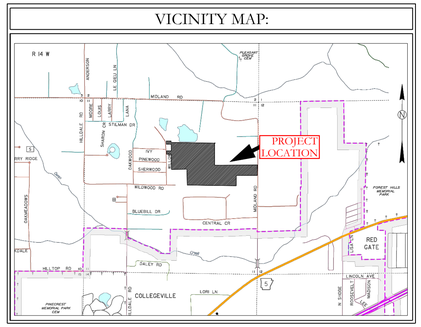
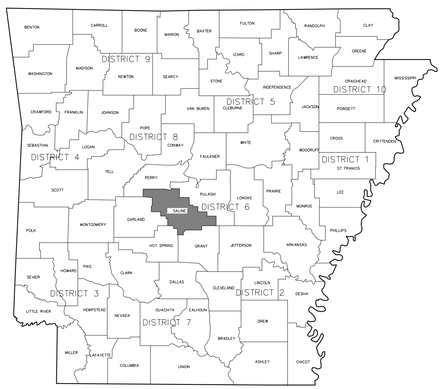
CONSTRUCTION PLANS
MIDLAND ROAD

BRYANT, AR

VICINITY MAP:





PREPARED BY:

HOPE CONSULTING
ENGINEERS - SURVEYORS

129 North Main St,
Benton, Arkansas 72015
PH. (501)315-2626
FAX (501) 315-0024
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CIVIL ENGINEER
HOPE CONSULTING INC
129 NORTH MAIN STREET
BENTON, AR 72015

GEOTECHNICAL ENGINEER
MATERIALS TESTING OF ARKANSAS
8001 NATIONAL DRIVE
LITTLE ROCK , AR 72209

DRAWING INDEX

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FOR USE AND BENEFIT OF:
HAVEN'S DEVELOPMENT, LLC

MIDLAND ROAD
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	03/22/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	23-0024
SHEET:		SCALE:	

K:\LAND PROJECTS\2023\SUBDIVISIONS\23-0024 HAVENS MIDLAND ROAD SUBDIVISION\SITE\REVIT\CIVIL\DWG\23-0024 CONSTRUCTION PLAN (PLN). DRAWT.DWG

MIDLAND ROAD SUBDIVISION STREET PLAN

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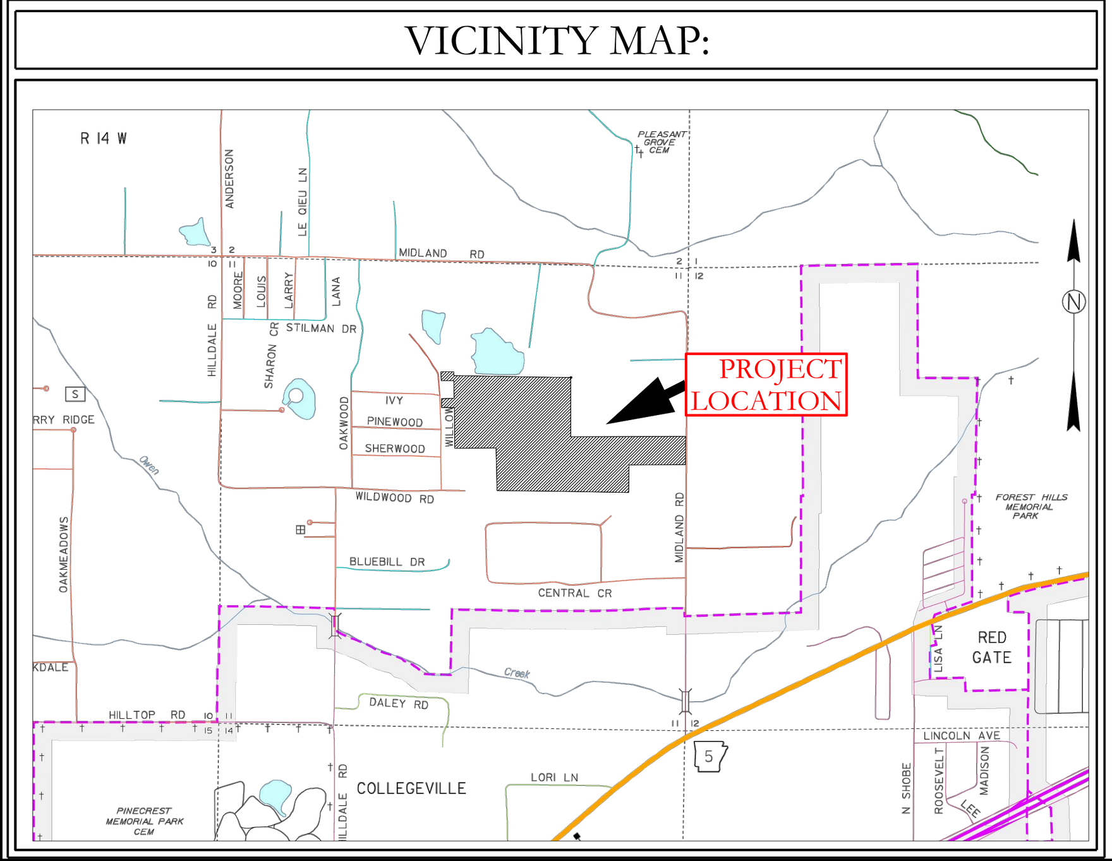
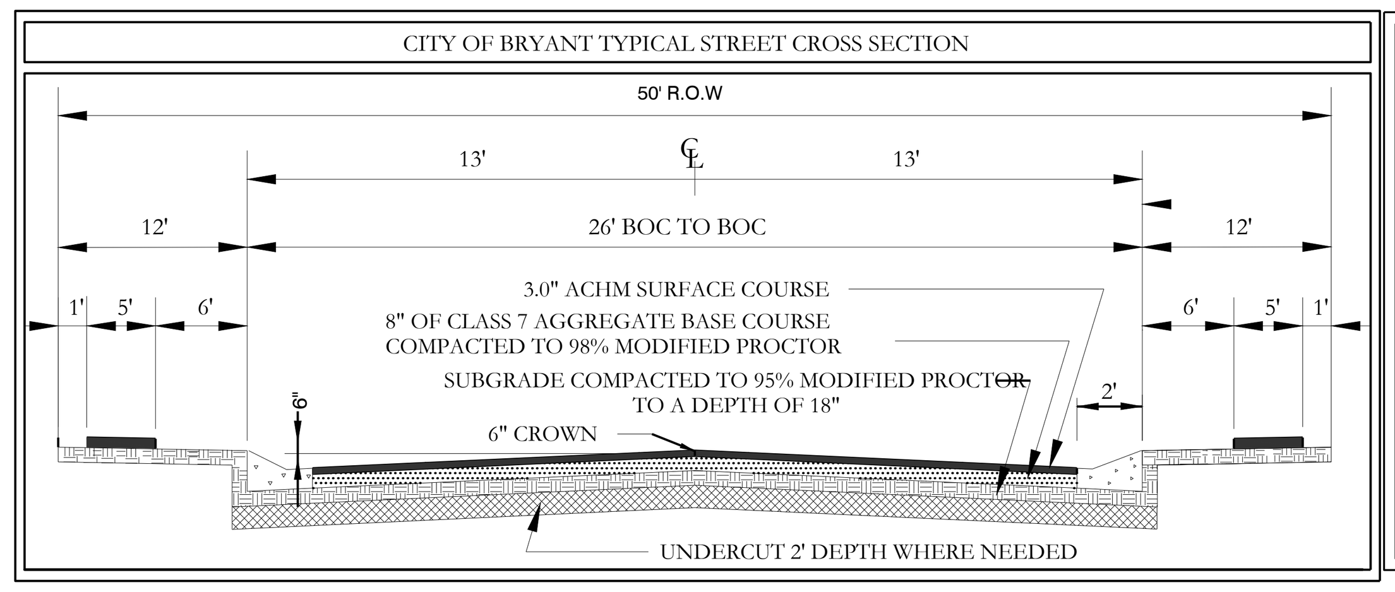
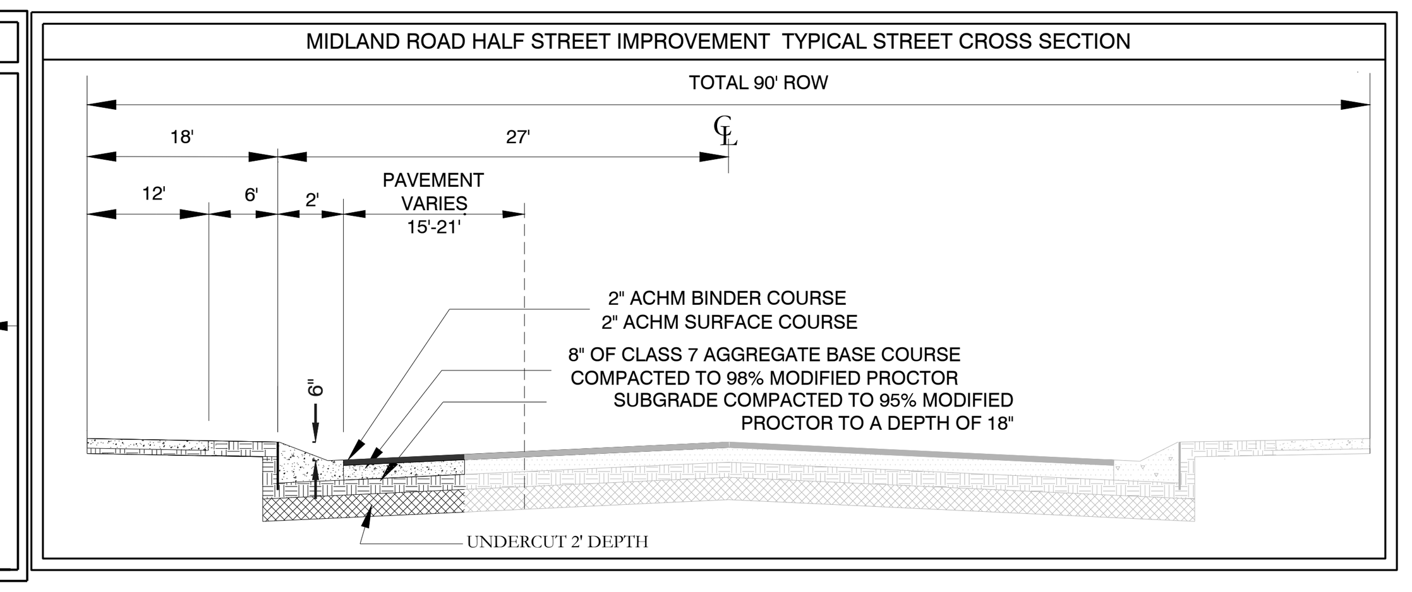


CITY OF BRYANT TYPICAL STREET CROSS SECTION



MIDLAND ROAD HALF STREET IMPROVEMENT TYPICAL STREET CROSS SECTION



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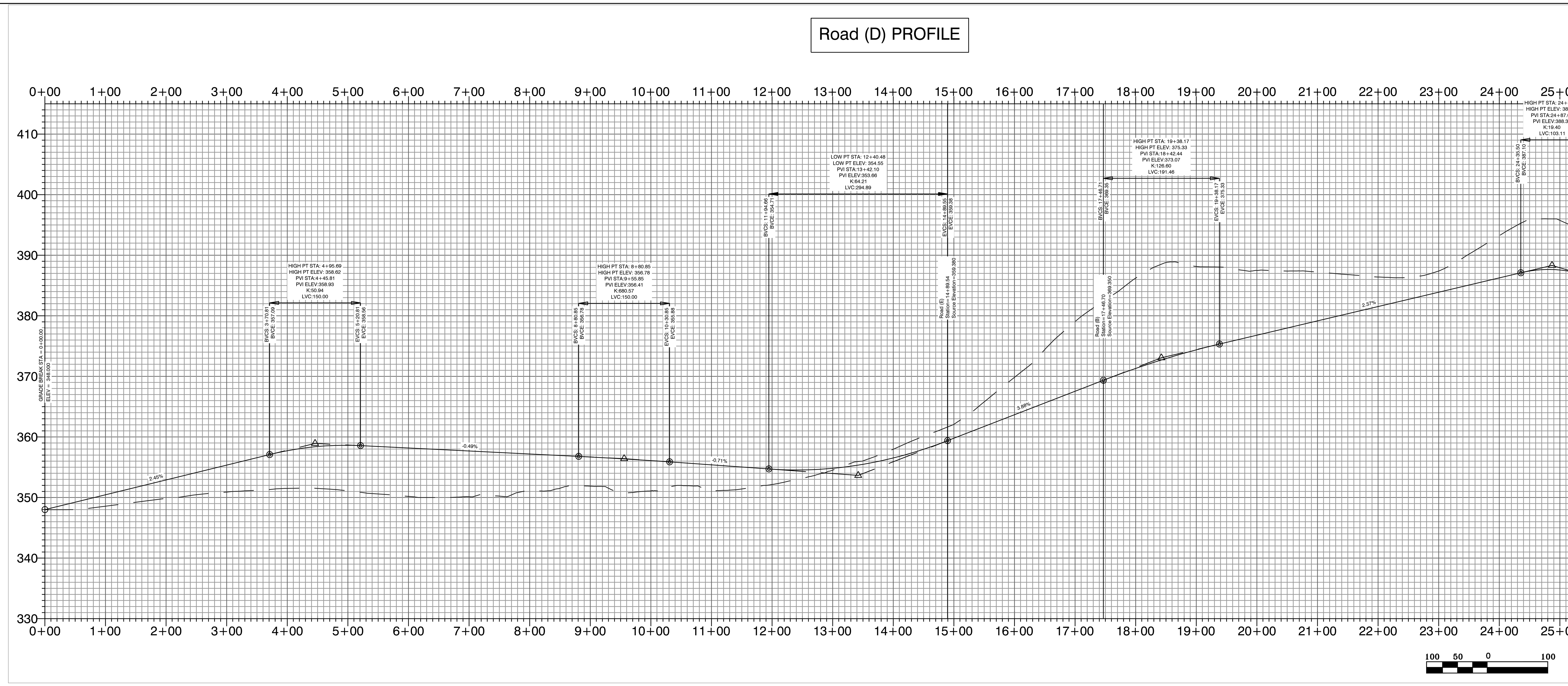
MIDLAND ROAD

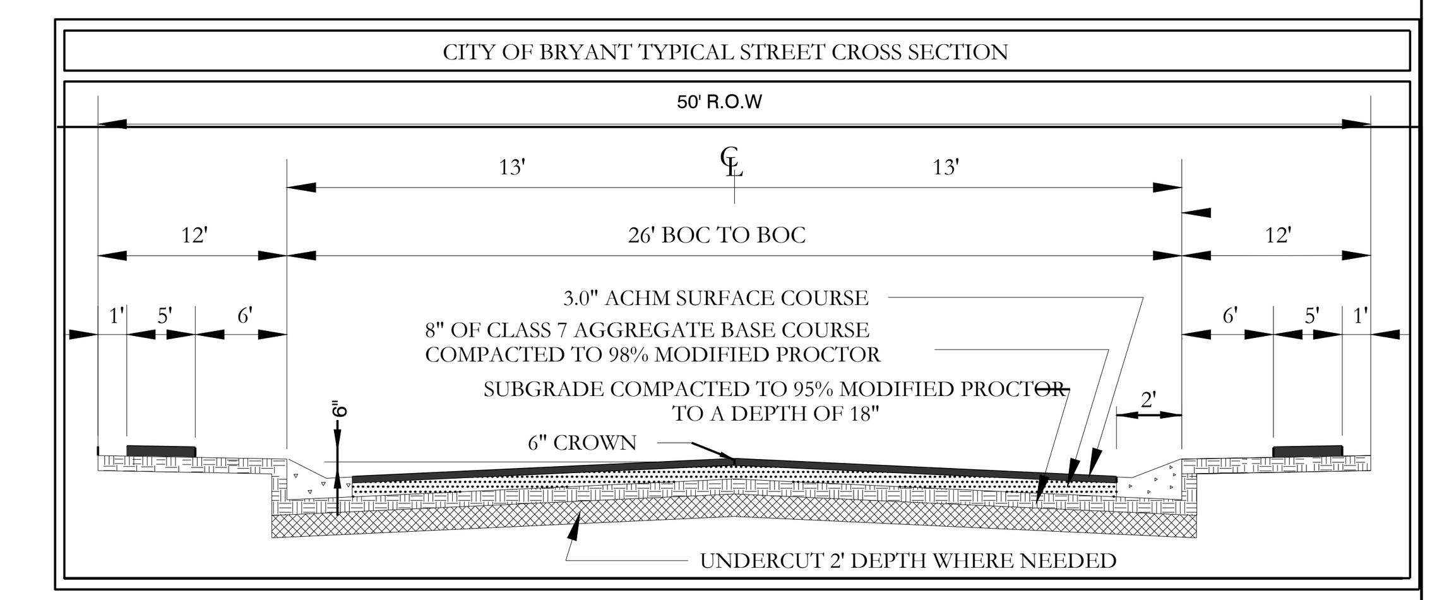
STREET LAYOUT

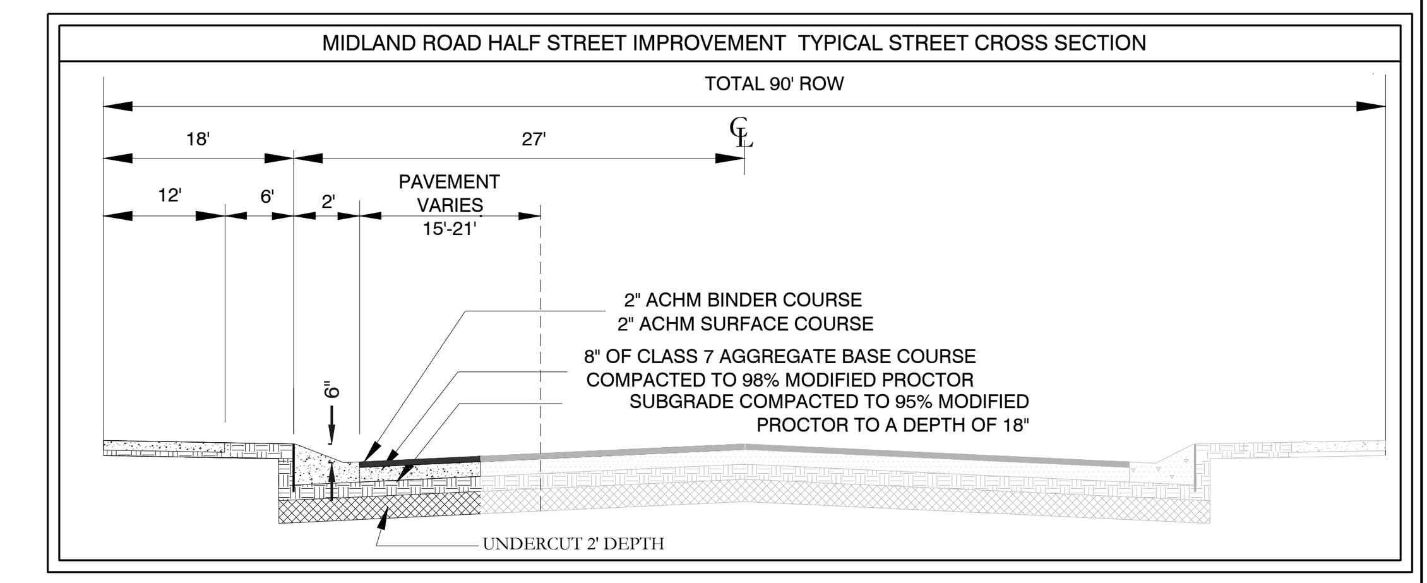
BRYANT, SALINE COUNTY, ARKANSAS

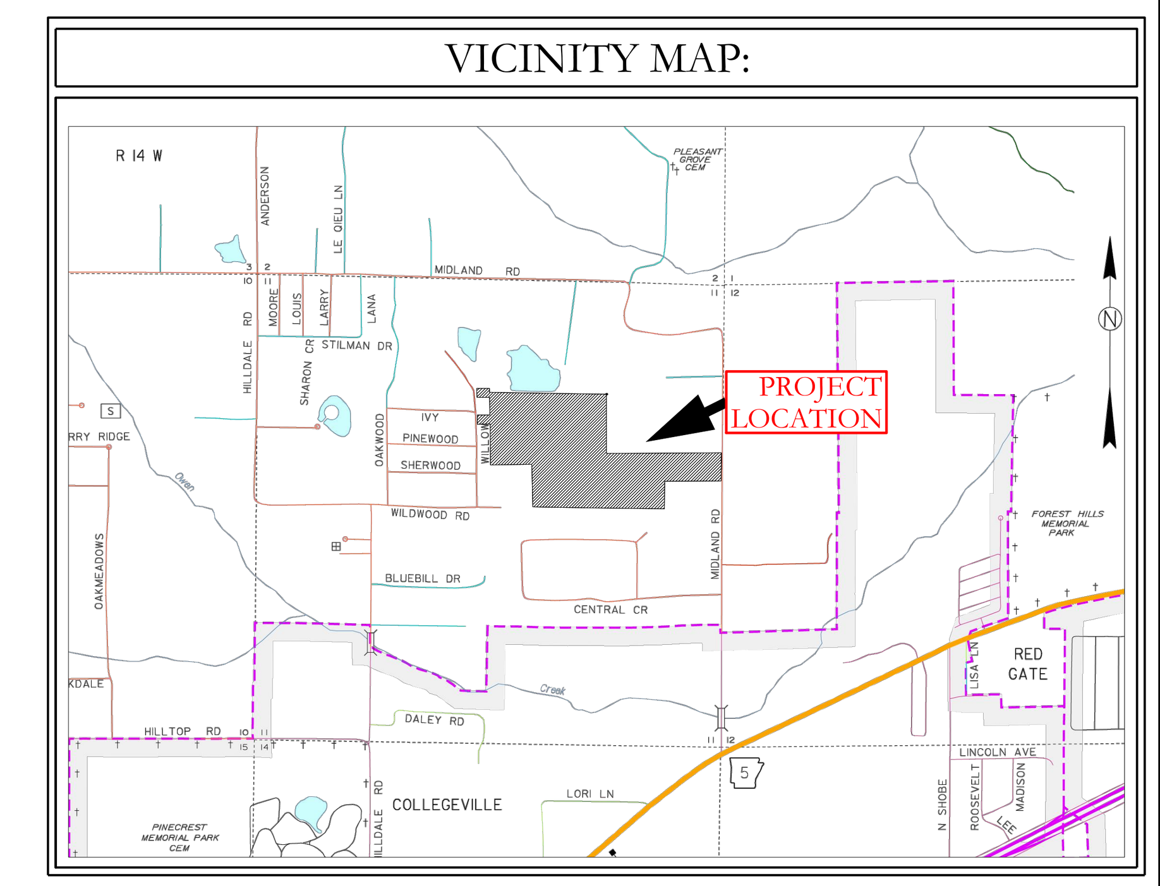
DATE:	3/22/2023		C.A.D. BY:			DRAWING NUMBER:	
REVISED:			CHECKED BY:			23-0024	
SHEET:	C-1.0		SCALE:				
500	1S	15W	0	34	230	62	1807

K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S11 T1S R14W\CIVIL\DWG\23-0024 CONSTRUCTION PLAN (FINAL DRAFT).DWG









MIDLAND ROAD SUBDIVISION
STREET PLAN & PROFILES

BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

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FOR USE AND BENEFIT OF:
HAVEN'S DEVELOPMENT, LLC

MIDLAND ROAD
STREET PLAN AND PROFILES
BRYANT, SALINE COUNTY, ARKANSAS

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SHEET:	C-2.0	SCALE:		

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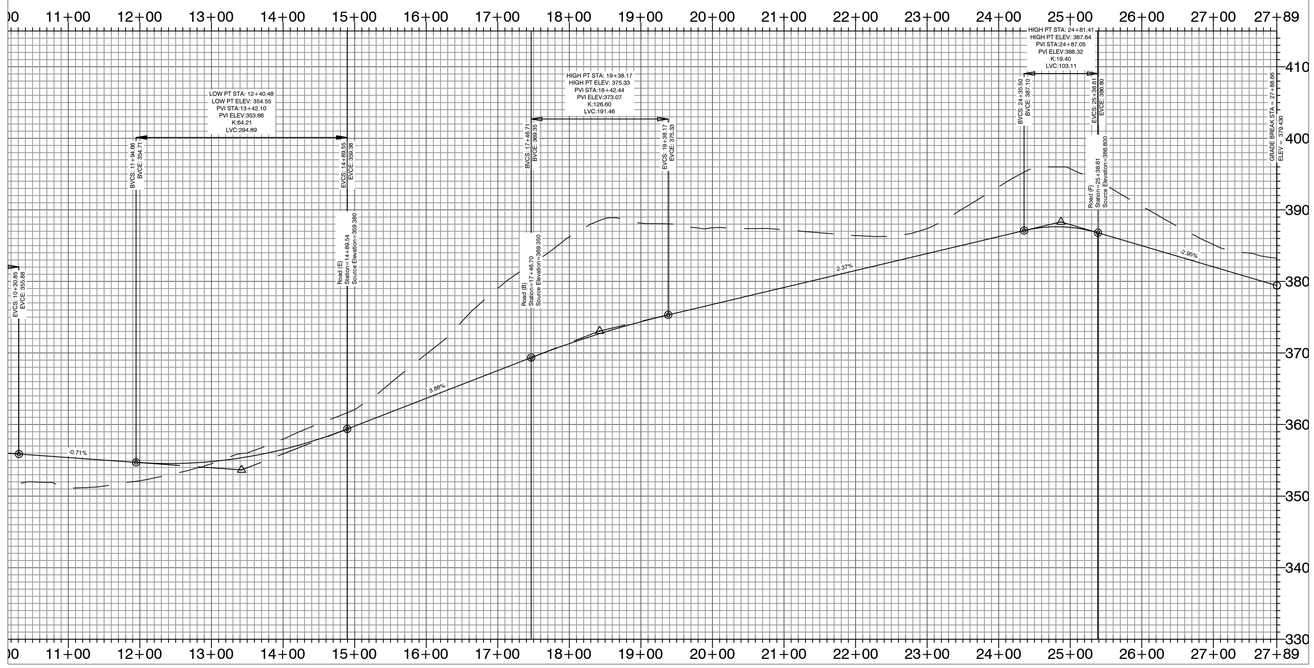

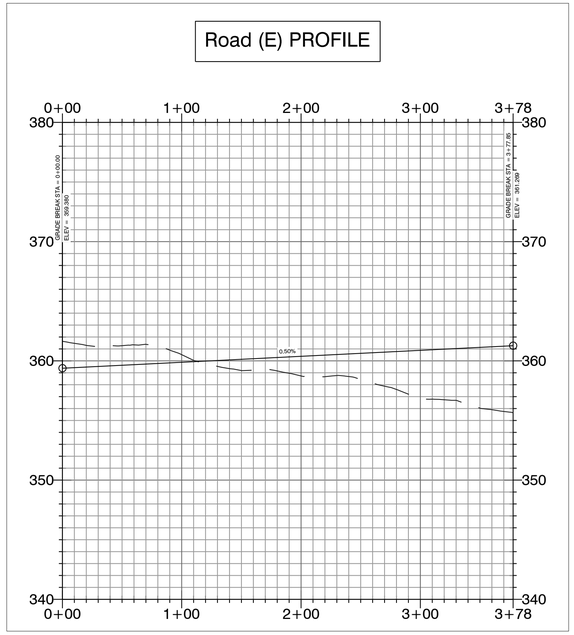

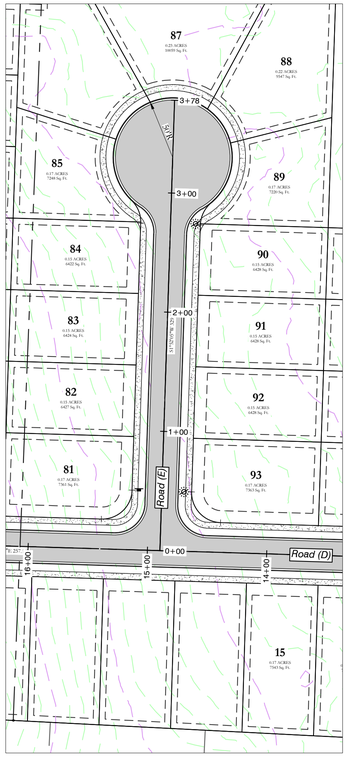

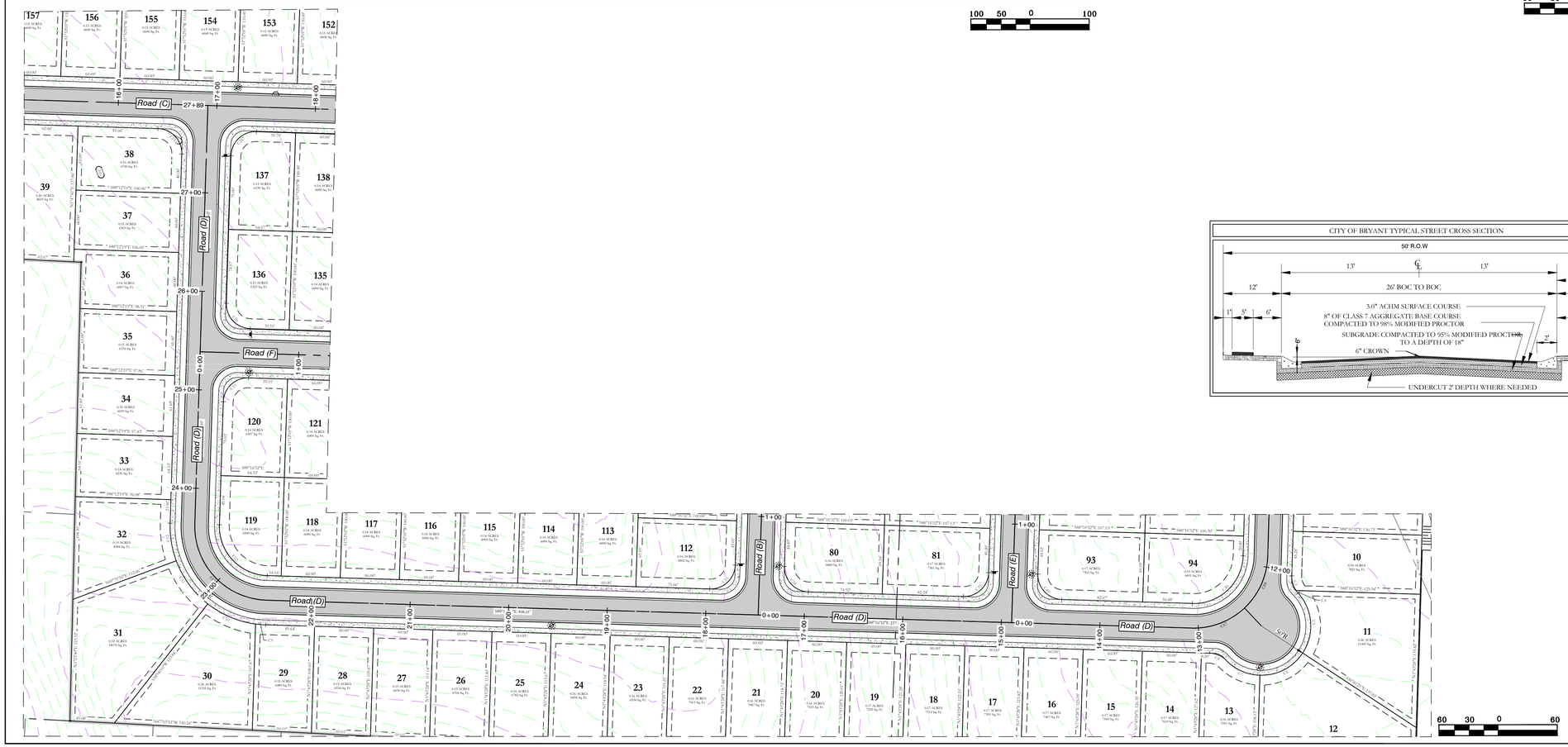

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BASIS OF BEARINGS:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

MIDLAND ROAD SUBDIVISION
STREET PLAN & PROFILES

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STREET PLAN AND PROFILES
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	3/22/2023	C.A.D. BY:	DRAWING NUMBER:
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SHEET:	C-2.1	SCALE:	

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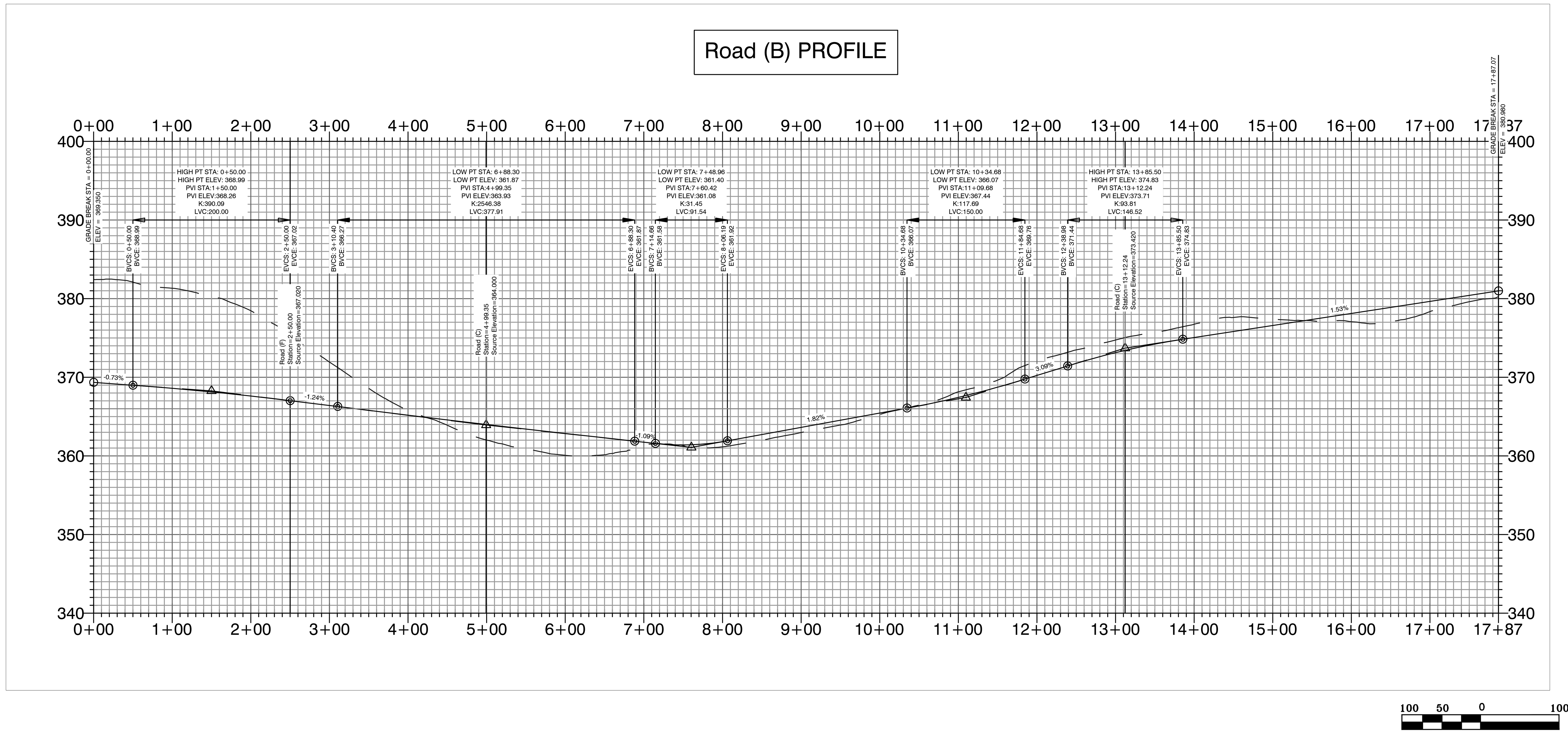
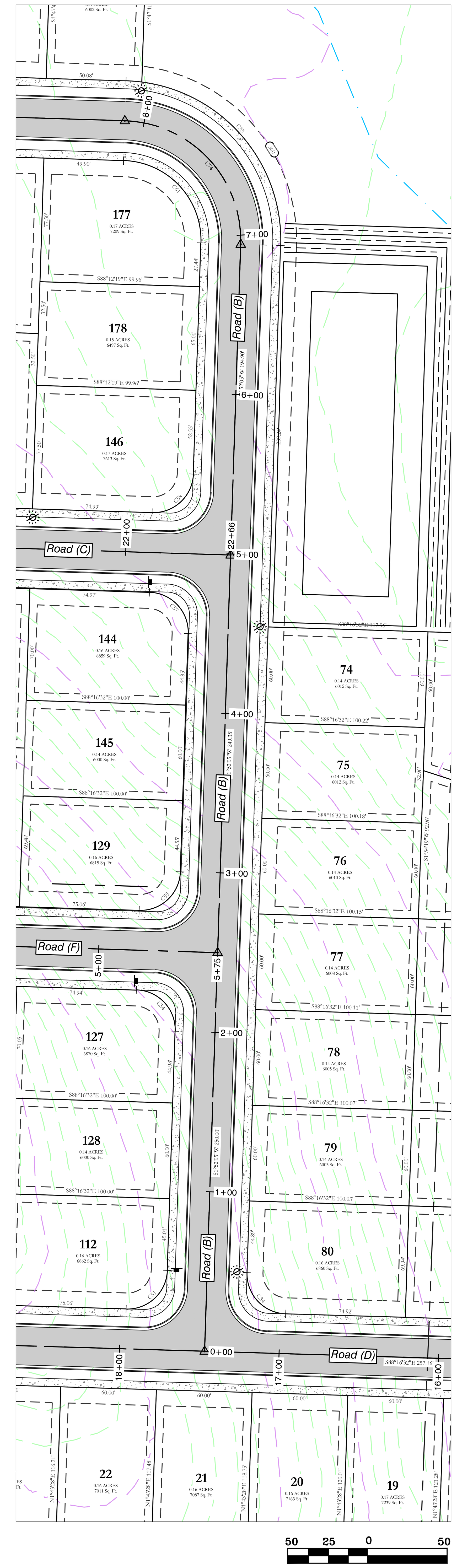
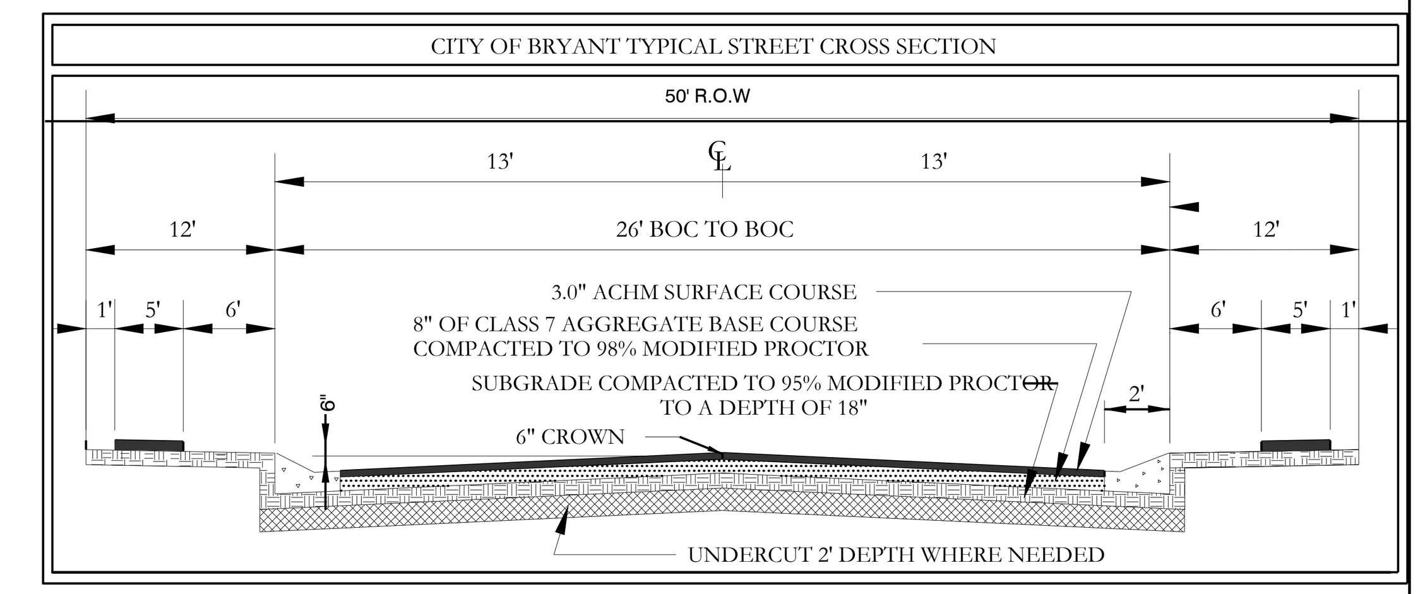
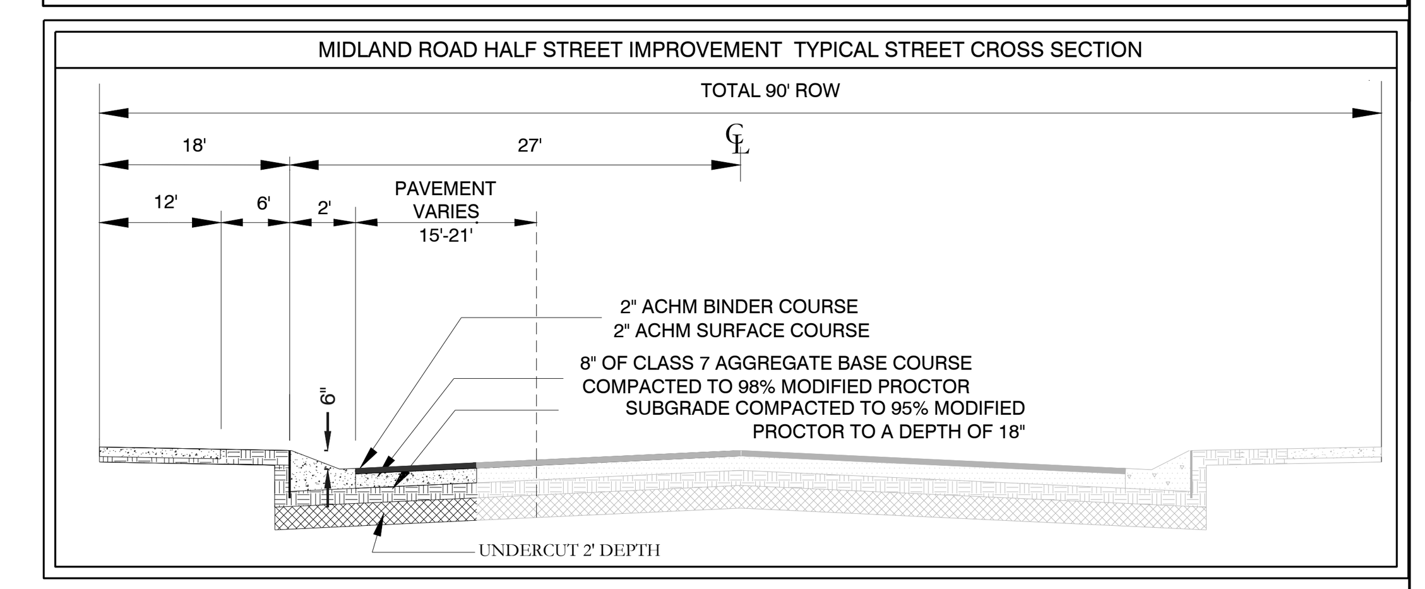
K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S11 T1S R14W\CIVIL\DWG\23-0024 CONTRUCTION PLAN (FINAL DRAFT).DWG









