

**NOTICE OF A REGULAR MEETING
BONDURANT PLANNING AND ZONING COMMISSION
SEPTEMBER 12, 2019**

NOTICE IS HEREBY GIVEN that a regular meeting of the Planning and Zoning Commission will be held at 6:00 p.m., on Thursday, September 12, 2019, in the Community Room at the Bondurant City Center, 200 Second Street, Northeast, Bondurant, Polk County, Iowa. Said meeting is open and the public is encouraged to attend.

AGENDA

1. Call to Order
2. Roll Call
3. Perfecting and Approval of the Agenda
4. Approval of the Commission Minutes – August 22, 2019
5. Guests requesting to address the Planning and Zoning Commission
6. **RESOLUTION NO. PZ-190912-22** – Resolution regarding the Site Plan for Roadside Machinery & Supplies Co.
7. **RESOLUTION NO. PZ-190912-23** – Resolution regarding the Conditional Use Permit and Site Plan for Bondurant Borrow Pit
8. Discussion Items –
 - a. Building Height and Overlay District
 - b. Traffic Study Policy
9. Reports/Comments and appropriate action thereon:
 - a. Commission Members
 - b. Commission Chair
 - c. City Administrator
 - d. City Council Liaison
10. Adjournment

Planning & Zoning Commission Meetings:

- Special Meeting, September 23, 2019
- Regular Meeting, October 10, 2019
- Regular Meeting, October 24, 2019
- Regular Meeting, November 14, 2019
- Regular Meeting, December 12, 2019

CITY OF BONDURANT
PLANNING AND ZONING COMMISSION
AUGUST 22, 2019
MINUTES

1. Call to Order

Commission Chair Cuellar called the meeting to order at 6:00 p.m.

2. Roll Call

Roll call was taken and a quorum was declared.

Present: Commission Member Brian Clayton, Commission Member Karen Keeran,
Commission Member Joe Phearman, Commission Member Kristin Brostrom,
Commission Member Torey Cuellar, Commission Member Angela McKenzie

Absent: Commission Member Andy Mains

City Officials

Present: City Administrator Marketa Oliver, City Clerk Shelby Hagan

3. Perfecting and Approval of the Agenda

Motion by McKenzie, seconded by Clayton, to approve the agenda. Vote on Motion 6-0. Motion declared carried unanimously.

4. Approval of the Commission Minutes – August 8, 2019

Motion by Clayton, seconded by McKenzie, to approve the August 8, 2019 minutes. Vote on Motion 6-0. Motion declared carried unanimously.

5. Guests requesting to address the Commission – None.

6. **RESOLUTION NO. PZ-190822-20** – Resolution regarding the Final Plat for Foggy Bottoms Farm Plat 1

Motion by McKenzie, seconded by Phearman, to approve RESOLUTION NO. PZ-190822-20. Roll Call: Ayes: McKenzie, Clayton, Cuellar, Keeran, Phearman, Brostrom. Nays: None. Absent: Mains. Motion Carried 6-0.

7. **RESOLUTION NO. PZ-190822-21** – Resolution regarding the Lockwood-Gray Boundary Agreement and Plat of Survey

Motion by Keeran, seconded by McKenzie, to approve RESOLUTION NO. PZ-190822-21. Roll Call: Ayes: McKenzie, Clayton, Cuellar, Keeran, Phearman, Brostrom. Nays: None. Absent: Mains. Motion Carried 6-0.

8. Discussion Item –
 - a. City Hall Configuration
9. Reports/Comments and appropriate action thereon:
 - a. Commission Member Comments
McKenzie – None.
Clayton – Questioned gender balance on the Commission.
Keeran – None.
Phearman – None.
Brostrom – None.
 - b. Commission Chair Comments – None.
 - c. City Administrator Comments – Planning Director update.
 - d. City Council Liaison – Absent.

10. Adjournment

Moved by McKenzie, seconded by Clayton to adjourn the meeting at 6:15 p.m. Vote on Motion 6-0. Motion declared carried unanimously.

Shelby Hagan, City Clerk

ATTEST:

Torey Cuellar, Commission Chair



BUSINESS OF THE PLANNING & ZONING COMMISSION
BONDURANT, IOWA

AGENDA STATEMENT

Item No. 6
For Meeting of 09/12/19

ITEM TITLE: Resolution regarding the Site Plan for Roadside Machinery & Supplies Co.

CONTACT PERSON: Marketa Oliver, City Administrator

SUMMARY EXPLANATION:

☒ Resolution	☐ Ordinance	☐ Contract	☐ Other (Specify) _____
Funding Source _____ NA _____			
APPROVED FOR SUBMITTAL _____  City Administrator			

RECOMMENDATION: Approve the resolution on a roll call vote.

PLANNING AND ZONING COMMISSION
RESOLUTION NO. PZ-190912-22

RESOLUTION REGARDING THE SITE PLAN FOR ROADSIDE MACHINERY & SUPPLIES CO.

WHEREAS, Snyder & Associates submitted a Site Plan for Roadside Machinery & Supplies Co.; AND

WHEREAS, the owner is Road Machinery & Supplies Co., and the applicant is Jensen Builders LTD.; AND

WHEREAS, the site address is in Bondurant, Iowa; AND

WHEREAS, the zoning for the property is M-1, Light Industrial District; AND

WHEREAS, legal description is as follows:

EX N 2F 3 597.44F - & -EX MCCLEARY ACRES – OUTLOT X MCCLEARY MEADOWS INDUSTRIAL PARK

NOW, THEREFORE, BE IT RESOLVED, by the Planning and Zoning Commission of the City of Bondurant, Iowa, that the Site Plan for Roadside Machinery & Supplies Co. is approved and forwarded to the City Council with a recommendation for approval of same.

Moved by _____, Seconded by _____ to adopt.

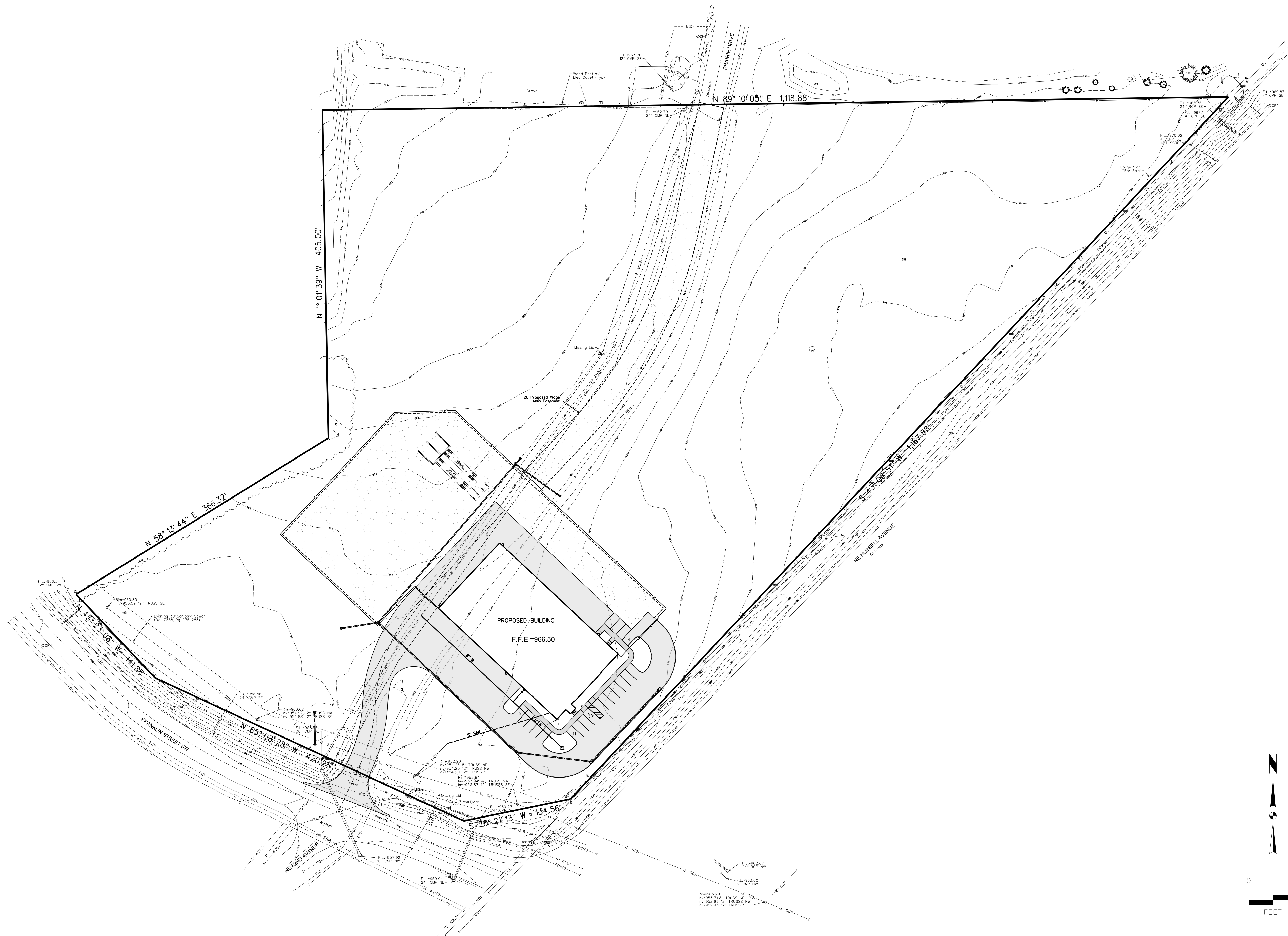
ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the Planning and Zoning Commission held on September 12, 2019; among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Action	Yay	Nay	Abstain	Absent
McKenzie				
Clayton				
Mains				
Keeran				
Cuellar				
Phearman				
Brostrom				

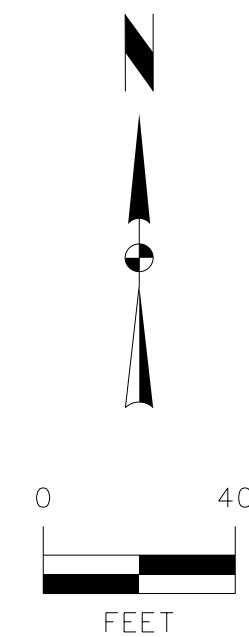
Torey Cuellar, Commission Chair



RMS BONDURANT SITE IMPROVEMENTS

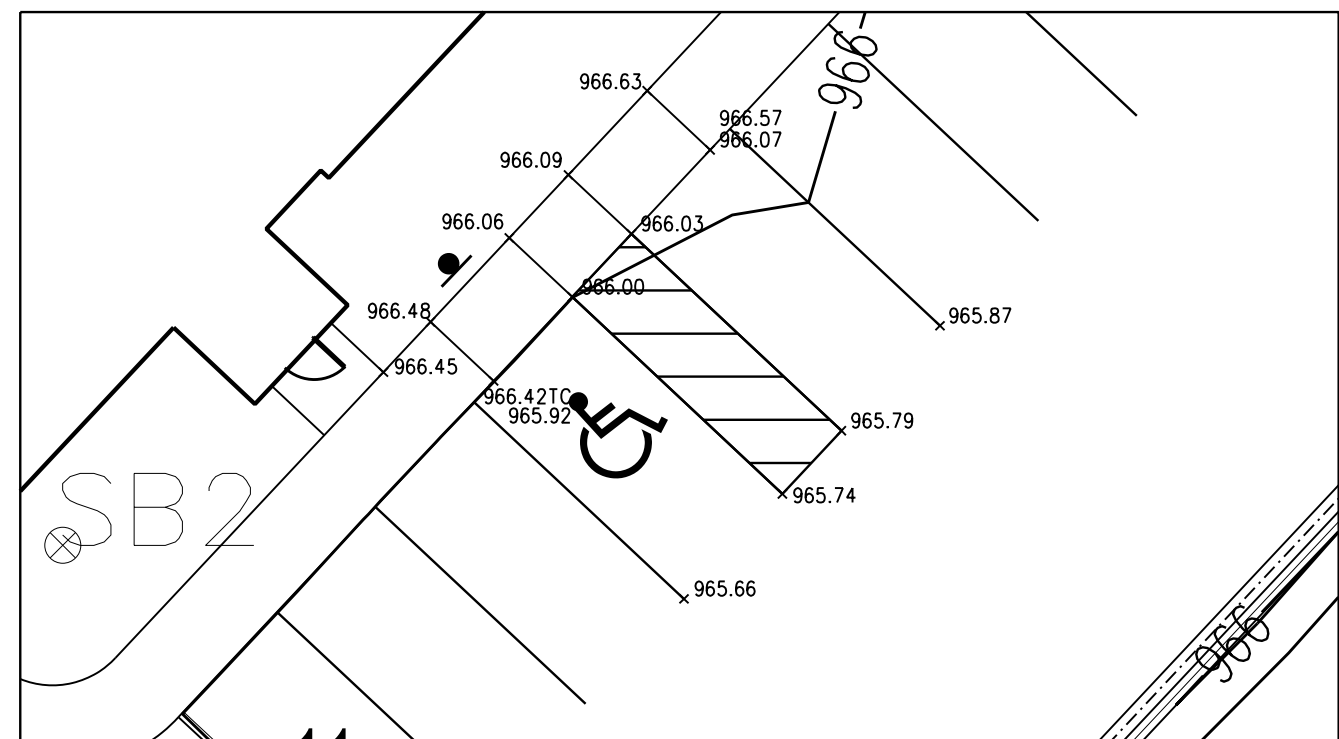
BONDURANT, IOWA

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3 CONCRETE DRIVEWAY, TYPE A
4 NO SCALE

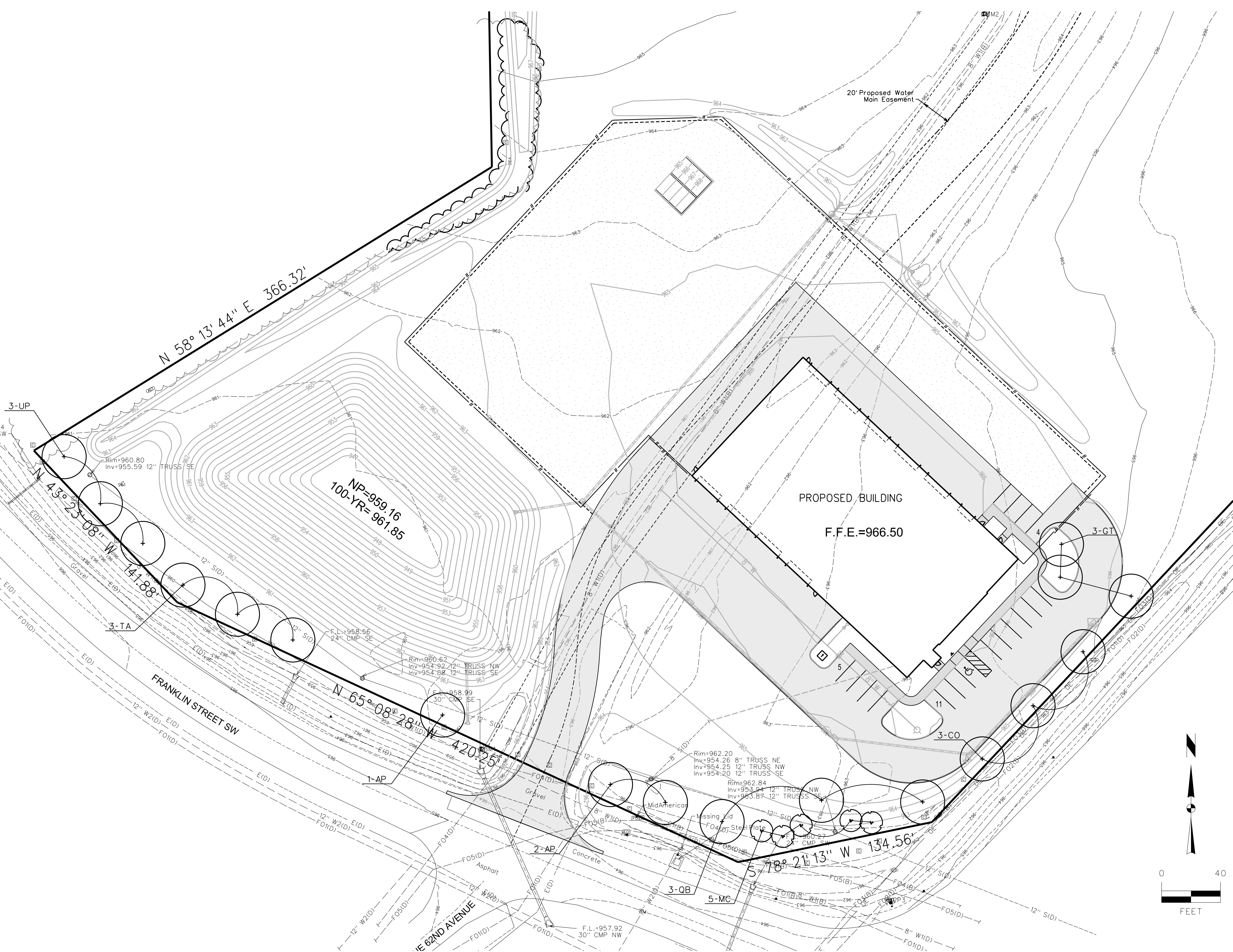
Sheet 4 of 6



1. CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL ON ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 4" DEPTH TO FINISH GRADES.
2. ANY EXCESS CUT TO BE SPREAD ON SITE AS DIRECTED BY ENGINEER DURING CONSTRUCTION. PLACE TOPSOIL OVER ALL AREAS DISTURBED.
3. ALL DRAINAGE SWALES AND SLOPES 5 TO 1 OR GREATER TO BE SEEDDED USING COMMERCIALY AVAILABLE EROSION CONTROL SEED. MIXTURE APPLIED AT RATE RECOMMENDED BY SUPPLIER.
4. EROSION CONTROL: SEED THE SITE AFTER ROUGH GRADING HAS BEEN COMPLETED. PLACE SILT FENCE AND MAINTAIN IN PROBLEM AREAS AFTER GROUND COVER HAS BEEN ESTABLISHED. COMPLY WITH EROSION CONTROL LAW.
5. PROVIDE BELOW GRADE INLET PROTECTION IN PAVED AREAS FOLLOWING PAVING OPERATIONS.
6. BUILDING DOWNSPOUT LOCATION. VERIFY WITH ARCHITECTURAL AND MECHANICAL PLANS PRIOR TO CONSTRUCTION.
7. CRITICAL CROSSING. CONTRACTOR TO MAINTAIN 18" MINIMUM SEPARATION BETWEEN UTILITIES

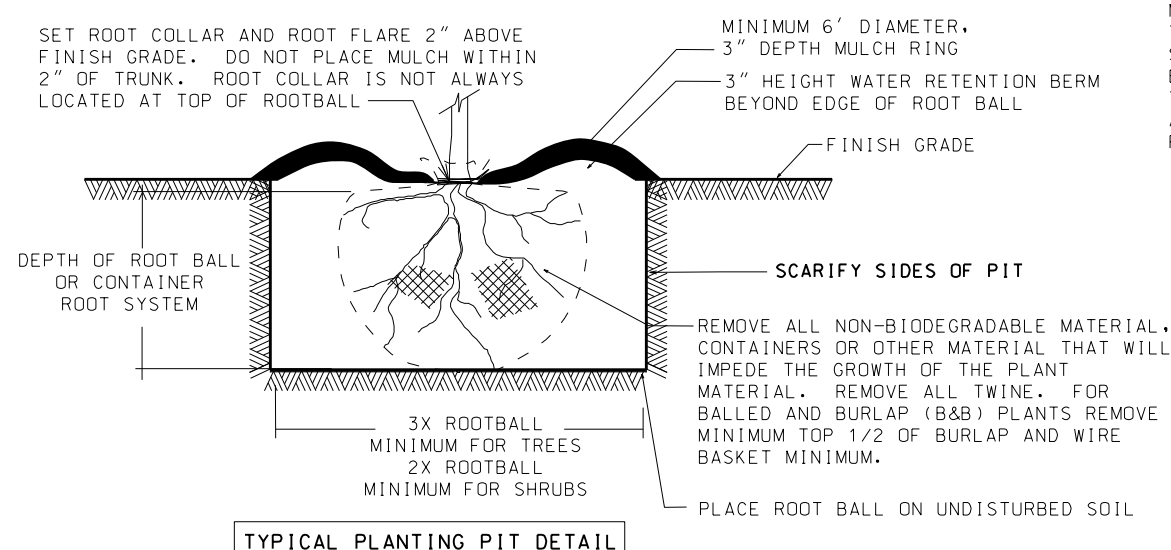
SEEDING AND MULCHING	3.00 AC.
SILT FENCE	1,600 LF.

