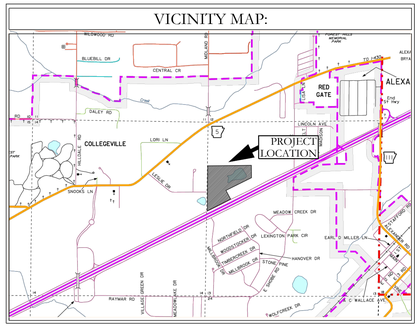
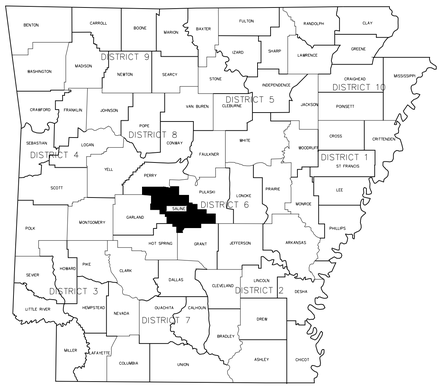
CONSTRUCTION PLANS
ARKANSAS STORAGE CENTER

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
www.hopeconsulting.com

DRAWING INDEX

SHEET NO.	TITLE
	COVER
C-1.0	SITE PLAN
C-2.0	ROAD PLAN & PROFILE
C-3.0	UTILITY PLAN
C-4.0	GRADING PLAN
C-4.1	DRAINAGE PLAN
C-4.2	DRAINAGE PLAN & PROFILE
C-4.3	DRAINAGE PLAN & PROFILE
C-4.4	DRAINAGE PLAN & PROFILE
C-4.5	RETENTION PLAN
C-4.6	PRE-DEVELOPMENT FLOW
C-5.0	POST-DEVELOPMENT FLOW
C-6.0	LANDSCAPE PLAN
C-7.0	EROSION CONTROL PLAN

CIVIL ENGINEER
HOPE CONSULTING INC
129 NORTH MAIN STREET
BENTON, AR 72015

HOPE CONSULTING
ENGINEERS - SURVEYORS
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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	12/06/2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	23-0024
SHEET:		SCALE:	

K:\LAND PROJECTS 2004\SUBDIVISIONS\2022\22-0800 STUART FINLEY\CIVIL\DWG\FINAL PROJECT\2023-10-25 - 22-0800 - ARKANSAS STORAGE CENTER - FINAL.DWG

CURRENT ZONING R-1

CURRENT ZONING C-2

CURRENT ZONING R-E

CURRENT ZONING C-3

LIGHT POST WITH T4 OPTICS WITH DIRECTIONAL TOWARD DRIVEWAYS

EXISTING TREE BUFFER

SECURITY FENCE

75' BUILDING SETBACK LINE

25' BUILDING SETBACK LINE

15' BUILDING SETBACK LINE

55' BUILDING SETBACK LINE

50' BUILDING SETBACK LINE

FIRE LANE

EXISTING FORCE MAIN LINE

PROPOSED 20' INGRESS/EGRESS ACCESS EASEMENT

12" X 6" TAPPING SLEEVE WITH A 6" VALVE

47 LF OF 6" DUCTILE IRON WATER MAIN

10' OF 12" ENCASEMENT ON WATER MAIN

490 LF OF 6" DUCTILE IRON WATER MAIN

PROPOSED HYDRANT ASSEMBLY

EXISTING 8"SEWER LINE

EXISTING 12"WATER LINE

1" PROPOSED WATER SERVICE METER

PROPOSED IRRIGATION METER 3"

1-30 FRONTAGE ROAD

EXISTING 8"WATER LINE

EXISTING OVERHEAD POWER LINE

EXISTING GAS LINE

3/4" TAPPING SLEEVE

1" TAPPING SLEEVE

8" X 6" TAPPING SLEEVE WITH A 6" VALVE

16 LF OF 6" DUCTILE IRON WATER MAIN

SECURITY GATE EQUIPPED WITH KNOX BOX FOR FD ACCESS

A1 A2 A3 A4 A5

1 FFE: 361.50 12300 Sq. Ft.
2 FFE: 364.00 15900 Sq. Ft.
3 FFE: 367.50 30060 Sq. Ft.
4 FFE: 362.00 17440 Sq. Ft.
5 FFE: 363.00 21200 Sq. Ft.
6 FFE: 366.00 34160 Sq. Ft.
7 FFE: 361.50 22960 Sq. Ft.
8 FFE: 360.00 21200 Sq. Ft.
9 FFE: 364.50 28160 Sq. Ft.
10 FFE: 365.00 17000 Sq. Ft.
11 FFE: 361.00 25120 Sq. Ft.
12 FFE: 362.50 18560 Sq. Ft.
13 FFE: 359.00 13200 Sq. Ft.
14 FFE: 360.11 14475 Sq. Ft.
15 FFE: 360.50 14243 Sq. Ft.

SITE DATA	
TOTAL SITE AREA	24.32 ACRES
TOTAL DEVELOPMENT AREA	14.79 ACRES
GROSS BUILDING AREA	TOTAL BUILDING AREA 305,978 SF
BUILDING HEIGHTS	20'
BUILDING COVERAGE PERCENTAGE	305,978/1059263.30=0.29=29.0%
BUSINESS TYPE	MINI STORAGE

NOTES:

1. ALL FIRE LINE WILL BE PRIVATE.
2. NO SEWER SERVICE IS PROPOSED.
3. GATE POST MUST BE CONSTRUCTED NO CLOSER THAN 7.5' OF UTILITY LINES.

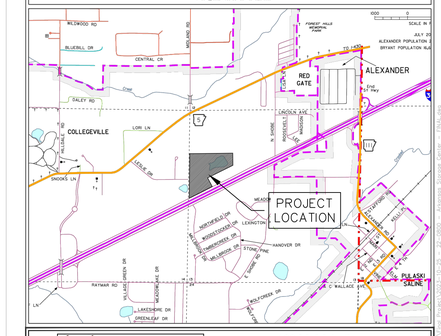
CIVIL ENGINEER
HOPE CONSULTING INC
129 N. MAIN STREET
BENTON, AR 72015
CONTACT: KAZI TAMZIDUL ISLAM
PHONE: 504-315-2626
EMAIL: kazi@hopeconsulting.com

N

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

60' 30' 0 60'

VICINITY MAP:



ACHM SURFACE COURSE
AGGREGATE BASE COURSE CLASS 7
1.5" 1.5" 7"

ASPHALT PAVEMENT SECTION
NOT TO SCALE

6" 1" SLOPE TO MATCH STREET CROSS SLOPE 1/4" R VARIES 12" MIN. 1/4" R VARIES 6" MIN. 2"

STANDARD CURB AND GUTTER DETAILS
NOT TO SCALE

LEGEND

- Aliquot Corner
- Found monument
- Set ½" Rebar
- Computed point
- (M)- Measured
- (P) - Deed/Plat
- Storm Drain Manhole
- Pole/Post
- Water Meter
- Water Valve
- Fire Hydrant
- Informational Sign
- Light Pole
- Telephone Pedestal/Box
- Clean Out
- Power Pole
- Power Pole W/Anchor
- OHP - Overhead Power
- Fence
- 12S - 12" Sewer Line
- 12W - 12" Water Line
- Guy Anchor
- Concrete
- Asphalt
- GAS - Gas Line
- T - Telephone Line
- Sewer Manhole
- Proposed Sod
- Fire Wall

