

COMMITTEE OF THE WHOLE

City of Davenport, Iowa

Wednesday, May 3, 2017; 5:30 PM

City Hall 226 West 4th Street, Council Chambers

I. Moment of Silence

II. Pledge of Allegiance

III. Roll Call

IV. Meeting Protocol and Decorum

V. City Administrator Update

VI. Public Hearings

A. Public Works

1. Public hearing on the proposed resolution of necessity covering the FY17 Alley Resurfacing Program, for the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue, CIP #35017. [Ward 5]
2. Public hearing on the plans, specifications, form of contract and estimated cost for the Duck Creek Bike Path Reconstruction Project. The estimated cost is \$100,000 budgeted in CIP #64023. [Wards 5, 6 & 7]
3. Public hearing on the plans, specifications, forms of contract and estimated cost for the 2017 General Street Resurfacing Program. The current estimate is \$1,900,000 budgeted in CIP #35011 and #35015. [Wards 1, 3, 6, & 7]
4. Public hearing on the plans, specifications, form of contract and estimated cost for the FY18 Sanitary Sewer Lateral Repair program, CIP #30031. [All Wards]
5. Public hearing on the plans, specifications, form of contract and estimated cost for the Duck Creek South Interceptor Rehabilitation Program. CIP #00200 funded at \$8,000,000 in bonds abated by sewer funds. [All Wards]

VII. Presentations

A. Proclamation for National Travel and Tourism Week - May 7 - 13, 2017

VIII. Petitions and Communications from Council Members and the Mayor

IX. Action items for Discussion

COMMUNITY DEVELOPMENT

Kyle Gripp, Vice Chairman

I. COMMUNITY DEVELOPMENT

1. Resolution approving a Development Agreement to develop single family houses with homebuyers on East 6th Street (Build by Architects, LLC, Andrew Dasso, petitioner).
2. Resolution authorizing the Mayor to execute documents necessary to convey the following properties to Build by Architects, LLC (Andrew Dasso): Parcel F0052-42, 718 E 6th Street; Parcel F0052-43, 728 E 6th Street; Parcel F0052-44, 730 E 6th Street; Parcel F0052-45, 732 E 6th Street; Parcel F0052-46, 734 E 6th Street; Parcel F0052-47, 736 E 6th Street; Parcel F0052-48, 740 E 6th Street; Parcel F0052-49, No Address; Parcel F0052-50, 748 E 6th Street; Parcel F0052-51, 750 E 6th Street; Parcel F0052-52, 754 E 6th Street; Parcel F0052-53, 712 Sylvan Street.
3. Resolution approving Case No. F17-04 being the final plat of Cross First Addition located north of Deer Woods Drive which is north of Rickerhill Road, containing one (1) residential lot. [1st Ward]
4. Resolution approving Case No. P17-01 being the petition of Grunwald Land for approval of a preliminary plat to develop 70 lots of single family residential south of the Eagle's Crest development. The plat contains 22.15 acres, more or less. The property is zoned "R-3" Industrial District. [1st Ward]

II. Motion recommending discussion or consent for Community Development items

PUBLIC SAFETY

Mike Matson, Chairman; Maria Dickmann, Vice Chairman

III. PUBLIC SAFETY

1. Resolution closing various street(s), lane(s) or public grounds on the listed date(s) to hold outdoor event(s).

Jimmie O's Saloon, Annual Beer Olympics, May 20, 2017; 9:00 a.m. to 10:00 p.m.; Closure Location: Rolff Street from Telegraph Road to the alley south [Ward 1]

Christ Apostolic Church, Community Day, May 20, 2017, 8:00 a.m. to 6:30 p.m.; Closure Location: alley of the 1200 block of West 6th Street [Ward 3]

St. Paul Lutheran Church, Mayfest, May 20, 2017, 8:00 a.m. to 3:00 p.m.; Closure Location: Lombard Street between Main and Brady Streets [Ward 5]

3rd Missionary Baptist Church, Gospel Explosion Weekend, August 11 and 12, 2017, 8:30 a.m. to 10:00 p.m., Closure Location: West 14th Street between Harrison and Main Streets [Ward 5]

2. Motion approving noise variance request(s) for various events on the listed dates at the listed times.

Putnam Museum, Beatles Rooftop Concert, May 13, 2017; 9:00 a.m. to 4:30 p.m., Over 50 dBa [Ward 4]

Thirsty's on 3rd, Patio Release Party, May 19, 2017; 8:00 p.m. to 11:30 p.m., Over 50 dBa [Ward 1]

Jimmie O's Saloon, Annual Beer Olympics, May 20, 2017; 9:00 a.m. to 10:00 p.m., Over 50 dBa [Ward 1]

3. Motion approving beer and liquor license applications.

A. Annual license renewals (with outdoor area renewals as noted):

Ward 2

Hy-Vee Market Cafe' (Hy-Vee, Inc.) - 2200 W Kimberly Rd. Cafe' Area - License Type: C Liquor / C Beer / B Wine

Ward 3

Front Street Brewery, Inc. (Front Street Brewery Inc.) - 421 W River Dr., Suite 3 and 4 - Outdoor Area - License Type: C Liquor / Brew Pub / High Proof Brew

Ward 4

Rivertown Grille & Bar (Rivertown Grille & Bar, LLC) - 2606 W Locust St. - Outdoor Area - License Type: C Liquor

Ward 7

American Legion Post 26 (Davenport Post #26, The American Legion, Inc.) - 702 W 35th St. - Outdoor Area - License Type: C Liquor

Sanchos (Lorbil Enterprises Inc.) - 307 E George Washington Blvd. - License Type: C Liquor

IV. Motion recommending discussion or consent for Public Safety items

PUBLIC WORKS

Ray Ambrose, Chairman; Rick Dunn, Vice Chairman

V. PUBLIC WORKS

1. Resolution amending the proposed resolution of necessity covering the FY17 Alley Resurfacing Program, for the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue, CIP #35017. [Ward 5]
2. Resolution overruling any objections to the adoption of the resolution of necessity covering the FY17 Alley Resurfacing Program, for the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue, CIP #35017. [Ward 5]
3. Resolution adopting the resolution of necessity covering the FY17 Alley Resurfacing

Program, for the alley located the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue, CIP #35017. [Ward 5]

4. Resolution to hold a public hearing on the proposed conveyance of parcel F0053-05, 844 Charlotte Street to the adjacent property owner (petitioner David A. Williams). [Ward 3]
5. Resolution ordering preparation of detailed plans, specifications, notice of hearing, notice to bidders, form of contract and publication of the notice to bidders and notice of hearing covering the FY17 Alley Resurfacing Program, for the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue, CIP #35017. [Ward 5]
6. Resolution approving the plans, specifications, form of contract and estimate for the Duck Creek Bike Path Reconstruction Project. The estimated cost is \$100,000 budgeted in CIP #64023. [Wards 5, 6 and 7]
7. Resolution approving the plans, specifications, forms of contract and estimated cost for the 2017 General Street Resurfacing Program. The current estimate is \$1,900,000 budgeted in CIP #35011 and #35015. [Wards 1, 3, 6, & 7]
8. Resolution approving the plans, specifications, form of contract and estimate of cost for the Duck Creek South Interceptor Rehabilitation Program. CIP #00200 funded at \$8,000,000 in bonds abated by sewer funds. [All Wards]
9. Motion accepting work associated with the Riverfront Safety Guardrail Project, CIP #68002. [Ward 3]
10. Motion to approve a contract for the full depth patching program to Langman Construction, Inc. of Rock Island, IL in a not-to-exceed amount of \$680,000 for FY 2017. CIP #35011 [All Wards]

VI. Motion recommending discussion or consent for Public Works items

FINANCE

Jason Gordon, Chairman; Kerri Tompkins, Vice Chairman

VII. FINANCE

1. Motion awarding a contract to replace the boiler at City Hall to Johnson Controls of Moline, IL in the amount of \$132,500. CIP 23006 [Ward 3]
2. Motion approving the purchase of a combination jetter/vacuum sewer cleaner truck from Gradall Industries Inc of New Philadelphia, Ohio in the amount of \$371,090.07. [All Wards]
3. Motion awarding the purchase of an automated vehicle location (AVL) system for Citibus to TransLoc, Inc. of Durham, NC in the amount of \$135,000. [All Wards]
4. Motion awarding a contract for asphalt oils for the 2017 construction season to Tri-State Asphalt, LLC of Morris, IL. [All Wards]

VIII. Motion recommending discussion or consent for Finance items

X. PURCHASES OF \$10,000 TO \$50,000 (For Information Only)

1. Midwest Water Group, Inc. - Manhole assessments - Amount: \$32,070
2. Weitz Industrial LLC - Moving machine @ Dewatering Plant - Amount: \$25,000

XI. Other Ordinances, Resolutions and Motions

1. Motion to suspend the rules to vote on the following item.
2. Resolution calling for a special election to fill the vacancy of 3rd Ward Alderman

XII. Public with Business

PLEASE NOTE: At this time individuals may address the City Council on any matters of City business. This is not an opportunity to discuss issues with the Council members or get information. In accordance with Open Meetings law, the Council cannot take action on any complaint or suggestions tonight, and cannot respond to any allegations at this time.

Please state your Name and Ward for the record. There is a five (5) minute time limit.
Please end your comments promptly.

XIII. Reports of City Officials

XIV. Adjourn

City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Lesley Eastlick; 563-326-7729
Wards: 5

Action / Date
PW5/3/2017

Subject:
Public hearing on the proposed resolution of necessity covering the FY17 Alley Resurfacing Program, for the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue, CIP #35017. [Ward 5]

Recommendation:
Hold the hearing.

Relationship to Goals:
Enhance quality of life.

Background:
The city accepted an alley resurfacing petition, signed by over 50% of owner occupied properties abutting the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue.

Half of the alley resurfacing program cost is paid for by the city and the other half is assessed to the abutting property owners based on the size of their lot. The current estimate of \$14,500 is budgeted in CIP #35017.

State law requires that certain Council actions regarding the assessment procedure must precede the bid letting date. This is the public hearing on the resolution of necessity. If a remonstrance is filed at the time of the hearing (75% of the assessments object to any particular alley), a unanimous vote of the council is required to pass the resolution of necessity.

ATTACHMENTS:

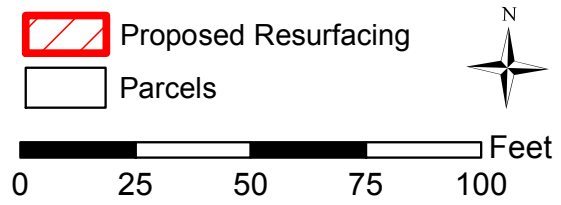
Type	Description
Backup Material	Alley Map

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/27/2017 - 10:35 AM
Public Works Committee	Lechvar, Gina	Approved	4/27/2017 - 10:35 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 10:45 AM



Proposed Alley Resurfacing



City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Nichole Kriz; (563) 326-7784
Wards: 5,6,7

Action / Date
PW5/3/2017

Subject:

Public hearing on the plans, specifications, form of contract and estimated cost for the Duck Creek Bike Path Reconstruction Project. The estimated cost is \$100,000 budgeted in CIP #64023. [Wards 5, 6 & 7]

Recommendation:

Hold the hearing.

Relationship to Goals:

Enhance Quality of Life

Background:

This project will enhance and maintain the existing bike path along Duck Creek at three spur locations. These locations are the spur at intersection of George Washington Boulevard and E Forest Road, the spur from Garfield Park to E 33rd Street, the spur in Garfield Park from the mainline bike path south to Bridge Ave and from this section west to E 30th Street. This project will include resurfacing of all areas and various aspects of maintenance including edge removal and reconstruction in specified areas. Locations were chosen and plans were created as a joint effort of Public Works and Parks and Recreations departments. This project is funded thru CIP #64023.

The estimated cost to complete the proposed improvements is \$100,000.

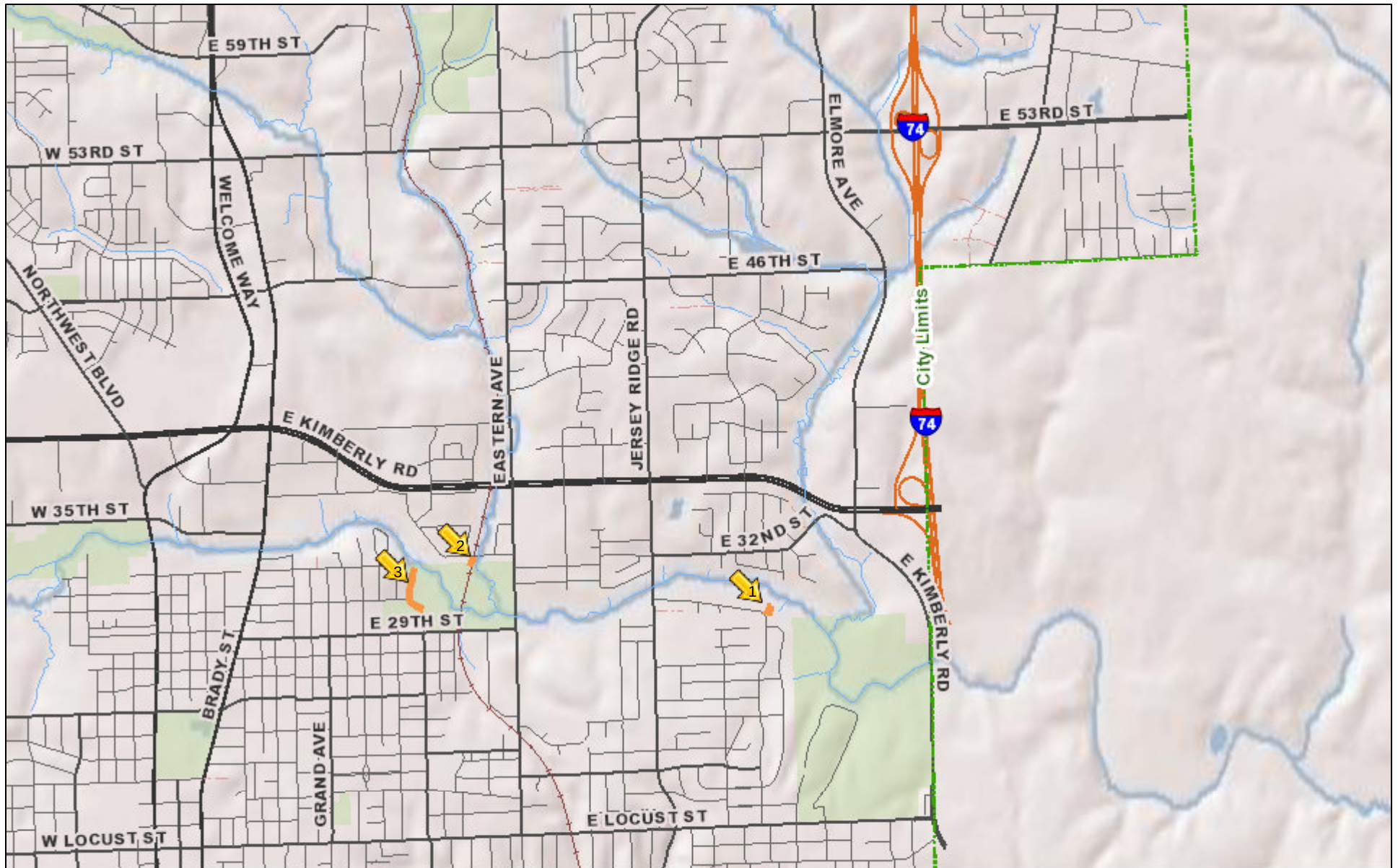
ATTACHMENTS:

Type	Description
▣ Backup Material	Location Map
▣ Backup Material	NH_Duck Creek Bike Path Reconstruction

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/26/2017 - 11:46 PM
Public Works Committee	Lechvar, Gina	Approved	4/26/2017 - 11:46 PM
City Clerk	Admin, Default	Approved	4/27/2017 - 10:45 AM

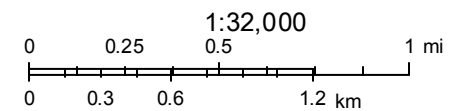
Bike Path Reconstruction Map



April 21, 2017



Location of Project Bike Path Spur



Copyright:© 2014 Esri
Scott County Iowa, Bi-State Regional Commission

Notice of Hearing
on Proposed Plans, Specifications and Proposed Contract for the
Duck Creek Bike Path Reconstruction Project

Notice is hereby given that at 5:30 P.M., on Wednesday, May 3, 2017, at the Council Chambers, City Hall, in the City of Davenport, Iowa, there will be conducted a hearing on the proposed plans, specifications and form of contract which the City Council has caused to be filed with the City Clerk of the City of Davenport, Iowa, and on the cost and necessity of the above project in the City of Davenport, Iowa.

At said hearing any interested person may file written objection or comments with respect to the proposed plans, specifications, form of contract or cost of and necessity for such improvements and may be heard orally with respect thereto.

Jackie E. Holecek,
Deputy City Clerk

Davenport, Iowa
April 21, 2017

Publish once April 28, 2017
QUAD-CITY TIMES

City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Nick Schmuecker; (563) 327-5162
Wards: 1, 3, 6, & 7

Action / Date
PW5/3/2017

Subject:

Public hearing on the plans, specifications, forms of contract and estimated cost for the 2017 General Street Resurfacing Program. The current estimate is \$1,900,000 budgeted in CIP #35011 and #35015. [Wards 1, 3, 6, & 7]

Recommendation:

Hold the hearing.

Relationship to Goals:

Enhanced Quality of Life.

Background:

This program is intended to rehabilitate asphalt streets as part of the citywide pavement maintenance program.

The program is scheduled to be bid this spring with construction to start early summer. Funding for the 2017 General Street Resurfacing Program is established within CIP #35011 and #35015. The current estimate is \$1,900,000.

ATTACHMENTS:

Type	Description
▣ Cover Memo	Memo that plans, specification, and estimate of cost are filed.

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/26/2017 - 11:42 PM
Public Works Committee	Lechvar, Gina	Approved	4/26/2017 - 11:42 PM
City Clerk	Admin, Default	Approved	4/27/2017 - 10:45 AM

MEMORANDUM

Date: April 24, 2017

To: Jackie Holecek, Deputy City Clerk

From: Nick Schmuecker, PE; Civil Engineer

Re: **2017 General Street Resurfacing Program**

The following enclosed documents that pertain to the referenced construction project must be filed in your office prior to their approval by the Council:

1. Plans
2. Specifications
3. Form of Contract
4. The estimated cost is \$1,900,000

Please file them accordingly. Thank you.

Cc: Brian Schadt, City Engineer/Deputy Public Works Director
file

City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Brad Guy: (563) 327-5105
Wards: All

Action / Date
PW5/3/2017

Subject:
Public hearing on the plans, specifications, form of contract and estimated cost for the FY18 Sanitary Sewer Lateral Repair program, CIP #30031. [All Wards]

Recommendation:
Hold the hearing

Relationship to Goals:
Sustainable Infrastructure

Background:
This is the continuation of a program which repairs lateral sewer connections between the city's sewer main and private residences by contract. This program will provide a stable and more reliable sanitary sewer system for the resident of Davenport. It will also update old materials and connections to help reduce the amount of I&I into Davenport's sanitary collection system, as well as reducing the potential for future sink holes on private property and within the city right-of-way.

Program management will be conducted by the Engineering Division staff.

The project is being let as a one year, Indefinite Quantity, Indefinite Delivery Task Order Contract. The bidders will be offered annual contracts written for a minimum capacity of \$50,000 of work, depending on number of bids received and bid pricing. Contracts may be amended for up to \$650,000 worth of work depending on contract needs and contractor performance. However, the contractor will be paid for work performed within his/her contract and is not guaranteed the minimum contract amount within a given year due to the unpredictability of the work.

Funds for the FY18 Sanitary Sewer Lateral Repair Program are budgeted in CIP #30031 at \$1,000,000.

ATTACHMENTS:

Type	Description
□ Resolution Letter	FY18 Lateral Repair Program Resolution

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/27/2017 - 11:28 AM
Public Works Committee	Lechvar, Gina	Approved	4/27/2017 - 11:28 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 3:05 PM

Resolution No. _____

RESOLUTION offered by Alderman Ambrose.

RESOLVED by the City Council of the City of Davenport.

RESOLUTION approving the plans, specifications, form of contract and estimate of cost for the Fiscal Year 2018 Sanitary Sewer Lateral Repair Program, CIP #30031.

WHEREAS, plans, specifications, form of contract and an estimate of cost were filed with the City Clerk of Davenport, Iowa, for the Fiscal Year 2018 Sanitary Sewer Lateral Repair Program within the City of Davenport, Iowa; and

WHEREAS, Notice of Hearing on plans, specifications and form of contract was published as required by law:

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Davenport, Iowa:

That said plans, specifications, form of contract and estimate of cost are hereby approved as the plans, specifications, form of contract and estimate of cost for said Fiscal Year 2018 Sanitary Sewer Lateral Repair Program.

Passed and approved this 10th day of May, 2017.

Approved:

Attest:

Frank Klipsch, Mayor

Jackie E. Holecek, Deputy City Clerk

City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Sandy Doran (563) 326-7756
Wards: All

Action / Date
PW5/3/2017

Subject:

Public hearing on the plans, specifications, form of contract and estimated cost for the Duck Creek South Interceptor Rehabilitation Program. CIP #00200 funded at \$8,000,000 in bonds abated by sewer funds. [All Wards]

Recommendation:

Hold the hearing.

Relationship to Goals:

Davenport – *The Choice Community for Living*
Upgraded City Infrastructure and Public Facilities

Background:

The technical specifications and engineering drawings address repairs needed to reduce Inflow and Infiltration in the Old Duck Creek Interceptor. Through televising and field inspections, pipe structural deficiencies, open joints, and manhole repairs were found that are allowing inflow and infiltration into the interceptor sewer and collection system. The technical specifications/engineering drawings include various strategies such as cured-in-place pipe lining (CIPP), pipe repairs, and spray-applied materials, casting and adjusting ring replacement, chimney seals and total manhole replacements.

The program letting is proposed for June 2017, with construction start in Fall 2017. Project construction completion is scheduled for May 2019.

Funding for the Duck Creek South Interceptor Rehabilitation Program are budgeted in CIP #00200. Currently there is \$4,123,531 for program; with an additional \$4,000,000 budgeted in FY 2018 & FY 2019.

ATTACHMENTS:

Type	Description
▣ Backup Material	Specs
▣ Backup Material	Technical

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/27/2017 - 12:27 AM
Public Works Committee	Lechvar, Gina	Approved	4/27/2017 - 12:34 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 10:45 AM



City of Davenport

ADVERTISEMENT, INSTRUCTIONS TO BIDDERS,

PROPOSAL, CONTRACT CONDITIONS,

PLANS AND SPECIFICATIONS

FOR THE

FY2018 Duck Creek South Interceptor Rehabilitation Program

MAYOR – FRANK KLIPSCH

SEWERS DIVISION

PUBLIC WORKS DEPARTMENT

DAVENPORT, IOWA

I hereby certify that this plan was prepared under my supervision and that engineering decisions with regard to the design were made by me or by other duly licensed Professional Engineers under the laws of the State of Iowa.

Signature: _____ Date _____

Andrew L. Craven: License #17921

My license renewal date is December 31, 2017

Pages or sheets covered by this seal: SC-1 through SC-13,
MR-1 through MR-46, Cover Sheet and Sheets 1 through 4

PROPOSED IMPROVEMENTS
FOR
FY2018 DUCK CREEK SOUTH INTERCEPTOR
REHABILITATION PROGRAM
CITY OF DAVENPORT

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DIVISION 28

MANHOLE REHABILITATION

SECTION 28000

GENERAL REQUIREMENTS

PART I-GENERAL

1.01 SUMMARY

- A. The Work consists of providing all labor, material and equipment necessary to complete the following:
1. Site Clearing and Grubbing.
 2. Sewer Cleaning.
 3. Sewer Televising.
 4. Sewer Bypass Pumping.
 5. Sewer Chemical Sealing.
 6. Manhole Chemical Sealing.
 7. Sewer Lining.
 8. Rehabilitation Requiring Excavation.
 9. Manhole Frame and Cover Replacement.
 10. Manhole Resurfacing and Bench and Channel Construction.
 11. Interior Manhole Chimney Lining.

1.02 SEQUENCING

- A. Table 28000-1, Sewer Rehabilitation Summary is a list of sewer sections requiring rehabilitation.
- B. Table 28000-2, Manhole Rehabilitation Summary is a list of all manhole structures requiring rehabilitation. Contractor shall note that many manholes require several methods of rehabilitation. Contractor shall sequence rehabilitation methods accordingly.
- C. Where required, sewer segments shall be rehabilitated with CIPP liner prior to any manhole rehabilitation being done on the associated manholes.
- D. Where required, chemical sealing (CS) of manholes shall be completed and leaks completely stopped prior to completing other methods of rehabilitation.
- E. Manholes that require cover replacement (RC) shall be field measured to verify cover availability prior to commencing any other rehabilitation.
- F. Manholes that require rebuilding of the top portion of the manhole (RT) and also require manhole resurfacing (SM-CR) with a corrosion resistant cementitious liner shall have the top of the manhole rebuilt and restoration of roadway or ground surface completed prior to manhole resurfacing with a cementitious liner.
- G. Work in Sewer Section 1 shall be completed following removal of crops.
- H. Work requiring access to the portion of the trail parallel to Carey Avenue (approximately 300 feet east) and the portion southwest of the intersection between the railroad and E 33 Street shall be completed by [REDACTED].

1.03 CONSTRUCTION PROGRESS SCHEDULE

- A. Submit initial schedule in duplicate within 10 days after date of City-Contractor Agreement.
- B. Revise and resubmit as required.
- C. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates.

1.04 SHOP DRAWINGS

- A. Shop drawings shall include specially prepared technical data for this project including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements, and similar information not in standard printed form for general application to a range of similar projects. Shop drawings shall be submitted for all manufactured or fabricated items. See individual technical sections for special requirements.
- B. Contractor shall make all shop drawings accurately to scale and sufficiently large to show all pertinent aspects of the item and its method of connection to the work.
- C. Shop drawings shall be checked, approved, and stamped by Contractor in accordance with the General Conditions before transmittal to Engineer for review and approval.
- D. Contractor shall submit shop drawings following the procedure described below. Except as noted, six copies of shop drawings and descriptive data shall be submitted to Engineer for approval. Three copies of these will be returned to Contractor if approved. If shop drawings are not approved or if they are stamped "Approved as Noted-Resubmit," two corrected copies will be returned to Contractor for use in resubmittal. If Contractor desires more than three approved copies, submitted quantity shall be increased accordingly.
- E. Shop drawings submitted to Engineer will be reviewed and stamped "Approved," "Approved as Noted," "Approved as Noted-Resubmit," or "Not Approved." Contractor shall resubmit the above number of corrected shop drawings for all shop drawings stamped "Approved as Noted-Resubmit" and "Not Approved" and will continue this process until shop drawings are stamped "Approved" or "Approved as Noted." If drawings are stamped "Approved as Noted-Resubmit," fabrication may proceed in accordance with the marked-up shop drawings. Installation shall not proceed until shop drawings have been resubmitted and stamped "Approved" or "Approved as Noted."
- F. If shop drawings are stamped "Approved as Noted" or "Approved as Noted-Resubmit" and Contractor does not agree with revisions or cannot conform with revisions, fabrication shall not proceed and shop drawings shall be resubmitted with explanation of Contractor's position.
- G. All shop drawings used for construction site activities shall bear the "Approved" or "Approved as Noted" stamp of Engineer.
- H. Arrangements may be made between Contractor and Engineer to provide additional copies of "Approved" shop drawings for field activity purposes.
- I. Complete shop drawings and descriptive data shall be submitted on all manufactured or fabricated items prior to 25% completion of the Work. Applications for payment beyond 25% of the Contract amount will not be recommended for payment until all shop drawings are submitted or a revised schedule for any remaining submittals is agreed to by City and Engineer.

1.05 PRODUCT DATA

- A. Contractor shall provide product data as required to supplement shop drawings.
- B. Product data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by Contractor to illustrate a material, product, or system for some portion of the work.
- C. Contractor shall collect required product data into one submittal for each unit of work or system.
- D. Contractor shall include manufacturer's standard printed recommendations for application and use, compliance with standards, performance characteristics, wiring and piping diagrams and controls, component parts, finishes, dimensions, required clearances, and other special coordination requirements.
- E. Contractor shall mark each copy of standard printed data to identify pertinent products, models, options, and other data.
- F. Contractor shall supplement manufacturer's standard data to provide information unique to the work.

1.06 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required by Engineer.
- B. Shop Drawings and Product Data:
 - 1. Revise initial drawings or data and resubmit as specified for initial submittal.
 - 2. Itemize in a cover letter any changes which have been made other than those requested by Engineer.

1.07 DEFINITIONS

- A. The following definitions or abbreviations apply to the Work in this Division:
 - 1. CCTV—closed-circuit color television
 - 2. NASSCO—National Association of Sewer Service Companies

1.08 MATERIALS AND SUPPLIES

- A. Contractor shall provide materials and supplies to satisfactorily complete the Work to the satisfaction of City. Materials and supplies shall be suitable for the environment in which they are to be used or installed and shall be compatible with each other.
- B. Suppliers shall be deemed to impliedly warrant that their products and all component materials incorporated into them are suitable and fit for the intended use of such products and shall be free from defect in material, workmanship or design, such warranty to run to the benefit of City and Engineer. The foregoing applies whether the products or their component parts are specified in the Contract Documents or are of supplier's design.

1.09 WATER

- A. Water required for the Project may be obtained from Iowa American Water Company. Refer to Special Provisions—Section I—Special Conditions.

1.10 WASTE DISPOSAL

- A. Contractor is responsible for proper and safe disposal of all material removed from the sewers. Refer to Special Provisions-Section I-Special Conditions and Attachment C-Acceptance at WPCP-Manhole Cleanout Material for disposal of material removed from manholes. Disposal of all other materials is the responsibility of Contractor.

1.11 PAYMENT

- A. Payment for changes in quantities, as shown in the Bid, shall be made in accordance with the prices bid for the Work for the various items indicated. No change of quantities shall annul or impair the Contract made and entered into relative to said Work. Payment shall be made for the quantities of each Bid item as actually installed.
- B. If a price is not provided in the Bid for an item of Work, the Work shall be considered incidental and included in adjacent or associated items of Work.
- C. Cost for providing the following shall be considered incidental to the Work unless otherwise indicated in the Bid.
 - 1. Providing water for use in the Work.
 - 2. Removing, transporting, and disposing of material from the sewers and/or manholes.
 - 3. Required work noted on drawings that does not have a corresponding bid item.

1.12 PROPERTY LINES

- A. Property lines along with owner information may be obtained on City's GIS website. <http://gis.ci.davenport.ia.us/cityofdavenportinternetmap>.

1.13 PERMITS

- A. City will obtain necessary construction permits from Iowa Department of Transportation (IDOT) for work on manhole DS-26.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 SITE CONDITIONS

- A. Contractor is expected to examine carefully the site of the proposed Work and fully acquaint itself with the conditions as they exist to fully understand any restraints, difficulties or other extenuating circumstances that may be present during the performance of the Work.
- B. See Table 28000-2, Manhole Rehabilitation Summary for listing of any reports and drawings related to the Work.

3.02 PROTECTION

- A. The sewers in the Project are operated and maintained by City. Contractor shall perform the Work in such a manner that the operation of the existing sewers and pumping stations are not interrupted, impaired or damaged. Existing sewers and pumping stations must be maintained in operation at all times or adequate provisions provided to convey both dry and wet weather flow. No contractor operation shall impede the functions of the pumping station or sewer system including increasing surcharging in the system and basement backups. Any Work impacting the operation of City's system shall be coordinated with City.
- B. Contractor shall assume full responsibility for any damage to adjacent lands and buildings and to the owners or occupants thereof. Contractor shall examine adjacent lands and buildings and shall account for protection of the lands and buildings during the Work. Any damage caused shall be repaired at the expense of Contractor.
- C. Contractor shall be aware of the attractive nuisance of the Work and make provisions for mitigating any problems.
- D. Contractor shall take into account the impact precipitation events may have on the Work and shall schedule the Work accordingly. Contractor shall protect Work from damage caused by such events whether locally or regionally as they may impact the Work.

3.03 SEWER SERVICE

- A. It shall be Contractor's responsibility to maintain sewer service throughout the duration of the Work. When the Work is being conducted, Contractor shall maintain sewer service by use of bypass pumping as necessary. Sewer service shall be maintained to each home or business that is connected to the sewer or manhole where the Work is being conducted. All sewers shall be kept in service when Work is not being performed.
- B. Sewage or jetting water shall not be allowed to back up into basements. Contractor shall be responsible for preventing any sewage backups into basements or cleaning impacts of such backups should they occur.

3.04 USE OF PREMISES

- A. Contractor shall confine its operations, equipment and storage areas to the existing rights-of-way and easements in which the existing sewer system is located.

3.05 BOLTED MANHOLE COVERS

- A. Contractor shall replace all bolts in bolt down covers at the end of each work day and when complete with work at those manholes. Notify City when working at manholes with bolted covers.

3.06 USE OF BIKE PATH AND EASEMENT

- A. Contractor shall document the condition of all areas that will be impacted by work with photographs, videos, and written notes. Contractor shall submit documentation to City one week prior to work in area. If conditions at time of work are different than what was submitted, Contractor may resubmit documentation.
- B. Access points have been identified by City and are shown in the drawings. If an alternative access point is needed, Contractor shall submit documentation to City.

- C. All damage resulted from work shall be repaired by Contractor. Paths shall be made passable within two weeks of completing work in the area. Contractor shall make all reasonable efforts to allow the use of bike paths during the weekend.
- D. Refer to General Contract Conditions—Division 10 for procedures to close the bike path. Bike path shall be considered the same as a street.

END OF SECTION

Section ID	Upstream MH	Downstream MH	Rehab Method	Length, ft	Material	Pipe Diameter, in
1	DS-77	DS-66	CS	2,825	RCP	24
2	DS-66	DS-40A	CS	6,360	RCP	30
3	DS-40A	DS-31A	CIPP	4,075	VCP	30
4	DS-31A	DS-22	CIPP	3,580	Clay Tile	42
5	DS-22	DS-13	CS	3,225	Clay Tile	39
6	DS-13	DS-1	CIPP	3,950	RCP	48

Code	Description
CIPP	Cured-in-Place Pipe
CS	Chemical Seal
RCP	Reinforced Concrete Pipe
VCP	Vitrified Clay Pipe

Manhole ID	Sheet Number	Rehab Method 1	Rehab Method 2	Rehab Method 3	Approximate Depth	Approximate Distance Above Grade, ft	Location	Surface Type	Chimney Material	Chimney Lining	Cone Type	Cone Material	Wall Material	Wall Material 2	Approximate MH Dia, ft	Bench Material	Channel Material	Number of Steps	Cm1 Direction	Cm2 Direction	Cm3 Direction	Cm4 Direction
DN-15	4 BH				11.3	0.0	Woods	Grass/Dirt	Precast	None	Conical Off	Precast	Precast		5	Concrete	Not Known	7 SE	Out SW	In NW	In NE	In
DN-9	4 BH				9.5	0.0	Yard	Grass/Dirt	Precast	None	Conical Off	Precast	Precast		5	None	Not Known	5 E	Out W	In NE	In	
DS-1	4 BD	RFC			21	2.2	Yard	Grass/Dirt	Precast	None	Flattop	Precast	Precast		5		Vitrified Clay Pipe	11 E	Out W	In		
DS-4	4 BD	RFC-CL	SM-EX	CR	14.5	1.0	Light Highway	Grass/Dirt	Precast	None	Flattop	Precast	Precast		6		Vitrified Clay Pipe	2 E	Out W	In NW	In	
DS-7	4 BD	RFC			15	0.0	Right-of-Way	Grass/Dirt	Precast	None	Flattop	Precast	Precast		6	Non-Reinforced Concrete	Non-Reinforced Concrete	6 E	Out W	In		
DS-8	4 BH				15.8	0.0	Yard	Grass/Dirt	Precast	None	Flattop	Precast	Precast		4		Non-Reinforced Concrete	7 E	Out SW	In W	In N	In
DS-10	4 RT	RFC			15.2	0.5	Right-of-Way	Grass/Dirt	Precast		Conical Off	Precast	Precast			Non-Reinforced Concrete	Non-Reinforced Concrete	7 E	Out W	In	In	
DS-11	4 RT	RFC			20	0.8	Light Highway	Grass/Dirt	Precast	None	Conical Off	Precast	Precast		6	Non-Reinforced Concrete	Non-Reinforced Concrete	3 E	Out S	In S	In N	In
DS-13	4 BD	RFC-CL	EX		12.3	1.0	Light Highway	Grass/Dirt	Precast	Rubber	Conical Off	Precast	Precast		5	Concrete	Non-Reinforced Concrete	8 S	Out N	In		
DS-14	4 RT	RFC			11.8	0.0	Light Highway	Grass/Dirt	Brick	Rubber	Conical Off	Brick	Brick		3		Non-Reinforced Concrete	6 SE	Out NW	In W	In	In
DS-15	4 RT	RFC			12.7	0.0	Yard	Grass/Dirt	Brick	None	Conical Off	Brick	Brick		3	Brick	Not Known	8 SE	Out NW	In		
DS-16	4 BH				10	0.0	Light Highway	Grass/Dirt	Precast	Rubber	Conical Off	Precast	Brick		4	None	Non-Reinforced Concrete	6 SE	Out NW	In		
DS-18	3 BD	RFC-CL	EX		12.8	1.0	Light Highway	Grass/Dirt	Precast	Rubber	Conical Off	Not Known	Not Known		3	Not Known	Brick	7 W	In E	Out		
DS-19	3 CS				14	2.0	Right-of-Way	Grass/Dirt	Not Known	Rubber	Conical Off	Precast	Precast		4	Non-Reinforced Concrete	Non-Reinforced Concrete	5 SE	Out S	In NW	In	
DS-20	3 BD	RFC-SM	CR		13.5	3.5	Right-of-Way	Grass/Dirt	Precast	None	Conical Off	Precast	Precast		4	Non-Reinforced Concrete	Non-Reinforced Concrete	7 SE	Out S	In W	In	
DS-21	3 RT	RFC	BD	CR	11.5	0.0	Sidewalk	Grass/Dirt	Brick	Rubber	Conical Off	Brick	Brick		4		Vitrified Clay Pipe	6 E	Out SW	In W	In	
DS-22	3 BD	RFC	CS	CR	14.7	4.5	Right-of-Way	Grass/Dirt	Precast	Rubber	Conical Off	Precast	Brick		5	Non-Reinforced Concrete	Vitrified Clay Pipe	8 NE	Out SW	In S	In	

Code	Description
BH	Bulkhead
CBC	Construct Bench and Channel
CB	Construct Bench
CL	Chimney Liner (Interior)
CLEX	Chimney Liner (Exterior)
CS	Chemical Seal
RC	Replace Cover
RFC	Replace Frame and Cover
RFC-BD	Replace Frame and Cover - Bolt Down
RT	Rebuild Top
SM-CR	Resurface Manhole - Corrosion Resistant

Manhole ID	Sheet Number	Rehab Method 1	Rehab Method 2	Rehab Method 3	Approximate Depth	Approximate Distance Above Grade, ft	Location	Surface Type	Chimney Material	Chimney Lining	Cone Type	Cone Material	Wall Material	Wall Material 2	Bench Material	Channel Material	Number of Steps	Cont1 Direction	Cont2 Direction	Cont3 Direction	Cont4 Direction
DS-23	3 BD	RFC SM-3 BD	CR	SM-3 BD	14.8	4.0	Right-of-Way	Grass/Dirt	Precast	-	Conical Off Centered	Precast	Brick		Non-Reinforced Concrete	Vitrified Clay Pipe	9	NE	Out SW	In	
DS-26	3 RT	RFC CL-3 BD	EX	SM-3 BD	17.5	0.0	Main Highway	Asphalt	Brick	Rubber	Conical Centered	Brick	Brick			Vitrified Clay Pipe	9	E	Out W	In	
DS-29	3 BD	RFC SM-3 BD	EX		13.5	1.0	Right-of-Way	Grass/Dirt	Not Known	Rubber	Conical Off Centered	Precast	Precast Brick		Non-Reinforced Concrete	Vitrified Clay Pipe	9	SE	Out W	In	
DS-31	3 BD	RFC SM-3 BD	CR		17.5	0.5	Right-of-Way	Grass/Dirt	Not Known	Rubber	Conical Off Centered	Precast	Precast Brick		Non-Reinforced Concrete	Vitrified Clay Pipe	9	E	Out W	In	
DS-36	2 BD	RFC CL-2 BD	EX		14.6	1.5	Woods	Grass/Dirt	Not Known	Rubber	Conical Off Centered	Precast	Precast Brick		Non-Reinforced Concrete	Vitrified Clay Pipe	7	NE	Out SW	In	
DS-37	2 BD	RFC CL-2 BD	EX	CS	13.7	1.0	Woods	Grass/Dirt	Precast	Rubber	Conical Off Centered	Precast	Cast Iron		Non-Reinforced Concrete	Vitrified Clay Pipe	7	NE	Out SW	In	
DS-38	2 RT	RFC BD-2 RT	EX		12.6	1.2	Woods	Grass/Dirt	Brick	Rubber	Conical Off Centered	Precast	Precast Brick		Non-Reinforced Concrete	Concrete	7	E	Out W	In	
DS-39	2 RT	RFC BD-2 RT	EX		12.2	0.5	Woods	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	4	E	Out W	In	
DS-41	2 RT	RFC CL-2 RT	EX		12	1.3	Other	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	5	E	Out SW	In	W In
DS-42	2 RT	RFC CL-2 RT	EX		11.8	1.5	Other	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	5	SE	Out NW	In	
DS-43	2 BD	RFC BD-2 BD	EX		14.4	0.2	Other	Grass/Dirt	Precast	Rubber	Conical Off Centered	Precast	Precast		Non-Reinforced Concrete	Concrete	8	SE	Out S	In	NW In
DS-44	2 RT	RFC BD-2 RT	EX		13	0.1	Right-of-Way	Grass/Dirt	Brick	None	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	6	E	Out W	In	
DS-45	2 RT	RFC CL-2 RT	EX		11.3	0.0	Right-of-Way	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	5	E	Out W	In	
DS-46	2 RT	RFC CL-2 RT	EX		12.2	1.0	Right-of-Way	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	4	E	Out W	In	
DS-47	2 BD	RFC CS			12.5	0.5	Right-of-Way	Grass/Dirt	Precast	Rubber	Conical Centered	Precast	Precast		Non-Reinforced Concrete	Concrete	7	E	Out S	In	W In
DS-48	2 RT	RFC BD-2 RT	EX		12.1	0.0	Parking Lot	Asphalt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	5	E	Out W	In	
DS-49	2 RT	RFC BD-2 RT	EX		18.9	-0.3	Right-of-Way	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	9	E	Out W	In	

Code	Description
BH	Bulkhead
CBC	Construct Bench and Channel
CB	Construct Bench
CL	Chimney Liner (Interior)
CL-EX	Chimney Liner (Exterior)
CS	Chemical Seal
RC	Replace Cover
RFC	Replace Frame and Cover
RFC-BD	Replace Frame and Cover - Bolt Down
RT	Rebuild Top
SM-CR	Resurface Manhole - Corrosion Resistant

Manhole ID	Sheet Number	Rehab Method 1	Rehab Method 2	Rehab Method 3	Approximate Depth	Approximate Distance Above Grade, ft	Location	Surface Type	Chimney Material	Chimney Lining	Cone Type	Cone Material	Wall Material	Wall Material 2	Bench Material	Channel Material	Number of Steps	Cent Compass Dir	Cent2 Compass Dir	Cent3 Compass Dir	Cent4 Compass Dir	Cent4 Direction
DS-50	2 RT	RFC	BD	CBC	19.3	0.3	Right-of-Way	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		6 Brick	Non-Reinforced Concrete	5 E	Out S	In W	In		
DS-51	1 BD	RFC			12.1	0.0	Other	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	4 NE	Out S	In SW	In		
DS-52	1 BD	RFC			13	0.0	Other	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	6 NE	Out SE	In SW	In		
DS-53	1 BD	RFC			13	0.0	Other	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	6 SW	Out NE	In SE	In		
DS-54	1 RT	RFC	BD	CS	14.1	0.0	Other	Grass/Dirt	Precast	None	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	7 NE	Out SW	In			
DS-55	1 BD	RFC			13.9	0.2	Other	Grass/Dirt	Precast	Rubber	Conical Off Centered	Precast	Precast		5 Concrete	Non-Reinforced Concrete	7 NE	Out S	In SW	In		
DS-56	1 RT	RFC	BD	CS	14.2	0.0	Yard	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	8 NE	Out W	In			
DS-57	1 CS	CL	RC		16.8	0.0	Light Highway	Concrete Pavement	Precast	Rubber	Conical Centered	Precast	Precast		5 Concrete	Non-Reinforced Concrete	9 NE	Out S	In W	In N	In	
DS-60	1 RC				16.1	0.0	Light Highway	Concrete Pavement	Brick	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	8 E	Out W	In			
DS-61	1 RC	CL			15.1	0.0	Light Highway	Concrete Pavement	Precast	None	Conical Off Centered	Precast	Precast		5 Concrete	Non-Reinforced Concrete	8 E	Out S	In W	In N	In	
DS-62	1 RC				16.2	0.0	Light Highway	Concrete Pavement	Brick	titlous	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	9 E	Out S	In W	In		
DS-63	1 RC	CL			17.5	0.0	Light Highway	Concrete Pavement	Precast	None	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	10 E	Out W	In N	In		
DS-65	1 CBC	RC			14	0.0	Sidewalk	Concrete Pavement	Not Known	Rubber	Conical Off Centered	Precast	Precast		4 Concrete	Non-Reinforced Concrete	7 S	Out N	In			
DS-66	1 CBC	RC			12	0.0	Light Highway	Concrete Pavement	Not Known	Rubber	Conical Off Centered	Precast	Precast		4 Concrete	Non-Reinforced Concrete	7 S	Out W	In E	In		
DS-67	1 CBC	RC			12.8	0.0	Light Highway	Concrete Pavement	Precast	Rubber	Centered (CC)	Precast	Precast		5 Concrete	Non-Reinforced Concrete	7 E	Out W	In N	In		
DS-68	1 BD	EX	CS		13.1	2.0	Yard	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	7 S	Out W	In			
DS-69	1 BD	CS			13	0.5	Yard	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	7 E	Out W	In			

Code	Description
BH	Bulkhead
CBC	Construct Bench and Channel
CB	Construct Bench
CL	Chimney Liner (Interior)
CL-EX	Chimney Liner (Exterior)
CS	Chemical Seal
RC	Replace Cover
RFC	Replace Frame and Cover
RFC-BD	Replace Frame and Cover - Bolt Down
RT	Rebuild Top
SM-CR	Resurface Manhole - Corrosion Resistant

Code	Description
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CBC	Construct Bench and Channel
CB	Construct Bench
CL	Chimney Liner (Interior)
CL-EX	Chimney Liner (Exterior)
CS	Chemical Seal
RC	Replace Cover
RFC	Replace Frame and Cover
RFC-BD	Replace Frame and Cover - Bolt Down
RT	Rebuild Top
SM-CR	Resurface Manhole - Corrosion Resistant

SECTION 28010

SITE CLEARING AND GRUBBING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Removal of surface debris.
 - 2. Removal of trees, shrubs, and other plant life.
 - 3. Strip and stockpile topsoil.
- B. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern work in this section.
- C. Payment: Refer to Special Provisions, Section 1-Special Conditions.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 PREPARATION

- A. Contractor shall submit a plan to City for any clearing and/or grubbing no later than two weeks prior to clearing.

3.02 PROTECTION

- A. Contractor shall protect from damage utilities and structures that are to remain.
- B. Contractor shall protect trees, plant growth, and features designated to remain as final landscaping.

3.03 CLEARING AND GRUBBING

- A. Clearing and grubbing shall consist of cutting and disposing of trees, brush, windfalls, logs, and other vegetation, and the removing and disposing of roots, stumps, stubs, grubs, logs, and other timber from within the clearing limits as defined on the drawings, designated to be removed on the drawings or in the specifications, or fall within the excavation, embankment, or improved areas of the site.
- B. All roots and stumps shall be removed to a depth of not less than 12 inches below the original ground surface in embankment areas. In cut areas, such material shall be removed to a depth of not less than 12 inches below the subgrade.

3.04 REMOVALS

- A. Contractor shall remove from the site all trees, brush, and other vegetation, debris, and rocks that fall within the clearing and grubbing limits.

END OF SECTION

MR-12

ID	Name	Address	City	State	Zip	Phone	Fax	Email	Web
1	John Doe	123 Main St	New York	NY	10001	212-555-1234		john.doe@ny.com	http://www.johndoe.com
2	Jane Smith	456 Elm St	Los Angeles	CA	90001	213-555-5678		jane.smith@la.com	http://www.janesmith.com
3	Bob Johnson	789 Oak St	Chicago	IL	60601	312-555-9012		bob.johnson@chicago.com	http://www.bobjohnson.com

SECTION 28100
SEWER CLEANING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for the:
 - 1. cleaning of the sewer by mechanical means,
 - 2. removal of surface oils from the interior of the sewer,
 - 3. removal of manhole debris, and
 - 4. removal of roots where found in the sewer.
 - 5. Cleaning may be for City's uses only or may be part of sewer televising and/or sewer rehabilitation, including:
 - (1) sewer chemical sealing, and
 - (2) sewer lining that may be part of the Work.
- B. Work related to Sewer Cleaning includes cleaning for each reach of sewer identified by City in Table 28000-1, Sewer Rehabilitation Summary.
- C. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern Work in this section.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- F. Payment: Refer to Special Provisions, Section 1-Special Conditions.
- G. Televising reports and videos are provided by City. Cleaning of each sewer section shall be based on debris levels from televising reports. Additional bid items are included if the debris levels differ by more than 15 percent. Additional Bid Items shall not be utilized without approval of project manager.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 SEWER CLEANING-GENERAL

- A. Contractor shall provide all supervision, equipment, labor, and material necessary for the proper cleaning. Cleaning shall primarily be completed by means of hydraulic high volume water pumping and solids aeration system. Flow rate shall be a minimum of 250 gpm at 2,000 psi unless otherwise specified. Solids moved to the downstream manhole shall be captured, removed, and dewatered prior to transport to an approved disposal facility. The pumping and separation system shall be capable of continuous operation.

- B. City makes no guarantee that all of the sanitary sewers to be entered are clear for the passage of cleaning equipment. The methods used for securing passage of the cleaning equipment are to be at the option of Contractor
- C. Satisfactory precautions shall be taken to protect the sewer lines from damage that might be inflicted by the improper use of cleaning equipment. Contractor shall be responsible for and shall immediately repair any and all damage caused by its operations.
- D. Selection of the cleaning equipment shall be based on the condition of the sewers at the time the Work commences.
- E. All cleaning prior to any type of sewer rehabilitation shall be performed using methods in accordance with manufacturer's recommendations for rehabilitation equipment being used.