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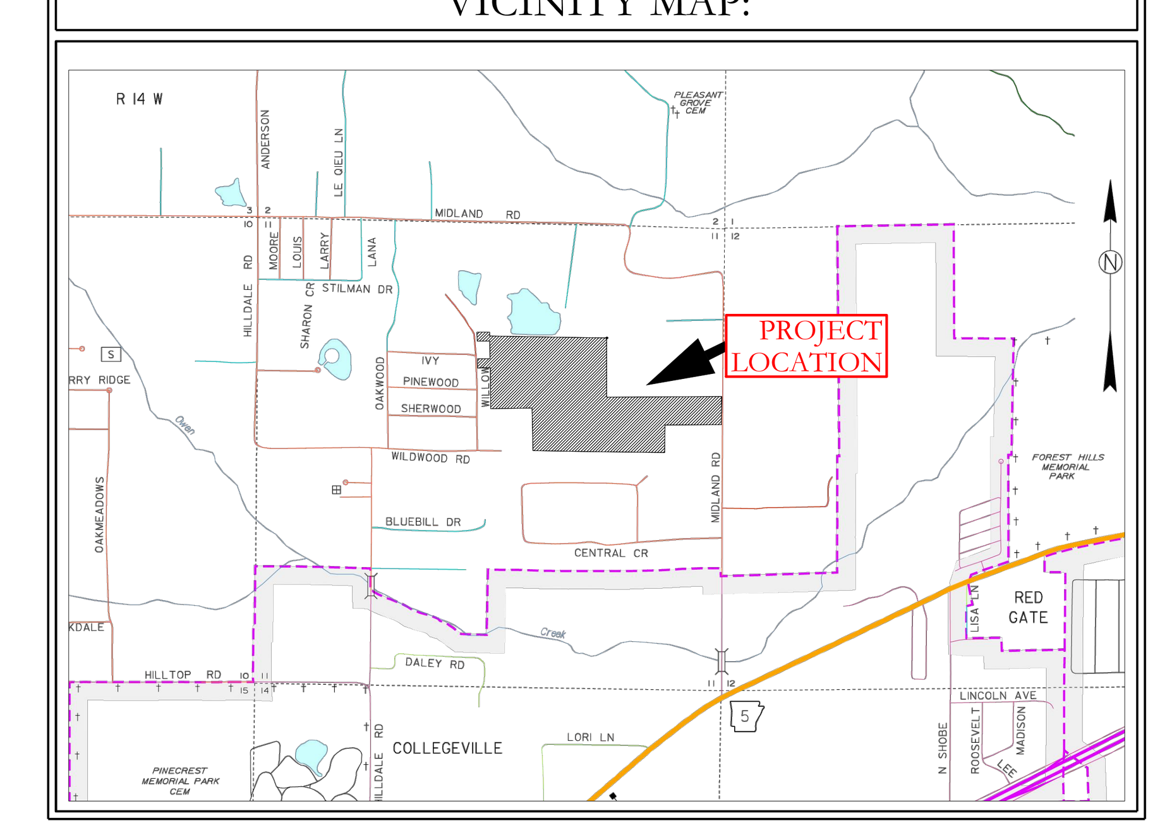

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BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

MIDLAND ROAD SUBDIVISION
STREET PLAN & PROFILES

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STREET PLAN AND PROFILES
BRYANT, SALINE COUNTY, ARKANSAS

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REVISED:		CHECKED BY:			23-0024		
SHEET:	C-2.2	SCALE:					
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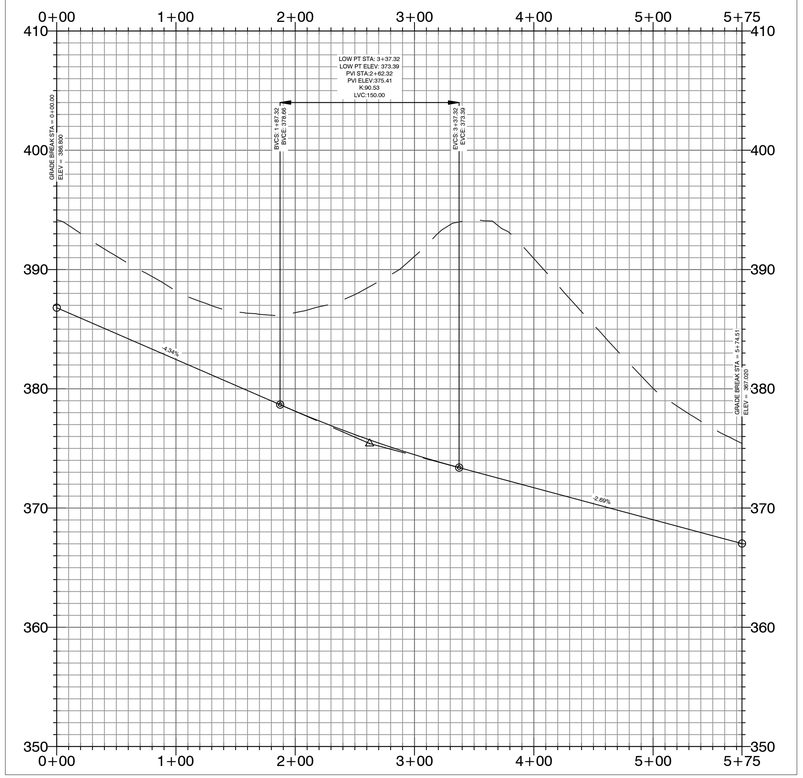
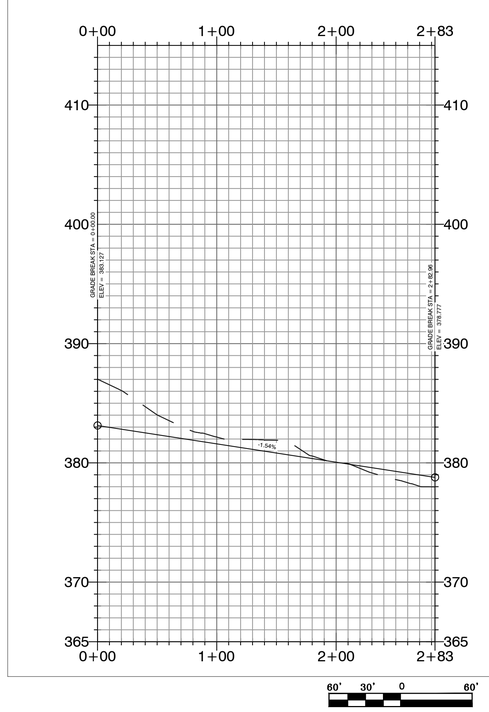
K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S11 T1S R14W\CIVIL\DWG\23-0024 CONSTRUCTION PLAN (FINAL DRAFT).DWG

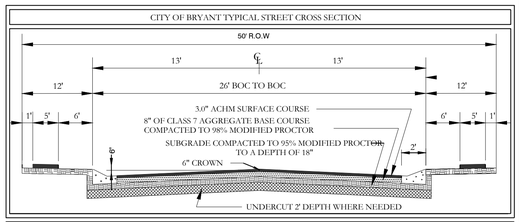
Road (F) PROFILE



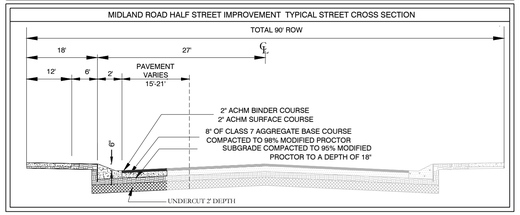
Road (A) PROFILE



CITY OF BRYANT TYPICAL STREET CROSS SECTION



MIDLAND ROAD HALF STREET IMPROVEMENT TYPICAL STREET CROSS SECTION



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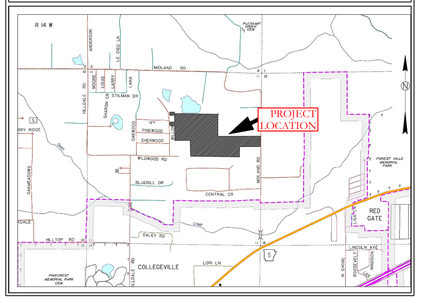

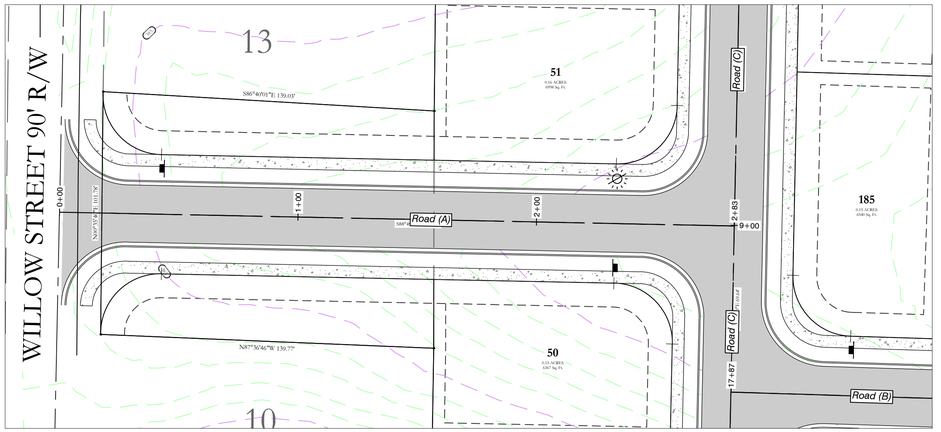

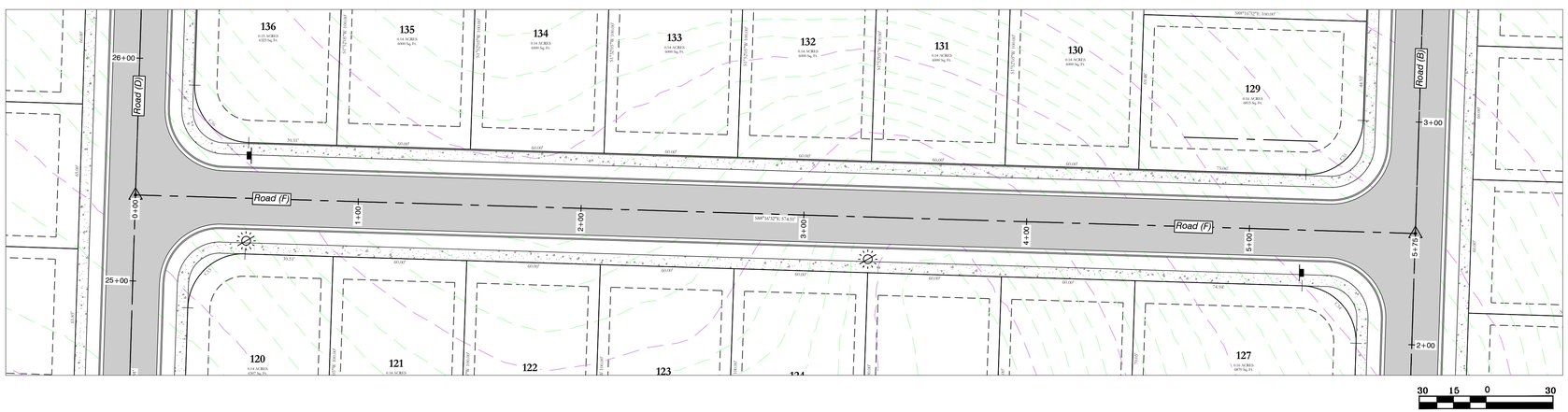

MIDLAND ROAD SUBDIVISION
STREET PLAN & PROFILES

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BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

FOR USE AND BENEFIT OF:
HAVEN'S DEVELOPMENT, LLC

MIDLAND ROAD
STREET PLAN AND PROFILES
BRYANT, SALINE COUNTY, ARKANSAS

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500	01S	15W	0	34	230	62	1807

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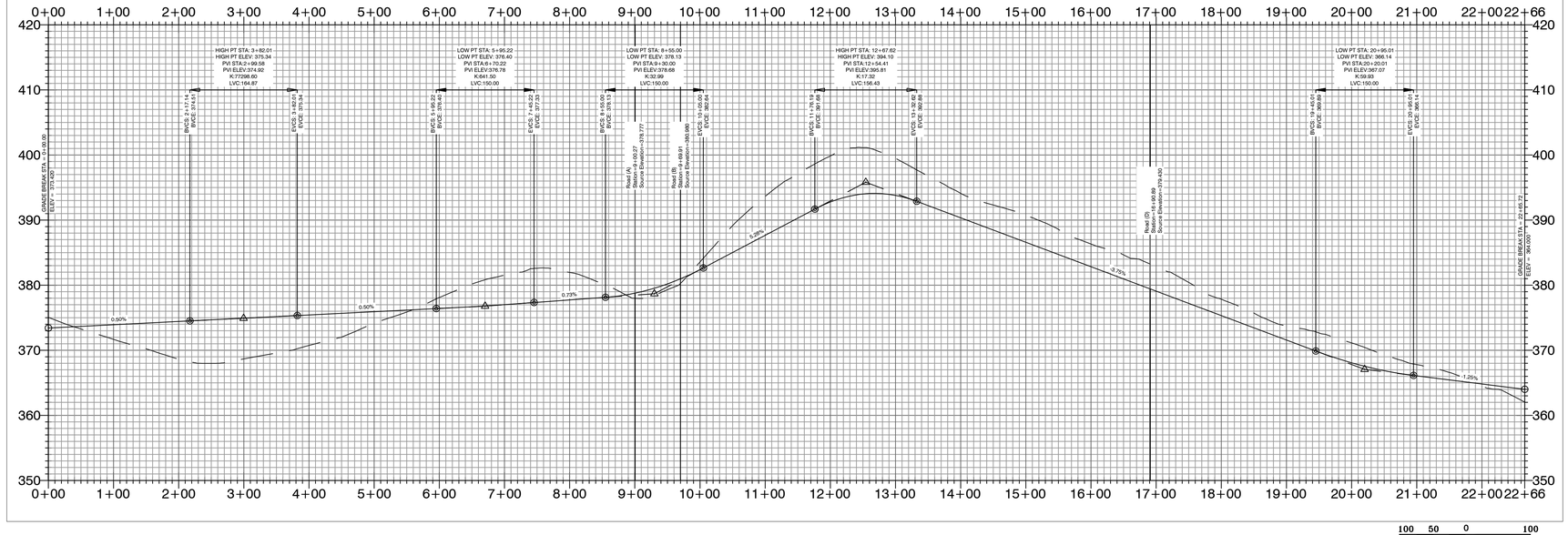

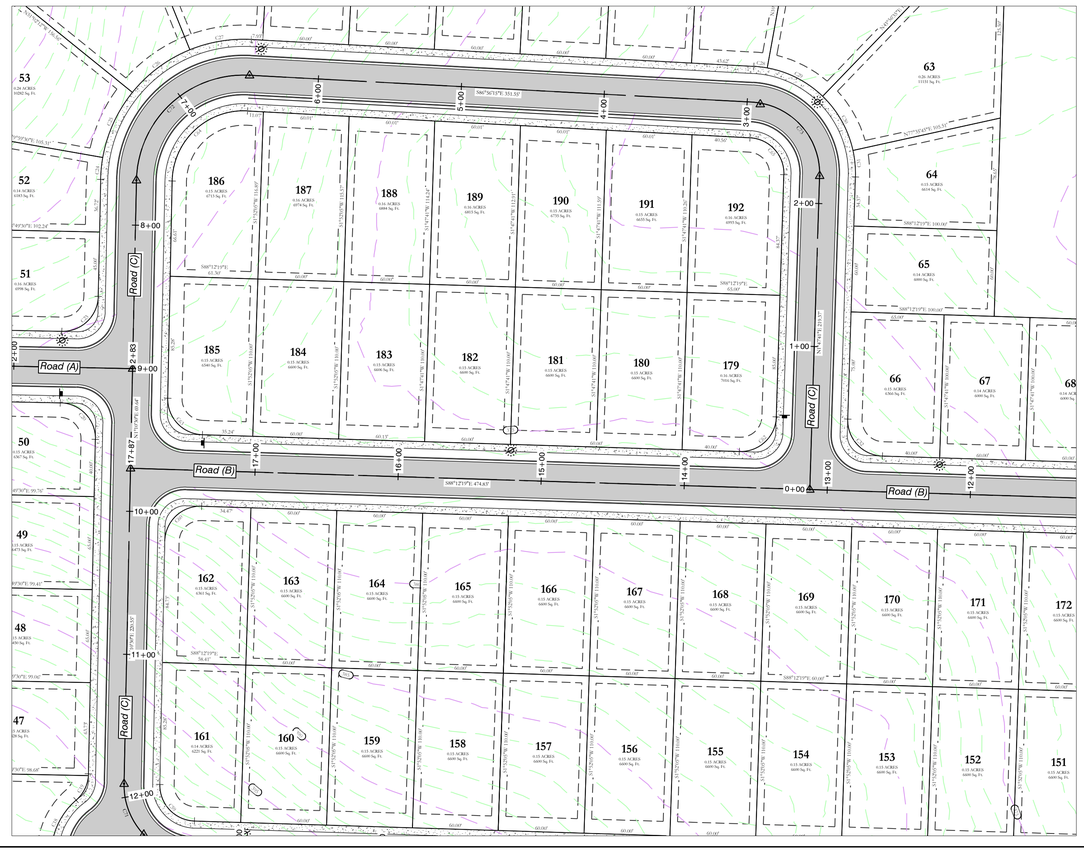

Road (C) PROFILE

CITY OF BRYANT TYPICAL STREET CROSS SECTION

MIDLAND ROAD HALF STREET IMPROVEMENT TYPICAL STREET CROSS SECTION

VICINITY MAP:

MIDLAND ROAD SUBDIVISION
STREET PLAN & PROFILES

BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

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BRYANT, SALINE COUNTY, ARKANSAS

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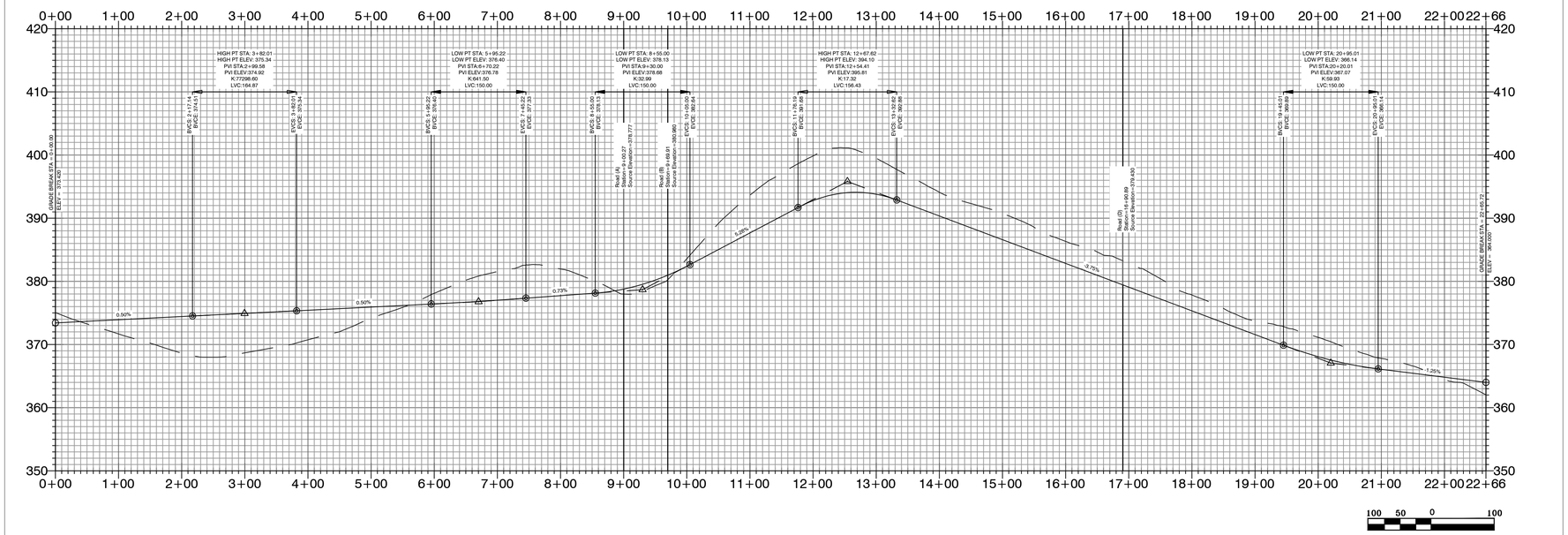
SHEET: C-2.4	SCALE:		

500	01S	15W	0	34	230	62	1807

K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S11 T1S R14W\CIVIL\DWG\23-0024 CONTRUCTION PLAN (FINAL DRAFT).DWG

Road (C) PROFILE



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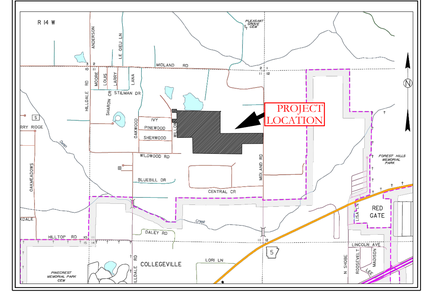

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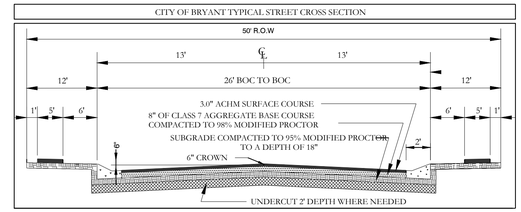
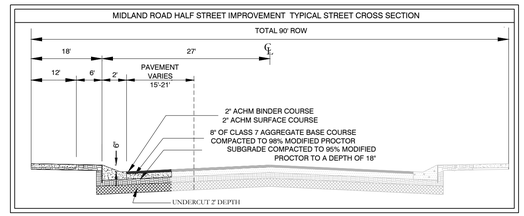


MIDLAND ROAD HALF STREET IMPROVEMENT TYPICAL STREET CROSS SECTION



MIDLAND ROAD SUBDIVISION
STREET PLAN & PROFILES

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BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

FOR USE AND BENEFIT OF:
HAVEN'S DEVELOPMENT, LLC

MIDLAND ROAD
STREET PLAN AND PROFILES
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	3/22/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	23-0024
SHEET:	C-2.5	SCALE:	

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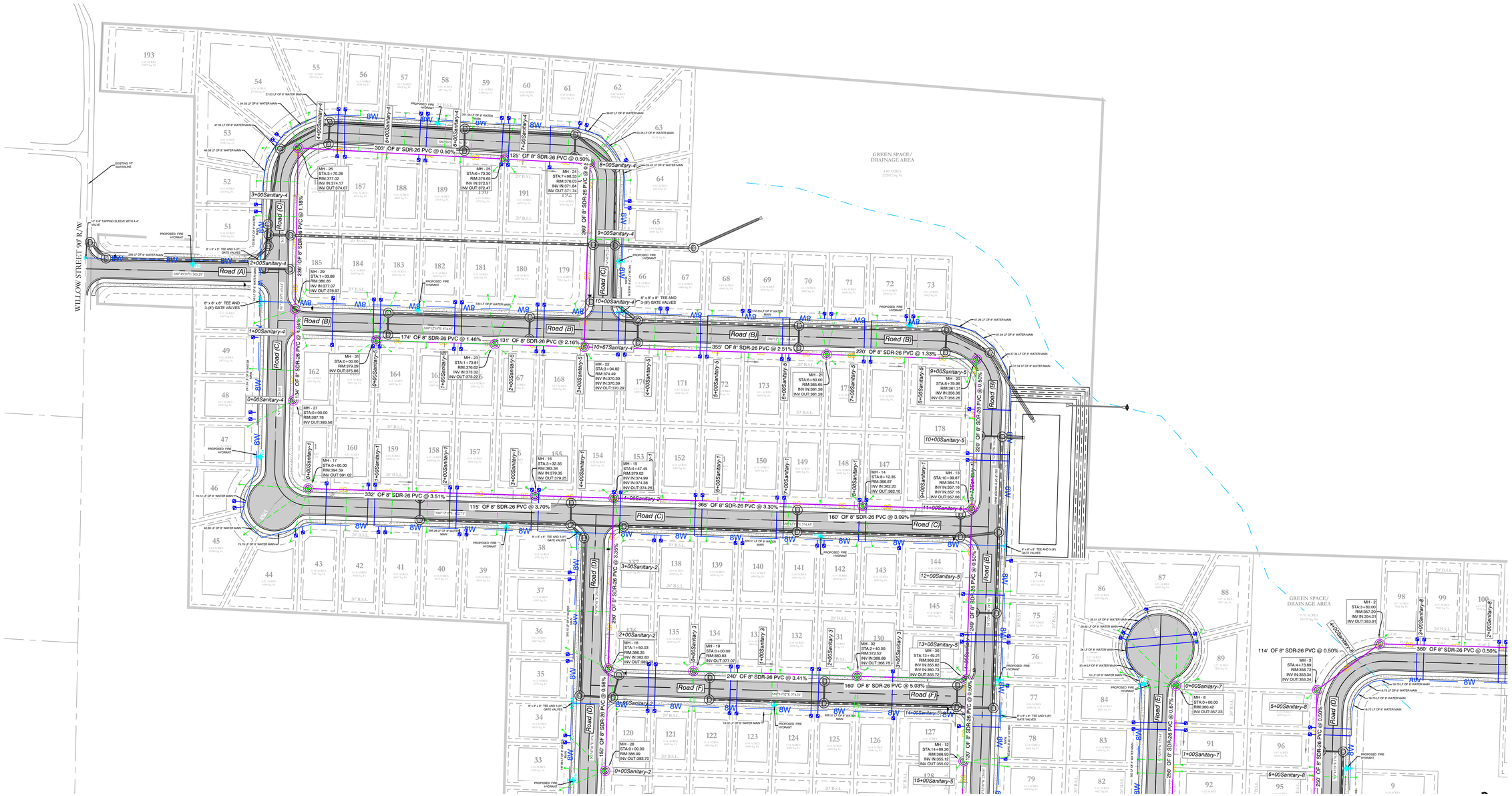
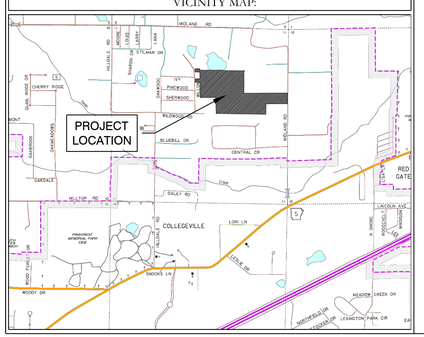
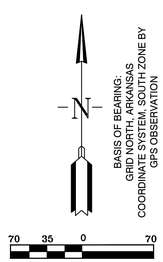
K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION\15 TECH\REVIT\CIVIL\DWG\23-0024 CONSTRUCTION PLAN (PLOT TO PLOT).DWG



MIDLAND ROAD SUBDIVISION
UTILITY PLAN

VICINITY MAP:





WATER & SEWER UTILITY NOTES:

1. ALL NEW 8-INCH WATER MAINS TO BE CLASS 900.
2. ALL WATER MAINS LARGER THAN 8" DIAMETER SHALL BE DUCTILE IRON (250 PSI PRESSURE CLASS).
3. ALL WATER AND SEWER INSTALLATION TO BE IN ACCORDANCE WITH THE CITY OF BRYANT "STANDARD SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF WATER LINES AND SEWER LINES, 2015 EDITION.
4. WATER LINES UNDER CULVERTS, CREEKS, CONCRETE CHANNELS, RETAINING WALLS, OR OTHER DIFFICULT AND /OR DANGEROUS TO MAINTAIN AREAS SHALL BE ENCASED IN A SMOOTH STEEL ENCASEMENT PIPE. THE STEEL ENCASEMENT SHALL EXTEND FIVE FEET EITHER SIDE OF THE AREA.
5. EACH WATER SERVICE METER MUST HAVE ITS OWN SERVICE LINE CONNECTION TO THE MAIN (INCLUDES DOUBLE METERS DISPLAYED AS ONE SERVICE LINE ON THE PLAT.
6. WATER MAIN CONNECTION TO THE NORTH WILL BE CONSTRUCTED IN PHASE 2, CONNECTION TO THE SOUTH WILL BE IN THE FINAL PHASE.
7. CASING SPACERS SHALL BE STAINLESS STEEL, CASCADE MODEL CCS AS MANUFACTURED BY CASCADE WATER MFG. CO., OR APPROVED EQUAL.

SEWER CONSTRUCTION NOTES:

1. ALL SEWER INSTALLATION TO BE IN ACCORDANCE WITH THE CITY OF BRYANT " STANDARD SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF WATER LINES AND SEWER LINES, 2015 EDITION"
2. ALL SEWER LINES CROSSING UNDER ALL CONCRETE STORM DRAINS OR ANY STORM DRAIN 30-INCH DIAMETER AND LARGER, OR ALL STORM DRAINS WITH MULTIPLE PIPE RUNS, SHALL BE STEEL ENCASED A MINIMUM OF 5 FEET EITHER SIDE OF THE STORM DRAIN.
3. CASING SPACERS: SHALL BE STAINLESS STEEL, CASCADE MODEL CCS AS MANUFACTURED BY CASCADE WATER MFG. CO., OR APPROVED EQUAL.

HDPE
RCP

SEWER LEGEND:	WATER LEGEND:
SEWER SERVICE	DUAL WATER METERS
SEWER MAIN — S SEWER MANHOLE	SINGLE WATER METER
	GATE VALVE
	45º FITTING
	90º FITTING
	TEE FITTING
	CROSS FITTING
	FIRE HYDRANT

NOTE:
USE SDR-26 PVC SEWER PIPE EXCEPT WHERE DUCTILE IRON PIPE REQUIRED FOR COVER. USE DUCTILE IRON PIPE WHERE 3' MINIMUM COVE CANNOT BE MAINTAINED.

CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL BURIED UTILITIES PRIOR TO CONSTRUCTION.

HOPE CONSULTING
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117 S. Market Street,
Benton, Arkansas 72015
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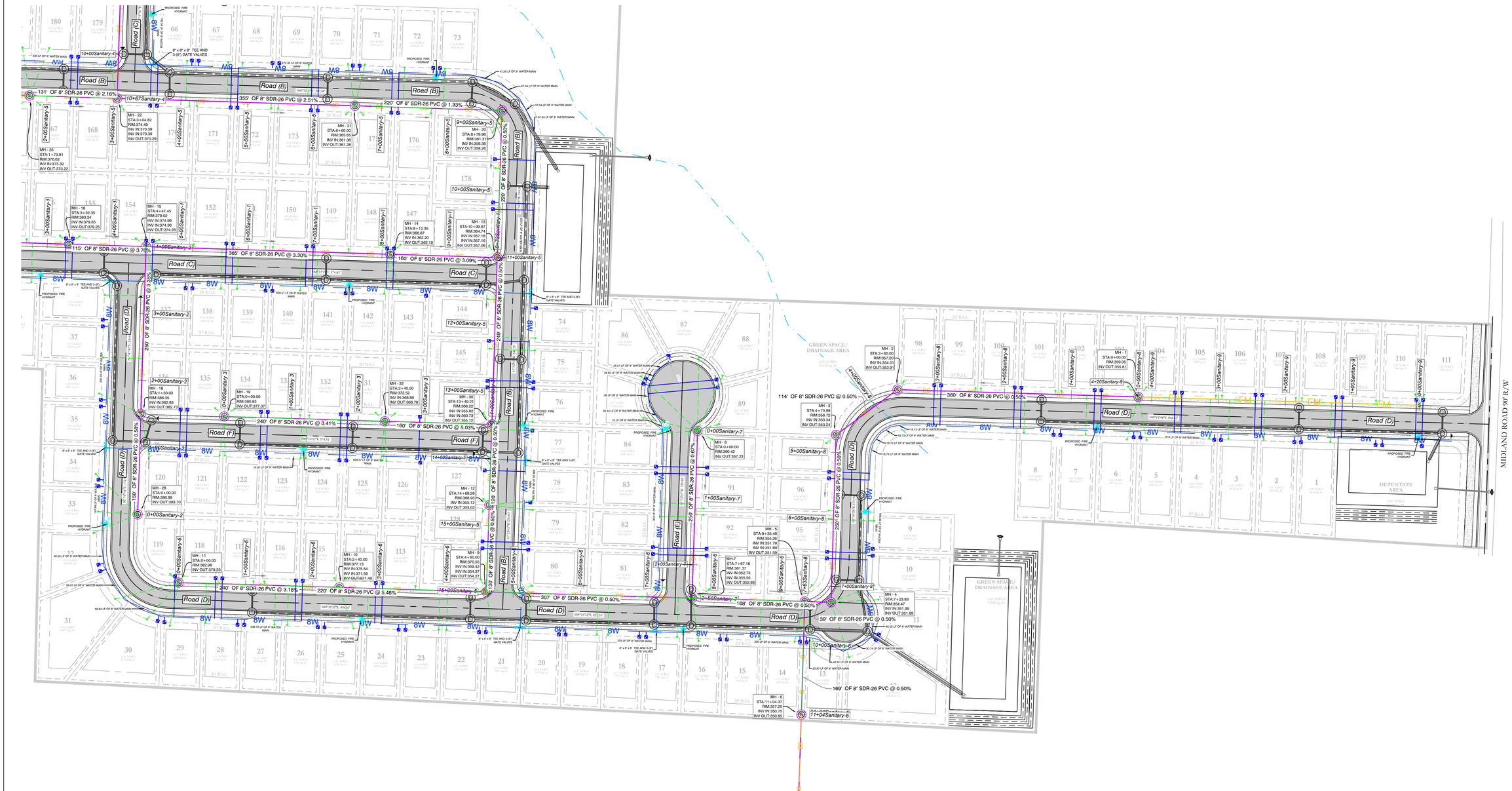
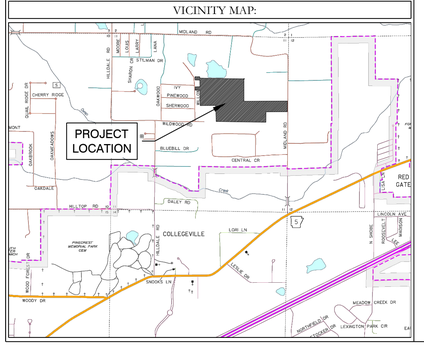
FOR USE AND BENEFIT OF:
HAVEN'S DEVELOPMENT, LLC

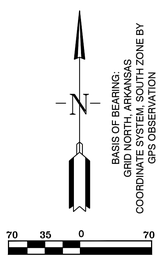
UTILITY PLAN
MIDLAND ROAD
IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

DATE:	3/17/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	23-0024
SHEET:	C-3.0	SCALE:	1" = 70'
500		0	



VICINITY MAP:





WATER & SEWER UTILITY NOTES:

1. ALL NEW 8-INCH WATER MAINS TO BE CLASS 900.
2. ALL WATER MAINS LARGER THAN 8" DIAMETER SHALL BE DUCTILE IRON (250 PSI PRESSURE CLASS).
3. ALL WATER AND SEWER INSTALLATION TO BE IN ACCORDANCE WITH THE CITY OF BRYANT "STANDARD SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF WATER LINES AND SEWER LINES, 2015 EDITION.
4. WATER LINES UNDER CULVERTS, CREEKS, CONCRETE CHANNELS, RETAINING WALLS, OR OTHER DIFFICULT AND /OR DANGEROUS TO MAINTAIN AREAS SHALL BE ENCASED IN A SMOOTH STEEL ENCASEMENT PIPE. THE STEEL ENCASEMENT SHALL EXTEND FIVE FEET EITHER SIDE OF THE AREA.
5. EACH WATER SERVICE METER MUST HAVE ITS OWN SERVICE LINE CONNECTION TO THE MAIN (INCLUDES DOUBLE METERS DISPLAYED AS ONE SERVICE LINE ON THE PLAT.
6. WATER MAIN CONNECTION TO THE NORTH WILL BE CONSTRUCTED IN PHASE 2, CONNECTION TO THE SOUTH WILL BE IN THE FINAL PHASE.
7. CASING SPACERS: SHALL BE STAINLESS STEEL, CASCADE MODEL CCS AS MANUFACTURED BY CASCADE WATER MFG. CO., OR APPROVED EQUAL.