Y:\snyder\date.tbl
V:\Snyder\unlabeled\p1c1c1g
9/6/2019 9:52:59 AM
K:\Snyder\unlabeled\p1c1c1g
9/6/2019 9:52:59 AM
K:\Snyder\unlabeled\p1c1c1g
9/6/2019 9:52:59 AM

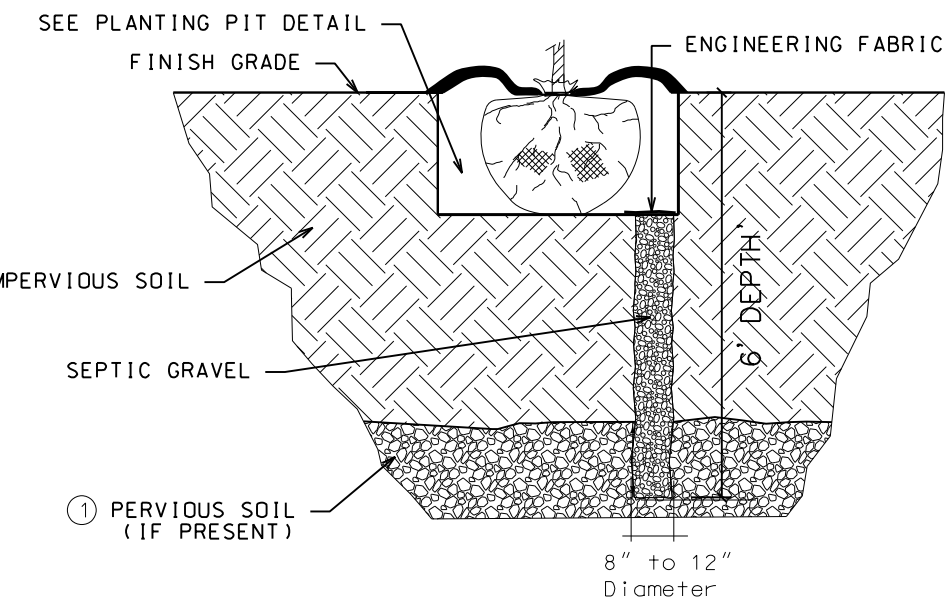
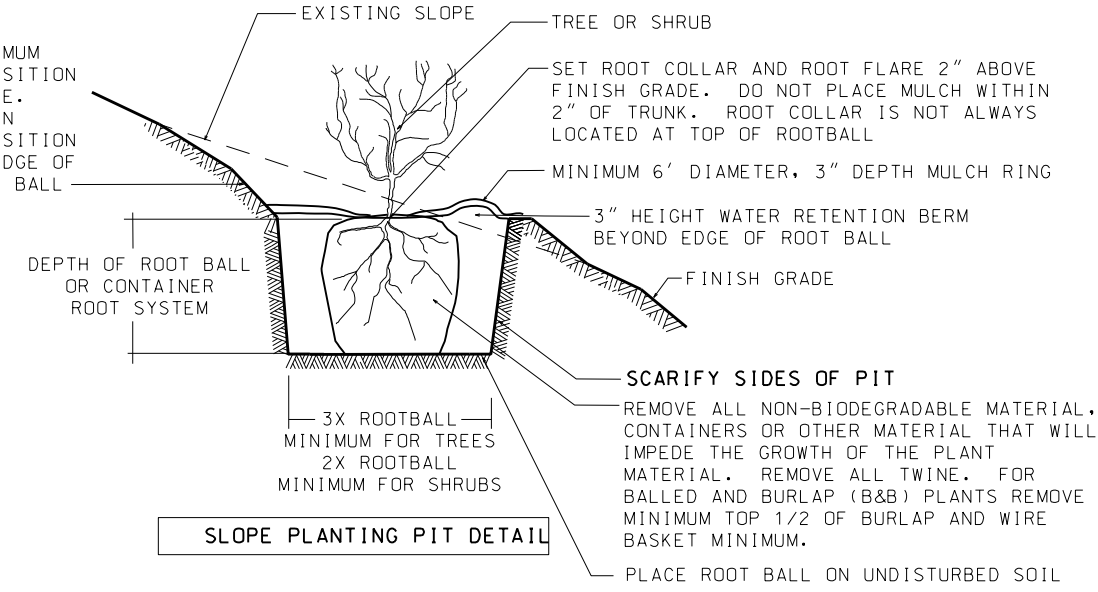


PLANT SCHEDULE

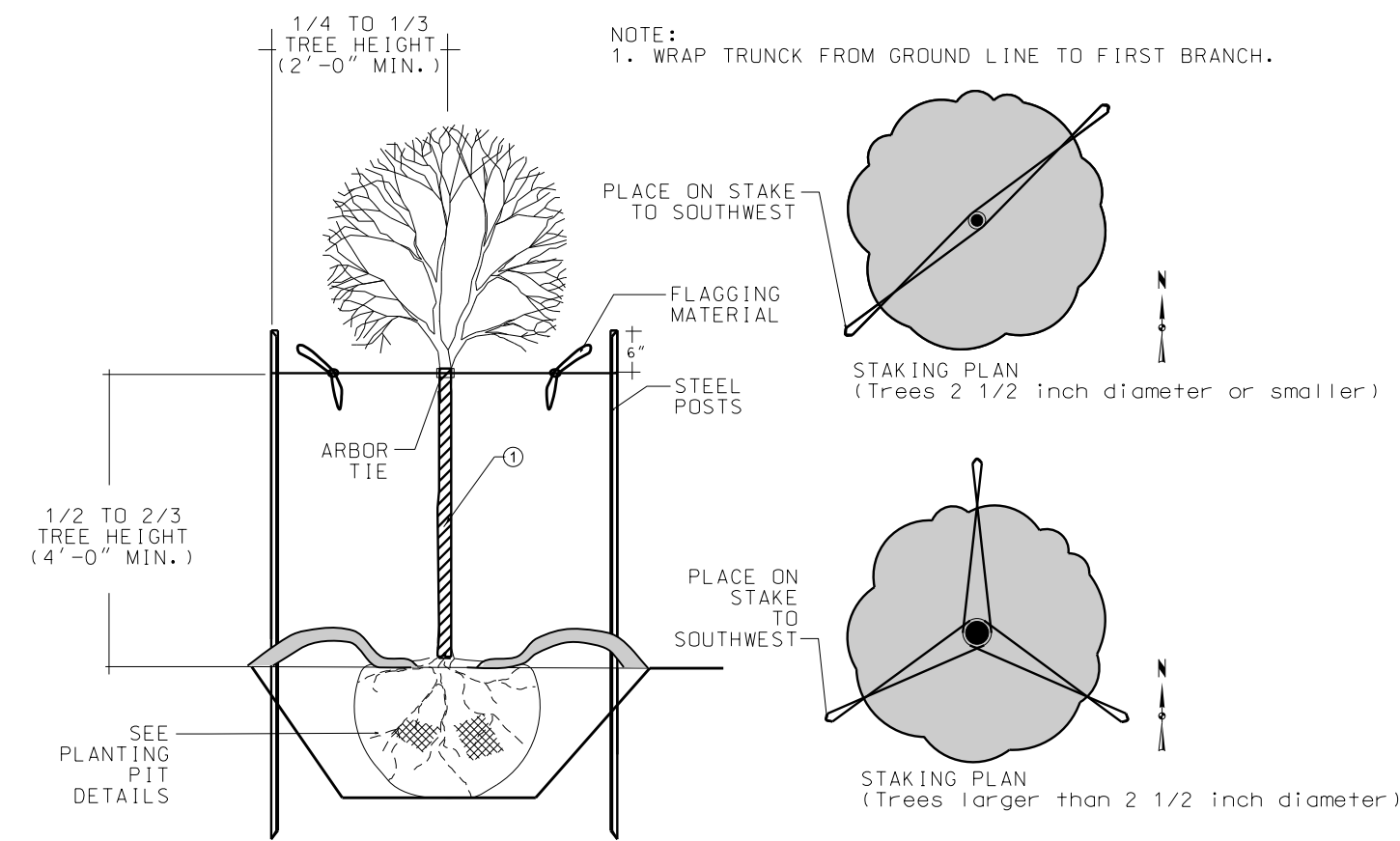
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
AP	3	Acer platanoides 'Crimson King'	CRIMSON KING NORWAY MAPLE	1 1/2" CAL.	B&B
CO	3	Celtis occidentalis 'Prairie Pride'	PRAIRIE PRIDE HACKBERRY	1 1/2" CAL.	B&B
GT	3	Gleditsia triacanthos var inermis 'Skyline'	SKYLINE HONEYLOCUST	1 1/2" CAL.	B&B
MC	5	Malus 'Coralburst'	CORALBURST CRABAPPLE	8' Ht.	B&B
QB	3	Quercus bicolor	SWAMP WHITE OAK	1 1/2" CAL.	B&B
TA	3	Tilia americana 'Boulevard'	BOULEVARD LINDEN	1 1/2" CAL.	B&B
UP	3	Ulmus x 'Patriot'	PATRIOT ELM	1 1/2" CAL.	B&B



1
6
PLANTING PIT DETAIL
NO SCALE



1
6
TREE DRAINAGE STAKING DETAIL
NO SCALE



1
6
DECIDUOUS TREE STAKING DETAIL
NO SCALE

PLANTING PLAN GENERAL NOTES

- A. UTILITY WARNING:
THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
- B. NOTIFY UTILITY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION AND DEPTH OF ALL UTILITIES. AVOID DAMAGE TO UTILITIES AND SERVICES DURING CONSTRUCTION. ANY DAMAGE DUE TO THE CONTRACTOR'S CARELESSNESS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. COORDINATE AND COOPERATE WITH UTILITY COMPANIES DURING CONSTRUCTION.
- C. ALL PLANT MATERIAL SHALL AT LEAST MEET MINIMUM REQUIREMENTS SHOWN IN THE "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSIZ60.1-LATEST EDITION).
- D. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.
- E. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SEEDED WITH SUDAS TYPE 1 - PERMANENT LAWN SEED MIX UNLESS OTHERWISE NOTED.
- F. CONTACT THE CITY FORESTER AT 515-283-4105 BEFORE ANY TREE INSTALLATION COMMENCES.
- G. CONTRACTOR TO SEED DETENTION BASIN WITH NO MOW LAWN SEED MIX MANUFACTURED BY PRAIRIE NURSERY, P.O. BOX 306, WESTFIELD, WI 53964, WEBSITE: www.prairienursery.com, PHONE: (800) 476-9453, OR APPROVED EQUAL.

PLANTING PLAN REQUIREMENTS

LANDSCAPE REQUIREMENTS AND CALCULATIONS:
(AS PER CITY OF BONDURANT SITE PLAN OPEN SPACE AND LANDSCAPING REQUIREMENTS)

OPEN SPACE REQUIREMENTS:
617,353 SF X 10% MIN. OPEN SPACE = 61,735 SF REQUIRED
(538,038 SF PROVIDED = 80.14%)

TREE LANDSCAPE REQUIREMENTS:
1 TREE PER 50 LF OF FRONTAGE -OR-
1 TREE PER 6 PARKING STALLS, WHICHEVER IS GREATER

1,000 LF FRONTAGE / 50 = 20 TREES -OR-
22 STALLS / 6 = 3.66 TREES
20 TREES PROVIDED (15 OVERSTORY DECIDUOUS, 5 ORNAMENTAL)

INTERIOR PARKING LOT LANDSCAPE REQUIREMENTS:
1 TREE PER 18 PARKING STALLS
22 STALLS / 18 = 1.22 TREES REQUIRED
2 TREES PROVIDED

RMS BONDURANT SITE IMPROVEMENTS

LANDSCAPE PLAN

BONDURANT, IOWA

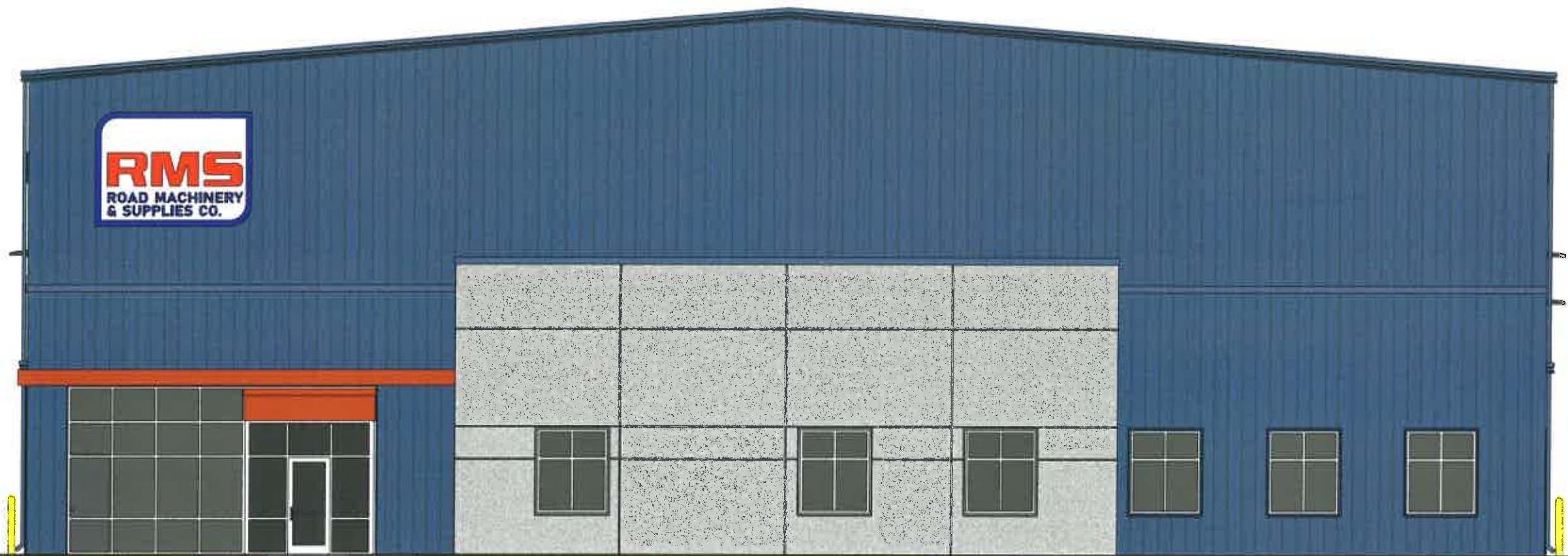
SNYDER & ASSOCIATES, INC. | 2727 S.W. SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

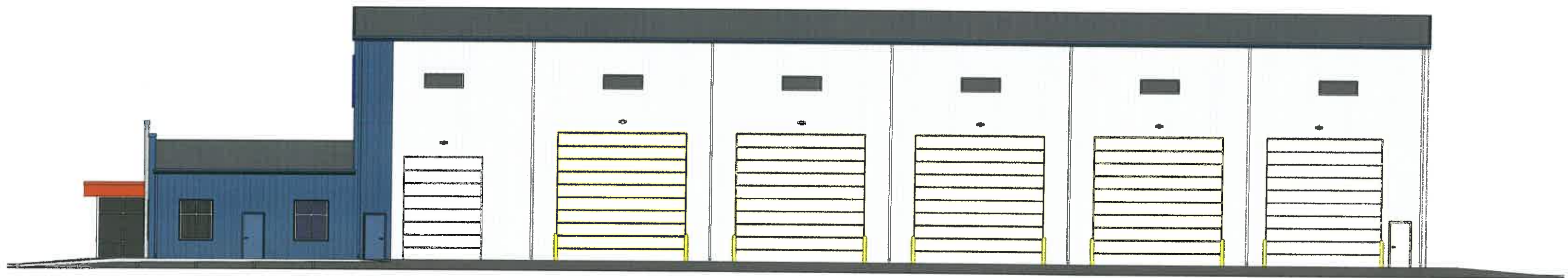


Project No: 119.0286

Sheet 6 of 6

Sheet 6 of 6

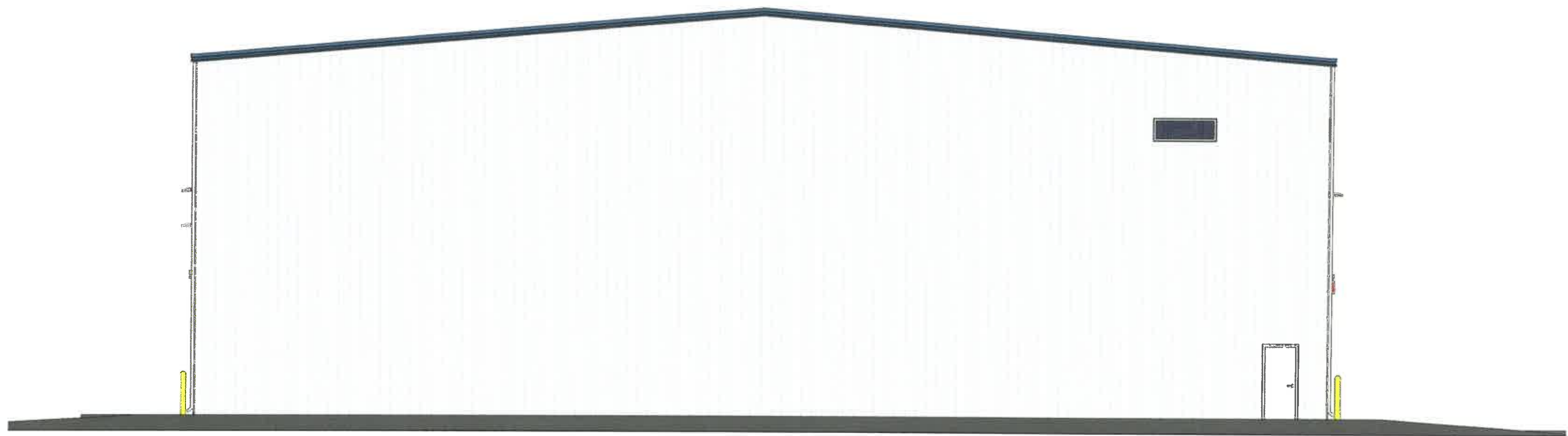










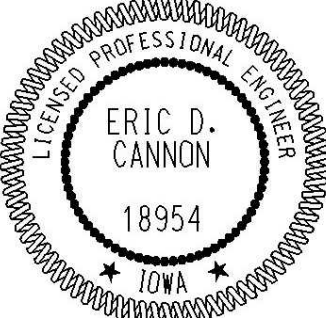


**JENSEN – BONDURANT DEVELOPMENT
BONDURANT, IOWA**

DRAINAGE CALCULATIONS

PROJECT NO. 119.0286

AUGUST 12, 2019

	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.
	Eric D. Cannon, P.E. _____ Date _____
	License Number 18954
	My License Renewal Date is December 31, 2019
	<u>Drainage Study</u> _____ _____ _____

PREPARED BY

**SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020**

NAME: Jensen – Bondurant Development

NO. 119.0286

SUBJECT: Project Summary

DATE 08/13/2019

BY KSS CK EDC

PAGE 1 OF

Project Summary

This storm water management plan is submitted in association with the Jensen – Bondurant Development improvements in Bondurant, IA. This storm report will analyze the proposed storm water features needed for the proposed site improvements. The proposed improvements include a new commercial building with associated roads, storm sewer and regional detention basin.

