



**IMU Board of Trustees
December 22, 2014
City Hall Council Chambers
5:30 p.m.**

Agenda

1. Roll Call
2. Consent
 - A. Merit Award
 - B. Minutes
 - C. Claims
3. Reports
 - A. General Manager
 - B. Chairperson
 - C. Director of Finance
4. Discussion of IMU Logo
5. Electric Transmission and Distribution Systems Inspection and Maintenance Plan
6. Discuss the 2015 Water Utility 5-Year Capital Improvement Plan
7. Engineering Services for 2015 Water Main Improvements
8. Issue Notice of Letting for Filter Building (Old Water Plant) Demolition
9. Hwy 92 Transmission Relocation Project - Vanderpool Construction Contract - Certificate of Final Completion
10. Hwy 92 & I-35 Transmission Relocation Project - Certificate of Final Completion
11. Hwy 92 Transmission Relocation Project - Amendment to MEC Bill of Sale
12. Selection of 2015 Officers
13. Other Business

14. Adjourn

Meeting Date: 12/22/2014

Information

Subject

Merit Award

Information

Eric Lane was selected by his peers as the 2014 IMU Employee of the Year. Several notable instances of excellent customer service, working "above and beyond" basic requirements, and helping construct the fiber network were provided in his nomination form. IMU has a Merit Award system to recognize this level of effort, and as such it is recommended that Eric receive a \$100 award.

The Employee of the Year serves as IMU's nominee at the annual awards banquet.

Financial Impact

N/A

Staff Recommendation

IMU Regular Downstairs
Meeting Date: 12/22/2014

2. B.

Information

Subject

Minutes

Information

Minutes of the December 8, 2014 Trustee meeting are attached.

Financial Impact

N/A

Staff Recommendation

Attachments

Minutes

BOARD OF TRUSTEE MINUTES
REGULAR SESSION – DECEMBER 8, 2014

The Board of Trustees met in regular session at 5:30 p.m. on December 8, 2014 in the City Hall Council Chambers. Vice Chairperson Grant Johnson called the meeting to order and on roll call the following members were present: Grant Johnson, Pat Reding, and Deb White. Absent: Heather Hulen and Eric Vander Linden

The consent agenda consisting of the following was approved on a motion by Reding and seconded by White. Question was called for and on voice vote the Vice Chairperson declared the motion carried unanimously.

December 1, 2014 claims

November 24, 2014 minutes

Salary – John Kmet, Meter Reader II, from Range 19-3 \$20.419/hour to Range 19-4 \$21.228/hour effective December 5, 2014

Ratification of Resolution Authorizing Review of Disclosures and Participation in the Municipalities Disclosure Coop. Initiative

A motion was made by White and seconded by Reding to approve the November 2014 Treasurer's Report and budget variance reports. Question was called for and on voice vote the Chairperson declared the motion carried unanimously.

General Manager Todd Kielkopf updated the Board on the revised Strategic Plan draft which clarifies that this plan does not envision IMU initiating external marketing campaigns but it does help guide the approach, themes and methods by which IMU communicates with current and prospective businesses and citizens. General Manager Todd Kielkopf also updated the Board on the new IMU logo. It was the consensus of the Board to discuss the new IMU logo at the December 22, 2014 meeting.

Todd Kielkopf, General Manager, update the Board on the IMU Partners Program including:

- Promotional efforts – A news release was prepared that promotes Indianola's evolving technology assets and programs.
- Web site – IMU staff and Nolasoft are in the process of designing the www.imupartners.com site
- Channel 2 – this has been delayed until at least 20 minutes of looped content has been submitted.
- Associate members – There have been businesses that have verbally expressed intentions to join.
- Committees – A group has met with Indianola Schools to start conversation about integrating school sports content into Channel 2 programming.
- Emerge – Information was provided regarding activities under IDA management services agreement with IMU Partners.

Continued on Page 131

BOARD OF TRUSTEE MINUTES
REGULAR SESSION – DECEMBER 8, 2014 (Continued)

Board member White introduced the following Resolution entitled, “RESOLUTION ORDERING CONSTRUCTION OF CERTAIN PUBLIC IMPROVEMENTS (2015 W. Hwy 92 and “Y” Street Intersection Relocation Project) AND FIXING A DATE FOR HEARING (January 26, 2015) AND TAKING OF BIDS (January 16, 2015)”, and moved that it be adopted. Board member Reding seconded the motion to adopt. The roll was called and the vote was, AYES: Reding, Johnson and White. NAYS: None. ABSENT: Hulen and Vander Linden. Whereupon the Vice Chairperson declared the following resolution duly adopted:

RESOLUTION ORDERING CONSTRUCTION OF CERTAIN PUBLIC IMPROVEMENTS (2015 W.
Hwy 92 and “Y” Street Intersection Relocation Project) AND FIXING A DATE FOR HEARING
(January 26, 2015) AND TAKING OF BIDS (January 16, 2015)

(The complete resolution may be viewed at the City Clerk’s Office)

Meeting adjourned on a motion by Reding and seconded by White.

Grant Johnson, Vice Chairperson

Diana Bowlin, City Clerk

Information

Subject

Claims

Information

The December 15, 2014 Claims List was distributed last week.

Financial Impact

N/A

Staff Recommendation

Information

Subject

Administrative News Items

Information

Notable items and events for the week are attached.

Financial Impact

N/A

Staff Recommendation

Information

Subject

Discussion of IMU Logo

Information

IMU staff initiated a review process of the IMU logo in August of 2014. IMU has used evolving versions of the electric plug & water drop logo (see attached) for many years.

Incorporating a Network Services graphic has been attempted several times prior to 2014, but has not resulted in consensus.

There were 30-35 logos reviewed between August and the end of November in anticipation of having a new logo for recognizing the Electric Utility's 125th anniversary of public power. The staff team evaluated options and sought internal feedback at various points. Characteristics that kept returning included the blue/black color scheme and the block letter font.

A consensus developed that proposed graphics were not necessarily enhancing the overall look of logos. Therefore, one more similar to a set of other municipal utilities (see attached) was preferred, such that they focus mainly on the utility's name and services provided, which may change over time.

At this point, staff needs direction or confirmation in order to proceed with making changes.

Financial Impact

N/A

Staff Recommendation

Attachments

Old Logo

Utility Logos

New logo

INDIANOLA MUNICIPAL UTILITIES



Electric • Network Services • Water



Denison Municipal Utilities



IOWA
ASSOCIATION OF MUNICIPAL
UTILITIES



Coon Rapids Municipal Utilities

INDIANOLA MUNICIPAL UTILITIES



Electric • Network Services • Water

Meeting Date: 12/22/2014

Information

Subject

Adoption of Electric System Inspection and Maintenance Plan

Information

Attached is a revised Electric Transmission and Distribution Systems Inspection and Maintenance Plan.

Once adopted, it is filed with the Iowa Utilities Board (IUB), who has jurisdictional authority over the safety aspects of Iowa's municipal electric utilities.

The plan provides staff direction in setting priorities for system maintenance and improvement projects. It then communicates those methods to IUB inspectors, who inspect sections of the system to determine if IMU is indeed following its adopted plan.

Maps are incorporated into the plan that graphically show how inspection rotates over time.

Changes from the former plan include:

1. Reference list updates
2. Grain Bin notification updates
3. Overhead inspection area updates (to reflect underground construction)
4. Inspection schedule updates

Technical Services Coordinator Mike Metcalf will attend to answer questions.

Financial Impact

N/A

Staff Recommendation

Simple motion adopting the attached plan, as presented, is in order.

Attachments

Plan draft

***Electric Transmission and Distribution
Inspection and Maintenance Plan***

INDIANOLA MUNICIPAL UTILITIES



Plan date: APRIL 1, 2002

Revisions: December 22, 2014

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SECTION 1

INTRODUCTION

IMU is dedicated to an uninterrupted power supply for the residents and businesses of the City of Indianola. IMU believes the best way to meet this need is an extensive maintenance and preventive maintenance program. The program pertains to the Transmission and Distribution powerlines and all fixtures included in that system. An inspector will inspect each line and fixture over a (10) year period. The maintenance/preventive maintenance program will reveal fixtures that are in need of repair before an outage would occur. The maintenance/preventive maintenance program will also address old or out-dated construction that requires replacement.

IMU is determined to take corrective actions when a powerline or a fixture is deficient or unsatisfactory. The inspection program is a reflection of those standards.

Locations of Offices and Facilities – IAC 199-25.3

Utility Name: INDIANOLA MUNICIPAL UTILITIES

Address PO BOX 356
111 SOUTH BUXTON ST.
INDIANOLA, IOWA 50125

PHONE (515) 961-9444 FAX (515) 961-9439

WEBSITE I-M-U.COM

Location of Inspection Records

Address INDIANOLA MUNICIPAL UTILITIES
111 SOUTH BUXTON ST.
INDIANOLA, IOWA 50125

Description of the Location of Electric Supply Lines by this Plan:

COUNTIES

WARREN

MADISON

TOWNSHIPS

WASHINGTON

Range 24 & 23 W. Township 76 North

LINCOLN

Range 23 & 24 W. Township 76 North

JEFFERSON

Range 25 W. Township 76 North

CRAWFORD

Range 26 W. Township 76 North

SECTION 2

Electric Transmission and Distribution Inspection and Maintenance Plan

Utility: **Indianola Municipal Utilities**
 111 South Buxton Street
 Indianola, IA 50125

Phone: **515-961-9444**

This inspection will be done in an approved manner consistent with accepted industry practice.

Records sufficient to show compliance with the program shall be maintained by the utility.

Deficiencies found during inspections and testing shall be corrected on a priority basis.

REFERENCE LIST:

Iowa Electrical Safety Code, 199 IAC Chapter 25

National Electrical Safety Code, as adopted by 199 IAC 25.2(1) and modified by 199 IAC 25.2(2)

Lineman's and Cableman's Handbook, as adopted by 199 IAC 25.2(5)b

National Electrical Code, as adopted by 199 IAC 25.2(5)a

ELECTRIC UTILITY INSPECTION AND MAINTENANCE PROGRAM INDIANOLA MUNICIPAL UTILITY

Part I Inspection Schedule

1. Lines operated below 34.5 kv

The entire electrical distribution system shall be visually inspected at least once during each 10-year cycle. The inspection shall include, but shall not be limited to, the following items:

- A. Pad mount transformers
- B. Locks and seals
- C. Switching cabinets
- D. High voltage switches
- E. Secondary pedestals and vaults
- F. Underground riser cable and guards
- G. Pole mounted transformers
- H. Ground connections
- I. Guys, guy anchors and guy guards
- J. Cutouts, arresters and switches
- K. Clearance to structures, ground and trees
- L. Conductor condition and sag
- M. Cross arms, insulator and pole top hardware
- N. Pole condition at and above the ground

2. Lines operated above 34.5 kv

The entire electrical transmission system shall be visually inspected at least once each year. The inspection shall include, but not be limited to, the following items:

- A. Pole condition at and above the ground
- B. Cross arm, insulators and pole top hardware
- C. Conductor condition and sag
- D. Clearance to structure, grounds and trees
- E. Guys, guy anchors and guy guards
- F. Ground connections
- G. Locks and seals

3. Substations and switching stations

Substations and switching stations shall be visually inspected monthly. The inspection shall include, but shall not be limited to, the following items:

- A. Power transformer
- B. Voltage regulators
- C. Oil circuit breakers
- D. Insulators, busses, connections, arresters and ground wires
- E. Air break and disconnect switches
- F. Structures and physical site
- G. Locks, fences, gates and warning signs

4. Vegetation and tree trimming

Vegetation and trees that may interfere with the safe operation of electric lines, substations and switching stations shall be visually inspected at least once every 5-years.

The records of vegetation management shall include the date (s) during which the work was conducted. The records shall be kept until two years after the next periodic inspection or vegetation management action is completed or until all necessary repairs and maintenance are completed, whichever is longer.

The Indianola Municipal Utilities (IMU) Board of Trustees establishes a policy to allow for systematic trimming of trees and bushes in the area of overhead and underground power and communication lines of the Indianola Municipal Electric and Communications Utilities.

The Board desires to insure that Indianola's electrical service and communications facilities will not be unnecessarily interrupted by uncontrolled vegetative growth, but at the same time, maintain an ecological balance with the environment and ensure good public relations.

An effort shall be made to remove all vegetative growth within six (6) feet of an overhead or underground power line of fixture or communications line, which is located within a street right-of-way or in an easement area, which permits the desired trimming.

Before trimming trees or bushes or any other vegetative growth that are growing on private property, the IMU electric department shall give the affected resident and tree owner a seven (7) day advanced written notice of the intent to trim. The resident or owner is not authorized to trim the undesirable growth of trees affecting overhead electric lines themselves. They do have the option to hire a third party contractor, at their own expense, to do the work.

If a third party contractor is selected, the resident must notify IMU within the seven (7) day

advanced notice of the name of the contractor who will do the trimming. The contractor must be qualified to perform trimming on overhead power lines and the trimming must be done in a professional manner. A bare minimum six (6) foot clearance for the power line and/or communication line is required and may result in a routine, repetitive trimming schedule. Trimming must be completed within 30 days of the original notice of intent to trim and the third party trimming company shall be responsible for the disposal of all debris generated from the trimming work.

Written notice to the resident may be accomplished by hand delivery to the residence or by ordinary mail and shall be effective without determining ownership of the property in question or proving receipt of notice by the resident. The written notice to the resident shall advise, at least in an abbreviated form, of the potentially extreme and/or fatal dangers or trimming vegetative growth in the area of overhead or underground power lines and facilities, and that they are prohibited from trimming the trees because of the potential dangers.

Indianola Municipal Utilities refers to the latest addition of the Lineman's and Cableman's Handbook and the ANSI A300.

The inspection shall include, but not be limited to, the following items:

- A. Overhead Distribution and Transmission Lines
 - 1. Trees growing into lines
 - 2. Limbs and branches overhanging lines
 - 3. Limbs and branches in close proximity to transformers, switches, etc.
 - 4. Vegetation around base of pole, guy or guy guard, grounds
 - 5. Removal of dead or dying trees that are not necessarily close but could fall on line or endanger it (Danger Trees)
- B. URD Distribution Equipment
 - 1. Vegetation in or around pad mount equipment
 - 2. Fences in close proximity or blocking cabinet entry
 - 3. Any other obstruction that may interfere with operations

Part II Classification of Deficiencies

Deficiencies will be recorded and graded for the purpose of scheduling repair. The grading will be as follows:

Grade 1 – Hazardous Deficiency

This grade is used to describe a condition that could reasonably be expected to endanger life or property. A hazardous deficiency shall be promptly repaired, disconnected or

isolated. (See National Electrical Safety Code, Rule 214A5)

Grade 2 – Non-Conforming Deficiency

This grade is used to describe a condition that is not in accordance with local, state or national codes. Such a deficiency is one that could cause maintenance or operating problems and could become hazardous if not corrected. A non-conforming deficiency shall be scheduled for correction as soon as practical within the work plan. In all cases, they shall be corrected within a 6-month period following inspection. (See National Electrical Safety Code, Rule 214A4)

Grade 3 – This grade is used to describe a condition that poses no danger to life or property. Such a deficiency, when corrected, could improve engineering, design or safety on the system. An engineering deficiency may be corrected in the routine maintenance or replacement schedule.

Part III Other Inspections

More detailed inspection and testing may be conducted as deemed necessary by the utility.

Additional inspection or patrols will be carried out following damaging storms and as necessary in areas subject to high rates of vandalism.

All inspections will be done in an approved manner consistent with accepted industry practice.

Part IV Emergency Notice and Repair (199 IAC 42.4)

If emergency repairs or non-routine maintenance need to be performed within a railroad right-of-way, it is important that immediate notification be given to other entities with facilities that may be affected. Each public utility must file with the IUB contact information for emergency notifications 24-hours per day, 7-days per week. (See 199 IAC 42.4(2))

Part V Records

Records sufficient to show compliance with the program shall be maintained by the utility. Deficiencies found during inspections and testing will be corrected on a priority basis.

Part VI Incident Reporting Requirements (199 IAC 20.19)

What to report:

Any outage that may last longer the 6-hours (Applies as noted below)

Substantially all of an incorporated city or town (75%)

Utilities with 50,000 or more customers

- Loss of 20% of established zone

Utilities with 4,000 to 50,000 customers

- Loss of service to 25% or more of total customers

Any Major Event as defined in 20.18(4)

- Extensive physical damage due to unusually severe or abnormal weather or event
- Wind speeds in excess of 90-mph
- One-half inch of ice is present and wind speed exceeds 40-mph
- 10% of the affected area total customer count is incurring a loss of service for 5-hours or more
- 20,000 metropolitan area customers out for 5-hours or more

Any other outage considered significant by the utility = An unusual event that attracts news media attention, creates unusual damage to utility facilities, utility facilities create unusual damage to adjacent properties, cause loss or problem for high profile public facilities.

Email to: iubdutyofficer@iub.iowa.gov or Phone: 515-745-2332

NOTES

1. Customer numbers can be based on the last available year-end number as reported to the IUB annually,, OR can be based on the best available guesstimate. Nobody is going to count noses or split hairs. Ball park it, better safe than sorry.
2. As soon as you get a feel for a situation and think it might fall into above criteria report it.

This is a summary reference for revised incident reporting rules and does not replace the actual text or meaning of the rules published in the Iowa Administrative Code).

INSTRUCTIONS TO INSPECTORS

Purpose: The purpose for the inspection is to determine whether a facility is (1) in compliance with applicable codes and standards, (2) in need of maintenance or corrective action, (3) requires further investigation, or (4) in acceptable condition.

Guidelines and code requirements for the conduct of inspection can be found in:

1. ANSI A300 (Part I), as suggested by 199 IAC 25.3(%) – Tree, Shrub and Other Woody Plant Maintenance – Standard Practices (Pruning)
2. 199 IAC Sections 20.5, 20.7 ad 20.8
3. Iowa Electrical Safety Code 199 IAC Section 25
4. Lineman's and Cableman's Handbook, as adopted by 199 IAC 25.2(5)b
5. National Electrical Code, as adopted by 199 IAC 25.2(5)a
6. National Electrical Safety Code, as adopted by 199 IAC 25.2(1) and modified by 199 IAC 25.2(2)
7. RUS 1730-1: "Electric System Operation and Maintenance (O&M)"
8. RUS 1730B-121: "Pole Inspection and Maintenance"
9. RUS 1724E-300: "Design Guide for Rural Substations"

Note: NEC and NESC are updated periodically and adopted by the IUB approximately every 2-4 years. Previous editions must be kept for reference.

TRANSMISSION AND DISTRIBUTION SYSTEM INSPECTION GUIDELINES

A. Poles

1. Leaning (2 foot or more out of line at top)
2. Rotting
3. Splitting
4. Burns
5. Insect damage
6. Mechanical damage
7. Pole numbers where applicable

B. Metal Structures

1. Loose structural elements
2. Oxidation
3. Footings
4. Grounding (intended or unintended)

C. Cross Arms

1. Rotting
2. Splitting
3. Bracing
4. Brounding
5. Pins

D. Hardware

1. Missing
2. Loose
3. Bent, twisted
4. Burns
5. Too close to ground

E. Insulators

1. Chipped
2. Broken
3. Flash over
4. Deterioration
5. Floating

F. Conductor Clearances

1. Above ground or water
 - Open Ground
 - Roads, driveways, parking lots
 - Railroads
 - Water
2. Attached building
3. Conductor Separation
 - Other conductors
 - Communication lines
 - CATV
 - Pole mounted equipment
4. Roof, walls, windows, metal surfaces
 - Buildings
 - Tanks
 - Towers
 - Poles
 - Grain Bins
5. Trees and vegetation

G. Conductors

1. Broken strands
2. Burns
3. Twisted
4. Ties
5. DE shoes
6. Sag
7. Armor rod
8. Dampeners
9. Splices

H. Guys

1. Insulated or grounded
2. Markers (including length and color)
3. Loose or cut
4. Damaged or broken strands
5. Condition, location of isolation device
6. Anchor eye

I. Miscellaneous

1. Clearances to (fire hydrants, gas storage, roadways)
2. Climbable towers
3. Warning signs

4. Barriers
 5. Material stacked near or under towers
 6. Aircraft warning devices
 7. Equipment not in service that needs to be removed
 8. Obstructions on structures
- J. Equipment (including transformers, switches, arrestors, etc.)
1. Jumpers
 2. Hardware
 3. Grounding
 4. Nests
 5. Accessibility
- K. Grounds
1. Broken or disconnected wires
 2. Loose pole grounds
 3. Exposed ground rods

Inspection Program For Substations

General Visual Inspection

Substations shall be inspected monthly. Inspections shall include but not be limited to the following items:

- A. Power transformers
- B. Voltage and voltage regulators
- C. Oil circuit breakers
- D. OCRs and oil switches
- E. Airbrake and disconnect switches
- F. Bypass switches
- G. Miscellaneous electrical equipment, insulators, buses and connections, arrestors, capacitors and overhead ground wires
- H. Structures and physical site
- I. Locks on switches, enclosures, gates
- J. Warning signs
- K. Ground vegetation
- L. Grounding of fences, barbed wire, gates, etc.

Additional inspections will be carried out following damaging storms as necessary.

Annual Inspection of Substations

A comprehensive inspection and testing of each substation shall be made on an annual basis. This inspection will include but not be limited to the following items:

- A. Indicating and recording equipment
- B. Controls, relays, batteries and chargers
- C. Oil tests
- D. OCR maintenance
- E. Ground connection tests on station, fences, gates
- F. Corrosion control

Underground Distribution System Inspection Guidelines

- A. Equipment (transformers, sectionalizing equipment, switch gears, etc.)
 - 1. Warning signs
 - 2. Locks
 - 3. Penta bolts
 - 4. Missing or loose hardware
 - 5. Tipped or leaning equipment
 - 6. Grounding

- B. Underground
 - 1. Riser
 - 2. Grounded (elbows, stress cones, etc.)
 - 3. Ground rod(s) and connections
 - 4. Well inserts leaking
 - 5. Secondary Bushings
 - 6. Insect, varmint free

Vegetation and Tree Trimming Inspection Guidelines

Vegetation and trees that may interfere with the safe operation of electric lines, substations and switching stations shall be visually inspected at least once every 5-years.

The inspection shall include, but shall not be limited to, the following items:

A. Overhead Distribution and Transmission Lines

1. Trees growing into lines
2. Limbs and branches overhanging lines
3. Limbs and branches in close proximity to transformers, switches, etc.
4. Vegetation around base of pole, guy, guy guard, ground
5. Removal of dead or dying trees that have a potential to fall into lines or endanger it (Danger Trees)

B. URD Distribution Equipment

1. Vegetation in or around pad mount equipment
2. Fences in close proximity or blocking cabinet entry
3. Any other obstruction that may interfere with operations

SUBSTATION MONTHLY INSPECTION

SUBSTATION: _____

DATE: _____

WEATHER: _____

TIME: _____

INSIDE CONDITION:

CHECK THE INSTRUMENT LIGHTS, EMERGENCY LIGHTS, HEATING/COOLING EQUIPMENT, FIRE EXTINGUISHERS, BUILDING LIGHTING AND GENERAL CONDITION OF BUILDING.

WHAT RELAY FLAGS WERE RESET:

BATTERIES:

FLUID LEVELS, TERMINALS, RACKS, CONTD.

CHARGER READING:

VOLTS _____ AMPS _____

OUTSIDE CONDITION:

LIGHTING, FENCE, WARNING SIGNS, GATES LOCKED, GRASS, GENERAL CONDITION

TRANSFORMER:

LEAKS, FANS, PRESSURE, TEMPERATURE, AND GENERAL CONDITION

RECORD L.T.C. READINGS

MIN. _____ MAX. _____ TAP POSITION. _____ CURRENT COUNT. _____

GAS PRESSURE. _____

TEMPERATURE:

TRANSFORMER. _____ LTC. _____

OIL LEVEL:

TRANSFORMER. _____ LTC. _____

COMMENTS:

IMU Inspection / Work Order Form

**Type: 69KV
Transmission**

Date: _____

Inspected by: _____

Location	Items That Need Attention	Actions Taken	Deficiency Grade	Date Completed	Completed By

IMU Inspection / Work Order Form

Date: _____

Type:
Maintenance

Inspected by: _____

Location	Items That Need Attention	Actions Taken	Deficiency Grade	Date Completed	Completed By

IMU Inspection / Work Order Form

Date: _____

Type:
Underground

Inspected by: _____

Location	Items That Need Attention	Actions Taken	Deficiency Grade	Date Completed	Completed By

IMU Inspection / Work Order Form

Date: _____

Type:
Vegetation

Inspected by: _____

Location	Items That Need Attention	Actions Taken	Deficiency Grade	Date Completed	Completed By

ME-1

INDIANOLA MUNICIPAL UTILITIES ANNUAL REPORT

Please indicate (check appropriate box) either certification of compliance, or provide a detailed statement on areas of noncompliance with your utilities program of periodic inspection, replacement and repair of electric plant required by Sub-rule 199-20.5(5) and Rule 25.3 IAC (RMU-82-18).

☐

Compliance is as to inspection replacement and repair is hereby certified.

☐

Detailed statement of area of noncompliance as follows:

(insert additional sheets as required for detailed statement)

OPTIONAL- Indicate estimate state (month and year) of completion of next cycle of periodic inspection, replacement and repair of electric plant in the following categories to facilitate staff audit of compliance:

- A. Lines above 34.5 KV
- B. Substations
- C. General inspection of distribution (under 34.5 KV)
- D. Testing each pole
- E. Neutral to soil resistivity tests
- F. (all other categories as needed)

Insert additional sheets as needed, to indicate various dates or regions of staggered cycles, if desired.

