

# CAP CON 2026





# Strategic Asset Management for Smaller Communities

Leah Bectel, PE  
Project Manager, Abonmarche Consultants

# INTRODUCTIONS

## Abonmarche

- Civil Engineering, Surveying, & Architecture Firm founded in 1979
- Headquarters in Benton Harbor, MI & South Bend, IN
- 200 + employees



## Leah Bectel, PE - Background

- Licensed Civil Engineer in Grand Haven, MI office
- Municipal Client Focused
  - Serving New Buffalo, Allegan, & Grand Haven Cities



# AGENDA

## 1. Asset Management Plan (AMP)

Basics & Process

## 2. Helpful Hints

## 3. Case Studies

## 4. Questions & Discussion

# PRESENTATION FORMAT

- Presentation follows provided checklist

- AMP how-to guide

- Starting from the beginning – you may be further along in the process

- Please stop me with questions along the way

# THE “WHY”

- Costs to replace water main, sanitary sewer, storm sewer, road, curb and gutter, and sidewalk are

averaging:

**\$1,800 / ft (~\$820,000) / 450-foot block.**



# OUTCOMES

I want you to leave knowing:

1. What goes into an asset management plan.
2. What the next best step is for your community.
3. How to make projects come to life and extend the life of those assets.

# PRESENTATION SCOPE

Water Distribution | Sanitary Sewer Collection | Storm Sewer Collection | Road Networks

**“DIG-ONCE  
PROJECTS”**



# PRESENTATION BACKGROUND

- **Not included:**
  - **Water Treatment Plants & Wells**
  - **Wastewater Treatment Plants**
  - **Buildings & Property, Sidewalks, Parks**



# ASSET MANAGEMENT PLAN (AMP)

**An AMP takes inventory of a city's existing assets, evaluates their condition, and develops recommended operation and maintenance (O&M) activities, a long-term capital improvement plan (CIP), and financial analysis to replace assets.**

**12-inch concrete storm sewer – installed 2025**

**Road reconstruction – installed 2025**

**8-inch PVC Sanitary Sewer – installed 2025**

**4-inch cast iron water main – installed 1935**

**Can someone tell me what's wrong with this picture?**

# ASSET MANAGEMENT 101

1. Asset Inventory



*what do we own?*

2. Condition Assessment



*what condition is it in?*

3. Criticality Rating



*how does it compare to other assets?*

4. Capital Improvement Plan



*what needs to be replaced?*

5. Financial Analysis



*how will we fund it?*

# 1. Asset Inventory

## Sanitary Sewer Collection System

- Sanitary Sewer Pipe, Manholes, and Lift Stations



## Storm Sewer Collection System

- Storm Sewer Pipe, Manholes, Catch Basins, and Outfalls



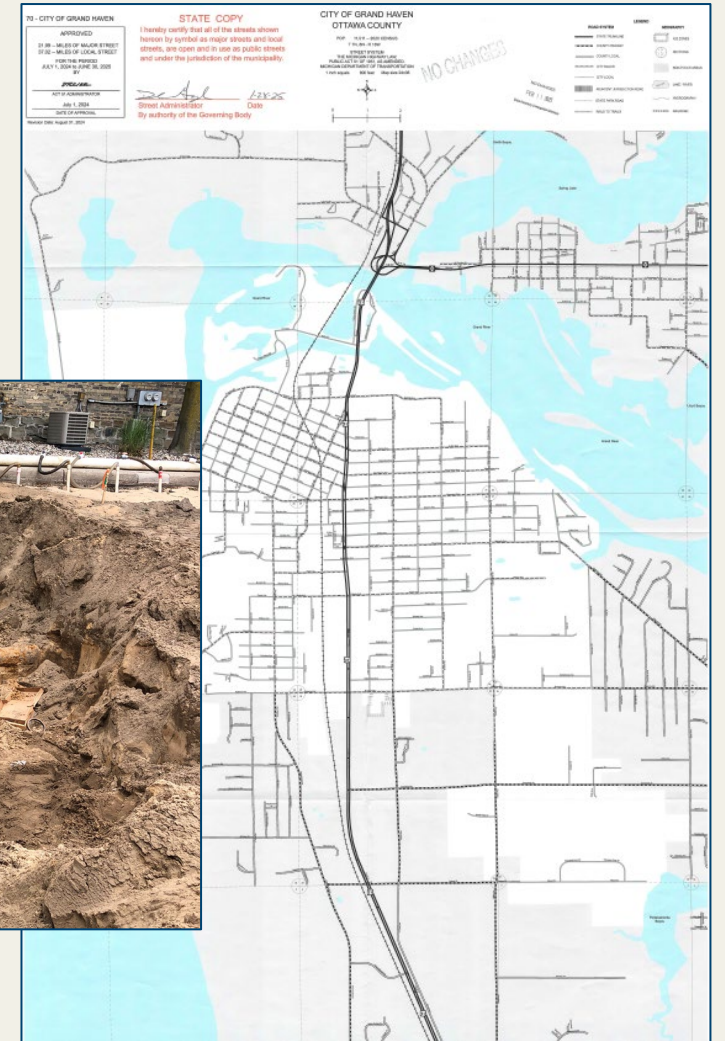
# 1. Asset Inventory

## Water Distribution System

- Water Main Pipe, Valves, Hydrants, Service Lines, Meters, Booster Stations, Water Storage Tanks

## Road Network

- Major and Local roads as defined on Act 51 map

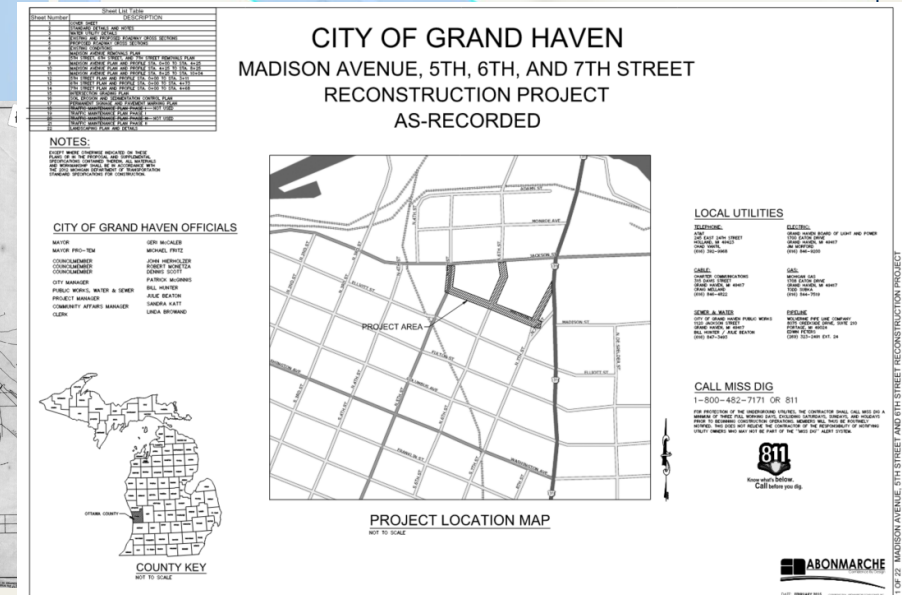
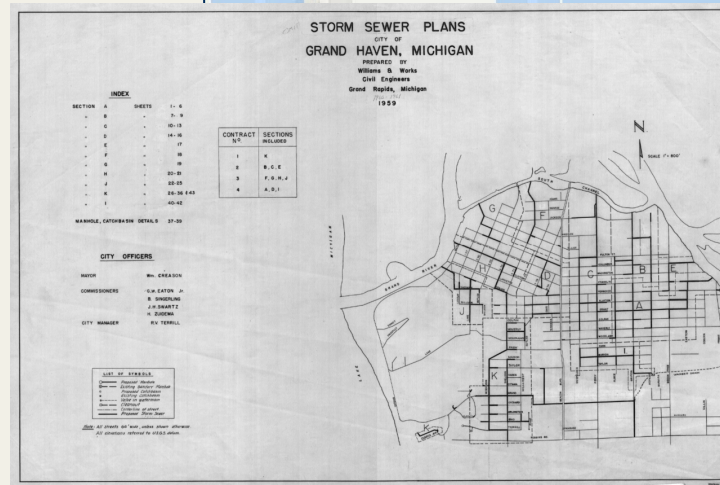
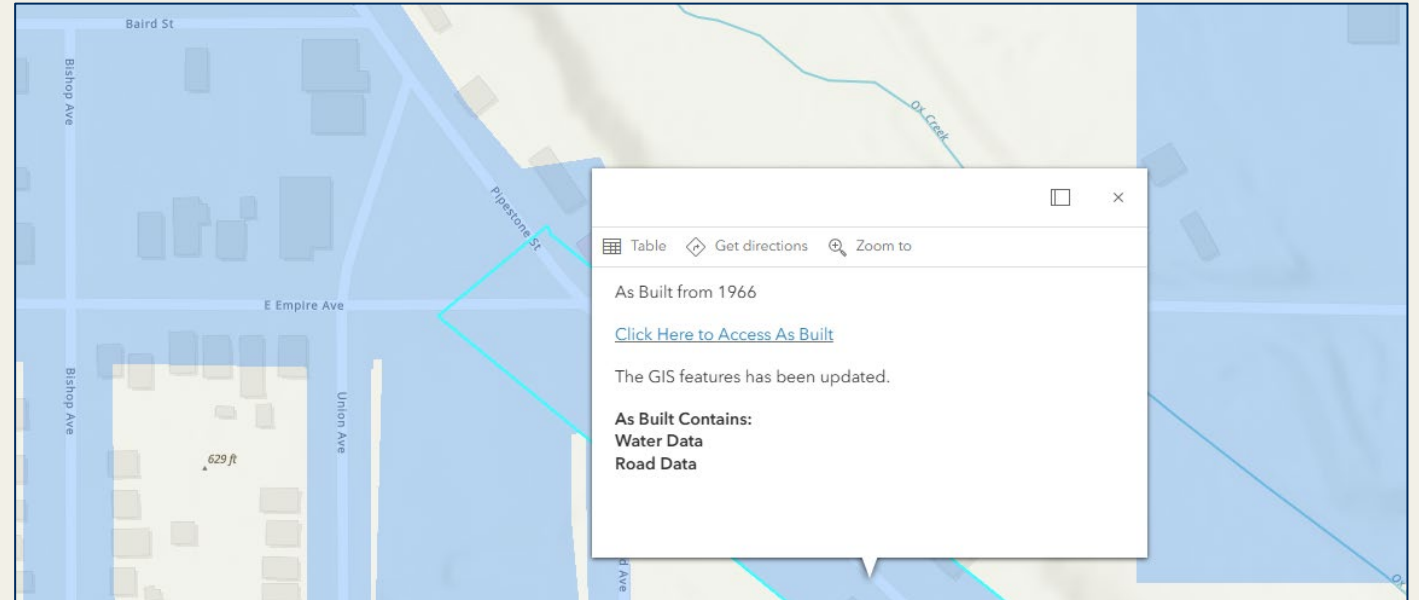