The current conditions of the proposed site include 15.40 acres of open space. An area has been previously graded through the middle of the site to provide a road through the site in the future. The majority of the site drains to the southwest side of the site to the ditch along Franklin Street SW. From there it is conveyed through an existing culvert south under Franklin Street SW. the northeast corner of the site, consisting of approximately 1.43 acres, flows north offsite to the adjacent property. This area is not accounted for in the detention calculations leaving 13.97 acres of onsite area that flow south. The allowable 100-year release rate for the proposed detention is set to the 5-year release rate of the existing site minus any non-detained flow. The following table shows a summary of the allowable release rate for the site.

	Area (Ac)	Runoff Coefficient	Allowable Release Rate (cfs)
Existing Site	13.97	0.35	18.21 (5-yr)
Non-Detained	1.28	0.55	4.73 (100-yr)
Allowable Release Rate			13.48

Detention Basin

The storm water management design took into consideration the required detention basin design according to 2019 SUDAS design manual standards. The storm water management design includes the construction of a wet bottom regional detention basin with a normal pool elevation of 959.16 located on the south side of the site. The basin is designed to detain runoff from the proposed site and also runoff from the undeveloped areas to the north of the proposed improvements. The undeveloped areas to the north are assumed to be developed as 80% impervious surface and 20% open space. The undeveloped space has been divided into two areas to set an allowable design release rate for future development. The table below shows a summary of the design runoff rates for each area.

	Detained Area (Ac)	Runoff Coefficient	Non-Detained Area	Design Detention Runoff (cfs)
Proposed RMS Site	4.41	0.74	1.18	14.60
East Area	4.70	0.89 (80% Imp.)	0.00	15.56
West Area	3.58	0.89 (80% Imp.)	0.10	9.86
Total	12.69	0.85	1.28	40.02

The Proposed detention basin will detain 12.69 acres and account for 1.28 acres of non-detained area. The basin will restrict the 100-year developed flow to the 5-year pre-developed release rate. With the proposed improvements and assumptions for the undeveloped areas, at full buildout the basin will release at 13.48 cfs and reach a maximum elevation of 962.99 in the 100-year storm event. The basin will release to the ditch along Franklin Street SW via 24" pipe with a 17-1/16" diameter orifice plate. The basin has an emergency overflow to the ditch set at an elevation of 963.25 which provides the basin with 0.26' of freeboard. The following table shows a summary of the basin see the attached design spreadsheets for more details.

Release Rate (100-yr)	100-yr Elevation	100-yr Volume	100-yr Freeboard
13.48 cfs	962.99	102,535 cf	0.26'

Storm Sewer

The proposed storm sewer improvements will be designed to convey the 5-year post-developed storm event with overflows designed to convey the 100-year post-developed storm event to the detention basin. The 2 culverts (ST_5 and ST-6) servicing the undeveloped areas are designed to convey the 100-year storm event. See storm sewer design for details.

Design Assumptions:

-For Zone 5 in Polk County use the following Intensities:

$T_c = 20$ minutes	$T_c = 5$ minutes
$I_5 = 3.72$ in/hr	$I_5 = 6.91$ in/hr
$I_{100} = 6.72$ in/hr	$I_{100} = 12.40$ in/hr

- The following runoff coefficients (Hydrologic Soil Group C):

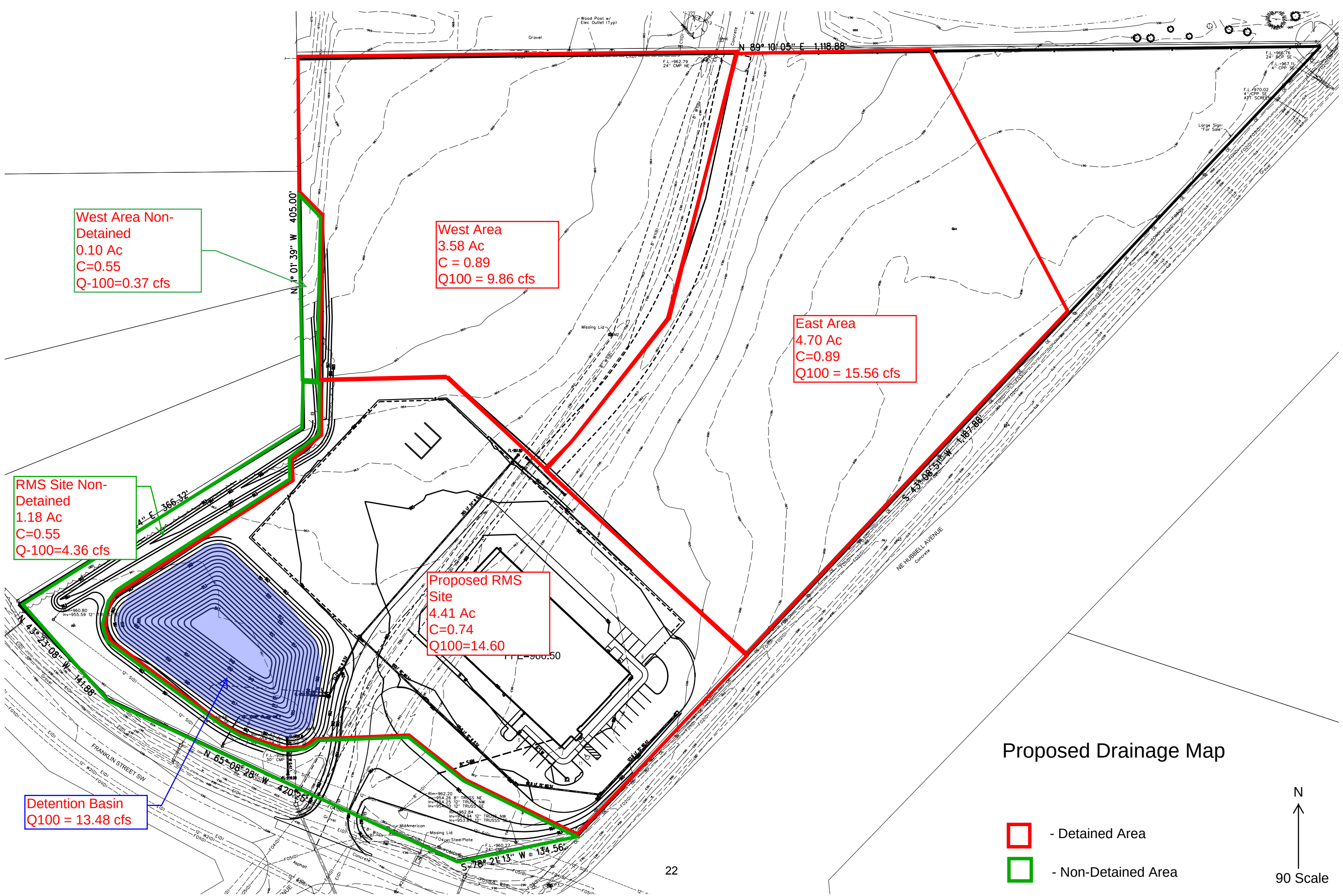
I_5
$C_{\text{Impervious}} = 0.95$
$C_{\text{Open Space}} = 0.35$

Drainage Areas: (See Map and Drainage Spreadsheets):

Appendix:

Runoff Coefficient Table
Rainfall Frequency Table





West Area Non-Detained
0.10 Ac
C=0.55
Q-100=0.37 cfs

West Area
3.58 Ac
C = 0.89
Q100 = 9.86 cfs

East Area
4.70 Ac
C=0.89
Q100 = 15.56 cfs

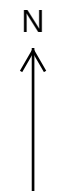
RMS Site Non-Detained
1.18 Ac
C=0.55
Q-100=4.36 cfs

Proposed RMS Site
4.41 Ac
C=0.74
Q100=14.60

Detention Basin
Q100 = 13.48 cfs

Proposed Drainage Map

-  - Detained Area
-  - Non-Detained Area



90 Scale

PROJECT: Jensen-Bondurant Development

No: 119.0286

DATE: August 12, 2019

SUBJECT: Detention Basin Design - Modified Rational Method

BY: KSS

CK:

PAGE: 1

OF: 3



* Calculations based on SUDAS Design Manual, Chapter 2 - Stormwater, Section 2G-1 - General Information for Detention Practices

DETENTION BASIN No.: 1

Location / Description:

DRAINAGE AREA DATA

Iowa Climatic Section: 5 - Central * Refer to SUDAS Design Manual, Section 2B-2 Rainfall and Runoff Periods

Site Area, $A = 14.00$ acres * Limited to sites less than 5 acres with no off-site pass through.

Runoff Coefficient, $C_{PRE} = 0.35$

Runoff Coefficient, $C_{POST} = 0.85$

Time of Concentration $T_C = 20$ min.

Un-detained Area, $A_U = 1.28$ acres

Runoff Coefficient, $C_U = 0.55$

Detained Area, $A_{DET} = A - A_U = 12.72$ acres

Runoff Coefficient, $C_{DET} = 0.88$

ALLOWABLE DISCHARGE

Pre-developed design storm recurrence interval 5-year <-- Post-development peak discharge limit

Rainfall intensity, $i_{PRE} = 3.72$ in/hr

Allowable site discharge, $Q_a = 18.21$ cfs

Post-development design storm recurrence interval: 100-year

Rainfall intensity, $i_{POST} = 6.72$ in/hr

Un-detained peak runoff, $Q_U = 4.73$ cfs

Maximum allowable release rate, $Q_A = Q_5 - Q_U = 13.48$ cfs

Maximum adjusted release rate, $Q_{OUT} = 13.48$ cfs <-- Basin Design Discharge

Basin Inflow and Storage Duration Values

Duration, T (min.)	Rainfall Intensity i_{100} (in/hr)	Inflow, Q_{100} $C_{DET} \times i_{100} \times A_{DET}$ (cfs)	Runoff Volume $Q_{100} \times T$ (cf)	Release Volume $Q_{OUT} \times T$ (cf)	Required Storage Volume (cf)
5	12.4	138.83	41649	4045	37604
10	9.15	102.44	61466	8090	53376
15	7.44	83.30	74968	12135	62834
20	6.72	75.20	90240	16180	74060
25	5.99	67.10	100652	20225	80427
30	5.27	59.00	106205	24270	81936
35	4.98	55.79	117166	28315	88852
40	4.70	52.58	126201	32360	93842
45	4.41	49.37	133311	36404	96906
50	4.12	46.16	138495	40449	98045
55	3.84	42.96	141753	44494	97258
60	3.55	39.75	143085	48539	94546
65	3.44	38.51	150206	52584	97621
70	3.33	37.28	156587	56629	99958
75	3.22	36.05	162230	60674	101556
80	3.11	34.82	167134	64719	102415
85	3.00	33.59	171299	68764	102535
90	2.89	32.36	174725	72809	101916
120	2.23	24.97	179763	97079	82684
180	1.69	18.92	204349	145618	58732

**STORAGE VOLUME
REQUIRED****102,535 cf****2.35 ac-ft**

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PROJECT: Jensen-Bondurant DevelopmentNo: 119.0286DATE: August 13, 2019SUBJECT: Detention Basin - Design VolumeBY: KSS CK: PAGE: 1 OF: 1**SNYDER & ASSOCIATES**
Engineers and Planners**DETENTION BASIN No.:** 1Location / Description: Outlet Flowline Elev. = 959.16 ftOverflow Elevation = 963.25 ft

Required Detention Volume = 102,535 cf

2-Year Check Detention Volume = 25,853 cf

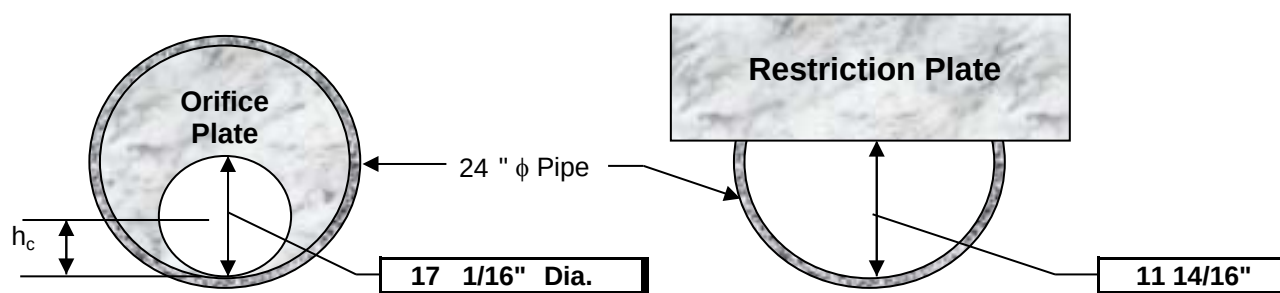
BASIN STAGE-STORAGE VOLUME:Elevation Increment = 1 ft

Elevation (ft)	Area (sf)	Average Area (sf)	Volume (cf)
959.16	21500	---	0
960.00	24000	22750	19110
961.00	27000	25500	44610
962.00	29000	28000	72610
963.00	31500	30250	102860
963.25	33000	32250	110923

Required Detention provided at elevation: 962.99

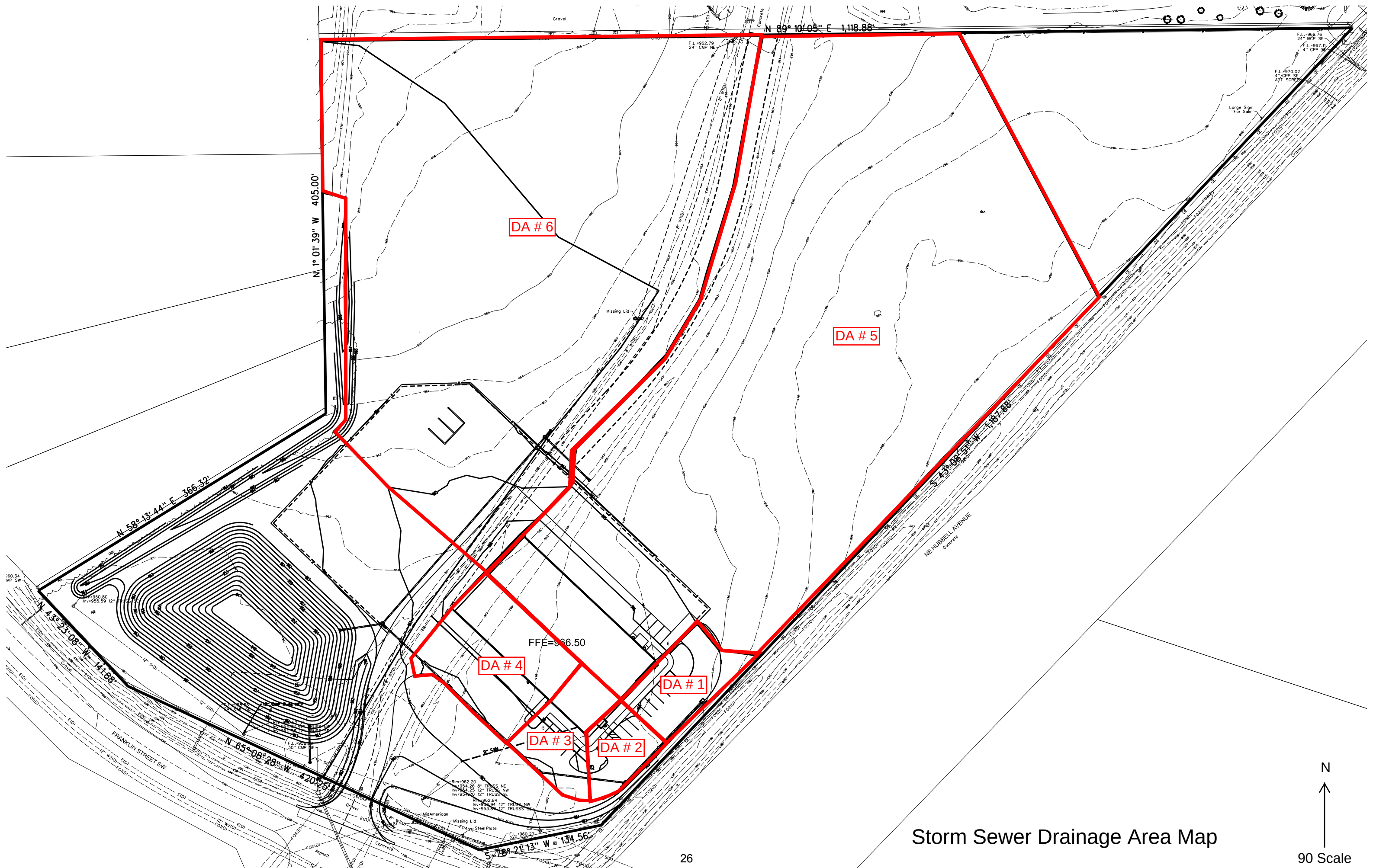
100-year basin freeboard = 0.26 ft

Minimum Protection Elevation (MPE): 963.99 ft
(1.0 ft above 100-year water elevation)2-Year Detention provided at elevation: 960.26

**DETENTION BASIN No.:** Location / Description: Outlet Flowline Elevation, Z_{out} = 959.16 ft100-year Water Elevation, Z_{100} = 962.99 ftAllowable Discharge, Q = 13.48 cfsDischarge Coefficient, C_d = 0.60 (0.60-0.68; typical 0.60)Outlet Pipe Diameter, D = 24 inHead, $h = Z_{100} - (Z_{out} + h_c)$ where h_c = height to centroid of open areaOrifice Equation: $Q = C_d * A * (2 * g * h)^{1/2}$ 

CIRCULAR ORIFICE OPENING					RESTRICTION PLATE OPENING				
Table Position	Head h, ft	Diameter d, in	Area A, sf	Capacity Q, cfs	Table Position	Head h, ft	Opening depth, d, in	Area A, sf	Capacity Q, cfs
276	3.14	16.50	1.48	12.67	190	3.06	11.34	1.46	12.75
277	3.14	16.56	1.50	12.76	191	3.06	11.40	1.47	12.83
278	3.14	16.62	1.51	12.85	192	3.06	11.46	1.48	12.91
279	3.13	16.68	1.52	12.94	193	3.05	11.52	1.49	12.99
280	3.13	16.74	1.53	13.02	194	3.05	11.58	1.50	13.07
281	3.13	16.80	1.54	13.11	195	3.05	11.64	1.51	13.15
282	3.13	16.86	1.55	13.20	196	3.05	11.70	1.52	13.24
283	3.12	16.92	1.56	13.29	197	3.04	11.76	1.53	13.32
284	3.12	16.98	1.57	13.38	198	3.04	11.82	1.54	13.40
285	3.12	17.04	1.58	13.47	199	3.04	11.88	1.55	13.48
286	3.12	17.10	1.59	13.56	200	3.04	11.94	1.56	13.56
287	3.11	17.16	1.61	13.65	201	3.03	12.00	1.57	13.64
288	3.11	17.22	1.62	13.74	202	3.03	12.06	1.58	13.72
289	3.11	17.28	1.63	13.83	203	3.03	12.12	1.59	13.80
290	3.11	17.34	1.64	13.92	204	3.03	12.18	1.60	13.89
291	3.10	17.40	1.65	14.01	205	3.02	12.24	1.61	13.97
292	3.10	17.46	1.66	14.10	206	3.02	12.30	1.62	14.05
293	3.10	17.52	1.67	14.19	207	3.02	12.36	1.63	14.13
294	3.10	17.58	1.69	14.28	208	3.02	12.42	1.64	14.21
295	3.09	17.64	1.70	14.37	209	3.01	12.48	1.65	14.29

Continuation of tables not shown



SUBJECT: STORM SEWER DESIGN

DATE: August 13, 2019

BY: KSS CK:

PAGE: 1 OF: 1



SNYDER & ASSOCIATES
Engineers and Planners

* Refer to SUDAS Design Manual, Chapter 2 - Stormwater, Section 2B-2 Rainfall and Runoff Periods (2015 Edition)

Storm Recurrence Interval: 5-year

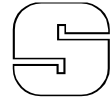
[illegible]

1. Design calculations based on Rational Method peak runoff flows and Manning's full flow pipe capacity.

SUBJECT: STORM SEWER INTAKE DESIGN

BY: WCF CK:

