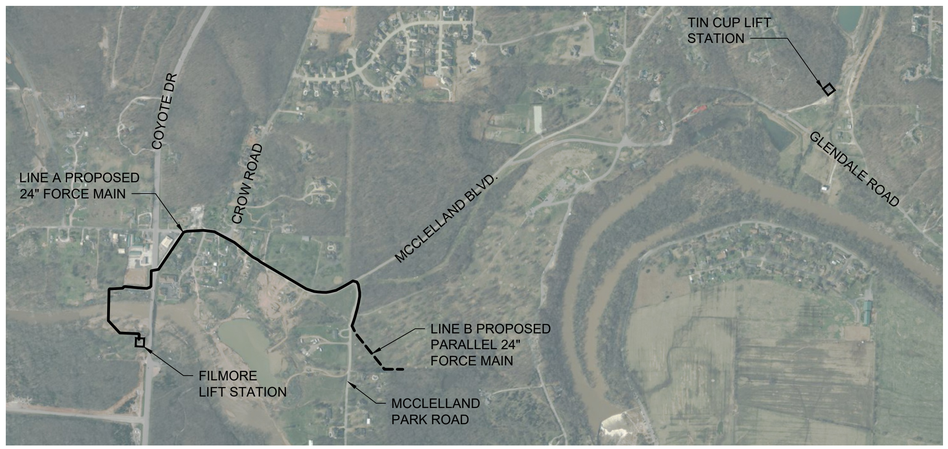
CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN



LOCATION MAP
NOT TO SCALE

CIVIL DRAWINGS

DWG. NO.	TITLE
G001	GENERAL NOTES AND LEGEND
G002	SURVEY CONTROL PLAN
G003	FORCE MAIN KEY PLAN
G004	SANITARY SEWER KEY PLAN
C001	FORCE MAIN - LINE A PLAN AND PROFILE BOL STA 0+00.00 TO STA 2+00.00
C002	FORCE MAIN - LINE A PLAN AND PROFILE STA 2+00.00 TO STA 6+25.00
C003	FORCE MAIN - LINE A PLAN AND PROFILE STA 6+25.00 TO STA 11+00.00
C004	FORCE MAIN - LINE A PLAN AND PROFILE STA 11+00.00 TO STA 16+00.00
C005	FORCE MAIN - LINE A PLAN AND PROFILE STA 16+00.00 TO STA 21+00.00
C006	FORCE MAIN - LINE A PLAN AND PROFILE STA 21+00.00 TO STA 26+00.00
C007	FORCE MAIN - LINE A PLAN AND PROFILE STA 26+00.00 TO STA 31+00.00
C008	FORCE MAIN - LINE A PLAN AND PROFILE STA 31+00.00 TO STA 36+00.00
C009	FORCE MAIN - LINE A PLAN AND PROFILE STA 36+00.00 TO STA 40+00.00
C010	FORCE MAIN - LINE A PLAN AND PROFILE STA 40+00.00 TO EOL STA 42+00.55
C011	FORCE MAIN - LINE B PLAN AND PROFILE BOL STA 0+00.00 TO EOL STA 7+18.63
C012	CIVIL DETAILS - SHEET 1
C013	CIVIL DETAILS - SHEET 2
C014	SANITARY SEWER - LINE C PLAN AND PROFILE BOL STA 0+00.00 TO STA 2+00.00
C015	SANITARY SEWER - LINE C PLAN AND PROFILE STA 2+00.00 TO STA 6+00.00
C016	SANITARY SEWER - LINE C PLAN AND PROFILE STA 6+00.00 TO EOL STA 10+14.82

REFERENCE DRAWINGS

DRAWING TITLE	
C017	REFERENCE DRAWING - SHEET 1

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER
PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:01:42-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

JUNE 2026

119978

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

BURNS McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

GENERAL NOTES:

1. TOPOGRAPHIC SURVEY DEVELOPED BY ALLGEIER, MARTIN AND ASSOCIATES, INC.
2. ALL ELEVATIONS SHOWN ARE TOP OF FINISHED GRADE UNLESS NOTED OTHERWISE.
3. ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE INDICATED.
4. PROVIDE UNIFORM SLOPE BETWEEN INDICATED ELEVATIONS SO THAT ALL AREAS SLOPE TO DRAIN AND NO STORMWATER IS PONDED ON SITE BOTH DURING AND AFTER CONSTRUCTION.
5. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE REPLACED IN KIND UNLESS OTHERWISE SPECIFIED IN THE PLANS. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO PRE CONSTRUCTION CONDITIONS OR BETTER. SEEDING AND SODDING SHALL CONFORM TO CITY OF JOPLIN STANDARD SPECIFICATIONS, SECTION 5100 - SEEDING AND 5200 - SODDING. CONTRACTOR SHALL RESTORE ALL DISTURBED EXISTING FENCING TO "AS GOOD OR BETTER" CONDITIONS.
6. CONTRACTOR SHALL CONTACT MISSOURI ONE CALL (1-800 DIG-RITE) BEFORE BEGINNING EXCAVATION WORK.
7. EXISTING UNDERGROUND UTILITIES ARE SHOWN ON CONTRACT DRAWINGS USING THE BEST INFORMATION AVAILABLE AT THE TIME OF DRAWING PREPARATION. CONTRACTOR SHALL IDENTIFY, LOCATE AND PROTECT ALL UNDERGROUND UTILITIES WHICH MAY BE AFFECTED BY CONSTRUCTION UNDER THIS CONTRACT BEFORE STARTING EXCAVATION OR OTHER SITE CONSTRUCTION ACTIVITIES WHICH COULD DAMAGE EXISTING UTILITIES. ALL UTILITIES LOCATED SHALL BE INDICATED ON THE RECORD DOCUMENTS.
8. THE CONTRACTOR SHALL NOTIFY THE OWNER UTILITIES OFFICE 72 HOURS PRIOR TO COMMENCING ANY DEMOLITION, EXCAVATION, OR CONSTRUCTION.
9. ALL VALVES, FITTINGS, MANHOLES, ETC. HAVE BEEN LOCATED IN PLAN AND DIMENSIONS SHOWN SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVE. PROFILE STATIONING SHALL BE ADJUSTED AS REQUIRED TO CONFORM TO PLAN DIMENSIONS.
10. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED UTILITY SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE A MINIMUM OF 15 DAYS IN ADVANCE OF ANY NECESSARY UTILITY OUTAGES.
11. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING DRAINAGE CONDUITS BENEATH DRIVEWAYS OR ENTRANCES, MATCHING SIZE AND MATERIAL, WHERE FORCE MAIN INSTALLATION WORK DISTURBS THE EXISTING CONDUIT. EXISTING DISTURBED CONDUITS SHALL NOT BE REUSED AND SHALL BE DISREGARDED AT CONTRACTOR'S EXPENSE.
12. THE CONTRACTOR SHALL FURNISH, AT NO COST, ANY BENDS OR FITTINGS NECESSARY TO MAKE PROPER HORIZONTAL OR VERTICAL ADJUSTMENTS WHICH CAN NOT BE MADE BY DEFLECTING JOINTS IN CONFORMANCE TO PIPE MANUFACTURER'S RECOMMENDATIONS.
13. THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION ACTIVITIES TO THE PERMANENT AND TEMPORARY EASEMENT AREA SHOWN ON THE DRAWINGS. THE CONTRACTOR MAY SECURE RIGHTS FOR USE OF ADDITIONAL AREA OUTSIDE THE PERMANENT EASEMENT AREA AT THEIR OWN EXPENSE. ALL AGREEMENTS FOR USE OF ADDITIONAL AREAS SHALL BE IN WRITING. CONTRACTOR SHALL FURNISH THE CITY COPIES OF ALL WRITTEN AGREEMENTS.
14. CONTRACTOR SHALL COORDINATE ALL WORK WITH THAT OF THE OWNER AND ANY CONTRACTORS WORKING IN THE AREA.
15. NEW UTILITY STAKEOUT DIMENSIONS ARE TO CENTERLINE OF STRUCTURE AND CENTERLINE OF PIPE, UNLESS INDICATED OTHERWISE.
16. CONTRACTOR SHALL FURNISH, INSTALL, CONSTRUCT, AND MAINTAIN TEMPORARY MEASURES TO CONTROL EROSION AND MINIMIZE THE SILTATION OF INTERMITTENT STREAMS AND THE POLLUTION OF PRIVATE PROPERTIES. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH LOCAL, STATE, FEDERAL, AND JURISDICTIONAL AGENCY'S REGULATIONS AND CONTRACT DRAWINGS (IF APPLICABLE). TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL COMPLETION OF THE WORK.
17. FOR ANY AREAS WHERE ROADWAYS WILL BE DISTURBED, CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLAN FOR APPROVAL BY ENGINEER AND OWNER.

SURVEY AND CONTROLS

1. COORDINATES SHOWN HEREON ARE IN FEET AND REFERENCED TO MISSOURI STATE PLAN COORDINATES (NAD83).
2. ELEVATIONS SHOWN HEREON ARE IN FEET AND ARE REFERENCED TO NATIONAL GEODETIC VERTICAL DATUM (NAVD 88).
3. CONTRACTOR SHALL FLAG AND PROTECT ALL SURVEY MARKERS LOCATED WITHIN THE LIMITS OF CONSTRUCTION.

ABBREVIATIONS:

%	-	PERCENT
BF	-	BLIND FLANGE
BLVD	-	BOULEVARD
BOL	-	BEGINNING OF LINE
CL	-	CENTER LINE
D	-	DEFLECTION OR DIAMETER
DJ	-	DISMANTLING JOINT
DIP	-	DUCTILE IRON PIPE
DWG	-	DRAWING
E	-	EASTING
EL	-	ELEVATION
EOL	-	END OF LINE
FL	-	FLOWLINE
FLG	-	FLANGE
LF	-	LINEAR FEET
LT	-	LEFT
MJ	-	MECHANICAL JOINT
N	-	NORTHING
PC	-	PRESSURE CLASS
PI	-	POINT OF HORIZONTAL INFLECTION
PS	-	PIPE SUPPORT
PV	-	PLUG VALVE
PVC	-	POLYVINYL CHLORIDE
PVI	-	POINT OF VERTICAL INFLECTION
RCB	-	REINFORCED CONCRETE BOX
RCP	-	REINFORCED CONCRETE PIPE
RT	-	RIGHT
STA	-	STATION
TYP	-	TYPICAL
UNK	-	UNKNOWN
VCP	-	VITRIFIED CLAY PIPE
WP	-	WALL PIPE

LEGEND

EXISTING	NEW
CONTROL POINT	6
ELECTRIC METER	
YARD HYDRANT	
FIRE HYDRANT	
IRON PIN	
TELEPHONE POLE	
LIGHT POLE	
MANHOLE	S
POST	
POWER POLE	
SIGN	
UTILTIY RISER	
BUSH	
TREE	
WATER METER	
WATER VALVE	
RIGHT-OF-WAY	
PROPERTY LINE	
OVERHEAD UTILITY	
UNDERGROUND WATER	
UNDERGROUND TELEPHONE	
UNDERGROUND POWER	
FENCE	
UNDERGROUND ELECTRICAL	
UNDERGROUND GAS	
OVERHEAD ELECTRIC	
WATER	
TELECOM	
SANITARY SEWER	
STORM	
THRUST BLOCK	
GATE VALVE	
AIR RELEASE VALVE	
STRADDLE BLOCK	
SOLID SLEEVE	
LIMITS OF CONSTRUCTION	
TEMPORARY CONSTRUCTION EASEMENT	
PERMANENT EASEMENT	
SANITARY FORCE MAIN	
SANITARY GRAVITY MAIN	
CHAINLINK FENCE	

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:15:17-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN

GENERAL NOTES AND LEGEND

project	contract
119978	

drawing **G001** – rev. **0**

sheet 2 of 22 sheets

file 119978_G001-GENERAL NOTES.dwg

Scale For Microfilming
Millimeters
Inches

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CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	POINT DESCRIPTION
2	316181.53	2773875.33	902.50	
208	315914.84	2771834.40	879.70	CONTROL POINT
6400	316035.82	2771825.63	857.68	CONTROL POINT
6401	316156.59	2771846.58	854.53	CONTROL POINT
8505	316191.80	2771414.01	854.35	CONTROL POINT



GENERAL SURVEY NOTES:

1. PROJECT UNITS ARE US SURVEY FEET.
2. **PROJECT HORIZONTAL DATUM:**
   NAD83 MISSOURI STATE PLANE WEST ZONE.
3. *PROJECT COORDINATE SYSTEM IS IN GRID.*

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:15:31-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

0 150' 300'
SCALE IN FEET

BURNS McDONNELL
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designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN

SURVEY CONTROL PLAN

project	contract
119978	

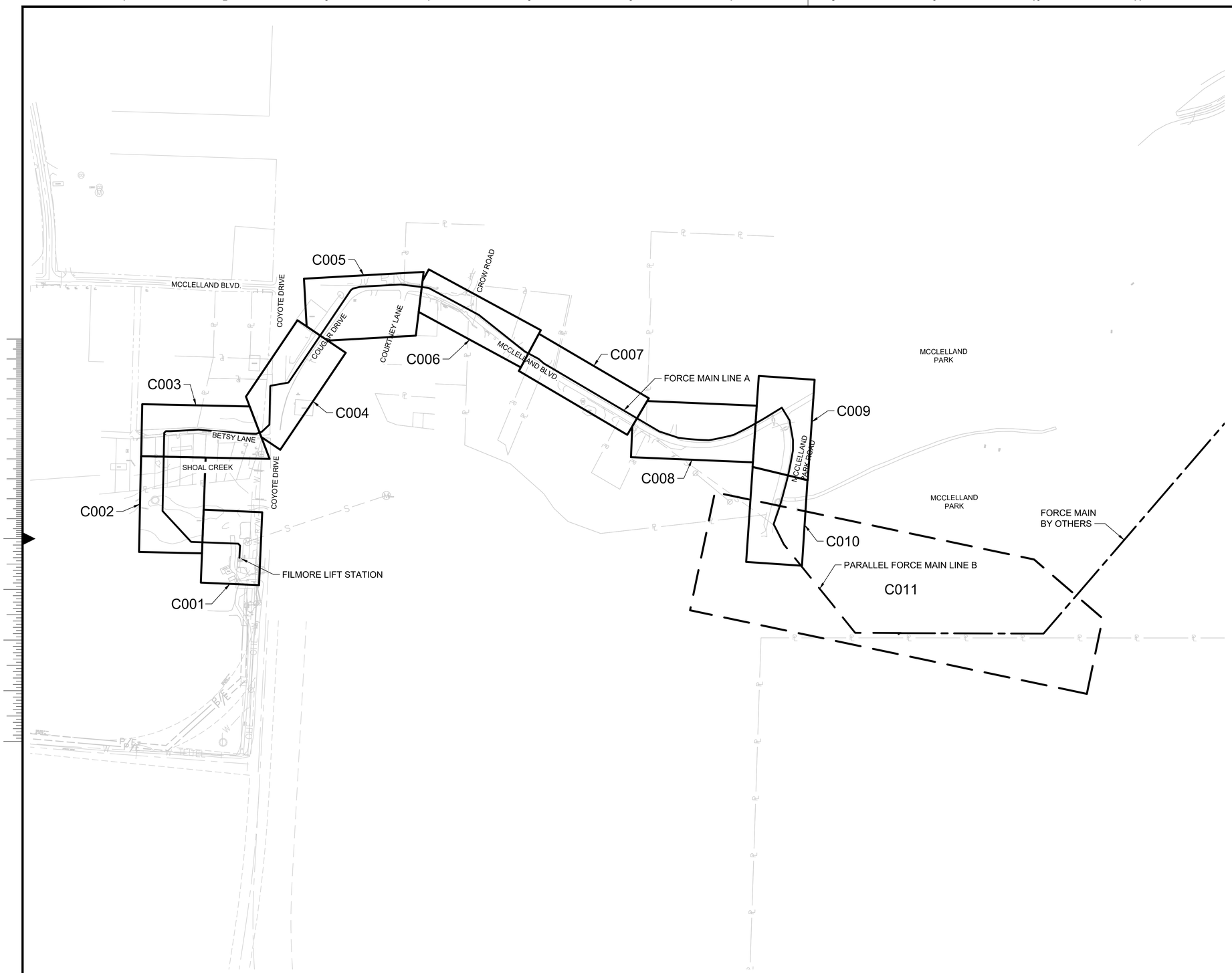
drawing **G002** – rev. **0**

sheet 3 of 22 sheets

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Scale For Microfilming
Millimeters
Inches

