Council Committee of the Whole Agenda

January 28, 2020 - 6:00 p.m.

City Hall Council Chambers
15 Loockerman Plaza, Dover, Delaware

Public comments are welcomed on any item and will be permitted at appropriate time. When possible, please notify the City Clerk (736-7008 or email at cityclerk@dover.de.us) should you wish to be recognized.

Utility Committee

Adoption of the Agenda

1. **Dedication of Water and Wastewater Infrastructure - Leander Lakes Apartment Complex**
   (Staff recommendation: Acceptance of water and wastewater infrastructure within the public utility easement in Leander Lakes Apartment Complex. Dedication is to include all of the referenced water and wastewater infrastructure.)

2. **Update on Water Main Breaks**
   (Committee action not required)

3. **Adjournment of Utility Committee meeting**

Safety Advisory and Transportation Committee

Adoption of the Agenda

1. **Evaluation of Bids - Fiscal Year 2020 Street and Alley Program**
   (Staff recommendation: Award a unit price contract, based upon Bid #20-0014PW for the FY 20 Street & Alley Program to George & Lynch, Inc. based on the unit prices for each work item submitted. The estimated value of the contract is $1,037,893.90. Work will be performed in strict accordance to the Bid Specifications.)

2. **Reconsideration - Prioritization of City of Dover State Capital Transportation Program (CTP) Projects**
   (During the Regular Council meeting of December 9, 2019 members approved the Committee's November 26, 2019 recommendation to reprioritize item #4 - Loockerman Street/Forest Street Intersection as item #11 and discussing the project further in January 2020.)

Safety Advisory and Transportation Committee (Continued)

3. Quarterly Update - Bicycle and Pedestrian Subcommittee

(This item was deferred on November 26, 2019 due to the absence of a subcommittee representative)
(Committee action is not required)

4. Discharge of Bicycle and Pedestrian Subcommittee

(Referred to the Committee by City Council during their Regular Meeting of January 13, 2020)

5. Adjournment of Safety Advisory and Transportation Committee meeting

Adjournment of Council Committee of the Whole meeting

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The agenda items as listed may not be considered in sequence. Pursuant to 29 Del.C. §1004(e)(2), this agenda is subject to change to include the addition or deletion of items, including executive sessions, which arise at the time of the meeting.

ACTION FORM

PROCEEDING: Committee of the Whole (Utility)
DEPARTMENT OF ORIGIN: Public Works **DATE SUBMITTED**: 01-03-20
PREPARED BY: Sharon J. Duca, P.E., Public Works Director
SUBJECT: Dedication of Water and Wastewater Infrastructure – Leander Lakes Apartment Complex
REFERENCE: N/A
RELATED PROJECT: N/A
REVIEWED BY: City Manager, Controller
EXHIBITS: Attachment A – List of Water and Wastewater to be accepted by the City of Dover Attachment B – Map
EXPENDITURE REQUIRED: $ N/A **AMOUNT BUDGETED**: $ N/A **FUNDING SOURCE (Dept./Page in CIP & Budget)**: N/A
TIMETABLE: All water and wastewater infrastructure within the public utility easement will become the responsibility of the City of Dover upon acceptance by City Council.
RECOMMENDED ACTION: Acceptance of water and wastewater infrastructure within the public utility easement in Leander Lakes Apartment Complex. Dedication is to include all of the referenced water and wastewater infrastructure.

BACKGROUND AND ANALYSIS

Rinnier Development Company, responsible party for completing the water and wastewater infrastructure within the Leander Lakes Apartment Complex, has requested that all water and wastewater infrastructure within the public utility easement be dedicated to the City of Dover for permanent ownership and maintenance. Attachment A outlines the water and wastewater infrastructure within this complex to be dedicated to the City. The total construction value of the infrastructure is $812,230. Attachment B shows the general location and configuration of the public utility easement in which the referenced infrastructure is contained. Rinnier Development Company completed construction of the infrastructure in accordance with City standards and specifications. After construction was completed, City staff inspected the water and wastewater infrastructure and developed a list of repairs to be made to meet the City of Dover Standards and Specifications for Public Works Construction. As of this date, all work required by the Public Works Director has been completed. A Release of Liabilities will be submitted as part of the dedication process. Required as-built drawings of the infrastructure as well as videos of the sanitary sewer mains have been provided to staff.

DEDICATION OF WATER & WASTEWATER INFRASTRUCTURE
LEANDER LAKES APARTMENT COMPLEX

ATTACHMENT A

The following is a list of all water and wastewater infrastructure to be accepted by the City of Dover:

Sewer Utility Infrastructure (Construction Value= $360,862)

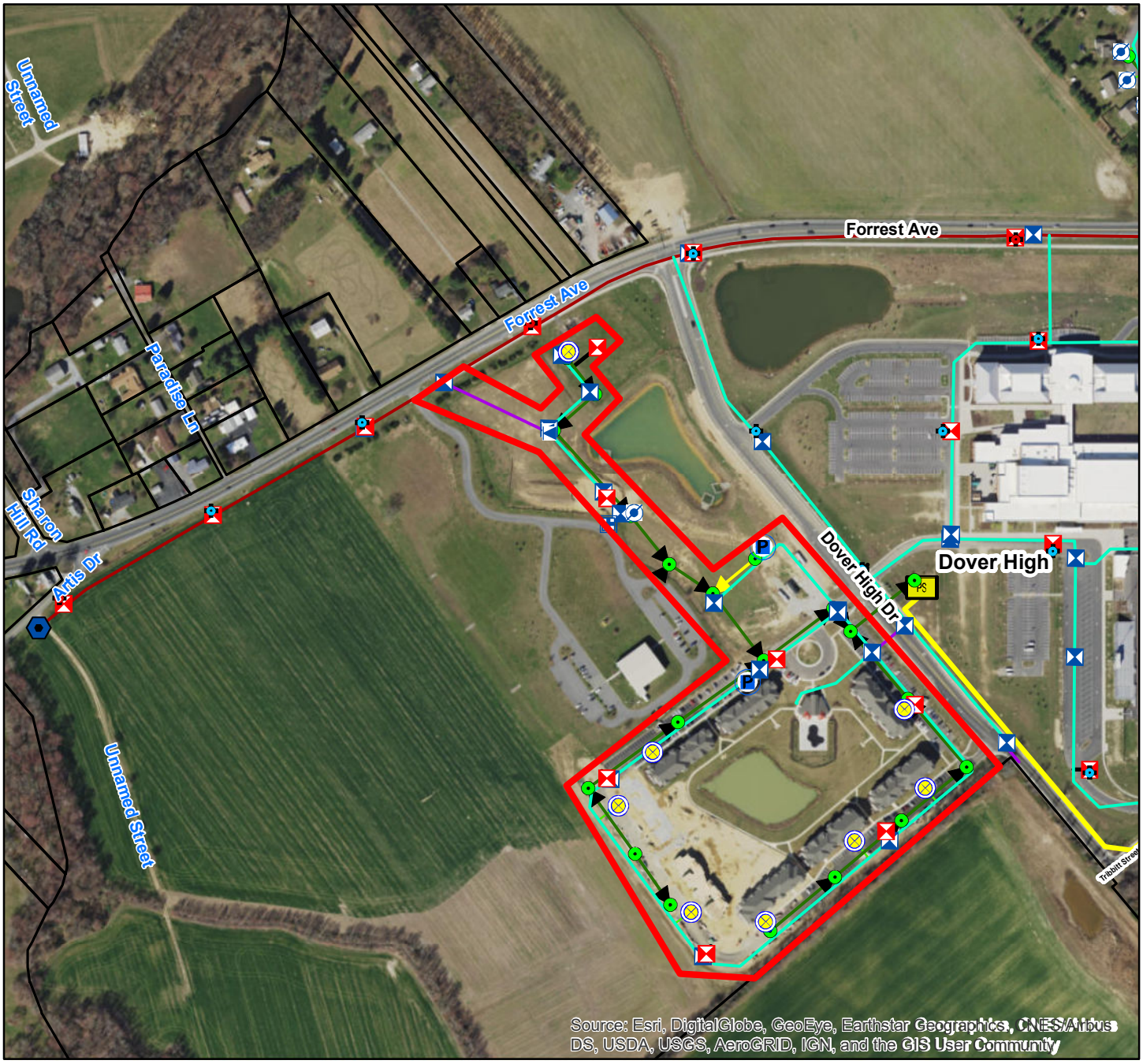
• 8” SDR-35 PVC Sanitary Sewer Main	4,083 L.F.
• 6” SDR-35 PVC Sanitary Sewer Laterals	867 L.F. (11 laterals)
• 4’ Diameter Sanitary Sewer Manholes	17 Ea. (151.74 V.F.)
• 5’ Diameter Sanitary Sewer Manhole	1 Ea. (9.85 V.F.)