UTILITY OFFICIAL RESPONSIBLE FOR ABOVE CERTIFICATION

NAME

TITLE

SECTION 3

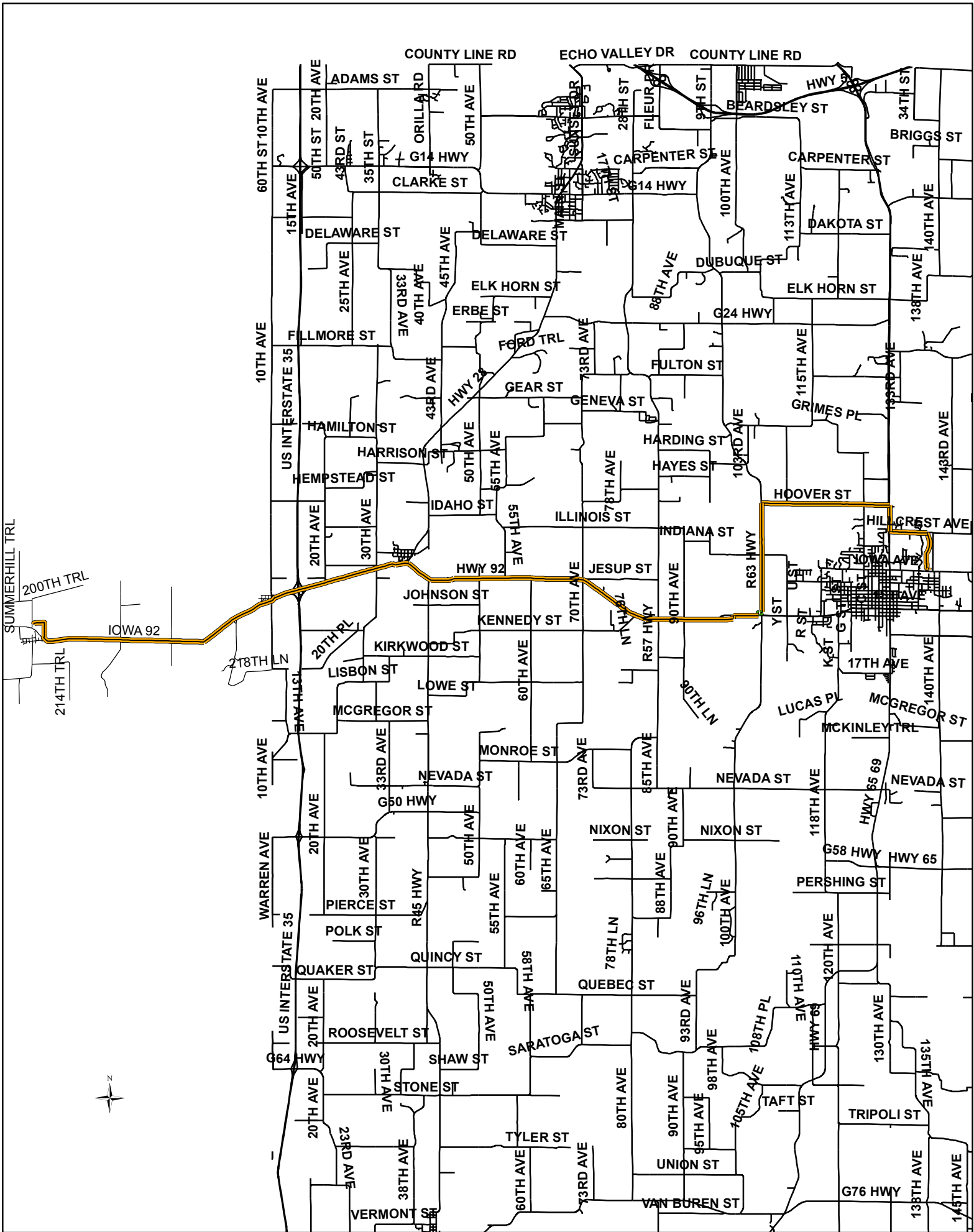
Attachment – A

**TRANSMISSION LINE
INSPECTION WORKSHEET**

X = CIRCUIT SCHEDULED FOR INSPECTION

AREA	YEAR									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Patterson Line 69 KV	X									
Patterson Line 69 KV		X								
Patterson Line 69 KV			X							
Patterson Line 69 KV				X						
Patterson Line 69 KV					X					
Patterson Line 69 KV						X				
Patterson Line 69 KV							X			
Patterson Line 69 KV								X		
Patterson Line 69 KV									X	
Patterson Line 69 KV										X

All transmission lines 34.5 KV and above will be inspected yearly for damage and to determine the condition of overhead insulators. The area to be inspected each year is shown on the attached map.



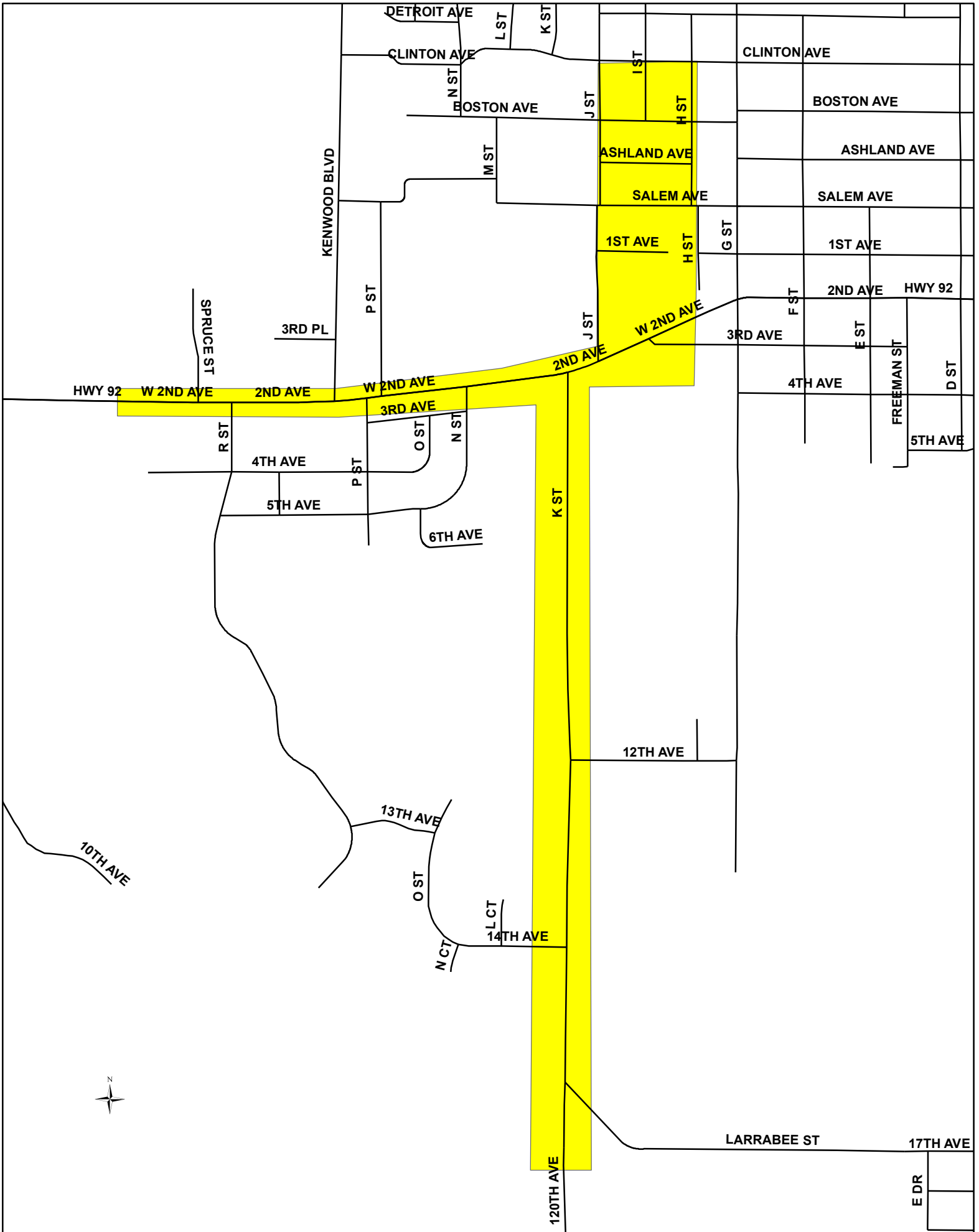
OVERHEAD DISTRIBUTION LINE INSPECTION WORKSHEET

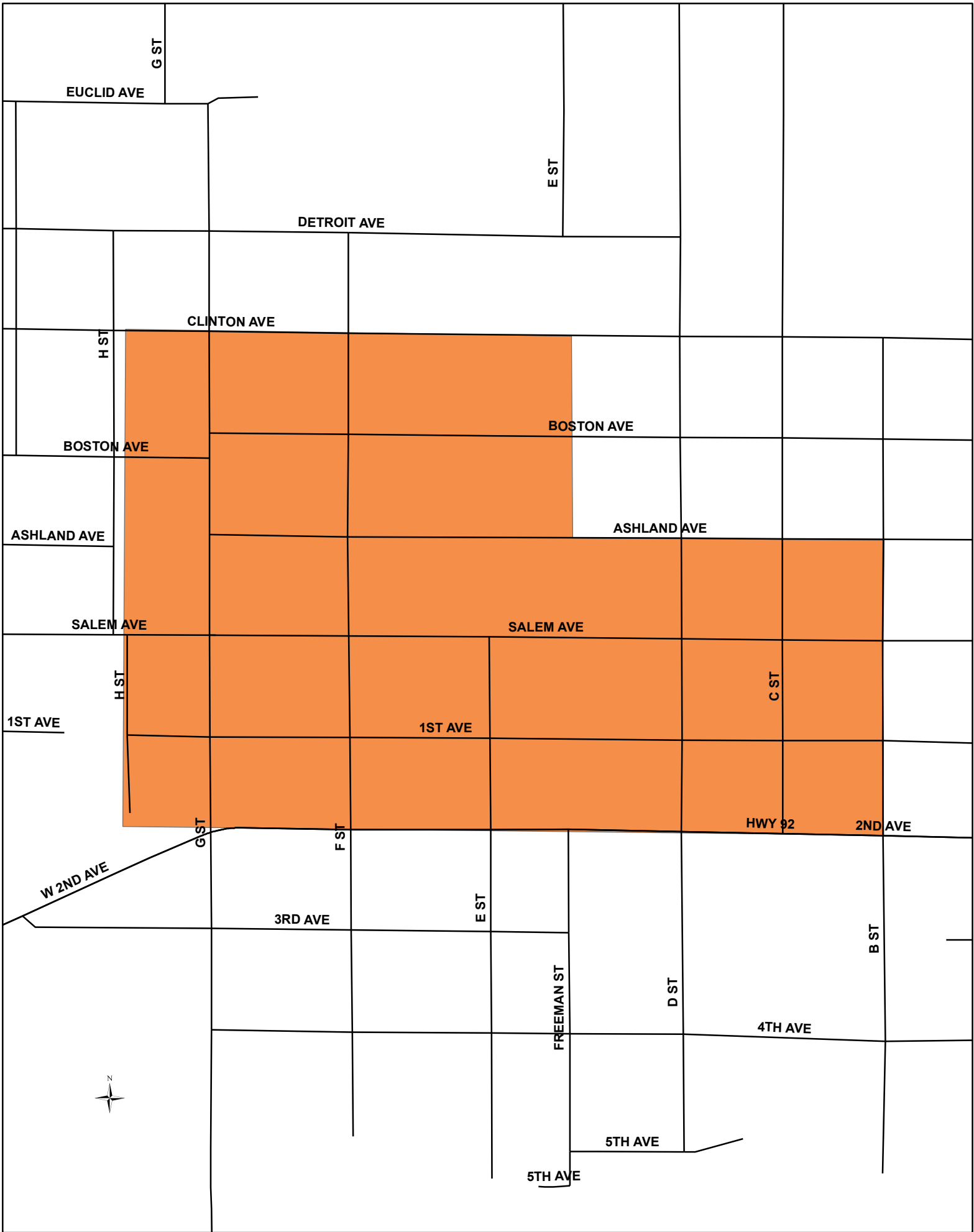
X = SCHEDULED FOR INSPECTION

AREA	YEAR									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
MAP - OH01	X									
MAP - OH02		X								
MAP - OH03			X							
MAP - OH04				X						
MAP - OH05					X					
MAP - OH06						X				
MAP - OH07							X			
MAP - OH08								X		
MAP - OH09									X	
MAP - OH10										X

The entire electrical distribution system shall be divided into (10) areas with each area being inspected at least once during each ten (10) year cycle. Attached maps will be used to identify the areas to be inspected.