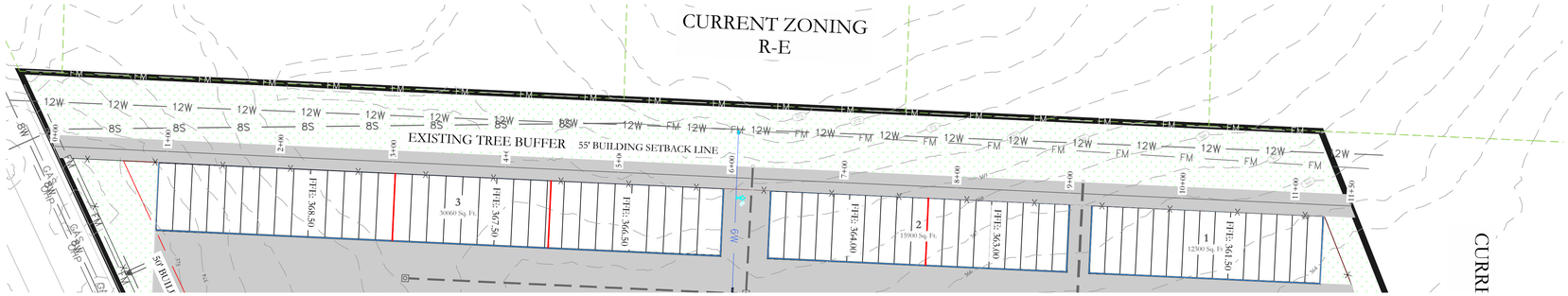
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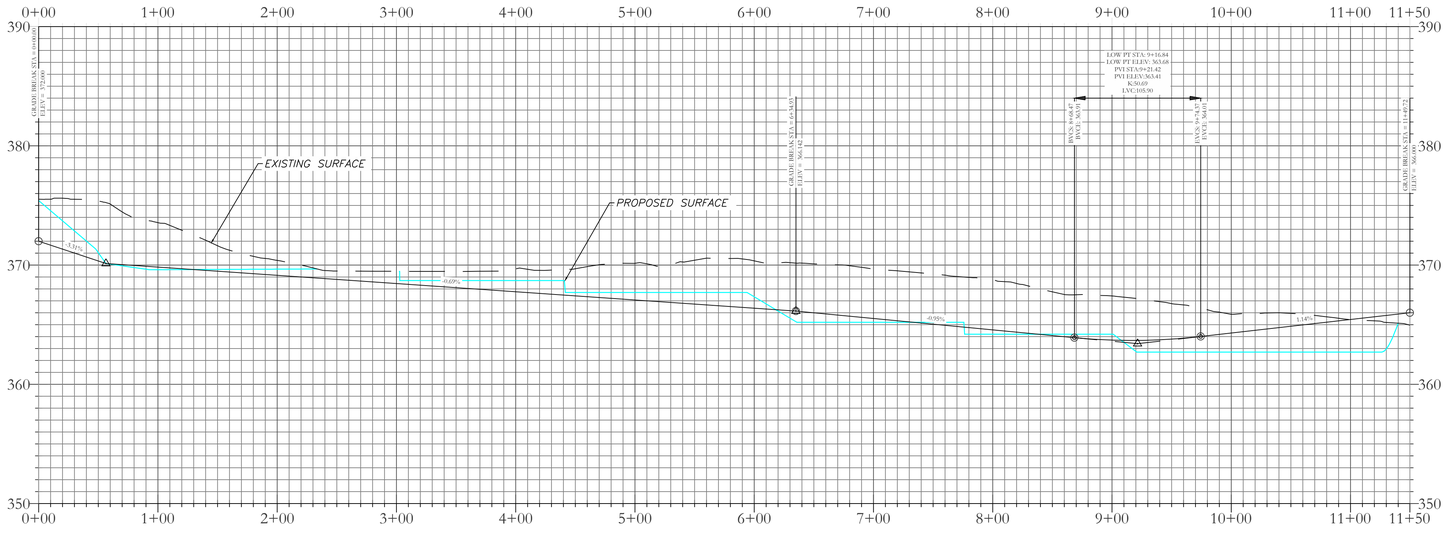
ARKANSAS STORAGE CENTER
SITE PLAN
BRYANT, SALINE COUNTY, ARKANSAS

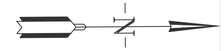
DATE: 12-06-2023	C.A.D. BY:		DRAWING NUMBER:
REVISED:	CHECKED BY:		22-0800
SHEET: C-1.0	SCALE: 1" = 60'		

500	01S	14W	0	21	300	62	1762



PRIVATE ROAD PROFILE



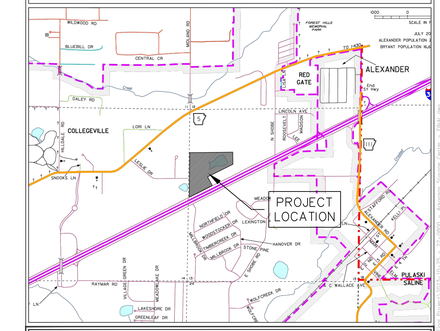


BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE
BY GPS OBSERVATION

60' 30' 0 60'

CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

VICINITY MAP:



HOPE CONSULTING
ENGINEERS - SURVEYORS
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FOR USE AND BENEFIT OF:
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ARKANSAS STORAGE CENTER

PRIVATE ROAD PLAN & PROFILE

BRYANT, SALINE COUNTY, ARKANSAS

DATE:	12-06-2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-2.0	SCALE: 1" = 60'	

500	01S	14W	0	21	300	62	1762

THESE PLANS ARE THE PROPERTY OF HOPE CONSULTING, INC. AND ARE NOT TO BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF HOPE CONSULTING, INC.

CURRENT ZONING R-1

CURRENT ZONING C-2

CURRENT ZONING R-E

CURRENT ZONING C-3

LIGHT POST WITH T4 OPTICS WITH DIRECTIONAL TOWARD DRIVEWAYS

EXISTING TREE BUFFER

SECURITY FENCE

75' BUILDING SETBACK LINE

25' BUILDING SETBACK LINE

15' BUILDING SETBACK LINE

55' BUILDING SETBACK LINE

50' BUILDING SETBACK LINE

EXISTING FORCE MAIN LINE

PROPOSED 20' INGRESS/EGRESS ACCESS EASEMENT

12'' X 6'' TAPPING SLEEVE WITH A 6'' VALVE

47 LF OF 6'' DUCTILE IRON WATER MAIN

10' OF 12'' ENCASEMENT ON WATER MAIN

490 LF OF 6'' DUCTILE IRON WATER MAIN

PROPOSED HYDRANT ASSEMBLY

EXISTING 8''SEWER LINE

EXISTING TREE BUFFER

EXISTING 12''WATER LINE

1'' PROPOSED WATER SERVICE METER

PROPOSED IRRIGATION METER 3/4''

16 LF OF 6'' DUCTILE IRON WATER MAIN

8'' X 6'' TAPPING SLEEVE WITH A 6'' VALVE

3/4'' TAPPING SLEEVE

1'' TAPPING SLEEVE

SECURITY GATE EQUIPPED WITH KNOX BOX FOR FD ACCESS

I-30 FRONTAGE ROAD

EXISTING 8''WATER LINE

EXISTING OVERHEAD POWER LINE

EXISTING GAS LINE

1 — FFE: 361.50 — 12300 Sq. Ft.
2 — FFE: 364.00 — 15900 Sq. Ft.
3 — FFE: 367.50 — 30060 Sq. Ft.
4 — FFE: 361.00 — 17440 Sq. Ft.
5 — FFE: 362.00 — 21200 Sq. Ft.
6 — FFE: 366.50 — 34160 Sq. Ft.
7 — FFE: 360.50 — 22960 Sq. Ft.
8 — FFE: 361.00 — 21200 Sq. Ft.
9 — FFE: 365.50 — 28160 Sq. Ft.
10 — FFE: 365.00 — 17000 Sq. Ft.
11 — FFE: 360.00 — 25120 Sq. Ft.
12 — FFE: 362.50 — 18560 Sq. Ft.
13 — FFE: 359.00 — 13200 Sq. Ft.
14 — FFE: 360.11 — 14475 Sq. Ft.
15 — FFE: 360.50 — 14243 Sq. Ft.

NOTES:

1. ALL FIRE LINE WILL BE PRIVATE.
2. NO SEWER SERVICE IS PROPOSED.
3. GATE POST MUST BE CONSTRUCTED NO CLOSER THAN 7.5' OF UTILITY LINES.

WATER UTILITY NOTES:

1. ALL NEW 6-INCH WATER MAINS TO BE DUCTILE IRON.
2. ALL WATER INSTALLATION TO BE IN ACCORDANCE WITH THE CITY OF BRYANT "STANDARD SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF WATER LINES AND SEWER LINES, 2015 EDITION".
3. 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.
4. 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.
5. CASING SPACERS: SHALL BE STAINLESS STEEL, CASCADE MODEL CCS AS MANUFACTURED BY CASCADE WATER MFG. CO., OR APPROVED EQUAL.