Water Utility Infrastructure (Construction Value= $451,368)

• 10” Ductile Iron (Class 52 Cement Lined) Water Main	350 L.F.
• 8” Ductile Iron (Class 52 Cement Lined) Water Main	4,612 L.F.
• 6” Ductile Iron (Class 52 Cement Lined) Water Main	130 L.F.
• 8” Combined Fire / Domestic Water Service Lines	284 L.F.
• 1.5” Copper Water Service Line	10 L.F.
• 2” Blow Off Assembly	2 Ea.
• 10” Gate Valves	1 Ea.
• 8” Gate Valves	16 Ea.
• 6” Hydrant Valves	7 Ea.
• Fire Hydrants	7 Ea.

ATTACHMENT B

Leander Lakes Apartment Complex: Water & Wastewater Infrastructure to be Dedicated to the City of Dover



0 300 600 1,200 Feet

N

Legend

- 1500 GPM
- 1000 - 1499 GPM
- 500 - 999 GPM
- Below 500 GPM
- Parcel Lines
- Service Line
- Dead End
- Reducer
- Service Connection
- Meter Pit
- Hydrant Valve
- Division Valve
- Curb Stop/Meter Pit
- Curb Stop/House
- Curb Stop
- Blow Off
- Hydrant Lead

Water Main: 1", 2", 3", 4", 6", 8", 10", 12", 14", 16", 20"

Sanitary Sewer Line: 10", 12", 15", 16", 18", 20", 21", 24", 27", 30", 35", 36", 4", 6", 8"

- Sanitary Manhole
- Sanitary Force Main
- PS Pump Station

Date Printed: January 3, 2020
File: m:\gis_data\projects\tech_mxds
\jason_lyon_maps\caf_maps
\leander_lakes_dedications
Department: Public Works GIS
City of Dover, Delaware

CITY OF DOVER DEPARTMENT OF PUBLIC WORKS

Update on Water Main Breaks

COUNCIL COMMITTEE OF THE WHOLE – UTILITY COMMITTEE
JANUARY 28, 2020

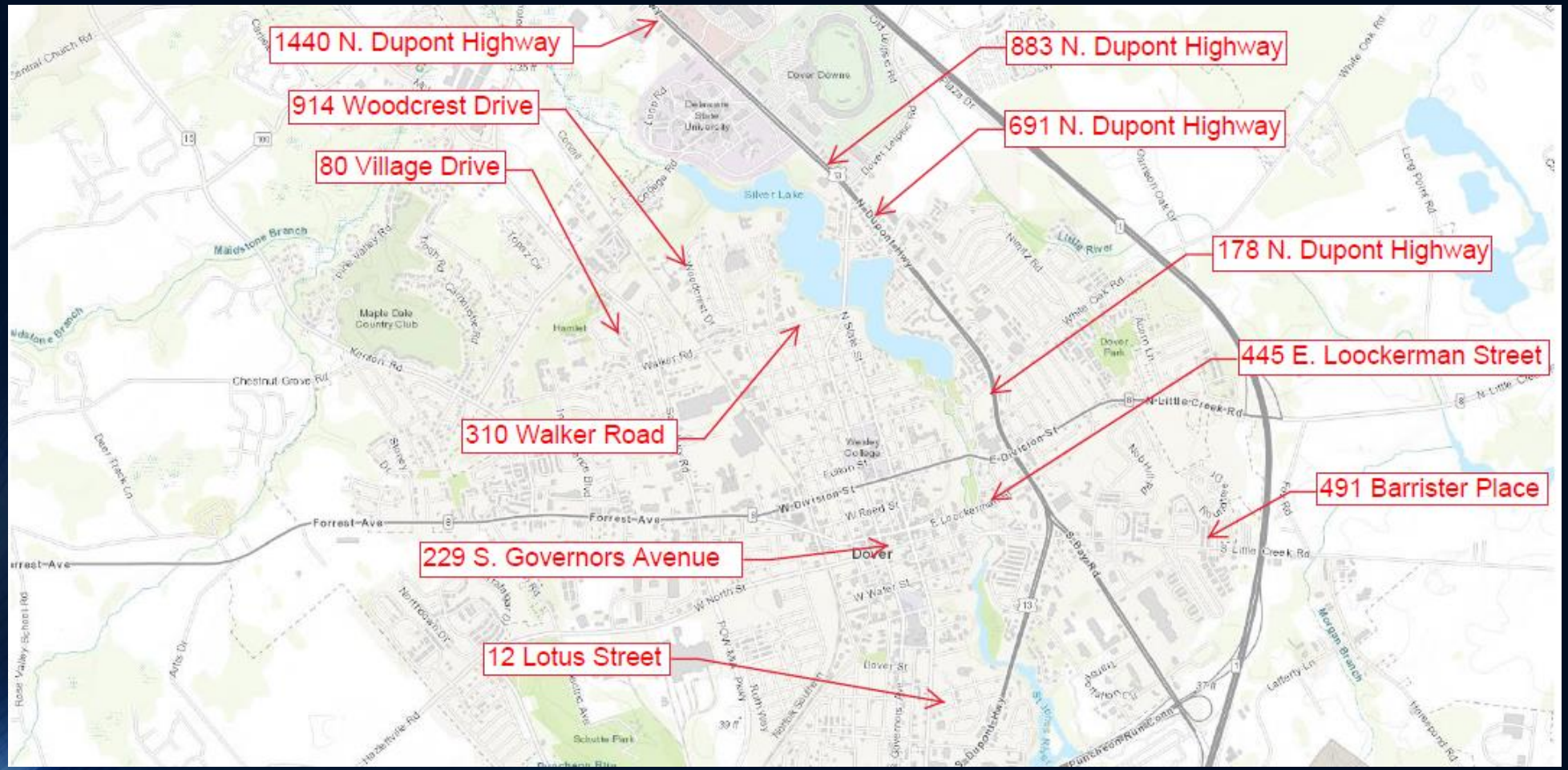
Update on Water Main Breaks

- Eleven (11) water main breaks have occurred within the City of Dover's water system between December 1, 2019 and January 16, 2020.
- As this number is atypical for the given period, the following update will review:
  - The water main breaks that have occurred during the subject period.
  - Apparent causes of the water main breaks and factors that contribute to water main breaks.
  - System statistics regarding water main breaks.
  - Department of Public Works strategy regarding water main breaks.

