

## Date Received: April 04 2025



[illegible]



LEGEND

EXISTING	PROPOSED
	FOUND MONUMENT AS NOTED
	SET MONUMENT AS NOTED
	COMPUTED POINT
	BENCHMARK
	POWER POLE
	ELECTRIC METER
	GUY WIRE ANCHOR
	FIBER OPTIC VAULT
	FIRE HYDRANT
	CULVERT FLARED END SECTION
	SANITARY MANHOLE
	MAILBOX
	PROPERTY LINE
R/W	RIGHT-OF-WAY LINE
C/L	CENTERLINE
	NOT TO SCALE
	FLOW LINE DIRECTION
	OVERHEAD POWER LINE
	UNDERGROUND ELECTRIC LINE
	UNDERGROUND TELEPHONE LINE
	UNDERGROUND WATER LINE
	SANITARY SEWER LINE
	STORM SEWER LINE
	EDGE OF WATER
	LIMITS OF TOPOGRAPHY
	STORM DRAIN OUTLET PROTECTION
	STORM DRAIN INLET PROTECTION
	REMOVE GRAVEL, PAVEMENT, CONCRETE, AND OR BUILDINGS
	REMOVE FEATURE/APPURTENANCE
	SILT FENCE
	LIMITS OF DISTURBANCE
	REMOVE LINEAR FEATURE
	GRAVEL
	CONCRETE
	ASPHALT
	CURB
	TEMPORARY CONSTRUCTION EASEMENT
	PERMANENT UTILITY EASEMENT
	JACK AND BORE BORING/RECEIVING PIT

ABBREVIATIONS

BB	BOTTOM OF BANK
BOC	BACK OF CURB
CG	CONCRETE GUTTER
CH	CONCRETE HEADWALL
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CTRS	CENTERS
CU. FT.	CUBIC FOOT
DI/DIAM	DIAMETER
EA	EDGE OF ASPHALT
EC	EDGE OF CONCRETE
EG	EDGE OF GRAVEL
EQUI	EQUIVALENT
ESC	EROSION AND SEDIMENT CONTROL
EW	EDGE OF WATER
FL	FLOW LINE
GA	GALVANIZED
HAZMAT	HAZARDOUS MATERIAL
INV	INVERT
(M)	MEASURED/CALCULATED DIMENSION
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MSDS	MATERIAL SAFETY DATA SHEET
NG	NATURAL GROUND
N/F	NOW OR FORMERLY
ODOT	OKLAHOMA DEPARTMENT OF TRANSPORTATION
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
(R1)	RECORD DIMENSION PER BK. 3960, PG. 111
(R2)	RECORD DIMENSION PER BK. 4650, PG. 487
(R3)	RECORD DIMENSION PER BK. 4554, PG. 589
TB	TOP OF BANK
TC	TOP OF CONCRETE
TG	TOP OF TRAVEL
V.FT.	VERTICAL FOOT

no.	date	by	ckd	description
A	10/21/24	CNE	BSC	ISSUED FOR APPROVAL
B	01/31/25	CNE	SMG	ISSUED FOR CONSTRUCTION

1317 EXECUTIVE BLVD, SUITE 300  
CHESAPEAKE, VA 23320  
757-548-2056  
OK CA #421

date	JAN. 31, 2025	detailed	C. EVANCHO
designed	E. SNIEGOSKI	checked	S. GILLIAM

SUCCESS FLOWS FROM MUSKOGEE

ISSUED FOR CONSTRUCTION

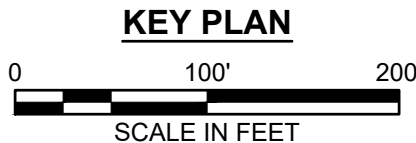
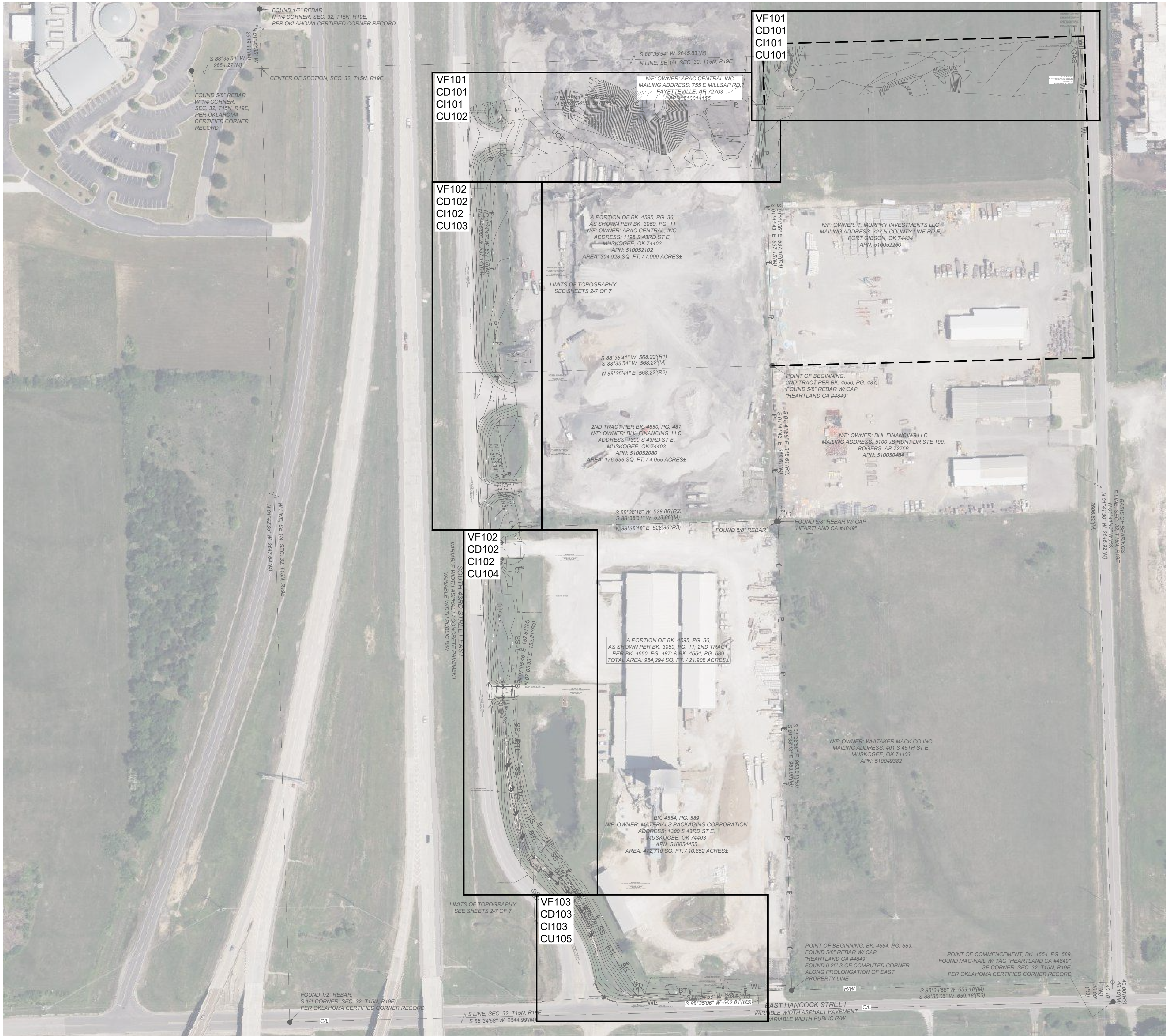
MUSKOGEE, OKLAHOMA

43RD STREET UTILITY EXTENSION

LEGEND & ABBREVIATIONS

project	160013	contract	---
drawing	C-003 - B		
sheet	3	of	22 sheets
file C-001-GENERAL.DWG			





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A	10/21/24	CNE	BSC	ISSUED FOR APPROVAL
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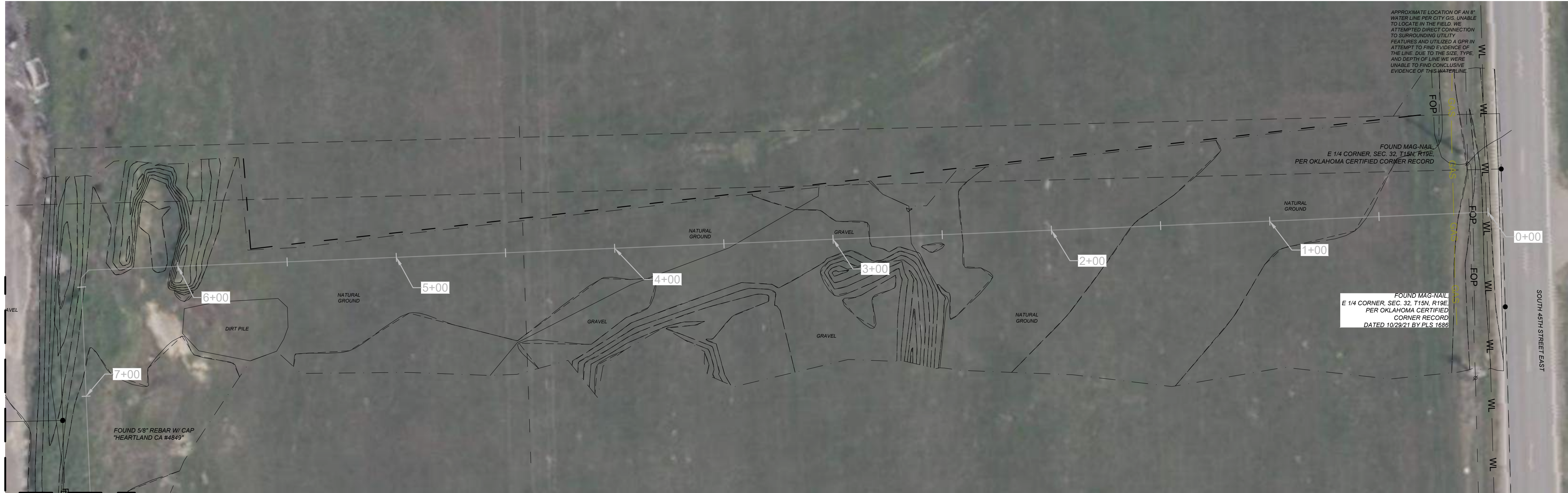
KEY PLAN

project	160013	contract	---
drawing	C-004	rev.	B
sheet	4	of	22 sheets
file	C-003-KEY PLAN.DWG		





MATCHLINE - THIS SHEET



Scale For Microfilming

Inches



MATCHLINE - SEE SHEET VF102

### GENERAL NOTES

- SANITARY SEWER ALIGNMENT AND WATER ALIGNMENT SHOWN FOR REFERENCE ONLY.

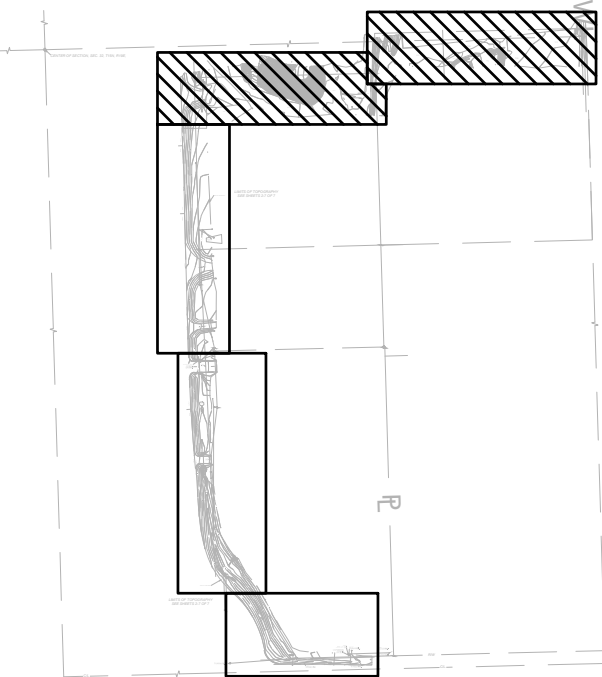


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43RD STREET UTILITY EXTENSION

EXISTING CONDITIONS

project	160013	contract	---
drawing	VF101	rev.	B

sheet 5 of 22 sheets  
file VF101-EXISTING CONDITIONS.DWG





MATCHLINE - SEE SHEET VF101



MATCHLINE - THIS SHEET

MATCHLINE - THIS SHEET



MATCHLINE - SEE SHEET VF103

### GENERAL NOTES

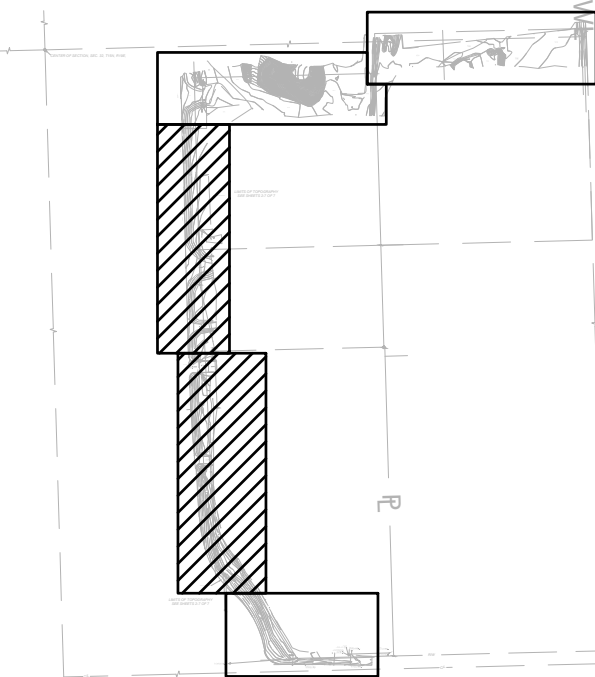
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43RD STREET UTILITY EXTENSION

EXISTING CONDITIONS

project	160013	contract	---
drawing	VF102	rev.	B

sheet 6 of 22 sheets  
file VF101-EXISTING CONDITIONS.DWG







MATCHLINE - SEE SHEET VF102



GENERAL NOTES

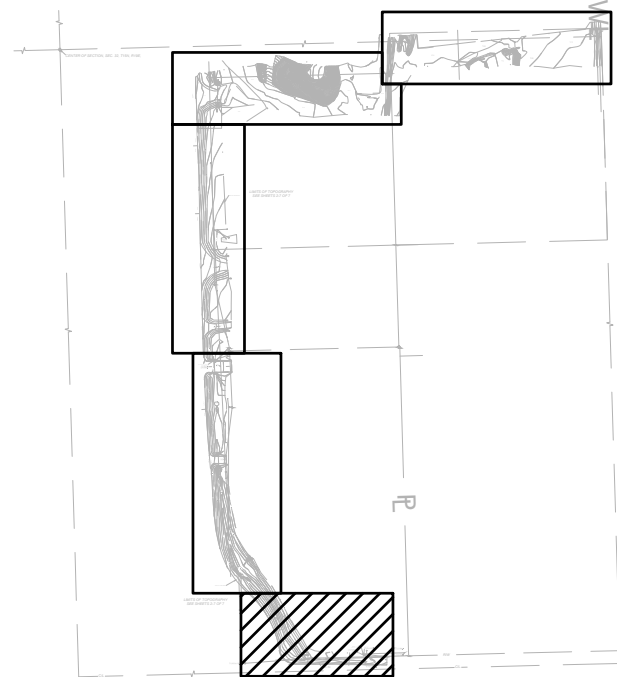
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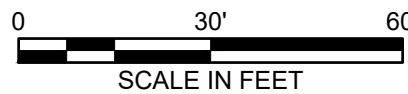
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EXISTING CONDITIONS

project	160013	contract	---
drawing	VF103	rev.	B

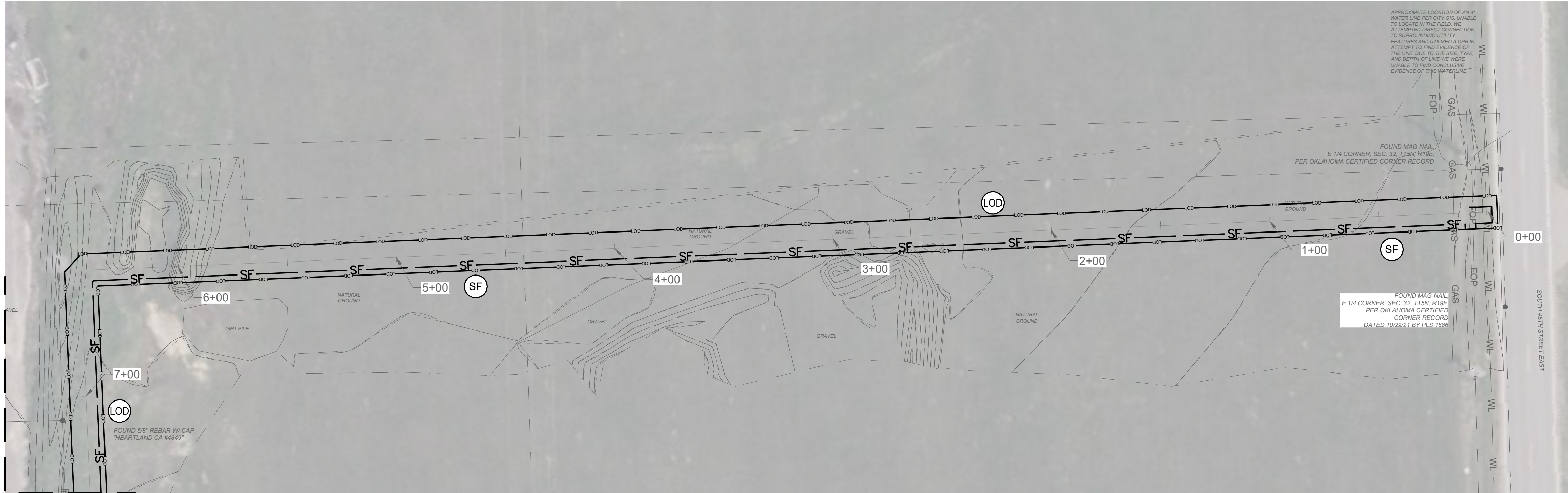
sheet 7 of 22 sheets  
file VF101-EXISTING CONDITIONS.DWG







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MATCHLINE - SEE SHEET CD102

Scale For Microfilming  
Inches  
Millimeters



### GENERAL NOTES

- CONTRACTOR IS TO PROTECT ALL UTILITIES AND SITE FEATURES NOT MARKED TO BE REMOVED.
- CONTRACTOR IS TO REMOVE CONCRETE PAVEMENT FROM JOINT TO JOINT.
- CONTRACTOR TO COORDINATE WITH PROPERTY OWNER TO MOVE STOCKPILED MATERIAL FOR INSTALLATION.

