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.

<u>AGENDA</u>

- 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. **<u>RESOLUTION NO. PZ-190822-21</u>** – 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 <u>09/12/19</u>

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

CONTACT PERSON: Marketa Oliver, City Administrator

SUMMARY EXPLANATION:

<u>X</u> Resolution Ordin	ance Contract	_Other (Specify)
Funding Source	NA	
APPROVED FOR SUBMITTAL		Mailda forz Olim
		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 ______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	Үау	Nay	Abstain	Absent
McKenzie				
Clayton				
Mains				
Keeran				
Cuellar				
Phearman				
Brostrom				

Torey Cuellar, Commission Chair

SITE PLANS FOR **RMS BONDURANT SITE IMPROVEMENTS**

CITY OF BONDURANT, POLK COUNTY, IOWA

OWNER ROAD MACHINERY & SUPPLIES CO. 5633 W HIGHWAY 13 SAVAGE, MN 55378 CONTACT: JOE SCHMIDTLEIN PHONE: 515-520-4225

APPLICANT JENSEN BUILDERS LTD 1175 S 32ND ST FORT DODGE, IA 50501 CONTACT: JASON CRIMMINS PHONE: 515-573-3292





NOT TO SCALE

- 1. TITLE SHEET

- 6. LANDSCAPE PLAN

VICINITY MAP

INDEX OF SHEETS

2. PROJECT INFORMATION 3. OVERALL SITE LAYOUT 4. DIMENSION AND UTILITY PLAN 5. STORM SEWER, GRADING AND EROSION CONTROL PLAN

PROFESSIONAL SIL	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 18954 10WA + COWA	Eric D. Cannon, P.E. Date License Number 18954 My License Renewal Date is December 31, 2019 Pages or sheets covered by this seal: SHEETS 1-5
CONSCIENTING STATE OF 10/1/1 CONTRACTOR	I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed Professional Landscape Architect under the laws of the State of Iowa.
GULDEINPEEINING LANDSCAPE ARCHITECT NO. 668 4 4 4 4 MDSCAPE 5 668 4 4 4 4 MDSCAPE 5 668 4 5 668 4 5 668 4 5 668 4 5 668 4 5 6 6 6 8 6 6 8 7 6 7 6 7 7 7 8 7 8 7 8 7	Lara F. Guldenpfennig, ASLA Date License Number 668 Pages or sheets covered by this seal: SHEET 6

Project N Shee	S N & A S	RMS BONDURANT SITE IMPROVEMENTS				
No: t	S S				REVISED PER COMMENTS	9/6/19
1	Y 50			MARK	REVISION	DATE
11 0			BONDUKAN I, IOWA	Engineer:	KSS Checked By: KMM S	cale: 1"= 500'
9.0 f				Technician	: RMM Date: 8/26/19 Fi	ield Bk: Pg:
286 0	E R res	SNYDER & ASSOCIATES, INC.	Z727 S.W. SNYDER BLVD. ANKENY, IOWA 50023 15-964-2020 www.snyder-associates.com	Project	No: 119.0286 Sh	eet 1 of (

LEGEND		GENERAL NOTES
<u>Features</u>	Existing	A. NOTIFY UTILITY PROVIDERS PRIOR TO BEGINNING ANY CON
Spot Elevation Contour Elevation Fence (Barbed, Field, Hog) Fence (Chain Link)	93.0 93 	WITH UTILITY PROVIDERS AS NECESSARY DURING CONSTRUDE DETERMINING EXISTENCE, EXACT LOCATION, AND DEPTH OF LINES AND STRUCTURES NOT SHOWN FOR REMOVAL OR MO ITEMS NOT SHOWN FOR REMOVAL OR MODIFICATION SHALL SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.
Fence (Wood) Fence (Silt) Tree Line Tree Stump		B. CONSTRUCTION OF ALL STREET AND UTILITY IMPROVEMENT STATEWIDE URBAN DESIGN STANDARD SPECIFICATIONS FOR BONDURANT SUPPLEMENTAL SPECIFICATIONS FOR PUBLIC IM PREPARED BY OTHERS.
Deciduous Tree or Shrub	Service States	C. LENGTH OF UTILITIES SHOWN ON PLANS ARE DIMENSIONED CENTERLINE OF STRUCTURE.
Communication Overhead Communication Fiber Optic		D. ALL TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANC THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUT OBSTRUCT PORTIONS OF THE ROADWAY, FLAGGERS SHALL TO THE MUTCD IN APPEARANCE, EQUIPMENT AND ACTIONS.
Overhead Electric Overhead Electric Gas Main with Size	— — E(*) — — — — OE(*) — — – — 4'' G(*) — –	E. NOTIFY OWNER, ENGINEER, AND CITY OF BONDURANT AT LE WORK.
High Pressure Gas Main with S Water Main with Size Sanitary Sewer with Size	Size4'' HPG(*) 8'' W(*) 8'' S(*)	F. CONSTRUCT MANHOLES AND APPURTENANCES AS WORK PRO MATERIAL AND COMPACT TO 95% MAXIMUM DENSITY.
Duct Bank Test Hole Location for SUE w/	DUCT(*) /ID &1	G. IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY THE DETAILED PLANS SHALL GOVERN.
(*) Denotes the survey quality	service level for utilities	H. ALL FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHA ACCORDINGLY ON THE AS-BUILT DOCUMENTS.
Sanitary Manhole Storm Sewer with Size Storm Manhole Single Storm Sewer Intake Double Storm Sewer Intake	∅ <u>12'' ST</u> 	I. DIMENSIONS, BUILDING LOCATION, UTILITIES AND GRADING OF INFORMATION AT THE TIME OF DESIGN. DEVIATIONS MAY BE CHANGES OR CONFLICTS BETWEEN THIS PLAN AND FIELD C THE ARCHITECT/ENGINEER PRIOR TO STARTING CONSTRUCT RESPONSIBLE FOR LAYOUT VERIFICATION OF ALL SITE IMPR
Field Tile Intake Fire Hydrant Fire Hydrant on Building	D Q R	J. CONTRACTOR TO LOAD AND TRANSPORT ALL MATERIALS CO INCORPORATED INTO THE PROJECT TO AN APPROVED OFF-
Water Main Valve Water Service Valve Well	\bowtie	K. CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL FROM ALI RESPREAD TO MINIMUM 4'' DEPTH TO FINISH GRADES.
Utility Pole Guy Anchor Utility Pole with Light	$\stackrel{\smile}{\leftrightarrow}$ $\stackrel{\frown}{\frown}$	L. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN PAVING SLAB (GUTTER), UNLESS OTHERWISE NOTED.
Utility Pole with Transformer Street Light		M. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DRIVEWAYS, AND SIDEWALKS CAUSED BY CONSTRUCTION AC
Electric Box Electric Transformer	-ç≠ □EB ©	N. THE ADJUSTMENT OF ANY EXISTING UTILITY APPURTENANCE INCIDENTAL TO THE SITE WORK.
Traffic Sign Communication Pedestal Communication Manhole Communication Handhole Fiber Optic Manhole Fiber Optic Handhole	 © © © ₽ ₽ ₽ ₽ ₽ ₽ ₽	O. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING NECESSARY. CONTRACTOR SHALL ALSO BE RESPONSIBLE F CONTROL MEASURES ON SITE AT THE TIME OF CONSTRUCT CONTROL CODE REQUIREMENTS SHALL BE MET BY CONTRA FOR THIS PROJECT.
Gas Valve Gas Manhole Gas Apparatus Fence Post or Guard Post	°Cª © G	P. CONTRACTOR TO COORDINATE NATURAL GAS, ELECTRICAL, T UTILITY SERVICES WITH UTILITY SERVICE PROVIDER, CITY C TO CONSTRUCTION.
Underground Storage Tank Above Ground Storage Tank Sign Satellite Dish Mailbox Sprinkler Head Irrigation Control Valve		Q. CONTRACTOR TO VERIFY ALL UTILITY CROSSINGS AND MAI HORIZONTAL CLEARANCE BETWEEN UTILITIES. CONTRACTOR BUILDING AND VERIFY CONNECTION LOCATIONS AND INVERT

UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH TEMS IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT UTILITIES OR SUBSURFACE FEATURES SHOWN ARE IN THE EXACT LOCATION INDICATED EXCEPT WHERE NOTED AS QUALITY LEVEL A.

UTILITY QUALITY SERVICE LEVELS

QUALITY LEVELS OF UTILITIES ARE SHOWN IN THE PARENTHESES WITH THE UTILITY TYPE AND WHEN APPLICABLE, SIZE. THE QUALITY LEVELS ARE BASED ON THE CI/ ASCE 38-02 STANDARD.

QUALITY LEVEL (D) INFORMATION IS DERIVED FROM EXISTING UTILITY RECORDS OR ORAL RECOLLECTIONS.

JALITY LEVEL (C) INFORMATION IS OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION WITH QUALITY D INFORMATION.

QUALITY LEVEL (B) INFORMATION IS OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES.

QUALITY LEVEL (A) IS HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES OBTAINED BY ACTUAL EXPOSURE OR VERIFICATION OF PREVIOUSLY EXPOSED SUBSURFACE UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL, AND OTHER CHARACTERISTICS.

