EST 1808
CITY OF
DELAWARE
OHIO

MEMORANDUM

TO: Mayor Riggle and Members of City Council
FROM: R. Thomas Homan, City Manager
DATE: 08/18/19
RE: 2020-2024 Capital Improvement Plan

Pursuant to section 79 of the City Charter, submitted herewith is my proposed 2020-2024 Capital Improvement Plan, adoption of which must occur by October 15. Please see the table below for the review and adoption schedule.

Event	Time	Place
First Reading	Monday, August 26, 2019	City Council Meeting
Second Reading	Monday, September 9, 2019	City Council Meeting
Work Session	Thursday, September 12,2019	Council Chambers
Third Reading	Monday, September 23, 2019	City Council Meeting
Work Session (if needed)	Monday, September 30, 2019	Council Chambers
Fourth Reading & Adoption	Monday, October 7, 2019	City Council Meeting

The City's healthy financial position, as evidenced by its most recent (8/10) credit rating of Aa2, coupled with new gas tax funding and other factors, has resulted in a CIP that is not only in balance, but reflects the majority of departmental funding requests.

The new gas tax funding, estimated to be $758,395 annually, took effect on July 1, 2019, and will be dedicated to local street resurfacing, which, in the past four years, has been funded at approximately $150,000 annually. This funding increase will help to significantly address the City's local resurfacing needs.

Beginning in 2021, this CIP reflects an additional $223,500 in license plate revenue, assuming Council acts favorably in 2020 on increasing this fee by $5 per vehicle license. Thus, between the two new revenue sources, the City's street improvement program will be benefitting from approximately $1,000,000 in new money beginning in 2021. Undoubtedly, this will help to improve the City's level of service in this area.

Other transportation priorities that could be considered for a portion of this new funding will need to be discussed as part of Council's review over the next two months.

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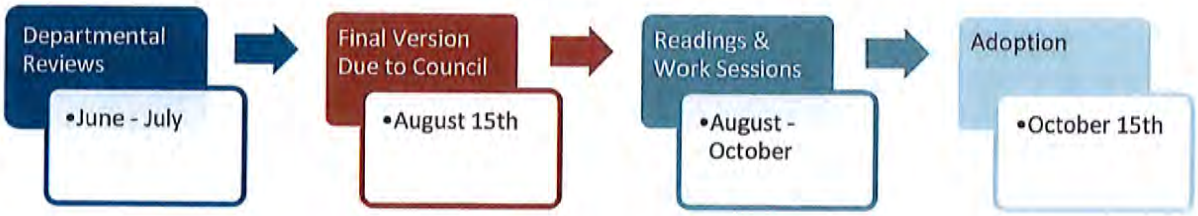
CIP: The Purpose

This capital improvement program (CIP) is a five-year strategic plan for the years 2020-2024. It is a budgetary tool enabling the City to financially plan for larger purchases and projects. The CIP itself is not an appropriation. Instead, it's a blueprint for future capital expenditures requiring ongoing reevaluation and adjustment. Formal annual CIP reviews are essential to allow for responsiveness to changing economic conditions and project prioritizations.

While this is not an exclusive list, typical projects included in the CIP achieve at least one of the following:

- Add to the value or capacity of the City's infrastructure
- Constitute permanent, physical or system improvements
- Require significant equipment purchases
- Are of a one time or limited duration nature

CIP: The Process



To begin the CIP process, the City Manager's Office and Finance Department meet with the City's department directors. They review existing project statuses discussing any amendments, changes or cancellations and anticipate new projects arising out of community concerns, changing priorities or necessity. Any potential or new funding sources are also discussed at this time.

After all departmental reviews are completed, the City Manager's Office and Finance Department work to compile a draft submission of all proposed projects. Funding sources are evaluated and projects are prioritized with additional guidance from the department directors as needed. In accordance with the City's Charter, the City Manager is required to submit the finalized draft of the CIP to Council for review by August 15th.

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2019-2023 CIP Projects in Review

Capital projects utilize a significant amount of the City's resources and time. As such, I would like to provide some insight into capital projects currently in process.

Projects from 2018-2022 CIP in Progress

- Storm Water Improvements
  - Dogwood Drive
  - Stratford Road

2019-2023 CIP Projects in Progress *(anticipated completion 2019)*

- Street Resurfacing
  - N. Union Street from E. Central Avenue to E. Heffner Street
  - E. Heffner Street from N. Union Street to N. Sandusky Street
  - Houk Road from US 36 to SR 37
  - S. Houk Road from Pittsburgh Drive to the railroad tracks
  - Pumphrey Terrace from Magnolia Drive to S. Sandusky Street
  - English Terrace from Magnolia Drive to S. Sandusky Street
  - Birch Bend from Woodrow Avenue to S. Sandusky Street
- Playground Equipment Replacement
  - Bennett (Eastside) Park
  - Lexington Glen Park
  - Nottingham Park
- Storm Water Improvements
  - Birch Terrace

Multi-Year CIP Projects in Progress

- Airport
  - T Hangar Resurfacing (Design work)
- Streets
  - Citywide Signal Improvements
  - E. William Street Improvements
- Trail Improvements
  - Central Avenue Pedestrian Corridor
- Technology Improvements
  - Finance ERP System
  - Document Management System
  - Police Application Software

2019-2023 CIP Projects Continuing into 2020

- Infrastructure
    - Glenn Road Extension
    - Olentangy Avenue River Crossing
- Water Tank Painting

CIP 2020-2024

New to the 2020-2024 CIP is the Unanticipated Projects Fund. This fund will be utilized to capture unforeseen community improvements brought to the City's attention throughout the year. An additional change is the absence of a Technology projects summary page. Moving forward, technology improvements will be included in the IT annual budget with the respective departments funding their portion of expenses incurred.

The proceeding sections summarize the new capital expenditures for 2020. In this context, new does not include debt service for existing projects. All revenue sources, not just local funds, are considered in the total amount for each of the seven categories described below.

Roads & Sidewalks

New road and sidewalk improvements account for $6,497,000 of capital expenditures in 2020. Of this, 21.5% is the City's share with the remaining 78.5% coming from other revenue sources or reimbursable through grant funding.

Areas of key improvements include local street resurfacing, the Point project, increased funding for Downtown sidewalk repairs and maintenance, and funding for the continuation of the sidewalk maintenance program.

Utilities

Water, sewer and storm sewer improvements and maintenance account for $4,485,000 of capital expenditures in 2020. These are funded through capacity fees and utility rates. Additionally, following 2022, the debt service for the Armstrong Road land acquisition will be retired. This will result in a reduction of about $300K annually in debt service for the Sewer Capacity Fund.

It is important to note that capacity fees are directly proportional to economic development. In the event economic development slows down, so will the revenues tied to these capacity fees.

Equipment

Equipment expenditures across all City departments account for $1,766,328 in 2020. This number is inclusive of Public Works, Parks and Recreation, Public Utilities, Refuse and the Police Department.

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Parks
Park improvements account for $1,096,000 of capital expenditures. The City's portion is $350K with the rest of the funding coming from impact and exaction fees. Of the total expenditures, $295K goes towards the replacement and maintenance of existing park structures and $80K will be spent to update the Parks and Recreation Master Plan.

Fire/EMS
Fire Department expenditures account for $952,197. This includes the purchase of new staff vehicles and an engine/pumper truck.

Building Maintenance
Building Maintenance totals $171,000 in 2020. Improvements to the Justice Center and repairs of the Public Works building are the majority of the expenditures.

Airport
The Airport has $67,000 in capital expenditures for 2020. This is for the design work of the Apron B Rehabilitation project which will be funded 95% by an ODOT Aviation Grant.

Beyond the 2020-2024 CIP

As the City's departments worked to think strategically about future capital expenditures, they identified several potential future projects that did not make it into the 2020-2024 CIP. Some of these projects are still in concept phase and some are outside of the five-year window of this CIP. However, these projects deserve consideration in the event that priorities or circumstances change and make them necessary to complete within the 2020-2024 timeframe. Project descriptions can be located in the Appendix.

Over the course of the next eight weeks, staff and I look forward to reviewing this document with Council. As always, we will be as responsive as possible to Council's questions and comments.

In closing, I want to thank and acknowledge Finance Director, Dean Stelzer on all of the hard work he puts into this document. His financial acumen and knowledge of local government are tremendous assets to us all. A sincere thank you also to Budget Management Analyst Alycia Ballone, and to all department directors and staff for their hard work. Finally, my thanks to my Executive Assistant, Kim Gepper and City Council Clerk Elaine McCloskey for their support and assistance.

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DELAWARE, OH

AMENDED 9/30/2019

CITY OF DELAWARE
CAPITAL IMPROVEMENT PLAN
GENERAL FUND SUMMARY
2020 - 2024

	2020	2021	2022	2023	2024
BALANCE FORWARD	**750,000**	**112,037**	**(101,077)**	**38,803**	**967,559**
REVENUES:					
INCOME TAX (14% of net 1% Collections)	2,147,657	2,233,563	2,322,906	2,415,822	2,415,822
CITY HALL ANNEX RENT	78,000	78,000	78,000	78,000	78,000
BALANCE PLUS REVENUE	**2,975,657**	**2,423,600**	**2,299,829**	**2,532,625**	**3,461,381**
EXPENDITURES:					
DEBT SERVICE					
2012 Streetscape ($2,542,516 through 2022)	269,904	261,067	263,538	0	0
2019 City Hall/Annex (through 2034)	60,000	95,000	149,850	204,500	208,500
2019 Software Systems (through 2024)	269,973	304,659	337,566	340,566	337,965
TOTAL DEBT SERVICE	**599,877**	**660,726**	**750,954**	**545,066**	**546,465**
AMOUNT AVAILABLE FOR CAPITAL IMPROVEMENTS AFTER DEBT	**2,375,780**	**1,762,874**	**1,548,875**	**1,987,559**	**2,914,916**
OTHER EXPENDITURES					
AIRPORT IMPROVEMENTS (pg. 4)	0	0	1,307	0	0
STREET IMPROVEMENTS (pg. 7)	809,727	726,527	255,765	0	326,976
PARK IMPROVEMENTS (pg. 17)	350,000	63,000	208,000	60,000	190,000
EQUIPMENT REPLACEMENT (pg. 20)	833,016	779,424	735,000	600,000	650,000
BUILDING MAINTENANCE (pg. 28)	171,000	195,000	210,000	260,000	200,000
UNANTICIPATED PROJECTS	100,000	100,000	100,000	100,000	100,000
TOTAL OTHER EXPENDITURES	**2,263,743**	**1,863,951**	**1,510,072**	**1,020,000**	**1,466,976**
ENDING BALANCE	**112,037**	**(101,077)**	**38,803**	**967,559**	**1,447,940**

CAPITAL IMPROVEMENT PLAN
AIRPORT IMPROVEMENT FUND
2020 - 2024

	2020	2021	2022	2023	2024
BALANCE FORWARD	**92,293**	**74,693**	**13,693**	**0**	**0**
REVENUES:					
FAA Entitlement		150,000			
FAA Entitlement - Carryover amount		376,776			
FAA Apportionment		13,224			
ODOT - Apron A Expansion					
ODOT - Apron B Expansion	49,400	304,000			
ODOT - Hangar A - F		30,000			
TIF Revenue		192,000			
CIP Allocation *(pg. 1)*	***0***	***0***	***1,307***	***0***	***0***
TOTAL REVENUES	**49,400**	**1,066,000**	**1,307**	**0**	**0**
EXPENDITURES:					
City Non-Grant					
Corporate Parking Access Drive		192,000			
Maintenance Building Improvements	15,000	15,000	15,000		
Grant Improvements					
T-Hangar Pavement Rehabilitation		600,000			
Apron B Rehabilitation	52,000	320,000			
TOTAL EXPENDITURES	**67,000**	**1,127,000**	**15,000**	**0**	**0**
AIRPORT IMPR. FUND BALANCE	**74,693**	**13,693**	**0**	**0**	**0**

EST 1808
CITY OF
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AUGUST 15, 2019

PUBLIC WORKS

AIRPORT CORPORATE PARKING ACCESS DRIVE

INFORMATION AT A GLANCE

COST
$ 192,000

FUNDING

TIF $192,000

PROJECTED SCHEDULE

Prelim. Design	2020
Final Design	2020
Construction	2021

CITY LEAD
Public Works

DESIGN CONSULTANT
TBD

CONTRACTOR
TBD

Purpose

Delaware Municipal Airport Jim Moore Field is a leading Central Ohio general aviation facility. It is home to approximately 100 aircraft and handles an estimated 40,000 operations per year. To encourage additional growth opportunities, the City is partnering to construct an access drive for a new corporate hanger facility proposed for construction north of the Jet Stream hanger. This corporate expansion is consistent with the City's 10-year Airport Capital Improvement Plan. The hanger owners will be responsible to construct desired parking areas off the new drive. There will be a ditch for drainage on either side of the proposed access drive that will drain to the south, and outlet into the existing runway ditch. This ditch will be sized to carry the runoff from both the roadway and new parking lots. The airport fence will need adjusted to separate the parking areas from the runway, ramp and apron areas.

Financing

The project is anticipated to cost $192,000 funded through a combination of Airport TIF and local funds. The TIF funds are generated from property taxes paid on the existing corporate hangar and the private t-hangars constructed at the airport. TIF proceeds must be used for public improvements at the Airport as identified when the TIF was originally established in 2004.

Status

The project is in the early stages of development. When constructed, the drive will be 26-ft. wide and extend to the mid-point of the existing hanger. A potential construction scenario would involve construction by the proposed hanger developer with associated payment by the City to the Developer.

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AUGUST 15, 2019

PUBLIC WORKS

AIRPORT T-HANGER PAVEMENT REHABILITATION

INFORMATION AT A GLANCE

COST
$ 600,000

FUNDING AVAILABLE

FAA (Entitle)	$526,776
FAA (Apportion)	$13,224
LOCAL	$30,000
ODOT	$30,000

PROJECTED SCHEDULE

Prelim. Design	2019
Final Design	2020
Construction	2021

CITY LEAD
Public Works

DESIGN CONSULTANT
CHA

CONTRACTOR
TBD

Purpose

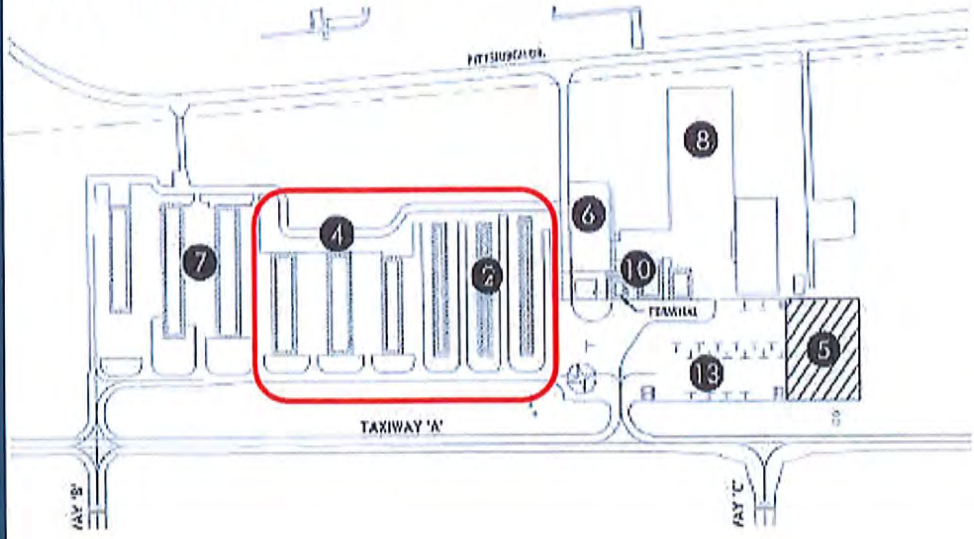
The latest pavement rating performed by ODOT Dept. of Aviation in November 2016 revealed that the pavement between existing T-hangers is in poor condition. Originally constructed in 1987, the pavement is over 25 years old and in need of rehabilitation.

Financing

The project is anticipated to cost $600,000 and will be funded through a combination of FAA Entitlement & Apportionment Funds, ODOT grant (5%), and with (5%) local funds. The pavement between the drive aisles and the hangers are non-eligible for grant funds as they are defined by the FAA as privately maintained with exclusive use by the hanger tenant.

Status

The project is currently in the preliminary phase. Design will commence in Fall 2019 utilizing a design-only FY 19 FAA grant. The project will utilize carryover FAA Entitlement in 2021 ($600,000) in an attempt to complete everything at one time.



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AUGUST 15, 2019

PUBLIC WORKS

AIRPORT APRON 'B' REHABILITATION

INFORMATION AT A GLANCE

COST
$ 372,000

FUNDING

ODOT	$ 353,400
LOCAL	$18,600

PROJECTED SCHEDULE

Grant Application	2020
Prelim. Design	2020
Final Design	2021
Construction	2021

CITY LEAD
Public Works

DESIGN CONSULTANT
CHA

CONTRACTOR
TBD

Purpose

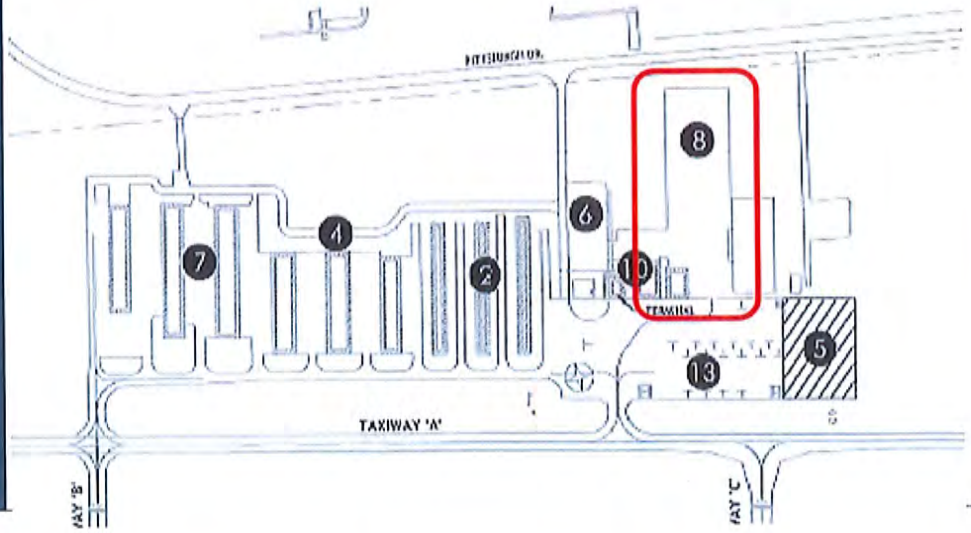
The latest pavement rating was completed in November 2016 and revealed that the pavement of Apron 'B' is in poor condition and in need of rehabilitation. Originally constructed in 1987, the pavement is over 25 years old and in need of significant restorative efforts including drainage improvements, subgrade repairs, and pavement replacement, collectively identified as rehabilitation. The utility of the apron is also in transition as a potential corporate hanger project may require the relocation or elimination of existing small aircraft tie-downs in order to provide ample maneuvering room for larger jet aircraft accessing the northeast quadrant of the apron.

Financing

The project is anticipated to cost $372,000 and will be potentially funded through a $353,400 ODOT Aviation Grant assistance and $18,600 in local matching funds.

Status

The project is currently in the planning phase. The FY 2021 ODOT grant application would be prepared and submitted in May 2020. If awarded, the design would take place in late 2020 through early 2021 as ODOT requires bids in hand by April 2021. Construction would be completed in 2021.



AMENDED 9/30/2019

CAPITAL IMPROVEMENT PLAN
STREET IMPROVEMENTS
2020 - 2024

	2020	2021	2022	2023	2024
REVENUES:					
PERMISSIVE TAX (License Fee Fund)	432,280	436,603	440,969	445,379	449,832
STATE LICENSE FEES	18,393	18,577	18,763	18,950	19,140
STATE GASOLINE TAXES	90,900	91,809	92,727	93,654	94,591
NEW GASOLINE TAXES	*758,395*	*765,979*	*773,639*	*781,375*	*789,189*
NEW LICENSE FEES ($5)	*0*	*223,500*	*225,735*	*227,992*	*230,272*
SIDEWALK ASSESSMENTS	*221,930*	*96,630*	*96,330*	*84,670*	*75,000*
CIP Allocation	***809,727***	***726,527***	***255,765***	***0***	***326,976***
TOTAL REVENUE	**2,331,625**	**2,359,625**	**1,903,927**	**1,652,021**	**1,985,000**
EXPENDITURES:					
DEBT SERVICE					
Bonds - S. Houk Road (through 2022)	29,625	29,625	28,927	0	0
TOTAL DEBT SERVICE	**29,625**	**29,625**	**28,927**	**0**	**0**
STREET RESURFACING					
City Grant Match Street Resurfacing	180,000	355,000	355,000	180,000	430,000
ODOT URP Street Resurfacing City Match	180,000	200,000	0	0	175,000
City Street Resurfacing -					
Local Streets	800,000	900,000	900,000	900,000	900,000
Administrative/Inspection	50,000	50,000	50,000	50,000	50,000
TOTAL STREET RESURFACING	**1,210,000**	**1,505,000**	**1,305,000**	**1,130,000**	**1,555,000**
TRANSPORTATION IMPROVEMENTS					
City Grant Match Transportation Improvements	235,000				
Point Project City Funds	200,000	200,000	200,000	200,000	200,000
Bridge Improvements	50,000		150,000		
US 23/36 Exit Bin Wall Improvement	50,000				
Signal Improvements (APS/Safety/RRFB)	75,000	25,000	20,000	40,000	30,000
Carson Farms Signal	*25,000*	*250,000*			
US 23/Springfield Branch Bridge Repair		150,000			
Curtis St. Intersection (Dev Trust City Share)	27,000				
Fiber System Expansion	50,000	50,000	50,000	50,000	50,000
Hills-Miller Sidewalk (Dev Trust City Share)	55,000				
Downtown Sidewalk Repairs	150,000				
Strand Arch Foundation Work	*25,000*				
Sidewalk Improvements	150,000	150,000	150,000	150,000	150,000
TOTAL TRANSPORTATION IMPROVEMENTS	**1,092,000**	**825,000**	**570,000**	**440,000**	**430,000**
TOTAL EXPENDITURES	**2,331,625**	**2,359,625**	**1,903,927**	**1,570,000**	**1,985,000**

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AUGUST 15, 2019

PUBLIC WORKS

US23/US36 EXIT BIN WALL IMPROVEMENT (PID 98141 - DEL-23-11.89)

INFORMATION AT A GLANCE

COST
$50,000

FUNDING

LOCAL $50,000

PROJECTED SCHEDULE

Design 2018-2019

Construction 2020

PROJECT LEAD
ODOT

CITY LEAD
Public Works

DESIGN CONSULTANT
2LMN

CONTRACTOR
TBD

Purpose

ODOT District Six is leading a project to address the deteriorated metal retaining wall (Bin Wall) along the west edge of the off ramp from US 23 North to US 36 (William St.). Along with this work ODOT will patch the tops of the concrete parapets and back of the walls, replace the overlay on the approach slab and decks for the ramp bridge and repair the concrete slope protection along Delaware Run that passes under the area.

Financing

ODOT will fund 100% of the bridge and retaining wall work necessary to complete the project. The City is requesting a decorative finish to the concrete be included as part of the project. The City of Delaware will be asked to participate and fund these aesthetic improvements to the wall face. ODOT will develop the plans with this in mind, and will isolate the costs of the aesthetic treatments. We are anticipating a cost of roughly $50,000 for this work.

Status

The project is currently in the final stage of design. Construction is anticipated in 2020 but not yet certain. The project will necessitate a ramp closure and major detour of US42, US36 and SR37. We are proposing a night time closure with one ramp lane open to traffic during the day. The times of night closure are to be 8:00 p.m. to 6:00 a.m.