12TH AVE

H ST

G ST

W 2ND AVE

2ND AVE

HWY 92

E ST

3RD AVE

F ST

D ST

4TH AVE

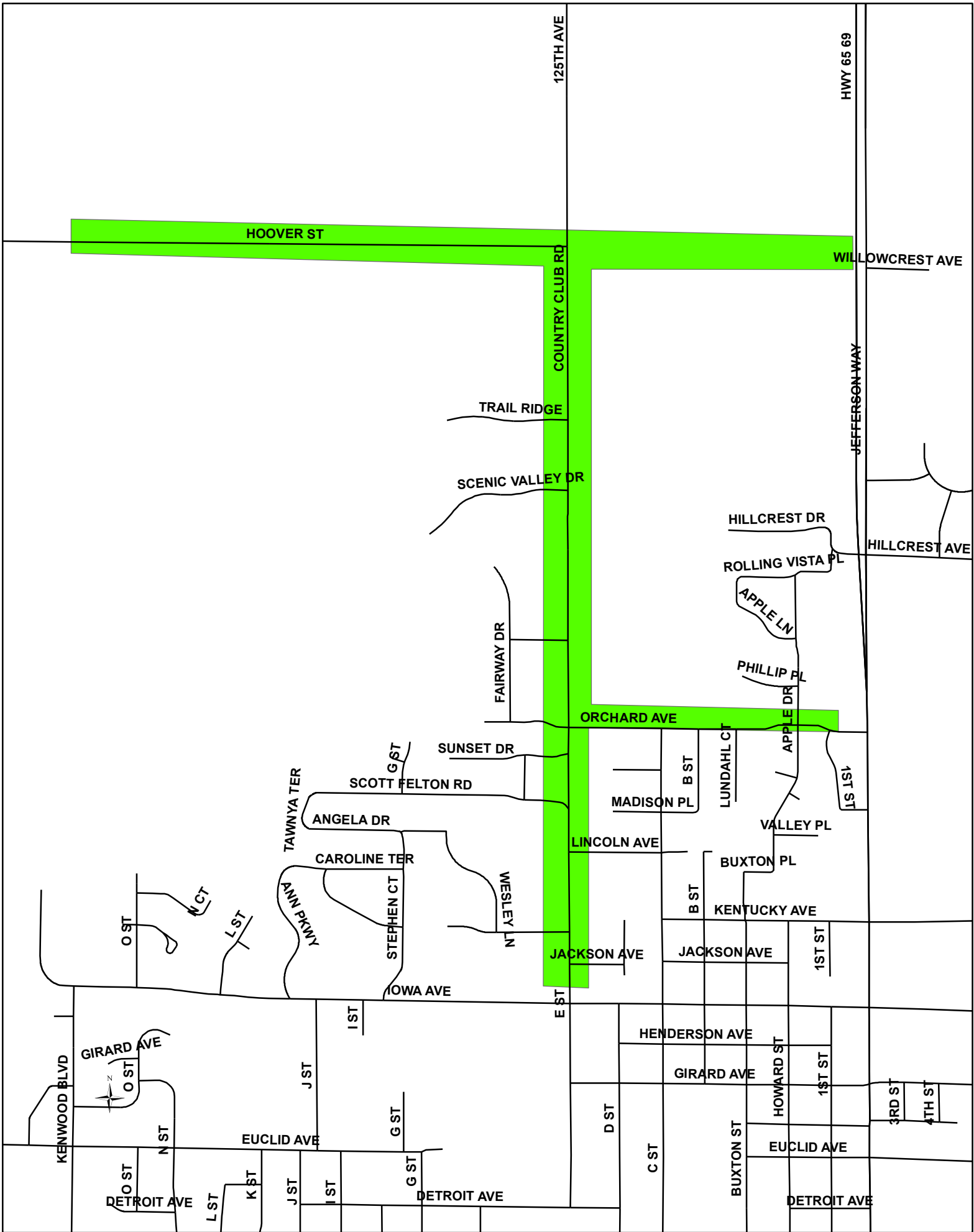
FREEMAN ST

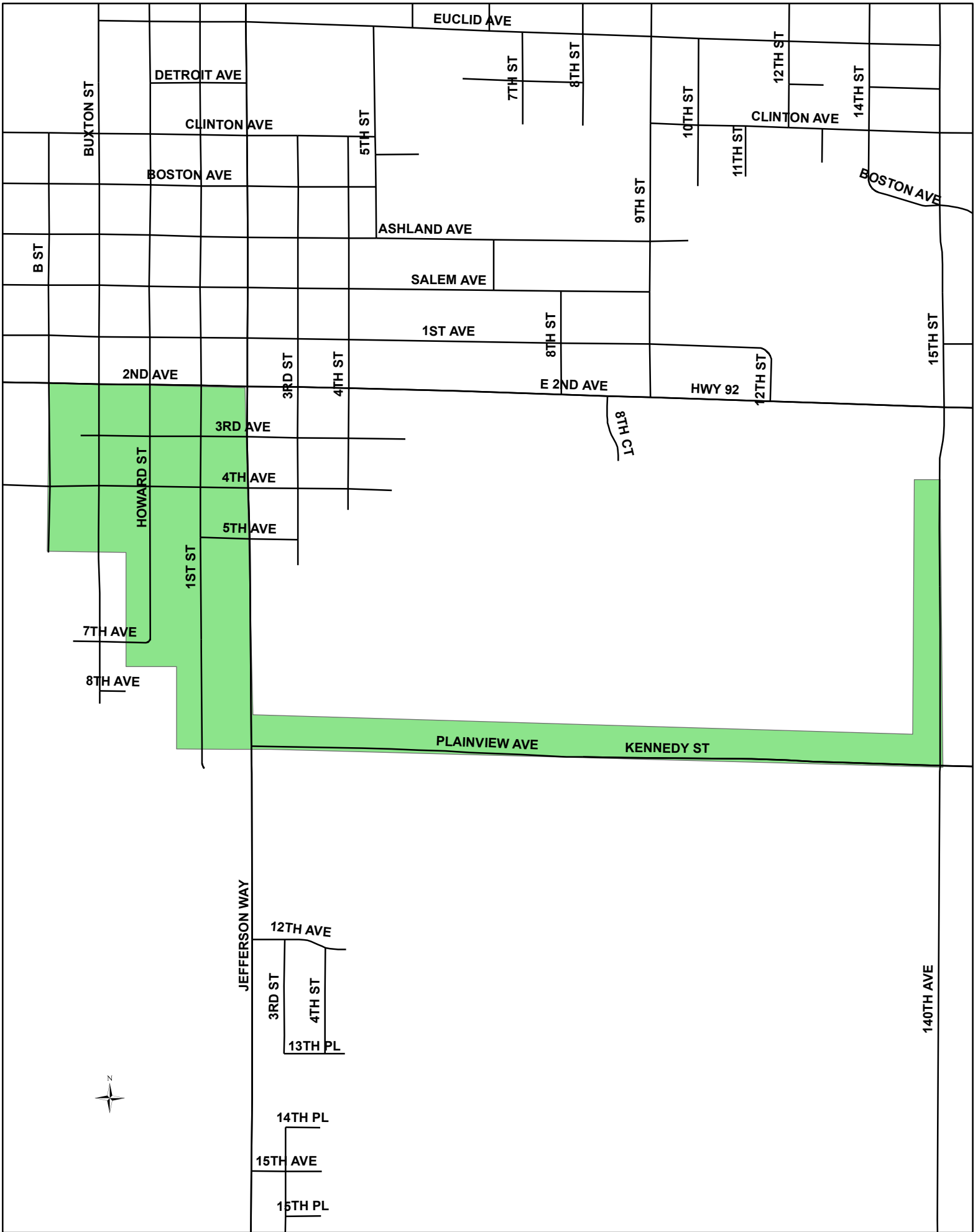
5TH AVE

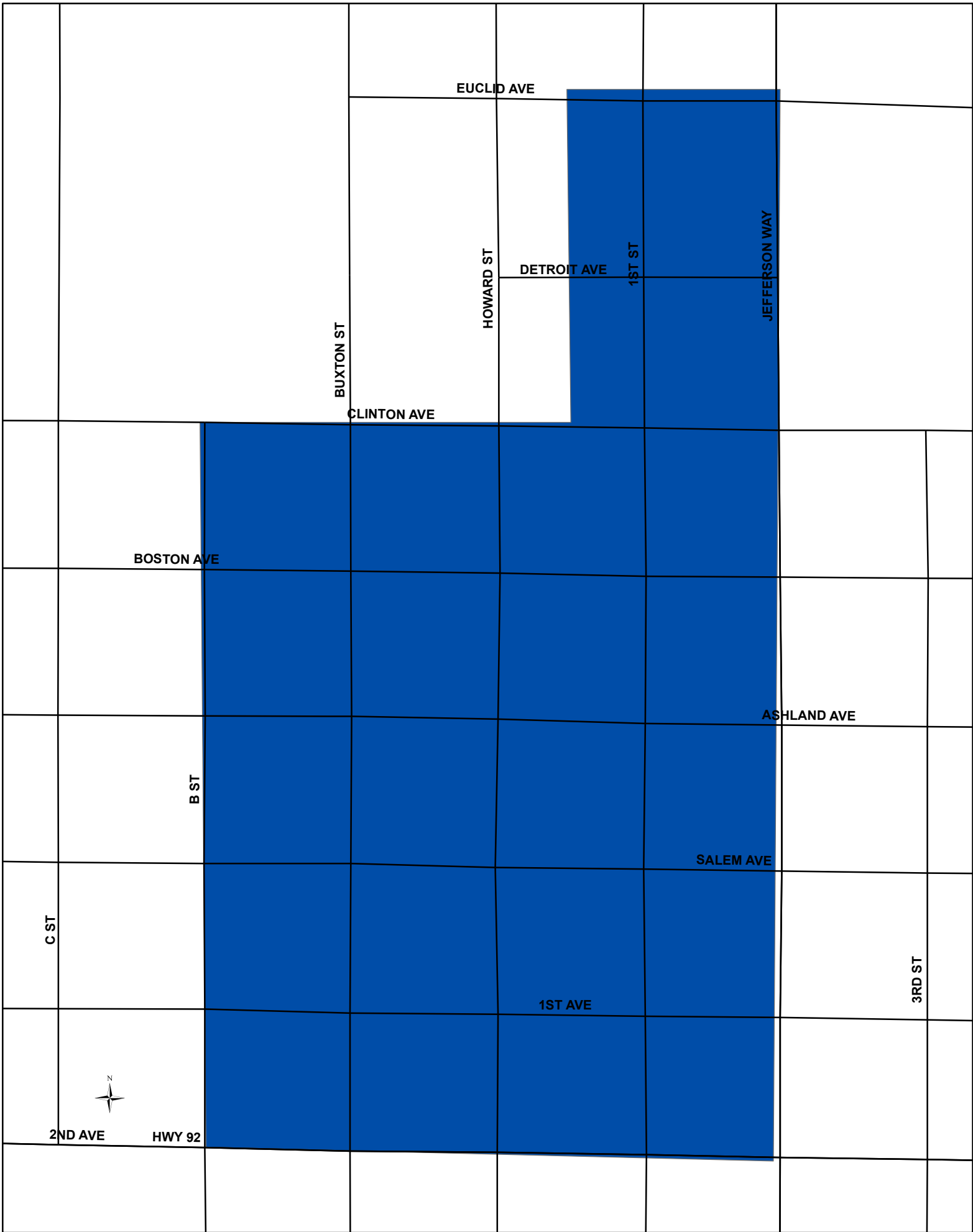
5TH AVE

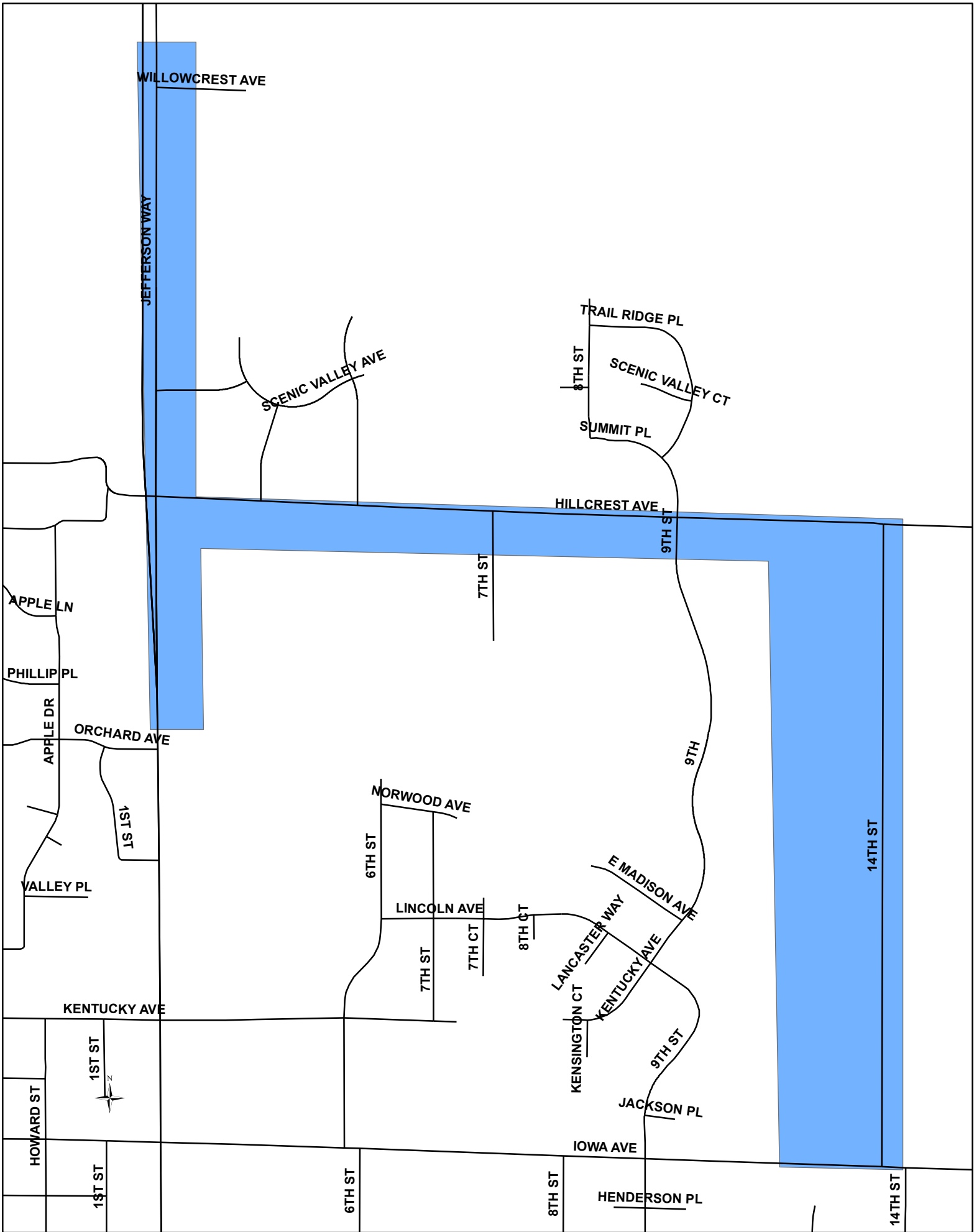
B ST

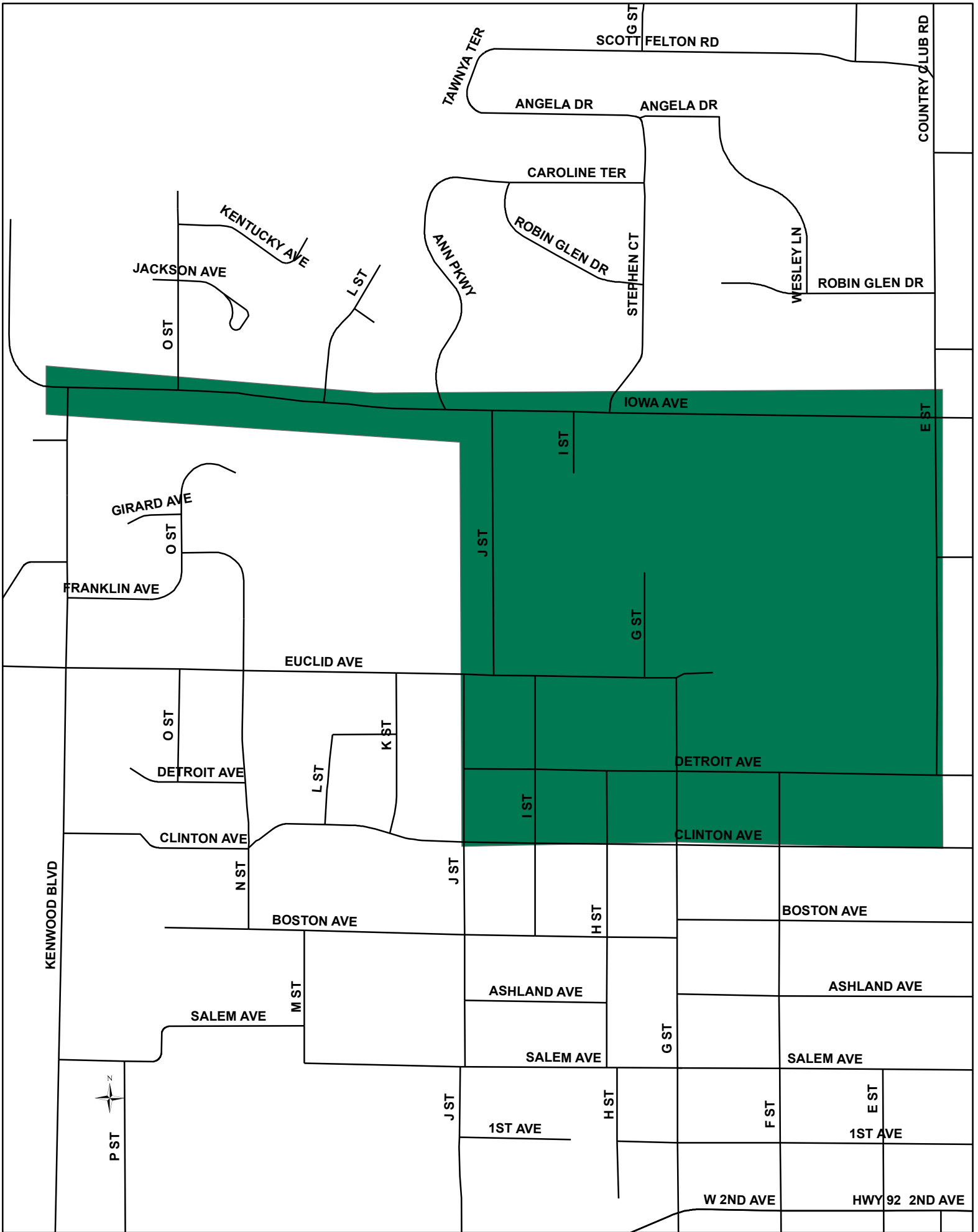
BUXTON ST

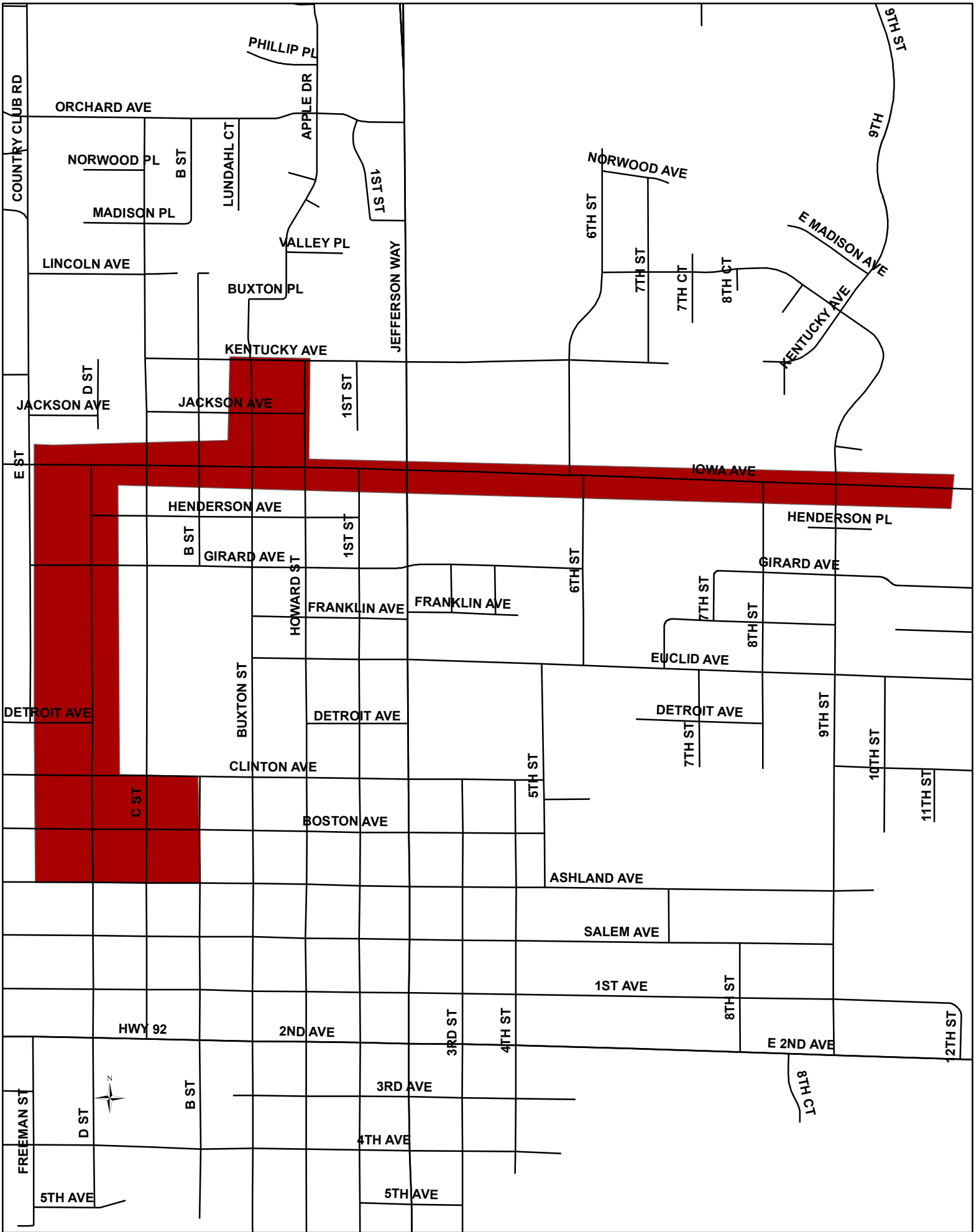














12TH AVE

H ST

G ST

1ST ST

12TH AVE

3RD ST

15TH AVE

3RD ST

LARRABEE ST

17TH AVE

LEONARD AVE

ALFRED AVE

JOHN ST

JEFFERSON WAY

HWY 65 69

EDR

18TH PL

B CT

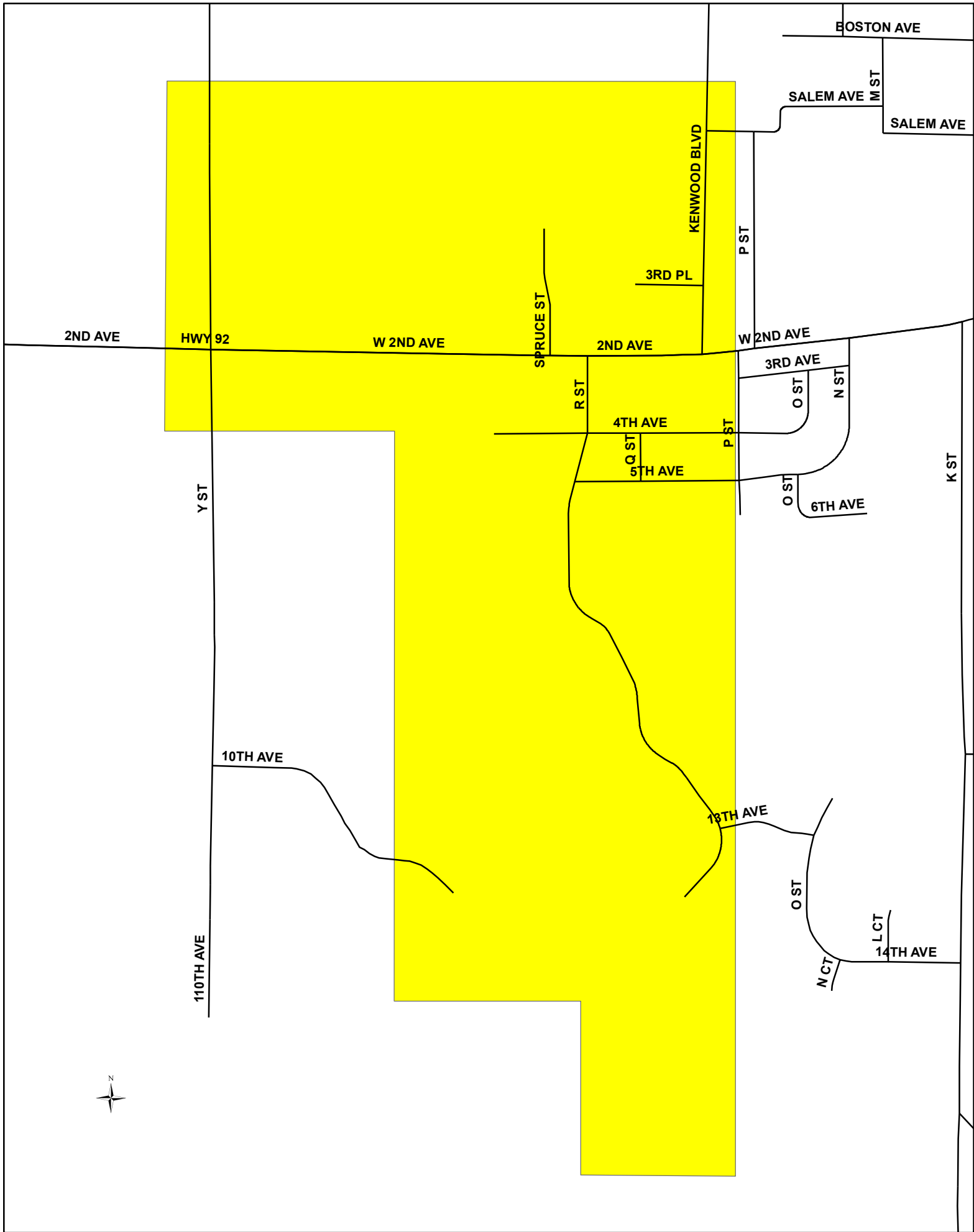
19TH PL

UNDERGROUND DISTRIBUTION SYSTEM INSPECTION SCHEDULE

X = SCHEDULED FOR INSPECTION

AREA	YEAR									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
MAP - UG01	X									
MAP - UG02		X								
MAP - UG03			X							
MAP - UG04				X						
MAP - UG05					X					
MAP - UG06						X				
MAP - UG07							X			
MAP - UG08								X		
MAP - UG09									X	
MAP - UG10										X

Inspection of all underground electric lines will be 10 years will approximately 10 percent inspected each year. Attached maps will be used to identify the areas to be inspected.



