

CONSTRUCTION PLANS FOR
IDALS NO. GRE853019D
NUTRIENT REDUCTION WETLAND
GREENE COUNTY, IOWA
SEPTEMBER 2025

GOVERNING SPECIFICATIONS

THE SPECIFICATIONS AS PREPARED BY IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP AND BOLTON & MENK, INC. SHALL BE CONSIDERED AS PART OF THIS DOCUMENT. NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATIONS SHALL APPLY.

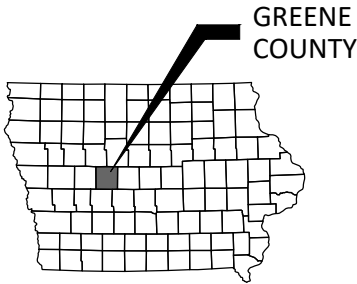
THE CURRENT EDITION OF THE "IOWA STATEWIDE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS" SHALL GOVERN.

IOWA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION", SERIES 2023 AND ALL CURRENT GENERAL SUPPLEMENTAL SPECIFICATIONS AND MATERIALS INSTRUCTIONAL MEMORANDUM SHALL GOVERN AS REFERENCED.

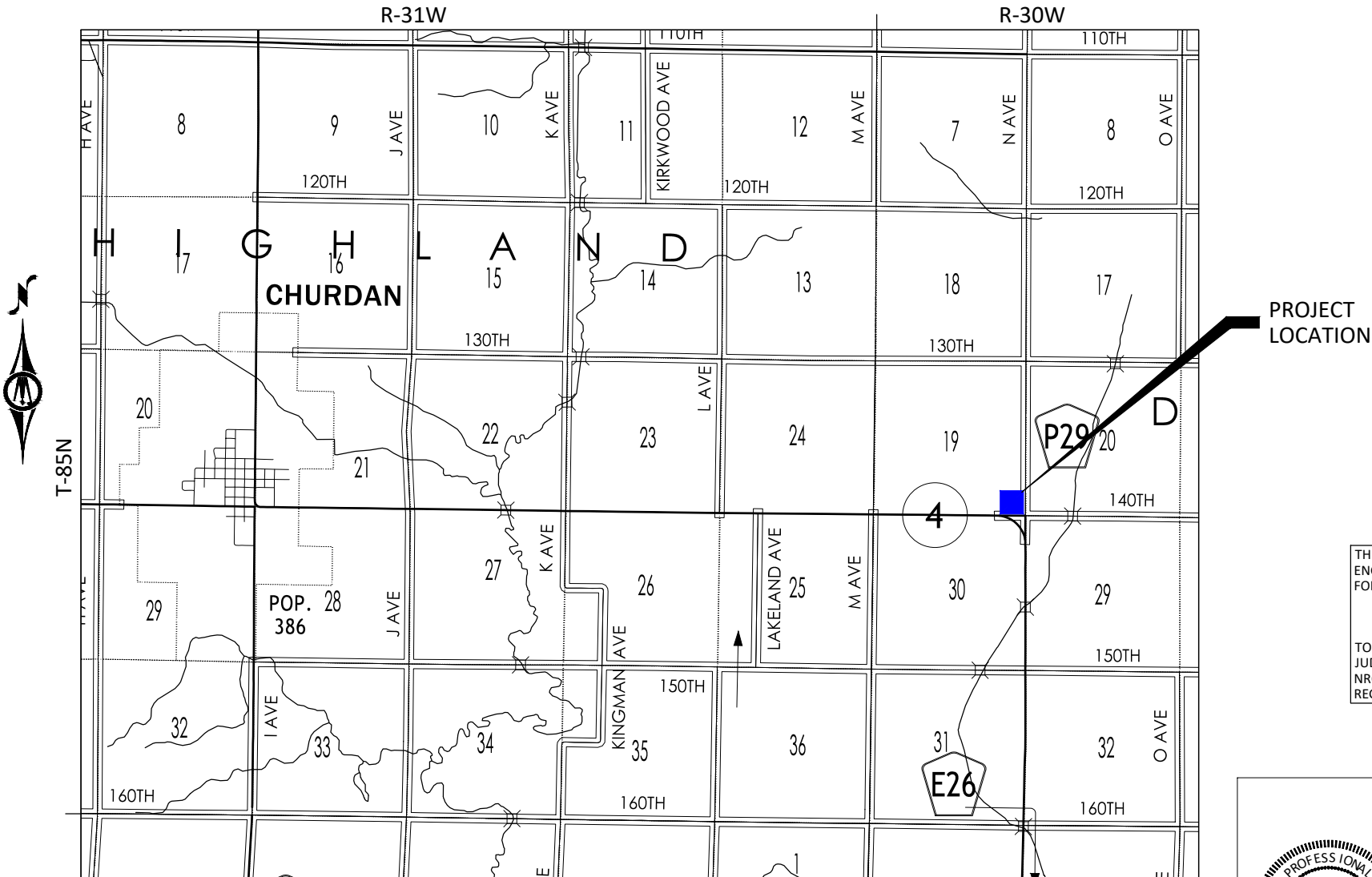
ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.



THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."
THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING IOWA ONE CALL BY PHONE AT 811, OR ON THE WEB AT [HTTP://WWW.IOWAONECALL.COM/](http://www.iowaonecall.com/). TICKET# _____
TICKET NUMBER MUST BE PROVIDED TO THE NRCS PRIOR TO COMMENCEMENT OF WORK.



- NOTES
- IF A CULTURAL RESOURCE IS IDENTIFIED DURING CONSTRUCTION, STOP WORK IMMEDIATELY AND NOTIFY THE LOCAL NATURAL RESOURCES CONSERVATION SERVICE OFFICE.
 - WORK IS PROPOSED ON FACILITIES OF GREENE COUNTY DRAINAGE DISTRICT NO. 110



MAP OF PORTIONS OF
GREENE COUNTY, IOWA

PROJECT DATUM: STATE PLANE
HORIZONTAL: IOWA NORTH
VERTICAL: NAVD 1988

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
A.01	TITLE SHEET
A.02	PLAN OVERVIEW
B.01	OUTLET RISER DETAIL
C.01	PROJECT QUANTITIES
D.01	GRADING PLAN
K.01	SEEDING PLAN
M.01	TILE RE-LAY
M.02	INLET AND OUTLET PIPES

THESE PLANS PREPARED IN ACCORDANCE WITH NRCS ENGINEERING JOB CLASS III. STANDARDS FOR TASKS ARE AS FOLLOWS:

656 - SITE DESIGN

TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, JUDGEMENT, AND BELIEF, THESE PLANS MEET APPLICABLE NRCS STANDARDS AND APPLICABLE LAWS AND REGULATIONS.



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

JONATHAN P. ROSENGREN, P.E.

LICENSE NUMBER: 21661 DATE: _____

MY LICENSE RENEWAL DATE IS 12/31/2024

PAGES OR SHEETS COVERED BY THIS SEAL:

ALL PLAN SHEETS



**BOLTON
& MENK**

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www.bolton-menk.com

DESIGNED	REV	DESCRIPTION	DATE
BCS	1.0	BID PLANS	09.11.2025
BCS			
JPR			
CLIENT PROJ. NO.			
017.133941			

IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP
IDALS PROJ. NO. GRE853019D

