



HARDIN COUNTY

1215 EDGINGTON AVE., SUITE 1
ELDORA, IA 50627
(641) 939-8108

HARDIN COUNTY DRAINAGE DISTRICT UTILITY PERMIT APPLICATION

Applicant: Midland Power Cooperative
Company Name

1005 E Lincoln Way
Address

Jefferson IA 50129
City State Zip

Applicant Contact: Casey Huff (515) 386-4111
Name Phone

chuff@midlandpower.coop
Email

Utility Type: Overhead Electrical Primary Line

Drainage District(s) Crossed: DD 142 and DD Big Four

Facilities Crossed (specific tile, open ditch): _____

Description of Work: Overhead line rebuild 1.5 miles along
south side of 120th Map 66 Sec 17+18
(Location plan of proposed utility must be attached.)

Pursuant to Code of Iowa Section 468.186, approval is hereby requested for the right, privilege and authority to construct, operate and maintain utilities on, over, across or beneath established Hardin County Drainage Districts, subject to the attached Requirements for Construction On, Over, Across or Beneath Established Drainage District. Failure to comply with said requirements shall be ground for revocation of the permit by the Hardin County Board of Supervisors.

[Signature]
Applicant Signature

2/28/20
Date

Submit Form and Location Plan To: Hardin County Auditor's Office
Attn: Drainage Clerk
1215 Edgington Ave, Suite 1
Eldora, IA 50627
Fax (641) 939-8225
drainage@hardincountyia.gov

For Office Use Only

Application Approval:

By: _____ Date: _____
Board of Supervisor Chairman, Acting as Drainage District Trustee

APPROVED PERMIT #: _____



REQUIREMENTS FOR CONSTRUCTION ON, OVER, ACROSS OR BENEATH ESTABLISHED DRAINAGE DISTRICT

Upon issuance of a permit for utilities on, over, across or beneath established Hardin County Drainage Districts, the applicant shall be governed by these requirements and shall comply with all conditions contained herein.

1. The Applicant shall furnish the Drainage District, or its representative, plats showing the exact location of the proposed construction. If it is found that such locations are in conflict with the present or proposed facilities and that a more desirable location is possible, the Applicant shall review such possible alignment changes. **No construction is to commence with the drainage facility without an approved application.**
2. Applicant shall comply with Iowa One-Call requirements prior to commencing any work.
3. The Drainage District shall provide Applicant access to maps or other information regarding the location of all known drainage district facilities so that reasonable care may be taken by Applicant to avoid un-necessary damage to said drainage district facilities.
4. The Applicant shall hold the Drainage District harmless from any damage that may result to the Drainage District facility because of the construction or maintenance of the utility, and shall reimburse the Drainage District for any expenditures that the Drainage District may have to make on said Drainage District facilities resulting from Applicant's construction and installation of utilities, or their subsequent repair or modification.
5. The Applicant shall take all reasonable precaution during the construction of said utility to protect and safeguard the lives and property of the public and adjacent property owners and shall hold the Drainage District harmless from any damages or losses that may be sustained by adjacent property owners on account of such construction operations. Further, Applicant agrees to replace, repair or reimburse all damages to private property occasioned by Applicant's installation of subsequent modification or repairs.
6. The Drainage District assumes no responsibility for damages to the Applicants property occasioned by any construction or maintenance operation of said Drainage District facilities, subsequent to Applicants installation.
7. A copy of a certificate of insurance naming the County/Drainage District as additional insured for their permit work shall be provided to the County Auditor prior to installation. The limit of liability under the insurance policy shall not be less than \$1,000,000 per occurrence.
8. The Applicant agrees to give the Drainage District twenty-four (24) hours (Saturday and Sunday excluded) notice of its intention to commence construction on any lands within the jurisdiction of the Drainage District. Said notice shall be made in writing to the County Auditor or to the designated Drainage District representative.
9. The Applicant agrees to place permanent, visible markers or monuments at locations where utility crosses Drainage District facilities. These monuments or markers shall identify the owners name, address and phone number.
10. The Drainage District Trustees may appoint a representative to inspect and approve all construction across Drainage District facilities as part of this permit. All compensation, wages, mileage and other expenses for this representative will be paid by the Applicant. It will be the responsibility of the Applicant to make all contacts with private parties (adjacent owners/operators) to determine the location of private drainage facilities. Said representative will also inspect all crossing of Drainage District facilities and may, if required, observe the crossing of private drainage facilities, and shall have the authority to require the Applicant to excavate and expose the crossing of any Drainage District facility where the representative believes it prudent to visually examine Applicants crossing of the Drainage District facility. Further, said representative has the authority to suspend construction and installation by the Applicant within any Drainage District jurisdiction by verbal order to the contractor at the site and a telephone call to Applicants contact person listed on page 1 within six (6) hours of the verbal order.