### KEY NOTES

- REMOVE CONCRETE
- REMOVE CONCRETE CURB
- REMOVE GRAVEL

### DEMOLITION LEGEND

TITLE	SYMBOL
REMOVE GRAVEL, PAVEMENT, CONCRETE, AND/OR BUILDINGS	
REMOVE FEATURE/APPURTENANCE	
REMOVE LINEAR FEATURE	

### E&S LEGEND

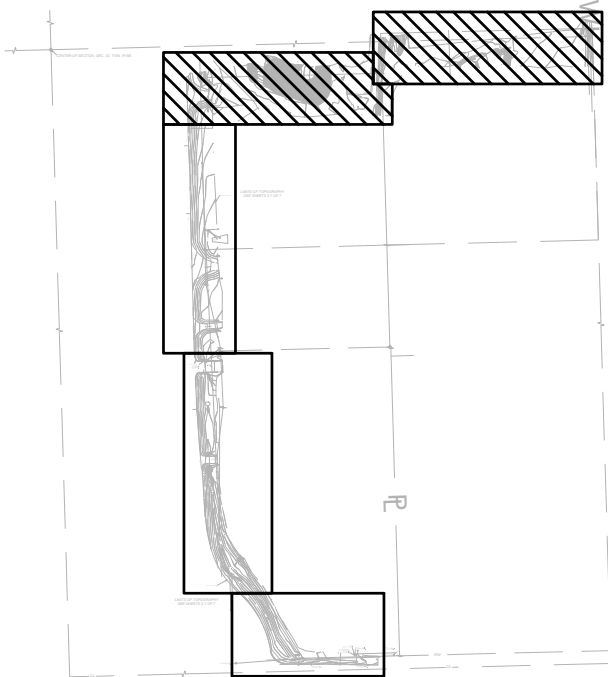
TITLE	KEY	SYMBOL
SILT FENCE		
LIMITS OF DISTURBANCE		
STORM DRAIN INLET PROTECTION		
STORM DRAIN OUTLET PROTECTION		

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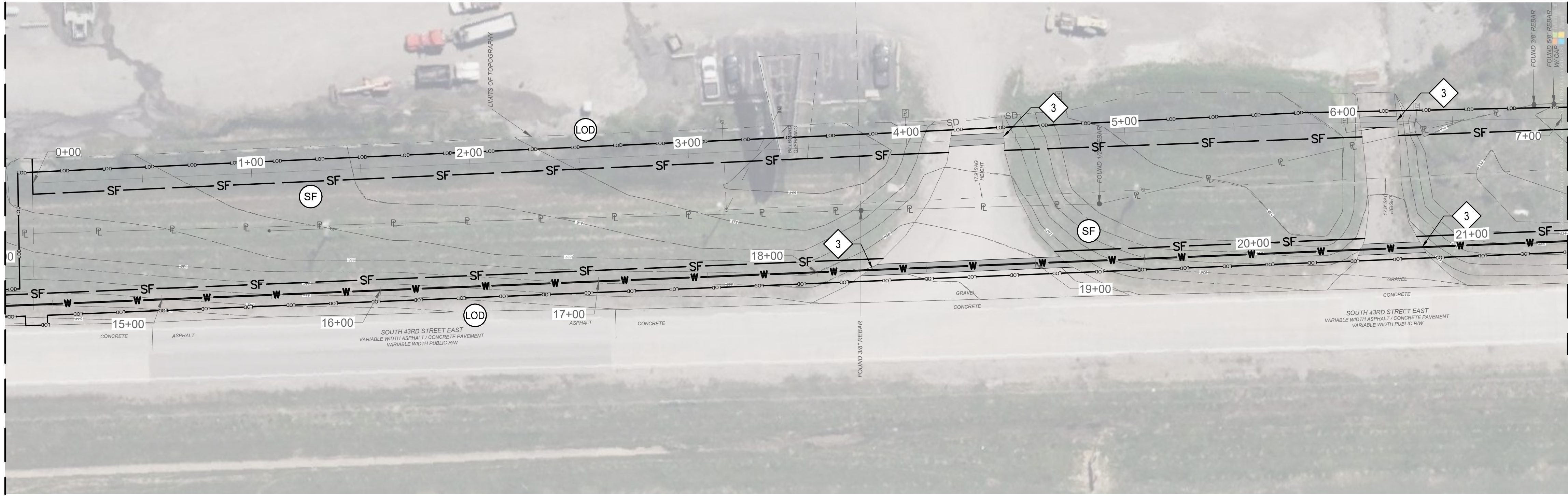
DEMO & ESC PLAN

project	160013	contract	---
drawing	CD101	rev.	B
sheet	8	of	22 sheets
file	CD101-DEMO & ESC PLAN.DWG		

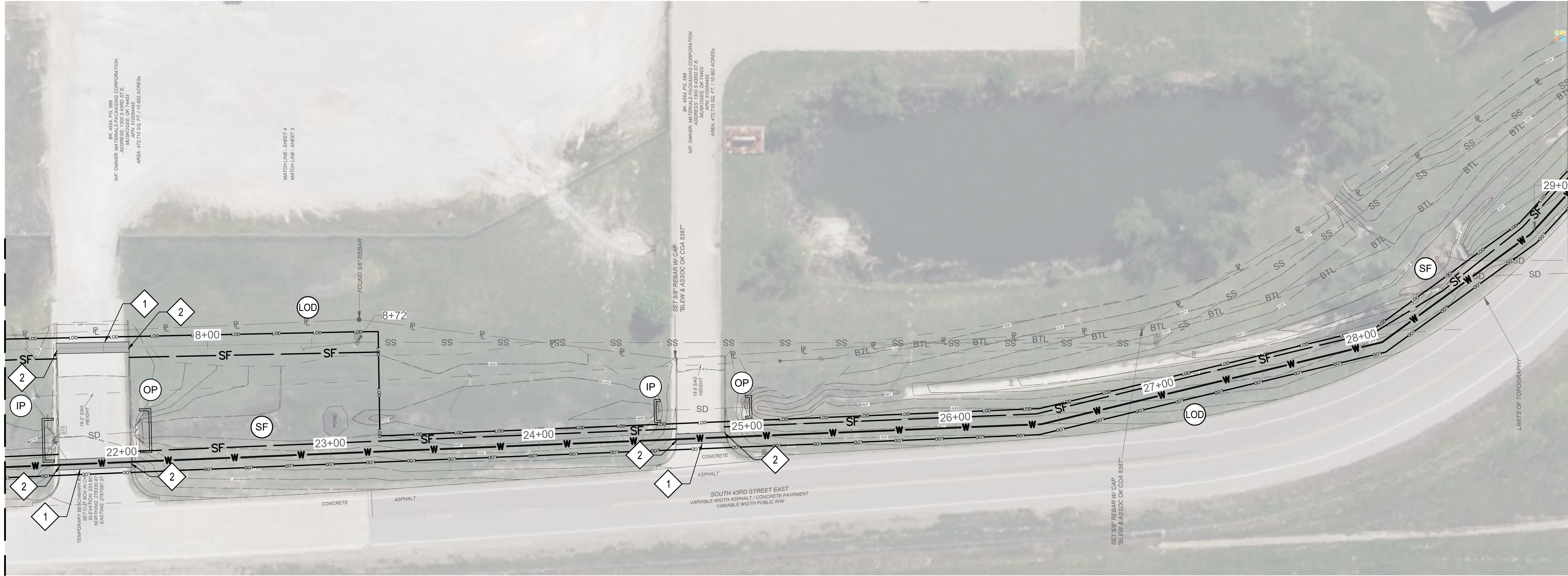




MATCHLINE - SEE SHEET CD101



MATCHLINE - THIS SHEET



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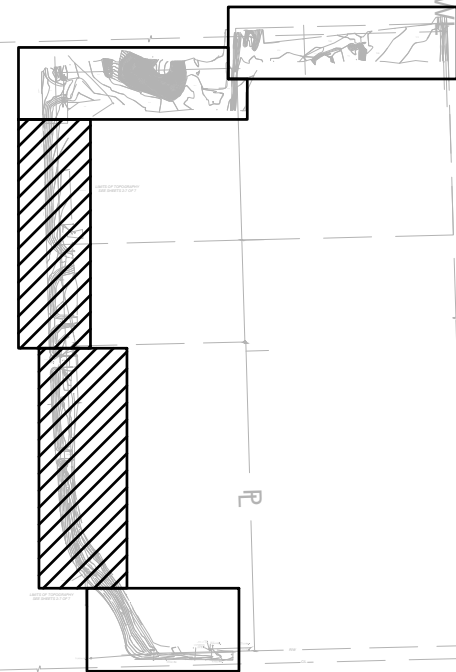
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DEMO & ESC PLAN

project 160013	contract ---
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drawing **CD102 - B** rev.

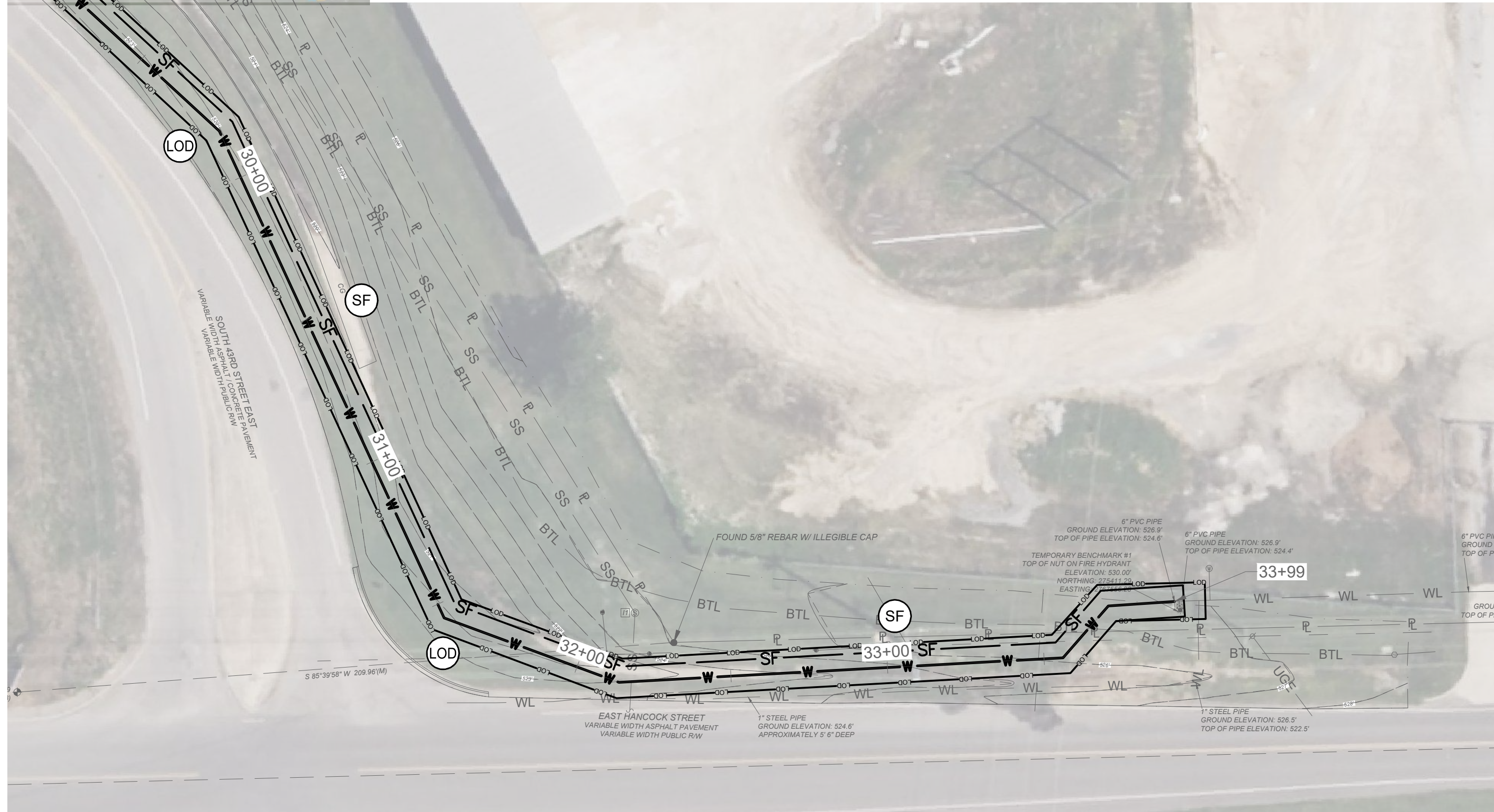
sheet 9 of 22 sheets  
file CD101-DEMO & ESC PLAN.DWG







MATCHLINE - SEE SHEET CD102



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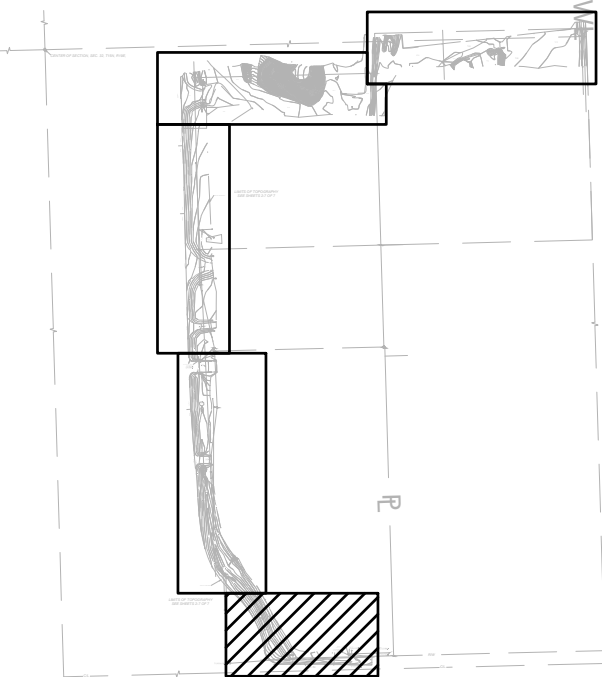
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SILT FENCE		
LIMITS OF DISTURBANCE		
STORM DRAIN INLET PROTECTION		
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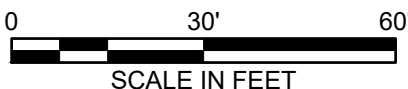
ISSUED FOR CONSTRUCTION

MUSKOGEE, OKLAHOMA

43RD STREET UTILITY EXTENSION

DEMO & ESC PLAN

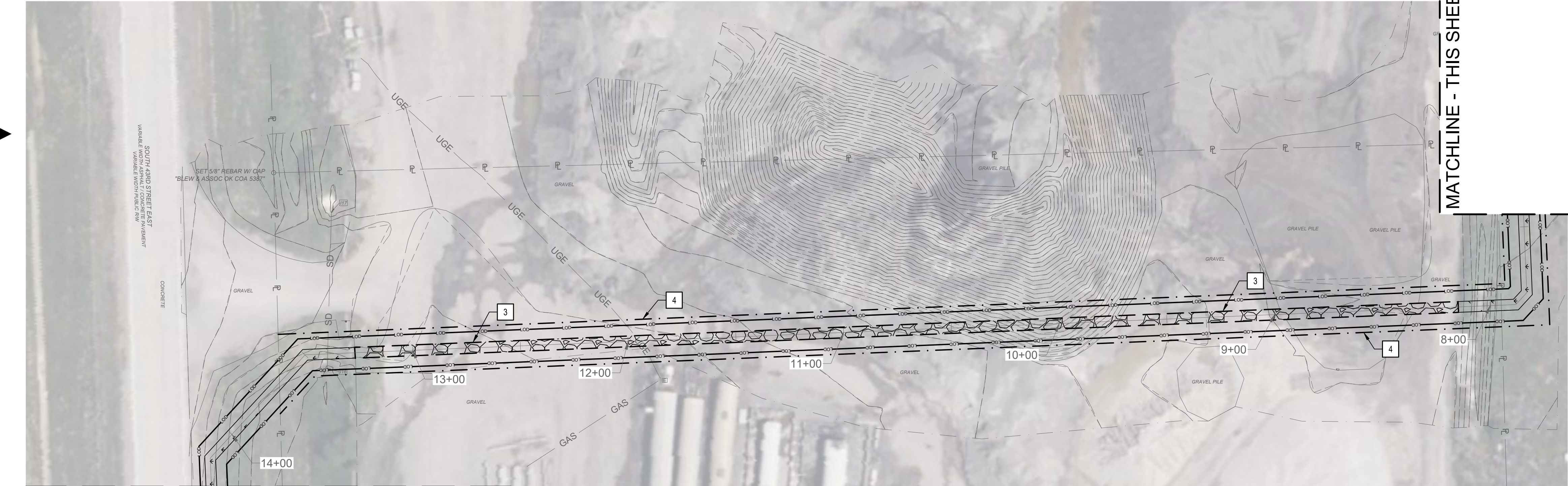
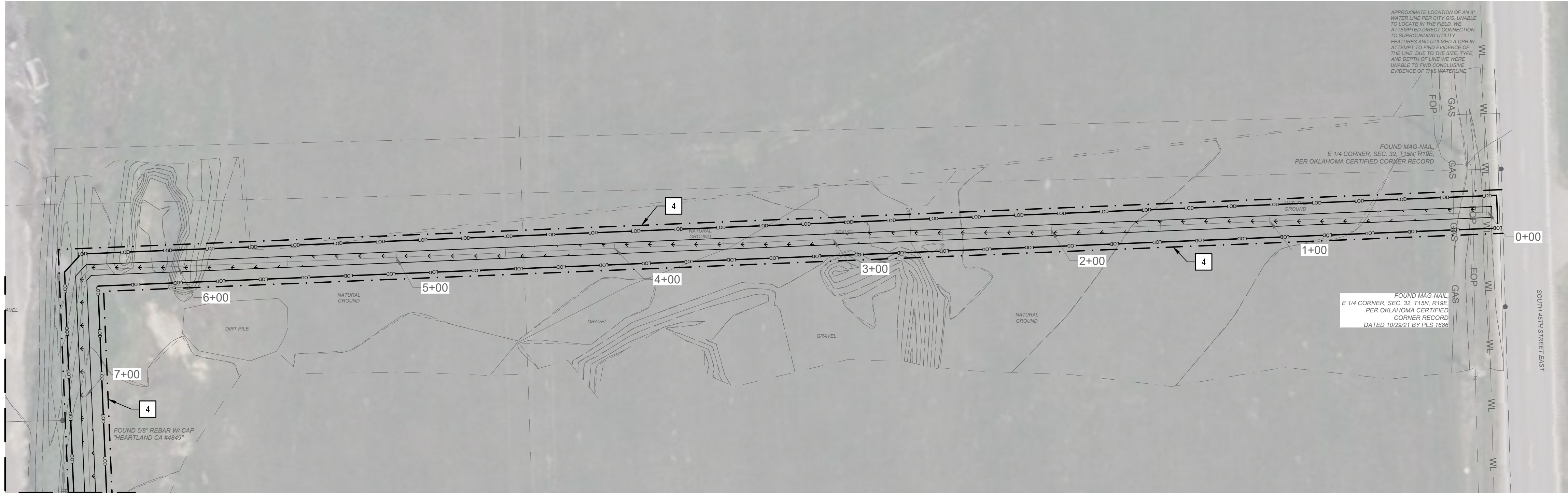
project 160013	contract ---
drawing <b>CD103</b>	rev. <b>B</b>
sheet 10 of 22 sheets	file CD101-DEMO & ESC PLAN.DWG







MATCHLINE - THIS SHEET



MATCHLINE - SEE SHEET C1102



## GENERAL NOTES

- CONTRACTOR IS TO INSTALL CONCRETE PAVEMENT FROM JOINT TO JOINT.