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IMAGE #1
US23/US36 Exit

IMAGE # 2

Sample of the new limestone patterned bin wall with the form-liner. It will be stained and sealed as directed by the city.

IMAGE #3
Deteriorated concrete slope protection under the off-ramp along the Delaware Run. The bottom two rows will be replaced with cable matting.

IMAGE #4

Proposed Flexmat material to replace damaged concrete bank protection.

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AUGUST 15, 2019

PUBLIC WORKS

CITY SIGNAL & SAFETY IMPROVEMENTS

INFORMATION AT A GLANCE

COST
Varies by year

FUNDING

2020	$75,000
2021	$25,000
2022	$20,000
2023	$40,000
2024	$30,000

PROJECTED SCHEDULE

-See Notes

CITY LEAD
Public Works

DESIGN CONSULTANT
In-House/Consultant

CONTRACTOR
In-house/Contractor

Purpose

Significant improvements to the City's traffic signal system infrastructure are becoming more frequent as the system ages, replacement parts become unavailable, and technology improvements demand modifications to equipment at intersection locations. The timing of these improvements are generally associated to the timeframe of area capital project initiatives such as local and state resurfacing projects and other capital transportation projects. Advances in technology also enable the City to more effectively address pedestrian safety though use of equipment such as Rectangular Rapid Flashing Beacons (RRFB's). These devices are becoming more prevalent and research shows that they improve motorist awareness by as much as 70% of the presence of a hazard.

Financing

Amount varies by year and is funded through general revenues.

Status

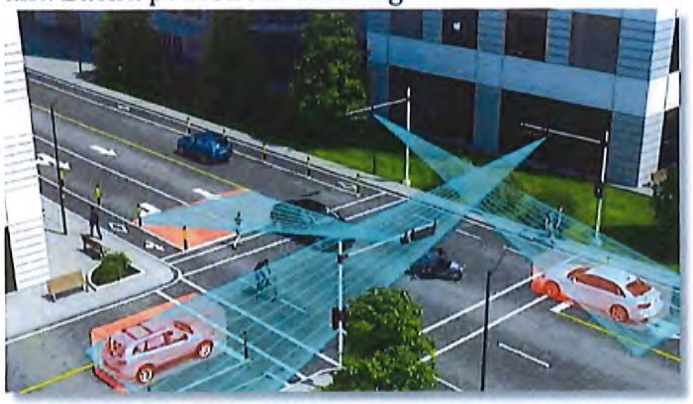
2020 – Signal improvements at Belle/Sandusky, US42/London, SR 37/US23 Ramp and SR 37/Sandusky St. intersections

2021 – London/Liberty Intersection; RRFB's for Springfield Branch Trail at Henry and Liberty St. crossings.

2022 – London/Liberty Road intersection signal improvements

2023 – Troy/Pennsylvania vehicle detection upgrades; RRFB at W. Central and Washington pedestrian crossing

2024 - Troy/Pennsylvania signal head replacement; RRFB at Pennsylvania and Euclid pedestrian crossing



EST 1808
CITY OF
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AUGUST 15, 2019

PUBLIC WORKS

SPRINGFIELD BRANCH US 23 BRIDGE PIER REPAIR

INFORMATION AT A GLANCE

COST
$150,000

FUNDING

LOCAL $150,000

PROJECTED SCHEDULE

Design	2019
Construction	2021

CITY LEAD
Public Works

DESIGN CONSULTANT
CT Consultants

CONTRACTOR
TBD

Purpose

This structure carries pedestrian traffic over US 23, the Olentangy River, and River Street. This bridge is a plate girder structure with a timber deck and asphalt overlay. This structure was recently inspected as a joint effort from E.P. Ferris and Burgess and Niple in May 2017 and was found to be in fair condition with a general rating of five. The most pressing need regarding the bridge is to address the deteriorated concrete piers within the footprint of, or adjacent to US 23. Repairs are required to prevent both further deterioration and from spalled concrete from falling onto the adjacent highway pavement.

Financing

A $150,000 expenditure proposed in 2021 reflects an estimate to complete both piers that are deteriorating heavily. ODOT has agreed to include this work in a larger bridge maintenance contract to hopefully obtain more favorable pricing than if this was a stand-alone project.

Status

Design work was completed in 2019. Construction is proposed for 2021.

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CITY OF
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AUGUST 15, 2019

INFORMATION TECHNOLOGY

FIBER SYSTEM EXPANSION

Cost: $50,000
2020-2024

Fiber System Expansion

The City has been and will continue to strategically place fiber and conduit systems around the city. In doing so, we are creating an infrastructure that has and will continue to provide the following:

I. A substantial increase in economic development. There is a fiber optic presence around the Delaware Industrial Park and fiber availability along the Glenn Parkway/Veterans' Parkway corridor.

II. Allow for a wide range of telecommunications carriers to create competition and drive down costs. We are also reducing the number of fiber cables along common routes (aesthetics and infrastructure growth).

III. Future fiber ring capability across joint networks. Availability for connectivity and IT sharing between municipal governments, connecting all of City facilities with fiber, which creates a more stable and enhanced network, placing traffic signaling on its own fiber ring to prepare for 5G and automated vehicles, enhancing Disaster Recovery and Business Continuity planning.

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AUGUST 15, 2019

PUBLIC WORKS

DOWNTOWN SIDEWALK MAINTENANCE PROGRAM

INFORMATION AT A GLANCE

COST
$ 150,000

FUNDING

$150,000

PROJECTED SCHEDULE

Construction 2020

CITY LEAD
Public Works

DESIGN CONSULTANT
N/A

CONTRACTOR
TBD

Purpose

Sidewalks free of trip hazards and other deficiencies are essential to pedestrian safety. Sidewalks in the downtown area are among the most utilized in the City, and keeping those sidewalks free of trip hazards and other deficiencies are essential to pedestrian safety. The purpose of this program is to make repairs to sidewalk hazards that have developed in the downtown area.

Financing

Funds for this program will be utilized to make corrections to sidewalks with hazards that are the responsibility of the City. Also, when property owners do not make repairs that are their responsibility, the program funds will be used to make those repairs in a timely manner, after which the City will be reimbursed either directly by the property owner or through an assessment. It is estimated that approximately $100,000 of the repairs are private property owner responsibility and $50,000 are the City's responsibility. The $150,000 total amount is for repairs to be made in 2020, only.

Status

The City funded a multi-phased streetscape project in the downtown area in the early 2000s and funded repairs to hazards in 2011. Since that time, additional hazards have developed. Downtown area property owners were informed via a City letter in early 2019 that a number of trip hazards had developed and would need to be repaired at property owner expense. Staff will work closely with Main Street Delaware to usher businesses through the process and will suggest hiring one contractor to do all repair

work to reduce costs. Staff will also coordinate with proposed private utility work in an effort to avoid disturbance to repaired areas.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC WORKS

CITYWIDE SIDEWALK MAINTENANCE PROGRAM

INFORMATION AT A GLANCE

COST
$ 150,000

FUNDING

---- $150,000

PROJECTED SCHEDULE

Construction Annual

CITY LEAD
Public Works

DESIGN CONSULTANT
N/A

CONTRACTOR
TBD

Purpose

Sidewalks free of trip hazards and other deficiencies are essential to pedestrian safety. The purpose of this program is to make repairs to defective sidewalks by identifying needed repairs on an ongoing basis and making repairs each year. Maintenance of sidewalks adjacent to private property are the responsibility of the property owner, except where a deficiency is identified to be the City's responsibility for reasons such as concrete displacement being caused street tree roots.

Financing

Funds for this program will be utilized to make corrections to sidewalks with hazards that are the responsibility of the City (an estimated 60% of the total amount). Also, when property owners do not make repairs that are their responsibility, the program funds will be used to make those repairs in a timely manner after which the City will be reimbursed either directly by the property owner or through an assessment.

Status

Needed repairs will be identified by 1) documenting hazards reported by citizens or observed by city staff throughout the year, and 2) evaluating hazards adjacent to streets being resurfaced. Where a deficiency is the responsibility of a private property owner, that owner will be notified of the required repair. If the property owner does not make the repair, the City will make the repair and recoup the cost from the property owner through a direct payment or assessment. Hazards along streets being resurfaced will be repaired either the year of the resurfacing or the following year.

Example of sidewalk trip hazard

CAPITAL IMPROVEMENT PLAN
GRANT PROJECTS
2020 - 2024

	2020	2021	2022	2023	2024
Grant Funds:					
ODOT Safety Funds	315,000				
MORPC - Signal Improvements		2,500,000			
OPWC - Street Rehabilitation	495,000	495,000	495,000	495,000	495,000
County OPWC Project	150,000	150,000	150,000	150,000	150,000
RLF Fund		30,000		30,000	
CDBG Rehabilitation		120,000		120,000	
City Match Transportation Improvements Total	***235,000***				
City Match Street Resurfacing	***180,000***	***355,000***	***355,000***	***180,000***	***430,000***
TOTAL REVENUE	**1,375,000**	**3,650,000**	**1,000,000**	**975,000**	**1,075,000**
EXPENDITURES:					
Transportation Improvements					
US 36/E. William St. Improvements	100,000				
Signal System Upgrades Phase I	100,000	2,500,000			
US23/Hull Drive Safety Improvement	350,000				
Street Resurfacing					
OPWC Projects					
- Belle Ave/US 36	825,000				
- Hawthorn/Glenn Pkwy.		975,000			
- Liberty/Pittsburgh			1,000,000		
- Houk Rd.				800,000	
- Cheshire Rd/Pennsylvania					1,075,000
CDBG Grant					
- Flax/Rheem/Wade		175,000			
- Todd/Delta/Parsons/Maple				175,000	
TOTAL EXPENDITURES	**1,375,000**	**3,650,000**	**1,000,000**	**975,000**	**1,075,000**

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC WORKS

EAST WILLIAM ST. IMPROVEMENTS

INFORMATION AT A GLANCE

REMAINING COST
$ 100,000

FUNDING

LOCAL $100,000

SCHEDULE

Final Design	2018
Land Acquisition	2018
Utility Relocates	2018-2019
Construction	2019-2020

CITY LEAD
Public Works

DESIGN CONSULTANT
DLZ

CONTRACTOR
TBD

Purpose

Project consists of widening E. William St. by adding a center turn lane from Potter St. to just east of Foley St., and enlarging the intersection of William St. and Lake St. to better accommodate truck turning movements. Enlarging this intersection entails replacing the existing pedestrian bridge over William Street. The project will include street lighting, new sidewalks, enhanced landscaping and aesthetic improvements at the William St. and Lake St. intersection, and installation of a new mast arm traffic signal at Cheshire road replacing the existing signal at Ann St.

Financing

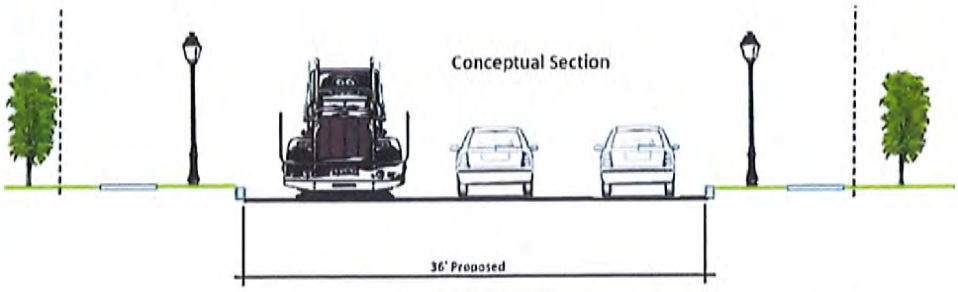
The bulk of the project has been funded under prior years. The supplemental appropriation in 2019 provided for $150,000 (3%) construction contingency and $200,000 (4%) for construction engineering. Both of these amounts are relatively low compared to similar projects. Therefore, an additional $100,000 is being requested for 2020 to cover overages in budget for either construction contingency or construction engineering.

Status

Construction commenced in 2019 and is expected to be 60-70% complete before winter. The work planned for 2020 includes widening on the north side of the road and all signal, lighting, and landscaping work. The project is scheduled to be complete in late summer, early fall.

IMAGE #1

William Street
Cross-section



East William Street Widening Project

IMAGE #2

Project Limits

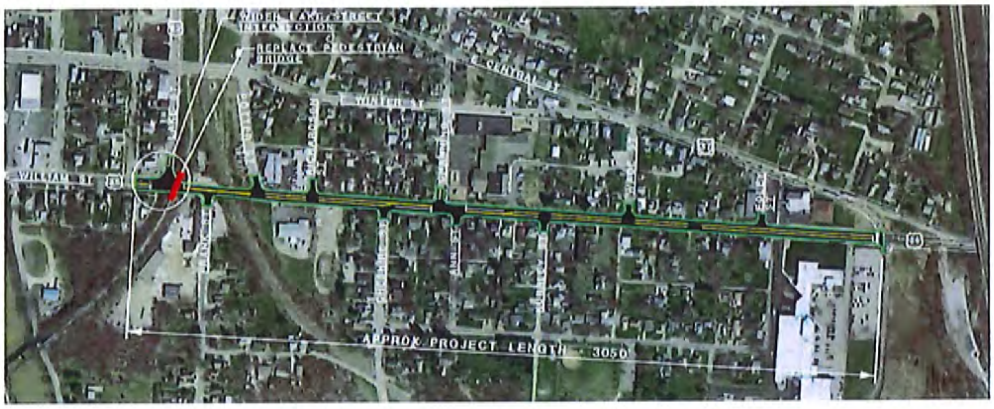


IMAGE #3

Lake Street
Pedestrian Bridge

EST. 1808
CITY OF
DELAWARE
OHIO

DLZ
ARCHITECTURE · ENGINEERING · PLANNING
SURVEYING · CONSTRUCTION SERVICES

INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

DEL-36-10.59
E. WILLIAM ST. IMPROVEMENTS

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC WORKS

CITYWIDE SIGNAL SYSTEM UPGRADES – PHASE 1

INFORMATION AT A GLANCE

COST
$3.3 M

AVAILABLE FUNDING

MORPC	$2.5M
LOCAL	$500,000
FIRE	$385,000

PROJECTED SCHEDULE

Prelim. Design	2019
Environmental	2019
Final Design	2020
Land Acquisition	2020-21
Construction	2021-22

CITY LEAD
Public Works

DESIGN CONSULTANT
HDR, INC

CONTRACTOR
TBD

Purpose

The project consists of upgrading signal systems along US-36 (William St.), SR-37 (Central Ave), Sandusky St. and London Rd., which includes 37 signalized intersections. The project will improve safety and reduce emissions by improving average travel speed and reducing delay at each signalized intersection. The upgrades include optimizing traffic signal timing for each corridor and at each intersection, system level improvements including a central software system & CCTV IP-camera system, signal equipment upgrades including cabinets/controllers, communication (fiber or spread spectrum radios), vehicle detection, emergency vehicle preemption, uninterruptible power supply and insuring the equipment is expandable for peripherals & future technology (i.e. wireless pavement temperature sensors, cameras, dedicated short range communications, connected vehicles, etc.), as well as pedestrian upgrades such as curb ramps and pedestrian pedestal & push button replacements to meet ADA standards.

Financing

The project is anticipated to cost roughly $3.3M. The City has been awarded funding through MORPC for $2.5M to cover 100% of the construction of the project. The City's local grant match contribution will be $0.5M, which will consist of approximately $325,000 to cover preliminary and final design, ROW acquisition, utility relocations (if needed), and $175,000 of in-house services to cover the construction management & inspection during construction. The City Fire Department will cover the cost to install emergency vehicle preemption equipment at each intersection, which is estimated at $385,000.

Status

Survey and traffic data collection has been completed. A project webpage has also been developed to keep the public informed of the progress of the project and provide them an opportunity to submit questions regarding the project. The remainder of 2019 will consist of preliminary design work, analyzing the traffic data collected to develop updated optimized signal

timing plans to coordinate the traffic signals along each corridor throughout each day of the week, determining needed equipment improvements required at each signalized intersection, and finalizing ROW plans in preparation to acquire the land in 2020.

IMAGE #1

Signalized Intersections Included with the Project

US-36
(US23 to Lehner Woods Blvd)
SR-37
(US-23 to Warrensburg Rd)
Sandusky St
(SR-37 to Belle Ave)
London Rd
(US-42 to Sandusky St)

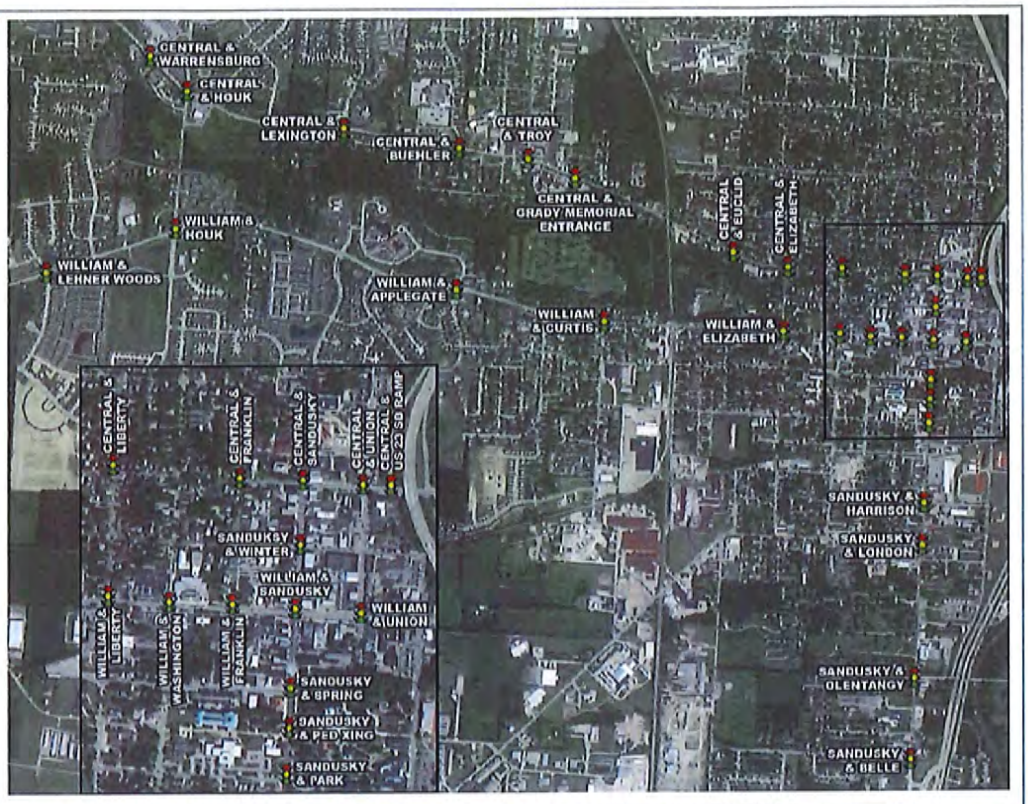
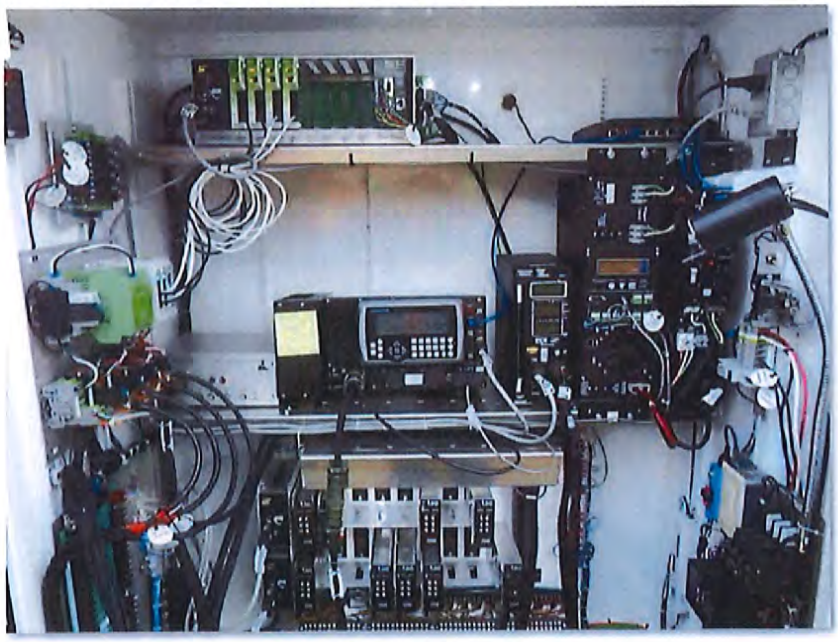


IMAGE #2
Equipment Inside of a Typical Traffic Signal Cabinet



EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC WORKS

US-23 & HULL DRIVE ACCESS MODIFICATIONS

INFORMATION AT A GLANCE

COST
$357,500

AVAILABLE FUNDING

ODOT	$315,000
LOCAL	$35,000

PROJECTED SCHEDULE

Safety Study	2019
Prelim. Design	2020
Environmental	2020
Final Design	2020
Construction	2021

CITY LEAD
Public Works

DESIGN CONSULTANT
TBD

CONTRACTOR
TBD

Purpose

Staff has tracked recent accident history and traffic volumes and based on this preliminary data collected, it is recommended that the US-23 and Hull Drive intersection be further studied and evaluated to determine what intersection modifications should be implemented to improve the safety of the intersection. This intersection was also identified in the 2002 US-23 Access Management Plan as possibly being restricted, when needed, to improve safety and reduce the potential for accident occurrence. The project will consist of analyzing and performing a safety study for the intersection, identifying recommended safety countermeasures, such as access modifications by restricting turning movements, and submitting an abbreviated safety application to ODOT to request funding for the project. If funding is awarded, the project will also consist of designing and constructing the recommended improvements. Given that this intersection is located within ODOT's Limited Access Right-of-Way, a detailed study is required by ODOT along with following their detailed project process to make any recommended intersection modifications.

Financing

The project is anticipated to cost approximately $350,000. The City will be requesting services from a Consultant to conduct a safety study and prepare an abbreviated safety application, which is estimated at $7,500. The safety application will be submitted to ODOT to request funding for the project design and construction. If awarded, it is anticipated that ODOT will cover 90%, or $315,000, of design and construction and the City's local grant match contribution will be approximately 10% or $35,000.

Status

Preliminary data collection has been completed and pricing has been obtained for a Consultant to further study and evaluate the intersection and prepare an abbreviated safety application to submit to ODOT. It is anticipated that this work will be completed by the end of 2019. Once the application is submitted to ODOT and, if funding is awarded, the selection process will be performed to hire a Consultant to perform Survey, Preliminary and Final Design and the necessary Environmental work. It is anticipated that project design will be completed in 2020 and construction will begin in 2021.