# 1. Asset Inventory

## Tasks:

1. Compile & Digitize all record drawings and as-builts.

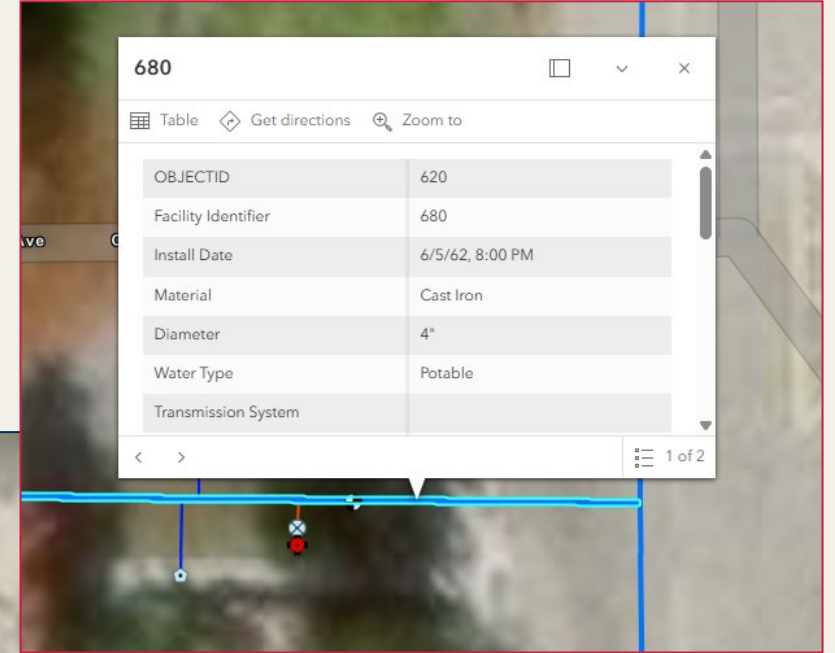
- Consider saving them in a OneDrive/SharePoint system (requires Microsoft 365)
- Future Linking of As-builts a possibility



# 1. Asset Inventory

Tasks:

2. Draw all utilities into Geographic Information Systems (GIS) or equivalent. Ensure all pipes' age, material, and diameter are inputted.



**bonus: GPS-locate all manholes, hydrants, and valves to make an even accurate GIS system.**

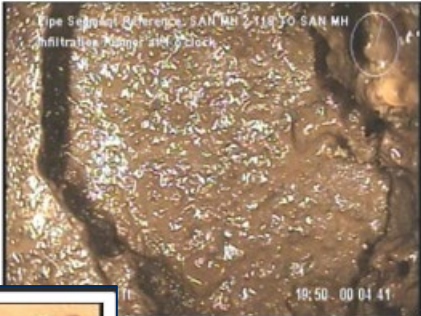
# 2. Condition Assessment

## Tasks:

- 1. Televisive all sanitary and storm pipes & scan all manholes.

- Defects are coded in industry language, correspond to a score (1 through 5).

MH 1-205 to MH 2-158



MH 2-118 to MH 2-120  
Infiltration at joints



MH 2-147 to MH 2-146  
Infiltration, cracks

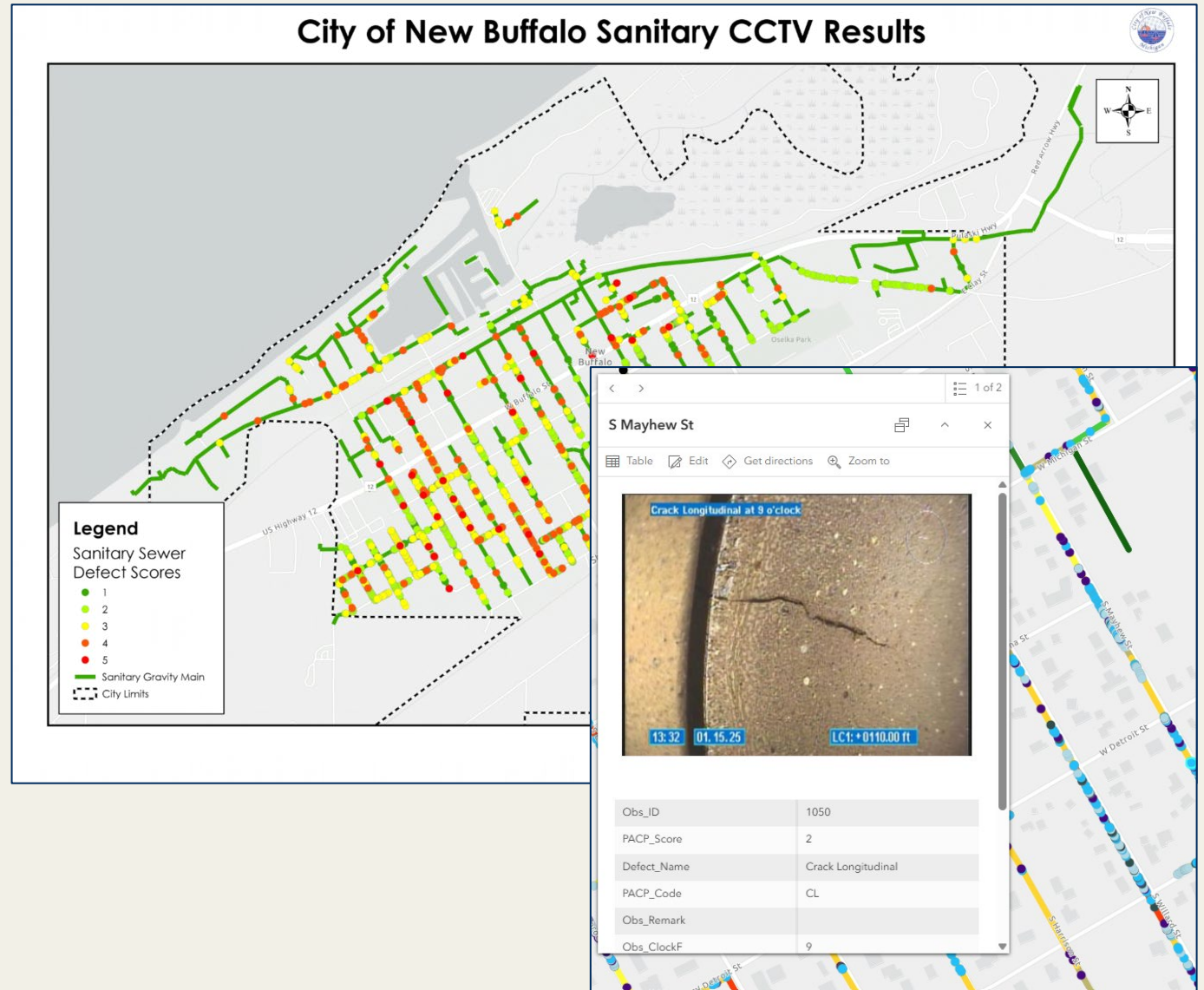


# 2. Condition Assessment

## Tasks:

### 1. Televising all sanitary and storm pipes & scan all manholes (continued)

- Budget \$17,000 / 1 mile of pipe
- Example: Town with 50 miles total of sanitary and storm sewer: \$850,000 to televise and scan everything
- Engineering firm can competitively bid this, or you can procure yourself
- Ensure deliverables are in GIS format!