## KEY NOTES

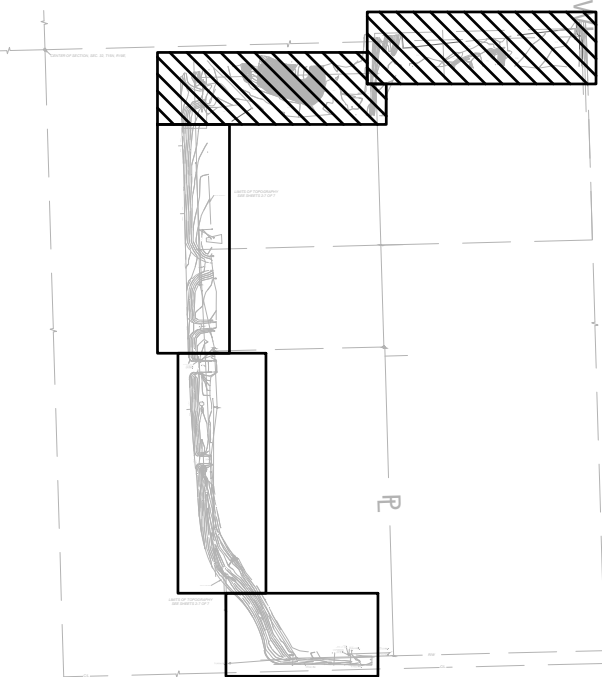
- CONCRETE PAVEMENT
- CONCRETE CURB
- GRAVEL
- PERMANENT UTILITY EASEMENT
- CONCRETE BOLLARD

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MUSKOGEE, OKLAHOMA

43RD STREET UTILITY EXTENSION

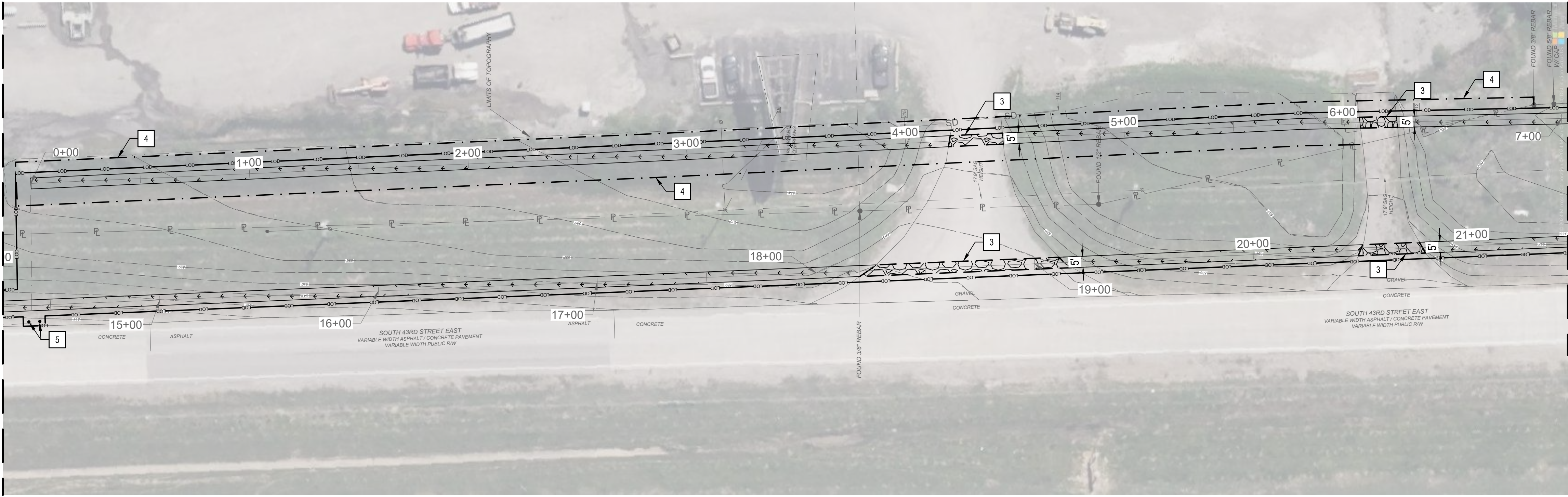
SITE PLAN

project	160013	contract	---
drawing	C1101	rev.	B
sheet	11	of	22 sheets
file	C1101-SITE PLAN.DWG		





MATCHLINE - SEE SHEET C1101



MATCHLINE - SEE THIS SHEET



## GENERAL NOTES

- CONTRACTOR IS TO INSTALL CONCRETE PAVEMENT FROM JOINT TO JOINT.

## KEY NOTES

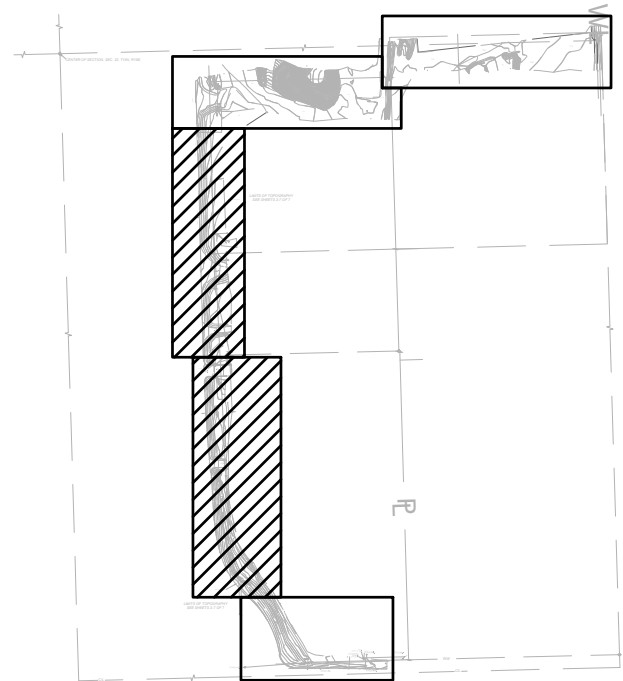
- CONCRETE PAVEMENT
- CONCRETE CURB
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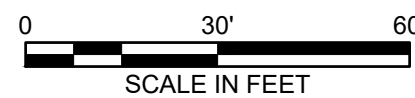
43RD STREET UTILITY EXTENSION

SITE PLAN

project	160013	contract	---
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drawing	C1102	rev.	B
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sheet	12	of	22	sheets
file	C1101-SITE PLAN.DWG			







1. CONTRACTOR IS TO INSTALL CONCRETE PAVEMENT FROM JOINT TO JOINT.

1. CONCRETE PAVEMENT
2. CONCRETE CURB
3. GRAVEL
4. PERMANENT UTILITY EASEMENT
5. CONCRETE BOLLARD

**A**

BCD

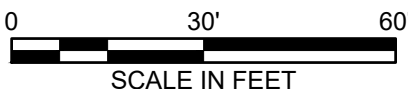
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**F**

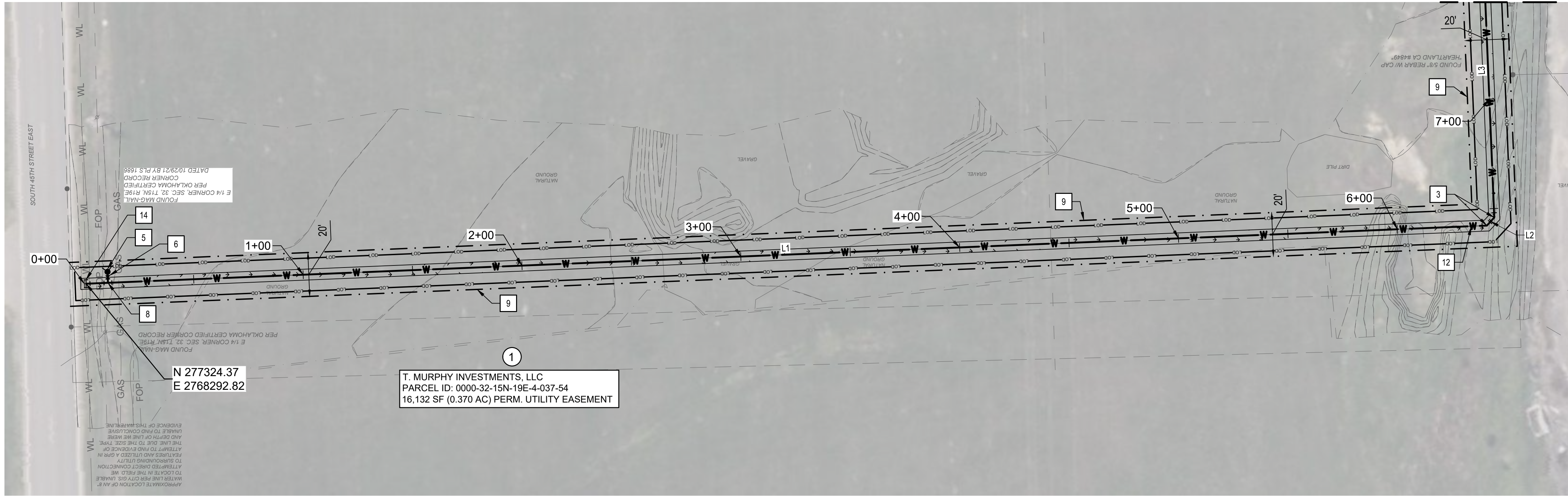
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H

**J**







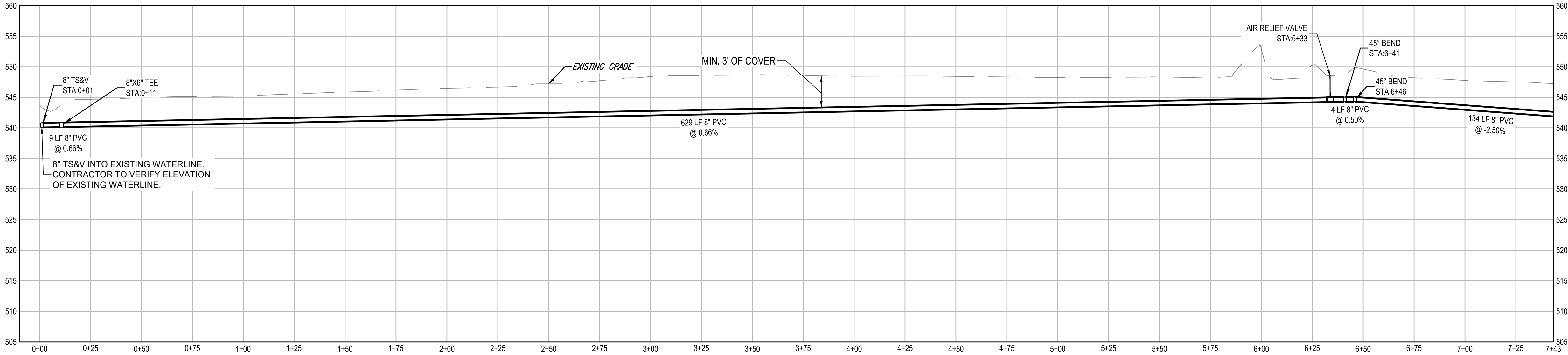
MATCHLINE - SEE SHEET CU102

### GENERAL NOTES

1. ASSUMED EXISTING WATER LINE ON SOUTHERN CONNECTION TO BE 6" PVC. ASSUMED EXISTING WATER LINE ON NORTHERN CONNECTION TO BE 8" PVC. CONTRACTOR TO VERIFY LOCATION, SIZE, AND MATERIAL UPON EXCAVATION.
2. REACTION BLOCKING, TIE RODS, OR JOINTS DESIGNED TO PREVENT MOVEMENT AT ALL TEES, BENDS, PLUGS AND HYDRANTS TO PREVENT MOVEMENT OF THE PIPE WILL BE REQUIRED FOR ALL WATER LINES, IN ACCORDANCE WITH OAC 252.626-19-2(D).
3. EXISTING UTILITIES SHOWN IN PROFILE ARE APPROXIMATE. CONTRACTOR SHOULD FIELD VERIFY EXISTING UTILITY LINE DEPTHS, SIZES, AND MATERIALS BEFORE ORDERING MATERIAL.
4. CONTRACTOR TO RESET ANY SITE FEATURES DISTURBED DURING CONSTRUCTION.
5. CONTRACTOR IS TO ENSURE POSITIVE DRAINAGE AT ALL STORM CULVERTS.
6. CONTRACTOR TO USE A 30" MIN. OF CRUSHED AGGREGATE, COMPACTED TO 95% STANDARD PROCTOR DENSITY WHEN INSTALLING PROPOSED WATER LINE UNDER STREET OR DRIVEWAY.
7. JACK AND BORE LIMITS ARE APPROXIMATE. CONTRACTOR TO DETERMINE ACTUAL LIMITS.
8. A 14" CASING MINIMUM IS REQUIRED ON ALL JACK AND BORED WATER LINE UTILITY.

### WATER CONSTRUCTION NOTES

1. 11.25° BEND
2. 22.5° BEND
3. 45° BEND
4. CONNECT INTO EXISTING 6" PVC MAIN. SEE NOTE ON PLAN AND PROFILE.
5. HYDRANT WITH THREE WAY PUMPER OUTLET
6. 6" GATE VALVE
7. 8" X 8" TEE
8. 8" X 6" TEE
9. PERMANENT UTILITY EASEMENT
10. TEMPORARY CONSTRUCTION EASEMENT
11. JACK AND BORE PIT
12. AIR RELIEF VALVE
13. ISOLATION VALVE
14. 8" TAPPING SLEEVE AND VALVE
15. REDUCER, SIZE TO MATCH CONNECTING WATER PIPES
16. 14" STEEL CASING, SEE WATER LINE PROFILE FOR



WATER		
Number	Length	Line/Chord Direction
L1	640.92	S87° 37' 31.21"W
L2	5.00	S42° 37' 31.21"W
L3	134.62	S2° 22' 28.79"E
L4	7.50	S42° 37' 31.21"W
L5	561.86	S87° 37' 31.21"W
L6	65.00	S42° 37' 31.21"W
L7	1226.38	S2° 22' 28.79"E
L8	167.88	S13° 31' 26.38"E
L9	87.72	S36° 01' 26.38"E
L10	86.90	S47° 16' 26.38"E
L11	171.06	S24° 46' 26.38"E
L12	59.40	S69° 46' 26.38"E
L13	141.82	N86° 50' 08.00"E
L14	21.97	N41° 09' 18.32"E
L15	21.14	N86° 09' 18.32"E

### WATER STA -0+10 TO 7+43 PROFILE

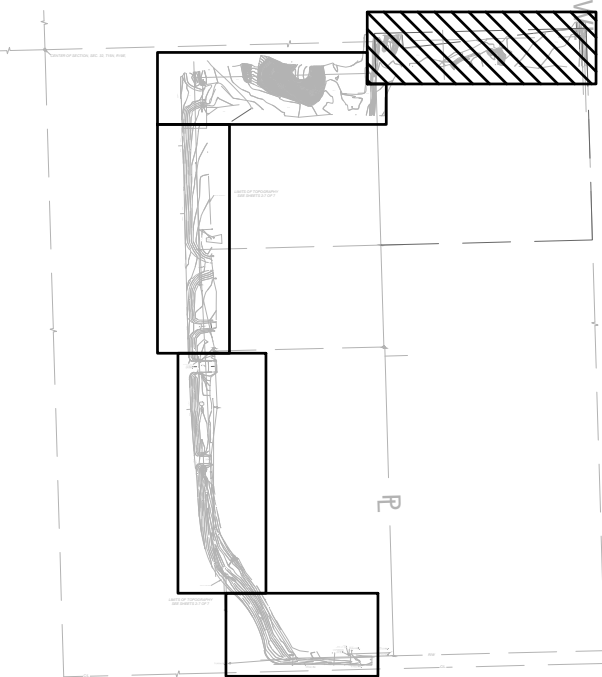
HORIZ: 1"=30'  
VERT: 1"=10'



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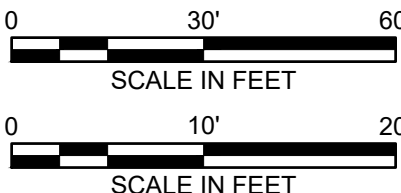
MUSKOGEE, OKLAHOMA

43RD STREET UTILITY EXTENSION

UTILITY PLAN

project	160013	contract	---
drawing	CU101	rev.	B

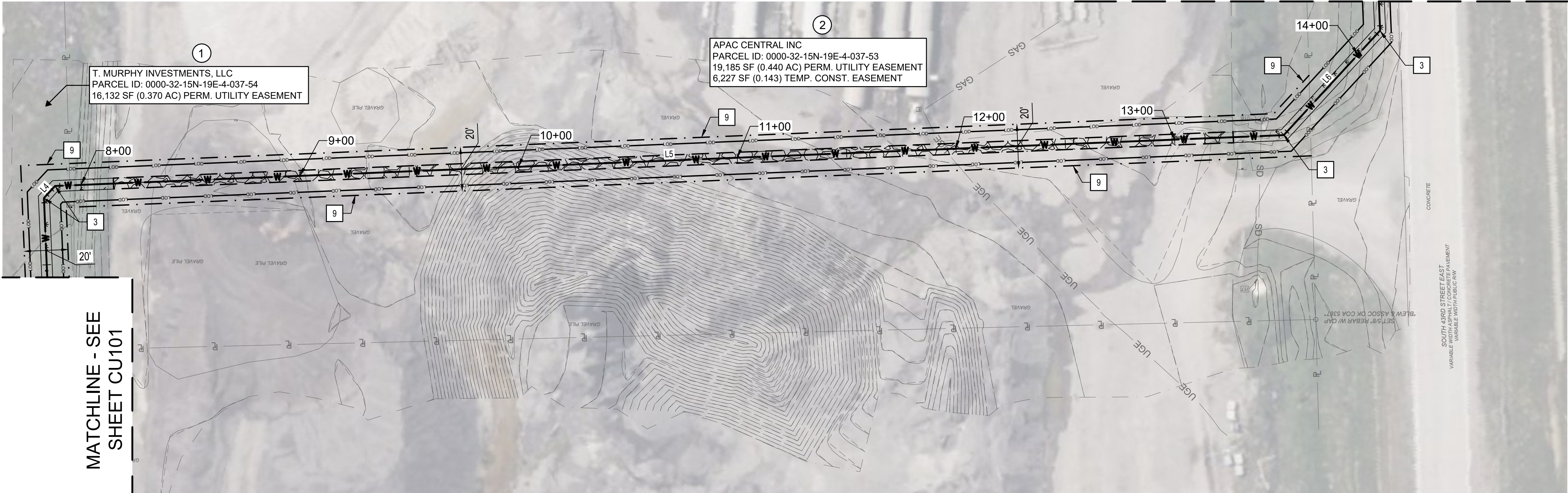
sheet 14 of 22 sheets  
file CU101-UTILITY PLAN.DWG



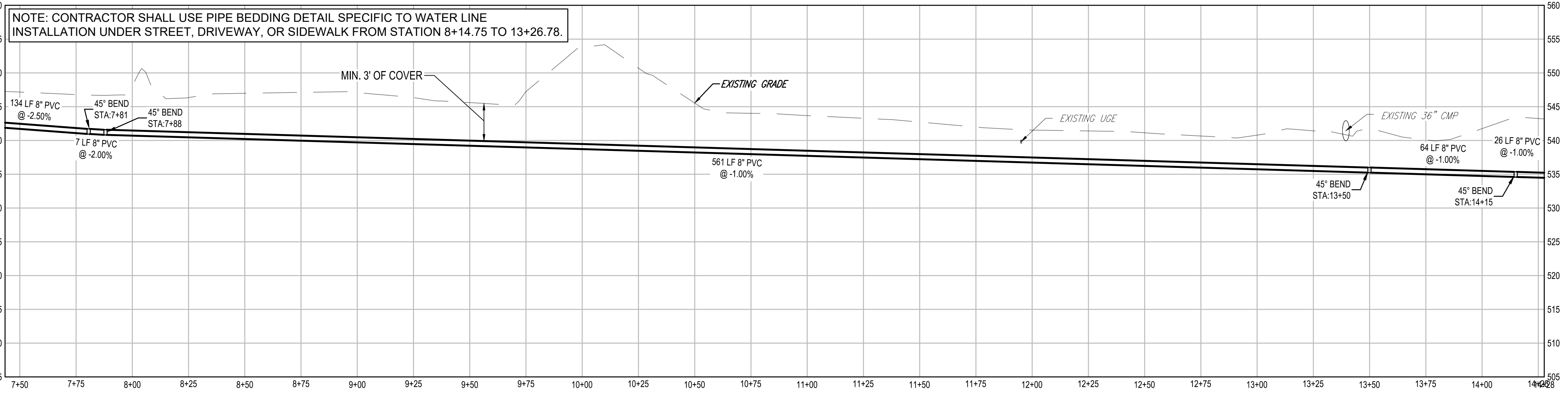




MATCHLINE - SEE SHEET CU103



MATCHLINE - SEE SHEET CU101



### WATER STA 7+43 TO 14+28 PROFILE

HORIZ: 1"=30'  
VERT: 1"=10'

### GENERAL NOTES

1. ASSUMED EXISTING WATER LINE ON SOUTHERN CONNECTION TO BE 6" PVC. ASSUMED EXISTING WATER LINE ON NORTHERN CONNECTION TO BE 8" PVC. CONTRACTOR TO VERIFY LOCATION, SIZE, AND MATERIAL UPON EXCAVATION.
2. REACTION BLOCKING, TIE RODS, OR JOINTS DESIGNED TO PREVENT MOVEMENT AT ALL TEES, BENDS, PLUGS AND HYDRANTS TO PREVENT MOVEMENT OF THE PIPE WILL BE REQUIRED FOR ALL WATER LINES, IN ACCORDANCE WITH OAC 252.626-19-2(D).
3. EXISTING UTILITIES SHOWN IN PROFILE ARE APPROXIMATE. CONTRACTOR SHOULD FIELD VERIFY EXISTING UTILITY LINE DEPTHS, SIZES, AND MATERIALS BEFORE ORDERING MATERIAL.
4. CONTRACTOR TO RESET ANY SITE FEATURES DISTURBED DURING CONSTRUCTION.
5. CONTRACTOR IS TO ENSURE POSITIVE DRAINAGE AT ALL STORM CULVERTS.
6. CONTRACTOR TO USE A 30" MIN. OF CRUSHED AGGREGATE, COMPACTED TO 95% STANDARD PROCTOR DENSITY WHEN INSTALLING PROPOSED WATER LINE UNDER STREET OR DRIVEWAY.
7. JACK AND BORE LIMITS ARE APPROXIMATE. CONTRACTOR TO DETERMINE ACTUAL LIMITS.
8. A 14" CASING MINIMUM IS REQUIRED ON ALL JACK AND BORED WATER LINE UTILITY.