11. The construction and maintenance of Applicants installation shall be carried on in such a manner as to not interfere with or interrupt the function of said Drainage District facilities without the express written consent of the Drainage District Representative. In the event it becomes necessary to temporarily stop the flow of water, the following shall be completed by the Applicant:
 - a. If the crossing involves a tile line, the replacement of tile with approved materials, in the manner approved by the Drainage Districts designated representative, shall be performed as rapidly as possible. If the approved method of repair is impossible and the volume of water flowing in the tile is sufficient to create the possibility of crop loss or property damage, the Contractor will be permitted to temporarily block the tile line to prevent the flow of this tile water into the pipeline, or tile line ditch. In the event this tile line is so temporarily blocked, the Contractor will be expected to provide sufficient pumping equipment to pump the impounded tile water across the construction ditch to the undisturbed tile line. Such temporary blockages of said Drainage District tile lines will be removed as rapidly as possible and any tile repairs caused by this blockage will be immediately repaired at the Applicants expense.
 - b. If the crossing involves an open ditch that is carrying sufficient flow of water to make it necessary to place a temporary dam across said open ditch, such temporary dams may be constructed only upon approval from the Drainage District designated representative. The maximum elevation of this impounded water shall be determined by the designated Drainage District representative and all excess water must be allowed to flow across the construction ditch through either a closed metal culvert pipe or by pumping. All temporary dam structures are to be removed as soon as the crossing is completed. The construction and removal of these dams shall be in such a manner that the smooth and efficient function of the drainage ditch is not impaired, with all costs and damages borne by Applicant.
12. The Applicant will at any time subsequent to the commencement of construction, and at Applicants sole expense, reconstruct or replace its installation as may be necessary to conform to new grade or alignments resulting from maintenance or construction operations by the Drainage District in connection with any of its drainage facilities. Applicant agrees to do this within forty-five (45) days of receipt of written request from the Drainage District, or such longer time period as the Drainage District may specify, without cost to the Drainage District. Such reconstruction or realignment of Applicants improvements shall be made in accordance with and approved by the Drainage District or its designated representative. If the Applicant is unable to comply within the time period specified above, the Drainage District may cause the work to be done and the Applicant will pay the cost thereof upon receipt of a statement of such costs.
13. CROSSING OF OPEN DITCH FACILITIES. Utility crossings shall be constructed as follows, as directed by the designated representative of the Drainage District:
 - a. Passage of installation in a horizontal plane five feet (5') below design grade of drainage ditch, as established by the Drainage District representative.
 - b. The above depth to extend to a point two (2) times the design base width of ditch either side of centerline of drainage ditch (measured along the centerline of utility) unless the existing base width is greater than the design bases width. If the existing base width is greater than the design with, the depth is to extend to a point two (2) times the existing width.
 - c. The rate of slope for transition from normal utility laying depth of crossings of drainage ditches shall not be steeper than 4:1.
 - d. If such ditch crossings occur at points of outlets of Drainage District or private tile lines or within twenty-five feet (25') of said outlets, such outlets must be relocated to a point not less than twenty-five feet (25') from such crossings. Such relocations shall be at the expense of the Applicant and as directed by the representative of the Drainage District.



14. CROSSING OF DRAINAGE DISTRICT TILE LINES. Utility crossings shall be constructed as follows, as directed by the designated representative of the Drainage District:
- a. All proposed installations must be placed under the existing Drainage District tile lines. These requirements may be waived only upon the review by and approval of the designated representative of the Drainage District. Such waiver must be in writing.
 - b. A minimum of one foot (1') clearance below existing Drainage District facilities must be maintained.
 - c. At all crossings of Drainage District tile lines with the proposed utility, one of the following must be used:
 - i. Replace Drainage District tile with reinforced concrete pipe of same or larger diameter than existing tile. Concrete pipe to be 2,000 D strength (Iowa Department of Transportation approved) with standard tongue and groove joints. Pipe to have a minimum of three (3) bolt-type connectors at each joint.
 - ii. Replace Drainage District tile with cathodic protected corrugated metal pipe. Diameter of corrugated metal pipe to be a minimum of two inches (2") larger than outside diameter of tile line being replaced. (Specifications regarding gage, cathodic protection and other details to be subject to review and approval.)
 - iii. Dual wall plastic with specific approval of Drainage District representative.
 - iv. Bore new utility installation; maintain existing tile in an undisturbed state.
 - d. The length of tile to be replaced by any of the above alternates is as follows:
 - i. Eight-inch (8") tile and smaller: Six feet (6') either side of centerline of proposed installation, measured at right angles to the centerline of installation.
 - ii. Ten inch (10") tile and larger: Ten feet (10') either side of centerline of proposed installation, measured at right angles to the centerline of installation.
 - e. At all crossings of Drainage District tile lines where the Drainage District and private tile lines are damaged by the construction, maintenance or repair of Applicants installation shall be repaired as directed by the Drainage Districts designated representative.
15. This permit is subject to existing regulations and statutes of the State of Iowa and future regulations, which may be promulgated or enacted.
16. This application is subject to revocation by Hardin County, if in its judgment it is necessary for legitimate purposes. In such event, written notice shall be provided to permit holder.
17. Applicant agrees to pay all other legitimate costs, fees and expenses associated with its crossing of the Drainage District facility, including but not limited to, publication costs, engineering costs and legal service costs. Said costs will be paid within thirty (30) days of the mailing of the statements to the Applicant.
18. Applicant agrees to provide a copy of as-built plan of the utility route and location, showing route changes that may have taken place during construction.
19. Applicant agrees to include a copy of these requirements to all bidding specifications; or if the construction and installation contract has been let by the time this permit is approved, Applicant agrees to provide a copy of these requirements to the contractor and to advise them that they are bound by the terms of these requirements.