3.02 REQUIREMENTS AND PROCEDURES

- A. The equipment shall be capable of removing root growth, dirt, grease, rocks, sand, and other materials and obstructions from the sewers and manholes. If cleaning of an entire sewer reach cannot be successfully performed from one manhole, the equipment shall be set up at the other manhole and cleaning again attempted. If, again, successful cleaning cannot be performed or the equipment fails to traverse the entire sewer reach, Contractor shall remove the blockage.
- B. Cleanliness:
 - 1. All material shall be removed that would impede sewage flow and any subsequent televising and/or rehabilitation efforts.
 - 2. Cleaning shall be completed by using as many passes as required to remove growth and debris to allow any such televising camera and/or rehabilitation to proceed. Cleaning shall be completed to a minimum of 95% of the original carrying capacity and as required for any future televising or rehabilitation procedures.
 - 3. All loose material shall be removed from the sewers. No material shall be passed downstream of the areas cleaned.

3.03 DEBRIS REMOVAL AND DISPOSAL

- A. All water, sludge, dirt, sand, rock, roots, grease, and any other material resulting from the cleaning operation shall be removed by Contractor at the downstream manhole of the section being cleaned and properly disposed of by Contractor. Passing material from manhole section to manhole section, which could cause blockage, accumulations of sand in wet wells, or damage to pumping equipment, shall not be permitted.
- B. Under no circumstances shall sewage or solids removed from manholes and lines be dumped onto streets or into ditches, catch basins, storm drains, or sanitary sewer manholes.
- C. Chemical cleaning will not be allowed.

END OF SECTION

SECTION 28200

SEWER TELEVISION

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for the inspection of the sewers by means of closed-circuit color television (CCTV). Televising may be for City's inspection uses only or may be a part of additional Work for the Project.
- B. Work related to Sewer Televising includes televising each reach of sewer identified by City in Table 28000-1, Sewer Rehabilitation Summary.
- C. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern Work in this section.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- F. Payment: Refer to Special Provisions, Section 1-Special Conditions.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 SEWER TELEVISION

- A. All CCTV work shall conform to current NASSCO PACP Standards.
- B. Sewer isolation shall be completed during sewer televising and, unless otherwise approved in writing by City, shall be by plugging off the flow of all upstream pipes through the use of sewer line plugs.
- C. The following procedures shall be employed, as required, to adequately complete the televising:
 - 1. Televising at night, and/or
 - 2. Televising short sections of sewer and releasing the plug several times during the televising, as required.
 - 3. Bypass pumping, where required, shall be performed by Contractor.
- D. Equipment shall conform to NASSCO PACP standards.
- E. Procedures shall conform to NASSCO PACP standards.
- F. Record Keeping: The following information shall be noted as required for the Work:
 - 1. CCTV Reports must include the following information and conform to the applicable guidelines.

2. CCTV Reports, NASSCO PACP Certified Database, and electronic worksheets must accompany all inspection work.
 3. All City and NASSCO PACP required header information designated in Table 28200-1, Header Checklist, must be fully and accurately entered on all CCTV reports.
 4. Two copies of each DVD of all sewers televised shall be provided to the City.
 - a. DVD shall be recorded at Standard Play.
 - b. DVD shall include the following information:
 - (1) Visual (on screen):
 - (a) Date of televising.
 - (b) Sewer reach between manholes.
 - (c) Direction of flow and direction of televising.
 - (d) Continuous distance along reach.
 - (2) Audio:
 - (a) Date of television inspection, operator name, name of overlying or adjacent street, and manhole numbers.
 - (b) Confirmation of sewer reach and televising direction in relation to direction of flow.
 - (c) Description of pipe size, type, and pipe joint length.
 - (d) Description and location of each service connection and pipe defect.
 - (e) Type of weather during televising.
 - (3) Printed labels on DVD with DVD number, Project location, date, format information, and company performing the Work.
 5. A DVD record of all observations shall be provided of the televised sewers. The database contained on the DVD shall be PACP®-certified and compatible with Microsoft Access XP. Two copies of the DVDs shall be provided to City.
- G. Rehabilitation Televising:
1. Televising of protruding tap cutting shall be performed wherever possible during tap cutting. Televising of the entire cutting operation will not be required. Following cutting, the tap periphery and the inside of the service lateral shall be televised and recorded.
 2. Following completion of rehabilitation, Contractor shall televise each sewer reach where rehabilitation was completed. Record keeping shall be as specified in subpart Record Keeping.
- H. City makes no guarantee that all of the sanitary sewers to be entered are clear for the passage of a camera. The methods used for securing passage of the camera are to be at the option of Contractor and the costs shall be included in the unit bid price for Sewer Televising of sewer sections not televised or in the unit bid prices for other bid items. The cost of retrieving the television camera, under all circumstances, when it becomes lodged during inspection, shall be incidental to this portion of the Work.

END OF SECTION

TABLE 28200-1

HEADER CHECKLIST

Field #	Header Field	Required for this Project
1	Surveyed By	X
2	Certificate Number	X
3	Reviewed By	
4	Reviewer Certificate Number	
5	Owner	X
6	Customer	
7	P/O Number	
8	Work Order Number	
9	Media Label	X
10	Project	X
11	Date	X
12	Time	X
13	Sheet Number	
14	Weather	
15	Pre-Cleaning	X
16	Date Cleaned	
17	Flow Control	
18	Purpose of Survey	X
19	Direction of Survey	X
20	Inspection Technology Used	
21	Inspection Status	X
22	Consequence of Failure	
23	Pressure Value	
24	Drainage Area	
25	Pipe Segment Reference	
26	Street (Name and Number)	X
27	City	X
28	Location Code	
29	Location Details	
30	Pipe Use	X
31	Height	X
32	Width	X
33	Shape	X
34	Material	X
35	Lining Method	
36	Coating Method	
37	Pipe Joint Length	X

Field #	Header Field	Required for this Project
38	Total Length	X
39	Length Surveyed	X
40	Year Constructed	
41	Year Renewed	
42	Upstream MH Number	X
43	Upstream MH Rim to Invert	
44	Upstream MH Rim to Grade	
45	Upstream MH Grade to Invert	
46	Upstream MH Northing	
47	Upstream MH Easting	
48	Upstream MH Elevation	
49	Downstream MH Number	X
50	Downstream MH Rim to Invert	
51	Downstream Rim to Grade	
52	Downstream Grade to Invert	
53	Downstream MH Northing	
54	Downstream MH Easting	
55	Downstream MH Elevation	
56	MH Coordinate System	
57	MH Vertical Datum	
58	GPS Accuracy	
59	Additional Information	X

SECTION 28300
SEWER BYPASS PUMPING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all materials, labor, equipment, power, and maintenance necessary to perform bypass pumping while the Work is being completed.
- B. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements—City of Davenport, Iowa" shall govern work in this section.
- C. Coordinate the Work of this section with Section 28000—General Requirements.
- D. Unit Prices: Refer to Special Provisions, Section 1—Special Conditions.
- E. Payment: Refer to Special Provisions, Section 1—Special Conditions.

1.02 SUBMITTALS

- A. Submittals shall be in accordance with provisions of Section 01300—Submittals.
 - 1. Contractor shall submit to City detailed plans and descriptions outlining all provisions and precautions to be taken by Contractor regarding the handling of existing sewage flows. This plan must be specific and complete, including such items as schedules, locations, elevations, capacities of equipment, materials, and all other incidental items necessary and/or required to ensure proper protection of the facilities, including protection of the access and bypass pumping locations from damage because of the discharge flows and compliance with the requirements specified in these Contract Documents. No rehabilitation shall begin until all provisions and requirements have been reviewed by City.
 - 2. The Bypass Pumping plan shall include but not be limited to details of the following:
 - a. Staging areas for pumps.
 - b. Sewer plugging method and types of plugs.
 - c. Number, size, material, location, and method of installation of suction piping.
 - d. Number, size, material, method of installation, and location of installation of discharge piping.
 - e. Bypass pump sizes, capacity, number of each size to be on-site, and power requirements.
 - f. Standby power generator size and location.
 - g. Downstream discharge plan.
 - h. Method of protecting discharge manholes or structures from erosion and damage.
 - i. Method of noise control for each pump and/or generator.
 - j. Any temporary pipe supports and anchoring required.
 - k. Design plans for access to bypass pumping locations.
 - l. Schedule for installation and maintenance of bypass pumping lines.
 - m. Plan indicating location of bypass pumping lines.
- B. Any proposed method of other flow controls shall be submitted for review by City.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 SEWER BYPASS PUMPING

- A. Where required by sewage flows or inability to prevent debris from falling into the flow stream, Contractor shall bypass the sewage around the sewer sections or manholes as required to complete the Work.
- B. Precautions shall be taken when bypass pumping is required to prevent the flooding of nearby property.
- C. Under no circumstances will the diversion or dumping of raw sewage be allowed onto the streets or into storm sewers. The bypass shall be made by plugging an existing upstream manhole and pumping the sewage into a downstream manhole or adjacent sanitary sewer system. Bypass pumping shall mean the use of pumps, tanks, hoses, and other necessary equipment to cause uninterrupted flow of sewage around the section or reach in which the Work is being accomplished.
- D. All bypass pumping operations must be attended by personnel to prevent flooding in case of pump failure. Under no conditions shall a bypass pumping operation be left unattended. All personnel for setup, operation, and supervision of the bypass pumping equipment shall be provided as necessary.
- E. All hoses and pumps shall be sized by Contractor to be of sufficient capacity to handle the existing sewage flow, plus additional flow that may occur during wet weather periods and during periods of high runoff. All equipment used in bypass pumping shall be operated and maintained in proper running condition at all times.
- F. All hose connections shall be watertight and no leakage shall be allowed to the surface. Pumping system hoses and appurtenances shall be tested prior to use in the sewer system to ensure watertightness.
- G. At the end of each working day, the reach or section being bypassed shall be placed in service and the bypass plug removed.
- H. The pumps shall be specifically designed for sewage, capable of passing 3-inch solids.
- I. Contractor shall satisfactorily demonstrate to City that the bypass system works for at least the diurnal flow pattern before beginning any Work.

END OF SECTION

SECTION 28500

SEWER CHEMICAL SEALING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment for sewer chemical sealing.
- B. Work related to Sewer Chemical Sealing-Test All Joints and Sewer Chemical Sealing-Seal-Failed Joints includes sewer chemical sealing for each reach of sewer designated "CS" in Table 28000-I, Sewer Rehabilitation Summary.
- C. Related Sections and Divisions:
 - 1. Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern Work in this section.
 - 2. Sewer cleaning to complete the Work shall be in accordance with Section 28100-Sewer Cleaning.
 - 3. Sewer televising to complete the Work shall be in accordance with Section 28200-Sewer Televising.
 - 4. Sewer bypass pumping to complete the Work shall be in accordance with Section 28300-Sewer Bypass Pumping.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- F. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 QUALITY ASSURANCE

- A. Documentation shall include a list of at least five previous projects including names and telephone numbers to verify previous satisfactory performance on projects of similar or greater size and difficulty factor. Contractor's field foreman shall have experience on at least five previous projects with application of specified product.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000-General Requirements.
- B. Submit manufacturer's instructions.
- C. Submit quality assurance data.

PART 2-PRODUCTS

2.01 MATERIAL STANDARDS

- A. Material used for Sewer Chemical Sealing shall conform to ASTM F2304, "Standard Practice for Rehabilitation of Sewers Using Chemical Grouting."

2.02 MANUFACTURERS

- A. Urethane Based:
 1. Avanti International AV-350.
 2. DeNeef Construction Chemicals Hydro-Active Multigel.
 3. Or equal.

2.03 MATERIAL CHARACTERISTICS

- A. Sealing materials shall utilize a two-part chemical grout that mixes within the isolated area formed by the packer.
 1. The chemical grout shall be catalyzed to polymerize in the soil and voids surrounding the area of leakage and shall form an impervious gel barrier around the leak.
 - a. Approved additives shall be used as various field conditions dictate.
 - b. Sealing materials shall be subject to approval of Engineer.
 2. The chemical grout shall have properties as listed in ASTM F2304 and ASTM F2414-04.
- B. Mixing and handling of chemical grout may exhibit toxicity by passing through the unbroken skin, by inhalation of dust or droplets of the materials, or by swallowing.
 1. Mixing, handling, and pumping of the chemicals shall be done by personnel thoroughly familiar with the handling of the chemicals involved.
 2. All chemicals shall be subject to the approval of City.

PART 3-EXECUTION

3.01 SEWER CHEMICAL SEALING

- A. General:
 1. All sewer chemical sealing shall be in accordance with ASTM F2304.
 2. Sewer cleaning to remove mineral deposits, debris, roots, grease and other material that would hinder the Work shall be completed.
 3. Prior to, during, and following sewer chemical sealing, Contractor shall televise the sewer. Televising shall be used to verify the suitability of the pipe and connections for chemical sealing.
 4. Removal of protruding taps and other obstructions that would hinder the Work shall be completed.
 5. Bypass pumping shall be provided as needed to allow the Work to proceed.
 6. Prior to sealing, equipment shall be tested in accordance with ASTM F2304.
 7. Testing is required and shall be performed in accordance with ASTM F2304.
 8. No joint or location shall be considered sealed unless, while under continual pressure, an attempt is made to pump grout to "refusal" (up to 1/2 gallon per inch diameter pipe size). This is to ensure that sufficient chemical has been dispersed into the soil surrounding the joint and that a temporary seal has not been made by applying a minimum amount of chemical grout to the void and the joint area inside the pipe. When chemical grout cannot be pumped to "refusal" within a volume

less than or equal to 1/2 gallon per inch diameter pipe size due to latent physical conditions, no additional Work shall be undertaken until authorization to proceed has been given by City.

B. Test All Joints and Seal Failed Joints:

1. In each reach of sewer, listed in Table 28000-1 designated as "CS", Contractor shall place in the line special equipment (packer) designed to test each joint.
2. Each joint shall be tested as specified in ASTM F2304.
3. Joints that fail the test shall be sealed as specified in ASTM F2304.
4. Before final acceptance and payment for chemical sealing is made, each sealed area shall be tested as specified in ASTM F2304. Should sealing fail the test, the defect area shall be resealed and retested until the test requirements can be met. After all infiltration has been eliminated and the test has been passed, excessive gels shall be removed from inside of the pipe by partially inflating the packer and pulling it past the area as a wiper to restore the pipe to its original inside diameter.

C. Televising: Following completion of rehabilitation, Contractor shall televise each sewer reach where rehabilitation was completed. Televising and record keeping shall be provided pursuant to Section 28200-PART 3-EXECUTION-Rehabilitation Televising.

END OF SECTION

SECTION 28550

MANHOLE CHEMICAL SEALING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment for manhole chemical sealing.
- B. Work related to Bid Item Manhole Chemical Sealing includes sealing of all manholes designated "CS" in Table 28000-2, Manhole Rehabilitation Summary.
- C. Coordinate the Work of this section with Section 28000-General Requirements.
- D. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- E. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 QUALITY ASSURANCE

- A. Documentation shall include a list of at least five previous projects including names and telephone numbers to verify previous satisfactory performance on projects of similar or greater size and difficulty factor. Contractor's field foreman shall have experience on at least five previous projects with application of specified product.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000-General Requirements.
- B. Submit manufacturer's instructions.
- C. Submit quality assurance data.

PART 2-PRODUCTS

2.01 MATERIAL STANDARDS

- A. Material used for Chemical Sealing of Manholes and Manhole Chemical Sealing with Portable Urethane Equipment shall conform to ASTM F2304, "Standard Practice for Rehabilitation of Sewers Using Chemical Grouting."

2.02 MANUFACTURER

- A. Urethane Based:
 - 1. De Neef Construction Chemicals Hydro Active Multigel HF.
 - 2. Avanti International AV-350.
 - 3. Or Equal.

2.03 MATERIAL CHARACTERISTICS

A. Manhole Chemical Sealing:

1. The chemical grout shall be injected into the defects by means of pre-drilled holes, according to manufacturer's instructions. Oakum saturated in chemical grout resin may be used in manufacturer recommended situations and as approved by Engineer. Approved additives shall be used as various field conditions dictate and as recommended by the manufacturer. Chemical grouts shall have properties as listed in ASTM F2304 and ASTM F2414-04.
2. Mixing and handling of chemical grout may exhibit toxicity by passing through the unbroken skin, by inhalation of dust or droplets of the materials, or by swallowing.
 - a. Mixing, handling, and pumping of the chemicals shall be done by personnel thoroughly familiar with the handling of the chemicals involved.
 - b. All chemicals shall be subject to the approval of City.

PART 3-EXECUTION

3.01 GENERAL

- A. Manhole chemical sealing shall be conducted in accordance with manufacturer's directions and as indicated in the following sections.
- B. All mineral deposits, roots, grease, and solid or semisolid matter, including excess mortar and concrete shall be removed in preparing the manhole barrel to be sealed.

3.02 MANHOLE CHEMICAL SEALING

- A. Manholes shall be completely sealed from the bottom of the pipe invert to the top of the manhole cone. All visible and suspected locations shall be sealed first. All roots and visible mineral deposits larger than 1/8-inch wide in any dimension shall be removed by high-pressure water blast or mechanically.
 1. At each actual or suspected leakage point, a hole shall be carefully drilled from within the manhole and shall extend through the manhole wall.
 2. Where there are multiple leaks to be sealed, fewer holes may be drilled, provided all leakage is stopped from these areas, and holes are a minimum of 2 feet apart.
 3. Holes shall be drilled around the periphery of all manhole barrel joints at an interval not to exceed 2 feet (manhole barrel joints at base of walls and at bottom of cone included), near all pipes passing through the manhole walls, and at all other likely points of infiltration.
- B. Packer shall be placed in drilled hole so that a watertight seal between the hole and the packer is provided.
- C. Hoses shall be attached to the packer from an injection pump located above ground. Injection material shall be pumped into each hole until all leakage is stopped and refusal is recorded on the pressure gauge mounted on the pumping unit.
- D. Care shall be taken during the pumping operation to ensure that pressures do not cause damage to the manhole structure. Upon completion of material injection, the packer shall be removed and the holes filled with hydraulic cement and troweled flush with the surface of the structure.

- E. Consideration shall be given concerning depth of defect versus frost line, size of leak, potential for movement of chemical grouted area, and other factors that may affect the long-term performance of the chemical grouts when selecting the type of grout to be used for sealing an individual leak.

END OF SECTION

SECTION 28600

SEWER LINING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment for sewer lining.
- B. Work related to Sewer Lining includes lining entire reaches of sewer identified by City in Table 28000-2, Sewer Rehabilitation Summary.
- C. Work related to Sewer Lining-Lateral Reinstatement includes cutting liner to reinstate laterals after completion of lining at locations referred to above.
- D. Related Sections and Divisions:
 - 1. Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern Work in this section.
 - 2. Sewer cleaning to complete the Work shall be in accordance with Section 28100-Sewer Cleaning.
 - 3. Sewer televising to complete the Work shall be in accordance with Section 28200-Sewer Televising.
 - 4. Sewer bypass pumping to complete the Work shall be in accordance with Section 28300-Sewer Bypass Pumping.
- E. Coordinate the Work of this section with Section 28000-General Requirements.
- F. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- G. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 SUBMITTALS

- A. Submittals shall include:
 - 1. submit shop drawings and product data under the provisions of Section 28000-General Requirements.
 - 2. Manufacturer's material testing certification.
 - 3. Liner thickness design.

1.03 QUALITY ASSURANCE

- A. The sewer lining supplier and installer shall have a minimum of five years of experience in liner installation.
- B. The liner fabricator shall have a minimum of five years of experience in liner fabrication.
- C. Field tests and cured specimens will be required.

PART 2-PRODUCTS

2.01 FULL LINER

- A. This specification references American Society for Testing and Materials (ASTM) standard specifications, which are made a part of hereof by such reference and shall be the latest edition and revision thereof.
1. F1216—Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin Impregnated Tube.
 2. D5813—Standard Specification for Cured-in-Place Thermosetting Resin Sewer Pipe.
 3. D638—Test Method for Tensile Properties of Plastics.
 4. D790—Test Method for Tensile Properties of Unreinforced and Reinforced Electrical Plastics and Electrical Insulating Materials.
 5. C581—Standard Practice for determining Chemical Resistance of Thermosetting Resins.
 6. D2990—Standard Test Methods for Tensile, Compressive, Flexural Creep, and Creep Rupture of Plastics.
- B. Liner Reinforcing Material:
1. Liner tube shall be sewn or heat fusion-bonded to tightly fit the internal circumference of the original pipe for the entire length to be lined.
 2. Wall thickness shall be designed in conformance with ASTM F1216, Appendix X1.
 3. Tube shall be polyester felt formed into sheets of required thickness.
 4. Tube may be made of single-or multiple-layer construction, with any layer not less than 3 millimeters thick.
 5. Membranes or strips sandwiched in between layers may be included to control longitudinal stretching.
 6. Seams shall not be joined perpendicular to the longitudinal axis. Seams shall be spirally formed and sewn or heat fusion-bonded.
 7. Polyurethane membrane used during inversion of tube may be left on internal surface of liner after curing.
 8. The outside of the tube shall have markers along its full length at regular intervals not to exceed 5 feet.
- C. Resin shall conform to ASTM F1216 and D5813:
1. Polyester resin for general chemical applications shall be used, conforming to ASTM F1216, Appendix X2.
 2. Fillers, except those required for viscosity control, fire retardance, modulus enhancement, chemical resistance, or extension of pot life will not be allowed.
 3. Thixotropil agents that will not interfere with visual inspection may be added for viscosity control.
 4. Resins may contain pigments, dyes, or colorants that will not interfere with visual inspection of cured liner.
 5. Resin content shall be 10% to 15% by volume greater than the volume of felt in the liner tube.
- D. Cured liner shall conform to ASTM F1216:
1. Minimum thickness of bonded polyurethane membrane shall be per manufacturer's requirement and shall not affect structural dimension requirements of cured liner.
 2. Thickness of cured liner shall be as designed (+10% -4%) and shall not include thickness of polyurethane inner liner.
 3. Cured liner shall conform to the following structural standards:
 - a. Tensile Strength—3,000 psi (ASTM D638).
 - b. Flexural Modulus of Elasticity—400,000 psi (ASTM D790).

- c. Flexural Strength—4,000 psi (ASTM D790).
- 4. Layers of cured CIPP shall be uniformly bonded. It shall not be possible to separate any two layers with a probe or knife point so that the layers separate cleanly or the probe moves freely between layers.
- E. Liner Design:
 - 1. Existing host pipe material, size, and depth are available on televising records available for use by Contractor.
 - 2. Condition of host pipe is available on DVD records and reports available for use by Contractor.
 - 3. Existing soil conditions, types, and depth of groundwater shall be determined by Contractor.
- F. Manufacturer for Full Liner shall be Insituform Technologies, Inc., National Liner, Inc., InLiner USA, Inc., or equal.
- G. End Seal: Manufacturer for end seals shall be LMK Technologies, or approved equal.

PART 3-EXECUTION

3.01 SEWER LINING

- A. Televising:
 - 1. Prior to, during, and following sewer rehabilitation, Contractor shall televise and videotape the sewer.
 - 2. Televising shall be used to verify the suitability of the pipe and connections for installing lining. Pipe and connection conditions shall conform to those published by the system manufacturer and NASSCO.
- B. Sewer Preparation:
 - 1. Sewer locations observed to be leaking during preparation for lining and that would interfere with sewer lining installation shall be sealed prior to installation of liner.
 - 2. Sewer cleaning to remove mineral deposits, debris, roots, grease and other material that would hinder the Work shall be completed.
 - 3. Removal of protruding taps and other obstructions shall be completed prior to installation of all liners.
 - 4. Bypass pumping shall conform to Section 28300.
- C. Liner Preparation:
 - 1. Liner tube shall be impregnated with resin per manufacturer's requirements before proposed time of installation.
 - 2. Storage and transport of impregnated liner:
 - a. Storage shall be out of direct sunlight.
 - b. Storage shall be below 40°F.
 - c. Transport shall be below 40°F.
- D. Liner Installation:
 - 1. Public Notification:
 - a. Contractor shall make every effort to maintain service usage throughout the duration of the Project. In the event that a service will be out of service, the maximum amount of time of no service shall be 12 hours for any property served by the sewer. A public notification program shall be implemented. Contractor shall be responsible for contacting each home or business

- connected to the sanitary sewer and informing them of the Work to be conducted, and when the sewer will be off-line.
- b. Written notice shall be delivered to each home or business affected by closed lateral service connections. The notice shall be approved by City prior to delivery and shall provide:
 - (1) Description of work and schedule.
 - (2) How the Work will affect the residents, including the time when the sewer will be out of service.
 - (3) Cellular telephone number of Contractor they can call to discuss the Project or any problems that could arise.
 - (4) Personal contact and written notice shall be made by Contractor the day before the Work will commence on the reach or section of sewer affecting the residents.
 - (5) Personal contact shall be made by Contractor with any residents or businesses that cannot be reconnected within the time stated in the written notice.
 2. Installation shall be by contractors certified by the liner manufacturer for installation of the liner.
 - a. Personnel installing the liner shall have been trained by the liner manufacturer.
 - b. Personnel installing the liner shall have a minimum of 2 years experience with installing liners.
 - c. Installation of the liner shall conform to the manufacturer's printed procedures and literature.
 3. Curing: Curing using circulated heating water or steam shall be performed after the insertion is complete.
 - a. Curing temperature shall be as recommended by the liner manufacturer.
 - b. Curing pressures shall be as recommended by the manufacturer.
 - c. Cool down after heating shall be controlled.
 - (1) Temperature shall be controlled as recommended by the liner manufacturer.
 - (2) Pressures shall be maintained during cooling as recommended by the liner manufacturer.
- E. Contractor shall install Insignia End Seals (or approved equal) at all manhole locations. Hydrophilic end seal sleeves shall be installed per manufacturer's recommendations.
- F. Following installation of the liner and lateral reinstatement, Contractor shall televise the sewer to verify the Work.
- G. Reinstatement of Lateral Service Connections:
1. All lateral service connections shall be identified prior to lining.
 2. Lateral service connections shall be reopened without excavation utilizing a remote-controlled cutter monitored by a television camera.
 3. A spare cutter plus spare key components shall be present at the site prior to lining.
 4. Contractor shall be responsible for restoring/correcting, without any delay, all missed or faulty reconnections, as well as for any damage caused to buildings for not connecting the services soon enough or for not giving notice to the building occupants.
- H. Manhole Rehabilitation:
1. Manhole structures that are disturbed, damaged, or have the top portion removed to insert the flexible liner shall be rehabilitated in accordance with the respective specification section.
 - a. Section 28700-Rehabilitation Requiring Excavation.
 - b. Section 28800-Manhole Frame and Cover Replacement.
 2. All structures that receive a top rebuild shall also receive a new frame and cover.

END OF SECTION

SECTION 28700

REHABILITATION REQUIRING EXCAVATION

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for:
 - 1. Repairing sewers including joint repairs, point repairs, and collapsed or broken pipe repairs.
 - 2. Rebuilding tops of manholes designated "RT" in Table 28000-2-Manhole Rehabilitation Summary.
 - 3. Replacing frames and covers of manholes designated "RFC-BD" in Table 28000-2-Manhole rehabilitation Summary.
- B. Related Sections and Divisions:
 - 1. Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern work in this section.
 - 2. Sewer televising to complete the Work shall be in accordance with Section 28200-Sewer Televising.
 - 3. Sewer bypass pumping to complete the Work shall be in accordance with Section 28300-Sewer Bypass Pumping.
- C. Coordinate the Work of this Section with Section 28000-General Requirements and Section 28800-Manhole Frame and Cover Replacement.
- D. Unit Price: Refer to Special Provisions, Section 1-Special Conditions.
- E. Payment:
 - 1. Refer to Special Provisions, Section 1-Special Conditions.
 - 2. Payment for other items shall be as listed in the Bid. If an item is not listed, it shall be considered incidental to the work and included with adjacent or associated items of work.

1.02 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000-General Requirements.

PART 2-PRODUCTS

2.01 SANITARY SEWER PIPE

- A. Refer to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."

2.02 BEDDING AND COVER

- A. Refer to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."

2.03 COMPACTED GRANULAR BACKFILL

- A. Refer to "The Standard Specifications for Public Improvements—City of Davenport, Iowa."

2.04 PRECAST CONCRETE FLAT SLAB

- A. Brick manholes designated "RT" in Table 2800–2, Manhole Rehabilitation Summary require a precast flat slab to serve as the interface between the existing layer of brick and the new chimney adjusting rings.
- B. Precast concrete flat slab shall be sized to bear on the entire surface of the existing layer of brick without overhanging the outside diameter of the existing layer of brick.
- C. Inside diameter opening shall be 27 inches.
- D. Precast concrete flat slab shall be a minimum of 8 inches thick and rated for HS-20 loadings.

2.05 MANHOLE CHIMNEY ADJUSTING RINGS

- A. Manhole adjusting rings shall be injection molded-recycled HDPE as manufactured by LADTECH, Inc., or expanded polypropylene as manufactured by Cretex Specialty Products.
- B. Contractor shall supply ring materials, adhesive, labor, and equipment to install the rings in strict accordance to manufacturer's recommendations. Contractor shall permanently install rings with adhesive so that all manhole casting rims are set level with plan grade. Ring inside diameter shall be 27-inch nominal.
- C. Contractor shall have all ring sizes available when rebuilding tops of manholes, including tapered sections to allow for seamless adjusting of frame elevations on flat and sloped surfaces.
- D. Concrete adjusting rings shall not be used for manhole adjustment.

2.06 FLOWABLE FILL

- A. Flowable fill shall be a self-compacting, self-leveling, material consisting of a mixture of fine aggregate and filler (as needed), water, and cementitious materials (Portland cement, fly ash, granulated blast furnace slag) that is in a flowable state at the time of placement meeting the requirements of the National Ready Mixed Concrete Association Guide Specification for Controlled Low Strength Materials (CLSM). The flowable fill shall be proportioned by the ready mixed concrete supplier on the basis of field experience and/or laboratory trial mixtures to produce a cohesive and nonsegregating mixture which has the following properties: Minimum compressive strength: 70 psi
- B. Contractor shall submit the following information well in advance of fill placement to avoid any delay in construction:
 1. Gradation of fine aggregate.
 2. Design mix.
 3. Previous test results with 7- and 28-day compressive strengths.
 4. Certified mill test results for cement identifying brand, type, and chemistry of cement to be used.
 5. Brand, type, principle ingredient, and amount of each admixture used.

2.07 INSTALL EXTERIOR SEAL

- A. Exterior Seal shall be applied to manholes designated "CL-EX" in Table 28000-2, Manhole Rehabilitation Summary.
- B. Exterior Seal for adjusting ring sealing shall be rubber seals and shall be "Adaptor External Seal," "Infi-Shield Gator Wrap," or equal.
- C. Extensions shall be provided as required to seal the entire section from manhole casting to manhole cone.

PART 3-EXECUTION

3.01 GENERAL

- A. Refer to Section 28000-General Requirements for sequencing requirements.
- B. Excavation shall conform to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."
- C. Bypass pumping shall be in accordance with Section 28300 and provided as needed to allow the Work to proceed.
- D. Maintenance of Surface: Contractor shall maintain all backfilling, resurfacing, repaving, and other surface improvements constructed under this contract as a warranty item. Contractor shall, upon proper notice from City, make all repairs in surfaces of excavations. All expenses incurred by City and/or Contractor in making repairs and all expenses in maintaining excavation surfaces shall be at the expense of Contractor regardless of the material used in backfilling excavations. City reserves the right to make all emergency repairs necessary to make safe all streets and walks at the expense of Contractor regardless of the material used in backfilling excavations.
- E. Pavement restoration shall conform to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."
- F. Landscape restoration shall conform to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."

3.02 REBUILD TOP

- A. Contractor shall remove and dispose all existing chimney ring materials on manholes with a precast concrete cone or flat slab, or manhole block cone.
- B. For brick manholes, Contractor shall remove and depose of all existing defective brick layers in the manhole chimney. Sufficient brick layers shall be removed such that a suitable foundation for rebuilding a new chimney is exposed. Surface of existing brick layer shall be cleaned out of all debris and loose material. A precast concrete flat slab shall be used as an interface between the existing brick layer and the new adjusting rings. Mortar shall be used to seal precast concrete flat slab to existing brick layer. Mortar shall be non-shrink, specifically designed for use in sewers. Submit mortar material information to Engineer for approval.

- C. Contractor shall take care in excavation and work not to allow soil, brick, mortar, or other debris to fall into the manhole.
- D. Contractor shall install new chimney adjusting rings in strict accordance with manufacturer's recommendations, using only manufacturer-recommended adhesive materials.
- E. Construction shall comply with applicable requirements in this section.
- F. All manholes to have a top rebuild shall have a new frame and cover installed as specified in Section 28800. Frames and covers specified in "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall not be used for this project.

3.03 INSTALL EXTERIOR SEAL

- A. Installation shall conform to manufacturer's published instructions.

3.04 COORDINATION WITH OTHER WORK

- A. Where applicable, rehabilitation requiring excavation work at any specified manhole shall be performed prior to all other rehabilitation work required at that specific manhole.

3.05 CONCRETE FILL

- A. In areas where there is inadequate room for compaction equipment and in other areas as shown or as requested by the project manager, flowable fill shall be used as fill material.

END OF SECTION

SECTION 28800

MANHOLE FRAME AND COVER REPLACEMENT

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment for manhole frame and cover replacement.
- B. Work shall be for each location identified by City and listed in the following:
 - 1. Replacing Frames and Covers on manholes that are designated “RFC” in Table 28000–2, Manhole Rehabilitation Summary.
 - 2. Replacing Frames and Covers with bolt down covers with the frame bolted into the precast cone on manholes that are designated “RFC-BD” in Table 28000–2, Manhole Rehabilitation Summary.
 - 3. Replacing Covers on manholes that are designated “RC” in Table 28000–2, Manhole Rehabilitation Summary.
- C. Related Sections and Divisions: Applicable provisions of “The Standard Specifications for Public Improvements—City of Davenport, Iowa” shall govern work in this section.
- D. Coordinate the Work of this section with Section 28000—General Requirements.
- E. Unit Prices: Refer to Special Provisions, Section 1—Special Conditions.
- F. Payment: Refer to Special Provisions, Section 1—Special Conditions.

1.02 SUBMITTALS

- A. Submit all shop drawings and product data in accordance with provisions of Section 28000—General Requirements.

PART 2—PRODUCTS

2.01 REPLACE FRAME AND COVER

- A. Manholes that are designated “RFC” or “RFC-BD” in Table 28000–2, Manhole Rehabilitation Summary require a new frame and cover. These frames and covers shall comply with the following requirements:
 - 1. The cast iron frames and machined self-sealing covers shall be Neenah Foundry Company R-1642 (RFC), R-1916-F (RFC-BD), or equal. Manhole frames and covers shall be manufactured from high test cast iron conforming to the requirements for Class 40A of ASTM A48.
 - 2. Frames shall be true to pattern in form dimensions, free from pouring faults, sponginess, cracks, blowholes, and other defects in positions affecting strength and value of the service intended. Frames shall be boldly filleted at angles and the risers shall be sharp and perfect. Frames shall be sandblasted or otherwise effectively cleaned of scale and sand so as to present a smooth, clean, and uniform surface.

3. Such lids or covers shall have checkered or indented top design similar to Neenah Foundry Company Type B lids; top design with protruding knobs or lugs will not be accepted. Covers shall have concealed pick holes and they shall also have a continuous self-sealing flat gasket which fits securely in a machined groove on the outer base of the cover.
4. Nonrocking covers shall not be used. Frames and covers specified in "The Standard Specifications for Public Improvements—City of Davenport, Iowa" shall not be used for this project.

2.02 REPLACE COVER

- A. Manholes that are designated "RC" in Table 28000–2, Manhole Rehabilitation Summary require a new cover. These covers shall comply to the following requirements:
 1. Cover shall fit existing frame using field measurements by Contractor.
 2. Covers shall be cast iron machined self-sealing covers manufactured by Neenah Foundry Company, or equal. Manhole covers shall be manufactured from high test cast iron conforming to the requirements for class 35B of ASTM A48, supplemented by the following requirements.
 3. Covers shall have checkered or indented top design similar to Neenah Foundry Company Type B lids; top design with protruding knobs or lugs will not be accepted. Covers shall have concealed pick holes and they shall also have a continuous self-sealing flat gasket, which fits securely in a machined groove on the outer base of the cover.
 4. Nonrocking covers shall not be used. Frames and covers specified in "The Standard Specifications for Public Improvements—City of Davenport, Iowa" shall not be used for this project.

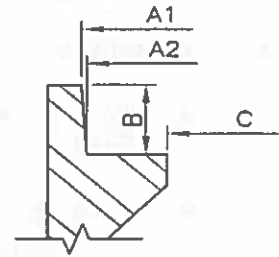
PART 3—EXECUTION

3.01 REPLACE FRAME AND COVER

- A. The work shall be as specified in Section 28700, except a new frame and cover shall be provided in lieu of reusing the existing frame and cover.
- B. Old frames and covers remain property of City and shall be delivered to City's Public Works storage yard.
- C. Manholes that are designated "RFC-BD" in Table 28000–2, Manhole Rehabilitation Summary shall have the frame secured to existing precast structure with four (4) 1/2-inch threaded stainless steel rod and stainless steel hardware. Rod shall be imbedded a minimum three (3) inches and anchored with two part, quick setting epoxy. Submit adhesive material information to Engineer for approval.
- D. Where applicable, Contractor shall perform this type of work prior to Manhole Resurfacing. See Section 28000 for sequencing requirements.

3.02 REPLACE COVER

- A. Contractor shall be responsible for accurate sizing of the replacement cover. Prior to replacing manhole cover, existing casting shall be measured. This includes providing the manhole cover supplier with the following measurements:
1. Diameter at top of opening (A_1).
 2. Diameter at seat of cover pocket (A_2).
 3. Depth of cover pocket (B).
 4. Diameter of clear opening (C).
- B. The bearing surface of the casting shall be cleaned of all debris and loose scale before installing the new cover.
- C. Old covers remain property of City and shall be delivered to City's Public Works storage yard.



END OF SECTION

SECTION 28900

MANHOLE RESURFACING AND BENCH AND CHANNEL CONSTRUCTION

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for resurfacing of manhole interiors.
- B. Work related to Manhole Resurfacing includes:
 - 1. Resurfacing bench, wall, cone, and chimney sections of manholes designated "SM-CR" in Table 28000-2, Manhole Rehabilitation Summary with a corrosion resistant cementitious coating.
 - 2. Constructing manhole benches and channels in manholes designated "CBC" in Table 28000-2, Manhole Rehabilitation Summary.
- C. Coordinate the Work of this section with Section 28000-General Requirements.
- D. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- E. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 QUALITY ASSURANCE

- A. Contractor shall provide documentation that the cementitious coating applicator is an approved installer and licensed by the coating system manufacturer.
- B. Documentation shall include: A list of at least 5 past clients, including names and telephone numbers to verify previous satisfactory performance on projects of similar or greater size and difficulty factor.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000-General Requirements.
- B. Submit manufacturer's instructions.
- C. Submit quality assurance data.

1.04 WARRANTY

- A. Refer to "Combined Performance-Payment and Maintenance Bond."

PART 2-PRODUCTS**2.01 MANUFACTURERS**

- A. Manhole resurfacing corrosion resistant cementitious repair manufacturers for manholes designated "SM-CR" in Table 28000-2, Manhole Rehabilitation Summary shall be:
 - 1. Quadex.
 - 2. The Strong Company, Inc.
 - 3. Kerneos.
 - 4. Or Equal.
- B. Manhole chemical sealing manufacturers shall be as listed in Section 28550.
- C. Channel Reconstruction:
 - 1. Re-Liner as manufactured by Duran, Inc.
 - 2. Or Equal.
- D. Manhole Bench Construction in conjunction with Channel Reconstruction:
 - 1. Rapid Set Concrete Mix.
 - 2. Or Equal.

2.02 REFERENCES

- A. Manhole Resurfacing:
 - 1. ASTM C78-Test Method for Flexural Strength of Concrete (Using Simple Beam With Third-Point Loading)
 - 2. ASTM C94-Specification for Ready-Mixed Concrete.
 - 3. ASTM C109-Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-inch or 50 mm Cube Specimens).
 - 4. ASTM C267-Test Method for Chemical Resistance of Mortars, Grouts, and Monolithic Surfacing.
 - 5. ASTM C321-Test Method for Bond Strength of Chemical-Resistant Mortars.
 - 6. ASTM C496-Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens.
 - 7. ASTM C596-Test Method for Drying Shrinkage of Mortar Containing Portland Cement.
 - 8. ASTM C666-Test Method for Resistance of Concrete to Rapid Freezing and Thawing.
 - 9. ASTM C827-Test Method for Change in Height at Early Ages of Cylindrical Specimens from Cementitious Mixtures.
 - 10. ASTM C952-Test Method for Bond Strength of Mortar to Masonry Units.
- B. Manhole Channel Construction:
 - 1. ASTM D-638-Test Method for Tensile Properties of Plastics.
 - 2. ASTM D-790-Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
 - 3. ASTM D-2583-Test Method for Indentation Hardness of Rigid Plastics by Means of Barcol Impressor.

2.03 MANHOLE RESURFACING

- A. Active Water Leakage Sealer:
 - 1. Quadex Quad Plug.
 - 2. Permacast-Plug or Patch.
 - 3. Saureisen Instaplug No. F-180.

4. Or Equal.
- B. Void Filler:
1. Quadex Hyperform.
 2. Permacast MS-10,000 UL.
 3. Saureisen Underlayment and Repair Mortar No. F-20.
 4. Or Equal.
- C. Corrosion Resistant Cementitious Liner Material:
1. Quadex Geo.
 2. Strong-Seal High Performance Mix.
 3. Kerneos SewperCoat PG.
 4. Or Equal.
- D. Manhole Channel Construction:
1. Re-Liner.
 2. Or Equal.
- E. Manhole Bench Construction in conjunction with Channel Reconstruction.
1. Rapid Set Concrete Mix.
 2. Or Equal.
- F. Chemical Sealing: Materials shall be as listed in Section 28550.

2.04 REQUIREMENTS

- A. Manhole Resurfacing—Corrosion Resistant Lining:
1. Quadex Geocrete.
 - a. ASTM C109 Minimum Compressive Strength: 3,000 psi at 28 days.
 - b. ASTM 78 Minimum Flexural Strength: 1,300 psi at 28 days.
 - c. ASTM C882 Bond Strength: 5,000 psi at 28 days.
 - d. ASTM C1202 Permeability: <250 coulombs at 28 days.
 - e. ASTM C496 Split Tensile Strength: >900 psi at 28 days.
 2. Strong-Seal High Performance Mix:
 - a. ASTM C109 Minimum Compressive Strength: 9,000 psi at 28 days.
 - b. ASTM C496 Tensile Strength: 800 psi at 28 days.
 - c. ASTM C293 Flexural Strength: 1,500 psi at 28 days.
 - d. ASTM C882 Bond Strength: 2,000 psi at 28 days.
 - e. ASTM C596 Shrinkage: 0% at 90% relative humidity.
 - f. ASTM C666 Freeze-Thaw Durability: No visible damage after 300 cycles.
 3. Kerneos SewperCoat PG:
 - a. ASTM C109 Minimum Compressive Strength: 7,000 psi at 28 days.
 - b. ASTM C348 Flexural Strength: 1,300 psi at 28 days.
 - c. ASTM C157 Shrinkage After 28 days Immersion: <0.07%.
 - d. ASTM C496 Tensile Strength: 700 psi at 28 days.
 - e. ASTM C882 Bond Strength: 2,500 psi.
 - f. ASTM C666 Freeze-Thaw Durability: Relative dynamic modulus of 102 after 300 cycles.
 - g. ASTM C642 Volume of Permeable Voids: 15% at 40 days.
 - h. ASTM C642 Apparent Density: 2.74.
 - i. ASTM C469: Modulus of Elasticity: 5,000 ksi at 28 days.

- B. Manhole Channel Construction-ReLiner:
 1. ASTM D790 Flexural Strength: 27,100 psi.
 2. ASTM D790 Flexural Modulus: 1,157,000 psi.
 3. ASTM D638 Tensile Strength: 16,700 psi.
 4. ASTM D638 Tensile Elongation: 1.54%.
 5. ASTM D2583 Hardness, Barcol 934.1: 55-60.

PART 3-EXECUTION

3.01 MANHOLE RESURFACING AND BENCH AND CHANNEL CONSTRUCTION

- A. Refer to Section 28000 for sequencing requirements.
- B. Bypassing Pump: Bypass pumping shall conform to Section 28300.
- C. Surface Preparation:
 1. Place covers over or otherwise protect the sewer outlet to prevent extraneous material from entering the sewer pipe.
 2. All concrete that is not sound or has been damaged by chemical exposure shall be removed to a sound concrete surface. All contaminants including: all oils, grease, incompatible existing coatings, waxes, form release, curing compounds, efflorescence, sealers, salts, or other contaminants shall be removed.
 3. Physically remove excess asphaltic manhole jointing compounds flush with the remaining cementitious manhole barrel.
 4. All steps shall be removed flush with manhole walls.
 5. Manhole walls from the manhole invert to the bottom of the frame for manholes to receive resurfacing shall be prepared by pressure water blast or abrasive blast as recommended by manufacturer.
 6. All voids from missing bricks or mortar shall be filled with the approved repair and void filling materials to provide a uniform surface for resurfacing materials to bond to.
 7. All protruding bricks, blocks or other material shall be removed from manhole, bench, walls, cone, and chimney.
 8. Remove and dispose of all debris that has been cleaned from the manhole walls.
- D. Manhole Resurfacing:
 1. Installation of resurfacing material shall be done in accordance with the manufacturer's published recommendations and procedures.
 2. All active water infiltration shall be stopped by use of water plug or hydroactive grout. Such materials shall be compatible with any subsequent resurfacing Work.
 3. Before any subsequent coating is applied, repair materials shall be allowed to cure to manufacturer's recommendations. Curing compounds may not be used unless approved by the lining manufacturer.
 4. If lining manufacturer is different than that for repair materials, then repair process shall be observed by lining manufacturer to ensure proper suitability to receive the lining system.
 5. Resurfacing material shall be applied from the invert of the channel (except for newly constructed channels) to:
 - a. The bottom of the existing frame or,
 - b. The bottom of the new chimney rings for manholes that had a top replacement as part of this project. No material shall be applied to new chimney rings. Create a smooth and neat transition where cementitious liner meets chimney rings.
 - c. Or as indicated on the Drawings.

6. Material thickness may be verified at any point with a depth gauge and shall be no less than:
 - a. Three quarters inch thick on manholes less than 10 feet deep.
 - b. One-inch-thick on manholes greater than 10 feet deep. A 1-inch thickness is only required on the lower portion of the manhole that is greater than 10 feet deep. For example, if a manhole is 15 feet deep, the upper 10 feet of the manhole requires a 3/4-inch thickness. The lower 5 feet of the manhole requires a 1-inch thickness.
 7. Material shall be applied only when manhole is in a damp state, with no visible water dripping or running over the interior surfaces of the manhole.
 8. Repair and resurfacing materials shall be troweled to provide a smooth surface with a profile similar to coarse sandpaper. No bugholes or honeycomb surfaces shall remain after the troweling is completed.
 9. Completed resurfaced manhole shall have a uniform coating free of voids with a minimum thickness in all locations as specified.
 10. Completed resurfaced bench shall have a 3-inch slope, sloping from manhole walls to the manhole channel.
 11. Care shall be taken to prevent resurfacing materials from contacting any inside drop vertical pipes, flow meters, cables, or other appurtenances that may be present within manhole.
- E. Inspection: During application, a wet film thickness gauge meeting ASTM D4414—Standard Practice for Measurement of Wet Film Thickness of Organic Coatings by Notched Gauges, shall be used to ensure a monolithic coating and uniform thickness during application.
- F. Cleanup:
1. After all work is complete, remove all extraneous material from the manhole.
 2. Contractor shall be responsible for proper disposal of all extraneous materials.

END OF SECTION

SECTION 28910

INTERIOR MANHOLE CHIMNEY LINING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for lining manhole chimney interiors with an aromatic flexible urethane resin.
- B. Work related to manhole chimney lining includes lining the chimneys of manholes designated "CL" in Table 28000-2, Manhole Rehabilitation Summary.
- C. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements—City of Davenport, Iowa" shall govern work in this section.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions—Section I—Special Conditions
- F. Payment: Refer to Special Provisions—Section I—Special Conditions

1.02 QUALITY ASSURANCE

- A. Contractor shall provide documentation that the manhole chimney lining installer is an approved installer and licensed by the manhole chimney lining system manufacturer.
- B. Documentation shall include a list of at least five previous projects including names and telephone numbers to verify previous satisfactory performance on projects of similar or greater size and difficulty factor. Contractor's field foreman shall have experience on at least five previous projects with application of specified materials.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000—General Requirements.
- B. Submit manufacturer's instructions.
- C. Submit quality assurance data.

1.04 WARRANTY

- A. Refer to "Combined Performance—Payment and Maintenance Bond."

PART 2-PRODUCTS

2.01 MANUFACTURERS

- A. Manhole Chimney Lining manufacturers shall be:
 - 1. Sealing Systems Inc.
 - 2. Or equal.
- B. Manhole chemical sealing shall be as listed in Section 28550.
- C. Cementitious repair manufacturers shall be as listed in Section 28900.

2.02 REFERENCES

- A. Manhole Chimney Lining:
 - 1. ASTM D2240-Standard Test Method for Rubber Property-Durometer Hardness.
 - 2. ASTM D412-Standard Test Method for Vulcanized Rubber and Thermoplastic Elastomers-Tension.
 - 3. ASTM D903-Standard Test Method for Peel of Stripping Strength of Adhesive Bonds.
 - 4. ASTM D570-Standard Test Method for Water Absorption of Plastics.
 - 5. ASTM D1004-Standard Test Method for Tear Resistance (Graves Tear) of Plastic Film and Sheeting.

2.03 MANHOLE CHIMNEY LINING

- A. Active Water Leakage Sealer: Materials shall be as listed in Section 28900.
- B. Void Filler: Materials shall be as listed in Section 28900.
- C. Chemical Sealing: Materials shall be as listed in Section 28550.