SEWER CONSTRUCTION NOTES:

1. ALL SEWER INSTALLATION TO BE IN ACCORDANCE WITH THE CITY OF BRYANT " STANDARD SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF WATER LINES AND SEWER LINES, 2015 EDITION"
2. ALL SEWER LINES CROSSING UNDER ALL CONCRETE STORM DRAINS OR ANY STORM DRAIN 30 INCH DIAMETER AND LARGER, OR ALL STORM DRAINS WITH MULTIPLE PIPE RUNS, SHALL BE STEEL ENCASED A MINIMUM OF 5 FEET EITHER SIDE OF THE STORM DRAIN.
3. CASING SPACERS: SHALL BE STAINLESS STEEL, CASCADE MODEL CCS AS MANUFACTURED BY CASCADE WATER MFG. CO., OR APPROVED EQUAL.

HDPE
RCP

SEWER LEGEND:	
SEWER SERVICE	
SEWER MAIN	S SEWER MANHOLE

NOTE:
USE SDR-26 PVC SEWER PIPE EXCEPT WHERE DUCTILE IRON PIPE REQUIRED FOR COVER. USE DUCTILE IRON PIPE WHERE 3' MINIMUM COVE CANNOT BE MAINTAINED.

CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL BURIED UTILITIES PRIOR TO CONSTRUCTION.

WATER LEGEND:	
	DUAL WATER METERS
	SINGLE WATER METER
	GATE VALVE
	45º FITTING
	90º FITTING
	TEE FITTING
	CROSS FITTING
FH	FIRE HYDRANT

MIDLAND ROAD SUBDIVISION
UTILITY PLAN

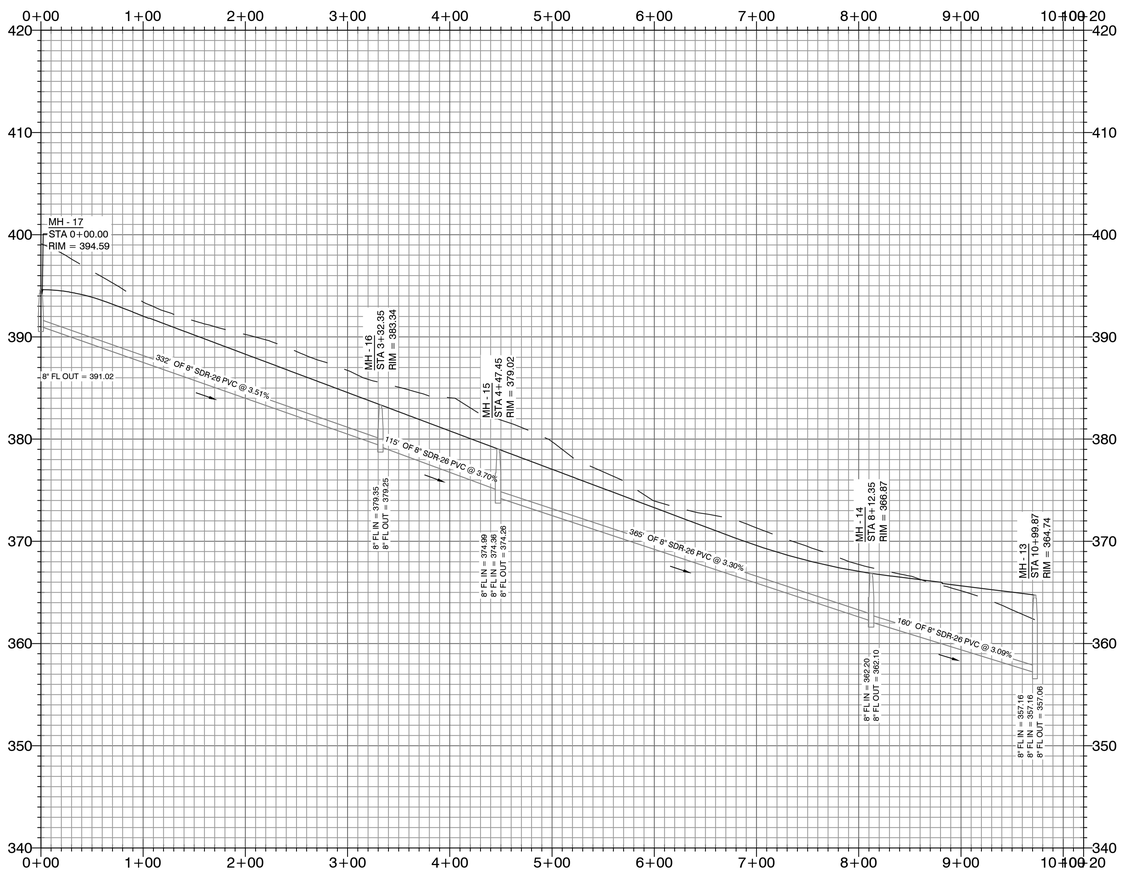
HOPE CONSULTING
ENGINEERS - SURVEYORS
117 S. Market Street,
Benton, Arkansas 72015
PH. (501)315-2626
FAX (501) 315-0024
www.hopeconsulting.com

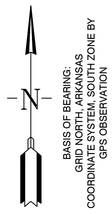
FOR USE AND BENEFIT OF:
HAVEN'S DEVELOPMENT, LLC

UTILITY PLAN
MIDLAND ROAD
IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

DATE:	3/17/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	23-0024
SHEET:	C-3.1	SCALE: 1" = 70'	

Sanitary-1 PROFILE





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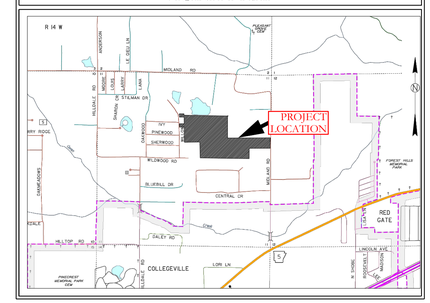
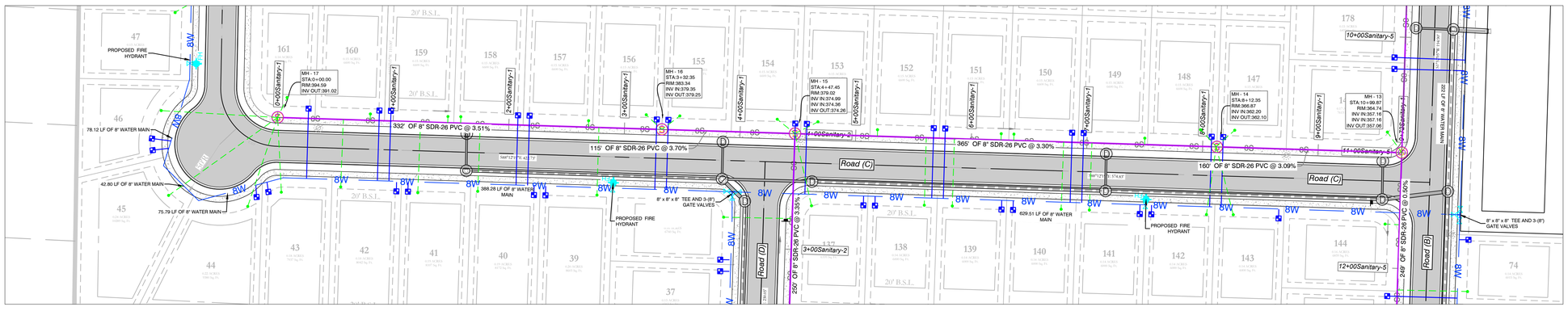
HDPE

RCP

VICINITY MAP:



SEWER LEGEND:	WATER LEGEND:
SEWER SERVICE, SEWER MAIN, SEWER MANHOLE	DUAL WATER METERS
NOTE: USE SDR-26 PVC SEWER PIPE EXCEPT WHERE DUCTILE IRON PIPE REQUIRED FOR COVER. USE DUCTILE IRON PIPE WHERE 3' MINIMUM COVE CANNOT BE MAINTAINED.	SINGLE WATER METER
CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL BURIED UTILITIES PRIOR TO CONSTRUCTION.	GATE VALVE
	45º FITTING
	90º FITTING
	TEE FITTING
	CROSS FITTING
	FIRE HYDRANT



MIDLAND ROAD SUBDIVISION
SEWER PLAN & PROFILES

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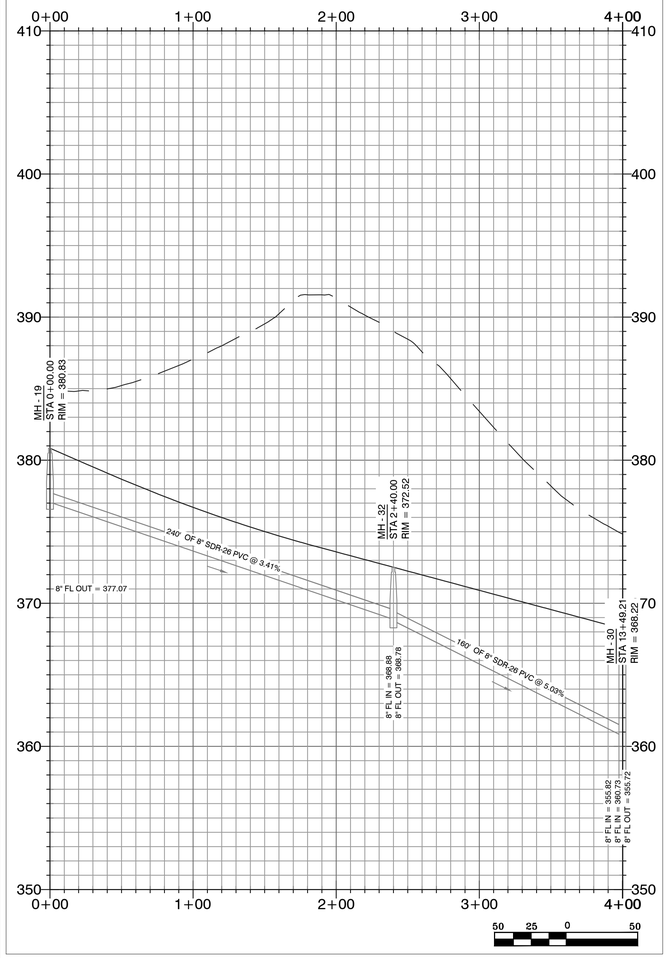
HAVEN'S DEVELOPMENT, LLC

MIDLAND ROAD
SEWER PROFILES
BRYANT, SALINE COUNTY, ARKANSAS

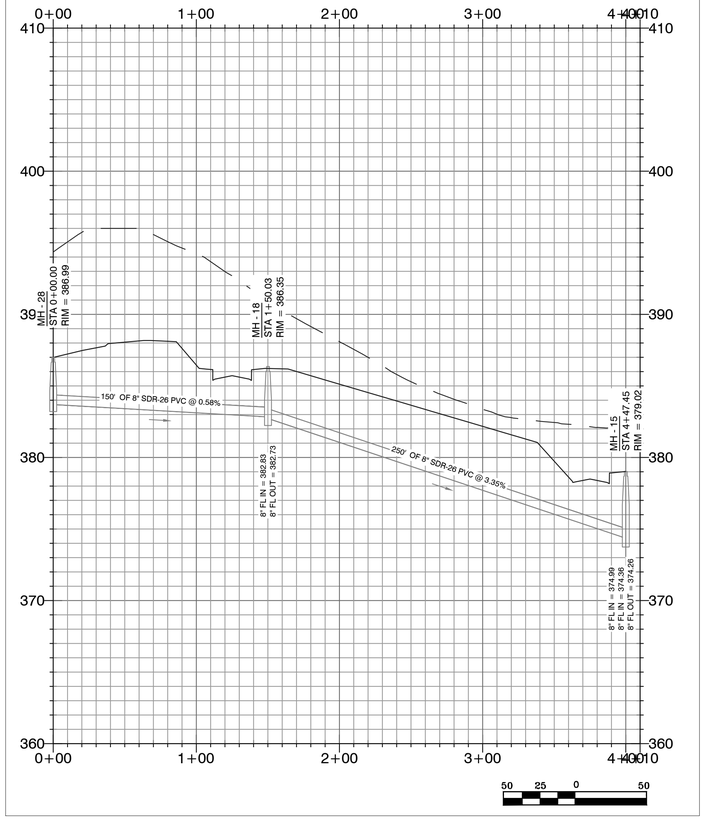
DATE:	3/17/2023	C.A.D. BY:		DRAWING NUMBER:			
REVISED:		CHECKED BY:		23-0024			
SHEET:	C-3.2	SCALE:					
500	1S	15W	0	34	230	62	1807

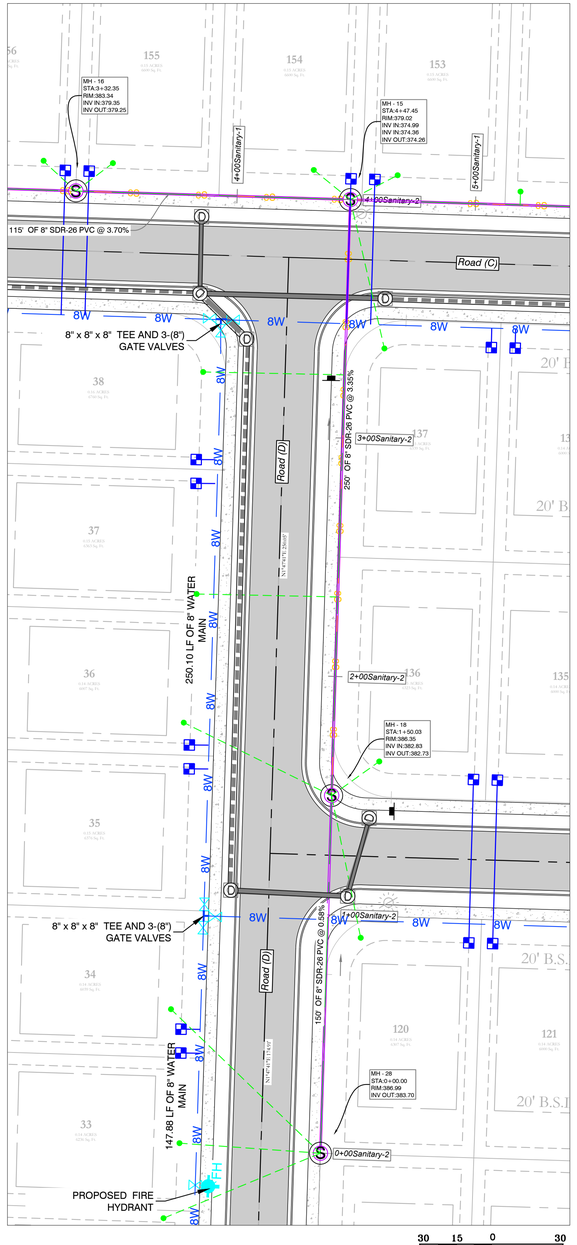
K:\LAND PROJECTS 2019\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S1 15 T1S R14W\DWG\23-0024 CONSTRUCTION PLAN (PAVE).DWG

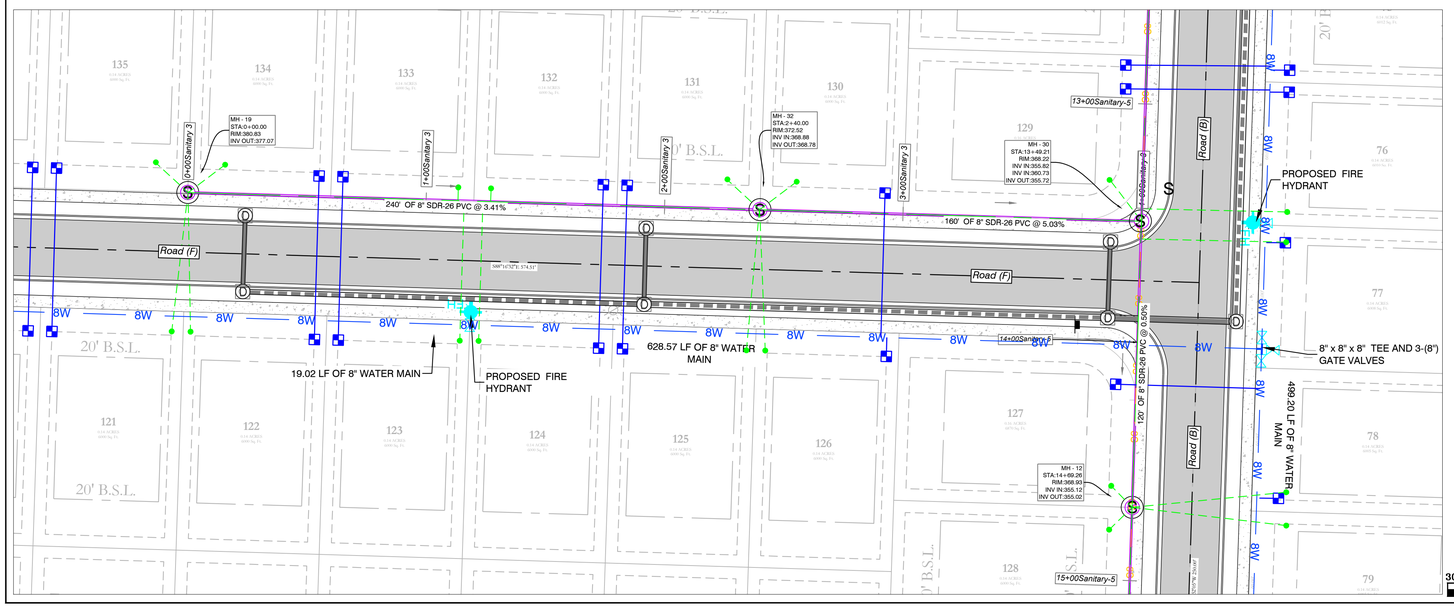
Sanitary 3 PROFILE



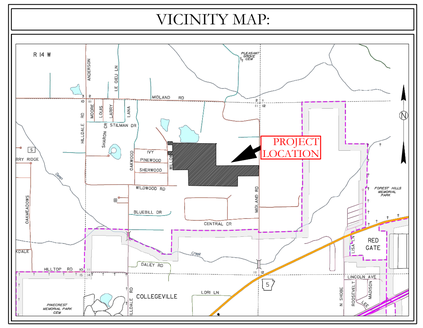
Sanitary-2 PROFILE







VICINITY MAP:



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HDPE

RCP

N

BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

SEWER LEGEND:

SEWER SERVICE
SEWER MAIN
SEWER MANHOLE

NOTE:
USE SDR-26 PVC SEWER PIPE EXCEPT WHERE DUCTILE IRON PIPE REQUIRED FOR COVER. USE DUCTILE IRON PIPE WHERE 3' MINIMUM COVE CANNOT BE MAINTAINED.

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WATER LEGEND:

- DUAL WATER METERS
- SINGLE WATER METER
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- 45º FITTING
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MIDLAND ROAD SUBDIVISION
SEWER PLAN & PROFILES

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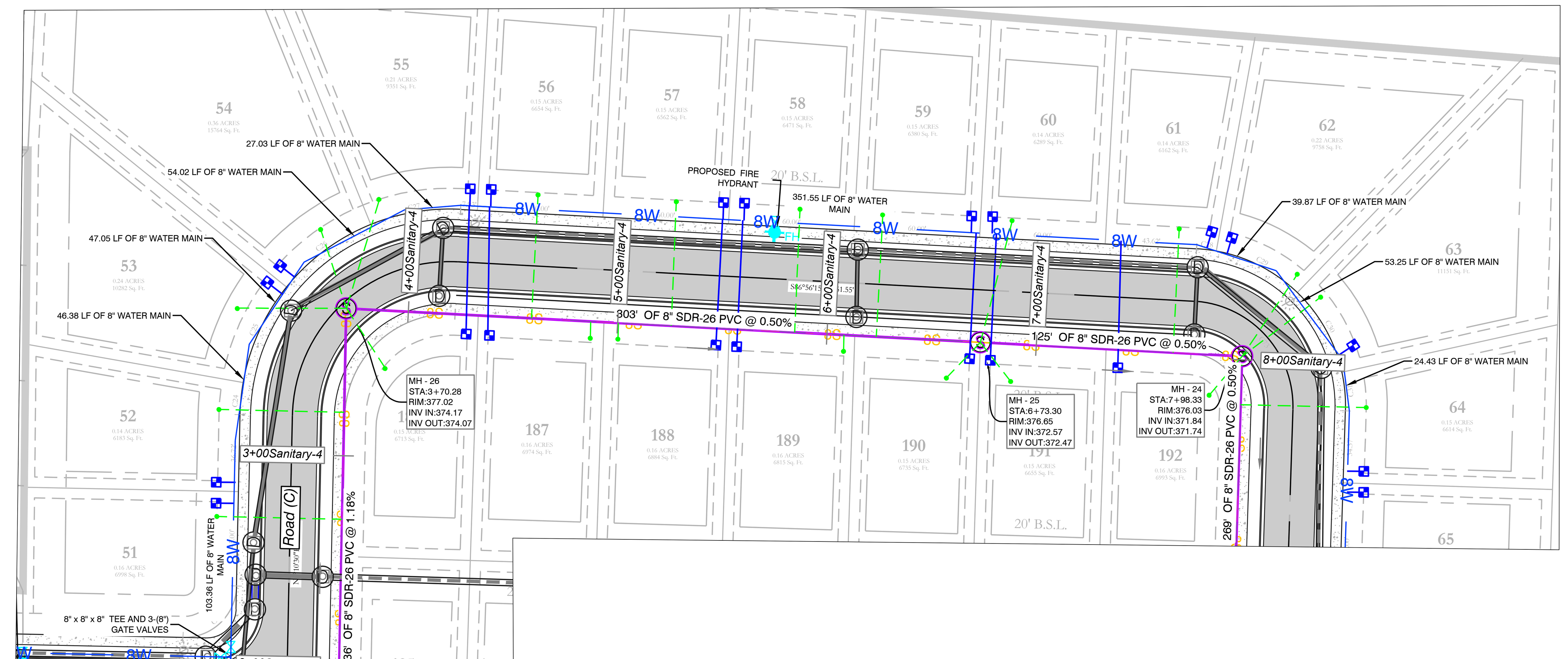
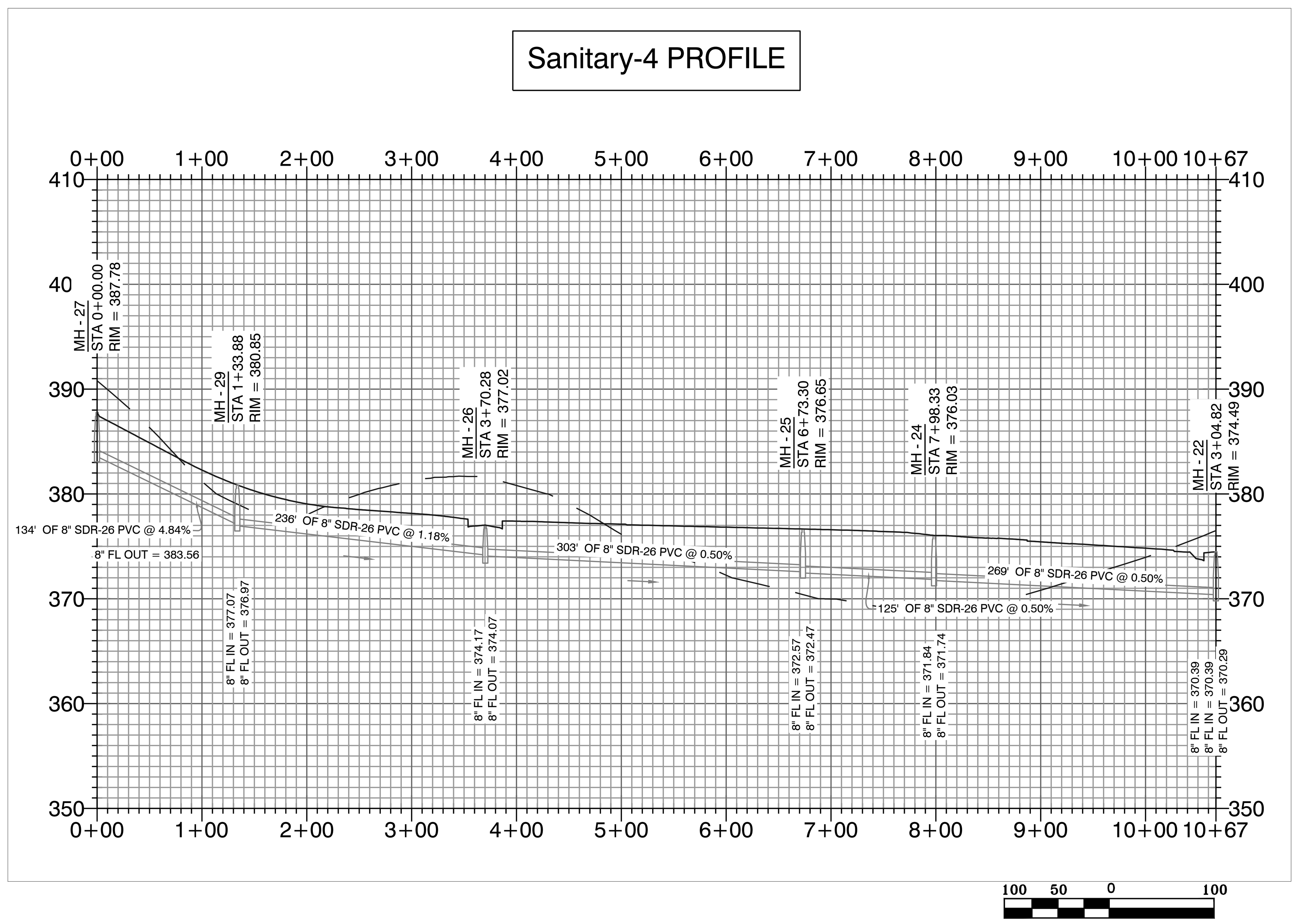
MIDLAND ROAD
SEWER PROFILES
BRYANT, SALINE COUNTY, ARKANSAS

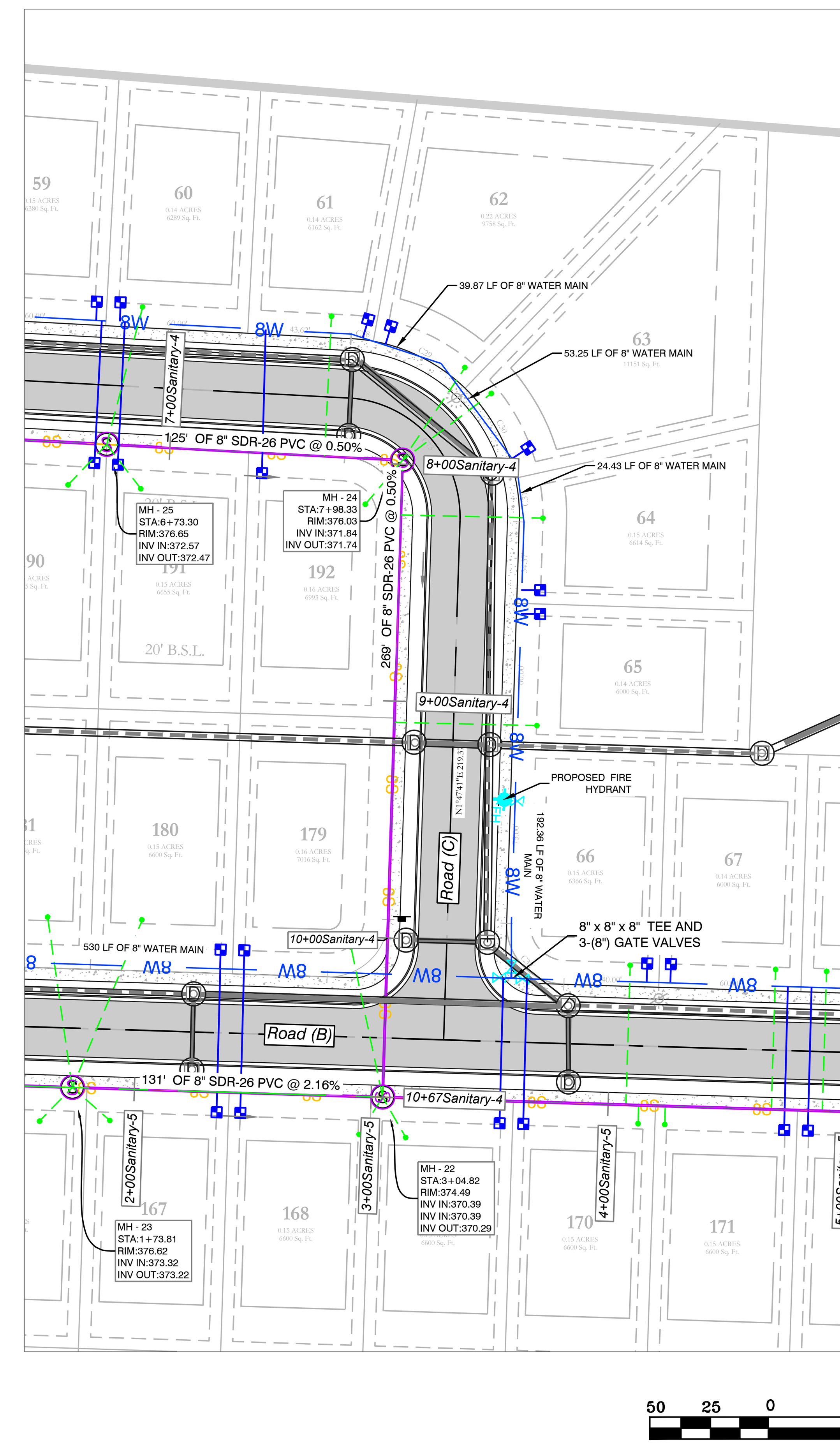
DATE:	3/17/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	23-0024
SHEET:	C-3.3	SCALE:	

500	1S	15W	0	34	230	62	1807

K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S11 T1S R14W\CIVIL\DWG\23-0024 CONSTRUCTION PLAN (FINAL).DWG







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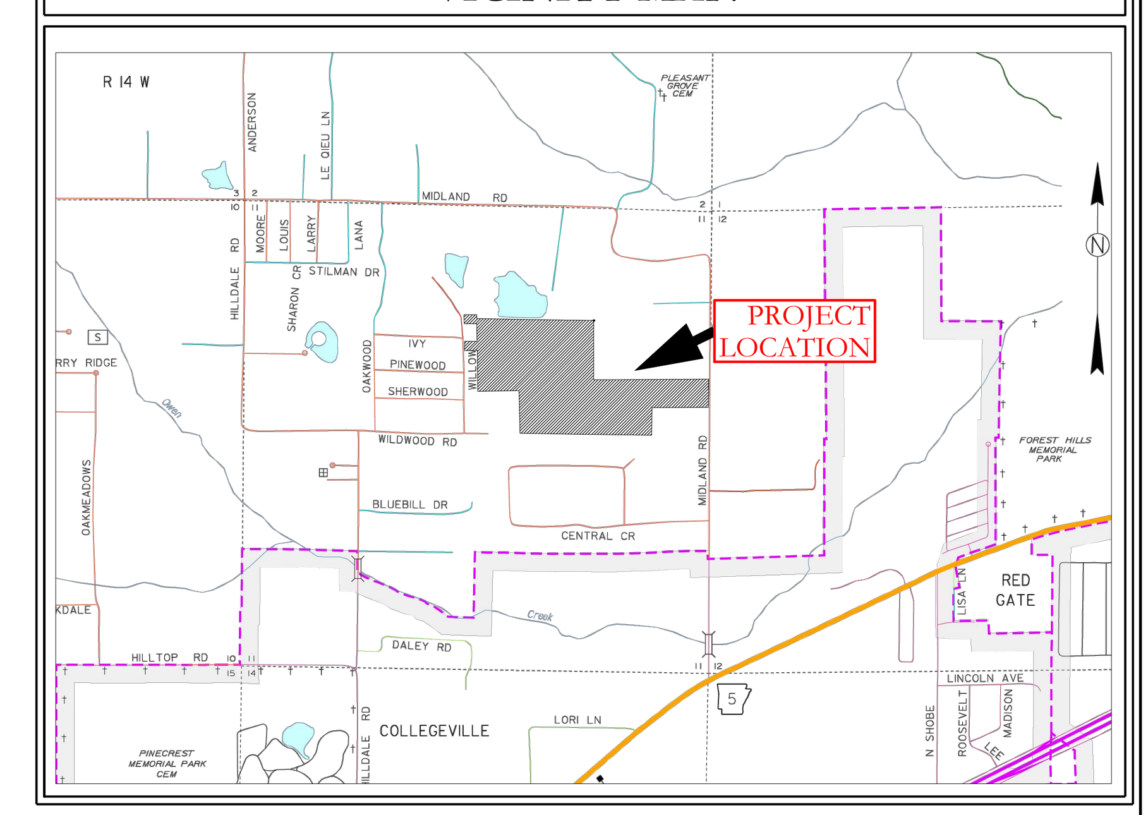
HDPE

RCP

VICINITY MAP:



MIDLAND ROAD SUBDIVISION
SEWER PLAN & PROFILES

SEWER LEGEND:

SEWER SERVICE
SEWER MAIN
SEWER MANHOLE

NOTE:
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- 45º FITTING
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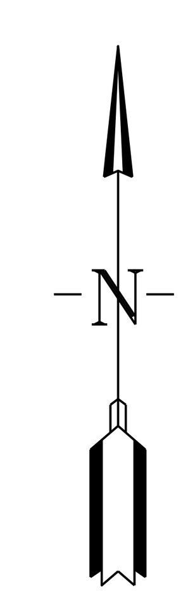

BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

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MIDLAND ROAD
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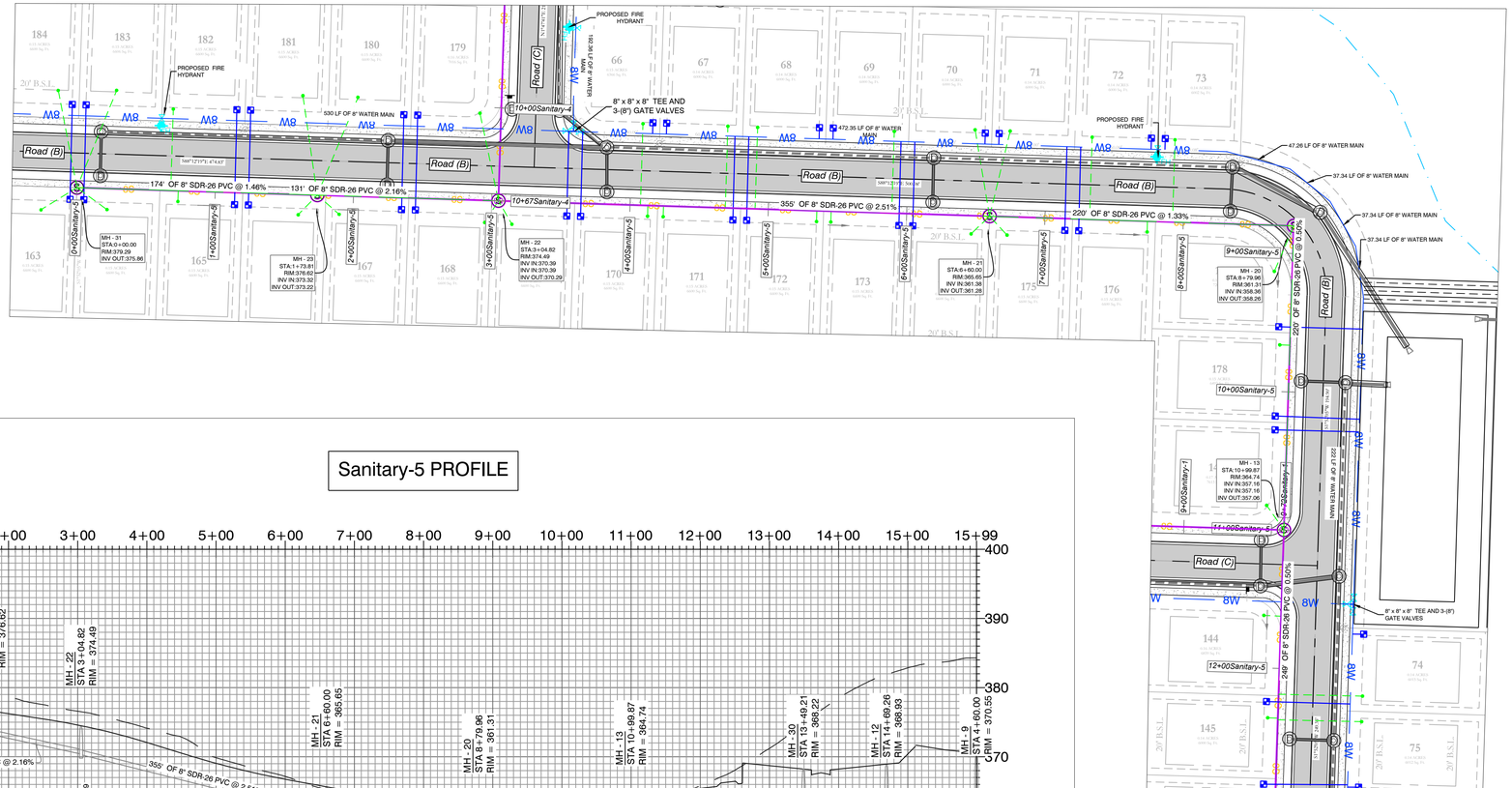
BRYANT, SALINE COUNTY, ARKANSAS