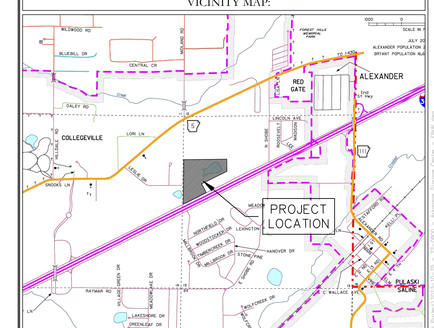
CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

N

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

60' 30' 0 60'

VICINITY MAP:



HOPE CONSULTING ENGINEERS - SURVEYORS

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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER

UTILITY PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE: 12-06-2023	C.A.D. BY:		DRAWING NUMBER:
REVISED:	CHECKED BY:		22-0800
SHEET: C-3.0	SCALE: 1" = 60'		

500	01S	14W	0	21	300	62	1762

CURRENT ZONING R-1

CURRENT ZONING C-2

CURRENT ZONING R-E

CURRENT ZONING C-3

EXISTING TREE BUFFER

25' BUILDING SETBACK LINE

75' BUILDING SETBACK LINE

15' BUILDING SETBACK LINE

55' BUILDING SETBACK LINE

EXISTING TREE BUFFER

50' BUILDING SETBACK LINE

I-30 FRONTAGE ROAD

DETENTION AREA

1 — 12300 Sq. Ft. — FFE: 361.50
2 — 15900 Sq. Ft. — FFE: 363.00 / FFE: 364.00
3 — 30000 Sq. Ft. — FFE: 366.50 / FFE: 367.50 / FFE: 368.50
4 — 17440 Sq. Ft. — FFE: 362.00 / FFE: 361.00
5 — 21200 Sq. Ft. — FFE: 362.00 / FFE: 363.00
6 — 34160 Sq. Ft. — FFE: 366.00 / FFE: 367.00 / FFE: 368.00
7 — 22960 Sq. Ft. — FFE: 361.50 / FFE: 360.50
8 — 21200 Sq. Ft. — FFE: 360.00 / FFE: 361.00
9 — 28160 Sq. Ft. — FFE: 364.50 / FFE: 365.50 / FFE: 366.50
10 — 17000 Sq. Ft. — FFE: 364.00 / FFE: 365.00
11 — 23120 Sq. Ft. — FFE: 361.00 / FFE: 360.00
12 — 18560 Sq. Ft. — FFE: 361.50 / FFE: 362.50
13 — 13260 Sq. Ft. — FFE: 359.00
14 — 14475 Sq. Ft. — FFE: 360.11
15 — 14245 Sq. Ft. — FFE: 360.50

LEGEND

EXISTING CONTOUR LINE 363
PROPOSED CONTOUR LINE 363
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE

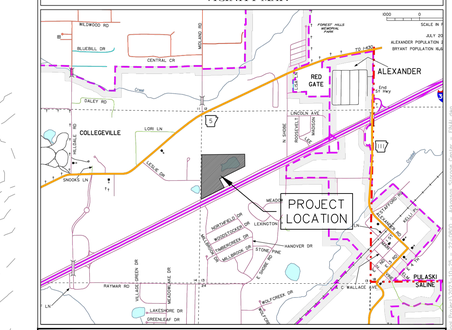
CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

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

N

60' 30' 0 60'

VICINITY MAP:



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FOR USE AND BENEFIT OF:
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ARKANSAS STORAGE CENTER

GRADING PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE:	12-06-2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-4.0	SCALE: 1" = 60'	

500	01S	14W	0	21	300	62	1762

CURRENT ZONING R-1

CURRENT ZONING C-2

EXISTING TREE BUFFER

75' BUILDING SETBACK LINE

25' BUILDING SETBACK LINE

SPILLWAY ELEV. 354.5'

TOP OF LEVEE

5' WIDE LEVEE

SPILLWAY(5')

36" OF 12" RCP @ 0.57%

FLOW ELEV.= 353.5'

DETENTION AREA

15' BUILDING SETBACK LINE

FFE: 359.00 — 13 — 13201 Sq. Ft.

FFE: 361.00 — 11 — 25120 Sq. Ft.

FFE: 360.11 — 14 — 14475 Sq. Ft.

FFE: 361.50 — 7 — 22960 Sq. Ft.

FFE: 362.00 — 4 — 17440 Sq. Ft.

FFE: 361.50 — 1 — 12300 Sq. Ft.

FFE: 360.50

FFE: 361.50 — 12 — 18560 Sq. Ft.

FFE: 362.50

FFE: 360.50 — 15 — 14245 Sq. Ft.

FFE: 360.00 — 8 — 21200 Sq. Ft.

FFE: 361.00

FFE: 362.00 — 5 — 21200 Sq. Ft.

FFE: 363.00 — 2 — 15900 Sq. Ft.

FFE: 364.00

FFE: 363.00

FFE: 365.00 — 10 — 17000 Sq. Ft.

FFE: 364.00

FFE: 365.50 — 9 — 26160 Sq. Ft.

FFE: 367.00 — 6 — 34160 Sq. Ft.

FFE: 366.00

FFE: 366.50

FFE: 367.50 — 3 — 30000 Sq. Ft.

FFE: 368.50

FFE: 368.00

FFE: 366.50

CURRENT ZONING C-3

CURRENT ZONING R-E

55' BUILDING SETBACK LINE

EXISTING TREE BUFFER

50' BUILDING SETBACK LINE

I-30 FRONTAGE ROAD

CB - (1) STA:0+00.00 OFF:0.00 RIM:359.95 INV OUT:355.41 12"

CB - (2) STA:0+00.00 OFF:0.00 RIM:360.09 INV OUT:355.50 18"

CB - (3) STA:1+12.00 OFF:0.00 RIM:360.75 INV IN:355.87 24" INV OUT:355.67 24"

CB - (4) STA:2+59.50 OFF:0.00 RIM:359.50 INV IN:354.70 18" INV IN:354.56 24" INV OUT:354.56 24"

CB - (5) STA:3+02.23 OFF:-0.05L RIM:363.75 INV IN:359.99 18" INV IN:360.75 24" INV OUT:359.60 24"

CB - (6) STA:4+47.19 OFF:0.00 RIM:362.99 INV IN:358.00 24" INV IN:358.50 18" INV OUT:357.50 24"

CB - (7) STA:2+00.00 OFF:0.00 RIM:364.00 INV IN:359.50 18" INV OUT:359.50 18"

CB - (8) STA:5+86.74 OFF:0.00 RIM:361.40 INV IN:356.40 24" INV IN:356.40 18" INV OUT:355.90 30"

CB - (9) STA:0+00.00 OFF:0.00 RIM:366.00 INV OUT:361.50 18"

CB - (10) STA:0+00.00 OFF:0.00 RIM:366.78 INV OUT:361.50 18"

CB - (11) STA:8+82.63 OFF:-6.03L RIM:359.35 INV IN:353.75 30" INV IN:353.86 24" INV IN:354.62 18" INV OUT:353.75 30"

177' OF 18" HDPE @ 0.56%

142' OF 18" HDPE @ 0.56%

112' OF 24" HDPE @ 3.59%

146' OF 24" HDPE @ 0.89%

342' OF 30" HDPE @ 0.52%

296' OF 30" HDPE @ 0.75%

114' OF 24" HDPE @ 1.92%

145' OF 24" HDPE @ 1.03%

140' OF 24" HDPE @ 1.07%

159' OF 24" HDPE @ 0.50%

267' OF 18" HDPE @ 0.37%

267' OF 18" HDPE @ 0.56%

267' OF 18" HDPE @ 1.00%

211' OF 18" HDPE @ 1.42%

LEGEND

PROPOSED CONTOUR LINE — 363

PROPOSED HDPE STORM PIPE

PROPOSED RCP STORM PIPE

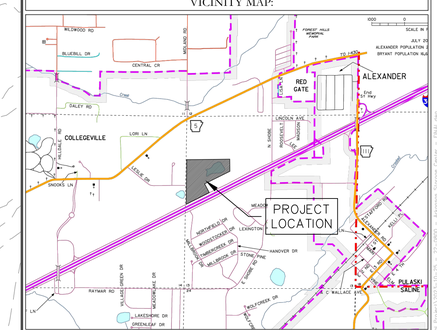
N

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

60' 30' 0 60'

CERTIFICATE OF AUTHORIZATION — HOPE CONSULTING, INC. — No. 1931 — ARKANSAS

VICINITY MAP:



	Pre-Development	Post-Development without Detention	Post-Development with Detention
	Peak Flow (cfs)	Peak Flow (cfs)	Peak Flow (cfs)
2-Year	53.08	116.86	2.028
5-Year	58.66	130.27	2.263
10-Year	69.15	149.65	2.617
25-Year	79.33	176.93	2.955
50-Year	90.45	194.22	3.283
100-Year	96.16	205.89	3.435
TOC	**16.05 min**	**10.58 min**	