INWOOD ST

110TH AVE

Y ST

W ST

V ST

HENDERSON AVE

GIRARD AVE

U ST

EUCLID AVE

T CT

S CT

BROOKWOOD DR

KENWOOD BLVD

FRANKLIN AVE

DETROIT AVE

CLINTON AVE

BOSTON AVE

M ST

N ST

L ST

K ST

J ST

J ST

IOWA AVE

JACKSON AVE

KENTUCKY AVE

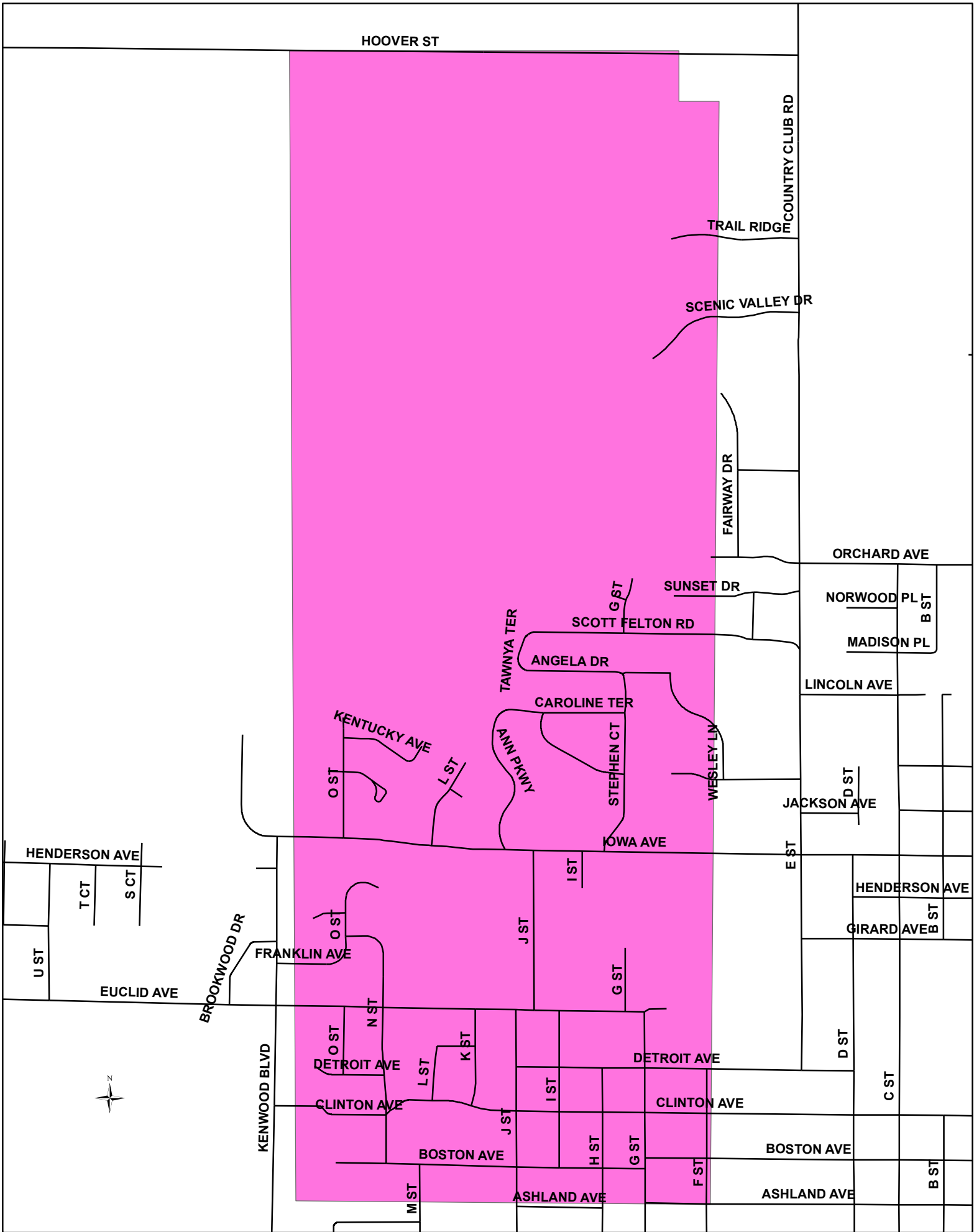
L ST

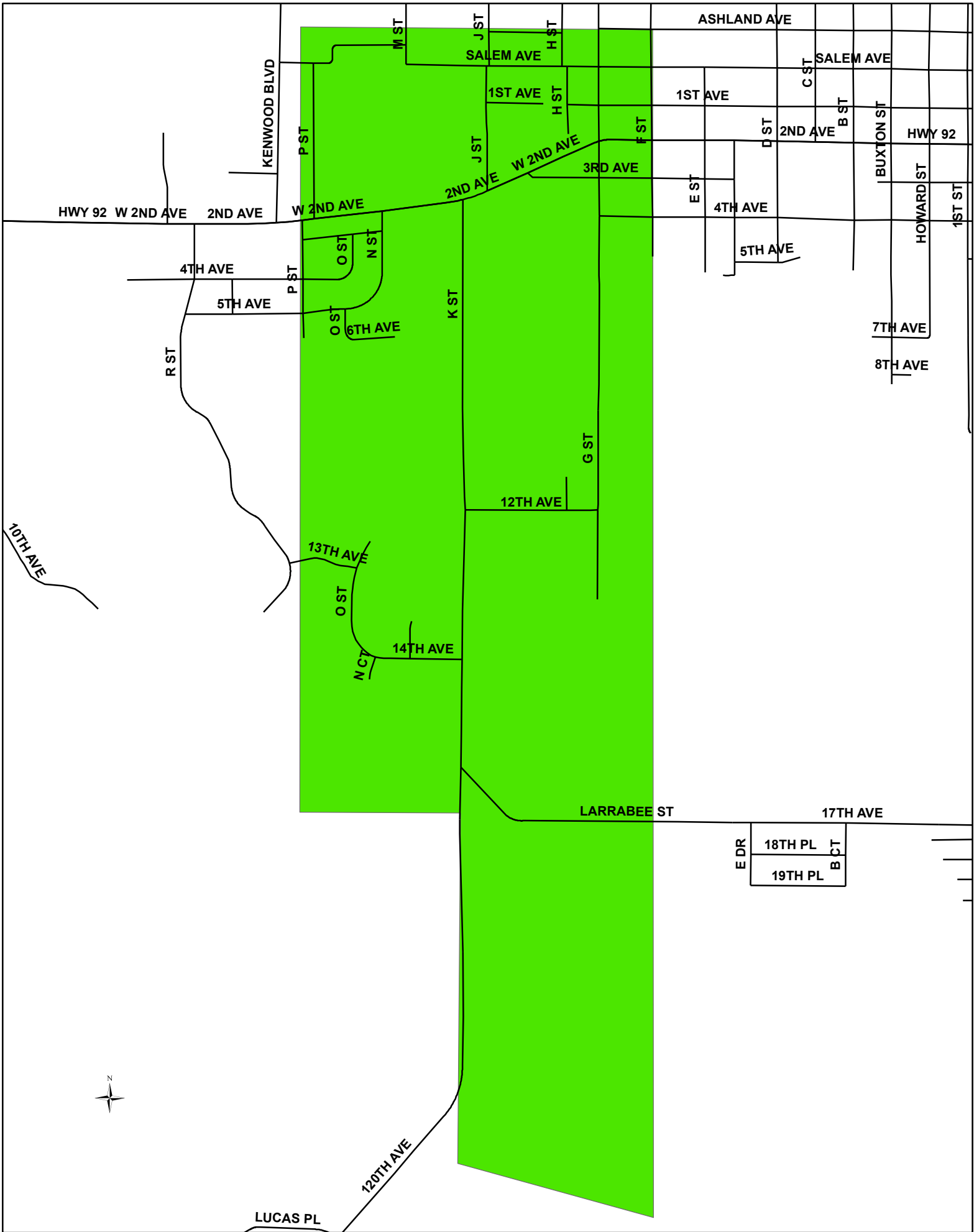
ANN PKWY

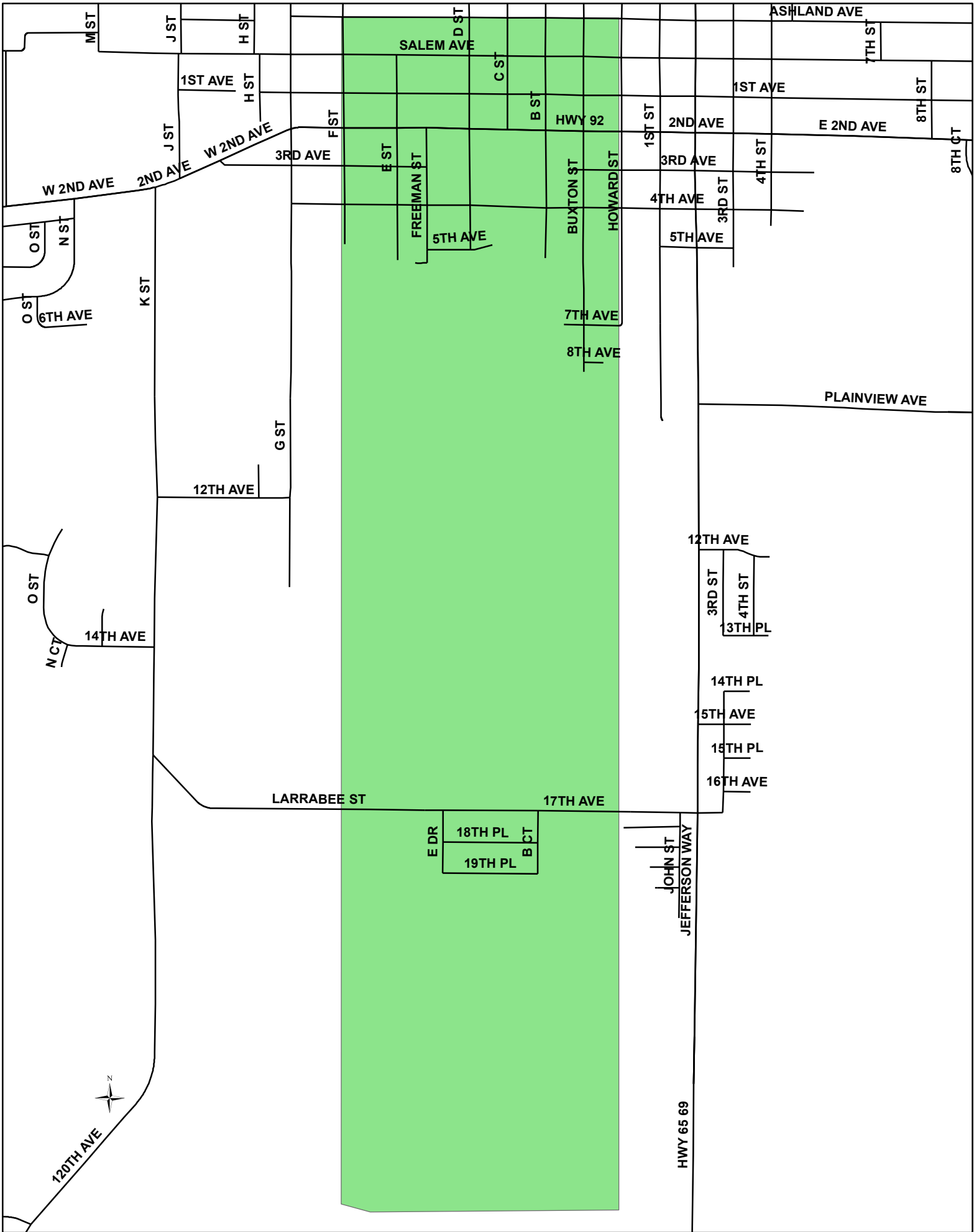
TAWNYA TER

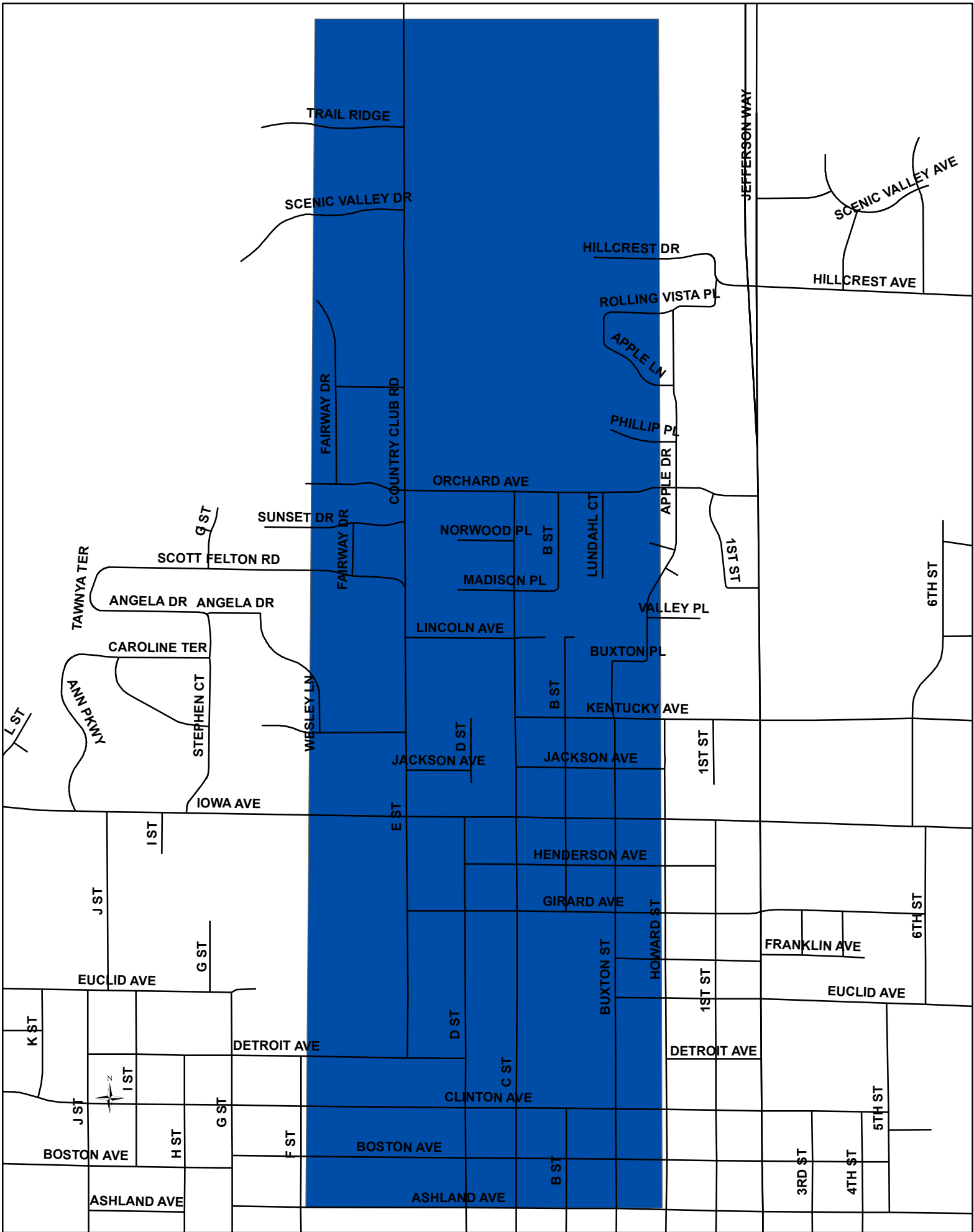
HOOVER ST

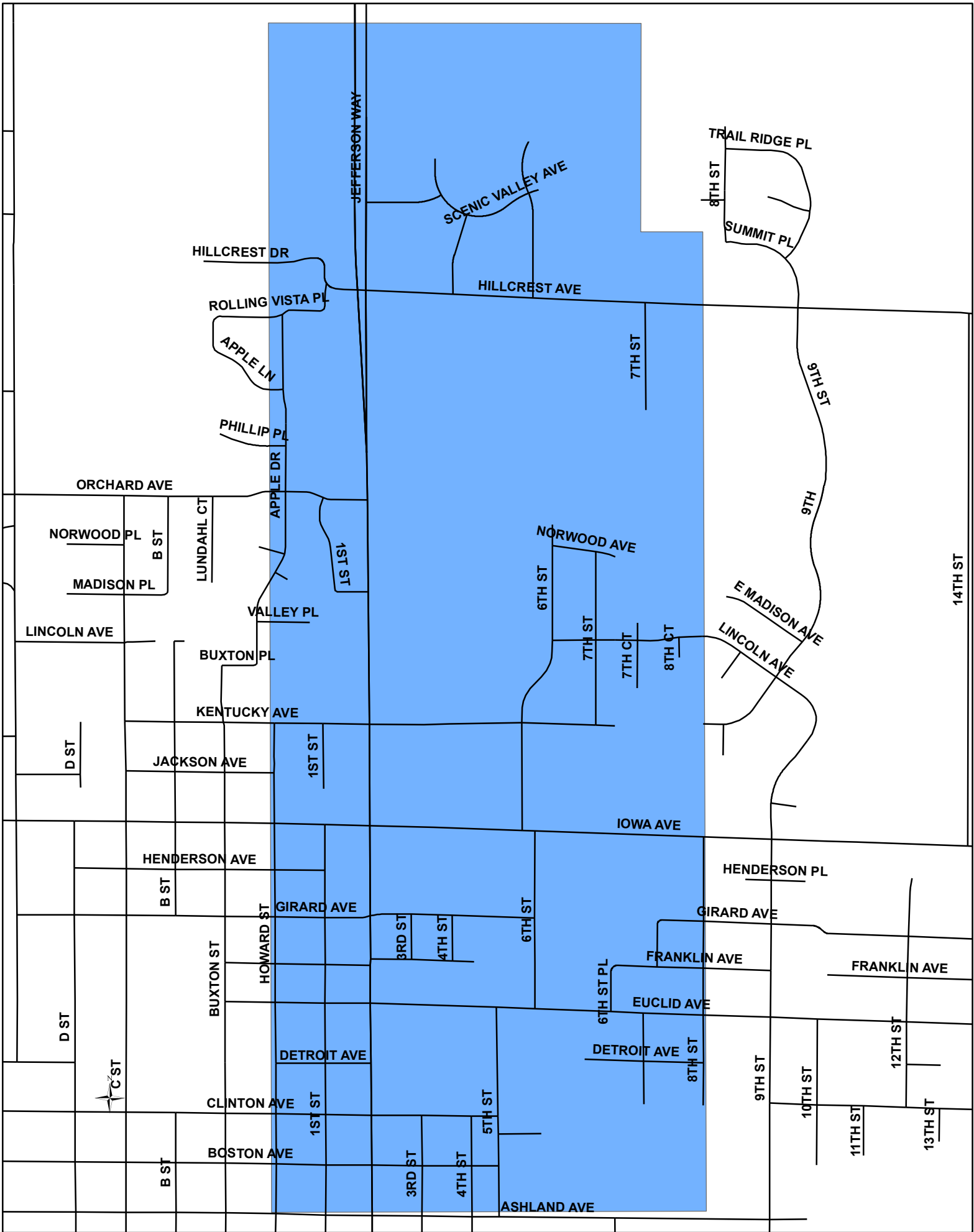


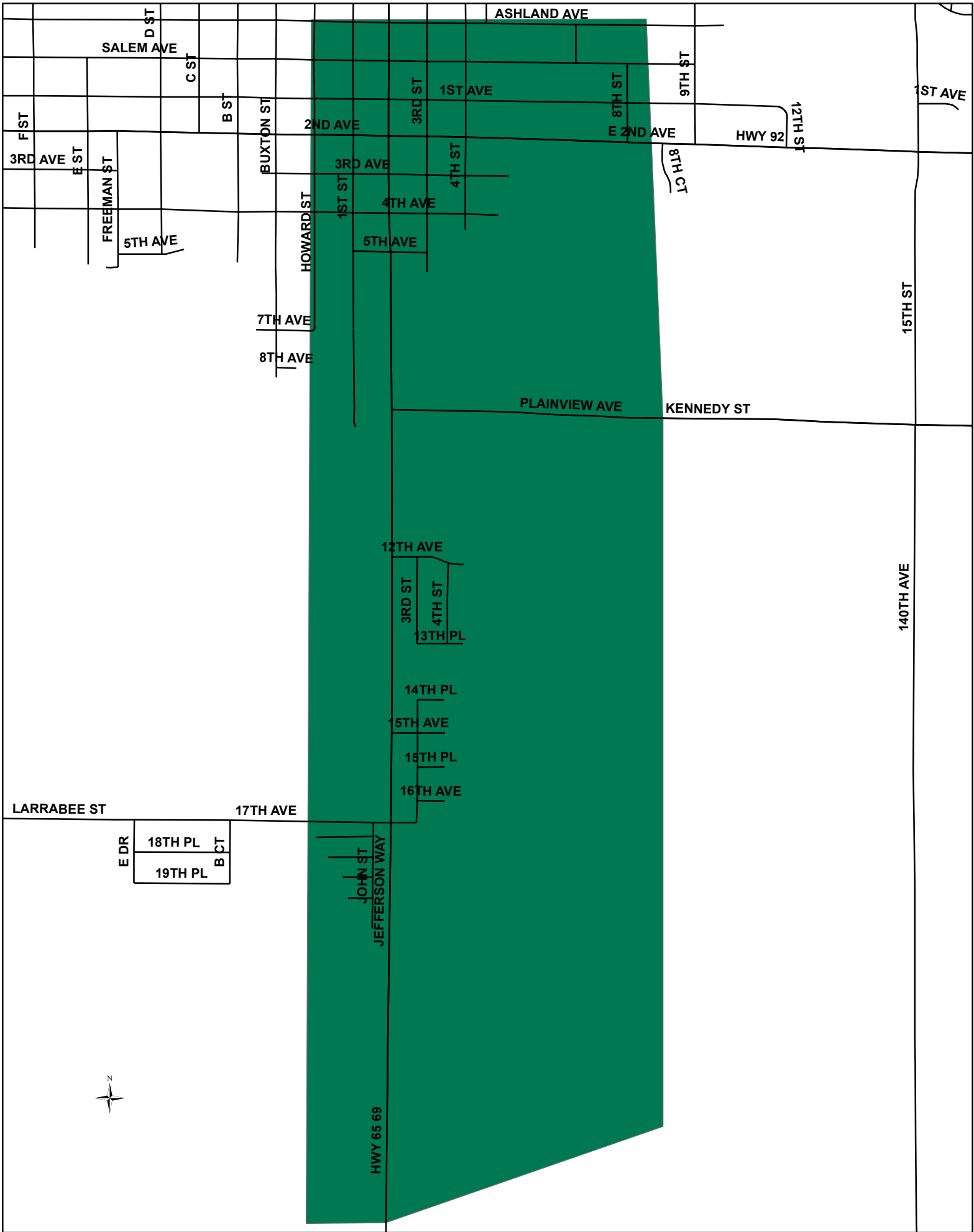


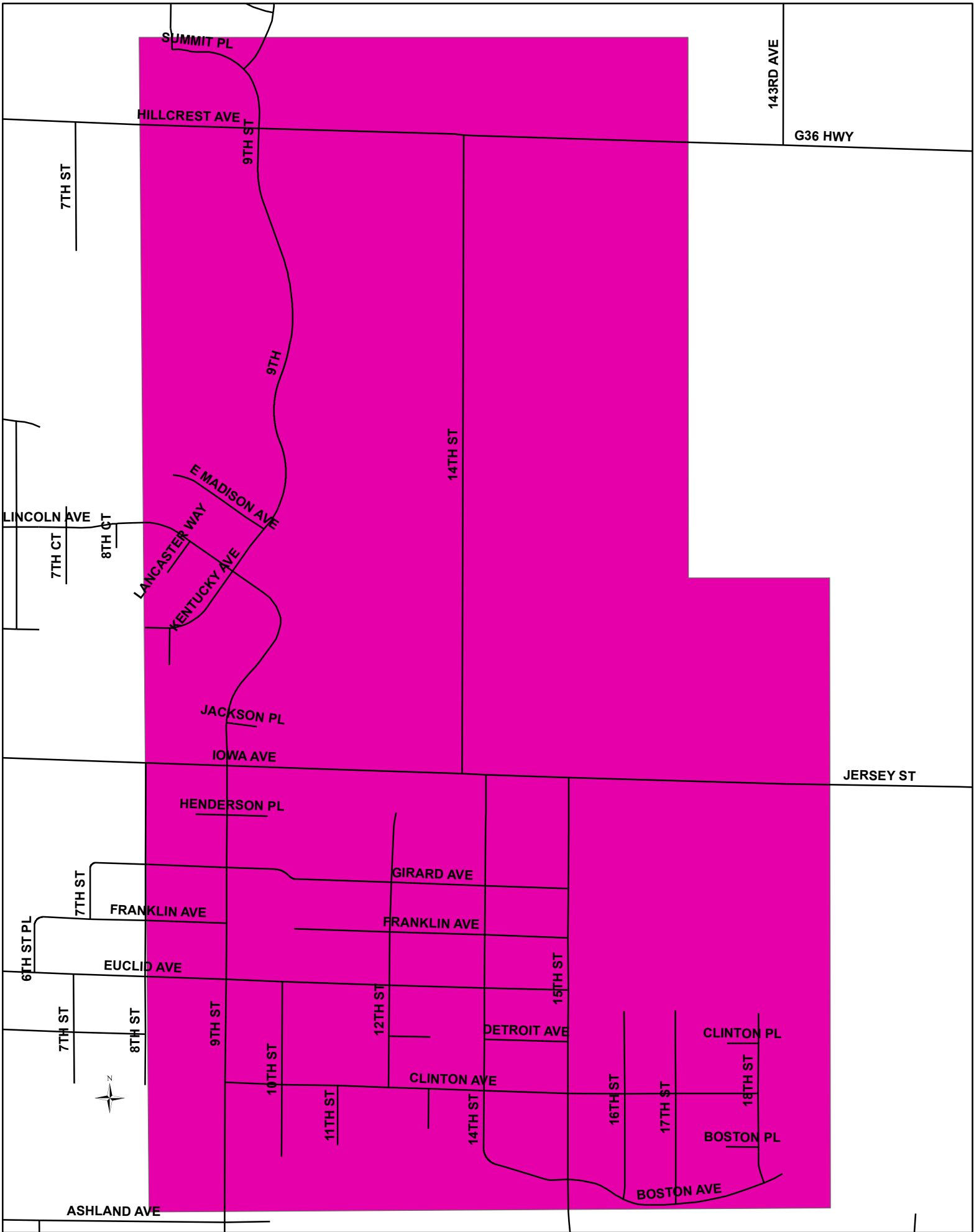










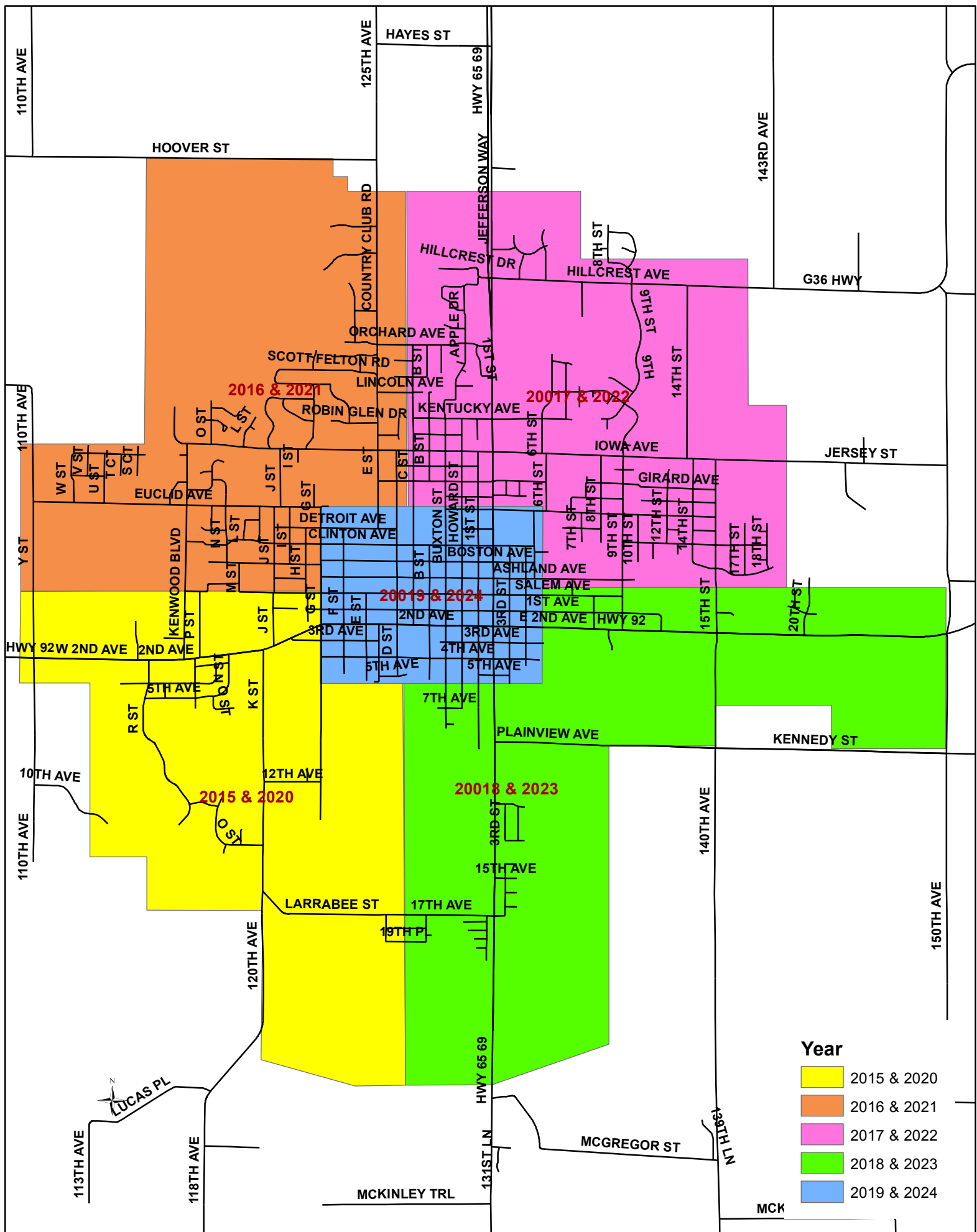


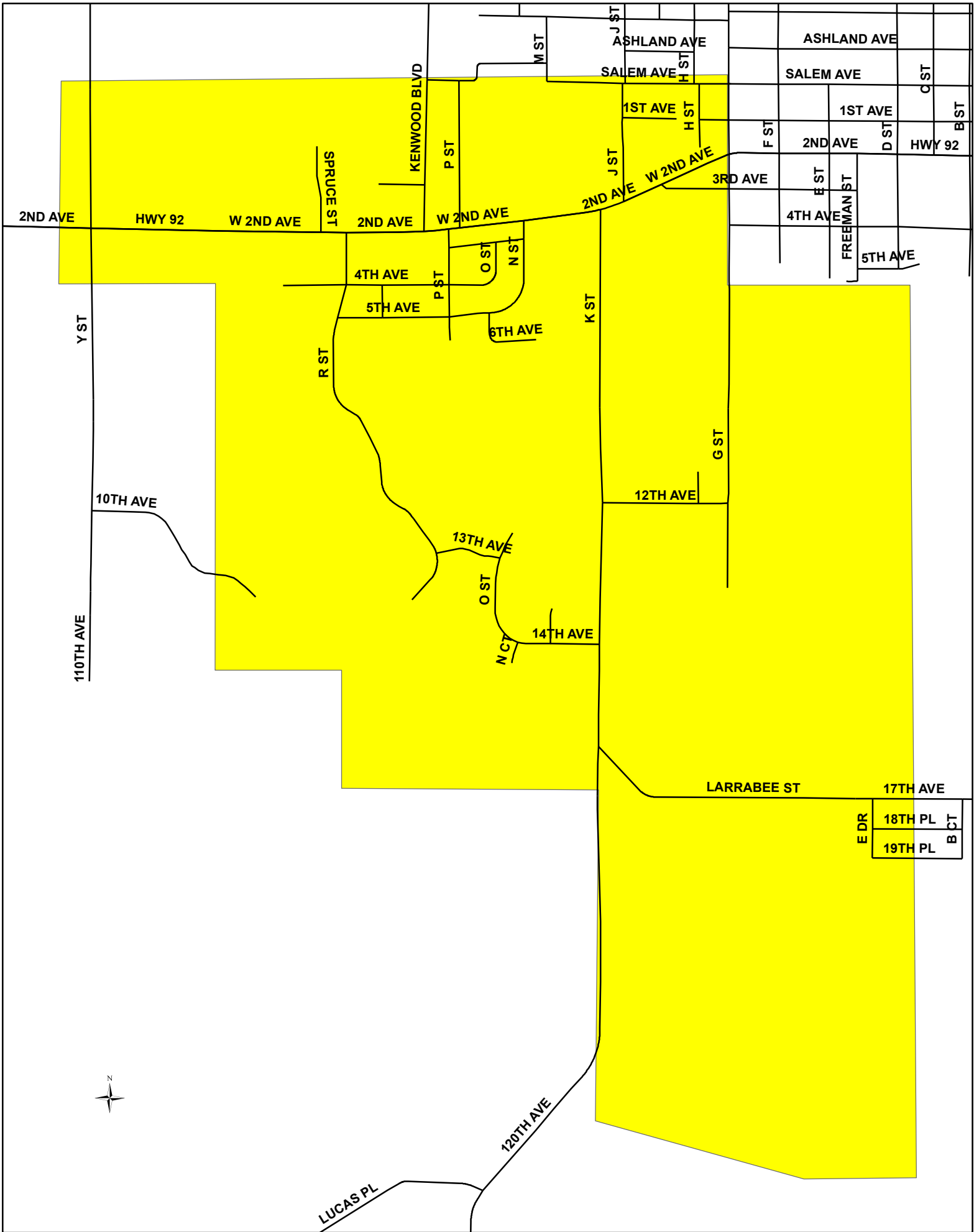
VEGETATION & TREE TRIMMING INSPECTION SCHEDULE

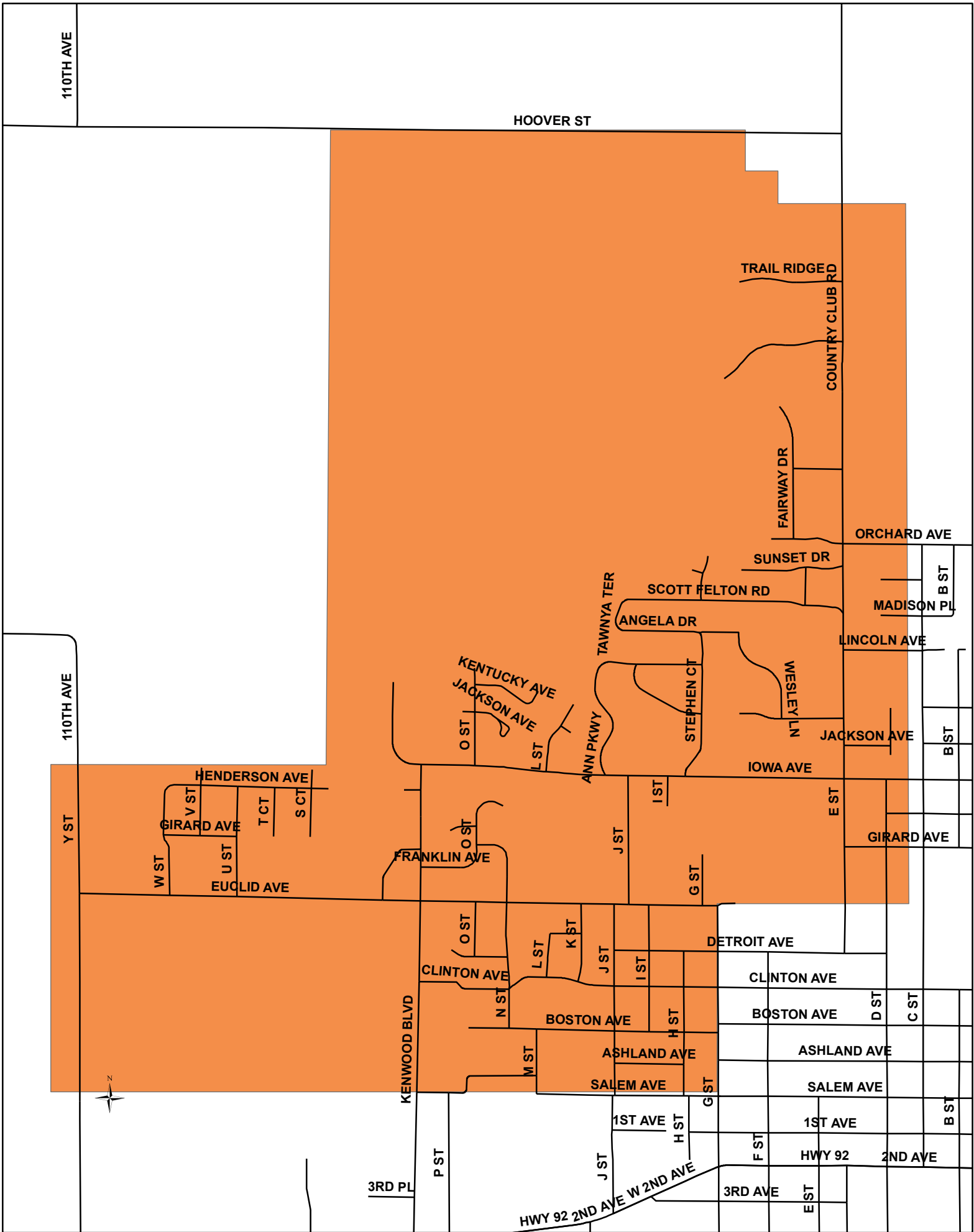
X = SCHEDULED FOR INSPECTION

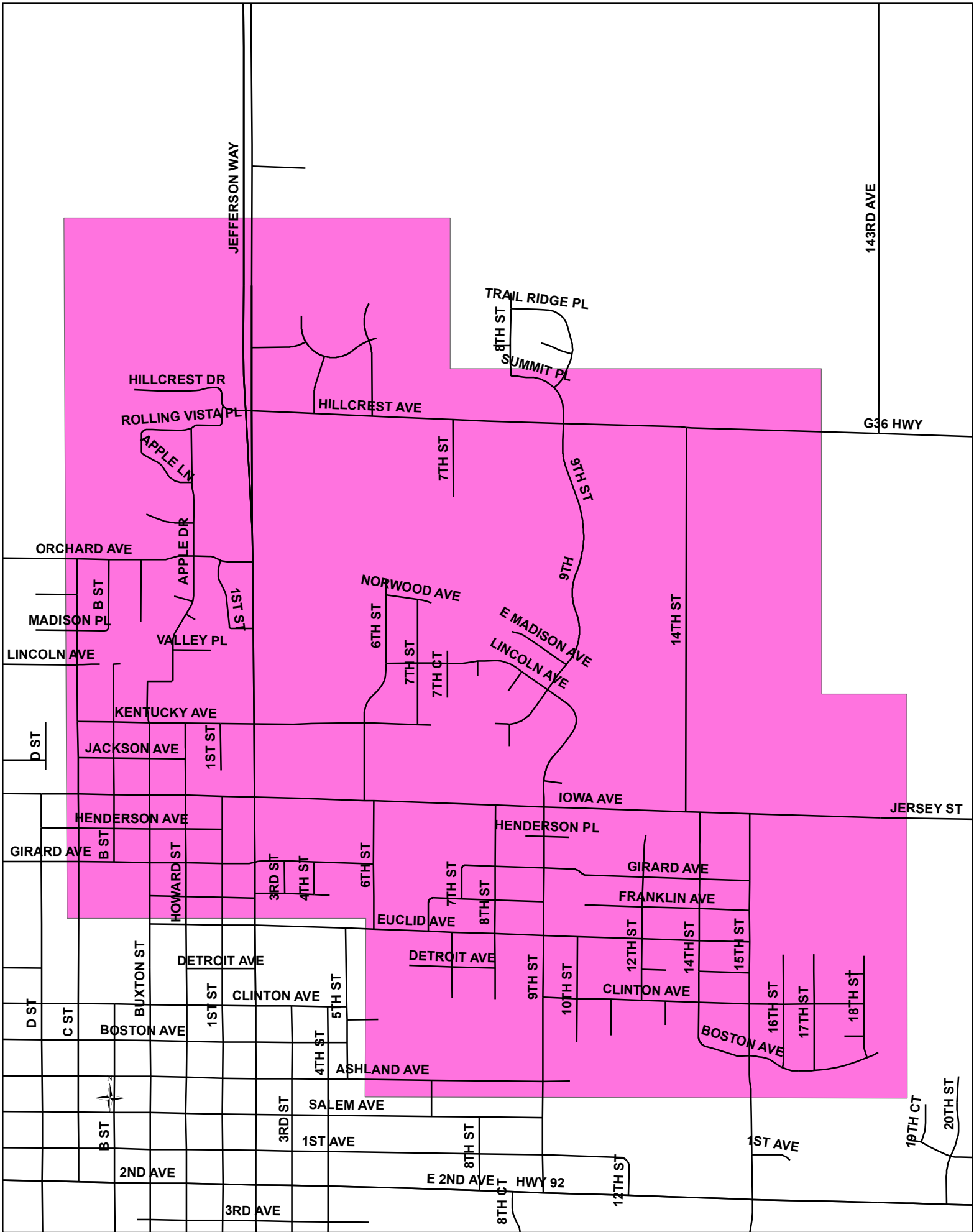
AREA	YEAR									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
MAP - VEG01	X									
MAP - VEG02		X								
MAP - VEG03			X							
MAP - VEG04				X						
MAP - VEG05					X					
MAP - VEG01						X				
MAP - VEG02							X			
MAP - VEG03								X		
MAP - VEG04									X	
MAP - VEG05										X

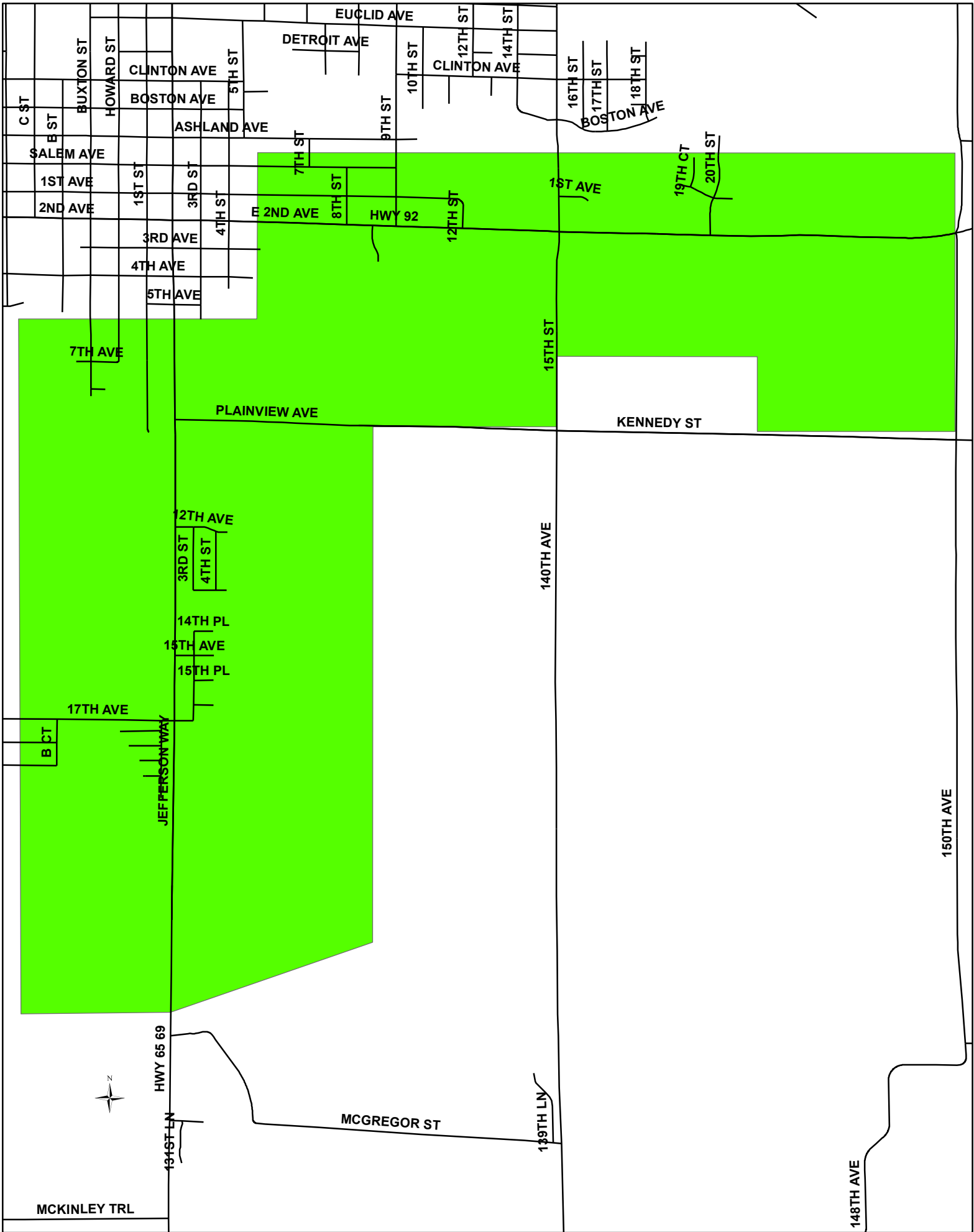
Inspection of vegetation and tree trimming will be 5 years with approximately 20 percent inspected each year. Attached maps will be used to identify the areas to be inspected.