### WATER CONSTRUCTION NOTES

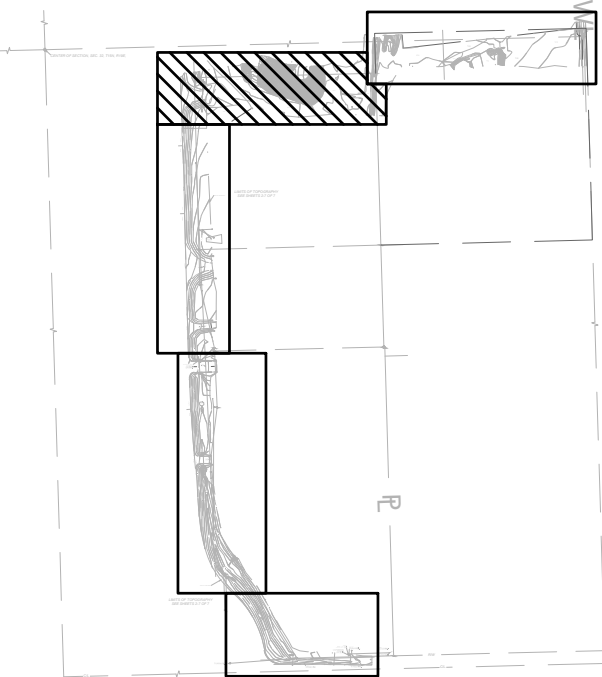
1. 11.25° BEND
2. 22.5° BEND
3. 45° BEND
4. CONNECT INTO EXISTING 6" PVC MAIN. SEE NOTE ON PLAN AND PROFILE.
5. HYDRANT WITH THREE WAY PUMPER OUTLET
6. 6" GATE VALVE
7. 8" X 8" TEE
8. 8" X 6" TEE
9. PERMANENT UTILITY EASEMENT
10. TEMPORARY CONSTRUCTION EASEMENT
11. JACK AND BORE PIT
12. AIR RELIEF VALVE
13. ISOLATION VALVE
14. 8" TAPPING SLEEVE AND VALVE
15. REDUCER, SIZE TO MATCH CONNECTING WATER PIPES
16. 14" STEEL CASING, SEE WATER LINE PROFILE FOR

WATER		
Number	Length	Line/Chord Direction
L1	640.92	S87° 37' 31.21"W
L2	5.00	S42° 37' 31.21"W
L3	134.62	S2° 22' 28.79"E
L4	7.50	S42° 37' 31.21"W
L5	561.86	S87° 37' 31.21"W
L6	65.00	S42° 37' 31.21"W
L7	1226.38	S2° 22' 28.79"E
L8	167.88	S13° 31' 26.38"E
L9	87.72	S36° 01' 26.38"E
L10	86.90	S47° 16' 26.38"E
L11	171.06	S24° 46' 26.38"E
L12	59.40	S69° 46' 26.38"E
L13	141.82	N86° 50' 08.00"E
L14	21.97	N41° 09' 18.32"E
L15	21.14	N86° 09' 18.32"E



Oklahoma License No. 30930  
Issued: 02/28/2019  
Expires: 02/28/2026  
Seth M. Gilliam  
April 1, 2025

### KEY PLAN



1317 EXECUTIVE BLVD, SUITE 300  
CHESAPEAKE, VA 23320  
757-548-2056  
OK CA #421

date	JAN. 31, 2025	detailed	C. EVANCHO
designed	E. SNIEGOSKI	checked	S. GILLIAM



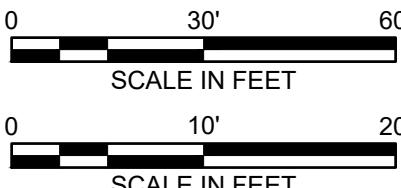
ISSUED FOR CONSTRUCTION  
MUSKOGEE, OKLAHOMA

### 43RD STREET UTILITY EXTENSION

UTILITY PLAN

project	160013	contract	---
drawing	CU102	rev.	B

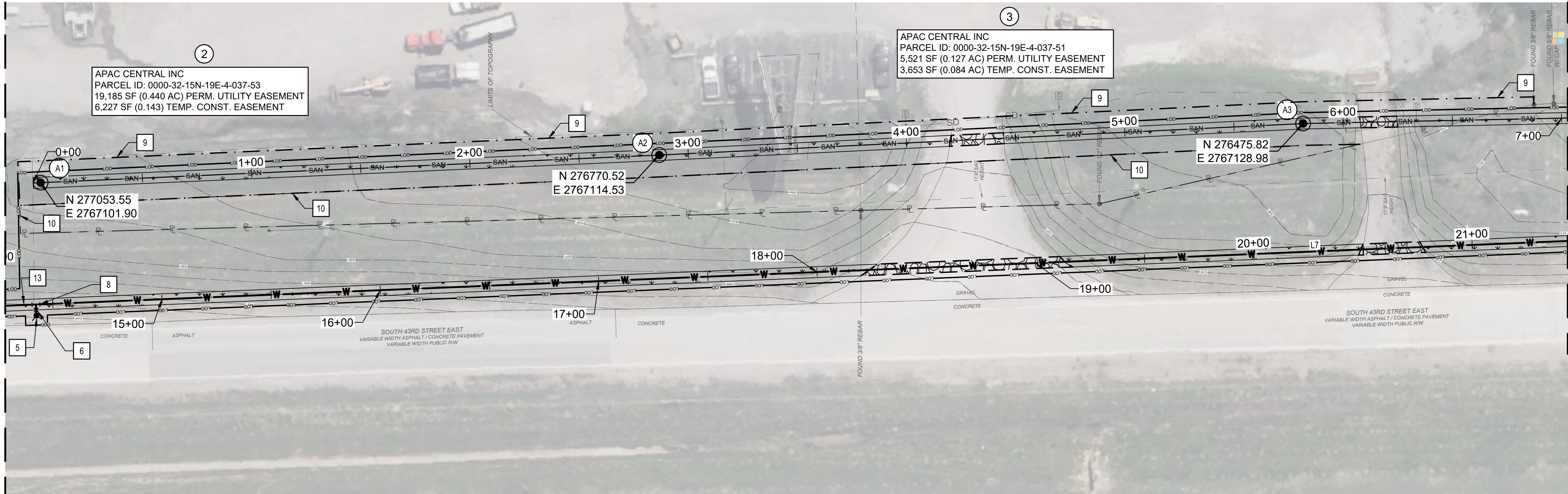
sheet	15	of	22	sheets
file	CU101-UTILITY PLAN.DWG			





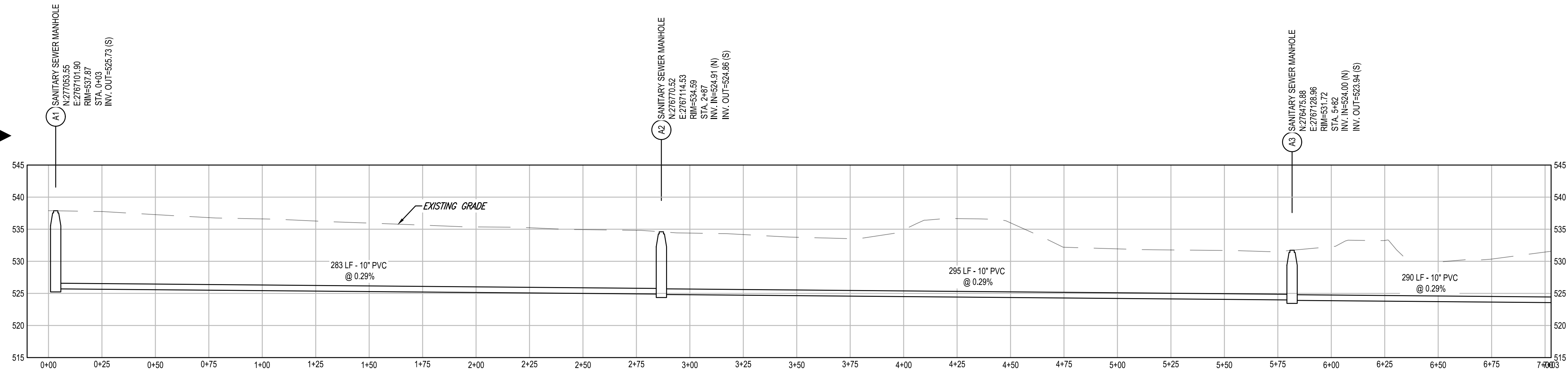


MATCHLINE - SEE SHEET CU102



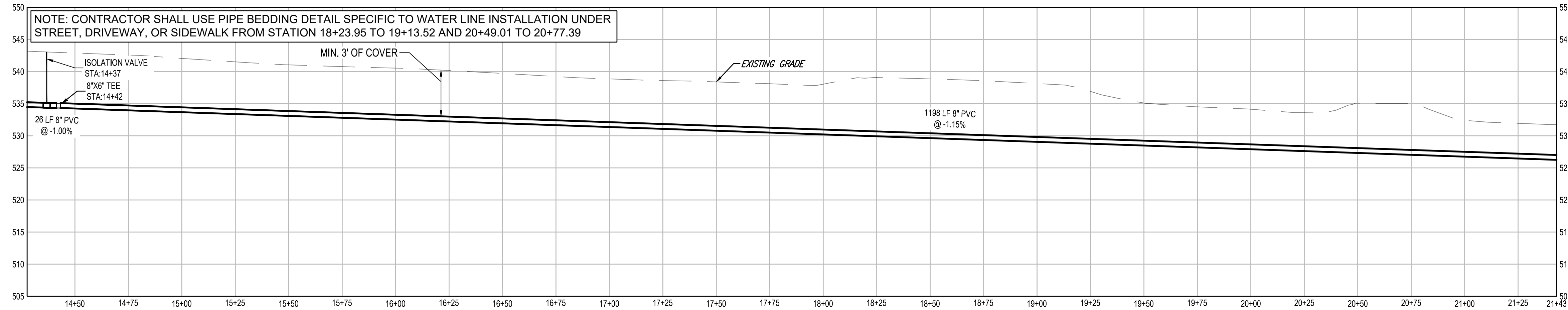
MATCHLINE - SEE SHEET CU104

Scale For Microfitting  
Inches  
Millimeters



### SANITARY SEWER STA -0+10 TO 7+03 PROFILE

HORIZ: 1"=30'  
VERT: 1"=10'



### WATER STA 14+28 TO 21+43 PROFILE

HORIZ: 1"=30'  
VERT: 1"=10'

### GENERAL NOTES

- ASSUMED EXISTING WATER LINE ON SOUTHERN CONNECTION TO BE 6" PVC. ASSUMED EXISTING WATER LINE ON NORTHERN CONNECTION TO BE 8" PVC. CONTRACTOR TO VERIFY LOCATION, SIZE, AND MATERIAL UPON EXCAVATION.
- REACTION BLOCKING, TIE RODS, OR JOINTS DESIGNED TO PREVENT MOVEMENT AT ALL TEES, BENDS, PLUGS AND HYDRANTS TO PREVENT MOVEMENT OF THE PIPE WILL BE REQUIRED FOR ALL WATER LINES, IN ACCORDANCE WITH OAC 252.626-19-2(D).
- EXISTING UTILITIES SHOWN IN PROFILE ARE APPROXIMATE. CONTRACTOR SHOULD FIELD VERIFY EXISTING UTILITY LINE DEPTHS, SIZES, AND MATERIALS BEFORE ORDERING MATERIAL.
- CONTRACTOR TO RESET ANY SITE FEATURES DISTURBED DURING CONSTRUCTION.
- CONTRACTOR IS TO ENSURE POSITIVE DRAINAGE AT ALL STORM CULVERTS.
- CONTRACTOR TO USE A 30" MIN. OF CRUSHED AGGREGATE, COMPACTED TO 95% STANDARD PROCTOR DENSITY WHEN INSTALLING PROPOSED WATER LINE UNDER STREET OR DRIVEWAY.
- JACK AND BORE LIMITS ARE APPROXIMATE. CONTRACTOR TO DETERMINE ACTUAL LIMITS.
- A 14" CASING MINIMUM IS REQUIRED ON ALL JACK AND BORED WATER LINE UTILITY.

### WATER CONSTRUCTION NOTES

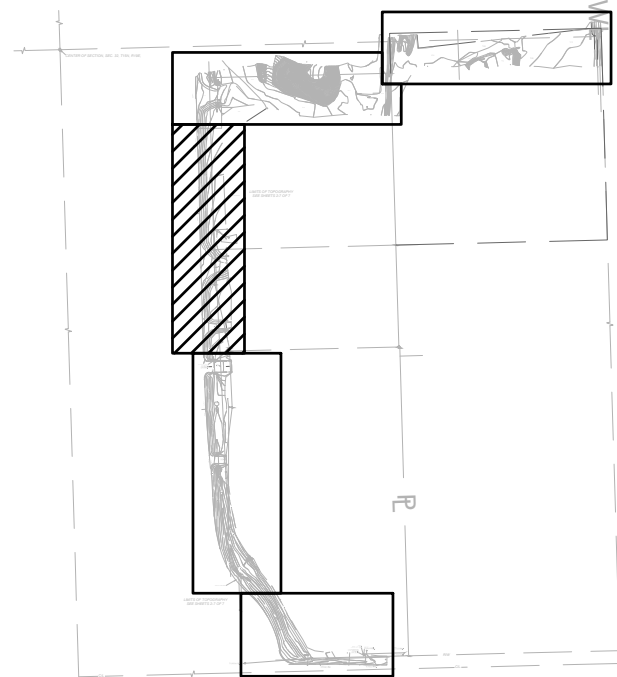
- 11.25° BEND
- 22.5° BEND
- 45° BEND
- CONNECT INTO EXISTING 6" PVC MAIN. SEE NOTE ON PLAN AND PROFILE.
- HYDRANT WITH THREE WAY PUMPER OUTLET
- 6" GATE VALVE
- 8" X 8" TEE
- 8" X 6" TEE
- PERMANENT UTILITY EASEMENT
- TEMPORARY CONSTRUCTION EASEMENT
- JACK AND BORE PIT
- AIR RELIEF VALVE
- ISOLATION VALVE
- 8" TAPPING SLEEVE AND VALVE
- REDUCER, SIZE TO MATCH CONNECTING WATER PIPES
- 14" STEEL CASING, SEE WATER LINE PROFILE FOR

no.	date	by	ckd	description
A	10/21/24	CNE	BSC	ISSUED FOR APPROVAL
B	01/31/25	CNE	SMG	ISSUED FOR CONSTRUCTION



Oklahoma License No. 30930  
Issued: 02/28/2019  
Expires: 02/28/2026  
April 1, 2025

### KEY PLAN



1317 EXECUTIVE BLVD, SUITE 300  
CHESAPEAKE, VA 23320  
757-548-2056  
OK CA #421

date	JAN. 31, 2025	detailed	C. EVANCHO
designed	E. SNIEGOSKI	checked	S. GILLIAM



ISSUED FOR CONSTRUCTION

MUSKOGEE, OKLAHOMA

43RD STREET UTILITY EXTENSION

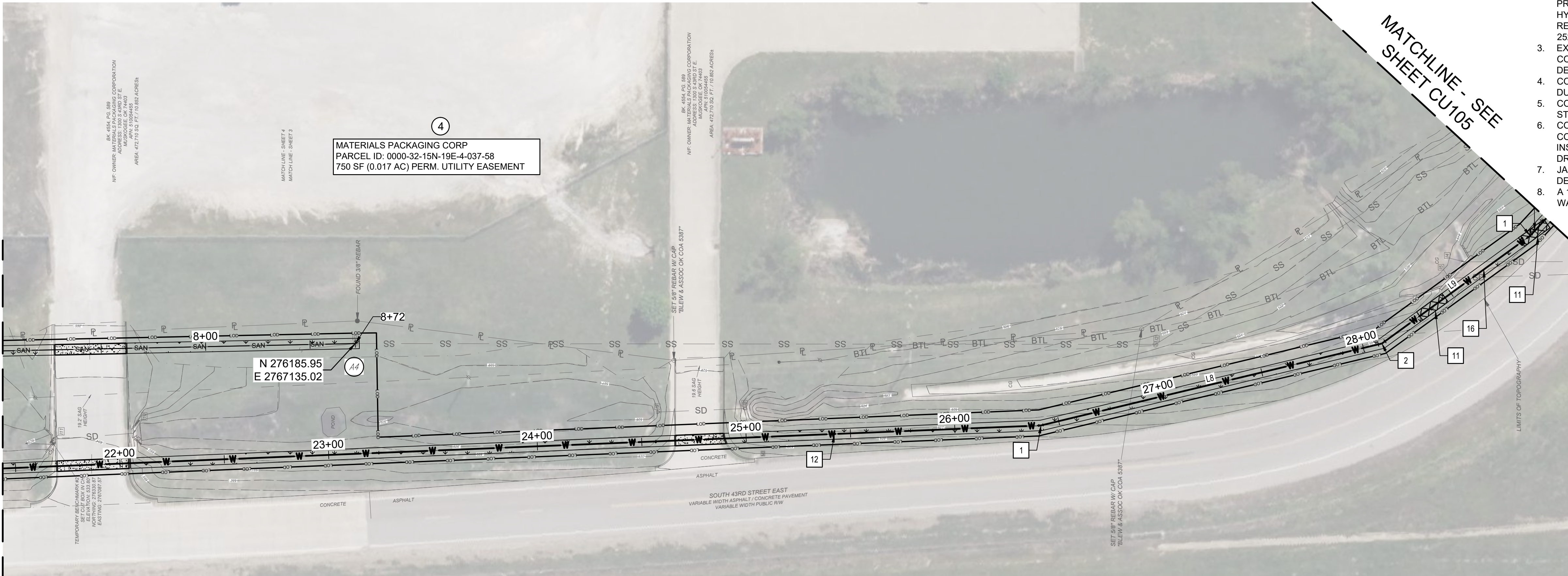
UTILITY PLAN

project	160013	contract	---
drawing	CU103	rev.	B
sheet	16	of	22 sheets
file	CU101-UTILITY PLAN.DWG		





MATCHLINE - SEE SHEET CU103



### GENERAL NOTES

1. ASSUMED EXISTING WATER LINE ON SOUTHERN CONNECTION TO BE 6" PVC. ASSUMED EXISTING WATER LINE ON NORTHERN CONNECTION TO BE 8" PVC. CONTRACTOR TO VERIFY LOCATION, SIZE, AND MATERIAL UPON EXCAVATION.
2. REACTION BLOCKING, TIE RODS, OR JOINTS DESIGNED TO PREVENT MOVEMENT AT ALL TEES, BENDS, PLUGS AND HYDRANTS TO PREVENT MOVEMENT OF THE PIPE WILL BE REQUIRED FOR ALL WATER LINES, IN ACCORDANCE WITH OAC 252-626-19-2(D).
3. EXISTING UTILITIES SHOWN IN PROFILE ARE APPROXIMATE. CONTRACTOR SHOULD FIELD VERIFY EXISTING UTILITY LINE DEPTHS, SIZES, AND MATERIALS BEFORE ORDERING MATERIAL DURING CONSTRUCTION.
4. CONTRACTOR IS TO ENSURE POSITIVE DRAINAGE AT ALL STORM CULVERTS.
5. CONTRACTOR TO USE A 30" MIN. OF CRUSHED AGGREGATE, COMPACTED TO 95% STANDARD PROCTOR DENSITY WHEN INSTALLING PROPOSED WATER LINE UNDER STREET OR DRIVEWAY.
6. JACK AND BORE LIMITS ARE APPROXIMATE. CONTRACTOR TO DETERMINE ACTUAL LIMITS.
7. A 14" CASING MINIMUM IS REQUIRED ON ALL JACK AND BORED WATER LINE UTILITY.