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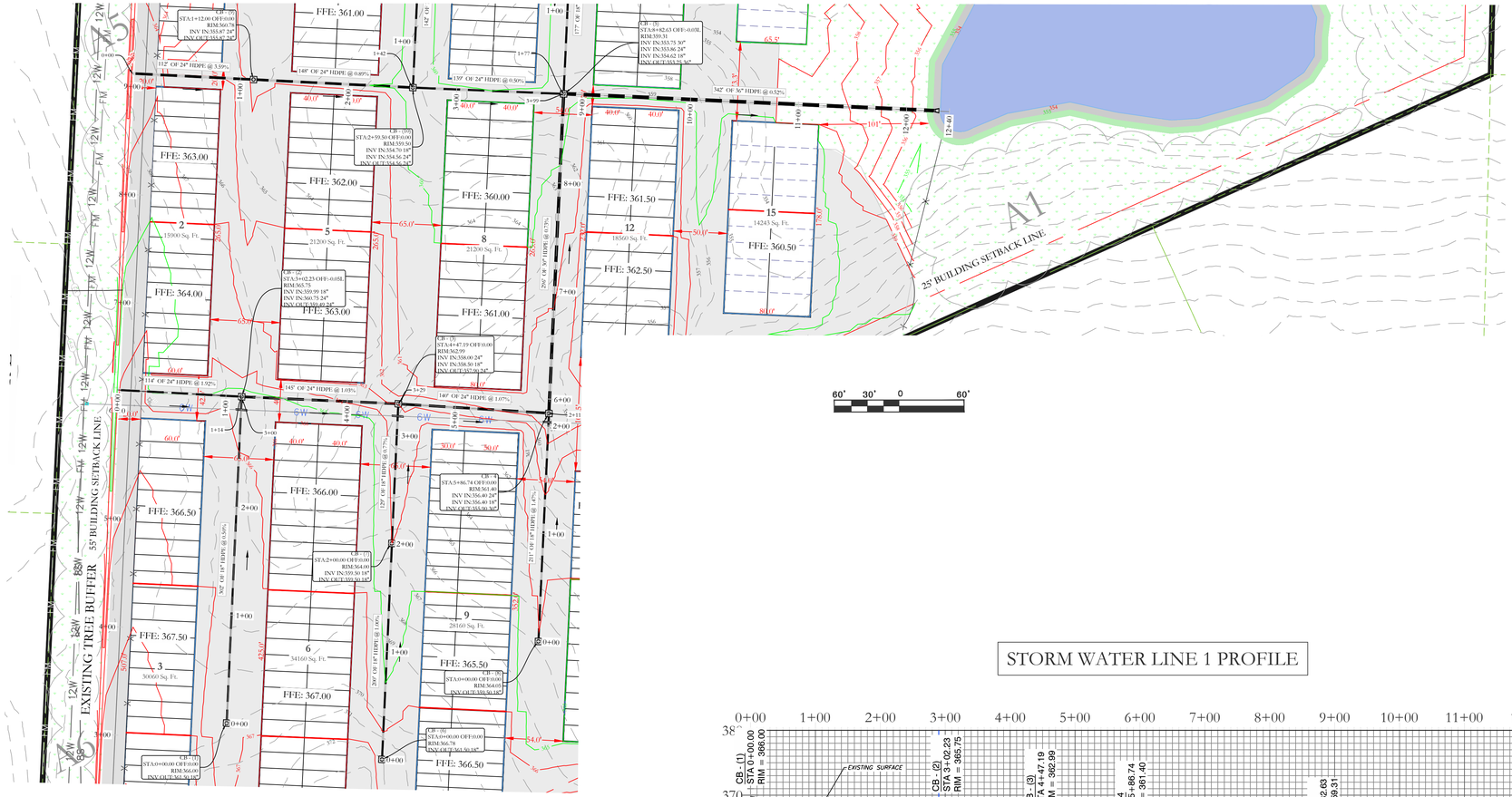
ARKANSAS STORAGE CENTER

DRAINAGE PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE: 12-06-2023	C.A.D. BY:		DRAWING NUMBER:
REVISED:	CHECKED BY:		22-0800
SHEET: C-5.0	SCALE: 1" = 60'		

500	01S	14W	0	21	300	62	1762



LEGEND

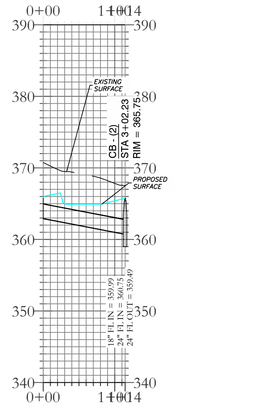
EXISTING CONTOUR LINE 363

PROPOSED CONTOUR LINE 363

PROPOSED HDPE STORM PIPE

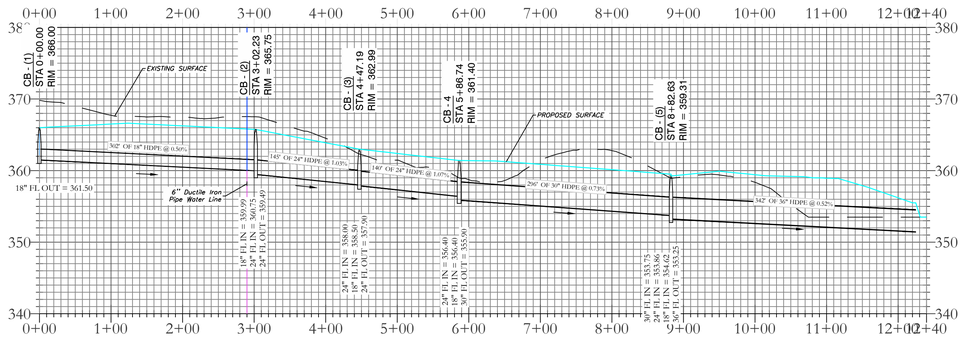
PROPOSED RCP STORM PIPE

STORM WATER LINE 7 PROFILE



100' 50' 0 100'

STORM WATER LINE 1 PROFILE

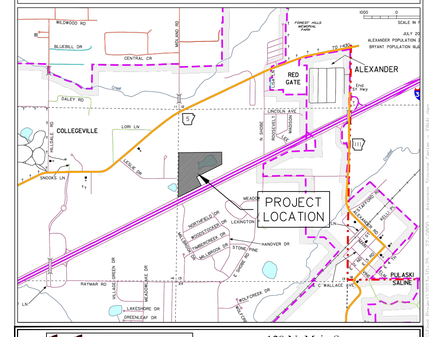


100' 50' 0 100'



CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

VICINITY MAP:



HOPE CONSULTING
ENGINEERS - SURVEYORS

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Benton, Arkansas 72015
PH. (501)315-2626
FAX (501) 315-0024
www.hopeconsulting.com

FOR USE AND BENEFIT OF:

