


IOWA DEPARTMENT OF NATURAL RESOURCES

# CONSTRUCTION DOCUMENTS FOR GREEN VALLEY STATE PARK CAMPGROUND PAVEMENT MAINTENANCE

## UNION COUNTY, IOWA

PROJECT # 21-04-88-02  
IDOT PROJECT # SP-619-0(8)--7C-88



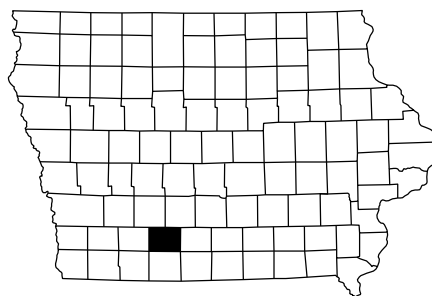
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED UNDER MY SUPERVISION AND THAT ENGINEERING DECISIONS WITH REGARD TO THE DESIGN WERE MADE BY ME UNDER THE LAWS OF THE STATE OF IOWA.

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

MANDI L. ALDRICH PETERS  
PRINTED OR TYPED NAME

MY LICENCE RENEWAL DATE IS DECEMBER 31, 20 23 \_\_\_\_\_

PAGES COVERED BY THIS SEAL: ALL \_\_\_\_\_



**IOWA ONE CALL**

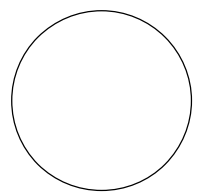
1-800-292-8989 | **811**

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B.01	Detail Sheet
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CONSULTANT:



IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING  
502 E. 9TH ST., DES MOINES, IA 50319-0034



COVER SHEET

CAMPGROUND FOR:

**GREEN VALLEY STATE PARK**

UNION COUNTY

NO.	BY	DATE	REVISION

DRAWN BY: \_\_\_\_\_ PROJECT NUMBER: 21-04-88-02

CHKD BY: \_\_\_\_\_ DATE: January 18, 2022

SHEET NO: \_\_\_\_\_

**A.01**

DIRECTORY

PROJECT MANAGER		CONSTRUCTION INSPECTOR	
COMPANY	IOWA DEPARTMENT OF NATURAL RESOURCES	COMPANY	IOWA DEPARTMENT OF NATURAL RESOURCES
ADDRESS	502 EAST 9TH STREET	ADDRESS	
CITY, STATE, ZIP	DES MOINES, IA, 50319	CITY, STATE, ZIP	
CONTACT	MANDI L. ALDRICH PETERS	CONTACT	MARK JOHNSON
TELEPHONE	515-205-1698	TELEPHONE	515-250-3713
FAX		FAX	
EMAIL	Mandi.Aldrich-Peters@dnr.iowa.gov	EMAIL	Mark.Johnson@dnr.iowa.gov