**Midland Power
Cooperative**

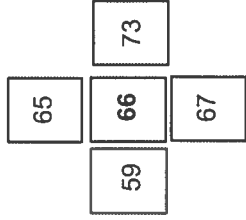


Red = A phase
 Yellow = B phase
 Blue = C phase
 Peach = 2 phase
 GREEN = 3 PHASE

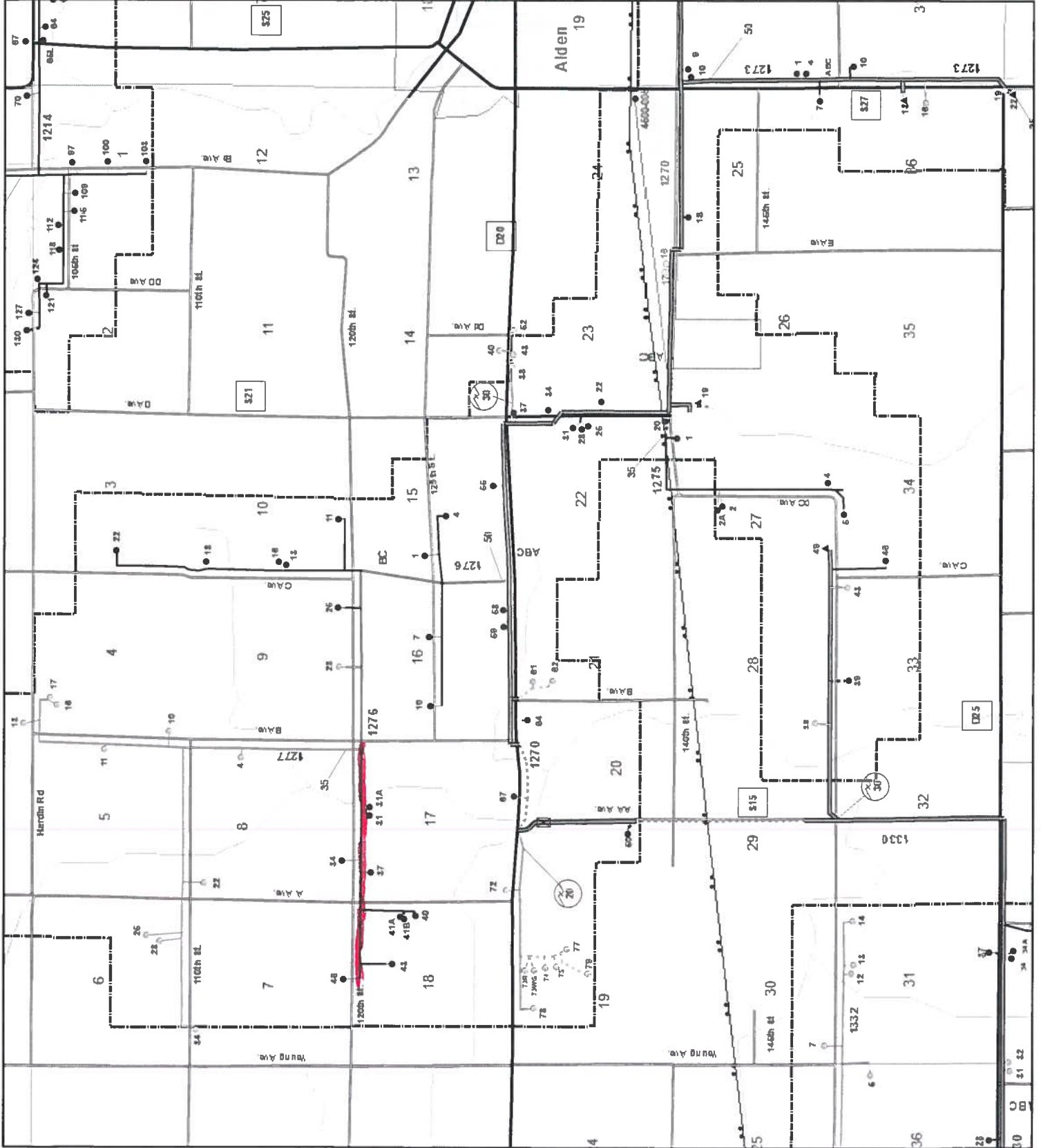
County
HARDIN

Township
ALDEN
T89N R22W

Map No.
66



Date: 1/3/2017



**Midland Power
Cooperative**

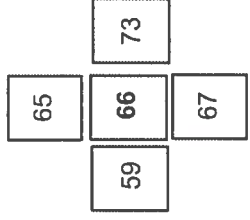