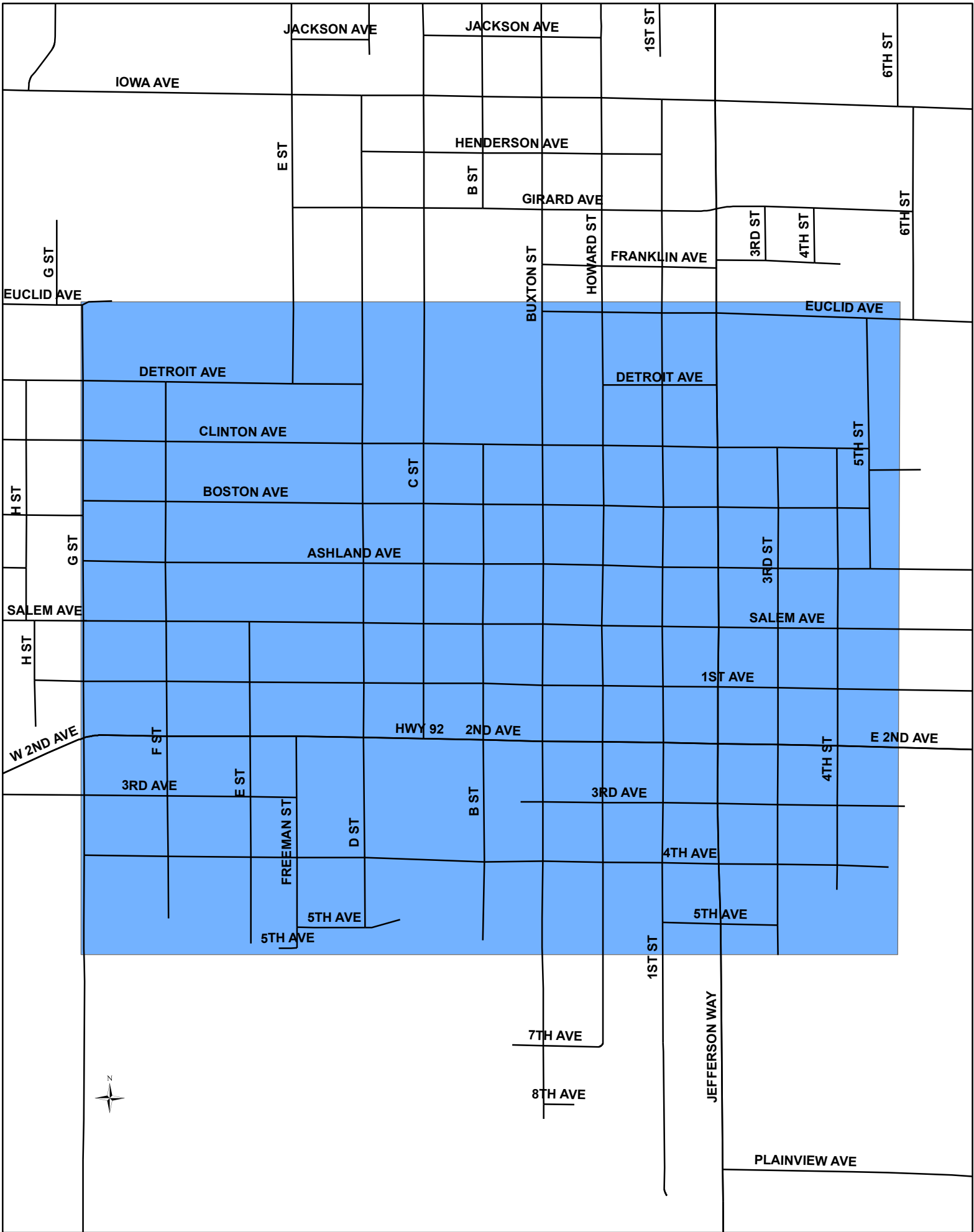












GRAIN BIN NOTIFICATION

On an annual basis electric utilities are required to conduct public information campaigns regarding electric service to grain bins. The notification is meant to reduce safety hazards as a result of improper clearance between grain bins and electric lines. Clearance requirements describing physical separation of power lines from grain bins are specified in the National Electrical Safety Code, Rule 234F.

To comply with these requirements, a utility must do the following:

1. Adopt an appropriate Notice of Compliance
2. Provide public notice annually
3. Provide evidence of compliance with this rule to IUB inspectors during an on-site inspection

A utility may refuse electric service to any grain bin built near existing electric lines if the clearances specified in NESC rule 234F are not met. This right to refuse service only applies to grain bins loaded by portable augers, conveyors or elevators and built after September 9, 1992, or to grain bins loaded by permanently installed augers, conveyors, or elevator systems installed after December 24, 1997.

NOTICE OF COMPLIANCE



DATE:

«Company»

«Mailing_Address»

«CSZ»

Notice of Compliance

IAC-199 Chapter 25

25.2(3) Grain Bins

Dear Sir or Madam:

In accordance with section 25.2(3) of the Iowa Administrative Code, this notice is part of a public information campaign to inform farmers, farm lenders, grain bin merchants and city/county zoning official of the hazards of and standards for construction of grain bins near power lines.

To assure proper safety, if a new grain bin is built near an existing electric line, the electric utility may refuse service if the clearances specified by the American National Standard Institute “National Electrical Safety Code,” Rule 234F are not met.

Do not hesitate to contact Indianola Municipal Utilities at 515-961-944 if you have any questions regarding this notice or need further information about appropriate clearances.

Sincerely,

IMU Representative

We're your partner in safety.

At work or at play, stay safe outdoors when electricity is around. Here are some tips:

1. Keep clear of power lines.

- When working beneath power lines, use wooden or fiberglass ladders instead of metal.
- Never place a ladder where it can fall into a power line.
- When carrying ladders, augers, or other tools, look up to make sure contact with overhead lines is avoided.

2. Never try to move an electric line.

- Don't attempt to raise or move power lines. Call your utility for assistance.
- If you see a downed power line, call the utility immediately. Don't go near it.

3. Check out your equipment.

- Keep all electrical appliances a safe distance away from water.
- Power tools should be properly grounded. Use only heavy duty extension cords rated specifically for outdoor use.
- Outdoor electrical outlets should have ground-fault circuit interrupter protection and have weatherproof covers.

4. If you are driving a tractor or other vehicle that comes in contact with an electric line...

- Try to back away from the line.
- If you are unable to back away, stay put!
- Have someone call your local utility to de-energize the line.
- If you must leave the tractor, jump clear, putting both feet forward at once, and avoid any contact with the ground and the vehicle at the same time.



Guidelines for Grain Bin Safety

***From your Locally-Owned
Municipal Electric Utility***

Indianola Municipal Utilities

111 South Buxton, PO Box 356

Indianola, IA 50125

515-961-9444

Thinking about building a grain bin?

If you're planning to build or move a grain bin, either on your property or for someone else, you need to be familiar with Iowa's law on required distances from overhead electric lines. This law was put in place to provide protection from the hazard of contacting overhead electric lines to anyone working around grain bins with augers, elevators, or other equipment.

The drawings inside this brochure show the specific clearance requirements related to permanently installed augers and portable augers. There must be at least 18 feet between the top of any grain bin and any overhead electric lines. These distances were developed by the American National Standards Institute. Figure 232.4(b) can be found in the February 6, 2012, "Errata to 2012 Edition National Electrical Safety Code (NESC)" and the 2012 NESC. As your electric service provider, we're responsible for ensuring that these specifications are met. In fact, in any situation where minimum clearance requirements are not observed, the utility may refuse electric service.

So if a new grain bin is on your list of projects, please give us a call. We will work with you in developing a site plan for your project.

Fig. 234-4(a) -- Clearance Envelope for Grain Bins Filled by Permanently Installed Augers, Conveyors, or Elevators

P = probe clearance 5.5m (18 ft.)

H = horizontal clearance 4.6m (15 ft.)

T = transition clearance

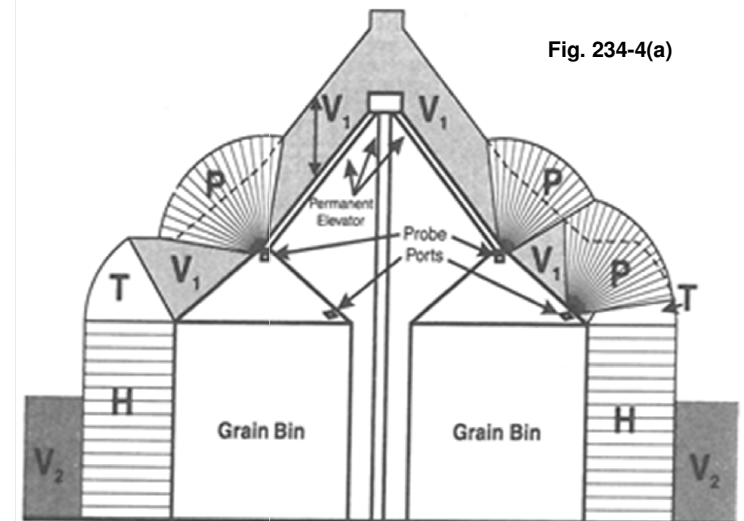
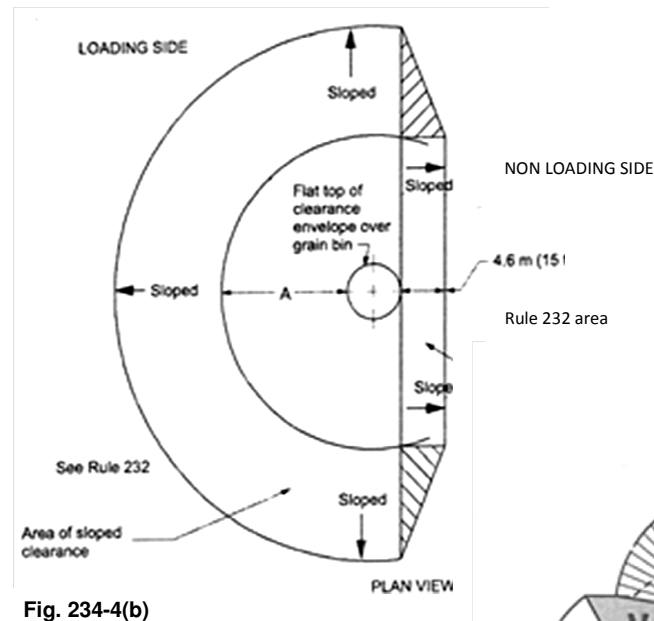
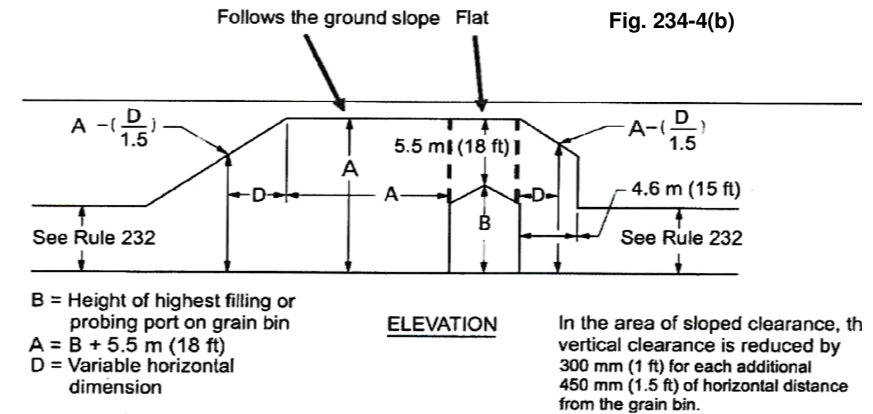
V_1 = vertical clearance above a building required by Rule 234C (Table 234-1)

V_2 = vertical clearance above land required by Rule 232B (Table 232-1 or 232-2)

Figs. 234-4(b) Clearance Envelope for Grain Bins Filled by Portable Augers, Conveyors, or Elevators

Grain Bin Clearance Guidelines

Source: The February 6, 2012 Errata to 2012 Edition National Electrical Safety Code (NESC), the 2012 NESC, and the American National Standards Institute (ANSI C2-2012).



IMU Inspection / Work Order Form

Attachment - C
Type: 69KV
Transmission

Date: _____

Inspected by: _____

Location	Items That Need Attention	Actions Taken	Deficiency Grade	Date Completed	Completed By

IMU Inspection / Work Order Form

Attachment - C
Type:
Maintenance

Date: _____

Inspected by: _____

Location	Items That Need Attention	Actions Taken	Deficiency Grade	Date Completed	Completed By

IMU Inspection / Work Order Form

Attachment - C
Type:
Underground

Date: _____

Inspected by: _____

Location	Items That Need Attention	Actions Taken	Deficiency Grade	Date Completed	Completed By

IMU Inspection / Work Order Form

Attachment - C
Type:
Vegetation

Date: _____

Inspected by: _____

Location	Items That Need Attention	Actions Taken	Deficiency Grade	Date Completed	Completed By

ATTACHMENT D

SAMPLE OFFICE INSPECTION THAT IS CONDUCTED BY THE IOWA UTILITIES BOARD

Name of Utility:
Address of Office Checked:
Name and Title of Person Interviewed:
Date:
File: RE-
Inspector:

Sections cited are from Board rules 199 IAC chapter 20, chapter 25 and chapter 42.

	Question	Section	Answer
1.	Is a copy of the utility’s Inspection and Maintenance Plan available?	20.5(5), 25.3	
2.	Has the current version of the plan been filed using the Board’s electronic filing system?	25.3(1)	
3.	Does the plan include a listing of all counties in which the utility has electric supply lines in Iowa?	25.3(3)a	
4.	If the plan is implemented by district or regional offices, are their addresses included?	25.3(3)a	
5.	Is the list of counties and addresses current?	25.3(3)a	
6.	Does the plan include periodic inspection intervals for facilities? Distribution Interval: Transmission Interval: Substation Interval: Pole Inspection Interval:	25.3(3)b1	
7.	Are the inspection intervals based on good industry practice?	25.3(3)b1	
8.	Does the pole inspection procedure include tests in additional to visual inspection?	25.3(3)d	
9.	Does the plan include a schedule for the inspection of all supply lines and substations?	25.3(3)b1 25.3(3)b2	
10.	Do the schedule’s inspection frequencies agree with the plan’s periodic inspection intervals?	25.3(3)b2	
11.	Does the plan include a complete listing of all categories of items to be checked during an inspection?	25.3(3)b2	
12.	Does the plan include copies of instructions to be used by utility personnel during inspections?	25.3(3)b4	
13.	If the plan references guide materials, are copies of these materials available?	25.3(3)b4	
14.	Does the plan include a schedule for tree trimming or other vegetation management? Schedule:	25.3(3)c1	
15.	Is the schedule based on good industry practice?	25.3(3)c1	
16.	Does the plan include written procedures for vegetation management?	25.3(3)c2	
17.	Do the tree trimming practices protect the health of the tree and reduce undesirable re-growth patterns? [ANSI A300 (Part 1)-2001, “Pruning,” and Section 35 of <i>The Lineman’s and Cableman’s Handbook</i> are suggested as guides for tree trimming practices.]	25.3(3)c2	

NOTE: If any of the above questions (3-17) were answered “NO”, the utility’s Inspection and Maintenance Plan likely needs to be corrected and re-filed with the Board.

	Question	Section	Answer
18.	Does assessment of the I&M Plan in the utility's most recent annual report to the Board agree with the findings of this inspection?	25.3(2)	
19.	Does the utility keep sufficient records to demonstrate compliance with its inspection and vegetation management program?	25.3(4)	
20.	Do the inspection records show the deficiencies found and the corrective actions taken or scheduled?	25.3(4)	
21.	Do the vegetation management records show the locations and dates the work was conducted?	25.3(4)	
22.	Do the records show the inspections and vegetation management are being done in accordance with the I&M Plan schedule?	25.3(4)	
23.	Are the records kept as long as required?	25.3(4)	
24.	Is corrective action for items identified during inspection taken in a reasonable period of time?	25.4	
25.	Does the utility possess a copy of the 2007 National Electrical Safety Code? (This edition is currently adopted in Board rules.)	25.2(1)	
26.	Does the utility conduct annual public information campaigns on grain bin locations and hazards?	25.2(3)a	
27.	Is the utility correctly using the overhead vertical line clearances from the tables in post-1990 editions of the National Electrical Safety Code?	25.2(2)b4	
28.	Is the utility aware of the accident reporting requirements?	25.5	
29.	If there were any reportable accidents since the last inspection, were they properly reported to the Board Duty Officer?	25.5	
30.	If the utility has facilities crossing a railroad right-of-way, has the required emergency contact information been filed? (This information can be checked or revised at iub.iowa.gov/industry_topics/rr_utility_contact.html)	42.4(2)	
31.	Where there is joint-use construction and another company's equipment has caused a violation of the Iowa Electrical Safety Code, is the other company notified by the utility?	25.2	
32.	If the utility has notified another company of necessary repairs, does the utility keep records of the necessary repairs until the repairs are completed?	25.3(4)	

COMMENTS:

ATTACHMENT E

RESOURCES AND OTHER INFORMATION

The following are important sources of information for developing inspection plans and conducting the inspections:

ANSI A300 (Part 1), as suggested by 199 IAC 25.3(5) - Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Pruning) and Section 35 of “The Lineman’s and Cableman’s Handbook.

Rural Utilities Service (RUS) Bulletins are as suggested by 199 IAC 25.3(5):

RUS 1730-1: "Electric System Operation and Maintenance (O&M)"

RUS 1730B-121: "Pole Inspection and Maintenance"

RUS 1724E-300: "Design Guide for Rural Substations"

Lineman's and Cableman's Handbook, as adopted by 199 IAC 25.2(5)b

National Electrical Safety Code, as adopted by 199 IAC 25.2(1) and modified by 199 IAC 25.2(2)

The following are the various editions of the NESC that have been adopted by the IUB:

Edition	6 th	1973	1977	1981	1990	1993	1997	2002	2007
Adopted	10/24/65	9/27/76	6/6/79	1/12/83	9/9/92	12/14/94	12/24/97	5/22/02	6/27/07

National Electrical Code, as adopted by 199 IAC 25.2(5)a

Other accepted standards of good practice recognized by the Iowa Utilities Board are found at 199 IAC 20.5 and 25.3

INTERNET LINKS

Current ANSI Standards as Referenced in Chapter 20

Standards adopted by the IUB affecting electric utilities can be found on the IUB web site <https://www.legis.iowa.gov/IowaLaw/AdminCode/ruleDocs.aspx?pubDate=12-26-2012&agency=199&chapter=20>

Department of Agriculture Bulletins URL

http://www.rurdev.usda.gov/UEP_HomePage.html

Iowa Administrative Code

Chapter 20

<https://www.legis.iowa.gov/IowaLaw/AdminCode/ruleDocs.aspx?pubDate=12-26-2012&agency=199&chapter=20>

Chapter 25

<https://www.legis.iowa.gov/IowaLaw/AdminCode/ruleDocs.aspx?pubDate=12-26-2012&agency=199&chapter=25>

Iowa Association of Municipal Utilities

The IUB website and other important legislative/regulatory resources are accessible by clicking on the Legislative/Regulatory on the IAMU website, www.iamu.org

Iowa Utilities Board

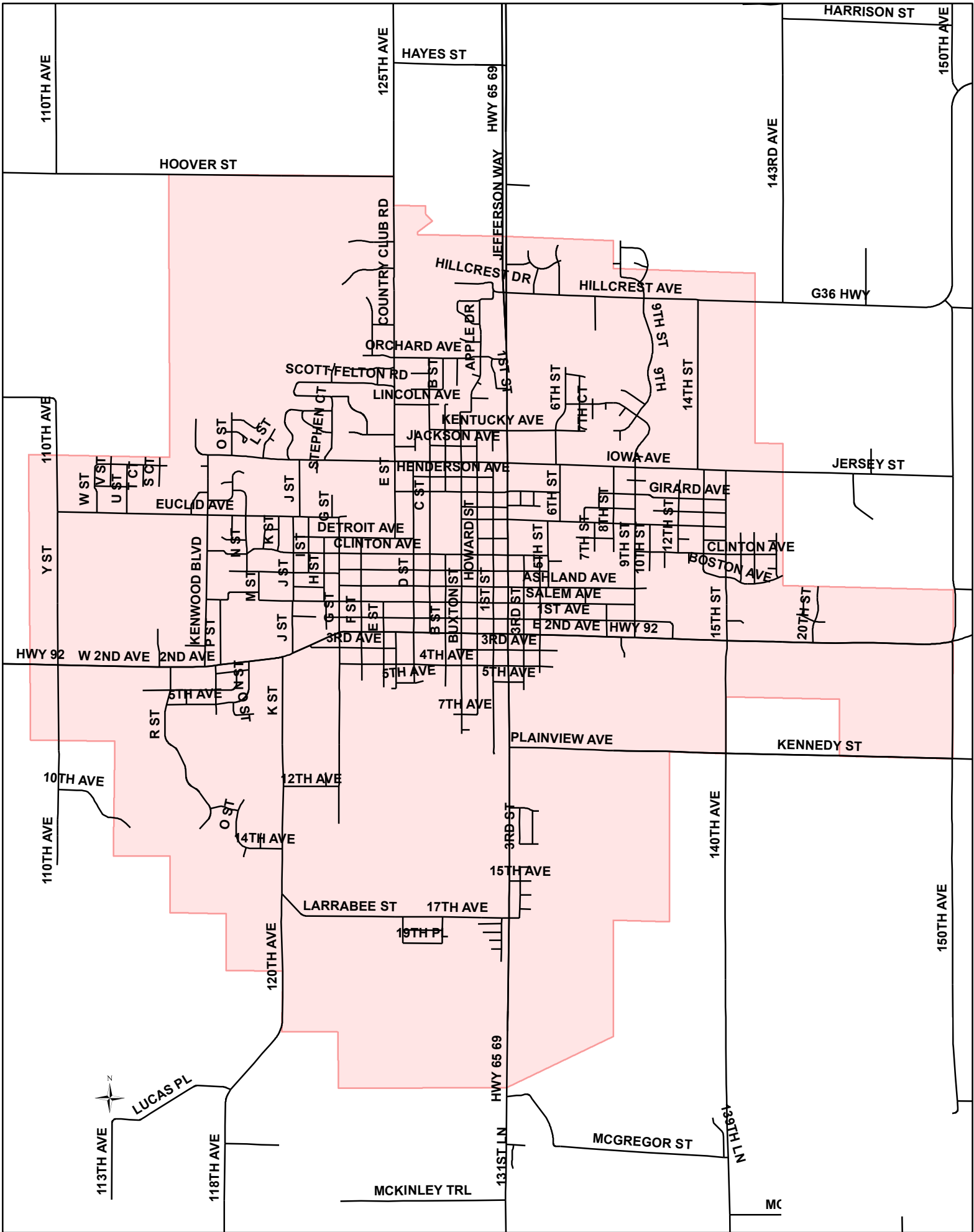
The Iowa Utilities Board homepage link is included here for your convenient access to information about the ME-1 form and other resources available through the IUB website. <http://www.state.ia.us/government/com/util/index.html>

National Electrical Code

The National Fire Protection Association (NFPA) has an internet catalog which includes the National Electrical Code (NEC). In addition to ordering information for the 2011 NEC, the website also contains other helpful resources. The NFPA catalog may be found at <http://www.nfpacatalog.org>. IAMU is a member of NFPA; you may order NFPA materials through IAMU at discounted pricing.