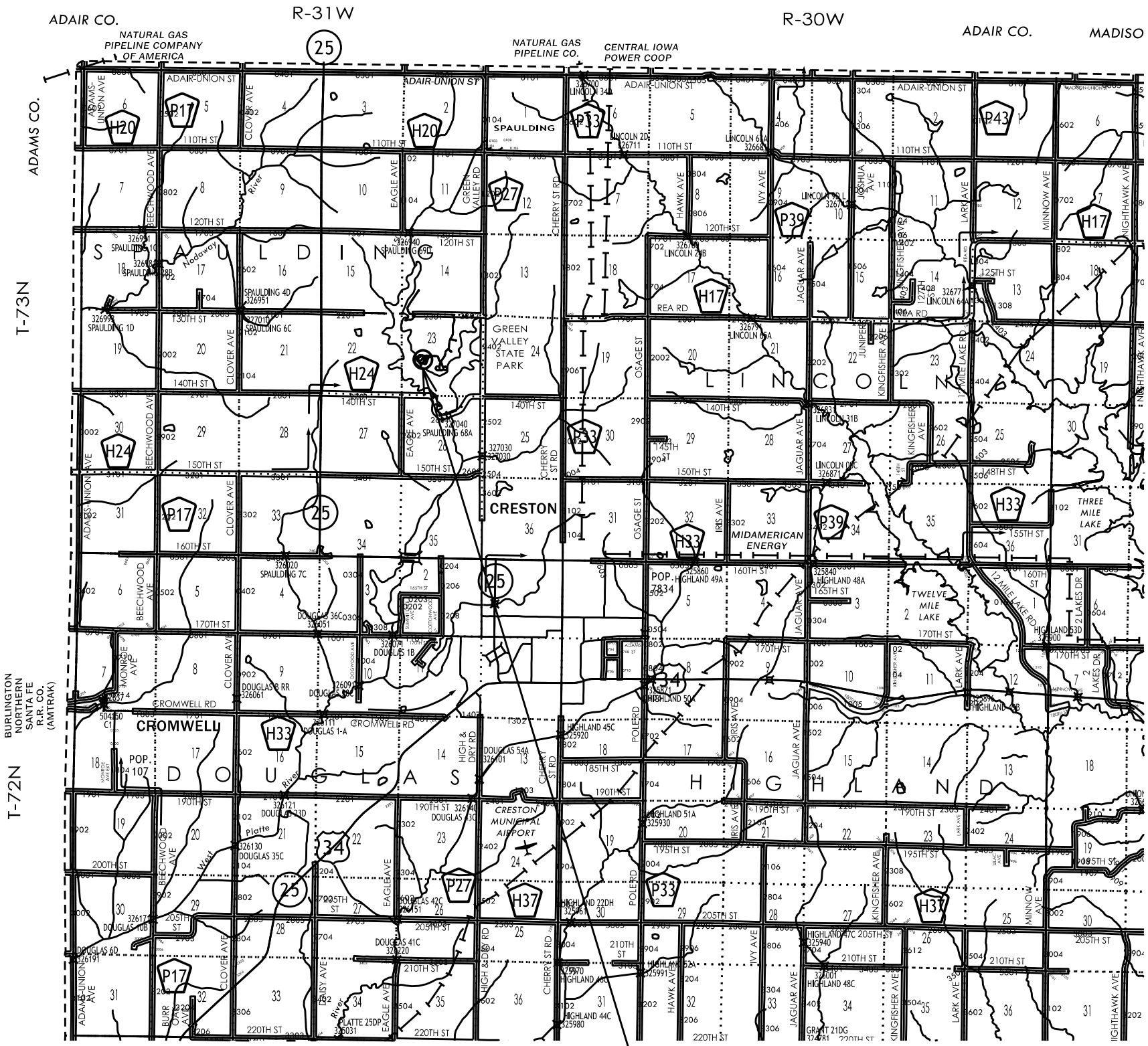
PROJECT DESCRIPTION

This project consists of pavement preservation; crack cleaning and filling, patching, fog sealing, double chip sealing, placement of shoulder rock, grading for drainage, installation of a roadway culvert and seeding, fertilizing and mulching.

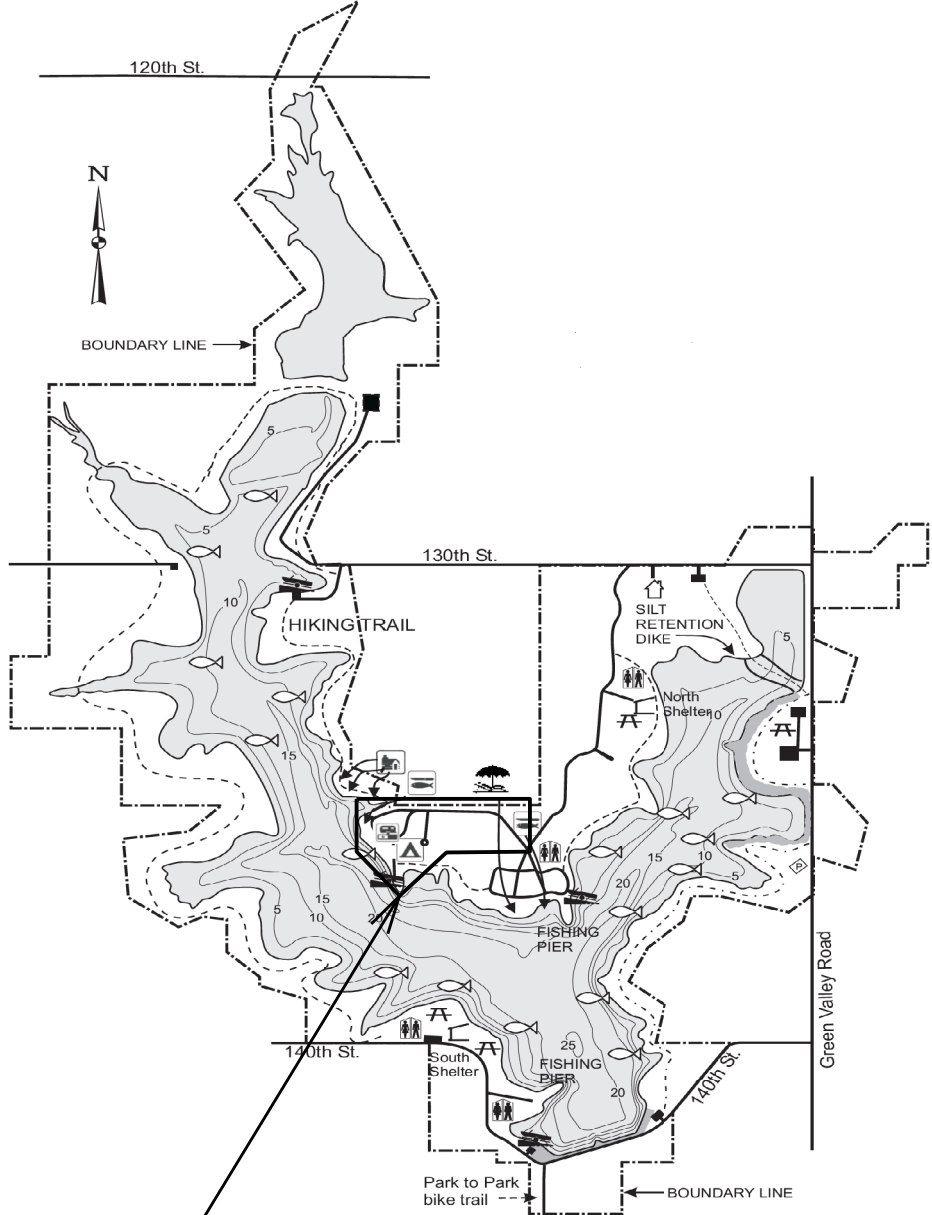
AUTHORIZATION TO BID

\_\_\_\_\_ AUTHORIZATION - PARKS | WILDLIFE | FISHERIES | LAW ENFORCEMENT | FORESTRY DATE \_\_\_\_\_

\_\_\_\_\_ ENGINEERING BUREAU CHIEF \_\_\_\_\_ DATE \_\_\_\_\_

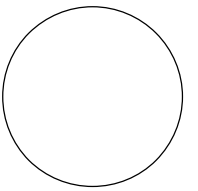


**GREEN VALLEY STATE PARK**



**PROJECT LOCATION**

CONSULTANT:



**IOWA DEPARTMENT OF  
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ENGINEERING SERVICES • WALLACE BUILDING  
502 E. 9TH ST., DES MOINES, IA 50319-0034



**PROJECT LOCATION MAP**

CAMPGROUND FOR:

**GREEN VALLEY STATE PARK**

UNION COUNTY

NO. BY REVISION

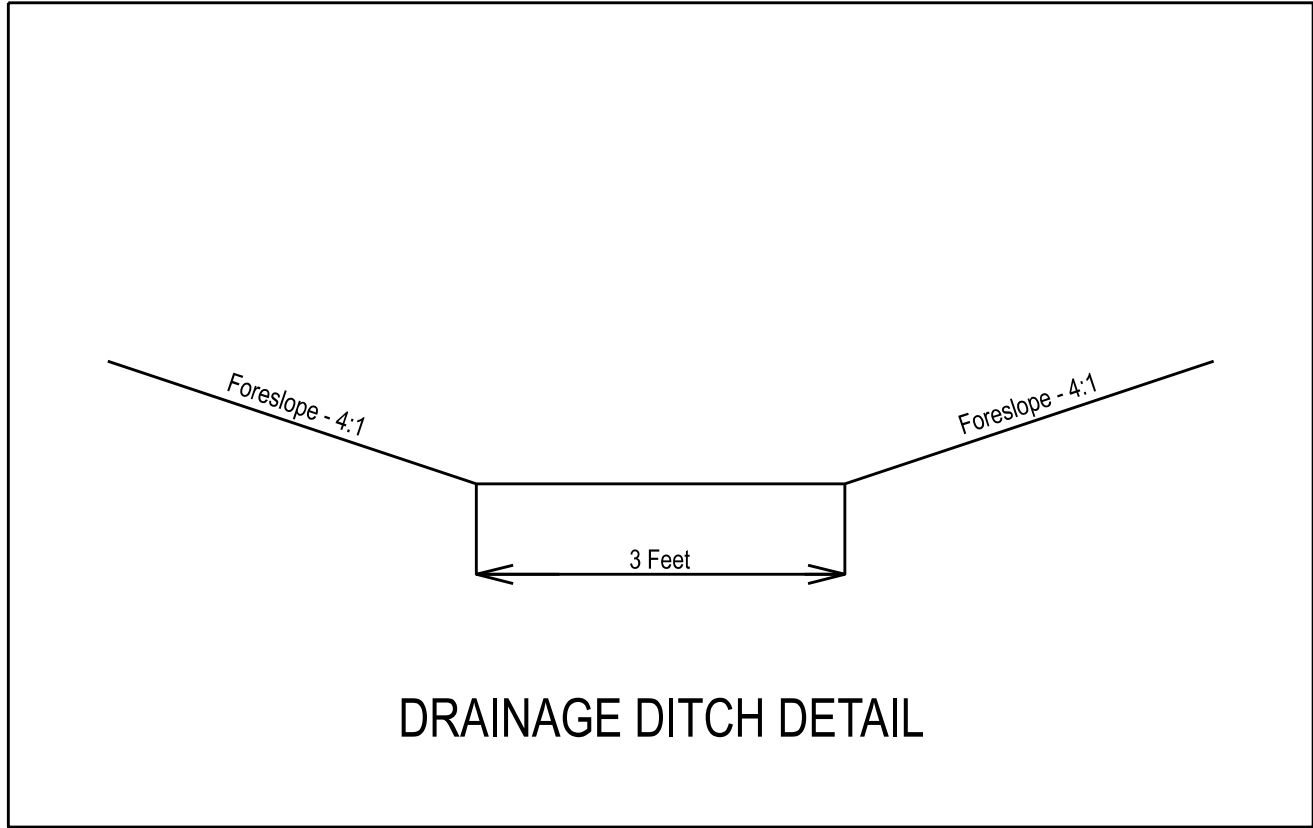
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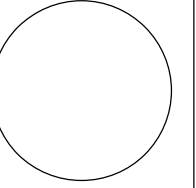
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**A.02**



DRAINAGE DITCH DETAIL

CONSULTANT:



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**GENERAL DETAILS**

CAMPGROUND FOR:  
**GREEN VALLEY STATE PARK**  
UNION COUNTY

NO.	BY	REVISION

DRAWN BY: PROJECT NUMBER:  
21-04-88-02

CHK'D BY: DATE:  
January 18, 2022

SHEET No:  
**B.01**

ESTIMATED PROJECT QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	Clearing and Grubbing	LS	1
2	Removal of Existing Camp Pad	SY	279
3	Remove and Dispose Existing Electric Campsite Pedestals	EACH	2
4	Relocate Electric Lines	LF	120
5	Relocate Water Line	LF	70
6	Bituminous Fog Seal (HMA Pavement) (2306)	GAL	1,460
7	Patches, Full-Depth Finish, 5-inch, By Area, HMA (2529)	SY	161
8	Patches, Full-Depth Finish, 5-inch, By Count, HMA (2529)	EACH	9
9	Transverse Joint Repair (2543)	TON	200
10	Cleaning and Filling Cracks (HMA Surfaces) (2541)	MILES	1.2
11	Sealer Material (HMA Surfaces) (2541)	LBS	4,000
12	Aggregate, Roadway Cover, 1/2" (2307)	TON	11
13	Binder Bitumen, CRS-2P (2307)	GAL	245
14	Modified Subbase (2115)	CY	27
15	Granular Shoulder, Type A (2121)	TON	70
16	Excavation, Class 10, Roadway and Borrow (2102)	CY	336
17	Excavation, Class 10, Waste (2102)	CY	336
18	Excavation, CL 20, Roadway Pipe Culvert (2404)	CY	56
19	Culvert, Concrete Roadway Pipe, 12" (2417)	LF	72
20	Apron, Concrete, 12" (2416)	EACH	2
21	Seeding, Fertilizing, and Mulching	AC	0.4
22	Traffic Control	LS	1
23	Mobilization	LS	1

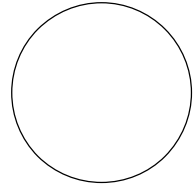
NOTES

No construction shall be allowed Friday - Sunday, May 20th - 31st, or June 26th - July 5th.