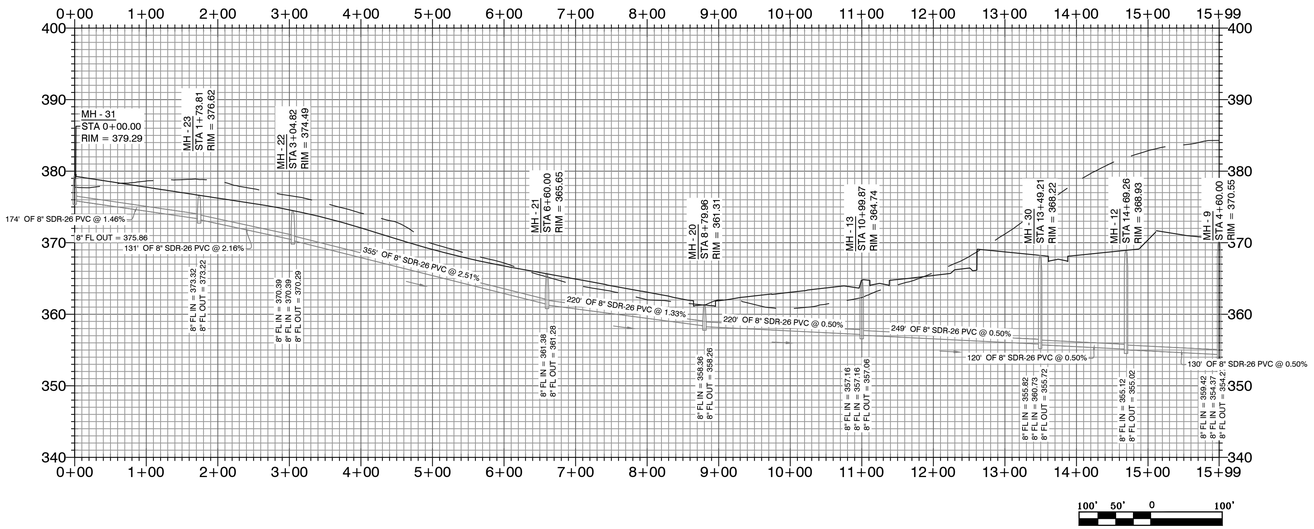
DATE: 3/17/2023	C.A.D. BY:	DRAWING NUMBER: 23-0024	
REVISED:	CHECKED BY:		
SHEET: C-3.4	SCALE:		

500	1S	15W	0	34	230	62	1807

K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S11 T1S R14W\CIVIL\DWG\23-0024 CONSTRUCTION PLAN (FINAL DRAFT).DWG



Sanitary-5 PROFILE



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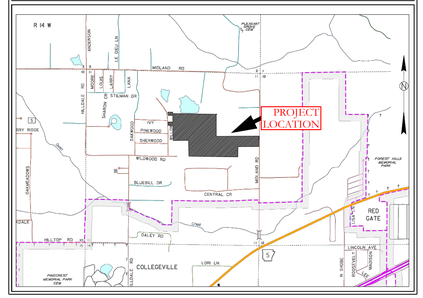
N

BASIS OF BEARING: GRID NORTH, ARKANSAS S. COORDINATE SYSTEM, SOUTH ZONE BY GPS OBSERVATION

HDPE

RCP

VICINITY MAP:



MIDLAND ROAD SUBDIVISION
SEWER PLAN & PROFILES

SEWER LEGEND:	WATER LEGEND:
SEWER SERVICE	DUAL WATER METERS
SEWER MAIN — SEWER MANHOLE	SINGLE WATER METER
NOTE: USE SDR-26 PVC SEWER PIPE EXCEPT WHERE DUCTILE IRON PIPE REQUIRED FOR COVER. USE DUCTILE IRON PIPE WHERE 3' MINIMUM COVE CANNOT BE MAINTAINED.	GATE VALVE
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DATE:	3/17/2023	C.A.D. BY:	DRAWING NUMBER:
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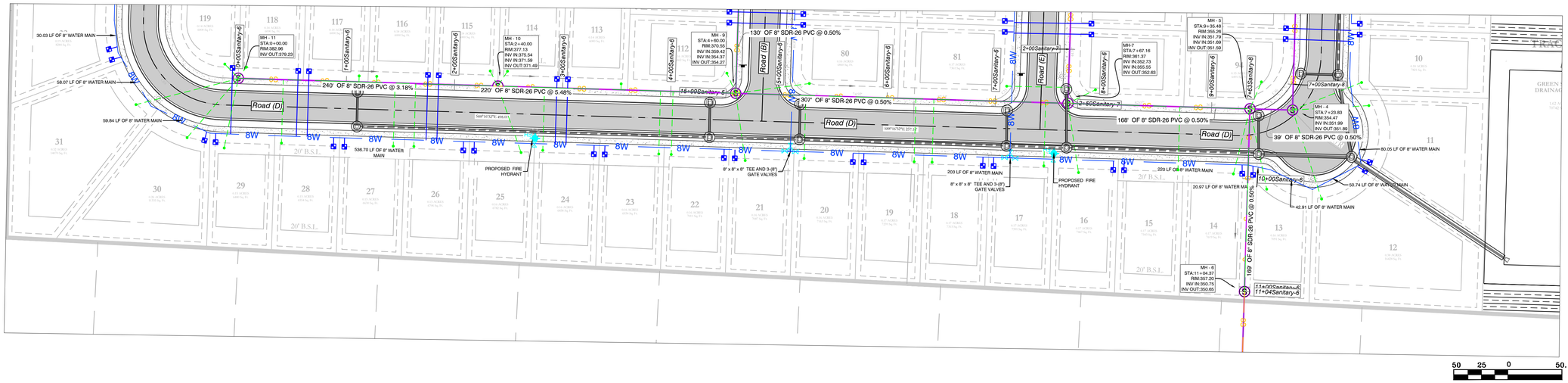
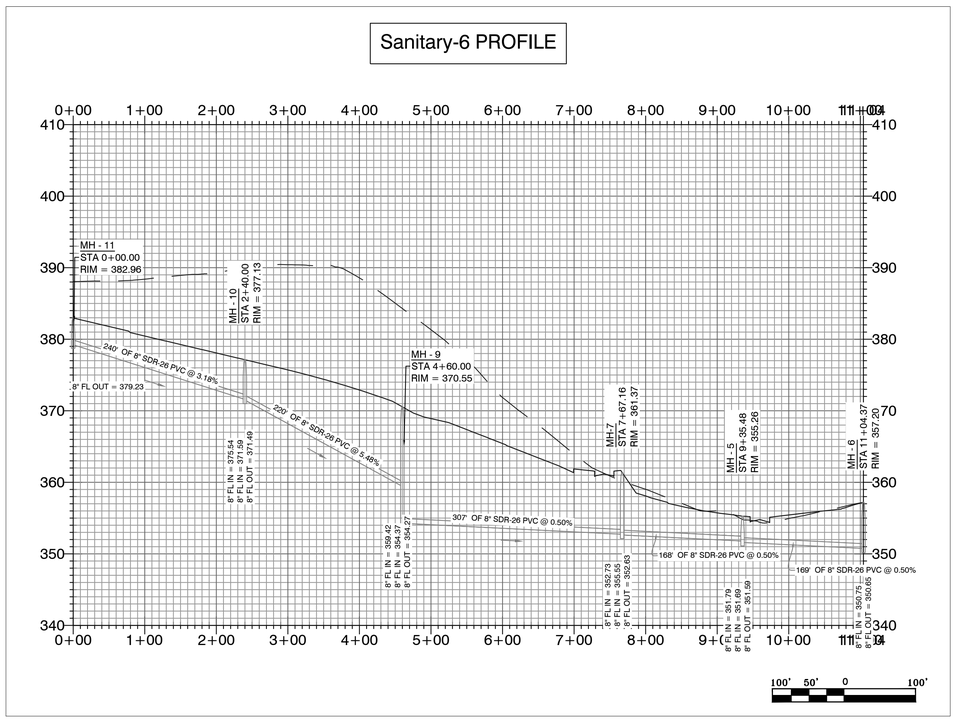
SHEET:	C-3.5	SCALE:	

500	1S	15W	0	34	230	62	1807

K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S11 T1S R14W\CIVIL\DWG\C25-0024 CONSTRUCTION PLAN (FINAL).DWG





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HDPE

RCP

SEWER LEGEND:

SEWER SERVICE

SEWER MAIN — S — SEWER MANHOLE

NOTE:
USE SDR-26 PVC SEWER PIPE EXCEPT WHERE DUCTILE IRON PIPE REQUIRED FOR COVER. USE DUCTILE IRON PIPE WHERE 3' MINIMUM COVE CANNOT BE MAINTAINED.

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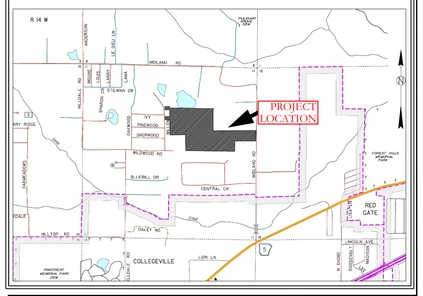
WATER LEGEND:

- DUAL WATER METERS
- SINGLE WATER METER
- GATE VALVE
- 45º FITTING
- 90º FITTING
- TEE FITTING
- CROSS FITTING
- FH — FIRE HYDRANT

BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

MIDLAND ROAD SUBDIVISION
SEWER PLAN & PROFILES

VICINITY MAP:



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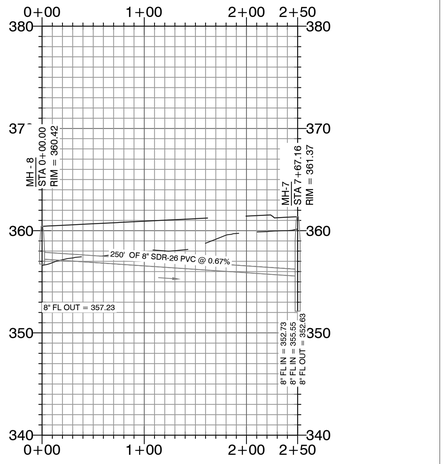
MIDLAND ROAD
SEWER PROFILES
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	3/17/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	23-0024
SHEET:	C-3.6	SCALE:	

500	1S	15W	0	34	230	62	1807

K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S1T 1S R14W C\CIVIL\DWG\23-0024 CONSTRUCTION PLAN (FINAL DRAFT).DWG

Sanitary-7 PROFILE



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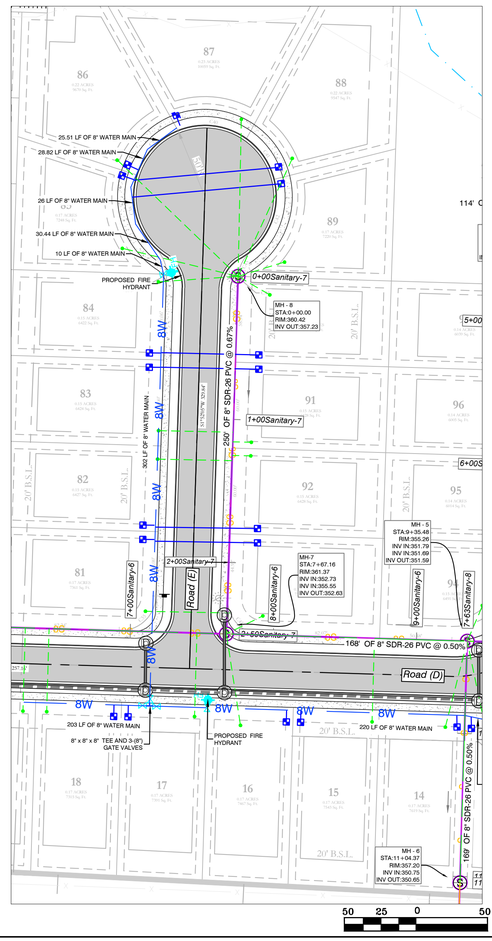

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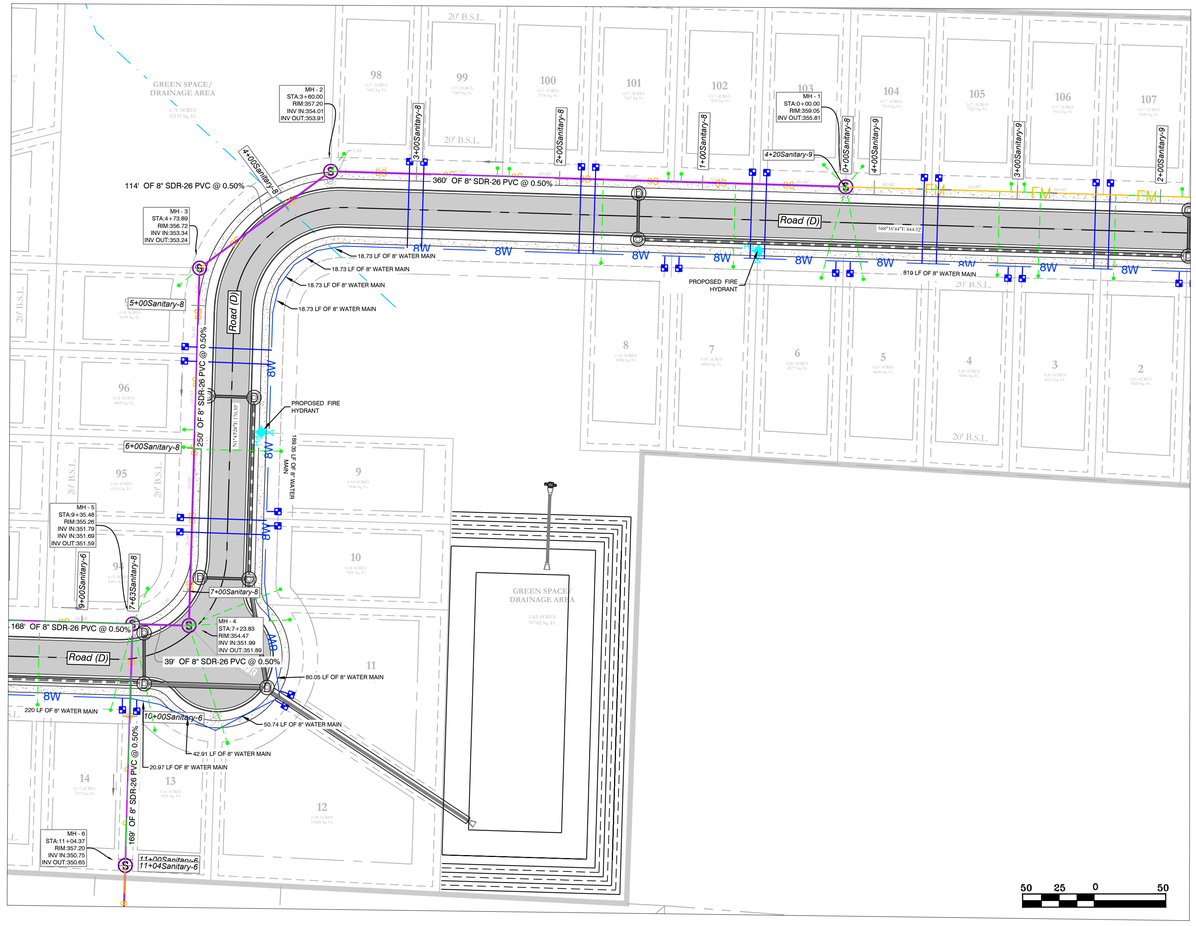
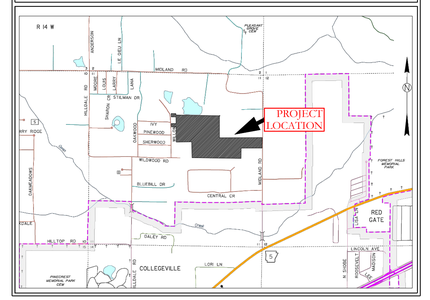
BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION



50 25 0 50

VICINITY MAP:



WATER & SEWER UTILITY NOTES:

1. ALL NEW 8-INCH WATER MAINS TO BE CLASS 900.
2. ALL WATER MAINS LARGER THAN 8" DIAMETER SHALL BE DUCTILE IRON (250 PSI PRESSURE CLASS).
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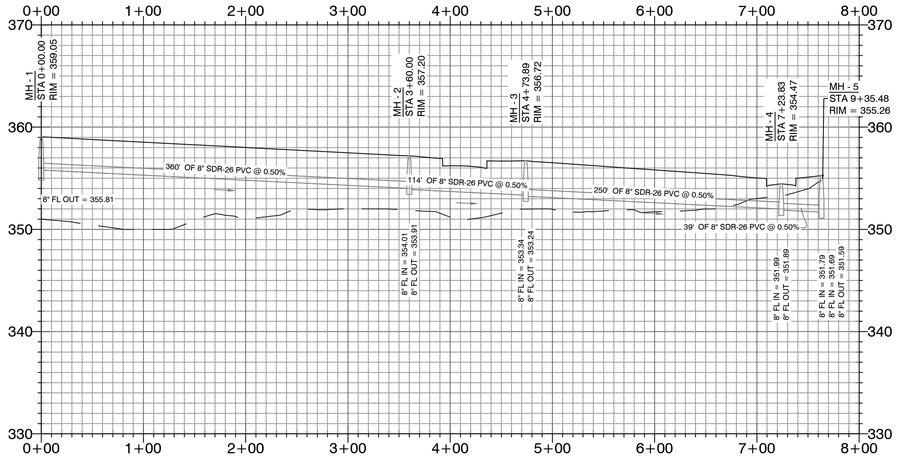
HDPE

RCP

Sanitary-8 PROFILE



70 35 0 70

MIDLAND ROAD SUBDIVISION
SEWER PLAN & PROFILES

SEWER LEGEND:	WATER LEGEND:
SEWER SERVICE; SEWER MAIN; SEWER MANHOLE	DUAL WATER METERS
NOTE: USE SDR-26 PVC SEWER PIPE EXCEPT WHERE DUCTILE IRON PIPE REQUIRED FOR COVER. USE DUCTILE IRON PIPE WHERE 3' MINIMUM COVE CANNOT BE MAINTAINED. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL BURIED UTILITIES PRIOR TO CONSTRUCTION.	SINGLE WATER METER; GATE VALVE; 45º FITTING; 90º FITTING; TEE FITTING; CROSS FITTING; FIRE HYDRANT

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SEWER PROFILES
BRYANT, SALINE COUNTY, ARKANSAS

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SHEET:	C-3.7	SCALE:	

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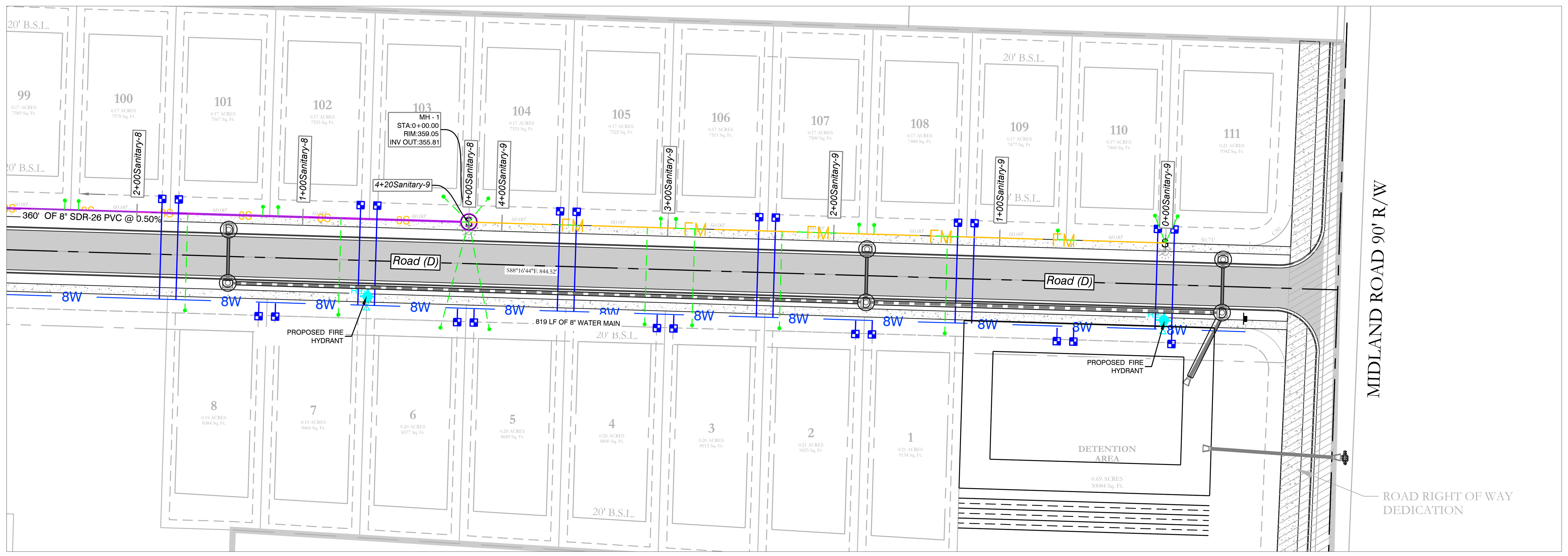
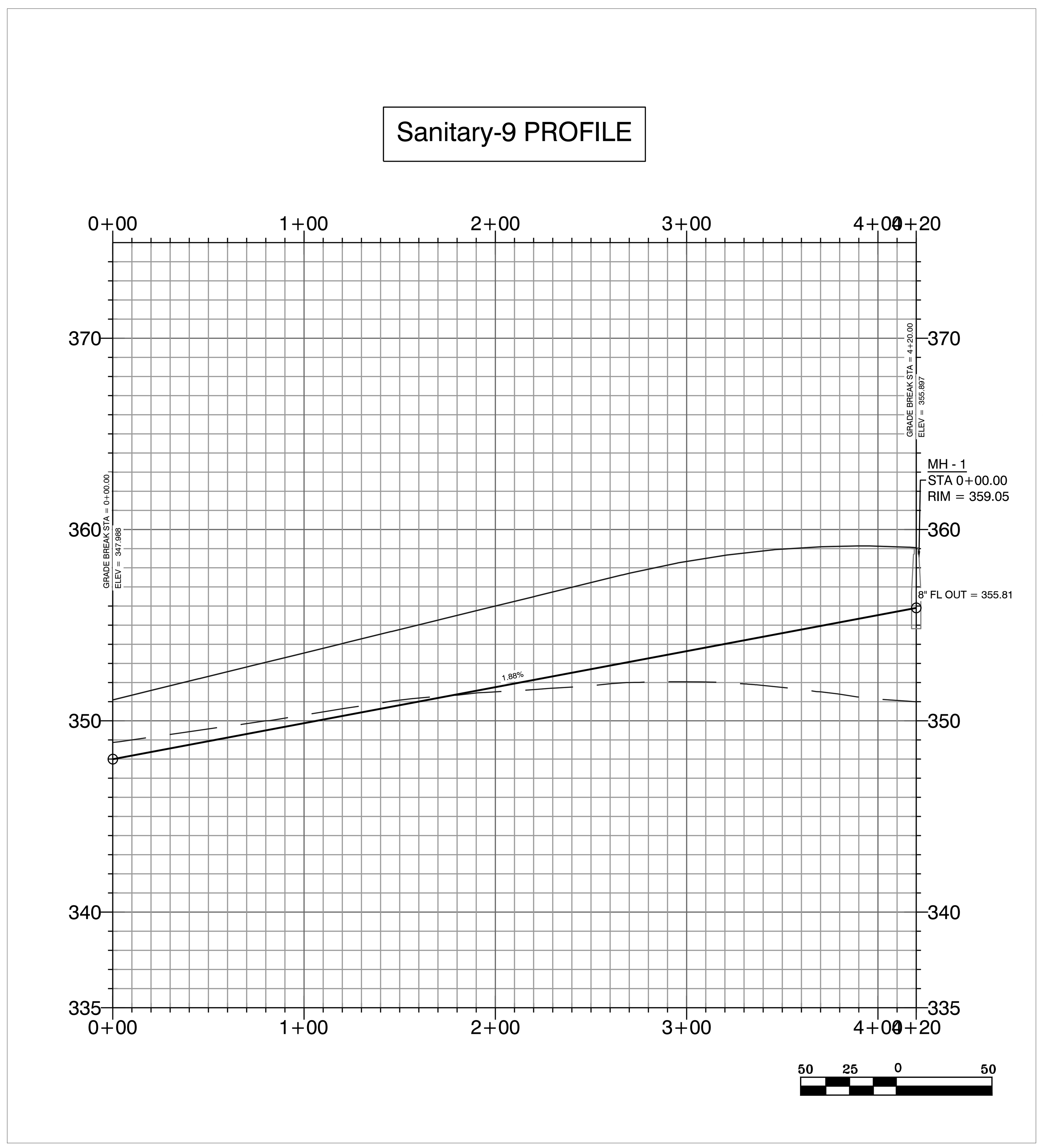
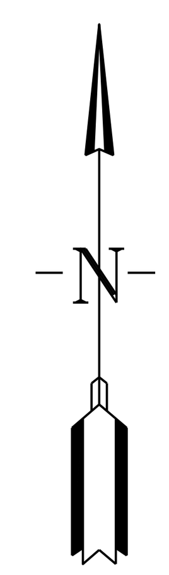
K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION 511 TIS R14W\CIVIL\DWGS\23-0024 CONSTRUCTION PLAN FINAL.DWG





Sanitary-9 Profile Note:

1. Sanitary-9 pipe network is operated by 2" SDR-21pipe force main.



BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
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HDPE
RCP

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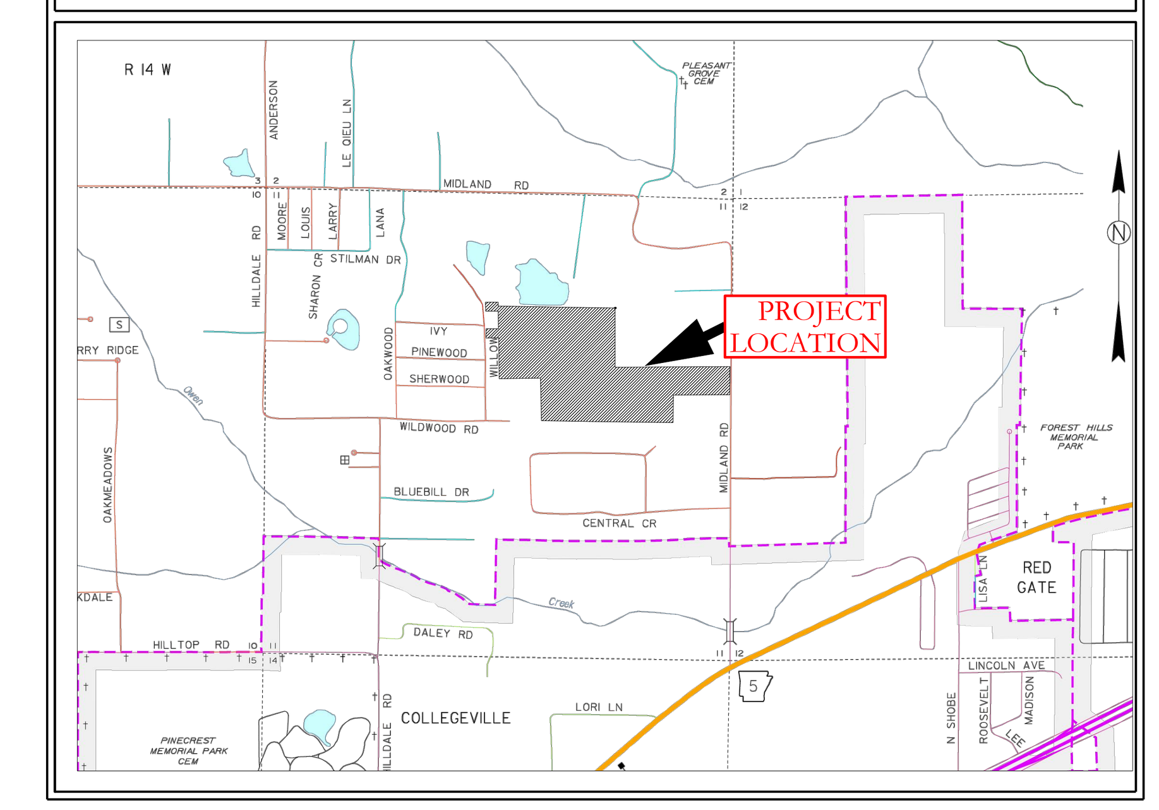

SEWER LEGEND:

SEWER SERVICE
SEWER MAIN
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MIDLAND ROAD SUBDIVISION
SEWER PLAN & PROFILES

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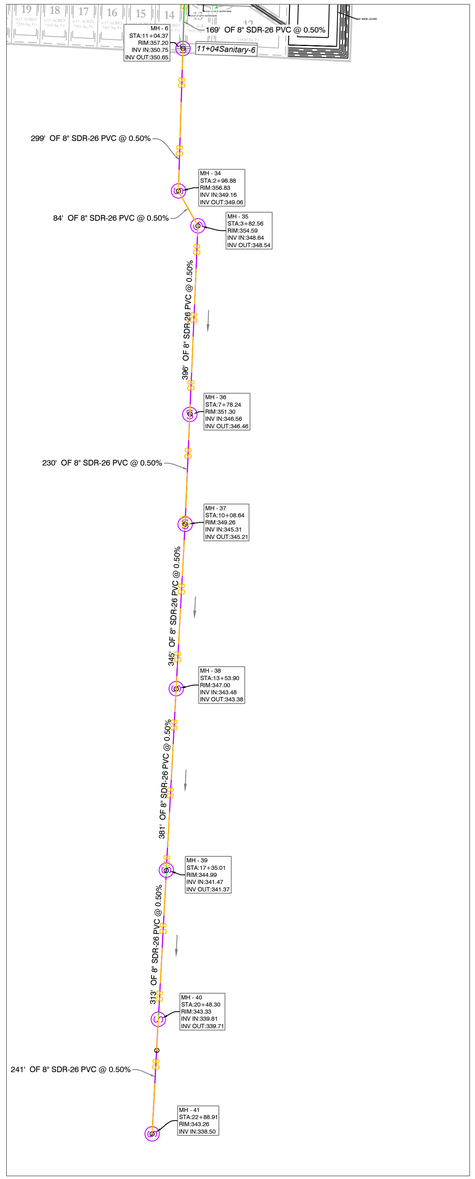
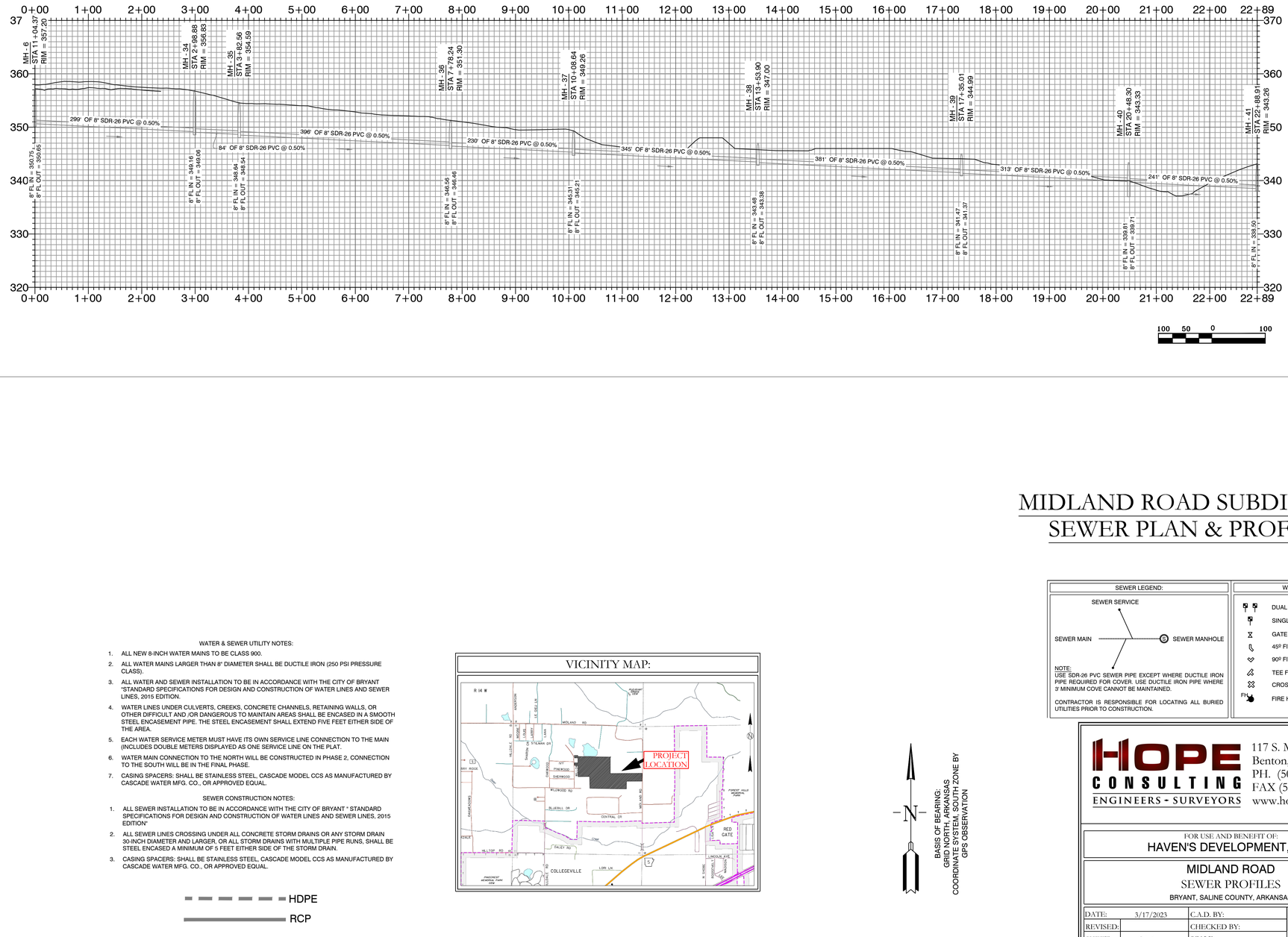
K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S11 … (FINAL DRAFT).DWG



Offsite Sanitary Sewer PROFILE



MIDLAND ROAD SUBDIVISION
SEWER PLAN & PROFILES

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HDPE

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VICINITY MAP:

BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
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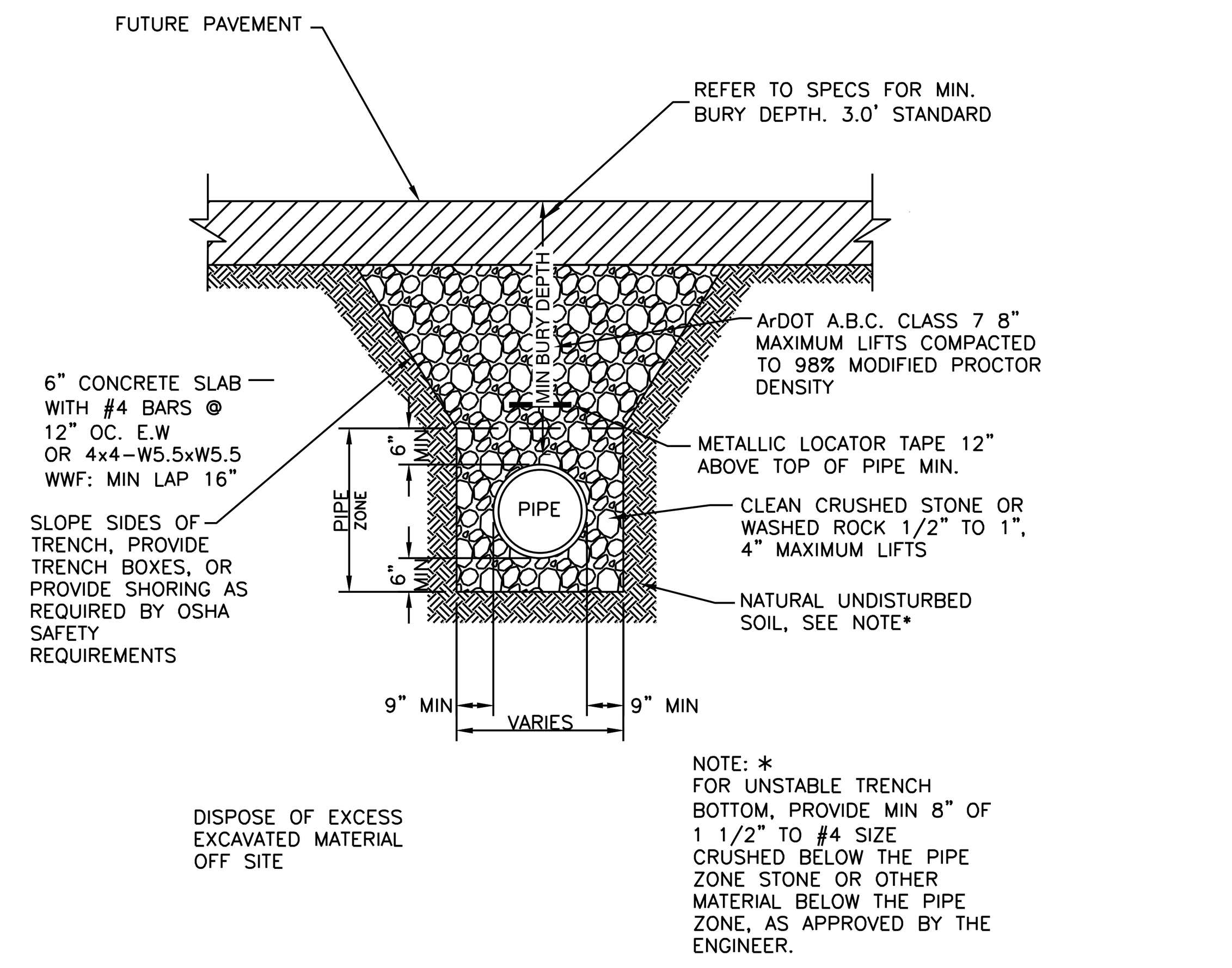
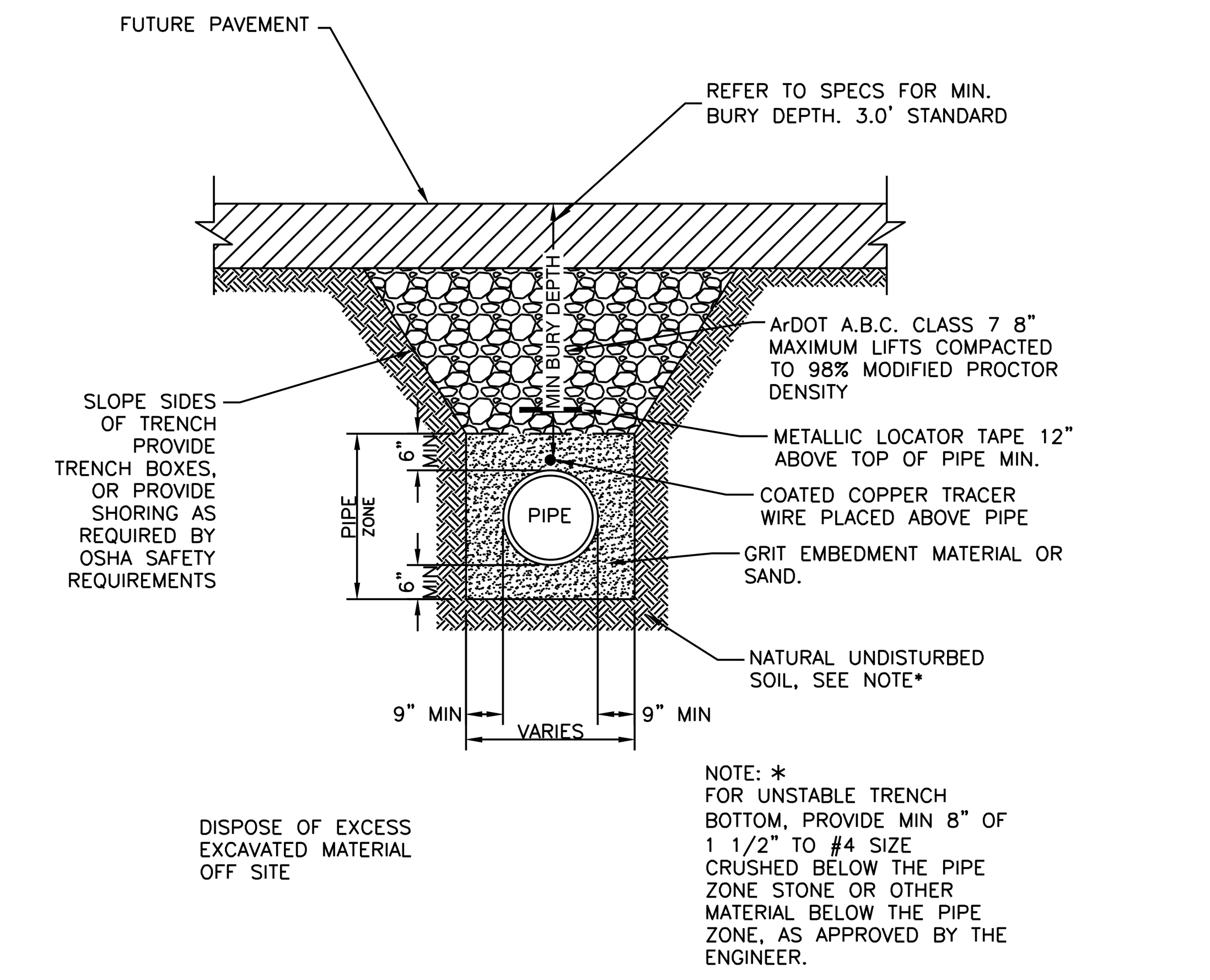
K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION SH TIS R14W\CIVIL\DWG\23-0024 CONSTRUCTION PLAN (FINAL PLAT).DWG



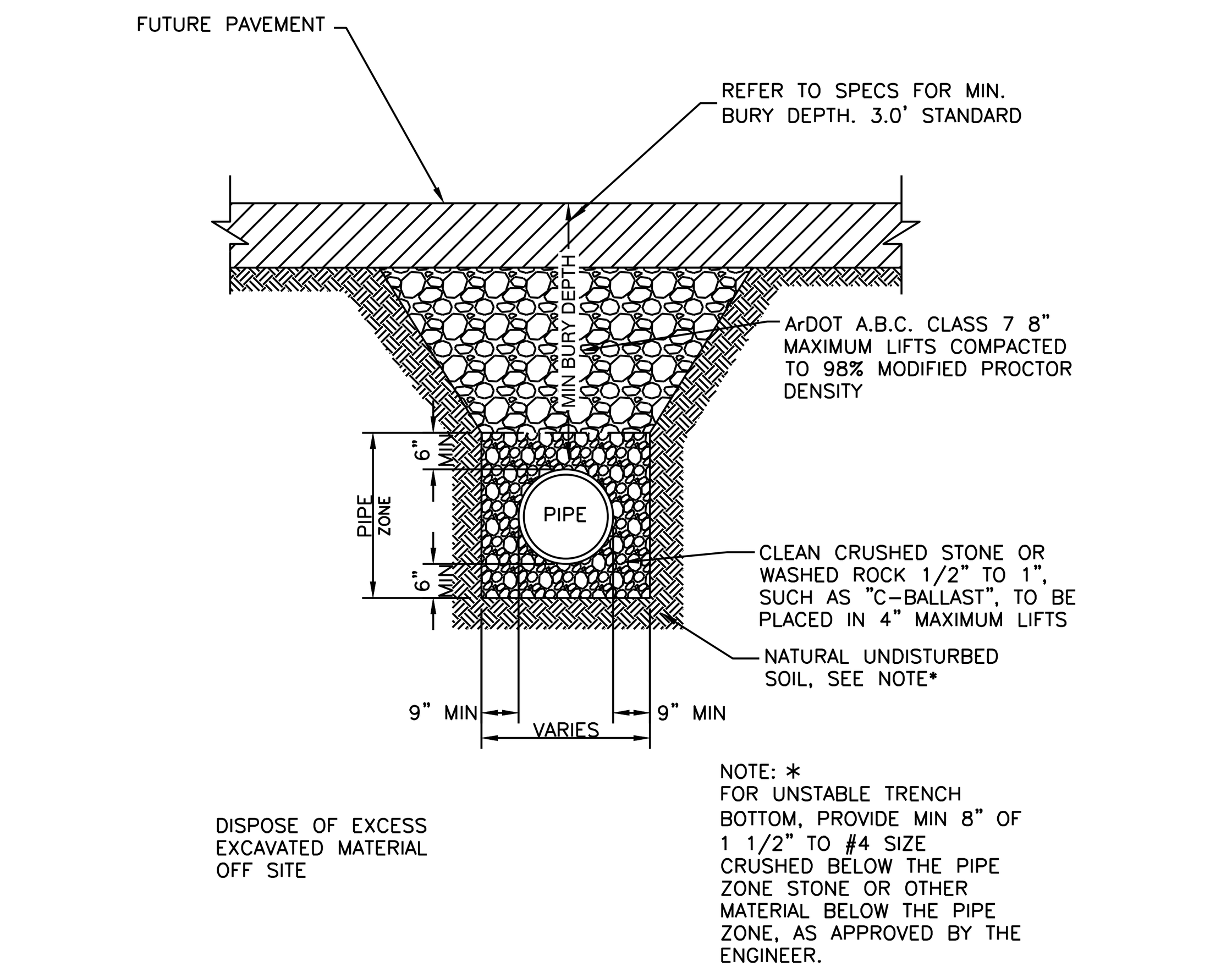
PVC SEWER TRENCH UNDER FUTURE ASPHALT STREET

N.T.S.



PVC WATER LINE TRENCH UNDER FUTURE ASPHALT STREET

N.T.S.



DRAINAGE PIPE TRENCH UNDER FUTURE ASPHALT STREET

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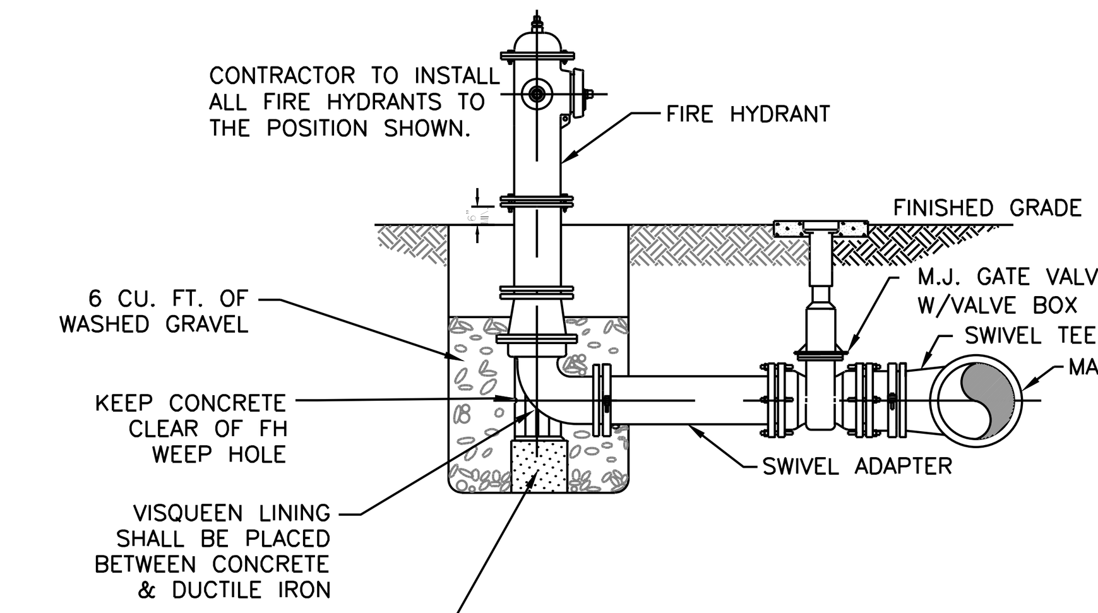

FIRE HYDRANT CONNECTION

NTS

SOIL STABILIZATION REQUIREMENTS:

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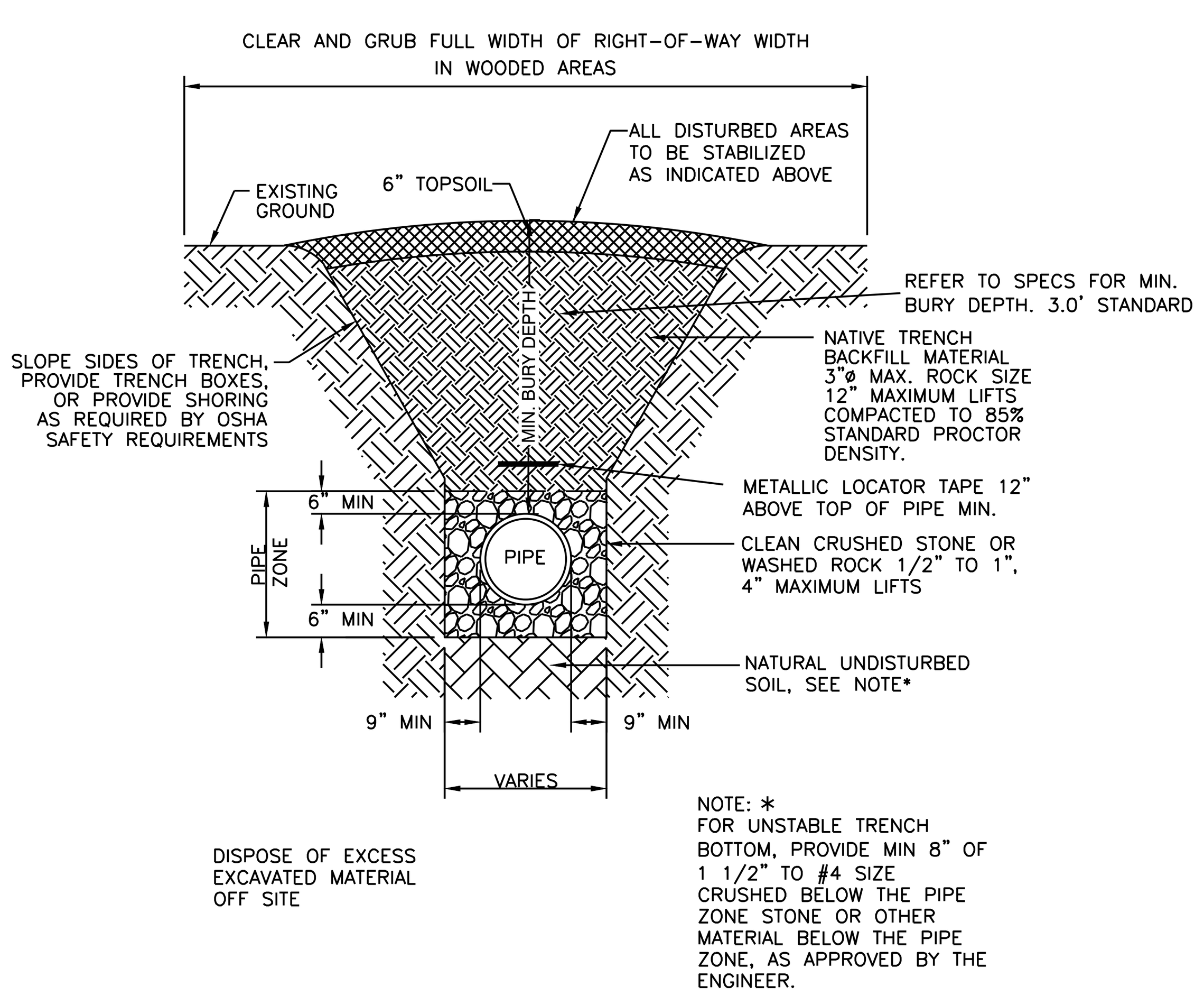

PVC SEWER TRENCH IN UNPAVED AREAS

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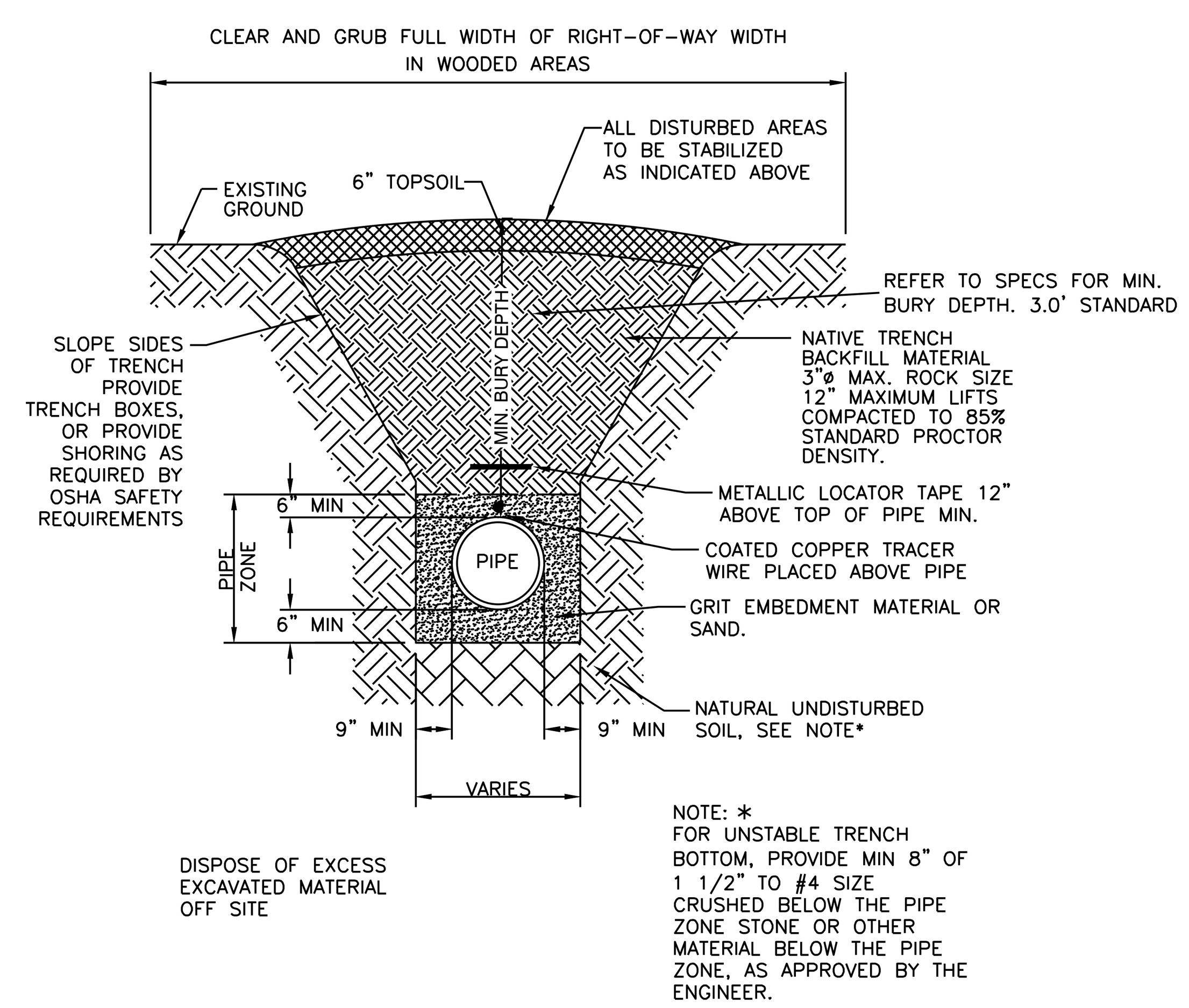

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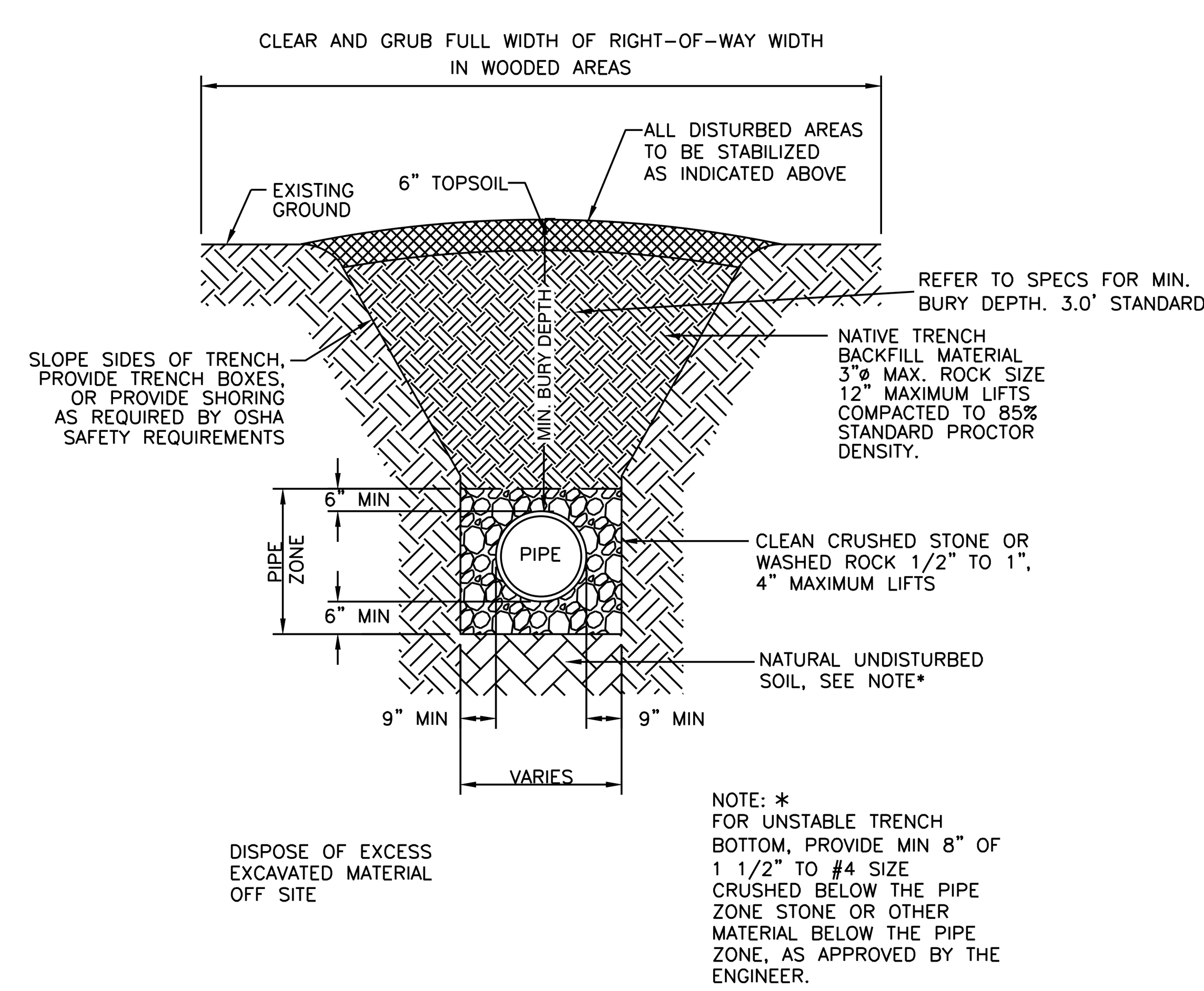
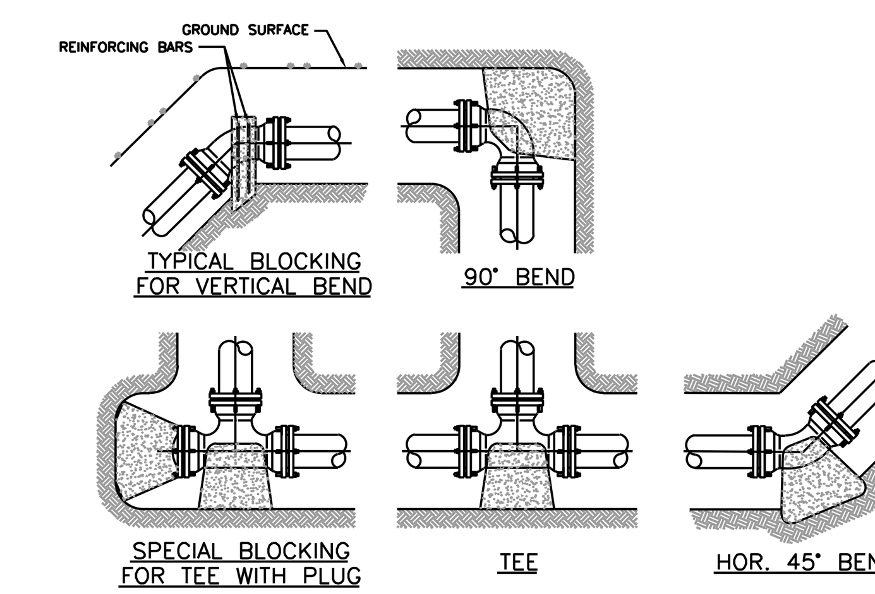


DRAINAGE PIPES IN UNPAVED AREAS

N.T.S.

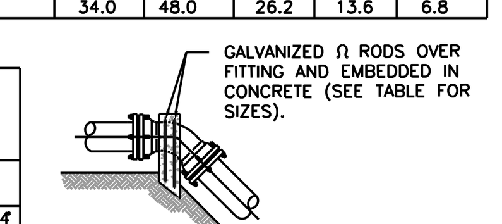


TYPICAL BLOCKING DETAILS

N.T.S.

BEARING AREA OF THRUST BLOCKS IN SQ. FT (HORIZONTAL BENDS) FOR 150 P.S.I. TEST PRESSURE							
FITTING SIZE	TEE, WYE, PLUG,OR CAP	90° BEND, PLUGGED CROSS	TEE PLUGGED ON RUN		BEND ANGLE		
			A_1	A_2	45°	22 1/2°	11 1/4°
4	1.0	1.4	1.0	1.4	1.0	–	–
6	2.1	3.0	2.1	3.0	1.6	1.0	–
8	3.8	5.3	3.8	5.4	2.9	1.5	1.0
10	5.9	8.4	5.9	8.4	4.6	2.4	1.2
12	8.5	12.0	8.5	12.0	6.6	3.4	1.7
14	11.5	16.3	11.5	16.3	8.9	4.6	2.3
16	15.0	21.3	15.0	21.3	11.6	6.0	3.0
18	19.0	27.0	19.0	27.0	14.6	7.6	3.8
20	23.5	33.3	23.5	33.3	18.1	9.4	4.7
24	34.0	48.0	34.0	48.0	26.2	13.6	6.8

VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS) FOR 150 P.S.I. TEST PRESSURE			
FITTING SIZE	BEND ANGLE		
	45°	22 1/2°	11 1/4°
4	0.4	0.2	0.1
6	0.8	0.4	0.2
8	1.4	0.7	0.4
10	2.2	1.1	0.6
12	3.2	1.6	0.8
14	4.4	2.2	1.1
16	5.7	2.9	1.5
18	7.2	3.7	1.8
20	8.9	4.5	2.3
24	12.8	6.5	3.3



FITTING SIZES	ROD SIZES	EMBEDMENT
12" AND LESS	#6'S	30"
14" – 24"	#8's	36"

VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS) FOR 150 P.S.I. TEST PRESSURE			
FITTING SIZE	BEND ANGLE		
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6	0.8	0.4	0.2
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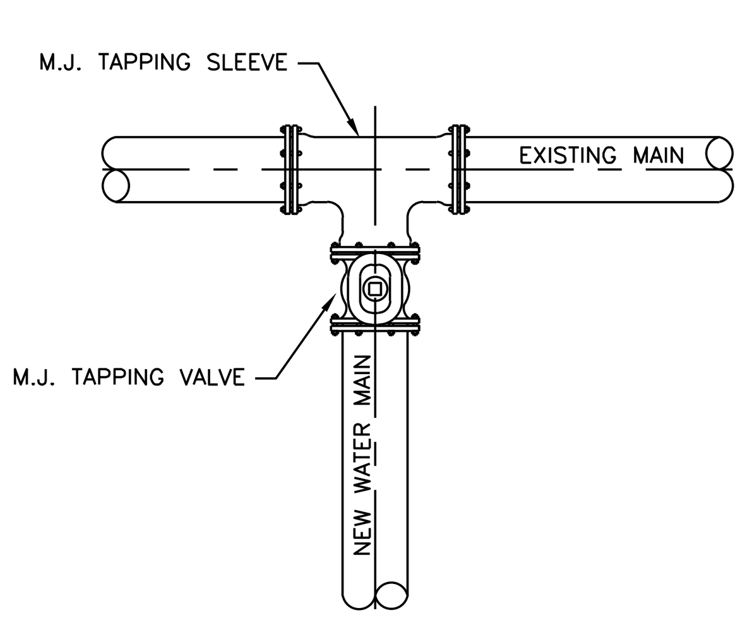
14	4.4	2.2	1.1
16	5.7	2.9	1.5
18	7.2	3.7	1.8
20	8.9	4.5	2.3
24	12.8	6.5	3.3

THRUST BLOCK NOTES:

1. KEEP CONCRETE CLEAR OF JOINT ACCESSORIES.
2. CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
3. REQUIRED VOLUMES OF BEARING AREAS AT FITTINGS SHALL BE AS INDICATED IN THE TABLES PROVIDED AND ADJUSTED, IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) STATED IN THE SPECIFICATIONS. AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIFICATIONS.
4. THRUST BLOCK VOLUMES FOR VERTICAL BENDS HAVING UPWARD RESULTANT THRUSTS ARE BASED ON TEST PRESSURE OF 150 PSIG AND THE WEIGHT OF CONCRETE (4,050 LB/CY). TO COMPUTE VOLUMES FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION: VOLUME = (TEST PRESSURE / 150) X (TABLE VALUE).
5. BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 150 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 2,000 LB/SF TO COMPUTE BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA – (TEST PRESSURE / 150) X (2,000 / SOIL BEARING STRESS) X (TABLE VALUE).
6. THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUST SHALL BE THE SAME AS FOR HORIZONTAL BENDS.
7. BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD.
8. BEARING AREA OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SF.
9. VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CY REQUIRE SPECIAL BLOCKING DETAILS. SEE PLANS.

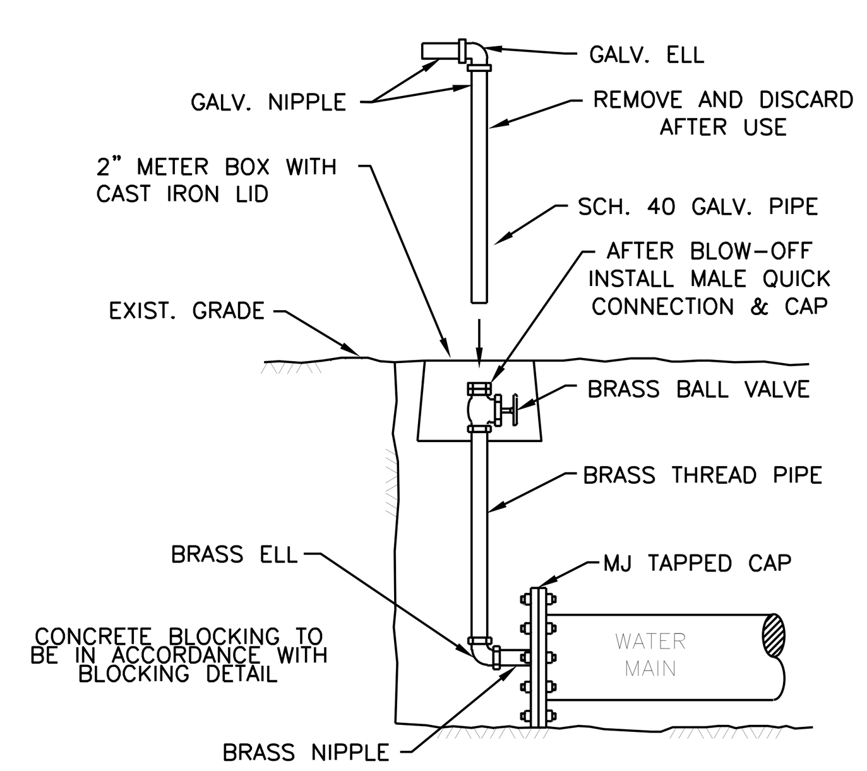
TYPICAL BLOCKING DETAILS

N.T.S.



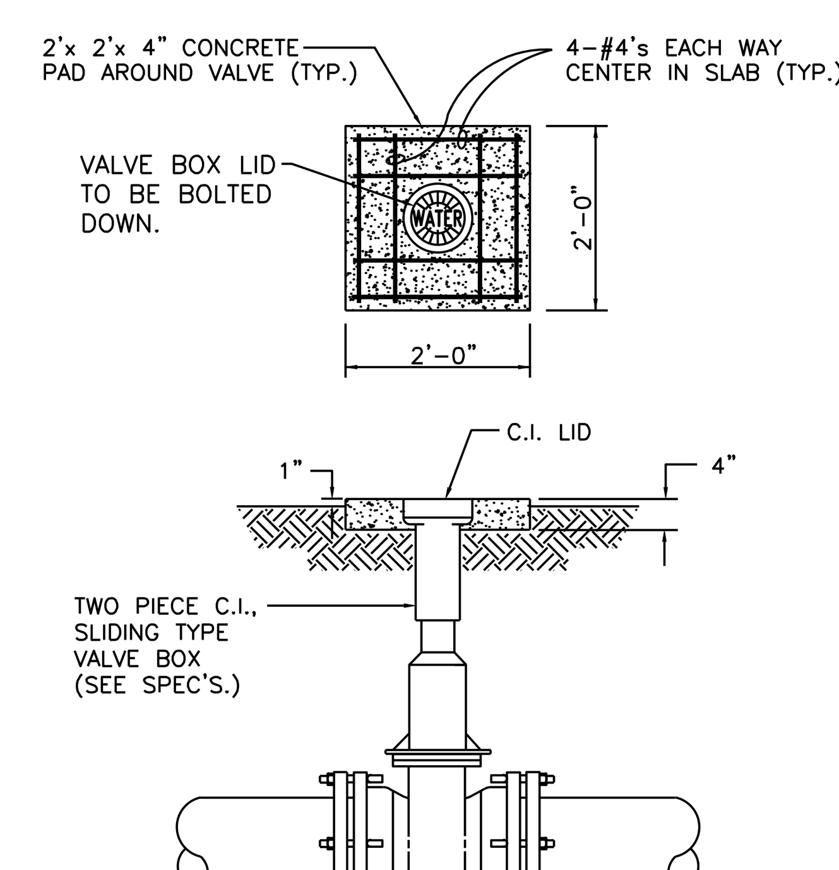
WATER MAIN CONNECTION DETAIL

N.T.S.



2" BLOW-OFF RISER

N.T.S.



DETAIL-VALVE BOX

N.T.S.

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FOR USE AND BENEFIT OF:
HAVEN'S DEVELOPMENT, LLC

MIDLAND ROAD
TRENCH DETAILS
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	3/17/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	23-0024
SHEET:	C-4.0	SCALE:	

500	1S	15W	0	34	230	62	1807

K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S11 T1S R14W\CIVIL\DWG\23-0024 CONTRUCTION PLAN (FINAL DRAFT).DWG

SUBGRADE MATERIAL

A. Subgrade soils shall be all materials used for subgrade including in-situ materials and fill materials.
B. Subrades for pavement shall be stabilized by mechanical compaction. Stabilization methods such as fabrics and chemical stabilization may be submitted for approval when supported by engineering data and calculations to substantiate the adequacy of the stabilized procedure.
C. Subgrade shall be compacted to 95 percent modified proctor density minimum. Moisture content shall be +/- 3% of optimum moisture unless otherwise supported by the site specific geotechnical data and approved by City.
D. Subgrade shall be prepared in such a manner that the base course shall be placed on a firm foundation that is stable and free from soft spots, pumping, dust pockets, wheel ruts, or other defects.
E. The top 24 inches of the subgrade shall be a material not susceptible to frost action unless modified with cement, lime or another method approved specifically by the City to resist frost action. Soils classified as A-4 and A-5 including sandy silts, fine silty sand or lean clays are highly susceptible to frost action.
F. In-situ soils meeting the requirements outlined in these specifications may be utilized as subgrade material. In-situ soils used as subgrade shall be scarified to a minimum depth of 8-inches below finish subgrade, recompacted and tested as described below. Fill material for subgrade shall be placed in lifts not to exceed 8-inches compacted depth.
G. Methods and procedures for establishing the total depth of soil replacement and/or modification shall be as specified by the design engineer and geotechnical investigations. The adequacy of in-situ soils and fill materials as pavement subgrade shall be evaluated based upon the soils classification, liquid limit, and plasticity index.
H. Soils with a liquid limit greater than 40, or a plasticity index greater than 15 shall be undercut and removed from the street section or improved by a design method of stabilization approved by the City.
I. Quality control testing shall be as specified below.
J. Undercut 24" of soil below finished street base course. Proof roll to verify stability.
K. Backfill the undercut subgrade with Class 7 aggregate or soil meeting the requirements of this section and compact in lifts not exceeding 8".

BASE COURSE

A. Base course material shall be crushed stone meeting the requirements of ArDOT Class 7 aggregate base course as specified in the latest edition of ArDOT Standard Specifications.
B. Base course shall be compacted to 98 percent modified proctor density minimum. Moisture content shall be +/- 3% of optimum moisture.

SURFACE COURSE

A. Surface course for flexible pavement designs shall utilize plant mix bituminous base and binder courses conforming to ArDOT Standard Specifications.

CURB AND GUTTER

A. Curb and gutter shall be Portland Cement Concrete with a minimum 28-day compressive strength of 4,000 psi. Concrete shall be air-entrained with a maximum of 4-inch slump.
B. Compaction requirements under curb and gutter shall conform to the requirements for street subgrade materials. Compaction requirements shall extend to a minimum of 1 foot behond the back of curb and gutter removing all soft spots and replacing with suitable material.
C. Curb and gutter shall conform to the typical detail within these specifications or ArDOT Standard Roadway Drawing Details for curbing.
D. Expansion joints shall be made with 1/2-inch preformed expansion joint filler of a non-extruding type. Expansion joints shall be placed at intervals not exceeding 195 feet, intersection radii, driveways, stationary structures, and sidewalks.
E. Contraction joints shall be sawed or fromed at intervals not greater than 20 feet. Depth of saw-cut hall be 1 1/2-inch and have a width of 1/4-inch. Contraction joints shall be sealed in accordance with ArDOT Standard Specifications.
F. Forms shall be made of metal or wood and shall be properly braced. The minimum length of each section of form used shall be 10 feet. Each section of form shall be uniform and free from undesirable bends or warps. Forms shall be of such cross section and strength and so secured as to resist the pressure of the impact and vibration on any equipment which they support without springing or settlement.
G. Curb and gutter placed with slip form or extruding equipment will be acceptable providing it complies with all of the above requirements.
H. After curing, the curb shall be immediately backfilled to within 4 inches of the top curb to eliminatethe possibility of washing beneath the curb. The remaining 4 inches shall be topsoil.
I. Cold weather protection shall meet the requirements of the latest edition of ArDOT Standard Specifications.