SNYDER & ASSOCIATES
Engineers and Planners



Iowa Climatic Section: 5 - Central

* Refer to SUDAS Design Manual, Chapter 2 - Stormwater, Section 2B-2 Rainfall and Runoff Periods (2015 Edition)

Storm Recurrence Interval: 5-year

Manning's n Value for Street & Gutter = 0.013

[illegible]

1. Design calculations based on Rational Method peak runoff flows and SUDAS Design Manual Section 2C, 2015 Edition.

Culvert Designer/Analyzer Report

ST-5

Peak Discharge Method: User-Specified						
Design Discharge		15.17	cfs	Check Discharge	8.39	cfs
Grades Model: Inverts						
Invert Upstream		961.36	ft	Invert Downstream	961.02	ft
Length		68.00	ft	Slope	0.005000	ft/ft
Drop		0.34	ft			
Headwater Model: Unspecified						
Tailwater Conditions: Constant Tailwater						
Tailwater Elevation		N/A	ft			
</						

Culvert Designer/Analyzer Report

ST-5

Design: Trial-1

Solve For: Headwater Elevation

Culvert Summary			
Allowable HW Elevation	N/A ft	Storm Event	Design
Computed Headwater Elev.	963.54 ft	Discharge	15.17 cfs
Headwater Depth/Height	1.09	Tailwater Elevation	N/A ft
Inlet Control HW Elev.	963.48 ft	Control Type	Outlet Control
Outlet Control HW Elev.	963.54 ft		
Grades			
Upstream Invert	961.36 ft	Downstream Invert	961.02 ft
Length	68.00 ft	Constructed Slope	0.005000 ft/ft
Hydraulic Profile			
Profile	M2	Depth, Downstream	1.40 ft
Slope Type	Mild	Normal Depth	1.55 ft
Flow Regime	Subcritical	Critical Depth	1.40 ft
Velocity Downstream	6.44 ft/s	Critical Slope	0.006367 ft/ft
Section			
Section Shape	Circular	Mannings Coefficient	0.013
Section Material	Concrete	Span	2.00 ft
Section Size	24 inch	Rise	2.00 ft
Number Sections	1		
Outlet Control Properties			
Outlet Control HW Elev.	963.54 ft	Upstream Velocity Head	0.53 ft
Ke	0.20	Entrance Loss	0.11 ft
Inlet Control Properties			
Inlet Control HW Elev.	963.48 ft	Flow Control	Unsubmerged
Inlet Type	Beveled ring, 33.7° bevels	Area Full	3.1 ft²
K	0.00180	HDS 5 Chart	3
M	2.50000	HDS 5 Scale	B
C	0.02430	Equation Form	1
Y	0.83000		

Culvert Designer/Analyzer Report

ST-6

Peak Discharge Method: User-Specified							
Design Discharge		12.53	cfs	Check Discharge	6.94	cfs	
Grades Model: Inverts							
Invert Upstream		961.07	ft	Invert Downstream		961.02	ft
Length		10.00	ft	Slope		0.005000	ft/ft
Drop		0.05	ft				
Headwater Model: Unspecified							
Tailwater Conditions: Constant Tailwater							
Tailwater Elevation		N/A	ft				
Name		Description	Discharge	HW Elev.	Velocity		
x	Trial-1	1-24 inch Circular	12.53 cfs	963.00 ft	5.94 ft/s		

Culvert Designer/Analyzer Report

ST-6

Design: Trial-1

Solve For: Headwater Elevation

Culvert Summary			
Allowable HW Elevation	N/A ft	Storm Event	Design
Computed Headwater Elev.	963.00 ft	Discharge	12.53 cfs
Headwater Depth/Height	0.96	Tailwater Elevation	N/A ft
Inlet Control HW Elev.	962.93 ft	Control Type	Outlet Control
Outlet Control HW Elev.	963.00 ft		
Grades			
Upstream Invert	961.07 ft	Downstream Invert	961.02 ft
Length	10.00 ft	Constructed Slope	0.005000 ft/ft
Hydraulic Profile			
Profile	M2	Depth, Downstream	1.27 ft
Slope Type	Mild	Normal Depth	1.33 ft
Flow Regime	Subcritical	Critical Depth	1.27 ft
Velocity Downstream	5.94 ft/s	Critical Slope	0.005696 ft/ft
Section			
Section Shape	Circular	Mannings Coefficient	0.013
Section Material	Concrete	Span	2.00 ft
Section Size	24 inch	Rise	2.00 ft
Number Sections	1		
Outlet Control Properties			
Outlet Control HW Elev.	963.00 ft	Upstream Velocity Head	0.51 ft
Ke	0.20	Entrance Loss	0.10 ft
Inlet Control Properties			
Inlet Control HW Elev.	962.93 ft	Flow Control	Unsubmerged
Inlet Type	Beveled ring, 33.7° bevels	Area Full	3.1 ft²
K	0.00180	HDS 5 Chart	3
M	2.50000	HDS 5 Scale	B
C	0.02430	Equation Form	1
Y	0.83000		

APPENDIX

Table 2B-4.01: Runoff Coefficients for the Rational Method

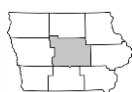
Cover Type and Hydrologic Condition	Runoff Coefficients for Hydrologic Soil Group											
	A			B			C			D		
	5	10	100	5	10	100	5	10	100	5	10	100
Open Space (lawns, parks, golf courses, cemeteries, etc.)												
Poor condition (grass cover < 50%)	.25	.30	.50	.45	.55	.65	.65	.70	.80	.70	.75	.85
Fair condition (grass cover 50% to 75%)	.10	.10	.15	.25	.30	.50	.45	.55	.65	.60	.65	.75
Good condition (grass cover >75%)	.05	.05	.10	.15	.20	.35	.35	.40	.55	.50	.55	.65
Impervious Areas												
Parking lots, roofs, driveways, etc. (excluding ROW)	.95	.95	.98	.95	.95	.98	.95	.95	.98	.95	.95	.98
Streets and roads:												
Paved; curbs & storm sewers (excluding ROW)	.95	.95	.98	.95	.95	.98	.95	.95	.98	.95	.95	.98
Paved; open ditches (including ROW)	---	---	---	.70	.75	.85	.80	.85	.90	.80	.85	.90
Gravel (including ROW)	---	---	---	.60	.65	.75	.70	.75	.85	.75	.80	.85
Dirt (including ROW)	---	---	---	.55	.60	.70	.65	.70	.80	.70	.75	.85
Urban Districts (excluding ROW)												
Commercial and business (85% impervious)	---	---	---	---	---	---	.85	.85	.90	.90	.90	.95
Industrial (72% impervious)	---	---	---	---	---	---	.80	.80	.85	.80	.85	.90
Residential Districts by Average Lot Size (excluding ROW)¹												
1/8 acre (36% impervious)	---	---	---	---	---	---	.55	.60	.70	.65	.70	.75
1/4 acre (36% impervious)	---	---	---	---	---	---	.55	.60	.70	.65	.70	.75
1/3 acre (33% impervious)	---	---	---	---	---	---	.55	.60	.70	.65	.70	.75
1/2 acre (20% impervious)	---	---	---	---	---	---	.45	.50	.65	.60	.65	.70
1 acre (11% impervious)	---	---	---	---	---	---	.40	.45	.60	.55	.60	.65
2 acres (11% impervious)	---	---	---	---	---	---	.40	.45	.60	.55	.60	.65
Newly Graded Areas (pervious areas only, no vegetation)												
Agricultural and Undeveloped												
Meadow - protected from grazing (pre-settlement)	.10	.10	.25	.10	.15	.30	.30	.35	.55	.45	.50	.65
Straight Row Crops												
Straight Row (SR)	Poor Condition	.33	.39	.55	.52	.58	.71	.70	.74	.84	.78	.89
	Good Condition	.24	.30	.46	.45	.51	.66	.62	.67	.78	.73	.86
SR + Crop Residue (CR)	Poor Condition	.31	.37	.54	.50	.56	.70	.67	.72	.82	.75	.87
	Good Condition	.19	.25	.41	.38	.45	.61	.55	.60	.73	.62	.78
Contoured (C)	Poor Condition	.29	.35	.52	.47	.53	.70	.60	.65	.77	.70	.84
	Good Condition	.21	.26	.43	.38	.45	.61	.55	.60	.73	.65	.80
C+CR	Poor Condition	.27	.33	.50	.45	.51	.66	.57	.63	.75	.67	.82
	Good Condition	.19	.25	.41	.36	.43	.59	.52	.58	.71	.62	.78
Contoured & Terraced (C&T)	Poor Condition	.22	.28	.45	.36	.43	.59	.50	.56	.70	.55	.73
	Good Condition	.16	.22	.38	.31	.37	.54	.45	.51	.66	.52	.71
C&T + CR	Poor Condition	.13	.19	.35	.31	.37	.54	.45	.51	.66	.52	.71
	Good Condition	.10	.16	.32	.27	.33	.50	.43	.49	.65	.50	.70

¹ The average percent impervious area shown was used to develop composite coefficients.

Note: Rational coefficients were derived from SCS CN method

- b. Composite Runoff Analysis:** Care should be taken not to average runoff coefficients for large segments that have multiple land uses of a wide variety (i.e., business to agriculture). However, within similar land uses, it is often desirable to develop a composite runoff coefficient based on the percentage of different types of surface in the drainage area. The composite procedure can be applied to an entire drainage area, or to typical sample blocks as a guide to selection of reasonable values of the coefficient for an entire area.

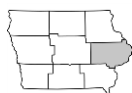
Table 2B-2.06: Section 5 - Central Iowa
Rainfall Depth and Intensity for Various Return Periods

	Return Period															
	1 year		2 year		5 year		10 year		25 year		50 year		100 year		500 year	
	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I
5 min	0.39	4.78	0.46	5.59	0.57	6.91	0.67	8.1	0.81	9.76	0.92	11.1	1.04	12.4	1.33	15.9
10 min	0.58	3.51	0.68	4.08	0.84	5.08	0.98	5.92	1.19	7.16	1.35	8.13	1.52	9.15	1.94	11.6
15 min	0.71	2.84	0.83	3.32	1.03	4.12	1.20	4.82	1.45	5.81	1.65	6.61	1.86	7.44	2.37	9.50
30 min	0.99	1.99	1.16	2.33	1.45	2.91	1.70	3.40	2.05	4.11	2.34	4.68	2.63	5.27	3.36	6.73
1 hr	1.29	1.29	1.51	1.51	1.89	1.89	2.23	2.23	2.72	2.72	3.13	3.13	3.55	3.55	4.62	4.62
2 hr	1.58	0.79	1.85	0.92	2.33	1.16	2.76	1.38	3.39	1.69	3.91	1.95	4.46	2.23	5.88	2.94
3 hr	1.75	0.58	2.06	0.68	2.60	0.86	3.09	1.03	3.82	1.27	4.42	1.47	5.07	1.69	6.76	2.25
6 hr	2.05	0.34	2.40	0.40	3.03	0.50	3.61	0.60	4.47	0.74	5.20	0.86	5.98	0.99	8.02	1.33
12 hr	2.34	0.19	2.74	0.22	3.44	0.28	4.07	0.33	5.01	0.41	5.79	0.48	6.62	0.55	8.79	0.73
24 hr	2.67	0.11	3.08	0.12	3.81	0.15	4.46	0.18	5.44	0.22	6.26	0.26	7.12	0.29	9.37	0.39
48 hr	3.06	0.06	3.49	0.07	4.25	0.08	4.94	0.10	5.96	0.12	6.81	0.14	7.71	0.16	10.0	0.20
3 day	3.34	0.04	3.81	0.05	4.63	0.06	5.36	0.07	6.43	0.08	7.31	0.10	8.25	0.11	10.6	0.14
4 day	3.59	0.03	4.09	0.04	4.96	0.05	5.74	0.05	6.86	0.07	7.78	0.08	8.74	0.09	11.1	0.11
7 day	4.25	0.02	4.83	0.02	5.82	0.03	6.69	0.03	7.93	0.04	8.93	0.05	9.98	0.05	12.5	0.07
10 day	4.87	0.02	5.50	0.02	6.58	0.02	7.52	0.03	8.86	0.03	9.94	0.04	11.0	0.04	13.8	0.05

D = Total depth of rainfall for given storm duration (inches)

I = Rainfall intensity for given storm duration (inches/hour)

Table 2B-2.07: Section 6 - East Central Iowa
Rainfall Depth and Intensity for Various Return Periods

	Return Period															
	1 year		2 year		5 year		10 year		25 year		50 year		100 year		500 year	
	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I
5 min	0.38	4.56	0.44	5.30	0.54	6.56	0.63	7.65	0.76	9.18	0.86	10.3	0.97	11.6	1.23	14.8
10 min	0.55	3.33	0.64	3.87	0.8	4.8	0.93	5.58	1.11	6.70	1.26	7.60	1.42	8.54	1.80	10.8
15 min	0.67	2.70	0.78	3.14	0.97	3.88	1.13	4.53	1.36	5.45	1.54	6.18	1.73	6.94	2.20	8.81
30 min	0.95	1.90	1.11	2.22	1.38	2.76	1.61	3.22	1.94	3.88	2.20	4.40	2.47	4.95	3.14	6.29
1 hr	1.23	1.23	1.44	1.44	1.80	1.80	2.11	2.11	2.58	2.58	2.96	2.96	3.36	3.36	4.37	4.37
2 hr	1.51	0.75	1.77	0.88	2.22	1.11	2.62	1.31	3.22	1.61	3.71	1.85	4.24	2.12	5.60	2.80
3 hr	1.68	0.56	1.96	0.65	2.47	0.82	2.93	0.97	3.63	1.21	4.22	1.40	4.85	1.61	6.50	2.16
6 hr	1.97	0.32	2.30	0.38	2.89	0.48	3.45	0.57	4.3	0.71	5.02	0.83	5.8	0.96	7.87	1.31
12 hr	2.28	0.19	2.65	0.22	3.31	0.27	3.93	0.32	4.88	0.40	5.68	0.47	6.56	0.54	8.87	0.73
24 hr	2.60	0.10	3.01	0.12	3.75	0.15	4.42	0.18	5.44	0.22	6.29	0.26	7.22	0.30	9.64	0.40
48 hr	2.98	0.06	3.43	0.07	4.22	0.08	4.93	0.10	6.01	0.12	6.90	0.14	7.86	0.16	10.3	0.21
3 day	3.28	0.04	3.72	0.05	4.51	0.06	5.24	0.07	6.32	0.08	7.22	0.10	8.19	0.11	10.7	0.14
4 day	3.53	0.03	3.98	0.04	4.78	0.04	5.50	0.05	6.58	0.06	7.49	0.07	8.46	0.08	10.9	0.11
7 day	4.17	0.02	4.67	0.02	5.53	0.03	6.29	0.03	7.39	0.04	8.30	0.04	9.25	0.05	11.6	0.06
10 day	4.75	0.01	5.30	0.02	6.24	0.02	7.04	0.02	8.20	0.03	9.12	0.03	10.0	0.04	12.4	0.05

D = Total depth of rainfall for given storm duration (inches)

I = Rainfall intensity for given storm duration (inches/hour)

MEMORANDUM

Hoisington Koegler Group Inc.



To: Marketa Oliver, City Administrator
From: Brad Scheib, AICP, and Beth Richmond, Hoisington Koegler Group Inc.
Re: Planning Report/Review of Site Plan – RMS Bondurant
Date: 05 September 2019
Applicant: Jensen Builders Ltd (Jason Crimmins)
Location: Outlot X McCleary Meadows Industrial Park
Comprehensive Plan: Industrial
Zoning: M-1 Limited Industrial

Introduction and Background

Jensen Builders Ltd has requested a site plan review for a parcel of land located at Outlot X of McCleary Meadows Industrial Park along Highway 65 north. This site is currently vacant and is owned by Road Machinery & Supplies Co. Road Machinery & Supplies Co. is a distributor of construction equipment throughout the upper Midwest. It provides equipment sales and rental services as well as support operations. The applicant is proposing to create a building for the property owner that will be used as office and warehouse space. The office will provide retail and equipment rental services. The proposed development will occur on the southern portion of the site.



Site Plan Review

Comprehensive Plan Guidance

The site is guided “Industrial” for future land use. This land use category is intended for manufacturing, warehousing, storage, and transportation. The applicant is proposing to utilize a majority of the building for warehousing space which is consistent with the comprehensive plan guidance. The site is located adjacent to several residential parcels. These parcels are guided by the Comprehensive Plan for long-term industrial use and are anticipated to become industrial uses at some point in the future.

Zoning & Lot Standards

This site is zoned M-1 Limited Industrial and is bordered on the west by the R-2 One- and Two-Family Residential district and on the north and east by the M-2 Medium Industrial district and Highway 65. It is assumed that at some point in the future, the residential parcels adjacent the site may likely redevelop to similar industrial uses. The M-1 district is intended to provide flexibility in the location of certain non-nuisance industrial uses while maintaining protection for nearby residential districts. The site plan proposes uses of an office building for retail and equipment rental services and office warehouse, both of which are permitted uses in the M-1 district.

The table below shows the M-1 lot standards as specified by Code.

Standard	M-1 District Standards	Proposed
Minimum lot area	10,000 sq. ft.	15.4 acres
Front yard setback	50 ft.	170 ft.
Side yard setback	20 ft., except where adjacent to R or C-1 district (25 ft.)	70 ft. (east) 240 ft. (west)
Rear yard setback	50 ft.	Roughly 425 ft.
Height	65 ft.; 3 stories	40 ft.
Open Space	15 percent	85 percent (note: if the remnant vacant land on the parcel were to further subdivide, the open space standard shall still be met for the existing and any new parcels)

The proposed structure meets all dimensional and setback requirements. The proposed structure will be 40 feet tall, which meets the height requirement for the M-1 district. Screening of a sufficient height and density to obscure structures and activities is required where the site is adjacent to the R-2 district. Since this parcel abuts a heavily traveled arterial street (Highway 65), it is essential to maintain an aesthetically pleasing appearance through property design, site layout and landscaping, and to minimize interference with through traffic.

The site abuts several parcels within a residential district (R-2). Even though these parcels are guided for long-term industrial use, the Code requires that industrial sites screen their activities from parcels within residential zoning districts. Therefore, the proposed development must be screened from view of these parcels.

Architectural Details

During a site plan review, the City reviews the architectural details of the plan to ensure that the proposed buildings fit with the character and overall vision for the community. The proposed building has a side façade facing Highway 65.

Because this site is located adjacent to Highway 65, it is part of the architectural Arterial Corridor Overlay. This overlay requires all buildings to include brick, stone, or glass on 100% of any façade facing Highway 65 or another public street. By the materials submitted, it is unclear exactly what types of materials are proposed to be used to construct the proposed building; however, the proposed building does not appear to be compliant with the façade materials requirement above.

The Code specifies that the non-public façades should complement the public facades of the building in terms of architectural design elements, materials, and colors. The required building materials of brick, stone, and/or glass must be present at least as trim material on the side facades. These requirements will be conditions of site plan approval.

Buildings in this overlay should be designed to minimize single plane walls and a boxy appearance and must incorporate façade modulation in all building elevations visible to the public in order to reduce the effect of long, large, or expansive wall surfaces. An articulated roofline is required in all industrial buildings adjacent to residential uses. The proposed project does not provide an articulated roofline for the building. Façade modulation, particularly along the southeast and southwest sides of the building, as well as roofline articulation will be required as conditions of site plan approval.

The applicant is required to adequately screen the commercial and industrial character elements of buildings (loading docks, loading areas, non-residential overhead doors, etc.) from any public street and adjoining properties. The site plan proposes several non-residential overhead doors visible from NE 62nd Ave and Franklin St SW. These overhead doors must be screened from public view as a condition of site plan approval. The site plan proposes two loading docks northwest of the proposed structure. These loading docks must be properly screened as a condition of site plan approval.

Parking

The applicant is proposing to use 3,520 sq. ft. of the 22,264 sq. ft. building as office space and the remainder as warehouse space. The Code requires that one parking space be provided for every 400 square feet of gross floor area for retail sales and rental of goods, merchandise, and equipment. The Code also requires that one parking space per employee be provided for warehousing uses. 5 employees are proposed to operate the warehouse. The table below shows the number of parking stalls required and proposed on site.