National Electrical Safety Code

The Institute of Electrical and Electronics Engineers (IEEE) has a website for the National Electrical Safety Code (NESC). In addition to ordering information for the NESC, the website also contains Tentative Interim Amendments, Errata Sheets, and Interpretations. The NESC Zone home page may be found at <http://standards.ieee.org/nesc>. You may order NESC materials through IAMU at discounted pricing.



Information

Subject

Discuss the 2015 Water Utility 5-Year Capital Improvement Plan

Information

IMU and V&K performed an in-depth analysis of the performance of the Water Utility's distribution system in 2007-08. Direction was set in 2009 to begin increasing the amount of annual cash funds available for replacing water mains with known performance issues. Priorities include those with a history of breaks, those that need upgraded to larger mains to adequately serve an area with water, and looping mains together to improve performance. The study determined that there is not a foreseeable need for an additional water tower.

In 2011, IMU next set direction to also increase funding for proactive maintenance at the Water Treatment Plant. It was constructed in the late 1990's and has not required major maintenance since. However, a review by V&K listed several items that would greatly extend the life of the plant if proactively maintained.

There are two components to the attached 2015 - 2020 Capital Improvement Plan discussion. The first is to review the prioritized list of water main improvements covering the next 5 construction seasons. The second is a list of prioritized major plant repairs. Both lists are annually reviewed, with priorities modified as needed. Spacing out projects should provide sufficient funds for listed projects without impacting today's water rates. Project timing for each will be annually reviewed, with plans modified as needed.

There are two items to note. First, the 5-year plan does not include a scope of work for replacing water mains in conjunction with major street reconstructions. IMU does indeed replace mains then, typically by borrowing funds with the city (next such debt expires in 2018, so rates wouldn't be impacted if there is a street project). Second, there is no intention today to install a fluoride reduction system. However is beneficial to have an idea on its cost should the federal limits be modified or community members to request reducing natural levels.

V&K and IMU staff will provide printed booklets of the attached materials at the meeting to help with readability.

Financial Impact

N/A

Staff Recommendation

Attachments

Water CIP Financial Summary
CIP Distribution Plans
CIP Water Treatment Facility

**5 YR CAPITAL IMPROVEMENT PLAN
WATER UTILITY**

PROJECT	Current 2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
<u>VEHICLES</u>						
Vac Trailer	40,000					
Pickup Replacement			35,000		35,000	
Backhoe				180,000		
700-8100-67100	40,000	-	35,000	180,000	35,000	-
<u>PLANT/TOWER MAINTENANCE</u>						
Aeration Tank	82,500					
Plant & Garage Exterior	16,000					
Old Plant Demolition	40,000					
Tower Maintenance	20,000		50,000			Simpson, Hillcrest
Vehicle Storage Building	100,000	100,000				
Hillcrest Tower Mixing System		30,000				
Co2 Tanks & Feeders			170,000			
Plant Power & Control Equipment				330,000		
Tank Hatches & Claricone Painting					220,000	
Lime Feed System Control Upgrades						80,000
Chlorination Pumps & Controls						70,000
700-8100-67402	258,500	130,000	220,000	330,000	220,000	150,000
<u>WELL MAINTENANCE</u>						
Well #9 & #11 Motor	50,000					Casing, Pump & Motor
Well #11		100,000				
Backwash & H.S. Pumps			20,000	20,000	20,000	20,000
Well #10				100,000		
Well #12						Due in 2020
700-8100-67403	50,000	100,000	20,000	120,000	20,000	20,000
<u>VALVE/HYDRANT REPLACEMENT</u>						
Gatevalve & Hydrant Replacement						
700-8100-67405	15,000	15,000	15,000	15,000	15,000	15,000
<u>WATER MAINS</u>						
Ann Parkway	10,700					
West Iowa	51,900					
Iowa, Buxton to Howard, Jefferson	165,000					
Clinton, D to G		225,000				
Clinton, G to H			225,000			
Boston, H to J				305,000		
8th, Iowa to Franklin					320,000	
1st, 4th Ave to 10th Ave						405,000
700-8100-67406	165,000	225,000	225,000	305,000	320,000	405,000
<u>WATER METERS</u>						
Water Meter Maintenance						
700-8100-67405	30,000	30,000	30,000	30,000	30,000	30,000
WATER TOTALS	\$ 558,500	\$ 500,000	\$ 545,000	\$ 980,000	\$ 640,000	\$ 620,000

CAPITAL IMPROVEMENTS PLAN

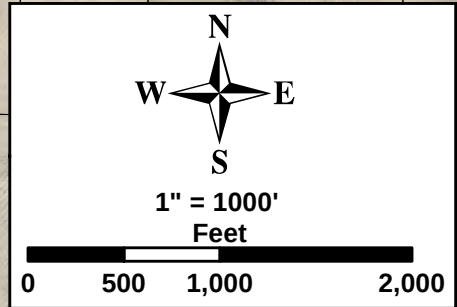
2015 *to* 2020

WATER DISTRIBUTION SYSTEM



Indianola Municipal Utilities
Capital Improvements Plan
Water Distribution System
December 22, 2014

<u>Year</u>	<u>Description</u>	<u>Project Cost</u>
2015	Phase 1 - Iowa Avenue Water Main Replacement	\$165,000
2016	Phase 2 - Clinton Avenue Water Main Replacement	\$225,000
2017	Phase 3 - Clinton Avenue, H Street & Boston Avenue Loop Water Main Replacement	\$225,000
2018	Phase 4 - Clinton Avenue, I Street & Boston Avenue Loop Water Main Replacement	\$305,000
2019	Phase 5 - 8 th Street & 3 rd Avenue Water Main Replacement	\$320,000
2020	Phase 6 - 1 st Street Water Main Replacement	\$405,000



WATER MAIN IMPROVEMENTS

-  PHASE 1
-  PHASE 2
-  PHASE 3
-  PHASE 4
-  PHASE 5
-  PHASE 6



VEENSTRA & KIMM, INC.

PROJECT NO. 28578
DECEMBER 17, 2014

*INDIANOLA MUNICIPAL UTILITIES
WATER DISTRIBUTION CIP
INDIANOLA, IOWA*

PHASE 1 - 2015

Phase 1 includes new 6" water main on Iowa Avenue from Buxton Street to Howard Street and from Jefferson Way approximately 300' to the east. The project will allow an old 4" water main to be abandoned and services transferred to the new 6" water main and a newer existing 10" water main. This project was identified as a priority due to the deteriorating condition of the existing 4" water main which includes iron particles flaking off the inside of the water main and into the water supply.

Item No.	Description	Unit	Estimated Quantity	Unit Price	Extended Price
1	Traffic Control	LS	xxxxx	xxxxx	\$5,000.00
2	Sod	SQ	50	\$66.00	\$3,300.00
3	6" Water Main Directional Bored	LF	730	\$50.00	\$36,500.00
4	Water Service Connection	Ea.	17	\$870.00	\$14,790.00
5	Curb Stop and Box	Ea.	17	\$585.00	\$9,945.00
6	Water Service Pipe in Open Cut	LF	70	\$32.50	\$2,275.00
7	Water Service Pipe Directional Bored	LF	500	\$35.00	\$17,500.00
8	Hydrant Assembly	Ea.	2	\$5,200.00	\$10,400.00
9	6" Valve	Ea.	2	\$2,000.00	\$4,000.00
10	7" PCC Pavement	SY	50	\$92.00	\$4,600.00
11	6" PCC Driveway	SY	10	\$85.00	\$850.00
12	PCC Sidewalk	SF	300	\$6.50	\$1,950.00
13	Detectable Warning Panels	SF	16	\$35.00	\$560.00
14	Connection to Existing System	Ea.	3	\$3,250.00	\$9,750.00
15	Tapping Valve & Sleeve	Ea.	1	\$3,650.00	\$3,650.00
Subtotal					\$125,070.00
Contingency					\$12,930.00
ELA					\$27,000.00
TOTAL					\$165,000.00

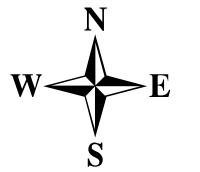
LEGEND

EXISTING UTILITY SYSTEM

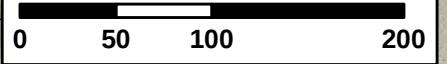
- WATER MAIN
- WATER VALVE
- WATER HYDRANT
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- STORM INTAKE

WATER MAIN IMPROVEMENTS

- PHASE 1



1" = 100'
Feet



Transfer Services &
Abandon 4" Water Main

Abandon
6" Water Main

New 6" Water Main

New 6" Water Main

HENDERSON AVE

IOWA AVE

JEFFERSON WAY

1ST ST



VEENSTRA & KIMM, INC.

PROJECT NO. 28578
DECEMBER 11, 2014

INDIANOLA MUNICIPAL UTILITIES
WATER DISTRIBUTION CIP
INDIANOLA, IOWA

PHASE 1-2015

PHASE 2 - 2016

Phase 2 includes extending a newer existing 8" water main on Clinton Avenue from D Street to G Street. The project will allow an old 4" water main to be abandoned and services transferred to the new 8" water main. This will eliminate an area of dual mains and provide greater fire protection to Simpson College and Irving Elementary School.

Item No.	Description	Unit	Estimated Quantity	Unit Price	Extended Price
1	Traffic Control	LS	xxxxx	xxxxx	\$10,000.00
2	Sod	SQ	50	\$66.00	\$3,300.00
3	8" Water Main Directional Bored	LF	1300	\$63.00	\$81,900.00
4	Water Service Connection	Ea.	15	\$870.00	\$13,050.00
5	Curb Stop and Box	Ea.	15	\$585.00	\$8,775.00
6	Water Service Pipe in Open Cut	LF	100	\$32.50	\$3,250.00
7	Water Service Pipe Directional Bored	LF	250	\$35.00	\$8,750.00
8	Hydrant Assembly	Ea.	2	\$5,200.00	\$10,400.00
9	8" Valve	Ea.	3	\$1,950.00	\$5,850.00
10	7" PCC Pavement	SY	25	\$92.00	\$2,300.00
11	6" PCC Driveway	SY	10	\$85.00	\$850.00
12	PCC Sidewalk	SF	500	\$6.50	\$3,250.00
13	Detectable Warning Panels	SF	48	\$35.00	\$1,680.00
14	Connection to Existing System	Ea.	2	\$3,250.00	\$6,500.00
15	Tapping Valve & Sleeve	Ea.	2	\$3,650.00	\$7,300.00
Subtotal					\$167,155.00
Inflation Factor & Contingency					\$22,845.00
ELA					\$35,000.00
TOTAL					\$225,000.00

LEGEND

EXISTING UTILITY SYSTEM

- WATER MAIN
- WATER VALVE
- WATER HYDRANT
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- STORM INTAKE

WATER MAIN IMPROVEMENTS

- PHASE 2

N

W

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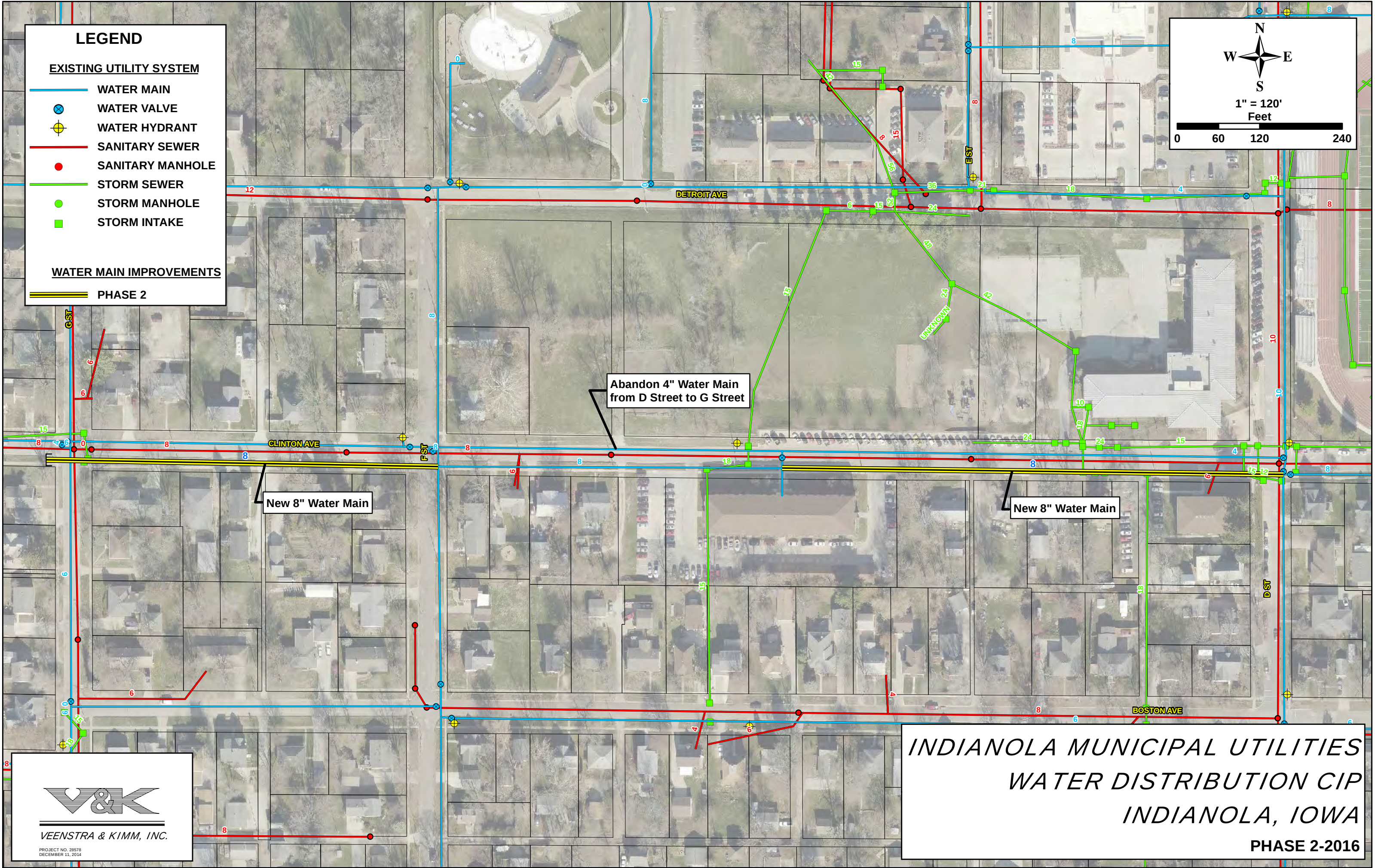
1" = 120'
Feet

0

60

120

240



VEENSTRA & KIMM, INC.

PROJECT NO. 28578
DECEMBER 11, 2014

INDIANOLA MUNICIPAL UTILITIES
WATER DISTRIBUTION CIP
INDIANOLA, IOWA

PHASE 2-2016

PHASE 3 - 2017

Phase 3 includes extending the new 8" water main from phase 2 on Clinton Avenue from G Street to H Street, south on H Street and back east from H Street to G Street on Boston Avenue. The project will allow old 4" and 6" water mains to be abandoned and services transferred to the new 8" water main. This area was identified as a priority due to the age of the existing water mains and high number of breaks.

Item No.	Description	Unit	Estimated Quantity	Unit Price	Extended Price
1	Traffic Control	LS	xxxxx	xxxxx	\$10,000.00
2	Sod	SQ	50	\$66.00	\$3,300.00
3	8" Water Main Directional Bored	LF	1150	\$63.00	\$72,450.00
4	Water Service Connection	Ea.	16	\$870.00	\$13,920.00
5	Curb Stop and Box	Ea.	16	\$585.00	\$9,360.00
6	Water Service Pipe in Open Cut	LF	80	\$32.50	\$2,600.00
7	Water Service Pipe Directional Bored	LF	400	\$35.00	\$14,000.00
8	Hydrant Assembly	Ea.	2	\$5,200.00	\$10,400.00
9	8" Valve	Ea.	3	\$1,950.00	\$5,850.00
10	7" PCC Pavement	SY	25	\$92.00	\$2,300.00
11	6" PCC Driveway	SY	10	\$85.00	\$850.00
12	PCC Sidewalk	SF	500	\$6.50	\$3,250.00
13	Detectable Warning Panels	SF	64	\$35.00	\$2,240.00
14	Connection to Existing System	Ea.	3	\$3,250.00	\$9,750.00
15	Tapping Valve & Sleeve	Ea.	1	\$3,650.00	\$3,650.00
Subtotal					\$163,920.00
Inflation Factor & Contingency					\$27,080.00
ELA					\$34,000.00
TOTAL					\$225,000.00

LEGEND

EXISTING UTILITY SYSTEM

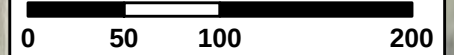
- WATER MAIN
- WATER VALVE
- WATER HYDRANT
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- STORM INTAKE

WATER MAIN IMPROVEMENTS

- PHASE 2
- PHASE 3



1" = 100'
Feet



New 8" Water Main



VEENSTRA & KIMM, INC.

PROJECT NO. 28578
DECEMBER 11, 2014

INDIANOLA MUNICIPAL UTILITIES
WATER DISTRIBUTION CIP
INDIANOLA, IOWA

PHASE 3-2017

PHASE 4 - 2018

Phase 4 includes extending the new 8" water main from phase 3 on Clinton Avenue to I Street and south on I Street to Boston Avenue and extending the new 8" water main on Boston Avenue from H Street to J Street. The project will allow old 4" and 6" water mains to be abandoned and services transferred to the new 8" water main. This area was identified as a priority due to the age of the existing water mains and high number of breaks.

Item No.	Description	Unit	Estimated Quantity	Unit Price	Extended Price
1	Traffic Control	LS	xxxxx	xxxxx	\$10,000.00
2	Sod	SQ	50	\$66.00	\$3,300.00
3	8" Water Main Directional Bored	LF	1400	\$63.00	\$88,200.00
4	Water Service Connection	Ea.	29	\$870.00	\$25,230.00
5	Curb Stop and Box	Ea.	29	\$585.00	\$16,965.00
6	Water Service Pipe in Open Cut	LF	130	\$32.50	\$4,225.00
7	Water Service Pipe Directional Bored	LF	800	\$35.00	\$28,000.00
8	Hydrant Assembly	Ea.	2	\$5,200.00	\$10,400.00
9	8" Valve	Ea.	3	\$1,950.00	\$5,850.00
10	7" PCC Pavement	SY	25	\$92.00	\$2,300.00
11	6" PCC Driveway	SY	10	\$85.00	\$850.00
12	PCC Sidewalk	SF	750	\$6.50	\$4,875.00
13	Detectable Warning Panels	SF	16	\$35.00	\$560.00
14	Connection to Existing System	Ea.	3	\$3,250.00	\$9,750.00
15	Tapping Valve & Sleeve	Ea.	1	\$3,650.00	\$3,650.00
Subtotal					\$214,155.00
Inflation Factor & Contingency					\$43,845.00
ELA					\$47,000.00
TOTAL					\$305,000.00

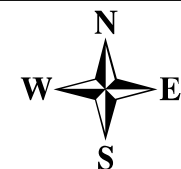
LEGEND

EXISTING UTILITY SYSTEM

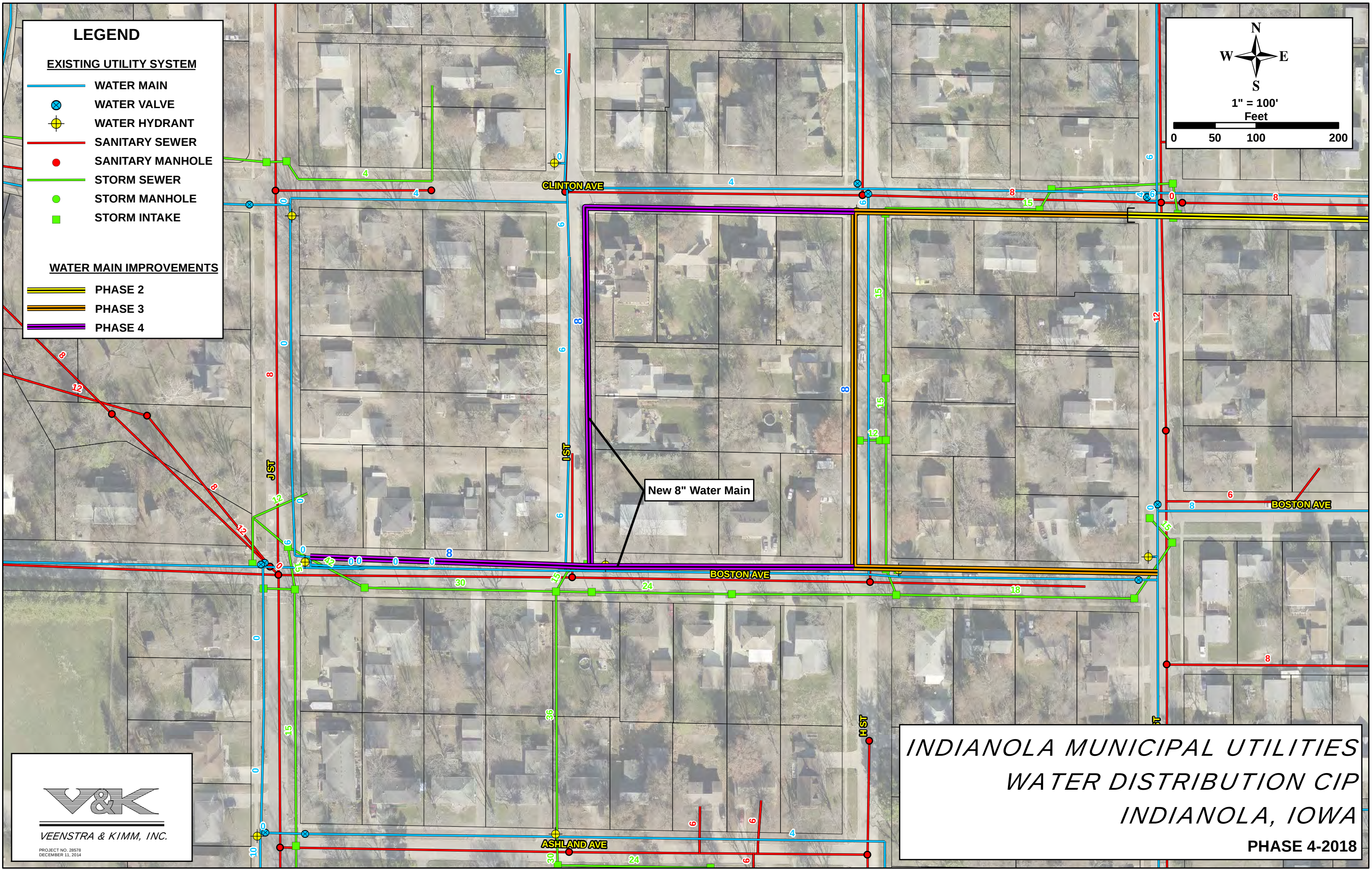
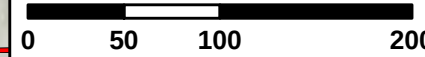
- WATER MAIN
- WATER VALVE
- WATER HYDRANT
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- STORM INTAKE

WATER MAIN IMPROVEMENTS

- PHASE 2
- PHASE 3
- PHASE 4



1" = 100'
Feet



VEENSTRA & KIMM, INC.

PROJECT NO. 28578
DECEMBER 11, 2014

INDIANOLA MUNICIPAL UTILITIES
WATER DISTRIBUTION CIP
INDIANOLA, IOWA

PHASE 4-2018

PHASE 5 - 2019

Phase 5 includes a new 8" water main on 8th Street from Iowa Avenue to Franklin Avenue and on 3rd Avenue from 4th Street east to the dead end. The project will allow old 4" and 6" water main to be abandoned and services transferred to the new 8" water mains. The project will also greatly increase fire protection on the 3rd Avenue dead end. These areas was identified as a priority due to the age of the existing water mains and high number of breaks.

Item No.	Description	Unit	Estimated Quantity	Unit Price	Extended Price
1	Traffic Control	LS	xxxxx	xxxxx	\$10,000.00
2	Sod	SQ	85	\$66.00	\$5,610.00
3	8" Water Main Directional Bored	LF	1450	\$63.00	\$91,350.00
4	Water Service Connection	Ea.	28	\$870.00	\$24,360.00
5	Curb Stop and Box	Ea.	28	\$585.00	\$16,380.00
6	Water Service Pipe in Open Cut	LF	140	\$32.50	\$4,550.00
7	Water Service Pipe Directional Bored	LF	700	\$35.00	\$24,500.00
8	Hydrant Assembly	Ea.	2	\$5,200.00	\$10,400.00
9	8" Valve	Ea.	4	\$1,950.00	\$7,800.00
10	7" PCC Pavement	SY	30	\$92.00	\$2,760.00
11	6" PCC Driveway	SY	10	\$85.00	\$850.00
12	PCC Sidewalk	SF	450	\$6.50	\$2,925.00
13	Detectable Warning Panels	SF	48	\$35.00	\$1,680.00
14	Connection to Existing System	Ea.	1	\$3,250.00	\$3,250.00
15	Tapping Valve & Sleeve	Ea.	3	\$3,650.00	\$10,950.00
Subtotal					\$217,365.00
Inflation Factor & Contingency					\$52,635.00
ELA					\$50,000.00
TOTAL					\$320,000.00

LEGEND

EXISTING UTILITY SYSTEM

- WATER MAIN
- ⊗ WATER VALVE
- ⊕ WATER HYDRANT
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- STORM INTAKE

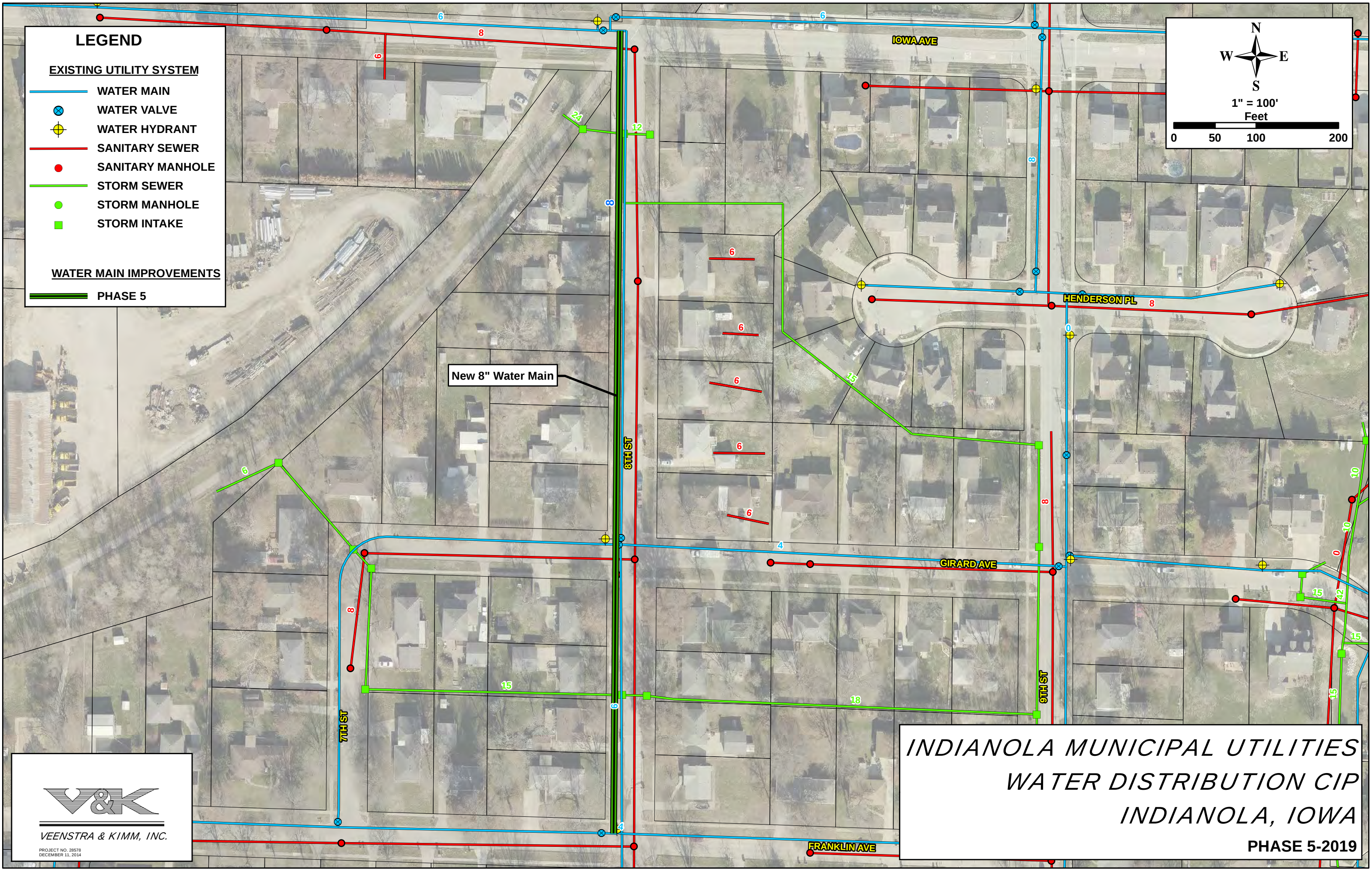
WATER MAIN IMPROVEMENTS

- PHASE 5

N
W E
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1" = 100'
Feet

0 50 100 200



V&K

VEENSTRA & KIMM, INC.