UTILITY CONTACT INFORMATION

UTILITY CONTACT FOR MAPPING INFORMATION SHOWN AS RECEIVED FROM THE IOWA ONE CALL DESIGN REQUEST SYSTEM, TICKET NUMBER 551902062.

W1-WATER S-SANITARY SEWER	BONDURANT, CITY OF PATRICK COLLISON 5159716856 pcollison@cityofbondurant.com	W2-WATER	SOUTHEAST POLK RURAL WATER DIS CHRIS MLYNARIK OR JANA HODGES 5152838729 Mlynarik@dmww.com or hodges@dmww.com
C1-COMMUNICATION F02-FIBER OPTIC	CENTURYLINK TOM STURMER 7205788090 Thomas.sturmer@centurylink.com	CLEAR	MEDIACOM COMMUNICATIONS CORP PAUL MAY 5152462252 pmay@mediacomcc.com
CLEAR	IOWA COMMUNICATIONS NETWORK SHANNON MARLOW 8005723940 icnoutsideplantiowaonecall©iowa.gov	F03-FIBER OPTIC	UNITE PRIVATE NETWORKS, LLC JOE KILZER 8164253556 upngis@upnfiber.com
F01-FIBER OPTIC	AUREON NETWORK SERVICES JEFF KLOCKO 5158300445 jeff.klocko@aureon.com	F04-FIBER OPTIC	ZAYO GROUP LLC GEORGE HUSS 4434032023 venus.minucciani@zayo.com
E-ELECTRIC OH-OVERHEAD ELECTRIC	MIDAMERICAN CRAIG RANFELD 5152526632 MECDSMDesignLocates@midamerican.com		
F05-FIBER OPTIC	MIDAMERICAN FIBER TELECOM ON CALL 5152812313 telecomoncall@midamerican.com		

STRUCTION ACTIVITIES AND COORDINATE CTION. CONTRACTOR IS RESPONSIBLE FOR ALL UTILITIES. PROTECT ALL UTILITY DDIFICATION. ANY DAMAGES TO UTILITY BE REPAIRED TO THE UTILITY OWNER'S

S SHALL CONFORM TO THE 2019 PUBLIC IMPROVEMENTS, AND THE CITY OF IPROVEMENTS AND THE SOILS REPORTS

FROM CENTERLINE OF STRUCTURE TO

E WITH REQUIREMENTS SET FORTH IN CD). WHEN CONSTRUCTION ACTIVITIES BE PROVIDED. FLAGGERS SHALL CONFORM

AST 48 HOURS PRIOR TO BEGINNING

OGRESSES. BACKFILL WITH SUITABLE

ESTIMATES AND THE DETAILED PLANS,

ALL BE RECONNECTED AND NOTED

THIS SITE ARE BASED ON AVAILABLE NECESSARY IN THE FIELD. ANY SUCH CONDITIONS ARE TO BE REPORTED TO ION. THE CONTRACTOR SHALL BE ROVEMENTS PRIOR TO CONSTRUCTION.

ONSIDERED TO BE UNDESIRABLE TO BE -SITE WASTE SITE.

AREAS TO BE CUT OR FILLED.

ARE FINISHED GRADES AND/OR TOP OF

D DEBRIS FROM NEIGHBORING STREETS, CTIVITIES IN A TIMELY MANNER.

ES TO FINAL GRADE IS CONSIDERED

EROSION CONTROL MEASURES AS OR MAINTAINING ANY EXISTING EROSION ION. GRADING AND SOIL EROSION CTOR. A GRADING PERMIT IS REQUIRED

ELEPHONE AND ANY OTHER FRANCHISE OF DES MOINES, AND THE OWNER PRIOR

NTAIN MINIMUM 18" VERTICAL AND TO COORDINATE UTILITY ROUTING TO S PRIOR TO CONSTRUCTION.

GENERAL USE IMPLEMENT DEALERSHIP

ZONING M-1 LIGHT INDUSTRIAL

PROPERTY ADDRESS BONDURANT, IOWA 50035

PROPERTY DESCRIPTION

EX N 2F E 597.44F- & -EX MC CLEARY ACRES- OUTLOT X MCCLEARY MEADOWS INDUSTRIAL PARK

BULK REGULATIONS

FRONT YARD SETBACK= 50' REAR YARD SETBACK= 50' SIDE YARD SETBACK= 20', EXCPET WHEN ADJACENT TO "R" OR "C-1", THEN 25' MAXIMUM HEIGHT= 65' MAXIMUM STORIES= 3 MINIMUM OPEN SPACE = 15%

OPEN SPACE

243,562 SF PROPOSED PROJECT AREA 0.15 MINIMUM OPEN SPACE RATIO 36,534 SF MINIMUM OPEN SPACE REQUIRED (120,036 SF OPEN SPACE PROVIDED) 0.49 PROPOSED OPEN SPACE RATIO

PARKING REQUIREMENTS

(INCLUDING 1 ACCESSIBLE STALLS)

1 PER 400 SF OF OFFICE SPACE (3,520 SF/400 SF = 9 STALLS)1 PER EMPLOYEE OF WAREHOUSE SPACE = 5 STALLS TOTAL REQUIRED STALLS = 14 STALLS TOTAL PROVIEDED STALLS = 20 STALLS

POLLUTION PREVENT

A. POLLUTION PREVENTION AND

- CODE COMPLIANCE: THE POLLUTION AND SOIL E DEPARTMENT OF NATU ANY LOCAL ORDINANCE PROTECT AGAINST ERC BORROW OR DEPOSIT
- DAMAGE CLAIMS: THE HARMLESS FROM ANY DAMAGES TO ADJOININ FEES INCURRED TO O STEPS TO PROMPTLY ADJOINING PUBLIC OR ITEMS AND DEDUCT
- B. STORM WATER DISCHARGE F
 - THIS PROJECT REQUIRE WATER DISCHARGES AS REQUIRED BY THE ENV AND ALL SUBCONTRAC ALL REQUIREMENTS OF ALL REQUIREN DOCUMENTS.
 - ALL DOCUMENTS RELA LIMITED TO, THE NOTIC LETTER, CURRENT SWP AT ALL TIMES AND MU FAILURE TO COMPLY V WATER ACT AND THE
 - A "NOTICE OF DISCON OF THE DISTURBED S ALL PLANS, INSPECTIC OF THREE YEARS AF COPY AND PROVIDE AND/OR SUBMITTAL
- C. POLLUTION PREVENTION PLA
 - THE STORM WATER PO ADDITION TO THESE PI ADDITIONAL REQUIREMEN DURING CONSTRUCTION
 - THE SWPPP ILLUSTRAT COMPLIANCE WITH THE CONTROL MEASURES R RESPONSIBILITY OF TH FROM THOSE SHOWN (
 - THE SWPPP AND SITE PROGRESS AND CHANG
 - 4. THE CONTRACTOR IS GENERAL PERMIT AND UNLESS INFEASIBLE
 - UTILIZE OUTLET DISCHARGING_FRO α. WATERS, DIRECT AND MAXIMIZE ST
 - INSTALL PERIMET DITCH CHECKS, [DISTURBING ACT
 - PRESERVE EXIST с. TO A MINIMUM TIME.
 - MAINTAIN ALL TE d. ORDER, INCLUDING THROUGHOUT_TH THE MEASURES
 - INSPECT THE PRO ASSIGNED BY THE OF THESE INSPEC SUBMITTED WEEK SWPPP AND IMPL
 - PREVENT ACCUM f. ADJOINING PUBLIC DRAINAGEWAYS, DEBRIS IMMEDIÁTI
 - INSTALL NECESS MATS, MULCH, DI GRADES AND AS RUNOFF CONTRO g. RUNOFF CONTROL SEWERS ARE INS
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k. REMOVE ALL TEMF FILING OF THE ''N

PROJECT SPECIFIC REQU D.

1. RESPONSIBILITIES OF

- a. SIGN NPDES CERTIFI b. ALL REQUIREMENTS
- 2. RESPONSIBILITIES OF
 - a. CREATE THE INITI
- b. PUBLISH THE PUB
- c. FILE THE NOTICE COVERAGE.
- d. SUBMIT THE NOTI 3. RESPONSIBILITIES OF
- a. SIGN NPDES CER CERTIFICATION OF
- b. COMPLY WITH TH
- c. INSTALL, MAINTAIN MEASURES.
- d. WEEKLY INSPECT
- e. UPDATE AND MAIN
- f. COOPERATE TO



- CUT "X" ON BURY BOLT HYDRANT SOUTHWEST OF THE GRAVEL ENTRANCE TO THE SITE.
- BM2 N=7519309.66 E=18564561.72 ELEV=963.12 BURY BOLT ON HYDRANT NEAR THE CENTER OF THE SITE ON THE WEST SIDE OF A GRASS DRIVE.