	Standard	Number of Stalls Required	Number of Stalls Proposed
Retail and rental of equipment	1 space per 400 sq. ft.	9	15
Restaurant	1 space per employee	5	5
Total Handicap-Accessible Stalls	1 space if providing a total of 10-25 spaces	1	1
Total Stalls		14	20

The proposed building is 22,264 square feet. Therefore, 2 off-street loading spaces are required. The site plan proposes two loading spaces near the northwest corner of the building. These loading spaces must be no less than 10 feet by 25 feet and must be screened from view in accordance with Code 177.10.

The drive serving the parking spaces must be 16 feet in width. The drive is proposed to be 30 feet wide which is larger than necessary. This drive could be narrowed, providing additional open space around the site. There are four proposed parking spaces in the rear of the building. The proposed drive only serves one of these parking spaces. Staff recommends continuing the paved drive to provide access to each of the parking spaces in the rear of the building as a condition of approval.

Because this parking lot is visible from public streets, at least 5 percent of the parking area is required to be landscaped and continuously maintained, excluding any plantings around the perimeter of the parking area. The applicant shall be required to landscape at least 5 percent of the parking area as a condition of approval.

Streets/Access/Transportation

The site is adjacent to Prairie Drive on the north and Franklin St SW and NE 62nd Ave on the south. A future roadway connecting Prairie Drive with NE 62nd Ave is proposed on the site. The proposed structure is located directly on top of the future roadway, eliminating the possibility of north-south roadway access through the site.

The site is proposed to access Franklin St SW/NE 62nd Ave which is a short distance from Hwy 65 utilizing a 31-foot wide driveway.

Utilities and Grading

The applicant has provided a stormwater management plan for the City's review. The City Engineer has reviewed the plans and has provided additional comments regarding the grading and utility plans for the site.

Sidewalks

A 6-foot wide private sidewalk is shown around the south end of the building, providing access from the parking area to the building. City Code requires sidewalks to be at least four feet wide. The proposed sidewalk meets Code requirements for this site. No public sidewalk is proposed along Franklin St SW.

Landscaping

The applicant has provided a landscaping plan. There are several requirements for landscaping that the applicant must meet on this site, including total trees, number of front yard trees, and interior parking lot trees.

The total number of trees on the lot is required to be either one tree per 50 feet of frontage or one tree per six parking spaces provided, whichever is greater. In this case, the applicant is proposing to create 20 parking spaces on site, requiring a minimum of 4 trees. The site's frontage is roughly 625 feet along Franklin St. SW, requiring 13 trees. Therefore, 13 trees will be required overall on the site. In total, the applicant is proposing to plant 20 trees on the site which meets the City's landscaping requirements.

One tree per 50 feet of frontage is required to be planted in the front yard setback, meaning 13 trees must be planted in the setback along Franklin St SW. The site plan meets this requirement.

Section 182.05.4.B requires one tree for every 18 parking spaces to be planted within the parking lot itself. Within the parking lot, tree islands must have an area of at least 36 square feet and a width of 5 feet. The proposed site plan shows a parking area with 20 spaces. Therefore, 2 interior parking lot trees are required. The proposed tree island on the site plan meets these requirements.

Deciduous trees must be planted with a minimum caliper of 1 ¾ inches. The landscaping plan proposes deciduous trees with a 1 ¼ inch caliper. The plans must be revised to show 1 ¾ inch caliper for all proposed deciduous trees as a condition of approval.

Screening

The City Code requires that every development provide sufficient screening so that neighboring properties are shielded from any adverse external effects of that development. Because the site is located adjacent to a residential district, increased screening is required. An opaque screen is required between the structure and the adjacent residential properties. An opaque screen is intended to exclude all visual contact between uses and may be composed of a wall, fence, landscaped earth berm, or vegetation. The opaque portion of the screen (from ground to 6 feet) must be opaque in all seasons of the year.

A chain link fence is proposed to be located around the west and north sides of the building between the site and the residential properties. However, a chain link fence is not considered opaque and therefore additional screening will be required meeting the standards for fences in Code sections 177.02 and 179.02.4C. Barbed wire is proposed to be placed on the top of the chain link fence. Barbed wire prohibited by Code to be used as a fence material, and will therefore not be allowed as part of this site plan.

Dumpster areas are not shown on the site plan. As a condition of approval, all dumpster areas shall be enclosed within the building itself or screened from view using dense vegetation or a fence.

Open Space

“Open space” is defined in the Code as any parcel or area of land or water essentially unimproved and set aside, dedicated, designated or reserved for public or private use or enjoyment, or for the use and enjoyment of owners and occupants of land adjoining or neighboring such open space. This site requires a minimum of 15 percent open space. This site is comprised of roughly 15.4 acres. 2.3 acres of open space is required. After reviewing the site plan, staff found the amount of open space provided to be roughly equal to 13.1 acres. The proposed open space meets the amount of open space area required by Code.

90% of the required open space area (or roughly 2.1 acres) must be landscaped and maintained with living ground cover. As a condition of approval, the applicant must specify the landscaped areas on the site plan, the type of landscaping/surfacing, and their acreage to meet 90% of the required open space.

15% of the total lot area (roughly 2.3 acres) must be maintained as landscaped open space including items such as walks, trees, shrubs, etc.

The proposed development is located on the southern 6.4 acres of the property, leaving roughly 9 acres vacant on the northern end of the property. Any future development to the north will be required to meet open space requirements for both the existing project as well as any future project(s).

Conclusion

Staff recommends that the Planning Commission recommend approval of the proposed site plan with the following conditions and based on the following findings of fact.

Conditions for Approval:

1. All conditions identified by the City Engineer in the memo dated August 29, 2019 shall be met.
2. Applicant shall provide architectural plans meeting Code Section 179.01.2I.
3. The building façades facing Highway 65 and Franklin St NE must consist of 100% brick, stone, or glass.
4. Non-public façades shall complement the public facades of the building in terms of architectural design elements, materials, and colors. The required building materials of brick, stone, and/or glass must be present at least as trim material on the side facades.
5. Façade modulation, particularly along the southeast and southwest sides of the building, as well as roofline articulation is required.
6. The commercial and industrial character elements of the building, including loading docks and areas and overhead garage doors, shall be screened from view of public roadways and residential properties.
7. Screening shall be provided between the proposed structure and the abutting residential properties meeting the standards listed in Code sections 177.02 and 179.02.4C.
8. Loading spaces shall be no smaller than 10 feet by 25 feet.
9. Any off-street parking area, including any commercial parking lot, shall be surfaced with an asphaltic or portland cement binder pavement.
10. Any lighting used to illuminate any off-street parking area including any commercial parking lots, shall be so arranged as to reflect the light away from adjoining premises in any “R” District.
11. The paved drive shall be continued to the north to serve all of the proposed parking spaces in the rear of the building.
12. The applicant shall be required to landscape at least 5 percent of the parking area.
13. No more than 50 percent of all proposed trees may be “quick-growing.”
14. The plans must be revised to show 1 ¾ inch caliper for all proposed deciduous trees.
15. Barbed wire shall not be allowed as a fence material.
16. All dumpster areas shall be enclosed within the building itself or screened from view using dense vegetation or a fence.
17. The applicant shall specify the type and acreage of each ground cover and/or landscaping that will make up the required open space and landscaping area on the landscaping plan.

Findings of Fact:

Staff offers the following findings in support of the proposed site plan:

1. The proposed site plan is in conformance with the Industrial land use established for this area.
2. The site plan meets the zoning requirements established for the M-1 Limited Industrial district.
3. The site plan is in conformance with the comprehensive plan.

Attachments

1. Site Plan Packet
2. Building Elevations



August 29, 2019

Marketa Oliver
City Administrator
City of Bondurant
200 Second Street NE
P.O. Box 37
Bondurant, Iowa 50035

BONDURANT, IOWA
RMS BONDURANT
SITE PLAN REVIEW COMMENTS

The writer has completed the initial review of the site plan and drainage calculations for the RMS Bondurant site plan. Based on review of the site plan the writer would offer the following comments:

1. The property generally involves Outlot X of McCleary Meadows Industrial Park.
2. There is an existing water main and roadway easement through the outlot. The original intent was for the replatting of the outlot to create an extension of Prairie Drive southerly to Franklin Street SW. With the site plan it will be necessary for the City to vacate any interest it holds in the roadway and water main easement.
3. The site plan shows the establishment of a new 20-foot wide water main easement centered on the existing water main. The owner of the property will need to provide a separate written easement. The new easement should be provided prior to the City vacating its interest in the existing roadway and water main easement.
4. The proposed use of the property for an implement dealership is consistent with the allowed uses under the M1 zoning district.
5. The open space calculation indicates approximately 85% of the proposed site is shown as open space. The stormwater drainage report indicates the anticipation of future development in the area to the north of the initial development shown as part of the current site plan. If it is anticipated the area to the north of the existing project will be developed in the future the green space calculation should be based only on the area encompassed by the current project and not include the vacant area that will be subject to future development.

6. The parking calculation indicates a total of 14 stalls are required. The site plan indicates a total of 20 stalls will be provided.
7. Access to the site is through a 31-foot wide driveway connecting to Franklin Street SW. The location of the driveway aligns with NE 62nd Avenue and is satisfactory.
8. The site plan indicates a dashed line suggesting there is some form of proposed or future access from the north part of the fenced area of the proposed site to the south end of Prairie Drive. A gate is provided on the north fence of the proposed project at this location. If the site plan anticipates some form of drive or access that information should be provided on the site plan.
9. Sanitary sewer service is provided by extending the 8-inch service stub that was installed as part of the Wolf Creek Trunk Sewer Extension project.
10. Water service to the site is provided by a water main that extends from the existing 8-inch water main easterly along the southerly side of the building. A fire hydrant is shown to be located near the southeast corner of the building.
11. Based on the length of the water main extending from the 8-inch main to the hydrant the City's requirement for this main is 8-inch diameter.
12. The site plan should show the hydrant coverage circle.
13. Any existing fire hydrants in the vicinity of the project should also be shown and hydrant coverages added.
14. The City may wish to consult with the fire chief relative to the location of the hydrant. The hydrant is shown approximately 35 feet from the southeast corner of the building. The question to pose to the fire chief is whether the hydrant is sufficiently separated from the building to be considered usable in the event of a fire in the southeast quadrant of the building. An alternative to the proposed location would be to locate the hydrant on the easterly side of the driveway to achieve additional separation from the building.
15. The site plan shows a wet bottom stormwater detention basin in the southwest corner of the site.
16. Stormwater flow from the area north of the fenced area of the current site is intercepted on both the easterly and westerly side of what appears to be a future drive and conveyed southerly to the detention basin.
17. The stormwater flow from the easterly and southerly side of the building is intercepted by a storm sewer and conveyed to the detention basin.

18. The southerly and far southwesterly sides of the site are graded to drain away from the detention basin. The southerly part of the site drains southerly to the north ditch of Franklin Street SW. The far westerly fringe of the site is graded to flow overland to the west toward the adjoining properties.
19. The landscaping calculations indicate the governing criteria for the overall landscaping requirements is the frontage. A total of 20 trees are required based on the 1,000-foot of street frontage. A total of 20 trees consisting of a mix of Norway Maple, Hackberry, Honey Locust, Crabapple, White Oak, Linden and Elm are provided.
20. The calculation indicates a total of two interior parking lot trees are required and two trees are designated. The two interior trees are Honey Locust.

Based on review of the drainage calculations the following is noted:

1. The total site consists of 15.40 acres.
2. Of the total site, 13.97 acres drains southerly and is included in the stormwater detention calculations.
3. An area of 1.43 acres at the northeast corner of the site drains northerly away from the site. No development is proposed at this time in the portion of the site that flows away from the detention area.
4. The site plan appears to imply the entire property is subject to the current site plan, even though there is an indication that future development is likely in the area north of the current development. If the current site plan is intended to encompass the entire property with no future development in the northerly portion of the site the area that drains away from the site must be included as the stormwater management requirement is to reduce the flow under a 100 year storm event to no greater than a five year storm event. This would require stormwater detention even in undeveloped areas. If the intent is for future development the issue of stormwater detention for the 1.43 acres can be addressed at the time of future development.
5. The stormwater detention calculations encompass the 13.97 acres of which 1.28 acres along the south and west is undetained.
6. The five year storm undeveloped release rate from the 13.97 acre site is shown to be 18.21 cfs.
7. The 100 year storm runoff in the developed condition from the 1.28 acres that is not tributary to the detention basin is 4.73 cfs.

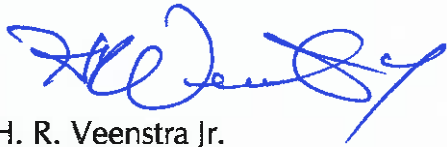
8. The net allowable release rate is 13.48 cfs and is calculated as the five year undeveloped runoff rate from the entire site reduced by the 100 year runoff in a developed condition from the undetained area.
9. The stormwater drainage report identifies a detention basin design runoff rate allocated to the current site and to the two future development sites. As long as the development of the future sites does not exceed the value set forth in the stormwater drainage report for this site no additional detention is required when those two sites develop. If the development of the future sites results in a runoff in excess of the design detention flow rate used in the current project additional detention may be required. This is particularly the case with respect to the east area as it included an unaccounted for area.
10. Stormwater detention is provided by a wet bottom detention basin at the southwest corner of the site.
11. The stormwater report indicates the natural pool elevation of the detention basin is 959.16.
12. The maximum water elevation in the detention basin under a Q_{100} storm event is 962.99, or an increase in the water depth of 3.83 feet during a major rainfall event.
13. The emergency overflow from the detention basin is set at 963.25 providing a freeboard of only 0.26 feet. The City's general policy has been to require a target freeboard of 1.0 feet.
14. The stormwater detention calculations are based on the Rational Method which is an allowed procedure for an area the size of the current project. The Rational Method generally understates the detention volume that is required in comparison to a more detailed routed flow evaluation of the detention basin sizing. When the Rational Method is used the City has generally required a freeboard approaching 1-foot, or requires the applicant to document the downstream conveyance system can accommodate the runoff with no adverse consequences.
15. The discharge from the detention basin is to the north ditch of Franklin Street SW.
16. No evaluation of the downstream conveyance is included in the analysis.
17. The calculated detention volume is 102,535 cf, or 2.35 acre feet.
18. The stormwater calculations indicate the storm sewer system is sized for a five year recurrence interval storm in the developed condition.

Marketa Oliver
August 29, 2019
Page 5

19. The release rate will be limited to 13.48 cfs using a 17 1/16-inch circular opening orifice plate or a top plate restrictor set 11 14/16 inches above the flow line of the storm sewer.
20. The report indicates in addition to the five year storm sewer capacity the site grading accommodates the runoff from a Q_{100} storm in the developed condition.
21. The discharge pipe from the stormwater detention basin is a 24-inch diameter pipe.
22. Based on initial review it appears the two culverts on the north side of the site, ST-5 and ST-6, are being designed for a Q_{100} event. These two culverts connect to the downstream 30-inch storm sewer pipe that appears to be designed for a Q_5 event. The writer is requesting Snyder & Associates, Inc. to clarify its intent with respect to the design of the stormwater system intercepting the overland flow at the north side of the RMS site.

If you have any questions or comments concerning the project, please contact the writer at 225-8000, or at bveenstra@v-k.net.

VEENSTRA & KIMM, INC.



H. R. Veenstra Jr.

HRVJr:paj
4285-088

cc: John Horton, City of Bondurant
Eric Cannon, Snyder & Associates, Inc.



BUSINESS OF THE PLANNING & ZONING COMMISSION
BONDURANT, IOWA

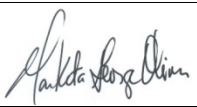
AGENDA STATEMENT

Item No. 7
For Meeting of 09/12/19

ITEM TITLE: Resolution regarding the Conditional Use Permit and Site Plan for the Bondurant Borrow Pit

CONTACT PERSON: Marketa Oliver, City Administrator

SUMMARY EXPLANATION: The permit is to allow for the export of dirt.

☒ Resolution _____ Ordinance ____ Contract ____ Other (Specify) _____	
Funding Source _____	NA _____
 APPROVED FOR SUBMITTAL _____ City Administrator	

RECOMMENDATION: Approve the resolution on a roll call vote.

PLANNING AND ZONING COMMISSION
RESOLUTION NO. PZ-190912-23

RESOLUTION REGARDING THE CONDITIONAL USE PERMIT AND SITE PLAN FOR THE BONDURANT
BORROW PIT

WHEREAS, Bishop Engineering submitted a Conditional Use Permit for the Bondurant Borrow Pit; AND

WHEREAS, the owner and developer is Robert Dvorak, and the applicant is Elder Corporation; AND

WHEREAS, the site address is 7605 NE 46th Street, Bondurant, Iowa 50035; AND

WHEREAS, the zoning for the property is AG, Agricultural District; AND

WHEREAS, legal description is as follows:

WEST PARCEL:

THAT PART OF THE NORTH 60 ACRES OF THE WEST ONE HALF OF THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 80 NORTH, RANGE 23, WEST OF THE 5TH P.M., POLK COUNTY, IOWA, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT BEING 964.50 FEET SOUTH 00 DEGREES 00 MINUTES EAST OF THE NORTHWEST CORNER OF SAID SECTION 34, THENCE SOUTH 87 DEGREES 37 MINUTES 55 SECONDS EAST, 432.73 FEET, THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, 459.85 FEET, THENCE SOUTH 88 DEGREES 43 MINUTES 19 SECONDS EAST, 69.49 FEET, THENCE SOUTH 01 DEGREES 46 MINUTES 31 SECONDS EAST, 282.78 FEET, THENCE NORTH 89 DEGREES 06 MINUTES 36 SECONDS EAST, 87.56 FEET, THENCE SOUTH 00 DEGREES 26 MINUTES 16 SECONDS EAST, 251.28 FEET TO THE POINT ON THE SOUTH LINE OF THE NORTH 60 ACRES OF THE WEST ½ OF THE NW ¼ OF SAID SECTION 34, THENCE SOUTH 89 DEGREES 45 MINUTES 34 SECONDS WEST, ALONG THE SOUTH LINE OF THE NORTH 60 ACRES OF THE WEST ½ OF THE NW ¼ OF SAID SECTION 34, 600.07 FEET TO THE SW CORNER OF SAID NORTH 60 ACRES OF THE WEST ½ OF THE NW ¼ OF SAID SECTION 34; THEN NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, ALONG THE WEST LINE OF THE NW ¼ OF SAID SECTION 34, THENCE NORTH 00 DEGREE 00 MINUTES 00 SECONDS WEST, ALONG THE WEST LINE OF THE NW ¼ OF SAID SECTION 34, AND ALSO ALONG THE CENTERLINE OF COUNTY ROAD, 634.88 FEET; THENCE NORTH 85 DEGREES 48 MINUTES 07 SECONDS EAST, 243.38 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, 100.00 FEET; THENCE SOUTH 90 DEGREES 00 MINUTES 00 SECONDS EAST, 30.00 FEET, THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, 45.00 FEET, THENCE NORTH 90 DEGREES 00 MINUTES 00 SECONDS WEST, 30.00 FEET, THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, 30.00 FEET, THENCE NORTH 87 DEGREES 37 MINUTES 55 SECONDS WEST, 242.73 FEET TO A POINT ON THE WEST LINE OF THE NORTHWEST ¼ OF SAID SECTION 34; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, ALONG THE WEST LINE OF THE NW ½ OF SAID SECTION 34, AND ALSO ALONG THE CENTERLINE OF COUNTY ROAD, 236.64 FEET TO THE POINT OF BEGINNING, SUBJECT TO LEGALLY ESTABLISHED HIGHWAYS, AND EXCEPT THAT PART THEREOF CONVEYED TO POLK COUNTY, IOWA, BY WARRANTY DEED RECORDED IN BOOK 6324 ON PAGE 332.