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FORCE MAIN KEY PLAN

0 200' 400'

SCALE IN FEET

NORTH

LEGEND:

FORCE MAIN SHEETS

PARALLEL FORCE MAIN SHEETS

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:34:19-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN

FORCE MAIN KEY PLAN

project	contract
119978	

drawing G003 – rev. 0

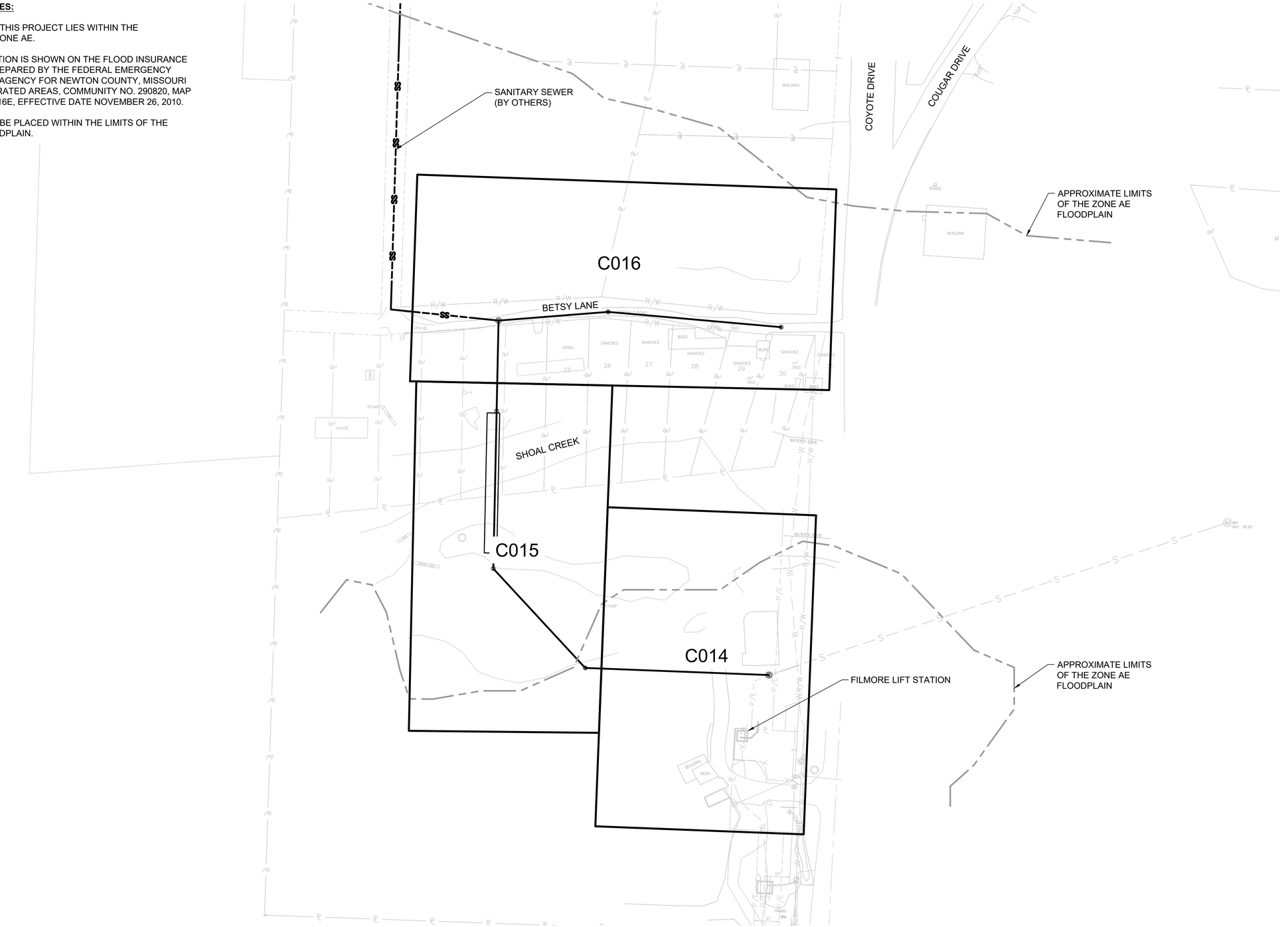
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FLOODPLAIN NOTES:

1. A PORTION OF THIS PROJECT LIES WITHIN THE FLOODPLAIN, ZONE AE.
2. THIS INFORMATION IS SHOWN ON THE FLOOD INSURANCE RATE MAPS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR NEWTON COUNTY, MISSOURI AND INCORPORATED AREAS, COMMUNITY NO. 290820, MAP NO. 29145C00116E, EFFECTIVE DATE NOVEMBER 26, 2010.
3. NO FILL SHALL BE PLACED WITHIN THE LIMITS OF THE ZONE AE FLOODPLAIN.



SANITARY SEWER KEY PLAN

0 30' 60' 120'

SCALE IN FEET

NORTH

Millimeters

Scale For Microfilming

Inches

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:32:55-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

BURNS McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN

SANITARY SEWER KEY PLAN

project	contract
119978	

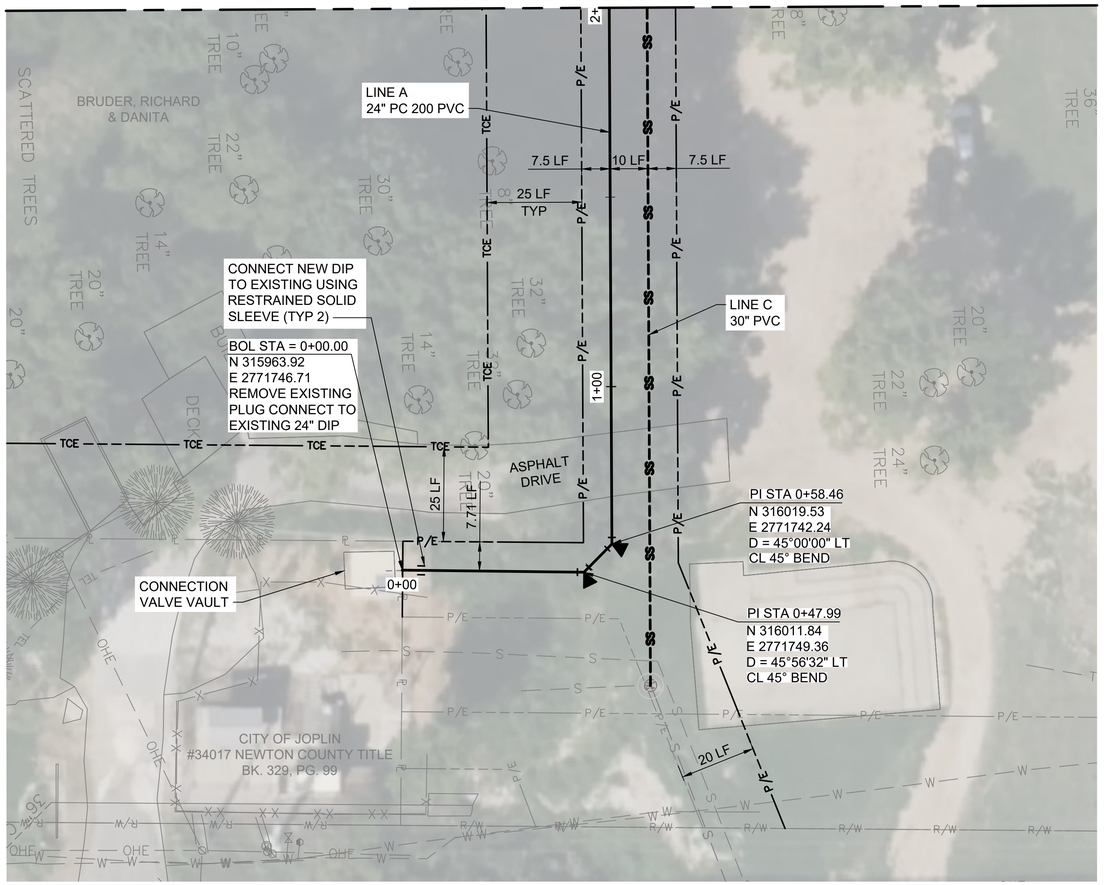
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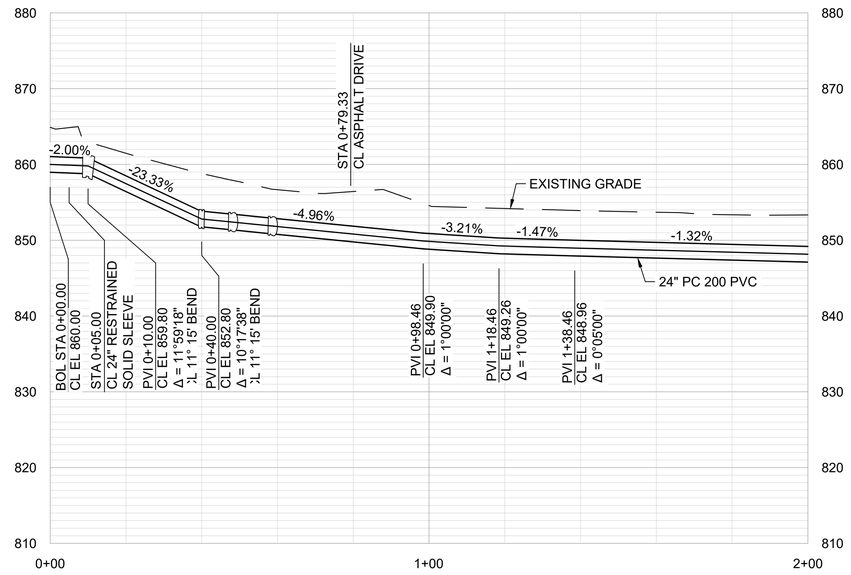
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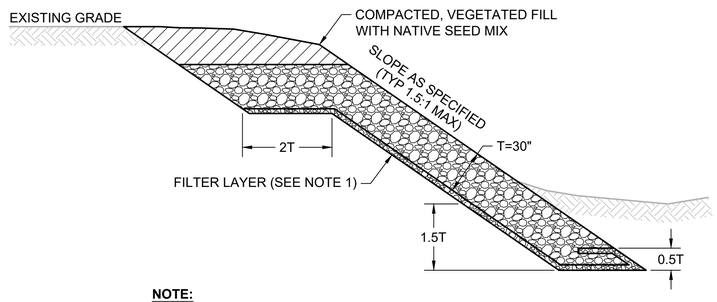
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MATCHLINE STA 2+00 TO DWG C002







NOTE:

1. FILTER LAYER TO BE 6" GRADED ROCK FOR SLOPES LESS THAN OR EQUAL TO 2:1. FOR SLOPES GREATER THAN 2:1 FILTER LAYER TO BE MIRAFI 1100N OR PROPEX GEOTEX 1001.

TYPICAL REVETMENT INSTALLATION DETAIL
NOT TO SCALE

NOTE:

1. ALL TREES ON BRUDER, RICHARD & DANITA CAMPGROUND PROPERTY MUST BE PROTECTED AND REMAIN IN PLACE. TREES WITHIN THE PERMANENT EASEMENT AND THE TEMPORARY CONSTRUCTION EASEMENT MUST BE PROTECTED AND REMAIN IN PLACE WITHIN THE PROPERTY LIMITS.

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:31:56-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

VERT: 0 10' 20' SCALE IN FEET

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI
JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE A
PLAN AND PROFILE
BOL STA 0+00.00 TO STA 2+00.00

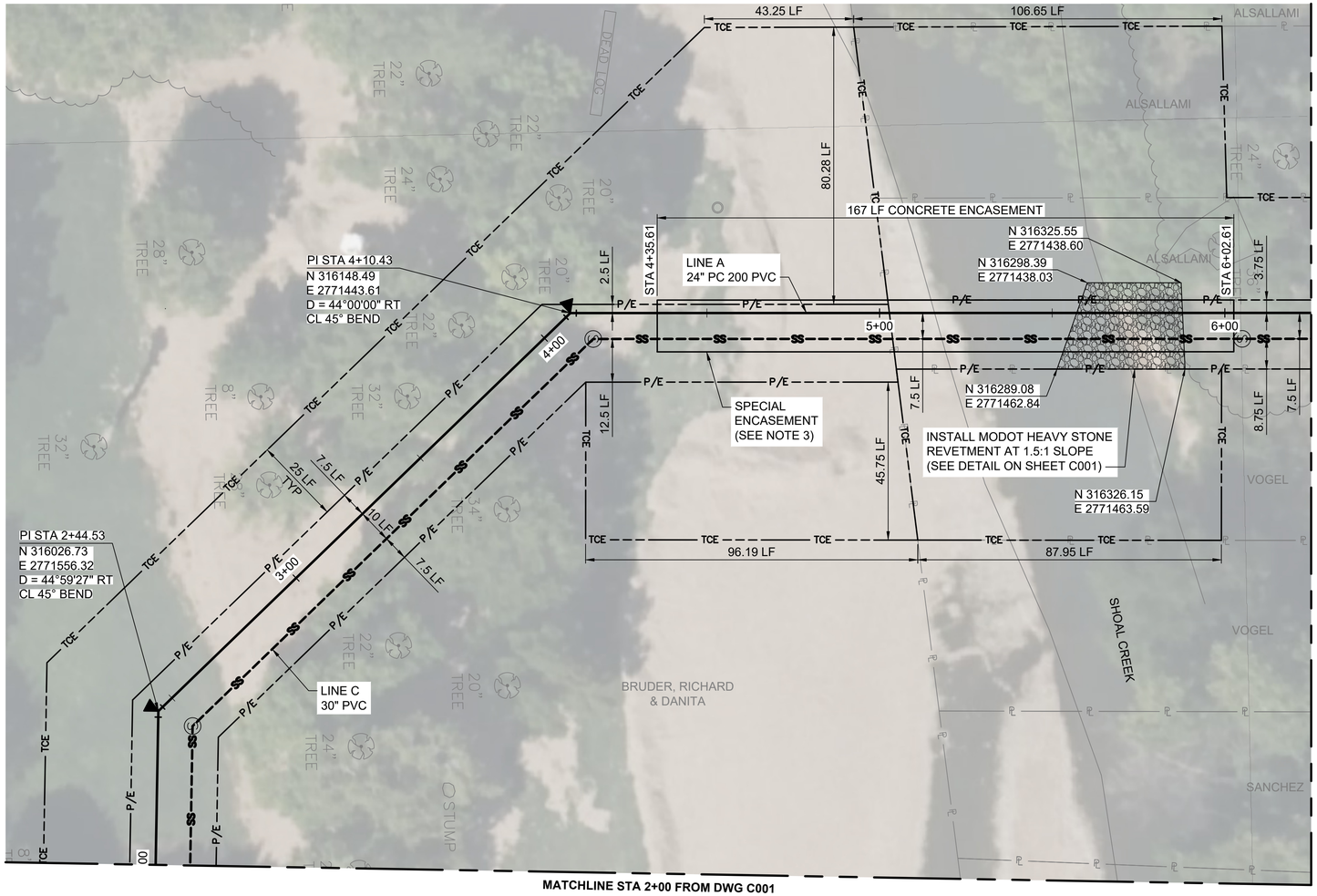
project	contract
119978	

drawing **C001** – rev. **0**

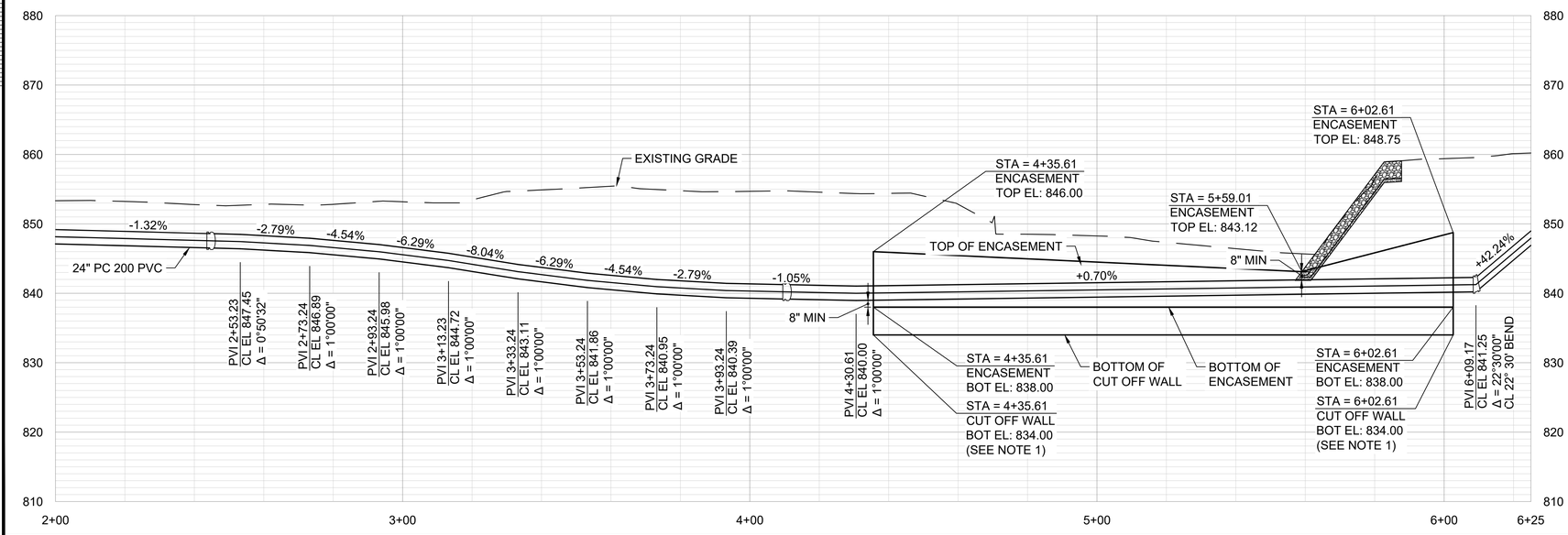
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file 119978_TIN CUP.dwg