STUART FINLEY

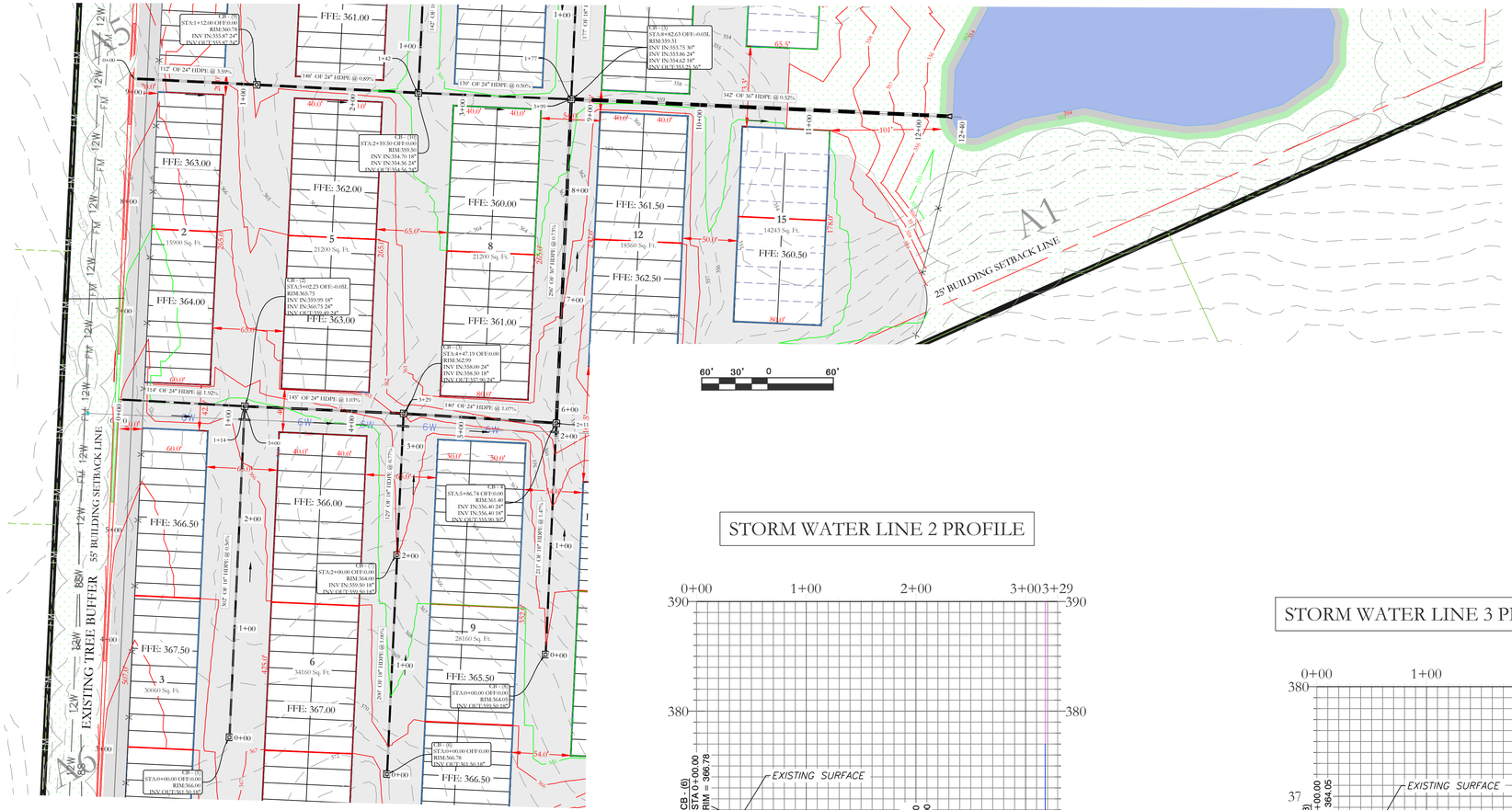
ARKANSAS STORAGE CENTER

DRAINAGE PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE: 12-06-2023	C.A.D. BY:	DRAWING NUMBER:	
REVISED:	CHECKED BY:	22-0800	
SHEET: C-5.1	SCALE:		

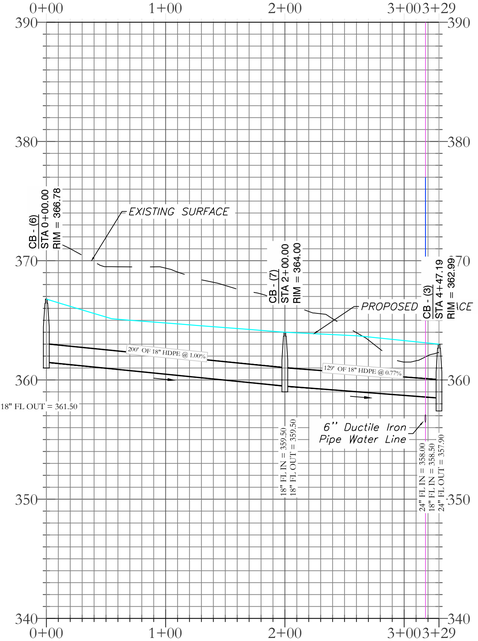
500	01S	14W	0	21	300	62	1762



LEGEND

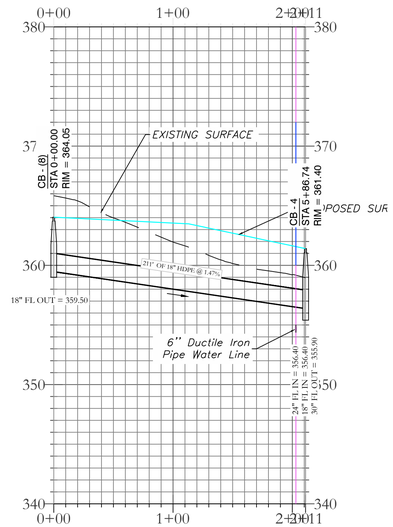
EXISTING CONTOUR LINE — — 363 — —
PROPOSED CONTOUR LINE 363
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE

STORM WATER LINE 2 PROFILE



60' 30' 0 60'

STORM WATER LINE 3 PROFILE



60' 30' 0 60'

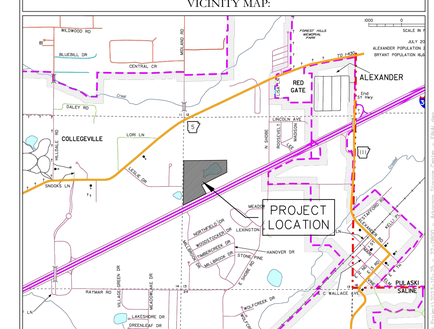
HOPE CONSULTING, INC. No. 1931 — CERTIFICATE OF AUTHORIZATION — ARKANSAS

N

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

60' 30' 0 60'

VICINITY MAP:



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ENGINEERS - SURVEYORS

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ARKANSAS STORAGE CENTER

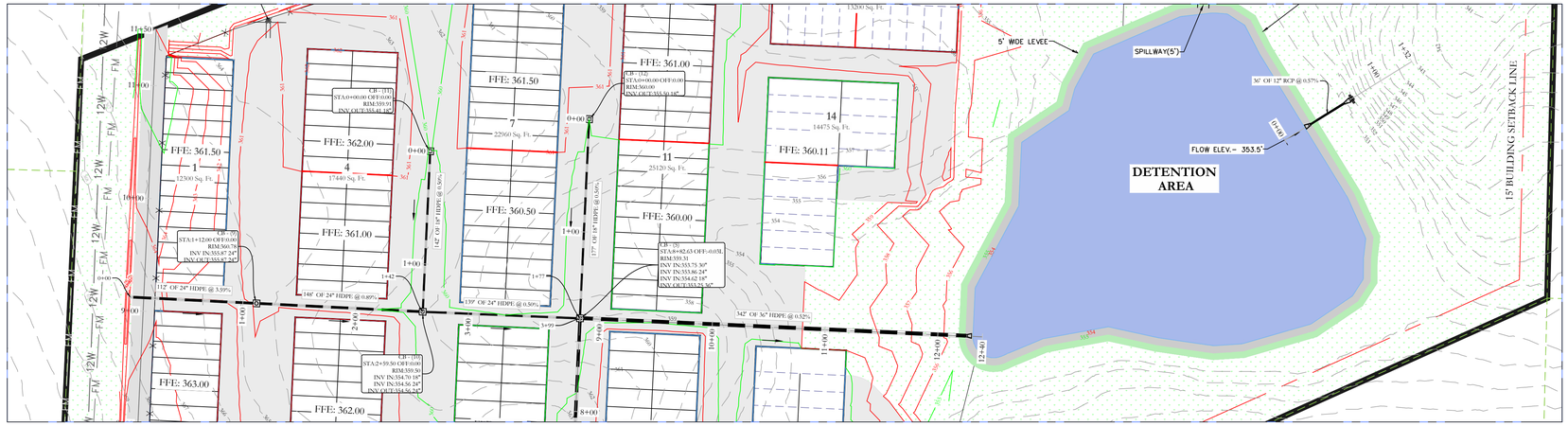
DRAINAGE PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE: 12-06-2023	C.A.D. BY:		DRAWING NUMBER:
REVISED:	CHECKED BY:		22-0800
SHEET: C-5.2	SCALE:		

500	01S	14W	0	21	300	62	1762

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LEGEND

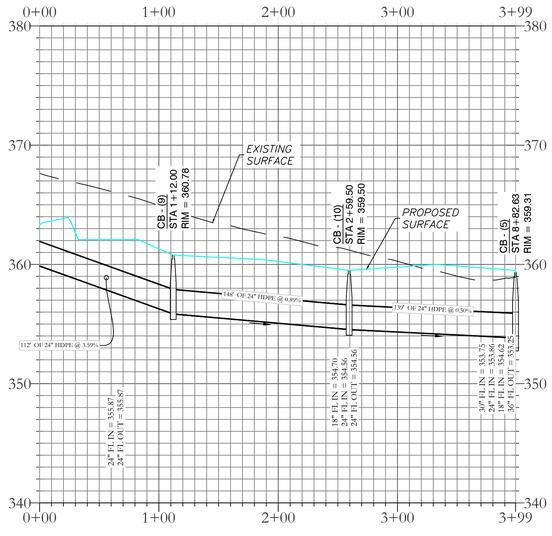
EXISTING CONTOUR LINE — 363

PROPOSED CONTOUR LINE — 363

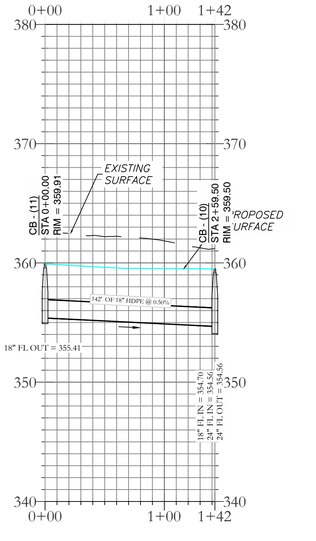
PROPOSED HDPE STORM PIPE

PROPOSED RCP STORM PIPE

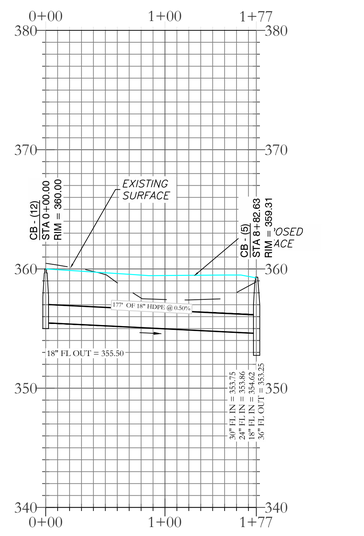
STORM WATER LINE 4 PROFILE



STORM WATER LINE 5 PROFILE



STORM WATER LINE 6 PROFILE



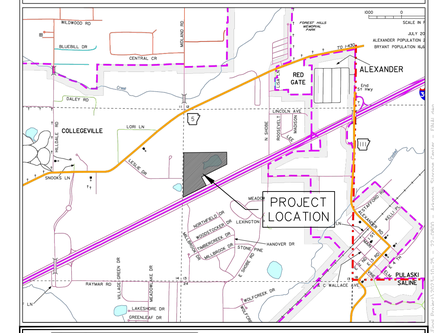
CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