# 2. Condition Assessment

## Recommended Contractors

- Taplin Group
  - Mitch Taplin: [MitchellTaplin@taplingroup.com](mailto:MitchellTaplin@taplingroup.com)
- Plummer's Environmental Services Inc. (now GFL)
  - Jeff Root: [jroot@plummersenv.com](mailto:jroot@plummersenv.com)
- Industrial Waste Recovery
  - Sam Biggio: [sam@industrialwasterecovery.com](mailto:sam@industrialwasterecovery.com)
- & many others

Ensure GIS integration capabilities and NASSCO-certified staff.

RFP language/assistance available



# 2. Condition Assessment

## 2. Perform Lift Stations & Water Storage Tank Inspections.

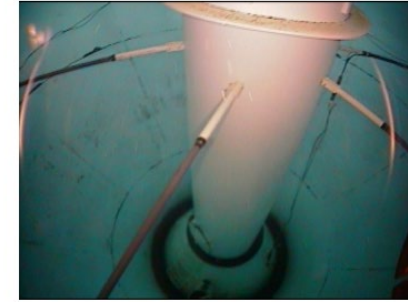
### Water Storage

- Dixon Engineering
  - Eric Binkowski: ericbinkowski@dixonengineering.net
- Performed every 5 years – budget \$6,000



### Lift Stations

- Peerless Midwest, Kennedy Industries, or engineering consultant
  - Kennedy: Travis Cole - tcole@kennedyind.com
  - Peerless Midwest: info@peerlessmidwest.com
- Budget roughly \$1,000 - \$2,000 per station

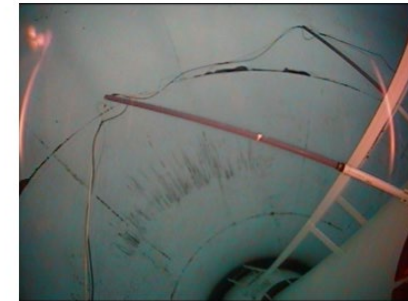


58) The arms off the access tube for the cathodic system are in good condition.

59) Same.



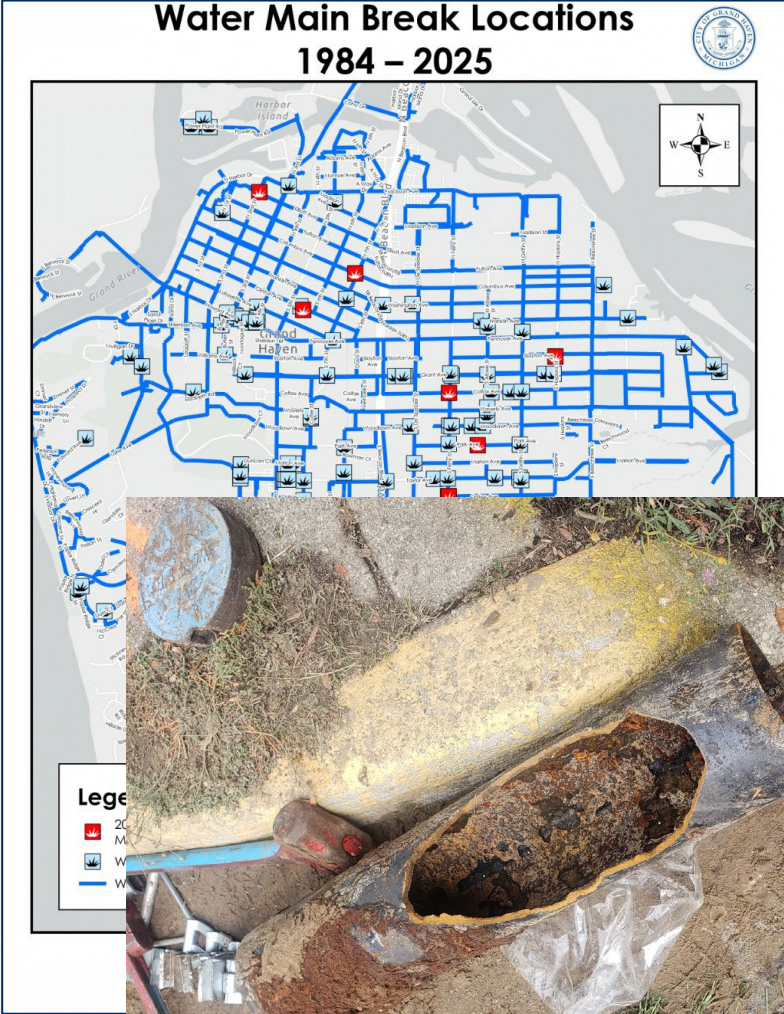
60) There were no broken arms or wires visible during the inspection.



# 2. Condition Assessment

3. Document and locate all known water main breaks in GIS.

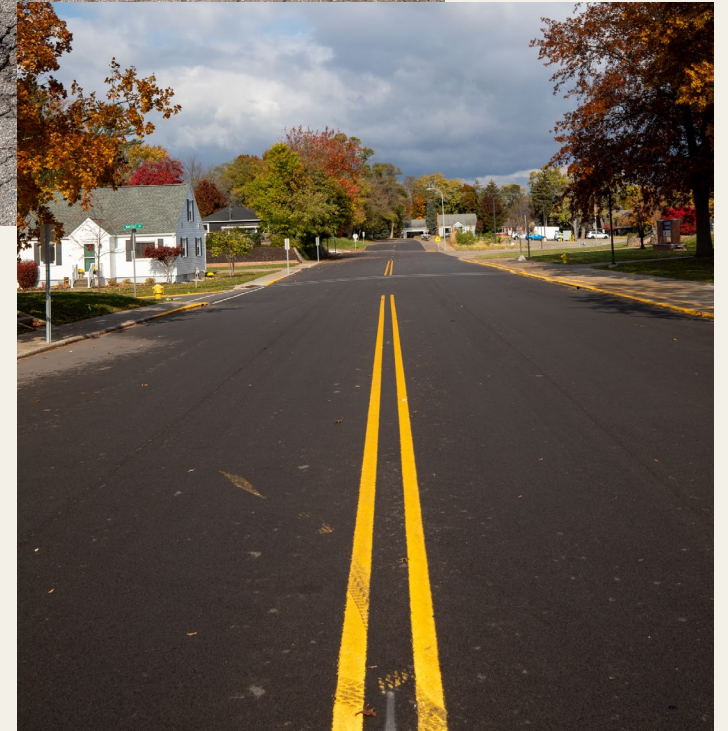
Even if you know a year that a break occurred – log it.



## 2. Condition Assessment

### 3. Rate all roads using PASER Method.

- Rate road surface on scale of 1 (worst) to 10 (best)
- **P**avement **S**urface **E**valuation and **R**ating (**PASER**)
- Must be certified to rate roads and log in RoadSoft software.
- Michigan Technological University's Center for Technology and Training offers low-cost training.
- Planning Agencies also offer reimbursement.



# 3. Criticality Assessment

How likely an asset is to fail on a score from 1 to 10.

10-year-old Ductile Iron Water Main with no breaks.

**LOW**

100-year-old pipe with history of water main breaks.

**HIGH**

**LIKELIHOOD OF FAILURE**



# 3. Criticality Assessment

## 1. Likelihood of Failure Scoring – for each block/pipe segment:

- Water Distribution Pipes:

**Likelihood of Failure (LoF) =**

$(\text{Break Frequency Score} * 0.4) + (\text{Break Density Score} * 0.4) + (\text{Service Life Score} * 0.2)$

- Sanitary and Storm Sewer Collection Pipes:

**Likelihood of Failure (LoF) =**

$(\text{Manhole Inspection Score} * 0.1) + (\text{CCTV Score} * 0.6) + (\text{Service Life Score} * 0.3)$