EST 1808
CITY OF
DELAWARE
OHIO

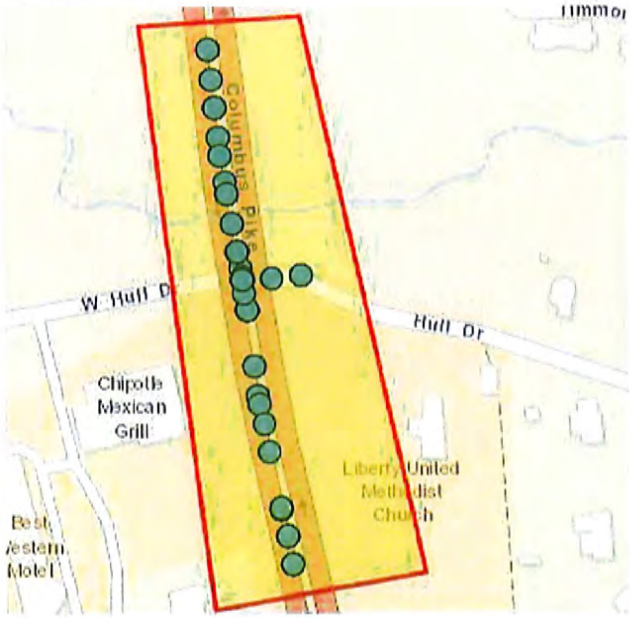
IMAGE #1

Example Aerial Photo of Right-in, Left-in, Right-out Intersection Configuration

IMAGE #2

US-23 & Hull Drive Intersection Only Related Accident History Visual

US-23 & Hull Dr: Intersection only accidents from 2011-2018



CAPITAL IMPROVEMENT PLAN
POINT RAILROAD BRIDGE REPLACEMENT
2020 - 2027

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
BALANCE FORWARD	**0**	**465,337**	**1,222,530**	**489,137**	**782,784**	**636,502**	**674,322**	**116,275**	**200,893**	**192,959**
Safety Grant (90/10)	299,071	2,700,929								
TRAC Grant (75/25)			1,500,000		8,000,000					
MORPC Grant (80/20)							14,000,000			
Berkshire JEDD Income Tax Receipts	183,103	134,000	136,010	138,050	140,121	142,223	144,356	146,521	148,719	150,950
Outlet Center NCA (1.5 mills)	131,712	55,597	55,597	55,597	55,597	55,597	55,597	55,597	55,597	55,597
City Funds	**350,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**0**
Note Issue Proceeds					16,000,000	15,800,000	1,000,000	700,000	300,000	
Bond Issue Proceeds										
TOTAL REVENUES	**963,886**	**3,090,526**	**1,891,607**	**393,647**	**24,395,718**	**16,197,820**	**15,399,953**	**1,102,118**	**704,316**	**206,547**
EXPENDITURES:										
DEBT SERVICE										
Note Principal & Interest						16,160,000	15,958,000	1,017,500	712,250	322,500
IMPROVEMENT COSTS										
Final Engineering (PE DD)	398,549	2,333,333	600,000							
Railroad Force Account	100,000		25,000		3,000,000					
ROW			2,000,000							
Construction					20,792,000					
Construction Engineering					750,000					
Private Utilities				100,000						
TOTAL EXPENDITURES	**498,549**	**2,333,333**	**2,625,000**	**100,000**	**24,542,000**	**16,160,000**	**15,958,000**	**1,017,500**	**712,250**	**322,500**
ENDING BALANCE	**465,337**	**1,222,530**	**489,137**	**782,784**	**636,502**	**674,322**	**116,275**	**200,893**	**192,959**	**77,006**

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC WORKS

US 36/SR 37 INTERSECTION "THE POINT" IMPROVEMENTS

Purpose

The project will relieve congestion and increase safety along US 36 and SR 37 by increasing the number of vehicular lanes beneath the Norfolk Southern Railroad bridge. The western project limit is Foley St. and the eastern project limit is SR 521. The project will include extensive multi-use path improvements, as well. This project is one of several key improvement projects on the east side of the City designed to address traffic concerns specifically during peak traffic hours.

Concept showing the proposed single-span bridge opening superimposed over the existing bridge.

Image of westbound traffic delay at convergence of two lanes to a single lane.

Financing

The project is anticipated to cost $30M. The estimated cost has risen due to Norfolk Southern requirements of the project. In response to this development, the City has requested an additional $8M from TRAC and will have an answer regarding this request late in 2019. The funding scenario shown to the left is best case scenario and assumes a full $8M award. City staff will continue to pursue additional grant and funding opportunities as the project progresses, in an effort to reduce the local funding contribution necessary for the project to advance through construction.

Pictures from the May 2019 Public Involvement Session at Conger Elementary.

Status

Design is well underway as are environmental studies and stakeholder/public involvement. Norfolk Southern is requiring the new bridge to be built on the existing alignment of the railway. This will require a temporary bridge to be built east of the existing bridge to handle trains while the new bridge is being built. By the end of 2019, two major public involvement sessions will have been held and the project should have environmental clearance from ODOT/FHWA. The amount of progress made in the last half of 2019 should put the project back on the original schedule created in 2017.

Concept showing the proposed single-span bridge opening superimposed over the existing bridge.

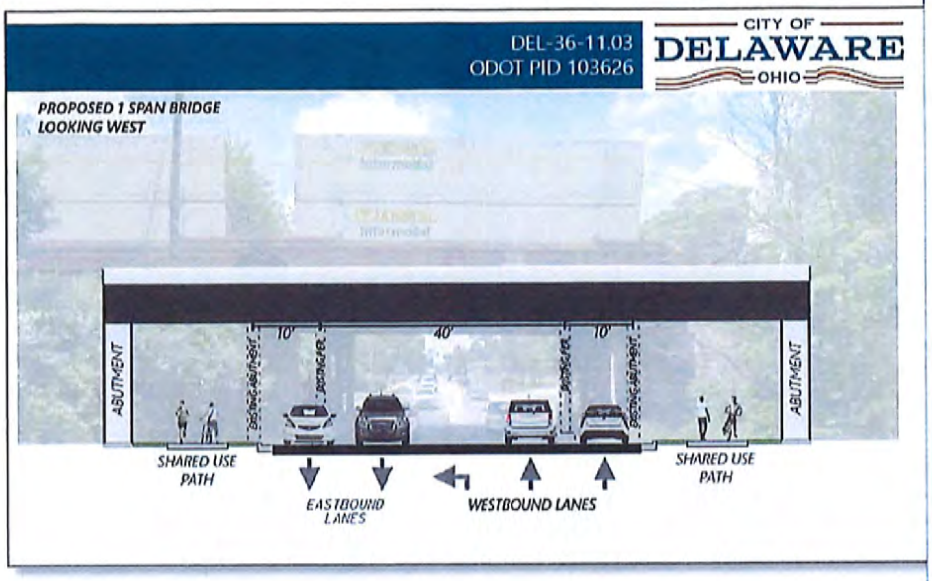


Image of westbound traffic delay at convergence of two lanes to a single lane.

Pictures from the May 2019 Public Involvement Session at Conger Elementary.

CAPITAL IMPROVEMENT PLAN
PARKS IMPROVEMENT FUND
2020 - 2024

	2020	2021	2022	2023	2024
	138,000	*0*	*0*	*0*	*0*
REVENUES:					
Neighborhood Park Exaction Fees	5,000	5,000	5,000	5,000	5,000
Park Improvement Grants	20,000	20,000	20,000		
CIP Allocation *(pg. 1)*	***350,000***	***63,000***	***208,000***	***60,000***	***190,000***
TOTAL REVENUES	**375,000**	**88,000**	**233,000**	**65,000**	**195,000**
EXPENDITURES:					
Park Master Plan	80,000				
PARK IMPROVEMENT/REPLACEMENT					
- Mingo Park					
Shelter Roof				15,000	
Pool Dive Platform			25,000		
Pool Pumps	18,000				
HVAC Systems		8,000			
- Carson Farms Park					
Court Resurfacing			60,000		
- Bennett Park					
Shelter Roof	17,000				
- Willowbrook Park	138,000				
PLAYGROUND EQUIPMENT REPLACEMENT					
- Bell Avenue Park		35,000			
- Blue Limestone Park	25,000				
- Carson Farms Park			55,000		
- Cheshire Park			58,000		
- Locust Curve Park				50,000	
- Mingo Park	200,000	45,000			
- Oakhurst Park			35,000		
- Smith Park	35,000				
- Sunnyview PPG Park					45,000
- Veterans Park					150,000
TOTAL EXPENDITURES	**513,000**	**88,000**	**233,000**	**65,000**	**195,000**
ENDING FUND BALANCE	*0*	*0*	*0*	*0*	*0*

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PARKS AND NATURAL RESOURCES

PARKS MASTER PLAN

INFORMATION AT A GLANCE

COST
$80,000

FUNDING

Park Improvement Fund

$80,000

PROJECTED SCHEDULE

2020

DESIGN CONSULTANT

TBD

CITY LEAD

Ted Miller

(740)-203-1452
tmiller@delawareohio.net

Purpose

Create a comprehensive analysis of the extent the City is currently meeting citizen needs, while discussing system-wide areas of future need focus.

The City of Delaware last updated the parks master plan in 2002. Many changes have taken place, including a larger community with different recreational needs.

Financing

The project is anticipated to cost roughly $80,000. The City has identified the Parks Improvement Fund to develop the expansion.

Status

Planning stages.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PARKS & NATURAL RESOURCES

PLAYGROUND EQUPMENT REPLACEMENT

INFORMATION AT A GLANCE

PLAYGROUND EQUIPMENT COSTS

2020
$295,000

2021
$88,000

2022
$233,000

2023
$65,000

2024
$195,000

FUNDING

Parks Improvement Fund

CITY LEAD

Stacy Davenport

(740)-203-1403
sdavenport@delawareohio.net

Purpose

Playground equipment generally lasts 15 years. Our goal is to extend this life span with periodic maintenance, but replacement is warranted when equipment becomes unsafe and repair costs become too costly.

The City has identified the Parks Improvement Fund to replace this equipment.

Year: 2020 – Playground Equipment

Blue Limestone Park

Replace toddler toy structure, installed in 2005. The play structure is in a heavily used playground in the park district.
Financing: $25,000.00
Status: Bids will be requested in spring 2020, with construction in summer of 2020.

Smith Park

Replace exercise stations, installed in 2003. The Smith Park exercise stations were scheduled for replacement in 2018 but the life of the equipment has been extended to 2020.
Financing: $35,000.00
Status: Bids will be requested spring 2020 with construction in summer 2020.

Mingo Park

Replace large play structure, installed 2000. This was originally scheduled for replacement in 2015, but annual inspections have pushed replacement to 2019. The Parks Department is currently pursuing grant funding that will leverage the CIP funding to replace what is currently on site. The project design will also include a turf surface that will reduce long-term maintenance costs. The Mingo playground is one of the busiest amenities in the park district and has outlived its expected life span. Staff has been able to maintain the structure, extending its life span. The replacement will significantly impact a large number of recreation users.
Financing: $200,000.00
Status: Bids will be requested spring/summer 2020 with construction in fall 2020.

Year: 2020- Neighborhood Park Improvements

Park Shelters

The shelter roof is proposed to be replaced with a metal roof. Bennett Park, Blue Limestone restroom and HVGC shelter roof. The metal roof will have a longer life span than asphalt shingles with a comparable price.

Financing: $17,000.00

Status: Bids will be requested in spring 2020, with construction to commence in summer 2020.

Year: 2020- Community Parks

Mingo Pool Pump

The Mingo Pool operates under two major pool pumps, installed in 2000 with expected life span of 15 years. One pump was replaced in 2018 and the second pump is due for replacement.

Financing: $18,000.00

Status: Bids will be requested in January 2020 with installation in March 2020.

CAPITAL IMPROVEMENT PLAN
EQUIPMENT REPLACEMENT FUND
2020 - 2024

	2020	2021	2022	2023	2024
BALANCES FORWARD	**9,290**	**10,962**	**9,538**	**10,409**	**12,491**
REVENUES:					
CIP Allocation (pg. 1)	***833,016***	***779,424***	***735,000***	***600,000***	***650,000***
TOTAL REVENUE	**870,000**	**785,000**	**740,000**	**605,000**	**670,000**
EXPENDITURES:					
PUBLIC WORKS					
Pickup Trucks	38,000	31,000		50,000	
Bucket Truck					145,000
Tandem Axle Dump Truck		192,000			
Single Axle Dump Truck		170,000	170,000	170,000	170,000
Backhoe	90,000				
Skid Steer	53,100				
Asphalt Hotbox Unit	80,000				
Asphalt Paver			185,000		
Utility Van	30,000				30,000
AIRPORT					
Mower			18,000		
TOTAL PUBLIC WORKS	***291,100***	***393,000***	***373,000***	***220,000***	***345,000***
PARKS AND RECREATION					
Pickup Trucks	37,451	38,574		40,888	
Skid Steer		45,373			
Park Mowers	30,822	31,747	32,699	33,750	34,763
Utility Vehicle	18,000				
Bucket Truck	80,000				
Chipper/Stump Grinder			65,330		
55 HP Tractor				34,980	
HIDDEN VALLEY GOLF COURSE					
Fairway Mower	18,000				
Boom Sprayer		7,000			
Aerator			8,000		
Topdresser				8,000	
Truckster					23,000
CEMETERY					
Mower Replacement		15,730			
TOTAL PARKS AND RECREATION	***184,273***	***138,424***	***106,029***	***117,618***	***57,763***
POLICE DEPARTMENT					
Police Cruiser Replacements (4/yr.)	220,000	223,000	228,000	233,000	238,000
Cruiser Digital Video Recording Equipment	142,955				
Police Chief Vehicle	30,000				
Detective/Administration Vehicle		32,000	32,100	32,300	32,600
TOTAL POLICE	***392,955***	***255,000***	***260,100***	***265,300***	***270,600***
TOTAL EXPENDITURES	**868,328**	**786,424**	**739,129**	**602,918**	**673,363**
CARRY OVER BALANCE	**10,962**	**9,538**	**10,409**	**12,491**	**9,128**

CITY OF DELAWARE OHIO

AUGUST 15, 2019

PUBLIC WORKS

STREET MAINTENANCE, TRAFFIC AND AIRPORT EQUIPMENT REPLACEMENT

INFORMATION AT A GLANCE

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5 YEAR TOTAL COST
$1,592,100

PROJECTED SCHEDULE

*2020 - $291,000

2021 - $393,000

2022 - $373,000

2023 - $220,000

2024 - $345,000

Purpose

The Public Works Street Division operates over 70 different types of equipment and trucks during different times of the year, ranging from dump trucks, pickup trucks, backhoes, skid steers, rollers, trailers, and plate compactors. All have a useful life expectancy and are replaced at the final determination of the fleet supervisor in consideration of general condition, maintenance costs and safety. Listed below is equipment the City is considering purchasing.

Asphalt Hot Box: The Public Works Street Division operates the Asphalt Hot Box primarily during winter time operation to haul hot asphalt for pavement repairs. This unit works in conjunction with the asphalt recycler, which allows us to make asphalt to fill potholes and small asphalt repairs. This unit can also be utilized in the summer when a large dump truck would be to large. Replacement is anticipated in 2020 at a cost of $80,000.

Skid Steer: Replacement of two skid steers #399 Case 2002 model and #429 Case 2004 model with a single new unit. New unit will be compatible with existing skid steer remaining in fleet in regards to operation, attachments, service and repairs. Total cost for one new unit less trade in of the two skid steers has an estimated replacement cost of $65,000. Replacement is anticipated in 2020.

Backhoe: The Public Works Street Division operates the Back hoe for asphalt projects ranging from base repair work, total roadway paving projects, parking lot paving, bike path installation, and concrete work- ADA installation and sidewalk. This unit also assists in emergency responses – tree removal during major storms. This unit was purchased in 2005 and currently due to be replaced in 2020 at a cost of $112,000.

Single Axle Dump Trucks: The Public Works Street Division operates multiple dump trucks for daily operations, including road maintenance, concrete repairs, and winter snow and ice management. Trucks have a useful service life of 10 years. A total of five trucks will be rotated out of service over the next five years, including #484 (2019); #485 (2021); #517 (2022); #551 (#2023) and #635 (2024). New trucks are each equipped with 120-inch plow, salt spreader, controls, lighting and radios, at a cost of $170,000 each.

Tandem Axle Dump Trucks: The Public Works Street Division operates tandem axle trucks with carrying capacity up to 18 tons, which can facilitate street maintenance work and highway plowing with larger blades on state

routes. Trucks have a useful service life of 10-years. Truck #605, a 2011 tandem truck will be replaced with the new truck, including 132-inch blade, salt spreader with controls, lighting and radios in 2021 at a cost of $192,000.

Asphalt Paver: The Public Works Street Division operates the street paver for asphalt projects, ranging from base repair work, total roadway paving projects, parking lot paving, and bike path installation. This unit was purchased in 1999 and is currently due to be replaced in 2022 at an estimated cost of $185,000.

½ Ton Pickup Trucks: The Public Works Engineering Division utilizes compact pickup trucks for daily assignments in the provision of construction inspections throughout the city. The useful life of these vehicles can be as long as 20 years. Trucks being replaced: 2020 (#336) This truck will be replaced with an electric car- $38K to be utilized by the Engineering Department as a pool vehicle for four staff members; and 2021 (#341); Both 2000 Dodge Dakotas. Replacement cost is $31,000 each, including bed cover, toolbox and warning lights.

¾ Ton Pickup Truck: The Public Works Streets and Traffic Divisions use commercial duty full-size pickup trucks for daily work including carrying staff, supplies and equipment to various job locations. Trucks are also used for winter snow and ice maintenance operations and accordingly, are equipped with 84-inch plows. The useful life of these vehicles is typically 15-years: Truck being replaced: 2008 F250 (#520) in 2023. Replacement cost is $50,000 each and includes plow blades, controls and warning lighting.

Service Van: The Public Works Facilities Division performs daily tasks in several public facility locations throughout the community, traveling with tools, equipment and supplies in service vans. Proposed for replacement in 2020 is the 2000 Chevy full-size van (#326) at an estimated cost of $30,000. In 2024 replacement of 2008 GMC Savanna cargo van -$30,000.

Airport Mowers: The Airport includes an estimated 180 acres of mowable property, requiring continuous effort for several months out of the year. Two zero-turn mowers are dedicated for this operation and nearing the end of their respective service life. Proposed replacement includes both units in 2019 and 2022 at an estimated cost of $18,000 each.

First Column

Marathon 250 gallon Tack Applicator

Marathon 4 Ton Asphalt Hot Box

Single Axel Dump Truck

Bucket Truck

Compact Pickup Truck

Second Column

Case 590 Backhoe

Leeboy 85000 Paver

Case Skid Steer

Utility Van

Airport Mower

CITY OF DELAWARE OHIO

AUGUST 15, 2019

PARKS & NATURAL RESOURES

PARKS, GOLF COURSE, CEMETERY,URBAN FOREST EQUIPMENT REPLACEMENT

INFORMATION AT A GLANCE

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5 YEAR TOTAL COST
$604,107

PROJECTED SCHEDULE

2020- $184,273

2021- $138,424

2022- $106,029

2023- $117,618

2024- $57,763

2001 GMC Sierra Pickup Truck

REPLACEMENT COST:
$37,500

Purpose

The Parks and Natural Resources Department operates several different types of equipment and trucks during different times of the year. These range from pickup trucks, backhoes, skid steers, trac hoes, tractors, trailers, and mowers. All have a useful life expectancy and are replaced at the final determination of the fleet supervisor in consideration of general condition, maintenance costs and safety.

¾ Ton Pickup Truck: The Parks Division use commercial duty full-size pickup trucks for daily work, including carrying staff, supplies and equipment to various job locations. Trucks are also used for winter snow and ice maintenance operations and accordingly, are equipped with 84-inch plows. The useful life of these vehicles is typically 15-years: Truck being replaced: 2001 GMC Sierra 1500. Replacement cost is approximately $37,500 each and includes plow blades, controls and warning lighting.

Bucket Truck: The Parks and Urban Forestry Division operates bucket trucks to service lighting, hang downtown baskets and to prune and remove trees. The 2000 F550 Bucket Truck is proposed for replacement in 2020 based on age and safety. Cost of replacement estimated at $80,000(used). Replacement will consist of a truck with a longer boom.

2000 F550 Bucket Truck

REPLACEMENT COST:
$80,000

Park Mowers: The Park/ ROW includes an estimated 400 acres of mowable property, requiring continuous effort for several months out of the year. Seven zero-turn mowers are dedicated for this operation and are replaced each year as they typically have over 800 hours. Proposed replacement includes all 7 units in 2020 at an estimated cost of $31,000.

Mowers (7 Needed)

REPLACEMENT COST:
$31,000

HVGC Mowers: The golf course would be looking to replace the two reel gang mowers with a single rotary mower. One gang mower, purchased in 1986, is no longer in use has been picked for parts to keep the remaining mower in operation. The remaining mower has rusted out to the point it can no longer be operable. The rotary mower will replace the gang mowers and be able to mow fairways, rough and around greens. The estimated cost for a used rotary mower is $18,000.

Gang Mowers

REPLACEMENT COST: $18,000

Utility Vehicle: The Parks Division uses trucks for daily work and request the purchase of an electric GEM utility vehicle that is street legal to increase transportation options with with seasonal staff. When summer seasonal staff is working there are limited vehicles for staff and the proposed electric vehicle would provide a efficient and more economical option than additional trucks. The vehicle would also be used to loaned to assist police during special events. The estimated cost is $18,000.

Utility Vehicle

EQUIPMENT COST: $18,000

CITY OF DELAWARE OHIO

AUGUST 15, 2019

POLICE DEPARTMENT
EQUIPMENT REPLACEMENT

INFORMATION AT A GLANCE

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5 YEAR TOTAL COST
$1,301,000

PROJECTED SCHEDULE

2020 - $250,000

2021 - $255,000

2022 - $260,100

2023 - $265,300

2024 - $270,600

Purpose:

Annual replacement of front line police department cruiser including mobile data terminals and wireless antenna; and the replacement of one administrative vehicle. This budget increases the yearly replacement of cruisers from three to four to account for expanded fleet demand for front line cruisers.

Financing:

(4) Ford Utility Cruiser - $220,000

(1) unmarked vehicle – $30,000

Status:

The Police Department currently runs a front line fleet of 11 cruisers, plus two K9 cruisers, and two school resource officer cruisers. The department has been replacing three cruisers per year, but due to the addition of an additional K9 officer, would like to increase that acquisition to accommodate for the transfer of a general-purpose cruiser to a K9 cruiser. Costs in this line have increased unexpectedly in 2019 due to a price increase for the base vehicle. The cruiser model received an update in 2019, and the new model does not accommodate any of the old installed equipment that is typically transferred, which again was unexpected and increased costs in 2019.

The current chief's vehicle is a 2012 Ford Fusion. Replacement of the Ford Fusion will allow us to utilize that vehicle elsewhere in the PD fleet and an older vehicle to be retired.

CITY OF DELAWARE OHIO

AUGUST 15, 2019

POLICE DEPARTMENT

CRUISER DIGITAL VIDEO RECORDING SYSTEM

INFORMATION AT A GLANCE

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5 YEAR TOTAL COST

PROJECTED SCHEDULE

2020 - $142,955

Purpose:

The current cruiser video recording system falls out of maintenance in 2019. This proposal is to maintain our current vendor and replace the items that are out of warranty with new items that will be under a new five-year maintenance agreement.

Financing:

Total Cost: $142,955.

Status:

The Police Department currently equips each cruiser, and an interview room with a video recording system from WatchGuard. We have had a longstanding cruiser video recording system and wish to continue the system, as well as consider adding body worn cameras to the system. As of this year, the current system is out of maintenance and needs to be replaced to ensure continued, uninterrupted operation. Replacement of the entire cruiser video recording system is an advantageous time to consider adding body worn cameras to the system.