2.04 REQUIREMENTS

- A. Manhole Chimney Lining
 - 1. Sealing Systems Inc.:
 - a. ASTM D2240-Hardness (Durometer), 75.
 - b. ASTM D412-Elongation (at break), 800%.
 - c. ASTM D412-Tensile Strength, 1,150 psi.
 - d. ASTM D903-Adhesive Strength, 175 lb. l/in.
 - e. ASTM D570-Water Absorption, .05% by weight.
 - f. ASTM D1004-Tear Resistance, 155 lb. l/in.
 - 2. If manhole resurfacing is to be completed as part of the work, manhole resurfacing materials must be accepted and approved by the manhole chimney lining manufacturer for compatibility with the manhole chimney lining system products.
 - 3. Required thickness shall be 180 mils, or as recommended by manufacturer, whichever is greater.

PART 3-EXECUTION

3.01 MANHOLE CHIMNEY LINING

- A. Refer to Section 28000 for sequencing requirements.

B. Surface Preparation:

1. Place covers over or otherwise protect the sewer outlet to prevent extraneous material from entering the sewer pipe.
2. All concrete and brick that is not sound or has been damaged by chemical exposure shall be removed to a sound concrete or brick surface. All contaminants including all oils, grease, incompatible existing coatings, waxes, form release, curing compounds, efflorescence, sealers, salts, or other contaminants shall be removed.
3. Physically remove excess asphaltic manhole jointing compounds flush with the remaining manhole.
4. Large voids and missing bricks shall be filled with specified patching material to allow for a smooth surface for chimney liner to adhere to.
5. Protruding bricks, blocks, concrete or other materials shall be removed flush with the chimney surface.
6. All active water infiltration shall be stopped by use of water plug or hydroactive grout. Such materials shall be compatible with chimney lining materials.
7. Prior to applying chimney liner, repair materials shall be allowed to cure according to manufacturer's recommendations. Curing compounds may not be used unless approved by the chimney liner manufacturer.
8. Interior manhole surfaces that will be in contact with chimney liner shall be prepared by abrasive blast as recommended by manufacturer. Contractor shall take care while abrasive blasting as to not damage any cementitious linings that were installed prior to chimney liner installation. Contractor shall adhere to cure times in manhole resurfacing manufacturer specifications prior to abrasive blasting.
9. Manhole frame shall be cleaned by abrasive blasting as recommended by manufacturer to remove all rust, scale, or other materials that may inhibit adhesion of chimney liner to frame.
10. All areas that chimney liner will be in contact with shall be thoroughly wiped with acetone to remove any sand, dust, oil, grease, or chemical contamination.
11. Completely dry the substrate prior to applying the chimney liner.
12. Remove and dispose of all debris that has been cleaned from the manhole walls, cone, chimney, and frame.

C. Chimney Liner Installation:

1. Installation of the chimney liner shall be done in accordance with manufacturer's written recommendations and procedures.
2. After surface preparation is complete and prior to installation of the liner, a manufacturer approved aromatic urethane primer resin shall be applied.
3. Allow primer to cure according to manufacturer's recommendations.
4. The liner shall be installed in manhole continuous from 3 inches above the frame/chimney joint down 3 inches onto:
 - a. Previously installed cementitious liner for brick manholes designated 'SM' in Table 1-Manhole Rehabilitation Summary.
 - b. Cone section of precast concrete or block manholes.
5. Minimum liner length shall be 1 foot.
6. Finished chimney liner shall provide a smooth surface that conforms to the existing structure. The finished liner shall be free of thin spots and delaminations, and shall be of uniform thickness. The finished liner must provide an air- and watertight corrosion-resistant liner protecting the manhole chimney.

D. Inspection: Liner shall be visually inspected to ensure bonding, complete cure, and a smooth surface free from cracks or hollow spots.

- E. Cleanup:
1. After all work is complete, remove all extraneous material from the manhole.
 2. Contractor shall be responsible for proper disposal of all extraneous materials.

END OF SECTION



City of Davenport

ADVERTISEMENT, INSTRUCTIONS TO BIDDERS,

PROPOSAL, CONTRACT CONDITIONS,

PLANS AND SPECIFICATIONS

FOR THE

FY2018 Duck Creek South Interceptor Rehabilitation Program

MAYOR – FRANK KLIPSCH

SEWERS DIVISION

PUBLIC WORKS DEPARTMENT

DAVENPORT, IOWA

I hereby certify that this plan was prepared under my supervision and that engineering decisions with regard to the design were made by me or by other duly licensed Professional Engineers under the laws of the State of Iowa.

Signature: _____ Date _____

Andrew L. Craven: License #17921

My license renewal date is December 31, 2017

Pages or sheets covered by this seal: SC-1 through SC-13,
MR-1 through MR-46, Cover Sheet and Sheets 1 through 4

PROPOSED IMPROVEMENTS

FOR

**FY2018 DUCK CREEK SOUTH INTERCEPTOR
REHABILITATION PROGRAM**

CITY OF DAVENPORT

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DIVISION 28

MANHOLE REHABILITATION

SECTION 28000

GENERAL REQUIREMENTS

PART I-GENERAL

1.01 SUMMARY

- A. The Work consists of providing all labor, material and equipment necessary to complete the following:
1. Site Clearing and Grubbing.
 2. Sewer Cleaning.
 3. Sewer Televising.
 4. Sewer Bypass Pumping.
 5. Sewer Chemical Sealing.
 6. Manhole Chemical Sealing.
 7. Sewer Lining.
 8. Rehabilitation Requiring Excavation.
 9. Manhole Frame and Cover Replacement.
 10. Manhole Resurfacing and Bench and Channel Construction.
 11. Interior Manhole Chimney Lining.

1.02 SEQUENCING

- A. Table 28000-1, Sewer Rehabilitation Summary is a list of sewer sections requiring rehabilitation.
- B. Table 28000-2, Manhole Rehabilitation Summary is a list of all manhole structures requiring rehabilitation. Contractor shall note that many manholes require several methods of rehabilitation. Contractor shall sequence rehabilitation methods accordingly.
- C. Where required, sewer segments shall be rehabilitated with CIPP liner prior to any manhole rehabilitation being done on the associated manholes.
- D. Where required, chemical sealing (CS) of manholes shall be completed and leaks completely stopped prior to completing other methods of rehabilitation.
- E. Manholes that require cover replacement (RC) shall be field measured to verify cover availability prior to commencing any other rehabilitation.
- F. Manholes that require rebuilding of the top portion of the manhole (RT) and also require manhole resurfacing (SM-CR) with a corrosion resistant cementitious liner shall have the top of the manhole rebuilt and restoration of roadway or ground surface completed prior to manhole resurfacing with a cementitious liner.
- G. Work in Sewer Section 1 shall be completed following removal of crops.
- H. Work requiring access to the portion of the trail parallel to Carey Avenue (approximately 300 feet east) and the portion southwest of the intersection between the railroad and E 33 Street shall be completed by [REDACTED].

1.03 CONSTRUCTION PROGRESS SCHEDULE

- A. Submit initial schedule in duplicate within 10 days after date of City-Contractor Agreement.
- B. Revise and resubmit as required.
- C. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates.

1.04 SHOP DRAWINGS

- A. Shop drawings shall include specially prepared technical data for this project including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements, and similar information not in standard printed form for general application to a range of similar projects. Shop drawings shall be submitted for all manufactured or fabricated items. See individual technical sections for special requirements.
- B. Contractor shall make all shop drawings accurately to scale and sufficiently large to show all pertinent aspects of the item and its method of connection to the work.
- C. Shop drawings shall be checked, approved, and stamped by Contractor in accordance with the General Conditions before transmittal to Engineer for review and approval.
- D. Contractor shall submit shop drawings following the procedure described below. Except as noted, six copies of shop drawings and descriptive data shall be submitted to Engineer for approval. Three copies of these will be returned to Contractor if approved. If shop drawings are not approved or if they are stamped "Approved as Noted-Resubmit," two corrected copies will be returned to Contractor for use in resubmittal. If Contractor desires more than three approved copies, submitted quantity shall be increased accordingly.
- E. Shop drawings submitted to Engineer will be reviewed and stamped "Approved," "Approved as Noted," "Approved as Noted-Resubmit," or "Not Approved." Contractor shall resubmit the above number of corrected shop drawings for all shop drawings stamped "Approved as Noted-Resubmit" and "Not Approved" and will continue this process until shop drawings are stamped "Approved" or "Approved as Noted." If drawings are stamped "Approved as Noted-Resubmit," fabrication may proceed in accordance with the marked-up shop drawings. Installation shall not proceed until shop drawings have been resubmitted and stamped "Approved" or "Approved as Noted."
- F. If shop drawings are stamped "Approved as Noted" or "Approved as Noted-Resubmit" and Contractor does not agree with revisions or cannot conform with revisions, fabrication shall not proceed and shop drawings shall be resubmitted with explanation of Contractor's position.
- G. All shop drawings used for construction site activities shall bear the "Approved" or "Approved as Noted" stamp of Engineer.
- H. Arrangements may be made between Contractor and Engineer to provide additional copies of "Approved" shop drawings for field activity purposes.
- I. Complete shop drawings and descriptive data shall be submitted on all manufactured or fabricated items prior to 25% completion of the Work. Applications for payment beyond 25% of the Contract amount will not be recommended for payment until all shop drawings are submitted or a revised schedule for any remaining submittals is agreed to by City and Engineer.

1.05 PRODUCT DATA

- A. Contractor shall provide product data as required to supplement shop drawings.
- B. Product data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by Contractor to illustrate a material, product, or system for some portion of the work.
- C. Contractor shall collect required product data into one submittal for each unit of work or system.
- D. Contractor shall include manufacturer's standard printed recommendations for application and use, compliance with standards, performance characteristics, wiring and piping diagrams and controls, component parts, finishes, dimensions, required clearances, and other special coordination requirements.
- E. Contractor shall mark each copy of standard printed data to identify pertinent products, models, options, and other data.
- F. Contractor shall supplement manufacturer's standard data to provide information unique to the work.

1.06 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required by Engineer.
- B. Shop Drawings and Product Data:
 - 1. Revise initial drawings or data and resubmit as specified for initial submittal.
 - 2. Itemize in a cover letter any changes which have been made other than those requested by Engineer.

1.07 DEFINITIONS

- A. The following definitions or abbreviations apply to the Work in this Division:
 - 1. CCTV—closed-circuit color television
 - 2. NASSCO—National Association of Sewer Service Companies

1.08 MATERIALS AND SUPPLIES

- A. Contractor shall provide materials and supplies to satisfactorily complete the Work to the satisfaction of City. Materials and supplies shall be suitable for the environment in which they are to be used or installed and shall be compatible with each other.
- B. Suppliers shall be deemed to impliedly warrant that their products and all component materials incorporated into them are suitable and fit for the intended use of such products and shall be free from defect in material, workmanship or design, such warranty to run to the benefit of City and Engineer. The foregoing applies whether the products or their component parts are specified in the Contract Documents or are of supplier's design.

1.09 WATER

- A. Water required for the Project may be obtained from Iowa American Water Company. Refer to Special Provisions—Section I—Special Conditions.

1.10 WASTE DISPOSAL

- A. Contractor is responsible for proper and safe disposal of all material removed from the sewers. Refer to Special Provisions-Section I-Special Conditions and Attachment C-Acceptance at WPCP-Manhole Cleanout Material for disposal of material removed from manholes. Disposal of all other materials is the responsibility of Contractor.

1.11 PAYMENT

- A. Payment for changes in quantities, as shown in the Bid, shall be made in accordance with the prices bid for the Work for the various items indicated. No change of quantities shall annul or impair the Contract made and entered into relative to said Work. Payment shall be made for the quantities of each Bid item as actually installed.
- B. If a price is not provided in the Bid for an item of Work, the Work shall be considered incidental and included in adjacent or associated items of Work.
- C. Cost for providing the following shall be considered incidental to the Work unless otherwise indicated in the Bid.
 - 1. Providing water for use in the Work.
 - 2. Removing, transporting, and disposing of material from the sewers and/or manholes.
 - 3. Required work noted on drawings that does not have a corresponding bid item.

1.12 PROPERTY LINES

- A. Property lines along with owner information may be obtained on City's GIS website. <http://gis.ci.davenport.ia.us/cityofdavenportinternetmap>.

1.13 PERMITS

- A. City will obtain necessary construction permits from Iowa Department of Transportation (IDOT) for work on manhole DS-26.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 SITE CONDITIONS

- A. Contractor is expected to examine carefully the site of the proposed Work and fully acquaint itself with the conditions as they exist to fully understand any restraints, difficulties or other extenuating circumstances that may be present during the performance of the Work.
- B. See Table 28000-2, Manhole Rehabilitation Summary for listing of any reports and drawings related to the Work.

3.02 PROTECTION

- A. The sewers in the Project are operated and maintained by City. Contractor shall perform the Work in such a manner that the operation of the existing sewers and pumping stations are not interrupted, impaired or damaged. Existing sewers and pumping stations must be maintained in operation at all times or adequate provisions provided to convey both dry and wet weather flow. No contractor operation shall impede the functions of the pumping station or sewer system including increasing surcharging in the system and basement backups. Any Work impacting the operation of City's system shall be coordinated with City.
- B. Contractor shall assume full responsibility for any damage to adjacent lands and buildings and to the owners or occupants thereof. Contractor shall examine adjacent lands and buildings and shall account for protection of the lands and buildings during the Work. Any damage caused shall be repaired at the expense of Contractor.
- C. Contractor shall be aware of the attractive nuisance of the Work and make provisions for mitigating any problems.
- D. Contractor shall take into account the impact precipitation events may have on the Work and shall schedule the Work accordingly. Contractor shall protect Work from damage caused by such events whether locally or regionally as they may impact the Work.

3.03 SEWER SERVICE

- A. It shall be Contractor's responsibility to maintain sewer service throughout the duration of the Work. When the Work is being conducted, Contractor shall maintain sewer service by use of bypass pumping as necessary. Sewer service shall be maintained to each home or business that is connected to the sewer or manhole where the Work is being conducted. All sewers shall be kept in service when Work is not being performed.
- B. Sewage or jetting water shall not be allowed to back up into basements. Contractor shall be responsible for preventing any sewage backups into basements or cleaning impacts of such backups should they occur.

3.04 USE OF PREMISES

- A. Contractor shall confine its operations, equipment and storage areas to the existing rights-of-way and easements in which the existing sewer system is located.

3.05 BOLTED MANHOLE COVERS

- A. Contractor shall replace all bolts in bolt down covers at the end of each work day and when complete with work at those manholes. Notify City when working at manholes with bolted covers.

3.06 USE OF BIKE PATH AND EASEMENT

- A. Contractor shall document the condition of all areas that will be impacted by work with photographs, videos, and written notes. Contractor shall submit documentation to City one week prior to work in area. If conditions at time of work are different than what was submitted, Contractor may resubmit documentation.
- B. Access points have been identified by City and are shown in the drawings. If an alternative access point is needed, Contractor shall submit documentation to City.

- C. All damage resulted from work shall be repaired by Contractor. Paths shall be made passable within two weeks of completing work in the area. Contractor shall make all reasonable efforts to allow the use of bike paths during the weekend.
- D. Refer to General Contract Conditions—Division 10 for procedures to close the bike path. Bike path shall be considered the same as a street.

END OF SECTION

Section ID	Upstream MH	Downstream MH	Rehab Method	Length, ft	Material	Pipe Diameter, in
1	DS-77	DS-66	CS	2,825	RCP	24
2	DS-66	DS-40A	CS	6,360	RCP	30
3	DS-40A	DS-31A	CIPP	4,075	VCP	30
4	DS-31A	DS-22	CIPP	3,580	Clay Tile	42
5	DS-22	DS-13	CS	3,225	Clay Tile	39
6	DS-13	DS-1	CIPP	3,950	RCP	48

Code	Description
CIPP	Cured-in-Place Pipe
CS	Chemical Seal
RCP	Reinforced Concrete Pipe
VCP	Vitrified Clay Pipe

Manhole ID	Sheet Number	Rehab Method 1	Rehab Method 2	Rehab Method 3	Approximate Depth	Approximate Distance Above Grade, ft	Location	Surface Type	Chimney Material	Chimney Lining	Cone Type	Cone Material	Wall Material	Wall Material 2	Approximate MH Dia, ft	Bench Material	Channel Material	Number of Steps	Cm1 Direction	Cm2 Direction	Cm3 Direction	Cm4 Direction
DN-15	4 BH				11.3	0.0	Woods	Grass/Dirt	Precast	None	Conical Off	Precast	Precast		5	Concrete	Not Known	7 SE	Out SW	In NW	In NE	In
DN-9	4 BH				9.5	0.0	Yard	Grass/Dirt	Precast	None	Conical Off	Precast	Precast		5	None	Not Known	5 E	Out W	In NE	In	
DS-1	4 BD	RFC			21	2.2	Yard	Grass/Dirt	Precast	None	Flattop	Precast	Precast		5		Vitrified Clay Pipe	11 E	Out W	In		
DS-4	4 BD	RFC-CL	SM-EX	CR	14.5	1.0	Light Highway	Grass/Dirt	Precast	None	Flattop	Precast	Precast		6		Vitrified Clay Pipe	2 E	Out W	In NW	In	
DS-7	4 BD	RFC			15	0.0	Right-of-Way	Grass/Dirt	Precast	None	Flattop	Precast	Precast		6	Non-Reinforced Concrete	Non-Reinforced Concrete	6 E	Out W	In		
DS-8	4 BH				15.8	0.0	Yard	Grass/Dirt	Precast	None	Flattop	Precast	Precast		4		Non-Reinforced Concrete	7 E	Out SW	In W	In N	In
DS-10	4 RT	RFC			15.2	0.5	Right-of-Way	Grass/Dirt	Precast		Conical Off	Precast	Precast			Non-Reinforced Concrete	Non-Reinforced Concrete	7 E	Out W	In	In	
DS-11	4 RT	RFC			20	0.8	Light Highway	Grass/Dirt	Precast	None	Conical Off	Precast	Precast		6	Non-Reinforced Concrete	Non-Reinforced Concrete	3 E	Out S	In S	In N	In
DS-13	4 BD	RFC-CL	EX		12.3	1.0	Light Highway	Grass/Dirt	Precast	Rubber	Conical Off	Precast	Precast		5	Concrete	Non-Reinforced Concrete	8 S	Out N	In		
DS-14	4 RT	RFC			11.8	0.0	Light Highway	Grass/Dirt	Brick	Rubber	Conical Off	Brick	Brick		3		Non-Reinforced Concrete	6 SE	Out NW	In W	In	In
DS-15	4 RT	RFC			12.7	0.0	Yard	Grass/Dirt	Brick	None	Conical Off	Brick	Brick		3	Brick	Not Known	8 SE	Out NW	In		
DS-16	4 BH				10	0.0	Light Highway	Grass/Dirt	Precast	Rubber	Conical Off	Precast	Brick		4	None	Non-Reinforced Concrete	6 SE	Out NW	In		
DS-18	3 BD	RFC-CL	EX		12.8	1.0	Light Highway	Grass/Dirt	Precast	Rubber	Conical Off	Not Known	Not Known		3	Not Known	Brick	7 W	In E	Out		
DS-19	3 CS				14	2.0	Right-of-Way	Grass/Dirt	Not Known	Rubber	Conical Off	Precast	Precast		4	Non-Reinforced Concrete	Non-Reinforced Concrete	5 SE	Out S	In NW	In	
DS-20	3 BD	RFC-SM	CR		13.5	3.5	Right-of-Way	Grass/Dirt	Precast	None	Conical Off	Precast	Precast		4	Non-Reinforced Concrete	Non-Reinforced Concrete	7 SE	Out S	In W	In	
DS-21	3 RT	RFC	BD	CR	11.5	0.0	Sidewalk	Grass/Dirt	Brick	Rubber	Conical Off	Brick	Brick		4		Vitrified Clay Pipe	6 E	Out SW	In W	In	
DS-22	3 BD	RFC	CS	CR	14.7	4.5	Right-of-Way	Grass/Dirt	Precast	Rubber	Conical Off	Precast	Brick		5	Non-Reinforced Concrete	Vitrified Clay Pipe	8 NE	Out SW	In S	In	

Code	Description
BH	Bulkhead
CBC	Construct Bench and Channel
CB	Construct Bench
CL	Chimney Liner (Interior)
CLEX	Chimney Liner (Exterior)
CS	Chemical Seal
RC	Replace Cover
RFC	Replace Frame and Cover
RFC-BD	Replace Frame and Cover - Bolt Down
RT	Rebuild Top
SM-CR	Resurface Manhole - Corrosion Resistant

Manhole ID	Sheet Number	Rehab Method 1	Rehab Method 2	Rehab Method 3	Approximate Depth	Approximate Distance Above Grade, ft	Location	Surface Type	Chimney Material	Chimney Lining	Cone Type	Cone Material	Wall Material	Wall Material 2	Bench Material	Channel Material	Number of Steps	Cont1 Direction	Cont2 Direction	Cont3 Direction	Cont4 Direction
DS-23	3 BD	RFC SM-3 BD	CR	SM-3 BD	14.8	4.0	Right-of-Way	Grass/Dirt	Precast	-	Conical Off Centered	Precast	Brick		Non-Reinforced Concrete	Vitrified Clay Pipe	9	NE	Out SW	In	Cont1 Direction
DS-26	3 RT	RFC CR		SM-	17.5	0.0	Main Highway	Asphalt	Brick	Rubber	Conical Centered	Brick	Brick			Vitrified Clay Pipe	9	E	Out W	In	Cont3 Direction
DS-29	3 BD	RFC CL-3 BD	EX		13.5	1.0	Right-of-Way	Grass/Dirt	Not Known	Rubber	Conical Off Centered	Precast	Precast Brick		Non-Reinforced Concrete	Vitrified Clay Pipe	9	SE	Out W	In	
DS-31	3 BD	RFC SM-3 BD	CR		17.5	0.5	Right-of-Way	Grass/Dirt	Not Known	Rubber	Conical Off Centered	Precast	Precast Brick		Non-Reinforced Concrete	Vitrified Clay Pipe	9	E	Out W	In	
DS-36	2 BD	RFC CL-2 BD	EX		14.6	1.5	Woods	Grass/Dirt	Not Known	Rubber	Conical Off Centered	Precast	Precast Brick		Non-Reinforced Concrete	Vitrified Clay Pipe	7	NE	Out SW	In	
DS-37	2 BD	RFC CL-2 BD	EX	CS	13.7	1.0	Woods	Grass/Dirt	Precast	Rubber	Conical Off Centered	Precast	Cast Iron		Non-Reinforced Concrete	Vitrified Clay Pipe	7	NE	Out SW	In	
DS-38	2 RT	RFC BD-2 RT	EX		12.6	1.2	Woods	Grass/Dirt	Brick	Rubber	Conical Off Centered	Precast	Precast Brick		Non-Reinforced Concrete	Concrete	7	E	Out W	In	
DS-39	2 RT	RFC BD-2 RT	EX		12.2	0.5	Woods	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	4	E	Out W	In	
DS-41	2 RT	RFC CL-2 RT	EX		12	1.3	Other	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	5	E	Out SW	In W	In
DS-42	2 RT	RFC CL-2 RT	EX		11.8	1.5	Other	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	5	SE	Out NW	In	
DS-43	2 BD	RFC BD-2 BD			14.4	0.2	Other	Grass/Dirt	Precast	Rubber	Conical Off Centered	Precast	Precast		Non-Reinforced Concrete	Concrete	8	SE	Out S	In NW	In
DS-44	2 RT	RFC BD-2 RT			13	0.1	Right-of-Way	Grass/Dirt	Brick	None	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	6	E	Out W	In	
DS-45	2 RT	RFC BD-2 RT			11.3	0.0	Right-of-Way	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	5	E	Out W	In	
DS-46	2 RT	RFC CL-2 RT	EX		12.2	1.0	Right-of-Way	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	4	E	Out W	In	
DS-47	2 BD	RFC CS			12.5	0.5	Right-of-Way	Grass/Dirt	Precast	Rubber	Conical Centered	Precast	Precast		Non-Reinforced Concrete	Concrete	7	E	Out S	In W	In
DS-48	2 RT	RFC BD-2 RT			12.1	0.0	Parking Lot	Asphalt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	5	E	Out W	In	
DS-49	2 RT	RFC BD-2 RT			18.9	-0.3	Right-of-Way	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Concrete	9	E	Out W	In	

Code	Description
BH	Bulkhead
CBC	Construct Bench and Channel
CB	Construct Bench
CL	Chimney Liner (Interior)
CL-EX	Chimney Liner (Exterior)
CS	Chemical Seal
RC	Replace Cover
RFC	Replace Frame and Cover
RFC-BD	Replace Frame and Cover - Bolt Down
RT	Rebuild Top
SM-CR	Resurface Manhole - Corrosion Resistant

Manhole ID	Sheet Number	Rehab Method 1	Rehab Method 2	Rehab Method 3	Approximate Depth	Approximate Distance Above Grade, ft	Location	Surface Type	Chimney Material	Chimney Lining	Cone Type	Cone Material	Wall Material	Wall Material 2	Bench Material	Channel Material	Number of Steps	Cent1 Compass Dir	Cent2 Compass Dir	Cent3 Compass Dir	Cent4 Compass Dir	Cent4 Direction
DS-50	2 RT	RFC	BD	CBC	19.3	0.3	Right-of-Way	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		6 Brick	Non-Reinforced Concrete	5 E	Out S	In W	In		
DS-51	1 BD	RFC			12.1	0.0	Other	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	4 NE	Out S	In SW	In		
DS-52	1 BD	RFC			13	0.0	Other	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	6 NE	Out SE	In SW	In		
DS-53	1 BD	RFC			13	0.0	Other	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	6 SW	Out NE	In SE	In		
DS-54	1 RT	RFC	BD	CS	14.1	0.0	Other	Grass/Dirt	Precast	None	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	7 NE	Out SW	In			
DS-55	1 BD	RFC			13.9	0.2	Other	Grass/Dirt	Precast	Rubber	Conical Off Centered	Precast	Precast		5 Concrete	Non-Reinforced Concrete	7 NE	Out S	In SW	In		
DS-56	1 RT	RFC	BD	CS	14.2	0.0	Yard	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	8 NE	Out W	In			
DS-57	1 CS	CL	RC		16.8	0.0	Light Highway	Pavement	Precast	Rubber	Conical Centered	Precast	Precast		5 Concrete	Non-Reinforced Concrete	9 NE	Out S	In W	In N	In	
DS-60	1 RC				16.1	0.0	Light Highway	Pavement	Brick	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	8 E	Out W	In			
DS-61	1 RC	CL			15.1	0.0	Light Highway	Pavement	Precast	None	Conical Off Centered	Precast	Precast		5 Concrete	Non-Reinforced Concrete	8 E	Out S	In W	In N	In	
DS-62	1 RC				16.2	0.0	Light Highway	Pavement	Brick	titlous	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	9 E	Out S	In W	In		
DS-63	1 RC	CL			17.5	0.0	Light Highway	Pavement	Precast	None	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	10 E	Out W	In N	In		
DS-65	1 CBC	RC			14	0.0	Sidewalk	Pavement	Not Known	Rubber	Conical Off Centered	Precast	Precast		4 Concrete	Non-Reinforced Concrete	7 S	Out N	In			
DS-66	1 CBC	RC			12	0.0	Light Highway	Pavement	Not Known	Rubber	Conical Off Centered	Precast	Precast		4 Concrete	Non-Reinforced Concrete	7 S	Out W	In E	In		
DS-67	1 CBC	RC			12.8	0.0	Light Highway	Pavement	Precast	Rubber	Centered (CC)	Precast	Precast		5 Concrete	Non-Reinforced Concrete	7 E	Out W	In N	In		
DS-68	1 BD	CL-EX	CS		13.1	2.0	Yard	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	7 S	Out W	In			
DS-69	1 BD	RFC	CS		13	0.5	Yard	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		5 Concrete	Non-Reinforced Concrete	7 E	Out W	In			

Code	Description
BH	Bulkhead
CBC	Construct Bench and Channel
CB	Construct Bench
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RC	Replace Cover
RFC	Replace Frame and Cover
RFC-BD	Replace Frame and Cover - Bolt Down
RT	Rebuild Top
SM-CR	Resurface Manhole - Corrosion Resistant

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DRAFT-04/24/17

Manhole ID	Sheet Number	Rehab Method 1	Rehab Method 2	Rehab Method 3	Approximate Depth	Approximate Distance Above Grade, ft	Location	Surface Type	Chimney Material	Chimney Lining	Cone Type	Cone Material	Wall Material	Wall Material 2	Bench Material	Channel Material	Number of Steps	Cm1 Compass Dir	Cm2 Direction	Cm3 Compass Dir	Cm4 Direction	Cm4 Compass Dir
DS-70	1	RFC- BD			16.9	0.3	Woods	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		Non-Reinforced Concrete	Non-Reinforced Concrete	9 E	Out S	In	W	In	
DS-71	1	CL- EX			18.7	1.0	Woods	Grass/Dirt		Rubber	Conical Off Centered		Precast		Non-Reinforced Concrete	Non-Reinforced Concrete	11 E	Out W	In			
DS-72	1	RFC- BD	EX	CS	18.6	1.0	Woods	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		Non-Reinforced Concrete	Non-Reinforced Concrete	11 E	Out W	In			
DS-73	1	RFC- BD	CL-E		17.5	1.6	Right-of-Way	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		Non-Reinforced Concrete	Non-Reinforced Concrete	10 E	Out W	In			
DS-74	1	RFC- BD	EX	CS	12	2.0	Creek	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		Non-Reinforced Concrete	Non-Reinforced Concrete	7 E	Out W	In			
DS-75	1	RFC- BD			12.5	0.5	Creek	Grass/Dirt	Precast	Rubber	Flattop	Precast	Precast		Non-Reinforced Concrete	Non-Reinforced Concrete	8 E	Out W	In			
DS-76	1	RFC- BD	CS		12.7	0.4	Woods	Grass/Dirt	Not Known	Rubber	Flattop	Precast	Precast		Non-Reinforced Concrete	Non-Reinforced Concrete	7 E	Out S	In	W	In	
DS-77	1	RFC- BD	CS		16.7	0.3	Woods	Grass/Dirt	Precast	Rubber	Conical Off Centered	Precast	Precast		Non-Reinforced Concrete	Non-Reinforced Concrete	11 E	Out SW	In	W	In	

[illegible]

MR-11

SECTION 28010

SITE CLEARING AND GRUBBING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Removal of surface debris.
 - 2. Removal of trees, shrubs, and other plant life.
 - 3. Strip and stockpile topsoil.
- B. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern work in this section.
- C. Payment: Refer to Special Provisions, Section 1-Special Conditions.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 PREPARATION

- A. Contractor shall submit a plan to City for any clearing and/or grubbing no later than two weeks prior to clearing.

3.02 PROTECTION

- A. Contractor shall protect from damage utilities and structures that are to remain.
- B. Contractor shall protect trees, plant growth, and features designated to remain as final landscaping.

3.03 CLEARING AND GRUBBING

- A. Clearing and grubbing shall consist of cutting and disposing of trees, brush, windfalls, logs, and other vegetation, and the removing and disposing of roots, stumps, stubs, grubs, logs, and other timber from within the clearing limits as defined on the drawings, designated to be removed on the drawings or in the specifications, or fall within the excavation, embankment, or improved areas of the site.
- B. All roots and stumps shall be removed to a depth of not less than 12 inches below the original ground surface in embankment areas. In cut areas, such material shall be removed to a depth of not less than 12 inches below the subgrade.

3.04 REMOVALS

- A. Contractor shall remove from the site all trees, brush, and other vegetation, debris, and rocks that fall within the clearing and grubbing limits.

END OF SECTION

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[illegible]

SECTION 28100
SEWER CLEANING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for the:
 - 1. cleaning of the sewer by mechanical means,
 - 2. removal of surface oils from the interior of the sewer,
 - 3. removal of manhole debris, and
 - 4. removal of roots where found in the sewer.
 - 5. Cleaning may be for City's uses only or may be part of sewer televising and/or sewer rehabilitation, including:
 - (1) sewer chemical sealing, and
 - (2) sewer lining that may be part of the Work.
- B. Work related to Sewer Cleaning includes cleaning for each reach of sewer identified by City in Table 28000-1, Sewer Rehabilitation Summary.
- C. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern Work in this section.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- F. Payment: Refer to Special Provisions, Section 1-Special Conditions.
- G. Televising reports and videos are provided by City. Cleaning of each sewer section shall be based on debris levels from televising reports. Additional bid items are included if the debris levels differ by more than 15 percent. Additional Bid Items shall not be utilized without approval of project manager.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 SEWER CLEANING-GENERAL

- A. Contractor shall provide all supervision, equipment, labor, and material necessary for the proper cleaning. Cleaning shall primarily be completed by means of hydraulic high volume water pumping and solids aeration system. Flow rate shall be a minimum of 250 gpm at 2,000 psi unless otherwise specified. Solids moved to the downstream manhole shall be captured, removed, and dewatered prior to transport to an approved disposal facility. The pumping and separation system shall be capable of continuous operation.

- B. City makes no guarantee that all of the sanitary sewers to be entered are clear for the passage of cleaning equipment. The methods used for securing passage of the cleaning equipment are to be at the option of Contractor
- C. Satisfactory precautions shall be taken to protect the sewer lines from damage that might be inflicted by the improper use of cleaning equipment. Contractor shall be responsible for and shall immediately repair any and all damage caused by its operations.
- D. Selection of the cleaning equipment shall be based on the condition of the sewers at the time the Work commences.
- E. All cleaning prior to any type of sewer rehabilitation shall be performed using methods in accordance with manufacturer's recommendations for rehabilitation equipment being used.

3.02 REQUIREMENTS AND PROCEDURES

- A. The equipment shall be capable of removing root growth, dirt, grease, rocks, sand, and other materials and obstructions from the sewers and manholes. If cleaning of an entire sewer reach cannot be successfully performed from one manhole, the equipment shall be set up at the other manhole and cleaning again attempted. If, again, successful cleaning cannot be performed or the equipment fails to traverse the entire sewer reach, Contractor shall remove the blockage.
- B. Cleanliness:
 - 1. All material shall be removed that would impede sewage flow and any subsequent televising and/or rehabilitation efforts.
 - 2. Cleaning shall be completed by using as many passes as required to remove growth and debris to allow any such televising camera and/or rehabilitation to proceed. Cleaning shall be completed to a minimum of 95% of the original carrying capacity and as required for any future televising or rehabilitation procedures.
 - 3. All loose material shall be removed from the sewers. No material shall be passed downstream of the areas cleaned.

3.03 DEBRIS REMOVAL AND DISPOSAL

- A. All water, sludge, dirt, sand, rock, roots, grease, and any other material resulting from the cleaning operation shall be removed by Contractor at the downstream manhole of the section being cleaned and properly disposed of by Contractor. Passing material from manhole section to manhole section, which could cause blockage, accumulations of sand in wet wells, or damage to pumping equipment, shall not be permitted.
- B. Under no circumstances shall sewage or solids removed from manholes and lines be dumped onto streets or into ditches, catch basins, storm drains, or sanitary sewer manholes.
- C. Chemical cleaning will not be allowed.

END OF SECTION

SECTION 28200

SEWER TELEVISION

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for the inspection of the sewers by means of closed-circuit color television (CCTV). Televising may be for City's inspection uses only or may be a part of additional Work for the Project.
- B. Work related to Sewer Televising includes televising each reach of sewer identified by City in Table 28000-1, Sewer Rehabilitation Summary.
- C. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern Work in this section.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- F. Payment: Refer to Special Provisions, Section 1-Special Conditions.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 SEWER TELEVISION

- A. All CCTV work shall conform to current NASSCO PACP Standards.
- B. Sewer isolation shall be completed during sewer televising and, unless otherwise approved in writing by City, shall be by plugging off the flow of all upstream pipes through the use of sewer line plugs.
- C. The following procedures shall be employed, as required, to adequately complete the televising:
 - 1. Televising at night, and/or
 - 2. Televising short sections of sewer and releasing the plug several times during the televising, as required.
 - 3. Bypass pumping, where required, shall be performed by Contractor.
- D. Equipment shall conform to NASSCO PACP standards.
- E. Procedures shall conform to NASSCO PACP standards.
- F. Record Keeping: The following information shall be noted as required for the Work:
 - 1. CCTV Reports must include the following information and conform to the applicable guidelines.

2. CCTV Reports, NASSCO PACP Certified Database, and electronic worksheets must accompany all inspection work.
 3. All City and NASSCO PACP required header information designated in Table 28200-1, Header Checklist, must be fully and accurately entered on all CCTV reports.
 4. Two copies of each DVD of all sewers televised shall be provided to the City.
 - a. DVD shall be recorded at Standard Play.
 - b. DVD shall include the following information:
 - (1) Visual (on screen):
 - (a) Date of televising.
 - (b) Sewer reach between manholes.
 - (c) Direction of flow and direction of televising.
 - (d) Continuous distance along reach.
 - (2) Audio:
 - (a) Date of television inspection, operator name, name of overlying or adjacent street, and manhole numbers.
 - (b) Confirmation of sewer reach and televising direction in relation to direction of flow.
 - (c) Description of pipe size, type, and pipe joint length.
 - (d) Description and location of each service connection and pipe defect.
 - (e) Type of weather during televising.
 - (3) Printed labels on DVD with DVD number, Project location, date, format information, and company performing the Work.
 5. A DVD record of all observations shall be provided of the televised sewers. The database contained on the DVD shall be PACP®-certified and compatible with Microsoft Access XP. Two copies of the DVDs shall be provided to City.
- G. Rehabilitation Televising:
1. Televising of protruding tap cutting shall be performed wherever possible during tap cutting. Televising of the entire cutting operation will not be required. Following cutting, the tap periphery and the inside of the service lateral shall be televised and recorded.
 2. Following completion of rehabilitation, Contractor shall televise each sewer reach where rehabilitation was completed. Record keeping shall be as specified in subpart Record Keeping.
- H. City makes no guarantee that all of the sanitary sewers to be entered are clear for the passage of a camera. The methods used for securing passage of the camera are to be at the option of Contractor and the costs shall be included in the unit bid price for Sewer Televising of sewer sections not televised or in the unit bid prices for other bid items. The cost of retrieving the television camera, under all circumstances, when it becomes lodged during inspection, shall be incidental to this portion of the Work.

END OF SECTION

TABLE 28200-1

HEADER CHECKLIST

Field #	Header Field	Required for this Project
1	Surveyed By	X
2	Certificate Number	X
3	Reviewed By	
4	Reviewer Certificate Number	
5	Owner	X
6	Customer	
7	P/O Number	
8	Work Order Number	
9	Media Label	X
10	Project	X
11	Date	X
12	Time	X
13	Sheet Number	
14	Weather	
15	Pre-Cleaning	X
16	Date Cleaned	
17	Flow Control	
18	Purpose of Survey	X
19	Direction of Survey	X
20	Inspection Technology Used	
21	Inspection Status	X
22	Consequence of Failure	
23	Pressure Value	
24	Drainage Area	
25	Pipe Segment Reference	
26	Street (Name and Number)	X
27	City	X
28	Location Code	
29	Location Details	
30	Pipe Use	X
31	Height	X
32	Width	X
33	Shape	X
34	Material	X
35	Lining Method	
36	Coating Method	
37	Pipe Joint Length	X

Field #	Header Field	Required for this Project
38	Total Length	X
39	Length Surveyed	X
40	Year Constructed	
41	Year Renewed	
42	Upstream MH Number	X
43	Upstream MH Rim to Invert	
44	Upstream MH Rim to Grade	
45	Upstream MH Grade to Invert	
46	Upstream MH Northing	
47	Upstream MH Easting	
48	Upstream MH Elevation	
49	Downstream MH Number	X
50	Downstream MH Rim to Invert	
51	Downstream Rim to Grade	
52	Downstream Grade to Invert	
53	Downstream MH Northing	
54	Downstream MH Easting	
55	Downstream MH Elevation	
56	MH Coordinate System	
57	MH Vertical Datum	
58	GPS Accuracy	
59	Additional Information	X

SECTION 28300
SEWER BYPASS PUMPING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all materials, labor, equipment, power, and maintenance necessary to perform bypass pumping while the Work is being completed.
- B. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements—City of Davenport, Iowa" shall govern work in this section.
- C. Coordinate the Work of this section with Section 28000—General Requirements.
- D. Unit Prices: Refer to Special Provisions, Section 1—Special Conditions.
- E. Payment: Refer to Special Provisions, Section 1—Special Conditions.

1.02 SUBMITTALS

- A. Submittals shall be in accordance with provisions of Section 01300—Submittals.
 - 1. Contractor shall submit to City detailed plans and descriptions outlining all provisions and precautions to be taken by Contractor regarding the handling of existing sewage flows. This plan must be specific and complete, including such items as schedules, locations, elevations, capacities of equipment, materials, and all other incidental items necessary and/or required to ensure proper protection of the facilities, including protection of the access and bypass pumping locations from damage because of the discharge flows and compliance with the requirements specified in these Contract Documents. No rehabilitation shall begin until all provisions and requirements have been reviewed by City.
 - 2. The Bypass Pumping plan shall include but not be limited to details of the following:
 - a. Staging areas for pumps.
 - b. Sewer plugging method and types of plugs.
 - c. Number, size, material, location, and method of installation of suction piping.
 - d. Number, size, material, method of installation, and location of installation of discharge piping.
 - e. Bypass pump sizes, capacity, number of each size to be on-site, and power requirements.
 - f. Standby power generator size and location.
 - g. Downstream discharge plan.
 - h. Method of protecting discharge manholes or structures from erosion and damage.
 - i. Method of noise control for each pump and/or generator.
 - j. Any temporary pipe supports and anchoring required.
 - k. Design plans for access to bypass pumping locations.
 - l. Schedule for installation and maintenance of bypass pumping lines.
 - m. Plan indicating location of bypass pumping lines.
- B. Any proposed method of other flow controls shall be submitted for review by City.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 SEWER BYPASS PUMPING

- A. Where required by sewage flows or inability to prevent debris from falling into the flow stream, Contractor shall bypass the sewage around the sewer sections or manholes as required to complete the Work.
- B. Precautions shall be taken when bypass pumping is required to prevent the flooding of nearby property.
- C. Under no circumstances will the diversion or dumping of raw sewage be allowed onto the streets or into storm sewers. The bypass shall be made by plugging an existing upstream manhole and pumping the sewage into a downstream manhole or adjacent sanitary sewer system. Bypass pumping shall mean the use of pumps, tanks, hoses, and other necessary equipment to cause uninterrupted flow of sewage around the section or reach in which the Work is being accomplished.
- D. All bypass pumping operations must be attended by personnel to prevent flooding in case of pump failure. Under no conditions shall a bypass pumping operation be left unattended. All personnel for setup, operation, and supervision of the bypass pumping equipment shall be provided as necessary.
- E. All hoses and pumps shall be sized by Contractor to be of sufficient capacity to handle the existing sewage flow, plus additional flow that may occur during wet weather periods and during periods of high runoff. All equipment used in bypass pumping shall be operated and maintained in proper running condition at all times.
- F. All hose connections shall be watertight and no leakage shall be allowed to the surface. Pumping system hoses and appurtenances shall be tested prior to use in the sewer system to ensure watertightness.
- G. At the end of each working day, the reach or section being bypassed shall be placed in service and the bypass plug removed.
- H. The pumps shall be specifically designed for sewage, capable of passing 3-inch solids.
- I. Contractor shall satisfactorily demonstrate to City that the bypass system works for at least the diurnal flow pattern before beginning any Work.

END OF SECTION

SECTION 28500

SEWER CHEMICAL SEALING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment for sewer chemical sealing.
- B. Work related to Sewer Chemical Sealing-Test All Joints and Sewer Chemical Sealing-Seal-Failed Joints includes sewer chemical sealing for each reach of sewer designated "CS" in Table 28000-I, Sewer Rehabilitation Summary.
- C. Related Sections and Divisions:
 - 1. Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern Work in this section.
 - 2. Sewer cleaning to complete the Work shall be in accordance with Section 28100-Sewer Cleaning.
 - 3. Sewer televising to complete the Work shall be in accordance with Section 28200-Sewer Televising.
 - 4. Sewer bypass pumping to complete the Work shall be in accordance with Section 28300-Sewer Bypass Pumping.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- F. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 QUALITY ASSURANCE

- A. Documentation shall include a list of at least five previous projects including names and telephone numbers to verify previous satisfactory performance on projects of similar or greater size and difficulty factor. Contractor's field foreman shall have experience on at least five previous projects with application of specified product.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000-General Requirements.
- B. Submit manufacturer's instructions.
- C. Submit quality assurance data.

PART 2-PRODUCTS

2.01 MATERIAL STANDARDS

- A. Material used for Sewer Chemical Sealing shall conform to ASTM F2304, "Standard Practice for Rehabilitation of Sewers Using Chemical Grouting."

2.02 MANUFACTURERS

- A. Urethane Based:
 1. Avanti International AV-350.
 2. DeNeef Construction Chemicals Hydro-Active Multigel.
 3. Or equal.

2.03 MATERIAL CHARACTERISTICS

- A. Sealing materials shall utilize a two-part chemical grout that mixes within the isolated area formed by the packer.
 1. The chemical grout shall be catalyzed to polymerize in the soil and voids surrounding the area of leakage and shall form an impervious gel barrier around the leak.
 - a. Approved additives shall be used as various field conditions dictate.
 - b. Sealing materials shall be subject to approval of Engineer.
 2. The chemical grout shall have properties as listed in ASTM F2304 and ASTM F2414-04.
- B. Mixing and handling of chemical grout may exhibit toxicity by passing through the unbroken skin, by inhalation of dust or droplets of the materials, or by swallowing.
 1. Mixing, handling, and pumping of the chemicals shall be done by personnel thoroughly familiar with the handling of the chemicals involved.
 2. All chemicals shall be subject to the approval of City.

PART 3-EXECUTION

3.01 SEWER CHEMICAL SEALING

- A. General:
 1. All sewer chemical sealing shall be in accordance with ASTM F2304.
 2. Sewer cleaning to remove mineral deposits, debris, roots, grease and other material that would hinder the Work shall be completed.
 3. Prior to, during, and following sewer chemical sealing, Contractor shall televise the sewer. Televising shall be used to verify the suitability of the pipe and connections for chemical sealing.
 4. Removal of protruding taps and other obstructions that would hinder the Work shall be completed.
 5. Bypass pumping shall be provided as needed to allow the Work to proceed.
 6. Prior to sealing, equipment shall be tested in accordance with ASTM F2304.
 7. Testing is required and shall be performed in accordance with ASTM F2304.
 8. No joint or location shall be considered sealed unless, while under continual pressure, an attempt is made to pump grout to "refusal" (up to 1/2 gallon per inch diameter pipe size). This is to ensure that sufficient chemical has been dispersed into the soil surrounding the joint and that a temporary seal has not been made by applying a minimum amount of chemical grout to the void and the joint area inside the pipe. When chemical grout cannot be pumped to "refusal" within a volume

less than or equal to 1/2 gallon per inch diameter pipe size due to latent physical conditions, no additional Work shall be undertaken until authorization to proceed has been given by City.

B. Test All Joints and Seal Failed Joints:

1. In each reach of sewer, listed in Table 28000-1 designated as "CS", Contractor shall place in the line special equipment (packer) designed to test each joint.
2. Each joint shall be tested as specified in ASTM F2304.
3. Joints that fail the test shall be sealed as specified in ASTM F2304.
4. Before final acceptance and payment for chemical sealing is made, each sealed area shall be tested as specified in ASTM F2304. Should sealing fail the test, the defect area shall be resealed and retested until the test requirements can be met. After all infiltration has been eliminated and the test has been passed, excessive gels shall be removed from inside of the pipe by partially inflating the packer and pulling it past the area as a wiper to restore the pipe to its original inside diameter.

C. Televising: Following completion of rehabilitation, Contractor shall televise each sewer reach where rehabilitation was completed. Televising and record keeping shall be provided pursuant to Section 28200-PART 3-EXECUTION-Rehabilitation Televising.

END OF SECTION

SECTION 28550

MANHOLE CHEMICAL SEALING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment for manhole chemical sealing.
- B. Work related to Bid Item Manhole Chemical Sealing includes sealing of all manholes designated "CS" in Table 28000-2, Manhole Rehabilitation Summary.
- C. Coordinate the Work of this section with Section 28000-General Requirements.
- D. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- E. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 QUALITY ASSURANCE

- A. Documentation shall include a list of at least five previous projects including names and telephone numbers to verify previous satisfactory performance on projects of similar or greater size and difficulty factor. Contractor's field foreman shall have experience on at least five previous projects with application of specified product.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000-General Requirements.
- B. Submit manufacturer's instructions.
- C. Submit quality assurance data.

PART 2-PRODUCTS

2.01 MATERIAL STANDARDS

- A. Material used for Chemical Sealing of Manholes and Manhole Chemical Sealing with Portable Urethane Equipment shall conform to ASTM F2304, "Standard Practice for Rehabilitation of Sewers Using Chemical Grouting."

2.02 MANUFACTURER

- A. Urethane Based:
 - 1. De Neef Construction Chemicals Hydro Active Multigel HF.
 - 2. Avanti International AV-350.
 - 3. Or Equal.

2.03 MATERIAL CHARACTERISTICS

A. Manhole Chemical Sealing:

1. The chemical grout shall be injected into the defects by means of pre-drilled holes, according to manufacturer's instructions. Oakum saturated in chemical grout resin may be used in manufacturer recommended situations and as approved by Engineer. Approved additives shall be used as various field conditions dictate and as recommended by the manufacturer. Chemical grouts shall have properties as listed in ASTM F2304 and ASTM F2414-04.
2. Mixing and handling of chemical grout may exhibit toxicity by passing through the unbroken skin, by inhalation of dust or droplets of the materials, or by swallowing.
 - a. Mixing, handling, and pumping of the chemicals shall be done by personnel thoroughly familiar with the handling of the chemicals involved.
 - b. All chemicals shall be subject to the approval of City.

PART 3-EXECUTION

3.01 GENERAL

- A. Manhole chemical sealing shall be conducted in accordance with manufacturer's directions and as indicated in the following sections.
- B. All mineral deposits, roots, grease, and solid or semisolid matter, including excess mortar and concrete shall be removed in preparing the manhole barrel to be sealed.

3.02 MANHOLE CHEMICAL SEALING

- A. Manholes shall be completely sealed from the bottom of the pipe invert to the top of the manhole cone. All visible and suspected locations shall be sealed first. All roots and visible mineral deposits larger than 1/8-inch wide in any dimension shall be removed by high-pressure water blast or mechanically.
 1. At each actual or suspected leakage point, a hole shall be carefully drilled from within the manhole and shall extend through the manhole wall.
 2. Where there are multiple leaks to be sealed, fewer holes may be drilled, provided all leakage is stopped from these areas, and holes are a minimum of 2 feet apart.
 3. Holes shall be drilled around the periphery of all manhole barrel joints at an interval not to exceed 2 feet (manhole barrel joints at base of walls and at bottom of cone included), near all pipes passing through the manhole walls, and at all other likely points of infiltration.
- B. Packer shall be placed in drilled hole so that a watertight seal between the hole and the packer is provided.
- C. Hoses shall be attached to the packer from an injection pump located above ground. Injection material shall be pumped into each hole until all leakage is stopped and refusal is recorded on the pressure gauge mounted on the pumping unit.
- D. Care shall be taken during the pumping operation to ensure that pressures do not cause damage to the manhole structure. Upon completion of material injection, the packer shall be removed and the holes filled with hydraulic cement and troweled flush with the surface of the structure.