### WATER CONSTRUCTION NOTES

1. 11.25" BEND
2. 22.5" BEND
3. 45" BEND
4. CONNECT INTO EXISTING 6" PVC MAIN. SEE NOTE ON PLAN AND PROFILE.
5. HYDRANT WITH THREE WAY PUMPER OUTLET
6. 6" GATE VALVE
7. 8" X 8" TEE
8. 8" X 6" TEE
9. PERMANENT UTILITY EASEMENT
10. TEMPORARY CONSTRUCTION EASEMENT
11. JACK AND BORE PIT
12. AIR RELIEF VALVE
13. ISOLATION VALVE
14. 8" TAPPING SLEEVE AND VALVE
15. REDUCER, SIZE TO MATCH CONNECTING WATER PIPES
16. 14" STEEL CASING, SEE WATER LINE PROFILE FOR MORE DETAILS
17. SEE EXISTING ADJUSTED ELEVATIONS AT THE MANHOLE

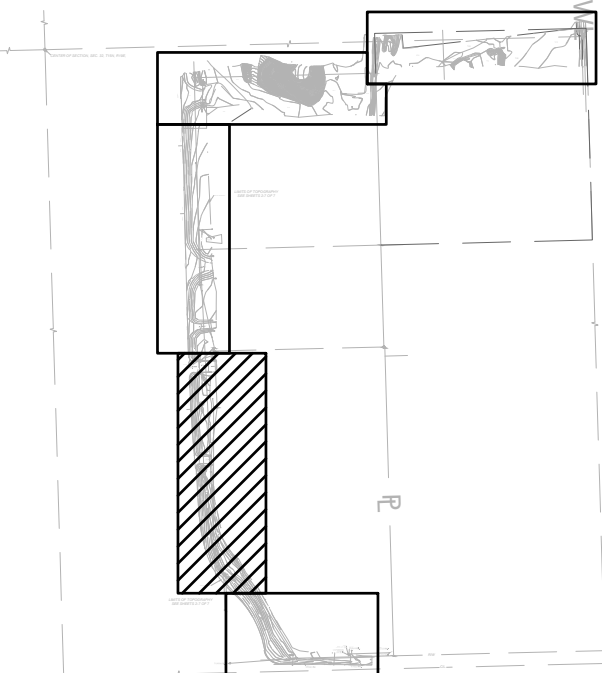
no.	date	by	ckd	description
A	10/21/24	CNE	BSC	ISSUED FOR APPROVAL
B	01/31/25	CNE	SMG	ISSUED FOR CONSTRUCTION



Oklahoma License No. 30930  
Issued: 02/28/2019  
Expires: 02/28/2026

*Seth M. Gilliam*  
April 1, 2025

### KEY PLAN



1317 EXECUTIVE BLVD, SUITE 300  
CHESAPEAKE, VA 23320  
757-548-2056  
OK CA #421

date	JAN. 31, 2025	detailed	C. EVANCHO
designed	E. SNIEGOSKI	checked	S. GILLIAM



ISSUED FOR CONSTRUCTION

MUSKOGEE, OKLAHOMA

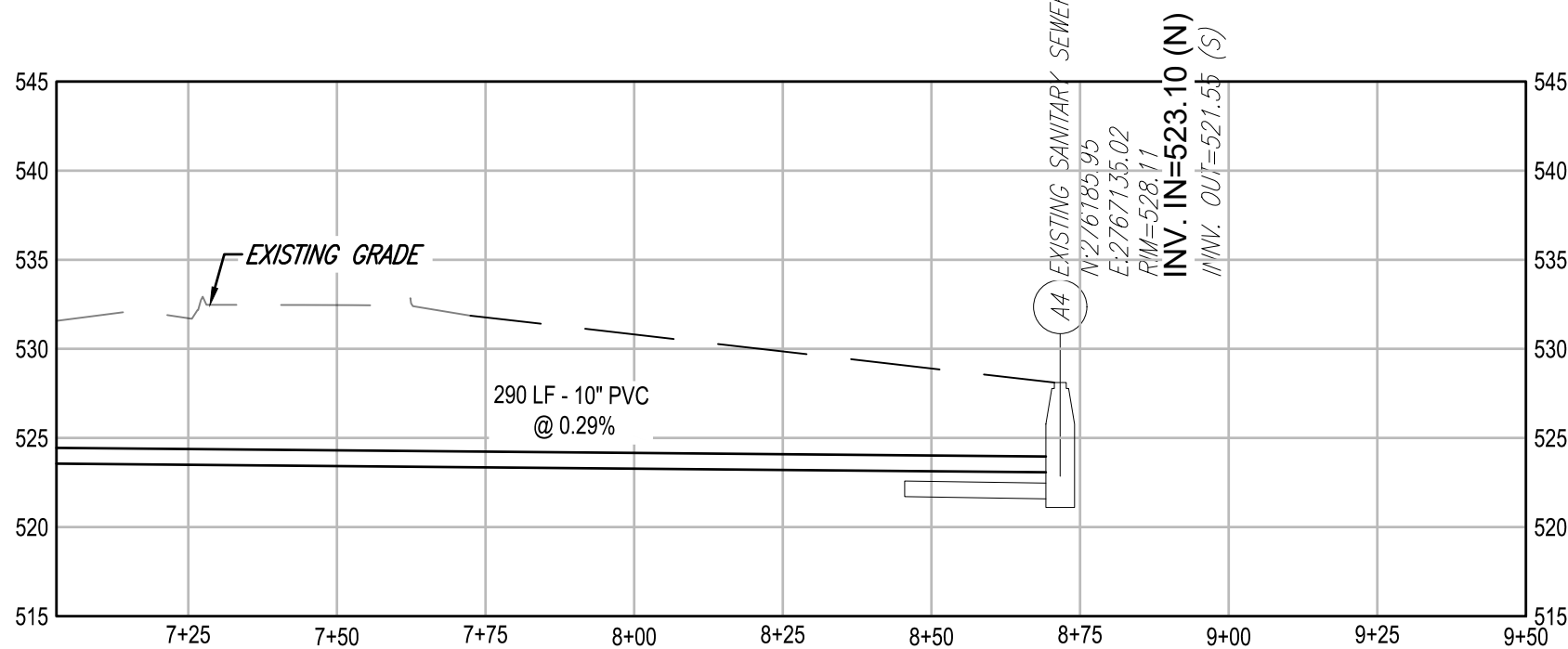
43RD STREET UTILITY EXTENSION

UTILITY PLAN

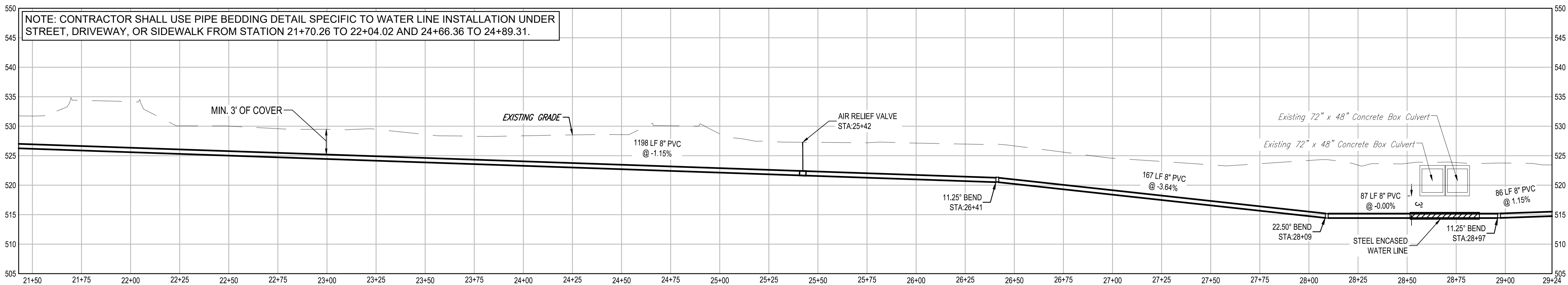
project	160013	contract	---
drawing	CU104	rev.	B
sheet	17	of	22 sheets
file	CU101-UTILITY PLAN.DWG		

### SANITARY SEWER STA 7+03 TO 9+50 PROFILE

HORIZ: 1"=30'  
VERT: 1"=10'

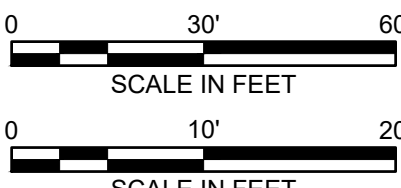


NOTE: CONTRACTOR SHALL USE PIPE BEDDING DETAIL SPECIFIC TO WATER LINE INSTALLATION UNDER STREET, DRIVEWAY, OR SIDEWALK FROM STATION 21+70.26 TO 22+04.02 AND 24+66.36 TO 24+89.31.

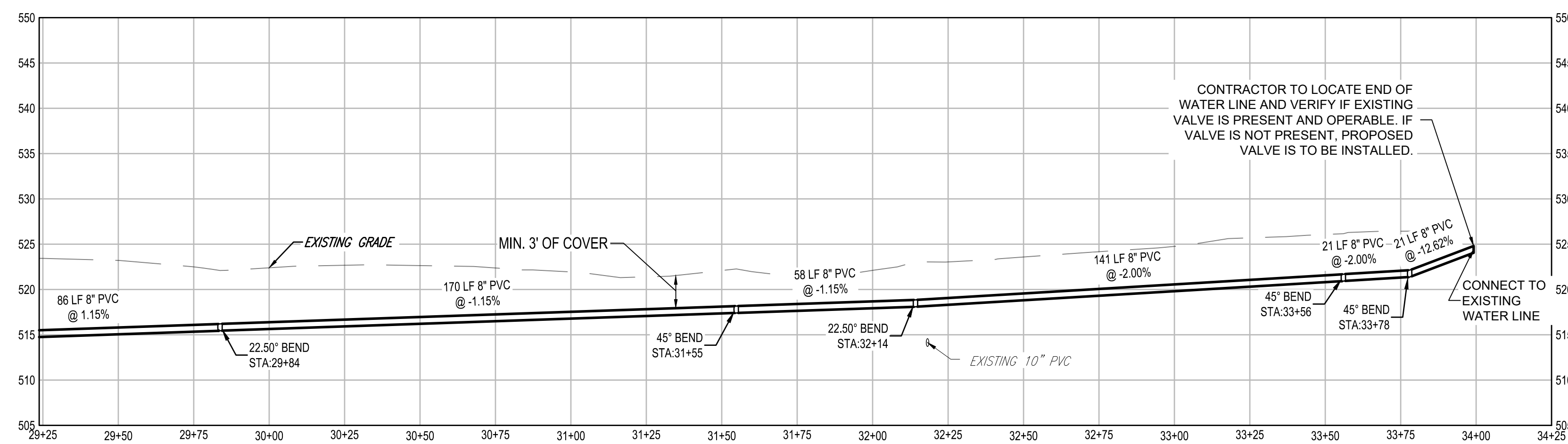
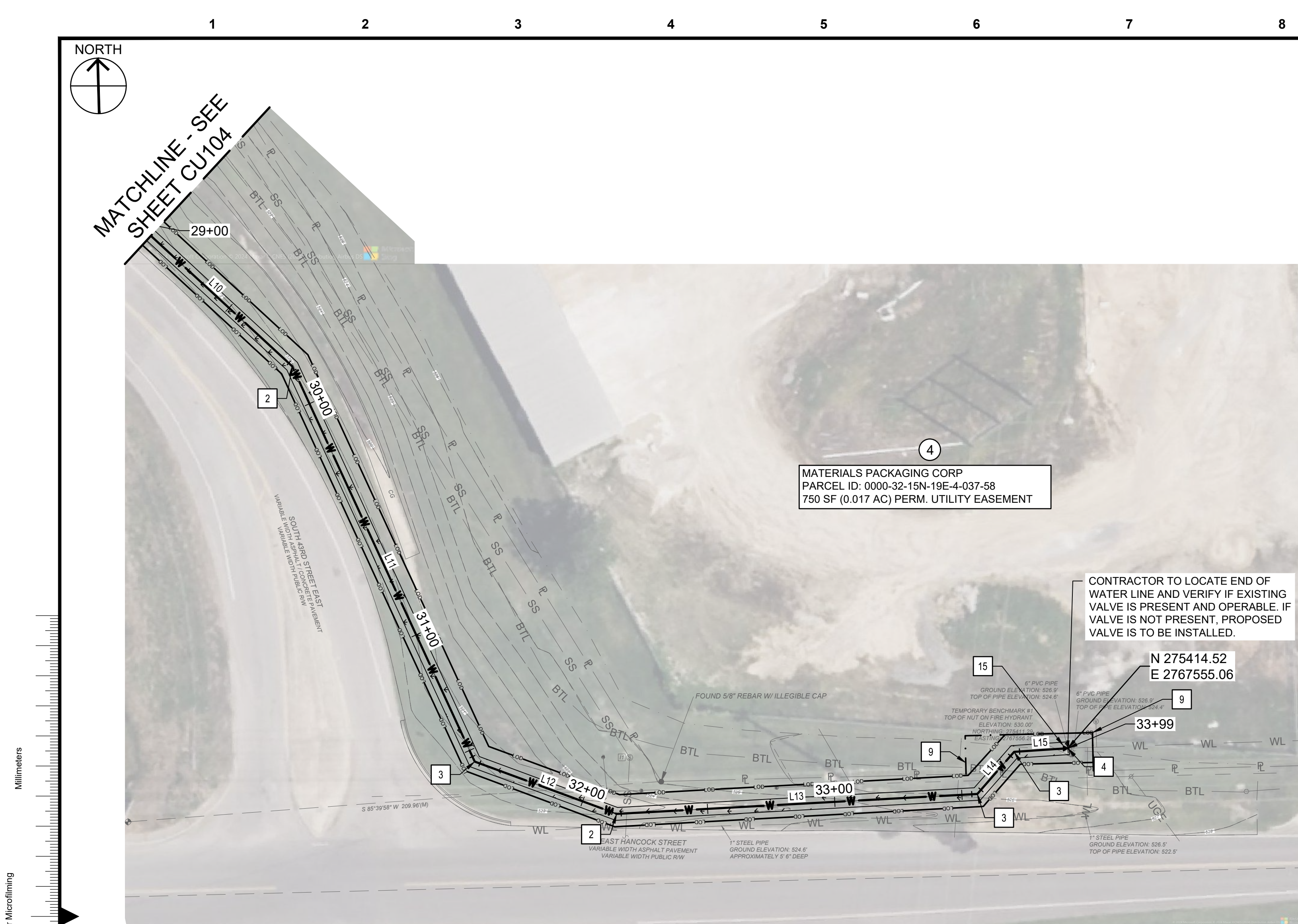


### WATER STA 21+43 TO 29+24 PROFILE

HORIZ: 1"=30'  
VERT: 1"=10'







# WATER STA 29+24 TO 34+25 PROFILE

HORIZ: 1"=30'  
VERT: 1"=10'

WATER		
Number	Length	Line/Chord Direction
L1	640.92	S87° 37' 31.21"W
L2	5.00	S42° 37' 31.21"W
L3	134.62	S2° 22' 28.79"E
L4	7.50	S42° 37' 31.21"W
L5	561.86	S87° 37' 31.21"W
L6	65.00	S42° 37' 31.21"W
L7	1226.38	S2° 22' 28.79"E
L8	167.88	S13° 31' 26.38"E
L9	87.72	S36° 01' 26.38"E
L10	86.90	S47° 16' 26.38"E
L11	171.06	S24° 46' 26.38"E
L12	59.40	S69° 46' 26.38"E
L13	141.82	N86° 50' 08.00"E
L14	21.97	N41° 09' 18.32"E
L15	21.14	N86° 09' 18.32"E

## GENERAL NOTES

1. ASSUMED EXISTING WATER LINE ON SOUTHERN CONNECTION TO BE 6" PVC. ASSUMED EXISTING WATER LINE ON NORTHERN CONNECTION TO BE 8" PVC. CONTRACTOR TO VERIFY LOCATION, SIZE, AND MATERIAL UPON EXCAVATION.
2. REACTION BLOCKING, TIE RODS, OR JOINTS DESIGNED TO PREVENT MOVEMENT AT ALL TEES, BENDS, PLUGS AND HYDRANTS TO PREVENT MOVEMENT OF THE PIPE WILL BE REQUIRED FOR ALL WATER LINES, IN ACCORDANCE WITH OAC 252-626-19-2(D).
3. EXISTING UTILITIES SHOWN IN PROFILE ARE APPROXIMATE. CONTRACTOR SHOULD FIELD VERIFY EXISTING UTILITY LINE DEPTHS, SIZES, AND MATERIALS BEFORE ORDERING MATERIAL.
4. CONTRACTOR TO RESET ANY SITE FEATURES DISTURBED DURING CONSTRUCTION.
5. CONTRACTOR IS TO ENSURE POSITIVE DRAINAGE AT ALL STORM CULVERTS.
6. CONTRACTOR TO USE A 30" MIN. OF CRUSHED AGGREGATE, COMPACTED TO 95% STANDARD PROCTOR DENSITY WHEN INSTALLING PROPOSED WATER LINE UNDER STREET OR DRIVEWAY.
7. JACK AND BORE LIMITS ARE APPROXIMATE. CONTRACTOR TO DETERMINE ACTUAL LIMITS.
8. A 14" CASING MINIMUM IS REQUIRED ON ALL JACK AND BORED WATER LINE UTILITY.