ESTIMATE REFERENCE INFORMATION

ITEM NO.	DESCRIPTION
2	Removal of Existing Camp Pad A. Off-site disposal is the responsibility of the contractor or as directed by the Engineer. B. No payment for overhaul will be allowed. C. Regrading to drain shall be incidental.
3	Remove and Dispose Existing Electric Campsite Pedestals A. Off-site disposal is the responsibility of the contractor or as directed by the Engineer.
4	Relocate Electric Lines A. Lower the existing electrical lines to provide proper coverage after site grading and making new ditch.
5	Relocate Water Line A. Lower the existing water main to provide proper coverage after site grading and making new ditch.
6	Bituminous Fog Seal (HMA Pavement) (2306) A. Dilute with water - 2 parts water, 1 part emulsion. Apply at 0.15 gal/sy
9	Transverse Joint Repair (2543) A. Nominal size of transverse joint repair will be 2' wide by 3 inches deep. Millings to be removed from the park or as directed by the Engineer.
13	Binder Bitumen, CRS-2P (2307) A. DOT approved source.
14	Modified Subbase (2115) A. Contractor shall install 6" special backfill under all roadways, parking lots, and sidewalks. B. Preparation of subgrade shall be incidental.
15	Granular Shoulder, Type A (2121) A. Place from station 114+00-115+90 RT and 115+15-122+60 LT.
16	Excavation, Class 10, Roadway and Borrow (2102) A. Over excavate 6" of existing base under HMA repairs.
17	Excavation, Class 10, Waste (2102) A. Off-site disposal is the responsibility of the contractor or as directed by the Engineer. B. No payment for overhaul will be allowed.
18	Excavation, CL 20, Roadway Pipe Culvert (2404) A. Off-site disposal is the responsibility of the contractor or as directed by the Engineer. B. No payment for overhaul will be allowed.
19	Culvert, Concrete Roadway Pipe, 12" (2417) A. Furnishing and placing of Class "B" Bedding shall be considered incidental. B. Trench excavation shall be considered incidental. C. Removal and disposal of unsuitable backfill material encountered during trench excavation shall be considered incidental. D. Placing and compacting backfill material shall be considered incidental. E. Dewatering including, but not limited to, all equipment such as generators, pumps, rock for sump pits, discharge piping, and any extra excavation needed to facilitate dewatering according to stormwater regulations, as applicable shall be considered incidental. F. Sheeting, shoring, and bracing shall be considered incidental. G. Temporary support for existing water, sewer, gas, telephone, electric, and other utilities or services that cross the trench. H. Type 2 connected pipe joints shall be incidental.
21	Seeding, Fertilizing, and Mulching A. Contractor shall seed, fertilize, and mulch all disturbed areas. B. All rural seeding shall be completed per the /64Standard Specifications for Bridge and Highway Design, Series 2015, Section 9010. C. All rural seeding shall be completed using DOT Urban or Class "C" seed mixture.

CONSULTANT:



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ENGINEERING SERVICES - WALLACE BUILDING  
502 E. 9TH ST., DES MOINES, IA 50319-0034



QUANTITIES AND GENERAL INFORMATION

CAMPGROUND FOR:  
**GREEN VALLEY STATE PARK**  
UNION COUNTY

NO.	BY	REVISION
DRAWN BY:	PROJECT NUMBER:	
	21-04-88-02	
CHK'D BY:	DATE:	
	January 18, 2022	
SHEET NO.:		

GENERAL NOTES

Verify actual locations and elevations with DNR Engineer.

All work shall conform to and be performed in accordance with all applicable codes and ordinances.

The contractor shall visit the site and inspect the project area and thoroughly familiarize themselves with the actual job conditions prior to bidding and the start of work. Failure to visit the project site shall not relieve the contractor from performing the work in accordance to the plans, specification, special provisions and contract.

The contractor shall verify, at the site, all dimensions and conditions shown on the plans and shall notify the DNR Engineer of any discrepancies, omissions, and/or conflicts prior to proceeding with the work.

It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans or approved by the DNR Engineer.

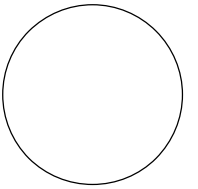
The contractor shall not disturb desirable grass areas and desirable trees outside the construction limits. The contractor will not be permitted to park or service vehicles and equipment or use these areas for storage of materials. Storage, parking and service areas will be subject to the approval of the DNR Engineer.

Where utilities and fixtures are shown as Existing on the plans or encountered within the construction area, it shall be the responsibility of the contractor to notify the DNR Engineer of those utilities prior to the beginning of any construction. The contractor shall be afforded access to these facilities for necessary modification of services. Underground facilities, structures and utilities have been plotted from available surveys and records and therefore their locations must be considered approximate only. It is possible there may be others, the existence of which is presently not known or shown. It is the contractor's responsibility to determine their existence and exact location and to avoid damage thereto. No claims for additional compensation will be allowed to the contractor for any interference or delay caused by such work.