Scale For Microfilming: Millimeters / Inches

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MATCHLINE STA 2+00 FROM DWG C001



NOTE:

1. CONTRACTOR SHALL INCLUDE COSTS FOR CUT OFF WALL IF CONCRETE ENCASEMENT IS NOT EMBEDDED IN ROCK AND SHALL BE AS SHOWN IN THE DETAIL. IF CONCRETE ENCASEMENT IS EMBEDDED IN ROCK, CUT OFF WALL WILL NOT BE NEEDED. CUT OFF WALL IS INCLUDED AS SEPARATE PAY ITEM IN QUANTITIES.
2. ALL TREES ON BRUDER, RICHARD & DANITA CAMPGROUND PROPERTY MUST BE PROTECTED AND REMAIN IN PLACE. TREES WITHIN THE PERMANENT EASEMENT AND THE TEMPORARY CONSTRUCTION EASEMENT MUST BE PROTECTED AND REMAIN IN PLACE WITHIN THE PROPERTY LIMITS.
3. SEE SHEET C012 FOR REINFORCED SPECIAL GRADE CONTROL ENCASEMENT DETAIL.
4. IF CONTRACTOR DISTURBS EXISTING STREAM BANK OUTSIDE OF THE RIP RAP LIMITS SHOWN ON THE DRAWING, THE EXTENTS OF THE RIP RAP SHALL BE EXTENDED TO FIVE (5') FEET PAST THE AREA OF DISTURBANCE IN ACCORDANCE WITH THE DETAIL SHOWN ON SHEET C001.

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:29:20-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

VERT: 0 10' 20' SCALE IN FEET

BURNS McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE A
PLAN AND PROFILE
STA 2+00.00 TO STA 6+25.00

project	contract
119978	

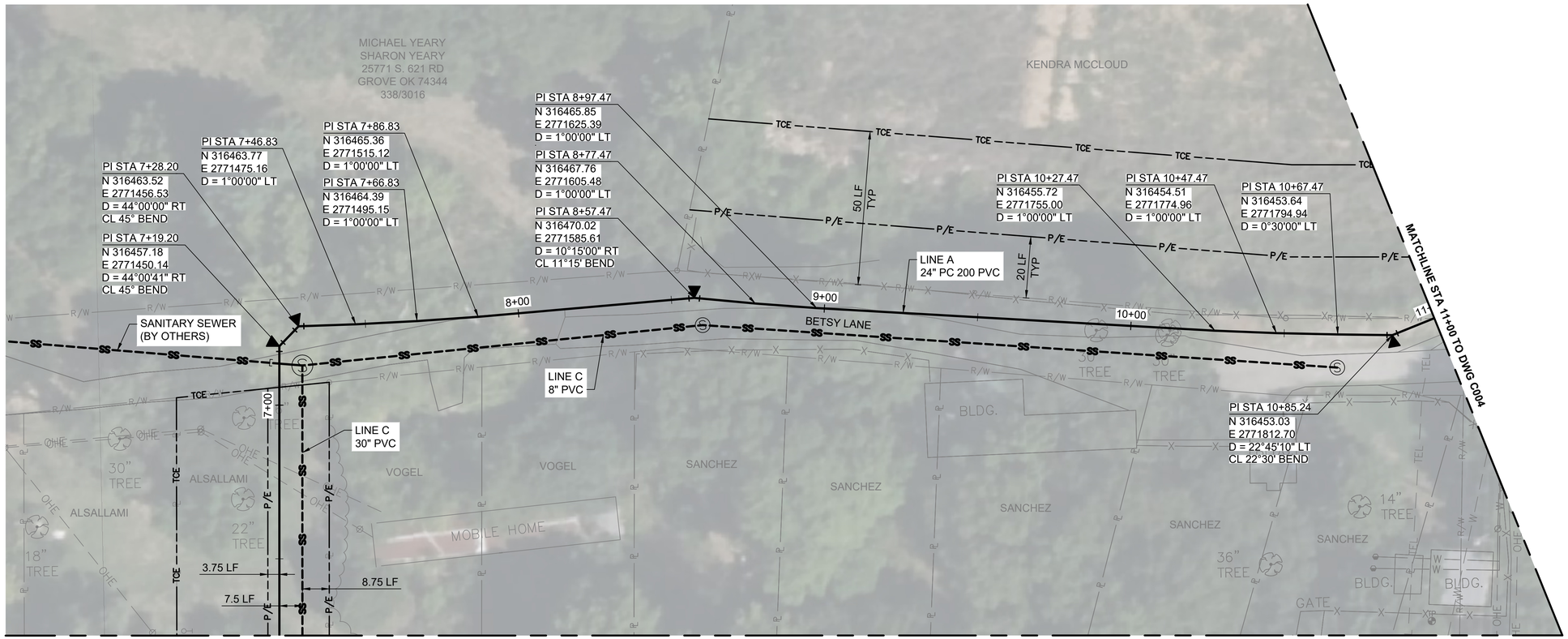
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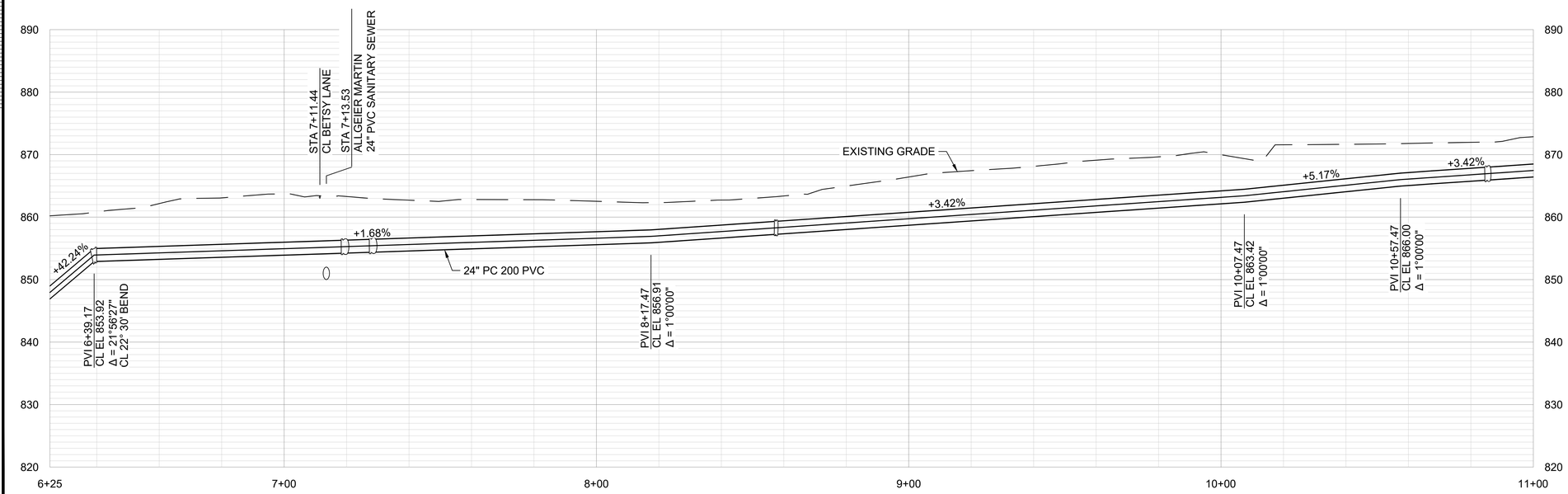
sheet 7 of 22 sheets

file 119978_TIN CUP.dwg

Scale For Microfilming
Millimeters
Inches

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no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:28:15-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

VERT: 0 10' 20' SCALE IN FEET

BURNS McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE A
PLAN AND PROFILE
STA 6+25.00 TO STA 11+00.00

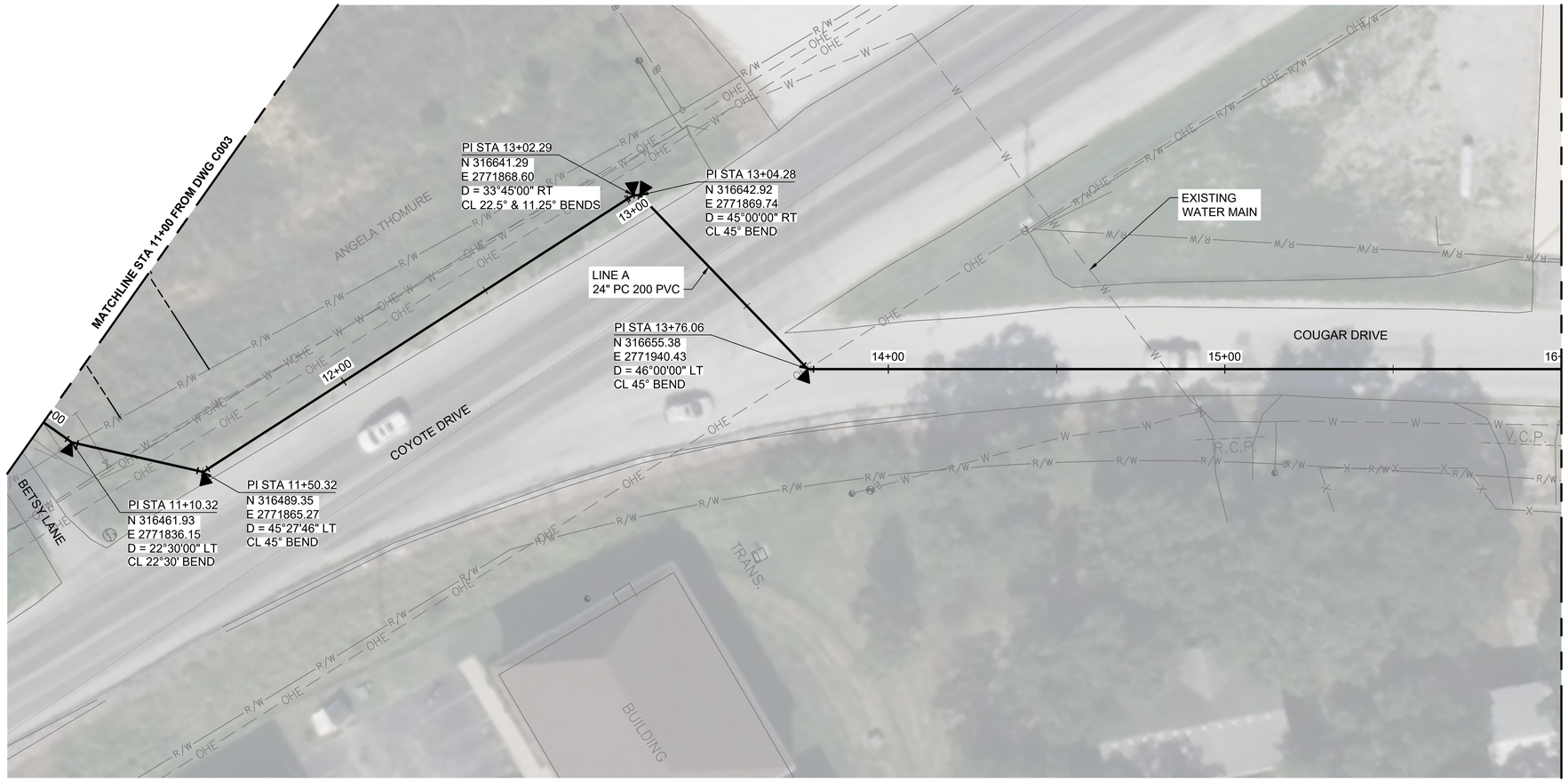
project	contract
119978	

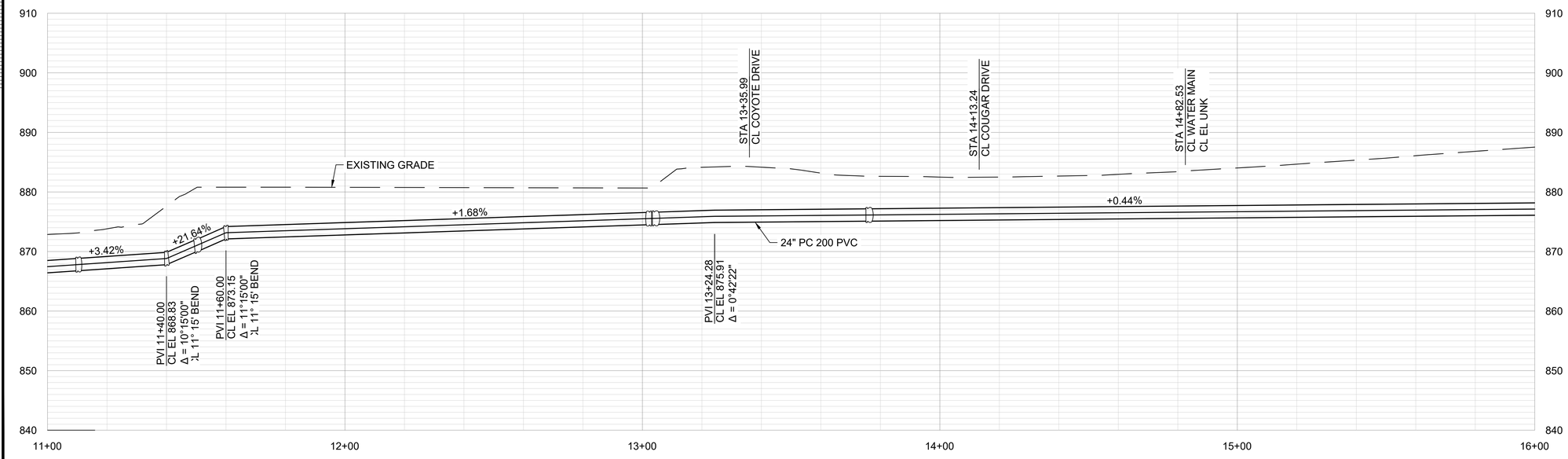
drawing **C003** rev. **0**

sheet 8 of 22 sheets
file 119978_TIN CUP.dwg

Scale For Microfilming
Millimeters
Inches

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no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:27:37-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