Recent Occurrences

DATE	ADDRESS	SIZE	MATERIAL	AGE	APPARENT CAUSE
Dec-6-19	310 Walker Rd.	10"	CIP	50 yrs	Hydrant hit, temp, age, mat
Dec-7-19	914 Woodcrest Dr.	6"	CIP	57 yrs	Hydrant hit, temp, age, mat
Dec-16-19	178 N. DuPont Hwy.	6"	CIP	60 yrs	Temperature, age, material
Dec-20-19	12 Lotus St.	4"	CIP	60 yrs	Temperature, age, material
Dec-20-19	229 S. Governors Ave.	10"	CIP	60 yrs	Temperature, age, material
Dec-22-19	491 Barrister Pl.	6"	DIP	48 yrs	Temperature, age, material
Dec-22-19	80 Village Dr.	8"	CIP	47 yrs	Temperature, age, material
Dec-22-19	445 E. Loockerman St.	4"	CIP	80 yrs	Temperature, age, material
Dec-25-19	691 N. DuPont Hwy.	10"	CIP	52 yrs	Temperature, age, material
Dec-26-19	883 N. DuPont Hwy.	10"	CIP	50 yrs	Temperature, age, material
Jan-9-20	1440 N. DuPont Hwy.	12"	CIP	48 yrs	Temperature, age, material

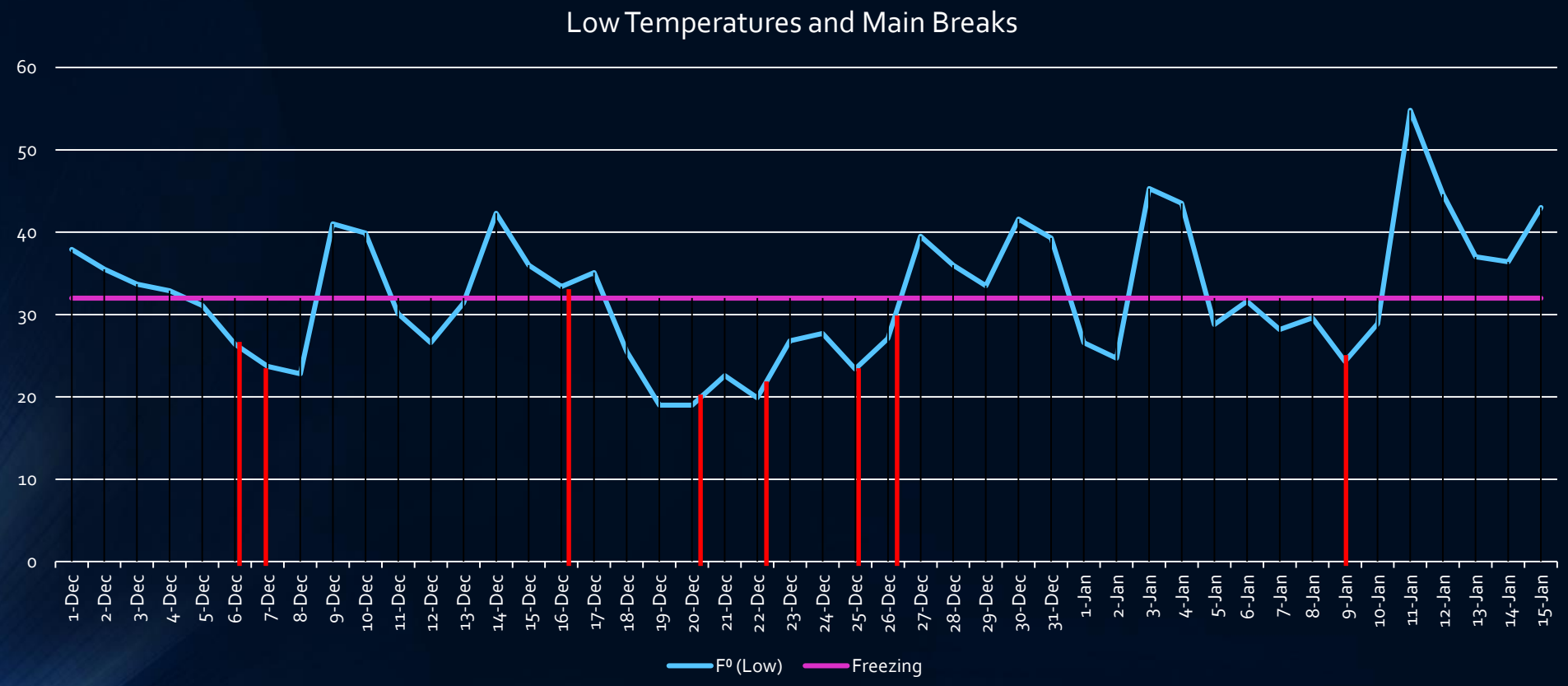
Recent Occurrences



Apparent Causes for Water Main Breaks

- On December 5, 2019, a fire hydrant at Lakewood Place and Walker Road was hit by a vehicle. It is likely that the water hammer resulting from this occurrence, in conjunction with temperature fluctuations, pipe age and material, resulted in the water main breaks that occurred nearby on December 6, 2019 and December 7, 2019.
- The remaining nine (9) water main breaks are most likely caused due to temperature fluctuations during the subject period in conjunction with pipe age and material.

Temperature Fluctuations



Factors Contributing to Water Main Breaks

- Temperature
  - Pipe dimensions, pressure capacity and stiffness are all affected by temperature changes.
  - Pipes expand with increasing temperatures and contract with decreasing temperatures, weakening them.
  - Freezing and thawing soils can cause shift.
  - An increase in water main breaks can occur at the beginning and end of the winter season.
- Age
  - The possibility of water main breaks increase as pipes age.
  - Approximately 47% of our water mains are over 50 years old (older than 1970).

Factors Contributing to Water Main Breaks

- Soil Conditions and Ground Movement
  - Natural ground shift caused by soil moisture and temperature as well as that caused by nearby construction activity can cause a break.
- Pipe Material
  - Cast iron pipe (CIP) is more susceptible to external pressures such as extreme temperature changes but any pipe material can break.
  - Approximately 46% of our water mains are CIP.
- Pipe Diameter
  - The smaller the diameter, the greater the risk for damage.

Factors Contributing to Water Main Breaks

- Corrosion
  - Older pipes that are not cement lined can corrode, increasing the chance of a break.
  - Most of our CIP in the water system is unlined.
- Construction
  - On occasion, construction crews damage water mains during excavation.

