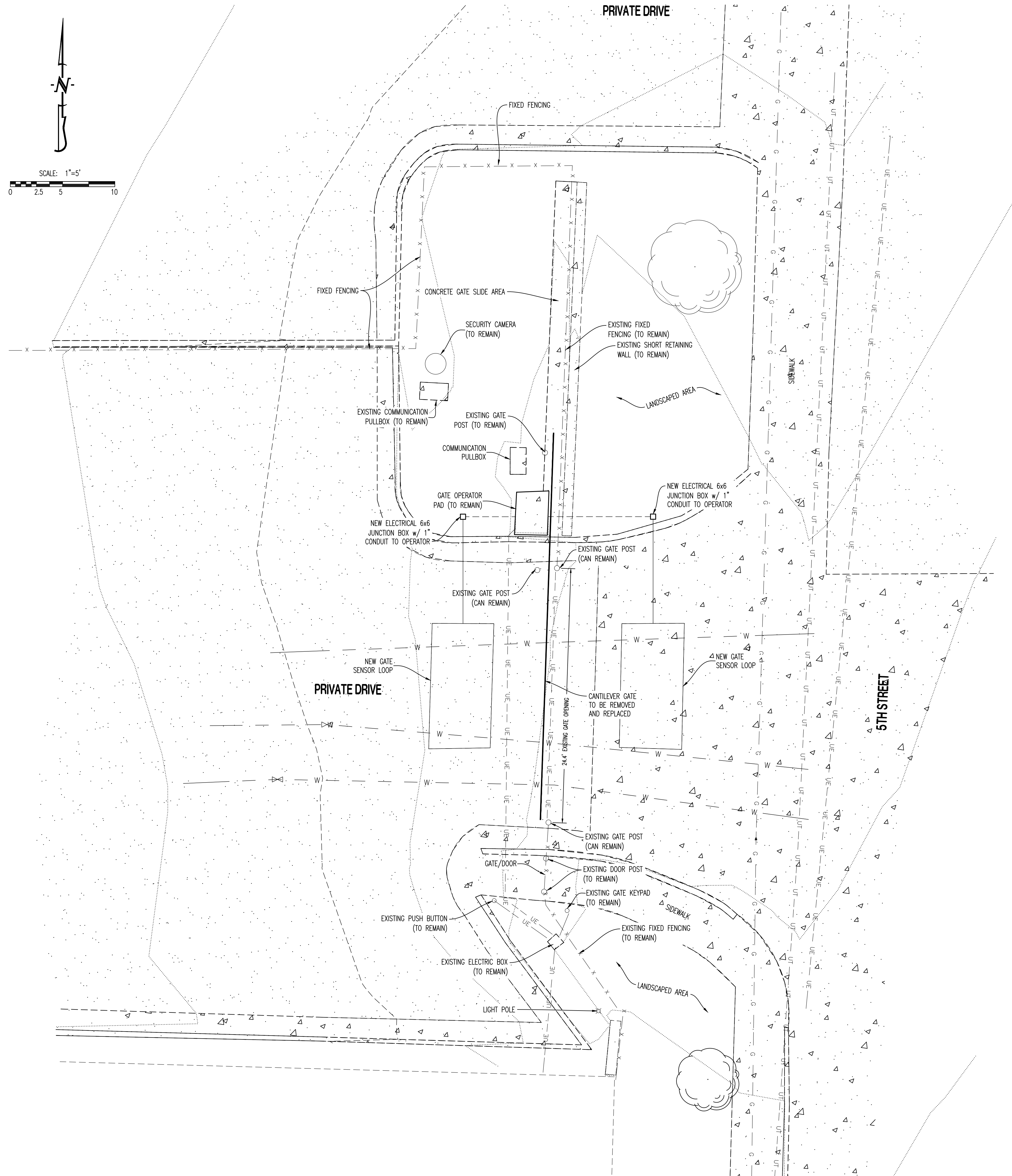
REVISIONS:	
NO.	DATE
RID SET	10/19/22
THIS SHEET HAS BEEN SIGNED SEALED AND DATED ELECTRONICALLY	
	
