





Presentation to  
City of Frontenac & West End Subdivision



West End  
Subdivision Streets  
Evaluation Report

Home Owners Meeting  
October 1, 2020

# AGENDA

**Introductions**

**History / Current Status**

**Goals**

**Existing Conditions**

**Proposed Improvements**

**Funding / Budgets**

# HISTORY

## West End Subdivision Streets Study Completed November 2019

Pavement Condition Inspections & Data Collection

Pavement & Stormwater Drainage Conditions Analysis

Pavement Cores to Determine Composition of Existing  
Pavement

Development of Rehabilitation and/or Reconstruction  
Alternatives

# HISTORY

Evaluation included all 9 streets within the subdivision, as well as German Boulevard and its southern loop

Total: 2 miles of roadway and over 25,000 square yards of pavement



# GOALS

- Perform a Pavement Condition Analysis
- Identify Stormwater Drainage Concerns
- Provide Improvement Options
- **Select an Improvement Option**
- **Determine Financing**

# EXISTING CONDITIONS

## Roadway

- 3" thick pavement surface
- Various base failures
- No Shoulders
- No Sidewalk
- Stormwater Drainage Concerns



Donoho Place:  
Longitudinal & Transverse Cracking



Arthur Place:  
Longitudinal & Transverse Cracking,  
Alligator Cracking, Raveling, & Potholes



Garibaldi Place:  
Alligator Cracking w/ Potholes

# EXISTING CONDITIONS

## Pavement Surface Evaluation and Rating (PASER)

- #1 Rating System
- Improvement Strategies
- Budgeting Tool for Future Roadway Maintenance



*Pavement Surface Evaluation and Rating*

# PASER Manual Asphalt Roads



 **Transportation  
Information Center**  
University of Wisconsin–Madison

# EXISTING CONDITIONS

## Right of Way

- Minimal width
- Utility poles
- Existing landscaping and vegetation near the road





# EXISTING CONDITIONS

## Stormwater Drainage Concerns

- Intersection of Anzieger & Dwyer Avenues
- Ponding at 10470 Savannah Avenue
- Ponding at 10469 Arthur Place
- Storm sewer pipe failure under Cable Avenue (10425)
- West end of Cable Avenue

# PROPOSED IMPROVEMENTS

## Pavement Rehabilitation or Reconstruction Options:

- Option 1 – 2 Inch Asphalt Overlay with Fiber Reinforcement on existing pavement – **Life Expectancy ~5 years**
- Option 2 – Full Depth Asphalt Reclamation with 3 Inch Asphalt Overlay – **Life Expectancy ~20 years**
- Option 3 – Full Depth Reconstruction with New Curb & Gutter – **Life Expectancy ~30 years**

# FUNDING

## Option 1

### 2 Inch Asphalt Overlay with Fiber Reinforcement on Existing Pavement

#### OPTION 1 - 2 INCH OVERLAY W/ FIBER ON EXISTING PAVEMENT

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
BASE REPAIR	SY	1290	\$100.00	\$129,000.00
TACK COAT	GAL	2186	\$3.00	\$6,570.00
HMA SURFACE W/ FIBER, 2-INCH	TON	2880	\$95.00	\$331,200.00
STORMWATER DRAINAGE IMPROVEMENTS	LS	1	\$50,000.00	\$50,000.00
DESIGN, BIDDING, AND INSPECTION	LS	1	\$100,000	\$100,000.00
				<b>\$616,770.00</b>

# FUNDING

## Option 2

### Full Depth Asphalt Reclamation with 3 Inch Asphalt Overlay

#### OPTION 2 - FULL DEPTH RECLAMATION W/ OVERLAY

ITEM	UNIT	QUANTITY	UNIT COST	TOTAL COST
FULL DEPTH RECLAMATION	SY	25720	\$13.00	\$334,360.00
PRIME COAT	GAL	9460	\$3.00	\$28,380.00
HMA SURFACE, 3-INCH	TON	4320	\$80.00	\$432,000.00
STORMWATER DRAINAGE IMPROVEMENTS	LS	1	\$75,000.00	\$75,000.00
DESIGN, BIDDING, AND INSPECTION	LS	1	\$175,000.00	\$175,000.00
				<b>\$1,044,740.00</b>

# FUNDING

## Option 3

### Full Depth Reconstruction with New Curb & Gutter

FULL DEPTH RECONSTRUCTION W/ CURB & GUTTER				
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
PAVEMENT REMOVAL	SY	25720	\$7.50	\$192,900.00
EARTH EXCAVATION	CY	4290	\$10.00	\$42,900.00
TYPE 5 AGGREGATE BASE, 6-INCH	SY	27030	\$7.50	\$202,725.00
CURB & GUTTER	LF	20280	\$30.00	\$608,400.00
PAVED APPROACH	SY	1490	\$60.00	\$89,400.00
PRIME COAT	GAL	9460	\$3.00	\$28,380.00
HMA SURFACE, 3-INCH	TON	4320	\$100.00	\$432,000.00
STORMWATER DRAINAGE IMPROVEMENTS	LS	1	\$50,000.00	\$50,000.00
DESIGN, BIDDING, AND INSPECTION	LS	1	\$225,000.00	\$225,000.00
				<b>\$1,896,705.00</b>