# 3. Criticality Assessment

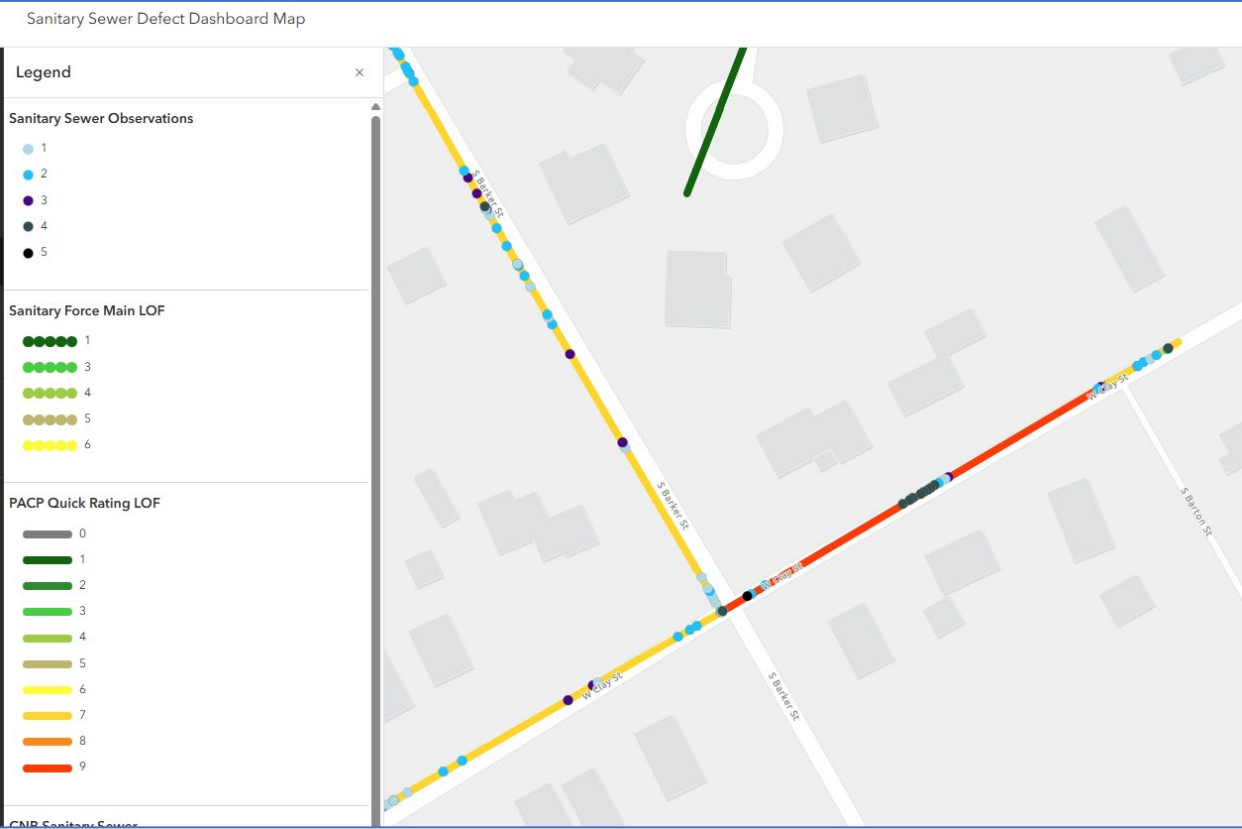
Utility Criticality Summary

Legend

Water Main Breaks

Water Likelihood of Failure

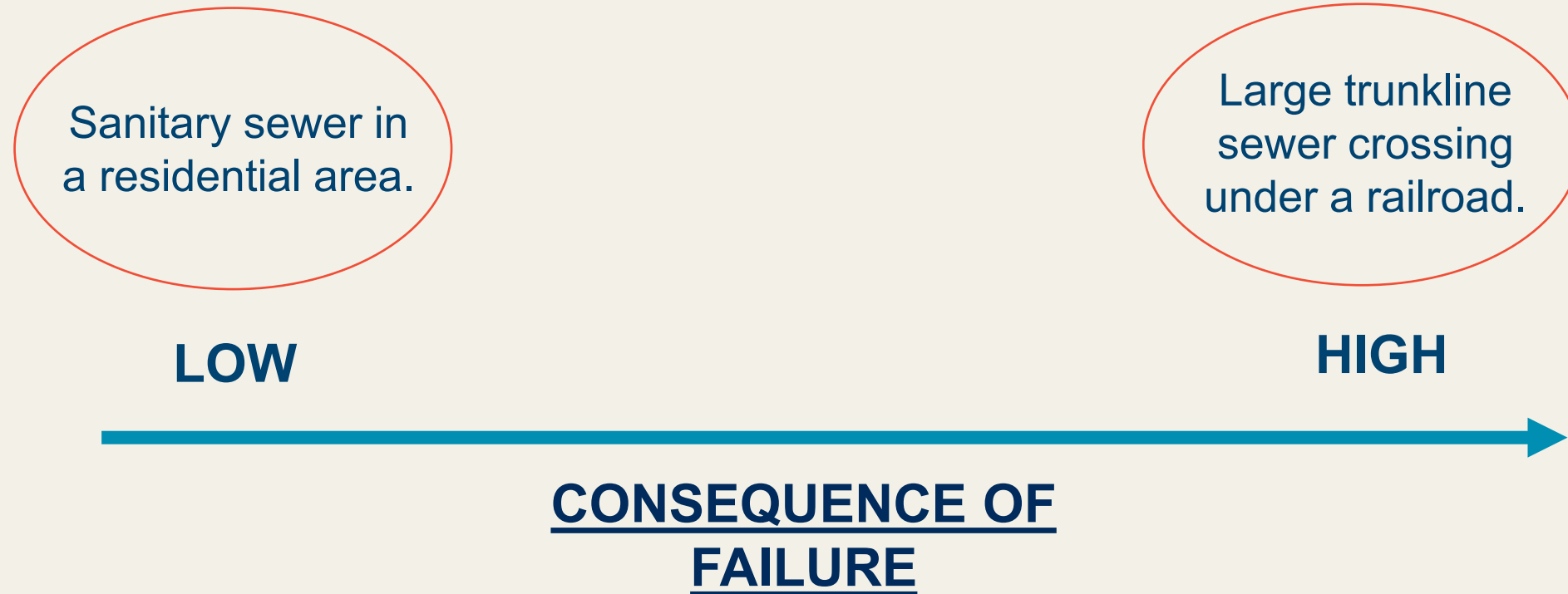
- LOF - 10
- LOF - 9
- LOF - 8



Each block / pipe segment's score shown in GIS

### 3. Criticality Assessment

**Consequence of Failure:** Should an asset fail, how big of an impact would it have on the area, customers, traffic, environment, etc.?



# 3. Criticality Assessment

## 1. Consequence of Failure Scoring – for each block/pipe segment:

### Consequence of Failure (CoF) =

$$(WBC * 0.2) + (ASC * 0.2) + (RP * 0.15) + (MD * 0.1) + (RC * 0.1) + (BP * 0.1) + (MF * 0.05) + (SC * 0.05) + (OCC * 0.05)$$

where:

WBC = water body crossing

ASC = affected service connections

RP = roadway proximity

MD = main diameter

RC = railroad crossing

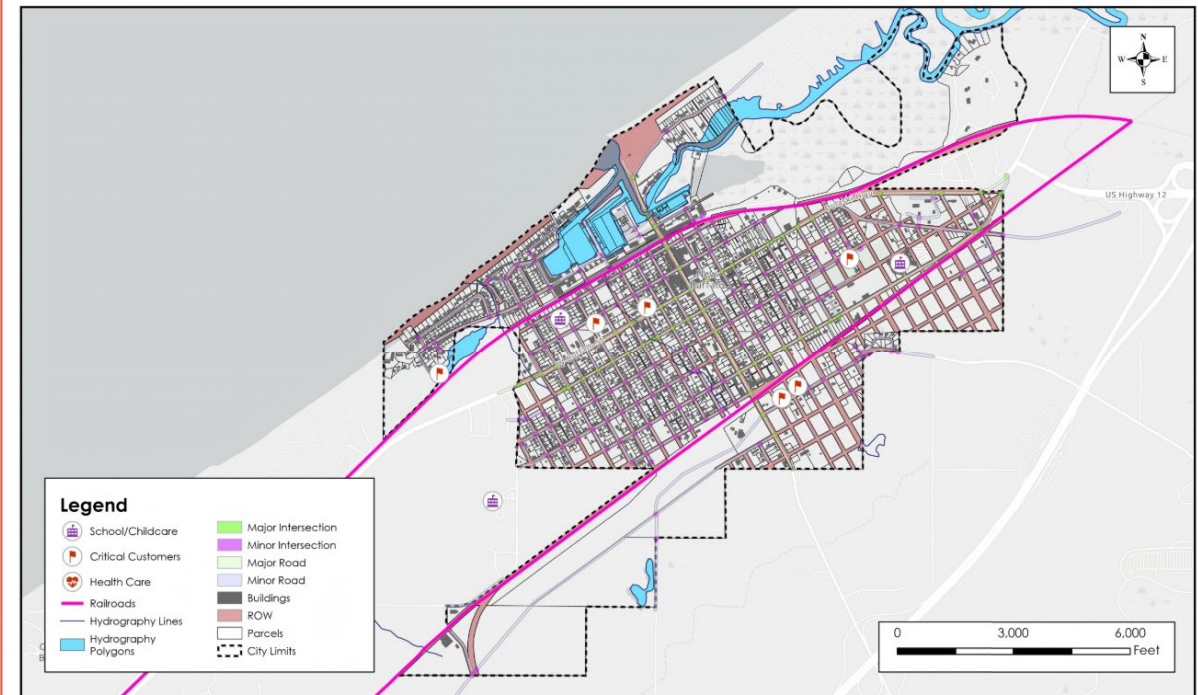
BP = building proximity

MF = medical facilities

SC = schools and childcare

OCC = other critical customers

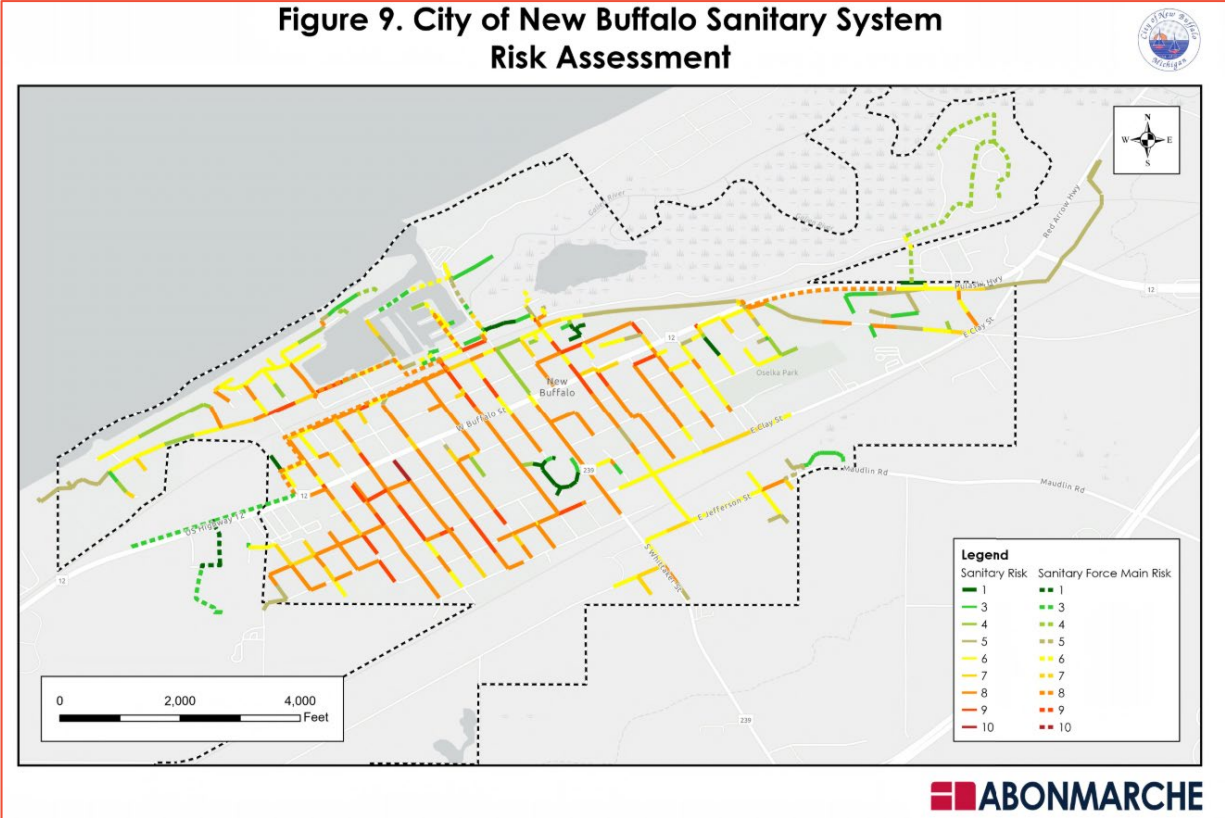
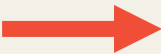
Figure 7. City of New Buffalo Consequence of Failure Parameters



# 3. Criticality Assessment

Likelihood of Failure (1 to 10) x Consequence of Failure (1 to 10)  
 = Criticality or Risk Assessment (1 to 100)

Risk Assessment Score Priority Matrix											
Consequence of Failure (CoF)	10	10	20	30	40	50	60	70	80	90	100
	9	9	18	27	36	45	54	63	72	81	90
	8	8	16	24	32	40	48	56	64	72	80
	7	7	14	21	28	35	42	49	56	63	70
	6	6	12	18	24	30	36	42	48	54	60
	5	5	10	15	20	25	30	35	40	45	50
	4	4	8	12	16	20	24	28	32	36	40
	3	3	6	9	12	15	18	21	24	27	30
	2	2	4	6	8	10	12	14	16	18	20
	1	1	2	3	4	5	6	7	8	9	10
Likelihood of Failure (LoF)											
	1	2	3	4	5	6	7	8	9	10	



## 4. Capital Improvement Plan

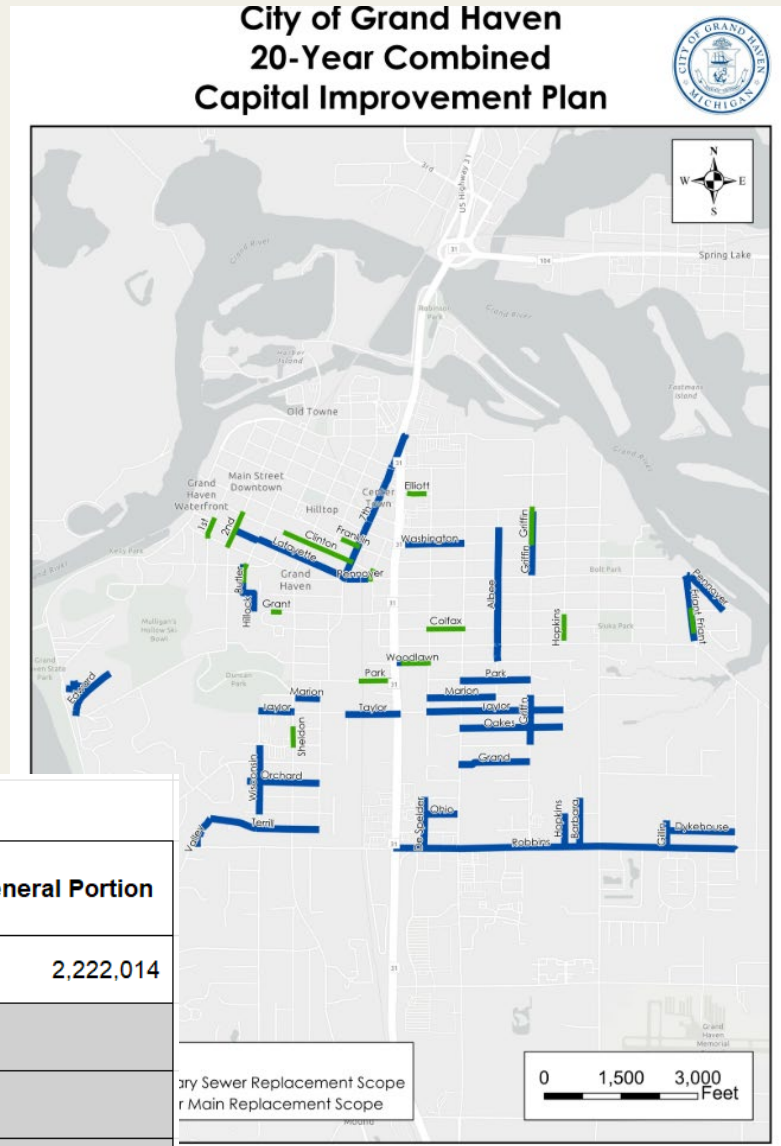
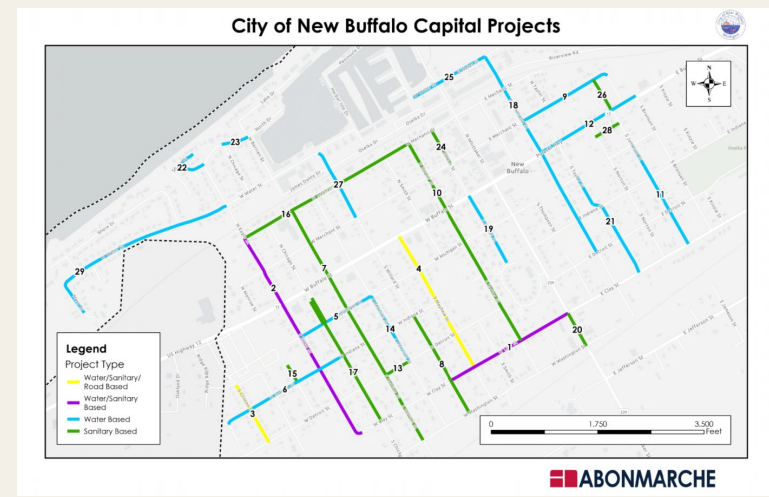
- Risk Assessment completed for all distribution/collection assets
- Map Results
- Analyze to find overlap and most pressing projects
- Prioritize segments with poor utility & road conditions

**CRITICALITY ASSESSMENT → CAPITAL PROJECTS**

# 4. Capital Improvement Plan

- Results: Capital List, Map of Projects, Construction Costs

- Typically 5- & 20- Year Plan



Capital Improvement Projects				Streets Portion		
	Total Cost (Construction, Contingency, Engineering)	Water Portion	Sanitary Portion	Major Streets	Local Streets	General Portion
7th Street	\$ 8,060,097	\$ 1,934,524	\$ 2,061,349	\$ 1,842,210		\$ 2,222,014
Ferry Street	\$ 4,140,263	\$ 2,101,250	\$ 744,456	\$ 1,294,556		
Grant Street	\$ 9,205,162	\$ 3,718,145	\$ 2,922,067		\$ 2,564,950	
Columbus (Version 1)	\$ 3,684,461	\$ 1,379,826	\$ 1,036,207	\$ 1,268,428		
<b>Total (Columbus v.1)</b>	<b>\$ 25,089,983</b>	<b>\$ 9,133,745</b>	<b>\$ 6,764,079</b>	<b>\$ 4,405,194</b>	<b>\$ 2,564,950</b>	<b>\$ 2,222,014</b>