Red = A phase
 Yellow = B phase
 Blue = C phase
 Peach = 2 phase
 GREEN = 3 PHASE

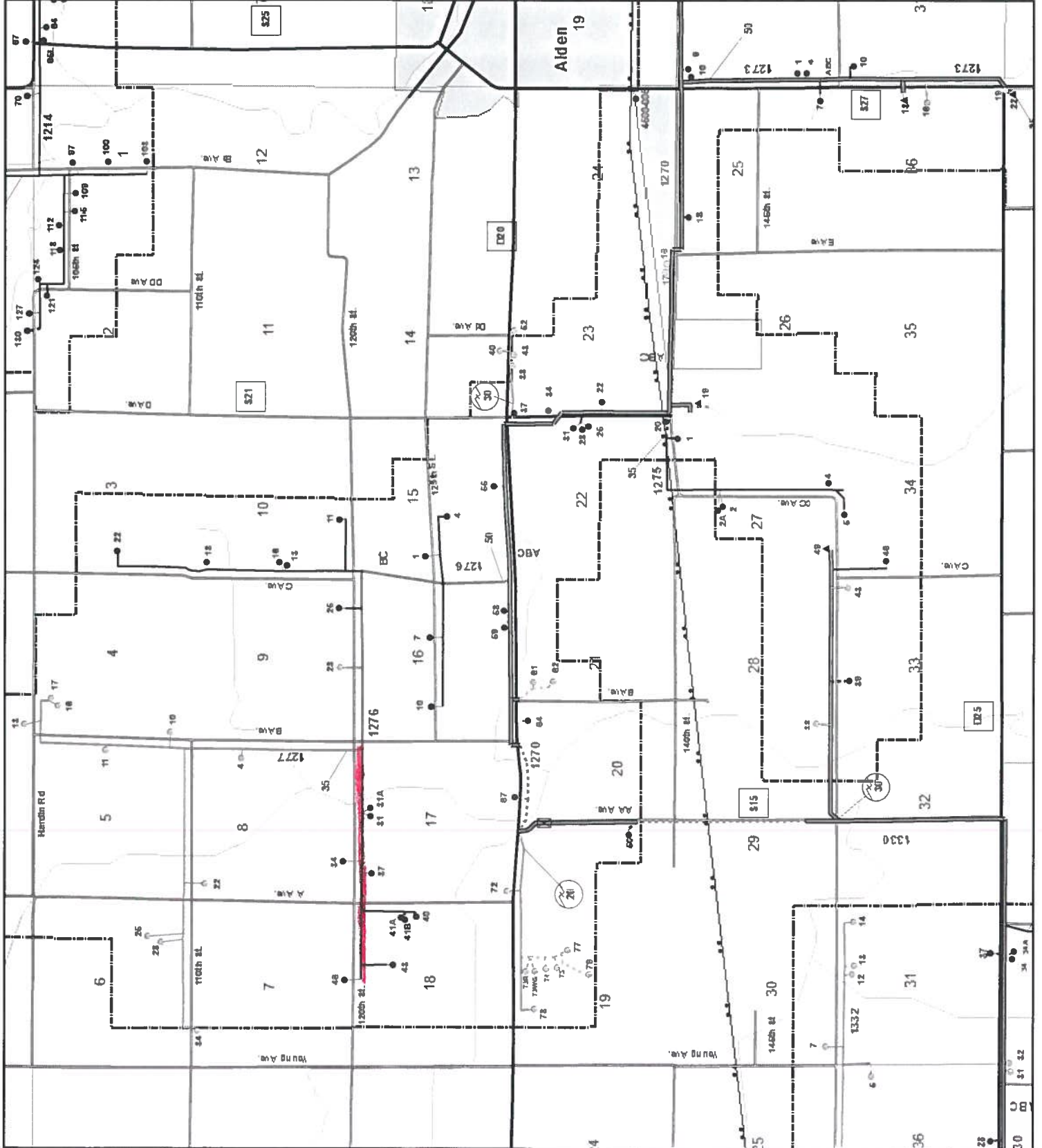
County
 HARDIN

Township
 ALDEN
 T89N R22W

Map No.
 66



Date: 1/3/2017



**Midland Power
Cooperative**



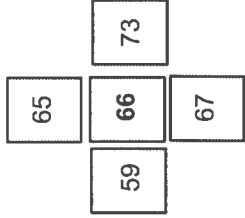
Red = A phase
 Yellow = B phase
 Blue = C phase
 Peach = 2 phase
 GREEN = 3 PHASE