EAST PARCEL:

THE NORTH 60 ACRES OF THE WEST ONE-HALF (W ½) OF THE NORTHWEST QUARTER (NW ¼) (EXCEPT THE WEST 16 RODS OF THE NORTH 10 RODS THEREOF) IN SECTION 34, TOWNSHIP 80 NORTH, RANGE 23 WEST OF THE 5TH P.M., POLK COUNTY, IOWA, EXCEPT THAT PART THEREOF CONVEYED TO POLK COUNTY, IOWA, BY WARRANTY DEED RECORDED APRIL 6, 2001 IN BOOK 8766 ON PAGE 260, AND EXCEPT BEGINNING 1201.14 FEET SOUTH OF THE NORTHWEST CORNER OF THE NORTHWEST QUARTER (NW ¼) OF SECTION 34, TOWNSHIP 80 NORTH, RANGE 23 WEST OF THE 5TH P.M., THENCE EAST 242.73 FEET, THENCE NORTH 30 FEET, THENCE EAST 30 FEET, THENCE SOUTH 45 FEET, THENCE WEST 30 FEET, THENCE SOUTH 100 FEET, THENCE WEST 243.18 FEET, THENCE NORTH 142.83 FEET TO THE POINT OF BEGINNING, EXCEPT THE WEST 80 FEET THEREOF,

AND EXCEPT

THAT PART OF THE NORTH 60 ACRES OF THE WEST ONE-HALF (W ½) OF THE NORTHWEST QUARTER (NW ¼) OF SECTION 34, TOWNSHIP 80 NORTH, RANGE 23 WEST OF THE 5TH P.M., POLK COUNTY, IOWA, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT BEING 964.50 FEET SOUTH 00°00'00" EAST OF THE NORTHWEST CORNER OF SAID SECTION 34; THENCE SOUTH 87°37'55" EAST, 432.73 FEET; THENCE SOUTH 00°00'00" EAST, 459.85 FEET; THENCE SOUTH 88°43'19" EAST 69.49 FEET; THENCE SOUTH 01°46'31" EAST, 282.78 FEET; THENCE NORTH 89°06'36" EAST, 87.56 FEET; THENCE SOUTH 00°26'16" EAST, 251.28 FEET TO THE POINT ON THE SOUTH LINE OF THE NORTH 60 ACRES OF THE WEST ½ OF THE NW ¼ OF SAID SECTION 34; THENCE SOUTH 89°45'34" WEST, ALONG THE SOUTH LINE OF THE NORTH 60 ACRES OF THE WEST ½ OF THE NW ¼ OF SAID SECTION 34, 600.07 FEET TO THE SW CORNER OF SAID NORTH 60 ACRES OF THE WEST ½ OF THE NW ¼ OF SAID SECTION 34; THENCE NORTH

00°00'00" WEST, ALONG THE WEST LINE OF THE NW ¼ OF SAID SECTION 34, AND ALSO ALONG THE CENTERLINE OF COUNTY ROAD, 634.88 FEET; THENCE NORTH 85°48'07" EAST, 243.18 FEET; THENCE NORTH 00°00'00" WEST, 100.00 FEET; THENCE SOUTH 90°00'00" EAST, 30.00 FEET; THENCE NORTH 00°00'00" WEST, 45.00 FEET; THENCE NORTH 90°00'00" WEST, 30.00 FEET; THENCE SOUTH 00°00'00" EAST, 30.00 FEET; THENCE NORTH 87°37'55" WEST, 242.73 FEET TO A POINT ON THE WEST LINE OF THE NORTHWEST ¼ OF SAID SECTION 34; THENCE NORTH 00°00'00" WEST, ALONG THE WEST LINE OF THE NW ¼ OF SAID SECTION 34, AND ALSO ALONG THE CENTERLINE OF COUNTY ROAD, 236.64 FEET TO THE POINT OF BEGINNING, SUBJECT TO LEGALLY ESTABLISHED HIGHWAYS, AND EXCEPT THAT PART THEREOF CONVEYED TO POLK COUNTY, IOWA, BY WARRANTY DEED RECORDED IN BOOK 6324 ON PAGE 331.

NOW, THEREFORE, BE IT RESOLVED, by the Planning and Zoning Commission of the City of Bondurant, Iowa, that the Bondurant Borrow Pit Conditional Use Permit is approved and forwarded to the City Council with a recommendation for approval of same.

Moved by _____, Seconded by _____ to adopt.

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the Planning and Zoning Commission held on September 12, 2019; among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Shelby Hagan, City Clerk

Action	Yay	Nay	Abstain	Absent
McKenzie				
Clayton				
Mains				
Keeran				
Cuellar				
Phearman				
Brostrom				

Torey Cuellar, Commission Chair

DVORAK FARM POND

MINOR SITE PLAN

SHEET INDEX:

- C0.1 COVER SHEET
- C3.1 GRADING PLAN
- C7.1 SWPPP

PROPERTY DESCRIPTION:

WEST PARCEL:
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EAST PARCEL:
THE NORTH 60 ACRES OF THE WEST ONE-HALF (W ½) OF THE NORTHWEST QUARTER (NW ¼) (EXCEPT THE WEST 16 RODS OF THE NORTH 10 RODS THEREOF) IN SECTION 34, TOWNSHIP 80 NORTH, RANGE 23 WEST OF THE 5TH P.M., POLK COUNTY, IOWA, EXCEPT THAT PART THEREOF CONVEYED TO POLK COUNTY, IOWA, BY WARRANTY DEED RECORDED APRIL 6, 2001 IN BOOK 8766 ON PAGE 260, AND EXCEPT BEGINNING 1201.14 FEET SOUTH OF THE NORTHWEST CORNER OF THE NORTHWEST QUARTER (NW ¼) OF SECTION 34, TOWNSHIP 80 NORTH, RANGE 23 WEST OF THE 5TH P.M., THENCE EAST 242.73 FEET, THENCE NORTH 30 FEET, THENCE EAST 30 FEET, THENCE SOUTH 45 FEET, THENCE WEST 30 FEET, THENCE SOUTH 100 FEET, THENCE WEST 243.18 FEET, THENCE NORTH 142.83 FEET TO THE POINT OF BEGINNING, EXCEPT THE WEST 80 FEET THEREOF, AND EXCEPT THAT PART OF THE NORTH 60 ACRES OF THE WEST ONE-HALF (W ½) OF THE NORTHWEST QUARTER (NW ¼) OF SECTION 34, TOWNSHIP 80 NORTH, RANGE 23 WEST OF THE 5TH P.M., POLK COUNTY, IOWA, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT BEING 964.50 FEET SOUTH 00°00'00" EAST OF THE NORTHWEST CORNER OF SAID SECTION 34; THENCE SOUTH 87°37'55" EAST, 432.73 FEET; THENCE SOUTH 00°00'00" EAST, 459.85 FEET; THENCE SOUTH 88°43'19" EAST 69.49 FEET; THENCE SOUTH 01°46'31" EAST, 282.78 FEET; THENCE NORTH 89°06'36" EAST, 87.56 FEET; THENCE SOUTH 00°26'16" EAST, 251.28 FEET TO THE POINT ON THE SOUTH LINE OF THE NORTH 60 ACRES OF THE WEST ½ OF THE NW ¼ OF SAID SECTION 34; THENCE SOUTH 89°45'34" WEST ALONG THE SOUTH LINE OF THE NORTH 60 ACRES OF THE WEST ½ OF THE NW ¼ OF SAID SECTION 34, 600.07 FEET TO THE SW CORNER OF SAID NORTH 60 ACRES OF THE WEST ½ OF THE NW ¼ OF SAID SECTION 34; THENCE NORTH 00°00'00" WEST, ALONG THE WEST LINE OF THE NW ¼ OF SAID SECTION 34, AND ALSO ALONG THE CENTERLINE OF COUNTY ROAD, 634.88 FEET; THENCE NORTH 85°48'07" EAST, 243.18 FEET; THENCE NORTH 00°00'00" WEST, 100.00 FEET; THENCE SOUTH 90°00'00" EAST, 30.00 FEET; THENCE NORTH 00°00'00" WEST, 45.00 FEET; THENCE NORTH 90°00'00" WEST, 30.00 FEET; THENCE SOUTH 00°00'00" EAST, 30.00 FEET; THENCE NORTH 87°37'55" WEST, 242.73 FEET TO A POINT ON THE WEST LINE OF THE NORTHWEST ¼ OF SAID SECTION 34; THENCE NORTH 00°00'00" WEST, ALONG THE WEST LINE OF THE NW ¼ OF SAID SECTION 34, AND ALSO ALONG THE CENTERLINE OF COUNTY ROAD, 236.64 FEET TO THE POINT OF BEGINNING, SUBJECT TO LEGALLY ESTABLISHED HIGHWAYS, AND EXCEPT THAT PART THEREOF CONVEYED TO POLK COUNTY, IOWA, BY WARRANTY DEED RECORDED IN BOOK 6324 ON PAGE 331.

ADDRESS:
7605 NE 46TH STREET
BONDURANT, IA 50035

OWNER:
ROBERT DVORAK
7605 NE 46TH STREET
BONDURANT, IA 50035

APPLICANT:
ELDER CORPORATION
ATTN: BRENT THOMPSON
5088 EAST UNIVERSITY AVE
DES MOINES, IA 50327

ZONING: AG
AGRICULTURAL DISTRICT

UTILITY CONFLICTS:

-UTILITY CONFLICTS MAY EXIST ACROSS THE SITE WITH NEW UTILITIES, GRADING, PAVING ETC.
-MOST UTILITY CONFLICTS HAVE BEEN CALLED OUT FOR CONTRACTOR CONVENIENCE.
-CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY CONFLICTS THAT ARE EITHER CALLED OUT ON THE PLANS OR THAT CAN BE SEEN ON THE PLANS BETWEEN AND EXISTING UTILITY AND PROPOSED CONSTRUCTION.
-IF CONTRACTOR FINDS ADDITIONAL UTILITY CONFLICTS DURING CONSTRUCTION: THE REQUIRED ADJUSTMENT OF EXISTING ELECTRIC LINES, IRRIGATION LINES, TELEPHONE LINES, WATER LESS THAN 6" IN DIAMETER, FIELD TILE LINES, AND CABLE TV LINES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. THE DISCOVERY OF SANITARY SEWER, WATER MAINS 6" OR LARGER, FIBER OPTICS AND STORM SEWER 6" OR LARGER SHALL BE ELIGIBLE FOR A CHANGE ORDER NEGOTIATED PRIOR TO PROCEEDING WITH SAID WORK.
-THIS, HOWEVER DOES NOT RELIEVE CONTRACTOR OF ANY DAMAGE CAUSED TO EXISTING UTILITIES BY ANY AND ALL CONSTRUCTION ACTIVITIES.

END USE PLAN:

AFTER THE EXTRACTION OPERATION IS COMPLETED, THE STOCKPILES SHALL BE REMOVED AND THE DISTURBED AREA SHALL BE VEGETATED. THE AREA WILL BE RETURNED TO EITHER PRAIRIE / PASTURE GROUND OR FARMLAND AND THE TEMPORARY GRAVEL DRIVE SHALL BE REMOVED. THE OWNER HAS THE INTENT OF CONSTRUCTING A POND IN THE FUTURE. THEREFORE, ALL SCOPES SHALL BE A MINIMUM OF 4 FEET HORIZONTAL AND 1 FOOT VERTICAL. SEPARATE CONSTRUCTION PLANS MUST BE PREPARED PRIOR TO CONSTRUCTION OF A POND. NO BUILDINGS OR OTHER IMPROVEMENTS ARE PROPOSED AT THIS TIME. THE LAND WILL CONTINUE TO BE OWNED AND MAINTAINED BY THE CURRENT OWNER.



UTILITY NOTE:

THE LOCATION OF THE UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS AND ARE APPROXIMATE LOCATIONS. THE EXACT LOCATIONS OF ALL UTILITIES MUST BE ASCERTAINED IN THE FIELD. IT SHALL BE THE DUTY OF THE CONTRACTOR TO DETERMINE WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT.

GENERAL NOTES:

- ALL WORK SHALL MEET ALL DEVELOPMENT AND PERFORMANCE STANDARDS OF THE POLK COUNTY ORDINANCE AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. ANY DAMAGE TO SAID UTILITIES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT O.S.H.A. CODES AND STANDARDS. NOTHING INDICATED ON THESE PLANS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE APPROPRIATE SAFETY REGULATIONS.
- BISHOP ENGINEERING SHALL NOT BE LIABLE FOR ANY INJURIES THAT HAPPEN ON SITE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO TRENCH COLLAPSES FROM VARYING SOIL CONDITIONS OR INJURIES CAUSED BY UNDERGROUND UTILITIES INCLUDING UTILITIES THAT ARE NOT SHOWN ON PLAN.
- THE CONTRACTOR IS LIABLE FOR ALL DAMAGES TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THEIR ACTION OR INACTION IN PROVIDING FOR STORM WATER FLOW DURING CONSTRUCTION. DO NOT RESTRICT FLOWS IN EXISTING DRAINAGE CHANNELS, STORM SEWER, OR FACILITIES.
- THE CONTRACTOR SHALL PROTECT ALL STRUCTURES NOT SHOWN AS REMOVALS ON THE PLANS.
- THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL WORK WITH OWNER OR OWNERS REPRESENTATIVE ON ALL REQUIRED STORM WATER DISCHARGE PERMITS FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES AND POLK COUNTY.
- GRADING AND EROSION CONTROL SHALL BE DONE IN ACCORDANCE WITH THE APPROVED GRADING PLAN, SWPPP, NPDES DOCUMENTS, AND IOWA DEPARTMENT OF NATURAL RESOURCES REQUIREMENTS.
- THE CONTRACTOR SHALL PICK UP ANY DEBRIS SPILLED ONTO THE ADJACENT RIGHT OF WAY OR ABUTTING PROPERTIES AS THE RESULT OF CONSTRUCTION, AT THE END OF EACH WORK DAY.
- THE OWNER OR OWNER'S AGENT IS RESPONSIBLE FOR THE PROMPT REMOVAL OF ALL MUD THAT HAS BEEN TRACKED OR WASHED ONTO ADJACENT PROPERTY OR RIGHT OF WAY UNTIL SUCH TIME THAT PERMANENT VEGETATION HAS BEEN ESTABLISHED.
- DISPOSE OF ALL EXCESS MATERIALS AND TRASH IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS. PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIALS NOT DESIRABLE FOR INCORPORATION INTO THE PROJECT.
- ACTIVE EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED, REROUTED, OR CONNECTED TO PUBLIC OR PRIVATE STORM SEWER TO REMAIN IN SERVICE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY REMOVAL OF ANY ROCK OR MUD TRACKED ONTO NE 46TH STREET

PLAN OF OPERATION NOTES:

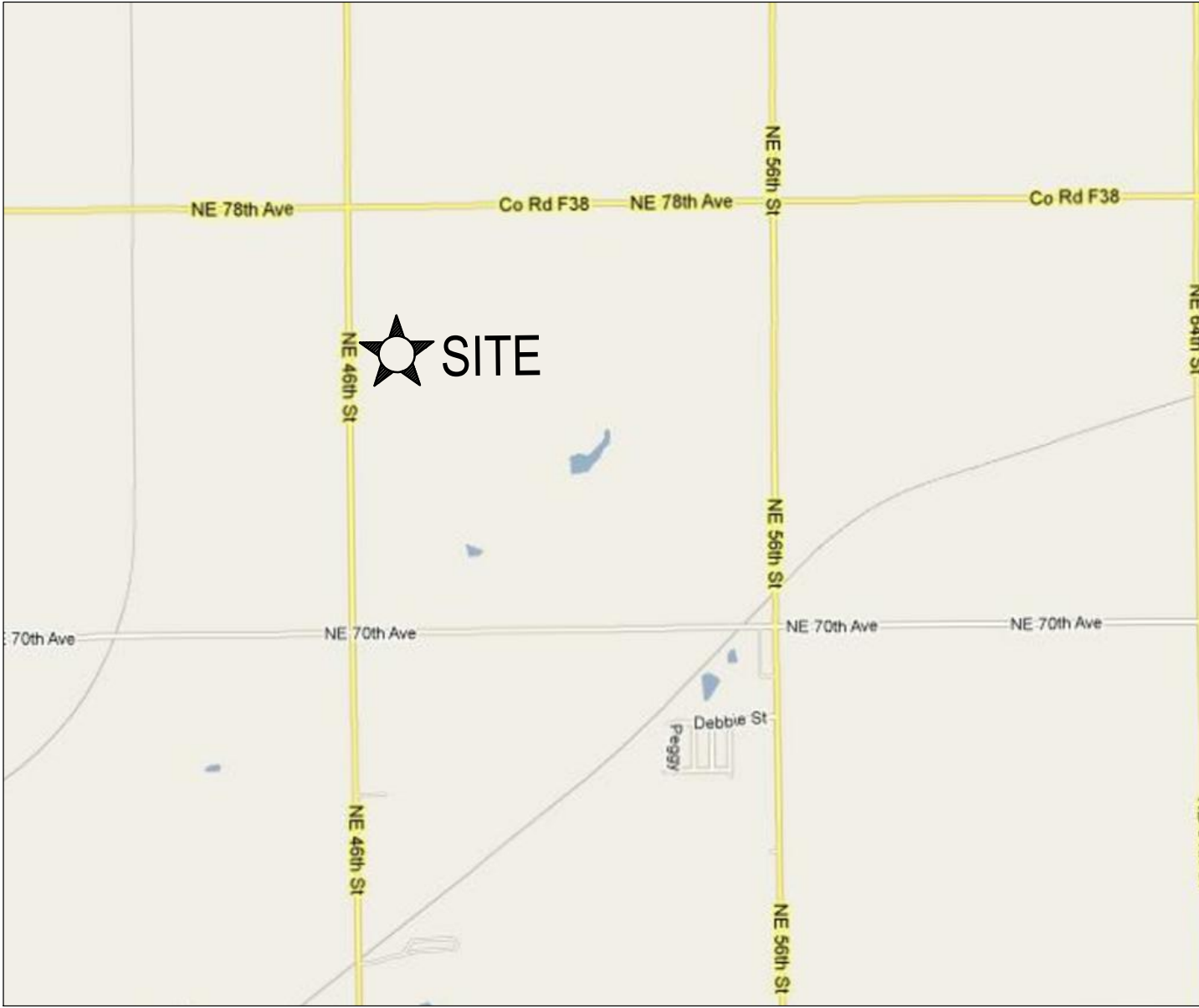
- THIS POND IS BEING CREATED BY EXCAVATING EXISTING SOIL FROM THE SITE. EXCAVATED MATERIAL WILL BE REMOVED FROM THE SITE.
- SANDY LEAN CLAY WILL BE REMOVED FROM THE SITE. TOPSOIL WILL BE STRIPPED PRIOR TO EXTRACTION AND REPLACED AFTER THE EXTRACTION IS DONE.
- TOPSOIL WILL BE REMOVED AND STOCKPILED IN SUFFICIENT QUANTITY TO COVER EXPOSED AREAS ABOVE THE POND WATER LINE. EXCESS TOPSOIL WILL BE REMOVED FROM THE SITE. TOPSOIL SHALL BE RESPREAD TO A DEPTH OF AT LEAST SIX INCHES ON AREAS ABOVE THE POND WATER LINE AS SOON AS FINAL GRADE IS ACHIEVED. THESE AREAS SHALL BE SEEDED AND MULCHED AS SOON AS POSSIBLE AFTER THE TOPSOIL IS PLACED.
- CLAY SOILS SHALL BE REMOVED AND STOCKPILED IN SUFFICIENT QUANTITY TO COVER EXPOSED AREAS BELOW THE POND WATER LINE. CLAY SHALL BE SPREAD AND COMPACTED TO A DEPTH OF AT LEAST TWELVE INCHES ON AREAS BELOW THE POND WATER LINE AS SOON AS FINAL GRADE IS ACHIEVED. IMPORT THIS MATERIAL AS REQUIRED.
- APPROXIMATE ANNUAL REMOVAL RATE IS 12,500 CY. APPROXIMATELY 100,000 CY HAVE BEEN REMOVED FROM THE SITE BY ELDER CORPORATION SINCE 2007.
- AN AVERAGE OF 10 TRUCK TRIPS ARE ANTICIPATED INTO AND OUT OF THE PROPERTY PER DAY.
- AN EXCAVATOR (CAT330) OR LOADER (CAT953) WILL BE USED FOR THE EXTRACTION. A CAT 915 PADDLEWHEEL SCRAPER WILL BE FOR USED FOR STRIP/RESPREADING.
- NO SUPPLEMENTAL CHEMICALS OR PRODUCTS WILL BE ADDED TO THE EXISTING MATERIAL. ONLY NATURAL DRYING TECHNIQUES WILL BE USED.
- ESTIMATED LIFE OF OPERATION IS APPROXIMATELY 5-8 YEARS FROM AUGUST 18, 2019.
- WEIGHT OF MACHINERY USED TO HAUL MATERIAL FROM THE JOBSITE WILL BE LESS THAN 80,000 POUNDS.
- THE EXCAVATION SCHEDULE WILL DEPEND ON THE AVAILABILITY OF EXPORT SITES. RATE OF REMOVAL WILL VARY ACCORDINGLY. THIS POND PROJECT WILL BE COMPLETED IN APPROXIMATELY FIVE YEARS.
- ALL MACHINERY USED ON SITE MUST NEWER THAN 2005 AND COMPLY WITH CURRENT EMISSION STANDARDS AND ALL EQUIPMENT SHALL BE EQUIPPED WITH MUFFLERS ON THE EXHAUST.
- PERMITTED TRUCK ROUTE IS NORTH OF NE 46TH STREET TO NE 78TH AVENUE.
- POLK COUNTY NOISE ORDINANCE SHALL BE FOLLOWED.