SIDEWALKS

General

A. Sidewalks shall be Portland Cement Concrete with a minimum 28-day compressive strength of 4,000 psi.
B. Sidewalks shall be on both sides of streets in line with sidewalks on opposite corners of roads.
C. All sidewalks including ramps shall meet all current Federal Americans with Disabilities (ADA) design guidelines or requirements.
D. Traverse slopes shall not exceed 2 percent.
E. Subgrade under sidewalks shall be compacted to 90 percent modified proctor density minimum.
F. Sidewalks shall not be placed upon grassy or organic materials.
G. Sidewalks which extend or link existing sidewalks shall adjoin the existing sidewalks to form a continuous, even pathway.
H. Utility poles, utility boxes, mailboxes, fire hydrants, and other similar obstructions shall not be located in sidewalks Sidewalk location may vary at the discretion of the City to avoid such obstacles.

Minimum thickness and reinforcement

A. Sidewalks shall have a minimum thickness of 4 inches.
B. Sidewalks shall be reinforced, at a minimum, with woven wire fabric reinforcement.

Contraction and expansion joints

A. Contraction joints shall be provided perpendicular to the sidewalk at intervals equal to the sidewalk width.
B. Expansion joints shall be constructed perpendicular to the sidewalk at intervals equal to five times the sidewalk width. Expansion joints shall be made with 1/2-inch preformed expansion joint filler of a non-extruding type. Expansion joints shall be placed at driveways, drop inlets, and curbs.

Quality control testing and inspection by the City

A. Subgrade and formwork for sidewalks shall be inspected by the City prior to pouring of the sidewalk.
B. All testing of materials and construction shall be provided and paid for by the Developer/Owner.
C. All field tests required for a project shall be witnessed by the City, contractor, or their authorized representatives.
D. All testing shall be accomplished by a testing firm approved by the City and shall be performed under the supervision of a licensed Professional Engineer.
E. Sampling and testing locations shall be subject to approval by the City.
F. Density tests on subgrades shall be taken every 300 feet or portion thereof.
G. The City shall be notified at least one day in advance of the need to inspect subgrade and formwork of sidewalks.

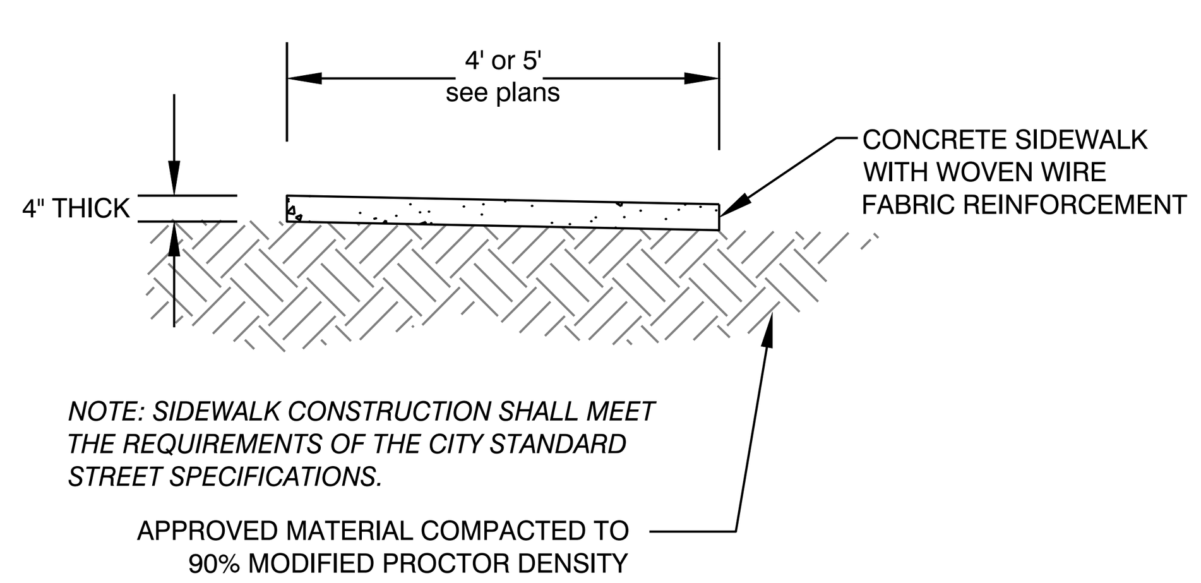
Subgrade

A. Subgrade soils shall be all materials used for subgrade including in-situ materials and fill materials.
B. Subgrade shall be compacted to 90 percent modified proctor desnity minimum. Moisture content shall be +/- 3% of optimum moisture unless otherwise supported by the site specific geotechnical data and approved by City.
C. Subgrade shall be prepared in such a manner that the base course shall be placed on a firm foundation that is stable and free from soft spots, pumping, dust pockets, wheel ruts, or other defects.
D. The top 24 inches of the subgrade shall be a material not susceptible to frost action unless modified with cement, lime or another method approved specifically by the City to resist frost action. Soils classified as A-4 and A-5 including sandy silts, fine silty sand or lean clays are highly susceptible to frost action.

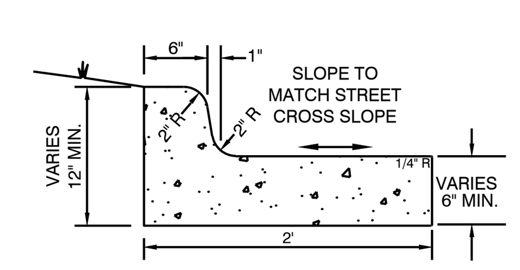
QUALITY CONTROL TESTING AND INSPECTIONS

General

A. Materials and construction employed in street improvements shall be subject to inspection and quality control testing. All testing of materials and construction shall be provided and paid for by the Developer/Owner.
B. The Developer/Owner shall provide for inspections of street improvements during construction. The inspections shall be accomplished under the supervision of the Engineer of Record. The Engineer of Record shall provide certification that all materials and construction conform to the approved plans and specifications and with these minimum street standards.
C. The Engineer of Record shall furnish inspection whenever a critical construction activity is taking place. This means that a representative of the Engineer of Record must be on-site whenever a critical construction activity is taking place.
D. All field tests required for a project shall be witnessed by the City, Engineer of Record, contractor, or other authorized representatives.
E. The City shall be notified at least one day in advance of any test(s). It is the responsibility of the contractor to coordinated the scheduling of all tests with the City.



Typical Sidewalk Detail



STANDARD CURB & GUTTER
NOT TO SCALE

TYPICAL CURB DETAILS & NOTES
NOT TO SCALE

Typical Curb & Gutter Detail

4,000 psi concrete

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FOR USE AND BENEFIT OF:
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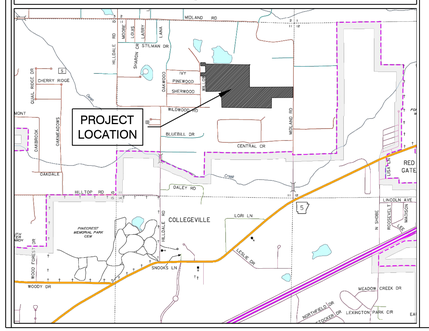
MIDLAND ROAD
CIVIL SPECS
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	3/17/2023		C.A.D. BY:			DRAWING NUMBER:	
REVISED:			CHECKED BY:			23-0024	
SHEET:	C-5.0		SCALE:				
500	1S	15W	0	34	230	62	1807

K:\LAND PROJECTS 2004\SUBDIVISIONS\2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S11 T1S R14W\CIVIL\DWG\23-0024 CONTRUCTION PLAN (FINAL DRAFT).DWG

VICINITY MAP:



DRAINAGE NOTES

No fences, pools or permanent obstructions may be placed in any access or drainage easements.

Dead Storage of pond will be used as a sediment pond at the time of construction later it will remain as a water feature.

Filter fabric shall be placed under all riprap areas.

All drainage ditches and swales that are not concreted will be required to be stabilized with solid sod stabilization per the Stormwater Management Manual.

Any new drainage ditches or swales, new or that have been disturbed during construction are required to have solid sod stabilization per Section 500.7.2 of the Stormwater management Manual. (This is required to be show in detail on the plans).

MIDLAND ROAD SUBDIVISION
DRAINAGE PLAN

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FOR USE AND BENEFIT OF:

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MIDLAND ROAD
DRAINAGE PLAN
IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

DATE: 03/20/2023	C.A.D. BY:		DRAWING NUMBER:
REVISED:	CHECKED BY:		23-0024
SHEET: C-6.0	SCALE: 1" = 50'		

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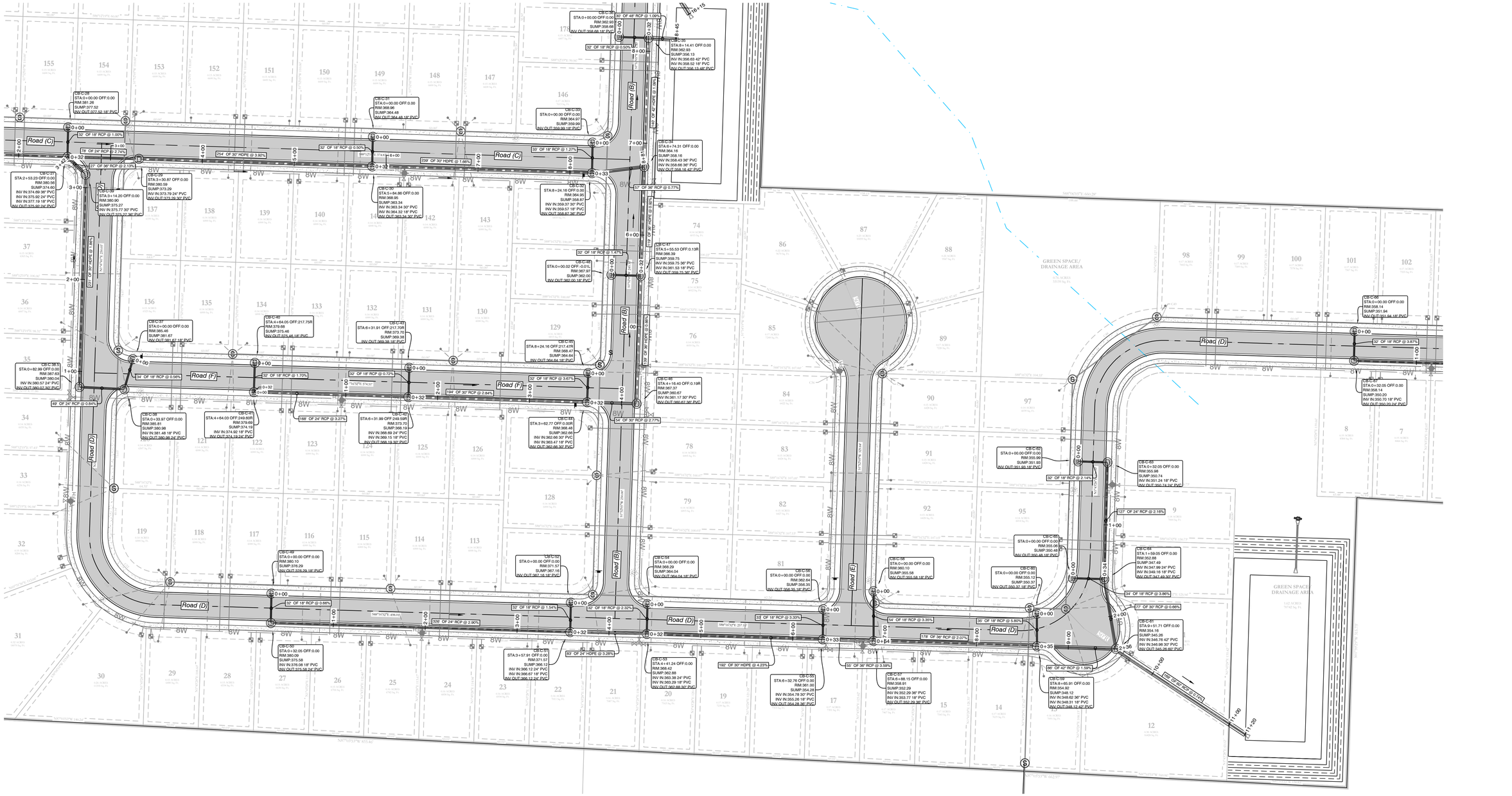

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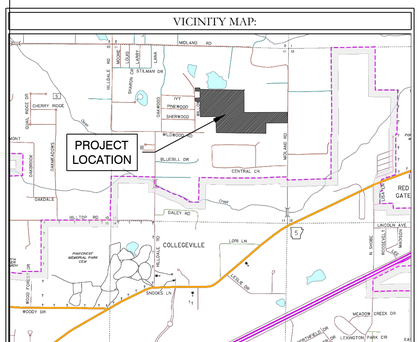

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HDPE

RCP

MIDLAND ROAD SUBDIVISION
DRAINAGE PLAN

N

BASIS OF BEARING: GRID NORTH, ARKANSAS COORDINATE SYSTEM, SOUTH ZONE BY GPS OBSERVATION

50 25 0 50

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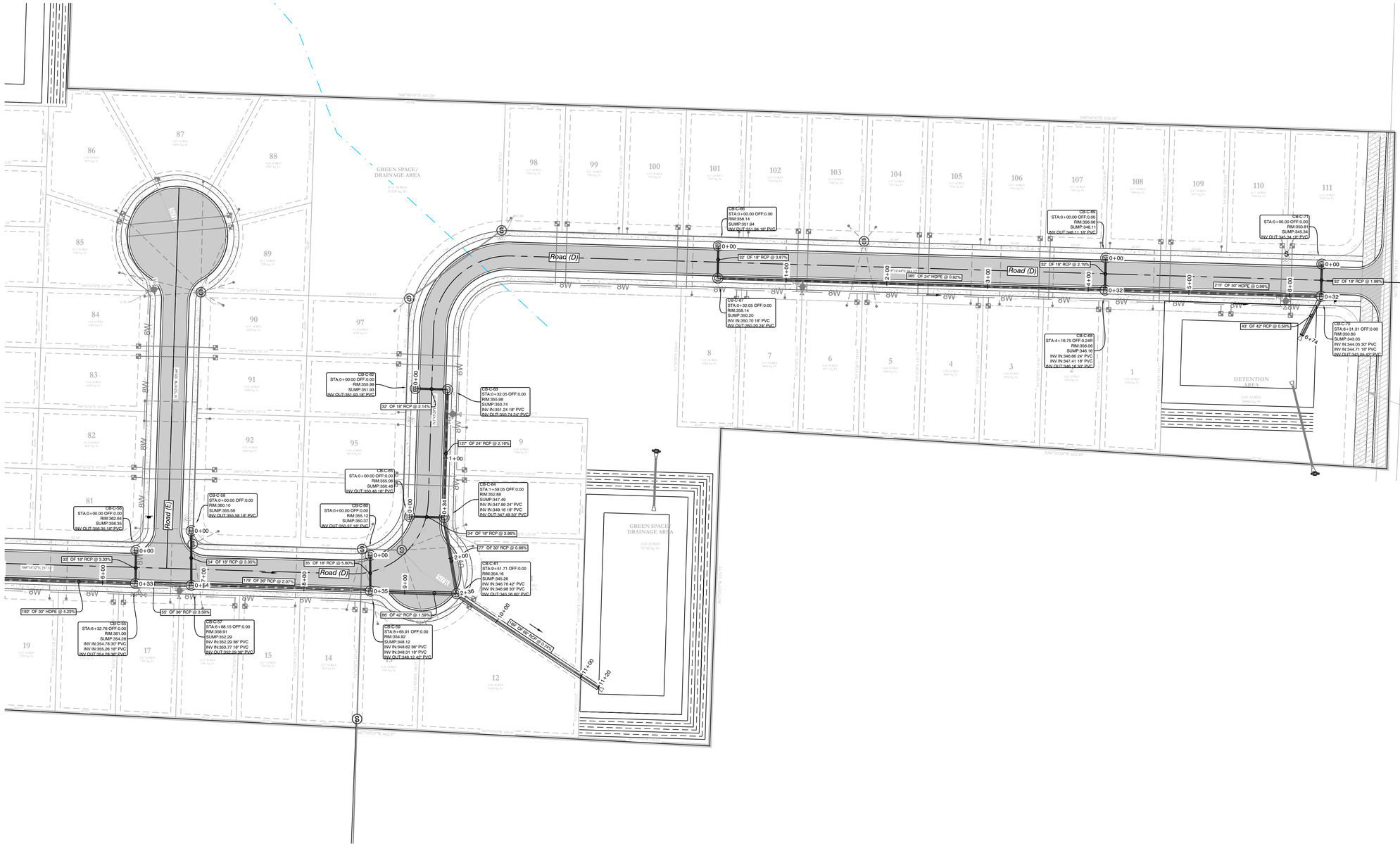
MIDLAND ROAD
DRAINAGE PLAN
IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

DATE: 03/20/2023	C.A.D. BY:		DRAWING NUMBER:
REVISED:	CHECKED BY:		23-0024
SHEET: C-6.1	SCALE: 1" = 50'		



VICINITY MAP:

DRAINAGE NOTES

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— — — —	HDPE
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BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

50 25 0 50

MIDLAND ROAD SUBDIVISION
DRAINAGE PLAN

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MIDLAND ROAD
DRAINAGE PLAN
IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS

DATE:	03/20/2023	C.A.D. BY:		DRAWING NUMBER:
REVISED:		CHECKED BY:		23-0024
SHEET:	C-6.2	SCALE:	1" = 50'	
500		0		

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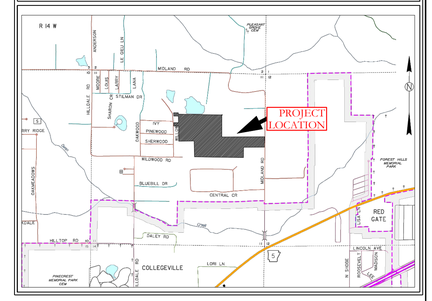
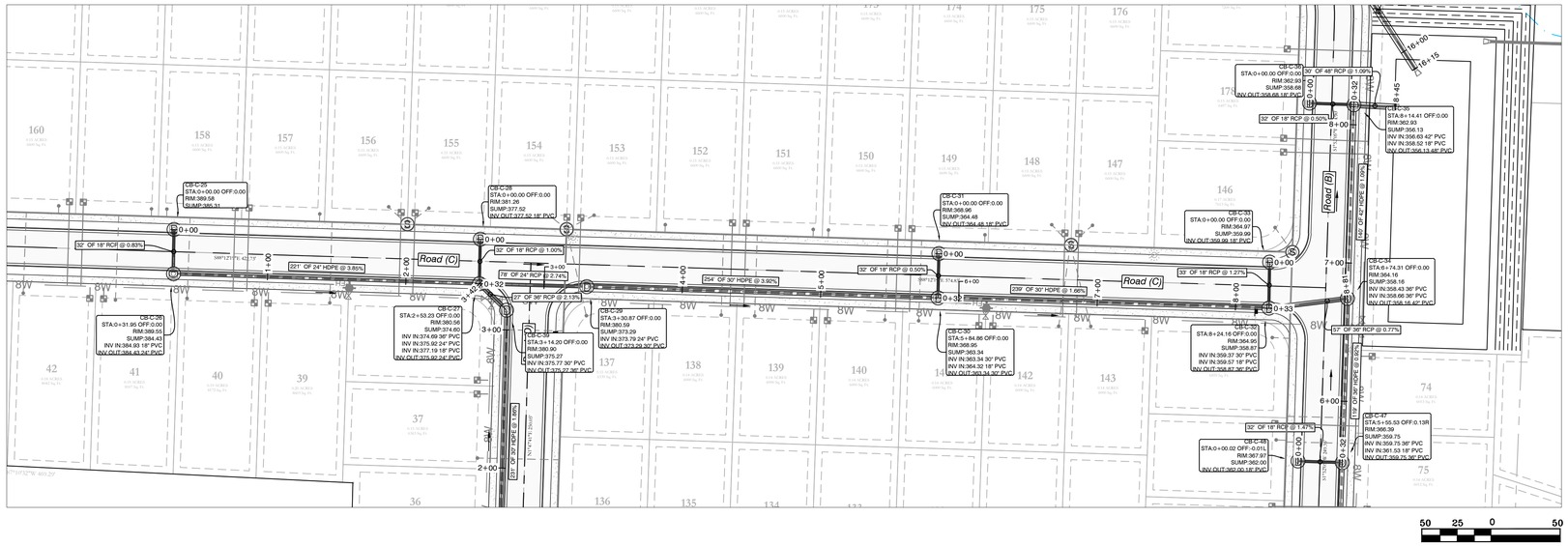
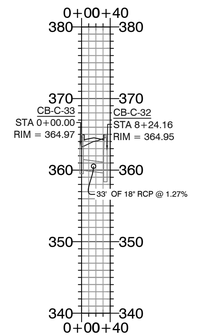


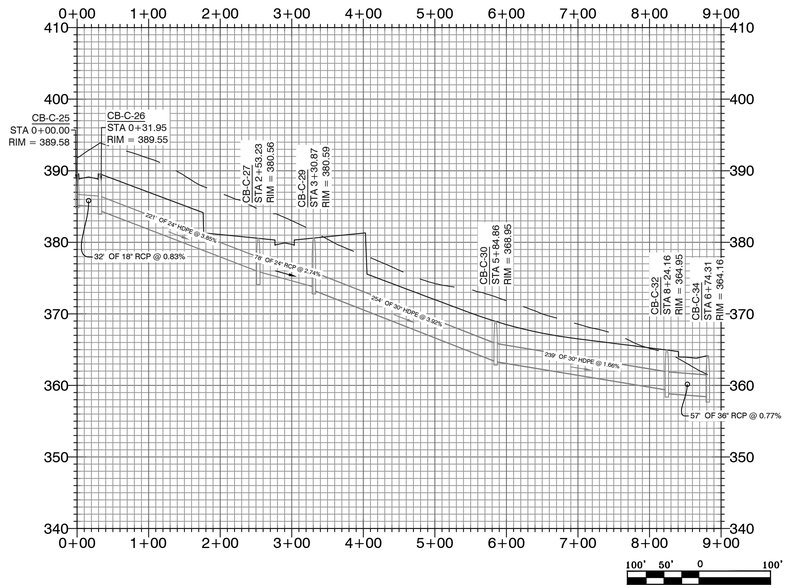


Storm Water Line 4 PROFILE

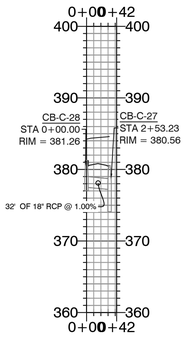


100' 50' 0 100'

Storm Water Line 1 PROFILE



Storm Water Line 2 PROFILE



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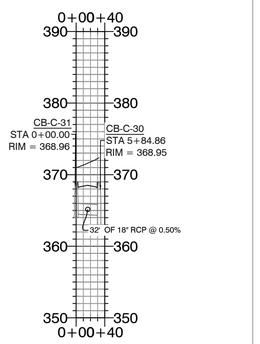
Storm Water Line 3 PROFILE



100' 50' 0 100'

HDPE

RCP

N

BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

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FOR USE AND BENEFIT OF:
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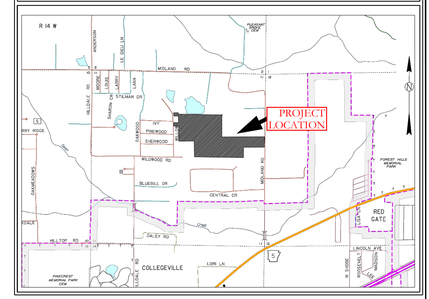
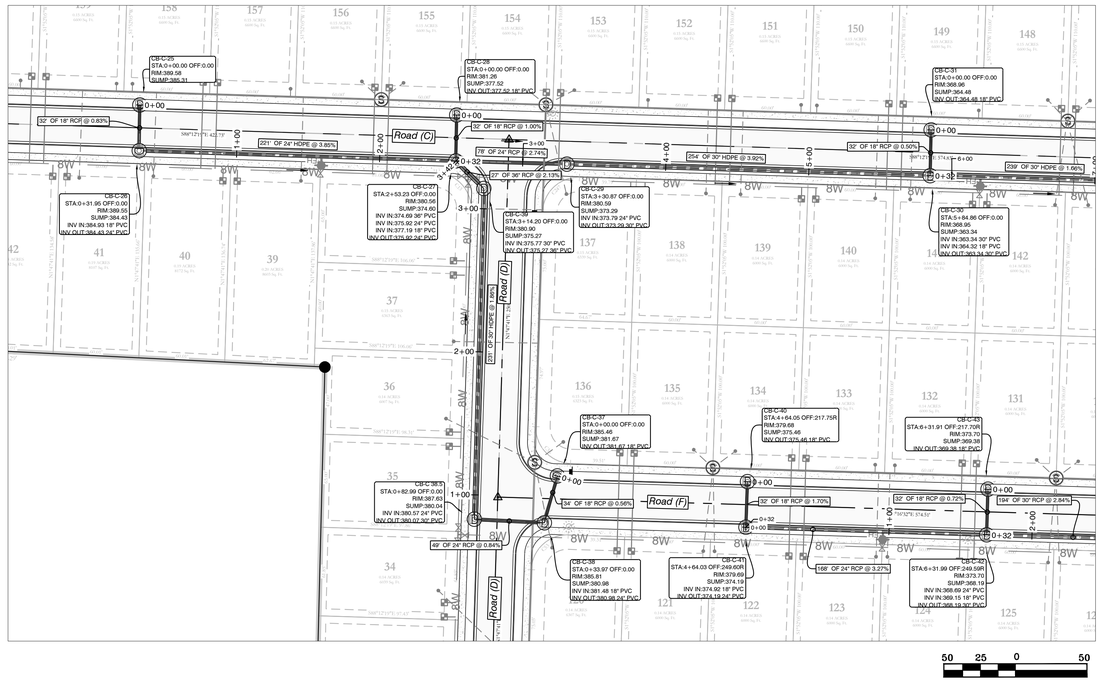
DRAINAGE PROFILES
MIDLAND ROAD
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	3/20/2023	C.A.D. BY: xxxx	DRAWING NUMBER:
REVISED:		CHECKED BY:	23-0024
SHEET:	C-6.3	SCALE: as shown	

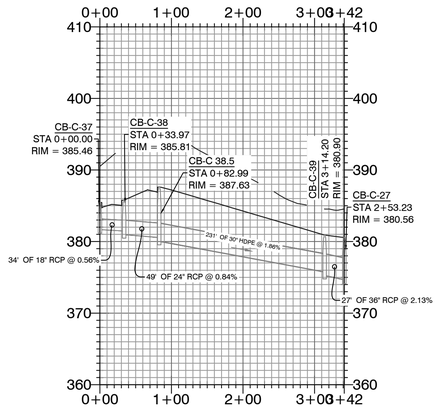
K:\LAND PROJECTS 2004\SUBDIVISIONS 2023\23-0024 HAVENS MIDLAND ROAD SUBDIVISION S11 T15 R14W\CIVIL\DWG\ 23-0024 CONSTRUCTION PLAN (FINAL DRAFT).DWG

VICINITY MAP:





Storm Water Line 5 PROFILE



DRAINAGE NOTES

No fences, pools or permanent obstructions may be placed in any access or drainage easements.

Dead Storage of pond will be used as a sediment pond at the time of construction later it will remain as a water feature.

Filter fabric shall be placed under all riprap areas.

All drainage ditches and swales that are not concreted will be required to be stabilized with solid sod stabilization per the Stormwater Management Manual.

Any new drainage ditches or swales, new or that have been disturbed during construction are required to have solid sod stabilization per Section 500.7.2 of the Stormwater management Manual. (This is required to be show in detail on the plans).

N

BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

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DRAINAGE PROFILES
MIDLAND ROAD
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	3/20/2023	C.A.D. BY: xxxx	DRAWING NUMBER:
REVISED:		CHECKED BY:	23-0024
SHEET:	C-6.4	SCALE: as shown	

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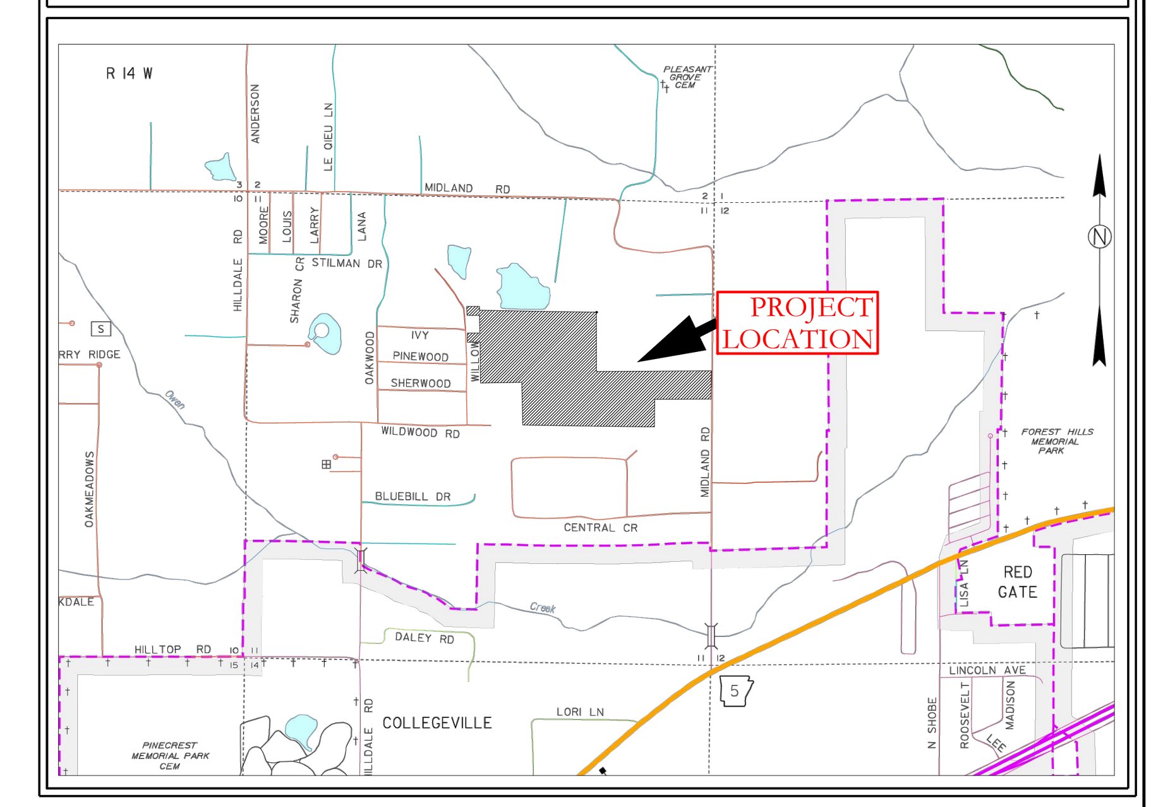
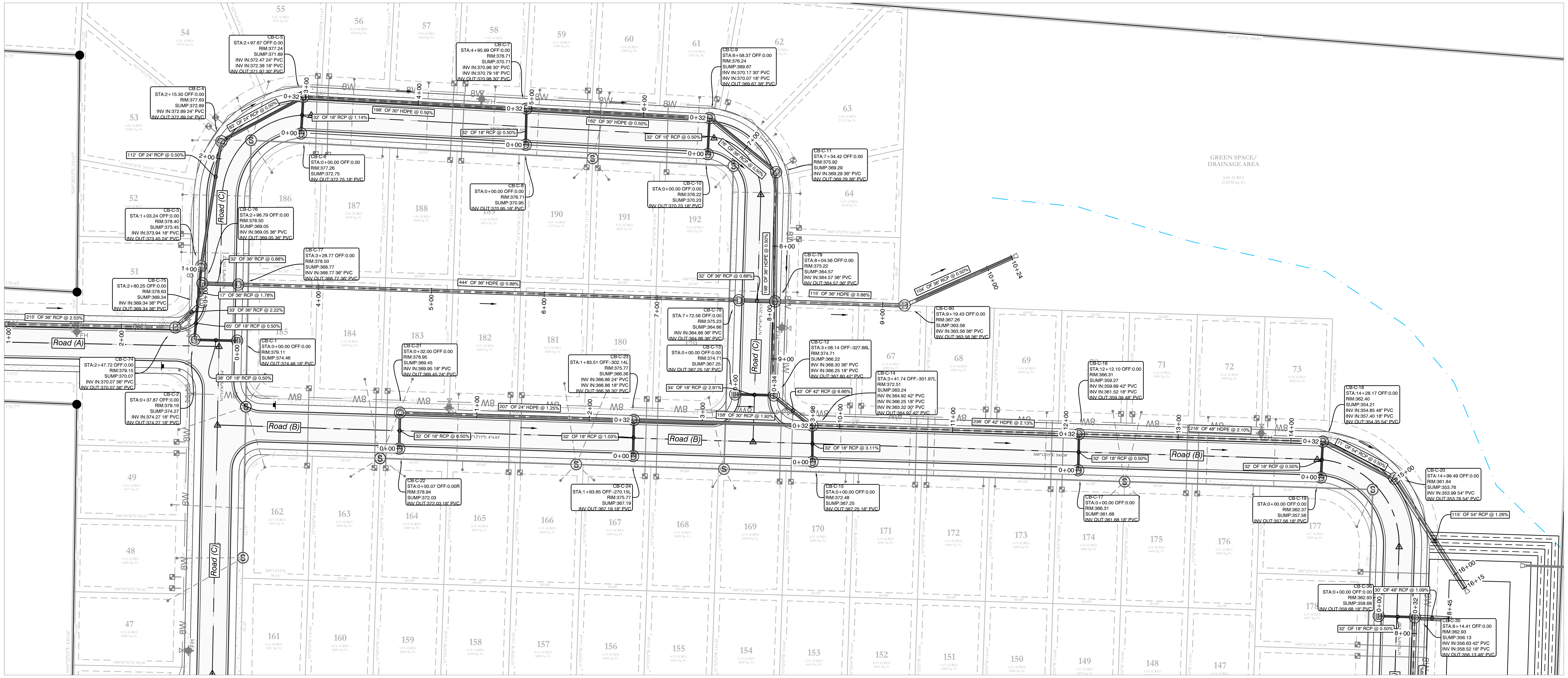
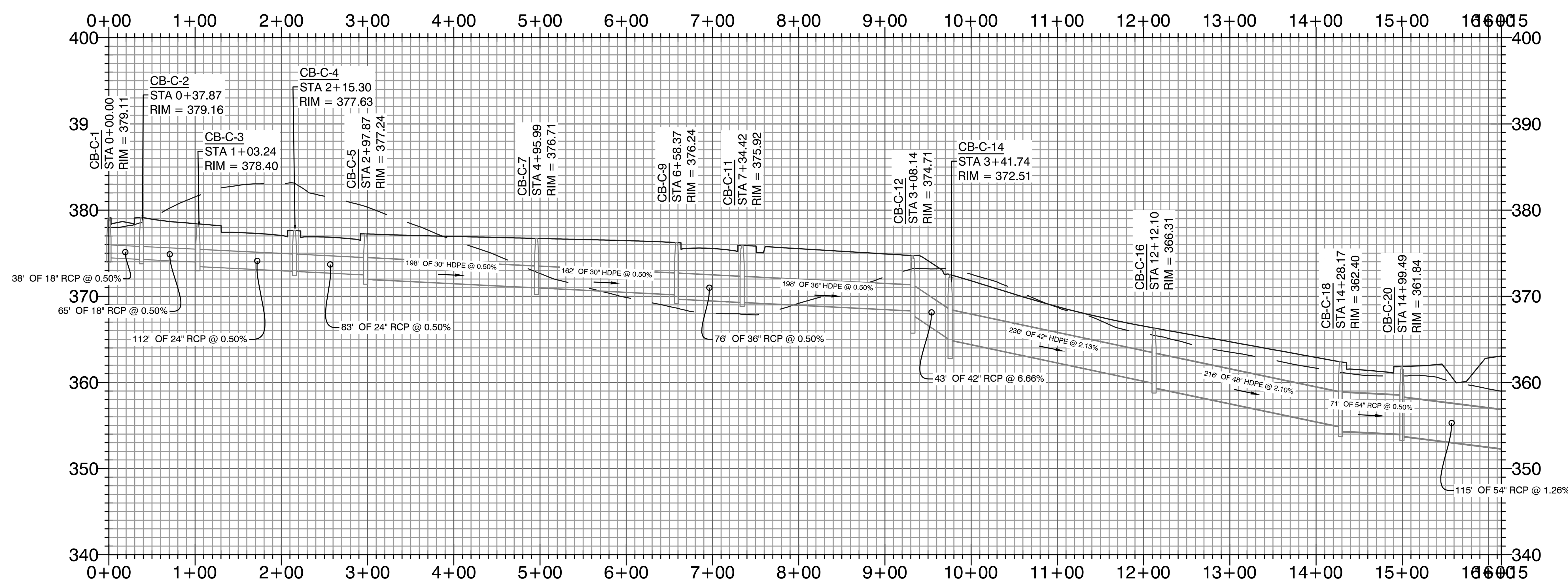
VICINITY MAP:

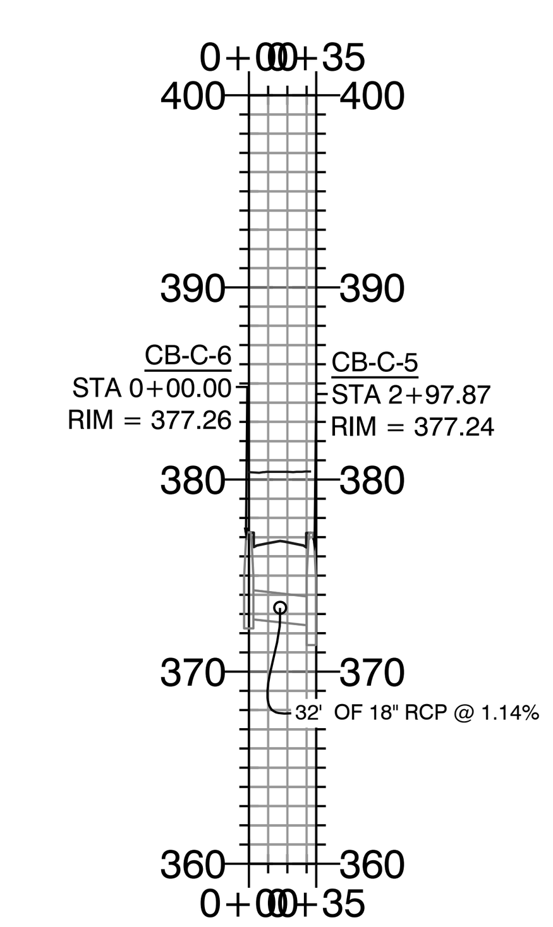




Storm Water Line 6 PROFILE



Storm Water Line 7 PROFILE



HDPE

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BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