## 4. Capital Improvement Plan

- #1 water project does not always overlap with #1 sanitary project and #1 road project
- Work with AMP team to determine best dig-once projects that make sense



# 5. Financial Analysis

- Next Step – rate study & financial analysis
  - Assess current debts, municipal budgets, water/sewer rates
- Take project list and show various options on funding
- Budget \$15,000 - \$25,000
- Utility Financial Services – Dawn Lund [dlund@ufsweb.com](mailto:dlund@ufsweb.com)
- MFCI – Warren Creamer [wc@mfcic.com](mailto:wc@mfcic.com)
- Bendzinski & Co – Andy Campbell, CPA  
[acampbell@bendzinski.com](mailto:acampbell@bendzinski.com)



# 5. Financial Analysis

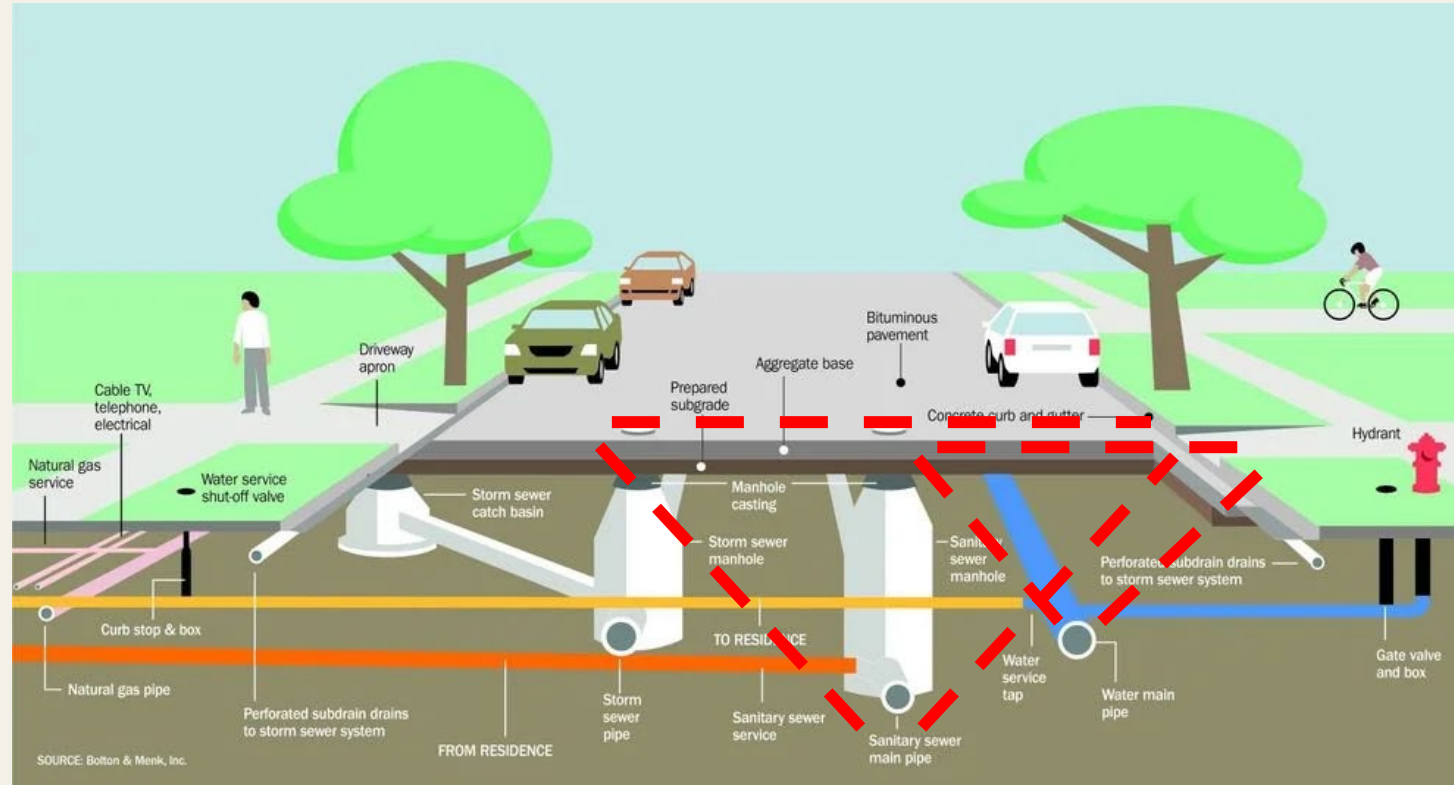
- Construction cost estimates need to be broken down by:
  - Sewer Fund → Sanitary sewer pipe, manholes
  - Water Fund → Hydrants and water main
  - Local Streets Fund → Asphalt and aggregate subbase
  - Major Streets Fund → Asphalt and aggregate subbase
  - General Fund → Benches, light poles, sidewalks

# 5. Financial Analysis – Breakdown Options

- road item = road item
- (asphalt line item paid out by local street fund)

OR

- Sanitary sewer and water fund takes on portion of road items as they are causing need for road improvements



# 5. Financial Analysis – Breakdown Options

- Engineer should break down estimates
- Work with your finance director & financial consultant between the various funds

## Engineer's Preliminary Opinion of Costs

<b>Project:</b>	5-Year CIP: Grant - Beacon to Coburn	<b>Project No.:</b>	23-0304
<b>Client:</b>	City of Grand Haven	<b>Client Project No.:</b>	N/A
<b>Description:</b>	Full road reconstruction	<b>Project Stage:</b>	Scoping
<b>Prepared By:</b>	Madeyn Landry, EIT	<b>Date Prepared:</b>	1/9/2026
<b>Reviewed By:</b>	Leah Bechtel, PE	<b>Date Reviewed:</b>	1/9/2026
<b>Notes:</b>	Estimate based on 2024 unit pricing		

Item #	Item Description	Quantity	Unit	Unit Price	Total
1	Mobilization Max. 5%	1	LSUM	\$ 267,000.00	\$ 267,000.00
2	Misc Removals	1	LSUM	\$ 286,000.00	\$ 286,000.00
3	Pavt. Rem	6,417	Syd	\$ 12.00	\$ 77,000.00
4	Curb and Gutter, Rem	11,550	Ft	\$ 12.50	\$ 144,375.00
5	Water Main Rem	5,775	Ft	\$ 12.00	\$ 69,300.00
6	Non-Haz Contaminated Material and Disposal	525	Cyd	\$ 50.00	\$ 26,250.00
7	Machine Grading, Modified	58	Sta	\$ 3,500.00	\$ 202,125.00
8	SESC Allowance	1	LSUM	\$ 43,000.00	\$ 43,000.00
9	Subbase, CIP	2,139	Cyd	\$ 20.00	\$ 42,777.78
10	Aggregate Base, 8 inch	6,417	Syd	\$ 12.50	\$ 80,208.33
11	Dr Structure Cover, Adj. Case 1	53	Ea	\$ 650.00	\$ 34,125.00
12	HMA, 4 inch	1,283	Ton	\$ 100.00	\$ 128,333.33
13	Driveway, Nonreinf Conc, 6 inch	2,500	Syd	\$ 60.00	\$ 150,000.00
14	Curb and Gutter, Det C4	11,550	Ft	\$ 25.00	\$ 288,750.00
15	Sidewalk, 4 inch	52,500	Slt	\$ 6.00	\$ 315,000.00
16	Curb Ramp, Conc, 6 inch	3,850	Slt	\$ 8.00	\$ 30,800.00
17	Curb Ramp Opening, Conc	580	Ft	\$ 27.50	\$ 15,400.00
18	Detectable Warning Surface, Cast Iron	140	Ft	\$ 90.00	\$ 12,600.00
19	Pavt Marking Allowance	1	LSUM	\$ 29,000.00	\$ 29,000.00
20	Traffic Control Allowance	1	LSUM	\$ 172,000.00	\$ 172,000.00
21	Minor Traffic Devices	1	LSUM	\$ 286,000.00	\$ 286,000.00
22	Signage Allowance	1	LSUM	\$ 29,000.00	\$ 29,000.00
23	Slope Restoration	10,500	Syd	\$ 7.50	\$ 78,750.00
24	Sewer, Rem	3,938	Ft	\$ 12.50	\$ 49,218.75
25	Storm Sewer, RCP, CL IV, Tr Det B	3,938	Ft	\$ 115.00	\$ 452,812.50
26	Dr Structures	105	Ea	\$ 3,500.00	\$ 367,500.00
27	Storm Drainage Structure Covers	105	Ea	\$ 900.00	\$ 94,500.00
28	Water Main, DI, x inch, Tr Det G	6,563	Ft	\$ 160.00	\$ 1,050,000.00
29	Water Serv, Trenchless, 1 inch	7,500	Ft	\$ 40.00	\$ 300,000.00
30	Curb Stop and Box	100	Ea	\$ 750.00	\$ 75,000.00
31	Gate Valve and Box, x inch	14	Ea	\$ 3,000.00	\$ 42,000.00
32	Hydrant Assembly	18	Ea	\$ 7,500.00	\$ 131,250.00
33	Live Tap	2	Ea	\$ 10,000.00	\$ 20,000.00
34	Water Service Connection	100	Ea	\$ 2,000.00	\$ 200,000.00
35	Sanitary Sewer, PVC, SDR 26	6,563	Sta	\$ 125.00	\$ 820,312.50
36	Sanitary Structures	18	Ea	\$ 4,000.00	\$ 70,000.00
37	Sanitary Structure Covers	18	Ea	\$ 900.00	\$ 15,750.00
38	Sanitary Services, PVC, SDR 35	3,300	Ft	\$ 75.00	\$ 247,500.00
39	Sanitary Cleanouts and Cleanout Covers	100	Ea	\$ 750.00	\$ 75,000.00
<b>Construction Subtotal:</b>				\$	6,818,638.19
<b>Construction Contingency (20%)</b>				\$	1,363,727.64
<b>Professional Services (15%)</b>				\$	1,022,795.73
<b>Construction Total:</b>				\$	9,205,162.00
<b>Breakdown of total budget by funding source:</b>					
Budget for Water (all of blue cells, 33% of red cells):				\$	2,754,181.48
Construction Contingency (40% of 20% of total project):				\$	550,836.30
Professional Services (40% of 15% of total project):				\$	413,127.22
<b>Water Fund Total:</b>				\$	<b>3,718,145.00</b>
Budget for Sanitary (all of green cells, 33% of red cells):				\$	2,164,493.98
Construction Contingency (32% of 20% of total project):				\$	432,898.80
Professional Services (32% of 15% of total project):				\$	324,674.10
<b>Sanitary Fund Total:</b>				\$	<b>2,922,067.00</b>
Budget for Streets (all of purple cells, 33% of red cells):				\$	1,899,962.73
Construction Contingency (28% of 20% of total project):				\$	379,992.55
Professional Services (28% of 15% of total project):				\$	284,994.41
<b>Streets Fund Total:</b>				\$	<b>2,564,950.00</b>