- E. Consideration shall be given concerning depth of defect versus frost line, size of leak, potential for movement of chemical grouted area, and other factors that may affect the long-term performance of the chemical grouts when selecting the type of grout to be used for sealing an individual leak.

END OF SECTION

SECTION 28600

SEWER LINING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment for sewer lining.
- B. Work related to Sewer Lining includes lining entire reaches of sewer identified by City in Table 28000-2, Sewer Rehabilitation Summary.
- C. Work related to Sewer Lining-Lateral Reinstatement includes cutting liner to reinstate laterals after completion of lining at locations referred to above.
- D. Related Sections and Divisions:
 - 1. Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern Work in this section.
 - 2. Sewer cleaning to complete the Work shall be in accordance with Section 28100-Sewer Cleaning.
 - 3. Sewer televising to complete the Work shall be in accordance with Section 28200-Sewer Televising.
 - 4. Sewer bypass pumping to complete the Work shall be in accordance with Section 28300-Sewer Bypass Pumping.
- E. Coordinate the Work of this section with Section 28000-General Requirements.
- F. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- G. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 SUBMITTALS

- A. Submittals shall include:
 - 1. submit shop drawings and product data under the provisions of Section 28000-General Requirements.
 - 2. Manufacturer's material testing certification.
 - 3. Liner thickness design.

1.03 QUALITY ASSURANCE

- A. The sewer lining supplier and installer shall have a minimum of five years of experience in liner installation.
- B. The liner fabricator shall have a minimum of five years of experience in liner fabrication.
- C. Field tests and cured specimens will be required.

PART 2-PRODUCTS

2.01 FULL LINER

- A. This specification references American Society for Testing and Materials (ASTM) standard specifications, which are made a part of hereof by such reference and shall be the latest edition and revision thereof.
1. F1216—Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin Impregnated Tube.
 2. D5813—Standard Specification for Cured-in-Place Thermosetting Resin Sewer Pipe.
 3. D638—Test Method for Tensile Properties of Plastics.
 4. D790—Test Method for Tensile Properties of Unreinforced and Reinforced Electrical Plastics and Electrical Insulating Materials.
 5. C581—Standard Practice for determining Chemical Resistance of Thermosetting Resins.
 6. D2990—Standard Test Methods for Tensile, Compressive, Flexural Creep, and Creep Rupture of Plastics.
- B. Liner Reinforcing Material:
1. Liner tube shall be sewn or heat fusion-bonded to tightly fit the internal circumference of the original pipe for the entire length to be lined.
 2. Wall thickness shall be designed in conformance with ASTM F1216, Appendix X1.
 3. Tube shall be polyester felt formed into sheets of required thickness.
 4. Tube may be made of single-or multiple-layer construction, with any layer not less than 3 millimeters thick.
 5. Membranes or strips sandwiched in between layers may be included to control longitudinal stretching.
 6. Seams shall not be joined perpendicular to the longitudinal axis. Seams shall be spirally formed and sewn or heat fusion-bonded.
 7. Polyurethane membrane used during inversion of tube may be left on internal surface of liner after curing.
 8. The outside of the tube shall have markers along its full length at regular intervals not to exceed 5 feet.
- C. Resin shall conform to ASTM F1216 and D5813:
1. Polyester resin for general chemical applications shall be used, conforming to ASTM F1216, Appendix X2.
 2. Fillers, except those required for viscosity control, fire retardance, modulus enhancement, chemical resistance, or extension of pot life will not be allowed.
 3. Thixotropil agents that will not interfere with visual inspection may be added for viscosity control.
 4. Resins may contain pigments, dyes, or colorants that will not interfere with visual inspection of cured liner.
 5. Resin content shall be 10% to 15% by volume greater than the volume of felt in the liner tube.
- D. Cured liner shall conform to ASTM F1216:
1. Minimum thickness of bonded polyurethane membrane shall be per manufacturer's requirement and shall not affect structural dimension requirements of cured liner.
 2. Thickness of cured liner shall be as designed (+10% -4%) and shall not include thickness of polyurethane inner liner.
 3. Cured liner shall conform to the following structural standards:
 - a. Tensile Strength—3,000 psi (ASTM D638).
 - b. Flexural Modulus of Elasticity—400,000 psi (ASTM D790).

- c. Flexural Strength—4,000 psi (ASTM D790).
- 4. Layers of cured CIPP shall be uniformly bonded. It shall not be possible to separate any two layers with a probe or knife point so that the layers separate cleanly or the probe moves freely between layers.
- E. Liner Design:
 - 1. Existing host pipe material, size, and depth are available on televising records available for use by Contractor.
 - 2. Condition of host pipe is available on DVD records and reports available for use by Contractor.
 - 3. Existing soil conditions, types, and depth of groundwater shall be determined by Contractor.
- F. Manufacturer for Full Liner shall be Insituform Technologies, Inc., National Liner, Inc., InLiner USA, Inc., or equal.
- G. End Seal: Manufacturer for end seals shall be LMK Technologies, or approved equal.

PART 3-EXECUTION

3.01 SEWER LINING

- A. Televising:
 - 1. Prior to, during, and following sewer rehabilitation, Contractor shall televise and videotape the sewer.
 - 2. Televising shall be used to verify the suitability of the pipe and connections for installing lining. Pipe and connection conditions shall conform to those published by the system manufacturer and NASSCO.
- B. Sewer Preparation:
 - 1. Sewer locations observed to be leaking during preparation for lining and that would interfere with sewer lining installation shall be sealed prior to installation of liner.
 - 2. Sewer cleaning to remove mineral deposits, debris, roots, grease and other material that would hinder the Work shall be completed.
 - 3. Removal of protruding taps and other obstructions shall be completed prior to installation of all liners.
 - 4. Bypass pumping shall conform to Section 28300.
- C. Liner Preparation:
 - 1. Liner tube shall be impregnated with resin per manufacturer's requirements before proposed time of installation.
 - 2. Storage and transport of impregnated liner:
 - a. Storage shall be out of direct sunlight.
 - b. Storage shall be below 40°F.
 - c. Transport shall be below 40°F.
- D. Liner Installation:
 - 1. Public Notification:
 - a. Contractor shall make every effort to maintain service usage throughout the duration of the Project. In the event that a service will be out of service, the maximum amount of time of no service shall be 12 hours for any property served by the sewer. A public notification program shall be implemented. Contractor shall be responsible for contacting each home or business

- connected to the sanitary sewer and informing them of the Work to be conducted, and when the sewer will be off-line.
- b. Written notice shall be delivered to each home or business affected by closed lateral service connections. The notice shall be approved by City prior to delivery and shall provide:
 - (1) Description of work and schedule.
 - (2) How the Work will affect the residents, including the time when the sewer will be out of service.
 - (3) Cellular telephone number of Contractor they can call to discuss the Project or any problems that could arise.
 - (4) Personal contact and written notice shall be made by Contractor the day before the Work will commence on the reach or section of sewer affecting the residents.
 - (5) Personal contact shall be made by Contractor with any residents or businesses that cannot be reconnected within the time stated in the written notice.
 2. Installation shall be by contractors certified by the liner manufacturer for installation of the liner.
 - a. Personnel installing the liner shall have been trained by the liner manufacturer.
 - b. Personnel installing the liner shall have a minimum of 2 years experience with installing liners.
 - c. Installation of the liner shall conform to the manufacturer's printed procedures and literature.
 3. Curing: Curing using circulated heating water or steam shall be performed after the insertion is complete.
 - a. Curing temperature shall be as recommended by the liner manufacturer.
 - b. Curing pressures shall be as recommended by the manufacturer.
 - c. Cool down after heating shall be controlled.
 - (1) Temperature shall be controlled as recommended by the liner manufacturer.
 - (2) Pressures shall be maintained during cooling as recommended by the liner manufacturer.
- E. Contractor shall install Insignia End Seals (or approved equal) at all manhole locations. Hydrophilic end seal sleeves shall be installed per manufacturer's recommendations.
- F. Following installation of the liner and lateral reinstatement, Contractor shall televise the sewer to verify the Work.
- G. Reinstatement of Lateral Service Connections:
1. All lateral service connections shall be identified prior to lining.
 2. Lateral service connections shall be reopened without excavation utilizing a remote-controlled cutter monitored by a television camera.
 3. A spare cutter plus spare key components shall be present at the site prior to lining.
 4. Contractor shall be responsible for restoring/correcting, without any delay, all missed or faulty reconnections, as well as for any damage caused to buildings for not connecting the services soon enough or for not giving notice to the building occupants.
- H. Manhole Rehabilitation:
1. Manhole structures that are disturbed, damaged, or have the top portion removed to insert the flexible liner shall be rehabilitated in accordance with the respective specification section.
 - a. Section 28700-Rehabilitation Requiring Excavation.
 - b. Section 28800-Manhole Frame and Cover Replacement.
 2. All structures that receive a top rebuild shall also receive a new frame and cover.

END OF SECTION

SECTION 28700

REHABILITATION REQUIRING EXCAVATION

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for:
 - 1. Repairing sewers including joint repairs, point repairs, and collapsed or broken pipe repairs.
 - 2. Rebuilding tops of manholes designated "RT" in Table 28000-2-Manhole Rehabilitation Summary.
 - 3. Replacing frames and covers of manholes designated "RFC-BD" in Table 28000-2-Manhole rehabilitation Summary.
- B. Related Sections and Divisions:
 - 1. Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern work in this section.
 - 2. Sewer televising to complete the Work shall be in accordance with Section 28200-Sewer Televising.
 - 3. Sewer bypass pumping to complete the Work shall be in accordance with Section 28300-Sewer Bypass Pumping.
- C. Coordinate the Work of this Section with Section 28000-General Requirements and Section 28800-Manhole Frame and Cover Replacement.
- D. Unit Price: Refer to Special Provisions, Section 1-Special Conditions.
- E. Payment:
 - 1. Refer to Special Provisions, Section 1-Special Conditions.
 - 2. Payment for other items shall be as listed in the Bid. If an item is not listed, it shall be considered incidental to the work and included with adjacent or associated items of work.

1.02 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000-General Requirements.

PART 2-PRODUCTS

2.01 SANITARY SEWER PIPE

- A. Refer to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."

2.02 BEDDING AND COVER

- A. Refer to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."

2.03 COMPACTED GRANULAR BACKFILL

- A. Refer to "The Standard Specifications for Public Improvements—City of Davenport, Iowa."

2.04 PRECAST CONCRETE FLAT SLAB

- A. Brick manholes designated "RT" in Table 2800–2, Manhole Rehabilitation Summary require a precast flat slab to serve as the interface between the existing layer of brick and the new chimney adjusting rings.
- B. Precast concrete flat slab shall be sized to bear on the entire surface of the existing layer of brick without overhanging the outside diameter of the existing layer of brick.
- C. Inside diameter opening shall be 27 inches.
- D. Precast concrete flat slab shall be a minimum of 8 inches thick and rated for HS-20 loadings.

2.05 MANHOLE CHIMNEY ADJUSTING RINGS

- A. Manhole adjusting rings shall be injection molded-recycled HDPE as manufactured by LADTECH, Inc., or expanded polypropylene as manufactured by Cretex Specialty Products.
- B. Contractor shall supply ring materials, adhesive, labor, and equipment to install the rings in strict accordance to manufacturer's recommendations. Contractor shall permanently install rings with adhesive so that all manhole casting rims are set level with plan grade. Ring inside diameter shall be 27-inch nominal.
- C. Contractor shall have all ring sizes available when rebuilding tops of manholes, including tapered sections to allow for seamless adjusting of frame elevations on flat and sloped surfaces.
- D. Concrete adjusting rings shall not be used for manhole adjustment.

2.06 FLOWABLE FILL

- A. Flowable fill shall be a self-compacting, self-leveling, material consisting of a mixture of fine aggregate and filler (as needed), water, and cementitious materials (Portland cement, fly ash, granulated blast furnace slag) that is in a flowable state at the time of placement meeting the requirements of the National Ready Mixed Concrete Association Guide Specification for Controlled Low Strength Materials (CLSM). The flowable fill shall be proportioned by the ready mixed concrete supplier on the basis of field experience and/or laboratory trial mixtures to produce a cohesive and nonsegregating mixture which has the following properties: Minimum compressive strength: 70 psi
- B. Contractor shall submit the following information well in advance of fill placement to avoid any delay in construction:
 1. Gradation of fine aggregate.
 2. Design mix.
 3. Previous test results with 7- and 28-day compressive strengths.
 4. Certified mill test results for cement identifying brand, type, and chemistry of cement to be used.
 5. Brand, type, principle ingredient, and amount of each admixture used.

2.07 INSTALL EXTERIOR SEAL

- A. Exterior Seal shall be applied to manholes designated "CL-EX" in Table 28000-2, Manhole Rehabilitation Summary.
- B. Exterior Seal for adjusting ring sealing shall be rubber seals and shall be "Adaptor External Seal," "Infi-Shield Gator Wrap," or equal.
- C. Extensions shall be provided as required to seal the entire section from manhole casting to manhole cone.

PART 3-EXECUTION

3.01 GENERAL

- A. Refer to Section 28000-General Requirements for sequencing requirements.
- B. Excavation shall conform to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."
- C. Bypass pumping shall be in accordance with Section 28300 and provided as needed to allow the Work to proceed.
- D. Maintenance of Surface: Contractor shall maintain all backfilling, resurfacing, repaving, and other surface improvements constructed under this contract as a warranty item. Contractor shall, upon proper notice from City, make all repairs in surfaces of excavations. All expenses incurred by City and/or Contractor in making repairs and all expenses in maintaining excavation surfaces shall be at the expense of Contractor regardless of the material used in backfilling excavations. City reserves the right to make all emergency repairs necessary to make safe all streets and walks at the expense of Contractor regardless of the material used in backfilling excavations.
- E. Pavement restoration shall conform to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."
- F. Landscape restoration shall conform to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."

3.02 REBUILD TOP

- A. Contractor shall remove and dispose all existing chimney ring materials on manholes with a precast concrete cone or flat slab, or manhole block cone.
- B. For brick manholes, Contractor shall remove and depose of all existing defective brick layers in the manhole chimney. Sufficient brick layers shall be removed such that a suitable foundation for rebuilding a new chimney is exposed. Surface of existing brick layer shall be cleaned out of all debris and loose material. A precast concrete flat slab shall be used as an interface between the existing brick layer and the new adjusting rings. Mortar shall be used to seal precast concrete flat slab to existing brick layer. Mortar shall be non-shrink, specifically designed for use in sewers. Submit mortar material information to Engineer for approval.

- C. Contractor shall take care in excavation and work not to allow soil, brick, mortar, or other debris to fall into the manhole.
- D. Contractor shall install new chimney adjusting rings in strict accordance with manufacturer's recommendations, using only manufacturer-recommended adhesive materials.
- E. Construction shall comply with applicable requirements in this section.
- F. All manholes to have a top rebuild shall have a new frame and cover installed as specified in Section 28800. Frames and covers specified in "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall not be used for this project.

3.03 INSTALL EXTERIOR SEAL

- A. Installation shall conform to manufacturer's published instructions.

3.04 COORDINATION WITH OTHER WORK

- A. Where applicable, rehabilitation requiring excavation work at any specified manhole shall be performed prior to all other rehabilitation work required at that specific manhole.

3.05 CONCRETE FILL

- A. In areas where there is inadequate room for compaction equipment and in other areas as shown or as requested by the project manager, flowable fill shall be used as fill material.

END OF SECTION

SECTION 28800

MANHOLE FRAME AND COVER REPLACEMENT

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment for manhole frame and cover replacement.
- B. Work shall be for each location identified by City and listed in the following:
 - 1. Replacing Frames and Covers on manholes that are designated "RFC" in Table 28000-2, Manhole Rehabilitation Summary.
 - 2. Replacing Frames and Covers with bolt down covers with the frame bolted into the precast cone on manholes that are designated "RFC-BD" in Table 28000-2, Manhole Rehabilitation Summary.
 - 3. Replacing Covers on manholes that are designated "RC" in Table 28000-2, Manhole Rehabilitation Summary.
- C. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern work in this section.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- F. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 SUBMITTALS

- A. Submit all shop drawings and product data in accordance with provisions of Section 28000-General Requirements.

PART 2-PRODUCTS

2.01 REPLACE FRAME AND COVER

- A. Manholes that are designated "RFC" or "RFC-BD" in Table 28000-2, Manhole Rehabilitation Summary require a new frame and cover. These frames and covers shall comply with the following requirements:
 - 1. The cast iron frames and machined self-sealing covers shall be Neenah Foundry Company R-1642 (RFC), R-1916-F (RFC-BD), or equal. Manhole frames and covers shall be manufactured from high test cast iron conforming to the requirements for Class 40A of ASTM A48.
 - 2. Frames shall be true to pattern in form dimensions, free from pouring faults, sponginess, cracks, blowholes, and other defects in positions affecting strength and value of the service intended. Frames shall be boldly filleted at angles and the risers shall be sharp and perfect. Frames shall be sandblasted or otherwise effectively cleaned of scale and sand so as to present a smooth, clean, and uniform surface.

3. Such lids or covers shall have checkered or indented top design similar to Neenah Foundry Company Type B lids; top design with protruding knobs or lugs will not be accepted. Covers shall have concealed pick holes and they shall also have a continuous self-sealing flat gasket which fits securely in a machined groove on the outer base of the cover.
4. Nonrocking covers shall not be used. Frames and covers specified in "The Standard Specifications for Public Improvements—City of Davenport, Iowa" shall not be used for this project.

2.02 REPLACE COVER

- A. Manholes that are designated "RC" in Table 28000–2, Manhole Rehabilitation Summary require a new cover. These covers shall comply to the following requirements:
 1. Cover shall fit existing frame using field measurements by Contractor.
 2. Covers shall be cast iron machined self-sealing covers manufactured by Neenah Foundry Company, or equal. Manhole covers shall be manufactured from high test cast iron conforming to the requirements for class 35B of ASTM A48, supplemented by the following requirements.
 3. Covers shall have checkered or indented top design similar to Neenah Foundry Company Type B lids; top design with protruding knobs or lugs will not be accepted. Covers shall have concealed pick holes and they shall also have a continuous self-sealing flat gasket, which fits securely in a machined groove on the outer base of the cover.
 4. Nonrocking covers shall not be used. Frames and covers specified in "The Standard Specifications for Public Improvements—City of Davenport, Iowa" shall not be used for this project.

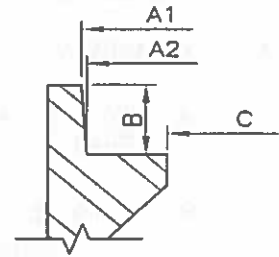
PART 3—EXECUTION

3.01 REPLACE FRAME AND COVER

- A. The work shall be as specified in Section 28700, except a new frame and cover shall be provided in lieu of reusing the existing frame and cover.
- B. Old frames and covers remain property of City and shall be delivered to City's Public Works storage yard.
- C. Manholes that are designated "RFC-BD" in Table 28000–2, Manhole Rehabilitation Summary shall have the frame secured to existing precast structure with four (4) 1/2-inch threaded stainless steel rod and stainless steel hardware. Rod shall be imbedded a minimum three (3) inches and anchored with two part, quick setting epoxy. Submit adhesive material information to Engineer for approval.
- D. Where applicable, Contractor shall perform this type of work prior to Manhole Resurfacing. See Section 28000 for sequencing requirements.

3.02 REPLACE COVER

- A. Contractor shall be responsible for accurate sizing of the replacement cover. Prior to replacing manhole cover, existing casting shall be measured. This includes providing the manhole cover supplier with the following measurements:
1. Diameter at top of opening (A_1).
 2. Diameter at seat of cover pocket (A_2).
 3. Depth of cover pocket (B).
 4. Diameter of clear opening (C).
- B. The bearing surface of the casting shall be cleaned of all debris and loose scale before installing the new cover.
- C. Old covers remain property of City and shall be delivered to City's Public Works storage yard.



END OF SECTION

SECTION 28900

MANHOLE RESURFACING AND BENCH AND CHANNEL CONSTRUCTION

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for resurfacing of manhole interiors.
- B. Work related to Manhole Resurfacing includes:
 - 1. Resurfacing bench, wall, cone, and chimney sections of manholes designated "SM-CR" in Table 28000-2, Manhole Rehabilitation Summary with a corrosion resistant cementitious coating.
 - 2. Constructing manhole benches and channels in manholes designated "CBC" in Table 28000-2, Manhole Rehabilitation Summary.
- C. Coordinate the Work of this section with Section 28000-General Requirements.
- D. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- E. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 QUALITY ASSURANCE

- A. Contractor shall provide documentation that the cementitious coating applicator is an approved installer and licensed by the coating system manufacturer.
- B. Documentation shall include: A list of at least 5 past clients, including names and telephone numbers to verify previous satisfactory performance on projects of similar or greater size and difficulty factor.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000-General Requirements.
- B. Submit manufacturer's instructions.
- C. Submit quality assurance data.

1.04 WARRANTY

- A. Refer to "Combined Performance-Payment and Maintenance Bond."

PART 2-PRODUCTS**2.01 MANUFACTURERS**

- A. Manhole resurfacing corrosion resistant cementitious repair manufacturers for manholes designated "SM-CR" in Table 28000-2, Manhole Rehabilitation Summary shall be:
 - 1. Quadex.
 - 2. The Strong Company, Inc.
 - 3. Kerneos.
 - 4. Or Equal.
- B. Manhole chemical sealing manufacturers shall be as listed in Section 28550.
- C. Channel Reconstruction:
 - 1. Re-Liner as manufactured by Duran, Inc.
 - 2. Or Equal.
- D. Manhole Bench Construction in conjunction with Channel Reconstruction:
 - 1. Rapid Set Concrete Mix.
 - 2. Or Equal.

2.02 REFERENCES

- A. Manhole Resurfacing:
 - 1. ASTM C78-Test Method for Flexural Strength of Concrete (Using Simple Beam With Third-Point Loading)
 - 2. ASTM C94-Specification for Ready-Mixed Concrete.
 - 3. ASTM C109-Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-inch or 50 mm Cube Specimens).
 - 4. ASTM C267-Test Method for Chemical Resistance of Mortars, Grouts, and Monolithic Surfacing.
 - 5. ASTM C321-Test Method for Bond Strength of Chemical-Resistant Mortars.
 - 6. ASTM C496-Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens.
 - 7. ASTM C596-Test Method for Drying Shrinkage of Mortar Containing Portland Cement.
 - 8. ASTM C666-Test Method for Resistance of Concrete to Rapid Freezing and Thawing.
 - 9. ASTM C827-Test Method for Change in Height at Early Ages of Cylindrical Specimens from Cementitious Mixtures.
 - 10. ASTM C952-Test Method for Bond Strength of Mortar to Masonry Units.
- B. Manhole Channel Construction:
 - 1. ASTM D-638-Test Method for Tensile Properties of Plastics.
 - 2. ASTM D-790-Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
 - 3. ASTM D-2583-Test Method for Indentation Hardness of Rigid Plastics by Means of Barcol Impressor.

2.03 MANHOLE RESURFACING

- A. Active Water Leakage Sealer:
 - 1. Quadex Quad Plug.
 - 2. Permacast-Plug or Patch.
 - 3. Saureisen Instaplug No. F-180.

4. Or Equal.
- B. Void Filler:
1. Quadex Hyperform.
 2. Permacast MS-10,000 UL.
 3. Saureisen Underlayment and Repair Mortar No. F-20.
 4. Or Equal.
- C. Corrosion Resistant Cementitious Liner Material:
1. Quadex Geo.
 2. Strong-Seal High Performance Mix.
 3. Kerneos SewperCoat PG.
 4. Or Equal.
- D. Manhole Channel Construction:
1. Re-Liner.
 2. Or Equal.
- E. Manhole Bench Construction in conjunction with Channel Reconstruction.
1. Rapid Set Concrete Mix.
 2. Or Equal.
- F. Chemical Sealing: Materials shall be as listed in Section 28550.

2.04 REQUIREMENTS

- A. Manhole Resurfacing—Corrosion Resistant Lining:
1. Quadex Geocrete.
 - a. ASTM C109 Minimum Compressive Strength: 3,000 psi at 28 days.
 - b. ASTM 78 Minimum Flexural Strength: 1,300 psi at 28 days.
 - c. ASTM C882 Bond Strength: 5,000 psi at 28 days.
 - d. ASTM C1202 Permeability: <250 coulombs at 28 days.
 - e. ASTM C496 Split Tensile Strength: >900 psi at 28 days.
 2. Strong-Seal High Performance Mix:
 - a. ASTM C109 Minimum Compressive Strength: 9,000 psi at 28 days.
 - b. ASTM C496 Tensile Strength: 800 psi at 28 days.
 - c. ASTM C293 Flexural Strength: 1,500 psi at 28 days.
 - d. ASTM C882 Bond Strength: 2,000 psi at 28 days.
 - e. ASTM C596 Shrinkage: 0% at 90% relative humidity.
 - f. ASTM C666 Freeze-Thaw Durability: No visible damage after 300 cycles.
 3. Kerneos SewperCoat PG:
 - a. ASTM C109 Minimum Compressive Strength: 7,000 psi at 28 days.
 - b. ASTM C348 Flexural Strength: 1,300 psi at 28 days.
 - c. ASTM C157 Shrinkage After 28 days Immersion: <0.07%.
 - d. ASTM C496 Tensile Strength: 700 psi at 28 days.
 - e. ASTM C882 Bond Strength: 2,500 psi.
 - f. ASTM C666 Freeze-Thaw Durability: Relative dynamic modulus of 102 after 300 cycles.
 - g. ASTM C642 Volume of Permeable Voids: 15% at 40 days.
 - h. ASTM C642 Apparent Density: 2.74.
 - i. ASTM C469: Modulus of Elasticity: 5,000 ksi at 28 days.

- B. Manhole Channel Construction-ReLiner:
 1. ASTM D790 Flexural Strength: 27,100 psi.
 2. ASTM D790 Flexural Modulus: 1,157,000 psi.
 3. ASTM D638 Tensile Strength: 16,700 psi.
 4. ASTM D638 Tensile Elongation: 1.54%.
 5. ASTM D2583 Hardness, Barcol 934.1: 55-60.

PART 3-EXECUTION

3.01 MANHOLE RESURFACING AND BENCH AND CHANNEL CONSTRUCTION

- A. Refer to Section 28000 for sequencing requirements.
- B. Bypassing Pump: Bypass pumping shall conform to Section 28300.
- C. Surface Preparation:
 1. Place covers over or otherwise protect the sewer outlet to prevent extraneous material from entering the sewer pipe.
 2. All concrete that is not sound or has been damaged by chemical exposure shall be removed to a sound concrete surface. All contaminants including: all oils, grease, incompatible existing coatings, waxes, form release, curing compounds, efflorescence, sealers, salts, or other contaminants shall be removed.
 3. Physically remove excess asphaltic manhole jointing compounds flush with the remaining cementitious manhole barrel.
 4. All steps shall be removed flush with manhole walls.
 5. Manhole walls from the manhole invert to the bottom of the frame for manholes to receive resurfacing shall be prepared by pressure water blast or abrasive blast as recommended by manufacturer.
 6. All voids from missing bricks or mortar shall be filled with the approved repair and void filling materials to provide a uniform surface for resurfacing materials to bond to.
 7. All protruding bricks, blocks or other material shall be removed from manhole, bench, walls, cone, and chimney.
 8. Remove and dispose of all debris that has been cleaned from the manhole walls.
- D. Manhole Resurfacing:
 1. Installation of resurfacing material shall be done in accordance with the manufacturer's published recommendations and procedures.
 2. All active water infiltration shall be stopped by use of water plug or hydroactive grout. Such materials shall be compatible with any subsequent resurfacing Work.
 3. Before any subsequent coating is applied, repair materials shall be allowed to cure to manufacturer's recommendations. Curing compounds may not be used unless approved by the lining manufacturer.
 4. If lining manufacturer is different than that for repair materials, then repair process shall be observed by lining manufacturer to ensure proper suitability to receive the lining system.
 5. Resurfacing material shall be applied from the invert of the channel (except for newly constructed channels) to:
 - a. The bottom of the existing frame or,
 - b. The bottom of the new chimney rings for manholes that had a top replacement as part of this project. No material shall be applied to new chimney rings. Create a smooth and neat transition where cementitious liner meets chimney rings.
 - c. Or as indicated on the Drawings.

6. Material thickness may be verified at any point with a depth gauge and shall be no less than:
 - a. Three quarters inch thick on manholes less than 10 feet deep.
 - b. One-inch-thick on manholes greater than 10 feet deep. A 1-inch thickness is only required on the lower portion of the manhole that is greater than 10 feet deep. For example, if a manhole is 15 feet deep, the upper 10 feet of the manhole requires a 3/4-inch thickness. The lower 5 feet of the manhole requires a 1-inch thickness.
 7. Material shall be applied only when manhole is in a damp state, with no visible water dripping or running over the interior surfaces of the manhole.
 8. Repair and resurfacing materials shall be troweled to provide a smooth surface with a profile similar to coarse sandpaper. No bugholes or honeycomb surfaces shall remain after the troweling is completed.
 9. Completed resurfaced manhole shall have a uniform coating free of voids with a minimum thickness in all locations as specified.
 10. Completed resurfaced bench shall have a 3-inch slope, sloping from manhole walls to the manhole channel.
 11. Care shall be taken to prevent resurfacing materials from contacting any inside drop vertical pipes, flow meters, cables, or other appurtenances that may be present within manhole.
- E. Inspection: During application, a wet film thickness gauge meeting ASTM D4414—Standard Practice for Measurement of Wet Film Thickness of Organic Coatings by Notched Gauges, shall be used to ensure a monolithic coating and uniform thickness during application.
- F. Cleanup:
1. After all work is complete, remove all extraneous material from the manhole.
 2. Contractor shall be responsible for proper disposal of all extraneous materials.

END OF SECTION

SECTION 28910

INTERIOR MANHOLE CHIMNEY LINING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for lining manhole chimney interiors with an aromatic flexible urethane resin.
- B. Work related to manhole chimney lining includes lining the chimneys of manholes designated "CL" in Table 28000-2, Manhole Rehabilitation Summary.
- C. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements—City of Davenport, Iowa" shall govern work in this section.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions—Section I—Special Conditions
- F. Payment: Refer to Special Provisions—Section I—Special Conditions

1.02 QUALITY ASSURANCE

- A. Contractor shall provide documentation that the manhole chimney lining installer is an approved installer and licensed by the manhole chimney lining system manufacturer.
- B. Documentation shall include a list of at least five previous projects including names and telephone numbers to verify previous satisfactory performance on projects of similar or greater size and difficulty factor. Contractor's field foreman shall have experience on at least five previous projects with application of specified materials.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000—General Requirements.
- B. Submit manufacturer's instructions.
- C. Submit quality assurance data.

1.04 WARRANTY

- A. Refer to "Combined Performance—Payment and Maintenance Bond."

PART 2-PRODUCTS

2.01 MANUFACTURERS

- A. Manhole Chimney Lining manufacturers shall be:
 - 1. Sealing Systems Inc.
 - 2. Or equal.
- B. Manhole chemical sealing shall be as listed in Section 28550.
- C. Cementitious repair manufacturers shall be as listed in Section 28900.

2.02 REFERENCES

- A. Manhole Chimney Lining:
 - 1. ASTM D2240-Standard Test Method for Rubber Property-Durometer Hardness.
 - 2. ASTM D412-Standard Test Method for Vulcanized Rubber and Thermoplastic Elastomers-Tension.
 - 3. ASTM D903-Standard Test Method for Peel of Stripping Strength of Adhesive Bonds.
 - 4. ASTM D570-Standard Test Method for Water Absorption of Plastics.
 - 5. ASTM D1004-Standard Test Method for Tear Resistance (Graves Tear) of Plastic Film and Sheeting.

2.03 MANHOLE CHIMNEY LINING

- A. Active Water Leakage Sealer: Materials shall be as listed in Section 28900.
- B. Void Filler: Materials shall be as listed in Section 28900.
- C. Chemical Sealing: Materials shall be as listed in Section 28550.

2.04 REQUIREMENTS

- A. Manhole Chimney Lining
 - 1. Sealing Systems Inc.:
 - a. ASTM D2240-Hardness (Durometer), 75.
 - b. ASTM D412-Elongation (at break), 800%.
 - c. ASTM D412-Tensile Strength, 1,150 psi.
 - d. ASTM D903-Adhesive Strength, 175 lb. l/in.
 - e. ASTM D570-Water Absorption, .05% by weight.
 - f. ASTM D1004-Tear Resistance, 155 lb. l/in.
 - 2. If manhole resurfacing is to be completed as part of the work, manhole resurfacing materials must be accepted and approved by the manhole chimney lining manufacturer for compatibility with the manhole chimney lining system products.
 - 3. Required thickness shall be 180 mils, or as recommended by manufacturer, whichever is greater.

PART 3-EXECUTION

3.01 MANHOLE CHIMNEY LINING

- A. Refer to Section 28000 for sequencing requirements.

B. Surface Preparation:

1. Place covers over or otherwise protect the sewer outlet to prevent extraneous material from entering the sewer pipe.
2. All concrete and brick that is not sound or has been damaged by chemical exposure shall be removed to a sound concrete or brick surface. All contaminants including all oils, grease, incompatible existing coatings, waxes, form release, curing compounds, efflorescence, sealers, salts, or other contaminants shall be removed.
3. Physically remove excess asphaltic manhole jointing compounds flush with the remaining manhole.
4. Large voids and missing bricks shall be filled with specified patching material to allow for a smooth surface for chimney liner to adhere to.
5. Protruding bricks, blocks, concrete or other materials shall be removed flush with the chimney surface.
6. All active water infiltration shall be stopped by use of water plug or hydroactive grout. Such materials shall be compatible with chimney lining materials.
7. Prior to applying chimney liner, repair materials shall be allowed to cure according to manufacturer's recommendations. Curing compounds may not be used unless approved by the chimney liner manufacturer.
8. Interior manhole surfaces that will be in contact with chimney liner shall be prepared by abrasive blast as recommended by manufacturer. Contractor shall take care while abrasive blasting as to not damage any cementitious linings that were installed prior to chimney liner installation. Contractor shall adhere to cure times in manhole resurfacing manufacturer specifications prior to abrasive blasting.
9. Manhole frame shall be cleaned by abrasive blasting as recommended by manufacturer to remove all rust, scale, or other materials that may inhibit adhesion of chimney liner to frame.
10. All areas that chimney liner will be in contact with shall be thoroughly wiped with acetone to remove any sand, dust, oil, grease, or chemical contamination.
11. Completely dry the substrate prior to applying the chimney liner.
12. Remove and dispose of all debris that has been cleaned from the manhole walls, cone, chimney, and frame.

C. Chimney Liner Installation:

1. Installation of the chimney liner shall be done in accordance with manufacturer's written recommendations and procedures.
2. After surface preparation is complete and prior to installation of the liner, a manufacturer approved aromatic urethane primer resin shall be applied.
3. Allow primer to cure according to manufacturer's recommendations.
4. The liner shall be installed in manhole continuous from 3 inches above the frame/chimney joint down 3 inches onto:
 - a. Previously installed cementitious liner for brick manholes designated 'SM' in Table 1-Manhole Rehabilitation Summary.
 - b. Cone section of precast concrete or block manholes.
5. Minimum liner length shall be 1 foot.
6. Finished chimney liner shall provide a smooth surface that conforms to the existing structure. The finished liner shall be free of thin spots and delaminations, and shall be of uniform thickness. The finished liner must provide an air- and watertight corrosion-resistant liner protecting the manhole chimney.

D. Inspection: Liner shall be visually inspected to ensure bonding, complete cure, and a smooth surface free from cracks or hollow spots.

E. Cleanup:

- 1. After all work is complete, remove all extraneous material from the manhole.**
- 2. Contractor shall be responsible for proper disposal of all extraneous materials.**

END OF SECTION

City of Davenport

Agenda Group: Council
Department: Office of the Mayor
Contact Info: Nevada Lemke
Wards: All

Action / Date
5/3/2017

Subject:
Proclamation for National Travel and Tourism Week - May 7 - 13, 2017

ATTACHMENTS:

Type	Description
▢ Cover Memo	Natl Travel & Tourism Week

REVIEWERS:

Department	Reviewer	Action	Date
Office of the Mayor	Admin, Default	Approved	4/6/2017 - 4:06 PM



City of Davenport, Iowa

Proclamation

- Whereas** travel has a positive effect on the Quad Cities and Davenport, Iowa and the nation's economic prosperity and image abroad, it also impacts business productivity and individual travelers' well-being; and
- Whereas** travel to and within the United States provides significant economic benefits for the nation, generating more than \$2.1 trillion in an economic output in 2015, with \$947.1 billion spent directly by travelers; and
- Whereas** travel is among the largest private-sector employers in the United States, supporting 15.1 million jobs in 2015, including 8.1 million directly in the travel industry and 6.9 million in other industries; and
- Whereas** travelers' spending directly generated tax revenues of \$147.9 billion for federal, state and local governments, funds used to support essential services and programs; and
- Whereas** local tourism supports 8,000 Quad City jobs and saves the average Quad City household \$1,192 in taxes; and
- Whereas** international travel to the United States is the nation's number one services export with 2015 travel generating \$216.9 billion in exports, creating a \$60.9 billion trade surplus for the United States; and
- Whereas** meetings, events and incentive travel are core business functions that help companies strengthen business performance, educate employees and customers and reward business accomplishments – which in turn boosts the U.S. economy – where in 2015 domestic and international business travelers spent \$296.3 billion; and
- Whereas** leisure travel, which accounts for more than three-quarters of all trips taken in the United States, spurs countless benefits to travelers' health and wellness, creativity, cultural awareness, education, happiness, productivity and relationships; and
- Whereas** travel is a pillar of economic growth, creating jobs at a faster rate than other sectors.
- Now therefore** we, Frank Klipsch, Mayor, and the City Council of Davenport, Iowa, do hereby proclaim May 7th thru May 13th

National Travel and Tourism Week

In the City of Davenport, Iowa, and urge all citizens of Davenport and the Quad Cities to join me in this special observance by participating in local tourism and celebrating collaborative efforts with the Quad City Lodging Association and the Quad Cities Convention and Visitors Bureau with a celebration on Wednesday, May 10th at the 100 West located within the Best Western Plus SteepleGate from 4-6 PM.

Dated this 3rd day of May, 2017.

Frank J. Klipsch
Mayor of Davenport

Jackie E. Holecek, MMC
Deputy City Clerk

City of Davenport

Agenda Group: Community Development
Department: Community Planning & Economic Development
Contact Info: Bruce Berger, 326-7769
Wards: 3

Action / Date
CD4/19/2017

Subject:

Resolution approving a Development Agreement to develop single family houses with homebuyers on East 6th Street (Build by Architects, LLC, Andrew Dasso, petitioner).

Recommendation:

Approve the resolution.

Relationship to Goals:

Welcome investment.

Background:

Over the past several decades, as properties in this block have been demolished and/or become available, the City has acquired them for assemblage and eventual re-use for single-family housing development. Toward that end, the City has issued two separate Requests for Proposals, one roughly 15 years ago and another RFP approximately three years ago, with neither request generating any responses.

The Petitioner (Build by Architects, LLC, Andrew Dasso) plans to acquire the above, contiguous City-owned parcels (roughly 1.5 acres) on the north side of the 700 block of E. 6th Street to replat and construct 6 single-family, detached homes of approximately 2,500 square feet that would be individually built by homeowners.

The developer has submitted financing commitments for the first three houses and intends to begin work on the first two yet this year. The attached agreement would obligate the developer to have the first three completed by October 2018, with purchase agreements and financing secured for the remaining three houses two years from the City's transfer of the property. Individual (undeveloped) lots will revert to the City at our option if deadlines are not met.

The developer and homebuyers plan to privately finance with assistance from the URTE (Urban Revitalization Tax Exemption) program. A related item on this agenda is the conveyance of these properties. Approval of this resolution will authorize the Mayor and staff to execute development documents with the petitioner. Properties are as follows:

Parcel F0052-42, 718 E 6th Street
Parcel F0052-43, 728 E 6th Street
Parcel F0052-44, 730 E 6th Street
Parcel F0052-45, 732 E 6th Street
Parcel F0052-46, 734 E 6th Street
Parcel F0052-47, 736 E 6th Street
Parcel F0052-48, 740 E 6th Street
Parcel F0052-49, No Address

Parcel F0052-50, 748 E 6th Street
Parcel F0052-51, 750 E 6th Street
Parcel F0052-52, 754 E 6th Street
Parcel F0052-53, 712 Sylvan Street

ATTACHMENTS:

Type	Description
▣ Cover Memo	Resolution
▣ Cover Memo	Elevation drawings
▣ Cover Memo	Site Plan
▣ Cover Memo	Development Agreement

REVIEWERS:

Department	Reviewer	Action	Date
Community Planning & Economic Development	Admin, Default	Approved	4/13/2017 - 1:28 PM

City of Davenport

RESOLUTION NO. _____

Resolution offered by Alderman _____.

RESOLUTION approving the development agreement between the City of Davenport and Build by Architects, LLC.

RESOLVED by the City Council of the City of Davenport.

WHEREAS, the City of Davenport is the legal owner of the following described real estate:

Part of the Southeast Quarter of the Southwest Quarter of Section 25, Township 78 North, Range 3 East of the 5th P.M. more particularly described as follows:

Lots 1, 2, 4, 5, 6 and the easterly 33 feet of Lot 7 all in Block 147 of Part of LeClaire's 12th Addition and Lots 1, 2, and 3 of McHarts Subdivision all in the City of Davenport, Scott County, Iowa. Said track contains 63,820 square feet, more or less.

WHEREAS, the City of Davenport wishes to convey the property to the Petitioner, Build by Architects, LLC.

WHEREAS, the Developer has a plan for six single-family, detached houses that would be constructed on the Property and

WHEREAS, the Developer's intention is to design each home individually for the six homebuyers, sell them the plans and the land, and then the homebuyers would individually obtain financing and a contractor to construct their particular home; and

WHEREAS, the Developer has obtained purchase agreements from two homebuyers with bank financing, and has submitted bank financing to construct a third home by October 2018; and

WHEREAS, the Developer has requested that the land be donated due to the challenges in pre-development, development, and financing.

NOW THEREFORE, IT IS HEREBY RESOLVED by the City Council of the City of Davenport, Iowa, authorizes the Mayor to sign the development agreement between the City of Davenport and Build by Architects, LLC.

Attest:

Approved:

Jackie E. Holecek, CMC
Deputy City Clerk

Frank J. Klipsch
Mayor



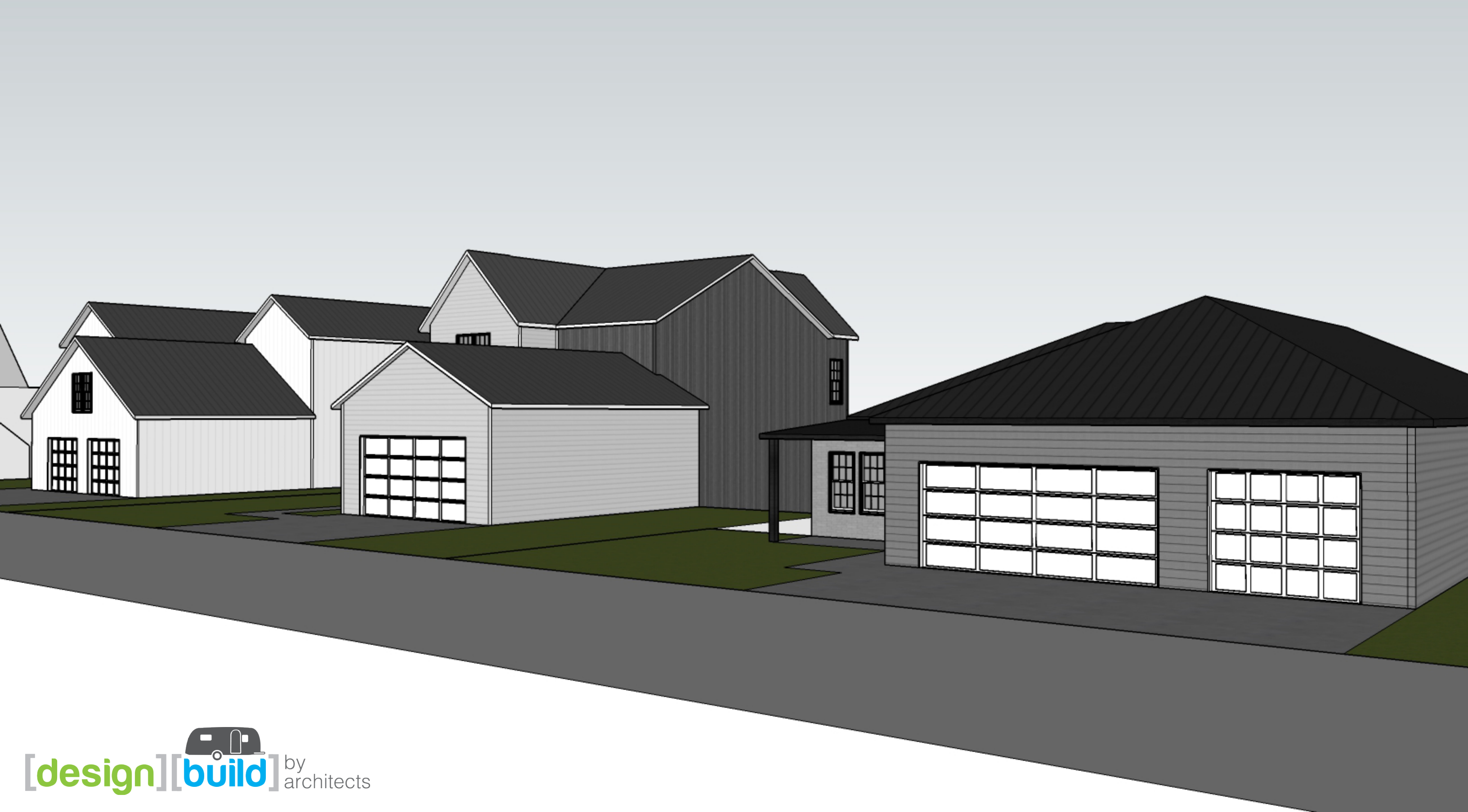










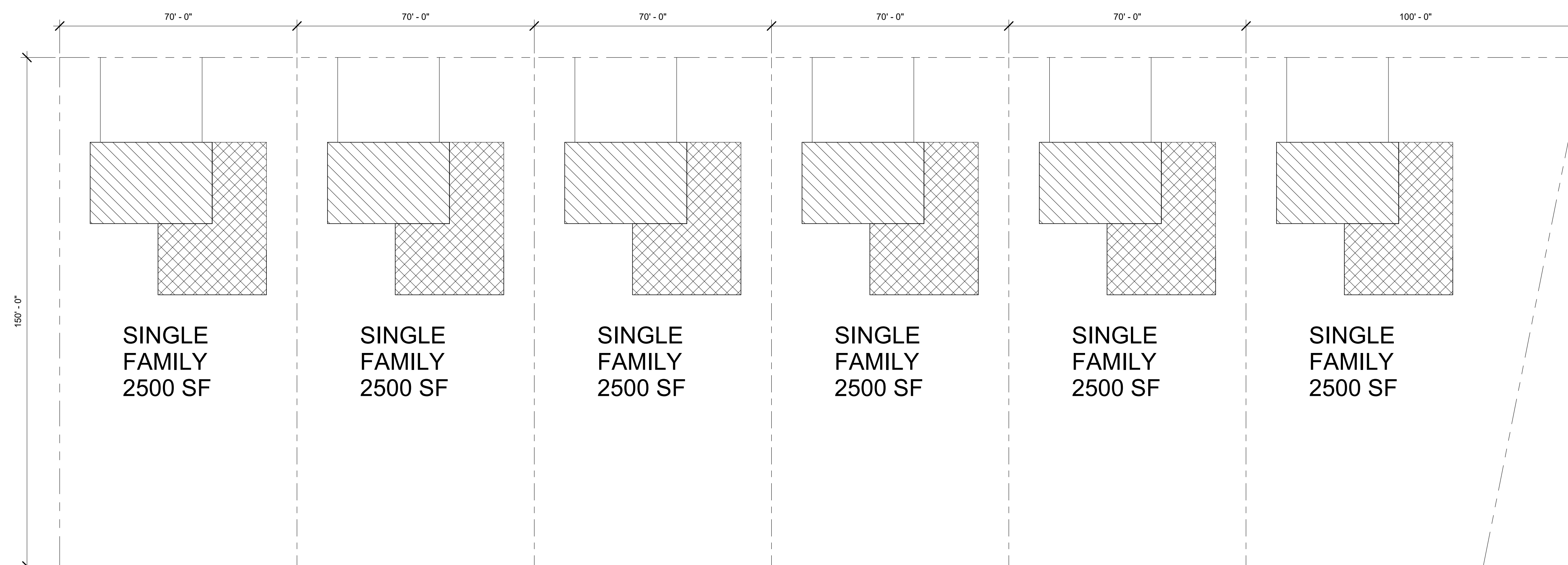




[design] by architects, P.L.C.

Andrew Dasso, AIA
318 E. Third Street
Davenport, IA 52801
309-737-8587
andrew@buildbyarchitects.com

Zach Enderle, AIA
309 S. Main Street, Suite 2
Rockford IL 61101
(815)-904-6666
zach@buildbyarchitects.com



1 SITE PLAN
1" = 20'-0"

[illegible]

SITE PLAN (6) RESIDENCES

Project number	Project Number
Date	02-12-17
Drawn by	AJD
Checked by	AJD

A101

Scale	1" = 20'-0"
-------	-------------

**AGREEMENT BETWEEN
[build] by architects, LLC AND
CITY OF DAVENPORT, IOWA**

For single-family house development in the 700 block of E. 6th Street, Davenport, Iowa.

THIS AGREEMENT is made and entered into this _____ day of _____, 2017, by and between the City of Davenport, Iowa (hereinafter referred to as the "City") and **[build] by architects, LLC** (hereinafter referred to as the "Developer").

WHEREAS, the City owns property in the 700 block of E. 6th Street, herein referred to as "the Property", which includes 12 adjacent parcels, identified in sequential order as: F0052-42 through F0052-53, encompassing roughly 1.5 acres, which is all currently vacant land; and

WHEREAS, the Developer has a plan for six single-family, detached houses that would be constructed on the Property (see attached Site Plan); and

WHEREAS, the Developer's intention is to design each home individually for the six homebuyers, sell them the plans and the land, and then the homebuyers would individually obtain financing and a contractor to construct their particular home; and

WHEREAS, the Developer has obtained purchase agreements from three homebuyers, who have also submitted bank financing to individually construct their homes; and

WHEREAS, the Developer has requested that the land be donated due to the challenges in pre-development, development, and financing.