County
HARDIN

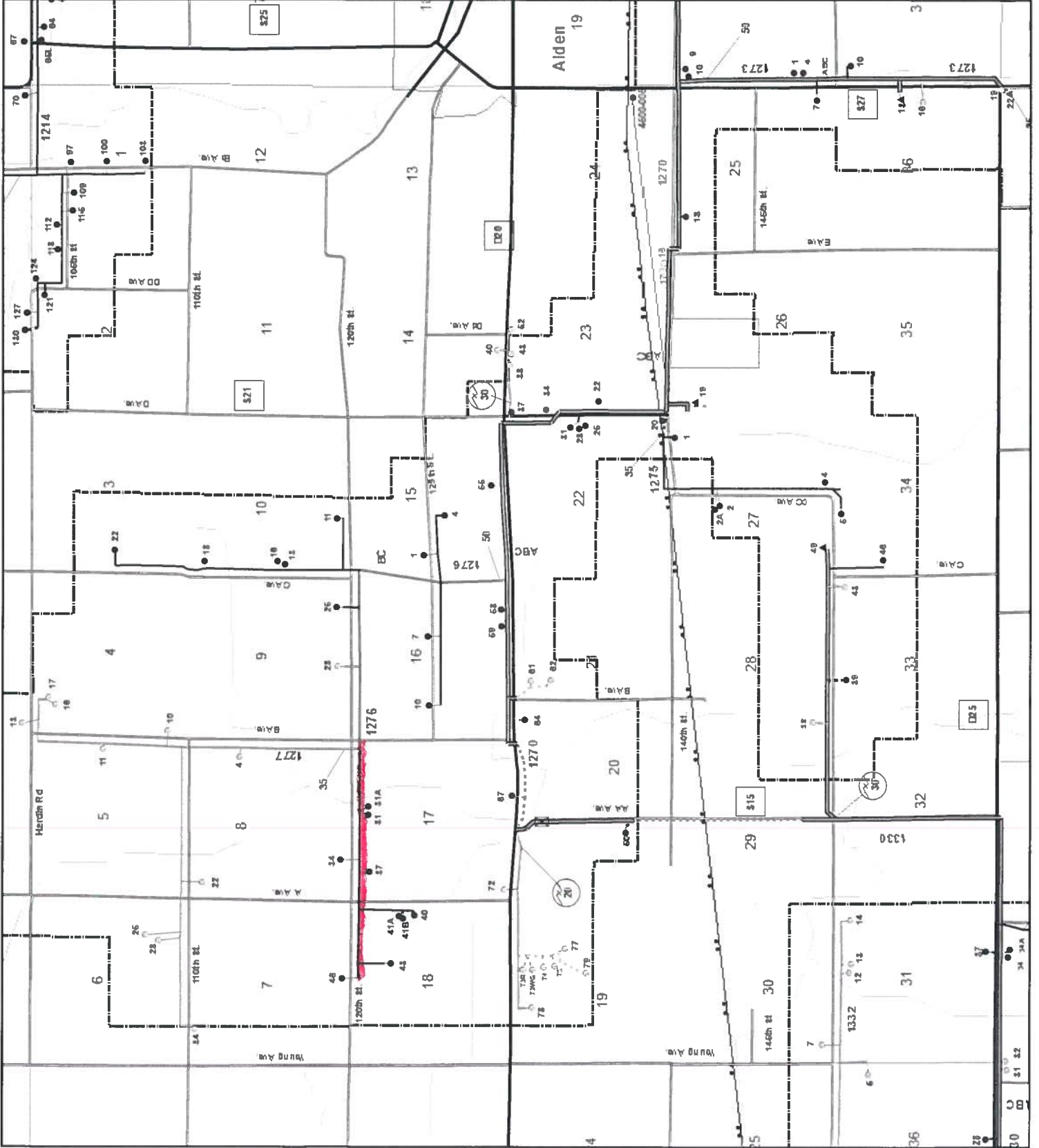
Township
ALDEN

T89N R22W

Map No.
66



Date: 1/3/2017



IOWA 93 MIDLAND POWER COOPERATIVE STAKING SHEET

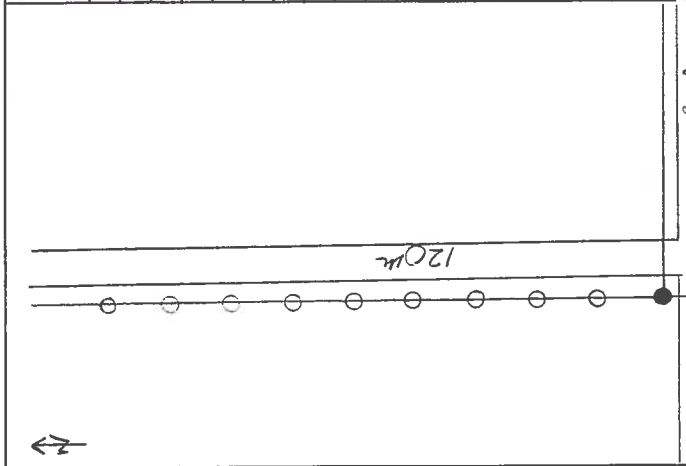
WORK ORDER NO. 13325
740c# 379-1
Staked By CH Date 2/4/20
Sheet No. 1 of 4
Compltd By _____ Date _____

WORK ORDER CODE	
New Construction	<input type="checkbox"/>
System Improvement	<input checked="" type="checkbox"/>
Replacement	<input type="checkbox"/>
Retire No. Replace	<input type="checkbox"/>

County: Hardin
Township: Alden
School Dist.: _____

Sub _____
Feeder _____
Phase C
Line Sec. _____

Map Reference 666 Twp. 89N R. 22W Sec. 17 Wire 2 Size 1/0 Kind ACSR



Pole No.	Pri. (Back) Span.	Poles H & C		Pri. Unit	Line Angle	Trans. "G"	Ground "M2"	Dhm	No.	Unit	Lead	Anchor	SECONDARY		Misc. & Remarks	Unit	No.
		Misc.	140-5										Unit No. J or K	(Back) Span			
10	207		140-5	1	Al.1											J5-5	1
9	238		140-5	1	Al.1											40-5	8
8	238		135-5	1	Al.1											Al.1	9
7	238		140-5	1	Al.1											Al.1	3
6	238		140-5	1	Al.1											Pl.1	2
5	238		140-5	1	Al.1											Pl.1	1