VERT: 0 10' 20' SCALE IN FEET

BURNS McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE A
PLAN AND PROFILE
STA 11+00.00 TO STA 16+00.00

project	contract
119978	

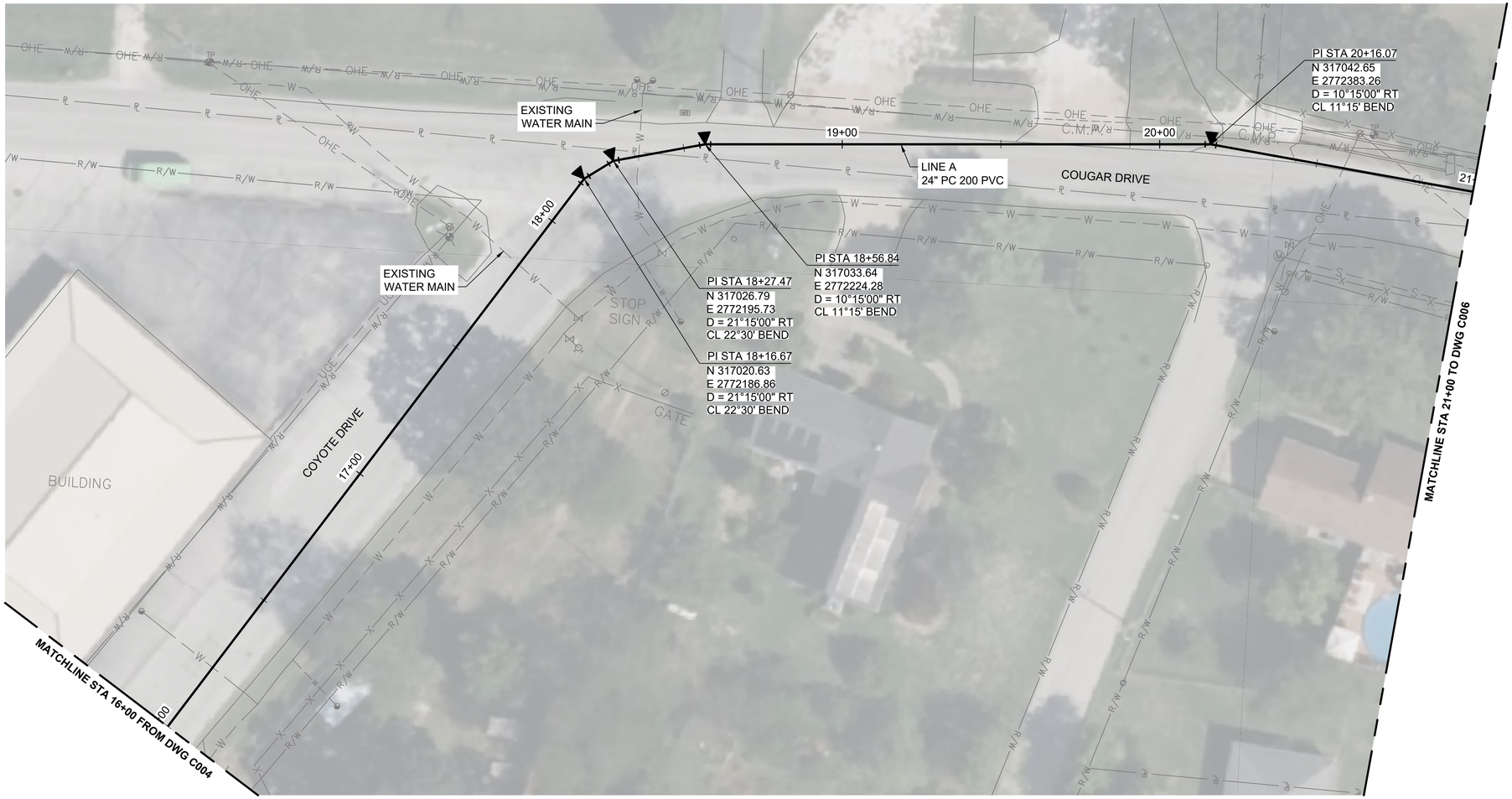
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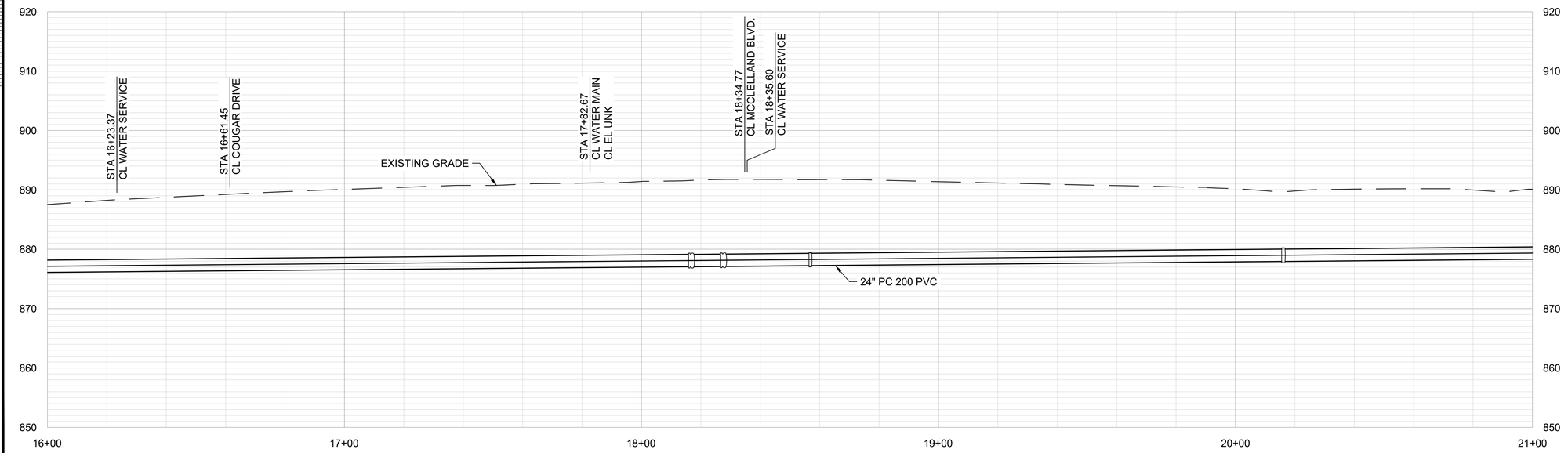
sheet 9 of 22 sheets

file 119978_TIN CUP.dwg

Scale For Microfilming
Millimeters
Inches

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STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:26:22-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

VERT: 0 10' 20' SCALE IN FEET

BURNS McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE A
PLAN AND PROFILE
STA 16+00.00 TO STA 21+00.00

project	contract
119978	

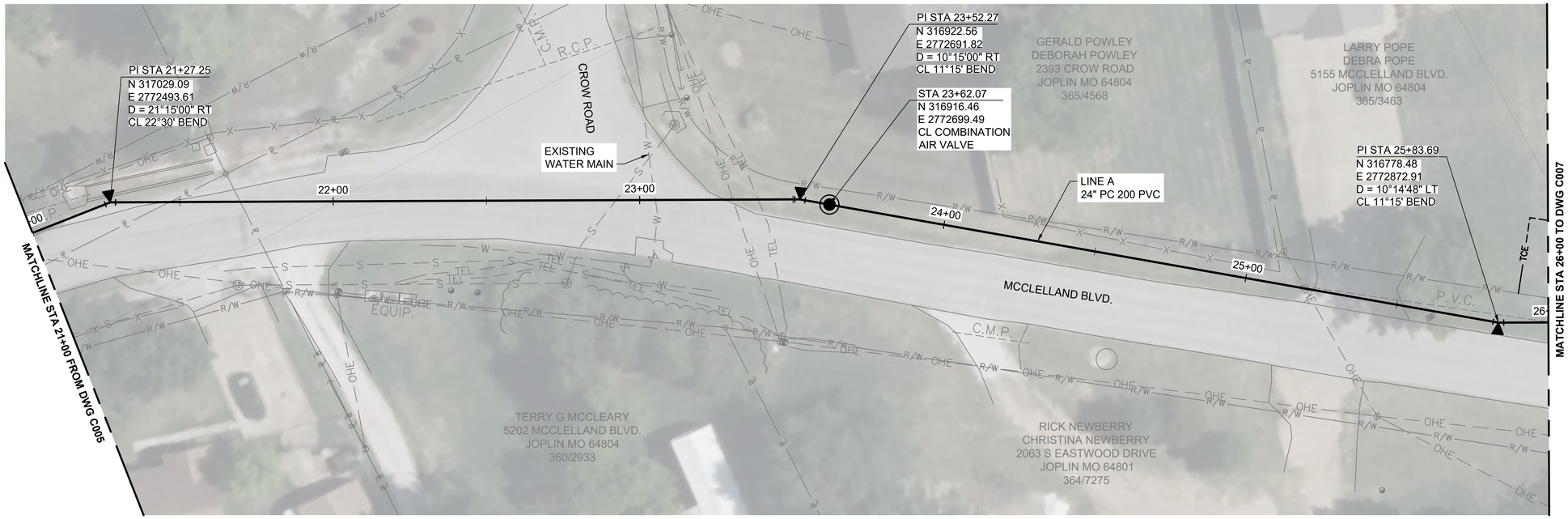
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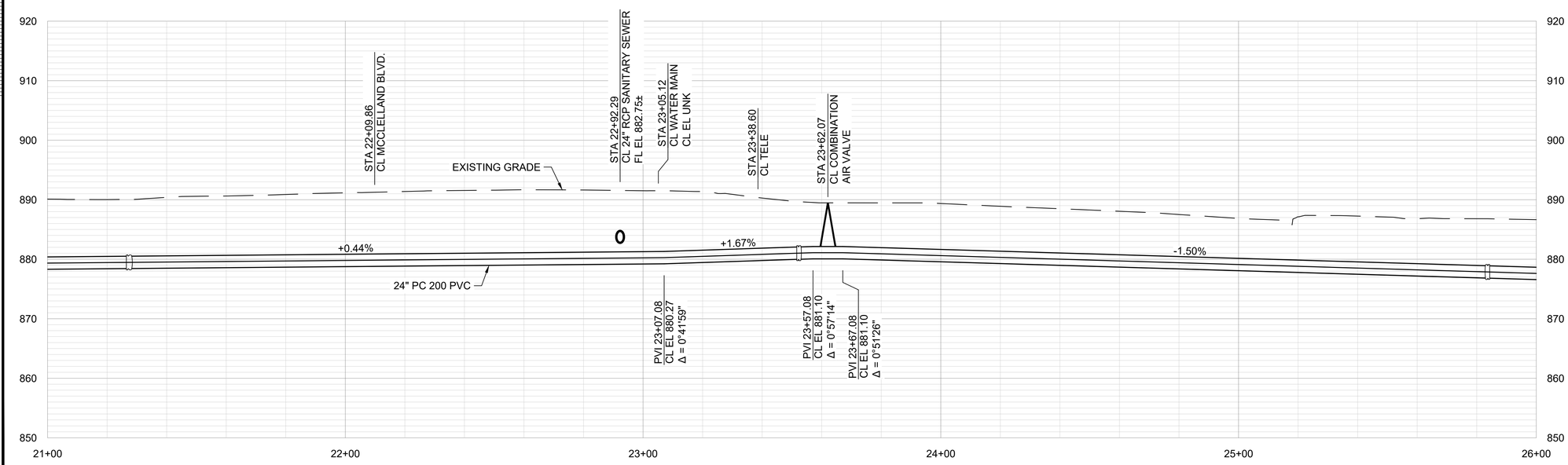
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file 119978_TIN CUP.dwg

Scale For Microfilming
Millimeters
Inches

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0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:25:49-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

VERT: 0 10' 20' SCALE IN FEET

BURNS McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE A
PLAN AND PROFILE
STA 21+00.00 TO STA 26+00.00

project	contract
119978	

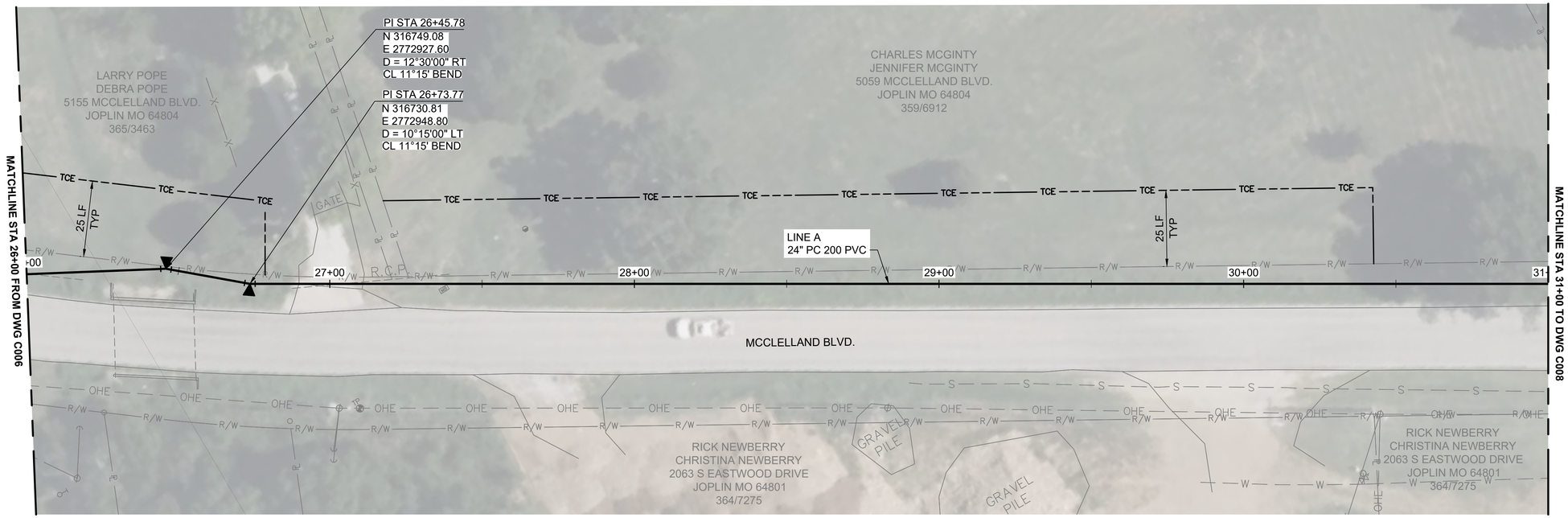
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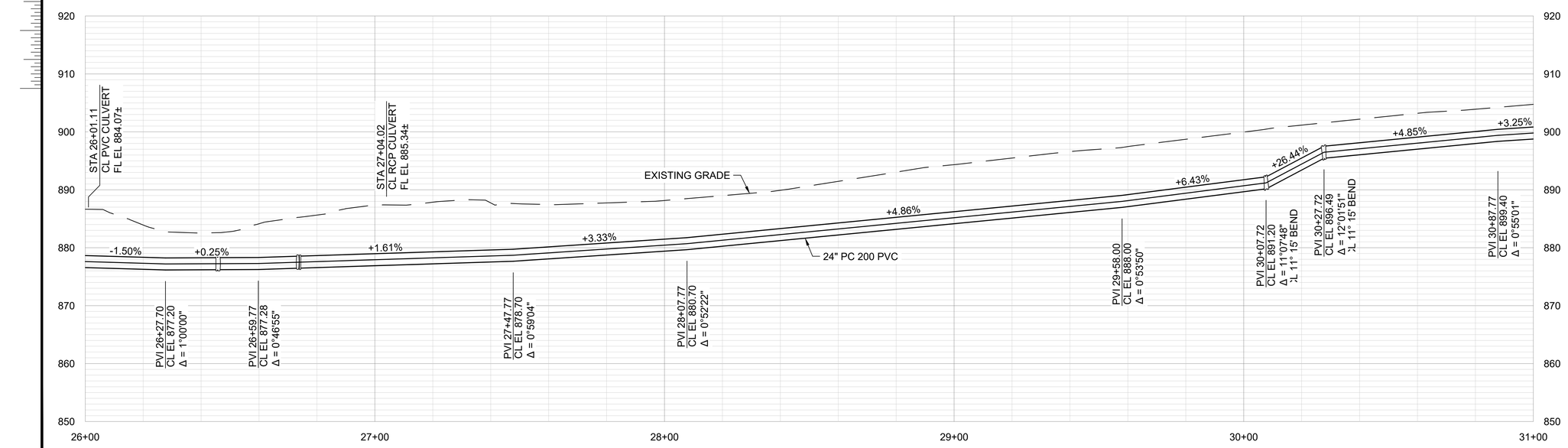
sheet 11 of 22 sheets

file 119978_TIN CUP.dwg

Scale For Microfilming
Millimeters
Inches

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no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:24:01-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