CONTROL POINTS

IOWA REGIONAL COORDINATE SYSTEM ZONE 8 (AMES-DES MOINES) NAD83(2011)(EPOCH 2010.00) IARTN DERIVED - US SURVEY FEET

- CP1 N=7519701.58 E=18564683.66 ELEV=966.87 SET CUT "X" AT THE EAST END BACK OF CURB ON THE NORTH SIDE OF THE SOUTH ENTRANCE TO DIG AMERICA.
- CP2 N=7519616.23 E=18565390.11 ELEV=974.43 SET 1/2" REBAR WITH RED PLASTIC CAP ±50 FEET NORTHEAST OF AN FES AND ±6 FEET NORTHWEST OF THE WEST EDGE OF HIGHWAY 65, IN THE NORTHEAST CORNER OF THE SITE.
- CP3 N=7518707.31 E=18564497.50 ELEV=964.30 SET CUT ''X'' IN THE WEST CORNER OF A MAST ARM BASE IN THE SOUTHEAST CORNER OF THE SITE.
- CP4 N=7518949.66 E=18563874.90 ELEV=965.96 FOUND BPC (V & K CONTROL) WITH DIMPLE ±6' SOUTH OF THE SOUTH EDGE OF FRANKLIN STREET SW, NORTHEAST OF A POWER POLE IN THE SOUTHWEST CORNER OF THE SITE.
- CP5 N=7519610.48 E=18564233.58 ELEV=974.43 SET 1/2" REBAR WITH RED PLASTIC CAP ±15 FEET EAST OF A PEDESTAL ON TOP OF A BERM IN THE NORTHWEST CORNER OF THE SITE.





BENCHMARKS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)

ON NOTES FROSION PROTECTION		1' BY	of 6
E CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL POTENTIAL EROSION CONTROL REQUIREMENTS OF THE IOWA CODE, THE IOWA JRAL RESOURCES (IDNR) NPDES PERMIT, THE U.S. CLEAN WATER ACT AND ES THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO		ale: 1"=	eld Bk: Set 2
OSION AND POLLUTION FROM THIS PROJECT SITE AND ALL OFF-SITE AREAS DURING PERFORMANCE OR AS A RESULT OF PERFORMANCE. CONTRACTOR WILL HOLD THE OWNER AND ARCHITECT / ENGINEER		MM Sc	 19 Fie She
NG PUBLIC OR PRIVATE PROPERTY, INCLUDING REASONABLE ATTORNEY WNER. FURTHER, IF THE CONTRACTOR FAILS TO TAKE NECESSARY REMOVE EARTH SEDIMENTATION OR DEBRIS WHICH COMES ONTO PRIVATE PROPERTY, THE OWNER MAY, BUT NEED NOT, REMOVE SUCH		VISION I By: K	8/26, .86
HE COST THEREOF FROM AMOUNTS DUE TO THE CONTRACTOR. PERMIT RES COVERAGE UNDER THE NPDES GENERAL PERMIT NO. 2 FOR STORM		Checked	1 Date: 119.02
ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDNR, AS IVIRONMENTAL PROTECTION AGENCY (EPA). THE GENERAL CONTRACTOR CTORS ARE RESPONSIBLE FOR COMPLIANCE WITH AND FULFILLMENT OF F THE NPDES GENERAL PERMIT NO. 2 AS SPECIFIED IN THE CONTRACT		KSS	ian: RMM ct No:
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WITH THE NPDES PERMIT REQUIREMENTS IS A VIOLATION OF THE CLEAN CODE OF IOWA. ITINUATION'' MUST BE FILED WITH THE IDNR UPON FINAL STABILIZATION ITE AND REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES		IOWA	com
N REPORTS, AND OTHER DOCUMENTS MUST BE RETAINED FOR A PERIOD FER PROJECT COMPLETION. THE CONTRACTOR SHALL RETAIN A RECORD THE ORIGINAL DOCUMENTS TO THE OWNER UPON PROJECT ACCEPTANCE F THE NOTICE OF DISCONTINUATION.		RANT,	VD. 23 sociates.
N OLLUTION PREVENTION PLAN (SWPPP) IS A SEPARATE DOCUMENT IN PLAN DRAWINGS. THE CONTRACTOR SHOULD REFER TO THE SWPPP FOR ENTS AND MODIFICATIONS TO THE POLLUTION PREVENTION PLAN MADE		ONDUF	YDER BL WA 5002 nyder-as:
TES GENERAL MEASURES AND BEST MANAGEMENT PRACTICES (BMP) FOR PROJECT'S NPDES PERMIT COVERAGE. ALL BMP'S AND EROSION		BC	S.W. SN (ENY, IO
HE CONTRACTOR TO IDENTIFY, NOTE AND IMPLEMENT. ADDITIONAL BMP'S ON THE PLAN MAY BE REQUIRED. MAP SHOULD BE EXPEDITIOUSLY REVISED TO REFLECT CONSTRUCTION			2727 § ANK 4-2020
GES AT THE PROJECT SITE. RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE SWPPP, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING BMP'S R NOT APPLICABLE:	လ		515-96
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ER AND FINAL SEDIMENT CONTROL MEASURES SUCH AS SILT BARRIERS, IVERSION BERMS, OR SEDIMENTATION BASINS DOWNSTREAM OF SOIL /ITIES PRIOR TO SITE CLEARING AND GRADING OPERATIONS.	M		NC
NG VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION AND LIMIT HE TOTAL AREA DISTURBED BY CONSTRUCTION OPERATIONS AT ANY			
APORARY AND PERMANENT EROSION CONTROL MEASURES IN WORKING CLEANING, REPAIRING, REPLACEMENT, AND SEDIMENT REMOVAL E PERMIT PERIOD. CLEAN OR REPLACE SILT CONTROL DEVICES WHEN IAVE LOST 50% OF THEIR ORIGINAL CAPACITY.	RO		S
DJECT AREA AND CONTROL DEVICES (BY QUALIFIED PERSONNEL E CONTRACTOR) EVERY SEVEN CALENDAR DAYS. RECORD THE FINDINGS CTIONS AND ANY RESULTING ACTIONS IN THE SWPPP WITH A COPY LY TO THE OWNER OR ENGINEER DURING CONSTRUCTION. REVISE THE EMENT ANY RECOMMENDED MEASURES WITHIN 7 DAYS.	МΡ		Ē
JLATION OF EARTH AND DEBRIS FROM CONSTRUCTION ACTIVITIES ON C OR PRIVATE PROPERTIES, INCLUDING STREETS, DRIVEWAYS, SIDEWALKS, R UNDERGROUND SEWERS. REMOVE ANY ACCUMULATION OF EARTH OR LY AND TAKE REMEDIAL ACTIONS FOR FUTURE PREVENTION.	Ш		A
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NOT ASSIGNED TO OTHERS. THE ENGINEER:	R N	PRC	SI
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AND THE MEDICINE ON THE REDICINGIDIENT OF OTHERS.	Sheet	2 0	f 6









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DER ATES 9.0286 f 6	SNYDER & ASSOCIATES, INC. 1 2727 S.W. SNYDER BLVD. ANKENY, IOWA 50023 515-964-2020 www.snyder-associates.com	Technician: RMM Date: Project No: 119.028	6 S/26/19 Field t	^{k: Pg:} 5 of 6



	KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
	AP	3	Acer platanoides 'Crimson King'	CRIMSON KING NORWAY MAPLE	11/2" CAL.	B&B
	CO	3	Celtis occidentalis 'Prairie Pride'	PRAIRIE PRIDE HACKBERRY	11/2" CAL.	B&B
S	GT	3	Gleditsia triacanthos var inermis 'Skyline'	SKYLINE HONEYLOCUST	11/2" CAL.	B&B
REE	MC	5	Malus 'Coralburst'	CORALBURST CRABAPPLE	8' Ht.	B&B
н	QB	3	Quercus bicolor	SWAMP WHITE OAK	11/2" CAL.	B&B
	TA	3	Tilia americana 'Boulevard'	BOULEVARD LINDEN	11/2" CAL.	B&B
	UP	3	Ulmus x 'Patriot'	PATRIOT ELM	11/2" CAL.	B&B





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JENSEN – BONDURANT DEVELOPMENT BONDURANT, IOWA

DRAINAGE CALCULATIONS

PROJECT NO. 119.0286

AUGUST 12, 2019



PREPARED BY

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

NAME: Jensen – Bondurant Development	NO. 119.0286
	DATE 08/13/2019
SUBJECT: Project Summary	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 is 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	Design Detention
			Area	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% lmp.)	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	I₅ = 6.91 in/hr
I ₁₀₀ = 6.72 in/hr	I ₁₀₀ = 12.40 in/hr

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

 $\frac{l_5}{C_{\text{Impervious}}} = 0.95$ C_{Open Space} = 0.35

Drainage Areas: (See Map and Drainage Spreadsheets):

Appendix:

Runoff Coefficient Table Rainfall Frequency Table





ROJECT: Jense UBJECT: Deter	en-Bondurant I	Development sign - Modifie	d Rational	No DA Method BY	: <u>119.028</u> ATE: <u>August 12, 2</u> 7: <u>KSS</u> CK:	
* Calculations bas	sed on SUDAS De	esign Manual, Cl	hapter 2 - Sto	PAPA	GE: <u>1</u> OF: 2G-1 - General Inform	<u>3</u> & ASSOCIATES nation for Detention Practices
DETENTION	BASIN No.:	1				
Location / D	escription:					
DRAINAGE AN		E Cont	rol *	Defer to CUDAC	Design Manual Cost	tion 2D 2 Doinfoll and Dunoff Dorindo
	ic Section.	5 - Cent		Relei lo SUDAS I	Design Manual, Sect	tion 2B-2 Rainiali and Runon Periods
Sile Alea, A	ficiont C -	0.25	acres	Limited to sites le	ess than 5 acres with	no on-site pass through.
Runoff Cool	ficient, $C_{PRE} =$	0.35				
Time of Cor	$\frac{1}{10000000000000000000000000000000000$	0.85	min			
	$Centration r_{c} =$	20				
Direction of Coord	$A_{U} =$	1.20	acres			
Runoff Coel	incient, $C_U =$	0.55				
Detained Ar	ea, A _{DET} =A-A _U =	= 12./2	acres			
Runoff Coel	ficient, C _{DET} =	0.88				
ALLOWABLE	DISCHARGE					
Pre-develo	ped design sto	orm recurrence	ce interval	5-year <	Post-developmen	nt peak discharge limit
Rainfall inte	nsity, i _{PRF} =	3.72	2 in/hr			
		$Q_{-} = 18.2$	1 cfs			
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Allowable s Post-develo Rainfall inte Un-detained Maximum a Basin Inflow a Duration, T (min.) 5 10 15 20 25 30 35 40 45 50 55 60 65 70	site discharge, pment design sinsity, $i_{POST} =$ dipeak runoff, Qillowable release djusted release djusted release nd Storage Dun Rainfall Intensity i_{100} (in/hr) 12.4 9.15 7.44 6.72 5.99 5.27 4.98 4.70 4.41 4.12 3.84 3.55 3.44 3.33	torm recurrence 6.72 U = 4.73 $P rate, Q_A = Q_5$ rate, $Q_{OUT} =$ ration Values Inflow, Q_{100} $C_{DET} \times I_{100} \times A_{DET}$ (cfs) 138.83 102.44 83.30 75.20 67.10 59.00 55.79 52.58 49.37 46.16 42.96 39.75 38.51 37.28	the interval: 2 in/hr 5 cfs - $Q_U =$ Runoff Volum $Q_{100} \times T$ (cf) 41649 61466 74968 90240 100652 106205 117166 126201 133311 138495 141753 143085 150206 156587	100-year 13.48 cfs 13.48 cfs 13.48 cfs Release Volume Q _{OUT} x T (cf) 4045 8090 12135 16180 20225 24270 28315 32360 36404 40449 44494 48539 52584 56629	Storage Volume (cf) 37604 53376 62834 74060 80427 81936 88852 93842 96906 98045 97258 94546 97621 99958	n Discharge STORAGE VOLUME REQUIRED 102,535 cf 2.35 ac-ft
Allowable s Post-develo Rainfall inte Un-detained Maximum a Maximum a Duration, T (min.) 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75	site discharge, pment design sinsity, $i_{POST} =$ dipeak runoff, Qillowable release djusted release djusted release nd Storage Dun Rainfall Intensity i_{100} (in/hr) 12.4 9.15 7.44 6.72 5.99 5.27 4.98 4.70 4.41 4.12 3.84 3.55 3.44 3.33 3.22	torm recurrence 6.72 U = 4.73 P =	the interval: 2 in/hr cfs - $Q_U =$ Runoff Volum $Q_{100} \times T$ (cf) 41649 61466 74968 90240 100652 106205 117166 126201 133311 138495 141753 143085 150206 156587 162230	100-year 13.48 cfs 13.48 cfs 13.48 cfs a Release Volume Q _{0UT} × T (cf) 4045 8090 12135 16180 20225 24270 28315 32360 36404 40449 44494 48539 52584 56629 60674	Storage Volume (cf) 37604 53376 62834 74060 80427 81936 88852 93842 96906 98045 97258 94546 97621 99958 101556	n Discharge STORAGE VOLUME REQUIRED 102,535 cf 2.35 ac-ft
Allowable s Post-develo Rainfall inte Un-detained Maximum a Maximum a Basin Inflow a Duration, T (min.) 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80	site discharge, pment design sinsity, $i_{POST} =$ dipeak runoff, Q, lowable release djusted release djusted release <u>nd Storage Dun</u> Rainfall Intensity i_{100} (in/hr) 12.4 9.15 7.44 6.72 5.99 5.27 4.98 4.70 4.41 4.12 3.84 3.55 3.44 3.33 3.22 3.11	torm recurrence 6.72 $_{U} = 4.73$ $_{P} rate, Q_{A} = Q_{5}$ rate, $Q_{OUT} =$ ration Values Inflow, Q_{100} $C_{DET} \times I_{100} \times A_{DET}$ (cfs) 138.83 102.44 83.30 75.20 67.10 59.00 55.79 52.58 49.37 46.16 42.96 39.75 38.51 37.28 36.05 34.82	the interval: 2 in/hr 5 cfs - $Q_U =$ Runoff Volum $Q_{100} \times T$ (cf) 41649 61466 74968 90240 100652 106205 117166 126201 133311 138495 141753 143085 150206 156587 162230 167134	100-year 13.48 cfs 13.48 cfs 13.48 cfs 13.48 cfs 13.48 cfs 13.48 cfs 13.48 cfs 13.48 cfs 13.48 cfs 13.48 cfs 14.44 14.445 16180 20225 24270 28315 32360 36404 40449 44494 48539 52584 56629 60674 64719	Storage Volume (cf) 37604 53376 62834 74060 80427 81936 88852 93842 96906 98045 97258 94546 97621 99958 101556 102415	n Discharge STORAGE VOLUME REQUIRED 102,535 cf 2.35 ac-ft
Allowable s Post-develo Rainfall inte Un-detained Maximum a Maximum a Basin Inflow a Duration, T (min.) 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85	site discharge, pment design sinsity, $i_{POST} =$ dipeak runoff, Q, lowable release djusted release djusted release nd Storage Dun Rainfall Intensity i_{100} (in/hr) 12.4 9.15 7.44 6.72 5.99 5.27 4.98 4.70 4.41 4.12 3.84 3.55 3.44 3.33 3.22 3.11 3.00	torm recurrence 6.72 $_{U} = 4.73$ $_{P} rate, Q_{A} = Q_{5}$ rate, $Q_{OUT} =$ ration Values Inflow, Q_{100} $C_{DET} \times I_{100} \times A_{DET}$ (cfs) 138.83 102.44 83.30 75.20 67.10 59.00 55.79 52.58 49.37 46.16 42.96 39.75 38.51 37.28 36.05 34.82 33.59	the interval: 2 in/hr 5 cfs - $Q_U =$ Runoff Volum $Q_{100} \times T$ (cf) 41649 61466 74968 90240 100652 10205 117166 126201 133311 138495 141753 143085 150206 156587 162230 167134 171299	100-year 13.48 cfs 13.48 cfs The Release Volume Q _{OUT} x T (cf) 4045 8090 12135 16180 20225 24270 28315 32360 36404 40449 44494 48539 52584 56629 60674 64719 68764	 Required Storage Volume (cf) 37604 53376 62834 74060 80427 81936 88852 93842 96906 98045 97258 94546 97621 99958 101556 102415 102535 	n Discharge STORAGE VOLUME REQUIRED 102,535 cf 2.35 ac-ft
Allowable s Post-develo Rainfall inte Un-detained Maximum a Maximum a Duration, T (min.) 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90	site discharge, pment design sinsity, $i_{POST} =$ d peak runoff, Q llowable release djusted release nd Storage Dun Rainfall Intensity i_{100} (in/hr) 12.4 9.15 7.44 6.72 5.99 5.27 4.98 4.70 4.41 4.12 3.84 3.55 3.44 3.33 3.22 3.11 3.00 2.89	torm recurrence 6.72 $_{U} = 4.73$ $_{P} rate, Q_{A} = Q_{5}$ rate, $Q_{OUT} =$ ration Values Inflow, Q_{100} $C_{DET} \times I_{100} \times A_{DET}$ (cfs) 138.83 102.44 83.30 75.20 67.10 59.00 55.79 52.58 49.37 46.16 42.96 39.75 38.51 37.28 36.05 34.82 33.59 32.36	the interval: 2 in/hr 5 cfs - $Q_U =$ Runoff Volum $Q_{100} \times T$ (cf) 41649 61466 74968 90240 100652 106205 117166 126201 133311 138495 141753 143085 150206 156587 162230 167134 171299 174725	100-year 13.48 cfs 13.48 cfs 13.48 cfs acfs	Storage Volume (cf) 37604 53376 62834 74060 80427 81936 88852 93842 96906 98045 97258 94546 97621 99958 101556 102535 101916	n Discharge STORAGE VOLUME REQUIRED 102,535 cf 2.35 ac-ft
Allowable s Post-develo Rainfall inte Un-detained Maximum a Maximum a Basin Inflow a Duration, T (min.) 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 120	site discharge, pment design sinsity, $i_{POST} =$ dipeak runoff, Qillowable release djusted release djusted release nd Storage Dun Rainfall Intensity i_{100} (in/hr) 12.4 9.15 7.44 6.72 5.99 5.27 4.98 4.70 4.41 4.12 3.84 3.55 3.44 3.33 3.22 3.11 3.00 2.89 2.23	torm recurrence 6.72 $_{U} = 4.73$ a rate, $Q_{A} = Q_{5}$ rate, $Q_{OUT} =$ ration Values Inflow, Q_{100} $C_{DET} \times I_{100} \times A_{DET}$ (cfs) 138.83 102.44 83.30 75.20 67.10 59.00 55.79 52.58 49.37 46.16 42.96 39.75 38.51 37.28 36.05 34.82 33.59 32.36 24.97	the interval: 2 in/hr cfs - $Q_U =$ Runoff Volum $Q_{100} \times T$ (cf) 41649 61466 74968 90240 100652 106205 117166 126201 133311 138495 141753 143085 150206 156587 162230 167134 171299 174725 179763	100-year 13.48 cfs 13.48 cfs 13.48 cfs a Release Volume Q _{OUT} x T (cf) 4045 8090 12135 16180 20225 24270 28315 32360 36404 40449 44494 48539 52584 56629 60674 64719 68764 72809 97079	Storage Volume (cf) 37604 53376 62834 74060 80427 81936 88852 93842 96906 98045 97258 94546 97558 94546 97528 101556 102535 101916	n Discharge STORAGE VOLUME REQUIRED 102,535 cf 2.35 ac-ft