System Statistics – Water Main Break Rates

- Water Main Break Rates
  - National Average: 14 breaks / 100 miles of water main / year*
  - City of Dover 10-yr Average: 7.1 breaks / 100 miles of water main / year
  - City of Dover 2020 Trend: 13 breaks / 100 miles of water main / year
  - CIP Break Rate: 34.8 breaks / 100 miles of water main / year*

2019 10-Year Break Rate Statistics		
Max	**Min**	**Mean**
10.2	5.1	7.1

*Water Main Break Rates in the USA and Canada: A Comprehensive Study, March 2018, Utah State University

DPW Water Main Break Strategy

- Emergency Response
  - Systems Operations staffed 24/7 to take calls and dispatch on call personnel.
  - Two (2) on call personnel available from the DPW Water / Wastewater Division each week to respond to emergencies with additional staff available to be called in if necessary.
    - Various heavy equipment and repair parts readily available.
    - Typical in-house repair cost = $3,500 (914 Woodcrest Dr., less street repair)
  - Contractor assistance available for main breaks in areas such a State right-of-ways that require additional equipment (i.e. trench box, Maintenance of Traffic)
    - Typical contractor repair cost = $12,000 (1440 N. DuPont Hwy., less street repair)

DPW Water Main Break Strategy

- Water Main Replacement
  - The annual Water Quality Improvements CIP replaces aging water main in the system.
  - Older, undersized, unlined water main takes precedent for replacement.
  - City of Dover 5-year Average Replacement = 0.39 miles / year

RATE OF PIPE REPLACEMENT		
City of Dover	**National***	**Recommended***
0.17% of installed pipe	0.8% of installed pipe	1.0% - 1.6% of installed pipe
585-year replacement schedule	125-year replacement schedule	100 to 60-year replacement schedule

*Water Main Break Rates in the USA and Canada: A Comprehensive Study, March 2018, Utah State University

DPW Water Main Break Strategy

WATER QUALITY IMPROVEMENTS CIP				
Fiscal Year	**Amount Budgeted**	**Amount Spent**	**Mileage Replaced**	**Location**
FY20	$773,000	$532,201*	0.48	Columbia Ave. (2,530 lf)
FY19	$294,900	$164,094	0.18	Lakewood Pl. (925 lf)
FY18	$1,046,000	$846,162	0.78	N. State St. (294 lf) S. Bradford St. (1,318 lf) William St. (2,530 lf)
FY17	$577,800	$374,594	0.25	S. New St. (1,300 lf) (environ. cleanup)
FY16	$412,400	$337,787	0.26	West Dover Connector (1,355 lf)

*Contract price, project not complete, price may vary.

MEMORANDUM

Department of Public Works
P.O. Box 475
Dover, Delaware 19903
Phone: (302) 736-7025
Fax: (302) 736-4217
E-mail: jlyon@dover.de.us

City of Dover
RECEIVED
FEB - 6 2018
CITY MANAGER/MAYOR

TO: Donna S. Mitchell, Acting City Manager

CC: Sharon J. Duca, P.E., Public Works Director / City Engineer

FROM: Jason A. Lyon, P.E., Water/Wastewater Manager

DATE: February 1, 2018

SUBJECT: Water Main Replacement – Downtown Dover Analysis

BACKGROUND DATA

The City of Dover Department of Public Works was tasked with producing a replacement analysis of the water main inventory in the downtown Dover area. The reason for this task is due to the complaints of brown water in the area, primarily caused by the age and material of the water mains in our inventory. The results will depict the cost for total replacement over various time frame scenarios.

ASSUMPTIONS

The following assumptions were made in performing this analysis:

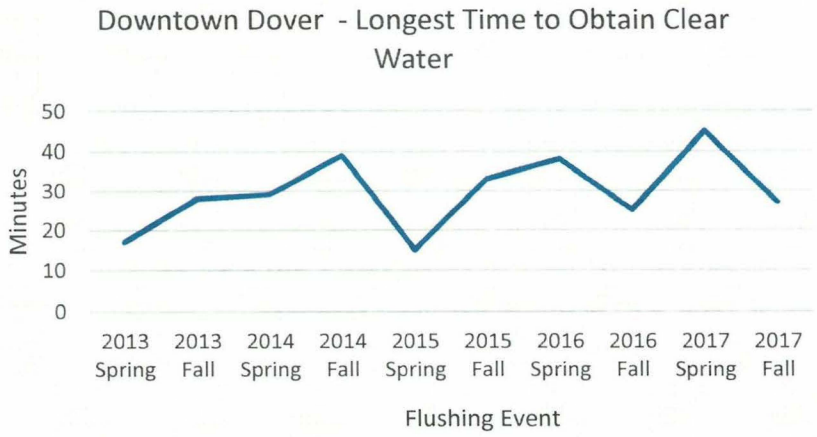
- The downtown area is bordered on the north by Walker Road, bordered on the south by Water Street, bordered on the West by the railroad tracks and bordered on the east by the St. Jones River.
- The cost of each water main replacement in a City owned road is based on a cost of $325 per linear foot. The out year cost (if applicable) receives a 3% inflation rate per year.
- The cost of each water main replacement in a State owned road is based on a cost of $450 per linear foot. The out year cost (if applicable) receives a 3% inflation rate per year.
- Detailed design for each street replacement has not been conducted, actual costs for each road can vary dramatically, depending on site issues.
- This analysis assumes that each water main that does not match our current material requirements (Cement Lined Class 52 Ductile Iron Pipe) is replaced, even if the size is equal to or greater than our design requirement (eight inches (8") in diameter). Once a replacement time frame is selected, staff will analyze the costs of relining adequately sized pipes versus the cost of replacement.
- Water mains replaced since 2008 were not included in this analysis.

INFORMATION CONSIDERED IN THIS ANALYSIS

The inventory for this analysis includes 16.13 miles (85,166 linear feet) of various sizes and material of water main. This length represents 7% of the overall system inventory. In FY 2018 dollars, the cost to replace all the mains in the analysis area is approximately $32,015,300.

FLUSHING RESULTS

As mentioned earlier, brown water complaints are the driver behind this analysis. Twice a year, the Department of Public Works performs an operation of flushing the water mains to remove as much brown water from the system as possible. The following chart reveals the longest time required of a particular hydrant in this downtown area to obtain clear water:



Staff believes that the longest time to clear a hydrant is indicative of the system area condition. The information provided showcases the worst case hydrant in the downtown area. The average hydrant in this area requires approximately 6.22 minutes to obtain clear water, the rest of the system averages approximately 5.70 minutes to obtain clear water. The differential in time to obtain clear water suggests that the downtown area is not significantly worse that the remaining system. It should be noted that the downtown area flushes 203 fire hydrants during the operation, forty (40) or 19% of the hydrants in this area require more than five (5) minutes to flush. The total amount of hydrants flushed in the system is 1,484. This area represents 14% of the system.

REPLACEMENT SENSITIVITY ANALYSIS

The following chart depicts various replacement schedules and the costs associated with each scenario. Please be advised that this study was based on an average cost to replace per linear foot. Actual cost may differ, depending on site conditions.

Scenario Number	Description	FY19	FY20	FY21	FY22	FY23
1	Replace only Downtown Dover water mains at current CIP budget rate, 1 mile in FY19, length decreases each year as inflation rises	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000[a]
2	Replace only Downtown Dover water mains within five (5) years, 3.226 miles / year	$6,403,300	$6,595,400	$6,793,300	$6,997,100	$7,207,013
3	Replace only Downtown Dover water mains within ten (10) years, 1.613 miles / year	$3,201,700	$3,297,800	$3,396,800	$3,498,700	$3,603,700[b]
4	Replace only Downtown Dover water mains within (20) years, 0.8065 miles / year	$1,600,900	$1,648,900	$1,698,400	$1,749,300	$1,801,800[c]

a – This scenario would take 22 years to completely replace the 16.13 miles of pipe in this area. Assuming inflation is consistent and the City only spends $1M per year. (To replace entire system at this rate would take over 400 years)

b– FY24-FY28 would continue to have over $3M per year, inflation each year at 3%. (To replace entire system at this rate would take 137 years)

c – FY24-FY38 would continue to have over $1.8M per year, inflation each year at 3%. (To replace entire system at this rate would take 273 years)

The above sensitivity analysis should take into consideration the following factors that deal with the logistics of the figures:

- On average, a contractor could only install approximately 0.75 miles a calendar year, based on 260 working days of work per year. Scenario 2 and 3 would not be feasible, unless the City hires multiple contractors per year.
- If the City manages multiple contractors per year to accommodate scenario 2 and 3, additional inspectors would be required to keep up with the work load. Additional engineering design would also be required.
- The social cost of scenario 2 and 3 would be extremely high. Residents would have to deal with multiple detours and active construction throughout the downtown area.
- Water rates would need to be raised for scenario 2, 3 and 4 to accommodate the potential spending.