CAPITAL IMPROVEMENT PLAN
BUILDING MAINTENANCE IMPROVEMENTS
2020 - 2024

	2020	2021	2022	2023	2024
REVENUES:					
CIP Allocation *(pg. 1)*	***171,000***	***195,000***	***210,000***	***260,000***	***200,000***
TOTAL REVENUE	**171,000**	**195,000**	**210,000**	**260,000**	**200,000**
EXPENDITURES:					
EM Backup Generators - Justice Center/City Hall	61,000			150,000	
Justice Center HVAC/Other Building Improvements	25,000	25,000	25,000	25,000	25,000
Carpet Replacement	25,000	25,000	25,000	25,000	25,000
Justice Center Interior Painting	25,000	25,000	25,000		
City Hall Interior Painting				25,000	25,000
City Hall Exterior Clean/Paint			45,000		
Roof Repairs City Hall, Justice Center			70,000	35,000	
Justice Center Elevator Pumps					50,000
Justice Center/City Hall Tile Floor					25,000
Justice Center Locks/Hardware Upgrades					50,000
Public Works Building					
- Exterior Wall Repair	35,000				
- North Kiln Access Door			20,000		
- Fire Suppression System		120,000			
Additional Cost Annex Building					
TOTAL EXPENDITURES	**171,000**	**195,000**	**210,000**	**260,000**	**200,000**

CITY OF DELAWARE OHIO

AUGUST 15, 2019

PUBLIC WORKS

FACILITIES MAINTENANCE, REPAIR AND REPLACEMENT

INFORMATION AT A GLANCE

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5 YEAR TOTAL COST
$1,086.000

PROJECTED EXPENSES

2020 - $171,000

2021 - $195,000

2022 - $210,000

2023 - $260,000

2024 - $250,000

Purpose

The Public Works Facilities Division maintains the buildings and systems for several City facilities, including Public Works, Justice Center, City Hall, 10 & 20 E William Street, and a condominium building on W Central Avenue. The projects listed below are identified building and equipment improvements necessary for the ongoing upkeep and maintenance of these facilities.

Financing

All repairs to the facilities managed through the Public Works Department are funded through general revenues.

Status

Justice Center Emergency Backup Generators: The Justice Center is supported by two (2) emergency backup generators; one for the Courts facilities and one dedicated to Police operations. Both units are original to the construction of the facility in 1992 and have exceeded their respective 15 to 20 year service life. Units will be replaced over the next two years (2019 & 2020) with new Kohler 180 kw diesel fuel operated units at a cost of $61,000 each.

City Hall Emergency Backup Generators: City Hall is not currently supported by emergency power. To better prepare for future emergency situations requiring the continued operation of vital local government function, the installation of an emergency generator is being proposed in 2023. The installation would include the unit, power transfer switch and all electrical circuit upgrades necessary for the installation to be complete. The estimated cost of the total installation is $150,000

Fire Suppression Systems: All public buildings are outfitted with fire suppression systems that require periodic maintenance, repair, and at times, replacement of key components. The Public Works Facility requires replacement of main distribution piping original to the construction of the facility 60 years ago. As the pipes age, they develop leaks that allow pressurized air to escape, setting off the system in areas with old piping, charging the system with water, which then leaks out of these holes. There are four remaining building areas with piping that requires replacement including Streets, Parks & Natural Resources, Fleet Maintenance, and Traffic. Planned expenditure is $120,000 in 2021.

Justice Center HVAC Improvements: The Justice Center is outfitted with an HVAC system that includes 57 individual heat pumps to control the environment in individual areas throughout the facility. The anticipated service life of these units is 10-15 years, with replacement becoming necessary to maintain appropriate internal building climate. Heat pump units replaced on a schedule that includes five units per year at an average installed cost of $5,000 per unit ($25,000 annually). This plan for the next five years 2020-2024 will cost an estimated $125K.

Carpet Replacement: Carpeting in the Justice Center and City Hall is subject to replacement when the flooring in areas reaches the end of its service life. For carpeting, this is a function of location, foot traffic and appearance. The Justice Center has 107 distinct carpeted areas while City Hall has a total of 37 areas. In total, there is 3570 SY of carpeting in the two facilities with a replacement cost estimated at $178,500. Carpeting is replaced by area, and with carpet tile squares popular within modern public facilities due to quality, appearance, and ease of spot replacement from damage, staining or wear. For budgeting purposes a $50/SY replacement cost is established to include the cost of flooring replacement and all associated improvements such as cove base replacement, floor repairs, seams, transitions etc. An annual budget of $25,000 provides funding to address all carpet maintenance on a 10-year program cycle.

Interior Painting: The CIP includes funding to repaint all interior walls of both the Justice Center and City Hall over a five year program. The Justice center will be painted over three years on a floor by floor basis. City Hall will be painted in two years, with the basement and first floor levels in one year followed by the second floor the following year. A budget of $25,000 per year has been allotted for each floor with the Justice Center to be painted in 2020-2022 and City Hall in 2023 and 2024.

Roof Repair: The useful life of the shingled portions of both City Hall and Justice Center are both approaching the end of their 30 year service life. The CIP includes $70,000 in 2022 for replacement of the Justice Center roofing and $35,000 in 2023 for City Hall. Alternative roofing materials such as standing-seam metal roofing is being considered to substantially increase the useful life to 50 years or more, though initial installation costs could be substantially higher.

Justice Center Elevator Pumps: Elevator pumps that are 30 years of age are showing signs of wear and increased maintenance issues. With continued elevator violations during state inspections, recommendation to replace the pumps in 2024 – estimated replacement cost $50K

Justice Center/City Hall: Clean/seal all tile floors with a Sani Glaze finish to restore all of these resilient areas. Work will be completed in 2024 for an estimated cost of -$25K.

Justice Center Door Locks: Replacement of all passive locks and hardware upgrades in the 30-year-old facility. Estimated replacement cost for this project is $50K. Work will commence in 2024.

City Hall Exterior Restoration Project: Restoration to all brickwork and stone on the exterior of City Hall; also the replacement of the concrete steps and retaining walls on the west side of the facility. Estimated cost for this project in 2022 - $45K.

Public Works Kiln Area Project: Proposal to install an overhead door for access to the Facility Maintenance area during supply deliveries. Creates a safe zone to unload delivery trucks away from overhead lifts in the fleet area. Estimated cost and start date for this project $20K in 2022.

Exterior Wall Repairs: The original concrete masonry unit walls of the Public Works Facility are in places highly deteriorated and in need of proper maintenance and repair to prevent further damage. In places, the cracking has allowed individual masonry units to come loose and/or joints deteriorate, especially during winter when water penetrates the cracks, yielding to additional damage to adjacent blocks. The walls need to be properly repaired by tuck pointing and sealing at a cost of $35,000.

Image #1
Emergency Backup Generator

Image #2
Typical Ceiling Mount Heat Pump Unit

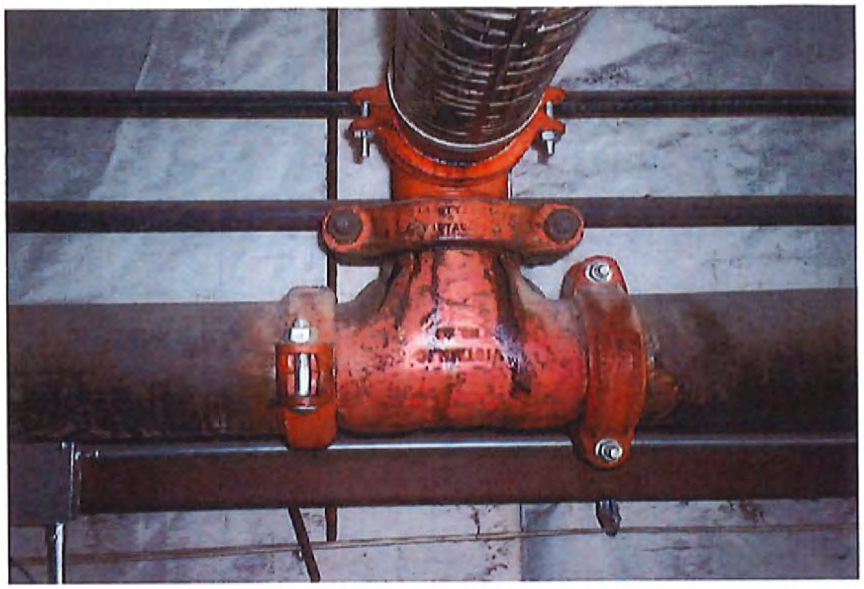

Image #3
Example of Fire Suppression Distribution Piping

Image #4
Public Works Facility Masonry Walls Requiring Repair

Image #5
Typical Damaged Masonry Wall Section

CAPITAL IMPROVEMENT PLAN
PARK IMPACT FEE IMPROVEMENT FUND
2020 - 2024

	2020	2021	2022	2023	2024
BALANCE FORWARD	**1,884,045**	**1,651,045**	**1,555,045**	**2,030,045**	**1,755,045**
REVENUES:					
Impact Fees	350,000	225,000	225,000	225,000	225,000
Trail Improvement Grants			250,000		
TOTAL REVENUES	**350,000**	**225,000**	**475,000**	**225,000**	**225,000**
EXPENDITURES:					
COMMUNITY PARK IMPROVEMENTS					
Ross St. Park Improvement	75,000				
South Community Park Land Acquisition	18,000			500,000	345,000
COMMUNITY TRAIL IMPROVEMENTS					
Central Avenue Pedestrian Corridor	490,000				
Stratford/Olentangy Trail (Meeker-Chapman)		321,000			
Olentangy River Trail (Pollock Rd)				100,000	100,000
TOTAL IMPACT FEE EXPENDITURES	**583,000**	**321,000**	**0**	**500,000**	**345,000**
IMPACT FEE BALANCE	**1,651,045**	**1,555,045**	**2,030,045**	**1,755,045**	**1,635,045**

Debt Balance Outstanding	**0**	**0**	**0**	**0**	**0**

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PARKS & NATURAL RESOURCES

ROSS STREET PARK EXPANSION

INFORMATION AT A GLANCE

COST
$75,000

FUNDING

Park Impact Fees

$75,000

PROJECTED SCHEDULE

Construction 2020

DESIGN CONSULTANT

TBD

CITY LEAD

JP Linkous

(740)-203-1402
jlinkous@delawareohio.net

Purpose

The Ross St Park will be expanded to include the former Parks and Natural Resource area. Concepts will be introduced to the community in fall 2019 and a final master plan developed by early 2020. The entire project will involve multiple phases. These costs reflect the initial phase.

The Ross St. Park expansion will provide additional programming space for a park that has outgrown its existing amenities. The Community Coalition and SWCI will be active partners in future programming for the park. In addition, a public survey and public meetings have taken place to help guide the master plan for the park.

The impact of future maintenance will add to staff duties, due to additional mowing and landscaping. The operating costs will increase as the park attracts more users.

Financing

The project is estimated at $75,000 for park improvements. The City has identified the Park Impact Fee Improvement Fund to develop the expansion.

Status

Bids will be requested in spring 2020 with construction in the summer 2020.

EST 1808
CITY OF
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OHIO

AUGUST 15, 2019

PARKS & NATURAL RESOURCES
SOUTH COMMUNITY PARK

INFORMATION AT A GLANCE

COST
South Community Park
$863,000

FUNDING

Park Impact Fees
$863,000

PROJECTED SCHEDULE

Planning 2020

Acquisition 2022-2023

DESIGN CONSULTANT

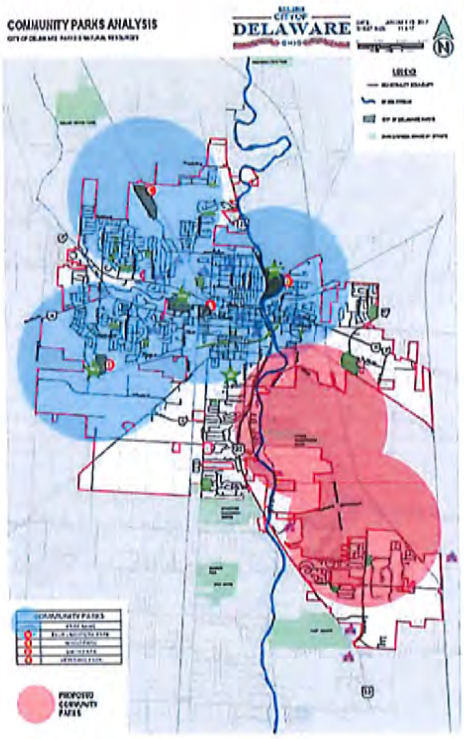
CITY LEAD

Ted Miller

(740)-203-1452
tmiller@delawareohio.net

Purpose

The City will need to expand recreational services to fill in gaps on the southeast section near the new Glen Pkwy. Identifying a potential seller and price will allow the city to secure a community park site and discuss potential recreation partners.



The Park Index completed in 2016 has identified gaps in recreation services in the southeast section of the city. Residents in the southeast part of the city currently travel seven miles to reach Mingo Park, the closest community park. The goal would be to locate a community park within one mile of all residents. The proposed community park would fulfill the need to add athletic fields, sport courts, leisure activities and outdoor recreation. To accommodate these uses, the city would ideally identify a site that was 25-30 acres.

The impact of a south community park will significantly add to future maintenance costs, introducing a need for additional full time and seasonal staff. Operating costs will also increase significantly. Projecting the increases will be possible once the conceptual design is complete. In addition, site development costs will need to be allocated once the site is secured.

Financing

The project is anticipated to cost roughly $863,000. The City has identified the Park Impact Fee Improvement Fund to develop the expansion.

Status

Negotiations should be started immediately with final purchase agreement by 2021.

EST 1808
CITY OF
DELAWARE
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AUGUST 15, 2019

PARKS & NATURAL RESOURCES

CENTRAL AVE. PEDESTRIAN CORRIDOR

INFORMATION AT A GLANCE

COST
$490,000

FUNDING

Park Impact Fees
$490,000

PROJECTED SCHEDULE

Construction 2020

DESIGN CONSULTANT

TBD

CITY LEAD

Engineering

Purpose

The Lexington Ave. to Houk Rd. would be the final section of the active transportation corridor along Central Ave. The link will involve an 8'-5' multi-use trail that will link existing trails and provide an east- west connection across the city. The design work would be completed in 2019 with improvements completed in 2020.

The link will connect a growing part of the city and open safe access for thousands of residents. The corridor is unsafe for pedestrians and bicycles that must use the roadway to travel. The improvement will greatly impact the safety for the many residents that currently use this corridor.

The impact of future maintenance will minimally add to the maintenance. The operating costs will minimally increase with some additional mowing for the new pathway.

Financing

The project is anticipated to cost roughly $490,000. The City has identified the Park Impact Fee Improvement Fund to develop the expansion. A Recreational Trails Program grant will be applied for in 2019.

Status

Design completed in 2019, bids will be requested fall/winter 2019.

EST 1808
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DELAWARE
OHIO

AUGUST 15, 2019

PARKS & NATURAL RESOURCES

STRATFORD RD./OLENTANGY RIVER TRAIL
MEEKER WAY-CHAPMAN RD.

INFORMATION AT A GLANCE

COST
$321,000

FUNDING

Park Impact Fees
$321,000

PROJECTED SCHEDULE

Construction 2021

DESIGN CONSULTANT

TBD

CITY LEAD

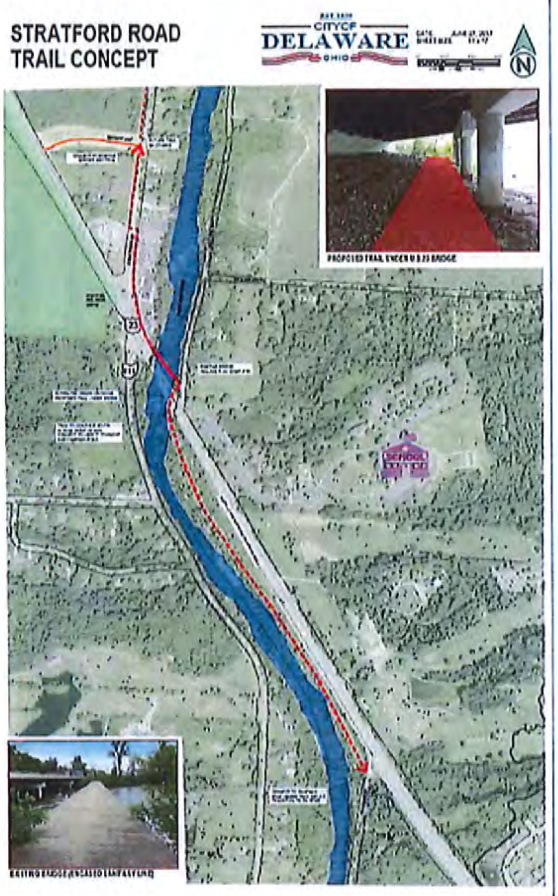
Engineering

Purpose

The project would involve a segment of the Olentangy River Trail from the south edge of the City into Liberty Township. The trail would begin at Stratford Rd., and extend across the Olentangy River on the existing encased sanitary line, adding railings to the existing surface. The trail would continue under the U.S. 23 bridge and travel south along existing ODOT right of way between U.S. 23 and the Olentangy River. At Chapman Rd. the trail would transition to a shared road trail.

The regional context of this trail is extremely significant as it would begin to link the city to a primary greenway that is part of the Central Ohio Greenways (COG) network. The impact of future maintenance will be minimal as the proposed segment in the City is not significant.

STRATFORD ROAD TRAIL CONCEPT



Financing

The project is anticipated to cost roughly $321,000. The City has identified the park impact fee improvement funds to develop the expansion. Clean Ohio Trail Funds will be applied for in 2020 to help fund this project.

Status

Grant applications would be completed June 2020. Bids will be requested spring 2021.

CAPITAL IMPROVEMENT PLAN
POLICE IMPACT FEE FUND
2020 - 2024

	2020	2021	2022	2023	2024
BALANCES FORWARD	**404,306**	**420,415**	**422,199**	**424,658**	**425,517**
REVENUES					
Police Impact Fees	75,000	60,000	60,000	60,000	60,000
TOTAL REVENUE	**75,000**	**60,000**	**60,000**	**60,000**	**60,000**
IMPACT FEE EXPENDITURES					
DEBT SERVICE					
Justice Center ($890,000, 19yrs 2.94%, 2032)	58,891	58,216	57,541	59,141	55,691
TOTAL IMPACT FEE EXPENDITURES	**58,891**	**58,216**	**57,541**	**59,141**	**55,691**
IMPACT FEE BALANCE	**420,415**	**422,199**	**424,658**	**425,517**	**429,826**
Debt Balance Outstanding	**497,500**	**452,250**	**405,000**	**360,000**	**315,000**

CAPITAL IMPROVEMENT PLAN
FIRE IMPACT FEE FUND
2020 - 2024

	2020	2021	2022	2023	2024
BALANCES FORWARD	**497,537**	**522,537**	**512,537**	**502,537**	**492,537**
REVENUES:					
Fire Impact Fees	125,000	90,000	90,000	90,000	90,000
TOTAL REVENUE	**125,000**	**90,000**	**90,000**	**90,000**	**90,000**
IMPACT FEE EXPENDITURES:					
DEBT SERVICE					
Station 303/304	100,000	100,000	100,000	100,000	100,000
TOTAL IMPACT FEE EXPENDITURES:	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**
IMPACT FEE BALANCE	**522,537**	**512,537**	**502,537**	**492,537**	**482,537**

CAPITAL IMPROVEMENT PLAN
MUNICIPAL SERVICES IMPACT FEE FUND
2020 - 2024

	2020	2021	2022	2023	2024
BALANCE FORWARD	**169,574**	**219,414**	**230,754**	**243,594**	**255,934**
REVENUES:					
Impact Fees	150,000	110,000	110,000	110,000	110,000
Sewer Fund Reimbursement Cherry St. Facility	65,000	65,000	65,000	65,000	65,000
TOTAL REVENUES	**215,000**	**175,000**	**175,000**	**175,000**	**175,000**
EXPENDITURES:					
DEBT SERVICE					
Public Works Facility ($1,060,000 19yrs, 2.94%, 2031)	71,269	70,444	69,619	68,519	67,418
Justice Center ($900,000, 19yrs 2.94%, 2032)	58,891	58,216	57,541	59,141	55,691
City Annex	35,000	35,000	35,000	35,000	35,000
TOTAL EXPENDITURES	**165,160**	**163,660**	**162,160**	**162,660**	**158,109**
IMPACT FEE BALANCE	**219,414**	**230,754**	**243,594**	**255,934**	**272,825**

Debt Outstanding - PW Fac/Justice Center	**1,137,500**	**1,037,250**	**935,000**	**835,000**	**735,000**
- Gazette Bldg.	**1,843,333**	**1,725,471**	**1,604,046**	**1,478,951**	**1,478,951**

CAPITAL IMPROVEMENT PLAN
FIRE/EMS FUND
2020 - 2024

	2020	2021	2022	2023	2024
BALANCES FORWARD	**0**	**0**	**0**	**0**	**0**
REVENUES:					
Fire/EMS Income Tax	1,462,738	1,392,271	565,361	1,966,387	645,358
Fire Impact Fee Funds	100,000	100,000	100,000	100,000	100,000
TOTAL REVENUE	**1,562,738**	**1,492,271**	**665,361**	**2,066,387**	**745,358**
EXPENDITURES:					
DEBT SERVICE					
Station 302 ($573,416, 10 yrs, 1.502%, 2022)	60,872	60,872	60,872		
Station 303 ($2,755,000, 2.94%, 2032)	174,569	174,569	174,569	174,569	174,569
Station 304 ($3,500,000, 15 yrs, 2031)	280,950	285,550	284,850	284,850	284,850
EMS Vehicles (3) - (800,000, 10 yrs. 2024)	94,150	94,150	94,150	94,150	94,150
APPARATUS/VEHICLES					
Engine/Pumper Truck	823,401			899,752	
Medical Apparatus		386,250			
Staff/Utilility Vehicles	128,796	105,880	44,450	156,583	154,080
EQUIPMENT					
Traffic Pre-Emption		385,000			
Defibrillators/Cardiac Monitors				355,000	
Technology			6,470	101,483	37,709
TOTAL EXPENDITURES:	**1,562,738**	**1,492,271**	**665,361**	**2,066,387**	**745,358**
ENDING BALANCE	**0**	**0**	**0**	**0**	**0**

Debt Balance Outstanding	**4,404,852**	**3,943,271**	**3,740,000**	**3,040,000**	**2,610,000**

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

FIRE DEPARTMENT

FIRE APPARATUS

Purpose

The Fire Department has established a long-term replacement schedule for its fire apparatus. In 2020, the department will be replacing the 1989 Emergency One fire engine and in 2023 will be replacing the 1997 Pierce fire engine.

Financing

The replacement of the fire apparatus are anticipated to cost roughly $1,723,153. This project will be funded utilizing the Fire Fund. The fire department will be looking for alternative funding sources for this equipment.

Status

Since the passage of the 2010 Fire Levy, the Fire Department has replaced the majority of its front line fleet. A replacement schedule has been established for a replacement of fire apparatus at 20-years. Fire apparatus include fire engines, ladder truck, quint/engine and the heavy rescue/hazmat unit. The department will continue to evaluate the mileage and use of this apparatus to prolong the longevity and efficient use of these vehicles.

IMAGE #1 & 2

Fire Engine and Quint/Engine

The primary usage of the fire engine is for the rapid extinguishment of fire. Rapid extinguishment of a fire supports the rescue of trapped patients and increases the safety of firefighters.

IMAGE #3 & 4

Ladder Truck & Heavy Rescue

The department operates a ladder truck with a primary function of search and rescue, forcible entry and ventilation, and salvage operations. The heavy rescue is responsible for the rescue of patients trapped and for hazardous material responses.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

FIRE DEPARTMENT
MEDICAL APPARATUS

INFORMATION AT A GLANCE

COST
$ 386,250

FUNDING

LOCAL $386,250

2020 - $0

2021 - $386,250

2022 - $0

2023 – $0

2024 - $0

PROJECTED SCHEDULE

Specifications	2020
Purchase	2021

CITY LEAD
Fire Department

DESIGN CONSULTANT
Not Applicable

CONTRACTOR
TBD

Purpose

With the opening of station 304 and the projected growth of the City, it is anticipated that an additional transport unit may be needed. This will also allow a back-up unit to be in the fleet. The existing four units will be operational with the four station configuration.

Financing

The replacement of the medical apparatus are anticipated to cost roughly $392,699. This project will be funded utilizing the Fire Fund. The fire department will be looking for alternative funding sources for this equipment.