NOW, THEREFORE, the Developer and the City hereby agree to the following terms and conditions set forth in this Agreement. In consideration of the mutual promises contained in this Agreement and other good and valuable consideration, it is agreed as follows:

1. In accordance with the attached plans and the timetable below, the Developer shall cause to be constructed, either directly or through individual homebuyers, six single-family, detached homes. The homes shall be at least 2,000 sq. ft. in living area (current plans depict 2,500 sq. ft. homes) with each dwelling having an estimated appraised value after construction of at least \$170,000. All aspects of the project shall comply with State and City codes, including appropriate platting and zoning, infill development design review, permits, etc.
2. Developer and/or homebuyers under contract with the Developer shall show evidence of purchase agreements and individual construction financing for at least three of the six houses prior to the City and Developer closing on the Property.
3. Based upon Developer's plan, the site must be replatted from 12 individual parcels to six parcels. This subdivision application must be submitted prior to the issuance of a foundation or building permit. Further, the final plat must be approved prior to the first home obtaining an occupancy permit. If construction is done in phases, houses shall be constructed on contiguous lots either from the west side of the Property toward the east, or vice versa.

4. Developer shall cause construction on the first home to begin no later than September 1, 2017. The first three homes shall be completed and occupied by October 31, 2018.
5. Developer's failure to comply with any of the above (including the deadlines) will cause, at City's option, all properties for which no purchase agreement and financing commitment exists or no house exists thereon to revert to the City by way of Deed Restriction at no cost to the City.
6. Developer shall show evidence of purchase agreements and homebuyer financing for the remaining three houses within two years of this Property transfer.
7. The Developer shall indemnify, defend, and hold the City harmless from any action or liability arising out of the design, construction, maintenance, or inspection or use of the project site.
8. The City shall convey the Property to the Developer in an "as is" condition, by way of Quit Claim Deed within 30 days of satisfaction of above requirements. City shall furnish to Developer satisfactory evidence of title in accordance with land title law of the State of Iowa and the title standards of the Iowa and Scott County Bar Associations. All real estate taxes shall be paid or prorated between City and Developer to the date of closing. It is understood that each homebuyer may apply for URTE benefits.
9. If any section, provision or part of this Agreement is declared to be invalid or unconstitutional by a court of competent jurisdiction or administrative tribunal, such findings shall not affect the validity or enforceability of this Agreement as a whole.
10. This Agreement represents the entire Agreement between the City and the Developer for the project. Any subsequent changes or modifications to the terms of this Agreement must be in the form of a duly executed addendum to this Agreement.

IN WITNESS WHEREOF, each of the parties hereto has secured the approval of its policy Council or Members and executed this Agreement.

Corri Spiegel, City Administrator
City of Davenport

Andrew Dasso, Managing Member
[build] by architects, LLC

City of Davenport

Agenda Group: Community Development
Department: Community Planning & Economic Development
Contact Info: Bruce Berger, 326-7769
Wards: 3

Action / Date
CD4/19/2017

Subject:

Resolution authorizing the Mayor to execute documents necessary to convey the following properties to Build by Architects, LLC (Andrew Dasso): Parcel F0052-42, 718 E 6th Street; Parcel F0052-43, 728 E 6th Street; Parcel F0052-44, 730 E 6th Street; Parcel F0052-45, 732 E 6th Street; Parcel F0052-46, 734 E 6th Street; Parcel F0052-47, 736 E 6th Street; Parcel F0052-48, 740 E 6th Street; Parcel F0052-49, No Address; Parcel F0052-50, 748 E 6th Street; Parcel F0052-51, 750 E 6th Street; Parcel F0052-52, 754 E 6th Street; Parcel F0052-53, 712 Sylvan Street.

Recommendation:

Approve the resolution.

Relationship to Goals:

Welcome investment.

Background:

Over the past several decades, as properties in this block have been demolished and/or become available, the City has acquired them for assemblage and eventual re-use for single-family housing development. Toward that end, the City has issued two separate Requests for Proposals, one roughly 15 years ago and another RFP approximately three years ago, with neither request generating any responses.

The Petitioner (Build by Architects, LLC, Andrew Dasso) plans to acquire the above, contiguous City-owned parcels (roughly 1.5 acres) on the north side of the 700 block of E. 6th Street to replat and construct 6 single-family, detached homes of approximately 2,500 square feet that would be individually built by homeowners. The developer has requested that the land be conveyed for \$1 due to the challenges in pre-development, development, and financing.

The developer has submitted financing commitments for the first three houses and intends to begin work on the first two yet this year. On a related Council action on this agenda, a development agreement would obligate the developer to have the first three completed by October 2018, with purchase agreements and financing secured for the remaining three houses two years from the City's transfer of the property. Individual (undeveloped) lots will revert to the City at our option if deadlines are not met.

The developer and homebuyers plan to privately finance with assistance from the URTE (Urban Revitalization Tax Exemption) program.

Approval of this resolution will authorize the Mayor and staff to execute closing documents and

convey the properties to the petitioner.

Properties are as follows:

Parcel F0052-42, 718 E 6th Street

Parcel F0052-43, 728 E 6th Street

Parcel F0052-44, 730 E 6th Street

Parcel F0052-45, 732 E 6th Street

Parcel F0052-46, 734 E 6th Street

Parcel F0052-47, 736 E 6th Street

Parcel F0052-48, 740 E 6th Street

Parcel F0052-49, No Address

Parcel F0052-50, 748 E 6th Street

Parcel F0052-51, 750 E 6th Street

Parcel F0052-52, 754 E 6th Street

Parcel F0052-53, 712 Sylvan Street

ATTACHMENTS:

Type	Description
▣ Resolution Letter	Resolution to Convey 6th Street Lots

REVIEWERS:

Department	Reviewer	Action	Date
Community Planning & Economic Development	Admin, Default	Approved	4/13/2017 - 1:28 PM

City of Davenport

RESOLUTION NO. _____

Resolution offered by Alderman _____.

RESOLVED by the City Council of the City of Davenport.

WHEREAS, the City of Davenport is the legal owner of the following described real estate:

Part of the Southeast Quarter of the Southwest Quarter of Section 25, Township 78 North, Range 3 East of the 5th P.M. more particularly described as follows:

Lots 1, 2, 4, 5, 6 and the easterly 33 feet of Lot 7 all in Block 147 of Part of LeClaire's 12th Addition and Lots 1, 2, and 3 of McHarts Subdivision all in the City of Davenport, Scott County, Iowa. Said track contains 63,820 square feet, more or less.

WHEREAS, the City of Davenport wishes to convey the property to the Petitioner, Build by Architects, LLC.

WHEREAS, the transfer of these properties is mutually beneficial to the City and the Petitioner; and

WHEREAS, transfer of these properties will provide market value, owner-occupied new infill housing in Davenport; and

WHEREAS, transfer of these properties will generate additional tax revenue and alleviate City maintenance costs on vacant lots; and

WHEREAS, a public hearing on the matter is required by law was held on April 19, 2017.

NOW THEREFORE, IT IS HEREBY RESOLVED by the City Council of the City of Davenport, Iowa, does convey the property as identified above to the Petitioner, Build by Architects, LLC.

Attest:

Approved:

Jackie E. Holecek, CMC
Deputy City Clerk

Frank J. Klipsch
Mayor

City of Davenport

Agenda Group: Community Development
Department: Community Planning & Economic Development
Contact Info: Matt Flynn 326-7743
Wards: 1st

Action / Date
5/3/2017

Subject:

Resolution approving Case No. F17-04 being the final plat of Cross First Addition located north of Deer Woods Drive which is north of Rickerhill Road, containing one (1) residential lot. [1st Ward]

Recommendation:

The City Plan and Zoning Commission concurred with the finding(s) and recommendation of City staff and forwards Case No. F17-04 to the City Council for approval subject to the following conditions as stated in the Commission's letter dated March 15, 2017.

Findings:

The plat conforms to the Comprehensive Plan
The plat prepares an additional lot for development
As conditioned the plat conforms to ordinance requirements

The City Plan and Zoning Commission accepts the findings and forwards Case No. F17-04 to the City Council for approval subject to the following conditions:

1. The surveyor signs the plat.
2. The utility companies sign the plat when their easement needs have been met.
3. That the right-of-way be extended to serve this lot.
4. No additional platting shall be allowed without extending the public street system, including pavement, to serve the new development.

The Commission vote for approval was 8-yes, 0-no and 0-abstentions.

Relationship to Goals:

Welcome investment.

Background:

The proposal would allow a single family residence. The PDD zoning was approved in late 2009. Deer Woods Second Addition, the adjacent plat, was approved in late 2010. This lot is not located along the public right-of-way nor is it located along an approved private lane or street. The public right-of-way will need to be extended to serve this lot.

Please refer to the Commission's letter and background materials for further information.

ATTACHMENTS:

Type	Description
▣ Resolution Letter	F17-04 Resolution Only
▣ Backup Material	F17-04 Background

REVIEWERS:

Department	Reviewer	Action	Date
Community Planning & Economic Development	Berger, Bruce	Approved	4/26/2017 - 6:19 PM
Community Development Committee	Berger, Bruce	Approved	4/26/2017 - 6:19 PM
City Clerk	Admin, Default	Approved	4/27/2017 - 10:44 AM

Resolution No. _____

Resolution offered by

RESOLVED by the City Council of the City of Davenport.

RESOLUTION approving Case No. F17-04 being the final plat of Cross First Addition located north of Deer Woods Drive which is north of Rickerhill Road, containing one (1) residential lot. [1st Ward]

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Davenport that the final plat of Cross First Addition to the City of Davenport, Iowa, be the same and is hereby approved and accepted subject to all the conditions as stated in the Commission's letter dated March 15, 2017 and as follows:

1. The surveyor signs the plat.
2. The utility companies sign the plat when their easement needs have been met.
3. That the right-of-way be extended to serve this lot.
4. No additional platting shall be allowed without extending the public street system, including pavement, to serve the new development.

and the Mayor and City Clerk be, and they are hereby authorized and instructed to certify to the adoption of this resolution upon said plat as required by law.

BE IT FURTHER RESOLVED that the City Clerk is hereby directed to record the attached waiver of assessment.

Approved:

Attest:

Frank Klipsch, Mayor

Jackie E. Holecek, Deputy City Clerk

March 15, 2017

Honorable Mayor and City Council
City Hall
Davenport IA 52801

Honorable Mayor and City Council:

At its regular meeting of March 14, 2017 the City Plan and Zoning Commission considered Case No. F17-04 being the final plat of Cross First Addition located north of Deer Woods Drive which is north of Rickerhill Road, containing one (1) residential lot.

The proposal would allow a single family residence. The PDD zoning was approved in late 2009. Deer Woods Second Addition, the adjacent plat, was approved in late 2010. This lot is not located along the public right-of-way nor is it located along an approved private lane or street. The public right-of-way will need to be extended to serve this lot.

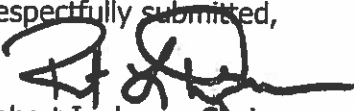
Findings:

- The plat conforms to the Comprehensive Plan
- The plat prepares an additional lot for development
- As conditioned the plat conforms to ordinance requirements

The City Plan and Zoning Commission accepts the findings and forwards Case No. F17-04 to the City Council for approval subject to the following conditions

1. The surveyor signs the plat.
2. The utility companies sign the plat when their easement needs have been met.
3. That the right-of-way be extended to serve this lot.
4. No additional platting shall be allowed without extending the public street system, including pavement, to serve the new development.

Respectfully submitted,



Robert Inghram, Chairperson
City Plan and Zoning Commission



		APPROVED	APPROVED	APPROVED					
Name:	Roll Call	F17-02 Winmill Hill 3rd	F17-03 Daisy Fields	F17-04 Cross 1st					
Connell	P	Y	Y	Y					
Hepner	P	Y	N	Y					
Inghram	P								
Kelling	P	Y	Y	Y					
Lammers	EX								
Maness	P	Y	Y	Y					
Martinez	EX								
Medd	P	Y	Y	Y					
Quinn	P	Y	Y	Y					
Reinartz	P	Y	Y	Y					
Tallman	P	Y	Y	Y					
		8-YES 0-NO 0-ABSTAIN	8-YES 0-NO 0-ABSTAIN	8-YES 0-NO 0-ABSTAIN					



City of Davenport
Community Planning & Economic Development Department
FINAL STAFF REPORT

Meeting Date: March 14, 2017
Request: Final Plat Cross First
Case No.: F17-04
Applicant: Cross Roads Land Development Inc

Recommendation:

Staff recommends the Plan and Zoning Commission accept the findings and forward Case No. F17-04 to the City Council for approval subject to the listed conditions.

Introduction:

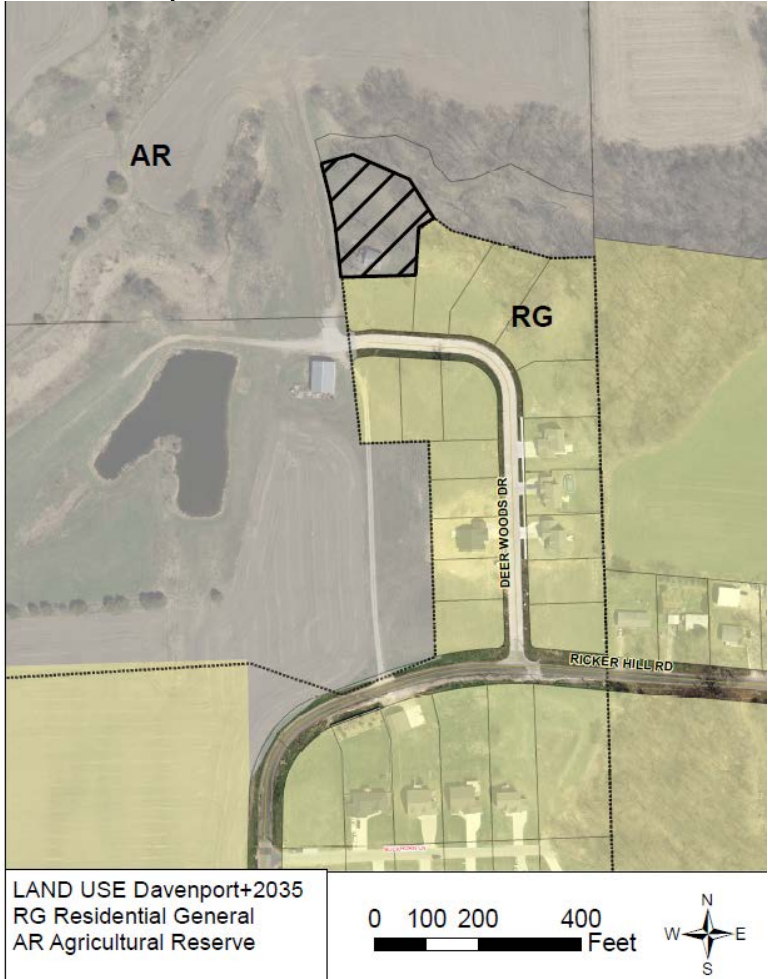
Petition of Cross Roads Land Development Inc for approval of a one lot subdivision to allow a single family residence. The plat contains 0.817 acre, more or less.

AREA CHARACTERISTICS:

Zoning Map



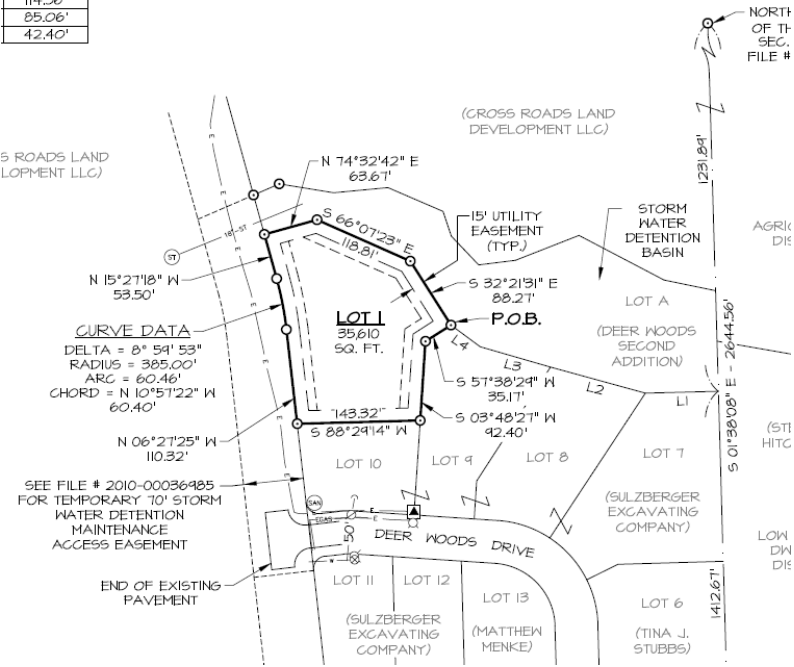
Land Use Map



R3E

**CROSS FIRST ADDITION
FINAL PLAT**

DISTANCE
85.11'
114.56'
85.06'
42.40'



Background:**Comprehensive Plan:**

Within Existing Urban Service Area: Yes

Within Urban Service Boundary 2035: No, but adjacent.

Proposed Land Use Designation:

Agricultural Reserve (AR) – Areas located outside the Urban Service Boundary and unlikely to develop in the foreseeable future. Uses should be limited to agriculture and open space, with only limited residential development needing minimal urban services.

Relevant Goals to be considered in this Case:

Identify and reserve land for future development

Zoning:

PDD Planned Development District. Was part of the Sulzberger rezoning allowing commercial and residential development within a larger area. This area of the PDD rezoning was proposed for residential development.

Technical Review:

Streets. The subject property is located north of Deer Woods Drive which is off of Ricker Hill Road. This one lot can be created and developed with just the dedication of additional right-of-way to serve the lot. No additional platting will be allowed until the public street system, including paving, is extended to serve the new development.

Storm Water. There is limited stormwater infrastructure within Deer Woods Drive. Drainage is by surface run-off to the stormwater detention area adjacent to the north and east.

Sanitary Sewer. Sanitary sewer service is located along the west side of the proposed lot.

Other Utilities. This is an urban area and most utility services are available. According to Iowa American Water Company no water is available for this lot the way it is shown. The public right-of-way will need to be extended for water service to be provided for this lot.

Emergency Services. The property is located approximately 2.5 miles from Fire Station No. 5, which is located at 2808 Telegraph Road.

Parks/Open Space. The proposed rezoning does not impact any existing or planned parks or public open spaces.

Public Input:

No public hearing is required for a Final Plat.

Discussion:

The proposal would allow a single family residence. The PDD zoning was approved in late 2009. Deer Woods Second Addition, the adjacent plat, was approved in late 2010. This lot is not located along the public right-of-way nor is it located along an approved private lane or street. The public right-of-way will need to be extended to serve this lot.

Staff Recommendation:

Findings:

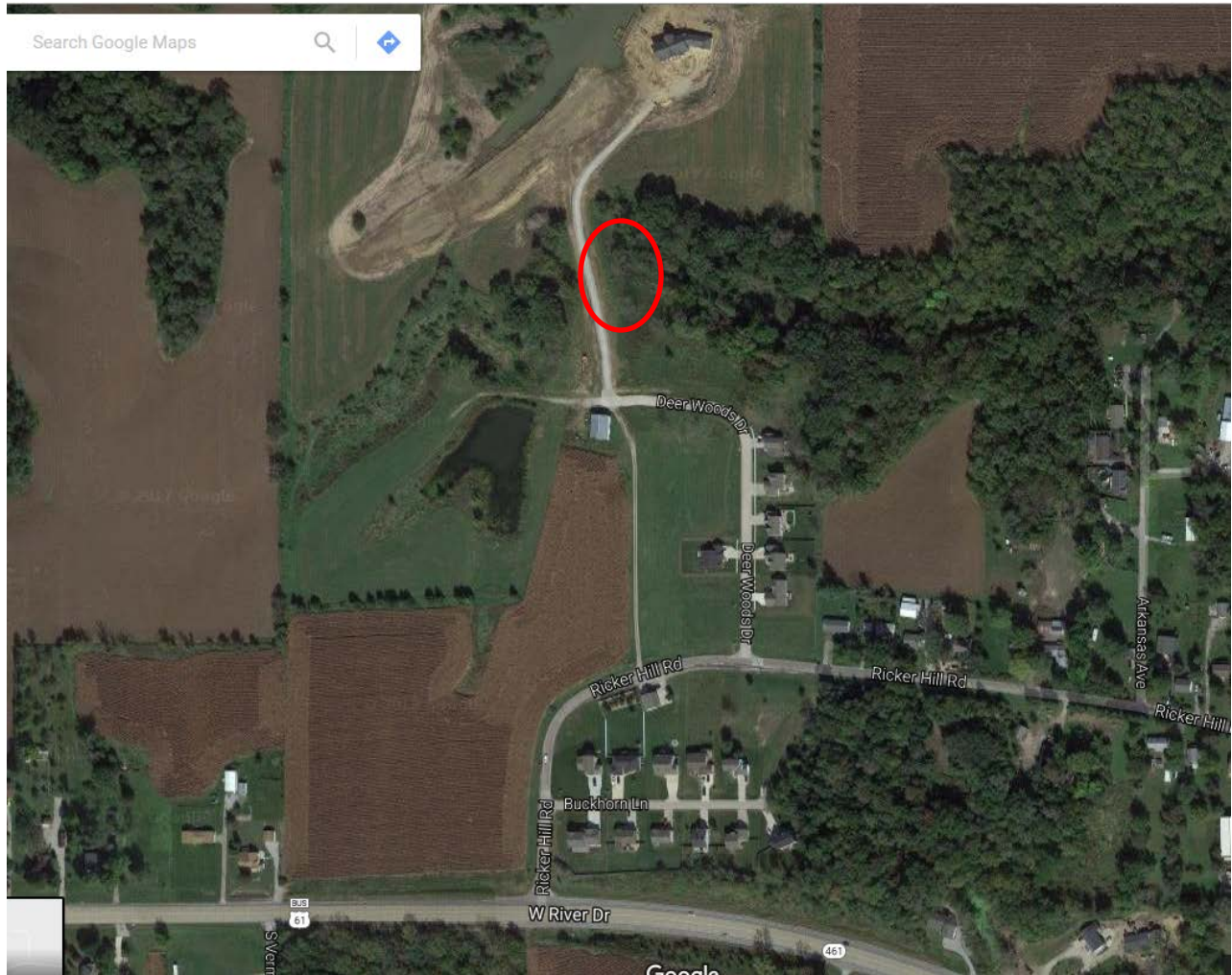
- The plat conforms to the Comprehensive Plan
- The plat prepares an additional lot for development
- As conditioned the plat conforms to ordinance requirements

Staff recommends the Plan and Zoning Commission accept the findings and forward Case No. F17-04 to the City Council for approval subject to the following conditions

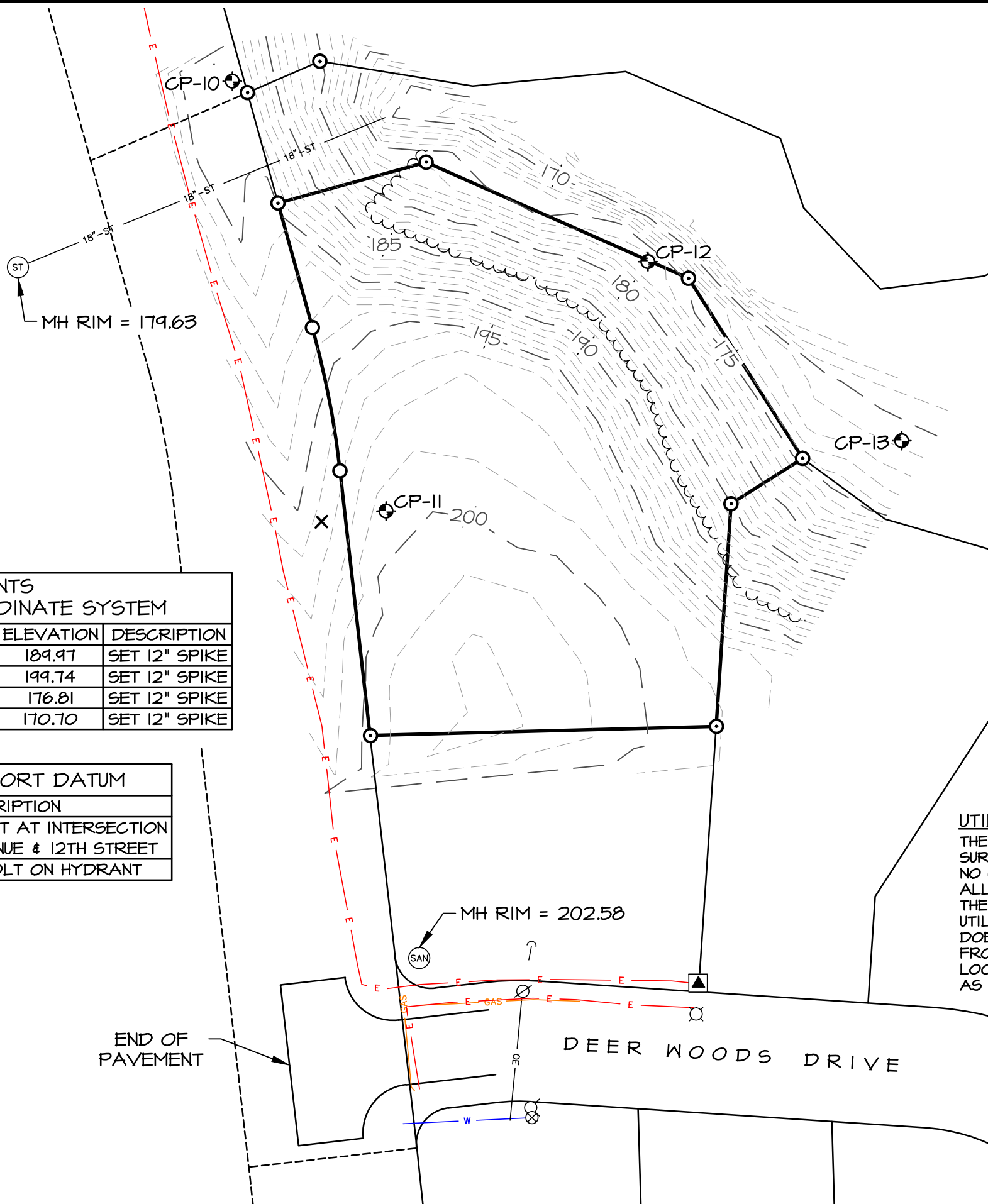
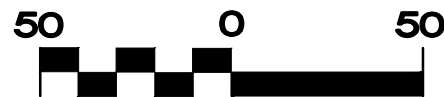
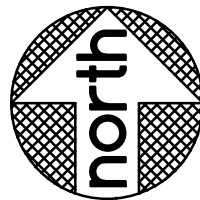
1. The surveyor signs the plat.
2. The utility companies sign the plat when their easement needs have been met.
3. That the right-of-way be extended to serve this lot.
4. No additional platting shall be allowed without extending the public street system, including pavement, to serve the new development.

Prepared by:

Wayne Wille, CFM - Planner II
Community Planning Division



PREPARED BY: GARY W. WHITACRE, MARTIN & WHITACRE SURVEYORS & ENGINEERS, INC., P.O. BOX 413, MUSCATINE, IOWA 52576 / PHONE: 563-263-7691



CONTROL POINTS IOWA STATE PLANE COORDINATE SYSTEM				
CP #	NORTHING	EASTING	ELEVATION	DESCRIPTION
10	564234.4670	2419057.7343	189.97	SET 12" SPIKE
11	564056.4712	2419121.3739	199.74	SET 12" SPIKE
12	564159.6838	2419229.7534	176.81	SET 12" SPIKE
13	564085.5901	2419334.8608	170.70	SET 12" SPIKE

BENCHMARK - DAVENPORT DATUM		
BM	ELEVATION	DESCRIPTION
3	183.17	"BIM" ON HYDRANT AT INTERSECTION OF WILKES AVENUE & 12TH STREET
4	203.70	SOUTHWEST BOLT ON HYDRANT

NOTE:
SEE FINAL PLAT FOR
EASEMENTS, SETBACKS
AND LOT DIMENSIONS.