# 5. Financial Analysis – Example

- **4-block full reconstruction - \$3,285,000 Total**
  - **General Fund Costs: \$200,000**
    - *Pay from General Fund*
  - **Major Street Costs: \$800,000**
    - *Pay from Major Street Fund in cash or MDOT TIP grant*
  - **Water Fund Costs: \$1,285,000**
    - 3.85% 20-year bond: \$92,000 payment / year from water fund
    - Raise rates to cover this payment (from rate study results)
  - **Sanitary Sewer Fund Costs: \$1,000,000**
    - 3.85% 20-year bond: \$73,000 payment / year from sewer fund
    - Raise rates to cover this payment (from rate study results)



# 5. Financial Analysis

## Bird's Eye View Planning

- 8 block full reconstruct project #1 priority
- Assume \$1800/foot total cost (includes contingency & engineering)
- \$6,480,000 Total
- If you don't have breakdowns now –
  - Assume 1/3 water, 1/3 sanitary, 1/3 roads
  - \$2,160,000 each fund



# 5. Financial Analysis – Funding Options

<b>Funding Source</b>	<b>Eligible Utility/ Roadway</b>
<b>Act 51 Funds</b>	<b>Roadway, Storm</b>
<b>General Fund Transfers</b>	<b>Roadways</b>
<b>MDOT Transportation Improvement Program (TIP) Funds</b>	<b>Roadway, Storm</b>
<b>Water Utility Billing Revenues</b>	<b>Water Distribution System</b>
<b>Sanitary Utility Billing Revenues</b>	<b>Sanitary Sewer Collection System</b>
<b>EGLE Drinking Water State Revolving Fund</b>	<b>Water System</b>
<b>EGLE Clean Water State Revolving Fund</b>	<b>Sanitary System</b>
<b>USDA Rural Development Program</b>	<b>Water, Sanitary Eligible Road</b>
<b>Municipal Bond – General, Water/Sewer, etc.</b>	<b>Roads &amp; Utilities</b>
<b>Infrastructure Millage</b>	<b>Roads &amp; Utilities</b>

# 5. Financial Analysis – Current Rates

- Andy Campbell publishes quarterly newsletter for all things funding of municipal projects
- To subscribe: email [acampbell@bendzinski.com](mailto:acampbell@bendzinski.com)


Tax-Exempt Municipal Bond Interest Rates						
	April 9, 2025		July 15, 2025		October 15, 2025	January 8, 2026
Bloomberg 5-Year Muni Bond Yield [1]	3.47	↓	2.60	↓	2.25	2.25
Bloomberg 10-Year Muni Bond Yield [1]	3.80	↓	3.26	↓	2.80	2.60
Bloomberg 20-Year Muni Bond Yield [1]	4.51	↓	4.27	↓	3.86	3.85
Bloomberg 30-Year Muni Bond Yield [1]	4.80	↓	4.62	↓	4.12	4.09
	April - June 2025		July - September 2025		October - December 2025	January - March 2026
USDA Rural Utilities - Market	4.25	↑	5.25	-	5.25	4.75
USDA Rural Utilities - Intermediate	3.375	↑	4.25	-	4.25	3.75
USDA Rural Utilities - Poverty	2.50	↑	3.125	-	3.125	2.875
State Revolving Fund (SRF) - 20 Years	2.50	-	2.50	-	2.50	2.50
State Revolving Fund (SRF) - 30 Years	2.75	-	2.75	-	2.75	2.75
State Revolving Fund (SRF) - Overburdened 20 or 30 years (or 40 years for DWSRF)	2.00	-	2.00	-	2.00	2.00
State Revolving Fund (SRF) - Significantly Overburdened 20 or 30 years (or 40 years for DWSRF)	1.00	-	1.00	-	1.00	1.00

[1] Source: Bloomberg. Benchmarks based on highly rated national index debt. Michigan debt typically prices higher than indexes.  
Note: For informational purposes only and not a recommendation. Bendzinski & Co. is not responsible for errors in reporting rates. Rates subject to change.

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# Steps 1 through 5


- Result in Asset Management Plan Reports




**EXECUTIVE SUMMARY  
STORM SEWER, SANITARY SEWER, WATER  
DISTRIBUTION, AND ROADWAY  
ASSET MANAGEMENT PLAN REPORT**

Prepared For:  
City of Grand Haven  
519 Washington Avenue  
Grand Haven, Michigan 49417

**January 2025**


Prepared by:  
  
11 North 4<sup>th</sup> Street, Grand Haven, MI 49417 • 616.847.4070  
abonmarche.com




**SANITARY SEWER COLLECTION SYSTEM  
ASSET MANAGEMENT PLAN REPORT**

Prepared For:  
City of Grand Haven  
519 Washington Avenue  
Grand Haven, Michigan 49417

**January 2025**


Prepared by:  
  
11 North 4<sup>th</sup> Street, Grand Haven, MI 49417 • 616.847.4070  
abonmarche.com




**WATER DISTRIBUTION SYSTEM  
ASSET MANAGEMENT PLAN REPORT**

Prepared For:  
City of Grand Haven  
519 Washington Avenue  
Grand Haven, Michigan 49417  
WSSN 2750

**January 2025**


Prepared by:  
  
11 North 4<sup>th</sup> Street, Grand Haven, MI 49417 • 616.847.4070  
abonmarche.com




**STORM SEWER COLLECTION SYSTEM  
ASSET MANAGEMENT PLAN REPORT**

Prepared For:  
City of Grand Haven  
519 Washington Avenue  
Grand Haven, Michigan 49417

**January 2025**


Prepared by:  
  
11 North 4<sup>th</sup> Street, Grand Haven, MI 49417 • 616.847.4070  
abonmarche.com



**ROADWAY  
ASSET MANAGEMENT PLAN REPORT**

Prepared For:  
City of Grand Haven  
519 Washington Avenue  
Grand Haven, Michigan 49417

**January 2025**

Prepared by:  
  
11 North 4<sup>th</sup> Street, Grand Haven, MI 49417 • 616.847.4070  
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# Helpful Hints Summary

- **Asset Inventory**
  - Complete as many of these tasks in-house before starting an AMP
    - Record Drawing scanning/compilation, GIS setup and drawing
      - Consider GIS hire with other communities – Cass County contracts with Dowagiac
  - Contact your local planning agency for help with rating your roads using PASER
- **Condition Assessment**
  - Complete sewer televising, tank inspections, lift station inspections first
- **Criticality Rating**
  - Hire an engineer for this task and ensure it's done in GIS
- **Capital Improvement Plan**
  - Hire an engineer that can break up construction costs by your desired funds
- **Financial Analysis**
  - Hire a firm that works with your financial situation and offers different scenarios for funding

# Helpful Hints Summary

- Spending money on Operations & Maintenance will save your community money.
  - Crack Sealing Roads
  - Sewer Cleaning Annually
  - Operating Water Valves & Hydrants
  - Maintaining Lift Stations
- **General**
  - If you're going to pursue an AMP, do all utilities & road reports at once.
  - Water/Sewer inflationary rate increases at a minimum
  - Congressional asks
  - Submit your PASER Ratings to MDOT/Act 51 Agency
    - If you do this, you may transfer major street funds to local funds freely

# Case Study

- Asset Management Planning Resulted in clear #1 project priority
  - 1.57 miles road reconstruction – currently PASER 1
  - 1.25 miles water main replacement – currently 4” 1940’s cast iron
  - 1.11 miles sanitary sewer replacement – currently 1940’s clay
  - 0.3 miles storm sewer – drainage improvements

- We had maps, photos, cost estimates prepared
- MEDC announced \$20 million dollar WRI grant
- We applied for Allegan and won \$2,500,000**
- Remainder funded by municipal bonds



Figure 1. Water main in a sanitary manhole on Bond Street.