TITLE SHEET

SHEET

A.01

CONSTRUCTION PLANS FOR
IDALS NO. GRE853019D
NUTRIENT REDUCTION WETLAND
GREENE COUNTY, IOWA
SEPTEMBER 2025

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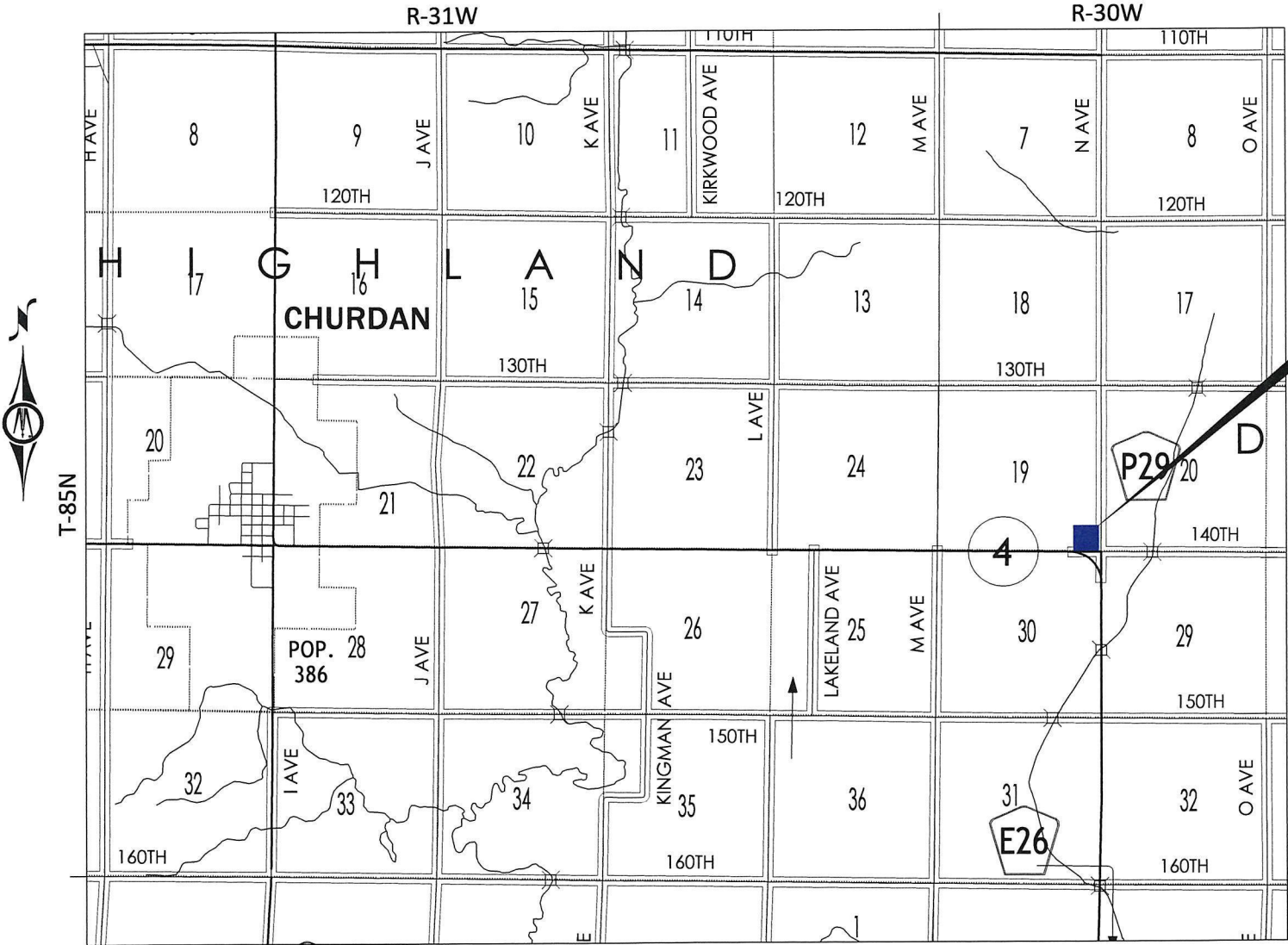
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PROJECT
LOCATION

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JONATHAN P. ROSENGREN, P.E.