-N-

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

60' 30' 0 60'

VICINITY MAP:



HOPE CONSULTING
ENGINEERS - SURVEYORS

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Benton, Arkansas 72015
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FOR USE AND BENEFIT OF:

STUART FINLEY

ARKANSAS STORAGE CENTER

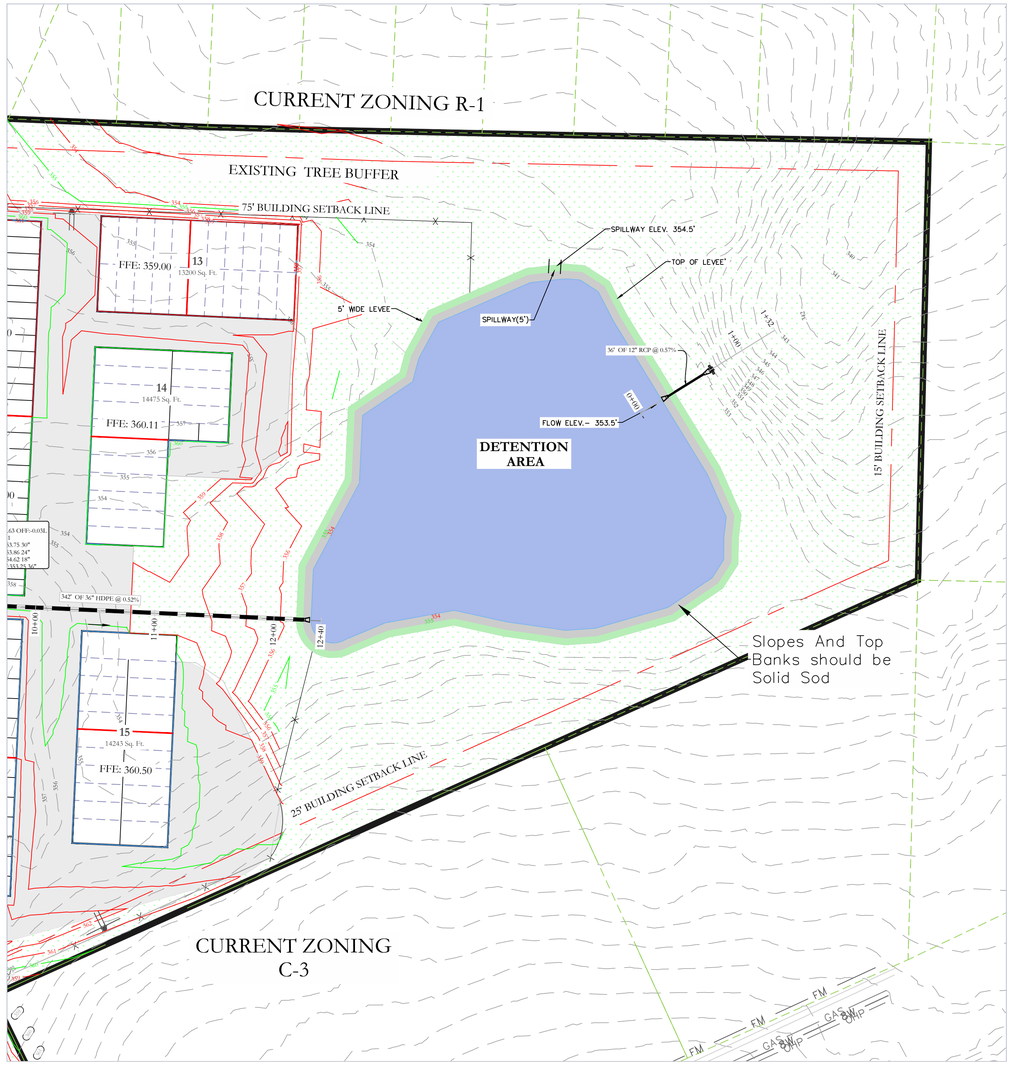
DRAINAGE PLAN

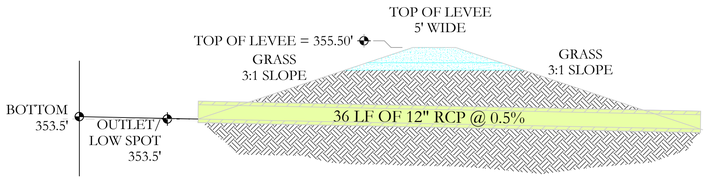
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	12-06-2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-5.3	SCALE:	

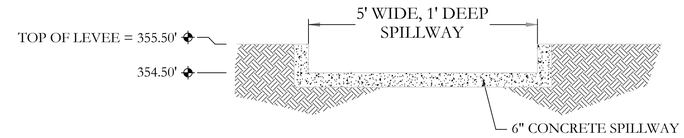
500	01S	14W	0	21	300	62	1762

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OUTLET SECTION
NTS



SPILLWAY END VIEW
NTS

LEGEND

EXISTING CONTOUR LINE 363
PROPOSED CONTOUR LINE 363
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE

DETENTION POND MAINTENANCE PLAN

Background
There will be one retention pond in this project.The retention pond is located at the North-East 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. 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.

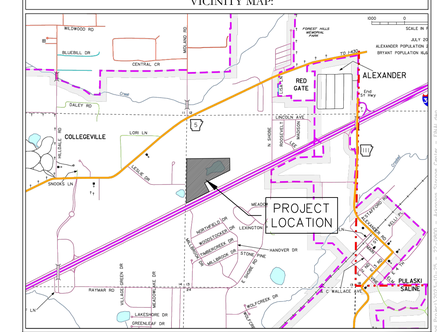
CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

N

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

60' 30' 0 60'

VICINITY MAP:



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ENGINEERS - SURVEYORS
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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER
RETENTION POND PLAN
BRYANT, SALINE COUNTY, ARKANSAS

DATE: 12-06-2023	C.A.D. BY:		DRAWING NUMBER:
REVISED:	CHECKED BY:		22-0800
SHEET: C-5.4	SCALE:		

500	01S	14W	0	21	300	62	1762

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CURRENT ZONING R-1

CURRENT ZONING C-2

EXISTING TREE BUFFER

75' BUILDING SETBACK LINE

25' BUILDING SETBACK LINE

15' BUILDING SETBACK LINE

DETENTION AREA

CURRENT ZONING C-3

CURRENT ZONING R-E

55' BUILDING SETBACK LINE

EXISTING TREE BUFFER

50' BUILDING SETBACK LINE

I-30 FRONTAGE ROAD

PRE-DEVELOPMENT WATER-FLOW

PRE-DEVELOPMENT CATCHING AREA

1 — FFE: 361.50 — 12300 Sq. Ft.
2 — FFE: 364.00 — 15900 Sq. Ft.
3 — FFE: 367.50 — 30060 Sq. Ft.
4 — FFE: 362.00 — FFE: 361.00 — 17440 Sq. Ft.
5 — FFE: 362.00 — FFE: 363.00 — 21200 Sq. Ft.
6 — FFE: 366.00 — FFE: 367.00 — 34160 Sq. Ft.
7 — FFE: 361.50 — FFE: 360.50 — 22960 Sq. Ft.
8 — FFE: 360.00 — FFE: 361.00 — 21200 Sq. Ft.
9 — FFE: 364.50 — FFE: 365.50 — 28160 Sq. Ft.
10 — FFE: 365.00 — FFE: 366.50 — 17000 Sq. Ft.
11 — FFE: 361.00 — FFE: 360.00 — 25120 Sq. Ft.
12 — FFE: 361.50 — FFE: 362.50 — 18500 Sq. Ft.
13 — FFE: 359.00 — 13240 Sq. Ft.
14 — FFE: 360.11 — 14475 Sq. Ft.
15 — FFE: 360.50 — 14243 Sq. Ft.