BORROW PIT/POND NOTES:

- EXCAVATIONS SHALL BE GRADED AND BACKFILLED TO THE GRADES INDICATED BY THE SITE PLAN. GRADING AND BACKFILLING SHALL BE ACCOMPLISHED CONTINUALLY AND AS SOON AS PRACTICABLE AFTER EXCAVATION.
- SLOPES ABOVE THE POND WATER LINE SHALL NOT EXCEED 4:1. FOUR (4) FEET HORIZONTAL TO ONE (1) FOOT VERTICAL. SLOPES BELOW THE POND WATER LINE SHALL NOT EXCEED 2:1. TWO (2) FEET HORIZONTAL TO ONE (1) FOOT VERTICAL. ON EITHER SIDE OF THE POND WATER LINE THE SLOPE SHALL NOT EXCEED 10:1 FOR A WIDTH OF TEN FEET EXCEPT AS SHOWN BE THE PROPOSED CONTOURS ON THE WEST END OF THE POND.
- GRADING AND BACKFILLING SHALL BE ACCOMPLISHED IN SUCH A MATTER THAT THE SLOPE OF THE FILL OR ITS COVER SHALL NOT EXCEED THE NORMAL ANGLE OF SLIPPAGE OF SUCH MATERIAL, OR TWENTY-FIVE (25) DEGREES IN ANGLE, WHICHEVER IS LESS.
- WHEN EXCAVATIONS PROVIDE FOR A BODY OF WATE AS PART OF THE FINAL USE OF THE TRACT, THE BANKS OF THE EXCAVATION SHALL BE SLOPED TO A MINIMUM RATIO OF FOUR (4) FEET HORIZONTAL TO ONE (1) FOOT VERTICAL, BEGINNING AT LEAST FIFTY (50) FEET FROM THE EDGE OF THE WATER AND MAINTAINED INTO THE WATER TO A DEPTH OF FIVE (5) FEET. POND SHALL NOT BE USED FOR SWIMMING.
- DRAINAGE SHALL BE PROVIDED, EITHER NATURAL OR ARTIFICIAL, SO THAT DISTURBED AREAS SHALL NOT COLLECT OR PERMIT STAGNANT WATER TO REMAIN.
- TRUCK ACCESS TO ANY EXCAVATION SHALL BE SO ARRANGED AS TO MINIMIZE DANGER TO TRAFFIC AND NUISANCE TO SURROUNDING PROPERTIES.
- THE PROPOSED DRIVEWAY MINIMUM REQUIREMENTS ARE A 28' WIDTH AND 25' RADII.
- CONTRACTOR SHALL ENSURE THAT PROPOSED MATERIAL STOCKPILE WILL NOT OBSTRUCT OR DIVERT ANY OFF-SITE RUNOFF.
- RUNOFF FROM DISTURBED AREAS OF THE SITE SHALL BE DIRECTED TO THE BOTTOM OF THE EXCAVATION.

CONDITIONAL USE PERMIT TERMS & CONDITIONS:

DOCKET NUMBER: xxxxx
DATE: xxxxx



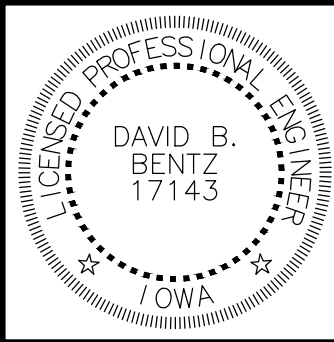
VICINITY MAP
SCALE: 1" = 2,000'

UTILITY LEGEND:

- Sanitary Sewer Manhole
- Storm Sewer Manhole
- SAN — SANITARY SEWER
- ST — STORM SEWER
- G — GAS LINE
- W — WATER LINE
- U/E — UNDERGROUND ELECTRIC
- O/E — OVERHEAD ELECTRIC
- TELE — TELEPHONE LINE
- CATV — CABLE TV LINE
- F/O — FIBER OPTIC LINE
- Telephone Riser
- Telephone Manhole
- Ground Light
- Light Pole
- Power Pole
- Transformer Pole
- Electric Transformer
- Electric Meter
- Clean-Out
- Intake
- Surface Intake
- Traffic Signal Manhole
- Fire Hydrant
- Water Valve
- Gas Meter
- Denotes Number of Parking Stalls

NPDES NOTE:

- OWNER MUST MAINTAIN NPDES GENERAL PERMIT NO. 2 COVERAGE FOR THE DURATION OF THE PROJECT AS REQUIRED BY LAW
- A COPY OF THE RENEWED PERMIT COVERAGE OR NOTICE OF DISCONTINUATION SHALL BE SUBMITTED TO THE POLK COUNTY PLANNING DIVISION WITHIN 15 DAYS OF THE PREVIOUS PERMIT COVERAGE EXPIRATION DATE OR FILING OF THE DISCONTINUATION NOTICE WITH THE IOWA DNR.



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.

SIGNED: _____ DATE: _____
DAVID B. BENTZ, PE. 17143
LICENSE RENEWAL DATE: DEC. 31, 2019
PAGES OR SHEETS COVERED BY THIS SEAL: C0.1, C3.1 & C7.1

Bishop Engineering
"Planning Your Successful Development"
3501 104th Street
Des Moines, Iowa 50322-3825
Phone: (515)276-0467 Fax: (515)276-0217
Civil Engineering & Land Surveying
Established 1959

BONDURANT BORROW PIT BONDURANT, IA

REFERENCE NUMBER:
110226

DRAWN BY:
DS

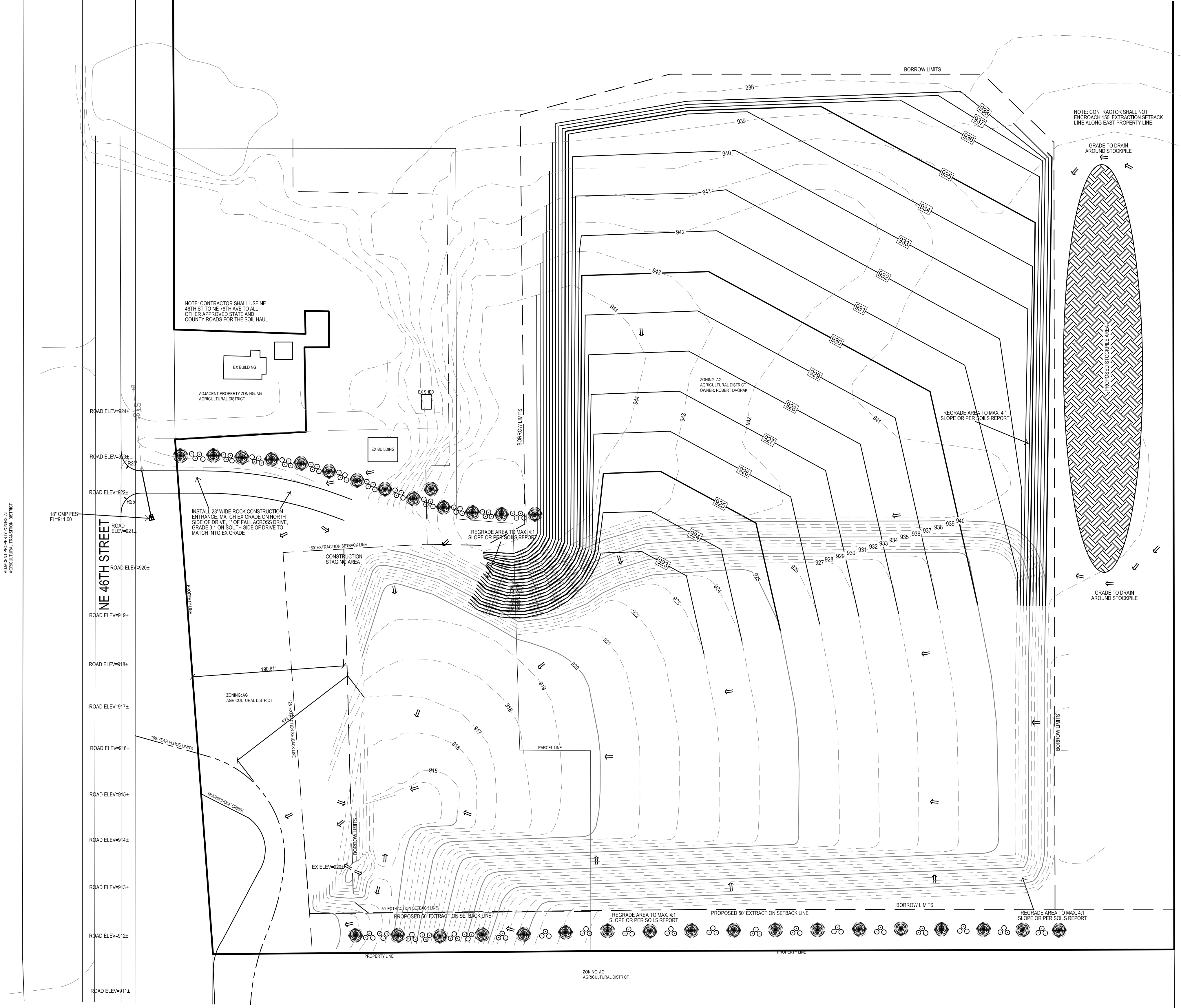
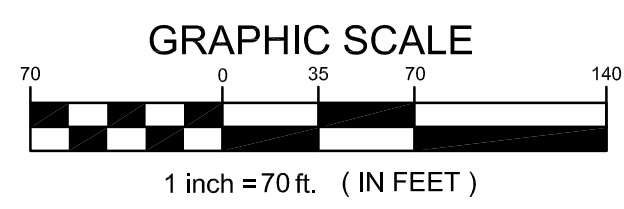
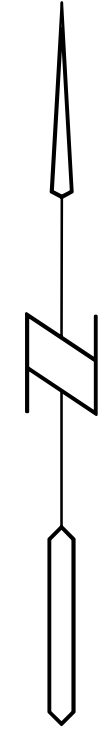
CHECKED BY:
DB

REVISION DATE:

PROJECT NUMBER:
190479

SHEET NUMBER:

C0.1



GRADING NOTES:

1. EXISTING CONTOURS ARE PER PREVIOUSLY APPROVED SITE PLAN

--- EXISTING CONTOURS

— PROPOSED CONTOURS

BONDURANT BORROW PIT
BONDURANT, IA

GRADING PLAN

REFERENCE NUMBER:
110226

DRAWN BY:
DS

CHECKED BY:
DB

REVISION DATE:

PROJECT NUMBER:
190479

SHEET NUMBER:
C3.1

Bishop Engineering
"Planning Your Successful Development"

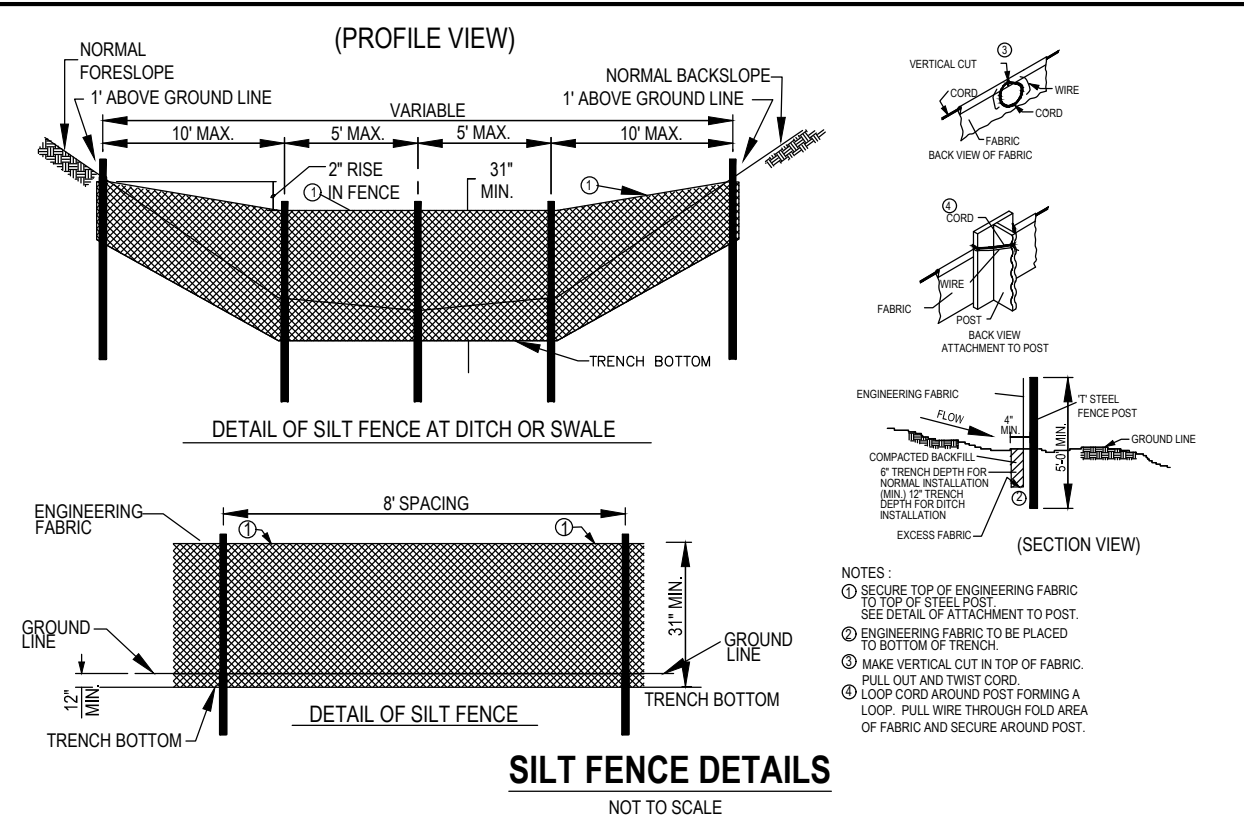
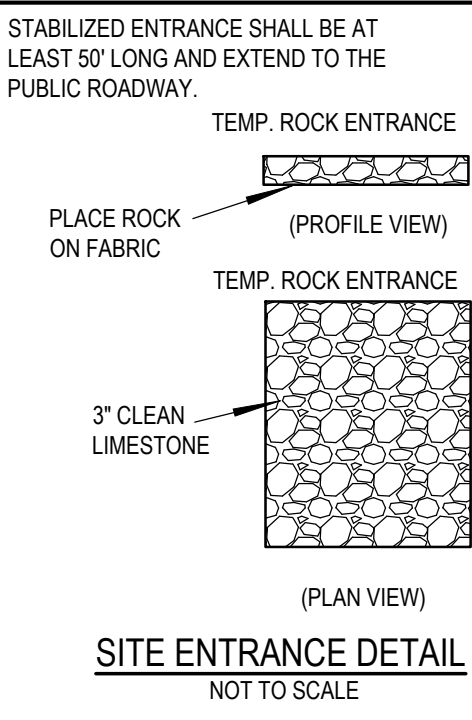
3501 104th Street
Des Moines, Iowa 50322-3825
Phone: (515)276-0467 Fax: (515)276-0217
Civil Engineering & Land Surveying Established 1959

STORM WATER POLLUTION PREVENTION PLAN

PROPERTY DESCRIPTION:
WEST PARCEL:
THAT PART OF THE NORTH 60 ACRES OF THE WEST ONE HALF OF THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 80 NORTH, RANGE 23, WEST OF THE 5TH P.M., POLK COUNTY, IOWA, DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT BEING 964.50 FEET SOUTH 00 DEGREES 00 MINUTES EAST OF THE NORTHWEST CORNER OF SAID SECTION 34, THENCE SOUTH 87 DEGREES 37 MINUTES 55 SECONDS EAST, 432.73 FEET, THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, 459.85 FEET, THENCE SOUTH 88 DEGREES 43 MINUTES 19 SECONDS EAST, 69.40 FEET, THENCE SOUTH 01 DEGREES 48 MINUTES 51 SECONDS EAST, 282.78 FEET, THENCE NORTH 89 DEGREES 06 MINUTES 36 SECONDS EAST, 87.56 FEET, THENCE SOUTH 00 DEGREES 26 MINUTES 16 SECONDS EAST, 251.28 FEET TO THE POINT ON THE SOUTH LINE OF THE NORTH 60 ACRES OF THE WEST 1/2 OF SAID SECTION 34, THENCE SOUTH 89 DEGREES 46 MINUTES 34 SECONDS WEST, ALONG THE SOUTH LINE OF THE NORTH 60 ACRES OF THE WEST 1/2 OF THE NW 1/4 OF SAID SECTION 34, 600.07 FEET TO THE SW CORNER OF SAID NORTH 60 ACRES OF THE WEST 1/2 OF THE NW 1/4 OF SAID SECTION 34, THEN NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, ALONG THE WEST LINE OF THE NW 1/4 OF SAID SECTION 34, THENCE NORTH 00 DEGREE 00 MINUTES 00 SECONDS WEST, ALONG THE WEST LINE OF THE NW 1/4 OF SAID SECTION 34, AND ALSO ALONG THE CENTERLINE OF COUNTY ROAD, 634.88 FEET, THENCE NORTH 85 DEGREES 48 MINUTES 07 SECONDS EAST, 243.38 FEET, THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, 100.00 FEET, THENCE SOUTH 90 DEGREES 00 MINUTES 00 SECONDS EAST, 30.00 FEET, THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, 45.00 FEET, THENCE NORTH 90 DEGREES 00 MINUTES 00 SECONDS WEST, 30.00 FEET, THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, 30.00 FEET, THENCE NORTH 87 DEGREES 37 MINUTES 55 SECONDS WEST, 242.73 FEET TO A POINT ON THE WEST LINE OF SAID SECTION 34, THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, ALONG THE WEST LINE OF THE NW 1/4 OF SAID SECTION 34, AND ALSO ALONG THE CENTERLINE OF COUNTY ROAD, 236.64 FEET TO THE POINT OF BEGINNING, SUBJECT TO LEGALLY ESTABLISHED HIGHWAYS, AND EXCEPT THAT PART THEREOF CONVEYED TO POLK COUNTY, IOWA, BY WARRANTY DEED RECORDED IN BOOK 6324 ON PAGE 532.