LICENSE NUMBER: 21661

DATE: Sept 15, 2025

MY LICENSE RENEWAL DATE IS 12/31/2024

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IDALS PROJ. NO. GRE853019D

TITLE SHEET

SHEET

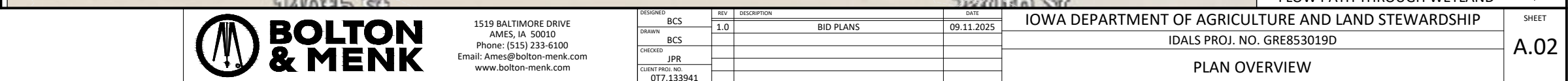
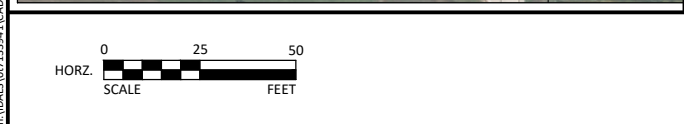
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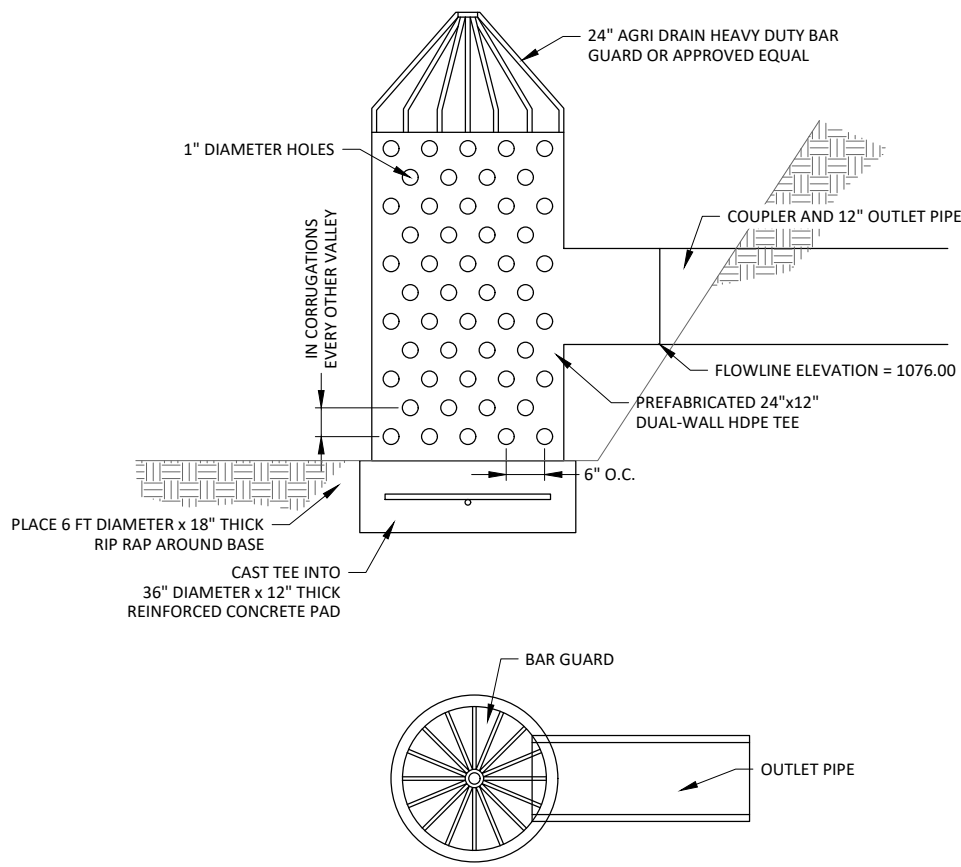
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BCS	1.0	BID PLANS	09.11.2025
DRAWN	BCS		
CHECKED	JPR		
CLIENT PROJ. NO.	07.133941		

WETLAND POOL DEPTH	ELEV	INCREMENTAL AREA	CUMULATIVE VOLUME	CUMULATIVE VOLUME
(FT)	(FT)	(FT ²)	(FT ³)	(AC-FT)
0.0	1075.00	61,400		
1.0	1076.00	67,200	64,300	1.48
3.0	1078.00	78,900	210,400	4.83
5.0	1080.00	91,000	380,300	8.73
6.0	1081.00	149,400	500,500	11.49
7.0	1082.00	187,200	668,800	15.35
8.0	1083.00	371,300	948,050	21.76
9.0	1084.00	759,900	1,513,650	34.75
10.5	1085.50	1,948,200	3,544,725	81.38



OUTLET RISER DETAIL



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IDALS PROJ. NO. GRE853019D

OUTLET RISER DETAIL

SHEET

B.01

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Bid Item	Sub-Item	Description	Spec. No.	Plan No.	Estimated Quantity	
					Quantity	Unit
1	-	Site Stripping & Preparation	IA CS-001	A.02	1	LS
2	-	Crop Damage	IA CS-001		0	AC
3	-	Structure & Channel Seeding	IA CS-006	K.01	1.0	AC
4	-	Buffer Seeding	IA CS-006	K.01	0.8	AC
5	-	Mobilization and Demobilization	IA CS-008		1	LS
6	-	Drain Tile Investigation and Removal	IA CS-009	A.02	4	HR
7	-	Excavation (General)	IA CS-021	A.02	19754	CY
8	-	Topsoil Strip, Salvage, Placement	IA CS-026	A.02	1904	CY
9	-	HDPE Pipe - Dual Wall				
	A.	12" Diameter	IA CS-046	M.01	493	LF
10	-	CMP Tile Outlets - 20 LF Each				
	A.	12" Diameter	IA CS-051	A.02	1	EA
	B.	15" Diameter	IA CS-051	M.01	1	EA
11	-	Concrete Manhole - (SW-401, 48")	IA CS-031	M.02, M.03	2	EA
12	-	Outlet Riser Structure	IA CS-046	M.03	2	EA
13	-	Rip Rap	IA CS-061	A.03	21.5	TN
14	-	Turf Reinforcement Mat	IA CS-001	K.01	173	SY



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PROJECT QUANTITIES

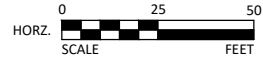
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C.01

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LEGEND	
PROPERTY LINE	---
STRUCTURE SEEDING	■
BUFFER SEEDING	■
RIP-RAP	■



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IDALS PROJ. NO. GRE853019D
SEEDING PLAN

SHEET
K.01