Status

Since the passage of the 2010 Fire Levy, the fire department has replaced its entire EMS fleet of ambulances. With the addition of the 4th fire station and an EMS transport unit operating from the station, a reserve vehicle will be needed. The department will also be evaluating the possibility of using an additional Quick Response Vehicle in lieu of this additional transport unit. This concept would dispatch a Quick Response Vehicle on the low acuity/low transport operations in lieu of an ambulance.

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OHIO

IMAGE #1

Interior of an Ambulance

The inside of an ambulance is essentially an Emergency Room on wheels. Paramedics are capable of continuing the care and treatment of patients while enroute to a hospital.

IMAGE #2

Quick Response Vehicle

The Department is continuing to research the implementation of programs to decrease the transport of patients unnecessarily to hospitals. One alternative is the use of Community Paramedics and also the use of on-line physicians.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

FIRE DEPARTMENT
STAFF VEHICLES

INFORMATION AT A GLANCE

COST
$ 589,789

FUNDING

LOCAL $589,789

2020 - $128,796

2021 - $105,880

2022 - $44,450

2023 – $156,583

2024 - $154,080

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PROJECTED SCHEDULE

Specifications	2018
Purchase	2018 - 2023

CITY LEAD
Fire Department

DESIGN CONSULTANT
Not Applicable

CONTRACTOR
TBD

Purpose

The fire department utilizes staff vehicles for emergency response of command officers, for fire inspectors conducting fire inspections and for various non-emergent transportation. The emergency response vehicles are purchased new and remain in the fleet for 10 years. Previously, the fire inspection and station cars are retired police cruisers that are wrapped with reflective striping and used for an additional 5-years at the fire department. The redeployment of these vehicles have gone to other City departments. The fire department will now purchase new vehicles for a 10 year life expectancy.

Financing

The replacement of the staff vehicles are anticipated to cost $589,789. This project will be funded utilizing the Fire Fund. The fire department will be looking for alternative funding sources for this equipment.

Status

The fire department has been utilizing the police cruisers for six years. These have proven to be efficient and cost-effective for their purpose. The command vehicles have been in the fleet and are continuing to work well for their operations. The redeployment of these vehicles have gone to other City departments. The fire department will now purchase new vehicles for a 10-year life expectancy.

EST 1808
CITY OF
DELAWARE
OHIO

IMAGE #1

Fire Inspector Vehicles

Used Police Vehicles are utilized for an additional 5-years for fire inspections and station vehicles.

IMAGE #2 & #3

Command Vehicles are used for the management of emergency incidents. Incident management needs to be conducted in a controlled environment to allow for communication, planning and documentation, away from the scene elements.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

FIRE DEPARTMENT

EMERGENCY VEHICLE PREEMPTION

INFORMATION AT A GLANCE

COST
$700,000

FUNDING

LOCAL $385,000

2020 - $0

2021 - $385,000

2022 - $0

2023 – $0

2024 - $0

PROJECTED SCHEDULE

Design 2018

Construction 2019-2021

CITY LEAD
Public Works

DESIGN CONSULTANT
City In-house Services

CONTRACTOR
TBD

Purpose

Emergency Vehicle Preemption is an important piece of technology deployed at signalized intersections where normal traffic operations impede emergency vehicles and where traffic conditions create a potential for conflicts between emergency and non-emergency vehicles. Emergency Vehicle Preemption can reduce emergency vehicle response times and is especially useful along corridors that emergency vehicles use to travel longer distances. It also can provide both a safety and operational benefit on roadways where emergency vehicles need to enter the intersection from the minor road. This project began in 2019, consists of installing Emergency Vehicle Preemption at 17 signalized intersections. Emergency Vehicle Preemption will be installed at the remaining signalized intersections, which are being improved as part of the Citywide Signal Update Phase 1 Project, planned for construction in 2020-21. All City fire and EMS vehicles have already been equipped with the GPS transmitters that activate the preemption at each signalized intersection.

Financing

The project is anticipated to cost roughly $700,000, which will be covered 100% utilizing the Fire Fund. City Traffic & Engineering Division in-house staff will design, bid, and oversee the construction and inspection of the project.

Status

Phase 1 of the project, which is scheduled for construction in 2019, is currently in the final plans, specifications and bidding phase. Construction for the final Phase 2 is scheduled for 2021.

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CITY OF
DELAWARE
OHIO

IMAGE #1

Overall visual of how this system works between emergency vehicle and signalized intersection

IMAGE #2

Confirmation light, which gives indication to emergency vehicle that they have been detected by signal pre-emption system

IMAGE #3

This signal pre-emption device that receives GPS signal from emergency vehicle

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CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

FIRE DEPARTMENT

CARDIAC MONITORS/DEFIBRILLATORS

INFORMATION AT A GLANCE

COST
$ 355,000

FUNDING

LOCAL $355,000

2020 - $0

2021 - $0

2022 - $0

2023 – $355,000

2020 - $0

PROJECTED SCHEDULE

Specification 2022

Purchase 2023

CITY LEAD
Fire Department

DESIGN CONSULTANT
Not Applicable

CONTRACTOR
TBD

Purpose

The fire department's cardiac monitors will be aging and reaching their life expectancy. This is one of the primary pieces of medical equipment that is used on all medical calls. This piece of equipment includes the capability of monitoring blood pressure, oxygen saturation, breathing wave forms, and cardiac electrical activity, including 12-lead capability, and CPR feedback. It also provides cardiac defibrillation and pacing. The life expectancy of this equipment is five-years for the 12-lead monitor/defibrillator and 10-years for the automatic defibrillators.

Financing

The cardiac monitors and defibrillators are anticipated to cost $355,000. This project will be funded utilizing the Fire Fund. The Fire Department will also be looking for alternative funding sources for this equipment.

Status

The Fire Department replaced their 12-Lead cardiac monitors and defibrillators in 2018. In 2023 we will be replacing these devices on all medic units and replacing the AED/blood pressure machines on all fire apparatus.

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CITY OF
DELAWARE
OHIO

IMAGE #1

12-Lead Cardiac Monitor and Defibrillator

Provides Capabilities:
EKG Monitoring,
12-Lead Monitoring,
BP Monitor,
Oxygen Saturation,
Breathing Wave Forms,
CPR Feedback,
Cardiac Defibrillation
Cardiac Pacing
Care for Pediatrics

IMAGE #2

The AEDs and AED Pro's located in Staff vehicles and fire apparatus are replaced every 10 years. These devices will be replaced in 2023.

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CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

FIRE DEPARTMENT

TECHNOLOGY REPLACEMENT

INFORMATION AT A GLANCE

COST
$145,662

FUNDING
LOCAL $ 145,662

2020 - $0

2021 - $0

2022 - $6,470

2023 – $101,483

2024 -$37,709

PROJECTED SCHEDULE

Purchasing 2020-2024

CITY LEAD
Fire Department

DESIGN CONSULTANT
TBD

CONTRACTOR
TBD

Purpose

Provide for the replacement of computers, mobile data terminals, mobile wireless interfaces and copiers.

Financing

The replacement of the computers, mobile data terminals and mobile wireless are anticipated to cost roughly $145,662 over the next five years. This project will be funded utilizing the Fire Fund. The fire department will be looking for alternative funding sources for this equipment.

Status

In 2022, the department will be replacing aging computers. In 2023, the Department will replace the mobile data computers located in all the medical apparatus, two copiers, and the Mobile Data Computers located in all fire and EMS apparatus. In 2024, the department will replace the remaining computers due for replacement.

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CITY OF
DELAWARE
OHIO

IMAGE #1

Mobile Data Computers

Mobile Data Computers provide access to dispatch information, access to information in existing databases, researching hazardous materials and the uploading of medical reports to the hospital. These are replaced every five years.

IMAGE #2

Scanner/Copiers/ Printers

These devices are connected to the network. They serve as document scanners, printers and copiers. Each Station has one of these and the administrative office has a larger copier.

CAPITAL IMPROVEMENT PROGRAM
WATER FUND CAPACITY PROJECTS
2020 - 2024

	2020	2021	2022	2023	2024
	8,028,966	**8,246,986**	**7,756,004**	**6,992,996**	**6,231,266**
REVENUES:					
Water Capacity Fees	2,000,000	1,500,000	1,200,000	1,200,000	1,200,000
Water Debt Meter Fee Allocation	0	0	0	0	0
TOTAL REVENUES	**2,000,000**	**1,500,000**	**1,200,000**	**1,200,000**	**1,200,000**
EXPENDITURES:					
DEBT SERVICE					
Westside Trans Line ($2,225,051, 25 yrs, 3.67%, 2036)	136,750	136,750	136,750	136,750	136,750
Penry Rd. Waterline ($1,000,000, 25 yrs, 3.55%, 2037)	62,976	62,976	62,976	62,976	62,976
Kingman Hill Tower ($3,545,000, 25 yrs, 4.51%, 2031)	211,228	210,230	212,256	210,978	208,110
Plant Expansion ($9,600,000, 25yrs., 3.23%, 2039)	551,026	551,026	551,026	551,026	551,026
TOTAL DEBT SERVICE	**961,980**	**960,982**	**963,008**	**961,730**	**958,862**
WATER SYSTEM IMPROVMENTS					
Water Master Plan		100,000			
DISTRIBUTION CAPACITY PROJECTS					
Panhandle to US 42 Water Main	570,000	570,000			
Braumiller Rd. 16" Water Main		160,000	800,000	800,000	
Hills Miller to Buttermilk Hill					175,000
New Line Oversizing/Extension	*250,000*	*200,000*	*200,000*	*200,000*	*200,000*
TOTAL WATER CAPACITY PROJECTS	**820,000**	**1,030,000**	**1,000,000**	**1,000,000**	**375,000**
ENDING FUND BALANCE	**8,246,986**	**7,756,004**	**6,992,996**	**6,231,266**	**6,097,404**

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

WATER MASTER PLAN UPDATE

INFORMATION AT A GLANCE

COST
$ 100,000

PROJECTED SCHEDULE

Calendar Year 2021

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

The City of Delaware's current water master plan will be 12 years old in the year 2021. This plan update is meant to reanalyze the water distribution system, and adjust planned needs based on actual City development. This will allow the utilities department to better plan projects going forward, and best meet the needs of such a rapidly growing customer base.

Financing

The update is being allocated for the year 2021.

Status

The City will begin advertising for consultant qualifications in early 2021, and expect the plan update before the end of the year.

EST 1808
CITY OF
DELAWARE
OHIO

SEPTEMBER 2018

PUBLIC UTILITIES

PANHANDLE TO US 42

INFORMATION AT A GLANCE

COST
$ 1.26M

FUNDING

Water Capacity Fund

PROJECTED SCHEDULE

Phase I Design - 2019

Phase I Construction 2020

Phase II Construction 2021

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTOR
TBD

Purpose

Areas of the City east of the Olentangy River's main source of supply is the 1960 - 16" water main from the water plant then through the 16" East/West Connector, which runs along Central Ave. If the water supply from the treatment plant to the East/West Connector is interrupted, the distribution system has issues with suppling water to the Eastside tower. This project will give the City an additional larger main feed to the Eastside water tank, and provide the area's citizens with the proper level of service, which should be provided.

Financing

Phase I of the project will cost $1.26M, to be broken up between 3 years:

2019 - $120,000 for design services

2020 - $570,000 for construction

Phase II :

2021 - $570,000 for construction

Status

This project is a part of the recommendations from the 2009 water master plan, and is a highly recommended project to ensure the City's East side is brought up to proper service redundancy levels.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

BRAUMILLER RD WATER MAIN

INFORMATION AT A GLANCE

COST
$ 1.76M

FUNDING

Water Capacity Fund

PROJECTED SCHEDULE

Phase I Design - 2021

Phase I Construction
2022

Phase II Construction
2023

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTOR
TBD

Purpose

Currently, the areas of the City that are South of Pollock Rd. only have one main source of water feeding from the distribution network. Should a shutdown or break occur between the southeast water tank and the primary distribution network, we have no reliable way to keep pace with long-term water demand of the area. This project will give the City an additional supply to our southeast water tank, and provide the area citizens with the proper level of service which should be provided.

Financing

Phases I and II of the project will cost $1.76M, to be split between 3 years:

2021 - $120,000 for design services

2022 - $800,000 for construction

Phase II:

2023 - $800,000 for construction

Status

This project is a part of the recommendations from the 2009 water master plan, and is a highly recommended project to bring the southeast service area up to proper service redundancy levels.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

NEW LINE OVERSIZING AND EXTENSION

INFORMATION AT A GLANCE

COST
2019 - $ 450,000

PROJECTED SCHEDULE

Repeated Yearly

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

The City of Delaware continues to experience rapid growth, with several new developments beginning each year. Each new development is expected to install all needed connections needed for their utilities services, including taking those services to the edge of their property for the next development to continue. This fund is used to pay the City's portion of the oversizing when the City requires a developer to put in larger service lines than their development requires.

Financing

This work is being allocated $450,000 in 2019, and will change yearly with expected development rates.

Status

The City is always willing to work with developers regarding payments for utility oversizing, as this benefits the City's growth potential going forward.

CAPITAL IMPROVEMENT PROGRAM
WATER FUND MAINTENANCE PROJECTS
2020 - 2024

	2020	2021	2022	2023	2024
	2,104,839	**1,523,894**	**725,545**	**1,040,243**	**763,450**
REVENUES:					
Transfer from Water Fund	800,000	800,000	800,000	800,000	800,000
Water Debt Meter Fee Allocation	1,129,783	1,152,379	1,175,427	1,198,935	1,222,914
TOTAL REVENUES	**1,929,783**	**1,952,379**	**1,975,427**	**1,998,935**	**2,022,914**
EXPENDITURES:					
DEBT SERVICE					
Treatment Plant ($22,400,000 - 25 yrs, 3.23%, 2039)	1,285,728	1,285,728	1,285,728	1,285,728	1,285,728
WATER PLANT MAINTENANCE					
Plant Maintenance	100,000	75,000	75,000	75,000	75,000
Well Cleaning				30,000	44,000
Nano and Ultra Filtration Membrane Replacement		675,000		450,000	
SCADA Instrumentation Replacement	25,000				
WATER DISTRIBUTION PROJECTS					
Water Tank Painting	650,000				650,000
Large Meter Replacement	25,000		25,000		25,000
Water Line Improvements:					
Small Main/Service Replacement	50,000	50,000	50,000	50,000	50,000
Fire Flow Improvement	75,000	75,000	75,000	75,000	75,000
S. Washington St. Waterline				90,000	
Pennsylvania Ave. Waterline		525,000			
Lincoln Ave. Waterline	300,000				
S. Franklin St.				190,000	
N. Franklin St. Waterline					160,000
Equipment Replacement		65,000	150,000	30,000	
TOTAL WATER MAINTENANCE	**1,225,000**	**1,465,000**	**375,000**	**990,000**	**1,079,000**
ENDING FUND BALANCE	**1,523,894**	**725,545**	**1,040,243**	**763,450**	**421,636**

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC UTILITIES

2020 PLANT MAINTENANCE

INFORMATION AT A GLANCE

COST
$ 100,000

PROJECTED SCHEDULE

Calendar year 2020

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

This project will help fund unforeseen equipment or plant structural failures in order to protect the City's investments and to be able to continually provide safe potable water to the citizens of Delaware.

Financing

The project will cost $100,000.

Status

This funding helps the treatment facility comply with required Ohio EPA asset management practices by having the funding available for equipment repair or replacement, as well as any structural repair in order to maintain the equipment and facilities. This will enable us to constantly provide a safe potable water supply for the citizens of Delaware.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC UTILITIES

2023 RIVERVIEW WELL CLEANING

INFORMATION AT A GLANCE

COST
$ 30,000

PROJECTED SCHEDULE

Calendar year 2023

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

This project will help maintain proper flows to each of the two raw groundwater wells at the Riverview well field. Over time the well flows gradually start deteriorating. This is mostly due to iron and other minerals getting hard and plugging the caverns and voids in the lime stone, which block groundwater flow to the well pumps. If this iron and other minerals are not cleaned every five years or so, the well flow will not ever be restored to original well flow and the necessary volume of groundwater.

Financing

The project is anticipated to cost roughly $30,000.

Status

This is a good preventative maintenance plan to ensure that the wells maintain their original flows to produce enough finished water for our customers.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC UTILITIES

2024 PENRY WELL CLEANING

INFORMATION AT A GLANCE

COST
$ 44,000

PROJECTED SCHEDULE

Calendar year 2024

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

This project will help maintain proper flows to each of the three raw groundwater wells at the Penry well field. Over time the well flows gradually start deteriorating. This is mostly due to iron and other minerals getting hard and plugging the caverns and voids in the lime stone which block groundwater flow to the well pumps. If this iron and other minerals are not cleaned every five years or so the well flow will not ever be restored to original well flow and the necessary volume of groundwater.

Financing

The project is anticipated to cost roughly $44,000.

Status

This is a good preventative maintenance plan to ensure that the well maintain their original flows so we can produce enough finished water for our customers.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC UTILITIES

2021 NF MEMBRANE REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 675,000

PROJECTED SCHEDULE

Calendar year 2021

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

The NF membrane flows deteriorate over time, which steadily increases operating pressure to the point the NF feed pumps cannot push water through the membranes. The conservative estimates for life of these NF membranes are five to seven years. The plant started in December 2014. In 2021 the NF membranes will be six years old and most likely they will need to be replaced soon. At the end of the NF life, the high pressure conditions can begin to increase rapidly, so having the funds available to replace these NF membranes will be essential.

Financing

Cost of this project will be roughly $675,000.

Status

We currently clean these NF Membranes every three months when operating pressures increase to the point of losing design flow thru the membranes. At the end of the life of the NF membranes, the cleaning frequency increases substantially. Having this funding available when necessary will ensure the ability to provide the necessary volume of water for the daily needs of our customers.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC UTILITIES

2023 UF MEMBRANE REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 450,000

PROJECTED SCHEDULE

Calendar year 2023

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

The UF membrane permeability or overall flow thru the membranes will deteriorate over time. As the UF membranes age, fiber breaks will also steadily increase, which will also lower flow thru the membranes. As production decreases, the need for replacement will be necessary to be able to provide the daily water demand for our customers. The conservative estimates for life of these UF membranes are 7-10 years. In 2023 the UF membranes will be eight years old and most likely the will need to be replaced soon.

Financing

The project is will be roughly $450,000.

Status

We currently clean these UF Membranes every three months when permeability decreases to the point of losing design flow thru these membranes. At the end of the life of the UF membranes, the cleaning frequency will substantially increase. Having this funding available when necessary will ensure the ability to provide the necessary volume of water for the daily needs of our customers.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC UTLITIES

2020 PLANT SCADA INSTRUMENTATION REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 25,000

PROJECTED SCHEDULE

Calendar year 2020

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

Replacement of the two plant SCADA computers may be necessary for the optimum operation of the plant process. This also includes the new software, new server, two computers, eight monitors, and any integration assistance.

Financing

The project is will be roughly $25,000.

Status

In 2020 these two plant SCADA computers will be five years old. IT has suggested that we have this money allocated to be proactive instead of reactive so we do not have any failures. The SCADA is necessary for the operation of the complex plant processes.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

WEST WATER TANK PAINTING

INFORMATION AT A GLANCE

COST
$ 650,000

PROJECTED SCHEDULE

Spring/Summer 2020

CITY LEAD
Public Utilities

DESIGN CONSULTANT
Burgess & Niple

CONTRACTORS
TBD

Purpose

This project's purpose is to maintain the structural integrity of the water tank. Water tank paint normally lasts 15-20 years. When performed, the exterior and interior surfaces are sandblasted and painted. The City will use an engineering firm to help with the bidding of the work, and to manage the entire tank resurfacing project. This also helps the utility department provide the highest quality of finished water to the citizens of Delaware.

Financing

The project is anticipated to cost roughly $650,000.

Status

The West water tank was last resurfaced in 2001. In 2020 the existing coating will be 19 years old, and in its end of life condition.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

LARGE METER REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 25,000 yearly alternated between water and sewer funds

PROJECTED SCHEDULE

Repeated yearly

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

With normal use, a water meter loses accuracy during the span of its life expectancy. The loss of flow reading ability is most pronounced in large-diameter meters. This rotating fund is aimed at replacing the large-diameter meters used by the high flow business users of the City. This ensures proper water use tracking within the system.

Financing

This work is rotated between the water maintenance and sewer maintenance funds yearly, as it has impacts on the billing of both systems. The funds alternately allocate $25,000 to this work yearly.

Status

As large-diameter meters reach the end of their expected life, or recorded flows begin trending lower, replacement is scheduled.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

SMALL MAIN/SERVICE REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 50,000

FUNDING
Water Maintenance Fund

PROJECTED SCHEDULE

Repeated Yearly

CITY LEAD
Public Utilities

Purpose

The small main and service replacement program is primarily focused on the removal of old style lead lines still within the system. Lead service lines were the primary style of service lines used for many years. While the locations of all lead lines are not known, we find several every year, and this fund is used for the replacement to current water safety standards.

Financing

This work has a yearly $50,000 allowance.

Status

As lead material small mains and service taps are found, they are replaced immediately.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILTIES

FIRE FLOW IMPROVEMENT

INFORMATION AT A GLANCE

COST
$ 75,000

FUNDING
Water Maintenance Fund

PROJECTED SCHEDULE

Repeated Yearly

CITY LEAD
Public Utilities

Purpose

Current City fire flow standards require 8" water mains be installed in order to meet the demands of fire department needs when battling fires. Many existing lines within the City are smaller than 8", and with the help of system flow testing, the areas of the City with the most flow restriction are scheduled for replacement.

Financing

This work has a yearly $75,000 allowance.

Status

Many areas have been identified for replacement, and a working schedule through 2022 has been identified. 2019 lines include: Sheldon St, Henry St, and Griswold St.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

SOUTH WASHINGTON WATERLINE REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 90,000

FUNDING
Water Maintenance Fund

PROJECTED SCHEDULE

Replacement in 2023

CITY LEAD
Public Utilities

Purpose

This project will remove 1,175 linear ft. of 4" water main along South Washington St., from Park Ave. to West Harrison St., and replace with an 8" main. The size of the water main along S. Washington St. has become a constriction to the water distribution system, and also does not meet current fire flow requirements.

Financing

The project is anticipated to cost roughly $90,000.

Status

The project is currently planned to take place in calendar year 2023, to be self-performed by the Public Utilities Water Distribution Department.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC UTILITIES

PENNSYLVANIA AVENUE WATERLINE REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 525,000

FUNDING
Water Maintenance Fund

PROJECTED SCHEDULE

Replacement in 2021

CITY LEAD
Public Utilities

Purpose

The project will replace the 6" water main along Pennsylvania Ave. from N. Sandusky St. to Euclid Ave. Waterlines are considered to be in "failed" condition when they have experienced three or more breaks. At such time, they are planned and scheduled for replacement, as is the case for this waterline. In addition, the current main size is deficient for todays required fire flows.

Financing

The project is anticipated to cost roughly $525,000. Water line rehabilitation is an anticipated part of an infrastructure's life-cycle, and is an included factor when calculating user rate schedules.

Status

The project is currently planned to take place in calendar year 2021, to be self-performed by the Public Utilities Water Distribution department.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC UTILITIES

LINCOLN AVENUE WATERLINE REPLACEMENT PH II

INFORMATION AT A GLANCE

COST
$ 300,000

FUNDING

Water Maintenance Fund

PROJECTED SCHEDULE

Summer of 2020

CITY LEAD
Public Utilities

Purpose

The project will replace the 6" of water main along Lincoln Ave. from N. Sandusky St. to N. Liberty St. Waterlines are considered to be in "failed" condition when they have experienced three or more breaks. At such time they are planned and scheduled for replacement, as is the case for this waterline. In addition, the current main size is deficient for todays required fire flows.