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DRAINAGE PROFILES
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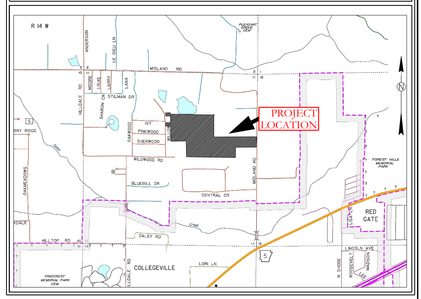
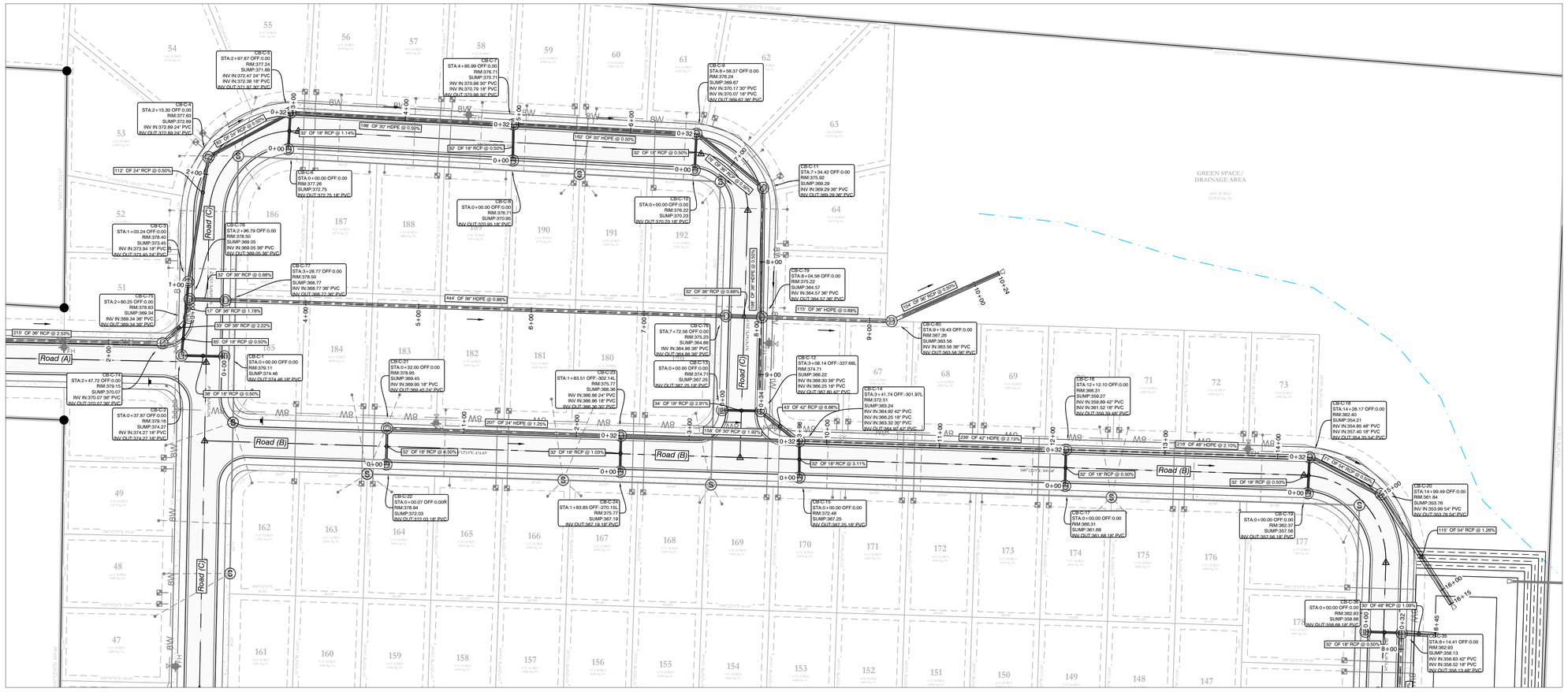
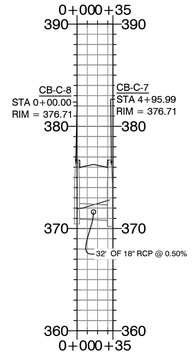
SHEET: C-6.5	SCALE: as shown	

VICINITY MAP:





Storm Water Line 8 PROFILE



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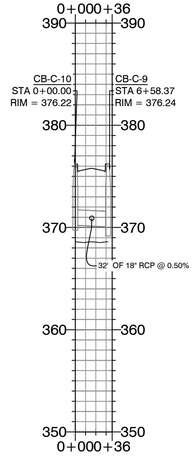
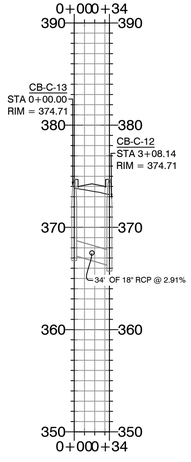
Storm Water Line 9 PROFILE



70 35 0 70

Storm Water Line 10 PROFILE



70 35 0 70

HDPE

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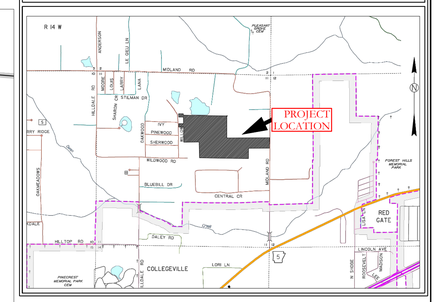
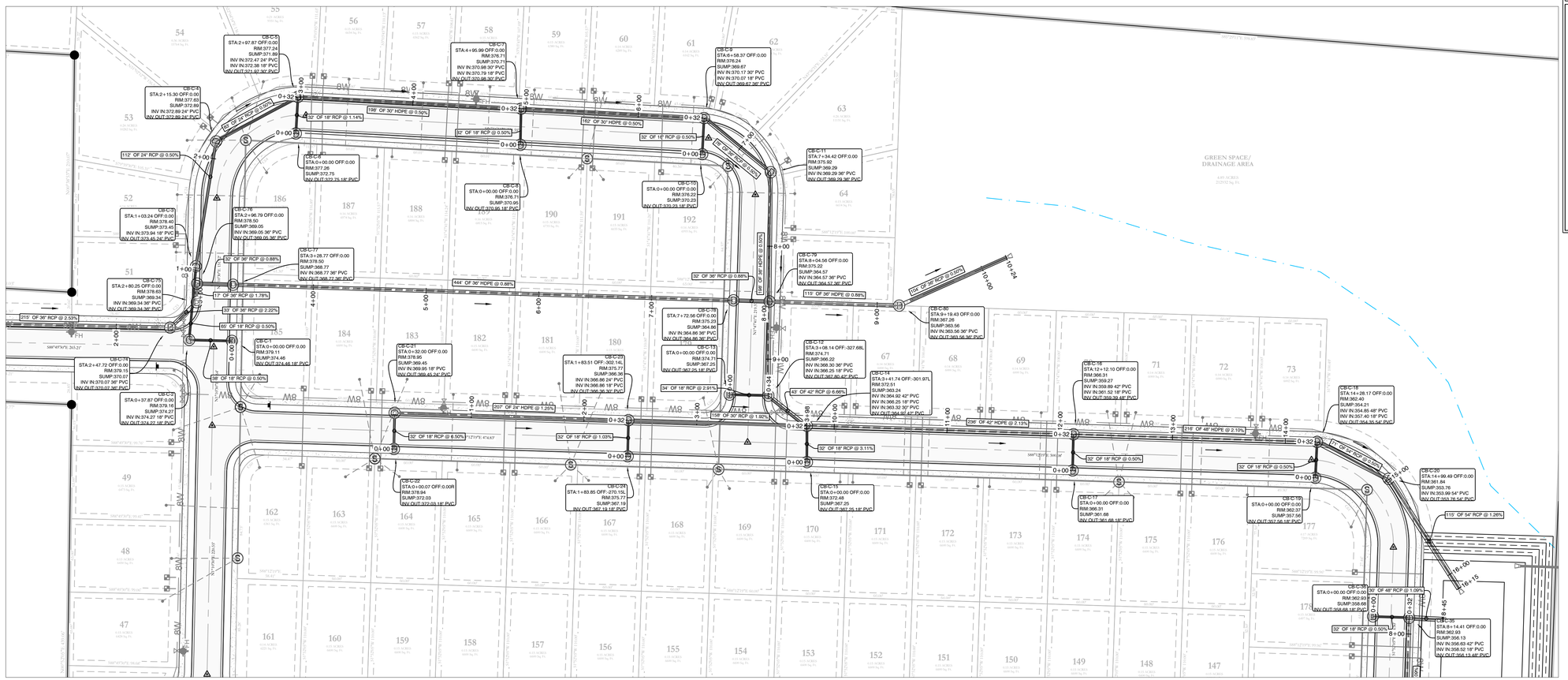
VICINITY MAP:





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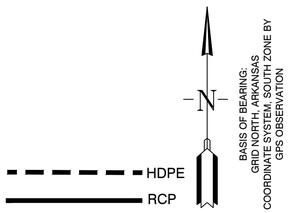

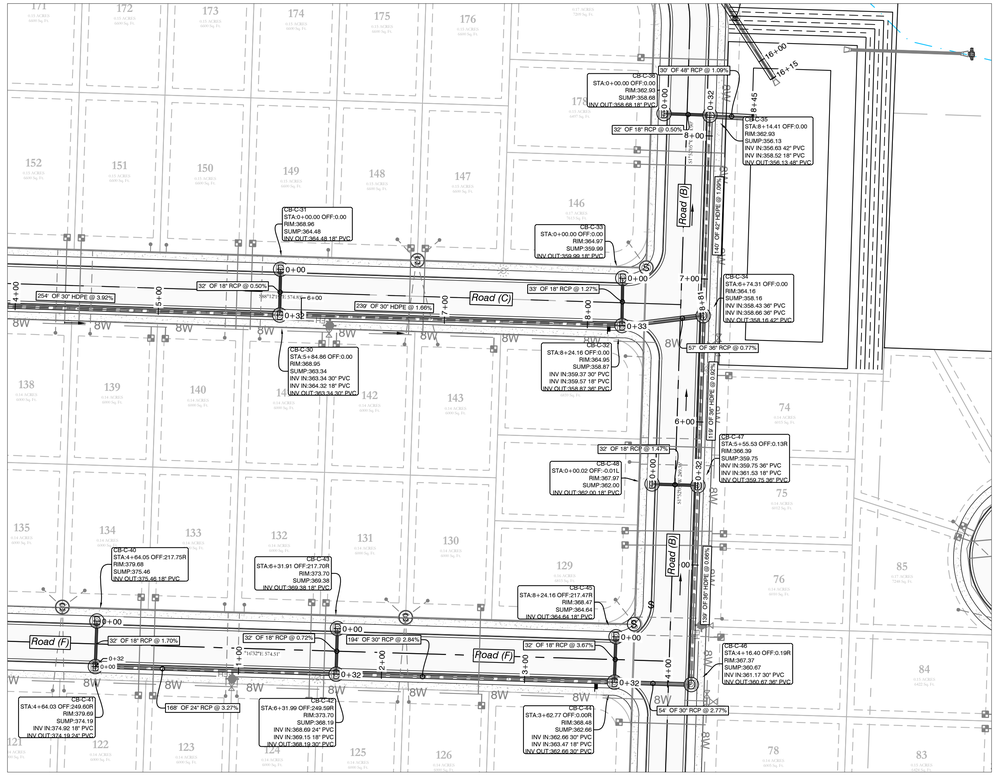

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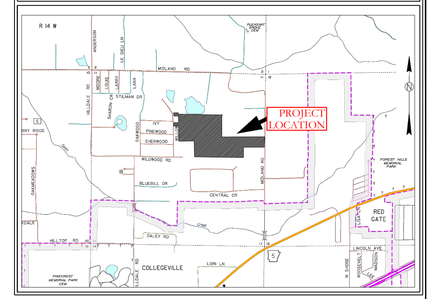
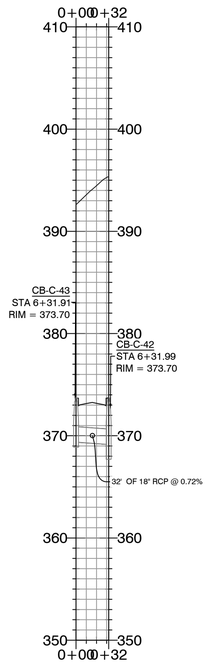


Storm Water Line 28 PROFILE



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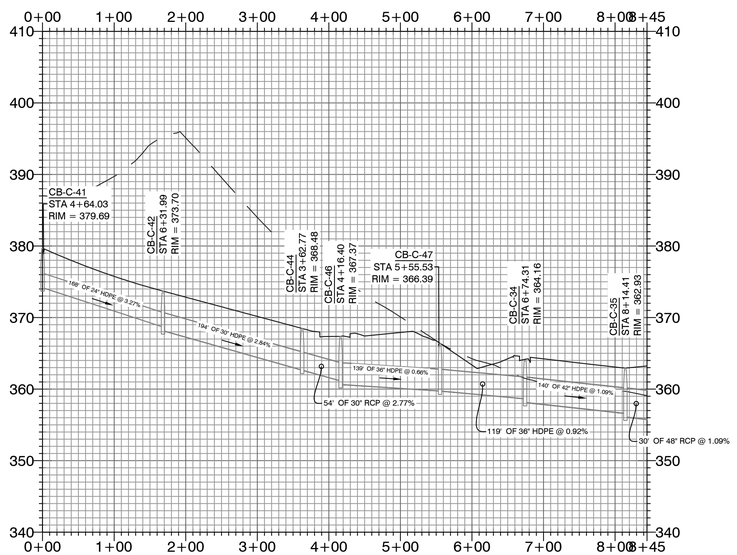
Storm Water Line 14 PROFILE



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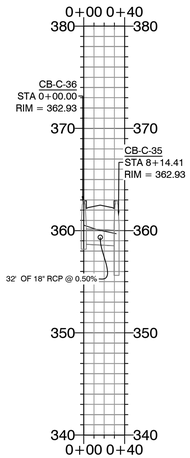
Storm Water Line 15 PROFILE



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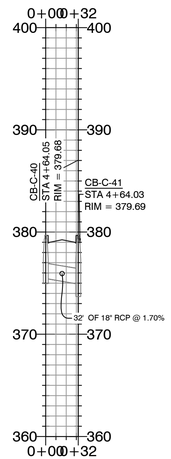
Storm Water Line 27 PROFILE



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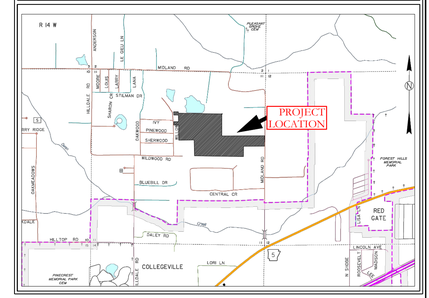
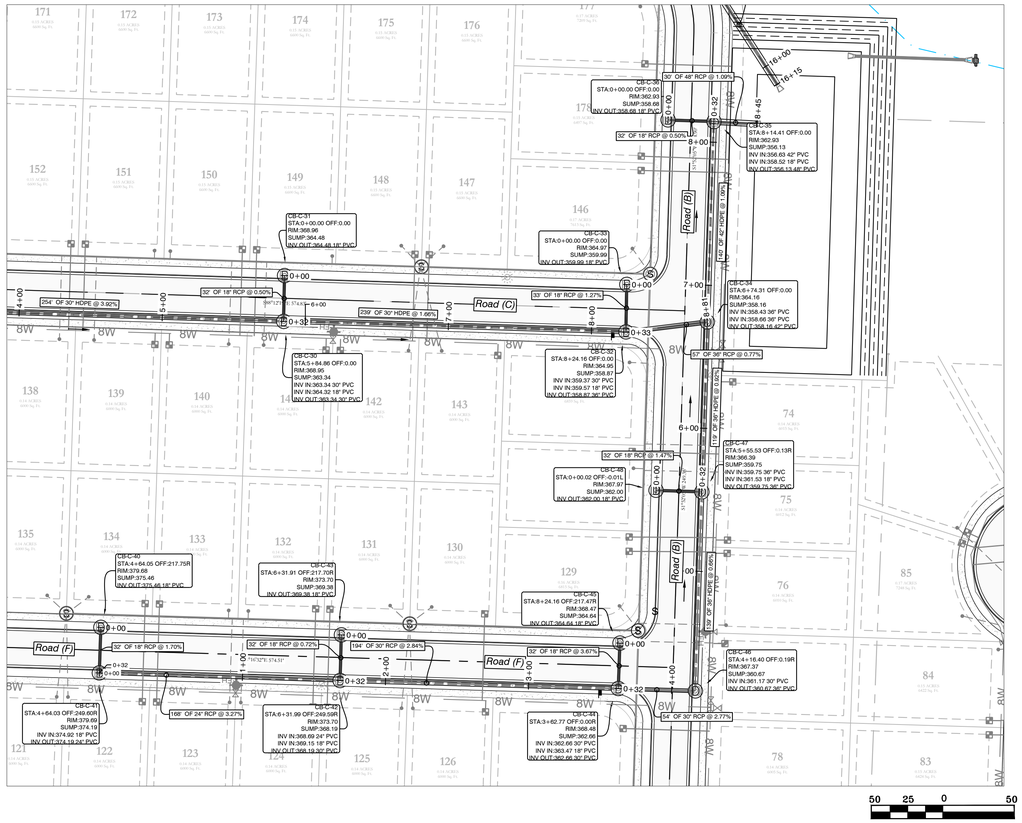
VICINITY MAP:





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BASIS OF BEARING:
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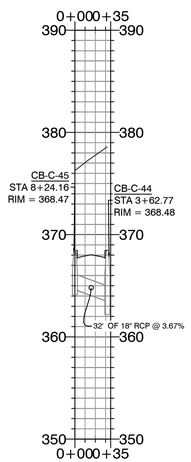
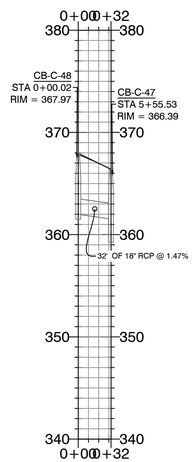
GPS OBSERVATION

Storm Water Line 29 PROFILE



Storm Water Line 30 PROFILE



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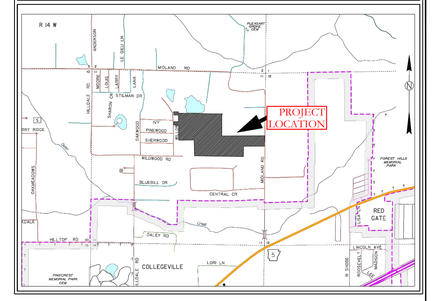
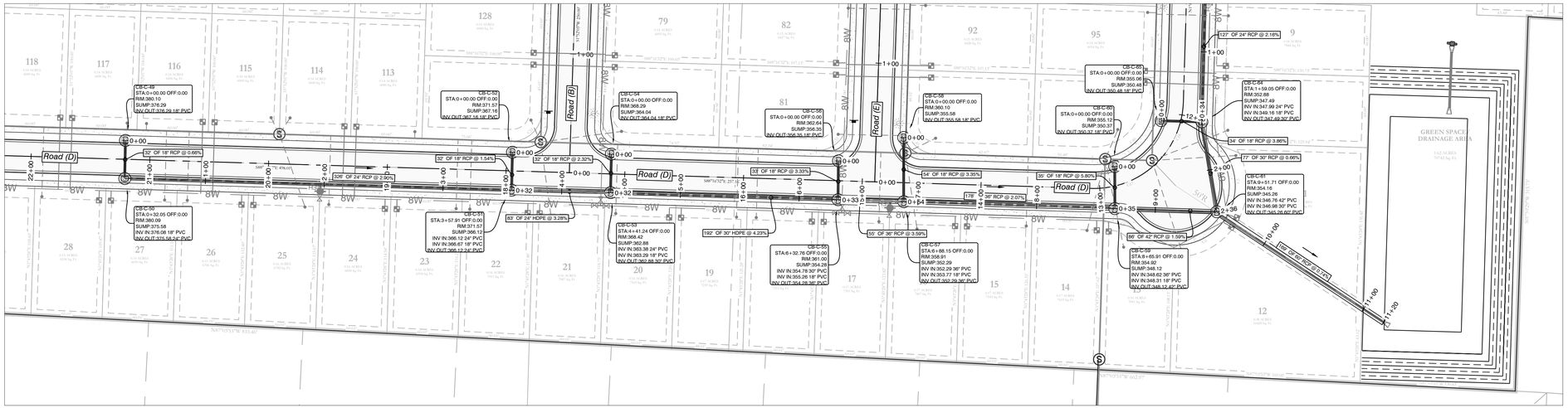
VICINITY MAP:





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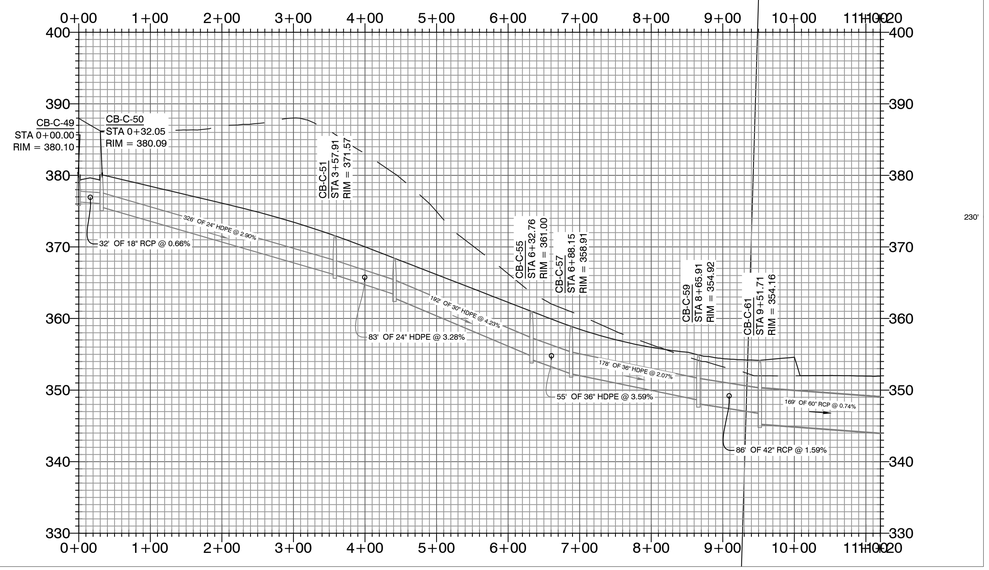
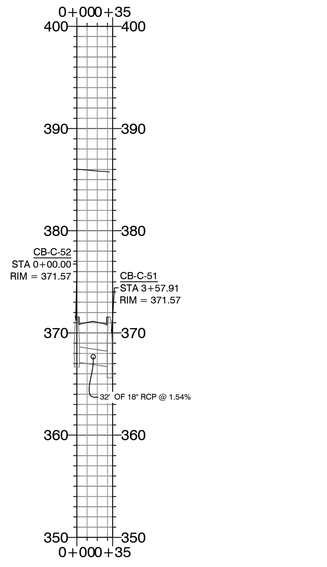


Storm Water Line 17 PROFILE



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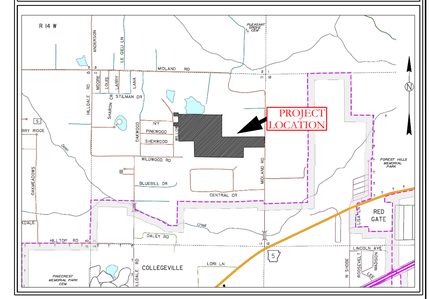
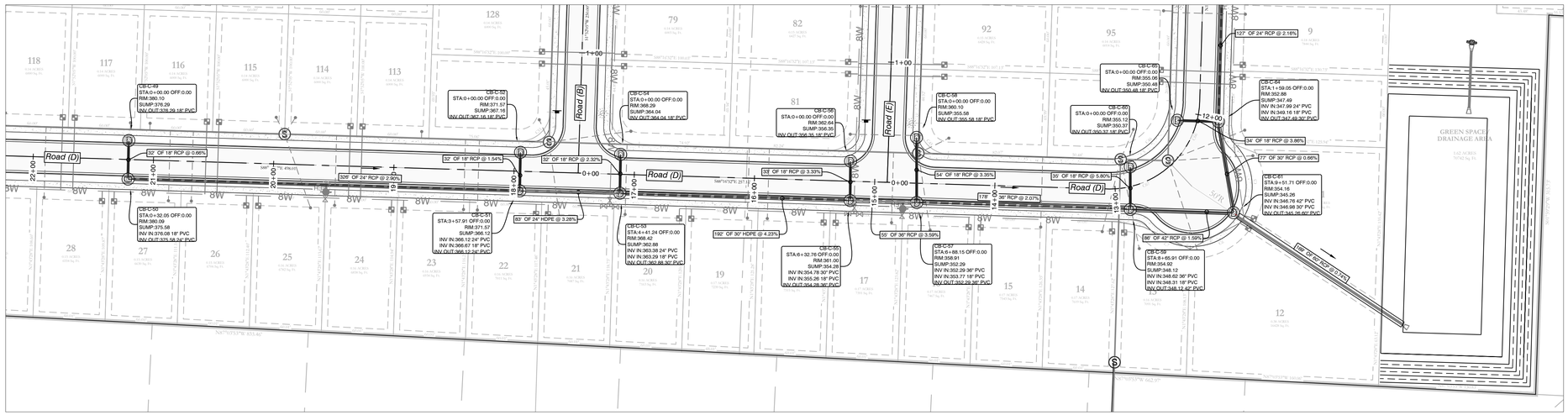
VICINITY MAP:





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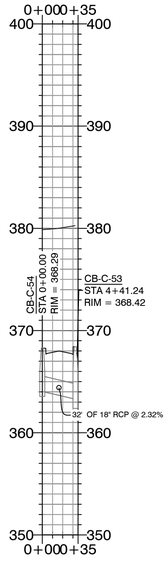
Storm Water Line 18 PROFILE



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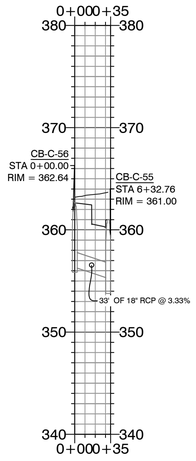
Storm Water Line 19 PROFILE



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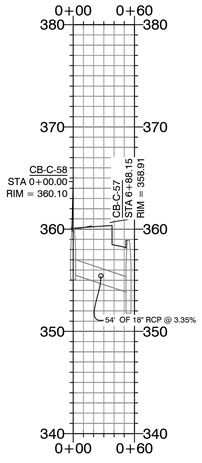
Storm Water Line 20 PROFILE



70 35 0 70

HDPE

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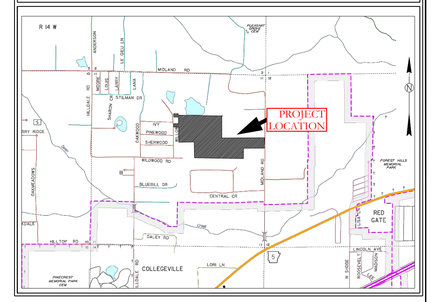
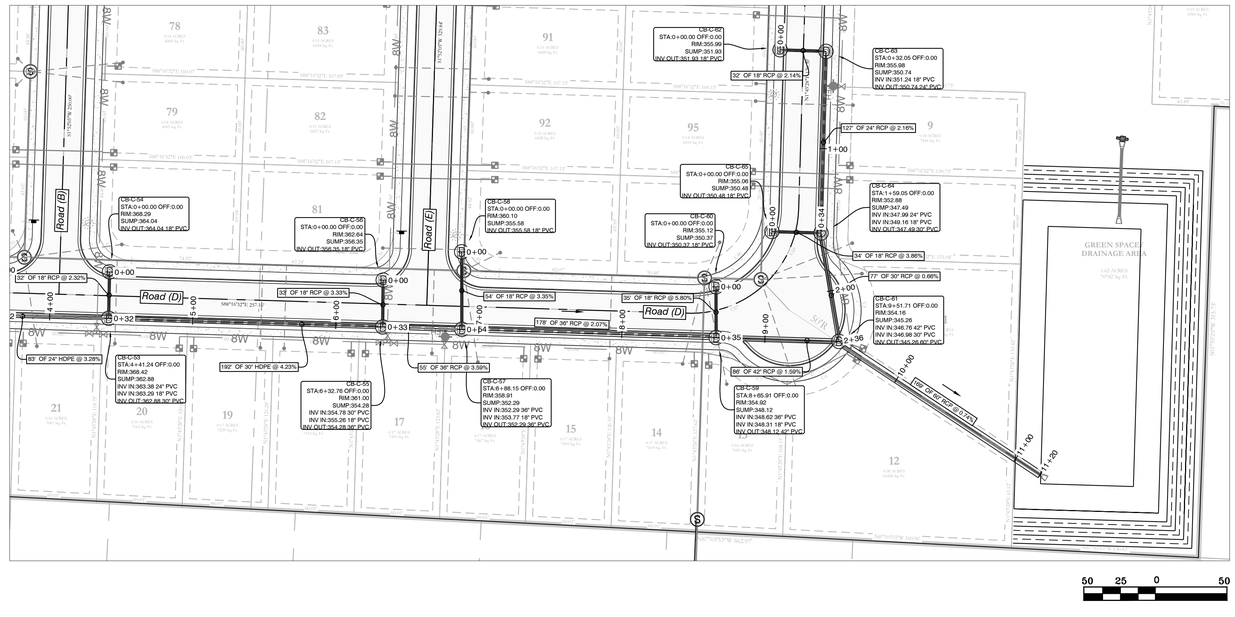
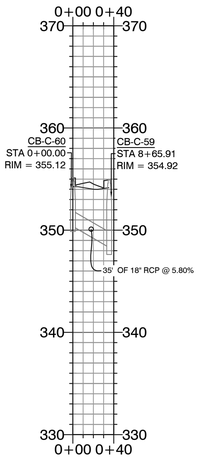
VICINITY MAP:





Storm Water Line 21 PROFILE



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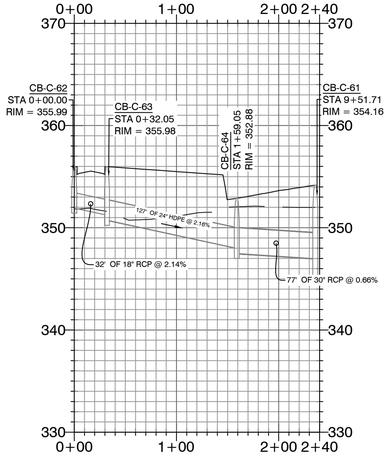
Storm Water Line 22 PROFILE



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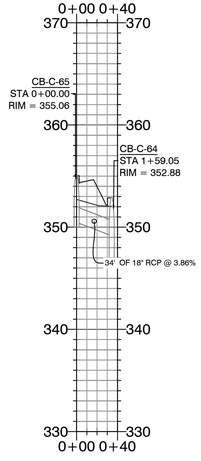
Storm Water Line 23 PROFILE



24

70 35 0 70

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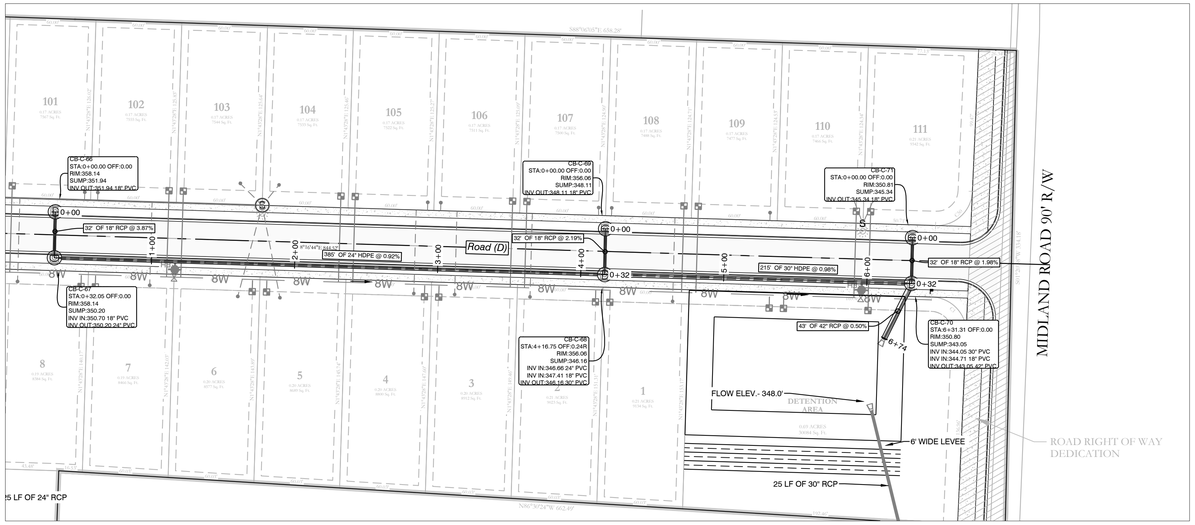

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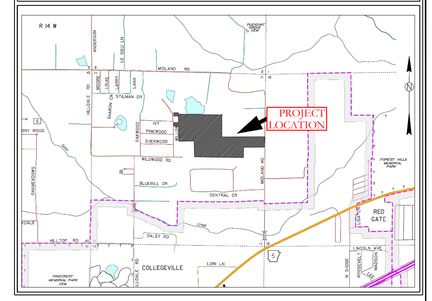
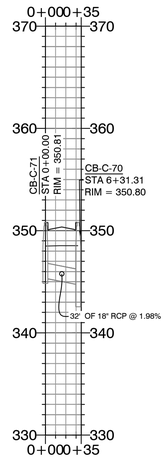


Storm Water Line 26 PROFILE



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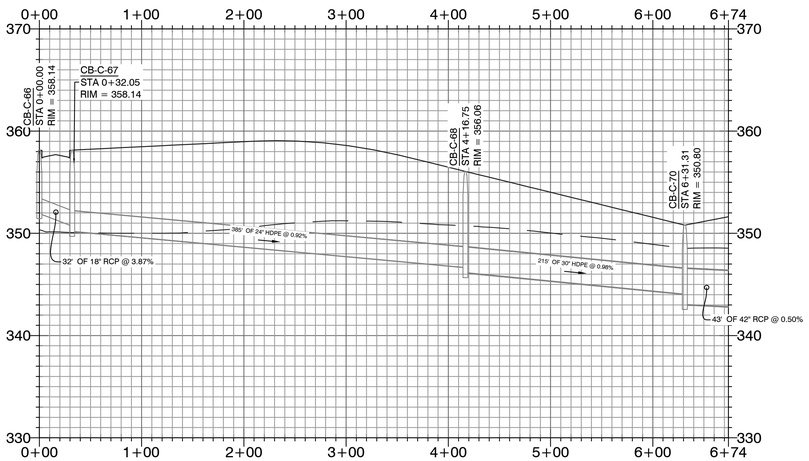
Storm Water Line 24 PROFILE



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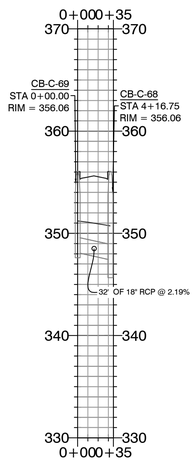
Storm Water Line 25 PROFILE



70 35 0 70

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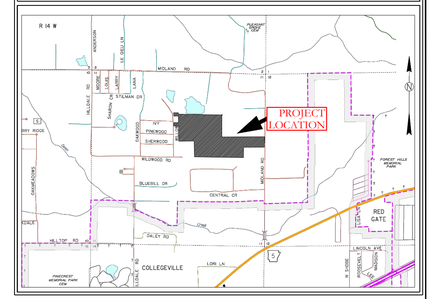
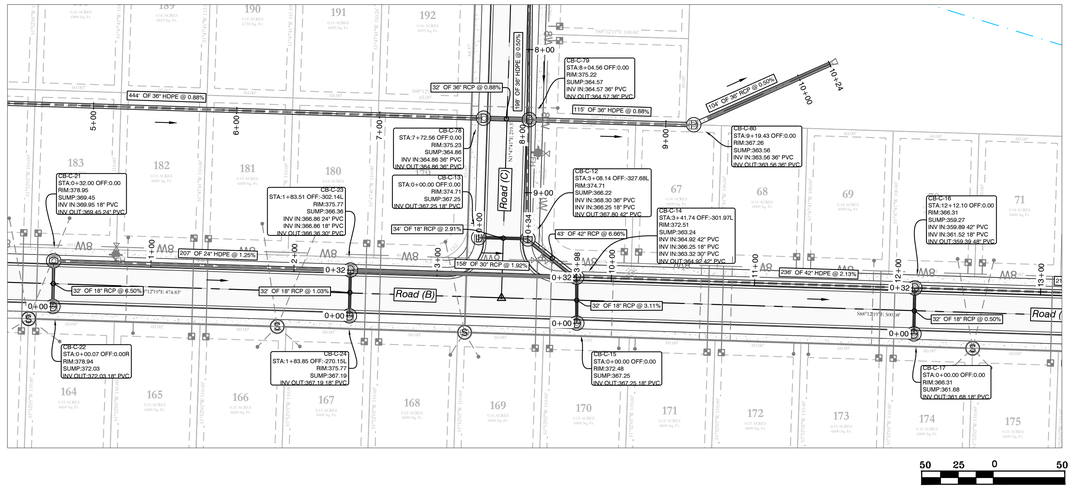
VICINITY MAP:





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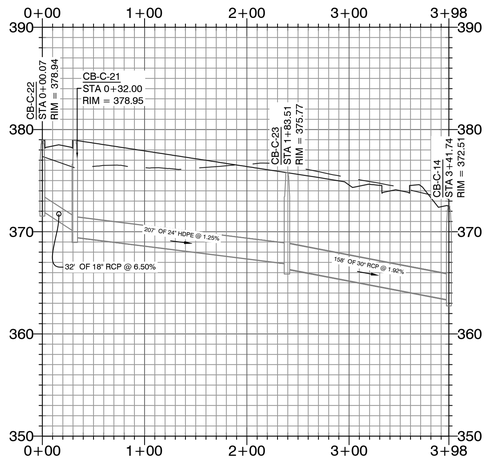
Storm Water Line 31 PROFILE



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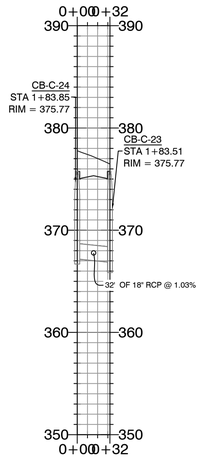
Storm Water Line 32 PROFILE