RECOMMENDATION

The information provided in this report indicates that the downtown area does not have a significantly worse brown water issue than the remainder of the system. If directed to provide a replacement schedule, staff recommends replacing on a twenty (20) year cycle, or scenario 4. The amount of construction would increase from our current average, however, it is still manageable for staff and the customers could tolerate this amount of activity. It is important to note that the downtown area represents less than 10% of the entire inventory of water mains in the City. At the proposed replacement schedule the entire system would be upgraded in 273 years which exceeds the industry standard life cycle of 100 years.

SYSTEM WIDE OUTLOOK

The following table represents the length of time to replace the entire water distribution system with the respective replacement scenario.

Scenario Number	Description	Duration
1	Upgrade water mains at a rate of $1,000,000 per year	Over 400 years
2	Upgrade water mains at a rate of 3.226 miles / year	68 years
3	Upgrade water mains at a rate of 1.613 miles / year	137 years
4	Upgrade water mains at a rate of 0.8065 miles / year	273 years

ACTION FORM

PROCEEDING: Council Committee of the Whole (Utility)
DEPARTMENT OF ORIGIN: Public Works **DATE SUBMITTED**: 01/17/2020
PREPARED BY: Sharon J. Duca, P.E., Public Works Director
SUBJECT: Evaluation of Bids – FY 20 Street and Alley Program
REFERENCE: n/a
RELATED PROJECT: n/a
REVIEWED BY: City Manager, Controller
EXHIBITS: Aerial Maps
EXPENDITURE REQUIRED: $1,037,893.90 **AMOUNT BUDGETED**: $936,000
FUNDING SOURCE (Dept./Page in CIP & Budget): Public Works Department, CIP Project ST2001, CIP Project Name: Street, Concrete and Alley Program, Account No.: 101-12-18-35-000-54031. Shortfall to be supplemented by Department of Public Works, CIP Project ST1801 (Balance $273,500), CIP Project Name: Street, Concrete and Alley Program, Account No.: 101-12-18-35-000-54031.
TIMETABLE: Notice to Proceed to be issued within 60 days of Council approval. Project anticipated to be completed in 120 calendar days from Notice to Proceed issuance, weather permitting.
STAFF RECOMMENDATION: Award a unit price contract, based upon Bid #20-0014PW for the FY 20 Street & Alley Program to George & Lynch, Inc. based on the unit prices for each work item submitted. The estimated value of the contract is $1,037,893.90. Work will be performed in strict accordance to the Bid Specifications.

BACKGROUND AND ANALYSIS

In concurrence with the City of Dover's Capital Investment Plan, this project is proposed to rehabilitate various pavement and concrete sections throughout the City of Dover. This project includes rehabilitation of a City owned parking lot. The total length of scheduled street repaving is approximately 6,026 linear feet, or 1.14 miles. Along with repaving, this project includes the following: install 22 inlet protections, remove and replace approximately 3,863 linear feet of Type I Curb, remove and replace approximately 1,913 linear feet of Type III Curb and Gutter, remove and replace approximately 2,855 square feet of 6" concrete driveway apron, remove and replace approximately 23,922 square feet of 4" concrete flatwork, remove approximately 1,725 square feet of brick sidewalk and replace with new 4" concrete sidewalk, remove and replace 19 catch basin frame and head, remove and replace approximately 35 linear feet of valley gutter, install approximately 165 square feet of new 4" concrete flatwork, installation of 420 square feet of detectable truncated domes and install 130 cubic yards of graded aggregate. Contractors will also prepare approximately 28,236 square yards of subgrade for resurfacing or paving, including any cleaning, sweeping, root mat removal, manhole and valve lid adjustment, roto-mill 60,754 square yard-inch of bituminous pavement. Contractors will remove 100 cubic yards of miscellaneous concrete and install 25 tons of GABC. Contractors will overlay approximately 3,323 tons of type "C" hot mix. Contractors will patch 5 square yards of roadway using type "C" hot mix. Other items included in this project includes 50 linear feet of double yellow solid striping, 1,780 linear feet of single white solid striping, 240 linear feet of stop bar, 15 crosswalk bars, 5 painted arrows, 72 standard parking spaces, 54 parking space numbers, and 3 handicap parking spaces. Contingency items include relocating 1 light pole, removing and replacing 46 parking bumpers, installing an additional 28 parking bumpers.

The following locations were included in the proposed scope of work to be completed under the FY 20 Street & Alley Program:

STREET NAME / EXHIBIT TITLE
WILLIAM STREET
WILLIAM STREET ALLEY - 349
N. BRADFORD STREET
WEYANDT HALL PARKING LOT

Bids were opened on Thursday, December 18, 2019. Two (2) contractors submitted unit price bids for the proposed work to be performed. Based on the proposed quantities, the estimated contract values are as follows:

CONTRACTOR	LOCATION	BASE BID	EVALUATED PRICE
GEORGE & LYNCH, INC.	**DOVER, DE**	**$1,037,893.90**	**$1,006,757.08**
GRASSBUSTERS LANDSCAPING, INC.	NEWARK, DE	$1,163,294.00	$1,163,294.00

**- George & Lynch, Inc., was awarded a 3% reduction, due to local vendor preference*

City staff reviewed the submissions and found that the George & Lynch, Inc.'s bid met all requirements for the qualifications of the project. Staff recommends awarding the contract to George & Lynch, Inc. in the amount of $1,037,893.90 for the FY 20 Street & Alley Program. A breakdown of the funding sources is provided below:

FUNDING SOURCE	DESCRIPTION	ORIGINAL BUDGET	REVISED BUDGET	ENCUMBERED / SPENT	SAVINGS / REMAINING	REQUESTED CHANGE	PROPOSED BUDGET REMAINING
Streets	ST2001 FY 20 Street and Alley Program	$936,000	$936,000	$0	$936,000	$101,900	$1,037,900
Streets	ST1801 FY18 Street and Alley Program	$950,000	$273,500	$90,000	$183,500	($101,900)	$81,600