PROJECT NO. 28578
DECEMBER 11, 2014

INDIANOLA MUNICIPAL UTILITIES
WATER DISTRIBUTION CIP
INDIANOLA, IOWA
PHASE 5-2019

LEGEND

EXISTING UTILITY SYSTEM

WATER MAIN

WATER VALVE

WATER HYDRANT

SANITARY SEWER

SANITARY MANHOLE

STORM SEWER

STORM MANHOLE

STORM INTAKE

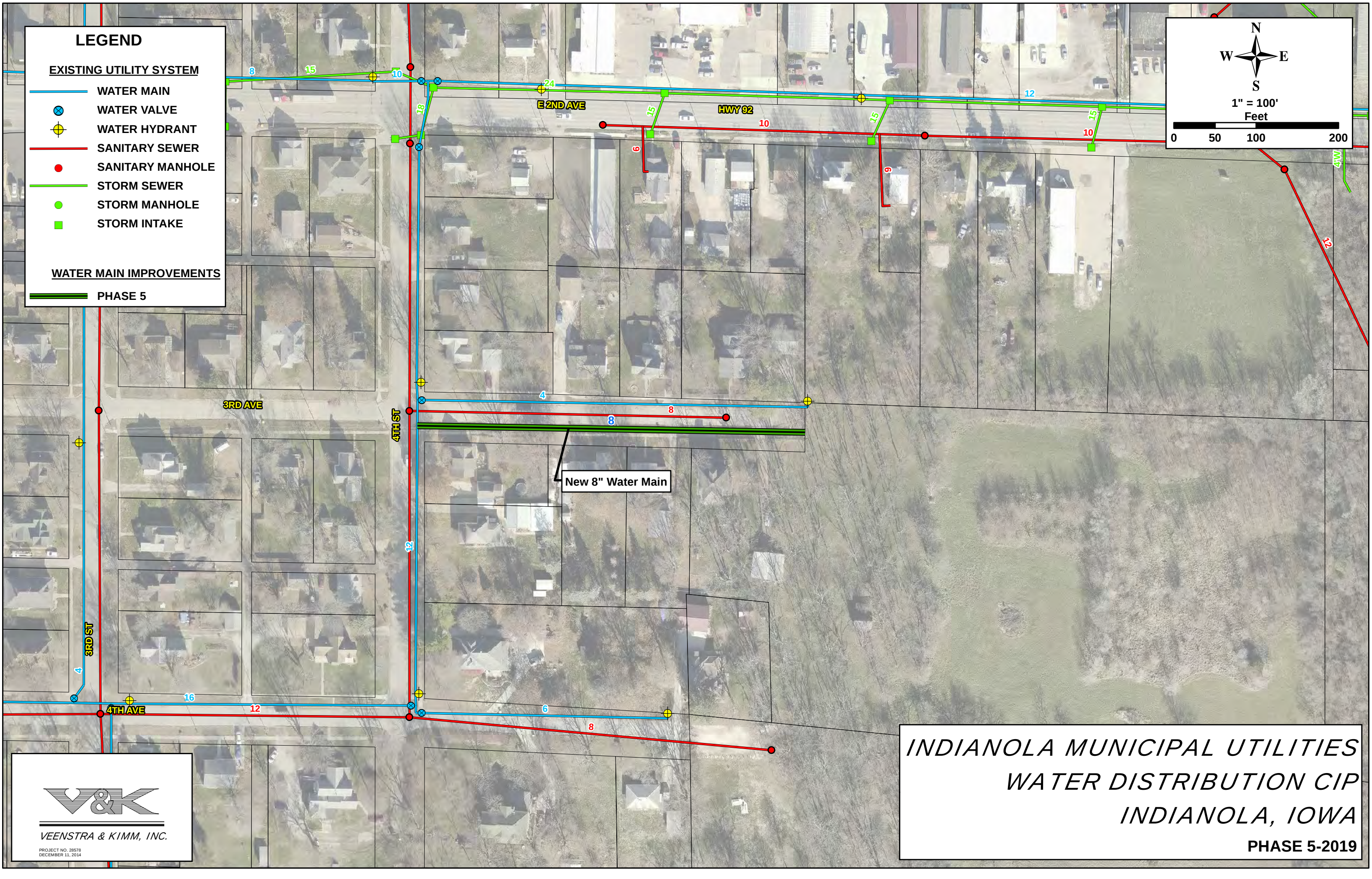
WATER MAIN IMPROVEMENTS

PHASE 5

N
W E
S

1" = 100'
Feet

0 50 100 200



VEENSTRA & KIMM, INC.

PROJECT NO. 28578
DECEMBER 11, 2014

INDIANOLA MUNICIPAL UTILITIES

WATER DISTRIBUTION CIP

INDIANOLA, IOWA

PHASE 5-2019

PHASE 6 - 2020

Phase 6 includes a new 8" water main on 1st Street from 4th Avenue to 10th Avenue. The project will allow an old 6" water main to be abandoned and services transferred to the new 8" water main, increasing fire protection in the area. This area was identified as a priority due to the age of the existing water main and high number of breaks.

Item No.	Description	Unit	Estimated Quantity	Unit Price	Extended Price
1	Traffic Control	LS	xxxxx	xxxxx	\$10,000.00
2	Sod	SQ	75	\$66.00	\$4,950.00
3	8" Water Main Directional Bored	LF	2460	\$63.00	\$154,980.00
4	Water Service Connection	Ea.	25	\$870.00	\$21,750.00
5	Curb Stop and Box	Ea.	25	\$585.00	\$14,625.00
6	Water Service Pipe in Open Cut	LF	150	\$32.50	\$4,875.00
7	Water Service Pipe Directional Bored	LF	500	\$35.00	\$17,500.00
8	Hydrant Assembly	Ea.	4	\$5,200.00	\$20,800.00
9	8" Valve	Ea.	4	\$1,950.00	\$7,800.00
10	7" PCC Pavement	SY	25	\$92.00	\$2,300.00
11	6" PCC Driveway	SY	10	\$85.00	\$850.00
12	PCC Sidewalk	SF	250	\$6.50	\$1,625.00
13	Detectable Warning Panels	SF	16	\$35.00	\$560.00
14	Tapping Valve & Sleeve	Ea.	2	\$3,650.00	\$7,300.00
Subtotal					\$269,915.00
Inflation Factor & Contingency					\$74,085.00
ELA					\$61,000.00
TOTAL					\$405,000.00

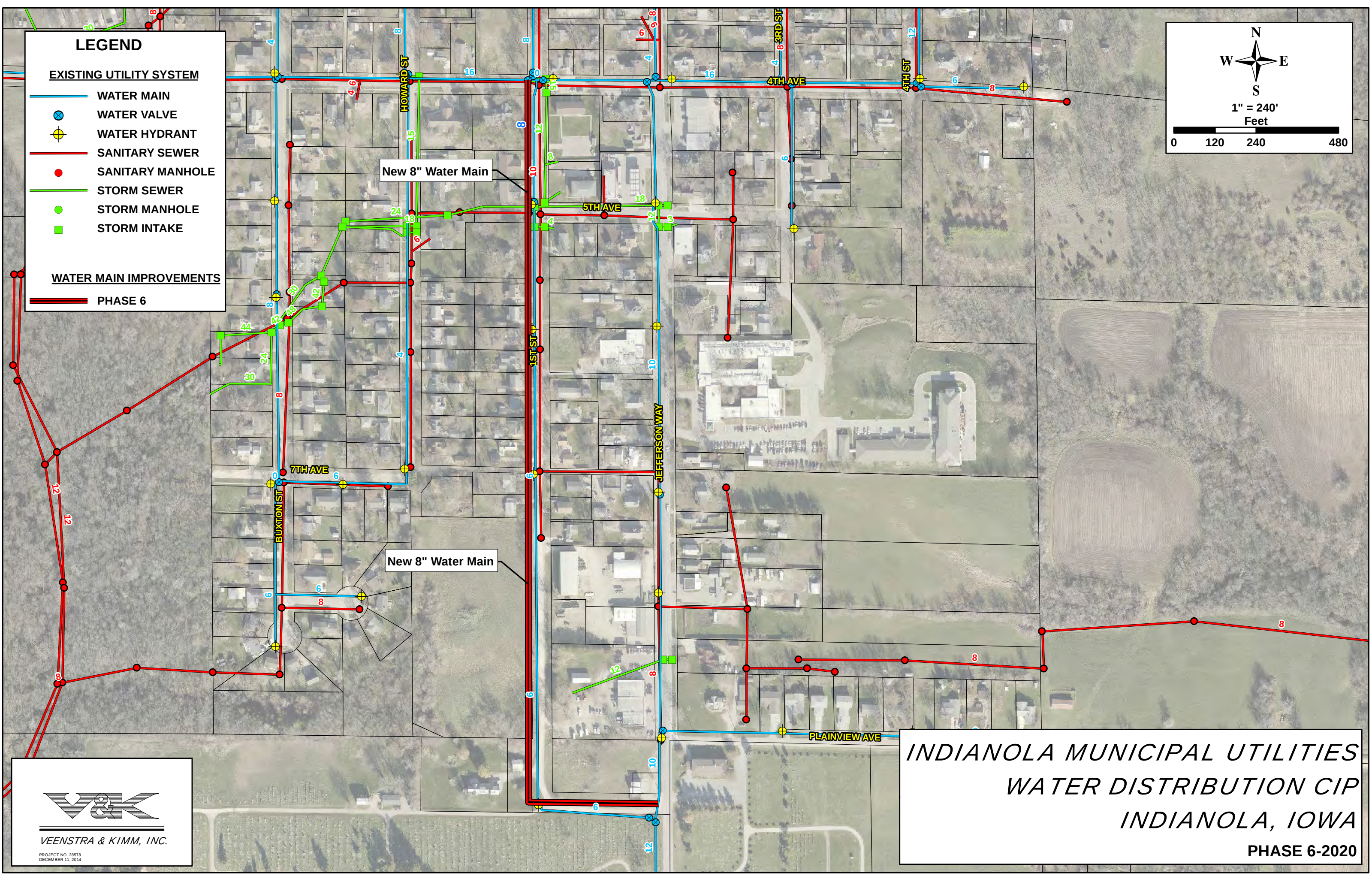
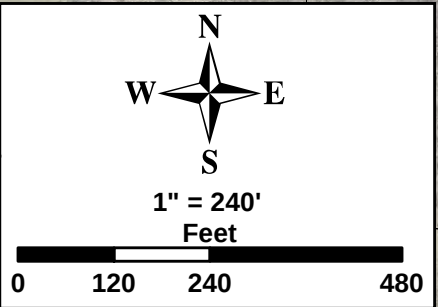
LEGEND

EXISTING UTILITY SYSTEM

- WATER MAIN
- ⊗ WATER VALVE
- ⊕ WATER HYDRANT
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- STORM INTAKE

WATER MAIN IMPROVEMENTS

- PHASE 6



VEENSTRA & KIMM, INC.

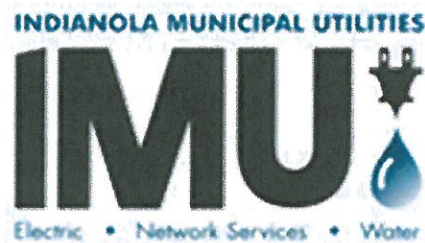
PROJECT NO. 28578
DECEMBER 11, 2014

INDIANOLA MUNICIPAL UTILITIES
WATER DISTRIBUTION CIP
INDIANOLA, IOWA
PHASE 6-2020

CAPITAL IMPROVEMENTS PLAN

2015 *to* 2019

WATER TREATMENT FACILITY



Indianola Municipal Utilities
Capital Improvements Plan
Water Treatment Facility
December 22, 2014

<u>Fiscal Year</u>	<u>Description</u>	<u>Project Cost</u>
2015	Vehicle Storage Building	\$200,000
2016	Carbon Dioxide System Controls Upgrade	\$170,000
2016	Hillcrest Water Tower Mixing System	\$30,000
2017	Plant Power and Control Equipment	\$330,000
2018	Tank Painting	\$220,000
2019	Lime Feed System Controls Upgrade	\$80,000
2019	Chlorination Pumps and Controls	\$70,000
Future	Fluoride Reduction System	\$1,350,000

Vehicle Storage Building

Additional vehicle storage is needed for vehicles recently obtained and proposed to be obtained in the near future. The proposed building will be a metal frame building with metal siding. A brick wainscot will be installed on the sides visible to the public to tie the architecture of the building to the water treatment plant. The building will be insulated, heated and have a concrete floor to allow for year around vehicle maintenance.



ESTIMATED COST \$200,000

Carbon Dioxide System Controls Upgrade

The carbon dioxide system consists of an indoor system and an outdoor system. The indoor system was installed with the water plant in 1996. The outdoor system was relocated from the old water plant. The age of the outdoor system is unknown, but is estimated over 30 years old.

The indoor system control panel is 18 years old. Parts can no longer be obtained. The controls have to be "jerry-rigged" by a specialist from Georgia to keep the controls functioning.



The outdoor system controls and piping are over 30 years old. The control piping has problems freezing in the winter.



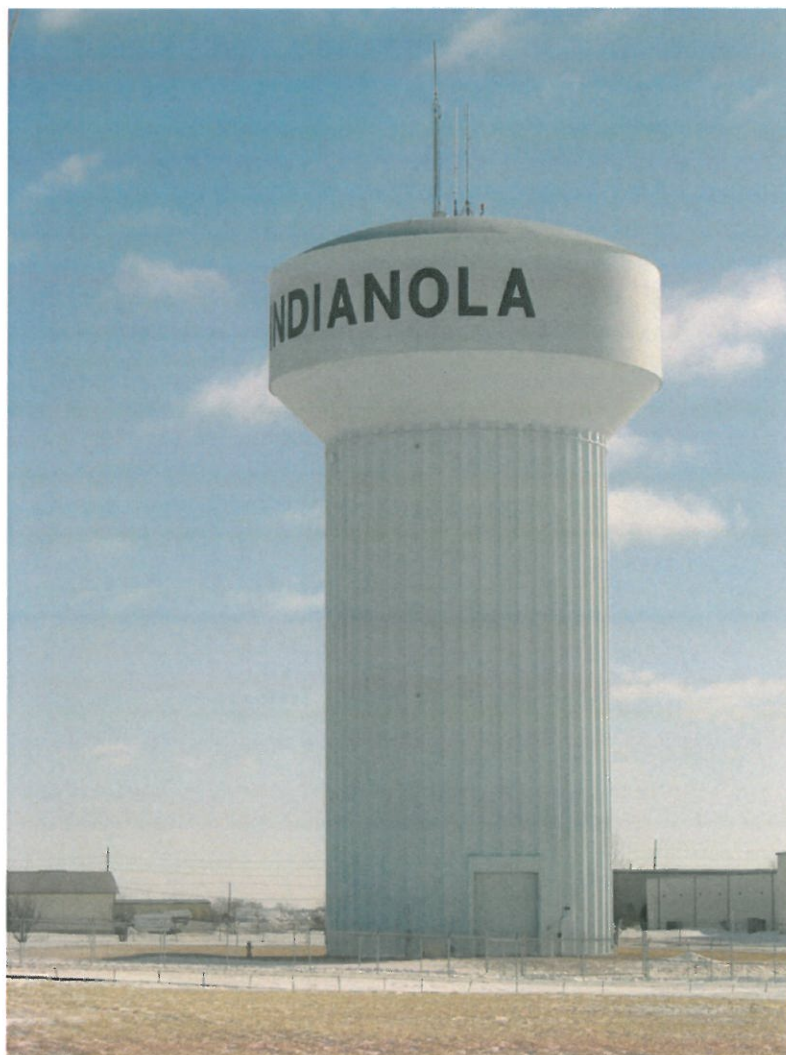
ESTIMATED COST \$170,000

Hillcrest Water Tower Mixing System

Relatively low water demand in the vicinity of the Hillcrest Water Tower results in a low water turnover rate within the water tower.

This causes the chlorine concentration in the water to drop. There have also been some icing problems in the tower when it is really cold and water demand is low, especially at night.

A mixing system in the tower will prevent icing and help with water turn over to keep chlorine levels elevated. The effectiveness of the mixing system can first be evaluated before the system is installed modeling the mixing system using the Utilities existing water model.



ESTIMATED COST \$30,000

Plant Power and Control Equipment

The Panel View control module that operates the treatment facility is operational but outdated. The power control sensor monitoring system is not operational. The main control panel PLC system is obsolete. Certain signals are not being received including pH, hours on filters, lime feeder status and turbidity. The plant power and control equipment is original to the water treatment plant and is obsolete.

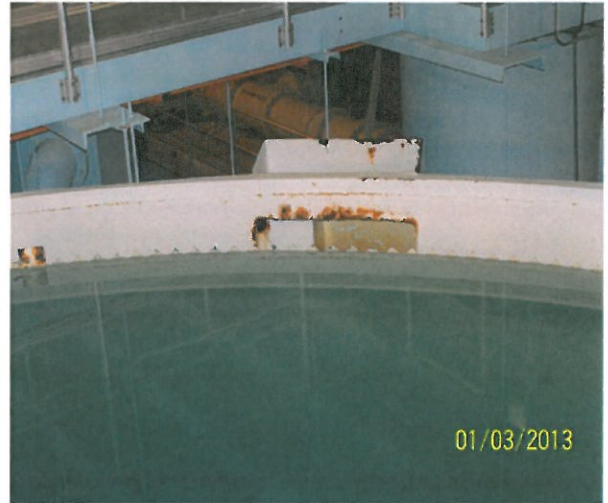


ESTIMATED COST \$330,000

Tank Painting

The solids contact claricones, indoor carbon dioxide tank and the lime silo are in need of being re-painted. All the tanks have their original paint coating from 1996. The outside doors into the lime slaker room have corroded and need to be replaced.

The re-painting of the tanks could be spread out over multiple years by only re-painting one tank every year.



ESTIMATED COST \$220,000

Lime Feed System Controls Upgrade

The lime feed system controls were installed with the water plant in 1996. The controls include the panels for the lime slaker, lime feeder and lime silo.



The controls are outdated and parts are becoming difficult to obtain.

ESTIMATED COST \$80,000

Chlorination Pumps and Controls

The pumps and controls for the chlorination system are original to the water treatment plant in 1996. The controls are outdated and the pumps have exceeded their useful life.



ESTIMATED COST \$70,000

Fluoride Reduction System

The natural fluoride concentration from the well source water is approximately 2.6 mg/l. The Iowa Department of Natural Resources standard are to have the concentration level below 2.0 mg/l.

The fluoride reduction system would reduce the fluoride concentration in a portion of the drinking water to 0.0 mg/l. This water would then be mixed back with the rest of the water to achieve a blended fluoride concentration below 2.0 mg/l.

The system is a reverse osmosis (R.O.) system with a flow rating of approximately 300 gpm. For budgeting purposes, it is assumed the system will need to be installed in a separate, stand-alone building. It may be possible, depending on the system selected, to fit the system in the water treatment plant under the solids contact claricones.

ESTIMATED COST \$1,350,000

Information

Subject

Engineering Services for 2015 Water Main Improvements

Information

V&K has provided the attached Agreement for engineering services for the proposed 2015 improvements at Hwy 65/69 and Iowa Avenue. The scope of services includes design work, surveys, providing a final plans & specifications, cost estimate, bid recommendation, and resident review during construction. The proposed fee is not to exceed \$26,700 for the now-estimated \$165,000 project. It may be less if resident review during construction is fewer than 160 hours.

Financial Impact

N/A

Staff Recommendation

Simple motion accepting the proposed engineering agreement with V&K for the 2015 Water Main Improvement project is in order.

Attachments

Engineering Agreement

AGREEMENT

INDIANOLA MUNICIPAL UTILITIES 2015 WATER MAIN IMPROVEMENTS

THIS AGREEMENT, made and entered into this _____ day of _____, 20____, by and between the **INDIANOLA MUNICIPAL UTILITIES**, hereinafter referred to as the **Owner**, party of the first part, and **VEENSTRA & KIMM, INC.**, a corporation organized and existing under the laws of the State of Iowa, with principal offices in West Des Moines, Iowa, party of the second part, hereinafter referred to as the **Engineers**.

WITNESSETH: THAT WHEREAS, the Owner wishes to proceed with construction of **2015 Water Main Improvements**, hereinafter referred to as the **Project**, and

WHEREAS, the Owner desires the Engineers to perform professional engineering services to prepare construction plans and specifications and provide other necessary engineering services in connection with the Project.

NOW, THEREFORE, it is hereby agreed by and between the parties hereto that the Owner does retain the Engineers to act for and represent it in engineering matters, as set forth hereinafter, involved in the Project. Such contract of employment will be subject to the following terms, conditions and stipulations, to wit:

1. **SCOPE OF PROJECT.** It is understood and agreed that the Project shall consist of an 6-inch diameter water main along the following streets including all connections, valves, side street connections, water service connections, and fire hydrants, and miscellaneous associated work for a complete project.
 - a. Iowa Avenue from Buxton Street to Howard Street.
 - b. Iowa Avenue from Jefferson Way approximately 300' to the east.
 - c. Iowa Avenue from Howard Street to Jefferson Way (service transfers only).

It is further understood and agreed that the scope of the Project may be modified by mutual agreement of the parties hereto.

2. **DESIGN SURVEYS.** The Engineers shall complete all topographic surveys necessary for design of the Project and preparation of the plans and specifications. The Engineers shall use aerial photography for the development of plans.
3. **DESIGN CONFERENCE.** The Engineers shall attend a conference with the Owner, if necessary, to make decisions as to the details of design of the Project.

4. **PLANS AND SPECIFICATIONS.** The Engineers shall prepare such detailed plans and specifications as are reasonably necessary and desirable for construction of the Project. The specifications shall describe, in detail, the work to be done and materials to be used.
5. **PERMITS AND LICENSES.** The Engineers shall provide copies of plans and specifications, explanatory letters of transmittal, completion of required application forms and other information necessary to obtain an Iowa Department of Natural Resources permit for construction.

The Owner shall pay for all licenses and other costs associated with permits and licenses and said costs shall not be charged against the Engineer's maximum fee set forth hereinafter.

6. **ESTIMATES OF COST.** The Engineers shall prepare an Engineers' Estimate of Cost for the improvements to be constructed under the Project. The Engineers' Estimate of Cost is intended for the use of the Owner in financing the Project. The Engineers shall not be responsible if the contract(s) awarded for construction of the Project vary from the Engineers' Estimate of Cost.
7. **ADVERTISEMENT FOR BIDS.** The Engineers shall assist in the preparation of notice to bidders and shall provide plans and specifications for prospective bidders. The Engineers shall provide plans and specifications to approved contract plan rooms and other construction document depositories. The Engineers shall make available and distribute plans and specifications in accordance with Senate File 2389. The Owner shall reimburse the Engineers the cost for plans and distribution as required in Senate File 2389. The reimbursement for plans and distribution shall be distinct from, and not included in, the design fees set forth in this Agreement. The Engineers shall separately track and account for the cost of plans and distribution, and shall separately invoice the Owner for said costs as allowed under Senate File 2389. The Engineers shall assist in the bidding phase for the contract.
8. **ENGINEERS' NOTICE.** In addition to the official publication to be published in the newspaper by the Owner, the Engineers shall prepare an Engineers' Notice and mail it at least three days before the publication in the newspaper. Said Engineers' Notice shall be mailed to contractors and subcontractors, plan rooms and suppliers from listings assembled by the Engineers from previous projects. The Owner shall have the right to inspect the list prior to mailing and delete any names it may deem to be in its best interest. It is understood and agreed that the Engineers' Notice is unofficial and is provided as a special service to prospective bidders, plan rooms and suppliers. It is also understood that the services include preparation and distribution of addenda to the Project.

9. **AWARD OF CONTRACT.** The improvements outlined in the Project shall be bid at not more than one letting. The Engineers shall have a representative present when the bids and proposals are opened and shall make tabulations of bids for the Owner and shall advise as to the responsiveness of the bidders, and assist in making the award of contracts. After the awards are made, the Engineers shall prepare the necessary contract documents. The Engineers shall not be responsible for advising the Owner as to the responsibility of any bidder.
10. **GENERAL SERVICES DURING CONSTRUCTION.** The Engineers shall provide general services during construction including:
- a. Conduct a preconstruction conference with the contractor and Owner prior to starting work on the Project.
 - b. Attend conferences, as necessary, with the Owner and contractor as requested by the Owner.
 - c. Assist in interpretation of plans and specifications.
 - d. Review shop drawings and manufacturers' data.
 - e. Settle disputes with the contractor regarding concurrence with the specifications and consult with Owner when the Engineers and contractor cannot resolve such dispute.
 - f. Prepare change orders to construction contract documents, as necessary, during construction. All change orders are subject to approval of Owner.
 - g. Process monthly partial payment estimates.
 - h. Provide as-constructed plans to the Owner.
11. **RESIDENT REVIEW.**
- a. Resident review services is understood to include the detailed observation and review of work of the Contractors and materials to assure compliance with the plans and specifications.
 - b. The Engineers shall provide resident review services by assigning resident engineers and/or engineering technicians to the Project for such periods reasonably required to ensure proper review of the construction work. On-site review shall take place on a part time basis during the construction work on the Project.