PROJECT: Jensen-Bondurant Development	No: DATE	1 Augus:	19.028 st 13, 2	6 019	. ()
SUBJECT: Detention Basin - Design Volume	BY: PAGE	<u>KSS</u> 1	CK: OF:	1	SNYDER & ASSOCIATES Engineers and Planners
DETENTION BASIN No.: 1 Location / Description:					
Outlet Flowline Elev. = 959.16 ft					
Required Detention Volume = 102,535 cf					
2-Year Check Detention Volume = 25,853 cf					

BASIN STAGE-STORAGE VOLUME:

Elevation In	crement =	1 ft		_
Elevation	Area	Average	Volume	
(ft)	(sf)	Area (sf)	(cf)	
959.16	21500		0	Required Detention provided at elevation: 962.99
960.00	24000	22750	19110	
961.00	27000	25500	44610	100-year basin freeboard = 0.26 ft
962.00	29000	28000	72610	
963.00	31500	30250	102860	Minimum Protection Elevation (MPE): 963.99 f
963.25	33000	32250	110923	(1.0 ft above 100-year water elevation)
				2-Year Detention provided at elevation: 960.26
				1





 No:
 119.0286

 DATE:
 August 12, 2019

 BY:
 KSS
 CK:

 PAGE:
 1
 OF:
 4



	Location	Total	Imp	ervious Sur	face	G	rass Surface	eΑ	G	rass Surface	e B	Other Surface					Composite
Drainage	On-site	Area	Runoff	Sub-area	% Total	Runoff	Sub-area	% Total	Runoff	Sub-area	% Total	Runoff	Sub-area	% Total		I otal Area	Runoff
Alea ID	Off-site	(acres)	Coeff., C	(acres)	Area	Coeff., C	(acres)	Area	Coeff., C	(acres)	Area	Coeff., C	(acres)	Area		(acres)	Coeff., C
-	-		0.95	-	-	0.35	-	-	0.98	-	-	0.85	-	-		-	-
1	On	0.19	0.95	0.16	84%	0.35	0.03	16%	0.98		0%	0.85		0%		0.19	0.86
2	On	0.13	0.95	0.12	92%	0.35	0.01	8%	0.98		0%	0.85		0%		0.13	0.90
3	On	0.19	0.95	0.17	89%	0.35	0.02	11%	0.98		0%	0.85		0%		0.19	0.89
4	On	0.40	0.95	0.40	100%	0.35		0%	0.98		0%	0.85		0%		0.40	0.95
5	On	5.43	0.95	0.43	8%	0.35	4.80	88%	0.98		0%	0.85	0.20	4%		5.43	0.42
6	On	4.46	0.95		0%	0.35	3.85	86%	0.98		0%	0.85	0.61	14%		4.46	0.42
Total (A		10.90	0.05	1 20	1.00/	0.25	0 71	010/	0.09	0.00	09/	0.95	0.91	00/	- · 	10.90	0.46
Total (on	site only)	10.80	0.95	1.28	12%	0.35	0./1 8.71	01% 81%	0.98	0.00	0%	0.85	0.81	0% 8%		10.80	0.46
10101 (011	Site Offiy)	10.00	0.80	1.20	i∠/0	0.55	0.71	01/0	0.90	0.00	0 /0	0.00	0.01	0 /0	1	10.00	0.40



PROJECT: Jenson-Bondurant Development	No: 119.0286	
	DATE: August 13, 2019	\Box
SUBJECT: STORM SEWER DESIGN	BY: KSS CK:	
	PAGE: 1 OF: 1	SNYDER & ASSOCIATES Engineers and Planners
		J.

Iowa C Storm	limatic Sec Recurrence	tion: Interval:	5 - Ce	entral 5-year	* Refer	to SUDAS E	Design Mai	nual, Chapte	r 2 - Stormv	vater, Sectio	on 2B-2 F	Rainfall	and Runoff F	Periods (201	5 Edition)		
SECTION	Drainage Area	Runoff Coeff.	Equiv. Area	Accum. Area	Time of Concen.	Rainfall Intensity	Other Flow	TOTAL RUNOFF	Pipe Length	Pipe Slope	Req'd Pipe	PIPE SIZE	Full Flow Velocity	Full Flow Capacity	Time in Section	Type of Pipe	Comment
See Map for Location	(acres) A	С	(acres) CA	(acres) Σ CA	(min) T	(in/hr) I	(cfs)	(cfs) Q=(ΣCA)I	(ft) L	(ft/ft) S	Size (in)	(in) D	(fps) V _{full}	(cfs) Q _{full}	(min) t		
-		-	-			-	-	-	-	-	-	-	-	-	-	-	-
P-1	0.19	0.86	0.16	0.16	5	6.91		1.12		0.005	8.9	12	3.22	2.53	0.00	RCP	
P-2	0.13	0.90	0.12	0.28	5	6.91		1.93		0.005	10.9	12	3.22	2.53	0.00	RCP	
P-3	0.19	0.89	0.17	0.45	5	6.91		3.10		0.005	12.8	15	3.84	4.72	0.00	RCP	
P-4	0.40	0.95	0.38	0.83	5	6.91		5.72		0.005	16.3	18	4.21	7.45	0.00	RCP	
P-5	5.43	0.42	2.26	2.26	20	3.72	6.78	15.17		0.005	23.5	24	5.11	16.04	0.00	RCP	
P-6	4.46	0.42	1.87	1.87	20	3.72	5.59	12.53		0.005	21.9	24	5.11	16.04	0.00	RCP	
P-6A	#N/A	0.00	0.00	4.12	20	3.72	12.37	27.70		0.005	29.5	30	5.92	29.08	0.00	RCP	
P-6B	#N/A	0.00	0.00	4.95	20	3.72	12.37	30.78		0.006	29.6	30	6.49	31.86	0.00	RCP	

Comments:

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

PROJECT: Jenson-Bondurant Development

SUBJECT: STORM SEWER INTAKE DESIGN

 No:
 119.0286

 DATE:
 August 12, 2019

 BY:
 WCF
 CK:

 PAGE:
 3
 OF:
 4



SNYDER & ASSOCIATES Engineers and Planners

Note: This speadsheet is intended for street intakes only. See other sheets for area intake or culvert calculations.

lowa C	limatic Se	ction:	5	 Central 	* Re	fer to SUDAS D	esign Manual,	Chapter 2 - Sto	ormwater, Sectio	on 2B-2 Rainfa	II and Runoff Pe	eriods (2015 Ec	lition)					
Storm	Recurrenc	e Interv	/al:	5-year		Manning's	n Value for	Street & G	utter = 0.0	13								
INL	.ET		н	YDROLOG	$\mathbf{Y} \mathbf{Q}_{\mathbf{R}} = \mathbf{C}$	xixA					GUTTER	FLOW & IN		RCEPTION				
Inlet	Туре	Drair	nage Area	Runoff	Time of	Rainfall	Trib.	Bypass	Total	Long.	Cross	Spread	Gutter	Gutter	Intercept.	Bypass	Bypass	
No.		No.	Area	Coeff.	Concent.	Intensity	Runoff	Flow to	Flow	Slope	Slope	(ft)	Depth	Velocity	Flow	Flow	to	Comment
See Map			(acres)		(min)	(in/hr)	(cfs)	Inlet	(cfs)	(ft/ft)	(ft/ft)	()	(ft)	(fps)	(cfs)	(cfs)	Inlet	
for Location			А	С	T _C	i	Q _R	Q _B	Q _G =Q _R +Q _B	SL	S⊤	Т	d	V	Q _{IN}	Q _B	No.	
-	-	-	-	-	-	-	-		-		-	-	-	-	-		-	-
ST-1	SW-501	1	0.19	0.86	5	6.91	1.12	0.00	1.12	SUMP	0.02	1.99	0.04	0.00	1.12	0.00		
ST-2	SW-501	2	0.13	0.90	5	6.91	0.81	0.00	0.81	SUMP	0.02	0.19	0.00	0.00	0.81	0.00		
ST-3	SW-501	3	0.19	0.89	5	6.91	1.16	0.00	1.16	SUMP	0.02	2.21	0.04	0.00	1.16	0.00		
ST-4	SW-501	4	0.40	0.95	5	6.91	2.63	0.00	2.63	SUMP	0.02	9.05	0.18	0.00	2.63	0.00		
-																		
		-																

Comments:

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

PROJECT: Jenson-Bondurant Development

SUBJECT: STORM SEWER INTAKE DESIGN - Major Storm Event Check

No:	119.0286											
DATE:	Augus	st 12, 2	2019									
BY:	WCF	CK:										
PAGE:	4	OF:	4									



SNYDER & ASSOCIATES Engineers and Planners

Note: This speadsheet is intended for street intakes only. See other sheets for area intake or culvert calculations.

lowa C	limatic Se	ction:	5	 Central 	* Re	efer to SUDAS D	esign Manual,	Chapter 2 - Ste	ormwater, Sectio	on 2B-2 Rainfa	II and Runoff P	eriods (2015 Ec	lition)					
Storm	Recurrenc	e Interv	/al:	100-year		Manning's	n Value for	Street & G	utter = 0.0	13								
INL	ET		Н	YDROLOG	$\mathbf{Q}_{\mathrm{R}} = \mathbf{C}$	xixA		GUTTER FLOW & INLET INTERCEPTION										
Inlet	Туре	Drain	age Area	Runoff	Time of	Rainfall	Trib.	Bypass	Total	Long.	Cross	Spread	Gutter	Gutter	Intercept.	Bypass	Bypass	
No.		No.	Area	Coeff.	Concent.	Intensity	Runoff	Flow to	Flow	Slope	Slope	(ft)	Depth	Velocity	Flow	Flow	to	Comment
See Map			(acres)		(min)	(in/hr)	(cfs)	Inlet	(cfs)	(ft/ft)	(ft/ft)		(ft)	(fps)	(cfs)	(cfs)	Inlet	
for Location			А	С	Tc	i	Q _R	Q _B	Q _G =Q _R +Q _B	S_L	ST	Т	d	V	Q _{IN}	Q _B	No.	
-	-	-	-	-	-		-	-	-	-	-	-	-	-		-	-	-
ST-1	SW-501	1	0.19	0.86	5	12.40	2.02	0.00	2.02	SUMP	0.02	6.41	0.13	0.00	2.02	0.00		
ST-2	SW-501	2	0.13	0.90	5	12.40	1.46	0.00	1.46	SUMP	0.02	3.75	0.07	0.00	1.46	0.00		
ST-3	SW-501	3	0.19	0.89	5	12.40	2.09	0.00	2.09	SUMP	0.02	6.74	0.13	0.00	2.09	0.00		
ST-4	SW-501	4	0.40	0.95	5	12.40	4.71	0.00	4.71	SUMP	0.02	16.84	0.34	0.00	4.71	0.00		
-																		
																		1

Comments:

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

Peak Discharge Method: User-Specified								
Design Dischar	ge 15.17	7 cfs	Check Discharge	8.39	cfs			
Grades Model: I	nverts							
Invert Upstream	n 961.36	6 ft	Invert Downstream	961.02	ft			
Length	68.00) ft	Slope	0.005000	ft/ft			
Drop	0.34	4 ft						
Headwater Mode	el: Unspecified							
Tailwater Condit	ions: Constant Tailwater							
Tailwater Elevat	tion N/A	A ft						
Name	Description	Dischar	ge HW Elev. Velocity					
x Trial-1	1-24 inch Circular	15.17 c	fs 963.54 ft 6.44 ft/s					

Design:Trial-1

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	N/A	ft	Storm Event	Design	
Computed Headwater Eleva	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					
					0
Profile	M2		Depth, Downstream	1.40	ft
	Mild Outranitianal		Normal Depth	1.55	π
Flow Regime	Regime Subcritical Critical Depth		0.006267	Π #/#	
velocity Downstream	0.44	II/S	Critical Slope	0.006367	10/11
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	963.54 0.20	ft	Upstream Velocity Head Entrance Loss	0.53 0.11	ft ft
Ke	963.54 0.20	ft	Upstream Velocity Head Entrance Loss	0.53 0.11	ft ft
Ke	963.54 0.20	ft	Upstream Velocity Head Entrance Loss	0.53 0.11	ft ft
Inlet Control Properties	963.54 0.20	ft	Upstream Velocity Head Entrance Loss	0.53 0.11	ft ft
Inlet Control Properties	963.54 0.20 963.48	ft ft	Upstream Velocity Head Entrance Loss Flow Control	0.53 0.11 Unsubmerged	ft ft
Inlet Control Properties Inlet Control HW Elev. Inlet Type Beveled ring, 3	963.54 0.20 963.48 3.7° bevels	ft ft	Upstream Velocity Head Entrance Loss Flow Control Area Full	0.53 0.11 Unsubmerged 3.1	ft ft ft²
Inlet Control Properties Inlet Control HW Elev. Inlet Type Beveled ring, 3 K	963.54 0.20 963.48 3.7° bevels 0.00180 2.50000	ft ft	Upstream Velocity Head Entrance Loss Flow Control Area Full HDS 5 Chart	0.53 0.11 Unsubmerged 3.1 3	ft ft ft²
Inlet Control Properties Inlet Control HW Elev. Inlet Type Beveled ring, 3 K M C	963.54 0.20 963.48 3.7° bevels 0.00180 2.50000 0.02420	ft ft	Upstream Velocity Head Entrance Loss Flow Control Area Full HDS 5 Chart HDS 5 Scale Equation Form	0.53 0.11 Unsubmerged 3.1 3 B	ft ft ft

Peak Discharge Method: User-Specified								
Design Discharç	je 12.5	3 cfs	Check Discharge	6.94	cfs			
Grades Model: In	nverts							
Invert Upstream	961.0	7 ft	Invert Downstream	961.02	ft			
Length	10.0	0 ft	Slope	0.005000	ft/ft			
Drop	0.0	5 ft						
Headwater Mode	l: Unspecified							
Tailwater Conditi	ons: Constant Tailwate	ſ						
Tailwater Elevat	ion N/.	A ft						
Name	Description	Dischar	ge HW Elev. Velocity					
x Trial-1	1-24 inch Circular	12.53	cfs 963.00 ft 5.94 ft/s					

Design:Trial-1

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	N/A	ft	Storm Event	Design	
Computed Headwater Eleva	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
					_
Profile	M2		Depth, Downstream	1.27	ft
Slope Type	e Type Mild Normal Depth		Normal Depth	1.33	ft
Flow Regime	V 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.	062.00	<i>c</i> i			-
	903.00	π	Upstream Velocity Head	0.51	ft
Ke	903.00 0.20	π	Upstream Velocity Head Entrance Loss	0.51 0.10	ft ft
Ke	903.00 0.20	π	Upstream Velocity Head Entrance Loss	0.51 0.10	ft
Ke	0.20	π	Upstream Velocity Head Entrance Loss	0.51 0.10	ft ft
Ke Inlet Control Properties	0.20	π	Upstream Velocity Head Entrance Loss	0.51 0.10	ft ft
Ke Inlet Control Properties Inlet Control HW Elev.	962.93	π ft	Upstream Velocity Head Entrance Loss Flow Control	0.51 0.10 Unsubmerged	ft ft
Ke Inlet Control Properties Inlet Control HW Elev. Inlet Type Beveled ring, 3	962.93 3.7° bevels	π ft	Upstream Velocity Head Entrance Loss Flow Control Area Full	0.51 0.10 Unsubmerged 3.1	ft ft ft
Ke Inlet Control Properties Inlet Control HW Elev. Inlet Type Beveled ring, 3 K	962.93 3.7° bevels 0.00180	π ft	Upstream Velocity Head Entrance Loss Flow Control Area Full HDS 5 Chart	0.51 0.10 Unsubmerged 3.1 3	ft ft ft²
Ke Inlet Control Properties Inlet Control HW Elev. Inlet Type Beveled ring, 3 K M	962.93 962.93 3.7° bevels 0.00180 2.50000	π ft	Upstream Velocity Head Entrance Loss Flow Control Area Full HDS 5 Chart HDS 5 Scale	0.51 0.10 Unsubmerged 3.1 3 B	ft ft ft²
Ke Inlet Control Properties Inlet Control HW Elev. Inlet Type Beveled ring, 3 K M C	962.93 962.93 3.7° bevels 0.00180 2.50000 0.02430	π ft	Upstream Velocity Head Entrance Loss Flow Control Area Full HDS 5 Chart HDS 5 Scale Equation Form	0.51 0.10 Unsubmerged 3.1 3 B 1	ft ft ft ²

APPENDIX

2727 SW SNYDER BOULEVARD | P.O. BOX 1159 | ANKENY, IA 50023-0974 P: 515**35**4-2020 | F: 515-964-7938 | SNYDER-ASSOCIATES.COM