**Engineer's Estimate of Construction Costs**

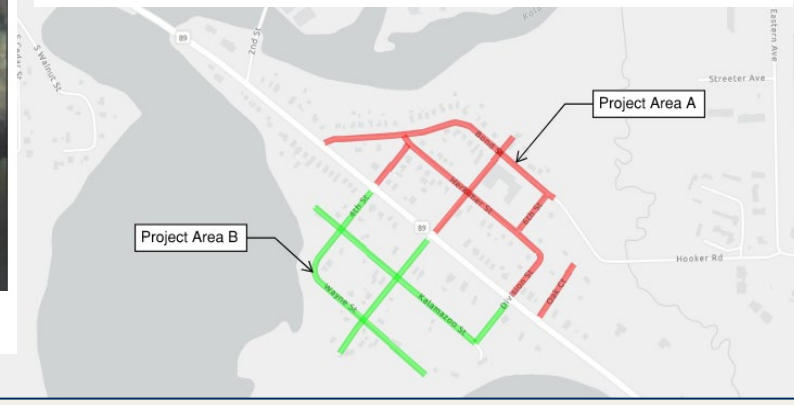
Project: Allegan MEDC WRI Grant App  
 Project No: -  
 Description: MEDC WRI - Rossman Park  
 Stage: Scoping  
 Date: 5/6/2025  
 Prepared By: MJL

*No inflation included in these estimates due to proposed 2026 construction*

Rossman Park Estimate					
	Road Segment:	Streets Fund	Water Fund	Sanitary Fund	Entire Project Cost
Rossman Park SW	5th St	\$ 122,655.00	\$ 514,385.00	\$ 174,591.00	\$ 811,631.00
	Wayne St	\$ 48,572.00	\$ 221,649.00	\$ 234,714.00	\$ 504,935.00
	4th St	\$ -	\$ 397,009.62	\$ 368,067.73	\$ 765,077.00
	Kalamazoo St	\$ -	\$ 623,229.59	\$ 655,069.54	\$ 1,278,299.00
	Division St	\$ -	\$ 214,296.43	\$ 220,374.03	\$ 434,670.00
	Additional Lining	\$ -	\$ -	\$ 111,506.00	\$ 111,506.00
<b>Rossman Park SW Total</b>		<b>\$ 171,227.00</b>	<b>\$ 1,970,569.64</b>	<b>\$ 1,764,322.30</b>	<b>\$ 3,906,119.00</b>
Rossman Park NE	Bond St	\$ -	\$ 1,210,107.52	\$ 1,296,691.31	\$ 2,506,799.00
	Herkimer St	\$ -	\$ 710,365.19	\$ 916,788.16	\$ 1,627,153.00
	4th St	\$ 132,802.00	\$ -	\$ -	\$ 132,802.00
	5th St	\$ 293,854.00	\$ -	\$ -	\$ 293,854.00
	6th St	\$ 180,965.04	\$ -	\$ 54,056.07	\$ 235,021.00
	Division St	\$ -	\$ -	\$ 334,703.00	\$ 334,703.00
	Oak Ct	\$ -	\$ 299,844.00	\$ -	\$ 299,844.00
Additional Lining	\$ -	\$ -	\$ 253,606.00	\$ 253,606.00	
<b>Rossman Park NE Total</b>		<b>\$ 607,621.04</b>	<b>\$ 2,220,316.71</b>	<b>\$ 2,857,844.54</b>	<b>\$ 5,685,782.00</b>
<b>Rossman Park Area Total:</b>		<b>\$ 778,848.04</b>	<b>\$ 4,190,886.35</b>	<b>\$ 4,622,166.84</b>	<b>\$ 9,591,901.00</b>

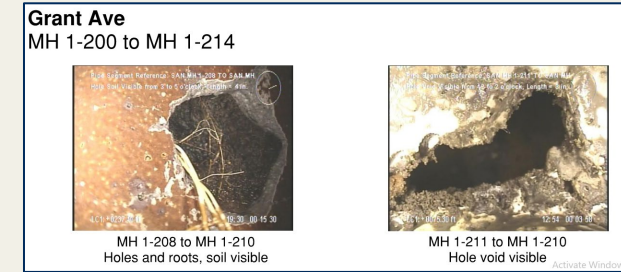


Figure 2. Multiple Fractures and Voids Identified in Sanitary Sewer Pipe in Project Scope.



# Case Study

- Asset Management Planning Resulted in top project priority – Grant Avenue (1 mile total)
  - Water main – 4” 1930’s cast with multiple breaks
  - Sanitary sewer – 8” 1950’s clay with multiple defects
  - Storm sewer – failing joints causing sinkholes in road
  - Road – PASER 1 – 3
- We had maps, cost estimates prepared
- Michigan Infrastructure Office announced grant program
- **\$50,000 won to begin survey, design efforts**

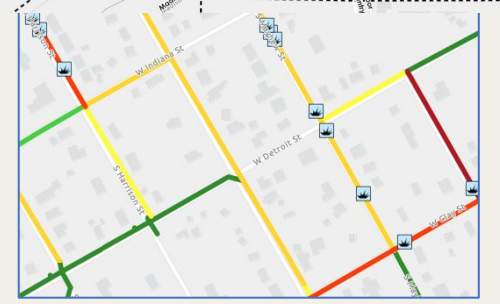
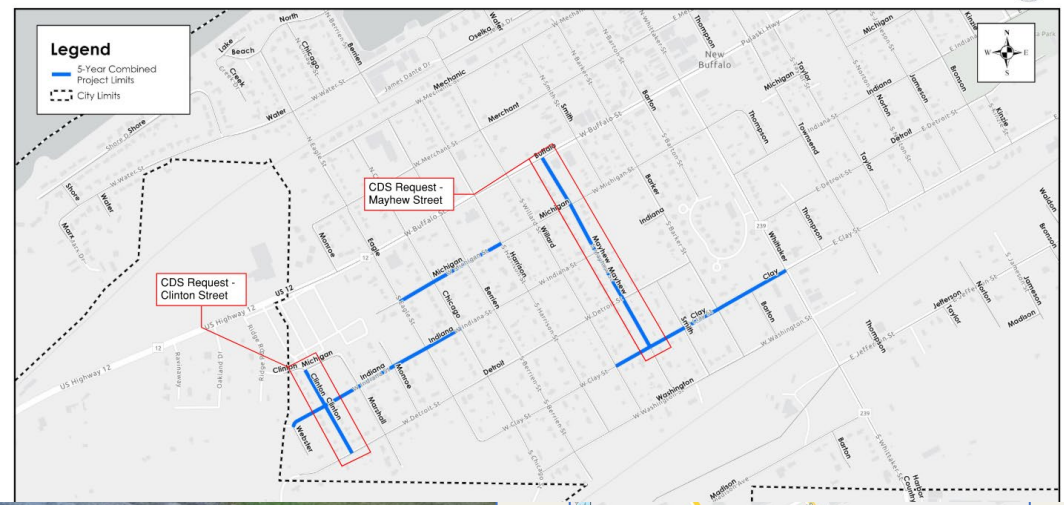


# Case Study

- Asset Management Planning Resulted in multiple “dig-once” projects
  - Mayhew & Clinton
  - Water main – multiple breaks
  - Sanitary sewer – multiple defects
  - Road – PASER 1 – 3
- We have maps, photos, cost estimates prepared
- Appropriation request sent to Senator Peters this March



Figure 11. City of New Buffalo 5-Year Combined Capital Improvement Plan



A photograph of a campus scene featuring a brick building on the left, a paved walkway, a green lawn, and a bridge in the background. A semi-transparent blue rectangular overlay is centered over the image, containing the text "QUESTIONS & DISCUSSION" in white, bold, sans-serif font. The sun is visible in the upper right corner of the sky.

# QUESTIONS & DISCUSSION



**LEAH BECTEL, PE**

Project Manager  
**Abonmarche Consultants**  
**Grand Haven, MI**

**[lbectel@abonmarche.com](mailto:lbectel@abonmarche.com)**  
**(231) 299-2220**