4	238		140-5	1	Al.1											Pl.1	
3	238		140-5	1	Al.1											Pl.1	
2	238		140-5	1	Al.1											Pl.1	
1																	

Order 13327

CONSTRUCTION			
Conductor Pri.	Sec.	O.H.	URD
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Total Feet	No. of Wires	Pole Line Ft.	
4348	2	2111	
TOTALS			

RETIREMENT			
Conductor Pri.	Sec.	O.H.	URD
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Feet	No. of Wires	Pole Line Ft.	
TOTALS			

JOB BRIEFING

Nominal Voltage
 Fault Current Available
 Hazardous Induced Voltg
 Presence Prctive Grds
 Equipment Grounds
 Pole Condition
 Environmental Condition

Loc of Line Prctive Dvc
 Other Utilities in Area
 Personal Prctive Equip
 Traffic Control
 Job Procedure
 Individual Job Duties
 Other Hazards

Crew Initials: 1 2 3 4 5 6

Const. Complt _____
Retmt. Complt _____
Material Ticket Complt _____
500 BH 9-00

IOWA 93 MIDLAND POWER COOPERATIVE

STAKING SHEET

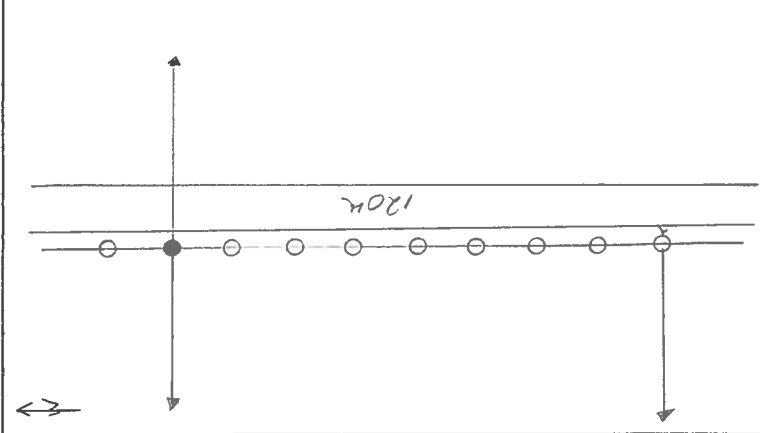
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 740c# 319-1
 Staked By CH Date 2/4/20
 Sheet No. 1 of 4
 Complt'd By _____ Date _____