12. **FINAL REVIEW.** The Engineers shall make a final review after construction is complete to determine that the construction complies with the plans and specifications. The Engineers shall certify to the Owner that construction is substantially in compliance with the plans and specifications.
13. **COMPENSATION.** The Owner shall compensate the Engineers for their services by payment of the following fees:
- a. The fee for engineering design services for the Project as set out in **1. SCOPE OF PROJECT** through **9. AWARD OF CONTRACT**, shall be a fee on the basis of the standard hourly fees with a maximum not-to-exceed fee of Twelve Thousand Eight Hundred Dollars (\$12,800) without written authorization by the Owner. The standard hourly fees of the Engineers are shown in attached Exhibit A.
 - b. The fee for engineering services during construction as set out in **10. GENERAL SERVICES DURING CONSTRUCTION** and **12. FINAL REVIEW**, shall be determined on the basis of the standard hourly fees plus expenses of the personnel of the Engineers actually engaged in the performance of the services. The fee shall not exceed the sum of Three Thousand Five Hundred Dollars (\$3,500) without written authorization by the Owner. The standard hourly fees of the Engineers are shown in attached Exhibit A.
 - c. For resident review services during construction as delineated in **11. RESIDENT REVIEW**, but excluding materials testing, the fee will be Sixty-two Dollars (\$65) per hour. It is anticipated the construction will require 160 hours of resident review time and will not exceed Ten Thousand Four Hundred Dollars (\$10,400).
 - d. The Owner shall compensate the Engineers for the cost of plans and distribution of plans as set forth in **7. ADVERTISEMENT FOR BIDS** above as provided in Senate File 2389. The reimbursement of the cost plans and distribution of plans as required under Senate File 2389 is not included in the fees for services set forth under this Agreement.
14. **PAYMENT.** The fee for work set out in **13. COMPENSATION** shall be billed and payable monthly during the course of the rendering of the services.
15. **TIME OF COMPLETION.** The plans and specifications for the Project shall be completed within sixty (60) days after written authorization to proceed for the Project is issued by the Owner. The Project design will be completed to allow for Spring 2015 construction.

- 16. LEGAL SERVICES.** The Owner shall provide the services of the Owner's Attorney in matters pertaining to this Project. The Engineers shall cooperate with the Attorney and shall comply with his requirements as to form of contract documents and procedures relative to them.
- 17. SERVICES NOT INCLUDED.** Services not included under this Agreement are as follows:
- a. Laboratory tests.
 - b. Services related to or regarding arbitration or litigation of the construction contract between the construction contractor and the Owner regarding any part of the Project.
 - c. Services relating to the acquisition of easements, permanent or construction. Legal surveys, property surveys and easement surveys are not included in this Project cost.
 - d. Construction testing services.
 - e. Soil borings, soil testing and contaminated soil investigations.
 - f. Environmental and archaeological studies.
 - g. Services required for the evaluation of and determination to accept defective work by Contractor including required re-design services.
 - h. Assistance in connection with bid protests, rebidding or renegotiating contracts for construction, materials, equipment, or services, only so long as the original work is reasonably consistent with the Owner's program or other instruction.
 - i. Providing assistance in resolving any Hazardous Environmental Condition in compliance with current Laws and Regulations.
 - j. Other services performed or furnished by Engineer not otherwise provided for in this Agreement.

18. SUSPENSION.

- a. The Owner agrees that the Engineer is not responsible for damages arising directly or indirectly from any delays for causes beyond the Engineer's control. For purposes of this Agreement, such causes include, but are not limited to, strikes or other labor disputes; severe weather disruptions or other natural disasters or acts of God; fires, riots, war or other emergencies; failure of any government agency to act in a timely manner; failure of performance by the Owner; or discovery of any hazardous substances or differing site conditions. In addition, if the delays resulting from any such causes increase the cost or time required by the Engineer to perform its services in an orderly and efficient manner, the Engineer shall be entitled to a reasonable adjustment in schedule and compensation.
- b. If Engineer's services are extended by Contractor's actions or inactions for more than the scheduled final construction completion, as defined in the Contract Documents, through no fault of the Engineer, the Engineer will be entitled to equitable and agreeable adjustment of rates and amounts of compensation provided in this Agreement.

19. CHANGES. If after the plans and specifications are completed and approved by the Owner, the Engineers are required to change the plans and specifications because of changes made by the Owner, the Engineers shall receive additional compensation for making such changes. The compensation for such changes shall be based upon the standard hourly fees as shown on Exhibit A, plus expenses for personnel of the Engineers actually engaged in making the changes.

20. EXTRA WORK. Fees stated in this Agreement cover the specific services outlined in this Agreement for the Project. If the Owner requires additional services of the Engineers in connection with the Project, or changes or modifications in the Project, the Engineers shall receive additional compensation for said services. Such additional compensation shall be at the standard hourly fees for personnel of the Engineers, as shown on Exhibit A, plus expenses for personnel engaged in the authorized extra work.

21. INDEMNIFICATION. The Engineers shall and hereby agree to hold and save the Owner harmless from any and all claims, settlements, and judgments, to include all reasonable investigative fees, attorneys' fees, suit and court costs for personal injury, property damage, and/or death arising out of the Engineers' or any of its agents', servants', and employees' errors, omissions or negligent acts for services under this Agreement, and for all injury and/or death to any and all of the Engineers' personnel, agents, servants, and employees occurring under the Workers' Compensation Act of the State of Iowa.

22. **INSURANCE.** The Engineers shall furnish the Owner with certificates of insurance by insurance companies licensed to do business in the State of Iowa, upon which the Owner is endorsed as an additional named insured, in the following limits. It must be clearly disclosed on the face of the certificates that the coverage is on an occurrence basis:

General Liability*	\$1,000,000/2,000,000
Automobile Liability	1,000,000
Excess Liability (Umbrella)*	7,000,000/7,000,000
Workers' Compensation, Statutory Benefits Coverage B	1,000,000
Professional Liability**, ***	2,000,000/2,000,000

*Occurrence/Aggregate

**The Owner is not to be named as an additional insured

***Claims made basis

23. **TERMINATION.** Should the Owner abandon the Project before the Engineers have completed their work, the Engineers shall be paid proportionately for the work and services performed until the date of termination.
24. **BETTERMENT.** When a Change Order is necessitated by an act or omission of Engineer or an error in the design of the Project, responsibility for such act, omission, or error shall be determined in good faith by Owner and Engineer. To the extent that such act, omission, or error arose out of the lack of quality professional services provided by Engineer or of the lack of professional quality deliverables prepared by Engineer, Owner shall be entitled to an amount equal to the difference between the actual cost of the change work and the estimated cost of the change work (less added value to the Owner) if there had been no such act, omission, or error. Engineer shall pay such sum to Owner.
25. **ASSISTANTS AND CONSULTANTS.** It is understood and agreed that the employment of the Engineers by the Owner for the purposes aforesaid shall be exclusive, but the Engineers shall have the right to employ such assistants and consultants as they deem proper in the performance of the work.
26. **ASSIGNMENT.** This Agreement and each and every portion thereof shall be binding upon the successors and assigns of the parties hereto.

The undersigned do hereby covenant and state that this Agreement is executed in duplicate as though each were an original, and that there are no oral agreements that have not been reduced to writing in this instrument.

It is further covenanted and stated that there are no other considerations or monies contingent upon or resulting from the execution of this Agreement, nor have any of the above been implied by or for any party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have subscribed their names on the date first written above.

BOARD OF TRUSTEES
INDIANOLA MUNICIPAL UTILITIES

ATTEST:

By _____
Chairperson

By _____
General Manager

VEENSTRA & KIMM, INC.

ATTEST:

By Forrest S. Aldrich
Forrest S. Aldrich

By Sara Kappes

HOURLY RATES BY EMPLOYEE CLASSIFICATION
(Effective July 2014)

Management I	\$150.00
Management II	146.00
Process Engineer.....	166.00
Engineer I-A.....	150.00
Engineer I-B.....	140.00
Engineer I-C.....	138.00
Engineer II.....	126.00
Engineer III-A.....	111.00
Engineer III-B.....	104.00
Engineer III-C.....	99.00
Engineer IV.....	96.00
Engineer V.....	90.00
Engineer VI.....	85.00
Engineer VII.....	80.00
Engineer VIII.....	75.00
Engineer IX.....	69.00
Engineer X.....	64.00
Engineer XI.....	60.00
Design Technician.....	86.00
Planner I.....	98.00
Planner II.....	75.00
Planner III.....	69.00
Drafter I.....	84.00
Drafter II.....	71.00
Drafter III.....	68.00
Drafter IV	63.00
Drafter V	52.00
Drafter VI	50.00
Drafter VII	41.00
Clerical I	77.00
Clerical II	56.00
Clerical III	41.00
Clerical IV	32.00
Construction Manager	144.00
Surveyor I.....	85.00
Surveyor II.....	78.00
Technician I	74.00
Technician II	68.00
Technician III	65.00
Technician IV	60.00
Technician V	54.00
Technician VI	51.00
Technician VII	42.00
Technician VIII	37.00
Technician IX	30.00
Building Inspector I	80.00
Building Inspector II	70.00
Robotics.....	30.00/Hour
GPS.....	30.00/Hour
Leica Total Station	20.00/Hour
Total Station Robotics	15.00/Hour
Tablet.....	45.00/Hour
Fluoroscope	50.00/Hour
4-Wheeler	45.00/Day
Mileage.....	56¢/Mile

Information

Subject

Issue Notice of Letting for Filter Building (Old Water Plant) Demolition

Information

The demolition of the old water plant (Filter Building) on W. 17th is scheduled for this spring. The building has deteriorated considerably and asbestos has been removed.

Technically, IMU will receive quotations for this demolition work vs. following formal bidding procedures. However staff and V&K both recommend issuing a formal contract and receiving firm bids due to the nature of the scope of work.

Therefore, V&K has provided for Trustees to issue the attached notice for receiving demolition proposals.

Financial Impact

N/A

Staff Recommendation

Simple motion issuing a Notice for the Taking of Bids for the Filter Building Demolition, as presented, is in order.

Attachments

Notice

NOTICE OF LETTING

NOTICE FOR THE TAKING OF BIDS FOR THE FILTER BUILDING DEMOLITION, INDIANOLA MUNICIPAL UTILITIES, INDIANOLA, IOWA.

Sealed proposals will be received by the Clerk of the Indianola Municipal Utilities in the Council Chambers of the Indianola Municipal Building, 110 N. 1st Street, Indianola, Iowa until 10:00 A.M. local time on January 20, 2015 for the Filter Building Demolition, as described in the plans and specifications therefor, now on file in the office of the Clerk. Proposals will be opened and the amount of the bids announced in said Indianola Municipal Utilities by the Clerk at the time and date specified above.

At 5:30 P.M. on the 26th day of January, 2015, the Board of Trustees of Indianola Municipal, or at such time, date and place as then may be fixed, to act upon proposals and enter into a contract for the project.

The nature and extent of the project is as follows:

FILTER BUILDING DEMOLITION

Demolish the Filter Building located at the previous water treatment plant site including all labor, materials, and equipment necessary for removal and disposal of equipment, piping, etc., demolition and burial of reinforced concrete and masonry walls, disconnecting and abandoning buried utilities, backfilling and grading of the site, and miscellaneous associated work, including cleanup.

All work and materials are to be in accordance with the proposed plans, specifications, form of contract and estimate of cost now on file in the office of the Clerk of said Utilities and by this reference made a part thereof as though fully set out and incorporated herein.

All proposals and bids in connection therewith shall be submitted to the Clerk of said Utilities on or before the time herein set for said hearing. All proposals shall be made on official bidding blanks furnished by the Board, and any alterations in the official form of proposal will entitle the Board, at its option, to reject the proposal involved from consideration. Each proposal shall be sealed and plainly identified.

Notice of Letting

Each proposal shall be made out on a blank form furnished by the Board and must be accompanied by bid security, as follows: a certified or cashier's check, drawn on a solvent Iowa bank or a bank chartered under the laws of the United States or a certified share draft drawn on a credit union in Iowa or chartered under the laws of the United States, in an amount equal to five percent (5%) of the bid, or a bid bond executed by a corporation authorized to contract as a surety in the State of Iowa in a penal sum of five percent (5%) of the bid.

The bid security should be made payable to the INDIANOLA MUNICIPAL UTILITIES. The bid security must not contain any conditions either in the body or as an endorsement thereon. The bid security shall be forfeited to the Board as liquidated damages in the event the successful bidder fails or refuses to enter into a contract within 15 days after the award of contract and post bond satisfactory to the Board insuring the faithful fulfillment of the contract and the maintenance of said work, if required, pursuant to the provisions of this notice and the other contract documents. Bidders will use the bid bond form included in the specifications.

By virtue of statutory authority, a preference will be given to products and provisions grown and coal produced within the State of Iowa, and to Iowa domestic labor, to the extent lawfully required under Iowa statutes.

The Board of Trustees reserves the right to reject any or all bids, to waive informalities or technicalities in any bid and to accept the bid which it deems to be to the best interest of the Board.

The successful bidder will be required to furnish bond in an amount equal to one hundred percent (100%) of the contract price, said bonds to be issued by responsible surety approved by the Board and shall guarantee the faithful performance of the contract and the terms and conditions therein contained, and shall guarantee the prompt payment for all materials and labor and protect and save harmless the Board from claims and damages of any kind caused by the operations of the Contractor.

The work will commence within ten (10) calendar days after the date set forth in written Notice to Proceed. All work on the project shall be completed within one hundred (100) consecutive calendar days.

Notice of Letting

Payment for said improvements will be made in cash from sale of general obligation bonds or notes, water revenue bonds or notes, or from such funds as are legally available for said purposes. Any combination of the above methods of payment may be used at the discretion of the Board of Trustees.

Payment to the Contractor will be on the basis of monthly estimates equivalent to ninety-five percent (95%) of the contract value of the work completed and materials delivered to the site during the preceding calendar month. Estimates will be prepared on the first day of each month by the Contractor, subject to the approval of the Engineer, who will certify to the Board for payment each approved estimate on or before the tenth (10th) day of the following month. Such monthly payments shall in no way be construed as an act of acceptance for any part of the work partially or totally completed. Upon completion of the work and its acceptance by the Board, the Contractor will be paid an amount which, together with previous payments, will equal ninety-five percent (95%) of the contract price of the contract. Final payment of the remaining five percent (5%) will be made not less than thirty-one (31) days after completion and acceptance by resolution of the Board of Trustees of the completed contract, subject to the conditions and in accordance with the provisions of Chapter 573 of the Code of Iowa. No such partial or final payments will be due until the Contractor has certified to the Clerk that the materials, labor and services involved in each estimate have been paid for in accordance with the requirements stated in the specifications.

A sales tax exemption certificate will be available for all material purchased for incorporation in the project.

Liquidated damages in the amount of Three Hundred Dollars (\$300.00) per consecutive calendar day will be assessed for each day that the work remains uncompleted after the end of the contract period, with due allowance for extensions of the contract period due to conditions beyond the control of the Contractor.

Plans and specifications governing the construction of the proposed improvements, and also the prior proceedings of the Board of Trustees referring to and defining said proposed improvements are hereby made a part of this notice and the proposed contract by reference and the proposed contract shall be executed in compliance therewith.

Notice of Letting

Copies of said plans and specifications and form of contract are now on file in the office of the Clerk. Copies may be obtained from VEENSTRA & KIMM, INC., 3000 Westown Parkway, West Des Moines, Iowa 50266, at no charge.

This notice is given by order of the Board of Trustees of the Indianola Municipal Utilities, Indianola, Iowa.

Board of Trustees
Indianola Municipal Utilities
Indianola, Iowa

Grant Johnson, Chairperson

ATTEST:

Diana Bowlin, City Clerk

Meeting Date: 12/22/2014

Information

Subject

Hwy 92 Transmission Relocation Project - Vanderpool Construction Contract - Certificate of Final Completion

Information

There was no change in work required since the issuance of the Certificate of Substantial Completion for the clearing work on the transmission relocation project.

Financial Impact

N/A

Staff Recommendation

Simple motion issuing a Certificate of Final Completion to Vanderpool Construction for contracted work on the 2013 Hwy 92 Transmission Relocation Project is in order.

Attachments

Certificate

CERTIFICATE OF FINAL COMPLETION

Date Issued Dec. 15, 2014
Owner Indianola Municipal Utilities
Contractor Vanderpool Construction, Inc.
Project 2013 Hwy 92 Transmission Relocation Project
Contract DOT Right of Way Clearing Work

This Certificate of Final Completion applies to all Work under the referenced Contract.

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and that Work is hereby declared to be complete in accordance with the Contract Documents on

Dec. 15, 2014 (Date of Final Completion)

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's General Warranty and Guarantee under Paragraph 6.19 of the General Conditions of the Contract.

Issued by P & E Engineering Co. on Dec. 15, 2014 by Allan Powers.
(Printed Name)

Signed 

Accepted by Contractor on _____ by _____.
(Printed Name)

Signed _____

Accepted by Owner on _____ by _____.
(Printed Name)

Signed _____

Information

Subject

Hwy 92 & I-35 Transmission Relocation Project - Certificate of Final Completion

Information

P&E Engineering is recommending issuing the attached Certificate of Final Completion to Michels Power. This essentially provides acceptance that the work performed is in accordance with the contract.

Financial Impact

N/A

Staff Recommendation

Simple motion issuing a Certificate of Final Completion to Michels Power for contracted work on the 2014 Hwy 92 & I-35 Transmission Relocation Project is in order.

Attachments

Certificate

CERTIFICATE OF FINAL COMPLETION

Date Issued Dec. 15, 2014

Owner Indianola Municipal Utilities

Contractor Michels Power, a Division of Michels Corporation

Project 2014 Hwy 92 & I-35 Transmission Relocation Project

This Certificate of Final Completion applies to all Work under the referenced Contract.

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and that Work is hereby declared to be complete in accordance with the Contract Documents on

Dec. 15, 2014 (Date of Final Completion)

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's General Warranty and Guarantee under Paragraph 6.19 of the General Conditions of the Contract.

Issued by P & E Engineering Co. on Dec. 15, 2014 by Allan Powers.
(Printed Name)

Signed 

Accepted by Contractor on _____ by _____.
(Printed Name)

Signed _____

Accepted by Owner on _____ by _____.
(Printed Name)

Signed _____

Meeting Date: 12/22/2014

Information

Subject

Hwy 92 Transmission Relocation Project - Amendment to MEC Bill of Sale

Information

The original project design had IMU abandoning 2 transmission poles that MEC still needed to provide distribution services. The attached amendment amends the previously-adopted bill of sale to only 1 pole, based on the final constructed route that was modified through previously-adopted change orders.

Financial Impact

N/A

Staff Recommendation

Simple motion amending Exhibit E "Bill of Sale" to the MEC reimbursement agreement, as presented, is in order.

Attachments

Bill of Sale

**AMENDMENT TO
EXHIBIT E
“BILL OF SALE”**

WHEREAS the City of Indianola, Iowa, acting through the Board of Trustees of Indianola Municipal Utilities, an Iowa municipal corporation (“Seller”) and MidAmerican Energy Company, an Iowa corporation, its successors and assigns (“Buyer”) entered into an Agreement executed by Todd R. Kielkopf, IMU General Manager, and Brian Harris, MEC General Manager, Electric Engineering, that included Exhibit E “Bill of Sale” which described Buyer’s purchase of three utility poles from Seller for a six hundred seventy-six dollars and three cents (\$1676.03) and other valuable consideration.

WHEREAS Exhibit E “Bill of Sale” was agreed to by Seller and Buyer as part of a larger Agreement that contemplated relocation of electrical lines near Highway 92 in part due to a Department of Transportation project affecting the area; and,

WHEREAS the DOT altered its plans after the execution of Exhibit E “Bill of Sale,” resulting in the removal of two of the poles referenced in Exhibit E “Bill of Sale;” and,

WHEREAS the removal of these poles was not contemplated by either Buyer and Seller and the parties now intend to amend Exhibit E “Bill of Sale.”

NOW THEREFORE, the Buyer and the Seller in consideration of the mutual promises, covenants and benefits herein contained or described, hereby amend their Exhibit E “Bill of Sale” as follows:

1. The forgoing recitals are part of this amendment and are to be so construed.
2. The first clause of Exhibit E, stating “For the consideration of the sum of one thousand six hundred seventy-six dollars and three cents, (\$1676.03) and other valuable consideration,” is struck. In its place, the parties agree to insert the following language, “For the consideration of the sum of five hundred fifty eight dollars and sixty-seven cents, (\$558.67) and other valuable consideration.”
3. The second paragraph of Exhibit E is struck. In its place, the parties agree to insert the following language: “ALL ASSETS ASSOCIATED WITH OR RELATING TO ONE UTILITY POLE IDENTIFIED ON EXHIBIT D-1.”

4. Except as explicitly stated herein Exhibit E “Bill of Sale” is hereby confirmed and ratified in all its other parts.

CITY OF INDIANOLA
BOARD OF TRUSTEES
INDIANOLA MUNICIPAL UTILITY

MIDAMERICAN
ENERGY COMPANY

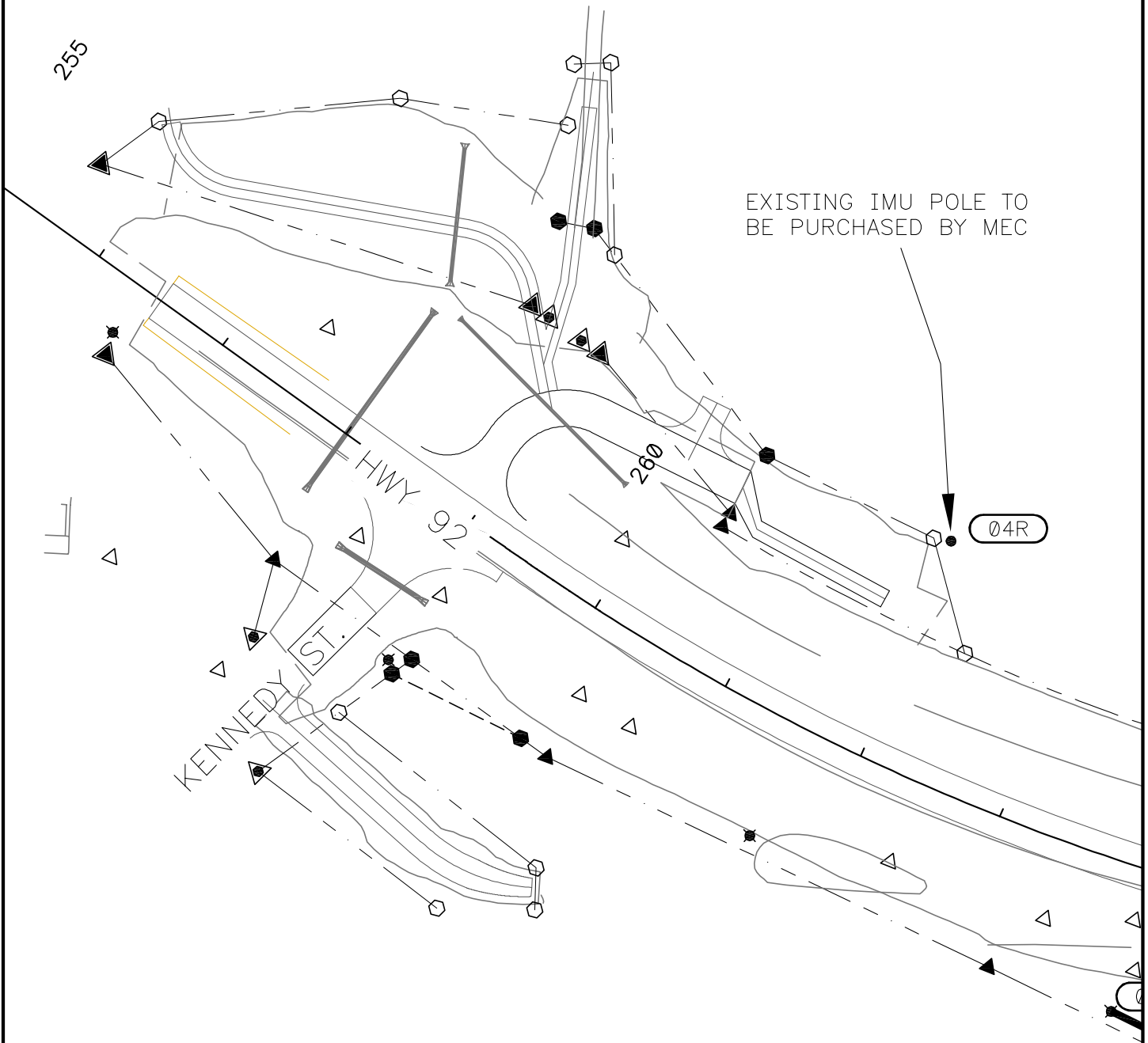
Todd R. Kielkopf
IMU General Manager

Brian Harris
General Manager, Electric Engineering

Date

Date

01069914-1\10616-000



REV	DATE	DESIGNED	DRAWN	APP	DESCRIPTION

P & E ENGINEERING CO.
POWER SYSTEM ANALYSIS AND DESIGN
245 S. 5th
P.O. Box 620
Carlisle, IA 50047
Office: 515-989-3083
Fax: 515-989-3138
peenr@peenr.com

INDIANOLA MUNICIPAL UTILITIES

INDIANOLA MUNICIPAL UTILITIES
IMU
Electric • Network Services • Water

DATE	12-15-14
DESIGNED	P&E
DRAWN	P&E
APPROVED	RMB
APPROVED	ARP

SCALE: NTS

REV A

DWG NO
EXHIBIT D-1

Information

Subject

Selection of 2015 Officers

Information

Trustee policy for officeholders is one of rotating seniority, with each Trustee having the ability to serve as Chair and Vice Chair during a 6-year tenure.

Unless otherwise deferring, Grant Johnson as Vice-Chair is in line for the 2015 Board Chair position.

Pat Reding, who served as Chair last year, has a term to expire at the end of 2017 (would serve 2016 as Chair if he assumes the Vice-Chair position for 2015, then would not likely serve as officeholder in 2017. Or can serve these roles in 2016 & 2017).

Heather Hulen has a term expiring in 2019 (could also serve as Vice-Chair in 2015 or 2016, ascending to Chair the following year).

The above information is only provided as information, as it is solely up to the Board to select its officers in any given year.

Financial Impact

N/A

Staff Recommendation

Simple motion(s) approving a Chair and Vice-Chair is in order.