## WATER CONSTRUCTION NOTES

1. 11.25° BEND
2. 22.5° BEND
3. 45° BEND
4. CONNECT INTO EXISTING 6" PVC MAIN. SEE NOTE ON PLAN AND PROFILE.
5. HYDRANT WITH THREE WAY PUMPER OUTLET
6. 6" GATE VALVE
7. 8" X 8" TEE
8. 8" X 6" TEE
9. PERMANENT UTILITY EASEMENT
10. TEMPORARY CONSTRUCTION EASEMENT
11. JACK AND BORE PIT
12. AIR RELIEF VALVE
13. ISOLATION VALVE
14. 8" TAPPING SLEEVE AND VALVE
15. REDUCER, SIZE TO MATCH CONNECTING WATER PIPES
16. 14" STEEL CASING, SEE WATER LINE PROFILE FOR

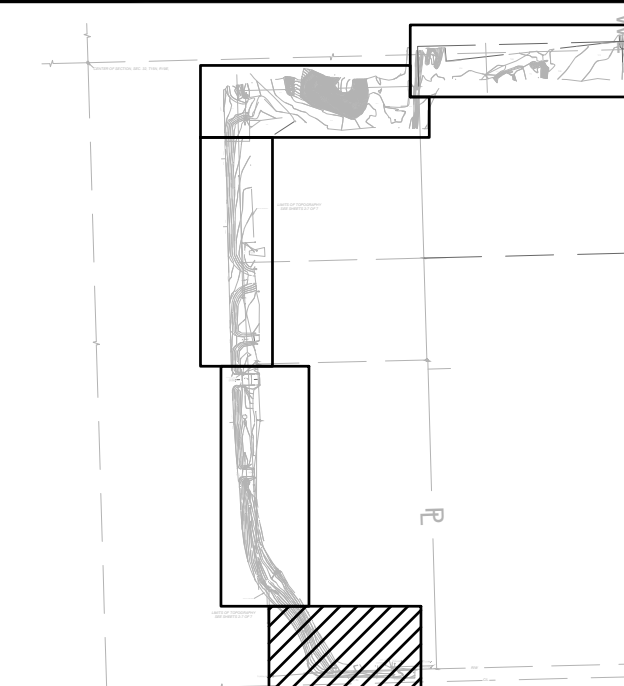
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A	10/21/24	CNE	BSC	ISSUED FOR APPROVAL
B	01/31/25	CNE	SMG	ISSUED FOR CONSTRUCTION



Oklahoma License No. 30930  
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Expires: 02/28/2026

Expires: 02/28/2026  
Seth M. Geller  
April 1, 2025

## KEY PLAN



1317 EXECUTIVE BLVD, SUITE 300  
CHESAPEAKE, VA 23320  
757-548-2056  
OK CA #421

date	detailed
JAN. 31, 2025	C. EVANCHO
designed	checked
E. SNIEGOSKI	S. GILLIAM

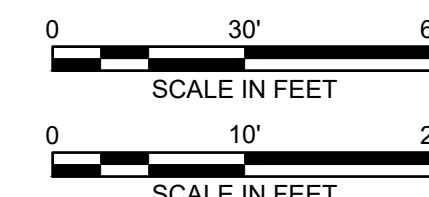


## SUCCESS FLOWS FROM MUSKOGEE ISSUED FOR CONSTRUCTION

MUSKOGEE, OKLAHOMA

## UTILITY PLAN

project	contract
160013	---
drawing	rev.
<b>CU105 — B</b>	
sheet 18	of 22 sheets
file CU101-UTILITY PLAN.DWG	







sheet 19 of 22 sheets

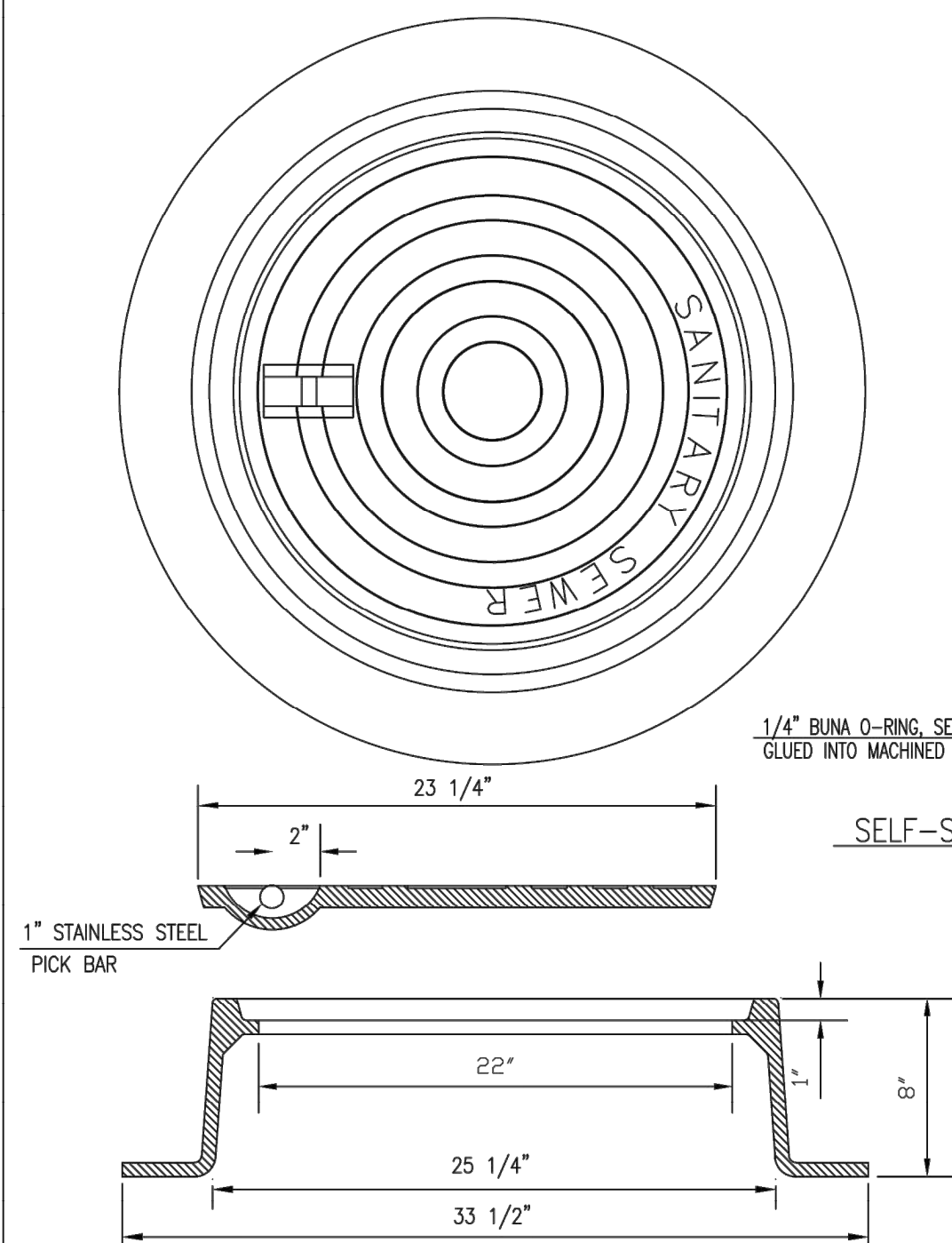
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file C-501-SITE DETAILS.DWG



WATERTIGHT MANHOLE FRAME & COVER

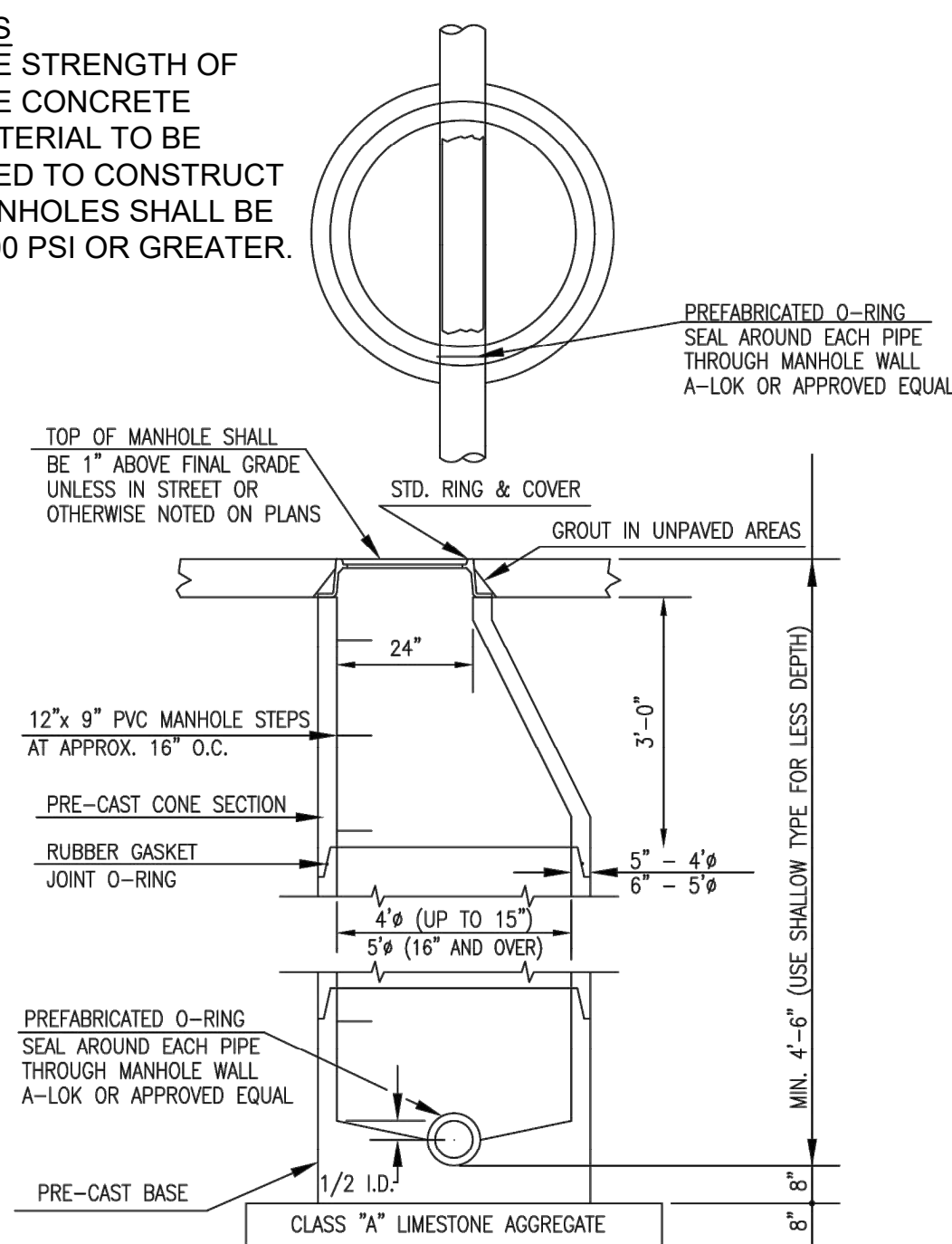
NEENAH R-1916-D, WITH BOLTED LIDS  
OR AN APPROVED EQUAL  
TOTAL WEIGHT 335 POUNDS



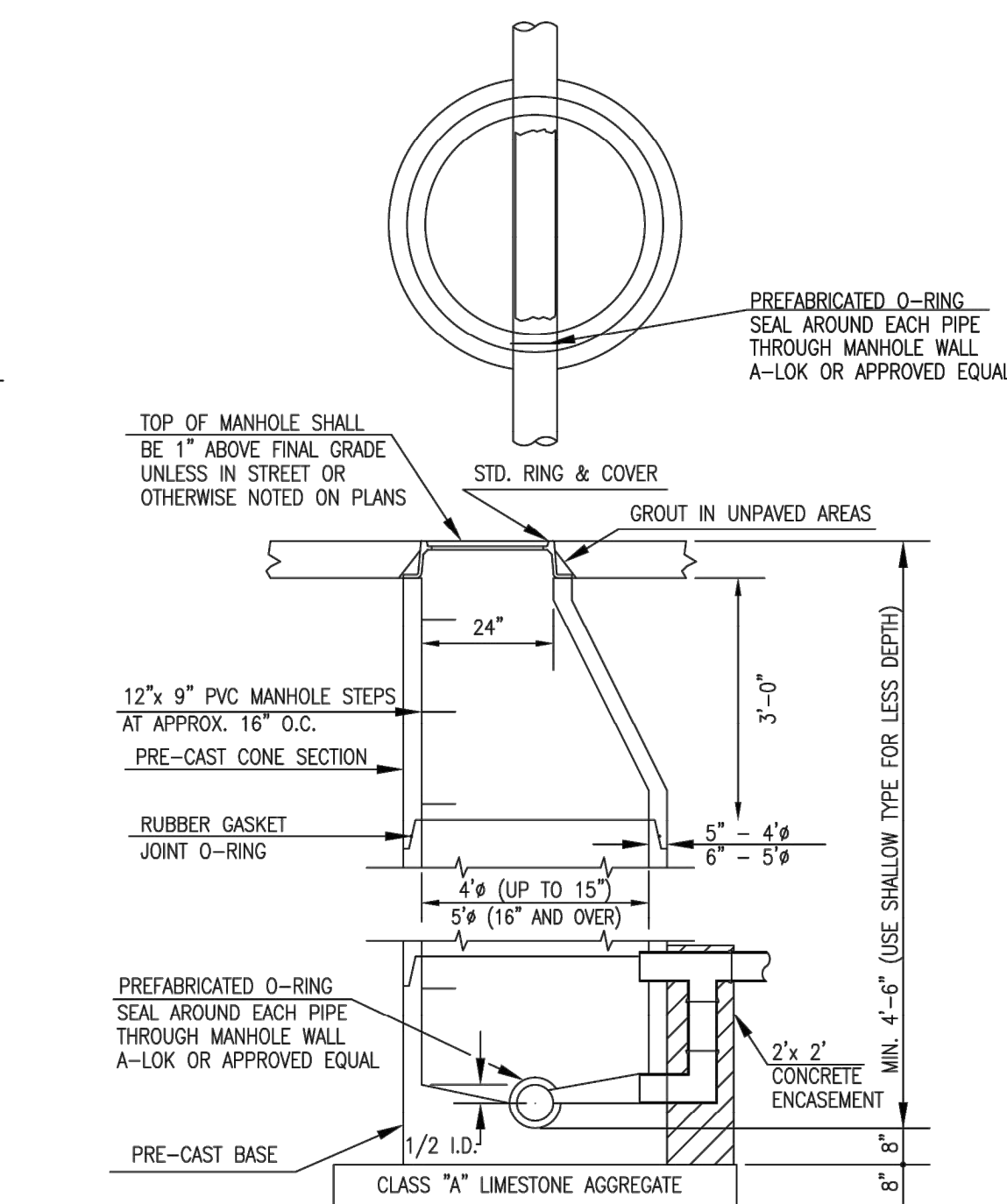
STANDARD MANHOLE FRAME & COVER

NEENAH R-1797, WESTERN IRON WORKS NO. 300-22  
OR AN APPROVED EQUAL TOTAL WEIGHT 300 POUNDS

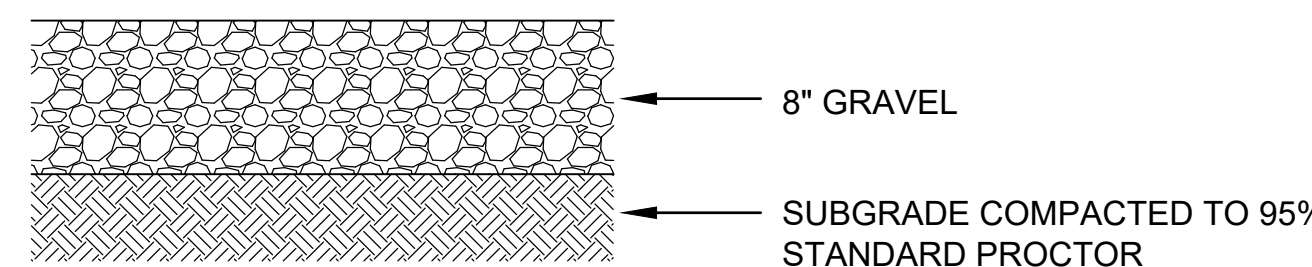
NOTES  
1. THE STRENGTH OF  
THE CONCRETE  
MATERIAL TO BE  
USED TO CONSTRUCT  
MANHOLES SHALL BE  
3000 PSI OR GREATER.



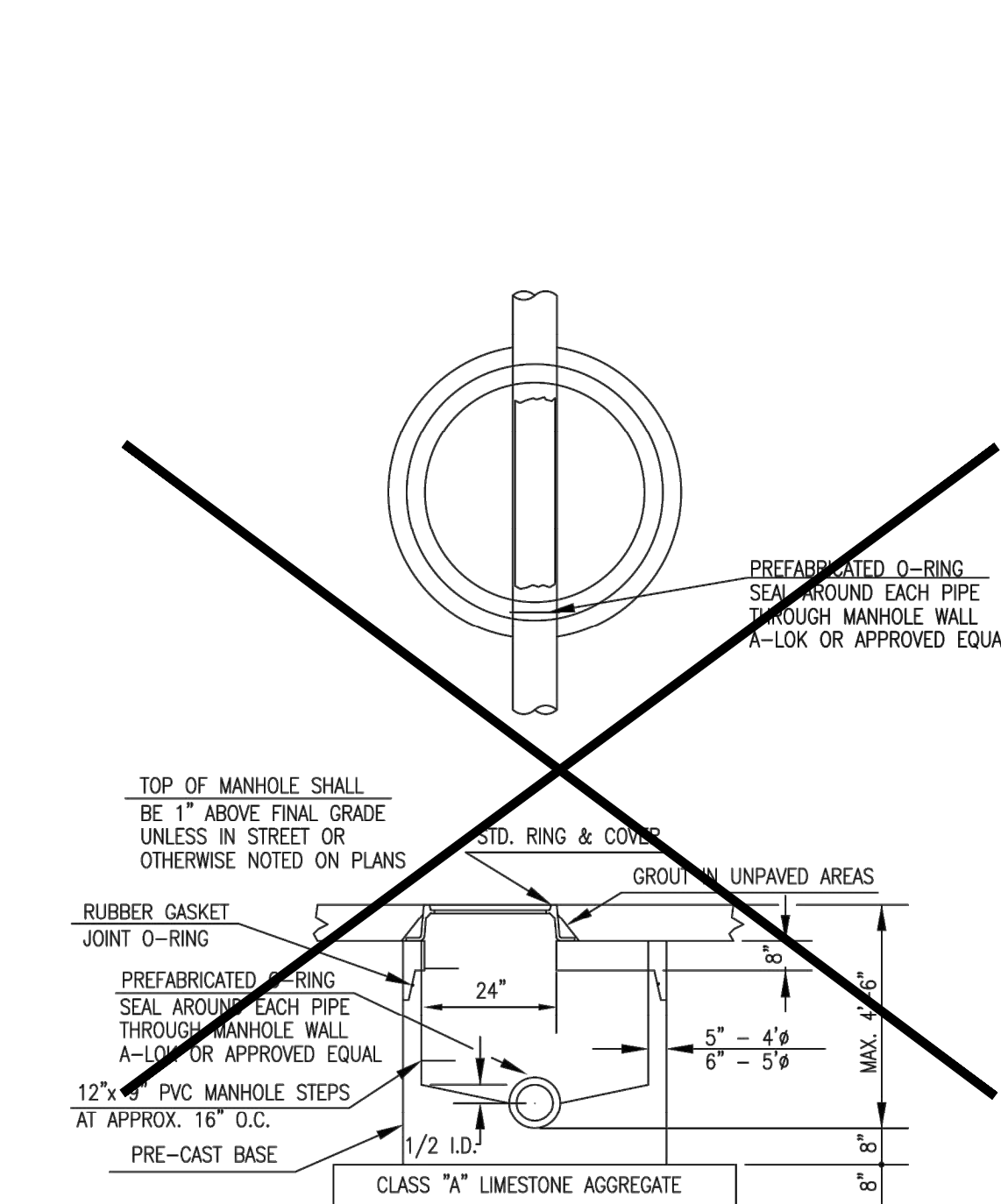
STANDARD PRECAST  
CONCRETE MANHOLE



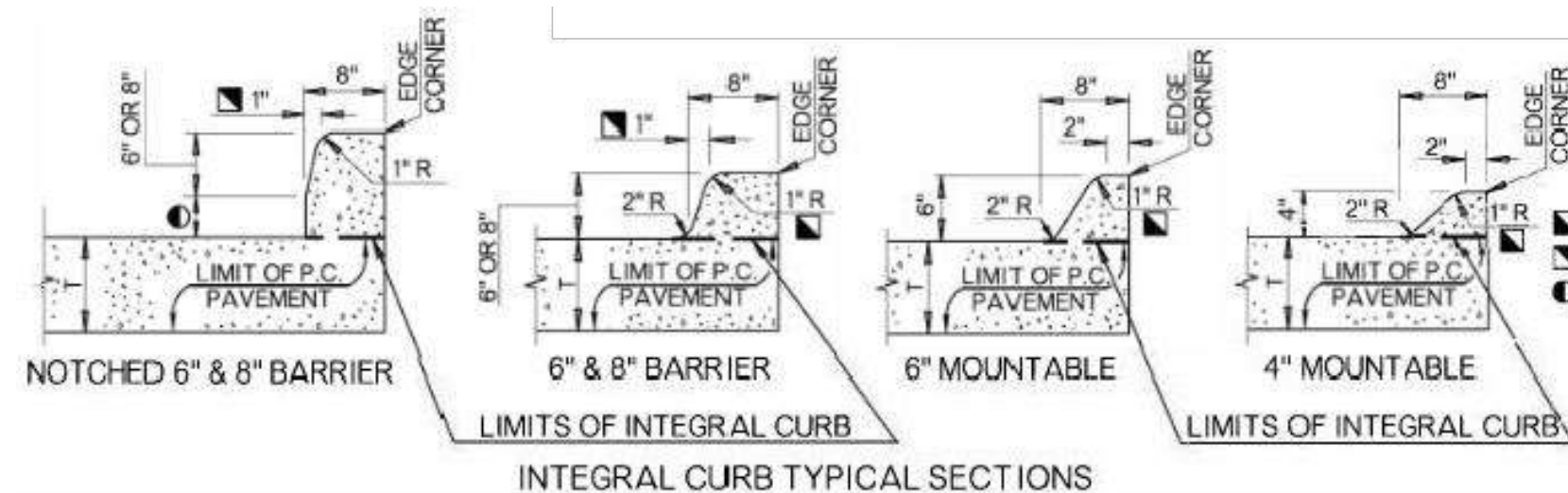
STANDARD PRECAST  
CONCRETE DROP MANHOLE  
(WHEN DROP IS 2'-0" OR MORE)