WORK ORDER CODE	
New Construction	
System Improvement	<input checked="" type="checkbox"/>
Replacement	
Retire No. Replace	

County: Hardin
 Township: Alden
 School Dist.: _____

Sub _____
 Feeder C
 Phase _____
 Line Sec. _____

Map Reference 66 Twp. 89N R. 22W Sec. 17 Wire 2 Size 1/2 Kind ACSR



Pole No.	Pri. (Back) Span.	Poles H & C		Pri. Unit	Line Angle	Trans. "G"	Ground "M2"	Ohm	No.	GUY		Anchor "F"	SECONDARY		Misc. & Remarks	Unit	No. CONST.	RET.
		Misc.	Misc.							Unit "E"	Unit No. J or K		(Back) Span	Size Meter				
20	225	40-5	1	A11											35-5	8		
19	227	40-5	1	A11	175.1		H11							1276-034/037	40-5	1		
18	227	35-5	1	A11			H11	P11							A1.1	9		
17	227	35-5	1	A11			H11	P11							A5.1	1		
16	227	35-5	1	A11			H11	P11							H1.1	3		
15	227	35-5	1	A11			H11	P11							P1.1	2		
14	227	35-5	1	A11			H11	P11							E1.1	1		
13	227	35-5	1	A11			H11	P11							F1.12	1		
12	227	35-5	1	A11			H11	P11										
11	154	35-5	1	A11	151		H11			1	E1.1	12'N F1.12		1276-031/031A				

JOB BRIEFING

Nominal Voltage _____
 Fault Current Available _____
 Hazardous Induced Voltg _____
 Presence Protective Grds _____
 Equipment Grounds _____
 Pole Condition _____
 Environmental Condition _____

Crew Initials 1 2 3 4 5 6

CONSTRUCTION

Conductor	Pri.	Sec.	O.H.	URD	Pole Line Ft.	No. of Wires	Total Feet
1/0 ACSR	X		X		2195	2	4521
TOTALS							

RETIREMENT

Conductor	Pri.	Sec.	O.H.	URD	Pole Line Ft.	No. of Wires	Total Feet
TOTALS							

Const. Complt _____
 Retmt. Complt _____
 Material Ticket Complt _____
 500 BH 9-00

IOWA 93 MIDLAND POWER COOPERATIVE

STAKING SHEET

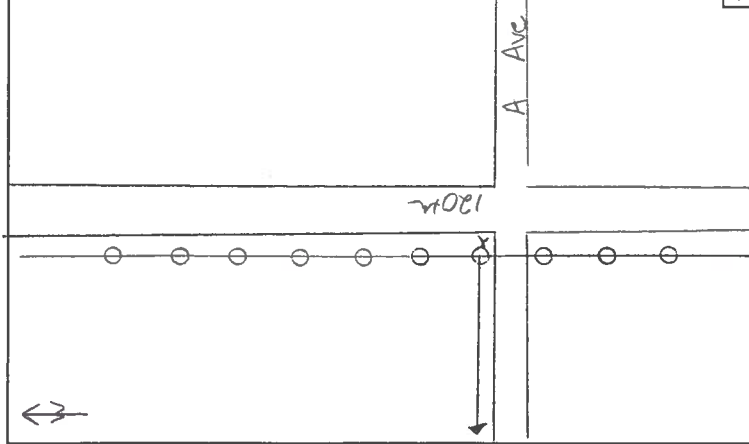
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 740c# 319-1
 Staked By CH Date 2/4/20
 Sheet No. 3 of 4
 Complitd By _____ Date _____

WORK ORDER CODE	
New Construction	<input type="checkbox"/>
System Improvement	<input checked="" type="checkbox"/>
Replacement	<input type="checkbox"/>
Retire No. Replace	<input type="checkbox"/>

County: Hardin
 Township: Alden
 School Dist.: _____

Sub 12
 Feeder 7
 Phase C
 Line Sec. _____

Map Reference 66 Twp. 89N R. 22W Sec. 18 Wire 2 Size 10 Kind ACSR



Pole No.	Pri. (Back) Span.	Poles H & C		Ground	Line Trans. "G"	Line Angle	GUY	Anchor "F"	SECONDARY		Misc. & Remarks	Unit	No. CONST.	RET.
		Misc.	Pri. Unit						Unit "E"	310				
30	222	135-5	1 A11									35-5	6	
29	222	135-5	1 A11									40-5	4	
28	222	135-5	1 A11	H1.1 P1.1								A1.1	10	
27	222	135-5	1 A1.1									A5.1	1	
26	222	135-5	1 A1.1									H1.1	3	
25	222	135-5	1 A1.1									P1.1	2	
24	225	140-5	1 A1.1	H1.1	A5.1			9' N F1.12				E1.1	1	
23	225	140-5	1 A1.1	H1.1 P1.1								F1.12	1	
22	225	140-5	1 A1.1											
21	225	140-5	1 A1.1											