VERT: 0 10' 20' SCALE IN FEET

BURNS McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE A
PLAN AND PROFILE
STA 26+00.00 TO STA 31+00.00

project	contract
119978	

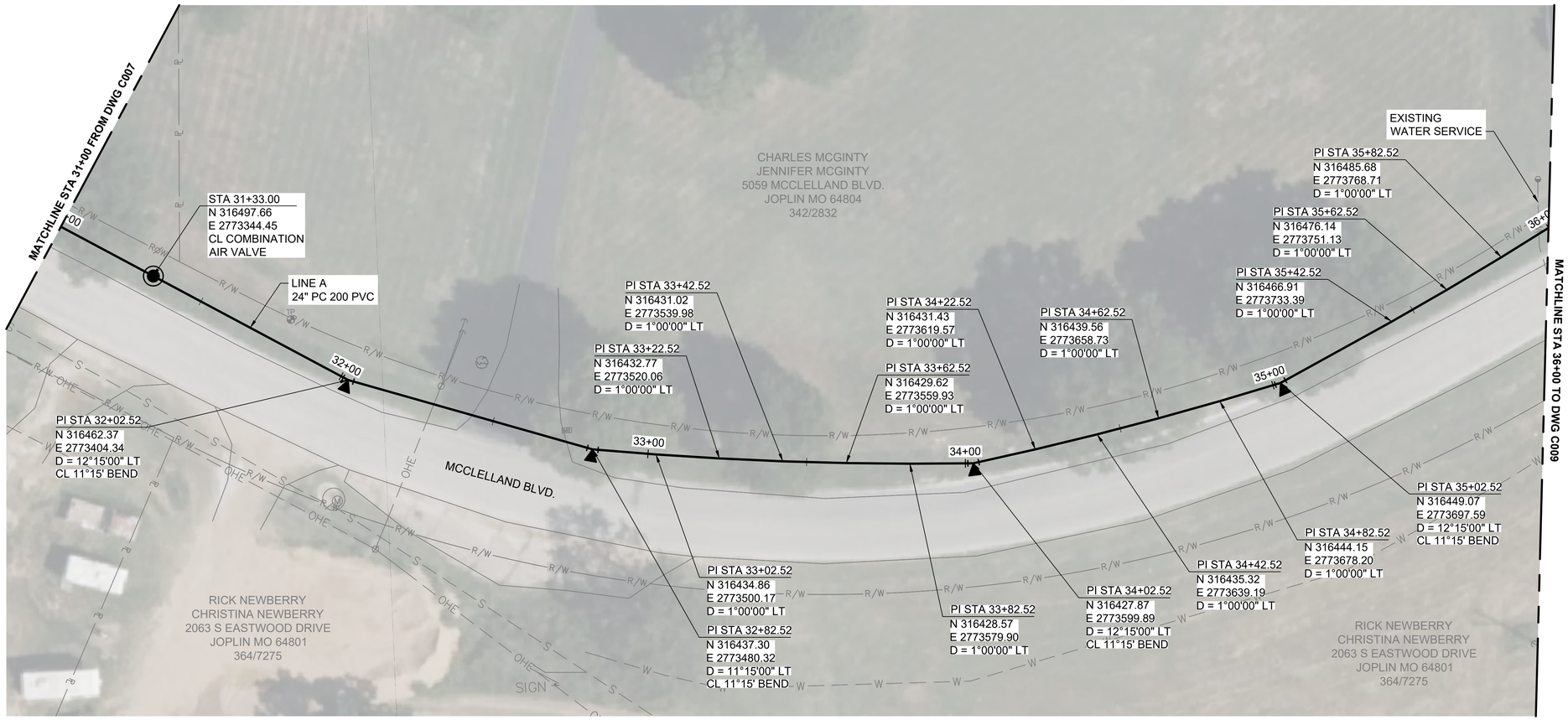
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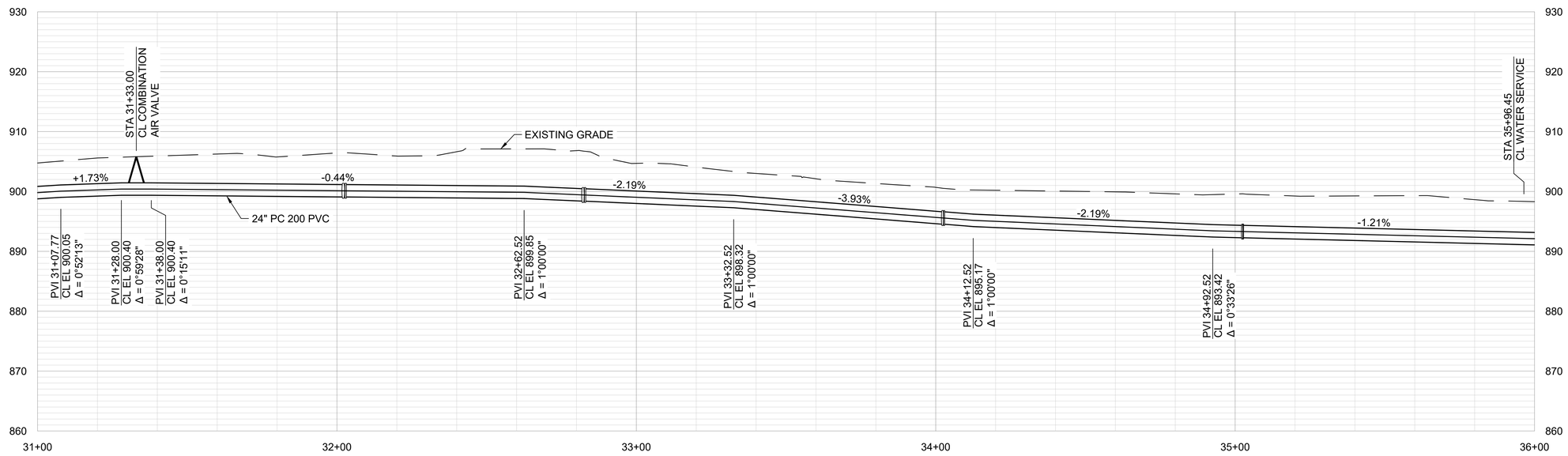
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file 119978_TIN CUP.dwg

Scale For Microfilming
Millimeters
Inches

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no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:23:27-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

VERT: 0 10' 20' SCALE IN FEET

BURNS McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE A
PLAN AND PROFILE
STA 31+00.00 TO STA 36+00.00

project	contract
119978	

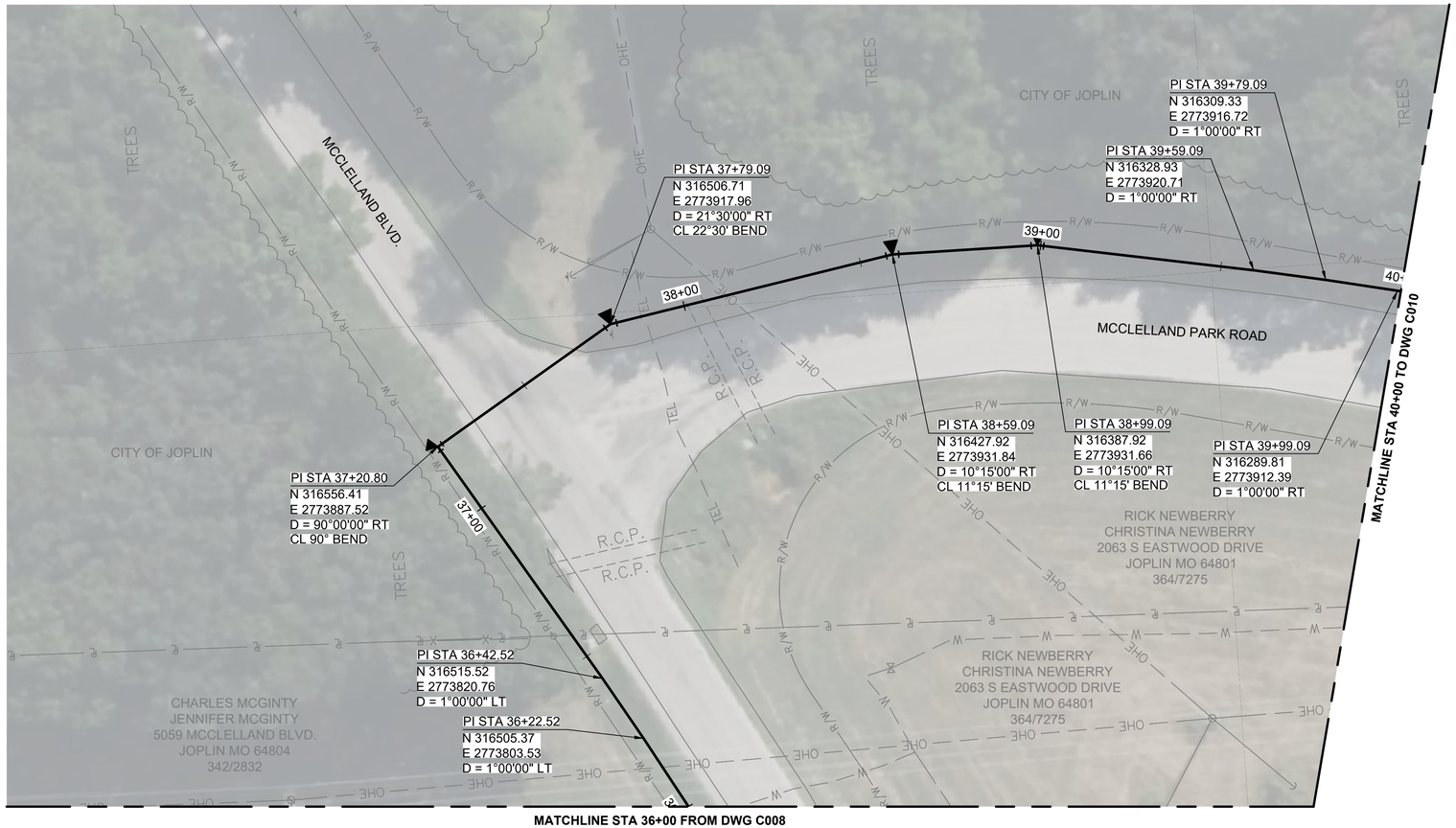
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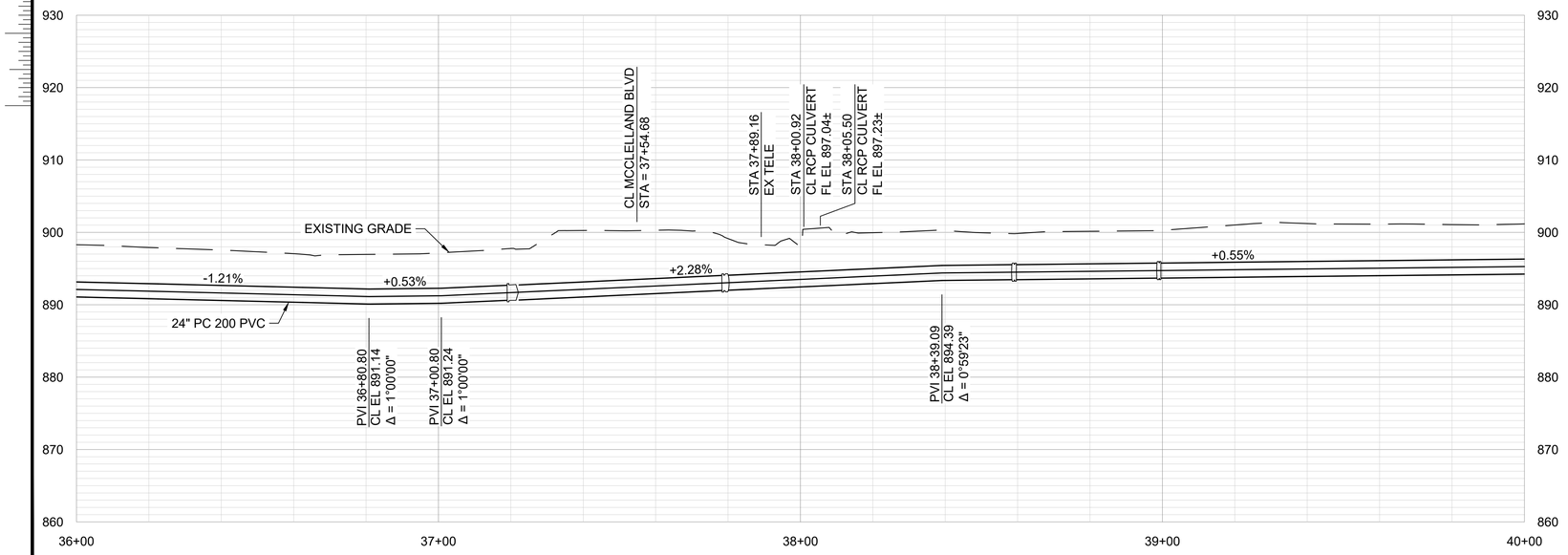
sheet 13 of 22 sheets

file 119978_TIN CUP.dwg

Scale For Microfilming
Millimeters
Inches

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no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:22:28-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

VERT: 0 10' 20' SCALE IN FEET

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE A
PLAN AND PROFILE
STA 36+00.00 TO STA 40+00.00

project	contract
119978	

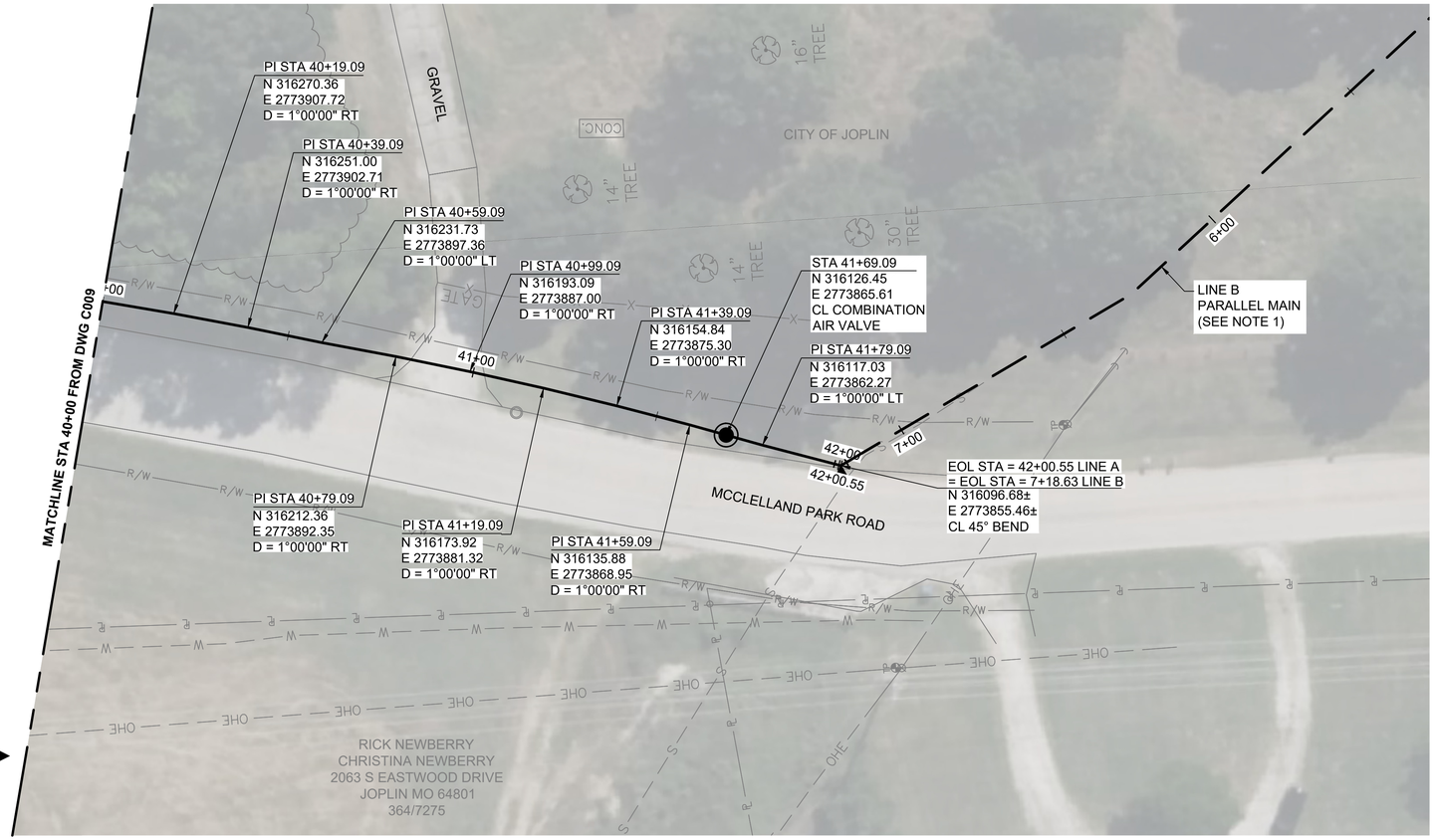
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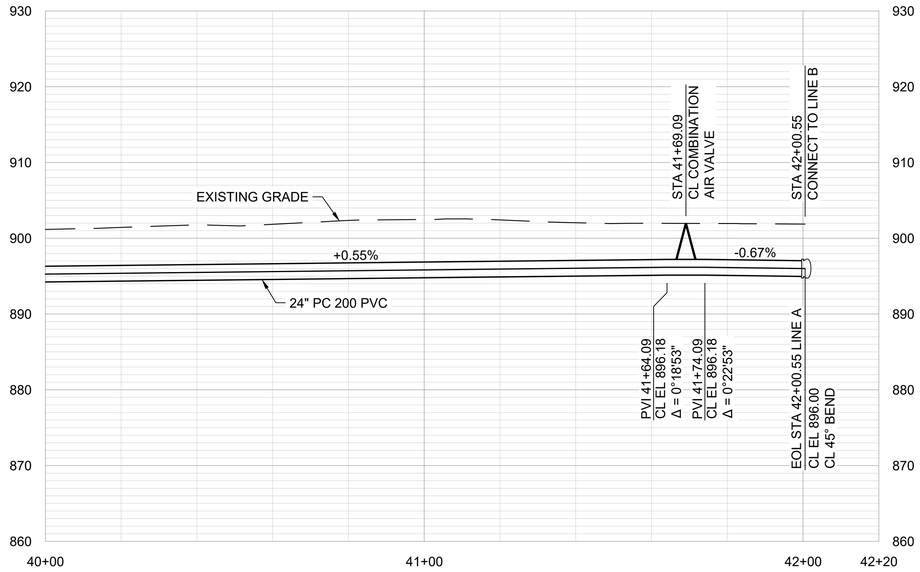
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file 119978_TIN CUP.dwg