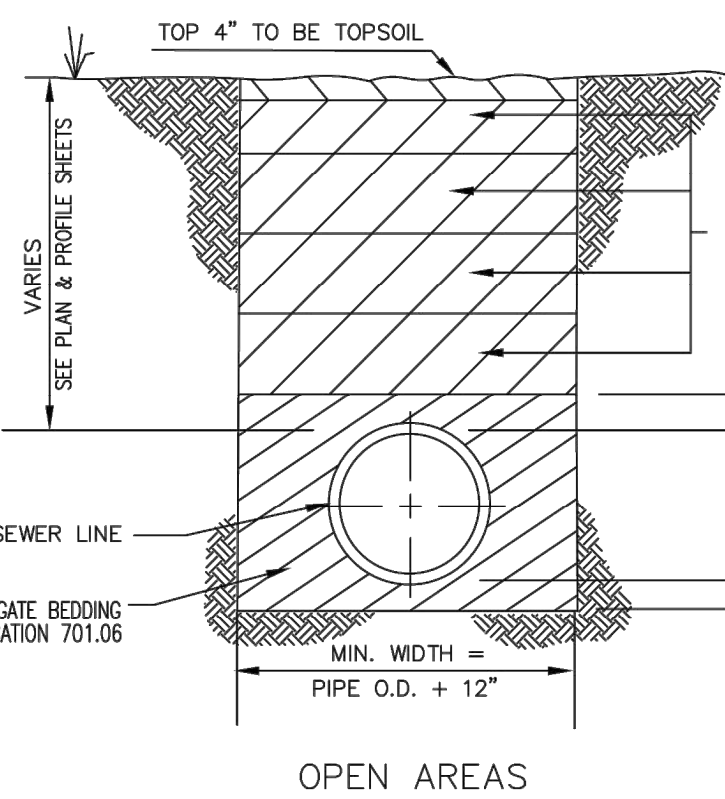
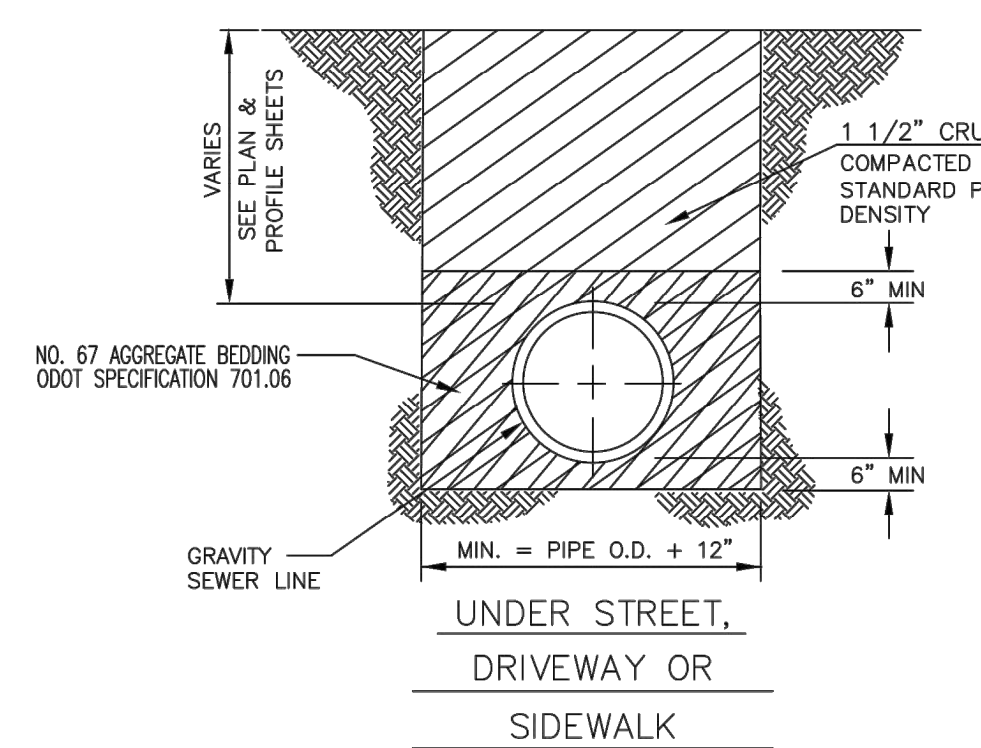
GRAVEL AREA SECTION  
NOT TO SCALE



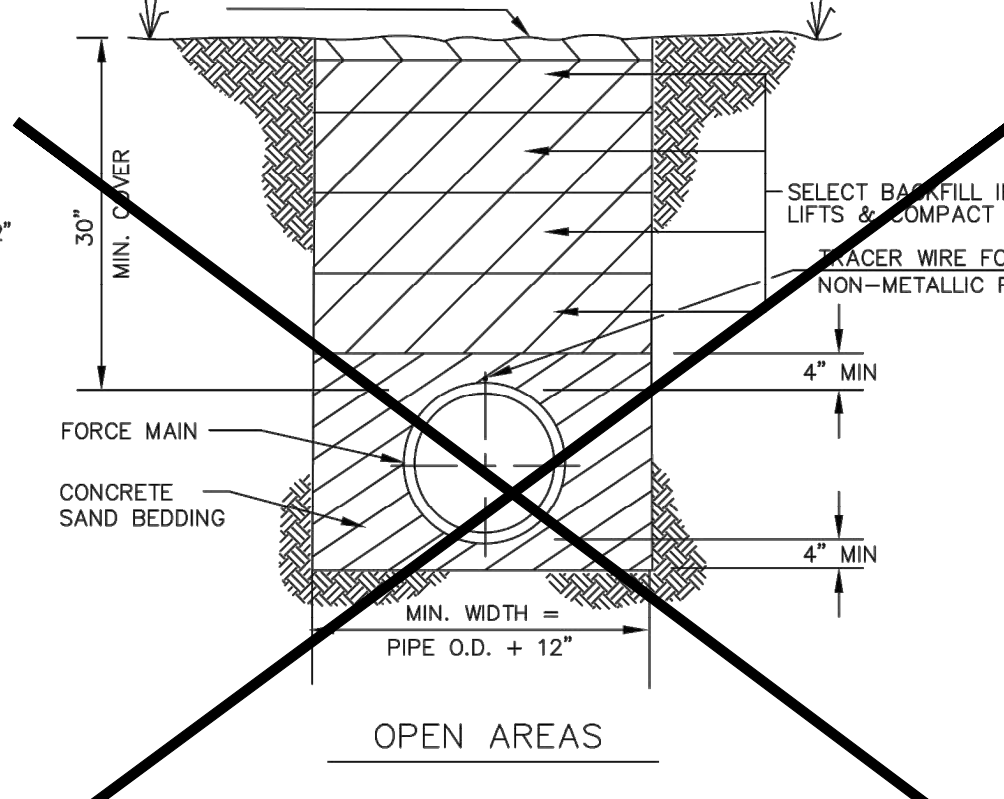
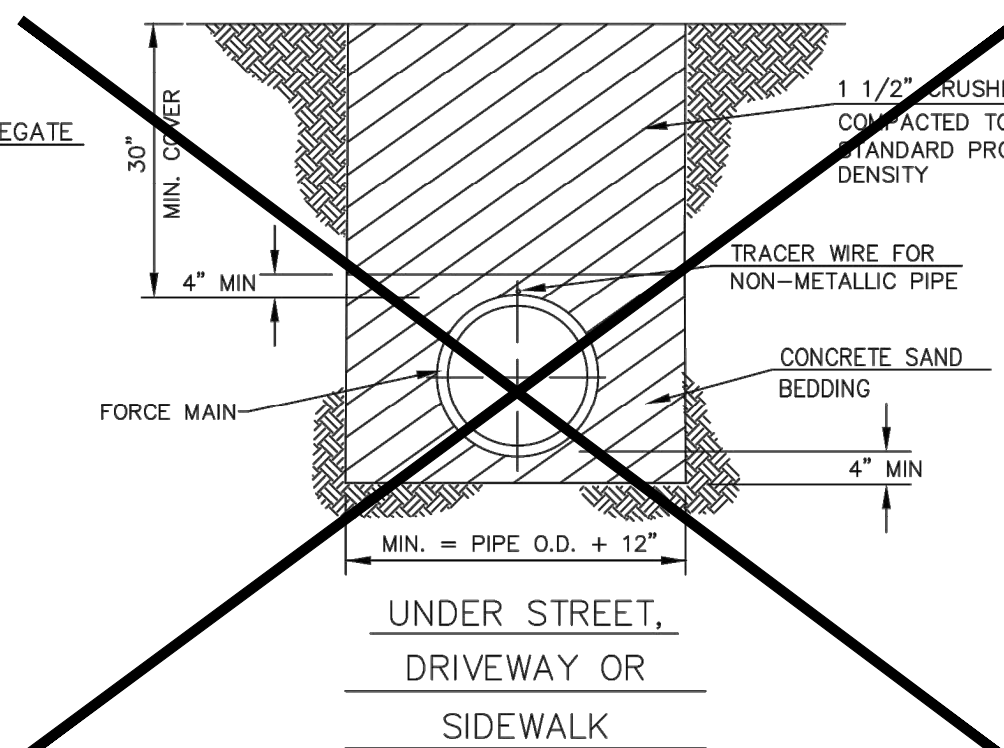
SHALLOW PRECAST  
CONCRETE MANHOLE



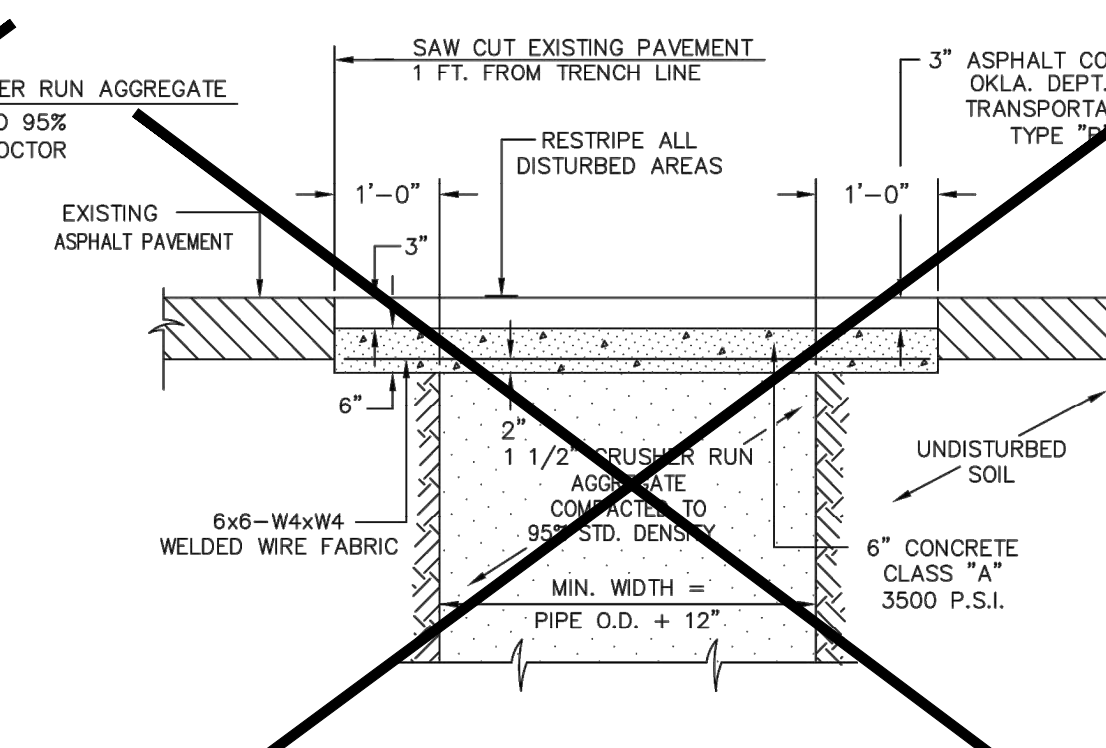
CONCRETE CURB  
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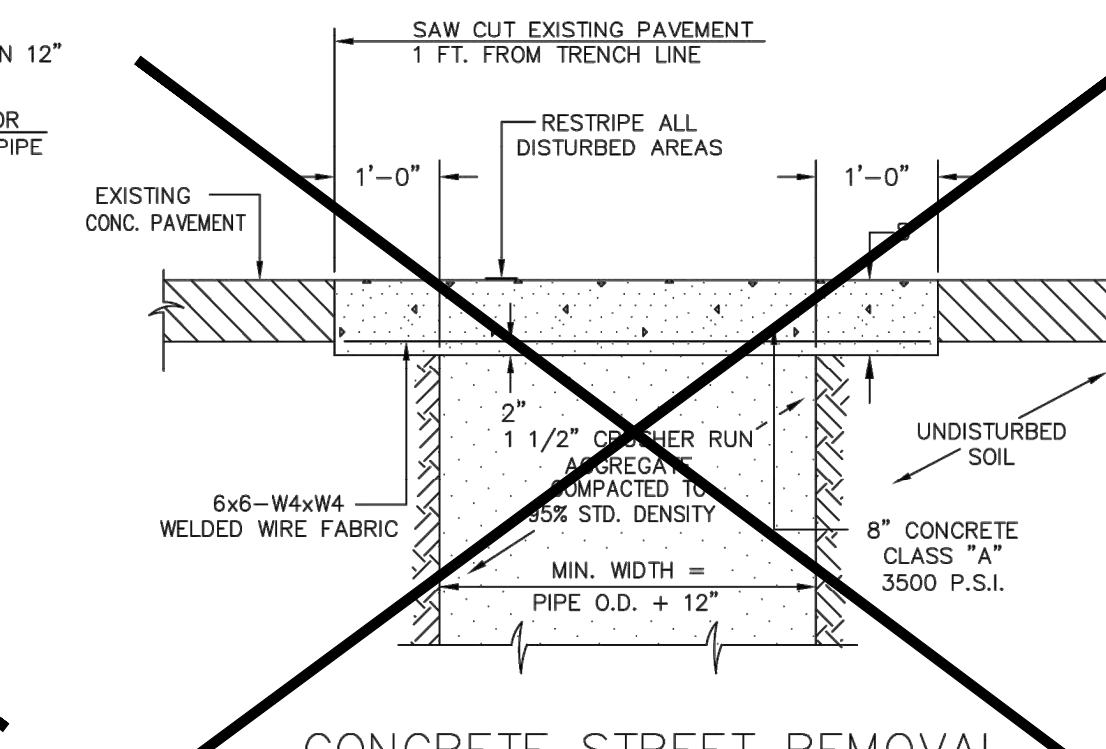
GRAVITY SEWER BEDDING DETAIL



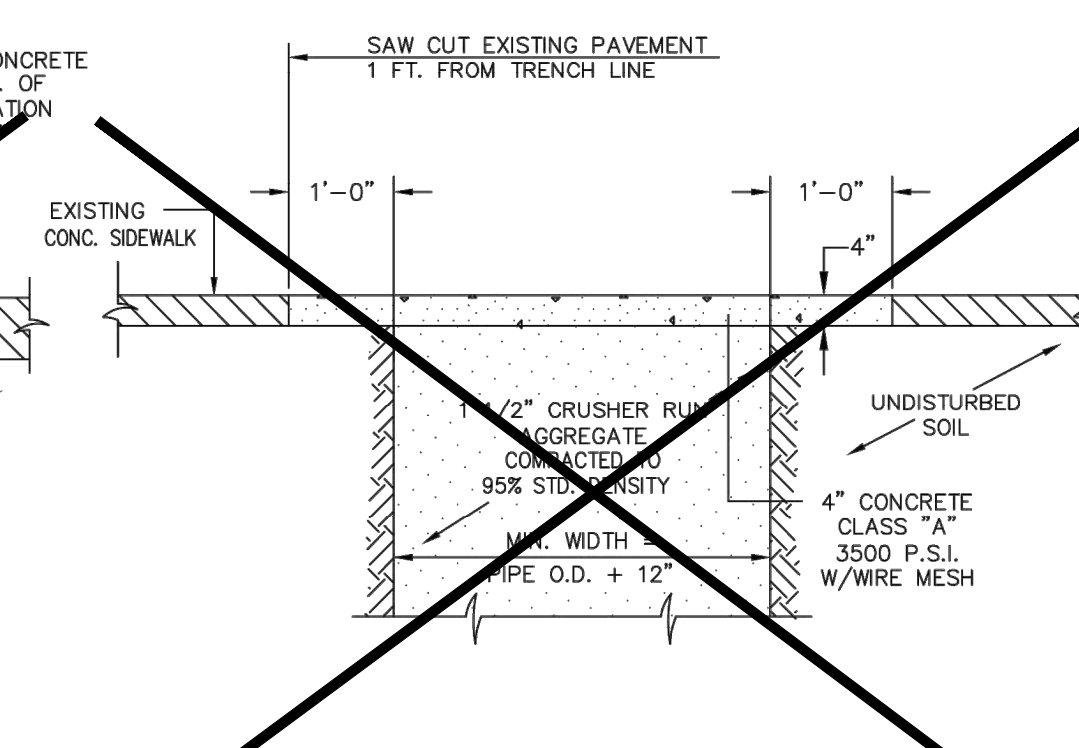
FORCE MAIN BEDDING DETAIL



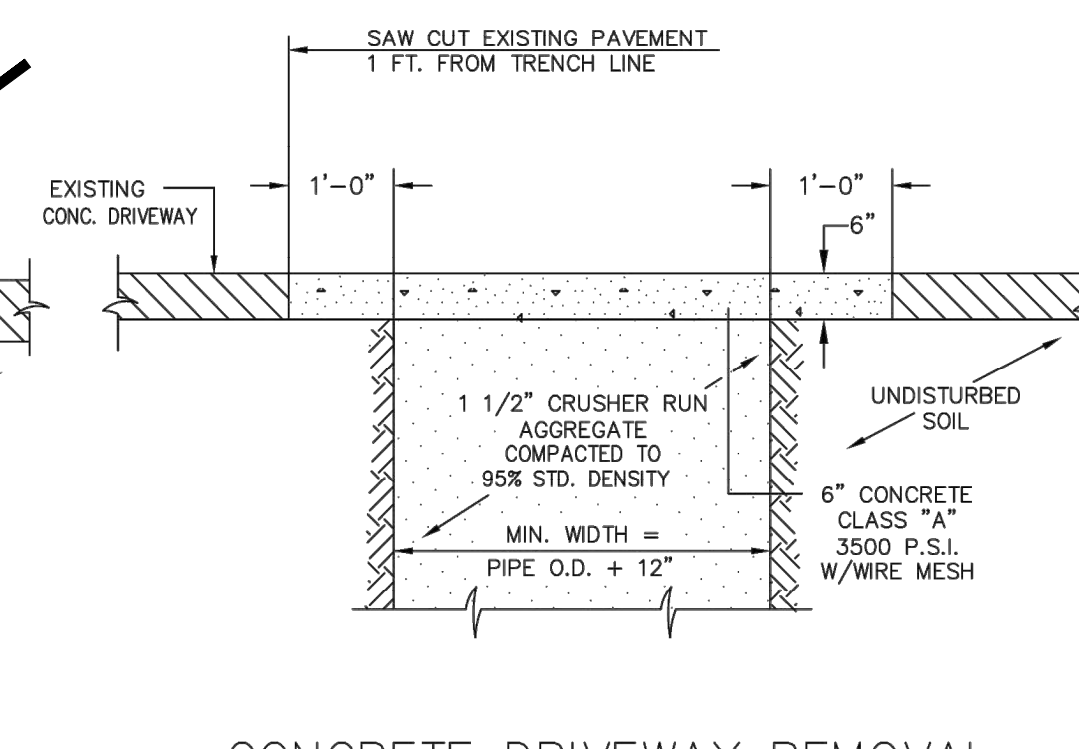
ASPHALT STREET REMOVAL  
AND REPLACEMENT DETAIL