Cover Type and Hydrologi	Condition	Runoff Coefficients for Hydrologic Soil Group											
Cover Type and Hydrologic	Condition		A			B			С			D	
	Recurrence Interval	5	10	100	5	10	100	5	10	100	5	10	100
Open Space (lawns, parks, golf course													
Poor condition (grass cover < 50%)		.25	.30	.50	.45	.55	.65	.65	.70	.80	.70	.75	.85
Fair condition (grass cover 50% to 7.	5%)	.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. (e	excluding ROW)	.95	.95	.98	.95	.95	.98	.95	.95	.98	.95	.95	.98
Streets and roads:													
Paved; curbs & storm sewers (ex	cluding ROW)	.95	.95	.98	.95	.95	.98	.95	.95	.98	.95	.95	.98
Paved; open ditches (including R	OW)				.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% impe							.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		1	-			-		-	1				
Meadow - protected from grazing (pr	re-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	.81	.89
Stugnt Row (SR)	Good Condition	.24	.30	.46	.45	.51	.66	.62	.67	.78	.73	.76	.86
SR + Crop Residue (CR)	Poor Condition	.31	.37	.54	.50	.56	.70	.67	.72	.82	.75	.79	.87
	Good Condition	.19	.25	.41	.38	.45	.61	.55	.60	.73	.62	.67	.78
Contoured (C)	Poor Condition	.29	.35	.52	.47	.53	.70	.60	.65	.77	.70	.74	.84
	Good Condition	.21	.26	.43	.38	.45	.61	.55	.60	.73	.65	.69	.80
C+CR	Poor Condition	.27	.33	.50	.45	.51	.66	.57	.63	.75	.67	.72	.82
	Good Condition	.19	.25	.41	.36	.43	.59	.52	.58	.71	.62	.67	.78
Contoured & Terraced (C&T)	Poor Condition	.22	.28	.45	.36	.43	.59	.50	.56	.70	.55	.60	.73
	Good Condition	.16	.22	.38	.31	.37	.54	.45	.51	.66	.52	.58	.71
C&T + CR	Poor Condition	.13	.19	.35	.31	.37	.54	.45	.51	.66	.52	.58	.71
	Good Condition	.10	.16	.32	.27	.33	.50	.43	.49	.65	.50	.56	.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.

							F	Return	Perio	d						
	1 y	ear	2 y	ear	5 y	ear	10 y	vear	25 y	vear	50 y	vear	100	year	500	year
Duration	D	Ι	D	Ι	D	Ι	D	Ι	D	Ι	D	Ι	D	Ι	D	Ι
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

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

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

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

							R	Return	Perio	d						
	1 y	ear	2 y	ear	5 y	ear	10 y	vear	25 y	vear	50 y	vear	100	year	500	year
Duration	D	Ι	D	Ι	D	Ι	D	Ι	D	Ι	D	Ι	D	Ι	D	Ι
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

 Table 2B-2.07:
 Section 6 - East Central Iowa

 Rainfall Depth and Intensity for Various Return Periods

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

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

MEMORANDUM

Hoisington Koegler Group Inc.



То:	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.

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	70 ft. (east)
	or C-1 district (25 ft.)	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 table below shows the M-1 lot standards as specified by Code.

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 longterm 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	Number of
		Stalls Required	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	1	1
	10-25 spaces		
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



VEENSTRA & KIMM, INC.

3000 Westown Parkway • West Des Moines, Iowa 50266-1320 515-225-8000 • 515-225-7848 (FAX) • 800-241-8000 (WATS)

August 29, 2019

1

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 it 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.
- 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 Q₁₀₀ 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 if 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.

- 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 Q100 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 Q100 event. These two culverts connect to the downstream 30-inch storm sewer pipe that appears to be designed for a Q5 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 byeenstra@v-k.net.

VEENSTRA & KIMM, INC.

H. R. Veenstra Jr.

HRVJr:paj 4285-088 John Horton, City of Bondurant CC: Eric Cannon, Snyder & Associates, Inc.



BUSINESS OF THE PLANNING & ZONING COMMISSION BONDURANT, IOWA

AGENDA STATEMENT

Item No. 7 For Meeting of <u>09/12/19</u>

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.

<u>X</u> Resolution Ordinan	ce Contract	Other (Specify)	
Funding Source	NA		
APPROVED FOR SUBMITTAL		Sallte Jose Oliven	
		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 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 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 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,

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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 ______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:

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

PROPERTY DESCRIPTION:

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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 APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
- SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
- **REGULATIONS**
- UTILITIES INCLUDING UTILITIES THAT ARE NOT SHOWN ON PLAN.
- DRAINAGE CHANNELS, STORM SEWER, OR FACILITIES.

- VEGETATION HAS BEEN ESTABLISHED.
- INCORPORATION INTO THE PROJECT.
- STREET

PLAN OF OPERATION NOTES:

- TOPSOIL IS PLACED.
- REQUIRED.
- PER DAY.

- THAN 80,000 POUNDS. COMPLETED IN APPROXIMATELY FIVE YEARS.
- THE EXHAUST.
- 14. POLK COUNTY NOISE ORDINANCE SHALL BE FOLLOWED.

BORROW PIT/POND NOTES

- SOON AS PRACTICABLE AFTER EXCAVATION.
- TEN FEET EXCEPT AS SHOWN BE THE PROPOSED CONTOURS ON THE WEST END OF THE POND.
- LESS.
- OF FIVE (5) FEET. POND SHALL NOT BE USED FOR SWIMMING.

- OBSTRUCT OR DIVERT ANY OFF-SITE RUNOFF.
- THE EXCAVATION.

ALL WORK SHALL MEET ALL DEVELOPMENT AND PERFORMANCE STANDARDS OF THE POLK COUNTY ORDINANCE AND

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. ANY DAMAGE TO SAID UTILITIES

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

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

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

6. 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.

10. 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

11. 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

12. ACTIVE EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED, REROUTED, OR CONNECTED TO PUBLIC OR PRIVATE STORM SEWER TO REMAIN IN SERVICE.

13. CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY REMOVAL OF ANY ROCK OR MUD TRACKED ONTO NE 46TH

1. THIS POND IS BEING CREATED BY EXCAVATING EXISTING SOIL FROM THE SITE. EXCAVATED MATERIAL WILL BE REMOVED FROM THE SITE.

2. SANDY LEAN CLAY WILL BE REMOVED FROM THE SITE. TOPSOIL WILL BE STRIPPED PRIOR TO EXTRATION AND REPLACED AFTER THE EXTRACTION IS DONE. 3. 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

4. CLAY SOILS SHALL BE REMOVED AND STOCKPILED IN SUFFICIENT QUANTITIY 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

5. APPROXIMATE ANNUAL REMOVAL RATE IS 12,500 CY. APPROXIMATELY 100,000 CY HAVE BEEN REMOVED FROM THE SITE BY ELDER CORPORATION SINCE 2007. 6. AN AVERAGE OF 10 TRUCK TRIPS ARE ANTICIPATED INTO AND OUT OF THE PROPERTY

7. AN EXCAVATOR (CAT330) OR LOADER (CAT953) WILL BE USED FOR THE EXTRACTION. A CAT 915 PADDLEWHEEL SCRAPER WILL BE FOR USED FOR STRIP/RESPREADING. 8. NO SUPPLEMENTAL CHEMICALS OR PRODUCTS WILL BE ADDED TO THE EXISTING MATERIAL. ONLY NATURAL DRYING TECHNIQUES WILL BE USED.

9. ESTIMATED LIFE OF OPERATION IS APPROXIMATELY 5-8 YEARS FROM AUGUST 18, 2019. 10. WEIGHT OF MACHINERY USED TO HAUL MATERIAL FROM THE JOBSITE WILL BE LESS

11. THE EXCAVATION SCHEDULE WILL DEPEND ON THE AVAILABILITY OF EXPORT SITES. RATE OF REMOVAL WILL VARY ACCORDINGLY. THIS POND PROJECT WILL BE

12. ALL MACHINERY USED ON SITE MUST NEWER THAN 2005 AND COMPLY WITH CURRENT EMISSION STANDARDS AND ALL EQUIPMENT SHALL BE EQUIPPED WITH MUFFLERS ON

13. PERMITTED TRUCK ROUTE IS NORTH OF NE 46TH STREET TO NE 78TH AVENUE.

1. EXCAVATIONS SHALL BE GRADED AND BACKFILLED TO THE GRADES INDICATED BY THE SITE PLAN. GRADING AND BACKFILLING SHALL BE ACCOMPLISHED CONTINUALLY AND AS

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

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

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

5. DRAINAGE SHALL BE PROVIDED, EITHER NATURAL OR ARTIFICIAL, SO THAT DISTURBED AREAS SHALL NOT COLLECT OR PERMIT STAGNANT WATER TO REMAIN.

6. TRUCK ACESS TO ANY EXCAVATION SHALL BE SO ARRANGED AS TO MINIMIZE DANGER TO TRAFFIC AND NUISANCE TO SURROUNDING PROPERTIES.

7. THE PROPOSED DRIVEWAY MINIMUM REQUIREMENTS ARE A 28' WIDTH AND 25' RADII. 8. CONTRACTOR SHALL ENSURE THAT PROPOSED MATERIAL STOCKPILE WILL NOT

9. RUNOFF FROM DISTURBED AREAS OF THE SITE SHALL BE DIRECTED TO THE BOTTOM OF

CONDITIONAL USE PERMIT TERMS & CONDITIONS:

DOCKET NUMBER: xxxx DATE: xxxx

NPDES NOTE:

- 1. OWNER MUST MAINTAIN NPDES GENERAL PERMIT NO. 2 COVERAGE FOR THE DURATION OF THE PROJECT AS REQUIRED BY LAW
- 2. 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.