Scale For Microfilming
Millimeters
Inches

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NOTE:

1. SEE PARALLEL ALIGNMENT PLAN SHEET C011.

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:21:54-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

VERT: 0 10' 20' SCALE IN FEET

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE A
PLAN AND PROFILE
STA 40+00.00 TO EOL STA 42+00.55

project	contract
119978	

drawing **C010** rev. **0**

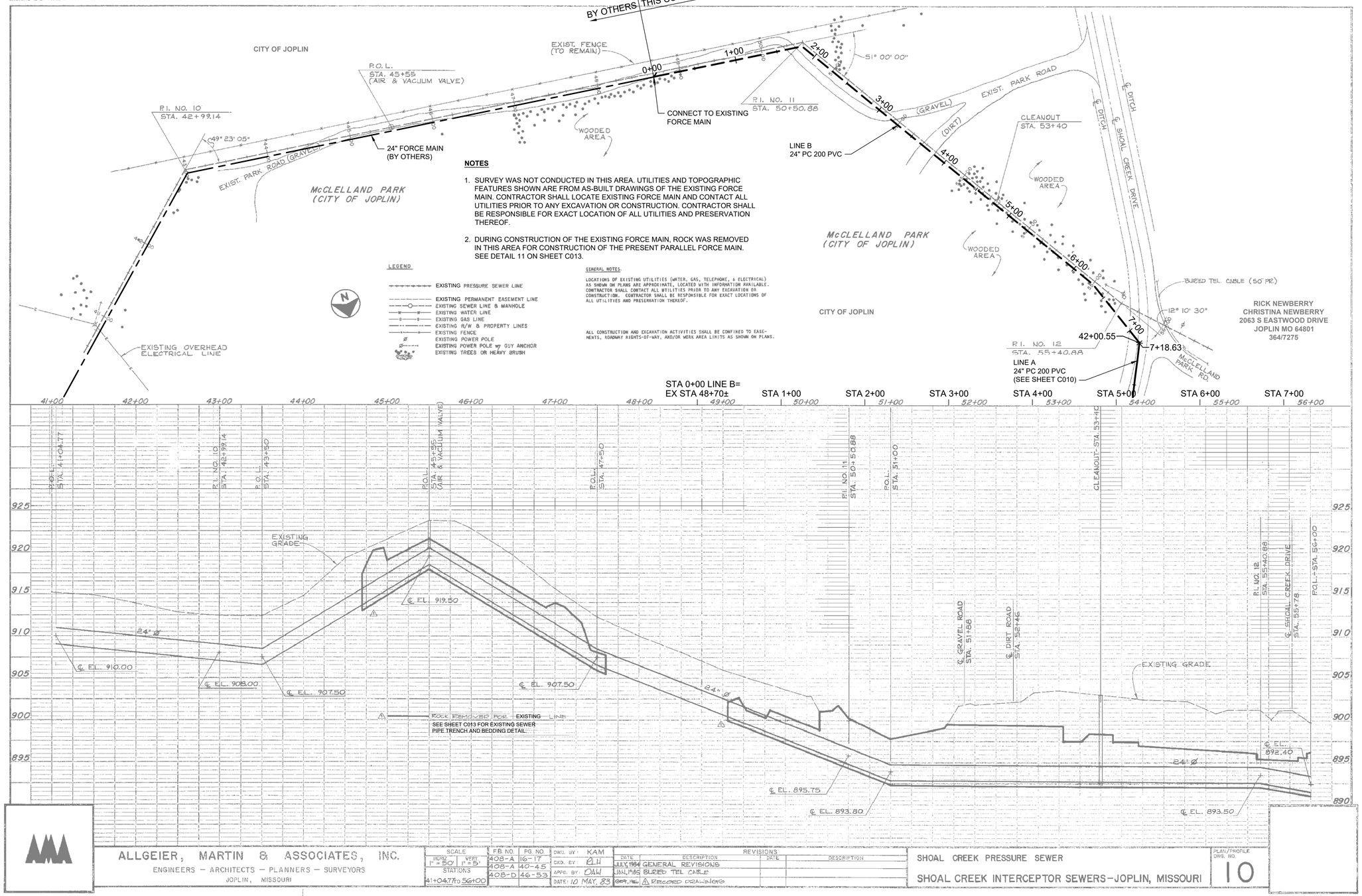
sheet 15 of 22 sheets

file 119978_TIN CUP.dwg

Scale For Microfilming
Millimeters
Inches

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BRUNING 40-21 46929-1



NOTES

1. SURVEY WAS NOT CONDUCTED IN THIS AREA. UTILITIES AND TOPOGRAPHIC FEATURES SHOWN ARE FROM AS-BUILT DRAWINGS OF THE EXISTING FORCE MAIN. CONTRACTOR SHALL LOCATE EXISTING FORCE MAIN AND CONTACT ALL UTILITIES PRIOR TO ANY EXCAVATION OR CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR EXACT LOCATION OF ALL UTILITIES AND PRESERVATION THEREOF.
2. DURING CONSTRUCTION OF THE EXISTING FORCE MAIN, ROCK WAS REMOVED IN THIS AREA FOR CONSTRUCTION OF THE PRESENT PARALLEL FORCE MAIN. SEE DETAIL 11 ON SHEET C013.

LEGEND

- EXISTING PRESSURE SEWER LINE
- EXISTING PERMANENT EASEMENT LINE
- EXISTING SEWER LINE & MANHOLE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING R/W & PROPERTY LINES
- EXISTING FENCE
- EXISTING POWER POLE
- EXISTING POWER POLE w/ GUY ANCHOR
- EXISTING TREES OR HEAVY BRUSH

GENERAL NOTES.

LOCATIONS OF EXISTING UTILITIES (WATER, GAS, TELEPHONE, & ELECTRICAL) AS SHOWN ON PLANS ARE APPROXIMATE, LOCATED WITH INFORMATION AVAILABLE. CONTRACTOR SHALL CONTACT ALL UTILITIES PRIOR TO ANY EXCAVATION OR CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR EXACT LOCATIONS OF ALL UTILITIES AND PRESERVATION THEREOF.

ALL CONSTRUCTION AND EXCAVATION ACTIVITIES SHALL BE CONFINED TO EASEMENTS, ROADWAY RIGHTS-OF-WAY, AND/OR WORK AREA LIMITS AS SHOWN ON PLANS.

Millimeters / Inches — Scale For Microfilming

ALLGEIER, MARTIN & ASSOCIATES, INC.
ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS
JOPLIN, MISSOURI

SCALE	F.B. NO.	PG. NO.
HORIZ 1" = 50' VERT 1" = 5'	408-A	16-17
STATIONS	408-A	40-45
41+04.77 to 56+00	408-D	46-53

DWG. BY: KAM
CKD. BY: BLH
APPD. BY: DAH
DATE: 10 MAY. 83

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
JULY, 1984	GENERAL REVISIONS		
JAN., 1985	BURIED TEL CABLE		
OCT., 1985	A RECORD DRAWINGS		

SHOAL CREEK PRESSURE SEWER
SHOAL CREEK INTERCEPTOR SEWERS—JOPLIN, MISSOURI
PLAN/PROFILE DWG. NO. 10

BURNS McDONNELL
THE REGISTRANT OF THE NEWLY APPLIED SEAL, DATED -, ONLY ASSUMES RESPONSIBILITY FOR THE CHANGES AS INDICATED ON BURNS & McDONNELL DRAWING C011 REVISION X.

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER
2026.06.18 16:21:17-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NOT TO SCALE

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI
JASPER COUNTY, MISSOURI

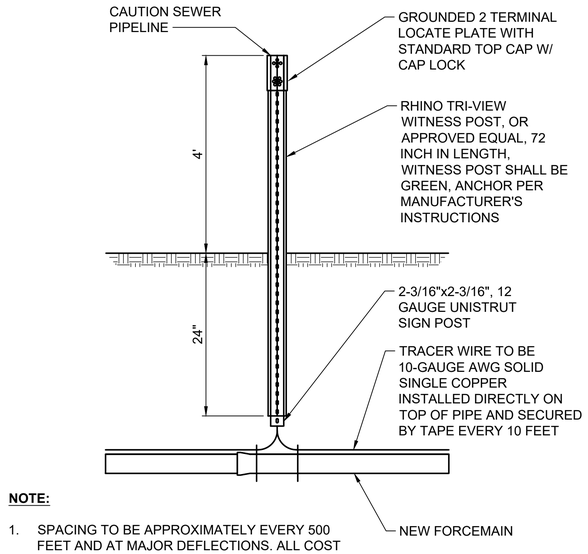
TIN CUP FORCE MAIN
LINE B
PLAN AND PROFILE
BOL STA 0+00.00 TO EOL STA 7+18.63

project	contract
119978	

drawing C011 — rev. 0

sheet 16 of 22 sheets
file 119978_TIN_CUP_RECORD_PARALLEL.dwg

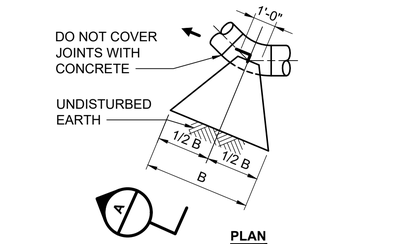
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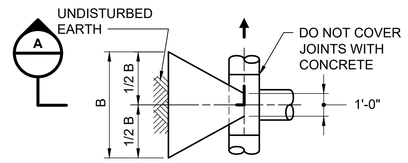
NOTE:

1. SPACING TO BE APPROXIMATELY EVERY 500 FEET AND AT MAJOR DEFLECTIONS. ALL COST ASSOCIATED WITH WITNESS POSTS SHALL BE INCIDENTAL TO FORCE MAINS.

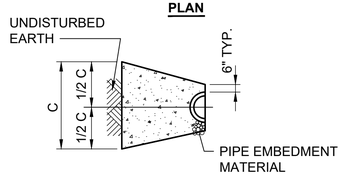
WITNESS POST WITH TRACER WIRE ACCESS BOX DETAIL 1
NOT TO SCALE



PLAN



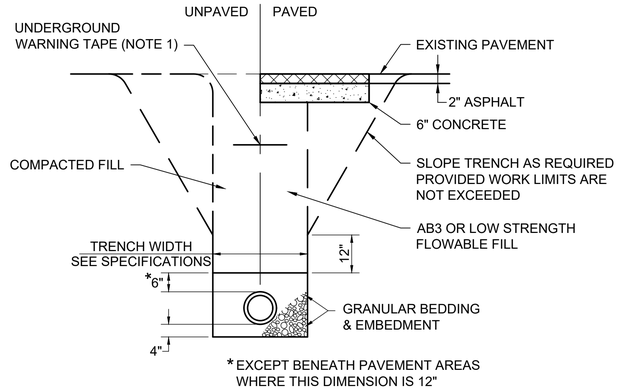
PLAN



SECTION A

HORIZONTAL THRUST BLOCK SCHEDULE			
SIZE	FITTING	"B"	"C"
24"	45°	9'	4.5'
24"	22.50°	6.5'	3.5'
24"	11.25°	4.5'	2.5'
24"	DEAD END	10.5'	5'

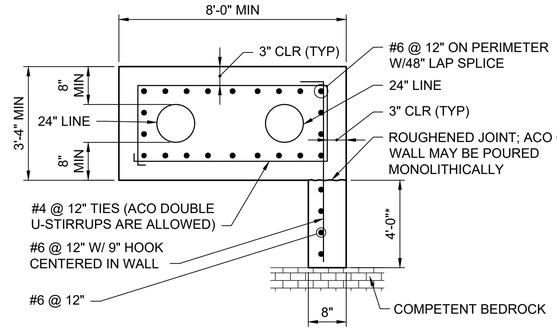
HORIZONTAL THRUST BLOCK DETAIL 2
NOT TO SCALE



NOTE:

1. PROVIDE 3" WIDE APWA COMPLIANT WARNING TAPE. TAPE SHALL READ "CAUTION BURIED SEWER LINE BELOW." INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDATION.

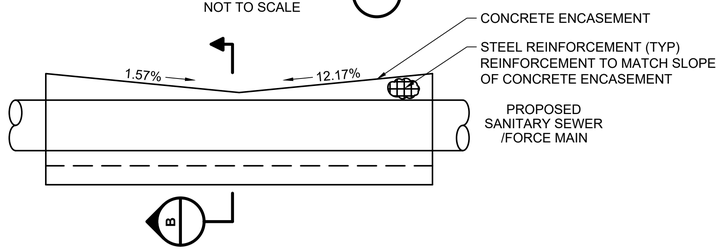
TRENCH DETAIL 3
NOT TO SCALE



NOTE:

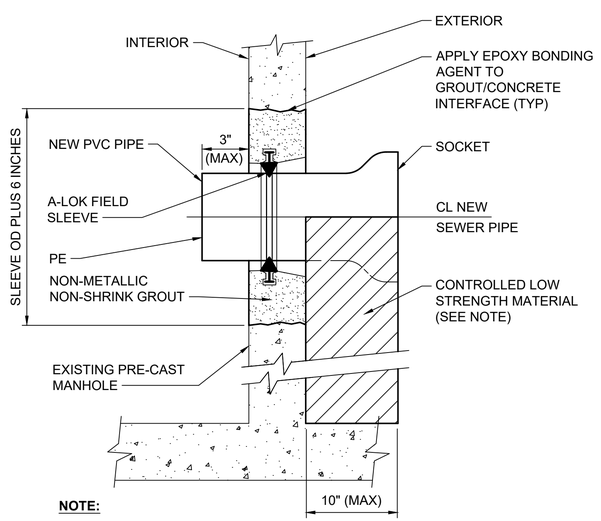
1. LENGTH USED FOR ESTIMATING CUTOFF WALL DEPTH IN CONSTRUCTION.LENGTH WILL DEPEND ON DEPTH OF BEDROCK DURING EXCAVATION.

SECTION B
NOT TO SCALE



ELEVATION
NOT TO SCALE

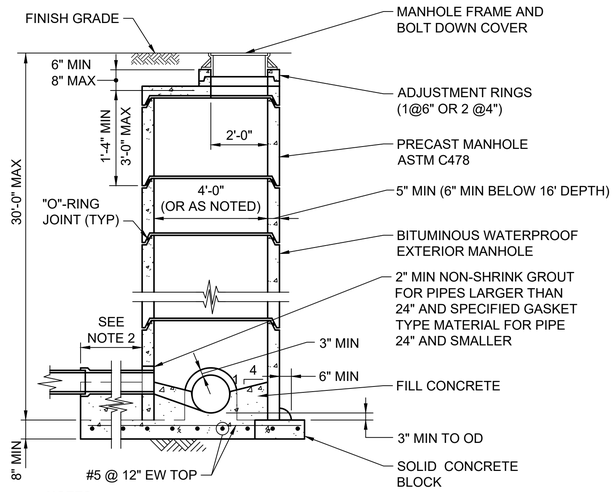
REINFORCED SPECIAL GRADE CONTROL CONCRETE ENCASEMENT DETAIL 4
NOT TO SCALE



NOTE:

1. CRADLE WALL PENETRATION FROM PRE-CAST MANHOLE EXTERIOR TO FIRST PIPE JOINT WITH CONTROLLED LOW STRENGTH MATERIAL.

TYPICAL EXISTING PRECAST MANHOLE WALL PENETRATION DETAIL 5
NOT TO SCALE



NOTES:

1. CONCRETE CRADLE SHALL EXTEND FROM THE SPRINGLINE OF PIPE TO UNDISTURBED TRENCH BOTTOM ON ALL MANHOLE CONNECTION LINES.
2. MINIMUM 4 FEET CONCRETE CRADLE TO FIRST PIPE JOINT.