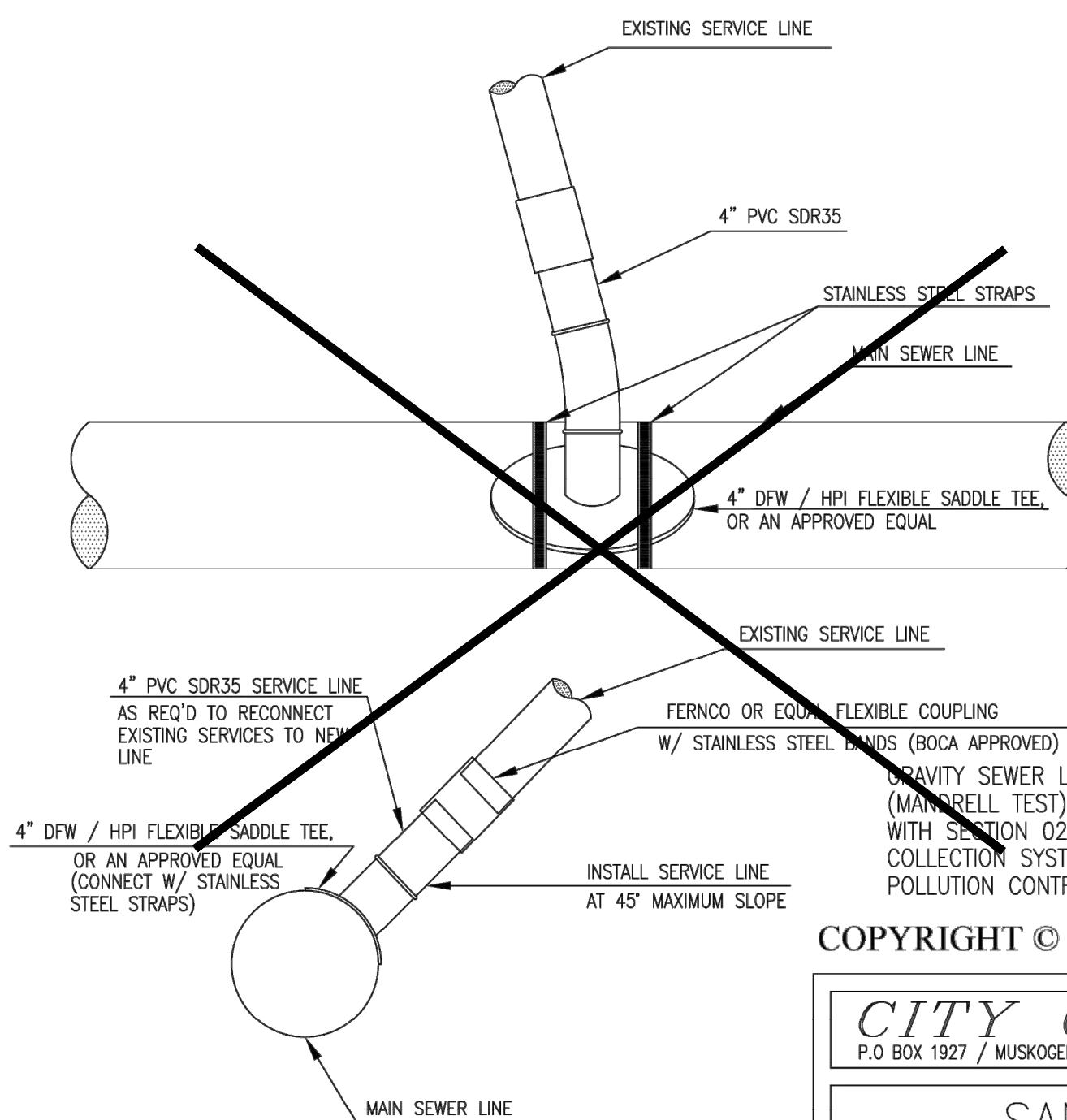
CONCRETE STREET REMOVAL  
AND REPLACEMENT DETAIL



CONCRETE SIDEWALK REMOVAL  
AND REPLACEMENT DETAIL



CONCRETE DRIVEWAY REMOVAL  
AND REPLACEMENT DETAIL



SERVICE LINE  
RECONNECTION DETAILS

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CITY OF MUSKOGEE  
P.O. BOX 1927 / MUSKOGEE, OKLAHOMA 74402-1927 / (918) 684-6232

SANITARY SEWER STANDARD DETAILS			
PROJECT NUMBER:			
REVISED	DATE	SHEET	
6/9/93	8/94	04/2000	
1/94			

no.	date	by	ckd	description
A	10/21/24	CNE	BSC	ISSUED FOR APPROVAL
B	01/31/25	CNE	SMG	ISSUED FOR CONSTRUCTION



Oklahoma License No. 30930  
Issued: 02/28/2019  
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Seth M. Gilliam  
April 1, 2025



1317 EXECUTIVE BLVD, SUITE 300  
CHESAPEAKE, VA 23320  
757-548-2056  
OK CA #421

date	detailed
JAN. 31, 2025	C. EVANCHO
designed	checked
E. SNIEGOSKI	S. GILLIAM



SUCCESS FLOWS FROM MUSKOGEE  
ISSUED FOR CONSTRUCTION

MUSKOGEE, OKLAHOMA

43RD STREET UTILITY EXTENSION

SITE DETAILS

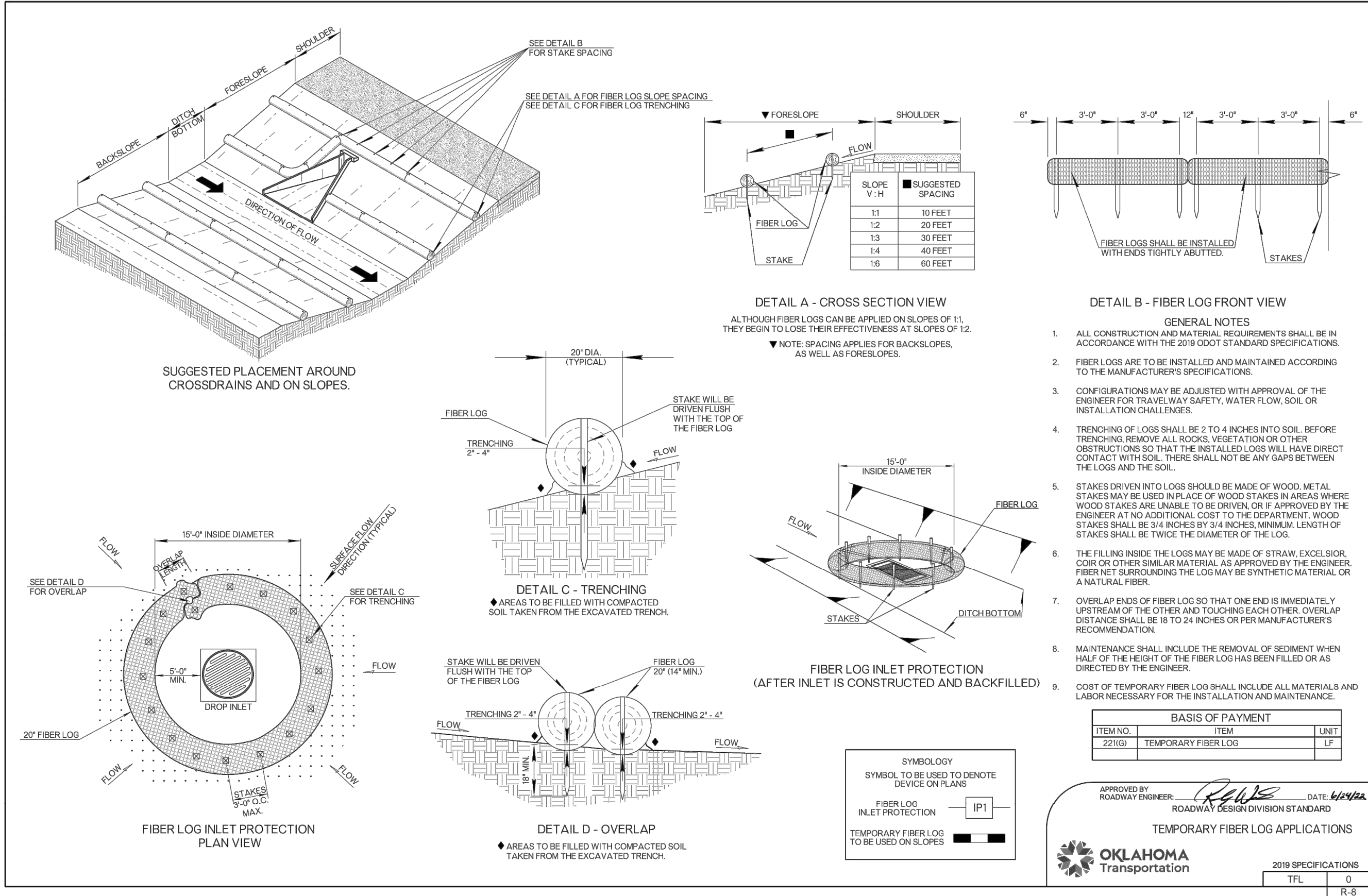
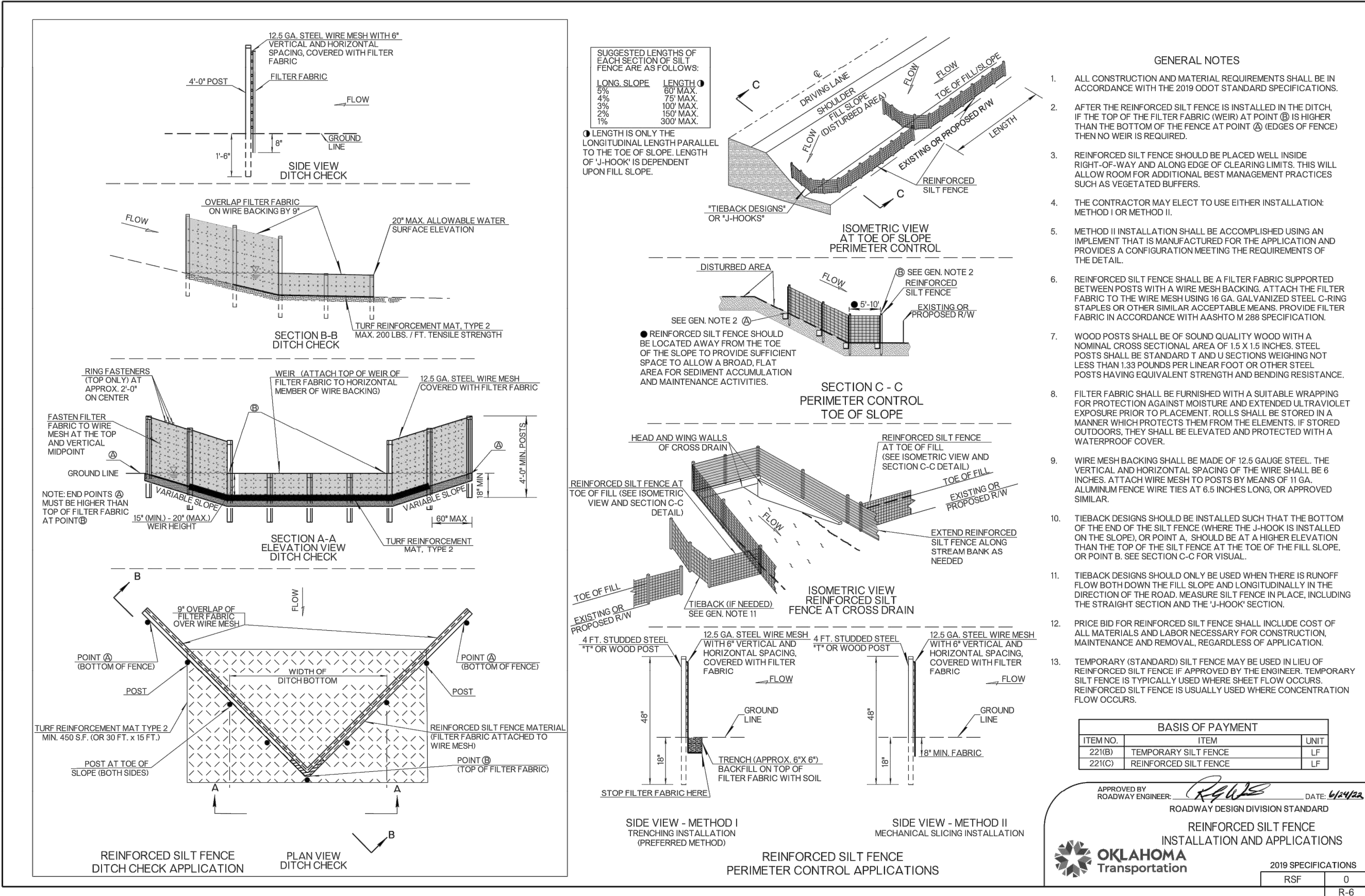
project		contract	
160013		---	
drawing		rev.	
C-502		B	
sheet 20		of 22 sheets	
file C-501-SITE DETAILS.DWG			







Millimeters  
Inches  
Scale For Microfilming



735.03 MATERIAL FOR ROADSIDE DEVELOPMENT AND EROSION CONTROL

The Resident Engineer will accept seed lots if the seed report correlates with the seed tags of the same lot number.

Remove the seed and tags from the original tagged and sealed bag when approved by the Resident Engineer. After approval, mix, sack, and batch the seed as required by the Contract. Tag the seed with identification and mass. Mix or sack into batches under the Resident Engineer's supervision. Ensure the seeds do not contain Johnson grass seed.

Table 735:1 Seed Specifications				
Seed Type	PLS Index <sup>a</sup> , minimum	Purity	% Germination	Weed Seeds
Bermuda grass:				
Common (Cynodon dactylon)				
Unhulled	80	—	—	0.2
Hulled	82	—	—	0.2
Guymon variety (Cynodon dactylon):				
Unhulled	80	—	—	2.0
Hulled	82	—	—	2.0
Bluestem:				
Big (Andropogon gerardi) <sup>b</sup>	20	—	—	—
Caucasian (Andropogon caucasicus)	15	—	—	—
Little (Andropogon scoparius) <sup>b</sup>	15	—	—	—
Plains (Bothriochloa ischaemum)	30	—	—	1.0
Sand (Andropogon hallii) <sup>c1</sup>	20	—	—	—
Yellow (Andropogon ischaemum)	18	—	—	—
Brome, smooth (Bromus inermis)	70	—	—	2.0
Buffalo grass (Buchloe dactyloides) <sup>b2</sup>	55	—	—	—
Bur-clover (Medicago hispida, arabica or rigidula)	—	98	85	1.0
Clover:				
Crimson (Trifolium incarnatum)	—	95	85	0.5
Large hop (Trifolium procumbens) <sup>c1</sup>	—	95	85	0.5
Small hop (Trifolium dubium) <sup>c</sup>	—	95	85	0.5
Drop seed, sand (Sporobolus cryptandrus)	70	—	—	2.0
Fescue, tall (Festuca arundinacea)	80	—	—	0.5
Gramma:				
Blue (Bouteloua gracilis) <sup>b</sup>	25	—	—	—
Side-oats (Bouteloua curtipendula) <sup>b</sup>	30	—	—	—
Indian grass (Sorghastrum nutans) <sup>b</sup>	35	—	—	2.0
Lespedeza:				
Common (Lespedeza striata)	—	97	90	0.5
Korean (Lespedeza stipulacea) <sup>d</sup>	—	97	90	0.5
Roundhead (Lespedeza capitata)	—	97	90	0.5
Sericea (Lespedeza cuneata) <sup>d</sup>	—	98	90	0.5
Love grass:				
Sand (Eragrostis trichodes) <sup>b</sup>	65	—	—	0.5

PERMANENT SEEDING  
NOT TO SCALE

735.03 MATERIAL FOR ROADSIDE DEVELOPMENT AND EROSION CONTROL

Table 735:1 Seed Specifications				
Seed Type	PLS Index <sup>a</sup> , minimum	Purity	% Germination	Weed Seeds
Weeping (Eragrostis curvula)	80	—	—	0.3
Millet, German foxtail (Setaria italica)	—	98	80	0.5
Native grasses (Mostly little bluestem) <sup>b</sup>	15	—	—	—
Oats (Avena sativa)	—	95	80	0.5
Rye (Secale cereale)	—	90	70	0.3
Ryegrass:				
Annual (Lolium multiflorum)	85	—	—	0.2
Perennial (Lolium perenne)	85	—	—	0.2
Sudan grass (Sorghum vulgare sudanense)	—	98	80	0.5
Switch grass (Panicum virgatum)	60	—	—	2.0
Wheat (Triticum aestivum)	—	96	80	0.1
Wheat grass, western (Agropyron smithii) <sup>b</sup>	56	—	—	1.0

<sup>a</sup> Calculate the Pure Live Seed (PLS) Index in accordance with the equations following Table 735:1.

<sup>b</sup> The seed must come from Oklahoma, Texas, Kansas, or New Mexico.

<sup>c</sup> Provide seed that is pre-chilled and treated with potassium nitrate in accordance with the Hays Treatment Technique.

<sup>d</sup> Treat the seed with a nitrogen fixing inoculant, manufactured by commercial laboratories for the legume. Store and handle the inoculant in accordance with the manufacturer's directions.

Calculate the PLS Index from information on the seed tag, in accordance with the following equation:

$$PLS_p = \frac{P \times (G + FS)}{100}$$

where

$PLS_p$  = PLS Index of seed provided,  
 $P$  = Percent purity,  
 $G$  = Percent germination, and  
 $FS$  = Percent firm seed.

The Department defines the weight [mass] of seed in pounds [kilograms] of bulk seed. If the PLS Index of a seed lot exceeds the minimum PLS Index, specified in Table 735:1, "Seed Specifications," by at least 25 percent, adjust the amount of bulk seed for planting using the following equation:

$$BS_p = \frac{PLS_p \times BS_p}{PLS_p}$$

no.	date	by	ckd	description
A	10/21/24	CNE	BSC	ISSUED FOR APPROVAL
B	01/31/25	CNE	SMG	ISSUED FOR CONSTRUCTION



Oklahoma License No. 30930  
Issued: 02/28/2019  
Expires: 02/28/2026

Seth M. Gilliam  
April 1, 2025



1317 EXECUTIVE BLVD, SUITE 300  
CHESAPEAKE, VA 23320  
757-548-2056  
OK CA #421

date	designed	detailed
JAN. 31, 2025	E. SNIEGOSKI	C. EVANCHO
	checked	
	S. GILLIAM	



SUCCESS FLOWS FROM MUSKOGEE  
ISSUED FOR CONSTRUCTION

MUSKOGEE, OKLAHOMA

43RD STREET UTILITY EXTENSION

ESC DETAILS

project	contract
160013	---
drawing	rev.
CE501	B
sheet 22 of 22	sheets
file CE501-ESC DETAILS.DWG	