City of Dover

FY-2020 STREET AND ALLEY PROGRAM
WILLIAM STREET

DEPARTMENT OF PUBLIC WORKS

DRAWN:	RLL	DATE:	6/20/19
CKD:	---	SCALE:	NTS
APRVD:	---	DWG. NO:	ST2020-02

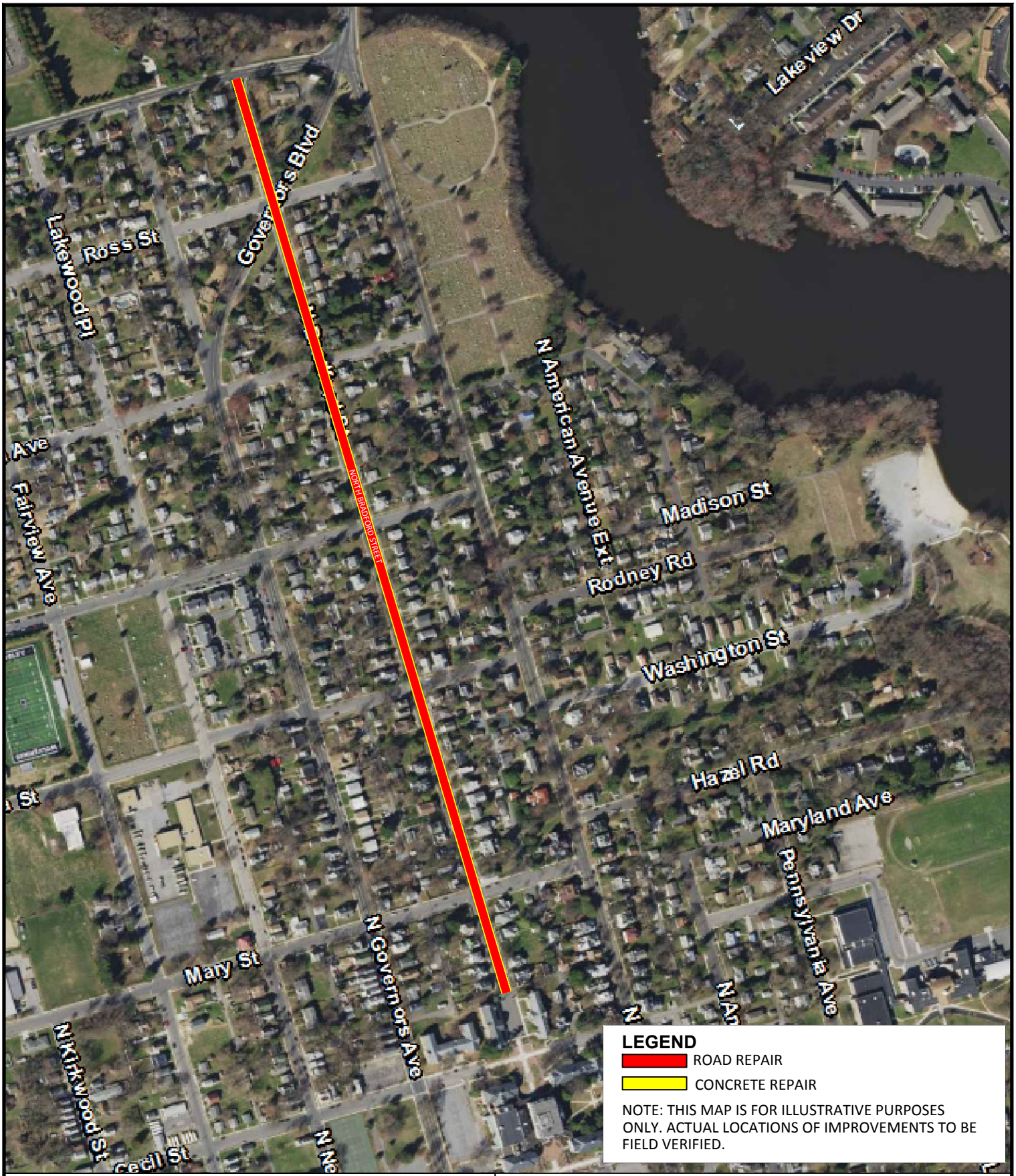


City of Dover

FY-2020 STREET AND ALLEY PROGRAM
WILLIAM STREET ALLEY (349)

DEPARTMENT OF PUBLIC WORKS

DRAWN:	RLL	DATE:	6/20/19
CKD:	---	SCALE:	NTS
APRVD:	---	DWG. NO:	ST2020-03



City of Dover

FY-2020 STREET AND ALLEY PROGRAM
NORTH BRADFORD STREET

DEPARTMENT OF PUBLIC WORKS

DRAWN:	RLL	DATE:	7/03/19
CKD:	---	SCALE:	NTS
APRVD:	---	DWG. NO:	ST2020-01



City of Dover

FY-2020 STREET AND ALLEY PROGRAM
WEYANDT HALL PARKING LOT

DEPARTMENT OF PUBLIC WORKS

DRAWN: RLL	DATE: 10/17/198
CKD: ---	SCALE: NTS
APRVD: ---	DWG. NO:ST2020-04

TO: City Clerk – for CCOW on January 28 RE: Item #2 Safety Advisory and Transportation Committee

LOOCKERMAN STREET/FOREST STREET PROJECT – CONCEPTS

SHORT HISTORY

Origin of the roundabout proposal:

Strategic Plan for Downtown Dover's West Side (2000) –

This planning study is the first look at the area in detail. It examined numerous transportation and land use/redevelopment issues in the west-central portion of the City. It specifically calls out a roundabout – "which will solve traffic circulation problems and provide a strong element to mark the transformation that will take place in the west. This design element will create a strong visual terminus for the west end of Loockerman Street. This project is critical to the organization of new development around the train station." (pg14).

Related transportation recommendations included the Clarence Street extension, other upgraded intersections and circulation improvements, creation of a gateway, parking and streetscape enhancements.

The roundabout was to be the first project in plan implementation (page IV-9). (Note: the design visuals seem to locate the roundabout slightly south and west of later plans).

Dover Capital Gateway Plan and Design Book (2016) –

This more recent plan and design book for Route 8/Forest Street corridors includes a reference to the roundabout plan (Figure 26, page 56). The location is moved slightly east, but the concept and road configurations are very similar.

Dover Transit Center Neighborhood Plan and Design Book (2011) -

The Transit Center plan focuses on the area around the new facility on Water as well strategies to improve all modes of transportation downtown. One focus includes improve gateways and entrances to the downtown to provide a sense of arrival. The plan includes the roundabout and related street proposals reflected in both the 2000 and 2016 studies (using the 2016 design and location). There is no specific reference or recommendations relating to the roundabout.

Restoring Central Dover Plan (2013) –

Plan was developed by NCALL for the downtown area; it referenced the transit center plan but no specific discussion of roundabout concept.

City Capital Transportation Project Priority Lists –

Until 2019, the Loockerman Street/Forest Street intersection project was highly listed (#4) in City's annual transportation priority list sent to the Secretary of Transportation. It was moved to the end of list by the City Council on December 9, 2019, in part due to concerns about the roundabout versus the possibility of more limited realignments of existing street infrastructure.

REVISED TO REFLECT SAFETY ADVISORY AND TRANSPORTATION COMMITTEE RECOMMENDATION OF NOVEMBER 26, 2019

CITY OF DOVER
2019 TRANSPORTATION PROJECT PRIORITIZATION

1. Garrison Oak Connector Road

Garrison Oak Business and Technology Center (GOBTC) is a 385-acre tract zoned IPM-2 (Industrial Park Manufacturing Zone-Technology Center) and is the only site in the City to be zoned as such. It has been identified by the City as an ideal location for large technology/green industry firms.

Dover City Council desires that DelDOT provide a direct access to State Route 1 via a connector road to White Oak Road. While the State discourages growth east of State Route 1, this tract is acknowledged by both the City of Dover and the State of Delaware as the only large-scale developable land east of State Route 1 in the City of Dover.

A June 2017 study of the project (the *Garrison Oak Traffic Study*), determined that constructing a connector road was not justified as of 2018, based on the current uses and development in the park. However, an Alignment Study to determine the feasibility and location of a future road connection is justified given current and potential development interests. The Park is an important economic development asset for the City and the County. Utilization of GOBTC is restricted by the lack of good access to SR1. As additional development occurs in the business park its priority for construction will be revised as appropriate.

2. Kenton Road Corridor Upgrades/ Route 8 East/West Corridor Plan Improvements

The Kenton Road Corridor project includes road improvements and sidewalks to improve traffic flow and bicycle/pedestrian safety. It is critical to improving the approach to the City from the northwest where new residential areas within and outside the City are being built. This segment also lacks sidewalks. The Route 8 Corridor Study identified several improvements along the Route 8 corridor that would improve safety, better manage access, reduce congestion and provide improved traffic flow. While improvements complementary to this corridor (POW-MIA Parkway and Senator Bikeway, for example) address north/south movements, continued development on the west side of the City impacts the capacity and operation of this roadway.