# PROPOSED IMPROVEMENTS

## Street Maintenance Plan

Establishing a Street Maintenance Plan will extend the life of the street improvements and lower long term costs. To maintain an acceptable minimum pavement rating, periodic maintenance such as annual crack sealing, addressing new drainage issues early to prevent subgrade deterioration, and surface treatments or resurfacing when the pavement surface. For Option 1, the addition of the fiber to the asphalt mix will mitigate the cracking that naturally occurs in asphalt pavement, but over time there will still be cracks develop since the underlying deteriorated pavement will remain. After year 2 crack sealing is likely to cost \$15,000 to 25,000 per year for the life of the pavement or \$100,000 total over 5 years. For the reconstructed pavement in Options 2 and 3, the approximately 2 miles of pavement likely will not need significant crack sealing for several years. Starting at the end of year 5 the subdivision can expect to spend \$15,000 to \$25,000 per year on crack sealing for the life of the pavement or \$300,000 over 20 years and \$500,000 over 30 years.

# PROPOSED IMPROVEMENTS

## Options Recap:

- Option 1 – 2 Inch Asphalt Overlay with Fiber Reinforcement on existing pavement – **Life Expectancy ~5 years**
- Option 2 – Full Depth Asphalt Reclamation with 3 Inch Asphalt Overlay – **Life Expectancy ~20 years**
- Option 3 – Full Depth Reconstruction with New Curb & Gutter – **Life Expectancy ~30 years**

# SETTING UP THE COMMUNITY IMPROVEMENT DISTRICT (CID)

Item	Option 2 (20-yr)	Option 3 (30-yr)
Construction, design, bid, inspections	\$ 1,044,740	\$ 1,896,705
Lochmueller engineering study	\$ 10,297	\$ 10,297
CID legal	\$ 7,500	\$ 7,500
Future Maintenance	\$ 300,000	\$ 500,000
<b>Total Project Fund Deposit</b>	<b>\$ 1,354,740</b>	<b>\$ 2,406,705</b>



# SETTING UP THE COMMUNITY IMPROVEMENT DISTRICT (CID)

## North West End Park Billing Addresses

Street	Count
Anzeiger	34
Arthur	24
Cable	13
Donoho	15
Dwyer	3
Garibaldi	30
Savannah	30
German	8
Lindbergh	9
<b>Total</b>	<b>166</b>
<b>Total (residential only)</b>	<b>149</b>

# SETTING UP THE COMMUNITY IMPROVEMENT DISTRICT (CID)

	<b>Option 2 (20-year life)</b>	<b>Option 3 (30-year life)</b>
Total Project Fund Deposit	\$ 1,354,740	\$ 2,406,705
Cost Per Property Owner (166)	\$ 8,161	\$ 14,498
Cost Per Property Owner Per Year*	\$ 657	\$ 1,120

\*Financing assumptions: level debt service, 20-year amortization, 4.0% interest rates

# SETTING UP THE COMMUNITY IMPROVEMENT DISTRICT (CID)

- Next Steps
  - Gather input from residents and businesses
  - Select improvement option
  - Meetings to sign petitions - Petitioners must:
    - own more than 50% by assessed value of District property
    - represent more than 50% per capita of all owners of District property
  - Board of Aldermen public hearing to establish CID and appoint CID Board of Directors
  - Execute agreements (CID/Frontenac and Frontenac/County for collection of assessments)
  - Secure Financing
  - Approve contractor

# PUBLIC INPUT

- Please inform any of your neighbors who were not able to participate tonight.
- This virtual meeting has been recorded and will be posted at [www.cityoffrontenac.org/NWEP](http://www.cityoffrontenac.org/NWEP)
- To receive future updates, please send your contact information to Jaysen Christensen at [jchristensen@cityoffrontenac.org](mailto:jchristensen@cityoffrontenac.org)

# TREE AND SHRUB TRIMMING

- Trees and shrubbery shall be kept trimmed by the property owner so that during any weather conditions the foliage or branches shall not extend beyond the curbline unless there is a clearance of at least twelve (12) feet at any point above a public roadway (Section 250.020)
- Access and public safety concerns
- In January 2021, City will contract trimming of all trees and shrubs growing into the street beyond the curbline (edge of pavement) and lower than 12 feet

# North West End Park Meeting

October 1, 2020



## QUESTIONS & COMMENTS

Please email questions and  
comments to Jaysen Christensen at  
[jchristensen@cityoffrontenac.org](mailto:jchristensen@cityoffrontenac.org)