NEW AND EXTENDED PRECAST SANITARY SEWER MANHOLE DETAIL 6
NOT TO SCALE

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:20:46-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN

CIVIL DETAILS - SHEET 1

project	contract
119978	

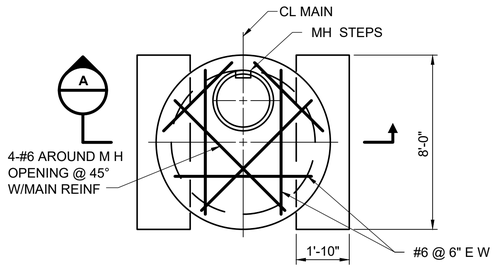
drawing **C012** rev. **0**

sheet 17 of 22 sheets

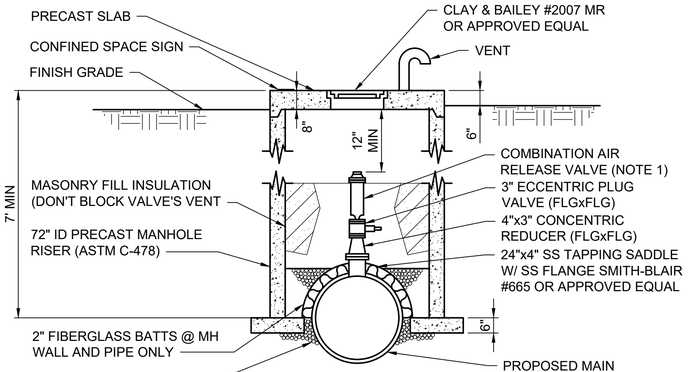
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Scale For Microfilming
Millimeters
Inches

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PLAN
NOT TO SCALE

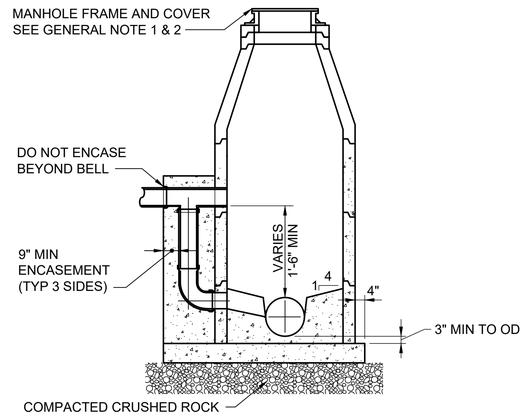


SECTION A
NOT TO SCALE

NOTE:

1. PROVIDE 3" ARI MODEL D-26, FLANGED WASTEWATER COMBINATION AIR VALVE OR APPROVED EQUAL.

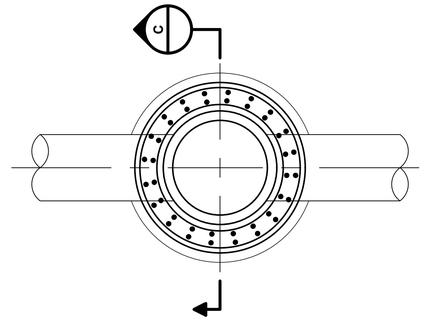
AIR RELEASE VALVE DETAIL 7
NOT TO SCALE



NOTE:

1. MATCH CROWN OF DROP PIPE INLET WITH CROWN OF OUTLET PIPE.

DROP MANHOLE DETAIL 8
NOT TO SCALE



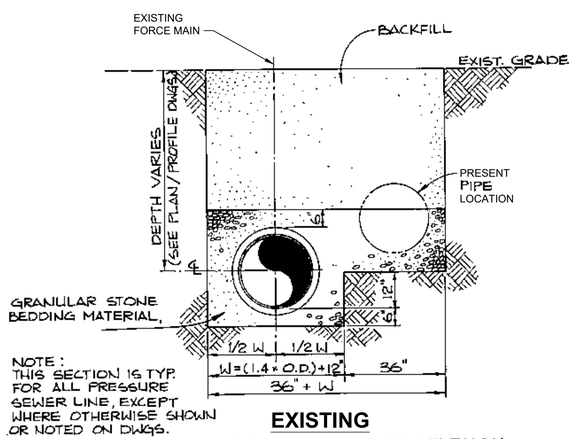
SECTION C
NOT TO SCALE

MANHOLE CAST IN PLACE DETAIL 9
NOT TO SCALE

GENERAL NOTES:

1. ALL MANHOLE FRAMES AND COVERS TO BE EAST JORDAN PRODUCT NUMBER COM 320069A01 (H20 LOAD RATED) OR APPROVED EQUAL.

2. MAXIMUM GRADE ADJUSTMENT ALLOWABLE IS 8". MINIMUM ALLOWABLE THICKNESS FOR PRECAST CONCRETE GRADE ADJUSTMENT RING IS 4'.



EXISTING
PRESSURE SEWER PIPE TRENCH AND BEDDING DETAIL 10
NOT TO SCALE

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:19:37-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN

CIVIL DETAILS - SHEET 2

project	contract
119978	

drawing **C013** – rev. **0**

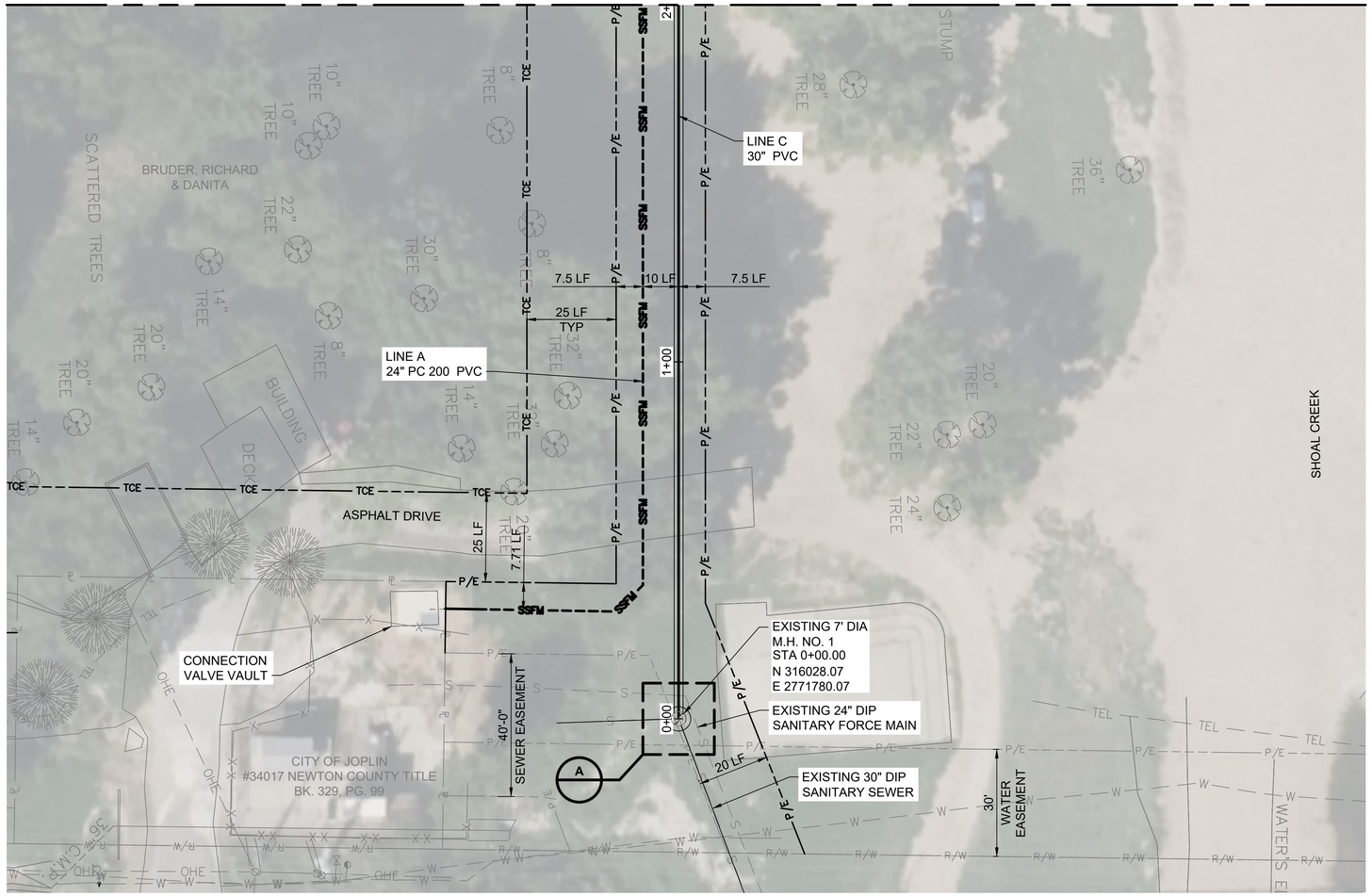
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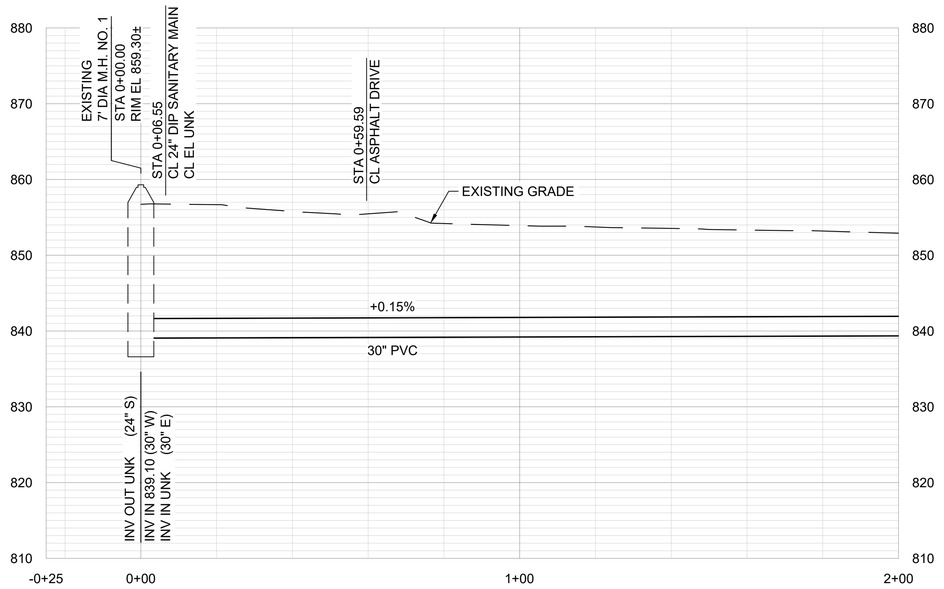
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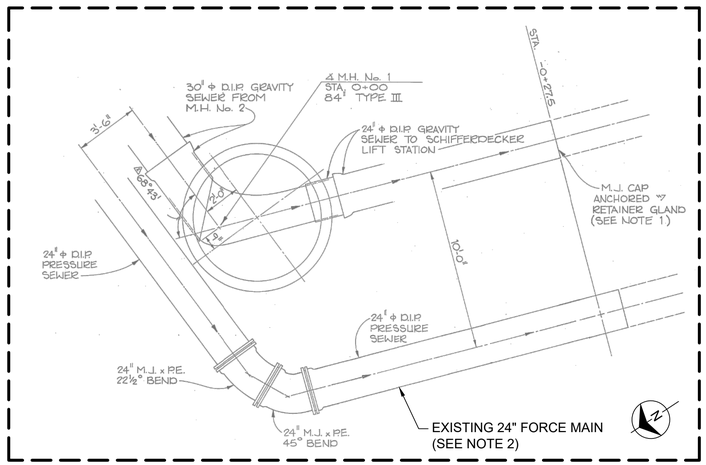
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Millimeters
Inches

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MATCHLINE STA 2+00 TO DWG C015







M.H. NO. 1 - DETAIL (A)
NOT TO SCALE

NOTE:

1. ALL TREES ON BRUDER, RICHARD & DANITA CAMPGROUND PROPERTY MUST BE PROTECTED AND REMAIN IN PLACE. TREES WITHIN THE PERMANENT EASEMENT AND THE TEMPORARY CONSTRUCTION EASEMENT MUST BE PROTECTED AND REMAIN IN PLACE WITHIN THE PROPERTY LIMITS.
2. LOCATION AND DEPTH OF EXISTING 24" SANITARY FORCE MAIN ARE UNKNOWN. EXISTING FORCE MAIN PIPING MAY REQUIRE RELOCATION, CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING FORCE MAIN AND RELOCATE PIPE AND/OR BENDS AS NEEDED TO INSTALL LINE C 24" SANITARY SEWER PIPING. COORDINATE ANY NECESSARY SHUTDOWNS WITH THE OWNER.

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:18:34-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

VERT: 0 10' 20' SCALE IN FEET

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI
JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE C
PLAN AND PROFILE
BOL STA 0+00.00 TO STA 2+00.00