3. College Road Corridor Upgrades (Kenton Road to McKee Road)

This project includes road improvements and sidewalks in the heavily traveled College Road corridor. It is a key east-west linkage from northwest residential areas to commercial corridors and Delaware State University. Recent development in this area includes apartments and a rehabilitation hospital near the College Road/McKee Road Intersection. Potential improvements in this project include new pavement sections, sidewalks, shoulders, a closed drainage system, bicycle lanes, lighting and other improvements.

4. Sidewalks within the walk zone of the new Dover High School

Critical gaps in the sidewalk system near Dover High School remain, including along Mifflin Road and along Route 8 on the south side from Mifflin Road west. This project also addresses the continuation of the Senator Bikeway and the recommendations from the Capital Gateway Study. The City is very concerned about public safety in this area and believes it deserves to be included in the CTP and funded at the earliest opportunity.

5. Crawford Carroll Avenue Extension

This project reflects the continuing growth of Delaware State University, commercial development in the area, and future development possibilities involving the Dover Mall and adjoining properties. The project was proposed to continue the improved right-of-way of Crawford Carroll Avenue from West Rustic Lane in a southerly direction to the site where HomeGoods and PetSmart are located and then connect to US Route 13 via a signalized intersection. It would provide access between the DSU Learning and Living Commons facility and the main campus as an alternate to using US 13. DelDOT has expressed concern about the feasibility of the original proposal, however, the City requests that service road connections on the west side of US 13 continue to be addressed even if the original design should not be achievable.

6. West Street Improvements from North Street to the Transit Center

This project is along the western edge of the Downtown Development District and would improve traffic flow, safety and access to the transit system serving the Downtown and the City. It would also provide an opportunity for multi-modal linkages to be improved. West Street has become an important connection for the DART transit service in the City but has not been improved to reflect the standards necessary to meet this use. Part of these improvements were achieved in 2018 with the completion of a multi-use path along the east side of West Street.

7. US 13 Service Roads/Scarborough Road

This project would create a service road parallel to US 13 from Leipsic Road to Scarborough Road, and a set of local access roads providing economic benefits to the Dover Mall and a proposed adjacent commercial complex. This project is part of the US Route 13 Circulation Study. In adherence to the State's Corridor Capacity Preservation Program, the addition of service roads would decrease traffic on US 13/DuPont Highway by having more local traffic use the service roads instead. The project also reflects the corridor's continued growing role as a destination for commerce, employment, and community activities, and its lessened importance as a high-speed through travel route compared to State Route 1.

8. US 13 Sidewalk Construction

Construction of multi-use paths along US 13 continues to be a priority. Construction of sidewalks is required when properties are developed or redeveloped, but significant sections of the sidewalk system are either in deteriorated condition or missing. Examples include Public Safety Boulevard

to the Puncheon Run Connector and White Oak Road to College Road. A 2019 sidewalk project being built by DelDOT will complete a sidewalk/path from Townsend Boulevard to Leipsic Road on the east side of US 13.

9. Route 8/Hazletteville Road Connector

This is a north/south access road that was identified in the *Route 8 Concept Plan and Operations Study*. This connection will encourage economic development and provide transportation alternatives in this heavily traveled corridor. The connector road would incorporate the existing Dover High Drive and extend south on the west side of the Village of Cannon Mills.

10. Kings Highway/Route 13 Intersection Improvements

The intersection of Kings Highway/White Oak Road and US Route 13 needs improvements to meet an acceptable level of service. Extensive new commercial development (Capital Station Shopping Center, Lidl grocery store, and other commercial facilities) are being constructed or are planned south of the intersection which will add traffic and access burdens on these roads. Because of the multi-use paths to be constructed along with this commercial development, pedestrian and bicyclist safety improvements will be needed as part of the intersection upgrade as well.

11. Loockerman Street/Forest Street Intersection

This project is prioritized by the City to help spur redevelopment activities in the Downtown Development District while also improving traffic circulation and safety. It was identified as a needed improvement through the *Restoring Central Dover Study* and the *Westside Redevelopment Study* conducted in 2001. It is also complementary to the recommendations of the Capital Gateway Study addressing the Forest Street/Route 8 corridor. It would result in improved traffic circulation, a more pedestrian-friendly zone at the railroad crossings and create a new "gateway" into the Downtown.

Action: Revised to reflect reordered priority as a result of action of the Safety Advisory and Transportation Committee on November 26, 2019; recommended for Council consideration on December 9, 2019

Bicycle & Pedestrian Subcommittee

Quarterly Update November 2019

Members

Chris Asay, Acting Chair
Tricia Arndt
Durk Lee
Jayce Lesniewski
Peter DiMarie
Dave Moses
VACANT

Created in 2012 by the Safety Advisory & Transportation Committee, they have been tasked with identifying gaps in the bicycle and pedestrian network in Dover and identifying areas where the city can work together with local partners to improve the atmosphere for bicyclists and pedestrians.

Bike and Ped Plan update

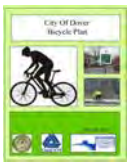
Members of the Subcommittee felt strongly about the City updating their Bicycle and Pedestrian Plans of 2015. Working with our partners at the Dover/KC MPO we able to move this request forward. We will be taking the two plans and merging back into one plan that encompasses both cycling and pedestrian interests.

Working with the MPO and their consultant Whitman Requardt Associates (WRA) a project kickoff meeting was held in September and the first of two public workshops was held on October 21.

Comments are being accepted through November 27 for those who could not attend yet still want their voices heard. The more public input we have the better the plan will be.

Please take a few minutes to visit this link: Www.cityofdover.com/parks-recs—home and submit your comments.

Do you know of any areas that have gaps in the bicycle or pedestrian networks? Do you have ideas to improve on biking and walking within Dover? Do you see areas of problems for drivers, bicyclists and/or pedestrians? Let us know!!





Silver Lake Day Tree Walk Tour

Lead by former member **Fran Riddle,** two guided walks were a part of the Silver Lake Day festivities. With volunteers from the Silver Lake Commission, Chazz & Susan Salkin, and Carla Benson-Green the guided tours took park visitors on a scenic tour of Silver Lake Park pointing out the variety or trees and birds that help make the park the gem it is.

The Tree Guide is available to anyone who may want to take the tour unguided.

www.cityofdover.com/bicyclists-and-pedestrians

New Subcommittee Members Appointed

In the last few months the door has opened to have new faces join us at the table. Subcommittee members **Gary Pennington (Chairman)**, **Fran Riddle** and **Andy Siegel** resigned their posts. We were sad to see them go, but respect their decisions.

Each of these members truly benefitted the subcommittee with the input and knowledge of the pedestrian and cycling atmosphere in Dover. Their time on the subcommittee truly was beneficial. Each of these individuals has been welcomed to attend meetings and share any of their thoughts moving forward.

Tricia Arndt and **Peter DiMarie** were appointed to the subcommittee in October 2019. With these appointments, one vacant position is remaining to be filled.

Stayed tuned, as two citizens have put in for this opportunity.



2019 Event Photos









Partnering with the Capital School District

Bicycle Rodeos are a fun way to encourage safe bicycling and teach children the benefit of riding.

For the 2019/20 school year, we have tentatively scheduled **two events** for the spring with **Harlty** and **North Dover Elementary Schools**.