	Pre-Development	Post-Development without Detention	Post-Development with Detention
	Peak Flow (cfs)	Peak Flow (cfs)	Peak Flow (cfs)
2-Year	53.08	116.86	1.831
5-Year	58.66	130.27	3.033
10-Year	69.15	149.65	5.315
25-Year	79.33	176.93	8.288
50-Year	90.45	194.22	11.98
100-Year	96.16	205.89	13.95
TOC	**16.05 min**	**10.58 min**	

LEGEND

EXISTING CONTOUR LINE — 363

PROPOSED CONTOUR LINE — 363

PROPOSED HDPE STORM PIPE

PROPOSED RCP STORM PIPE

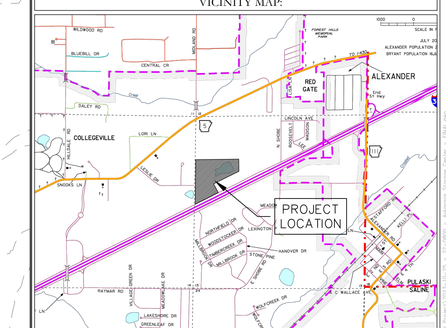
CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

N

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

60' 30' 0 60'

VICINITY MAP:



Pre-Development Time of Concentration

Reach	Description of Flow	n	Length (ft)	First Elevation	Second Elevation	Δ Elevation (ft)	Slope (ft/ft)	Cross. Area (sqft)	Welted Perimeter (ft)	Hydraulic Radius	Velocity (Ft/s)	Travel Time (min)
A-B	Overland	0.2	40.00	377.50	375.40	2.10	0.05					9.57
B-C	Shallow Flow	0.03	410.00	375.40	366.52	8.88	0.02				2.37	2.88
D-E	Open Channel	0.03	220.00	366.52	361.22	5.30	0.02	3.75	10.10	0.37	3.97	0.92
E-F	Open Channel	0.03	200.00	361.22	355.50	5.72	0.03	3.75	10.10	0.37	4.32	0.77
F-G	Open Channel	0.03	258.05	355.50	353.50	2.00	0.01	3.75	10.10	0.37	2.25	1.91
											Total Time	**16.05**

HOPE CONSULTING
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www.hopeconsulting.com

FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER
PRE-DEVELOPMENT FLOW
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	12-06-2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-5.5	SCALE: 1" = 60'	

500	01S	14W	0	21	300	62	1762

CURRENT ZONING R-1

CURRENT ZONING C-2

CURRENT ZONING R-E

CURRENT ZONING C-3

EXISTING TREE BUFFER

25' BUILDING SETBACK LINE

75' BUILDING SETBACK LINE

15' BUILDING SETBACK LINE

55' BUILDING SETBACK LINE

50' BUILDING SETBACK LINE

EXISTING TREE BUFFER

I-30 FRONTAGE ROAD

5' WIDE LEVEE

SPILLWAY ELEV. 355.5'

TOP OF LEVEE

SPILLWAY(5')

FLOW ELEV.= 353.5'

DETENTION AREA

POST-DEVELOPMENT WATER-FLOW

POST-DEVELOPMENT WATER-FLOW

POST-DEVELOPMENT WATER-FLOW

POST-DEVELOPMENT CATCHING AREA

1 — 12500 Sq. Ft. — FFE: 361.50
2 — 15900 Sq. Ft. — FFE: 364.00
3 — 30060 Sq. Ft. — FFE: 367.50
4 — 17440 Sq. Ft. — FFE: 362.00 / FFE: 361.00
5 — 21200 Sq. Ft. — FFE: 362.00 / FFE: 363.00
6 — 34160 Sq. Ft. — FFE: 366.00 / FFE: 367.00 / FFE: 368.00
7 — 22060 Sq. Ft. — FFE: 361.50 / FFE: 360.50
8 — 21200 Sq. Ft. — FFE: 360.00 / FFE: 361.00
9 — 28160 Sq. Ft. — FFE: 364.50 / FFE: 365.50 / FFE: 366.50
10 — 17000 Sq. Ft. — FFE: 365.00
11 — 25120 Sq. Ft. — FFE: 361.00 / FFE: 360.00
12 — 18560 Sq. Ft. — FFE: 361.50 / FFE: 362.50
13 — 13200 Sq. Ft. — FFE: 359.00
14 — 14473 Sq. Ft. — FFE: 360.11
15 — 14243 Sq. Ft. — FFE: 360.50

LEGEND

EXISTING CONTOUR LINE 363

PROPOSED CONTOUR LINE 363

PROPOSED HDPE STORM PIPE

PROPOSED RCP STORM PIPE

	Pre-Development Peak Flow (cfs)	Post-Development without Detention Peak Flow (cfs)	Post-Development with Detention Peak Flow (cfs)
2-Year	53.08	116.86	2.028
5-Year	58.66	130.27	2.263
10-Year	69.15	149.65	2.617
25-Year	79.33	176.93	2.955
50-Year	90.45	194.22	3.283
100-Year	96.16	205.89	3.435
TOC	**16.05 min**	**10.58 min**	

Post-Development Time of Concentration

Reach	Description of Flow	n	Length (ft)	First Elevation	Second Elevation	Δ Elevation (ft)	Slope (ft/ft)	Cross. Area (sqft)	Diameter (ft)	Welted Perimeter (ft)	Hydraulic Radius	Velocity (Ft/s)	Travel Time (min)
A-B	Overland	0.02	40.00				0.020						5.29
B-C	Shallow Flow		234.00	375.82	372.04	3.78	0.020					2.87	1.36
C-D	18" Pipe	0.015	302.00				0.005		1.50		0.38	3.64	1.38
D-E	18" Pipe	0.015	145.00				0.010		2.00		0.50	6.34	0.38
E-F	24" Pipe	0.015	140.00				0.012		2.00		0.50	6.70	0.35
F-G	24" Pipe	0.015	296.00				0.007		2.50		0.63	6.19	0.80
G-H	36" Pipe	0.015	357.00				0.005		3.00		0.75	5.79	1.03
												Total Time	**10.58**

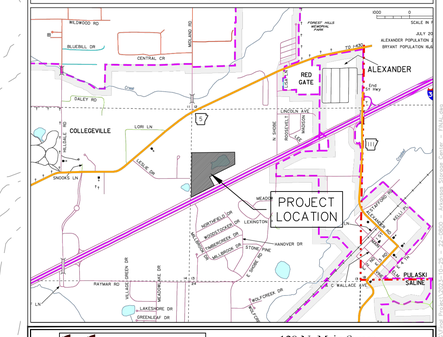
CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

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

N

60' 30' 0 60'

VICINITY MAP:



HOPE CONSULTING
ENGINEERS - SURVEYORS

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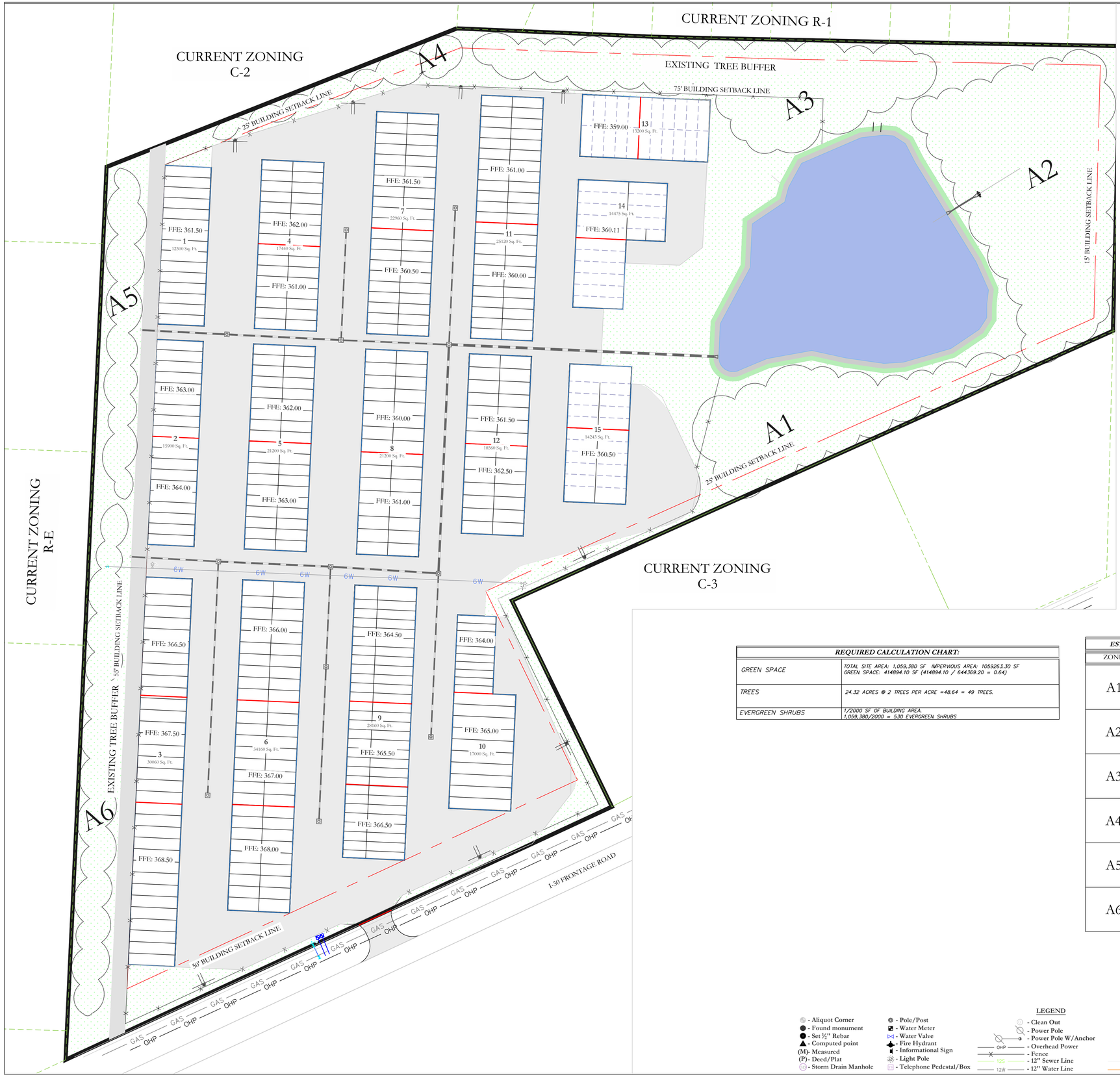
ARKANSAS STORAGE CENTER