Financing

The project is anticipated to cost roughly $300,000. Water line rehabilitation is an anticipated part of an infrastructure's life-cycle, and is an included factor when calculating user rate schedules.

Status

The project is currently planned to take place in calendar year 2020, to be self-performed by the Public Utilities' Water Distribution department.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC UTILITIES

SOUTH FRANKLIN WATERLINE REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 190,000

FUNDING
Water Maintenance Fund

PROJECTED SCHEDULE

Replacement in 2023

CITY LEAD
Public Utilities

Purpose

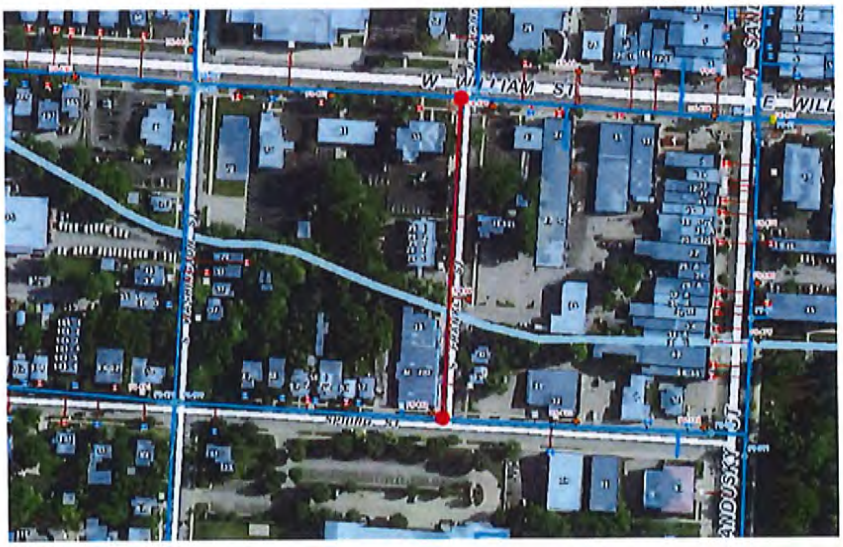
This project will replace the 6" water main along S. Franklin St. from W. William St. to Spring St. Waterlines are considered to be in "failed" condition when they have experienced three or more breaks. At such time they are planned and scheduled for replacement, as is the case for this waterline. In addition, the current main size is deficient for today's required fire flows.

Financing

The project is anticipated to cost roughly $190,000. Water line rehabilitation is an anticipated part of an infrastructure's life-cycle, and is an included factor when calculating user rate schedules.

Status

The project is currently planned to take place in calendar year 2023, to be self-performed by the Public Utilities Water Distribution department.



CAPITAL IMPROVEMENT PROGRAM
SEWER FUND CAPACITY PROJECTS
2020 - 2024

	2020	2021	2022	2023	2024
	4,857,458	**5,691,198**	**6,259,856**	**6,463,363**	**6,903,437**
REVENUES:					
Sewer Capacity Fees	2,000,000	1,500,000	1,150,000	1,150,000	1,150,000
SE Highland Sewer ERU Fees	400,000	350,000	300,000	200,000	200,000
Riverby Reimbursement					
Sewer Fees Transfer - 2007,2008,2009	1,696,913	1,730,851	1,765,468	1,800,778	1,836,793
TOTAL REVENUES	**4,096,913**	**3,580,851**	**3,215,468**	**3,150,778**	**3,186,793**
EXPENDITURES:					
DEBT SERVICE					
Land Armstrong Rd. ($2,915,000 10 yrs. 1.49%, 2022)	302,400	301,700	300,900		
23 North Sewer ($1,000,000, 25 yrs, 4.51%), 2031	59,395	59,115	59,684	59,325	58,518
SE Highland Sewer ($15,000,000, 25 yrs, 4.49%, 2037)	*860,000*	*860,000*	*860,000*	*860,000*	*860,000*
SE Highland Sewer ($2,750,000, 20 yrs, 3.59%, 2026)	189,305	189,305	189,305	189,305	189,305
Plant Expansion ($20,882,000, 20 yrs, 3.59%, 2026)	1,437,073	1,437,073	1,437,073	1,437,073	1,437,073
TOTAL DEBT SERVICE	**2,848,173**	**2,847,193**	**2,846,962**	**2,545,703**	**2,544,896**
SEWER SYSTEM IMPROVEMENTS					
COLLECTION CAPACITY PROJECTS					
Sewer Oversizing/Extension	100,000	100,000	100,000	100,000	100,000
Spring Street Sewer Upsizing	250,000				
Reimbursement for Cherry St. Maint. Facility	65,000	65,000	65,000	65,000	65,000
TOTAL SEWER CAPACITY PROJECTS	**415,000**	**165,000**	**165,000**	**165,000**	**165,000**
ENDING FUND BALANCE	**5,691,198**	**6,259,856**	**6,463,363**	**6,903,437**	**7,380,334**

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

NEW LINE OVERSIZING AND EXTENSION

INFORMATION AT A GLANCE

COST
2019 - $ 100,000

PROJECTED SCHEDULE

Repeated Yearly

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

The City of Delaware continues to experience rapid growth, with several new developments beginning each year. Each new development is expected to install all connections needed for their utilities services, including taking those services to the edge of their property for the next development to continue. This fund is used to pay the City's portion of the oversizing, when the City requires a developer to put in larger service lines than their development requires.

Financing

This work is being allocated $100,000 in 2020, and will change yearly with expected development rates.

Status

The City is always willing to work with developers regarding payments for utility oversizing, as this benefits the City's growth potential going forward.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

SPRING STREET SEWER UPSIZING

INFORMATION AT A GLANCE

COST
$ 250,000

PROJECTED SCHEDULE

Calendar year 2020

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

Removal of 500 feet of 8" sewer main and replacement with 12" sewer main. Work is located along Spring St. from South Franklin St. to Sandusky St. This area of sewer is a system capacity restriction, and currently affects large portions of the upstream sewer system.

Financing

This project is anticipated to cost $250,000.

Status

Scope of work has been identified via the sewer master plan, and is scheduled to occur in 2020.

CAPITAL IMPROVEMENT PROGRAM
SEWER FUND MAINTENANCE PROJECTS
2020 - 2024

	2020	2021	2022	2023	2024
	2,247,421	**2,290,712**	**2,383,537**	**3,141,487**	**3,705,164**
REVENUES:					
Transfer from Sewer Fund	1,476,705	1,506,239	1,536,364	1,567,091	1,598,433
TOTAL REVENUES	**1,476,705**	**1,506,239**	**1,536,364**	**1,567,091**	**1,598,433**
EXPENDITURES:					
DEBT SERVICE					
Plant Rehabilitation ($2,230,000 20 yrs. 3.59%, 2026)	153,414	153,414	153,414	153,414	153,414
TOTAL DEBT SERVICE	**153,414**	**153,414**	**153,414**	**153,414**	**153,414**
WASTEWATER TREATMENT PROJECTS					
Aeration Tank Diffuser Replacement	100,000	100,000			
Belt Filter Press		500,000			
Plant Maintenance	125,000	125,000	125,000	125,000	125,000
Influent Pump Replacement	150,000		150,000		
Settling Tank Upgrades	250,000				
Site Concrete Repairs	50,000		50,000		
Influent VFD Upgrade	50,000	50,000			
PLC Upgrades				100,000	
WASTEWATER COLLECTION PROJECTS					
Large Meter Replacement		25,000		25,000	
Inflow/Infiltration Remediation	175,000	175,000	175,000	175,000	175,000
Sanitary Sewer Replacement	75,000	100,000	100,000	100,000	100,000
Wesleyan Woods Sewer Rehab		150,000			
Pump Station Repair/Upgrade	25,000		25,000		
West William St CIPP Lining	150,000				
Shelbourne forest CIPP Lining				280,000	
Stratford Pedestrian Bridge/Sewer Repair		35,000			
Equipment Replacement	130,000			45,000	
TOTAL WATEWATER PROJECTS	**1,280,000**	**1,260,000**	**625,000**	**850,000**	**400,000**
ENDING FUND BALANCE	**2,290,712**	**2,383,537**	**3,141,487**	**3,705,164**	**4,750,182**

EST 1808
CITY OF
DELAWARE
OHIO

SEPTEMBER 2018

PUBLIC UTILITIES

WASTEWATER PLANT AERATION TANK DIFFUSERS

INFORMATION AT A GLANCE

COST
2020 - $100,000
2021 - $100,000

PROJECTED SCHEDULE

Calendar Years
2020
2021

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

The project will replace out of date diffusers in our aeration system. These diffusers have exceeded their life expectancy, and should be replaced to increase the efficiency of the new High Speed Turbo Blowers that were installed in 2017. This may, in turn, lower our utility bills.

Financing

Project cost is anticipated at $100,000 for each year of replacements.

Status

As diffusers age, they become less efficient, allowing less air to be released into and absorbed within the treatment system. This requires the plant blowers to run at a higher speed to achieve needed dissolved oxygen levels. Current diffusers are reaching this point, and should be replaced as such.

EST 1808
CITY OF
DELAWARE
OHIO

SEPTEMBER 2018

PUBLIC UTILITIES

WASTEWATER PLANT BELT FILTER PRESS

INFORMATION AT A GLANCE

COST
$500,000

PROJECTED SCHEDULE

Calendar Year 2021

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

The project will replace the belt filter press which has exceeded its life expectancy. Replacement parts are becoming obsolete, and becoming very difficult to find. The Plant's belt filter press has been refurbished at least once in the past to prolong its lifespan, but that is no longer an option as current generation parts are no longer compatible with the existing unit.

Financing

Replacement cost is estimated to be $500,000.

Status

The belt filter press is currently being maintained by finding reconditioned/used parts as needed. Replacing the existing belt filter press will allow for manufacturer support of equipment when repairs are needed.

EST 1808
CITY OF
DELAWARE
OHIO

SEPTEMBER 2018

PUBLIC UTILITIES

WASTEWATER PLANT MAINTENANCE

INFORMATION AT A GLANCE

COST
$125,000

PROJECTED SCHEDULE

Unforeseen Needs — Yearly

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

While the department does its best to pre-identify all plant maintenance needs, unforeseen equipment or plant structural failures do occur. In order to react to these unforeseen circumstances, this item provides unallocated funds for emergencies.

Financing

The fund is to cover up to $125,000 of unexpected maintenance.

Status

This funding helps the department by having the funding available for equipment repair or replacement as well as any structural repair in order to maintain the equipment and facilities to be able to constantly provide a safe effluent for discharge into the Olentangy River.

EST 1808
CITY OF
DELAWARE
OHIO

2018

PUBLIC UTILITIES

WASTEWATER PLANT INFLUENT PUMP REPLACEMENT

INFORMATION AT A GLANCE

COST
$150,000

PROJECTED SCHEDULE

Calendar years

2020

2022

2024

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

This project will replace an influent pump at each of the budgeted times. The pumps were installed during the 2007 plant expansion, and have begun to require semi-regular major repairs. Each pump has been repaired at least once during its life span, some multiple times. A typical repair ranges from $25,000 to $35,000, and are becoming more expensive and difficult to get rebuilt as they continue to age.

Financing

Pump replacement cost is expected to be $150,000 for each of the listed years.

Status

Influent pumps are currently being disconnected and transported to the Cincinnati area for repair as needed. As these repairs have begun happening in more frequent intervals, a phased replacement of pumps has become the best solution to ensure stable plant operation.

EST 1808
CITY OF
DELAWARE
OHIO

SEPTEMBER 2018

PUBLIC UTILITIES

WASTEWATER SETTLING TANK UPGRADES

INFORMATION AT A GLANCE

COST
$250,000

PROJECTED SCHEDULE

Calendar Year 2020

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

The project is aimed to repair or replace the rotating mechanism within the settling tanks. Some of these tanks are going on 50 years old, and the structure is starting to crumble and is becoming unsafe for employees. The treatment technology of these tanks is out of date and inefficient, and this work will allow for better wastewater treatment.

Financing

Costs are estimated to be $250,000.

Status

The project is currently in the initial planning stages. The City will soon begin bringing equipment manufacturers onsite to assess what equipment options are available to fit the existing clarifier tanks.

EST 1808
CITY OF
DELAWARE
OHIO

SEPTEMBER 2018

PUBLIC UTILITIES

WASTEWATER PLANT SITE CONCRETE REPAIRS

INFORMATION AT A GLANCE

COST
$50,000

PROJECTED SCHEDULE

Calendar Years
2020
2022

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

This project will repair concrete tanks and structure around the facility. With portions of the plant going on 50 years old, areas of concrete are starting to crumble, and are becoming unsafe for the employees to walk on or around.

Financing

Cost: $50,000.

Status

Plant staff currently repair and maintain concrete surfaces in many ways, including grouting, patching and painting. These repairs are meant to address areas in which these methods are no longer enough to maintain what is present.

EST 1808
CITY OF
DELAWARE
OHIO

SEPTEMBER 2018

PUBLIC UTILITIES

WASTEWATER INFLUENT VFD REPLACEMENT

INFORMATION AT A GLANCE

COST
$50,000

PROJECTED SCHEDULE

Phased Replacements in

2019

2020

2021

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

The project will replace the variable frequency drives (VFD) for the influent pumps at the wastewater plant. The VFD's were installed during the 2007 plant expansion and are nearing the end of their life expectancy, according to the manufacturer. The current VFD's are obsolete, and have become increasingly difficult to repair and maintain.

Financing

Replacement costs are expected to be $50,000 for each of the project years listed.

Status

Through conversations with the existing VFD's manufacturer, the City has been notified that this equipment is no longer supported, and new replacement parts are no longer in production. Currently as repairs are needed, the plant maintenance staff has been able to scavenge parts from other pieces of equipment on-site. This method will soon no longer be an option, and new VFD's are required.

EST 1808
CITY OF
DELAWARE
OHIO

SEPTEMBER 2018

PUBLIC UTILITIES

WASTEWATER 2023 PLC UPGRADES

INFORMATION AT A GLANCE

COST
$100,000

PROJECTED SCHEDULE

Calendar Year 2023

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

This stage of programmable logic controller (PLC) upgrades is intended to continue the work started in 2019, bringing plant processes up to current standards, and allowing for easier upkeep and maintenance when needed.

Financing

The cost of the work is expected to be $100,000.

Status

The project is currently in the process of getting updated quotes for upgrading the PLC's.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTLITIES

LARGE METER REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 25,000 yearly alternated between water and sewer funds

PROJECTED SCHEDULE

Repeated yearly

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

With normal use, a water meter loses accuracy during the span of its life expectancy. The loss of flow reading ability is most pronounced in large-diameter meters. This rotating fund is aimed at replacing the large-diameter meters used by the high-flow business users of the City. This ensures proper water use tracking within the system.

Financing

This work is rotated between the water maintenance and sewer maintenance funds yearly, as it has impacts on the billing of both systems. The funds alternately allocate $25,000 to this work, yearly.

Status

As large-diameter meters reach the end of their expected life, or recorded flows begin trending lower, replacement is scheduled.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTLITIES

SEWER INFLOW/INFILTRATION REMEDIATION

INFORMATION AT A GLANCE

COST
$ 175,000

PROJECTED SCHEDULE

Repeated yearly

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

As sewer lines age, they begin to allow ground water infiltration into the sewers. During rain events these areas of I&I allow large amounts of water into the system, which disrupts wastewater treatment plant operations. Once introduced, the City must also absorb the cost of treating this otherwise clean water.

Financing

The remediation work is being allotted up to $175,000 per operating year to address problem areas as encountered.

Status

As areas in need of repair are found via camera inspection, they will be scheduled for repair.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

SANITARY SEWER REPLACEMENT

INFORMATION AT A GLANCE

COST
2019-2020 $75,000
2021-2023 $100,000

PROJECTED SCHEDULE

Repeating yearly

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

As sewer lines age, deteriorate, and begin to fail, they must be replaced. A failed sewer line can allow wastewater to discharge into the surrounding soil, potentially poisoning natural soils and waterways. This is also a required maintenance item, as knowingly allowing the exfiltration of sewers into the environment would be a violation of the City's EPA permits.

Financing

This is a revolving yearly fund, currently funded at $75,000/year, and is proposed to increase to $100,000 in years 2021-2023.

Status

As sewer lines are found to be in a failed condition via camera inspections, they will be scheduled for replacement by City staff.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

WESLEYAN WOODS SEWER REHABILITATION

INFORMATION AT A GLANCE

COST
$ 150,000

PROJECTED SCHEDULE

Calendar year 2021

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

Through sewer system camera inspections, areas of the Wesleyan Woods subdivision have been found to be a high source of system inflow & infiltration (I&I). The size and scope of repairs needed within the subdivision exclude it from fitting within the revolving I&I remediation line item.

Financing

This project is anticipated to cost $150,000.

Status

Portions of the Wesleyan Woods sewer system have been found to be high contributors of inflow & infiltration. The remediation efforts entail grout injection into cracks, from within, to seal off these sources of infiltration.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTLITIES

PUMP STATION REPAIRS

INFORMATION AT A GLANCE

COST
$ 25,000 bi-yearly

PROJECTED SCHEDULE

Repeated bi-yearly

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

This allocation is for the routine maintenance required with keeping the City's 12 pump stations in good operating order. As items require replacement or repair, this fund will allow for the work to happen.

Financing

This maintenance is allocated $25,000 bi-yearly.

Status

As components within City owned pump stations are identified for replacement, they will be scheduled in accordance with the bi-yearly funding.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTLITIES

WEST WILLIAM ST. SEWER CIPP LINING

INFORMATION AT A GLANCE

COST
$ 150,000

PROJECTED SCHEDULE

Calendar year 2020

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

Cast in-place pipe (CIPP) is a form of sewer repair that can be used in lieu of digging up and replacing. West William St. sewer has been found to be in failed condition, in need of replacement, and CIPP lining will work in this location to correct failures. Approximately 2,344 linear foot of 8" to 12" diameter pipe will be lined. This will also reduce the areas inflow & infiltration rates during rain events.

Financing

This project is anticipated to cost $150,000.

Status

West William St. sewers have been found to be in failed condition via camera inspections. The City must schedule these lines for rehabilitation so that sewer flows do not make their way into surrounding soils.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

SHELBOURNE FOREST SEWER CIPP LINING

INFORMATION AT A GLANCE

COST
$ 280,000

PROJECTED SCHEDULE

Calendar year 2023

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

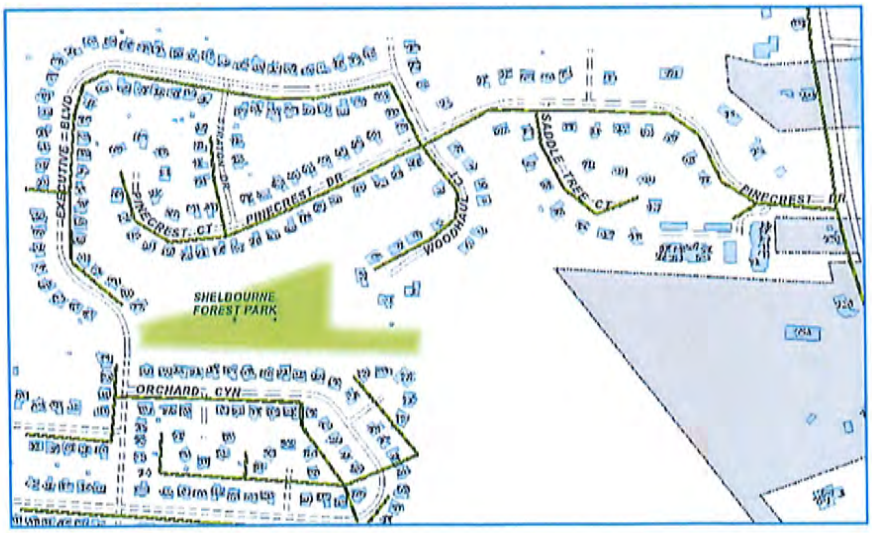
Cast in-place pipe (CIPP) is a form of sewer repair that can be used in lieu of digging up and replacing. The Shelbourne Forest subdivision sewers have been found to be in failed condition, in need of replacement, and CIPP lining will work in this location to correct failures. This will also reduce the areas inflow & infiltration (I&I) rates during rain events.

Financing

This project is anticipated to cost $280,000.

Status

Shelbourne Forest sewers have been found to be in failed condition via camera inspections. The City must schedule these lines for rehabilitation so that sewer flows do not make their way into surrounding soils, as well as to reduce I&I.



CAPITAL IMPROVEMENT PLAN
STORM WATER FUND
2020 - 2024

	2020	2021	2022	2023	2024
BALANCES FORWARD	**1,592,704**	**1,176,691**	**852,257**	**619,535**	**623,658**
REVENUES:					
Storm Water Fees	328,987	335,566	342,278	349,123	356,106
TOTAL REVENUE	**328,987**	**335,566**	**342,278**	**349,123**	**356,106**
EXPENDITURES:					
Storm Water Repair	125,000	125,000	125,000	125,000	125,000
Storm Water I&I Remediation	100,000		100,000		100,000
Bernard Avenue (Sandusky to Liberty St.)		400,000			
Montrose/Columbus/Toledo	200,000				
Vernon Ave.		135,000			
Chamberlain/Channing St.			350,000		
Pittsburgh Drive				200,000	
US23 Storm Repair (ODOT)	250,000				
Cemetery Storm Pipe					500,000
Equipment Replacement	70,000			20,000	
TOTAL EXPENDITURES	**745,000**	**660,000**	**575,000**	**345,000**	**725,000**
ENDING FUND BALANCE	**1,176,691**	**852,257**	**619,535**	**623,658**	**254,764**

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

STORM WATER LINE REPAIR

INFORMATION AT A GLANCE

COST
$125,000

PROJECTED SCHEDULE

Repeating yearly

CITY LEAD
Public Utilities

CONTRACTOR
TBD

Purpose

As storm water lines age, deteriorate, and begin to fail, they must be replaced. A failed storm water line can lose its ability to properly convey storm flows, potentially causing flooding to Delaware neighborhoods.

Financing

This is a revolving yearly fund of $125,000.

Status

As storm water lines are found to be in a failed condition via camera inspections, they will be scheduled for replacement by City staff.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

STORM WATER INFLOW/INFILTRATION REMEDIATION

INFORMATION AT A GLANCE

COST
$ 100,000

PROJECTED SCHEDULE

Repeated yearly

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

As storm water lines age, they begin to allow ground water infiltration into the storm flows. During rain events, these areas of infiltration can cause storm water lines to become full sooner, leading to possible storm drain backups and localized flooding.

Financing

The remediation work is being allotted up to $100,000 bi-yearly.