GREGORY L. LINNEMAN - PE MO LICENSE - 2005001013	
PREPARED BY:  ENGINEERING CONSULTANTS 1000 University Hall Columbia, Missouri 65203 (314) 447-0092 www.crockettengineering.com Crockett Engineering Consultants, LLC Missouri #200013101	
OWNER:	COURTORS OF THE UNIVERSITY OF MISSOURI 225 UNIVERSITY HALL CBO BUSINESS SERVICES COLUMBIA, MO 65211
UNIVERSITY OF MISSOURI POWER PLANT REPLACE THREE MOTORIZED VEHICLE DRIVE GATES UNIVERSITY OF MISSOURI - COLUMBIA PROJECT: CP221871 COLUMBIA, BOONE COUNTY, MISSOURI	
DRAWING INFORMATION:	
SOUTH 5th STREET GATE PLAN (ALTERNATE #1)	
DESIGNED:	GILL
DRAWN:	RCA
CEC PROJECT NO.: 200206	
SHEET: CE3	

1. NEW ELEMENTS INCLUDE BUT ARE NOT LIMITED TO:
  - 1.1. 8' TALL PICKET GATES, SAFETY DEVICES, RAILS, POSTS (FULL GATE REPLACEMENT).
  - 1.2. NEW FENCE SCREENING AS NEEDED TO MEET SAFETY REQUIREMENTS, MATCH SCREENING ON NEW GATE.
  - 1.3. REPAIR DAMAGED FENCE TO POST CONNECTIONS ON SECTIONS TO RECEIVE SCREENING.
  - 1.4. NEW PAVEMENT GATE SENSOR LOOPS.
  - 1.5. NEW OPERATORS @ ALL OPERATING & SAFETY COMPONENTS.
  - 1.6. NEW 6x6 EXTERIOR RATED ELECTRICAL PULL BOX FOR SENSOR LOOPS & CONDUIT TO OPERATOR.
2. ELEMENTS THAT ARE BEING REPLACED:
  - 2.1. ENTIRE GATE (TRACK, SLIDES, TROLLEYS, ETC.)
  - 2.2. ALL POSTS @ GATES.
  - 2.3. OPERATOR DEVICE
3. ELEMENTS THAT MAY STAY @ INSTALLER'S DISCRETION:
  - 3.1. EXISTING FENCES ADJACENT TO GATE.
  - 3.2. CARD READERS / REMOTE OPERATORS & WIRING.
  - 3.3. CONCRETE PAD @ OPERATOR.
  - 3.4. EXISTING EMERGENCY TRUCK SIREN SENSOR & WIRING.

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REVISIONS:	
NO.	DATE
1	RID SET 10/19/22
THIS SHEET HAS BEEN SIGNED SEALED AND DATED ELECTRONICALLY	
	
GREGORY L. LINNEMAN - PE MO LICENSE - 2005001013	
PREPARED BY: <b>CROCKETT</b> ENGINEERING CONSULTANTS 1000 W. WILSON AVE. COLUMBIA, MISSOURI 65201 TEL: 630.447.0092 www.crockettingeering.com Crockett Engineering Consultants, LLC Missouri #2000933801	
OWNER:	CURTORS OF THE UNIVERSITY OF MISSOURI 226 UNIVERSITY HALL C/O BUSINESS SERVICES COLUMBIA, MO 65211
UNIVERSITY OF MISSOURI POWER PLANT REPLACE THREE MOTORIZED VEHICLE DRIVE GATES UNIVERSITY OF MISSOURI - COLUMBIA PROJECT: CP221871 COLUMBIA, BOONE COUNTY, MISSOURI	
DRAWING INCLUDES:  NORTH 5th STREET GATE PLAN (ALTERNATE #2)	
DESIGNED:	GLL
DRAWN:	RCA
CEC PROJECT NO.: 200206	
SHEET:	CE4