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(7) DENOTES NUMBER OF PARKING STALLS

-D-SILT FENCE (TYP)

- 120 ----- EXISTING CONTOUR

DRIVE ON GEOTEXTILE

GAS METER

~~

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, 69.49 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, THENCE NORTH 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 ECONDS WEST, 30.00 FEET, THENCE NORTH 87 DEGREES 37 MINUTES 55 SECONDS WEST, 242.73 FEET TO A POINT ON THE WEST LINE OF THE NORTH WEST 1/4 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 1/4 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 1/4 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" WEST, ALONG THE WEST OF THE WEST ½ OF THE NW ¼ OF SAID SECTION 34; THENCE NORTH 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" WEST, 30.00 FEET; THENCE NORTH 00°00'00" WEST, 45.00 FEET; THENCE NORTH 90°00'00" WEST, 30.00 FEET; THENCE SOUTH 90°00'00" WEST, 30.00 FEET; THENCE 90 FEET; 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 NORTHE NORTHE VIOLAGE, THE NORTHE NORTHE NORTHE NORTHE WEST, ALONG THE WEST LINE OF THE NORTHE VIA 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

- INCLUDED IN ORIGINAL BID.
- CONSTRUCTION.



BONDURANT BORROW PIT CONDITIONAL USE EXHIBIT

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, 69.49 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, THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, ALONG THE WEST ½ OF THE NW ¼ OF SAID SECTION 34, THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, ALONG THE WEST LINE OF THE NW ¼ OF SAID SECTION 34, THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, ALONG THE WEST LINE OF THE NW ¼ OF SAID SECTION 34, THENCE NORTH 00 DEGREES 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, 644.88 FEET; THENCE NORTH 85 DEGREES 48 MINUTES 07 SECONDS WEST, 243.38 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 DEGREES 00 MINUTES 00 DEGREES 00 MINUTES 00 DEGREES 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, 644.88 FEET; THENCE NORTH 85 DEGREES 48 MINUTES 07 SECONDS EAST, 243.38 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 DEGREES 00 MINUTES 00 DEGREES 00 MINUTES 00 DEGREES 00 MINUTES 00 DEGREES 00 DEGRE

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 1/4 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 1/4 OF SAID SECTION 34; 600.07 FEET TO THE SW CORNER OF SAID NORTH 60 ACRES OF THE WEST ½ OF THE NW ½ OF SAID SECTION 34; THENCE NORTH 00°00'00" WEST, ALONG THE WEST LINE OF THE NW ¼ OF SAID SECTION 34; THENCE NORTH

FEETTO 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 NORTH 85°48'07" EAST, 243.18 FEET; THENCE NORTH 00°00'00" WEST, 30.00 FEET; THENCE SOUTH 90°00'00" EAST, 30.00 FEET; THENCE NORTH 85°48'07" EAST, 243.18 FEET; THENCE NORTH 90°00'00" WEST, 30.00 FEET; THENCE SOUTH 90°00'00" EAST, 30.00 FEET; THENCE NORTH 85°48'07" EAST, 243.18 FEET; THENCE NORTH 90°00'00" WEST, 30.00 FEET; THENCE SOUTH 90°00'00" EAST, 30.00 FEET; THENCE NORTH 85°48'07" EAST, 243.18 FEET; THENCE NORTH 90°00'00" WEST, 30.00 FEET; THENCE SOUTH 90°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 90°00'00" WEST, ALONG 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.

GENERAL NOTES:

- 1. EXTRACTION OPERATIONS SHALL MEET ALL DEVELOPMENT AND PERFORMANCE STANDARDS OF THE POLK COUNTY ORDINANCE AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.EXCEPT THOSE REDUCTION REQUESTED AND GRANTED BY THE CONDITIONAL USE APPLICATION.
- REQUESTED AND GRANTED BY THE CONDITIONAL USE APPLICATION.
 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.
- 5. 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.
- 8. GRADING AND EROSION CONTROL SHALL BE DONE IN ACCORDANCE WITH THE APPROVED GRADING PLAN, SWPPP, NPDES DOCUMENTS, AND IOWA DEPARTMENT OF NATURAL RESOURCES REQUIREMENTS.
 9. THE CONTRACTOR SHALL PICK UP ANY DEBRIS SPILLED ONTO THE ADJACENT RIGHT OF WAY OR ABUTTING
- 9. THE CONTRACTOR SHALL FICK OF ANY DEBRIS SFILLED ONTO THE ADJACENT RIGHT OF WAT OR ABOTTING PROPERTIES AS THE RESULT OF CONSTRUCTION, AT THE END OF EACH WORK DAY.
 10. 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. 11. 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.
 12. ACTIVE EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED, REROUTED, OR CONNECTED TO PUBLIC OR PRIVATE STORM SEWER TO REMAIN IN SERVICE.

PLAN OF OPERATION NOTES:

- 1. SANDY LEAN CLAY WILL BE REMOVED FROM SITE. TOPSOIL WILL BE STRIPPED PRIOR TO EXTRACTION AND REPLACED AFTER THE EXTRACTION IS DONE.
- APPROXIMATE ANNUAL REMOVAL RATE IS 12,500 CY. APPROXIMATELY 55,000 CY HAVE BEEN DEMOVED FORM THE DITE DX ELDER CODDODATION ONOS 2007
- REMOVED FROM THE SITE BY ELDER CORPORATION SINCE 2007.3. AN AVERAGE OF 10 TRUCK TRIPS ARE ANTICIPATED INTO AND OUT OF THE PROPERTY PER DAY.
- AN AVERAGE OF TO TROOK THE SAKE ANTICH ATED INTO AND COT OF THE FROME INTO AND AN EXCAVATOR (CAT 330) AND/OR LOADER (CAT 953) OR EQUIVALENT WILL BE USED FOR THE EXTRACTION. A CAT 915 PADDLEWHEEL SCRAPER OR EQUIVALENT WILL BE FOR USED FOR STRIP/RESPREADING.
- 5. 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 CURRENT DATE.
 WEIGHT OF MACHINERY USED TO HAUL MATERIAL FROM THE JOBSITE WILL BE LESS THAN 80,000 POUNDS.
- ALL MACHINERY USED ON SITE MUST BE NEWER THAN 2005 AND COMPLY WITH CURRENT EMISSION STANDARDS AND ALL EQUIPMENT SHALL BE EQUIPPED WITH MUFFLERS ON THE EXHAUST.
- 9. PREFERRED TRUCK ROUTE IS NORTH ON NE 46TH STREET TO NE 78TH AVENUE.
- 10. POLK COUNTY NOISE ORDINANCE SHALL BE FOLLOWED.

BORROW PIT NOTES:

- 1. 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. GRADING AND BACKFILLING MAY BE ACCOMPLISHED BY USE OF CONSTRUCTION RUBBLE SUCH AS CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIALS, PROVIDING GUIDUMATERIALS ARE COMPOSED OF NON NOVICING NONCOMPLICITIES FOUNDS
- PROVIDING SUCH MATERIALS ARE COMPOSED OF NON-NOXIOUS NONCOMBUSTIBLE SOLIDS.
 GRADING AND BACKFILLING SHALL BE ACCOMPLISHED IN SUCH A MANNER 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.
- 3. WHEN EXCAVATIONS PROVIDE FOR A BODY OF WATER ARE 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.
- 4. DRAINAGE SHALL BE PROVIDED, EITHER NATURAL OR ARTIFICIAL, SO THAT DISTURBED AREAS SHALL NOT COLLECT NOR PERMIT STAGNANT WATER TO REMAIN.
- 5. TRUCK ACCESS TO ANY EXCAVATION SHALL BE SO ARRANGED AS TO MINIMIZE DANGER TO TRAFFIC AND NUISANCE TO SURROUNDING PROPERTIES.
- 6. THE EXISTING DRIVEWAY MINIMUM REQUIREMENTS ARE A 28' WIDTH AND 25' RADII. UPON APPROVAL OF THE CONDITIONAL USE PERMIT APPLICATION, THE SITE PLAN SHOULD SHOULD THE EXISTING DRIVEWAY ENTRANCE CULVERT WITH SIZE & LENGTH NOTED.



CONDITIONAL USE PERMIT APPLICATION POLK COUNTY COMMUNITY DEVELOPMENT DEPARTMENT PLANNING DIVISION

Checked By:	
Received By:	FEE: Hearing \$
Date Submitted:	Home Occup/Cottage Ind. \$
Fee Paid:	Receipt #
Application No.:	
Please type or print all information l	elow. An incomplete application cannot be accepted.
APPLICANT	OWNER(S)
Name_Brent Thompson	Name_Robert Dvorak
5088 E. University Ave	7605 NE 46th St

Address	iiversity Ave	Address 7005 NE 40th St,			
0	City Des Moines		City_Bondurant		
State_IA	Zip	State_IA	Zip _50035		
Phone: Home	Work	Phone: Home	Work		
Fax:	Mobile	Fax:	Mobile		
PROPERTY:					
Location or Add	ress 7605 NE 46th St Tax	Acct. No.	Acreage		
Township <u>34</u>	; Range; Section (s) _	23 ;Taxlot (s)		
Comp. Plan Des	ignation	Zone Agricultura	1		

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
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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

1

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 j Commi	plan of the property on a scale map. These maps and aerial photos are available from the inity 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 summer and a set from the Della Country Assessor Office for each tools to the set of		

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.

i is signed by an agent, the owner's written authorization mu

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.