Status

As areas in need of repair are found via camera inspection, they will be scheduled for repair.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

BERNARD AVENUE STORM SEWER REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 400,000

PROJECTED SCHEDULE

Calendar Year 2019

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

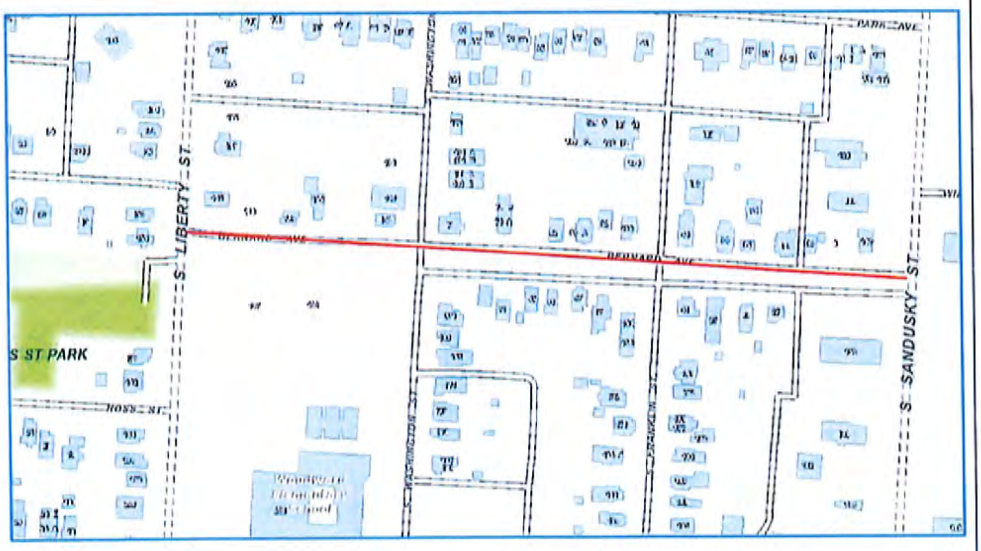
Bernard Avenue's storm sewer has been found to be in failed condition, unable to properly convey storm flows from the area, causing localized flooding. The existing storm sewer will be removed and replaced with good condition storm sewer lines.

Financing

The estimated cost for this project is $400,000.

Status

Work is currently scheduled to be performed by City of Delaware utilities staff in calendar year 2019.



EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

MONTROSE AVE/COLUMBUS AVE/TOLEDO ST STORM

INFORMATION AT A GLANCE

COST
$ 200,000

PROJECTED SCHEDULE

Calendar Year 2020

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

The ability of the area storm sewers to properly convey storm water flows has greatly diminished in recent years. Many properties in the area are regularly on the verge of flooding conditions during rain events. This project is intended to quicken storm flow removal in the area, better serving local residents.

Financing

The estimated cost for this project is $200,000.

Status

Work is currently scheduled to be performed by City of Delaware Public Utilities Department staff in calendar year 2020.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

VERNON AVENUE DITCH CLEANING

INFORMATION AT A GLANCE

COST
$ 135,000

PROJECTED SCHEDULE

Calendar Year 2021

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

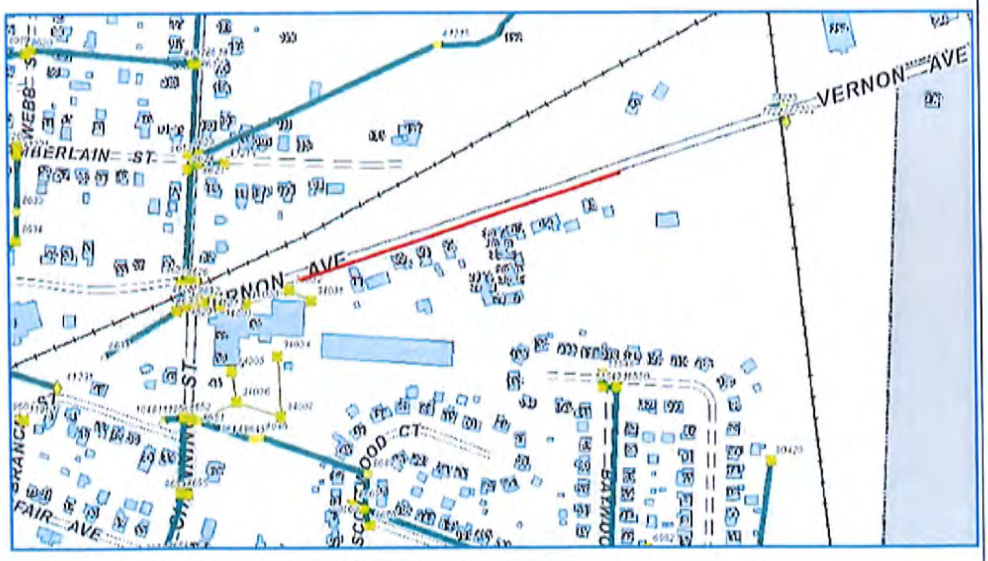
The Vernon Ave. ditch ways are no longer able to convey the required storm flows from the area. This is due to buildup of sediment from years of storm water conveyance. Ditches are as integral a part of storm water removal as storm sewers are, and must also be maintained to ensure needed levels of flow.

Financing

The estimated cost for this project is $135,000.

Status

Work is currently scheduled to be performed by City of Delaware utilities staff in calendar year 2021.



EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

CHAMBERLAIN & CHANNING STREET STORM

INFORMATION AT A GLANCE

COST
$ 350,000

PROJECTED SCHEDULE

Calendar Year 2022

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

The area of Chamberlain St. and Channing St. is experiencing storm sewer failure shown by area flooding during rain events. This project is intended to open up flow in the area to reduce the likelihood of flooding events.

Financing

The estimated cost for this project is $350,000.

Status

Work is currently scheduled to be performed by City of Delaware utilities staff in calendar year 2022.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

PITTSBURGH DRIVE STORM SEWER

INFORMATION AT A GLANCE

COST
$ 200,000

PROJECTED SCHEDULE

Calendar Year 2023

CITY LEAD
Public Utilities

DESIGN CONSULTANT
TBD

CONTRACTORS
TBD

Purpose

The Pittsburgh Dr. ditch ways are no longer able to convey the required storm flows from the area. This is due to buildup of sediment from years of storm water conveyance. Ditches are as integral a part of storm water removal as storm sewers are, and must also be maintained to ensure needed levels of flow.

Financing

The estimated cost for this project is $200,000.

Status

Work is currently scheduled to be performed by City of Public Utilities Department staff in calendar year 2023.

CAPITAL IMPROVEMENT PLAN
UTILITY EQUIPMENT REPLACEMENT FUND
2020 - 2024

	2020	2021	2022	2023	2024
REVENUES:					
Water Fund Allocation		65,000	150,000	30,000	
Sewer Fund Allocation	130,000			45,000	
Storm Water Fund Allocation	70,000			20,000	
TOTAL REVENUE	**200,000**	**65,000**	**150,000**	**95,000**	**0**
EXPENDITURES:					
One Ton Dump Truck		65,000		65,000	
Two Ton Dump Truck	130,000				
One-ton Sevice Truck	70,000				
Utility Truck - Water			150,000		
Pickup Truck - Water				30,000	
TOTAL PUBLIC UTILITIES EQUIPMENT	***200,000***	***65,000***	***150,000***	***95,000***	***0***

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

2020 EQUIPMENT REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 200,000

FUNDING
Equipment Replacement

PROJECTED SCHEDULE

2020

CITY LEAD
Public Utilities

Purpose

The Public Utilities Department uses a variety of equipment for the operations and maintenance of its public utilities. Vehicles and equipment are replaced based on hours of operation, mileage, equipment maintenance cost and whether it is a primary or secondary piece. The proposed purchases will replace items that range from 14 to 20 years old.

Financing

The project is anticipated to cost roughly $200,000.

Status

The replacements are currently planned to take place in calendar year 2020, and most likely purchased through the State of Ohio Co-Operative Purchasing Program.

2006 International Dump Truck– 47,260
$130,000 replacement cost
This piece will be retired

2000 GMC Utility truck – 3,000 hours/20,000
$70,000 replacement cost
This piece will be retired

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC UTILITIES

2021 EQUIPMENT REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 65,000

FUNDING
Equipment Replacement

PROJECTED SCHEDULE

2021

CITY LEAD
Public Utilities

Purpose

The Public Utilities Department uses a variety of equipment for the operations and maintenance of its public utilities. Vehicles and equipment are replaced based on hours of operation, mileage, equipment maintenance cost and whether it is a primary or secondary piece.

Financing

The project is anticipated to cost roughly $65,000.

Status

The replacement is currently planned to take place in calendar year 2021, and most likely purchased through the State of Ohio Co-Operative Purchasing Program.

2006 Ford Dump Truck– 70,000
$65,000 replacement cost
This piece will be retired

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC UTILITIES

2022 EQUIPMENT REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 150,000

FUNDING
Equipment Replacement

PROJECTED SCHEDULE

2022

CITY LEAD
Public Utilities

Purpose

The Public Utilities Department uses a variety of equipment for the operations and maintenance of its public utilities. Vehicles and equipment are replaced based on hours of operation, mileage, equipment maintenance cost and whether it is a primary or secondary piece.

Financing

The project is anticipated to cost roughly $150,000.

Status

The replacement is currently planned to take place in calendar year 2022, and most likely purchased through the State of Ohio Co-Operative Purchasing Program.

2006 Ford Utility Truck– 5000hrs
$150,000 replacement cost
This piece will be retired

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 2019

PUBLIC UTILITIES

2023 EQUIPMENT REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 95,000

FUNDING
Equipment Replacement

PROJECTED SCHEDULE

2023

CITY LEAD
Public Utilities

Purpose

The Public Utilities Department uses a variety of equipment for the operations and maintenance of its public utilities. Vehicles and equipment are replaced based on hours of operation, mileage, equipment maintenance cost and whether it is a primary or secondary piece. The proposed purchases will replace items that range from 15 to 19 years old.

Financing

The project is anticipated to cost roughly $95,000.

Status

The replacements are currently planned to take place in calendar year 2023, and most likely purchased through the State of Ohio Co-Operative Purchasing Program.

2004 Ford Pick-up Truck– 125,000
$30,000 replacement cost
This piece will be retired

2008 Ford Utility Dump – 63,000
$65,000 replacement cost
This piece will be retired

CAPITAL IMPROVEMENT PLAN
REFUSE FUND
2020 - 2024

	2020	2021	2022	2023	2024
	292,677	**0**	**0**	**0**	**0**
REVENUES:					
Refuse Fees	155,323	527,000	726,000	558,000	345,000
Grant Revenue	250,000				
TOTAL REVENUE	**405,323**	**527,000**	**726,000**	**558,000**	**345,000**
EXPENDITURES:					
Equipment					
Rear Load 20-Yard Packer - Commercial	179,000		184,000		
Side Load Truck	252,000	260,000	267,000	275,000	285,000
Recycling Vehicle - Recycling	267,000	267,000	275,000	283,000	
Skid Steer					60,000
TOTAL EXPENDITURES	**698,000**	**527,000**	**726,000**	**558,000**	**345,000**
ENDING FUND BALANCE	**0**	**0**	**0**	**0**	**0**

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC WORKS

REFUSE & RECYCLING EQUIPMENT REPLACEMENT

INFORMATION AT A GLANCE

COST
$ 2,859,000

FUNDING

RECYCLING $1,122,000

REFUSE $1,732,000

PROJECTED SCHEDULE

$698,000	2020
$527,000	2021
$726,000	2022
$558,000	2023
$345,000	2024

CITY LEAD
Public Works

BID PROCESS

CONTRACTORS
TBD

Images:

- Semi-automated side load collection vehicle
- Rear Load refuse collection vehicle

Purpose

The current daily operation utilizes four side-load semi-automated refuse collection vehicles, three semi-automated recycling collection vehicles and three rear-load refuse vehicles. The anticipated useful life of a frontline refuse service vehicle is seven years. After seven years the vehicles are replaced, with the old vehicle downgraded to backup service status.

Financing

A total of 11 vehicles at a replacement cost of $2,859,000 will be replaced over the next five years as follows:

2020 Side Load, Rear Load and Recycling Truck

2021 Side Load and Recycling Truck

2022 Recycling Truck, Side Load and Rear Load

2023 Recycling and Side Load Truck

2024 Side Load and Skid Steer

Status

Equipment replacement is bid out yearly in order to secure lower purchase costs while and adhere to State and Federal laws. Additional trucks may need to be added for growth.

CAPITAL IMPROVEMENT PLAN
DEVELOPER TRUST FUND
2020 - 2024

	2020	2021	2022	2023	2024
	543,721	**361,221**	**144,721**	**152,221**	**159,721**
REVENUES:					
Assessments	7,500	7,500	7,500	7,500	7,500
Grant Revenue		100,000			
Sewer Fund		35,000			
City Contribution	55,000	27,000			
TOTAL REVENUE	**62,500**	**169,500**	**7,500**	**7,500**	**7,500**
EXPENDITURES:					
Stratford Pedestrian Bridge		200,000			
Hills Miller Sidewalk	100,000				
Curtis St. Turn Lane	40,000	186,000			
Houk Rd. Pedestrian Crossing	105,000				
TOTAL EXPENDITURES	**245,000**	**386,000**	**0**	**0**	**0**
ENDING FUND BALANCE	**361,221**	**144,721**	**152,221**	**159,721**	**167,221**

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC WORKS

STRATFORD PEDESTRIAN BRIDGE IMPROVEMENTS

INFORMATION AT A GLANCE

COST
$200,000

FUNDING

ODNR	$100,000
Sewer Fund	$35,000
Developer	$65,000

PROJECTED SCHEDULE

ODNR Grant App	2020
Construction	2021

CITY LEAD
Public Works

DESIGN CONSULTANT
Pomeroy & Associates

CONTRACTOR
TBD

Purpose

The City's South Central Sanitary Trunk Sewer crosses the Olentangy River suspended beneath a bridge structure located near the intersection of Stratford Rd. and US 23. The structure provides protection to the sewer and will serve to carry pedestrian traffic over the river. This structure is comprised of two concrete box beams, with the sewer suspended between the beams, below a concrete slab poured over the top. The bridge was recently inspected and found to be in fair condition, though there is notable concrete cracking at the south bridge abutment that must be repaired. The purpose of this project is to improve the bridge to:

- Make necessary repairs to the south abutment
- Installing railing along the entire span of the bridge
- Connect both ends of the bridge to the adjacent roadway.

Not included in the scope of this project is a 1500 LF multi-use path extension that would connect the north end of the bridge to the proposed Stratford Rd. and Meeker Way path system.

Finance

Various funding sources could be tapped to cover the construction costs for this project, currently estimated to be $175,000-$200,000 (depending on contingency items performed). The proposed strategy to fund this project is to combine a possible OEPA Clean Trails Grant with sanitary sewer maintenance funds (structural repairs) and developer contributions (pedestrian pathway component). The City is owed a developer contribution from the car dealership in the amount of $117,364 if the second phase of its 2014 Development Plan is executed. These funds could help fund the bridge rehabilitation effort as well as 1500 LF offsite path extension to Meeker Way.

Status

Design plans for the structural repairs, railing improvements, and the short path to Pollock Rd. are complete. The application for ODNR grant funds was not submitted in 2019, instead another project was applied for. It is anticipated that grant funds will be applied for this project in 2020. Therefore, the earliest construction could commence on this project is 2021.

Image #1

Existing Bridge Structure crossing the Olentangy River at US23/SR315/Stratford Road

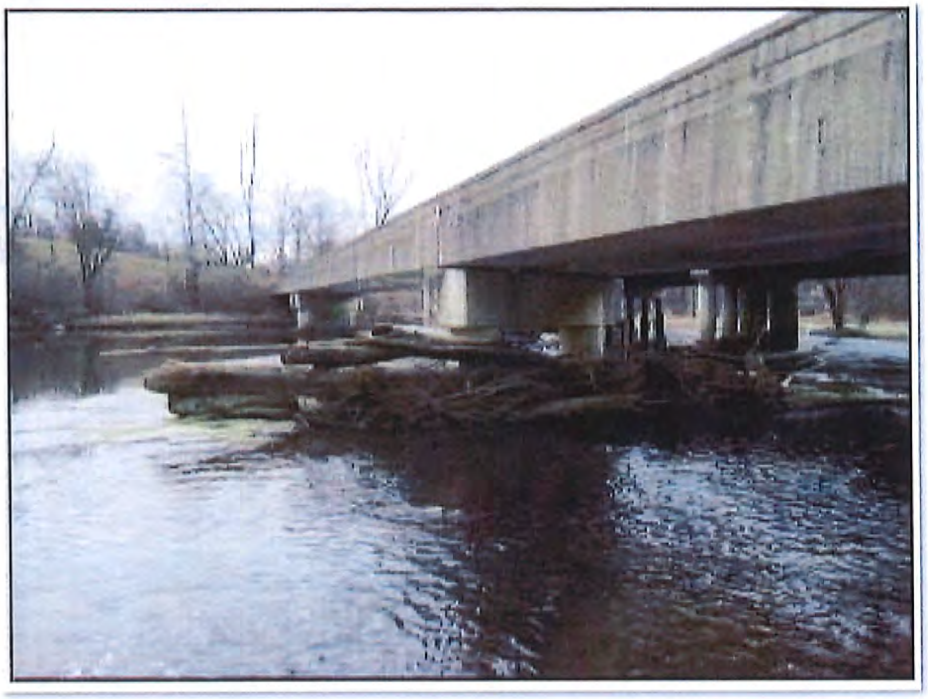
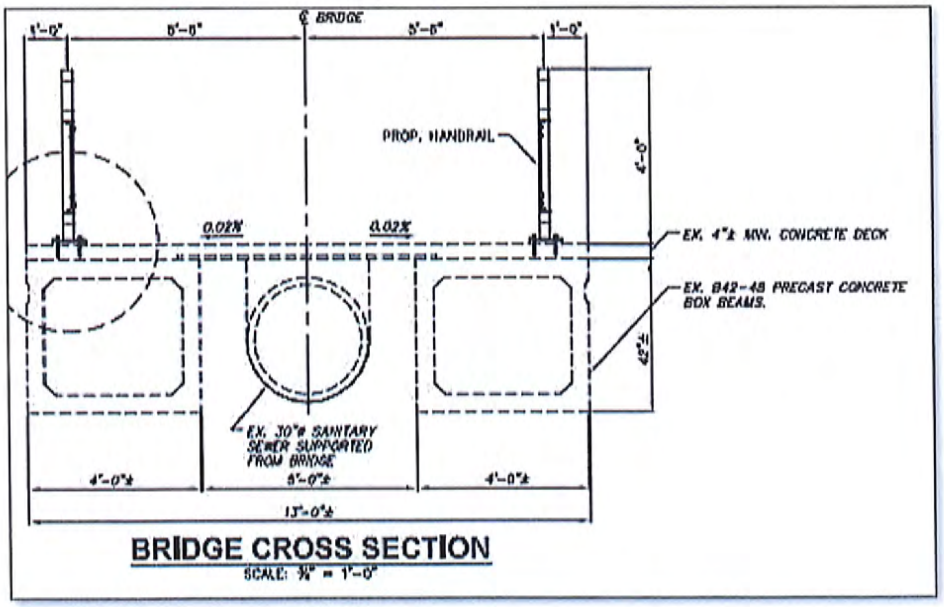


Image #2

Cross-Section of Existing Bridge Showing Proposed Addition of Rail Improvements



EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC WORKS

HILLS MILLER ROAD SIDEWALK EXTENSION

INFORMATION AT A GLANCE

COST
$ 100,000

FUNDING

Trust Fund $45,000

Streets Fund $55,000

PROJECTED SCHEDULE

Final Design	2019
Easements	2020
Construction	2020

CITY LEAD
Public Works

DESIGN CONSULTANT
TBD

CONTRACTOR
TBD

Purpose

This project will add 700 LF Extension of a 5'-0 concrete sidewalks along Hills Miller Rd. from the current terminus at the southwest corner of the Speedway property to the east side of Oakhurst Drive. Project will include construction of required ADA ramps on both sides of Hills Miller Road at Bruce Road as well as installation of an RRFB warning signal.

Financing

The project is anticipated to cost $100,000. The Trust Fund has $46,375 in developer contributions available for sidewalk improvements along the US 23/Hills Miller corridor.

Status

The project is currently in the survey and design phase and will be ready to bid and construct in early 2020 assuming property owner agreements are non-complex and non-controversial.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC WORKS

CURTIS STREET & FIRESTONE DRIVE INTERSECTION IMPROVEMENTS

INFORMATION AT A GLANCE

PROJECT COST
$226,000

FUNDING

TRUST FUND
$80,000

ASSESSMENTS
$119,000

LOCAL
$27,000

PROJECTED SCHEDULE

Design	2020
Construction	2021

CITY LEAD
Public Works

DESIGN CONSULTANT
TBD

CONTRACTOR
TBD

IMAGE #1

Project Location Map

Purpose

This project will add a left turn lane for northbound traffic on Curtis St. turning left onto Firestone Dr. to travel westbound. Currently, during periods of heavy traffic, there is a need to separate turning vehicles from vehicles continuing to travel northbound. Curtis St. and Firestone Dr. are both collector streets that provide routes for high volumes of traffic. The project will also include improvements to the existing railroad grade crossing. These improvements will fulfill a portion of the Curtis Street Realignment Project identified in the City's 2016 Priority Roadway Improvements and Expansion Projects document.

Financing

The project is anticipated to cost approximately $226,000. The City's Transportation Trust Fund/Assessments will cover $199,000 assuming the Del-Mor project proposed for the northwest corner of the intersection advances. The amount includes the anticipation final collection of $119,000 through property assessment contributions in the Curtis Farms subdivision.

Status

The project is in the conceptual design stage and will advance to full design in 2020 if funds for design are appropriated in the 2020 Budget. As additional development is proposed at the northwest corner of this intersection, it is important to construct this project in a timely manner. Also, the completion of Boulder Drive to the west will increase the utilization of Firestone Drive as an alternate path to travel to Veteran's Park and the YMCA.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

PUBLIC WORKS

HOUK ROAD PEDESTRIAN CROSSING IMPROVEMENTS

INFORMATION AT A GLANCE

COST
$ 105,000

FUNDING

Trust Fund
$105,000

PROJECTED SCHEDULE

Pre-Design	2019
Final Design	2020
Construction	2020

CITY LEAD
Public Works

DESIGN CONSULTANT
TBD

CONTRACTOR
TBD

Purpose

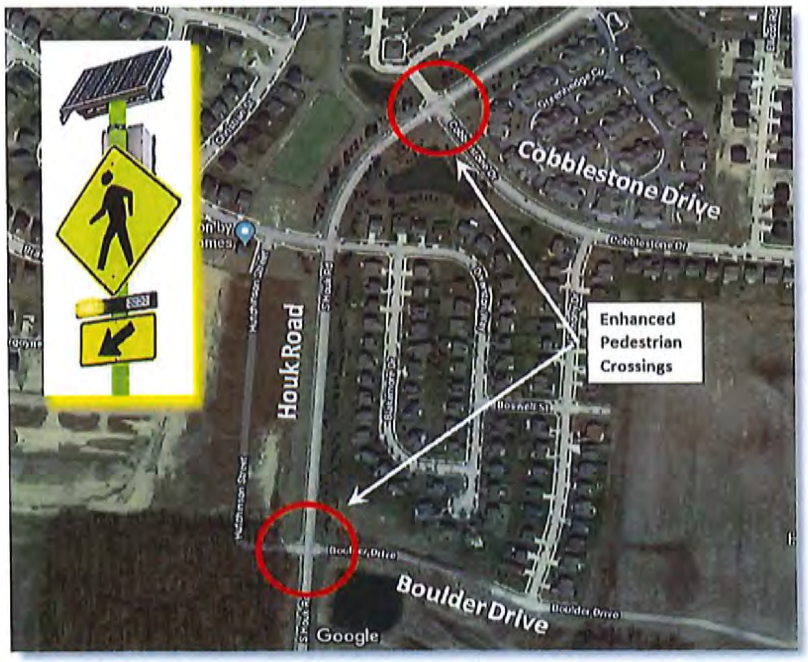
Improve pedestrian safety at the Boulder Dr. and Cobblestone Dr. intersections with S. Houk Rd. Improvements will include a combination of RRFB pedestrian activated signals, pavement markings, signage, and median island treatments.

Financing

The project budget is limited to available Trust Fund contributions from adjacent residential developments. There is currently $105,000 available through past contributions, which is sufficient for the installation of technology improvements.

Status

The project is currently in the concept phase to determine the level of survey and design effort required to advance the initiative through to construction.