LEGEND

- 200— INDEX CONTOUR
- 196----- INTERMEDIATE CONTOUR
- PROPERTY LINE
- 18"–ST—— STORM SEWER MAIN
- ~~~~~ TREE LINE
- W— WATER MAIN
- OE— OVERHEAD ELECTRIC
- E— UNDERGROUND ELECTRIC
- GAS— UNDERGROUND GAS LINE
- SET 1/2" X 36" REBAR W/YELLOW CAP #10316
- FOUND 1/2" REBAR
- ⊙ FOUND 1/2" REBAR W/CAP
- ⊗ LIGHT POLE
- GUY WIRE
- ⊗ POWER POLE
- ▲ ELECTRICAL TRANSPAD
- ⊗ FIRE HYDRANT
- ⊗ WATER VALVE
- ⊙(SAN) SANITARY SEWER MANHOLE
- ⊙(ST) STORM SEWER MANHOLE
- X LATH MARKING SEWER SERVICE ?

UTILITY NOTE:
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES, BUT HAS SHOWN THEIR EXISTENCE AS LOCATED BY THE RESPECTIVE UTILITY COMPANIES.

**Martin & Whitacre
Surveyors & Engineers, Inc.**

P.O. BOX 413 (563)263-7691 MUSCATINE, IOWA

MARK CROSS TOPOGRAPHIC SURVEY IN
DEER WOODS THIRD ADDITION IN SEC. 31, T18N, R3E, DAVENPORT, IA

FILE	BOOK	SCALE	DRN	CHK'D	DATE	JOB NO.
SCOTT CO.	DEER WOODS #2	1"=50'	JRM	GNW	02/17/17	8023.16
REV.	0	8023 TOPO.DWG			SHEET	OF

**CITY OF DAVENPORT
COMMUNITY PLANNING & ECONOMIC DEVELOPMENT (CPED)
SUBDIVISION REFERENCE FILE**

PRELIM / **FINAL** / **PUD** (circle the appropriate designation)

SUBDIVISION NAME: Cross First Addition

LOCATION: Deer Woods Drive, Davenport, IA

DEVELOPER: Name: Cross Roads Land Development LLC
Address: 3103 21st Street, P.O. Box 80, Camanche, IA 52730
Phone: 563-357-8760 FAX: _____
Mobile Phone: _____ Email: transtar@mchsi.com

ENGINEER: Name: Martin & Whitacre Surveyors & Engineers, Inc.
Address: 1508 Bidwell Road, Muscatine, IA 52761
Phone: 563-263-7691 FAX: _____
Mobile Phone: 563-299-4144 Email: gwhitacre@martin-whitacre.com

ATTORNEY: Name: Bush, Motto, Creen, Koury, P.L.C. - Michael Koury
Address: 5505 Victoria Avenue, Suite 100, Davenport, IA 52807-2944
Phone: 563-344-4900 FAX: 563-344-8961
Mobile Phone: _____ Email: makoury@bmcklaw.com

OWNER: Name: Cross Roads Land Development LLC
Address: 3103 21st Street, P.O. Box 80, Camanche, IA 52730
Phone: 563-357-8760 FAX: _____
Mobile Phone: _____ Email: transtar@mchsi.com

NUMBER OF LOTS: 1 ACRES: 0.82
SF 2F MF & EST. UNITS COMM IND

STREETS ADDED: 0 LINEAR FEET

Does the plat contain a drainage way or floodplain area: Yes X No

Fee per Plat	Fee
Ten or fewer lots (< 10 lots)	\$400 plus \$25/lot
Eleven to twenty-five lots (≥ 11 lots ≤ 25 lots)	\$700 plus \$25/lot
More than twenty-five lots (> 25 lots)	\$1,000 plus \$25/lot
Reforestation fee (submit to Land Use Office Prior to City Council review)	\$150 per 50 feet of lineal lot frontage

**NOTE: THE PLAT WILL NOT BE PROCESSED UNTIL THE FEE AND COMPLETED REFERENCE FILE
ARE RECEIVED BY THE PLANNING AND LAND DEVELOPMENT OFFICE.**

MEMORANDUM

Date: March 1, 2017

To: Wayne Wille, CFM
Planner II
Community Planning and Economic Development

From: Tom Leabhart, P.E.
Development Engineer

Re: Proposed Final Plat of Cross First Addition

The submitted plat should be amended as follows prior to acceptance:

1. The surveyor signs the plat.
2. The utility companies sign the plat when their easement needs have been met.

cc: File

City of Davenport

Agenda Group:

Department: Community Planning & Economic Development

Contact Info: Matt Flynn 326-7743

Wards: 1st

Action / Date

5/3/2017

Subject:

Resolution approving Case No. P17-01 being the petition of Grunwald Land for approval of a preliminary plat to develop 70 lots of single family residential south of the Eagle's Crest development. The plat contains 22.15 acres, more or less. The property is zoned "R-3" Industrial District. [1st Ward]

Recommendation:

The City Plan and Zoning Commission forwards Case No. P17-01 to the City Council with a recommendation for approval subject to the following conditions as stated in the Commission's letter of April 19, 2017.

Findings

The plat conforms to the comprehensive plan.

The approval of the preliminary plat does not constitute acceptance of the subdivision by the city, but is deemed to be an authorization to proceed with the preparation of the final plat.

Recommendation

Staff recommends the Plan and Zoning Commission forward Case No. P17-01 to the City Council with a recommendation for approval subject to the following conditions:

- 1) Existing zoning is to be shown on the plat;
- 2) Easements containing sewer are to include "sewer" in their name.

The Commission vote for approval was 6-yes, 0-no and 1-abstention.

Relationship to Goals:

Welcome investment.

Background:

The petitioner is proposing this replat to facilitate residential single-family development.

Please refer to the Commission's letter and background materials for further information.

ATTACHMENTS:

Type	Description
□ Resolution Letter	Resolution P17-01
□ Backup Material	Application
□ Backup Material	Corrected Preliminary Plat
□ Backup Material	P&Z Staff Report
□ Backup Material	Vote Result
□ Backup Material	P&Z Letter to Council

REVIEWERS:

Department	Reviewer	Action	Date
Community Planning & Economic Development	Berger, Bruce	Approved	4/26/2017 - 6:21 PM
Community Development Committee	Berger, Bruce	Approved	4/26/2017 - 6:23 PM
City Clerk	Admin, Default	Approved	4/27/2017 - 10:44 AM

Resolution No. _____

Resolution offered by

RESOLVED by the City Council of the City of Davenport.

RESOLUTION approving Case No. P17-01 being the petition of Grunwald Land for approval of a preliminary plat to develop 70 lots of single family residential south of the Eagle's Crest development. The plat contains 22.15 acres, more or less. The property is zoned "R-3" Industrial District. [1st Ward]

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Davenport that the preliminary plat of Falcon Pointe to the City of Davenport, Iowa, be the same and is hereby approved and accepted subject to all the conditions as stated in the Commission's letter dated April 19, 2017 and as follows:

- 1) Existing zoning is to be shown on the plat;
- 2) Easements containing sewer are to include "sewer" in their name.

The approval of the preliminary plat does not constitute acceptance of the subdivision by the city, but is deemed to be an authorization to proceed with the preparation of the final plat.

BE IT FURTHER RESOLVED that the City Clerk is hereby directed to record the attached waiver of assessment.

Approved:

Attest:

Frank Klipsch, Mayor

Jackie E. Holecek, City Clerk

**CITY OF DAVENPORT
COMMUNITY PLANNING & ECONOMIC DEVELOPMENT (CPED)
SUBDIVISION REFERENCE FILE**

PRELIM / FINAL / PUD (circle the appropriate designation)

SUBDIVISION NAME: Falcon Pointe

LOCATION: South of West 13th Street near Eagle's Crest Drive

DEVELOPER: Name: Grunwald Land
Address: 409 Schultz Drive, Long Grove, IA 52756
Phone: 563.285.7415 FAX: _____
Mobile Phone: _____ Email: _____

ENGINEER: Name: Shive-Hattery, Inc.
Address: 1701 River Drive, Suite 200, Moline, IL 61256
Phone: 309.764.7650 FAX: 309.764.8616
Mobile Phone: _____ Email: gschaapveld@shive-hattery.com

ATTORNEY: Name: Lane & Waterman
Address: 220 North Main Street Suite 600, Davenport, IA 52801
Phone: 563.333.6614 FAX: _____
Mobile Phone: _____ Email: lgiebelstein@l-w.com

OWNER: Name: KDC Properties, LLC
Address: 13518 230th Street, Davenport, IA 52804
Phone: _____ FAX: _____
Mobile Phone: 563.529.1183 Email: darin6174@gmail.com

NUMBER OF LOTS: 70 ACRES: 22.15
SF 2F MF & EST. UNITS COMM IND

STREETS ADDED: 3.980 LINEAR FEET

Does the plat contain a drainage way or floodplain area: X Yes ___ No

Fee per Plat	Fee
Ten or fewer lots (< 10 lots)	\$400 plus \$25/lot
Eleven to twenty-five lots (≥ 11 lots ≤ 25 lots)	\$700 plus \$25/lot
More than twenty-five lots (> 25 lots)	\$1,000 plus \$25/lot
Reforestation fee (submit to Land Use Office Prior to City Council review)	\$150 per 50 feet of lineal lot frontage

NOTE: THE PLAT WILL NOT BE PROCESSED UNTIL THE FEE AND COMPLETED REFERENCE FILE ARE RECEIVED BY THE PLANNING AND LAND DEVELOPMENT OFFICE.

PRELIMINARY PLAT
FOR
FALCON POINTE
SUBDIVISION
CITY OF DAVENPORT, IOWA

OWNER/DEVELOPER

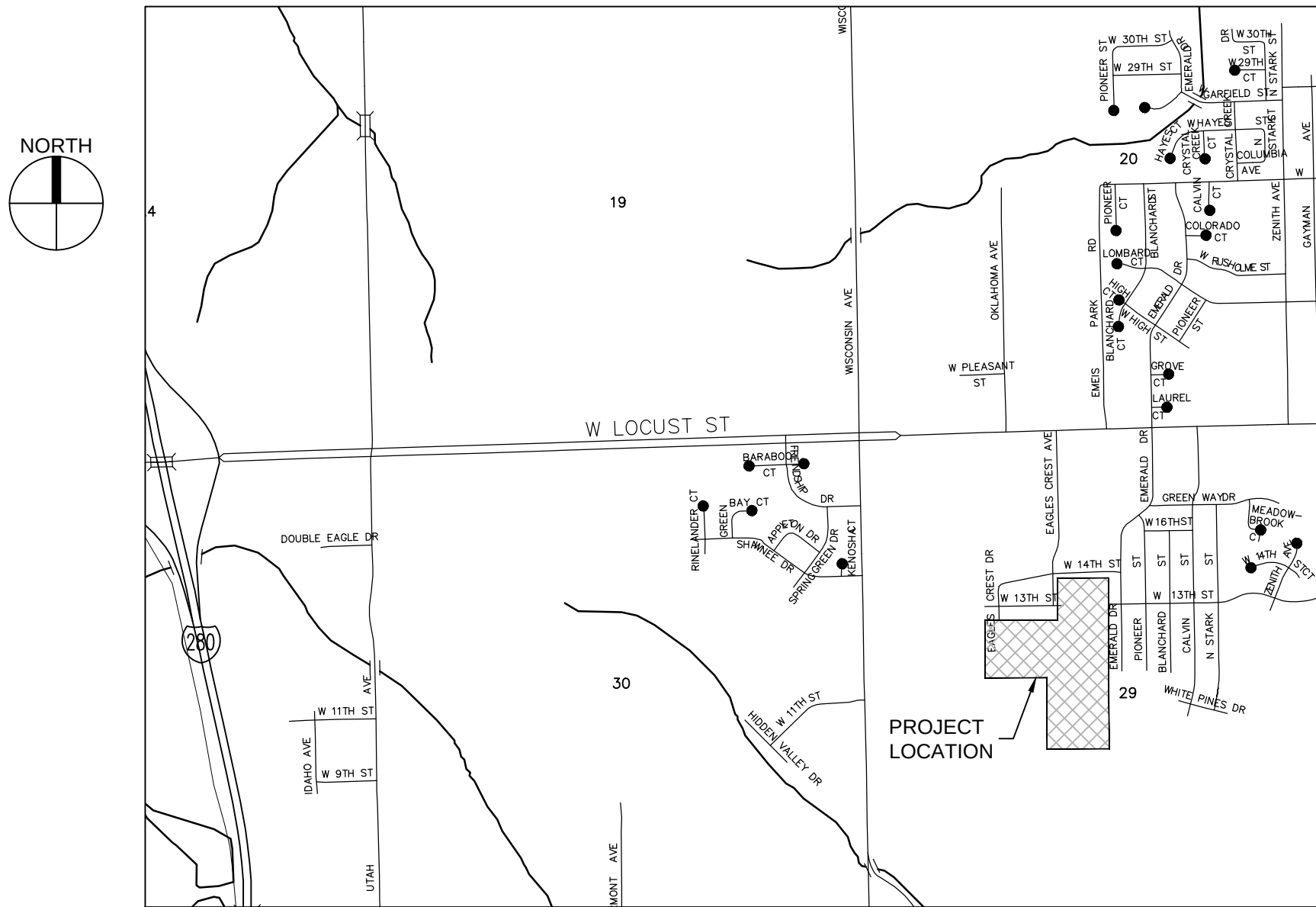
DARIN ENGELBRECHT
22624 130 AVENUE
DAVENPORT, IA 52806

ZONING

1. THIS PARCEL IS ZONED R-3.
2. SETBACKS: FRONT = 25' REAR = 30' SIDE = 7'

LAND SURVEYOR

GARY D. GROSS, PLS
SHIVE-HATTERY, INC
1701 RIVER DRIVE, SUITE 200
MOLINE, IL 61265



LOCATION MAP
N.T.S.

LEGEND	
UTILITY LINES	
LINE TYPE	DESCRIPTION
	ELECTRIC - OVERHEAD
	WATER MAIN
	SANITARY SEWER
	STORM SEWER

LEGEND	
UTILITIES	
PLAN MARK	DESCRIPTION
	UTILITY POLE
	GUY ANCHOR
	UTILITY POLE W/TRANSFORMER
	FIRE HYDRANT
	FLARED END SECTION
	VALVE
	DRAINAGE MANHOLE
	SANITARY MANHOLE
	TELEPHONE PEDESTAL
	CURB INLET
	INTAKE - CIRCLE
	INTAKE - RECTANGLE

LEGEND	
SURVEY	
PLAN MARK	DESCRIPTION
	BENCH MARK
	CONTROL POINT
	IRON ROD - FOUND
	SECTION CORNER FOUND
	X CUT FOUND
	X CUT SET

LEGEND	
GENERAL SITE	
PLAN MARK	DESCRIPTION
	DECIDUOUS TREE
	WIRE FENCE
	CHAINLINK FENCE
	TREE LINE
	MINOR CONTOUR
	MAJOR CONTOUR
	CONCRETE

CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	571355.74	2422206.68	738.21	CP1 CX
2	571408.29	2422924.57	738.74	CP2 CX
3	570606.03	2422263.60	737.39	CP3 IR
4	571255.34	2422249.73	737.62	CP4 MAGNAIL
5	571397.02	2423419.70	737.13	CP5 MAGNAIL
6	571339.18	2423396.96	737.42	CP6 IR
7	571730.36	2423388.95	736.82	CP7 CX
8	570943.88	2423385.26	719.18	CP8 IR

CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD BRG	CHORD
C1	39.27'	25.00'	S 45°51'33" E	35.36
C2	39.27'	25.00'	N 44°08'27" E	35.36
C3	39.27'	25.00'	S 44°08'27" W	35.36
C4	39.27'	25.00'	S 45°51'33" E	35.36
C5	39.27'	25.00'	S 45°51'33" E	35.36
C6	39.27'	25.00'	S 44°08'27" W	35.36
C7	39.32'	25.01'	S 45°03'11" E	35.39
C8	71.03'	472.50'	S 03°26'44" W	70.96
C9	61.65'	472.50'	S 11°29'23" W	61.60
C10	60.34'	472.50'	N 18°53'09" E	60.30
C11	12.30'	472.50'	N 23°17'24" E	12.30
C12	28.41'	25.00'	N 56°35'18" E	26.90
C13	48.58'	25.00'	S 35°11'36" E	41.29
C14	79.90'	527.50'	S 16°08'02" W	79.82
C15	62.52'	527.50'	S 08°23'59" W	62.48
C16	61.73'	527.50'	S 01°39'07" W	61.70
C17	38.41'	25.38'	S 45°00'34" W	34.85
C18	38.89'	25.00'	S 46°17'52" E	35.08
C19	39.19'	25.00'	N 43°57'15" E	35.30
C20	99.62'	527.50'	N 04°27'28" E	99.47

CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD BRG	CHORD
C21	83.00'	527.50'	N 14°22'32" E	82.91
C22	47.44'	527.50'	N 21°27'34" E	47.42
C23	32.50'	472.50'	N 22°03'55" E	32.49
C24	103.38'	473.47'	N 13°49'57" E	103.17
C25	76.36'	473.84'	N 02°55'20" E	76.28
C26	39.35'	25.01'	N 45°46'43" W	35.41
C27	13.98'	15.50'	S 63°17'29" W	13.52
C28	55.25'	49.96'	S 69°06'39" W	52.47
C29	40.01'	49.93'	S 56°20'16" E	38.95
C30	40.00'	50.00'	N 10°28'48" W	38.94
C31	40.00'	50.00'	S 35°21'24" W	38.94
C32	69.08'	50.00'	N 82°08'52" W	63.71
C33	20.69'	25.00'	N 66°17'07" W	20.11
C34	39.65'	25.00'	S 43°42'08" W	35.62

PRELIMINARY PLAT

FALCON POINTE
SUBDIVISION

DARIN ENGELBRECHT
DAVENPORT, IOWA

DRAWN: JAW
APPROVED: PRL
ISSUED FOR: APPROVAL
DATE: 04/21/2017
PROJECT NO: 316550-0
FIELD BOOK: --
CLIENT NO: --

SEAL

1

2

3

4

PP.01

SHIVE-HATTERY
ARCHITECTURE + ENGINEERING
1701 River Drive, Suite 200 | Moline, Illinois 61265
309.764.7650 | fax: 309.764.8616 | www.shive-hattery.com
Iowa | Illinois | Indiana
Illinois Firm Number: 184-000214



City of Davenport

Community Planning & Economic Development
Department

PREVIEW STAFF REPORT

Meeting Date: April 04, 2017
Request: Preliminary Plat Falcon Pointe Subdivision
Case No.: P17-01
Applicant: Grunwald Land

Recommendation:

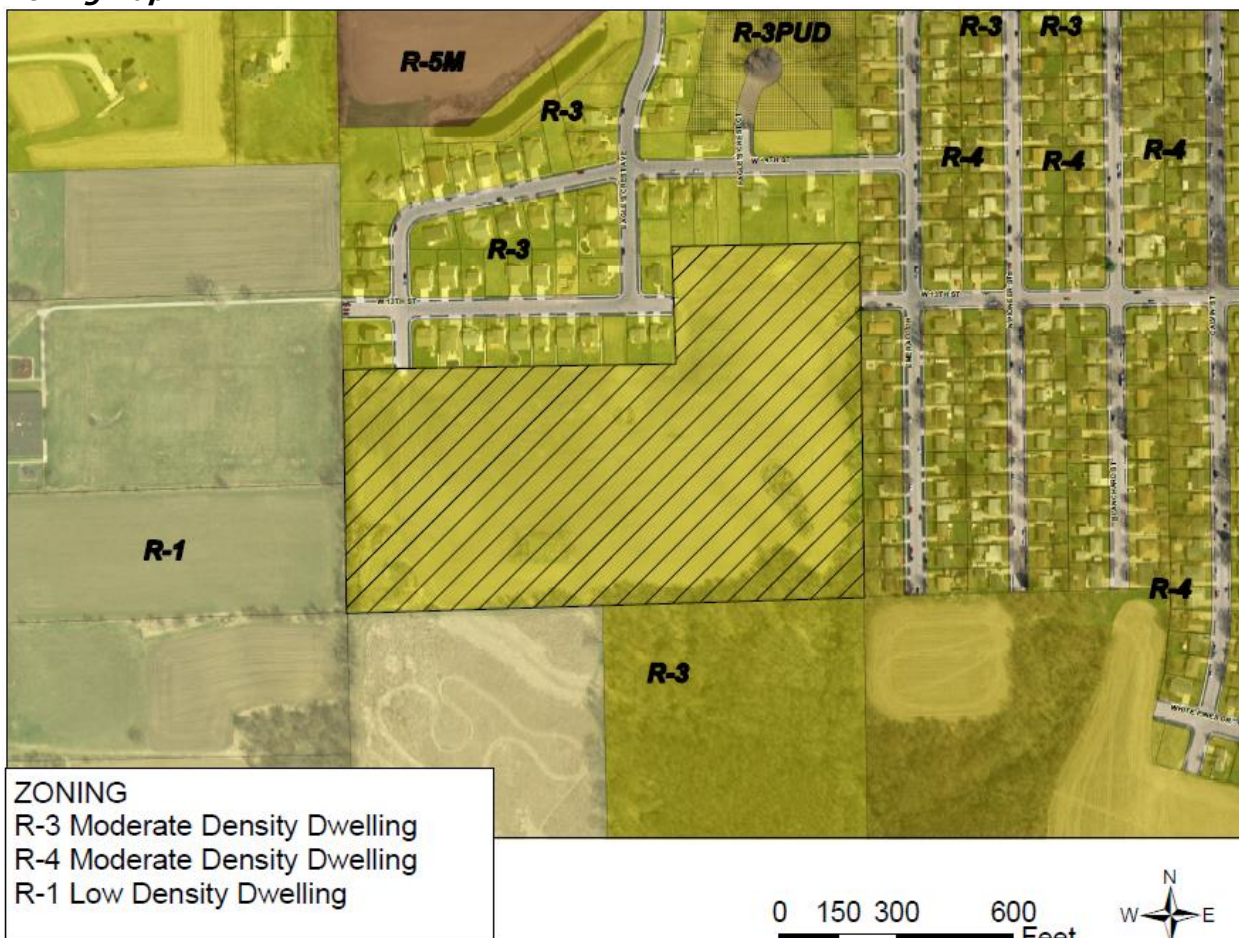
Staff recommends the Plan and Zoning Commission forward Case No. P17-01 to the City Council for approval subject to the listed conditions.

Introduction:

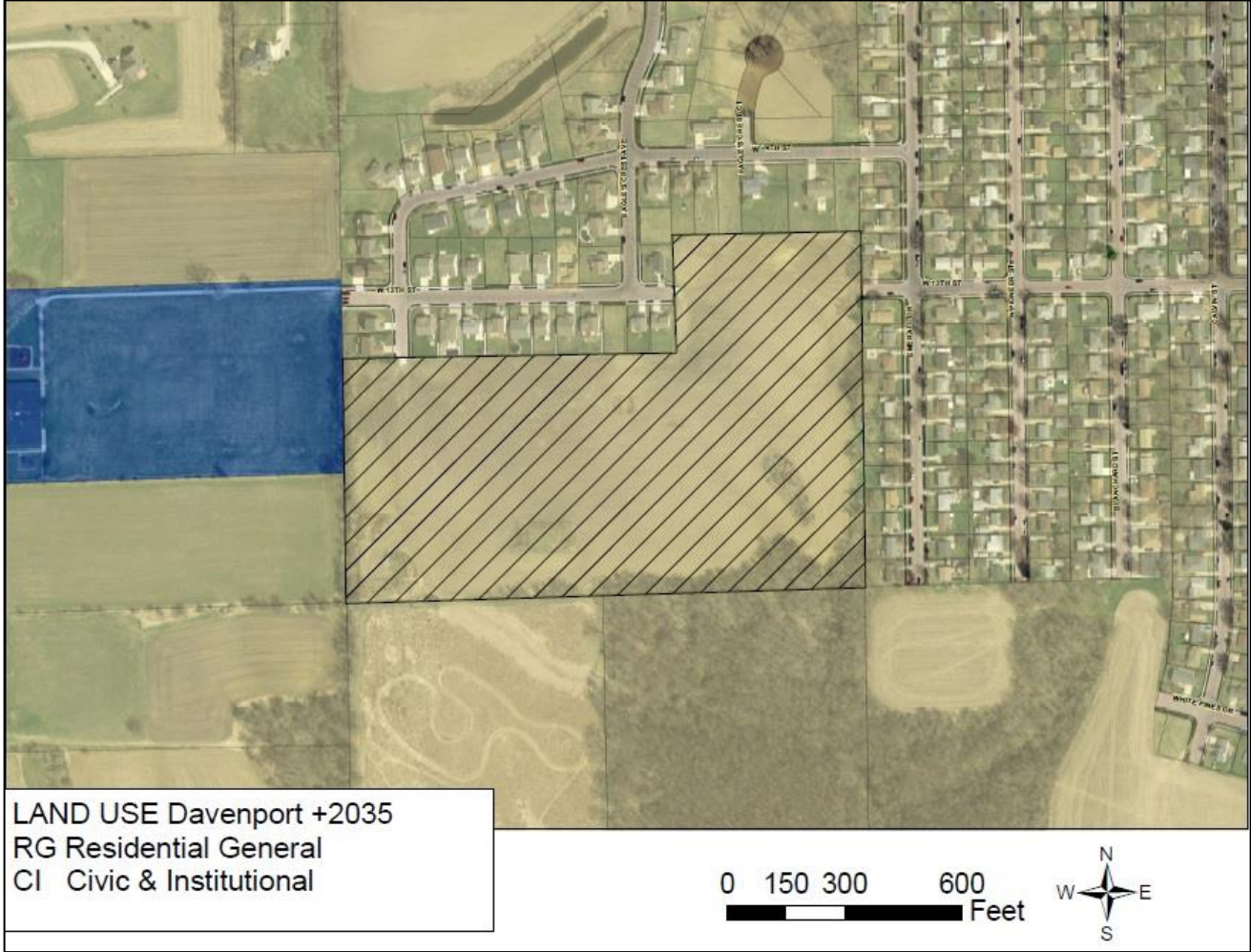
Petition of Grunwald Land for approval of a preliminary plat to develop 70 lots of single family residential south of the Eagle's Crest development. The plat contains 22.15 acres, more or less.

AREA CHARACTERISTICS:

Zoning Map



Land Use Map



Aerial Photo





Background:

Comprehensive Plan:

Within Existing Urban Service Area: Yes

Within Urban Service Boundary 2035: Yes

Proposed Land Use Designation:

Residential General (RG) Designates neighborhoods that are mostly residential but include, or are within one-half mile (walking distance) of scattered neighborhood-compatible commercial services, as well as other neighborhood uses like schools, churches, corner stores, etc. generally oriented along Urban Corridors (UC). Neighborhoods are typically designated as a whole. Existing neighborhoods are anticipated to maintain their existing characteristics in terms of land use mix and density, with the exception along edges and transition areas, where higher intensity may be considered.

Relevant Goals to be considered in this Case:

- Strengthen the existing built environment
- Identify and reserve land for future development

Zoning:

The area has been zoned for residential for quite some time. There area was preliminary platted as part of the Eagle's Crest development around 2000.

Technical Review:

Streets: The subject plat connects 13th Street from Eagle's Crest Second Addition to Royal Tee 7th Addition and extends Eagle's Crest Drive further south. Falcon Pointe Avenue also extends further south to allow additional residential development.

Storm Water: Stormwater infrastructure will be extended with this plat to a detention area further south on land owned by the developer with drainage easements proposed for extending the storm lines.

Sanitary Sewer: Sanitary sewer service will also be extended into this development.

Other Utilities: This is an urban area and normal utility services are available. There is also a high pressure gas line easement running through the area.

Emergency Services: The property is located just over 2 miles from both Fire Station No. 5, which is located at 2808 Telegraph Road and Fire Station No. 6, which is located at 1735 West Pleasant Street.

Parks/Open Space: The proposed rezoning does not impact any existing or planned parks or public open spaces.

Comments from Technical Review Committee:

From: Leabhart, Tom, P.E. Davenport Public Works

- 1) Existing zoning is to be shown.
- 2) Easements containing sewer are to include "sewer" in their name.

Public Input:

No public hearing is required for a Preliminary plat

Discussion:

The proposal would allow single-family residences and extends residential development southerly.

Staff Recommendation:

Findings:

- The plat conforms to the comprehensive plan.
- This is a preliminary plat and does not lock the City into final approvals as proposed.

Recommendation:

Staff would recommend the Plan and Zoning Commission forward Case No. P17-01 to the City Council for approval subject to the following conditions:

- 1) Existing zoning is to be shown on the plat;
- 2) Easements containing sewer are to include "sewer" in their name.

The approval of the preliminary plat does not constitute acceptance of the subdivision by the city, but is deemed to be an authorization to proceed with the preparation of the final plat.

Prepared by:



Scott Koops, AICP - Planner II



		APPROVED	APPROVED	APPROVED					
Name:	Roll Call	F17-07 Lampton 1st	F17-08 Bryr's Add'n	P17-01 Falcon Pointe					
Connell	P	Y	Y	Y					
Hepner	P	Y	Y	Y					
Inghram	P								
Kelling	P	Y	Y	Y					
Lammers	P	Y	Y	Y					
Maness	P	Y	Y	Y					
Martinez	Ex								
Medd	Ex								
Quinn	P	Y	Y	Y					
Reinartz	AB								
Tallman	P	Y	Y	ABST					
		7-YES 0-NO 0-ABSTAIN	7-YES 0-NO 0-ABSTAIN	6-YES 0-NO 1-ABSTAIN					

April 19, 2017

Honorable Mayor and City Council:

At its regular meeting of April 18, 2017, the City Plan and Zoning Commission considered Case No. P17-01 being the petition of Grunwald Land for approval of a preliminary plat to develop 70 lots of single family residential south of the Eagle's Crest development. The plat contains 22.15 acres, more or less. The property is zoned "R-3" Industrial District. [1st Ward]

Findings:

- the preliminary plat conforms to the comprehensive plan
- the preliminary plat conforms to subdivision/zoning requirements

Plan and Zoning Recommendation:

The Plan and Zoning Commission accepts the listed findings and forward Case No. F16-02 to the City Council with a recommendation for approval subject to the following –

- 1) Existing zoning is to be shown on the plat;
- 2) Easements containing sewer are to include "sewer" in their name.

NOTE: The approval of the preliminary plat does not constitute acceptance of the subdivision by the city, but is deemed to be an authorization to proceed with the preparation of the final plat.

Respectfully submitted,



Robert Inghram, Chairperson
City Plan and Zoning Commission

City of Davenport

Agenda Group:
Department: City Clerk
Contact Info: Jackie Holecek
Wards: 3

Action / Date
5/3/2017

Subject:
Resolution closing various street(s), lane(s) or public grounds on the listed date(s) to hold outdoor event(s).

Jimmie O's Saloon, Annual Beer Olympics, May 20, 2017; 9:00 a.m. to 10:00 p.m.; Closure
Location: Rolff Street from Telegraph Road to the alley south [Ward 1]

Christ Apostolic Church, Community Day, May 20, 2017, 8:00 a.m. to 6:30 p.m.; Closure
Location: alley of the 1200 block of West 6th Street [Ward 3]

St. Paul Lutheran Church, Mayfest, May 20, 2017, 8:00 a.m. to 3:00 p.m.; Closure Location:
Lombard Street between Main and Brady Streets [Ward 5]

3rd Missionary Baptist Church, Gospel Explosion Weekend, August 11 and 12, 2017, 8:30 a.m.
to 10:00 p.m., Closure Location: West 14th Street between Harrison and Main Streets [Ward 5]

Recommendation:
Approve the resolution.

ATTACHMENTS:

Type	Description
 Cover Memo	Resolution

REVIEWERS:

Department	Reviewer	Action	Date
City Clerk	Admin, Default	Approved	4/27/2017 - 11:42 AM

RESOLUTION NO. 2017-

Resolution offered by Alderman Matson

Resolution closing various street(s), lane(s) or public grounds on the listed date(s) to hold outdoor event(s).

RESOLVED by the City Council of the City of Davenport.

Whereas, the City through its Special Events Policy has accepted the following application(s) to hold an outdoor event(s) on the following date(s), and

Whereas, upon review of the application(s) it has been determined that the street(s), lane(s) or public grounds listed below will need to be closed, and

NOW, THEREFORE, BE IT RESOLVED that the City Council approves and directs the staff to proceed with the temporary closure of the following street(s), lane(s) or public grounds on the following date(s) and time(s):

Entity: Jimmie O's Saloon

Event: Annual Beer Olympics

Date: May 20, 2017

Time: 9:00 a.m. to 10:00 p.m.

Closure Location: Rolff Street from Telegraph Road to the alley south

Ward: 1

Entity: Christ Apostolic Church

Event: Community Day

Dates: May 20, 2017

Time: 8:00 a.m. to 6:30 p.m.

Closure Location: Alley of the 1200 block of West 6th

Ward: 3

Entity: St. Paul Lutheran Church

Event: Mayfest

Date: May 20, 2017

Time: 8:00 a.m. to 3:00 p.m.

Closure Location: Lombard Street between Main and Brady Streets

Ward: 5

Entity: 3rd Missionary Baptist Church

Event: Gospel Explosion Weekend

Date: August 11 and 12, 2017

Time: 8:30 a.m. to 10:00 p.m.

Closure Location: West 14th Street between Harrison and Main Streets

Ward: 5

Approved this 10th day of May, 2017.

Approved:

Attest:



Frank Klipsch, Mayor

Jackie E. Holecek, MMC, Deputy City Clerk

City of Davenport

Agenda Group: Public Safety
Department: Finance
Contact Info: Sherry Eastman 326-7795
Wards: Various

Action / Date
PS5/3/2017

Subject:
Motion approving beer and liquor license applications.

A. Annual license renewals (with outdoor area renewals as noted):

Ward 2

Hy-Vee Market Cafe' (Hy-Vee, Inc.) - 2200 W Kimberly Rd. Cafe' Area - License Type: C Liquor / C Beer / B Wine

Ward 3

Front Street Brewery, Inc. (Front Street Brewery Inc.) - 421 W River Dr., Suite 3 and 4 - Outdoor Area - License Type: C Liquor / Brew Pub / High Proof Brew

Ward 4

Rivertown Grille & Bar (Rivertown Grille & Bar, LLC) - 2606 W Locust St. - Outdoor Area - License Type: C Liquor

Ward 7

American Legion Post 26 (Davenport Post #26, The American Legion, Inc.) - 702 W 35th St. - Outdoor Area - License Type: C Liquor

Sanchos (Lorbil Enterprises Inc.) - 307 E George Washington Blvd. - License Type: C Liquor

Recommendation:
Consider the license applications.

Relationship to Goals:
Support local businesses.

Background:
The following applications have been reviewed by the Police, Fire and Zoning Departments.

REVIEWERS:

Department	Reviewer	Action	Date
Finance	Watson-Arnould, Kathe	Approved	4/27/2017 - 11:33 AM
Finance Committee	Watson-Arnould, Kathe	Approved	4/27/2017 - 11:33 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 3:05 PM

City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Lesley Eastlick 563-326-7729
Wards: 5

Action / Date
PW5/3/2017

Subject:

Resolution amending the proposed resolution of necessity covering the FY17 Alley Resurfacing Program, for the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue, CIP #35017. [Ward 5]

Recommendation:

Pass the resolution.

Relationship to Goals:

Enhance quality of life.

Background:

The City accepted an alley resurfacing petition, signed by over 50% of owner occupied properties abutting the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue.

Half of the alley resurfacing program cost is paid for by the City and the other half is assessed to the abutting property owners based on the size of their lot. The current estimate of \$14,500 is budgeted in CIP #35017.

State law requires that certain Council actions regarding the assessment procedure must precede the bid letting date. This is one of those resolutions that must be passed in the series. This one amends the proposed resolution of necessity.

ATTACHMENTS:

Type	Description
▣ Resolution Letter	PW_RES pg2

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/27/2017 - 10:38 AM
Public Works Committee	Lechvar, Gina	Approved	4/27/2017 - 11:22 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 3:07 PM

Resolution No. _____

Resolution offered by Alderman Ambrose.

RESOLVED by the City Council of the City of Davenport.

Resolution amending the proposed resolution of necessity covering the FY17 Alley Resurfacing Program, for the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue. CIP #35017.

WHEREAS, this Council heretofore provisionally adopted a resolution of necessity for the construction of the 2017 Alley Resurfacing Program; and

WHEREAS, this Council after full investigation deems it advisable to amend the proposed resolution of necessity for the said project.

NOW, THEREFORE BE IT RESOLVED by the Council of Davenport, Iowa, as follows:

- A. That the resolution of necessity provisionally adopted on the 26th day of April, 2017 by this Council for the improvement project referred to in the preamble hereof, be amended as follows:
 - None -
- B. That the plat and schedule of assessments are hereby amended to conform to Part A. hereof and the engineers are instructed to make necessary changes therein.
- C. That, except as hereinabove determined, all objections are found to be without merit and are denied.

Passed and approved this 10th day of May, 2017.

Approved:

Attest:

Frank Klipsch, Mayor

Jackie E. Holecek, City Clerk

City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Lesley Eastlick 563-326-7729
Wards: 5

Action / Date
PW5/3/2017

Subject:

Resolution overruling any objections to the adoption of the resolution of necessity covering the FY17 Alley Resurfacing Program, for the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue, CIP #35017. [Ward 5]

Recommendation:

Pass the resolution.

Relationship to Goals:

Enhance quality of life.

Background:

The City accepted an alley resurfacing petition, signed by over 50% of owner occupied properties abutting the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue.

Half of the alley resurfacing program cost is paid for by the City and the other half is assessed to the abutting property owners based on the size of their lot. The current estimate of \$14,500 is budgeted in CIP #35017.

State law requires that certain Council actions regarding the assessment procedure must precede the bid letting date. This is one of those resolutions that must be passed in the series. This one overrules all objections regarding the resolution of necessity.

ATTACHMENTS:

Type	Description
▣ Resolution Letter	PW_RES pg2

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/27/2017 - 10:39 AM
Public Works Committee	Lechvar, Gina	Approved	4/27/2017 - 11:22 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 3:08 PM

Resolution No. _____

Resolution offered by Alderman Ambrose.

RESOLVED by the City Council of the City of Davenport.

Resolution overruling objections to the adoption of the Resolution of Necessity covering the 2017 Alley Resurfacing Program.

WHEREAS, this Council heretofore provisionally adopted a resolution of necessity for the construction of the 2017 Alley Resurfacing Program; and

WHEREAS, this Council after full investigation has determined that it is in the best interest of the municipality to construct such improvement, all as described in the said resolution as amended.

NOW, THEREFORE BE IT RESOLVED by the Council of Davenport, Iowa, as follows:

- A. That any objections against the making of the aforementioned improvement, the boundaries of the district, the cost, the assessment against any lot, or the final adoption of a resolution of necessity are found by this Council to be without merit, and that the said objections be and the same are hereby denied and overruled.
- B. That all resolutions or parts of resolutions in conflict herewith be and the same are hereby repealed.

Passed and approved this 10th day of May, 2017.

Approved:

Attest:

Frank Klipsch, Mayor

Jackie E. Holecek, Deputy City Clerk

City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Lesley Eastlick 563-326-7729
Wards: 5

Action / Date
PW5/3/2017

Subject:

Resolution adopting the resolution of necessity covering the FY17 Alley Resurfacing Program, for the alley located the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue, CIP #35017. [Ward 5]

Recommendation:

Pass the resolution.

Relationship to Goals:

Enhance quality of life.

Background:

The City accepted an alley resurfacing petition, signed by over 50% of owner occupied properties abutting the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue.

Half of the alley resurfacing program cost is paid for by the City and the other half is assessed to the abutting property owners based on the size of their lot. The current estimate of \$14,500 is budgeted in CIP #35017.

State law requires that certain Council actions regarding the assessment procedure must precede the bid letting date. This is one of those resolutions that must be passed in the series. This one adopts the resolution of necessity that was proposed on April 26th, 2017

ATTACHMENTS:

Type	Description
▢ Resolution Letter	PW_RES pg2

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/27/2017 - 10:36 AM
Public Works Committee	Lechvar, Gina	Approved	4/27/2017 - 11:22 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 3:06 PM

Resolution No. _____

Resolution offered by Alderman Ambrose

RESOLVED by the City Council of the City of Davenport.

RESOLUTION adopting the resolution of necessity covering the FY17 Alley Resurfacing Program for the alley located the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue CIP #35017.

WHEREAS, this Council heretofore provisionally adopted a resolution of necessity covering the FY 2017 Alley Resurfacing Program; and

WHEREAS, this Council held a public hearing, as required by law, and heard all objections to the FY 2017 Alley Resurfacing Program; and

WHEREAS, this Council previously amended the proposed resolution of necessity, as deemed necessary; and

WHEREAS, this Council has overruled all objections regarding the FY 2017 Alley Resurfacing Program; and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Davenport, Iowa that the resolution of necessity for the FY 2017 Alley Resurfacing Program, as provisionally adopted on April 26, 2017, and as previously amended is finally adopted.

BE IT FURTHER RESOLVED, that this Council hereby directs the Clerk to certify assessments and deficiencies to the County Treasurer and Chief Building Inspector.

Passed and approved the 10th day of May, 2017.

Approved:

Attest:

Frank Klipsch, Mayor

Jackie E. Holecek, City Clerk

City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Mike Atchley 563-327-5149
Wards: 3

Action / Date
PW5/3/2017

Subject:

Resolution to hold a public hearing on the proposed conveyance of parcel F0053-05, 844 Charlotte Street to the adjacent property owner (petitioner David A. Williams). [Ward 3]

Recommendation:

Pass the resolution.

Relationship to Goals:

Enhance Quality of Life

Background:

Petitioner is seeking ownership of city parcel F0053-05, located at 844 Charlotte Street. The city purchased this parcel in 2015 for \$6,000 and demolished the residential structure that was located on the parcel. Since the removal of the structure in February 2016, since then Mr. Williams has been maintaining the parcel saving the city last year and each coming year approximately \$600 per mowing season and will save around \$150 during an average snow season. Petitioner is asking to be deeded the parcel for \$1 and will pay for recording costs.

ATTACHMENTS:

Type	Description
▣ Resolution Letter	PW Res pg2
▣ Cover Memo	Aerial without structure
▣ Cover Memo	Aerial with house
▣ Cover Memo	Hearing Notice

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/27/2017 - 12:10 AM
Public Works Committee	Lechvar, Gina	Approved	4/27/2017 - 12:11 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 10:48 AM

Resolution No. _____

Resolution offered by Alderman Ambrose.

RESOLUTION to hold a public hearing on the proposed conveyance of parcel F0053-05, 844 Charlotte Street to adjacent property owner (petitioner David A. Williams).

RESOLVED by the City Council of the City of Davenport.

WHEREAS, the City of Davenport owns 844 Charlotte parcel F0053-05 legally described as:

Lot 2, Block 1, in Wetmore's Addition to the City of Davenport, excepting the following portion thereof; Beginning at the Southwest corner of said Lot 2; thence in a Southwesterly direction along the southerly line of Lot 2 for a distance of 6 feet; thence Northwesterly to the Northeast corner of said Lot 2; thence Southeasterly along the Easterly line of said lot 2 to the place of beginning.

Also, the East 8 feet of Lot 3, Block 1 in Wetmore's Addition to the City of Davenport, more particularly described as follows; Beginning at the Northeast corner of said Lot 3; thence in a Southwesterly direction along the Northerly lot line of said Lot 3 for a distance of 8 feet; thence in a Southeast direction parallel with and a distance of 8 feet from the Easterly lot line of Lot 3 to the Southerly line of said Lot 3; thence Northeasterly along the Southerly line of said Lot 3 to the Southeast corner of said Lot 3; thence Northeasterly along the Easterly lot line of said Lot 3 to the place of beginning.

Commonly known as 844 Charlotte Ave, Davenport, IA 52803 Parcel F0053-05

WHEREAS, Community and Economic Development has no need for this parcel.

WHEREAS, the petitioner lives at 842 Charlotte and has maintained this parcel since the house was demolished in February 2016.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Davenport that the Mayor and City Clerk are authorized to execute all documents necessary to convey the above real estate to David A. Williams.

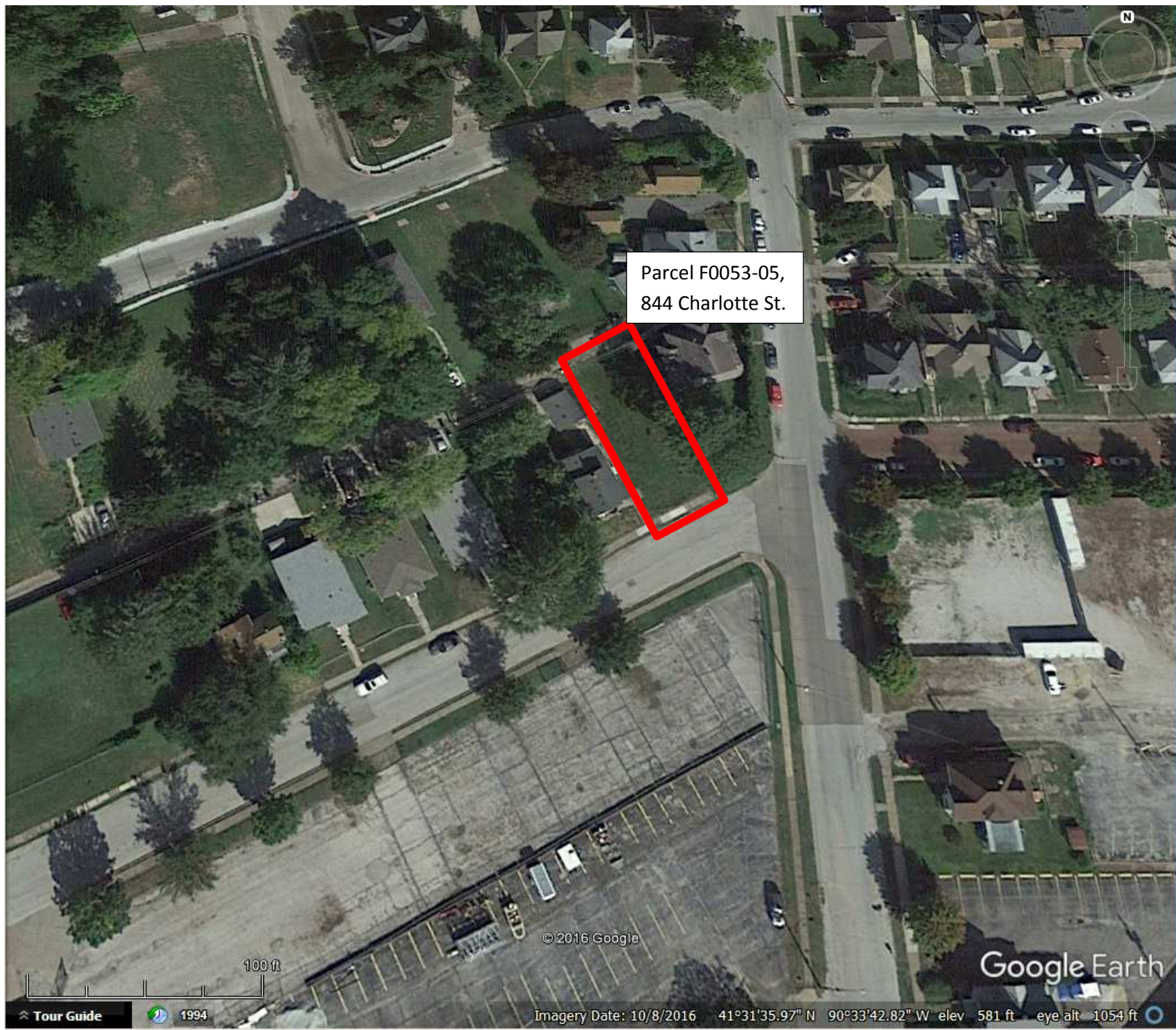
Passed and approved this 10th day of May, 2017.

Approved:

Attest:

Frank Klipsch, Mayor

Jackie E. Holecek, City Clerk





Notice of Hearing

On a Resolution Regarding the Conveyance of Parcel F0053-05 located at
844 Charlotte Street

Notice is hereby given that at 5:30 P.M., on Wednesday, May 17, 2017 at the Council Chambers, City Hall, in the City of Davenport, Iowa, there will be conducted a hearing on a RESOLUTION conveying one parcel of city property, parcel F0053-05 located at 844 Charlotte Street to the owner of 842 (David A. William, Petitioner). The property has the following legal description:

Lot 2, Block 1, in Wetmore's Addition to the City of Davenport, excepting the following portion thereof; Beginning at the Southwest corner of said Lot 2; thence in a Southwesterly direction along the southerly line of Lot 2 for a distance of 6 feet; thence Northwesterly to the Northeast corner of said Lot 2; thence Southeasterly along the Easterly line of said lot 2 to the place of beginning.

Also, the East 8 feet of Lot 3, Block 1 in Wetmore's Addition to the City of Davenport, more particularly described as follows; Beginning at the Northeast corner of said Lot 3; thence in a Southwesterly direction along the Northerly lot line of said Lot 3 for a distance of 8 feet; thence in a Southeast direction parallel with and a distance of 8 feet from the Easterly lot line of Lot 3 to the Southerly line of said Lot 3; thence Northeasterly along the Southerly line of said Lot 3 to the Southeast corner of said Lot 3; thence Northeasterly along the Easterly lot line of said Lot 3 to the place of beginning.

Commonly known as 844 Charlotte Ave, Davenport, IA 52803

At said hearing any interested person may file written objection or comments with respect to the proposed conveyance of above said parcel.

Jackie E. Holecek
Deputy City Clerk

Davenport, Iowa
May 11, 2017

Publish once May 11, 2017
QUAD-CITY TIMES

City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Lesley Eastlick 563-326-7729
Wards: 5

Action / Date
PW5/3/2017

Subject:

Resolution ordering preparation of detailed plans, specifications, notice of hearing, notice to bidders, form of contract and publication of the notice to bidders and notice of hearing covering the FY17 Alley Resurfacing Program, for the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue, CIP #35017. [Ward 5]

Recommendation:

Pass the resolution.

Relationship to Goals:

Enhance quality of life.

Background:

This program involves the resurfacing of one alley with Hot Mix Asphalt (HMA). This is an assessment program where ½ of the total cost to reconstruct or resurface the alley is paid for by the City and the other ½ is paid for by the abutting property owners based on the size of their lot. The resident or business that requests to have their alley reconstructed or resurfaced would have to obtain the necessary signatures on a petition prepared by the City over 50% of the owner-occupied property abutting the alley.

The City received and has accepted a petition for this work, which involves the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue. It is to be able to be done with the amount of funding currently available. The program cost for this alley is currently estimated at \$14,500, and these costs have been budgeted in CIP #35017. Due to the assessments, the owner half of the project expense would eventually be recouped by the City. State law requires that certain Council actions regarding the assessment procedure must precede the bid letting date. This resolution introduces a proposed resolution of necessity.

ATTACHMENTS:

Type	Description
□ Resolution Letter	PW_RES pg2

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/27/2017 - 11:22 AM
Public Works Committee	Lechvar, Gina	Approved	4/27/2017 - 11:23 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 3:09 PM

Resolution No. _____

Resolution offered by Alderman Ambrose

RESOLVED by the City Council of the City of Davenport.

RESOLUTION ordering preparation of detailed plans, specifications, notice of hearing, notice to bidders, form of contract and publication of the notice to bidders and notice of hearing covering the FY17 Alley Resurfacing Program, for the alley between East Colorado Street and East Dover Court, from Tremont Avenue to Carey Avenue, CIP #35017.

WHEREAS, this Council has adopted the final resolution of necessity in connection with the FY 2017 Alley Resurfacing Program; and

WHEREAS, detailed plans and specifications, notice of hearing, notice to bidders and form of contract should be prepared and filed with the Clerk; and

WHEREAS, said notice of hearing should now be published and the hearing held; and

WHEREAS, said notice to bidders should now be published for the letting date determined;

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Davenport, Iowa, as follows:

Section 1. That the Project Engineer be and hereby instructed to prepare and file with the Clerk detailed plans and specifications covering the aforementioned Improvement Project.

Section 2. That the Project Engineer and the City's Attorney be and they are hereby instructed to prepare, file with the Clerk notice of hearing, notice to bidders and form of contract covering the aforementioned Improvement Project, publish said notice of hearing and notice to bidders and hold the hearing and the letting.

Section 3. That all resolutions or parts of resolutions in conflict herewith be and the same are hereby repealed, to the extent of such conflict.

Passed and approved the 10th day of May, 2017.

Approved:

Attest:

Frank Klipsch, Mayor

Jackie E. Holecek, City Clerk

City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Nichole Kriz; (563) 326-7784
Wards: 5,6,7

Action / Date
PW5/3/2017

Subject:

Resolution approving the plans, specifications, form of contract and estimate for the Duck Creek Bike Path Reconstruction Project. The estimated cost is \$100,000 budgeted in CIP #64023.
[Wards 5, 6 and 7]

Recommendation:

Pass the resolution.

Relationship to Goals:

Enhance Quality of Life

Background:

This project will enhance and maintain the existing bike path along Duck Creek at three spur locations. These locations are the spur at intersection of George Washington Boulevard and E Forest Road, the spur from Garfield Park to E 33rd Street, the spur in Garfield Park from the mainline bike path south to Bridge Ave and from this section west to E 30th Street. This project will include resurfacing of all areas and various aspects of maintenance including edge removal and reconstruction in specified areas. Locations were chosen and plans were created as a joint effort of Public Works and Parks and Recreations departments. This project is funded in CIP #64023.

ATTACHMENTS:

Type	Description
▣ Resolution Letter	PW_RES Pg 2
▣ Backup Material	Location Map

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/27/2017 - 12:34 AM
Public Works Committee	Lechvar, Gina	Approved	4/27/2017 - 12:35 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 10:48 AM

Resolution No. _____

RESOLUTION offered by Alderman Ambrose.

RESOLVED by the City Council of the City of Davenport.

Resolution approving the proposed plans, specifications, form of contract and estimate of cost for the Duck Creek Bike Path Reconstruction Project, CIP #64023

WHEREAS, plans, specifications, form of contract and an estimate of cost were filed with the City Clerk of Davenport, Iowa, for the Duck Creek Bike Path Reconstruction Project.

WHEREAS, Notice of Hearing on plans, specifications and form of contract was published as required by law:

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Davenport that, said plans, specifications, form of contract and estimate of cost are hereby approved as the plans, specifications, form of contract and estimate of cost for the Duck Creek Bike Path Reconstruction Project.

Passed and approved this 10th day of May, 2017.

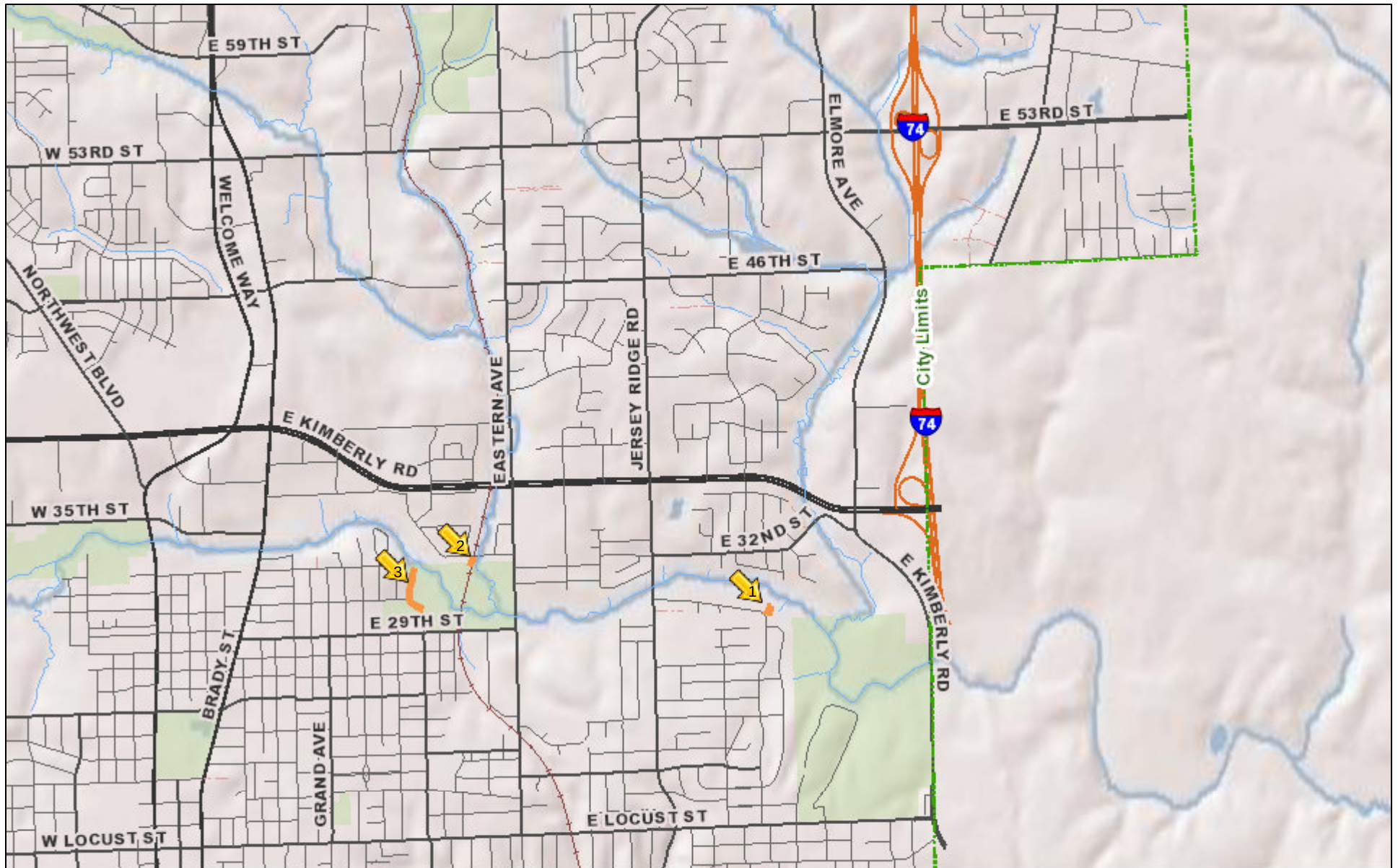
Approved:

Attest:

Frank Klipsch, Mayor

Jackie E. Holecek, City Clerk

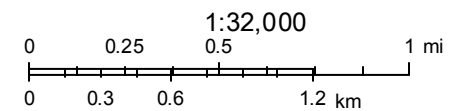
Bike Path Reconstruction Map



April 21, 2017



Location of Project Bike Path Spur



Copyright:© 2014 Esri
Scott County Iowa, Bi-State Regional Commission

City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Nick Schmuecker; (563) 327-5162
Wards: 1, 3, 6, & 7

Action / Date
PW5/3/2017

Subject:

Resolution approving the plans, specifications, forms of contract and estimated cost for the 2017 General Street Resurfacing Program. The current estimate is \$1,900,000 budgeted in CIP #35011 and #35015. [Wards 1, 3, 6, & 7]

Recommendation:

Pass the resolution.

Relationship to Goals:

Enhanced Quality of Life.

Background:

This program is intended to rehabilitate asphalt streets as part of the citywide pavement maintenance program.

The program is scheduled to be bid yet this spring with construction to start early summer. Funding for the 2017 General Street Resurfacing Program is established within CIP #35011 and #35015. The current estimate is \$1,900,000.

ATTACHMENTS:

Type	Description
▣ Resolution Letter	Res pg 2
▣ Backup Material	Map

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/27/2017 - 12:01 AM
Public Works Committee	Lechvar, Gina	Approved	4/27/2017 - 12:02 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 10:46 AM

Resolution No. _____

Resolution offered by Alderman Ambrose

Resolution approving the plans, specifications, forms of contract and estimated cost for the 2017 General Street Resurfacing Program. The current estimate is \$1,900,000 budgeted in CIP #35011 and #35015.

WHEREAS, on the 24th day of April, 2017, plans, specifications, form of contract and an estimate of cost were filed with the City Clerk of Davenport, Iowa, for the 2017 General Street Resurfacing Program, CIP Project #35011 and #35015.

WHEREAS, Notice of Hearing on plans, specifications and form of contract was published as required by law:

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Davenport that said plans, specifications, form of contract and estimate of cost are hereby approved as the plans, specifications, form of contract and estimate of cost for said 2017 General Street Resurfacing Program.

Passed and approved this 10th day of May, 2017.

Approved:

Attest:

Frank Klipsch, Mayor

Jackie E. Holecek, Deputy City Clerk

Year 1 Resurfacing Map



City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Sandy Doran (563) 326-7756
Wards: All

Action / Date
PW5/3/2017

Subject:

Resolution approving the plans, specifications, form of contract and estimate of cost for the Duck Creek South Interceptor Rehabilitation Program. CIP #00200 funded at \$8,000,000 in bonds abated by sewer funds. [All Wards]

Recommendation:

Approve the resolution.

Relationship to Goals:

Davenport – *The Choice Community for Living*
Upgraded City Infrastructure and Public Facilities

Background:

The technical specifications and engineering drawings will address repairs needed to reduce Inflow and Infiltration in the Old Duck Creek Interceptor. Through televising and field inspections, pipe structural deficiencies, open joints, and manhole repairs were found that are allowing inflow and infiltration into the interceptor sewer and collection system. These issues need to be addressed to further comply with the IDNR Administrative Consent Order. The technical specifications/engineering drawings will include various strategies such as cured-in-place pipe lining (CIPP), pipe repairs, spray-applied materials, casting and adjusting ring replacement, chimney seals and total manhole replacement.

This program is a combined effort by the Sewer and Engineering Divisions of the Public Works Department. Sewers are selected by the Sewer Division based on manhole inspections, cleaning and televising the existing sewer network, completed I & I studies and reported problems from the public.

The program letting is proposed for June 2017 with construction start in Fall 2017. Project construction completion is scheduled for May 2019.

Funding for the Duck Creek South Interceptor Rehabilitation Program are budgeted in CIP #00200. Currently there is \$4,123,531 for program; with an additional \$4,000,000 budgeted in FY 2018 & FY 2019.

ATTACHMENTS:

Type	Description
▣ Resolution Letter	Res pg2
▣ Backup Material	Plan Set for Duck Creek South Interceptor Rehabilitation Program
▣ Backup Material	Technical Specifications for Duck Creek South Interceptor Rehabilitation Program

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/27/2017 - 12:33 AM
Public Works Committee	Lechvar, Gina	Approved	4/27/2017 - 12:33 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 10:48 AM

Resolution No. _____

Resolution offered by Alderman Ambrose

RESOLVED by the City Council of the City of Davenport.

RESOLUTION approving the plans, specifications, form of contract and estimate of cost for the Duck Creek South Interceptor Rehabilitation Program. CIP #00200 funded at \$8,000,000 in bonds abated by sewer funds.

WHEREAS, on the 26th day of April 2017, plans, specifications, form of contract and an estimate of cost were filed with the City Clerk of Davenport, Iowa for the Duck Creek South Interceptor Rehabilitation Program within the City of Davenport, Iowa; and

WHEREAS, Notice of Hearing on plans, specifications and form of contract was published as required by law:

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Davenport that said plans, specifications, form of contract and estimate of cost are hereby approved as the plans, specifications, form of contract and estimate of cost for said Duck Creek South Interceptor Rehabilitation Program.

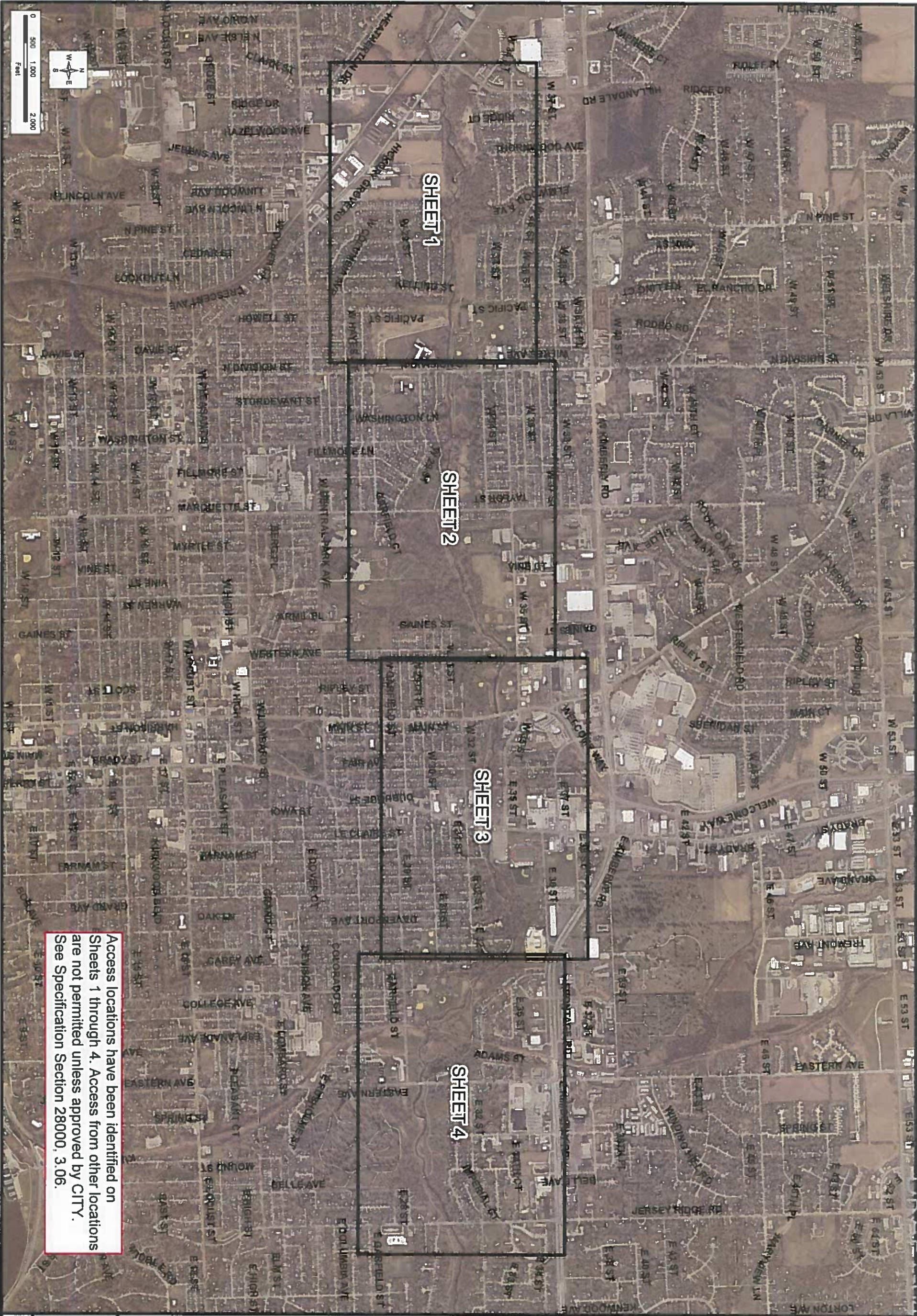
Passed and approved this 10th day of May 2017.

Approved:

Attest:

Frank Klipsch, Mayor

Jackie E. Holecek, Deputy City Clerk



Access locations have been identified on Sheets 1 through 4. Access from other locations are not permitted unless approved by CITY. See Specification Section 28000.3.06.

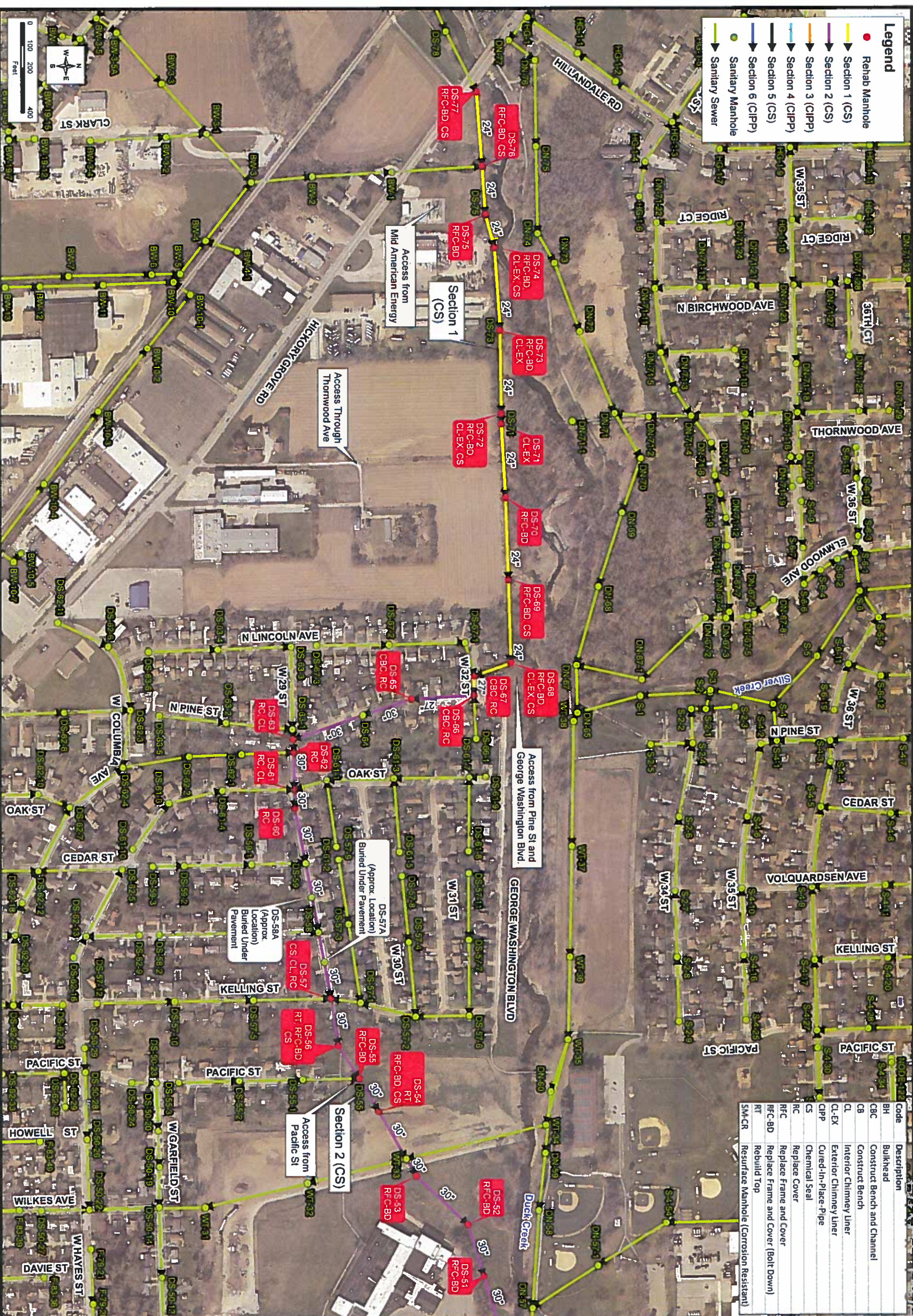
DUCK CREEK SOUTH INTERCEPTOR (DCSI) FY 2018 REHABILITATION

CITY OF DAVENPORT
SCOTT COUNTY, IOWA

DRAFT 04/24/17

- Legend
- Rehab Manhole
 - Section 1 (CS)
 - Section 2 (CS)
 - Section 3 (CIPP)
 - Section 4 (CIPP)
 - Section 5 (CS)
 - Section 6 (CIPP)
 - Sanitary Manhole
 - Sanitary Sewer

Code	Description
BH	Bulkhead
CBC	Construct Bench and Channel
CB	Construct Bench
CL	Interior Chimney Liner
CL-EX	Exterior Chimney Liner
CIP	Cured-In-Place Pipe
CS	Chemical Seal
RC	Replace Cover
RFC	Replace Frame and Cover
RFC-BD	Replace Frame and Cover (Bolt Down)
RT	Rebuild Top
SM-CR	Resurface Manhole (Corrosion Resistant)



DUCK CREEK SOUTH INTERCEPTOR (DCSI) FY 2018 REHABILITATION

CITY OF DAVENPORT
SCOTT COUNTY, IOWA

STRAND ASSOCIATES

SHEET 1
3618.009

Legend

- Rehab Manhole
- Section 1 (CS)
- Section 2 (CS)
- Section 3 (CIPP)
- Section 4 (CIPP)
- Section 5 (CS)
- Section 6 (CIPP)
- Sanitary Manhole
- Sanitary Sewer

Code	Description
BH	Bulkhead
CBC	Construct Bench and Channel
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DUCK CREEK SOUTH INTERCEPTOR (DCSI) FY 2018 REHABILITATION

CITY OF DAVENPORT
SCOTT COUNTY, IOWA

Legend

Rehab Manhole

Section 1 (CS)

Section 2 (CS)

Section 3 (CIPP)

Section 4 (CIPP)

Section 5 (CS)

Section 6 (CIPP)

Sanitary Manhole

Sanitary Sewer

Code	Description
BH	Bulkhead
CBC	Construct Bench and Channel
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CL	Interior Chimney Liner
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SM-CR	Resurface Manhole (Corrosion Resistant)



DUCK CREEK SOUTH INTERCEPTOR (DCSI) FY 2018 REHABILITATION

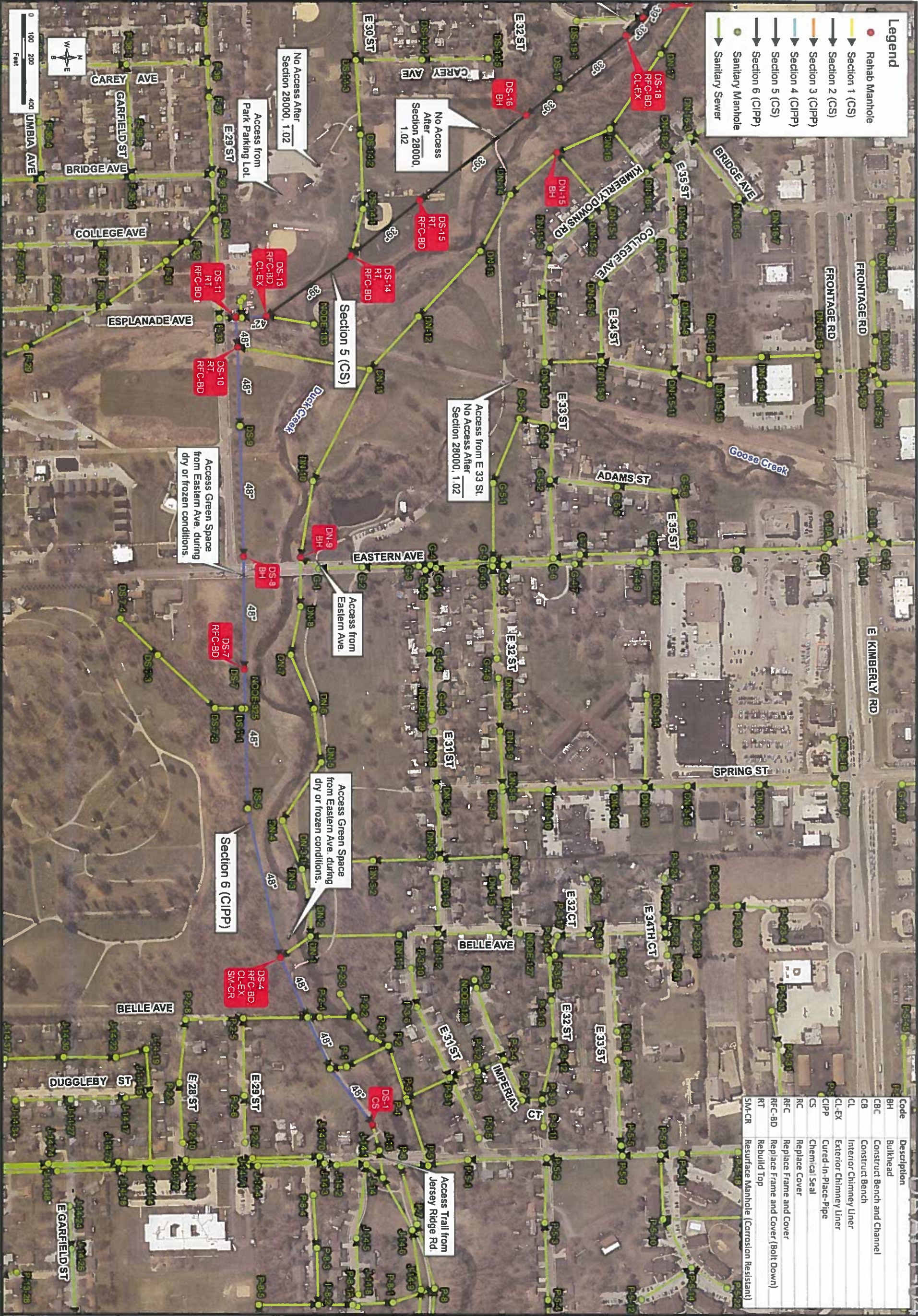
CITY OF DAVENPORT
SCOTT COUNTY, IOWA

STRAND ASSOCIATES

SHEET 3
3618.009

- Legend**
- Rehab Manhole
 - Section 1 (CS)
 - Section 2 (CS)
 - Section 3 (CIPP)
 - Section 4 (CIPP)
 - Section 5 (CS)
 - Section 6 (CIPP)
 - Sanitary Manhole
 - Sanitary Sewer

Code	Description
BH	Bulkhead
CBC	Construct Bench and Channel
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RFC-BD	Replace Frame and Cover (Bolt Down)
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SM-CR	Resurface Manhole (Corrosion Resistant)



DUCK CREEK SOUTH INTERCEPTOR (DCSI) FY 2018 REHABILITATION

CITY OF DAVENPORT
SCOTT COUNTY, IOWA



City of Davenport

ADVERTISEMENT, INSTRUCTIONS TO BIDDERS,

PROPOSAL, CONTRACT CONDITIONS,

PLANS AND SPECIFICATIONS

FOR THE

FY2018 Duck Creek South Interceptor Rehabilitation Program

MAYOR – FRANK KLIPSCH

SEWERS DIVISION

PUBLIC WORKS DEPARTMENT

DAVENPORT, IOWA

I hereby certify that this plan was prepared under my supervision and that engineering decisions with regard to the design were made by me or by other duly licensed Professional Engineers under the laws of the State of Iowa.

Signature: _____ Date _____

Andrew L. Craven: License #17921

My license renewal date is December 31, 2017

Pages or sheets covered by this seal: SC-1 through SC-13,
MR-1 through MR-46, Cover Sheet and Sheets 1 through 4

PROPOSED IMPROVEMENTS

FOR

**FY2018 DUCK CREEK SOUTH INTERCEPTOR
REHABILITATION PROGRAM**

CITY OF DAVENPORT

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DIVISION 28

MANHOLE REHABILITATION

SECTION 28000

GENERAL REQUIREMENTS

PART I-GENERAL

1.01 SUMMARY

- A. The Work consists of providing all labor, material and equipment necessary to complete the following:
1. Site Clearing and Grubbing.
 2. Sewer Cleaning.
 3. Sewer Televising.
 4. Sewer Bypass Pumping.
 5. Sewer Chemical Sealing.
 6. Manhole Chemical Sealing.
 7. Sewer Lining.
 8. Rehabilitation Requiring Excavation.
 9. Manhole Frame and Cover Replacement.
 10. Manhole Resurfacing and Bench and Channel Construction.
 11. Interior Manhole Chimney Lining.

1.02 SEQUENCING

- A. Table 28000-1, Sewer Rehabilitation Summary is a list of sewer sections requiring rehabilitation.
- B. Table 28000-2, Manhole Rehabilitation Summary is a list of all manhole structures requiring rehabilitation. Contractor shall note that many manholes require several methods of rehabilitation. Contractor shall sequence rehabilitation methods accordingly.
- C. Where required, sewer segments shall be rehabilitated with CIPP liner prior to any manhole rehabilitation being done on the associated manholes.
- D. Where required, chemical sealing (CS) of manholes shall be completed and leaks completely stopped prior to completing other methods of rehabilitation.
- E. Manholes that require cover replacement (RC) shall be field measured to verify cover availability prior to commencing any other rehabilitation.
- F. Manholes that require rebuilding of the top portion of the manhole (RT) and also require manhole resurfacing (SM-CR) with a corrosion resistant cementitious liner shall have the top of the manhole rebuilt and restoration of roadway or ground surface completed prior to manhole resurfacing with a cementitious liner.