70 35 0 70

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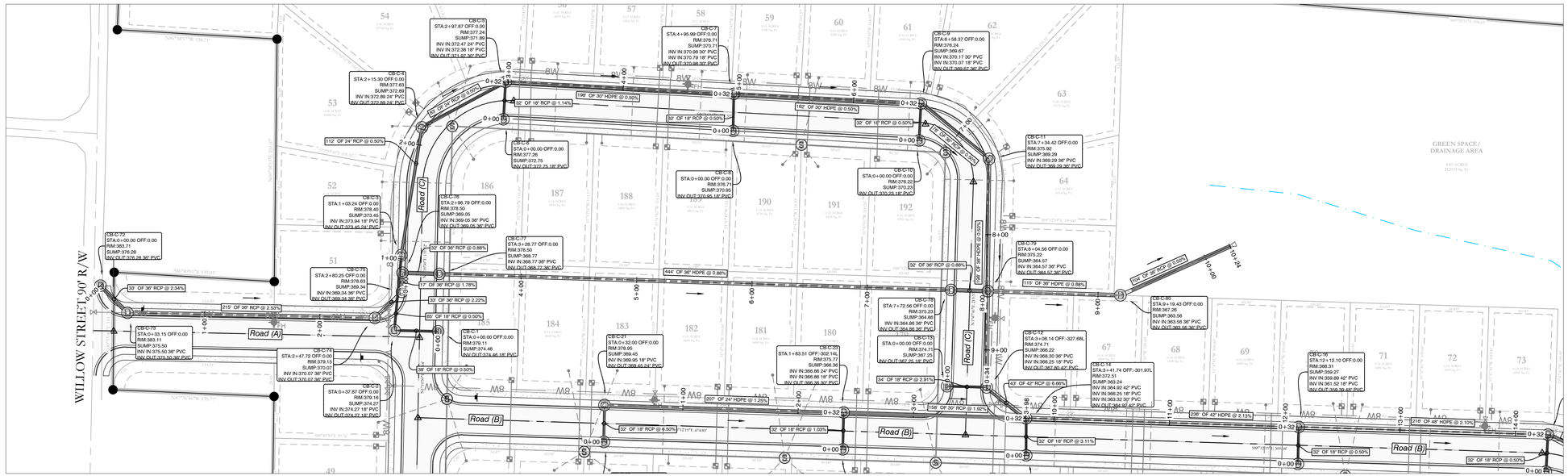
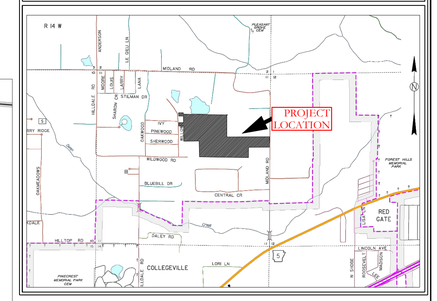
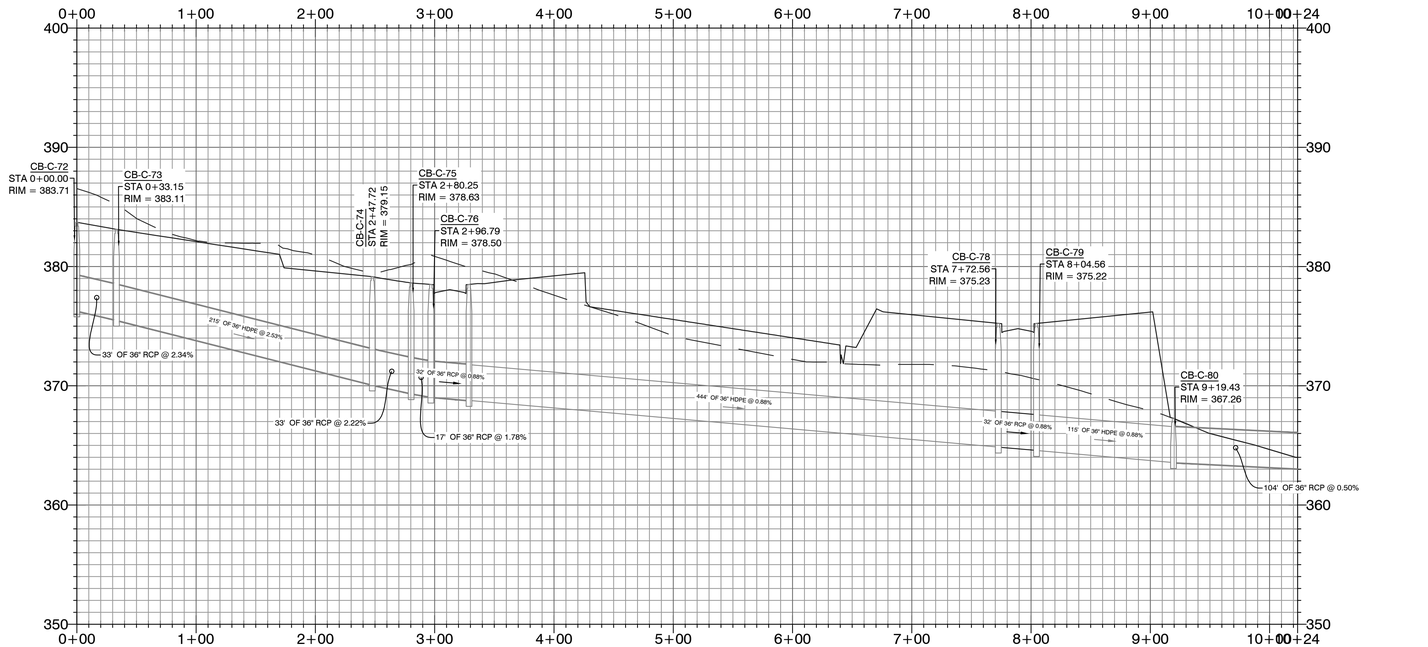




External Discharge (Storm Water) PROFILE



HDPE
RCP

BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE BY
GPS OBSERVATION

HOPE CONSULTING
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FOR USE AND BENEFIT OF:
HAVEN'S DEVELOPMENT, LLC

DRAINAGE PROFILES
MIDLAND ROAD
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	3/20/2023	C.A.D. BY: xxxx	DRAWING NUMBER:
REVISED:		CHECKED BY:	23-0024
SHEET:	C-6.15	SCALE: as shown	

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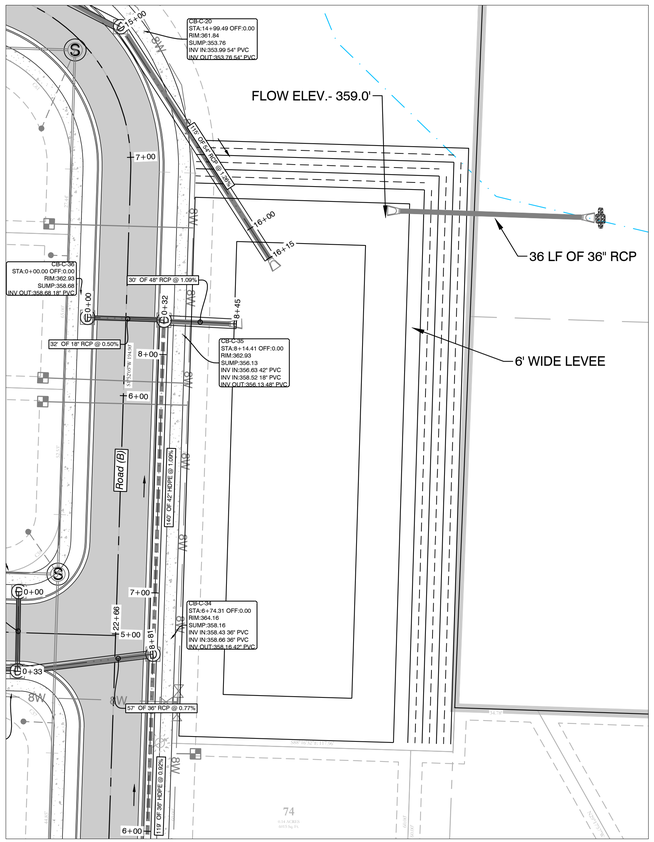
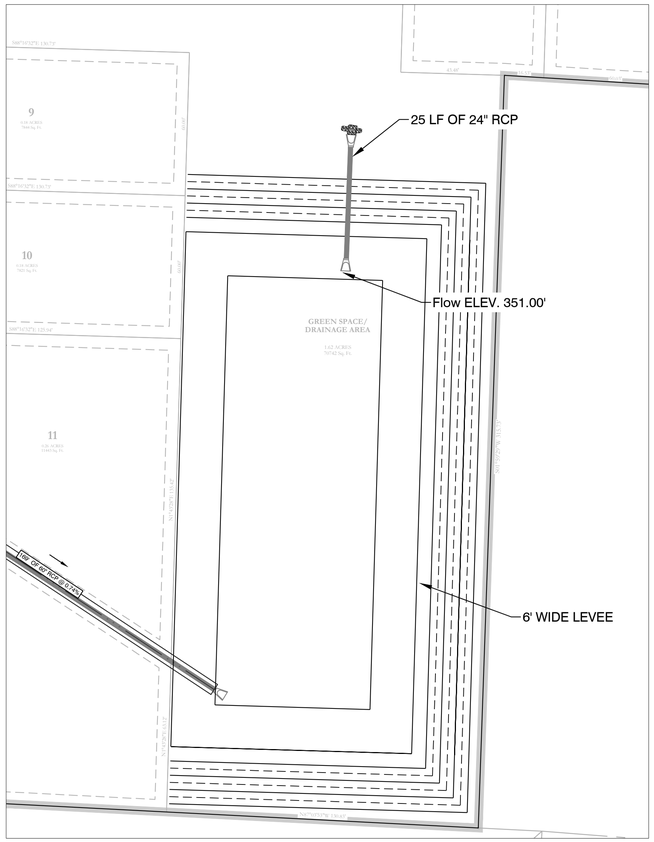
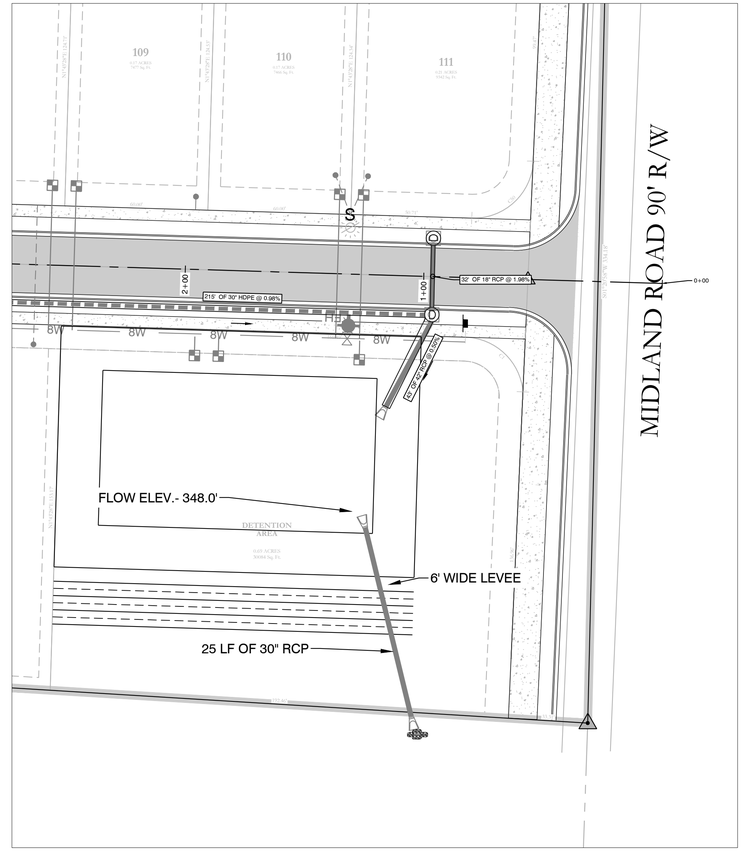
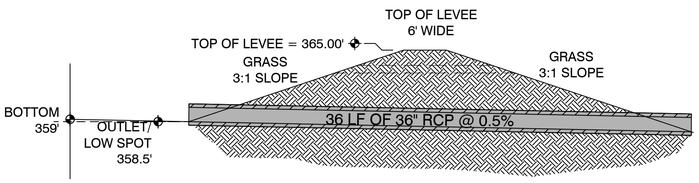
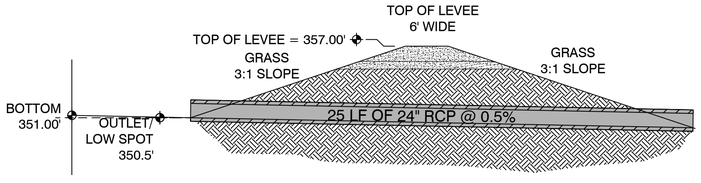




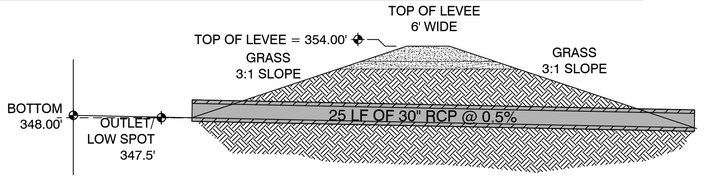




OUTLET PROFILE
NTS



OUTLET SECTION
NTS



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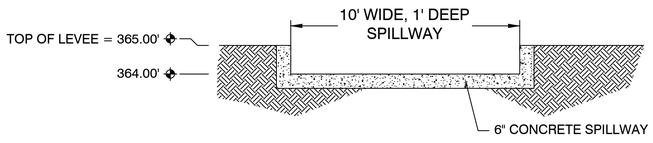
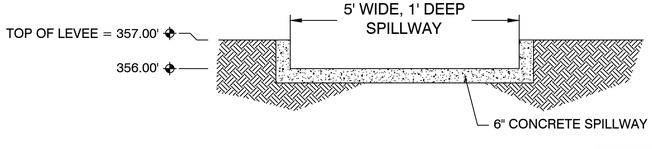


SPILLWAY END VIEW
NTS



SPILLWAY END VIEW
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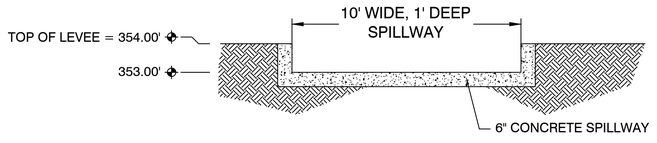


SPILLWAY END VIEW
NTS

DETENTION POND MAINTENANCE PLAN

Background
The detention pond is located at the NW Corner of the subject property. It is designed to temporarily detain stormwater to meet water quantity criteria before discharging off the property.

Routine Maintenance
The property owners association will maintain the drainage easements located in Tract "A". Routine maintenance will include but not be limited to:
-Mowing of the bank slopes and area around the pond on a monthly basis during the growing season and as needed during the cooler months.

-The outlet pipe from the pond and other areas will be inspected monthly for debris which could inhibit the proper flow of discharge. Any debris will be removed immediately and disposed of or placed in a location to prevent future maintenance and to not cause impact up or downstream of the structure.

-Trash will be removed from around the pond to prevent entering the pond. Generally, the site should be kept free of loose trash which could be carried off site by wind or rain.

-Inspect the pond and outlet pipe for non-routine maintenance need.

Periodic or Non-Routine Maintenance
The routine inspection of the pond area and discharge pipe will identify needed repairs and non-routine maintenance. These items may include but not be limited to:

-Re-growth of trees on or around the pond bank. These should be cut and removed from the pond area.

-Sediment from the site may accumulate in the pond bottom and reduce the pond to below design volume requirements. The pond should be excavated if the pond bottom elevation reached a level that allows excessive aquatic growth or reduces the pond efficiency such, that the sediments are passing the discharge structure and release off site.

-Stabilization or re-grading of side slopes may be required periodically or after excessive rain events. Any disturbance of slopes should be reseeded or may require installation of erosion control materials until seeding can reestablish adequate grasses to prevent future erosion.

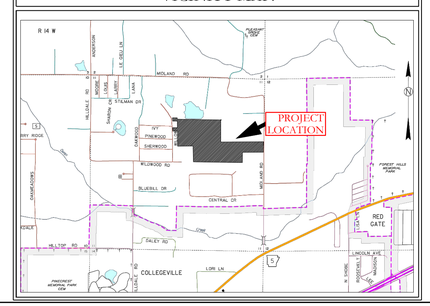
-Any other maintenance or repairs which would minimize other maintenance to the pond or outfall structures.

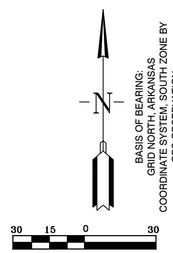
For questions or concerns about Tract "A", contact at 501-.

HDPE

RCP

VICINITY MAP:





BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, NORTH ZONE BY
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FOR USE AND BENEFIT OF:
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MIDLAND ROAD
DETENTION PLAN
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	3/21/2023	C.A.D. BY:	DRAWING NUMBER:
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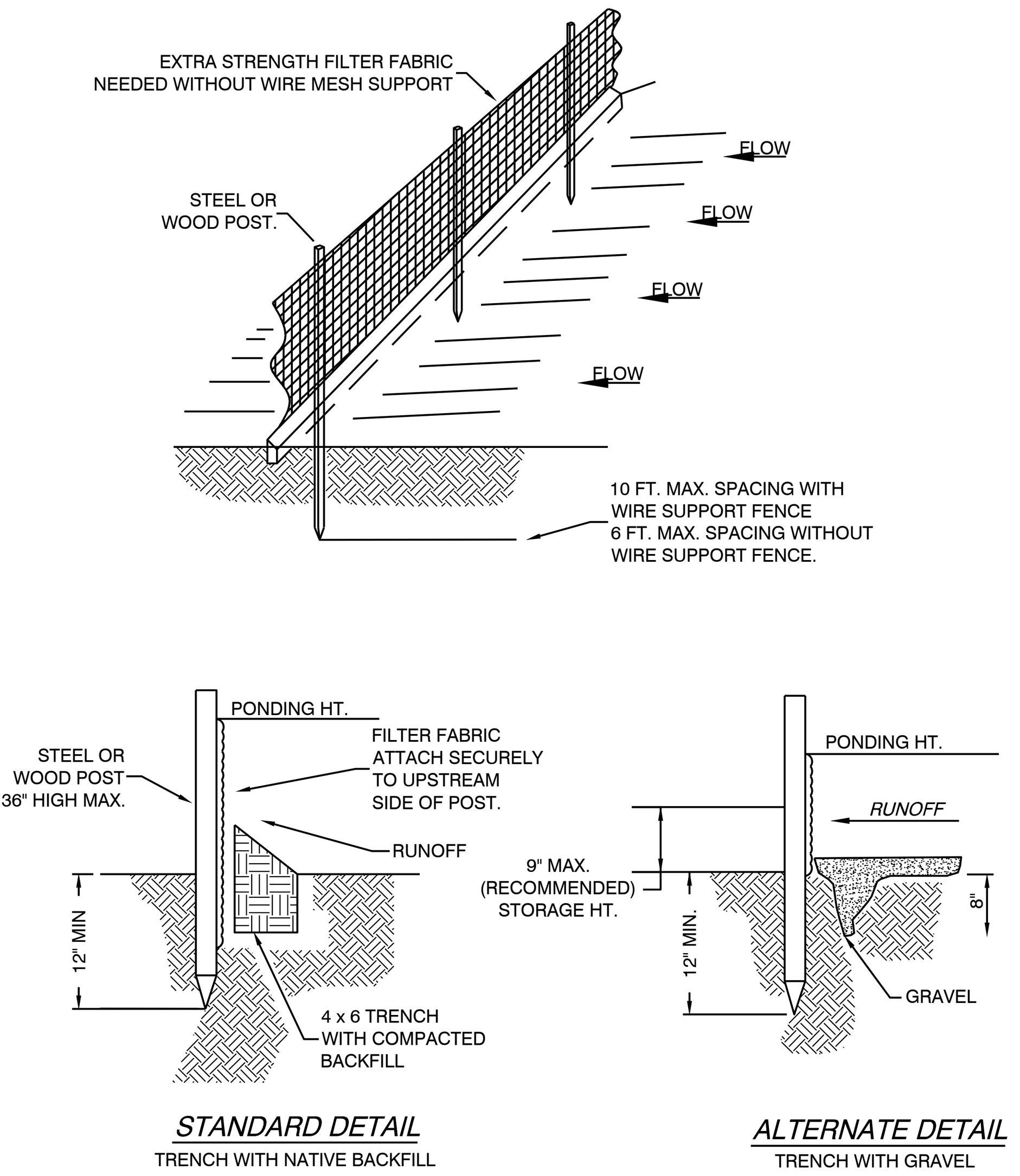
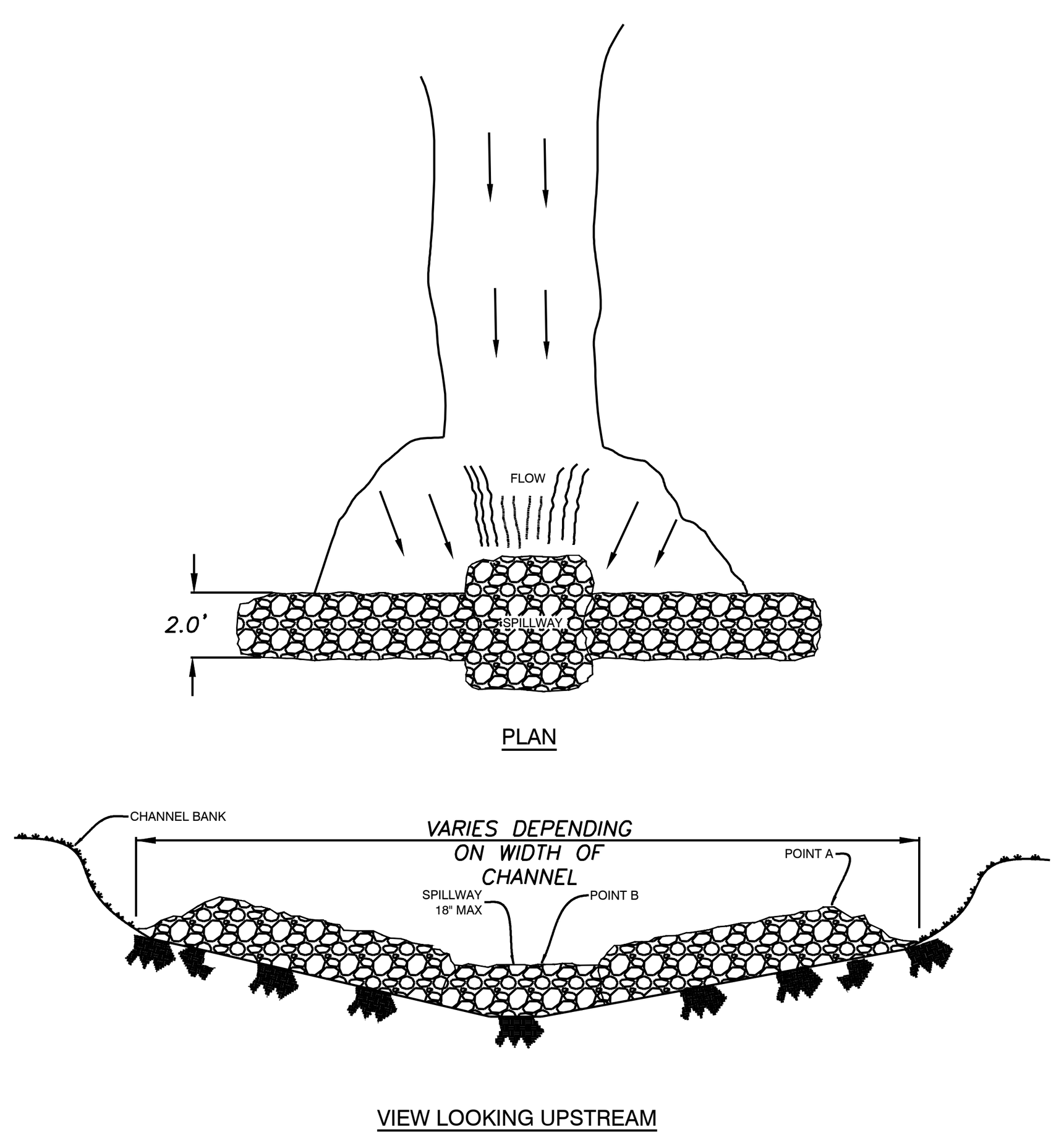


NOTE:
1.) INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.

2.) REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

3.) SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

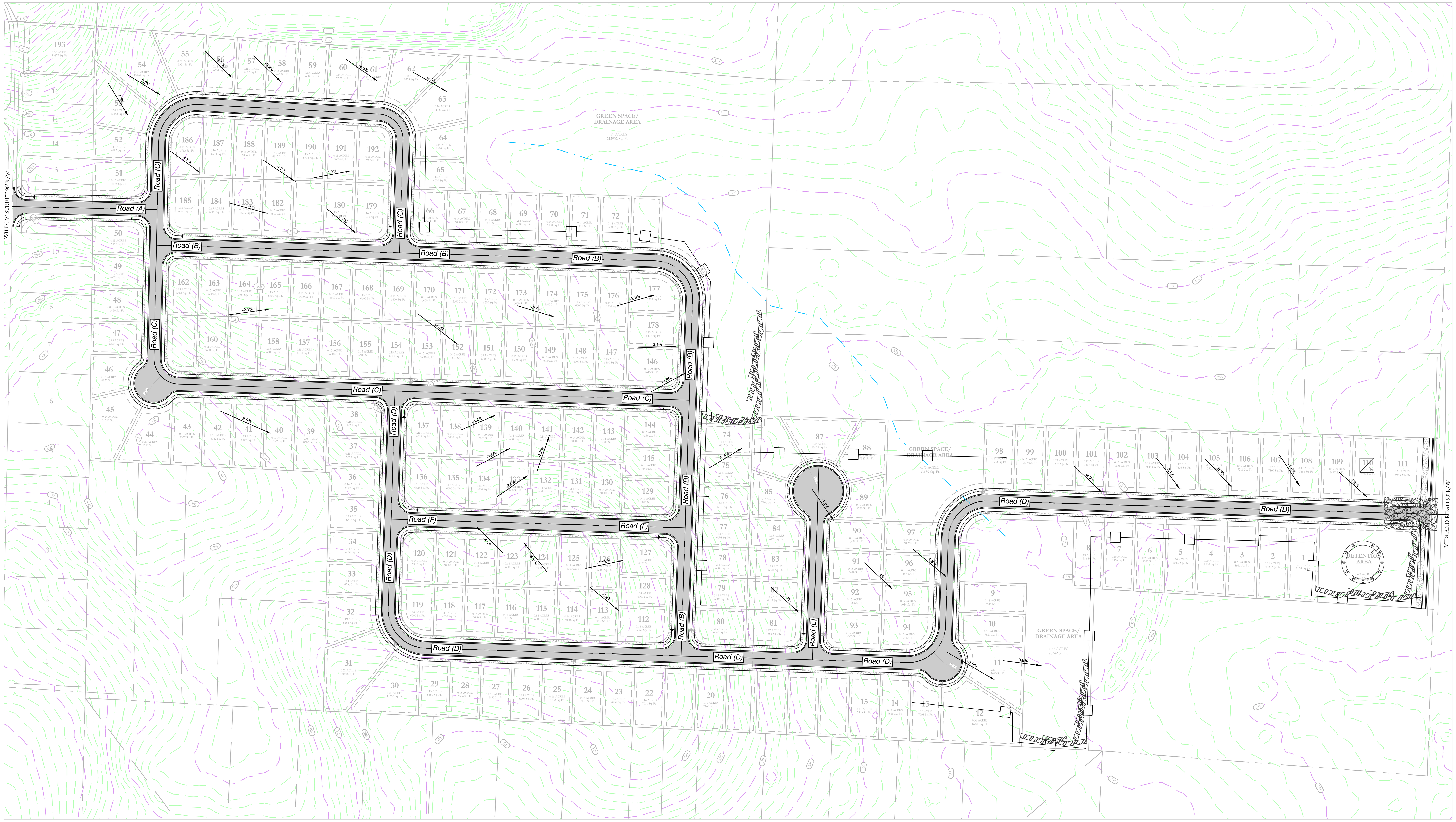
SILT FENCE



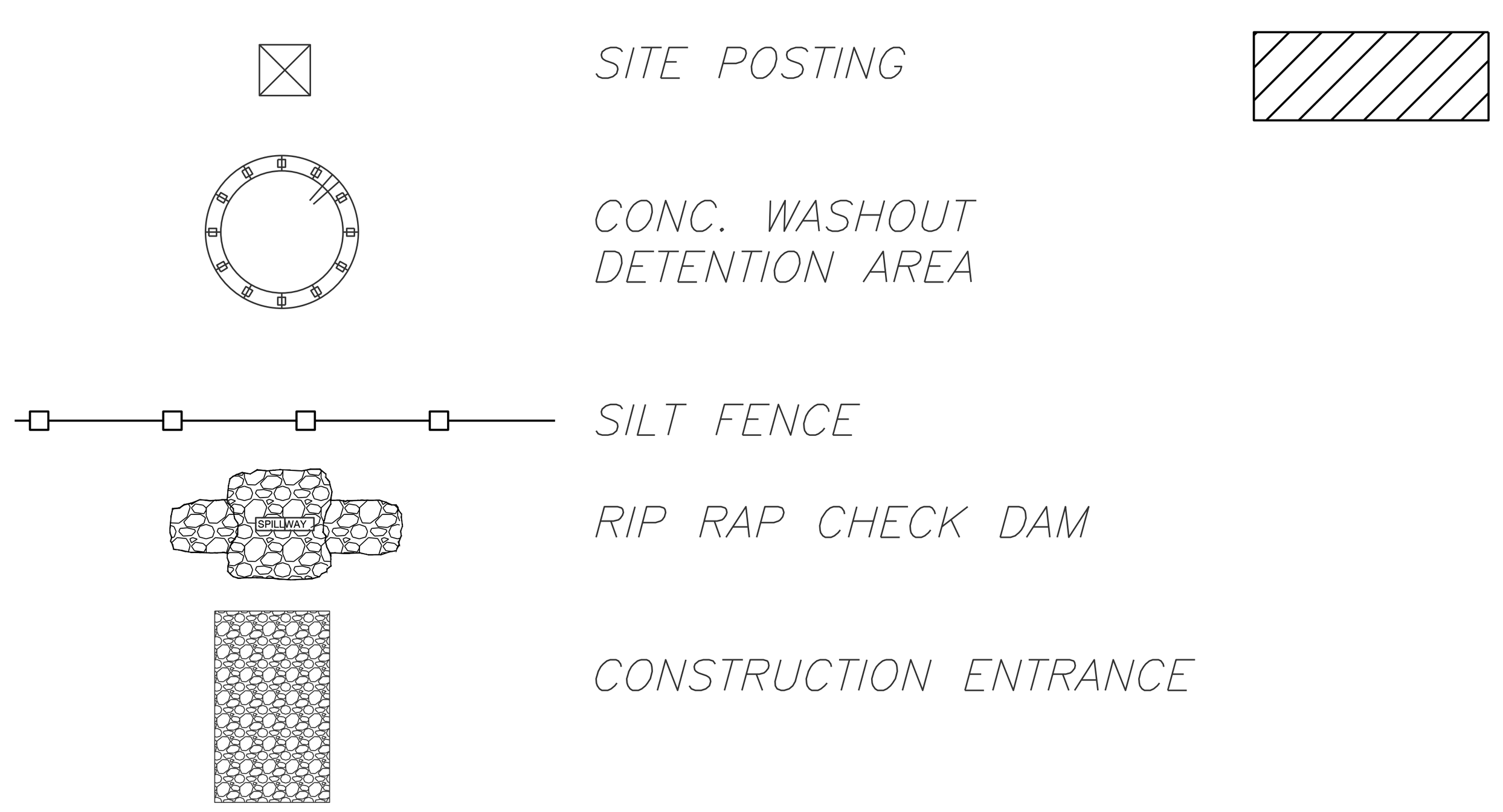
NOTES:

1.) POINT 'A' MUST BE HIGHER THAN POINT 'B' (SPILLWAY HEIGHT)
2.) PLACE RIP-RAP BARRIER PERPENDICULAR TO THE FLOW WITH TIGHT GROUPING. USE STRAW, ROCKS, OR FILTER FABRIC TO FILL ANY GAPS AND TAMP BACKFILL MATERIAL TO PREVENT EROSION OR FLOW AROUND THE DAM.
3.) SPILLWAY HEIGHT SHALL NOT EXEED 18"-24".
4.) INSPECT AFTER EACH SIGNIFICANT STORM, MAINTAIN AND REPAIR PROMPTLY.

RIP-RAP CHECK DAM



ERC LEGEND



SITE POSTING

CONC. WASHOUT DETENTION AREA

SILT FENCE

RIP RAP CHECK DAM

CONSTRUCTION ENTRANCE

DISTURBED AREA

EROSION CONTROL NOTES

SOD OR SEED DETENTION AREA POST-CONSTRUCTION (IF APPLICABLE)

MAXIMUM SLOPE OF 3H:1V ON DETENTION POND LEVEES

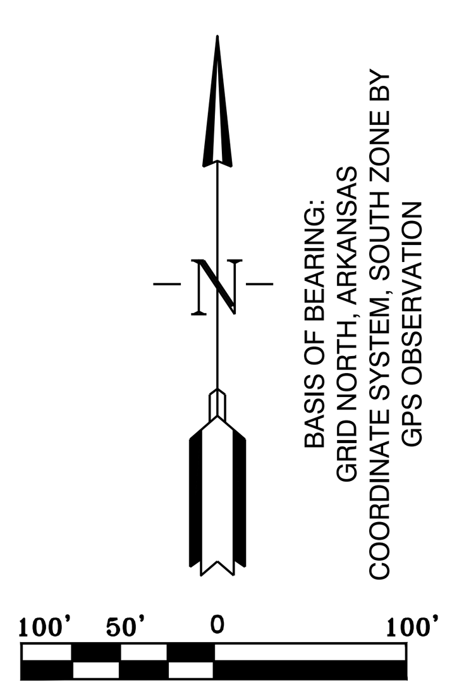
CONTRACTOR MUST HAVE INLET PROTECTION MEASURES INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF DRAINAGE INLETS/STRUCTURES IS COMPLETE. SEDIMENT BARRIERS SHALL BE MAINTAINED THROUGHOUT AND INSPECTED THROUGHOUT CONSTRUCTION PROCESS UNTIL PROJECT IS COMPLETE

RIP RAP SEDIMENT BARRIERS SHALL BE USED AT ALL STORMWATER DISCHARGE POINTS SHOWN ON PLANS ASAP

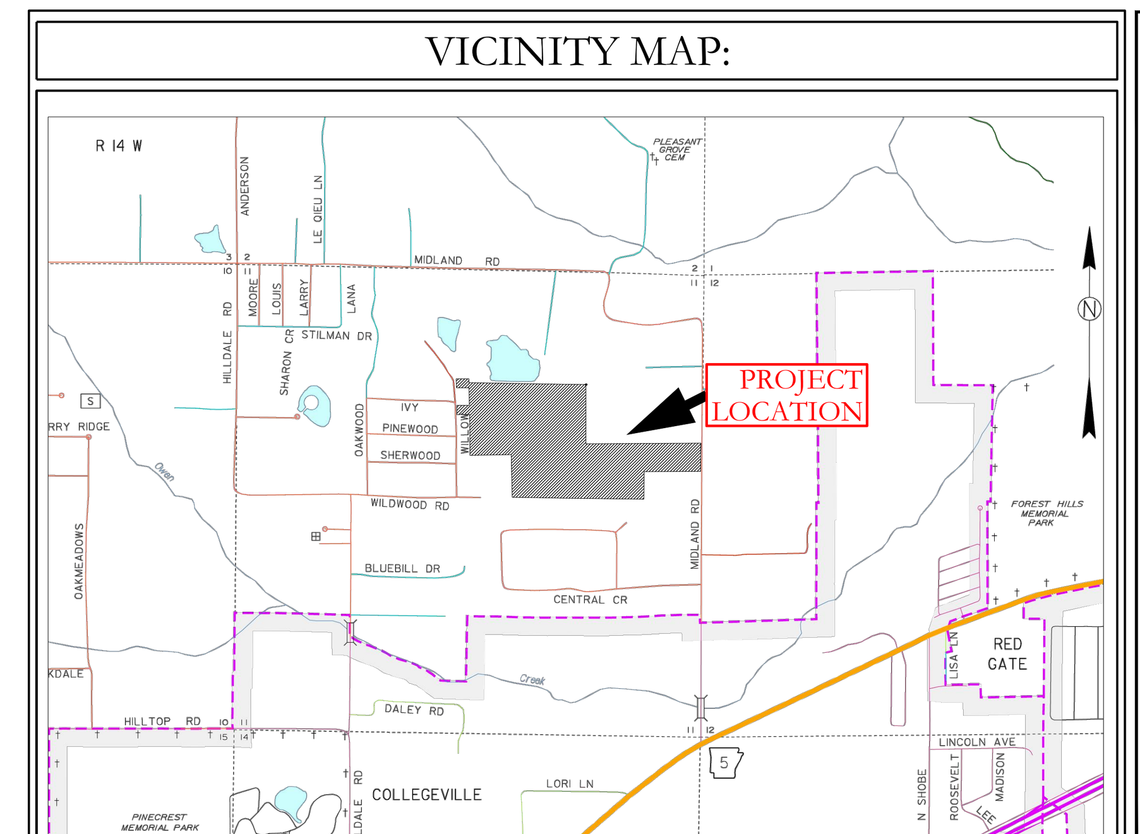
CONTRACTOR SHOULD WORK WITH ENGINEER TO ESTABLISH EFFECTIVE AND EFFICIENT PLAN TO PREVENT SEDIMENT RUNOFF BY DETERMINING WHERE SILT FENCING OR OTHER TYPES OF CONTROLS ARE NECESSARY

SOME EROSION CONTROL MEASURES, SILT FENCING, OR CHECK DAMS MAY NOT BE NECESSARY DURING INITIAL ROW CLEARING BUT MAY BE NEEDED ONCE LOT CLEARING AND HOME BUILDING BEGINS

EXISTING VEGETATION WILL ONLY BE REMOVED INSIDE ROW AND WITHIN HOUSE FOOTPRINTS AS THEY ARE CONSTRUCTED. ADDITIONAL SILT FENCING WILL BE ADDED TO INDIVIDUAL LOTS AS HOME CONSTRUCTION TAKES PLACE.



VICINITY MAP:



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500	1S	15W	0	34	230	62	1807

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