Each school will offer a pedestrian/cycling safety curriculum to their **forth graders** during their physical education periods. At the completion of the curriculum, a bicycle rodeo will be held to offer a hands on approach to the applying what they just learned. A series of obstacles, such as stop signs, right/left turns and other road challenges are set up. The children are encouraged to make it through the obstacle course obeying all the signs and signals before them.

Parks & Recreation has also offered this program to their summer camp program participants in 2018 and 2019.

It's a great day of fun. We have found that some children could not even ride a bicycle and by the end of the rodeo day, they are riding quite skillfully! It is truly rewarding to those of us who participate and see the excitement on their faces as they maneuver the through the course!

DelDOT's Bicycle Safety Coordinator is an outstanding partner in the getting the wheels on the ground for this program!

Bike To Work Day 2019







Senator Bikeway progress

The Senator Bikeway is underway. Progress is clearly noticed as you travel along Division Street between the rail road tracks and Saulsbury Road.

Look for Phase 1 to be completed by the end of this calendar year.

Subcommittee members have discussed this project in relation to Bennie Smith Funeral Home and keeping pathway as a low-stress route for traveling east/west along Division Street. In conclusion, pathway users may need to use the sidewalk during times a funeral service is taking place. These are expected to be limited times and impact to the pathway user should be minimal. DelDOT and City staff intend to monitor this area to ensure safety.

The City of Dover leadership and the Bicycle and Pedestrian Subcommittee have supported this project from the beginning.

Future phases of the project will extend the pathway to Dover High School at its west end and will cross over RT13 at its east end. In total, the trail will be 3.5 miles long.



Bike Rodeos







Bike Fix It Station - Vandalized

Sadly, we have to report the Bike Fix It Station located at the Dover Public Library was severely vandalized not once but twice. Facilities Management staff noticed on August 19th the unit was no longer usable.



The cords holding the repair tools had been cut or damaged to the point they could be used. It appeared as thought there was an attempt to vandalize the air pump station as well.

As it was gift to the city from Restoring Central Dover, this cowardly act was disheartening to all of us involved.

At this time, no plans are being made to replace the unit. It was damaged beyond repair.

BICYCLE AND PEDESTRIAN SUBCOMMITTEE

QUARTERLY UPDATE January 2020

Senator Bikeway, Phase 1, Complete!

This project, the #1 recommendation of the 2015 Bicycle Plan, will provide a safe route for a cyclist or pedestrian from Dover High School in the west, across the middle of our city, to the neighborhoods east of Route 13. This first construction phase provides for safety in the center of town, where it was most needed, along a narrow and crowded Division Street. Phase 1 extends from Carver Road to Silver Lake Park, utilizing a multi-use path in front of Booker T. Washington Elementary School, a protected bikeway along Division Street and N West Street, and on neighborhood streets with low traffic volume, Cecil Street, an alleyway, and Washington Street, into Silver Lake Park. There will be a total of at least 4 phases for complete construction, with Phase 2 constructing a multi-use path along Route 8 from Mifflin Road to Dover High School.

Three Pedestrian Projects Complete!

All three sidewalk construction projects took place on the east side of Dover, including two along Route 13 and one along S Little Creek Road. The latter project provided a sidewalk in front of the Cornerstone Church, and helped to fulfill the #1 recommendation of the 2015 Pedestrian Plan, filling in an important gap in our sidewalk system. Another gap was filled in front of Jiffy lube on Route 13. The third project was the largest, upgrading and widening the sidewalk on the east side of Route 13 from Townsend Blvd to Leipsic Road, a distance of 3/5 of a mile. Both of these projects on Route 13 helped fulfill the #4 recommendation of the 2015 Pedestrian Plan. There remain significant gaps in the sidewalks along the west side of Route 13, north of Townsend Blvd.

Bicycle and Pedestrian Plans being updated in 2020

With the significant financial and administrative support of the Dover / Kent County Metropolitan Planning Organization, the consulting firm, Whitman, Requart & Associates, has been hired to support our community in updating our Bicycle Plan and Pedestrian Plan, and combining them into a single plan. The project began last August, and there was a public workshop in October to seek input from interested citizens. Completion of the project will be this summer and will include a second public workshop.

Bicycle Friendly Community Status is Temporary

Dover was awarded as a Bicycle Friendly Community in 2017. There are only three communities in Delaware who have achieved this award, and less than 500 in the entire nation. Dover's name is listed nationally, which attracts visitors and future residents.

Dover unsuccessfully applied for Bicycle Friendly Community status in 2013, but we worked hard, made many improvements, and succeeded four years later. The 2017 award, however, is time-limited to four years. In order to maintain our status as a Bicycle Friendly Community, we must reapply in 2021.

Bicycle Safety and Skills Training with PAL

The Police Athletic League, lead by Officer Anthony Smith, in cooperation with the Capital School District and the Dover Elks Lodge, is including bicycle safety training for eight students from Central Middle School and nearly 30 from William Henry Middle School. Bicycles are provided by the Elks Lodge.

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MEMORANDUM

To: Councilman Ralph Taylor, Safety Advisory and Transportation Committee Chair

From: Donna Mitchell, City Manager

Copy: Members of City Council, Mayor Christiansen, Council Committee of the Whole Civilian Members, Assistant City Manager and City Clerk's Office

Date: January 27, 2020

Subject: Bicycle & Pedestrian Subcommittee

Regarding the discussion at the City Council Meeting of January 13, 2020, I would like to offer the following suggestion as a potential solution with the disbandment of the subcommittee.

City Council to direct the City Manager to establish quarterly meetings with members of the Dover community that have an interest in bicycle and pedestrian improvements as described in the City of Dover Comprehensive Plan. The City Manager will provide quarterly reports to City Council updating them on the activities of the community members. The City Council will consider input from the bicycle and pedestrian community in their annual list of Transportation priorities sent to Secretary of Transportation and the MPO.

The current subcommittee has done a tremendous job in bringing to our attention the challenges community members have experienced in the City due to lack of focus on bicycle and pedestrian improvements. However, the subcommittee format has also been fraught with challenges.

- Public input is only that of the subcommittee and not the community. While public hearings and advertisements are posted, they are not reaching the general public. Property owners directly impacted are not receiving a clear understanding of the projects.
- Concerns have been raised because of the requirement in Council's original motion, that they be City residents. Addressing this matter did not come without a lot of discourse and frustration for everyone impacted.
- Having this subcommittee as originally established brings with it, FOIA requirements, Roberts Rules of Order when conducting meetings, and official minutes. It requires staff support and time after regularly scheduled work hours. When City Council approved the subcommittee, monthly meetings, staff resources, facilities, and materials were not considered in Council's motion. I'm not sure it was Council's intent to require staff to support a subommittee and give up their personal time.

- The bicycle and pedestrian community members are very active and passionate regarding available and safe forms of transportation. If the members would like to continue with more frequent meetings during evening hours, we will be most happy to provide a room in the Library for their use.

Disbanding the formal subcommittee and directing the City Manager to establish quarterly meetings will still enable these community members to have a voice in various modes of transportation without having to be a City resident and adherence to the requirements as promulgated by the Freedom of Information Act. It will also provide consideration to City staff by not impeding on their personal lives. Furthermore, any citizen or group is usually availed the opportunity to speak before our Committees.

The disbanding of the subcommittee will not be an impediment to the next phase of the Senator Bikeway. This phase is underway and will continue as long as it has the City's support. As with all projects, the City is the lead agency, whether or not the subcommittee exist. Having the subcommittee does help with recognition and ratings, however they don't eliminate the City from consideration.