- G. Work in Sewer Section 1 shall be completed following removal of crops.
- H. Work requiring access to the portion of the trail parallel to Carey Avenue (approximately 300 feet east) and the portion southwest of the intersection between the railroad and E 33 Street shall be completed by [REDACTED].

1.03 CONSTRUCTION PROGRESS SCHEDULE

- A. Submit initial schedule in duplicate within 10 days after date of City-Contractor Agreement.
- B. Revise and resubmit as required.
- C. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates.

1.04 SHOP DRAWINGS

- A. Shop drawings shall include specially prepared technical data for this project including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements, and similar information not in standard printed form for general application to a range of similar projects. Shop drawings shall be submitted for all manufactured or fabricated items. See individual technical sections for special requirements.
- B. Contractor shall make all shop drawings accurately to scale and sufficiently large to show all pertinent aspects of the item and its method of connection to the work.
- C. Shop drawings shall be checked, approved, and stamped by Contractor in accordance with the General Conditions before transmittal to Engineer for review and approval.
- D. Contractor shall submit shop drawings following the procedure described below. Except as noted, six copies of shop drawings and descriptive data shall be submitted to Engineer for approval. Three copies of these will be returned to Contractor if approved. If shop drawings are not approved or if they are stamped "Approved as Noted-Resubmit," two corrected copies will be returned to Contractor for use in resubmittal. If Contractor desires more than three approved copies, submitted quantity shall be increased accordingly.
- E. Shop drawings submitted to Engineer will be reviewed and stamped "Approved," "Approved as Noted," "Approved as Noted-Resubmit," or "Not Approved." Contractor shall resubmit the above number of corrected shop drawings for all shop drawings stamped "Approved as Noted-Resubmit" and "Not Approved" and will continue this process until shop drawings are stamped "Approved" or "Approved as Noted." If drawings are stamped "Approved as Noted-Resubmit," fabrication may proceed in accordance with the marked-up shop drawings. Installation shall not proceed until shop drawings have been resubmitted and stamped "Approved" or "Approved as Noted."
- F. If shop drawings are stamped "Approved as Noted" or "Approved as Noted-Resubmit" and Contractor does not agree with revisions or cannot conform with revisions, fabrication shall not proceed and shop drawings shall be resubmitted with explanation of Contractor's position.
- G. All shop drawings used for construction site activities shall bear the "Approved" or "Approved as Noted" stamp of Engineer.
- H. Arrangements may be made between Contractor and Engineer to provide additional copies of "Approved" shop drawings for field activity purposes.
- I. Complete shop drawings and descriptive data shall be submitted on all manufactured or fabricated items prior to 25% completion of the Work. Applications for payment beyond 25% of the Contract amount will not be recommended for payment until all shop drawings are submitted or a revised schedule for any remaining submittals is agreed to by City and Engineer.

1.05 PRODUCT DATA

- A. Contractor shall provide product data as required to supplement shop drawings.
- B. Product data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by Contractor to illustrate a material, product, or system for some portion of the work.
- C. Contractor shall collect required product data into one submittal for each unit of work or system.
- D. Contractor shall include manufacturer's standard printed recommendations for application and use, compliance with standards, performance characteristics, wiring and piping diagrams and controls, component parts, finishes, dimensions, required clearances, and other special coordination requirements.
- E. Contractor shall mark each copy of standard printed data to identify pertinent products, models, options, and other data.
- F. Contractor shall supplement manufacturer's standard data to provide information unique to the work.

1.06 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required by Engineer.
- B. Shop Drawings and Product Data:
 - 1. Revise initial drawings or data and resubmit as specified for initial submittal.
 - 2. Itemize in a cover letter any changes which have been made other than those requested by Engineer.

1.07 DEFINITIONS

- A. The following definitions or abbreviations apply to the Work in this Division:
 - 1. CCTV—closed-circuit color television
 - 2. NASSCO—National Association of Sewer Service Companies

1.08 MATERIALS AND SUPPLIES

- A. Contractor shall provide materials and supplies to satisfactorily complete the Work to the satisfaction of City. Materials and supplies shall be suitable for the environment in which they are to be used or installed and shall be compatible with each other.
- B. Suppliers shall be deemed to impliedly warrant that their products and all component materials incorporated into them are suitable and fit for the intended use of such products and shall be free from defect in material, workmanship or design, such warranty to run to the benefit of City and Engineer. The foregoing applies whether the products or their component parts are specified in the Contract Documents or are of supplier's design.

1.09 WATER

- A. Water required for the Project may be obtained from Iowa American Water Company. Refer to Special Provisions—Section I—Special Conditions.

1.10 WASTE DISPOSAL

- A. Contractor is responsible for proper and safe disposal of all material removed from the sewers. Refer to Special Provisions–Section I–Special Conditions and Attachment C–Acceptance at WPCP–Manhole Cleanout Material for disposal of material removed from manholes. Disposal of all other materials is the responsibility of Contractor.

1.11 PAYMENT

- A. Payment for changes in quantities, as shown in the Bid, shall be made in accordance with the prices bid for the Work for the various items indicated. No change of quantities shall annul or impair the Contract made and entered into relative to said Work. Payment shall be made for the quantities of each Bid item as actually installed.
- B. If a price is not provided in the Bid for an item of Work, the Work shall be considered incidental and included in adjacent or associated items of Work.
- C. Cost for providing the following shall be considered incidental to the Work unless otherwise indicated in the Bid.
 - 1. Providing water for use in the Work.
 - 2. Removing, transporting, and disposing of material from the sewers and/or manholes.
 - 3. Required work noted on drawings that does not have a corresponding bid item.

1.12 PROPERTY LINES

- A. Property lines along with owner information may be obtained on City's GIS website. <http://gis.ci.davenport.ia.us/cityofdavenportinternetmap>.

1.13 PERMITS

- A. City will obtain necessary construction permits from Iowa Department of Transportation (IDOT) for work on manhole DS-26.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

3.01 SITE CONDITIONS

- A. Contractor is expected to examine carefully the site of the proposed Work and fully acquaint itself with the conditions as they exist to fully understand any restraints, difficulties or other extenuating circumstances that may be present during the performance of the Work.
- B. See Table 28000-2, Manhole Rehabilitation Summary for listing of any reports and drawings related to the Work.

3.02 PROTECTION

- A. The sewers in the Project are operated and maintained by City. Contractor shall perform the Work in such a manner that the operation of the existing sewers and pumping stations are not interrupted, impaired or damaged. Existing sewers and pumping stations must be maintained in operation at all times or adequate provisions provided to convey both dry and wet weather flow. No contractor operation shall impede the functions of the pumping station or sewer system including increasing surcharging in the system and basement backups. Any Work impacting the operation of City's system shall be coordinated with City.
- B. Contractor shall assume full responsibility for any damage to adjacent lands and buildings and to the owners or occupants thereof. Contractor shall examine adjacent lands and buildings and shall account for protection of the lands and buildings during the Work. Any damage caused shall be repaired at the expense of Contractor.
- C. Contractor shall be aware of the attractive nuisance of the Work and make provisions for mitigating any problems.
- D. Contractor shall take into account the impact precipitation events may have on the Work and shall schedule the Work accordingly. Contractor shall protect Work from damage caused by such events whether locally or regionally as they may impact the Work.

3.03 SEWER SERVICE

- A. It shall be Contractor's responsibility to maintain sewer service throughout the duration of the Work. When the Work is being conducted, Contractor shall maintain sewer service by use of bypass pumping as necessary. Sewer service shall be maintained to each home or business that is connected to the sewer or manhole where the Work is being conducted. All sewers shall be kept in service when Work is not being performed.
- B. Sewage or jetting water shall not be allowed to back up into basements. Contractor shall be responsible for preventing any sewage backups into basements or cleaning impacts of such backups should they occur.

3.04 USE OF PREMISES

- A. Contractor shall confine its operations, equipment and storage areas to the existing rights-of-way and easements in which the existing sewer system is located.

3.05 BOLTED MANHOLE COVERS

- A. Contractor shall replace all bolts in bolt down covers at the end of each work day and when complete with work at those manholes. Notify City when working at manholes with bolted covers.

3.06 USE OF BIKE PATH AND EASEMENT

- A. Contractor shall document the condition of all areas that will be impacted by work with photographs, videos, and written notes. Contractor shall submit documentation to City one week prior to work in area. If conditions at time of work are different than what was submitted, Contractor may resubmit documentation.
- B. Access points have been identified by City and are shown in the drawings. If an alternative access point is needed, Contractor shall submit documentation to City.

- C. All damage resulted from work shall be repaired by Contractor. Paths shall be made passable within two weeks of completing work in the area. Contractor shall make all reasonable efforts to allow the use of bike paths during the weekend.
- D. Refer to General Contract Conditions—Division 10 for procedures to close the bike path. Bike path shall be considered the same as a street.

END OF SECTION

Section ID	Upstream MH	Downstream MH	Rehab Method	Length, ft	Material	Pipe Diameter, in
1	DS-77	DS-66	CS	2,825	RCP	24
2	DS-66	DS-40A	CS	6,360	RCP	30
3	DS-40A	DS-31A	CIPP	4,075	VCP	30
4	DS-31A	DS-22	CIPP	3,580	Clay Tile	42
5	DS-22	DS-13	CS	3,225	Clay Tile	39
6	DS-13	DS-1	CIPP	3,950	RCP	48

Code	Description
CIPP	Cured-in-Place Pipe
CS	Chemical Seal
RCP	Reinforced Concrete Pipe
VCP	Vitrified Clay Pipe

Manhole ID	Sheet Number	Rehab Method 1	Rehab Method 2	Rehab Method 3	Approximate Depth	Approximate Distance Above Grade, ft	Location	Surface Type	Chimney Material	Chimney Lining	Cone Type	Cone Material	Wall Material	Wall Material 2	Approximate MH Dia, ft	Bench Material	Channel Material	Number of Steps	Cm1 Direction	Cm2 Direction	Cm3 Direction	Cm4 Direction
DN-15	4 BH				11.3	0.0	Woods	Grass/Dirt	Precast	None	Conical Off	Precast	Precast		5	Concrete	Not Known	7 SE	Out SW	In NW	In NE	In
DN-9	4 BH				9.5	0.0	Yard	Grass/Dirt	Precast	None	Conical Off	Precast	Precast		5	None	Not Known	5 E	Out W	In NE	In	
DS-1	4 BD	RFC			21	2.2	Yard	Grass/Dirt	Precast	None	Flattop	Precast	Precast		5		Vitrified Clay Pipe	11 E	Out W	In		
DS-4	4 BD	RFC-CL	SM-EX	CR	14.5	1.0	Light Highway	Grass/Dirt	Precast	None	Flattop	Precast	Precast		6		Vitrified Clay Pipe	2 E	Out W	In NW	In	
DS-7	4 BD	RFC			15	0.0	Right-of-Way	Grass/Dirt	Precast	None	Flattop	Precast	Precast		6	Non-Reinforced Concrete	Non-Reinforced Concrete	6 E	Out W	In		
DS-8	4 BH				15.8	0.0	Yard	Grass/Dirt	Precast	None	Flattop	Precast	Precast		4		Non-Reinforced Concrete	7 E	Out SW	In W	In N	In
DS-10	4 RT	RFC			15.2	0.5	Right-of-Way	Grass/Dirt	Precast		Conical Off	Precast	Precast			Non-Reinforced Concrete	Non-Reinforced Concrete	7 E	Out W	In	In	
DS-11	4 RT	RFC			20	0.8	Light Highway	Grass/Dirt	Precast	None	Conical Off	Precast	Precast		6	Non-Reinforced Concrete	Non-Reinforced Concrete	3 E	Out S	In S	In N	In
DS-13	4 BD	RFC-CL	EX		12.3	1.0	Light Highway	Grass/Dirt	Precast	Rubber	Conical Off	Precast	Precast		5	Concrete	Non-Reinforced Concrete	8 S	Out N	In		
DS-14	4 RT	RFC			11.8	0.0	Light Highway	Grass/Dirt	Brick	Rubber	Conical Off	Brick	Brick		3		Non-Reinforced Concrete	6 SE	Out NW	In W	In	In
DS-15	4 RT	RFC			12.7	0.0	Yard	Grass/Dirt	Brick	None	Conical Off	Brick	Brick		3	Brick	Not Known	8 SE	Out NW	In		
DS-16	4 BH				10	0.0	Light Highway	Grass/Dirt	Precast	Rubber	Conical Off	Precast	Brick		4	None	Non-Reinforced Concrete	6 SE	Out NW	In		
DS-18	3 BD	RFC-CL	EX		12.8	1.0	Light Highway	Grass/Dirt	Precast	Rubber	Conical Off	Not Known	Not Known		3	Not Known	Brick	7 W	In E	Out		
DS-19	3 CS				14	2.0	Right-of-Way	Grass/Dirt	Not Known	Rubber	Conical Off	Precast	Precast		4	Non-Reinforced Concrete	Non-Reinforced Concrete	5 SE	Out S	In NW	In	
DS-20	3 BD	RFC-SM	CR		13.5	3.5	Right-of-Way	Grass/Dirt	Precast	None	Conical Off	Precast	Precast		4	Non-Reinforced Concrete	Non-Reinforced Concrete	7 SE	Out S	In W	In	
DS-21	3 RT	RFC	BD	CR	11.5	0.0	Sidewalk	Grass/Dirt	Brick	Rubber	Conical Off	Brick	Brick		4		Vitrified Clay Pipe	6 E	Out SW	In W	In	
DS-22	3 BD	RFC	CS	CR	14.7	4.5	Right-of-Way	Grass/Dirt	Precast	Rubber	Conical Off	Precast	Brick		5	Non-Reinforced Concrete	Vitrified Clay Pipe	8 NE	Out SW	In S	In	

Code	Description
BH	Bulkhead
CBC	Construct Bench and Channel
CB	Construct Bench
CL	Chimney Liner (Interior)
CLEX	Chimney Liner (Exterior)
CS	Chemical Seal
RC	Replace Cover
RFC	Replace Frame and Cover
RFC-BD	Replace Frame and Cover - Bolt Down
RT	Rebuild Top
SM-CR	Resurface Manhole - Corrosion Resistant

Manhole ID	Sheet Number	Rehab Method 1	Rehab Method 2	Rehab Method 3	Approximate Depth	Location	Surface Type	Chimney Material	Chimney Lining	Cone Type	Cone Material	Wall Material	Wall Material 2	Bench Material	Channel Material	Number of Steps	Cut1 Direction	Cut2 Direction	Cut3 Direction	Cut4 Direction
DS-23	3 BD	RFC SM- 3 BD CR			14.8	4.0 Right-of-Way	Grass/Dirt	Precast		Conical Off Centered	Precast	Brick		Non-Reinforced Concrete	Vitrified Clay Pipe	9 NE	Out SW	In		
DS-26	3 RT	RFC CR	SM- CR		17.5	Main Highway	Asphalt	Brick	Rubber	Conical Centered	Brick	Brick			Vitrified Clay Pipe	9 E	Out W	In		
DS-29	3 BD	RFC CL- EX			13.5	1.0 Right-of-Way	Grass/Dirt	Not Known	Rubber	Conical Off Centered	Precast	Precast Brick		Non-Reinforced Concrete	Vitrified Clay Pipe	9 SE	Out W	In		
DS-31	3 BD	RFC SM- CR			17.5	0.5 Right-of-Way	Grass/Dirt	Not Known	Rubber	Conical Off Centered	Precast	Precast Brick		Non-Reinforced Concrete	Vitrified Clay Pipe	9 E	Out W	In		
DS-36	2 BD	RFC CL- EX			14.6	1.5 Woods	Grass/Dirt	Not Known	Rubber	Conical Off Centered	Precast	Precast Brick		Non-Reinforced Concrete	Vitrified Clay Pipe	7 NE	Out SW	In		
DS-37	2 BD	RFC CL- EX			13.7	1.0 Woods	Grass/Dirt	Precast	Rubber	Conical Off Centered	Precast	Cast Iron		Non-Reinforced Concrete	Vitrified Clay Pipe	7 NE	Out SW	In		
DS-38	2 RT	RFC BD EX			12.6	1.2 Woods	Grass/Dirt	Brick	Rubber	Conical Off Centered	Precast	Precast Brick		Non-Reinforced Concrete	Non-Reinforced Concrete	7 E	Out W	In		
DS-39	2 RT	RFC BD EX			12.2	0.5 Woods	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Non-Reinforced Concrete	4 E	Out W	In		
DS-41	2 RT	RFC CL- EX			12	1.3 Other	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Non-Reinforced Concrete	5 E	Out SW	In	W	In
DS-42	2 RT	RFC CL- EX			11.8	1.5 Other	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Non-Reinforced Concrete	5 SE	Out NW	In		
DS-43	2 BD	RFC			14.4	0.2 Other	Grass/Dirt	Precast	Rubber	Conical Off Centered	Precast	Precast		Non-Reinforced Concrete	Non-Reinforced Concrete	8 SE	Out S	In	NW	In
DS-44	2 RT	RFC			13	0.1 Right-of-Way	Grass/Dirt	Brick	None	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Non-Reinforced Concrete	6 E	Out W	In		
DS-45	2 RT	RFC			11.3	0.0 Right-of-Way	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Non-Reinforced Concrete	5 E	Out W	In		
DS-46	2 RT	RFC CL- EX			12.2	1.0 Right-of-Way	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Non-Reinforced Concrete	4 E	Out W	In		
DS-47	2 BD	RFC			12.5	0.5 Right-of-Way	Grass/Dirt	Precast	Rubber	Conical Centered	Precast	Precast		Non-Reinforced Concrete	Non-Reinforced Concrete	7 E	Out S	In	W	In
DS-48	2 RT	RFC			12.1	0.0 Parking Lot	Asphalt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Non-Reinforced Concrete	5 E	Out W	In		
DS-49	2 RT	RFC			18.9	-0.3 Right-of-Way	Grass/Dirt	Brick	Rubber	Conical Centered	Brick	Brick		Non-Reinforced Concrete	Non-Reinforced Concrete	9 E	Out W	In		

Code	Description
BH	Bulkhead
CBC	Construct Bench and Channel
CB	Construct Bench
CL	Chimney Liner (Interior)
CL-EX	Chimney Liner (Exterior)
CS	Chemical Seal
RC	Replace Cover
RFC	Replace Frame and Cover
RFC-BD	Replace Frame and Cover - Bolt Down
RT	Rebuild Top
SM-CR	Resurface Manhole - Corrosion Resistant

SECTION 28010

SITE CLEARING AND GRUBBING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Removal of surface debris.
 - 2. Removal of trees, shrubs, and other plant life.
 - 3. Strip and stockpile topsoil.
- B. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern work in this section.
- C. Payment: Refer to Special Provisions, Section 1-Special Conditions.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 PREPARATION

- A. Contractor shall submit a plan to City for any clearing and/or grubbing no later than two weeks prior to clearing.

3.02 PROTECTION

- A. Contractor shall protect from damage utilities and structures that are to remain.
- B. Contractor shall protect trees, plant growth, and features designated to remain as final landscaping.

3.03 CLEARING AND GRUBBING

- A. Clearing and grubbing shall consist of cutting and disposing of trees, brush, windfalls, logs, and other vegetation, and the removing and disposing of roots, stumps, stubs, grubs, logs, and other timber from within the clearing limits as defined on the drawings, designated to be removed on the drawings or in the specifications, or fall within the excavation, embankment, or improved areas of the site.
- B. All roots and stumps shall be removed to a depth of not less than 12 inches below the original ground surface in embankment areas. In cut areas, such material shall be removed to a depth of not less than 12 inches below the subgrade.

3.04 REMOVALS

- A. Contractor shall remove from the site all trees, brush, and other vegetation, debris, and rocks that fall within the clearing and grubbing limits.

END OF SECTION

MR-12

EmployeeID	LastName	FirstName	Title	Department	Salary
1	Adams	Andrew	Marketing Assistant	Marketing	5300
2	Baker	Janet	Production Supervisor	Production	5900
3	Belmont	Lauren	Production Assistant	Production	4900
4	Borg	John	Production Supervisor	Production	5900
5	Brass	Michael	Production Supervisor	Production	5900
6	Burns	Michael	Production Supervisor	Production	5900
7	Chen	Michael	Production Supervisor	Production	5900
8	Cochran	Michael	Production Supervisor	Production	5900
9	Coleman	Michael	Production Supervisor	Production	5900
10	Cook	Michael	Production Supervisor	Production	5900
11	Cruz	Michael	Production Supervisor	Production	5900
12	Davis	Michael	Production Supervisor	Production	5900
13	DeWitt	Michael	Production Supervisor	Production	5900
14	Duffy	Michael	Production Supervisor	Production	5900
15	Eaton	Michael	Production Supervisor	Production	5900
16	Fleming	Michael	Production Supervisor	Production	5900
17	Ford	Michael	Production Supervisor	Production	5900
18	Garcia	Michael	Production Supervisor	Production	5900
19	Grant	Michael	Production Supervisor	Production	5900
20	Green	Michael	Production Supervisor	Production	5900
21	Hall	Michael	Production Supervisor	Production	5900
22	Hart	Michael	Production Supervisor	Production	5900
23	Henderson	Michael	Production Supervisor	Production	5900
24	Hill	Michael	Production Supervisor	Production	5900
25	Holmes	Michael	Production Supervisor	Production	5900
26	Hughes	Michael	Production Supervisor	Production	5900
27	Ivanov	Michael	Production Supervisor	Production	5900
28	Jackson	Michael	Production Supervisor	Production	5900
29	Jones	Michael	Production Supervisor	Production	5900
30	Kane	Michael	Production Supervisor	Production	5900
31	Kelly	Michael	Production Supervisor	Production	5900
32	Kim	Michael	Production Supervisor	Production	5900
33	Kirk	Michael	Production Supervisor	Production	5900
34	Klein	Michael	Production Supervisor	Production	5900
35	Kramer	Michael	Production Supervisor	Production	5900
36	Kumar	Michael	Production Supervisor	Production	5900
37	Lane	Michael	Production Supervisor	Production	5900
38	Lee	Michael	Production Supervisor	Production	5900
39	Levy	Michael	Production Supervisor	Production	5900
40	Lin	Michael	Production Supervisor	Production	5900
41	Liu	Michael	Production Supervisor	Production	5900
42	Long	Michael	Production Supervisor	Production	5900
43	Lyons	Michael	Production Supervisor	Production	5900
44	Mack	Michael	Production Supervisor	Production	5900
45	Malik	Michael	Production Supervisor	Production	5900
46	Mann	Michael	Production Supervisor	Production	5900
47	Marquez	Michael	Production Supervisor	Production	5900
48	Martin	Michael	Production Supervisor	Production	5900
49	Mason	Michael	Production Supervisor	Production	5900
50	Mathews	Michael	Production Supervisor	Production	5900
51	McDonald	Michael	Production Supervisor	Production	5900
52	McIntyre	Michael	Production Supervisor	Production	5900
53	Mehta	Michael	Production Supervisor	Production	5900
54	Meyer	Michael	Production Supervisor	Production	5900
55	Miles	Michael	Production Supervisor	Production	5900
56	Miller	Michael	Production Supervisor	Production	5900
57	Moore	Michael	Production Supervisor	Production	5900
58	Morris	Michael	Production Supervisor	Production	5900
59	Murphy	Michael	Production Supervisor	Production	5900
60	Nelson	Michael	Production Supervisor	Production	5900
61	Nguyen	Michael	Production Supervisor	Production	5900
62	Nguyen	Michael	Production Supervisor	Production	5900
63	Nguyen	Michael	Production Supervisor	Production	5900
64	Nguyen	Michael	Production Supervisor	Production	5900
65	Nguyen	Michael	Production Supervisor	Production	5900
66	Nguyen	Michael	Production Supervisor	Production	5900
67	Nguyen	Michael	Production Supervisor	Production	5900
68	Nguyen	Michael	Production Supervisor	Production	5900
69	Nguyen	Michael	Production Supervisor	Production	5900
70	Nguyen	Michael	Production Supervisor	Production	5900
71	Nguyen	Michael	Production Supervisor	Production	5900
72	Nguyen	Michael	Production Supervisor	Production	5900
73	Nguyen	Michael	Production Supervisor	Production	5900

SECTION 28100
SEWER CLEANING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for the:
 - 1. cleaning of the sewer by mechanical means,
 - 2. removal of surface oils from the interior of the sewer,
 - 3. removal of manhole debris, and
 - 4. removal of roots where found in the sewer.
 - 5. Cleaning may be for City's uses only or may be part of sewer televising and/or sewer rehabilitation, including:
 - (1) sewer chemical sealing, and
 - (2) sewer lining that may be part of the Work.
- B. Work related to Sewer Cleaning includes cleaning for each reach of sewer identified by City in Table 28000-1, Sewer Rehabilitation Summary.
- C. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern Work in this section.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- F. Payment: Refer to Special Provisions, Section 1-Special Conditions.
- G. Televising reports and videos are provided by City. Cleaning of each sewer section shall be based on debris levels from televising reports. Additional bid items are included if the debris levels differ by more than 15 percent. Additional Bid Items shall not be utilized without approval of project manager.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 SEWER CLEANING-GENERAL

- A. Contractor shall provide all supervision, equipment, labor, and material necessary for the proper cleaning. Cleaning shall primarily be completed by means of hydraulic high volume water pumping and solids aeration system. Flow rate shall be a minimum of 250 gpm at 2,000 psi unless otherwise specified. Solids moved to the downstream manhole shall be captured, removed, and dewatered prior to transport to an approved disposal facility. The pumping and separation system shall be capable of continuous operation.

- B. City makes no guarantee that all of the sanitary sewers to be entered are clear for the passage of cleaning equipment. The methods used for securing passage of the cleaning equipment are to be at the option of Contractor
- C. Satisfactory precautions shall be taken to protect the sewer lines from damage that might be inflicted by the improper use of cleaning equipment. Contractor shall be responsible for and shall immediately repair any and all damage caused by its operations.
- D. Selection of the cleaning equipment shall be based on the condition of the sewers at the time the Work commences.
- E. All cleaning prior to any type of sewer rehabilitation shall be performed using methods in accordance with manufacturer's recommendations for rehabilitation equipment being used.

3.02 REQUIREMENTS AND PROCEDURES

- A. The equipment shall be capable of removing root growth, dirt, grease, rocks, sand, and other materials and obstructions from the sewers and manholes. If cleaning of an entire sewer reach cannot be successfully performed from one manhole, the equipment shall be set up at the other manhole and cleaning again attempted. If, again, successful cleaning cannot be performed or the equipment fails to traverse the entire sewer reach, Contractor shall remove the blockage.
- B. Cleanliness:
 - 1. All material shall be removed that would impede sewage flow and any subsequent televising and/or rehabilitation efforts.
 - 2. Cleaning shall be completed by using as many passes as required to remove growth and debris to allow any such televising camera and/or rehabilitation to proceed. Cleaning shall be completed to a minimum of 95% of the original carrying capacity and as required for any future televising or rehabilitation procedures.
 - 3. All loose material shall be removed from the sewers. No material shall be passed downstream of the areas cleaned.

3.03 DEBRIS REMOVAL AND DISPOSAL

- A. All water, sludge, dirt, sand, rock, roots, grease, and any other material resulting from the cleaning operation shall be removed by Contractor at the downstream manhole of the section being cleaned and properly disposed of by Contractor. Passing material from manhole section to manhole section, which could cause blockage, accumulations of sand in wet wells, or damage to pumping equipment, shall not be permitted.
- B. Under no circumstances shall sewage or solids removed from manholes and lines be dumped onto streets or into ditches, catch basins, storm drains, or sanitary sewer manholes.
- C. Chemical cleaning will not be allowed.

END OF SECTION

SECTION 28200

SEWER TELEVISION

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for the inspection of the sewers by means of closed-circuit color television (CCTV). Televising may be for City's inspection uses only or may be a part of additional Work for the Project.
- B. Work related to Sewer Televising includes televising each reach of sewer identified by City in Table 28000-1, Sewer Rehabilitation Summary.
- C. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern Work in this section.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- F. Payment: Refer to Special Provisions, Section 1-Special Conditions.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 SEWER TELEVISION

- A. All CCTV work shall conform to current NASSCO PACP Standards.
- B. Sewer isolation shall be completed during sewer televising and, unless otherwise approved in writing by City, shall be by plugging off the flow of all upstream pipes through the use of sewer line plugs.
- C. The following procedures shall be employed, as required, to adequately complete the televising:
 - 1. Televising at night, and/or
 - 2. Televising short sections of sewer and releasing the plug several times during the televising, as required.
 - 3. Bypass pumping, where required, shall be performed by Contractor.
- D. Equipment shall conform to NASSCO PACP standards.
- E. Procedures shall conform to NASSCO PACP standards.
- F. Record Keeping: The following information shall be noted as required for the Work:
 - 1. CCTV Reports must include the following information and conform to the applicable guidelines.

2. CCTV Reports, NASSCO PACP Certified Database, and electronic worksheets must accompany all inspection work.
 3. All City and NASSCO PACP required header information designated in Table 28200-1, Header Checklist, must be fully and accurately entered on all CCTV reports.
 4. Two copies of each DVD of all sewers televised shall be provided to the City.
 - a. DVD shall be recorded at Standard Play.
 - b. DVD shall include the following information:
 - (1) Visual (on screen):
 - (a) Date of televising.
 - (b) Sewer reach between manholes.
 - (c) Direction of flow and direction of televising.
 - (d) Continuous distance along reach.
 - (2) Audio:
 - (a) Date of television inspection, operator name, name of overlying or adjacent street, and manhole numbers.
 - (b) Confirmation of sewer reach and televising direction in relation to direction of flow.
 - (c) Description of pipe size, type, and pipe joint length.
 - (d) Description and location of each service connection and pipe defect.
 - (e) Type of weather during televising.
 - (3) Printed labels on DVD with DVD number, Project location, date, format information, and company performing the Work.
 5. A DVD record of all observations shall be provided of the televised sewers. The database contained on the DVD shall be PACP®-certified and compatible with Microsoft Access XP. Two copies of the DVDs shall be provided to City.
- G. Rehabilitation Televising:
1. Televising of protruding tap cutting shall be performed wherever possible during tap cutting. Televising of the entire cutting operation will not be required. Following cutting, the tap periphery and the inside of the service lateral shall be televised and recorded.
 2. Following completion of rehabilitation, Contractor shall televise each sewer reach where rehabilitation was completed. Record keeping shall be as specified in subpart Record Keeping.
- H. City makes no guarantee that all of the sanitary sewers to be entered are clear for the passage of a camera. The methods used for securing passage of the camera are to be at the option of Contractor and the costs shall be included in the unit bid price for Sewer Televising of sewer sections not televised or in the unit bid prices for other bid items. The cost of retrieving the television camera, under all circumstances, when it becomes lodged during inspection, shall be incidental to this portion of the Work.

END OF SECTION

TABLE 28200-1

HEADER CHECKLIST

Field #	Header Field	Required for this Project
1	Surveyed By	X
2	Certificate Number	X
3	Reviewed By	
4	Reviewer Certificate Number	
5	Owner	X
6	Customer	
7	P/O Number	
8	Work Order Number	
9	Media Label	X
10	Project	X
11	Date	X
12	Time	X
13	Sheet Number	
14	Weather	
15	Pre-Cleaning	X
16	Date Cleaned	
17	Flow Control	
18	Purpose of Survey	X
19	Direction of Survey	X
20	Inspection Technology Used	
21	Inspection Status	X
22	Consequence of Failure	
23	Pressure Value	
24	Drainage Area	
25	Pipe Segment Reference	
26	Street (Name and Number)	X
27	City	X
28	Location Code	
29	Location Details	
30	Pipe Use	X
31	Height	X
32	Width	X
33	Shape	X
34	Material	X
35	Lining Method	
36	Coating Method	
37	Pipe Joint Length	X

Field #	Header Field	Required for this Project
38	Total Length	X
39	Length Surveyed	X
40	Year Constructed	
41	Year Renewed	
42	Upstream MH Number	X
43	Upstream MH Rim to Invert	
44	Upstream MH Rim to Grade	
45	Upstream MH Grade to Invert	
46	Upstream MH Northing	
47	Upstream MH Easting	
48	Upstream MH Elevation	
49	Downstream MH Number	X
50	Downstream MH Rim to Invert	
51	Downstream Rim to Grade	
52	Downstream Grade to Invert	
53	Downstream MH Northing	
54	Downstream MH Easting	
55	Downstream MH Elevation	
56	MH Coordinate System	
57	MH Vertical Datum	
58	GPS Accuracy	
59	Additional Information	X

SECTION 28300
SEWER BYPASS PUMPING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all materials, labor, equipment, power, and maintenance necessary to perform bypass pumping while the Work is being completed.
- B. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements—City of Davenport, Iowa" shall govern work in this section.
- C. Coordinate the Work of this section with Section 28000—General Requirements.
- D. Unit Prices: Refer to Special Provisions, Section 1—Special Conditions.
- E. Payment: Refer to Special Provisions, Section 1—Special Conditions.

1.02 SUBMITTALS

- A. Submittals shall be in accordance with provisions of Section 01300—Submittals.
 - 1. Contractor shall submit to City detailed plans and descriptions outlining all provisions and precautions to be taken by Contractor regarding the handling of existing sewage flows. This plan must be specific and complete, including such items as schedules, locations, elevations, capacities of equipment, materials, and all other incidental items necessary and/or required to ensure proper protection of the facilities, including protection of the access and bypass pumping locations from damage because of the discharge flows and compliance with the requirements specified in these Contract Documents. No rehabilitation shall begin until all provisions and requirements have been reviewed by City.
 - 2. The Bypass Pumping plan shall include but not be limited to details of the following:
 - a. Staging areas for pumps.
 - b. Sewer plugging method and types of plugs.
 - c. Number, size, material, location, and method of installation of suction piping.
 - d. Number, size, material, method of installation, and location of installation of discharge piping.
 - e. Bypass pump sizes, capacity, number of each size to be on-site, and power requirements.
 - f. Standby power generator size and location.
 - g. Downstream discharge plan.
 - h. Method of protecting discharge manholes or structures from erosion and damage.
 - i. Method of noise control for each pump and/or generator.
 - j. Any temporary pipe supports and anchoring required.
 - k. Design plans for access to bypass pumping locations.
 - l. Schedule for installation and maintenance of bypass pumping lines.
 - m. Plan indicating location of bypass pumping lines.
- B. Any proposed method of other flow controls shall be submitted for review by City.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 SEWER BYPASS PUMPING

- A. Where required by sewage flows or inability to prevent debris from falling into the flow stream, Contractor shall bypass the sewage around the sewer sections or manholes as required to complete the Work.
- B. Precautions shall be taken when bypass pumping is required to prevent the flooding of nearby property.
- C. Under no circumstances will the diversion or dumping of raw sewage be allowed onto the streets or into storm sewers. The bypass shall be made by plugging an existing upstream manhole and pumping the sewage into a downstream manhole or adjacent sanitary sewer system. Bypass pumping shall mean the use of pumps, tanks, hoses, and other necessary equipment to cause uninterrupted flow of sewage around the section or reach in which the Work is being accomplished.
- D. All bypass pumping operations must be attended by personnel to prevent flooding in case of pump failure. Under no conditions shall a bypass pumping operation be left unattended. All personnel for setup, operation, and supervision of the bypass pumping equipment shall be provided as necessary.
- E. All hoses and pumps shall be sized by Contractor to be of sufficient capacity to handle the existing sewage flow, plus additional flow that may occur during wet weather periods and during periods of high runoff. All equipment used in bypass pumping shall be operated and maintained in proper running condition at all times.
- F. All hose connections shall be watertight and no leakage shall be allowed to the surface. Pumping system hoses and appurtenances shall be tested prior to use in the sewer system to ensure watertightness.
- G. At the end of each working day, the reach or section being bypassed shall be placed in service and the bypass plug removed.
- H. The pumps shall be specifically designed for sewage, capable of passing 3-inch solids.
- I. Contractor shall satisfactorily demonstrate to City that the bypass system works for at least the diurnal flow pattern before beginning any Work.

END OF SECTION

SECTION 28500

SEWER CHEMICAL SEALING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment for sewer chemical sealing.
- B. Work related to Sewer Chemical Sealing-Test All Joints and Sewer Chemical Sealing-Seal-Failed Joints includes sewer chemical sealing for each reach of sewer designated "CS" in Table 28000-I, Sewer Rehabilitation Summary.
- C. Related Sections and Divisions:
 - 1. Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern Work in this section.
 - 2. Sewer cleaning to complete the Work shall be in accordance with Section 28100-Sewer Cleaning.
 - 3. Sewer televising to complete the Work shall be in accordance with Section 28200-Sewer Televising.
 - 4. Sewer bypass pumping to complete the Work shall be in accordance with Section 28300-Sewer Bypass Pumping.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- F. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 QUALITY ASSURANCE

- A. Documentation shall include a list of at least five previous projects including names and telephone numbers to verify previous satisfactory performance on projects of similar or greater size and difficulty factor. Contractor's field foreman shall have experience on at least five previous projects with application of specified product.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000-General Requirements.
- B. Submit manufacturer's instructions.
- C. Submit quality assurance data.

PART 2-PRODUCTS

2.01 MATERIAL STANDARDS

- A. Material used for Sewer Chemical Sealing shall conform to ASTM F2304, "Standard Practice for Rehabilitation of Sewers Using Chemical Grouting."

2.02 MANUFACTURERS

- A. Urethane Based:
 1. Avanti International AV-350.
 2. DeNeef Construction Chemicals Hydro-Active Multigel.
 3. Or equal.

2.03 MATERIAL CHARACTERISTICS

- A. Sealing materials shall utilize a two-part chemical grout that mixes within the isolated area formed by the packer.
 1. The chemical grout shall be catalyzed to polymerize in the soil and voids surrounding the area of leakage and shall form an impervious gel barrier around the leak.
 - a. Approved additives shall be used as various field conditions dictate.
 - b. Sealing materials shall be subject to approval of Engineer.
 2. The chemical grout shall have properties as listed in ASTM F2304 and ASTM F2414-04.
- B. Mixing and handling of chemical grout may exhibit toxicity by passing through the unbroken skin, by inhalation of dust or droplets of the materials, or by swallowing.
 1. Mixing, handling, and pumping of the chemicals shall be done by personnel thoroughly familiar with the handling of the chemicals involved.
 2. All chemicals shall be subject to the approval of City.

PART 3-EXECUTION

3.01 SEWER CHEMICAL SEALING

- A. General:
 1. All sewer chemical sealing shall be in accordance with ASTM F2304.
 2. Sewer cleaning to remove mineral deposits, debris, roots, grease and other material that would hinder the Work shall be completed.
 3. Prior to, during, and following sewer chemical sealing, Contractor shall televise the sewer. Televising shall be used to verify the suitability of the pipe and connections for chemical sealing.
 4. Removal of protruding taps and other obstructions that would hinder the Work shall be completed.
 5. Bypass pumping shall be provided as needed to allow the Work to proceed.
 6. Prior to sealing, equipment shall be tested in accordance with ASTM F2304.
 7. Testing is required and shall be performed in accordance with ASTM F2304.
 8. No joint or location shall be considered sealed unless, while under continual pressure, an attempt is made to pump grout to "refusal" (up to 1/2 gallon per inch diameter pipe size). This is to ensure that sufficient chemical has been dispersed into the soil surrounding the joint and that a temporary seal has not been made by applying a minimum amount of chemical grout to the void and the joint area inside the pipe. When chemical grout cannot be pumped to "refusal" within a volume

less than or equal to 1/2 gallon per inch diameter pipe size due to latent physical conditions, no additional Work shall be undertaken until authorization to proceed has been given by City.

B. Test All Joints and Seal Failed Joints:

1. In each reach of sewer, listed in Table 28000-1 designated as "CS", Contractor shall place in the line special equipment (packer) designed to test each joint.
2. Each joint shall be tested as specified in ASTM F2304.
3. Joints that fail the test shall be sealed as specified in ASTM F2304.
4. Before final acceptance and payment for chemical sealing is made, each sealed area shall be tested as specified in ASTM F2304. Should sealing fail the test, the defect area shall be resealed and retested until the test requirements can be met. After all infiltration has been eliminated and the test has been passed, excessive gels shall be removed from inside of the pipe by partially inflating the packer and pulling it past the area as a wiper to restore the pipe to its original inside diameter.

C. Televising: Following completion of rehabilitation, Contractor shall televise each sewer reach where rehabilitation was completed. Televising and record keeping shall be provided pursuant to Section 28200-PART 3-EXECUTION-Rehabilitation Televising.

END OF SECTION

SECTION 28550

MANHOLE CHEMICAL SEALING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment for manhole chemical sealing.
- B. Work related to Bid Item Manhole Chemical Sealing includes sealing of all manholes designated "CS" in Table 28000-2, Manhole Rehabilitation Summary.
- C. Coordinate the Work of this section with Section 28000-General Requirements.
- D. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- E. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 QUALITY ASSURANCE

- A. Documentation shall include a list of at least five previous projects including names and telephone numbers to verify previous satisfactory performance on projects of similar or greater size and difficulty factor. Contractor's field foreman shall have experience on at least five previous projects with application of specified product.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000-General Requirements.
- B. Submit manufacturer's instructions.
- C. Submit quality assurance data.

PART 2-PRODUCTS

2.01 MATERIAL STANDARDS

- A. Material used for Chemical Sealing of Manholes and Manhole Chemical Sealing with Portable Urethane Equipment shall conform to ASTM F2304, "Standard Practice for Rehabilitation of Sewers Using Chemical Grouting."

2.02 MANUFACTURER

- A. Urethane Based:
 - 1. De Neef Construction Chemicals Hydro Active Multigel HF.
 - 2. Avanti International AV-350.
 - 3. Or Equal.

2.03 MATERIAL CHARACTERISTICS

A. Manhole Chemical Sealing:

1. The chemical grout shall be injected into the defects by means of pre-drilled holes, according to manufacturer's instructions. Oakum saturated in chemical grout resin may be used in manufacturer recommended situations and as approved by Engineer. Approved additives shall be used as various field conditions dictate and as recommended by the manufacturer. Chemical grouts shall have properties as listed in ASTM F2304 and ASTM F2414-04.
2. Mixing and handling of chemical grout may exhibit toxicity by passing through the unbroken skin, by inhalation of dust or droplets of the materials, or by swallowing.
 - a. Mixing, handling, and pumping of the chemicals shall be done by personnel thoroughly familiar with the handling of the chemicals involved.
 - b. All chemicals shall be subject to the approval of City.

PART 3-EXECUTION

3.01 GENERAL

- A. Manhole chemical sealing shall be conducted in accordance with manufacturer's directions and as indicated in the following sections.
- B. All mineral deposits, roots, grease, and solid or semisolid matter, including excess mortar and concrete shall be removed in preparing the manhole barrel to be sealed.

3.02 MANHOLE CHEMICAL SEALING

- A. Manholes shall be completely sealed from the bottom of the pipe invert to the top of the manhole cone. All visible and suspected locations shall be sealed first. All roots and visible mineral deposits larger than 1/8-inch wide in any dimension shall be removed by high-pressure water blast or mechanically.
 1. At each actual or suspected leakage point, a hole shall be carefully drilled from within the manhole and shall extend through the manhole wall.
 2. Where there are multiple leaks to be sealed, fewer holes may be drilled, provided all leakage is stopped from these areas, and holes are a minimum of 2 feet apart.
 3. Holes shall be drilled around the periphery of all manhole barrel joints at an interval not to exceed 2 feet (manhole barrel joints at base of walls and at bottom of cone included), near all pipes passing through the manhole walls, and at all other likely points of infiltration.
- B. Packer shall be placed in drilled hole so that a watertight seal between the hole and the packer is provided.
- C. Hoses shall be attached to the packer from an injection pump located above ground. Injection material shall be pumped into each hole until all leakage is stopped and refusal is recorded on the pressure gauge mounted on the pumping unit.
- D. Care shall be taken during the pumping operation to ensure that pressures do not cause damage to the manhole structure. Upon completion of material injection, the packer shall be removed and the holes filled with hydraulic cement and troweled flush with the surface of the structure.

- E. Consideration shall be given concerning depth of defect versus frost line, size of leak, potential for movement of chemical grouted area, and other factors that may affect the long-term performance of the chemical grouts when selecting the type of grout to be used for sealing an individual leak.

END OF SECTION

SECTION 28600

SEWER LINING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment for sewer lining.
- B. Work related to Sewer Lining includes lining entire reaches of sewer identified by City in Table 28000-2, Sewer Rehabilitation Summary.
- C. Work related to Sewer Lining-Lateral Reinstatement includes cutting liner to reinstate laterals after completion of lining at locations referred to above.
- D. Related Sections and Divisions:
 - 1. Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern Work in this section.
 - 2. Sewer cleaning to complete the Work shall be in accordance with Section 28100-Sewer Cleaning.
 - 3. Sewer televising to complete the Work shall be in accordance with Section 28200-Sewer Televising.
 - 4. Sewer bypass pumping to complete the Work shall be in accordance with Section 28300-Sewer Bypass Pumping.
- E. Coordinate the Work of this section with Section 28000-General Requirements.
- F. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- G. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 SUBMITTALS

- A. Submittals shall include:
 - 1. submit shop drawings and product data under the provisions of Section 28000-General Requirements.
 - 2. Manufacturer's material testing certification.
 - 3. Liner thickness design.

1.03 QUALITY ASSURANCE

- A. The sewer lining supplier and installer shall have a minimum of five years of experience in liner installation.
- B. The liner fabricator shall have a minimum of five years of experience in liner fabrication.
- C. Field tests and cured specimens will be required.

PART 2-PRODUCTS

2.01 FULL LINER

- A. This specification references American Society for Testing and Materials (ASTM) standard specifications, which are made a part of hereof by such reference and shall be the latest edition and revision thereof.
1. F1216—Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin Impregnated Tube.
 2. D5813—Standard Specification for Cured-in-Place Thermosetting Resin Sewer Pipe.
 3. D638—Test Method for Tensile Properties of Plastics.
 4. D790—Test Method for Tensile Properties of Unreinforced and Reinforced Electrical Plastics and Electrical Insulating Materials.
 5. C581—Standard Practice for determining Chemical Resistance of Thermosetting Resins.
 6. D2990—Standard Test Methods for Tensile, Compressive, Flexural Creep, and Creep Rupture of Plastics.
- B. Liner Reinforcing Material:
1. Liner tube shall be sewn or heat fusion-bonded to tightly fit the internal circumference of the original pipe for the entire length to be lined.
 2. Wall thickness shall be designed in conformance with ASTM F1216, Appendix X1.
 3. Tube shall be polyester felt formed into sheets of required thickness.
 4. Tube may be made of single- or multiple-layer construction, with any layer not less than 3 millimeters thick.