EAST PARCEL:
THE NORTH 60 ACRES OF THE WEST ONE-HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) EXCEPT THE WEST 16 RODS OF THE NORTH 10 RODS THEREOF) IN SECTION 34, TOWNSHIP 80 NORTH, RANGE 23 WEST OF THE 5TH P.M., POLK COUNTY, IOWA, EXCEPT THAT PART THEREOF CONVEYED TO POLK COUNTY, IOWA, BY WARRANTY DEED RECORDED APRIL 6, 2001 IN BOOK 8766 ON PAGE 260, AND EXCEPT 1201.14 FEET SOUTH OF THE NORTHWEST CORNER OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 34, TOWNSHIP 80 NORTH, RANGE 23 WEST OF THE 5TH P.M., THENCE EAST 242.73 FEET, THENCE NORTH 30 FEET, THENCE EAST 30 FEET, THENCE SOUTH 45 FEET, THENCE WEST 30 FEET, THENCE SOUTH 100 FEET, THENCE WEST 243.18 FEET, THENCE NORTH 142.83 FEET TO THE POINT OF BEGINNING, EXCEPT THE WEST 80 FEET THEREOF, AND EXCEPT
THAT PART OF THE NORTH 60 ACRES OF THE WEST ONE-HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 34, TOWNSHIP 80 NORTH, RANGE 23 WEST OF THE 5TH P.M., POLK COUNTY, IOWA, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT BEING 964.50 FEET SOUTH 00°00'00" EAST OF THE NORTHWEST CORNER OF SAID SECTION 34, THENCE SOUTH 87°37'59" EAST, 432.73 FEET, THENCE SOUTH 00°00'00" EAST, 459.85 FEET, THENCE SOUTH 88°43'19" EAST 69.40 FEET, THENCE SOUTH 01°46'31" EAST, 282.78 FEET, THENCE NORTH 89°06'36" EAST, 87.56 FEET, THENCE SOUTH 00°26'16" EAST, 251.28 FEET TO THE POINT ON THE SOUTH LINE OF THE NORTH 60 ACRES OF THE WEST 1/2 OF THE NW 1/4 OF SAID SECTION 34, THENCE SOUTH 89°45'34" WEST ALONG THE SOUTH LINE OF THE NORTH 60 ACRES OF THE WEST 1/2 OF THE NW 1/4 OF SAID SECTION 34, 600.07 FEET TO THE SW CORNER OF SAID NORTH 60 ACRES OF THE WEST 1/2 OF THE NW 1/4 OF SAID SECTION 34, THENCE NORTH 00°00'00" WEST, ALONG THE WEST LINE OF THE NW 1/4 OF SAID SECTION 34, AND ALSO ALONG THE CENTERLINE OF COUNTY ROAD, 634.88 FEET, THENCE NORTH 85°48'07" EAST, 243.38 FEET, THENCE NORTH 00°00'00" WEST, 100.00 FEET, THENCE SOUTH 90°00'00" EAST, 30.00 FEET, THENCE NORTH 00°00'00" WEST, 45.00 FEET, THENCE NORTH 90°00'00" WEST, 30.00 FEET, THENCE SOUTH 00°00'00" EAST, 30.00 FEET, THENCE NORTH 87°37'55" WEST, 242.73 FEET TO A POINT ON THE WEST LINE OF THE NORTHWEST 1/4 OF SAID SECTION 34, THENCE NORTH 00°00'00" WEST, ALONG THE WEST LINE OF THE NW 1/4 OF SAID SECTION 34, AND ALSO ALONG THE CENTERLINE OF COUNTY ROAD, 236.64 FEET TO THE POINT OF BEGINNING, SUBJECT TO LEGALLY ESTABLISHED HIGHWAYS, AND EXCEPT THAT PART THEREOF CONVEYED TO POLK COUNTY, IOWA, BY WARRANTY DEED RECORDED IN BOOK 6324 ON PAGE 531.

- LEGEND:**
- SANITARY SEWER MANHOLE
 - STORM SEWER MANHOLE
 - SAN — SANITARY SEWER
 - ST — STORM SEWER
 - G — GAS LINE
 - W — WATER LINE
 - U/E — UNDERGROUND ELECTRIC
 - O/E — OVERHEAD ELECTRIC
 - T — TELEPHONE LINE
 - TELEPHONE RISER
 - TELEPHONE MANHOLE
 - ⬇️ GROUND LIGHT
 - ★ LIGHT POLE
 - ⚡ POWER POLE
 - ⚡ TRANSFORMER POLE
 - ⚡ ELECTRIC TRANSFORMER
 - ⊠ ELECTRIC METER
 - CLEAN-OUT
 - INTAKE
 - SURFACE INTAKE
 - TRAFFIC SIGNAL MANHOLE
 - ⚡ FIRE HYDRANT
 - ⚡ WATER VALVE
 - ⊗ GAS METER
 - ⑦ DENOTES NUMBER OF PARKING STALLS
 - SILT FENCE (TYP)
 - 120 — EXISTING CONTOUR
 - 120 — PROPOSED CONTOUR

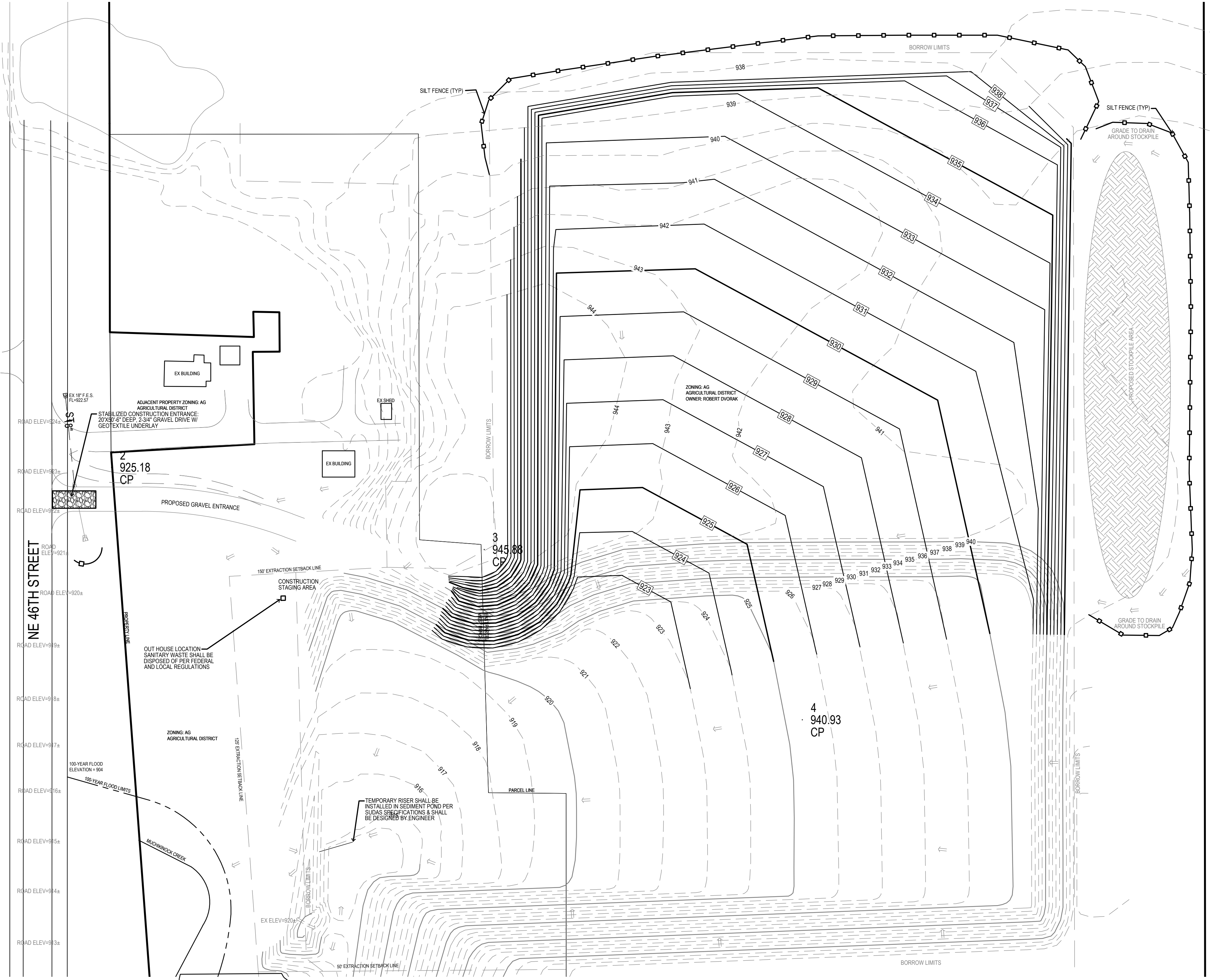


ADDRESS:
7605 NE 46TH STREET
BONDURANT, IA 50035

OWNER:
ROBERT DVORAK
7605 NE 46TH STREET
BONDURANT, IA 50035

APPLICANT:
ELDER CORPORATION
ATTN: BRENT THOMPSON
5088 EAST UNIVERSITY AVE
DES MOINES, IA 50327

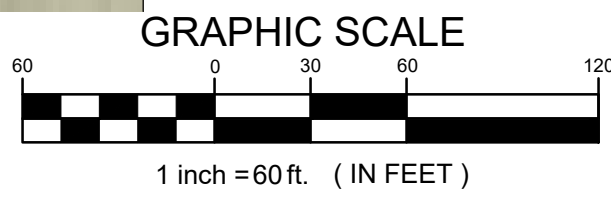
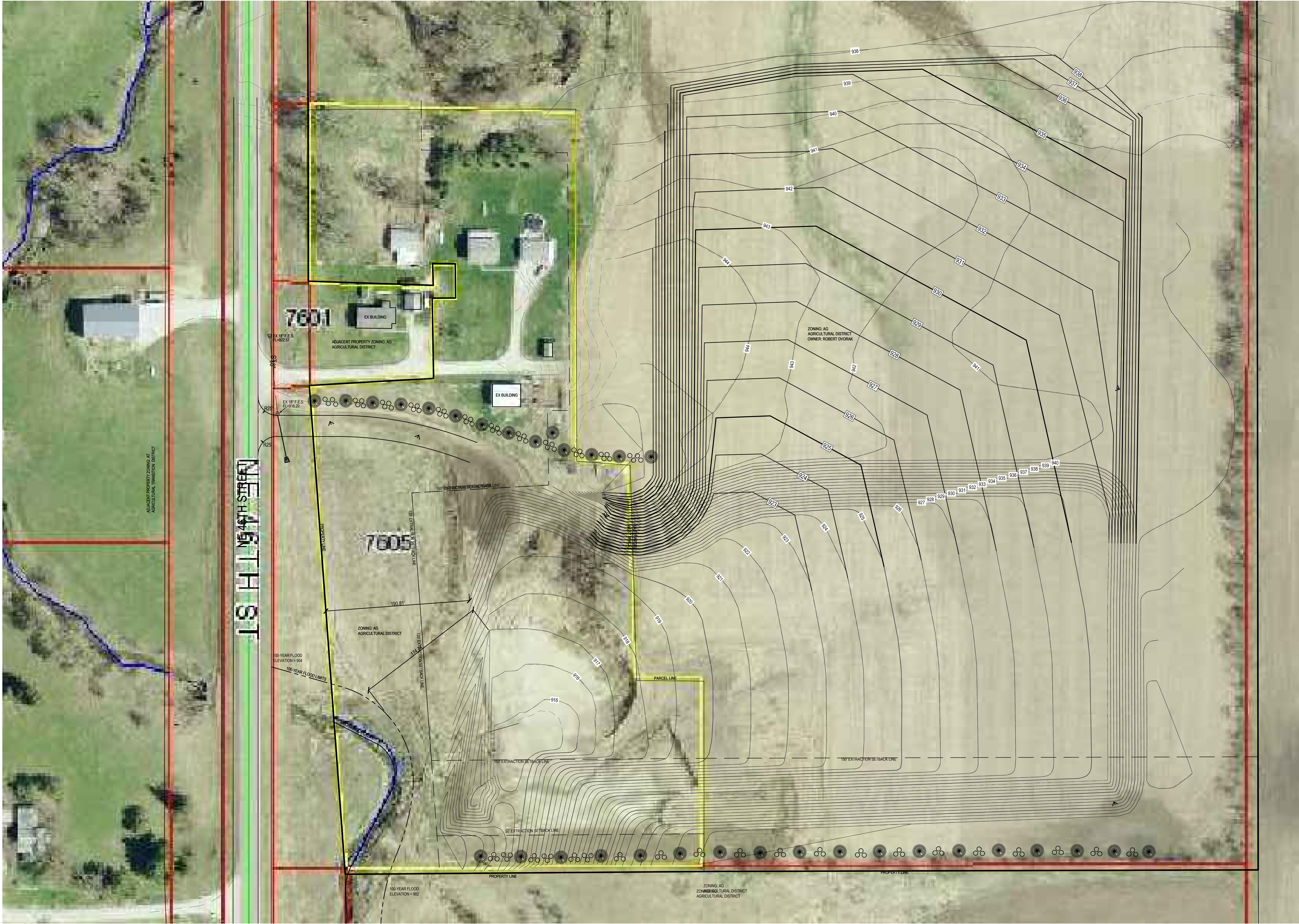
- EROSION CONTROL NOTES:**
- SEE SUPPLEMENTAL DETAILED STORM WATER POLLUTION PREVENTION PLAN PROVIDED IN THE PROJECT SPECIFICATIONS FOR ALL EROSION CONTROL MEASURES, ADDITIONAL DETAILS, AND ADDITIONAL NOTES. ADDITIONAL NOTES AND MEASURES CALLED OUT ON SWPPP SHALL BE CONSIDERED INCIDENTAL AND INCLUDED IN ORIGINAL BID.
 - INSTALL PERIMETER SILT FENCE AS SHOWN ON PLANS PRIOR TO CONSTRUCTION.



BONDURANT BORROW PIT

CONDITIONAL USE EXHIBIT

- GRADING NOTES:
- 1. STRIP AND STOCKPILE 6" OF TOPSOIL ON ALL DISTURBED AREAS.
 - 2. USE TOPSOIL FOR ALL AREAS EXCEPT UNDER PAVEMENT OR BUILDINGS.
 - 3. RESPREAD TOPSOIL TO 6" DEPTH ON ALL GREEN (NON PAVED AREAS). TOPSOIL SHALL BE FREE OF ALL ROCK AND DEBRIS LARGER THAN 3/4" IN SIZE



REFERENCE NUMBER:
110226

DRAWN BY:
DS

CHECKED BY:
DB

REVISION DATE:

PROJECT NUMBER:
190479

SHEET NUMBER:
2 OF 3

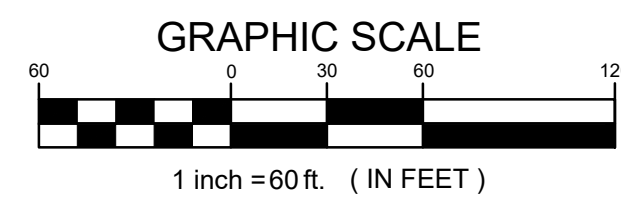
BONDURANT BORROW PIT
BONDURANT, IA

CONDITIONAL USE EXHIBIT

Bishop Engineering
"Planning Your Successful Development"

3501 104th Street
Des Moines, Iowa 50322-3825
Phone: (515)276-0467 Fax: (515)276-0217
Civil Engineering & Land Surveying Established 1959

AFTER THE EXTRACTION OPERATION IS COMPLETED, THE STOCKPILES SHALL BE REMOVED AND THE DISTURBED AREA SHALL BE VEGETATED. THE AREA WILL BE RETURNED TO EITHER PRAIRIE / PASTURE GROUND OR FARMLAND. THE OWNER HAS THE INTENT OF CONSTRUCTING A POND IN THE FUTURE. THEREFORE, ALL SLOPES SHALL BE A MINIMUM OF 4 FEET HORIZONTAL TO 1 FOOT VERTICAL. SEPARATE CONSTRUCTIONS PLANS MUST BE PREPARED PRIOR TO CONSTRUCTION OF A POND. NO BUILDINGS OR OTHER IMPROVEMENTS ARE PROPOSED AT THIS TIME. THE LAND WILL CONTINUE TO BE OWNED AND MAINTAINED BY THE CURRENT OWNER.



BONDURANT BORROW PIT
BONDURANT, IA

REFERENCE NUMBER:
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3 OF 3

Bishop Engineering

3501 104th Street
Des Moines, Iowa 50322-3825
Phone: (515)276-0467 Fax: (515)276-0211

Civil Engineering & Land Surveying Established 1959

CONDITIONAL USE PERMIT APPLICATION
POLK COUNTY COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION

Checked By: _____

Received By: _____

Date Submitted: _____

Fee Paid: _____

Application No.: _____

FEE: Hearing \$ _____

Without Hearing \$ _____

Home Occup/Cottage Ind. \$ _____

Receipt # _____

Please type or print all information below. An incomplete application cannot be accepted.

APPLICANT

Name Brent Thompson

Address 5088 E. University Ave

City Des Moines

State IA Zip 50327

Phone: Home _____ Work 515-205-3478

Fax: _____ Mobile _____

OWNER(S)

Name Robert Dvorak

Address 7605 NE 46th St,

City Bondurant

State IA Zip 50035

Phone: Home _____ Work _____

Fax: _____ Mobile _____

PROPERTY:

Location or Address 7605 NE 46th St Tax Acct. No. _____ Acreage 45.6

Township 34; Range 80; Section (s) 23; Taxlot (s) _____

Comp. Plan Designation _____ Zone Agricultural

Previous action(s) involving the subject property (For example, conditional use, variance, etc.)

Conditional use to allow for the export of dirt.

PUBLIC SERVICE AND UTILITIES INFORMATION:

A. School District Bondurant-Farrar B. Fire District Douglas Twp Fire/EMS

How will the following be provided for the proposed use? If applicable please provide documentation.

C. Water Service Type _____ D. Sewage Disposal Type _____

REQUEST: (For example, "To establish a home occupation in the EFU zoning district.")

TO ALLOW FOR THE EXPORT OF SEVERAL THOUSAND CY OF DIRT

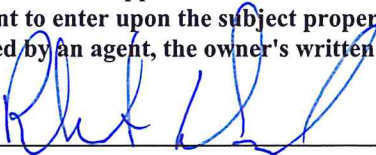
CONDITIONAL USE PERMIT APPLICATION CHECKLIST

In all land use actions, the “burden of proof” is on the applicant. It is important that you provide information, which clearly describes the nature of the request and indicates how the proposal meets all the criteria within the Zoning Ordinance.

The information requested below is required at the time you submit your application. The processing of your application does not begin until the application is determined to be complete. An incomplete application will postpone the decision, or may result in denial of the request.

- ☐ A written statement of intent, attached to this application, with necessary supporting evidence which fully and factually describes the following:
 - ☐ A complete explanation of how the request complies with provisions and criteria in the Zoning Ordinance. A planner will explain which sections of the Ordinance pertain to your specific request. You must address each of the Ordinance criterion, on a point-by-point basis in order for this application to be deemed complete.
 - ☐ A description of the property in question, including, but not limited to the following: size, vegetation, crops grown, access, existing buildings, topography, etc.
 - ☐ A complete description of the request, including any new structures proposed.
 - ☐ If applicable, documentation from sewer and water district showing availability for connection.
- ☐ A plot plan of the property on a scale map. These maps and aerial photos are available from the Community Development Department. Indicate the following on your plot plan:
 - ☐ Location of all existing and proposed buildings and structures
 - ☐ Existing County Road, public right-of-way or other means of legal access
 - ☐ 100-year floodplain elevation (if applicable)
 - ☐ Vegetation on the property
 - ☐ Location of any outstanding physical features
- ☐ A Current deed with legal description. Deed copies may be obtained at the Polk County Clerk's Office.
- ☐ A current print-out from the Polk County Assessors Office for each taxlot subject to the proposed land use action.

I certify that this application and its related documents are accurate to the best of my knowledge. I am aware that there is a twelve (12) day appeal period following the date of the Planning Director's decision of this land use action. I understand that the signature on this application authorizes representatives of the Polk County Community Development Department to enter upon the subject property to gather information pertinent to this request. If the application is signed by an agent, the owner's written authorization must be attached.



Signatures of Owners that appear on deed and/or Authorized Agent

PLEASE NOTE: THIS APPLICATION MUST BE RETURNED IN PERSON. MAIL-IN APPLICATIONS CANNOT BE ACCEPTED.