The contractor shall shape graded area to maintain surface drainage. All elevations are to finish grade.

The contractor is expected to have materials, equipment, and labor available on a daily basis to install and maintain erosion control features on the project. This may involve seeding, silt fence, rock ditch checks, silt basins or silt dikes.

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502 E. 9TH ST., DES MOINES, IA 50319-0034



**GENERAL INFORMATION**

CAMPGROUND FOR:

**GREEN VALLEY STATE PARK**

UNION COUNTY

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21-04-88-02

CHK'D BY: DATE:  
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**C.02**

PAVEMENT PRESERVATION

ROAD	LENGTH (FT)	WIDTH (FT)	AREA (SY)	TJ REPAIRS (COUNT)	TJ REPAIRS ASPHALT (TONS)	MILES	FOG SEAL (GALS)	COMMENTS
100+50 - 107+00	650	20	1444.44	--	--	0.12	217.000	
107+00 - 111+00	400	Varies*	1254.33	83**	136.5	0.08	188.200	*100 Stationing (Average Width for Transverse Joint Repair)= 27'; **Count for all 100 Stationing
111+00 - 113+40	240	16	426.67	--	--	0.05	64.100	
113+40 - 132+58	1918	12	2557.33	--	--	0.36	383.700	
200 Stationing	1081	11.5	1381.28	44	30.9	0.20	207.200	
300 Stationing	545	12	726.67	22	16.1	0.10	109.100	
400 Stationing	409	12	545.33	12	8.8	0.08	81.900	
500 Stationing	109	14	169.56	0	0.0	0.02	25.500	
600 Stationing	104	14	161.78	1	0.9	0.02	24.300	
700 Stationing	211	13	316.50	0	0.0	0.04	47.500	
800 Stationing	207	19***	437.00	6	7.0	0.04	65.600	***Average Width
900 Stationing	170	16	302.22	0	0.0	0.03	45.400	

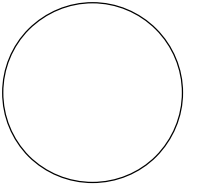
DOUBLE CHIP SEAL

ROAD	LENGTH (FT)	WIDTH (FT)	AREA (SY)	COMMENTS
1100 Stationing	308	Varies	3385	

PATCHES

ROAD	LENGTH (FT)	WIDTH (FT)	CAMPSITES LOCATED NEARBY	COMMENTS
114+50	30	12	99, 100	
116+50	35	4	30	
118+80	30	4	27	
120+35	70	3	26	
123+15	5	6	55	
123+35	6	6	55	
124+26	30	15	12, 56, 57, 72	at pipe crossing
126+25	6	6	11, 73	
127+15	5	6	9, 84	

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502 E. 9TH ST., DES MOINES, IA 50319-0034



GENERAL DETAILS

CAMPGROUND FOR:

GREEN VALLEY STATE PARK

UNION COUNTY

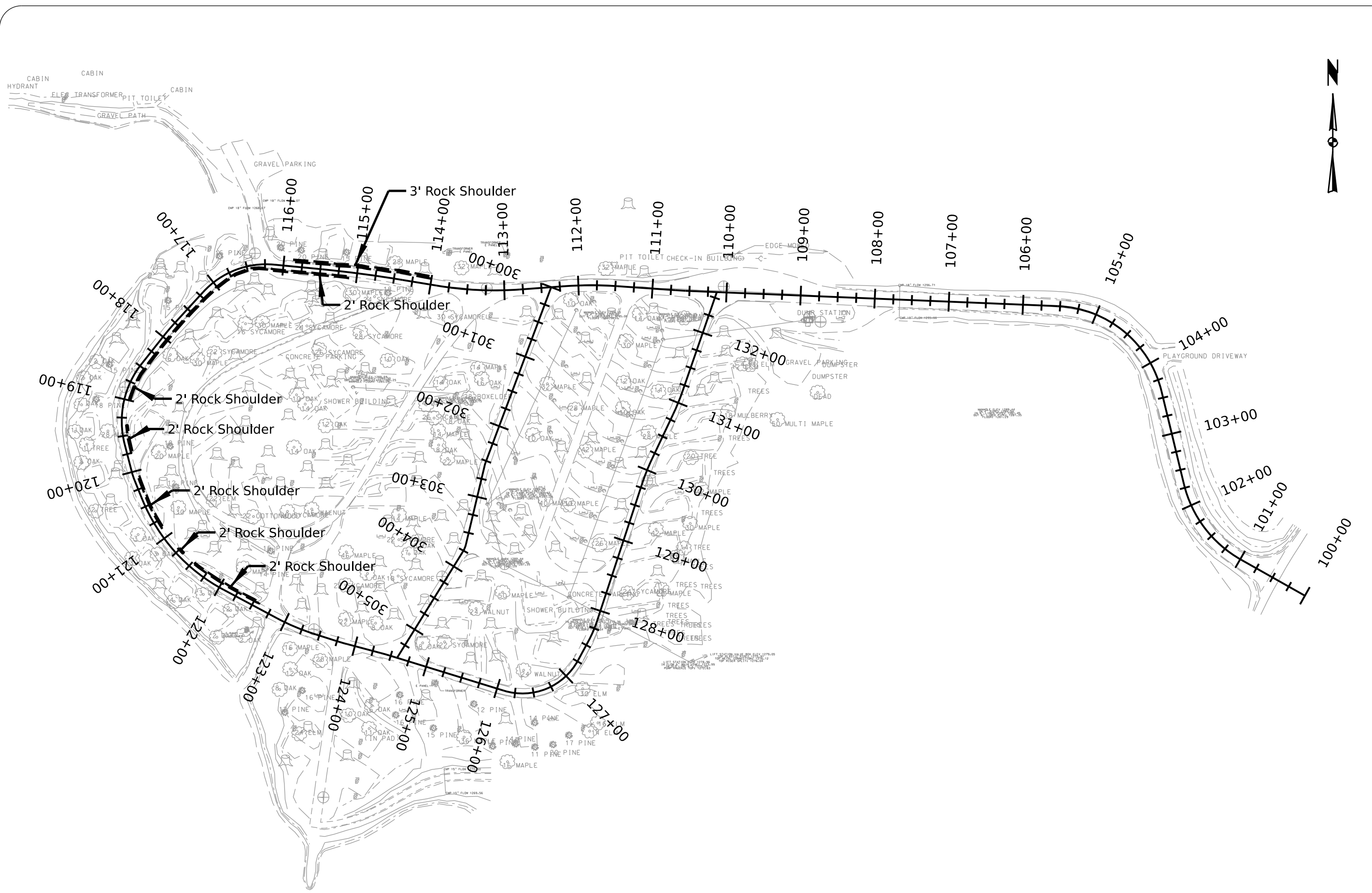
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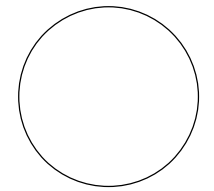
SHEET No:

C.03



1"=125'

CONSULTANT:



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ENGINEERING SERVICES - WALLACE BUILDING  
502 E. 9TH ST., DES MOINES, IA 50319-0034



SITE PLAN

CAMPGROUND FOR:

GREEN VALLEY STATE PARK

UNION COUNTY

NO.	BY	REVISION

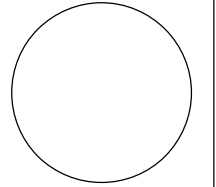
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21-04-88-02

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January 18, 2022

SHEET No:

D.01

CONSULTANT:



IOWA DEPARTMENT OF  
NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING  
502 E. 9TH ST., DES MOINES, IA 50319-0034



**SITE PLAN**

CAMPGROUND FOR:

**GREEN VALLEY STATE PARK**

UNION COUNTY

NO. BY REVISION

DATE

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21-04-88-02

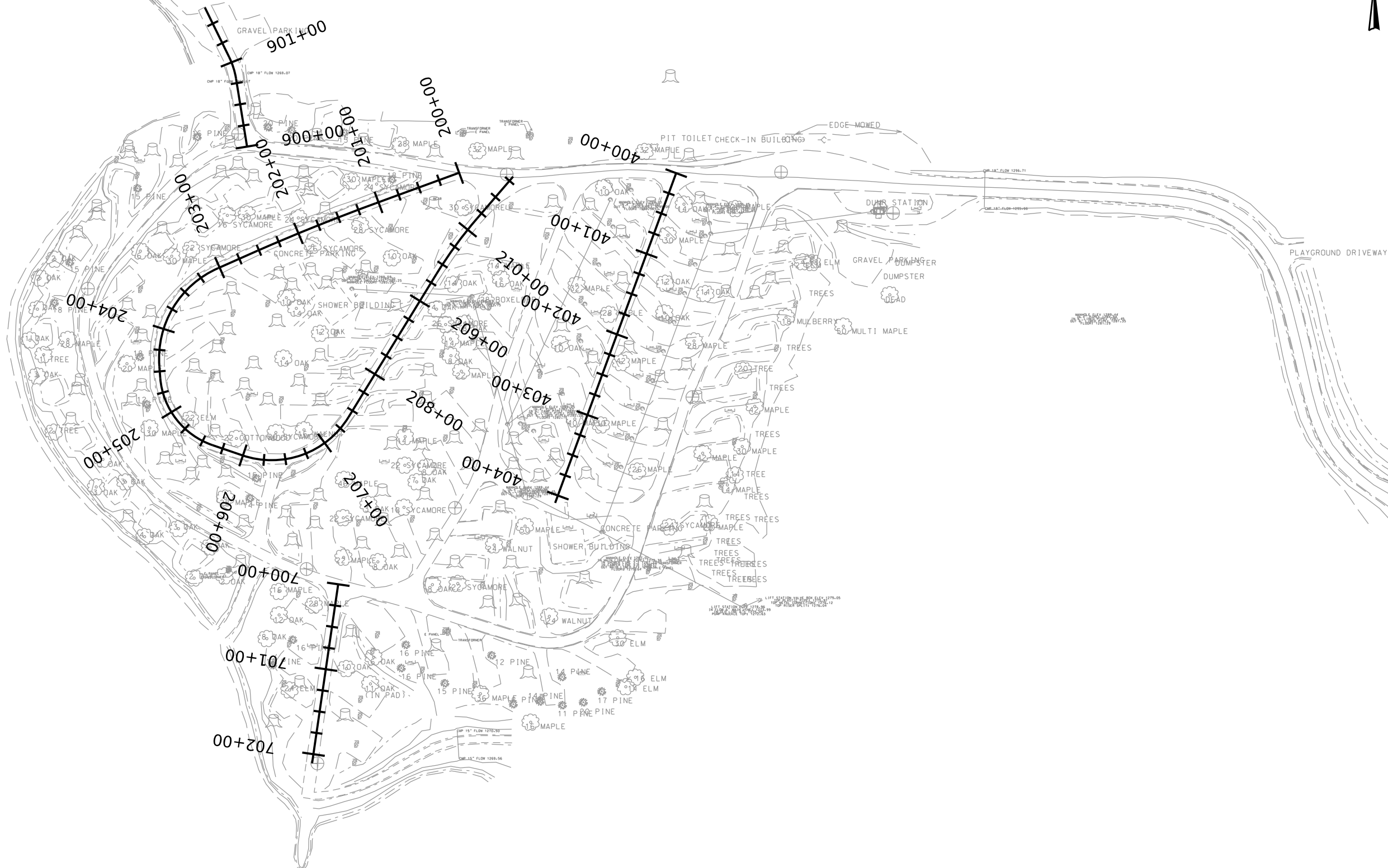
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SHEET No.:

**D.02**



CABIN  
HYDRANT  
ELEC. TRANSFORMER  
PIT TOILET  
CABIN  
GRAVEL PATH

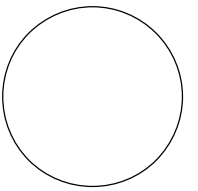


1"=125'





CONSULTANT:



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ENGINEERING SERVICES - WALLACE BUILDING  
502 E. 9TH ST., DES MOINES, IA 50319-0034



**SITE PLAN**

CAMPGROUND FOR:

**GREEN VALLEY STATE PARK**

UNION COUNTY

NO. BY REVISION

DATE

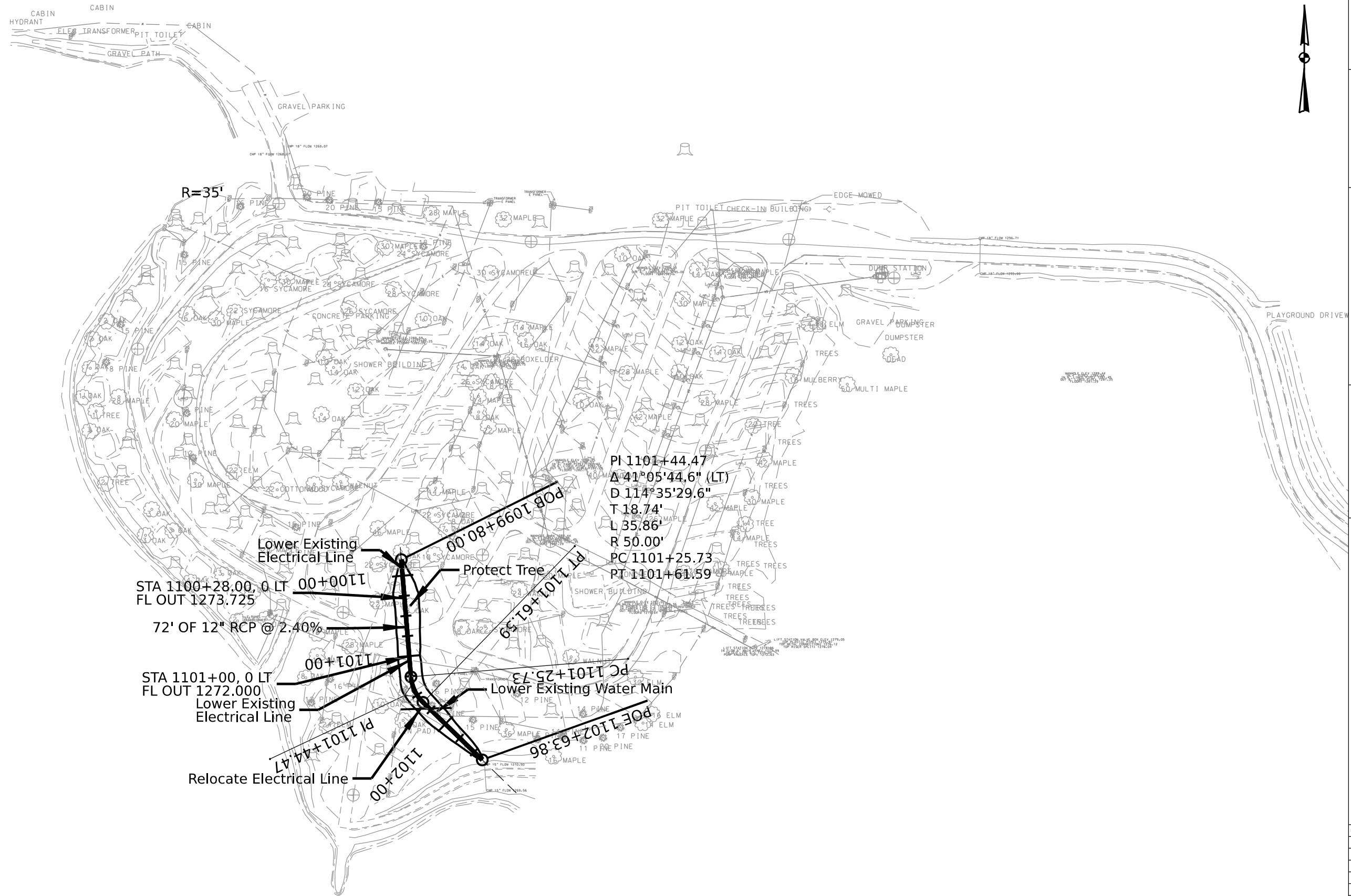
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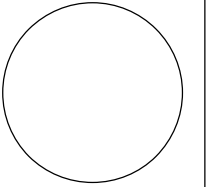
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**D.03**

**1"=125'**



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**DRAINAGE PLAN**

CAMPGROUND FOR:

**GREEN VALLEY STATE PARK**

UNION COUNTY

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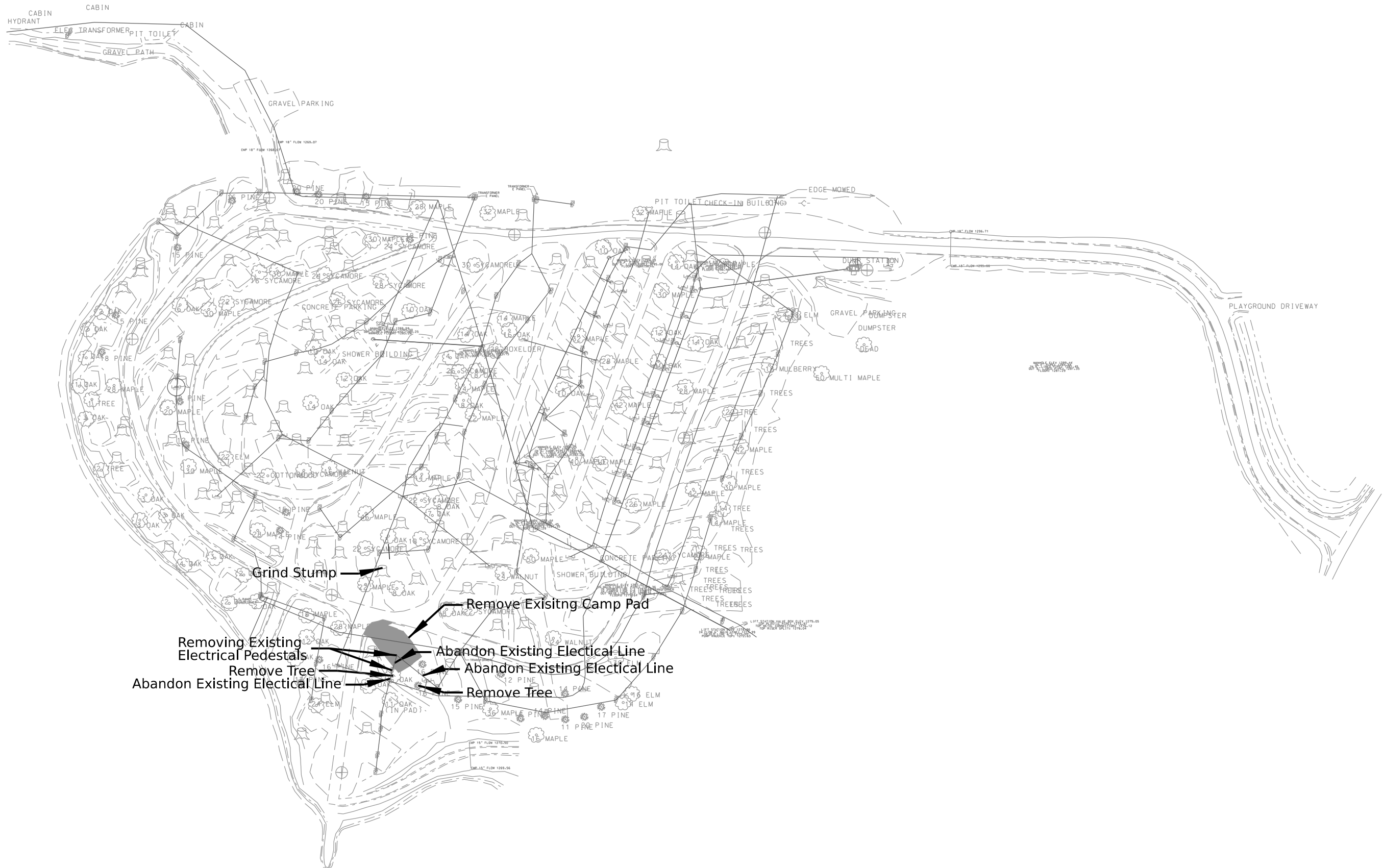
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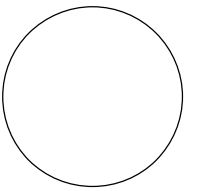
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**D.04**

1"=125'



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**SITE PLAN**

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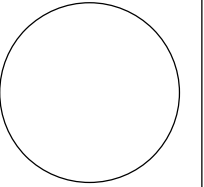
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**E.01**

**1"=125'**

# Drainage Ditch Horizontal Alignment#

	STATION	NORTHING	EASTING
<b>Element: Linear</b>			
START( )	1099+80.000	404256.275	1395061.079
PT( )	1101+25.725	404111.048	1395073.114
Tangential Direction:	S4.737°E		
Tangential Length:	145.725		
<b>Element: Circular</b>			
PC( )	1101+25.725	404111.048	1395073.114
HPI( )	1101+44.467	404092.370	1395074.662
CC( )		404115.177	1395122.943
PT( )	1101+61.588	404079.312	1395088.106
Radius:	50.000		
Delta:	41.096° Left		
Degree of Curvature(Arc):	114.592°		
Length:	35.863		
Tangent:	18.742		
Chord:	35.099		
Middle Ordinate:	3.181		
External:	3.397		
Tangent Direction:	S4.737°E		
Radial Direction:	S85.263°W		
Chord Direction:	S25.285°E		
Radial Direction:	S44.167°W		
Tangent Direction:	S45.833°E		
<b>Element: Linear</b>			
PT( )	1101+61.588	404079.312	1395088.106
END( )	1102+63.857	404008.055	1395161.465
Tangential Direction:	S45.833°E		
Tangential Length:	102.269		

CONSULTANT:



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Drainage Horizontal Alignment

CAMPGROUND FOR:  
**GREEN VALLEY STATE PARK**  
UNION COUNTY

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SHEET No:

**G.01**