CONSTRUCTION

Conductor	Pri.	Sec.	O.H.	URD	Pole Line Ft.	No. of Wires	Total Feet
1/0 A50	X	X	X		2232	2	4597
TOTALS	X	X	X	X			

RETIREMENT

Conductor	Pri.	Sec.	O.H.	URD	Pole Line Ft.	No. of Wires	Total Feet
TOTALS	X	X	X	X			

JOB BRIEFING

Nominal Voltage
 Fault Current Available
 Hazardous Induced Voltg
 Presence Protective Grids
 Equipment Grounds
 Pole Condition
 Environmental Condition

Loc of Line Prctive Dvc
 Other Utilities in Area
 Personal Prctive Equip
 Traffic Control
 Job Procedure
 Individual Job Duties
 Other Hazards

Crew Initials 1 2 3 4 5 6

Const. Complt _____
 Retmt. Complt _____
 Material Ticket Complt _____
 500 BH 9-00

IOWA 93 MIDLAND POWER COOPERATIVE

STAKING SHEET

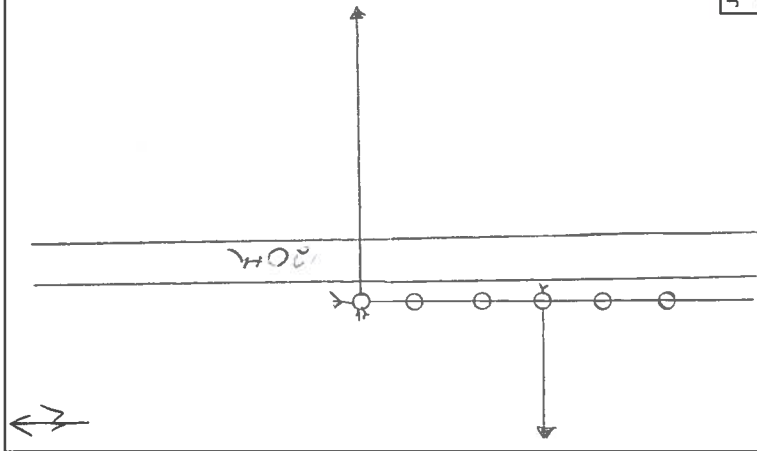
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 740c# 319-1
 Staked By CH Date 2/4/20
 Sheet No. 4 of 4
 Complt'd By _____ Date _____

WORK ORDER CODE	
New Construction	
System Improvement	<input checked="" type="checkbox"/>
Replacement	
Retire No. Replace	

County: Hardin
 Township: Alden
 School Dist.: _____

Sub 12
 Feeder 7
 Phase C
 Line Sec. _____

Map Reference Lele Twp. 89N R 22W Sec. 18 Wire 2 Size 1/6 Kind ACSR



Pole No.	Pri. (Back) Span.	Poles H & C		Line Trans. Angle "G"	Ground "M2" Ohm	GUY Unit "E"	Anchor "F"	SECONDARY		Misc. & Remarks	Unit	No. CONST.	RET.
		Misc.	Misc.					Unit No. J or K	(Back) Span Meter				
36	240	40-5	41		H11	3 E11	25' W 6" 6.3 F1.12				35-5	5	
35	240	35-5	1 A11								40-5	1	
34	240	35-5	1 A11		H11 P11						A1.1	5	
33	222	35-5	1 A11	AS1	H11	1 E11	12' N F1.12			1276-043	A5.1	1	
32	222	35-5	1 A11								H1.1	3	
31	222	35-5	1 A11								P1.1	1	
											E1.1	4	
											F1.12	4	

CONSTRUCTION

Conductor	Pri.	Sec.	O.H.	URD	Pole Line Ft.	No. of Wires	Total Feet
1/2 ACSR	X	X	X		1386	2	2855
TOTALS							X

RETIREMENT

Conductor	Pri.	Sec.	O.H.	URD	Pole Line Ft.	No. of Wires	Total Feet
TOTALS							X

JOB BRIEFING
 Nominal Voltage _____
 Fault Current Available _____
 Hazardous Induced Voltg _____
 Presence Prctive Grds _____
 Equipment Grounds _____
 Pole Condition _____
 Environmental Condition _____

Loc of Line Prctive Dvc _____
 Other Utilities in Area _____
 Personal Prctive Equip _____
 Traffic Control _____
 Job Procedure _____
 Individual Job Duties _____
 Other Hazards _____

Crew Initials 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____

Const. Complt _____

Retmnt. Complt _____

Material Ticket Complt _____

500 BH 9-00