 5. Membranes or strips sandwiched in between layers may be included to control longitudinal stretching.
 6. Seams shall not be joined perpendicular to the longitudinal axis. Seams shall be spirally formed and sewn or heat fusion-bonded.
 7. Polyurethane membrane used during inversion of tube may be left on internal surface of liner after curing.
 8. The outside of the tube shall have markers along its full length at regular intervals not to exceed 5 feet.
- C. Resin shall conform to ASTM F1216 and D5813:
1. Polyester resin for general chemical applications shall be used, conforming to ASTM F1216, Appendix X2.
 2. Fillers, except those required for viscosity control, fire retardance, modulus enhancement, chemical resistance, or extension of pot life will not be allowed.
 3. Thixotropic agents that will not interfere with visual inspection may be added for viscosity control.
 4. Resins may contain pigments, dyes, or colorants that will not interfere with visual inspection of cured liner.
 5. Resin content shall be 10% to 15% by volume greater than the volume of felt in the liner tube.
- D. Cured liner shall conform to ASTM F1216:
1. Minimum thickness of bonded polyurethane membrane shall be per manufacturer's requirement and shall not affect structural dimension requirements of cured liner.
 2. Thickness of cured liner shall be as designed (+10% -4%) and shall not include thickness of polyurethane inner liner.
 3. Cured liner shall conform to the following structural standards:
 - a. Tensile Strength—3,000 psi (ASTM D638).
 - b. Flexural Modulus of Elasticity—400,000 psi (ASTM D790).

- c. Flexural Strength—4,000 psi (ASTM D790).
- 4. Layers of cured CIPP shall be uniformly bonded. It shall not be possible to separate any two layers with a probe or knife point so that the layers separate cleanly or the probe moves freely between layers.
- E. Liner Design:
 - 1. Existing host pipe material, size, and depth are available on televising records available for use by Contractor.
 - 2. Condition of host pipe is available on DVD records and reports available for use by Contractor.
 - 3. Existing soil conditions, types, and depth of groundwater shall be determined by Contractor.
- F. Manufacturer for Full Liner shall be Insituform Technologies, Inc., National Liner, Inc., InLiner USA, Inc., or equal.
- G. End Seal: Manufacturer for end seals shall be LMK Technologies, or approved equal.

PART 3-EXECUTION

3.01 SEWER LINING

- A. Televising:
 - 1. Prior to, during, and following sewer rehabilitation, Contractor shall televise and videotape the sewer.
 - 2. Televising shall be used to verify the suitability of the pipe and connections for installing lining. Pipe and connection conditions shall conform to those published by the system manufacturer and NASSCO.
- B. Sewer Preparation:
 - 1. Sewer locations observed to be leaking during preparation for lining and that would interfere with sewer lining installation shall be sealed prior to installation of liner.
 - 2. Sewer cleaning to remove mineral deposits, debris, roots, grease and other material that would hinder the Work shall be completed.
 - 3. Removal of protruding taps and other obstructions shall be completed prior to installation of all liners.
 - 4. Bypass pumping shall conform to Section 28300.
- C. Liner Preparation:
 - 1. Liner tube shall be impregnated with resin per manufacturer's requirements before proposed time of installation.
 - 2. Storage and transport of impregnated liner:
 - a. Storage shall be out of direct sunlight.
 - b. Storage shall be below 40°F.
 - c. Transport shall be below 40°F.
- D. Liner Installation:
 - 1. Public Notification:
 - a. Contractor shall make every effort to maintain service usage throughout the duration of the Project. In the event that a service will be out of service, the maximum amount of time of no service shall be 12 hours for any property served by the sewer. A public notification program shall be implemented. Contractor shall be responsible for contacting each home or business

- connected to the sanitary sewer and informing them of the Work to be conducted, and when the sewer will be off-line.
- b. Written notice shall be delivered to each home or business affected by closed lateral service connections. The notice shall be approved by City prior to delivery and shall provide:
 - (1) Description of work and schedule.
 - (2) How the Work will affect the residents, including the time when the sewer will be out of service.
 - (3) Cellular telephone number of Contractor they can call to discuss the Project or any problems that could arise.
 - (4) Personal contact and written notice shall be made by Contractor the day before the Work will commence on the reach or section of sewer affecting the residents.
 - (5) Personal contact shall be made by Contractor with any residents or businesses that cannot be reconnected within the time stated in the written notice.
 2. Installation shall be by contractors certified by the liner manufacturer for installation of the liner.
 - a. Personnel installing the liner shall have been trained by the liner manufacturer.
 - b. Personnel installing the liner shall have a minimum of 2 years experience with installing liners.
 - c. Installation of the liner shall conform to the manufacturer's printed procedures and literature.
 3. Curing: Curing using circulated heating water or steam shall be performed after the insertion is complete.
 - a. Curing temperature shall be as recommended by the liner manufacturer.
 - b. Curing pressures shall be as recommended by the manufacturer.
 - c. Cool down after heating shall be controlled.
 - (1) Temperature shall be controlled as recommended by the liner manufacturer.
 - (2) Pressures shall be maintained during cooling as recommended by the liner manufacturer.
- E. Contractor shall install Insignia End Seals (or approved equal) at all manhole locations. Hydrophilic end seal sleeves shall be installed per manufacturer's recommendations.
- F. Following installation of the liner and lateral reinstatement, Contractor shall televise the sewer to verify the Work.
- G. Reinstatement of Lateral Service Connections:
1. All lateral service connections shall be identified prior to lining.
 2. Lateral service connections shall be reopened without excavation utilizing a remote-controlled cutter monitored by a television camera.
 3. A spare cutter plus spare key components shall be present at the site prior to lining.
 4. Contractor shall be responsible for restoring/correcting, without any delay, all missed or faulty reconnections, as well as for any damage caused to buildings for not connecting the services soon enough or for not giving notice to the building occupants.
- H. Manhole Rehabilitation:
1. Manhole structures that are disturbed, damaged, or have the top portion removed to insert the flexible liner shall be rehabilitated in accordance with the respective specification section.
 - a. Section 28700-Rehabilitation Requiring Excavation.
 - b. Section 28800-Manhole Frame and Cover Replacement.
 2. All structures that receive a top rebuild shall also receive a new frame and cover.

END OF SECTION

SECTION 28700

REHABILITATION REQUIRING EXCAVATION

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for:
 - 1. Repairing sewers including joint repairs, point repairs, and collapsed or broken pipe repairs.
 - 2. Rebuilding tops of manholes designated "RT" in Table 28000-2-Manhole Rehabilitation Summary.
 - 3. Replacing frames and covers of manholes designated "RFC-BD" in Table 28000-2-Manhole rehabilitation Summary.
- B. Related Sections and Divisions:
 - 1. Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern work in this section.
 - 2. Sewer televising to complete the Work shall be in accordance with Section 28200-Sewer Televising.
 - 3. Sewer bypass pumping to complete the Work shall be in accordance with Section 28300-Sewer Bypass Pumping.
- C. Coordinate the Work of this Section with Section 28000-General Requirements and Section 28800-Manhole Frame and Cover Replacement.
- D. Unit Price: Refer to Special Provisions, Section 1-Special Conditions.
- E. Payment:
 - 1. Refer to Special Provisions, Section 1-Special Conditions.
 - 2. Payment for other items shall be as listed in the Bid. If an item is not listed, it shall be considered incidental to the work and included with adjacent or associated items of work.

1.02 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000-General Requirements.

PART 2-PRODUCTS

2.01 SANITARY SEWER PIPE

- A. Refer to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."

2.02 BEDDING AND COVER

- A. Refer to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."

2.03 COMPACTED GRANULAR BACKFILL

- A. Refer to "The Standard Specifications for Public Improvements—City of Davenport, Iowa."

2.04 PRECAST CONCRETE FLAT SLAB

- A. Brick manholes designated "RT" in Table 2800–2, Manhole Rehabilitation Summary require a precast flat slab to serve as the interface between the existing layer of brick and the new chimney adjusting rings.
- B. Precast concrete flat slab shall be sized to bear on the entire surface of the existing layer of brick without overhanging the outside diameter of the existing layer of brick.
- C. Inside diameter opening shall be 27 inches.
- D. Precast concrete flat slab shall be a minimum of 8 inches thick and rated for HS-20 loadings.

2.05 MANHOLE CHIMNEY ADJUSTING RINGS

- A. Manhole adjusting rings shall be injection molded-recycled HDPE as manufactured by LADTECH, Inc., or expanded polypropylene as manufactured by Cretex Specialty Products.
- B. Contractor shall supply ring materials, adhesive, labor, and equipment to install the rings in strict accordance to manufacturer's recommendations. Contractor shall permanently install rings with adhesive so that all manhole casting rims are set level with plan grade. Ring inside diameter shall be 27-inch nominal.
- C. Contractor shall have all ring sizes available when rebuilding tops of manholes, including tapered sections to allow for seamless adjusting of frame elevations on flat and sloped surfaces.
- D. Concrete adjusting rings shall not be used for manhole adjustment.

2.06 FLOWABLE FILL

- A. Flowable fill shall be a self-compacting, self-leveling, material consisting of a mixture of fine aggregate and filler (as needed), water, and cementitious materials (Portland cement, fly ash, granulated blast furnace slag) that is in a flowable state at the time of placement meeting the requirements of the National Ready Mixed Concrete Association Guide Specification for Controlled Low Strength Materials (CLSM). The flowable fill shall be proportioned by the ready mixed concrete supplier on the basis of field experience and/or laboratory trial mixtures to produce a cohesive and nonsegregating mixture which has the following properties: Minimum compressive strength: 70 psi
- B. Contractor shall submit the following information well in advance of fill placement to avoid any delay in construction:
 1. Gradation of fine aggregate.
 2. Design mix.
 3. Previous test results with 7- and 28-day compressive strengths.
 4. Certified mill test results for cement identifying brand, type, and chemistry of cement to be used.
 5. Brand, type, principle ingredient, and amount of each admixture used.

2.07 INSTALL EXTERIOR SEAL

- A. Exterior Seal shall be applied to manholes designated "CL-EX" in Table 28000-2, Manhole Rehabilitation Summary.
- B. Exterior Seal for adjusting ring sealing shall be rubber seals and shall be "Adaptor External Seal," "Infi-Shield Gator Wrap," or equal.
- C. Extensions shall be provided as required to seal the entire section from manhole casting to manhole cone.

PART 3-EXECUTION

3.01 GENERAL

- A. Refer to Section 28000-General Requirements for sequencing requirements.
- B. Excavation shall conform to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."
- C. Bypass pumping shall be in accordance with Section 28300 and provided as needed to allow the Work to proceed.
- D. Maintenance of Surface: Contractor shall maintain all backfilling, resurfacing, repaving, and other surface improvements constructed under this contract as a warranty item. Contractor shall, upon proper notice from City, make all repairs in surfaces of excavations. All expenses incurred by City and/or Contractor in making repairs and all expenses in maintaining excavation surfaces shall be at the expense of Contractor regardless of the material used in backfilling excavations. City reserves the right to make all emergency repairs necessary to make safe all streets and walks at the expense of Contractor regardless of the material used in backfilling excavations.
- E. Pavement restoration shall conform to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."
- F. Landscape restoration shall conform to "The Standard Specifications for Public Improvements-City of Davenport, Iowa."

3.02 REBUILD TOP

- A. Contractor shall remove and dispose all existing chimney ring materials on manholes with a precast concrete cone or flat slab, or manhole block cone.
- B. For brick manholes, Contractor shall remove and depose of all existing defective brick layers in the manhole chimney. Sufficient brick layers shall be removed such that a suitable foundation for rebuilding a new chimney is exposed. Surface of existing brick layer shall be cleaned out of all debris and loose material. A precast concrete flat slab shall be used as an interface between the existing brick layer and the new adjusting rings. Mortar shall be used to seal precast concrete flat slab to existing brick layer. Mortar shall be non-shrink, specifically designed for use in sewers. Submit mortar material information to Engineer for approval.

- C. Contractor shall take care in excavation and work not to allow soil, brick, mortar, or other debris to fall into the manhole.
- D. Contractor shall install new chimney adjusting rings in strict accordance with manufacturer's recommendations, using only manufacturer-recommended adhesive materials.
- E. Construction shall comply with applicable requirements in this section.
- F. All manholes to have a top rebuild shall have a new frame and cover installed as specified in Section 28800. Frames and covers specified in "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall not be used for this project.

3.03 INSTALL EXTERIOR SEAL

- A. Installation shall conform to manufacturer's published instructions.

3.04 COORDINATION WITH OTHER WORK

- A. Where applicable, rehabilitation requiring excavation work at any specified manhole shall be performed prior to all other rehabilitation work required at that specific manhole.

3.05 CONCRETE FILL

- A. In areas where there is inadequate room for compaction equipment and in other areas as shown or as requested by the project manager, flowable fill shall be used as fill material.

END OF SECTION

SECTION 28800

MANHOLE FRAME AND COVER REPLACEMENT

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment for manhole frame and cover replacement.
- B. Work shall be for each location identified by City and listed in the following:
 - 1. Replacing Frames and Covers on manholes that are designated "RFC" in Table 28000-2, Manhole Rehabilitation Summary.
 - 2. Replacing Frames and Covers with bolt down covers with the frame bolted into the precast cone on manholes that are designated "RFC-BD" in Table 28000-2, Manhole Rehabilitation Summary.
 - 3. Replacing Covers on manholes that are designated "RC" in Table 28000-2, Manhole Rehabilitation Summary.
- C. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements-City of Davenport, Iowa" shall govern work in this section.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- F. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 SUBMITTALS

- A. Submit all shop drawings and product data in accordance with provisions of Section 28000-General Requirements.

PART 2-PRODUCTS

2.01 REPLACE FRAME AND COVER

- A. Manholes that are designated "RFC" or "RFC-BD" in Table 28000-2, Manhole Rehabilitation Summary require a new frame and cover. These frames and covers shall comply with the following requirements:
 - 1. The cast iron frames and machined self-sealing covers shall be Neenah Foundry Company R-1642 (RFC), R-1916-F (RFC-BD), or equal. Manhole frames and covers shall be manufactured from high test cast iron conforming to the requirements for Class 40A of ASTM A48.
 - 2. Frames shall be true to pattern in form dimensions, free from pouring faults, sponginess, cracks, blowholes, and other defects in positions affecting strength and value of the service intended. Frames shall be boldly filleted at angles and the risers shall be sharp and perfect. Frames shall be sandblasted or otherwise effectively cleaned of scale and sand so as to present a smooth, clean, and uniform surface.

3. Such lids or covers shall have checkered or indented top design similar to Neenah Foundry Company Type B lids; top design with protruding knobs or lugs will not be accepted. Covers shall have concealed pick holes and they shall also have a continuous self-sealing flat gasket which fits securely in a machined groove on the outer base of the cover.
4. Nonrocking covers shall not be used. Frames and covers specified in "The Standard Specifications for Public Improvements—City of Davenport, Iowa" shall not be used for this project.

2.02 REPLACE COVER

- A. Manholes that are designated "RC" in Table 28000–2, Manhole Rehabilitation Summary require a new cover. These covers shall comply to the following requirements:
 1. Cover shall fit existing frame using field measurements by Contractor.
 2. Covers shall be cast iron machined self-sealing covers manufactured by Neenah Foundry Company, or equal. Manhole covers shall be manufactured from high test cast iron conforming to the requirements for class 35B of ASTM A48, supplemented by the following requirements.
 3. Covers shall have checkered or indented top design similar to Neenah Foundry Company Type B lids; top design with protruding knobs or lugs will not be accepted. Covers shall have concealed pick holes and they shall also have a continuous self-sealing flat gasket, which fits securely in a machined groove on the outer base of the cover.
 4. Nonrocking covers shall not be used. Frames and covers specified in "The Standard Specifications for Public Improvements—City of Davenport, Iowa" shall not be used for this project.

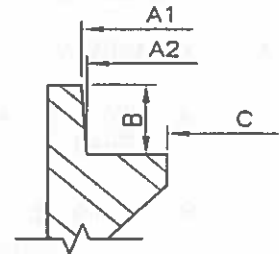
PART 3—EXECUTION

3.01 REPLACE FRAME AND COVER

- A. The work shall be as specified in Section 28700, except a new frame and cover shall be provided in lieu of reusing the existing frame and cover.
- B. Old frames and covers remain property of City and shall be delivered to City's Public Works storage yard.
- C. Manholes that are designated "RFC-BD" in Table 28000–2, Manhole Rehabilitation Summary shall have the frame secured to existing precast structure with four (4) 1/2-inch threaded stainless steel rod and stainless steel hardware. Rod shall be imbedded a minimum three (3) inches and anchored with two part, quick setting epoxy. Submit adhesive material information to Engineer for approval.
- D. Where applicable, Contractor shall perform this type of work prior to Manhole Resurfacing. See Section 28000 for sequencing requirements.

3.02 REPLACE COVER

- A. Contractor shall be responsible for accurate sizing of the replacement cover. Prior to replacing manhole cover, existing casting shall be measured. This includes providing the manhole cover supplier with the following measurements:
1. Diameter at top of opening (A_1).
 2. Diameter at seat of cover pocket (A_2).
 3. Depth of cover pocket (B).
 4. Diameter of clear opening (C).
- B. The bearing surface of the casting shall be cleaned of all debris and loose scale before installing the new cover.
- C. Old covers remain property of City and shall be delivered to City's Public Works storage yard.



END OF SECTION

SECTION 28900

MANHOLE RESURFACING AND BENCH AND CHANNEL CONSTRUCTION

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for resurfacing of manhole interiors.
- B. Work related to Manhole Resurfacing includes:
 - 1. Resurfacing bench, wall, cone, and chimney sections of manholes designated "SM-CR" in Table 28000-2, Manhole Rehabilitation Summary with a corrosion resistant cementitious coating.
 - 2. Constructing manhole benches and channels in manholes designated "CBC" in Table 28000-2, Manhole Rehabilitation Summary.
- C. Coordinate the Work of this section with Section 28000-General Requirements.
- D. Unit Prices: Refer to Special Provisions, Section 1-Special Conditions.
- E. Payment: Refer to Special Provisions, Section 1-Special Conditions.

1.02 QUALITY ASSURANCE

- A. Contractor shall provide documentation that the cementitious coating applicator is an approved installer and licensed by the coating system manufacturer.
- B. Documentation shall include: A list of at least 5 past clients, including names and telephone numbers to verify previous satisfactory performance on projects of similar or greater size and difficulty factor.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000-General Requirements.
- B. Submit manufacturer's instructions.
- C. Submit quality assurance data.

1.04 WARRANTY

- A. Refer to "Combined Performance-Payment and Maintenance Bond."

PART 2-PRODUCTS**2.01 MANUFACTURERS**

- A. Manhole resurfacing corrosion resistant cementitious repair manufacturers for manholes designated "SM-CR" in Table 28000-2, Manhole Rehabilitation Summary shall be:
 - 1. Quadex.
 - 2. The Strong Company, Inc.
 - 3. Kerneos.
 - 4. Or Equal.
- B. Manhole chemical sealing manufacturers shall be as listed in Section 28550.
- C. Channel Reconstruction:
 - 1. Re-Liner as manufactured by Duran, Inc.
 - 2. Or Equal.
- D. Manhole Bench Construction in conjunction with Channel Reconstruction:
 - 1. Rapid Set Concrete Mix.
 - 2. Or Equal.

2.02 REFERENCES

- A. Manhole Resurfacing:
 - 1. ASTM C78-Test Method for Flexural Strength of Concrete (Using Simple Beam With Third-Point Loading)
 - 2. ASTM C94-Specification for Ready-Mixed Concrete.
 - 3. ASTM C109-Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-inch or 50 mm Cube Specimens).
 - 4. ASTM C267-Test Method for Chemical Resistance of Mortars, Grouts, and Monolithic Surfacing.
 - 5. ASTM C321-Test Method for Bond Strength of Chemical-Resistant Mortars.
 - 6. ASTM C496-Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens.
 - 7. ASTM C596-Test Method for Drying Shrinkage of Mortar Containing Portland Cement.
 - 8. ASTM C666-Test Method for Resistance of Concrete to Rapid Freezing and Thawing.
 - 9. ASTM C827-Test Method for Change in Height at Early Ages of Cylindrical Specimens from Cementitious Mixtures.
 - 10. ASTM C952-Test Method for Bond Strength of Mortar to Masonry Units.
- B. Manhole Channel Construction:
 - 1. ASTM D-638-Test Method for Tensile Properties of Plastics.
 - 2. ASTM D-790-Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
 - 3. ASTM D-2583-Test Method for Indentation Hardness of Rigid Plastics by Means of Barcol Impressor.

2.03 MANHOLE RESURFACING

- A. Active Water Leakage Sealer:
 - 1. Quadex Quad Plug.
 - 2. Permacast-Plug or Patch.
 - 3. Saureisen Instaplug No. F-180.

4. Or Equal.
- B. Void Filler:
1. Quadex Hyperform.
 2. Permacast MS-10,000 UL.
 3. Saureisen Underlayment and Repair Mortar No. F-20.
 4. Or Equal.
- C. Corrosion Resistant Cementitious Liner Material:
1. Quadex Geo.
 2. Strong-Seal High Performance Mix.
 3. Kerneos SewperCoat PG.
 4. Or Equal.
- D. Manhole Channel Construction:
1. Re-Liner.
 2. Or Equal.
- E. Manhole Bench Construction in conjunction with Channel Reconstruction.
1. Rapid Set Concrete Mix.
 2. Or Equal.
- F. Chemical Sealing: Materials shall be as listed in Section 28550.

2.04 REQUIREMENTS

- A. Manhole Resurfacing—Corrosion Resistant Lining:
1. Quadex Geocrete.
 - a. ASTM C109 Minimum Compressive Strength: 3,000 psi at 28 days.
 - b. ASTM 78 Minimum Flexural Strength: 1,300 psi at 28 days.
 - c. ASTM C882 Bond Strength: 5,000 psi at 28 days.
 - d. ASTM C1202 Permeability: <250 coulombs at 28 days.
 - e. ASTM C496 Split Tensile Strength: >900 psi at 28 days.
 2. Strong-Seal High Performance Mix:
 - a. ASTM C109 Minimum Compressive Strength: 9,000 psi at 28 days.
 - b. ASTM C496 Tensile Strength: 800 psi at 28 days.
 - c. ASTM C293 Flexural Strength: 1,500 psi at 28 days.
 - d. ASTM C882 Bond Strength: 2,000 psi at 28 days.
 - e. ASTM C596 Shrinkage: 0% at 90% relative humidity.
 - f. ASTM C666 Freeze-Thaw Durability: No visible damage after 300 cycles.
 3. Kerneos SewperCoat PG:
 - a. ASTM C109 Minimum Compressive Strength: 7,000 psi at 28 days.
 - b. ASTM C348 Flexural Strength: 1,300 psi at 28 days.
 - c. ASTM C157 Shrinkage After 28 days Immersion: <0.07%.
 - d. ASTM C496 Tensile Strength: 700 psi at 28 days.
 - e. ASTM C882 Bond Strength: 2,500 psi.
 - f. ASTM C666 Freeze-Thaw Durability: Relative dynamic modulus of 102 after 300 cycles.
 - g. ASTM C642 Volume of Permeable Voids: 15% at 40 days.
 - h. ASTM C642 Apparent Density: 2.74.
 - i. ASTM C469: Modulus of Elasticity: 5,000 ksi at 28 days.

- B. Manhole Channel Construction-ReLiner:
 1. ASTM D790 Flexural Strength: 27,100 psi.
 2. ASTM D790 Flexural Modulus: 1,157,000 psi.
 3. ASTM D638 Tensile Strength: 16,700 psi.
 4. ASTM D638 Tensile Elongation: 1.54%.
 5. ASTM D2583 Hardness, Barcol 934.1: 55-60.

PART 3-EXECUTION

3.01 MANHOLE RESURFACING AND BENCH AND CHANNEL CONSTRUCTION

- A. Refer to Section 28000 for sequencing requirements.
- B. Bypassing Pump: Bypass pumping shall conform to Section 28300.
- C. Surface Preparation:
 1. Place covers over or otherwise protect the sewer outlet to prevent extraneous material from entering the sewer pipe.
 2. All concrete that is not sound or has been damaged by chemical exposure shall be removed to a sound concrete surface. All contaminants including: all oils, grease, incompatible existing coatings, waxes, form release, curing compounds, efflorescence, sealers, salts, or other contaminants shall be removed.
 3. Physically remove excess asphaltic manhole jointing compounds flush with the remaining cementitious manhole barrel.
 4. All steps shall be removed flush with manhole walls.
 5. Manhole walls from the manhole invert to the bottom of the frame for manholes to receive resurfacing shall be prepared by pressure water blast or abrasive blast as recommended by manufacturer.
 6. All voids from missing bricks or mortar shall be filled with the approved repair and void filling materials to provide a uniform surface for resurfacing materials to bond to.
 7. All protruding bricks, blocks or other material shall be removed from manhole, bench, walls, cone, and chimney.
 8. Remove and dispose of all debris that has been cleaned from the manhole walls.
- D. Manhole Resurfacing:
 1. Installation of resurfacing material shall be done in accordance with the manufacturer's published recommendations and procedures.
 2. All active water infiltration shall be stopped by use of water plug or hydroactive grout. Such materials shall be compatible with any subsequent resurfacing Work.
 3. Before any subsequent coating is applied, repair materials shall be allowed to cure to manufacturer's recommendations. Curing compounds may not be used unless approved by the lining manufacturer.
 4. If lining manufacturer is different than that for repair materials, then repair process shall be observed by lining manufacturer to ensure proper suitability to receive the lining system.
 5. Resurfacing material shall be applied from the invert of the channel (except for newly constructed channels) to:
 - a. The bottom of the existing frame or,
 - b. The bottom of the new chimney rings for manholes that had a top replacement as part of this project. No material shall be applied to new chimney rings. Create a smooth and neat transition where cementitious liner meets chimney rings.
 - c. Or as indicated on the Drawings.

6. Material thickness may be verified at any point with a depth gauge and shall be no less than:
 - a. Three quarters inch thick on manholes less than 10 feet deep.
 - b. One-inch-thick on manholes greater than 10 feet deep. A 1-inch thickness is only required on the lower portion of the manhole that is greater than 10 feet deep. For example, if a manhole is 15 feet deep, the upper 10 feet of the manhole requires a 3/4-inch thickness. The lower 5 feet of the manhole requires a 1-inch thickness.
 7. Material shall be applied only when manhole is in a damp state, with no visible water dripping or running over the interior surfaces of the manhole.
 8. Repair and resurfacing materials shall be troweled to provide a smooth surface with a profile similar to coarse sandpaper. No bugholes or honeycomb surfaces shall remain after the troweling is completed.
 9. Completed resurfaced manhole shall have a uniform coating free of voids with a minimum thickness in all locations as specified.
 10. Completed resurfaced bench shall have a 3-inch slope, sloping from manhole walls to the manhole channel.
 11. Care shall be taken to prevent resurfacing materials from contacting any inside drop vertical pipes, flow meters, cables, or other appurtenances that may be present within manhole.
- E. Inspection: During application, a wet film thickness gauge meeting ASTM D4414—Standard Practice for Measurement of Wet Film Thickness of Organic Coatings by Notched Gauges, shall be used to ensure a monolithic coating and uniform thickness during application.
- F. Cleanup:
1. After all work is complete, remove all extraneous material from the manhole.
 2. Contractor shall be responsible for proper disposal of all extraneous materials.

END OF SECTION

SECTION 28910

INTERIOR MANHOLE CHIMNEY LINING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Providing all labor, material, and equipment necessary for lining manhole chimney interiors with an aromatic flexible urethane resin.
- B. Work related to manhole chimney lining includes lining the chimneys of manholes designated "CL" in Table 28000-2, Manhole Rehabilitation Summary.
- C. Related Sections and Divisions: Applicable provisions of "The Standard Specifications for Public Improvements—City of Davenport, Iowa" shall govern work in this section.
- D. Coordinate the Work of this section with Section 28000-General Requirements.
- E. Unit Prices: Refer to Special Provisions—Section I—Special Conditions
- F. Payment: Refer to Special Provisions—Section I—Special Conditions

1.02 QUALITY ASSURANCE

- A. Contractor shall provide documentation that the manhole chimney lining installer is an approved installer and licensed by the manhole chimney lining system manufacturer.
- B. Documentation shall include a list of at least five previous projects including names and telephone numbers to verify previous satisfactory performance on projects of similar or greater size and difficulty factor. Contractor's field foreman shall have experience on at least five previous projects with application of specified materials.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under the provisions of Section 28000—General Requirements.
- B. Submit manufacturer's instructions.
- C. Submit quality assurance data.

1.04 WARRANTY

- A. Refer to "Combined Performance—Payment and Maintenance Bond."

PART 2-PRODUCTS

2.01 MANUFACTURERS

- A. Manhole Chimney Lining manufacturers shall be:
 - 1. Sealing Systems Inc.
 - 2. Or equal.
- B. Manhole chemical sealing shall be as listed in Section 28550.
- C. Cementitious repair manufacturers shall be as listed in Section 28900.

2.02 REFERENCES

- A. Manhole Chimney Lining:
 - 1. ASTM D2240-Standard Test Method for Rubber Property-Durometer Hardness.
 - 2. ASTM D412-Standard Test Method for Vulcanized Rubber and Thermoplastic Elastomers-Tension.
 - 3. ASTM D903-Standard Test Method for Peel of Stripping Strength of Adhesive Bonds.
 - 4. ASTM D570-Standard Test Method for Water Absorption of Plastics.
 - 5. ASTM D1004-Standard Test Method for Tear Resistance (Graves Tear) of Plastic Film and Sheeting.

2.03 MANHOLE CHIMNEY LINING

- A. Active Water Leakage Sealer: Materials shall be as listed in Section 28900.
- B. Void Filler: Materials shall be as listed in Section 28900.
- C. Chemical Sealing: Materials shall be as listed in Section 28550.

2.04 REQUIREMENTS

- A. Manhole Chimney Lining
 - 1. Sealing Systems Inc.:
 - a. ASTM D2240-Hardness (Durometer), 75.
 - b. ASTM D412-Elongation (at break), 800%.
 - c. ASTM D412-Tensile Strength, 1,150 psi.
 - d. ASTM D903-Adhesive Strength, 175 lb. l/in.
 - e. ASTM D570-Water Absorption, .05% by weight.
 - f. ASTM D1004-Tear Resistance, 155 lb. l/in.
 - 2. If manhole resurfacing is to be completed as part of the work, manhole resurfacing materials must be accepted and approved by the manhole chimney lining manufacturer for compatibility with the manhole chimney lining system products.
 - 3. Required thickness shall be 180 mils, or as recommended by manufacturer, whichever is greater.

PART 3-EXECUTION

3.01 MANHOLE CHIMNEY LINING

- A. Refer to Section 28000 for sequencing requirements.

B. Surface Preparation:

1. Place covers over or otherwise protect the sewer outlet to prevent extraneous material from entering the sewer pipe.
2. All concrete and brick that is not sound or has been damaged by chemical exposure shall be removed to a sound concrete or brick surface. All contaminants including all oils, grease, incompatible existing coatings, waxes, form release, curing compounds, efflorescence, sealers, salts, or other contaminants shall be removed.
3. Physically remove excess asphaltic manhole jointing compounds flush with the remaining manhole.
4. Large voids and missing bricks shall be filled with specified patching material to allow for a smooth surface for chimney liner to adhere to.
5. Protruding bricks, blocks, concrete or other materials shall be removed flush with the chimney surface.
6. All active water infiltration shall be stopped by use of water plug or hydroactive grout. Such materials shall be compatible with chimney lining materials.
7. Prior to applying chimney liner, repair materials shall be allowed to cure according to manufacturer's recommendations. Curing compounds may not be used unless approved by the chimney liner manufacturer.
8. Interior manhole surfaces that will be in contact with chimney liner shall be prepared by abrasive blast as recommended by manufacturer. Contractor shall take care while abrasive blasting as to not damage any cementitious linings that were installed prior to chimney liner installation. Contractor shall adhere to cure times in manhole resurfacing manufacturer specifications prior to abrasive blasting.
9. Manhole frame shall be cleaned by abrasive blasting as recommended by manufacturer to remove all rust, scale, or other materials that may inhibit adhesion of chimney liner to frame.
10. All areas that chimney liner will be in contact with shall be thoroughly wiped with acetone to remove any sand, dust, oil, grease, or chemical contamination.
11. Completely dry the substrate prior to applying the chimney liner.
12. Remove and dispose of all debris that has been cleaned from the manhole walls, cone, chimney, and frame.

C. Chimney Liner Installation:

1. Installation of the chimney liner shall be done in accordance with manufacturer's written recommendations and procedures.
2. After surface preparation is complete and prior to installation of the liner, a manufacturer approved aromatic urethane primer resin shall be applied.
3. Allow primer to cure according to manufacturer's recommendations.
4. The liner shall be installed in manhole continuous from 3 inches above the frame/chimney joint down 3 inches onto:
 - a. Previously installed cementitious liner for brick manholes designated 'SM' in Table 1-Manhole Rehabilitation Summary.
 - b. Cone section of precast concrete or block manholes.
5. Minimum liner length shall be 1 foot.
6. Finished chimney liner shall provide a smooth surface that conforms to the existing structure. The finished liner shall be free of thin spots and delaminations, and shall be of uniform thickness. The finished liner must provide an air- and watertight corrosion-resistant liner protecting the manhole chimney.

D. Inspection: Liner shall be visually inspected to ensure bonding, complete cure, and a smooth surface free from cracks or hollow spots.

- E. Cleanup:
1. After all work is complete, remove all extraneous material from the manhole.
 2. Contractor shall be responsible for proper disposal of all extraneous materials.

END OF SECTION

City of Davenport

Agenda Group: Public Works
Department: Public Works - Engineering
Contact Info: Jen Walker; (563) 326-6168
Wards: 3

Action / Date
PW5/3/2017

Subject:
Motion accepting work associated with the Riverfront Safety Guardrail Project, CIP #68002.
[Ward 3]

Recommendation:
Pass the motion

Relationship to Goals:
Upgraded City Infrastructure & Public Facilities

Background:

The Department of Public Works upgraded 110 linear feet of seawall safety railing. Demolition of the old Dock restaurant building about a year ago largely left no secure barrier between the seawall and the river. In the interest of public safety, a permanent structure needed to be constructed. The new railing was installed by Bevans Steel Company (Davenport, IA). Total project cost was \$18,150, funded from CIP #68002 using proceeds of Government Bonds.

ATTACHMENTS:

Type	Description
□ Resolution Letter	Page 2

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Engineering	Lechvar, Gina	Approved	4/26/2017 - 11:38 PM
Public Works Committee	Lechvar, Gina	Approved	4/26/2017 - 11:38 PM
City Clerk	Admin, Default	Approved	4/27/2017 - 10:44 AM

Motion No. _____

MOTION offered by Alderman Ambrose

MOTION to accept the Riverfront Safety Guardrail Project, awarded to Bevans Steel Company. Final cost of the project was \$18,150 using Government Bond proceeds, CIP 68002. [Ward 3]

WHEREAS, the City entered into a contract with Bevans Steel Company to fabricate and install 110 linear feet of railing along the Mississippi River seawall, and;

WHEREAS, the project was designed to provide a permanent safety railing similar to existing railing, and;

WHEREAS, the project has been found and determined that the work of constructing the above-named project has been duly and fully completed by the contractor in accordance with the terms of the contract, and the same is hereby accepted and approved, and;

WHEREAS, the total construction cost of said project is \$18,150.

NOW, THEREFORE, BE IT MOVED by the Public Works Committee of the City of Davenport, Iowa: that the Utah & Telegraph Culvert contract be hereby accepted.

Passed and approved this 10th day of May, 2017.

Approved:

Attest:

Frank Klipsch, Mayor

Jackie E. Holecek, Deputy City Clerk

City of Davenport

Agenda Group: Public Works
Department: Public Works - Admin
Contact Info: Nick Schmuecker - 327-5162
Wards: All

Action / Date
PW5/3/2017

Subject:

Motion to approve a contract for the full depth patching program to Langman Construction, Inc. of Rock Island, IL in a not-to-exceed amount of \$680,000 for FY 2017. CIP #35011 [All Wards]

Recommendation:

Approve the motion.

Relationship to Goals:

Financially responsible City government.

Background:

A Request for Bid was issued on March 28, 2017 and was sent to 328 contractors. On April 18, 2017 the Purchasing Division opened and received two responsive and responsible bids.

Langman Construction, Inc. was the low bidder and is recommended for the contract.

This contract is for the full depth patch of City and State roads within the City of Davenport. This project will operate based on an indefinite quantity, indefinite delivery task order contract. There is a minimum of \$280,000 worth of work and a maximum of \$680,000 worth of work during a one year period from the date of letting. \$80,000 will be dedicated to State route patches. While it is unknown as to the exact number of locations and quantities, sample locations and quantities have been provided to aid in the bidding process. There is also an anticipated one year extension option for this contract for which the expected minimum amount is \$400,000 and the maximum expected amount is \$800,000. It is possible that the second year extension will not be approved in which case this contract will terminate after year one with no additional compensation paid to the Contractor.

A Public Hearing was held on March 1, 2017 and was approved at subsequent meeting.

Funding for this project is from CIP# 35011.

REVIEWERS:

Department	Reviewer	Action	Date
Public Works - Admin	Admin, Default	Approved	4/27/2017 - 4:51 PM

City of Davenport

Agenda Group: Finance
Department: Finance
Contact Info: Nicole Gleason 327-5150
Wards: 3

Action / Date
FIN5/3/2017

Subject:

Motion awarding a contract to replace the boiler at City Hall to Johnson Controls of Moline, IL in the amount of \$132,500. CIP 23006 [Ward 3]

Recommendation:

Approve the Motion.

Relationship to Goals:

Financial Responsible City Government.

Background:

On March 20, 2017, the Purchasing Division issued an Invitation to Bid for the total boiler replacement at City Hall. On April 10, 2017, five responsive and responsible bids were opened. Johnson Controls of Moline, IL submitted the lowest bids. See bid tab attached.

The boiler at City Hall needs to be replaced due to age, efficiency, and reliability.

Funding for this project is from CIP 23006, City Hall Boiler Replacement account. These funds are from the sale of general obligation bonds.

ATTACHMENTS:

Type	Description
▣ Cover Memo	Bid Tab - City Hall Boiler

REVIEWERS:

Department	Reviewer	Action	Date
Finance	Watson-Arnould, Kathe	Approved	4/25/2017 - 4:58 PM
Finance Committee	Watson-Arnould, Kathe	Approved	4/25/2017 - 4:59 PM
City Clerk	Admin, Default	Approved	4/26/2017 - 2:26 PM

CITY OF DAVENPORT, IOWA
TABULATION OF BIDS

DESCRIPTION: CITY HALL BOILER REPLACEMENT

BID NUMBER: 17-86

OPENING DATE: APRIL 10, 2017

GL ACCOUNT NUMBER: 77033697 530350 23006

RECOMMENDATION: AWARD THE BID TO JOHNSON CONTROLS OF
MOLINE IL

<u>VENDOR NAME</u>	<u>BID AMOUNT</u>
Johnson Controls of Moline IL	\$132,500
Northwest Mechanical Inc of Davenport IA	\$156,850
J L Brady Co. of Moline, IL	\$158,350
Ragan Mechanical Inc of Davenport IA	\$164,545
The Waldinger Corp of Buffalo IA	\$220,000

Approved By Kristi Keller
Purchasing

Approved By Nicole Wleason
Department Director

Approved By Brandi Corry
Budget/CIP

Approved By BW
Finance Director

City of Davenport

Agenda Group: Finance
Department: Finance
Contact Info: Jonathan Meeks 563-326-7922
Wards: All

Action / Date
FIN5/3/2017

Subject:
Motion approving the purchase of a combination jetter/vacuum sewer cleaner truck from Gradall Industries Inc of New Philadelphia, Ohio in the amount of \$371,090.07. [All Wards]

Recommendation:
Approve the motion.

Relationship to Goals:
Financially Responsible City Government.

Background:
We are purchasing this combination jetter/vacuum sewer cleaner truck from a National Joint Powers Alliance (NJPA) contract #022014-GRS. Gradall was awarded this contract.

The current jetter/vacuum unit is nearing the end of its useful life. This is a critical piece of equipment for sewer maintenance and sanitary sewer overflow prevention. This purchase will trade out an old, inefficient piece of equipment. The new piece of equipment has a four- to six-month lead time; delivery will not be taken prior to July 1, 2017.

Funding for this purchase is from account #51102060 530302 Sewer Maintenance for Motor Vehicle Equipment, with a current balance of \$188,833.48. \$100,000 of this from the FY17 budget and the balance from the FY18 will be used to make this purchase.

REVIEWERS:

Department	Reviewer	Action	Date
Finance	Watson-Arnould, Kathe	Approved	4/27/2017 - 11:32 AM
Finance Committee	Watson-Arnould, Kathe	Approved	4/27/2017 - 11:32 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 3:05 PM

City of Davenport

Agenda Group: Finance
Department: Finance
Contact Info: Nicole Gleason - 327-5105
Wards: All

Action / Date
FIN5/3/2017

Subject:

Motion awarding the purchase of an automated vehicle location (AVL) system for Citibus to TransLoc, Inc. of Durham, NC in the amount of \$135,000. [All Wards]

Recommendation:

Approve the motion.

Relationship to Goals:

Financially Responsible City Government.

Background:

A Request for Proposal was issued on February 13, 2017 and was sent to three companies. On March 2, 2017 the Purchasing Division received and opened five proposals.

The automatic vehicle locator system that will provide real-time passenger information and dispatching services that integrates seamlessly into the joint metropolitan bus service provided between MetroLINK on the Illinois side of the river, and Davenport's CitiBus service.

The proposals were evaluated on the following criteria: Proposed Pricing - 25%; Hardware and Application Features - 25%; Compatibility with MetroLINK system - 35%; Life Expectancy and Reliability - 15%.

Funding for this purchase is from account 51362122-530303 with an available amount of \$420,000.

ATTACHMENTS:

Type	Description
Backup Material	RFP Respondents

REVIEWERS:

Department	Reviewer	Action	Date
Finance	Wright, Brandon	Approved	4/28/2017 - 11:33 AM
Finance Committee	Watson-Arnould, Kathe	Approved	4/28/2017 - 11:35 AM
City Clerk	Admin, Default	Approved	4/28/2017 - 11:47 AM

CITY OF DAVENPORT, IOWA
PROPOSAL TABULATION

DESCRIPTION: AUTOMATED VEHICLE LOCATION FOR CITIBUS
RFP NUMBER: 17-78
OPENING DATE: MARCH 7, 2017
RECOMMENDATION: AWARD THE CONTRACT TO TRANSLOC, INC. OF
DURHAM, NC.

<u>VENDOR NAME</u>	<u>LOCATION</u>
TRANSLOC, INC.	DURHAM, NC
DOUBLEMAP, INC.	INDIANAPOLIS, IN
ETA PHI SYSTEMS, INC.	BOCA RATON, FL
INIT INNOVATIONS IN TRANSPORATION, INC.	CHESAPEAKE, VA
CYNCHROMATICS COPORATION	LOS ANGELES, CA

Prepared By Cindy Whitaker
Purchasing

Approved By Nicole Meisen
Department Director

Approved By BW
Budget/CIP

Approved By BW
Finance Director

City of Davenport

Agenda Group: Finance
Department: Finance
Contact Info: Eric Longlett 327-5153
Wards: All

Action / Date
FIN5/3/2017

Subject:
Motion awarding a contract for asphalt oils for the 2017 construction season to Tri-State Ashpalt, LLC of Morris, IL. [All Wards]

Recommendation:
Approve the Motion.

Relationship to Goals:
Financially Responsible City Government.

Background:
A Request for Bids was issued on March 27, 2017 and was sent to 60 vendors. On April 11, 2017 the Purchasing Division received one bid.

The asphalt oils are used at the city asphalt plant. These materials are needed to produce the asphalt mix used to fill potholes and small street patch jobs. The contract would be effective during fiscal year 2018. The estimated amount to be spent under this contract is a not-to-exceed amount of \$100,000.

Funding for this purchase will come from the account number 54702031-520201. The source of funding is Road Use Tax.

REVIEWERS:

Department	Reviewer	Action	Date
Finance	Wright, Brandon	Approved	4/28/2017 - 11:34 AM
Finance Committee	Watson-Arnould, Kathe	Approved	4/28/2017 - 11:36 AM
City Clerk	Admin, Default	Approved	4/28/2017 - 11:47 AM

City of Davenport

Agenda Group: Finance
Department: Finance
Contact Info: Kristi Keller 888-2077
Wards: All

Action / Date
FIN5/3/2017

Subject:

1. Midwest Water Group, Inc. - Manhole assessments - Amount: \$32,070
2. Weitz Industrial LLC - Moving machine @ Dewatering Plant - Amount: \$25,000

REVIEWERS:

Department	Reviewer	Action	Date
Finance	Watson-Arnould, Kathe	Approved	4/27/2017 - 11:38 AM
Finance Committee	Watson-Arnould, Kathe	Approved	4/27/2017 - 11:38 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 3:05 PM

City of Davenport

Agenda Group: Committee of the Whole

Department: City Clerk

Contact Info: Tom Warner

Wards: All

Action / Date

5/3/2017

Subject:

Motion to suspend the rules to vote on the following item.

REVIEWERS:

Department

Reviewer

Action

Date

City Clerk

Admin, Default

Approved

4/26/2017 - 3:34 PM

City of Davenport

Agenda Group: Committee of the Whole
Department: Legal
Contact Info: T Warner x7752
Wards: 3rd Ward

Action / Date
COW5/3/2017

Subject:

Resolution calling for a special election to the fill the vacancy of 3rd Ward Alderman

Recommendation:

Pass the resolution

Background:

Former 3rd Ward Alderman Bill Boom resigned his position April 18, 2017 creating a vacancy.

This resolution requests a special election be held as soon as practicable and legal. Scott County Auditor Roxanna Moritz anticipates a primary election on June 11, 2017 followed by a final election on July 13, 2017. She estimates the cost to be approximately \$10,000 per election for a total of \$20,000 if a primary is necessary. A substantial portion of the cost is publication fees charged by the QC Times.

ATTACHMENTS:

Type	Description
▣ Cover Memo	Resolution Calling For Special Election

REVIEWERS:

Department	Reviewer	Action	Date
Legal	Warner, Tom	Approved	4/26/2017 - 11:02 AM
Finance Committee	Admin, Default	Approved	4/27/2017 - 10:47 AM
City Clerk	Admin, Default	Approved	4/27/2017 - 10:47 AM

Resolution No. _____

Resolution offered by Mayor Klipsch

RESOLVED by the City Council of the City of Davenport.

RESOLUTION CALLING FOR A SPECIAL ELECTION TO FILL THE VACANCY OF 3rd WARD ALDERMAN.

WHEREAS, former 3rd Ward Alderman Bill Boom resigned his position effective April 18, 2017;

WHEREAS, the people of the 3rd Ward have shown great interest in having a special election – at least one petition is circulating, several people have inquired about how to run for the vacancy and others have even started campaigning for it; and

WHEREAS, the Mayor and City Council wishes to support the 3rd Ward residents in the exercise of their right to run for office and choose their representative;

NOW THEREFORE, IT IS HEREBY RESOLVED by the City Council of the City of Davenport, Iowa, that a request is made to the County Commissioner of Elections to hold an election as soon as is practicable and legal to fill the vacancy of 3rd Ward Alderman, and to hold any primary that may be necessary.

Attest:

Approved:

Jackie E. Holecek, CMC
Deputy City Clerk

Frank Klipsch
Mayor