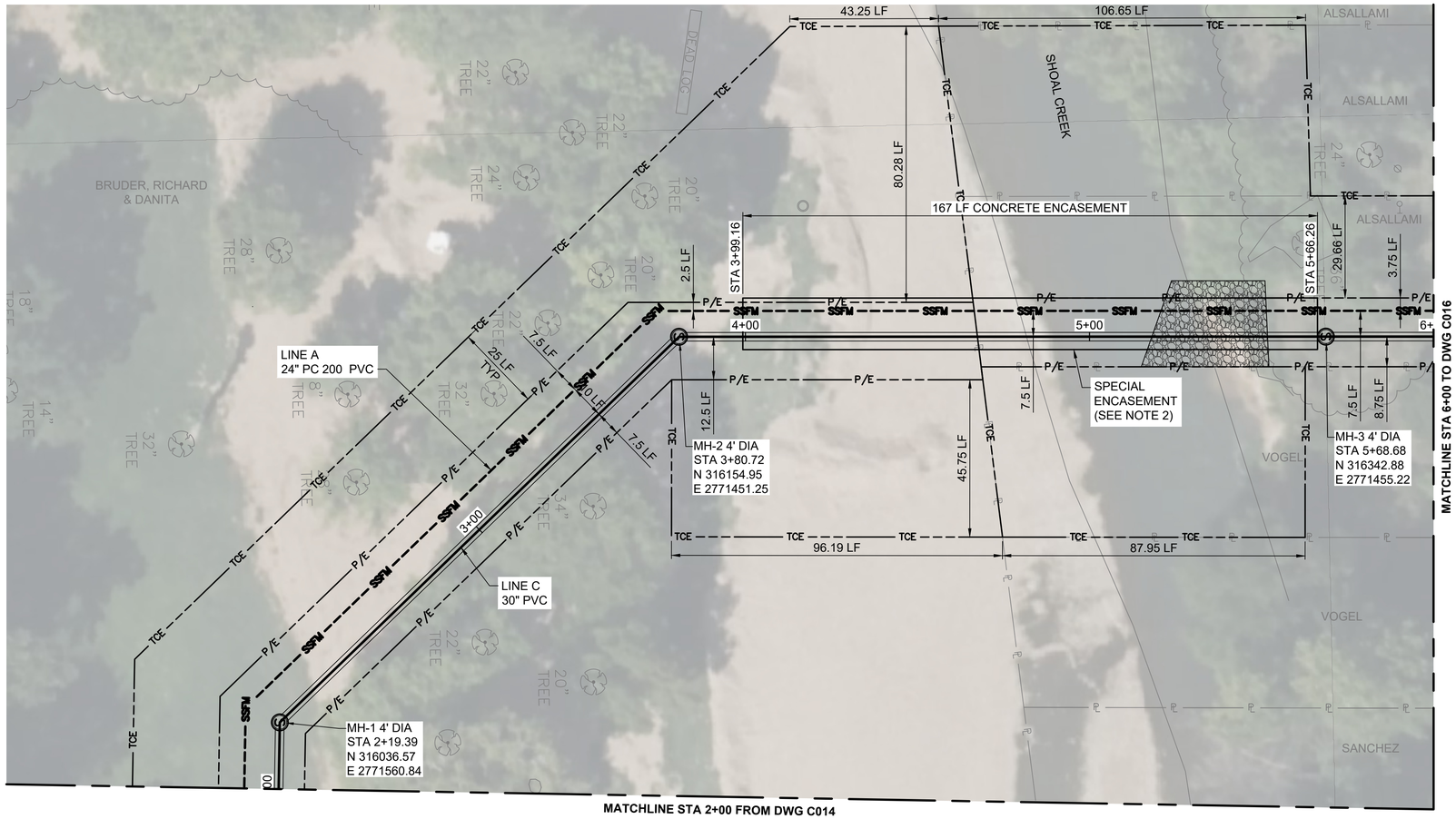
project	contract
119978	

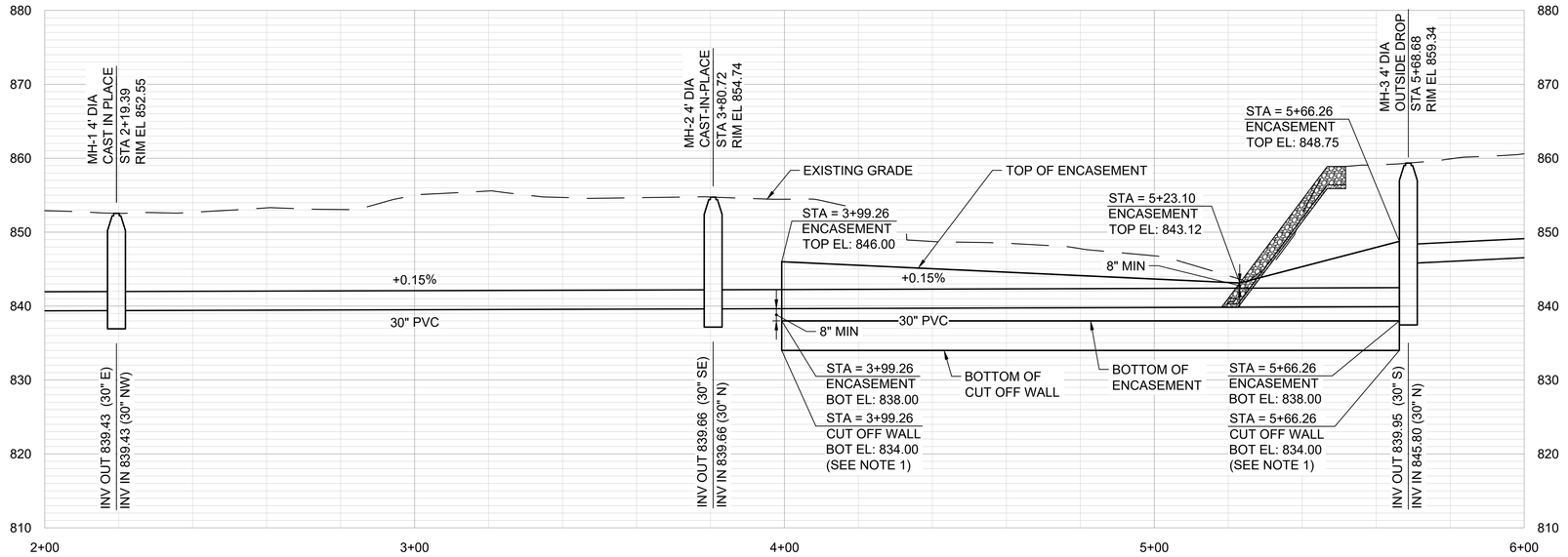
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sheet 19 of 22 sheets
file 119978_TIN CUP_SEWER.dwg

Scale For Microfilming: Millimeters / Inches

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NOTE:

1. CONTRACTOR SHALL INCLUDE COSTS FOR CUT OFF WALL IF CONCRETE ENCASEMENT IS NOT EMBEDDED IN ROCK AND SHALL BE AS SHOWN IN THE DETAIL. IF CONCRETE ENCASEMENT IS EMBEDDED IN ROCK, CUT OFF WALL WILL NOT BE NEEDED. CUT OFF WALL IS INCLUDED AS SEPARATE PAY ITEM IN QUANTITIES.
2. SEE SHEET C012 FOR REINFORCED SPECIAL GRADE CONTROL ENCASEMENT DETAIL.
3. ALL TREES ON BRUDER, RICHARD & DANITA CAMPGROUND PROPERTY MUST BE PROTECTED AND REMAIN IN PLACE. TREES WITHIN THE PERMANENT EASEMENT AND THE TEMPORARY CONSTRUCTION EASEMENT MUST BE PROTECTED AND REMAIN IN PLACE WITHIN THE PROPERTY LIMITS.
4. IF CONTRACTOR DISTURBS EXISTING STREAM BANK OUTSIDE OF THE RIP RAP LIMITS SHOWN ON THE DRAWING, THE EXTENTS OF THE RIP RAP SHALL BE EXTENDED TO FIVE (5') FEET PAST THE AREA OF DISTURBANCE IN ACCORDANCE WITH THE DETAIL SHOWN ON SHEET C001.

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:17:58-05'00'

RACHELLE L. LOWE
CIVIL
2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

VERT: 0 10' 20' SCALE IN FEET

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	detailed
JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI
JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE C
PLAN AND PROFILE
STA 2+00.00 TO STA 6+00.00

project	contract
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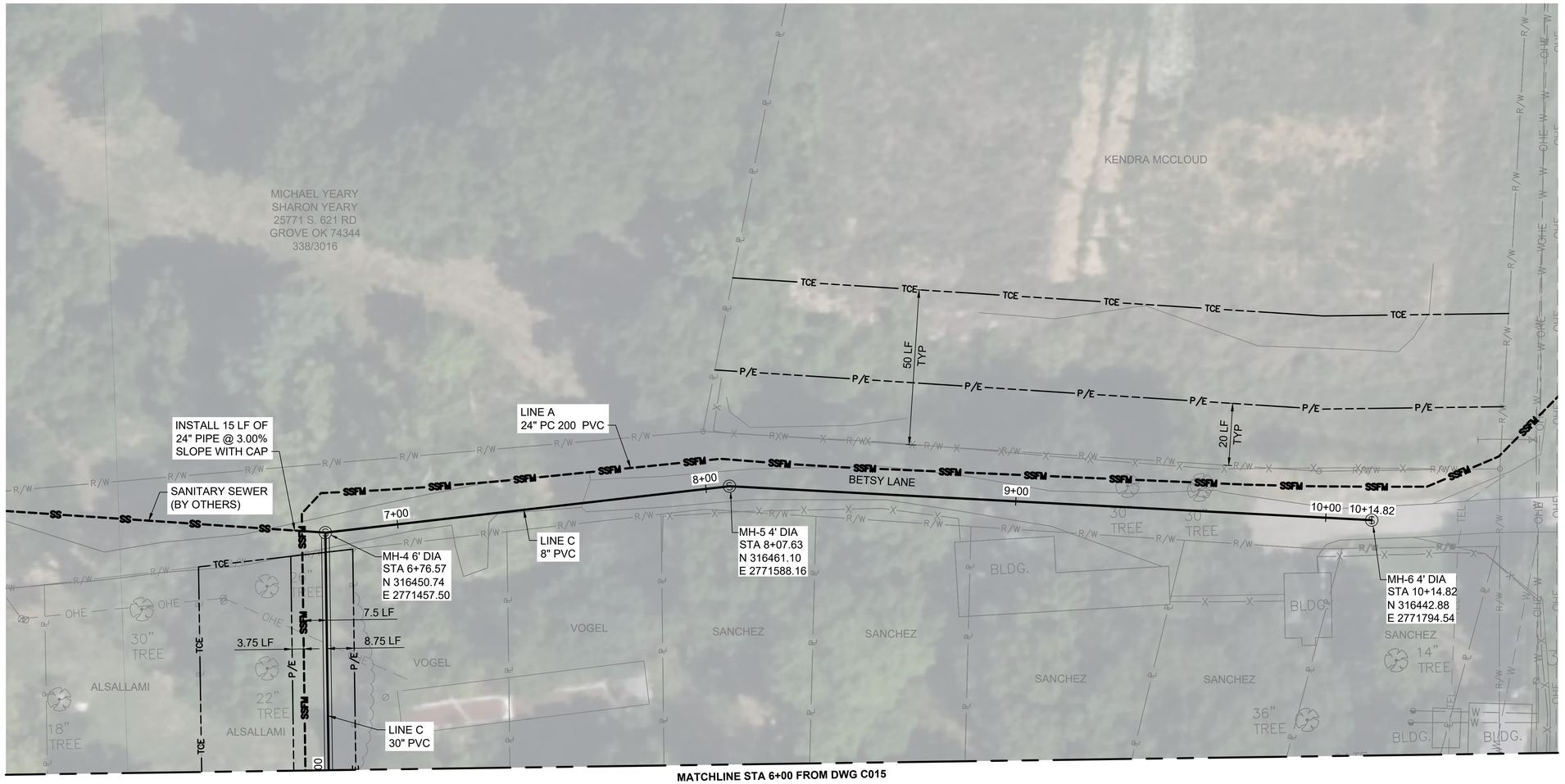
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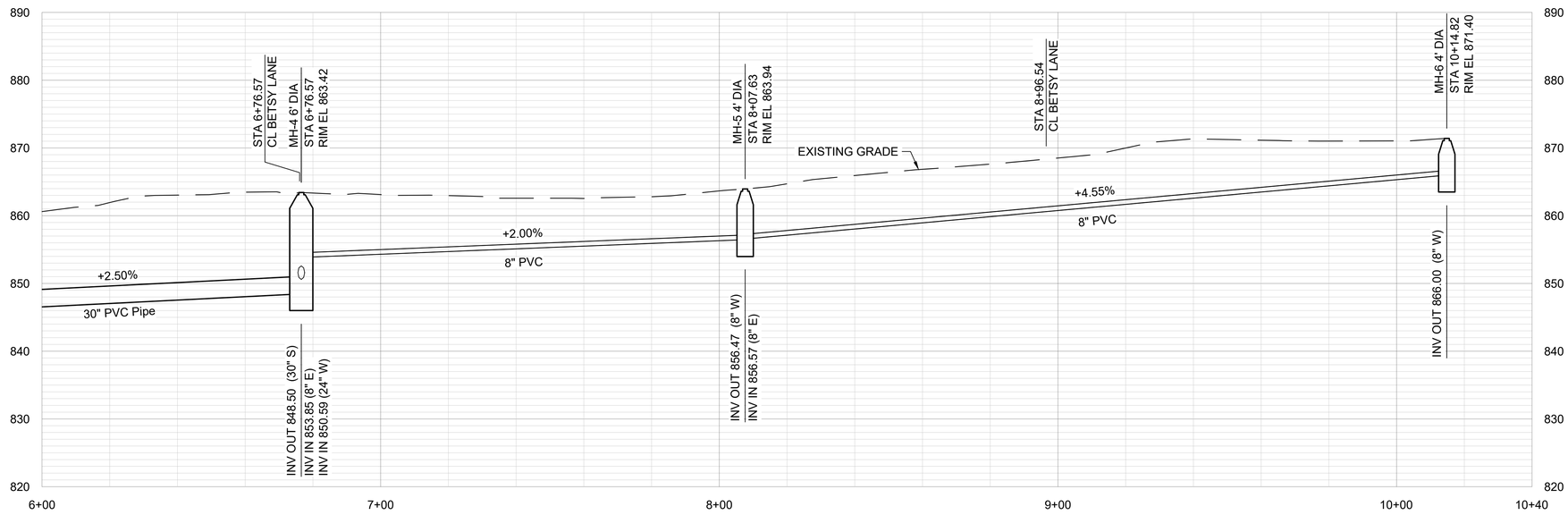
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Scale For Microfilming: Millimeters / Inches

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2010019568

NORTH

HORIZ: 0 10' 20' 40' SCALE IN FEET

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BURNS McDONNELL

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JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN
LINE C
PLAN AND PROFILE
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project	contract
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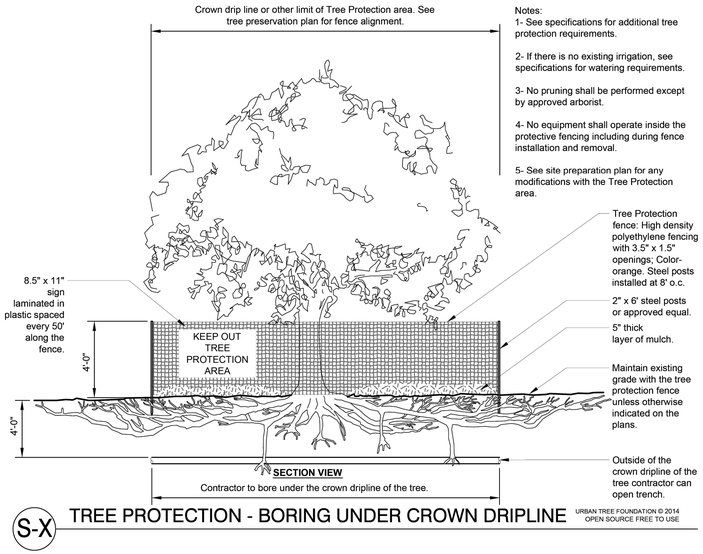
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sheet 21 of 22 sheets

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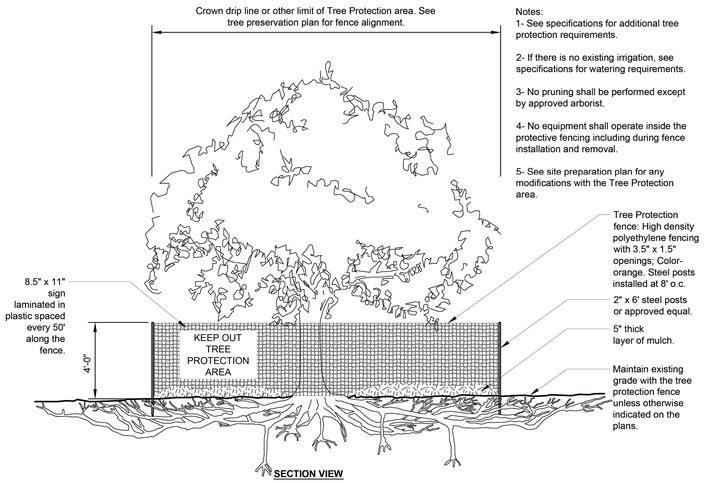
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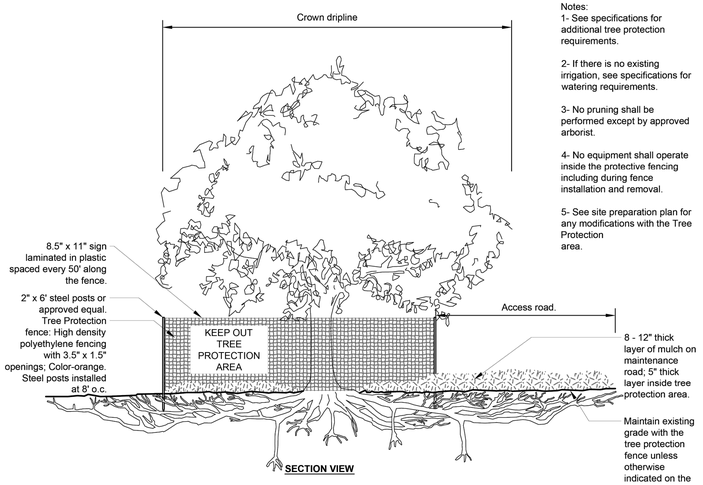
S-X TREE PROTECTION - BORING UNDER CROWN DRIPLINE

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S-X TREE PROTECTION

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S-X TREE PROTECTION - MAINTENANCE ROAD

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Scale For Microfilming
Millimeters
Inches

no.	date	by	ckd	description
0	06/11/26	RLL	-	ISSUED FOR BID

STATE OF MISSOURI
RACHELLE LYNN LOWE
NUMBER PE-2010019568
PROFESSIONAL ENGINEER

2026.06.18 16:16:45-05'00'

REFERENCE DRAWING

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

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JUNE 24, 2020	C. DONNICI
designed	checked
R. LOWE	-

CITY OF JOPLIN MISSOURI

JASPER COUNTY, MISSOURI

TIN CUP FORCE MAIN

REFERENCE DRAWING - SHEET 1

project	contract
119978	

drawing C017 – rev. 0

sheet 22 of 22 sheets

file 119978_TIN CUP-REFERENCE-1.dwg