POST-DEVELOPMENT FLOW

BRYANT, SALINE COUNTY, ARKANSAS

DATE:	12-05-2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-4.6	SCALE: 1" = 60'	

500	01S	14W	0	21	300	62	1762



REQUIRED CALCULATION CHART:	
GREEN SPACE	TOTAL SITE AREA: 1,059,380 SF IMPERVIOUS AREA: 1059263.30 SF GREEN SPACE: 414894.10 SF (414894.10 / 644369.20 = 0.64)
TREES	24.32 ACRES @ 2 TREES PER ACRE =48.64 = 49 TREES.
EVERGREEN SHRUBS	1/2000 SF OF BUILDING AREA. 1,059,380/2000 = 530 EVERGREEN SHRUBS

ESTIMATED EXISTING TREES ON SITE PER AREA			
ZONE	CONDITION	DENSITY	SIZE
A1	GOOD	THICK	24"-36" - 130
A2	GOOD	THICK	24"-36" -89
A3	MIXED	MODERATE	24"-36" - 45
A4	GOOD	SPARSE	24"-36" - 25
A5	GOOD	MODERATE	15"-30" -20
A6	GOOD	SPARSE	15"-30" - 40

LEGEND

- Aliquot Corner
- Found monument
- Set ½" Rebar
- Computed point
- (M)- Measured
- (P)- Deed/Plat
- Storm Drain Manhole
- Pole/Post
- Water Meter
- Water Valve
- Fire Hydrant
- Informational Sign
- Light Pole
- Telephone Pedestal/Box
- Clean Out
- Power Pole
- Power Pole W/Anchor
- OHP - Overhead Power
- Fence
- 12" Sewer Line
- 12W - 12" Water Line
- Guy Anchor
- Concrete
- Asphalt
- GAS - Gas Line
- Telephone Line
- Sewer Manhole
- Proposed Sod

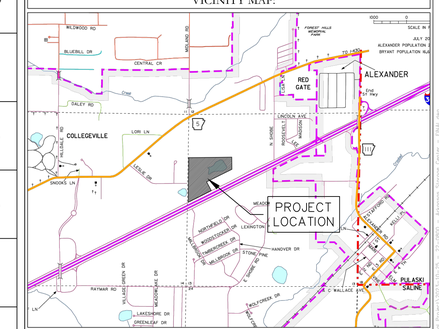
CIVIL ENGINEER
HOPE CONSULTING INC
129 N. MAIN STREET
BENTON, AR 72015
CONTACT: KAZI TAMZIDUL ISLAM
PHONE: 504-315-2626
EMAIL: kazi@hopeconsulting.com

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

60' 30' 0 60'

CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

VICINITY MAP:



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ENGINEERS - SURVEYORS
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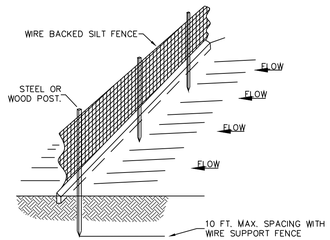
ARKANSAS STORAGE CENTER

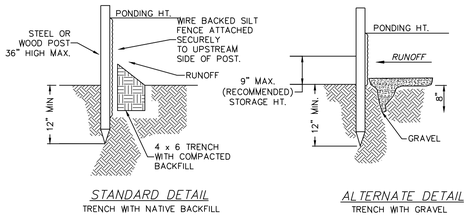
LANDSCAPE PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE: 12-06-2023	C.A.D. BY:	DRAWING NUMBER:	
REVISED:	CHECKED BY:	22-0800	
SHEET: C-6.0	SCALE: 1" = 60'		

500	01S	14W	0	21	300	62	1762





STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

ALTERNATE DETAIL
TRENCH WITH GRAVEL

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

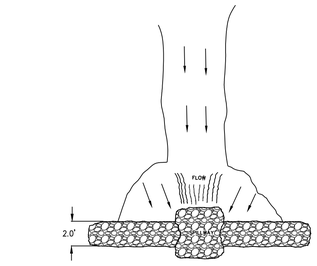
2.) REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

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

4.) USE ONLY WIRE BACKED SILT FENCE.

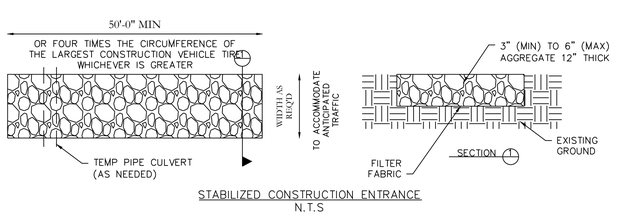
SILT FENCE





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 TOE ANY GAPS AND TAMP BACKFILL MATERIAL TO PREVENT EROSION OR FLOW AROUND THE DAM.
3.) SPILLWAY HEIGHT SHALL NOT EXCEED 18"-24".
4.) INSPECT AFTER EACH SIGNIFICANT STORM, MAINTAIN AND REPAIR PROMPTLY.

RIP-RAP CHECK DAM



STABILIZED CONSTRUCTION ENTRANCE
N.T.S

ERC LEGEND

- SITE POSTING
- CONC. WASHOUT DETENTION AREA
- SILT FENCE
- RIP RAP CHECK DAM
- CONSTRUCTION ENTRANCE
- DISTURBED AREA

BASIS OF BEARING: GRID NORTH AS ESTABLISHED BY GPS OBSERVATION COORDINATED TO THE ARKANSAS SOUTH ZONE

80' 40' 0 80'

EROSION CONTROL NOTES

SOD DETENTION AREA POST-CONSTRUCTION IS REQUIRED

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

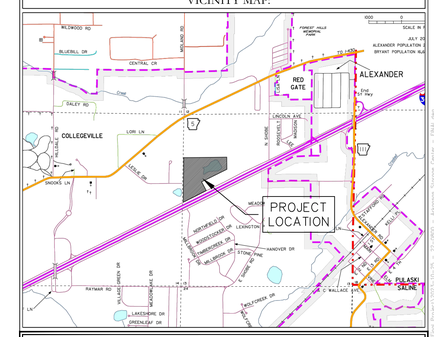
CONTRACTOR SHOULD WORK WITH ENGINEER TO ESTABLISH EFFECTIVE AND EFFICIENT PLAN TO PREVENT SEDIMENT RUNOFF BY DETERMINING WHERE SILT FENCING OR OTHER TYPES OF CONTROLS ARE NECESSARY

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

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

CIVIL ENGINEER
HOPE CONSULTING INC
129 N. MAIN STREET
BENTON, AR 72015
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PHONE: 504-315-2626
EMAIL: kazi@hopeconsulting.com

VICINITY MAP:



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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER

EROSION CONTROL PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE:	12-06-2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-7.0	SCALE: 1" = 80'	

500	01S	14W	0	21	300	62	1762