Appendix

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

FIRE DEPARTMENT

FIRE STATION EAST SIDE COVERAGE

INFORMATION AT A GLANCE

COST
TBD

FUNDING
LOCAL $ TBD

PROJECTED SCHEDULE

TBD

CITY LEAD
Fire Department

DESIGN CONSULTANT
TBD

CONTRACTOR
TBD

Purpose

Fire and EMS coverage on the east side of the city, in many cases, is in excess of the desired six minute total response time. Fire Station 301's area encompasses a large portion of the high demand areas of the city. The relocation or addition would redistribute the demand for service to the other existing fire stations.

Financing

This project will be funded utilizing the Fire Fund. The Fire Department will be looking for alternative funding sources for this fire station. The cost for this project is still to be determined.

Status

For several years we have had discussion about the relocation of Fire Station 301 or the addition of a fire station to the City's east side, including the fire department headquarters. This preliminary and conceptual idea will be more fully explored further in 2020/2021. Consideration and research will include the related costs, impact of services provided and the impact to the community due to the relocation. With the projected growth on Glenn Parkway, consideration will also be given to a separate Station in this area.

EST 1808
CITY OF
DELAWARE
OHIO

IMAGE #1

Fire Station 301

Fire Station 301 was built in 1972. The Station was located on Liberty St. because of its central location in the City. This was the only Fire Station at the time.

IMAGE #2 & #3

Fire Station 303 and 304

Fire Station 303 was built in 2013 and covers the City's NW quadrant. The architecture and design has served as the new standard for the fire department. The new proposed station would need to be larger due to the amount of personnel and equipment operating from this station. This would also serve as the administrative offices.

EST 1808
CITY OF
DELAWARE
OHIO

AUGUST 15, 2019

FIRE DEPARTMENT

FIRE TRAINING TOWER

INFORMATION AT A GLANCE

COST
$ 2,500,000

FUNDING
LOCAL $ 2,500,000

2020 - $ 0

2021 - $ 1,500,000

2022 - $ 500,000

2023 – $ 250,000

2024 – $ 250,000

PROJECTED SCHEDULE

2021-2024

CITY LEAD
Fire Department

DESIGN CONSULTANT
TBD

CONTRACTOR
TBD

Purpose

To provide a training facility and resources for firefighters to maintain and learn new skills. The facility would be capable of providing live fire extinguishment training, search and rescue operations, ladder drills, ventilation and hose advancement drills.

Financing

This project will be funded utilizing the Fire Fund. The Fire Department will be looking for alternative funding sources for this equipment. The cost for this project is still to be determined.

Status

Many fire departments in Delaware County created the fire training facility located on the Delaware Area Career Center property on SR 521. The Career Center will be relocating their Center to US 23 and has sold the property to Delaware County for additional office space. Questions remain on the future of the existing fire grounds and the availability for fire departments to use the new DACC facility without conflicting with their schedule.

EST 1808
CITY OF
DELAWARE
OHIO

IMAGE #1

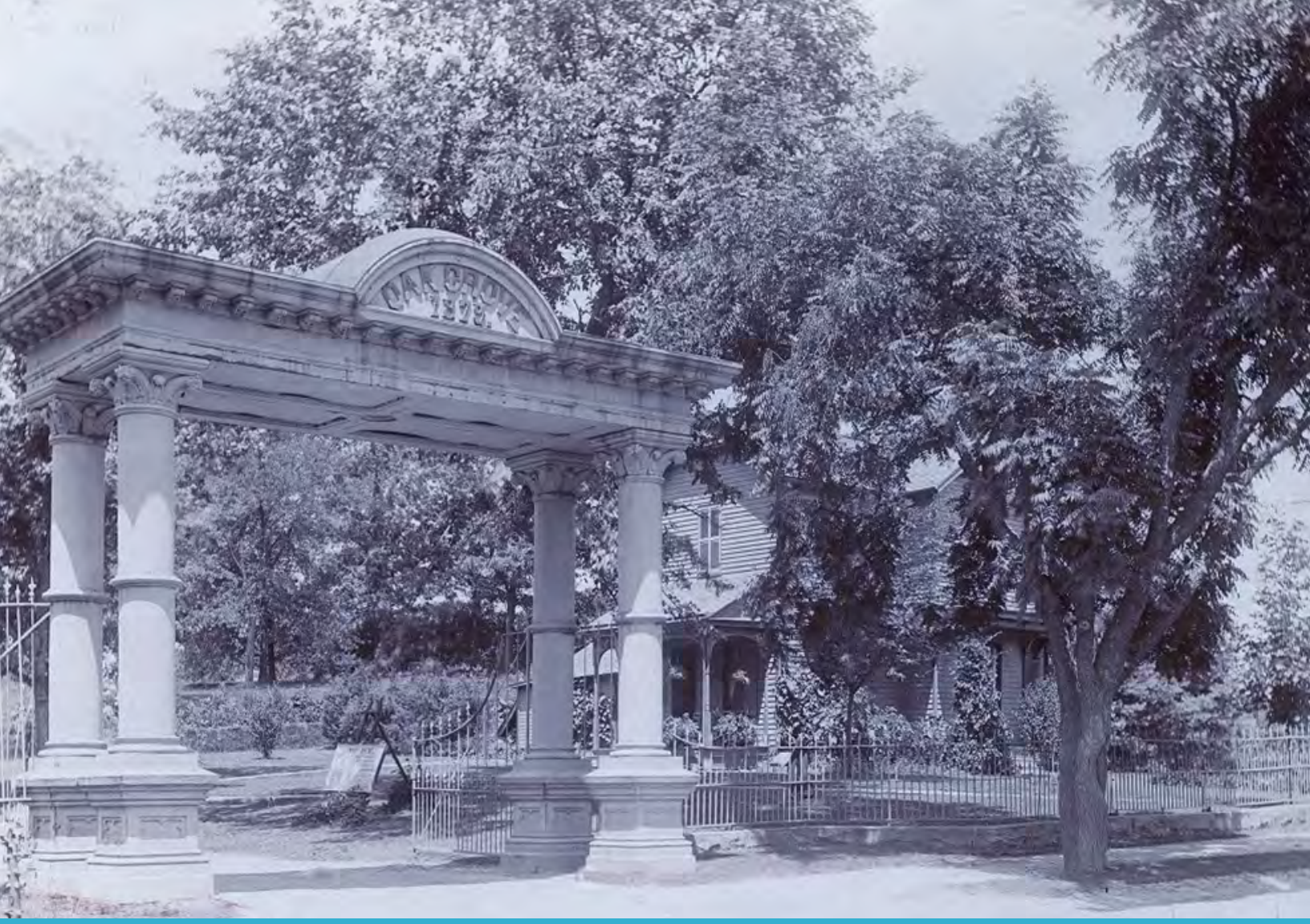
Wayne Co. Training Tower

This training tower and facility is under construction in Wayne Co., Ohio. The training tower would meet the requirements for Insurance Service Office

IMAGE #2

Fire Training Tower

This is an example of a combination commercial and residential multi store training tower with live fire capabilities.



Oak Grove Cemetery

Cemetery Master Plan 2018

EST 1808
CITY OF
DELAWARE
OHIO

MSP
DESIGN
McGill Smith Punshon

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Appendix 28

Introduction and Executive Summary

History and Location

Oak Grove Cemetery is located at 334 South Sandusky Street in the City of Delaware, Ohio. Oak Grove Cemetery was established in 1851 and is the largest cemetery in Delaware County, encompassing about 80 acres and approximately 22,000 interments, including those in the adjoining St. Mary Cemetery. The City of Delaware began operating Oak Grove Cemetery in 2012.

Its historic and natural features define the character of Oak Grove Cemetery. Older sections were designed with a curvilinear street pattern, circular/irregular sections, and more naturalized vegetation throughout each section. Newer sections were designed to optimize internment spaces and were laid out in a grid pattern, with few plantings in the interior of each section.

Historic Chapel

Executive Summary

The City of Delaware has commissioned the development of a Master Plan to guide the future growth of Oak Grove Cemetery's property and meet the needs of the citizens of Delaware County. The future needs of the city are dependent upon traditional practices of the community, industry trends and new products, and the development potential of the property.

The City of Delaware has adopted a philosophy for the development of the remaining cemetery that 1) provides for the needs of the citizens that traditionally have used the cemetery in the past and to create new interment options; 2) enhances the natural characteristics of the existing cemetery and surrounding community; and 3) creates an outdoor amenity that invites citizens to visit the cemetery as they would any other natural park or historic site.

Oak Grove Cemetery is in need of a variety of burial options. Ground burial is still the preferred interment option in most cemeteries across the nation. However, cremation has been increasing in parts of the Midwest as well as the east and west coasts where available land has become rare or expensive. The Master Plan identifies new development areas including the new section, development for ground burials and new products such as cremation niches and scattering gardens. Stakeholders have provided input based on a visual preference survey for site amenities. The support photos are located in Appendix VI.

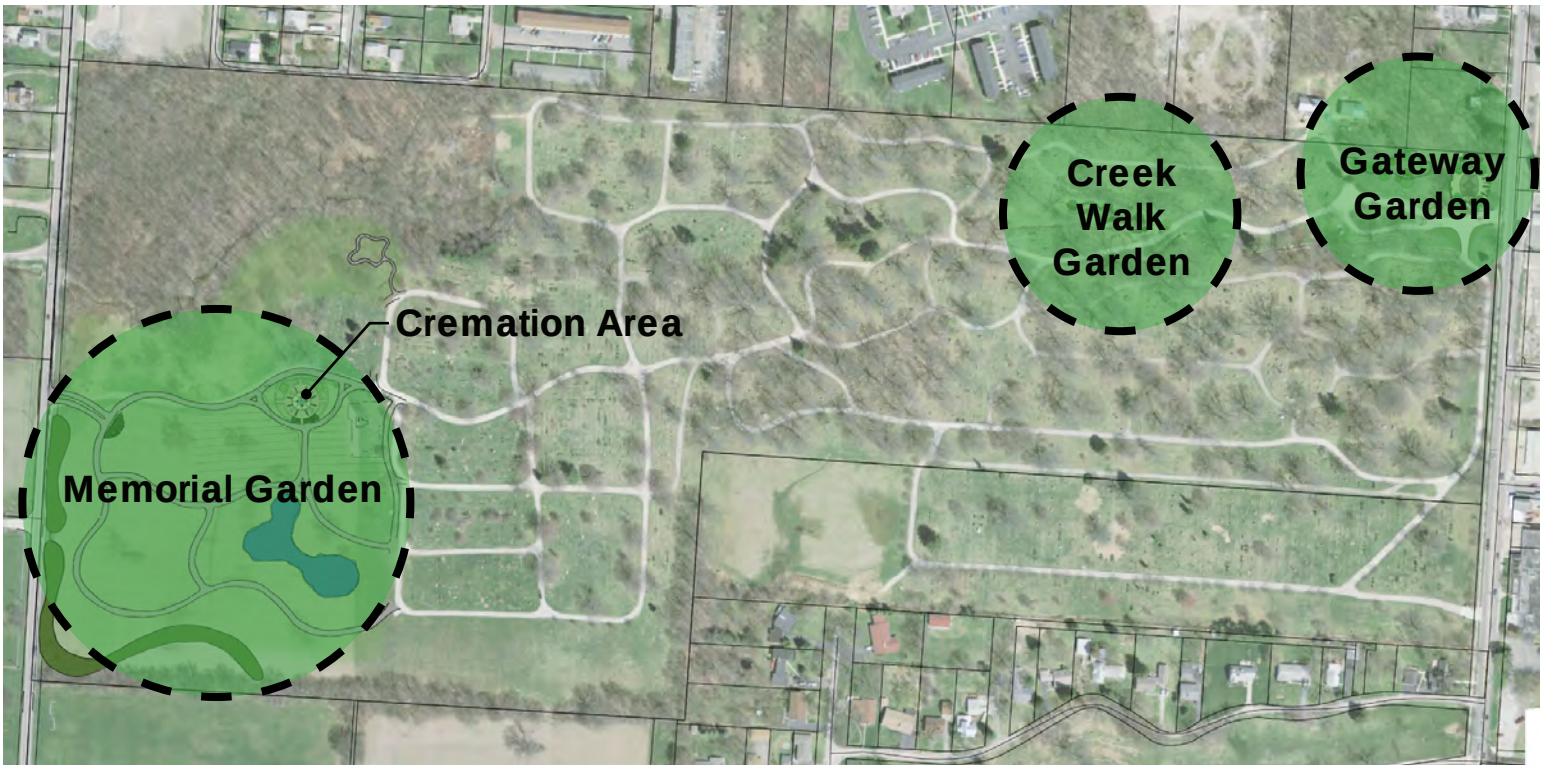
Project Scope

Mcgill Smith Punshon (MSP) was selected to provide comprehensive master planning services for the future planning and expansion of Oak Grove Cemetery. We facilitated a Master Plan utilizing an interactive process of Cemetery/City staff along with interested stakeholders. This interactive planning approach served as a blueprint for the future, guide cemetery development, ensure functionality and provide strategies for implementation.

The following recommendations have been developed in a collaborative process between The City of Delaware, the Cemetery staff, and the community through public meetings. Four areas have been focused on for the Master Plan.

- **Gateway Garden**
- **Creek Walk Garden**
- **Memorial Garden**
- **Cremation Area at Memorial Garden**

Areas of Focus



Site Analysis and Master Planning Process

Design Features

An initial site analysis was conducted through a site visit. The site was documented through a series of photos and written notes and translated to a base map. Through this process we have noted the development opportunity areas for the site.

- Main Cemetery Entrance
- Meandering Creek Walk / Family Mausoleums
- Nature Walk / Cremation Garden
- Site Expansion at Liberty Road Entrance

Noted issues for the site include:

- An existing house near the main cemetery entrance that will need to be demolished
- Limited cremation and columbarium burial sites
- No clear “spine” in cemetery to connect the new expansion area to the main entrance
- Extensive pavement and lack of green space upon entering the site
- No committal shelter on site

Goals and Objectives

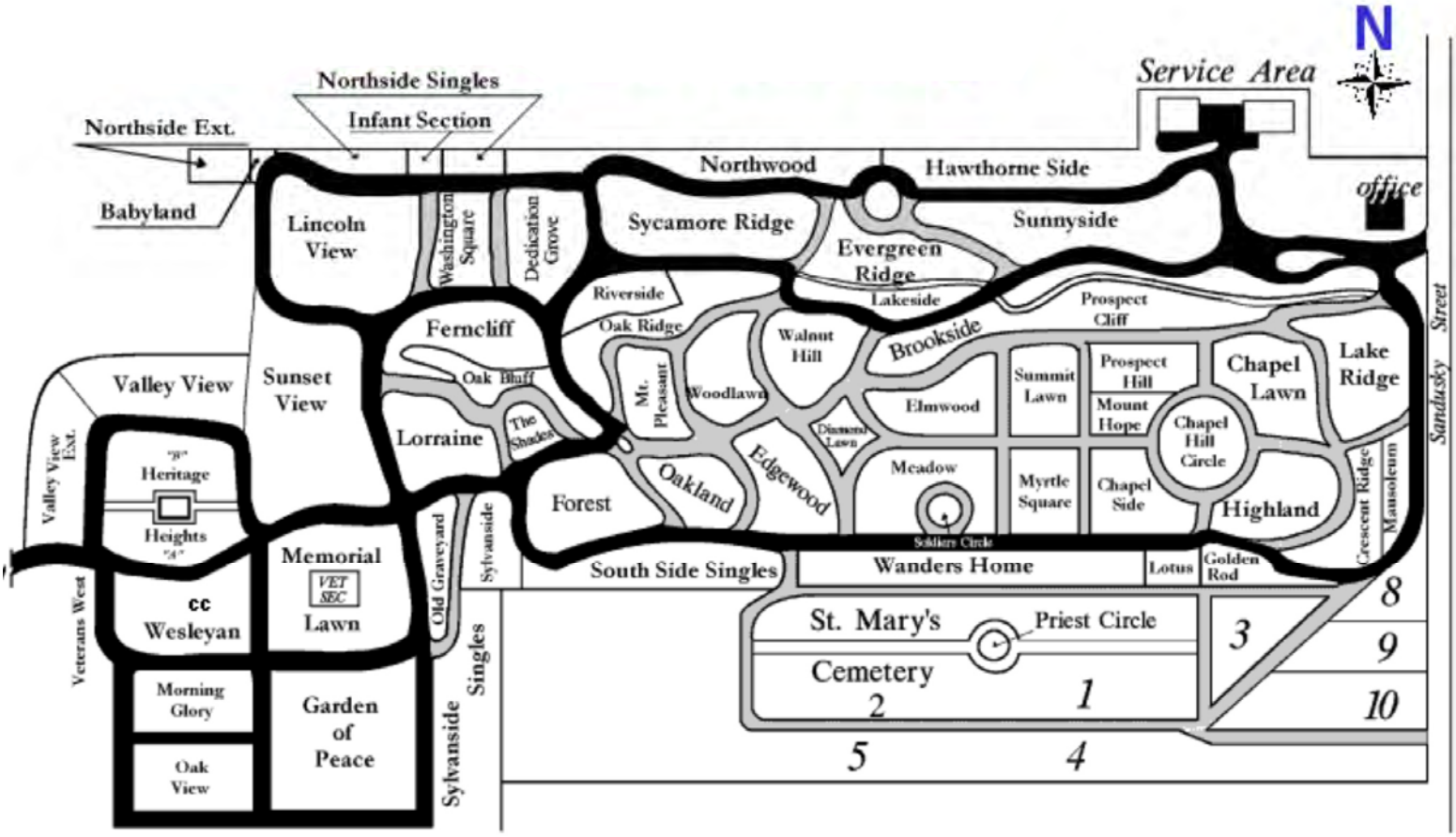
An initial discovery session with City and Cemetery Staff came up with a list of goals and objectives:

- Phasing/expansion/preservation plan
- Develop an opinion of probable construction cost
- Summary of design process including recommendations and conclusions
- Policy and Funding recommendations
- Recommendations and best practices for a successfully supervised and operated conservation program through city staff, volunteer groups, or both
- Marketing Plan – including objectives, key messages, advertising opportunities, and implementation time-line

CEMETERY LAKE

WALL COLUMBARIUMS

Cemetery Map



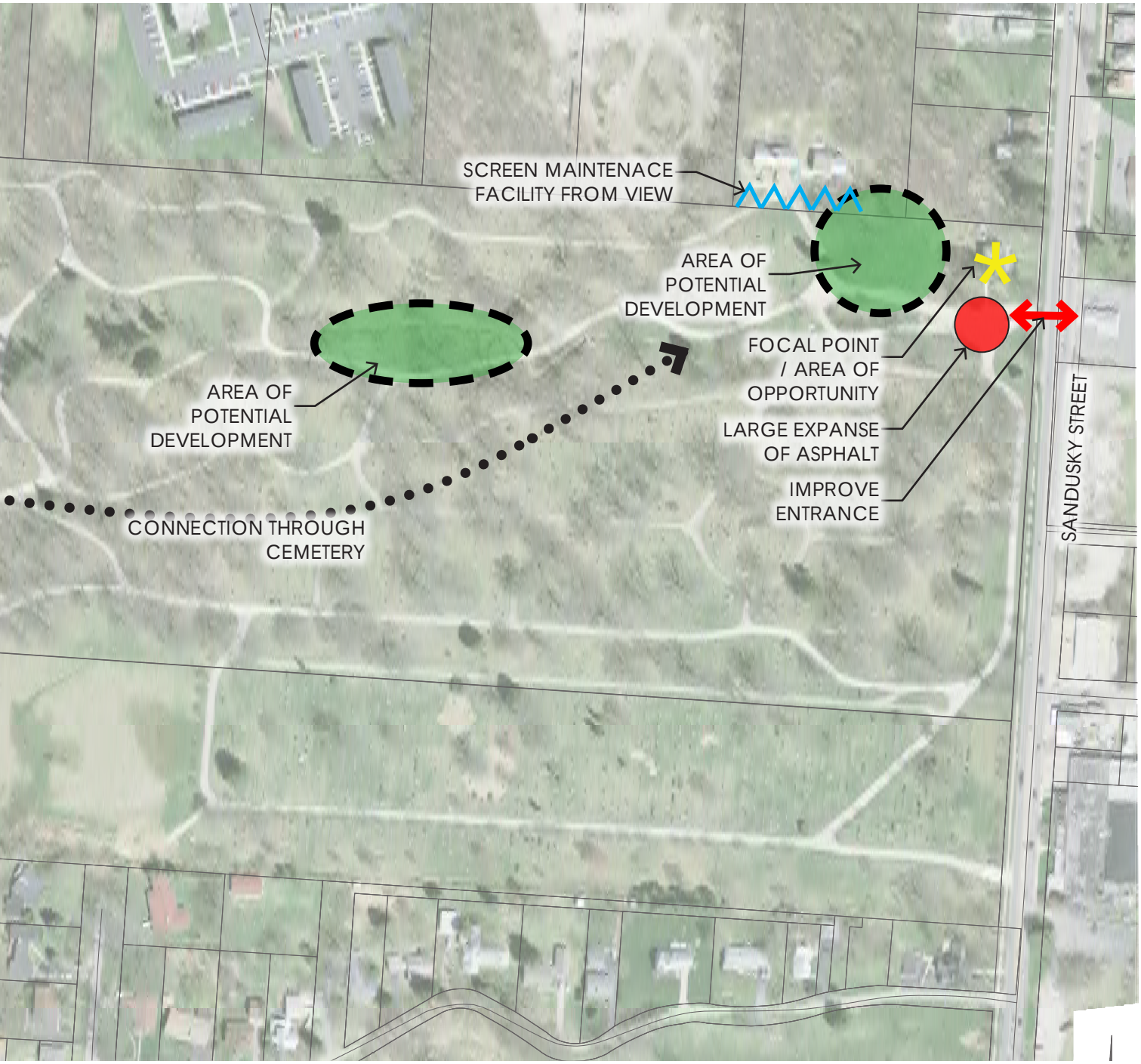
MAUSOLEUMS

COMMITTAL / COLUMBARIUM SPACE

Existing Conditions

MAINTENANCE FACILITY
EXISTING CREEK AND FAMILY MAUSOLEUMS
EXISTING HOUSE
SANDUSKY STREET
EXISTING BRIDGE
PRIMARY ENTRANCE

Site Analysis


SCREEN MAINTENACE FACILITY FROM VIEW
AREA OF POTENTIAL DEVELOPMENT
FOCAL POINT / AREA OF OPPORTUNITY
LARGE EXPANSE OF ASPHALT
IMPROVE ENTRANCE
AREA OF POTENTIAL DEVELOPMENT
CONNECTION THROUGH CEMETERY
SANDUSKY STREET

Master Plan Concept
Oak Grove Gateway Garden

Design Features

Historic Entrance Monument

The first area of opportunity is the main entrance to the cemetery at South Sandusky Street. This is the initial experience that sets the tone for the rest of the site.

The first issue to solve is the existing house at the cemetery entrance. The house should be taken down which will create a development opportunity for multiple amenities. The main amenities that will be incorporated are niche columbariums. Multiple varieties of columbariums will be used including octagon, double sided walls and single side walls. These wall columbariums will also double as retaining walls. Cremation gardens will also be incorporated within this plaza area. The main focal point of this area will be a committal shelter / columbarium shelter. This shelter will provide 288 columbarium spaces as well as a covered area for services. An entrance monument will be created upon entering the plaza area to match the historic cemetery entrance and create a positive initial experience for the cemetery. Since cemetery staff are not located on the site, an information kisok will be located at the entrance to the plaza to provide guests with a location map and cemetery information.

Another issue with the main site entrance is the large expanse of asphalt. The existing asphalt will need to be reduced and additional green space shall be provided. The reduction of asphalt will still allow adequate queuing space for services while creating a park like setting for the cemetery. Two parking spaces will be provided at the entrance to the newly designed space to accommodate the plaza.

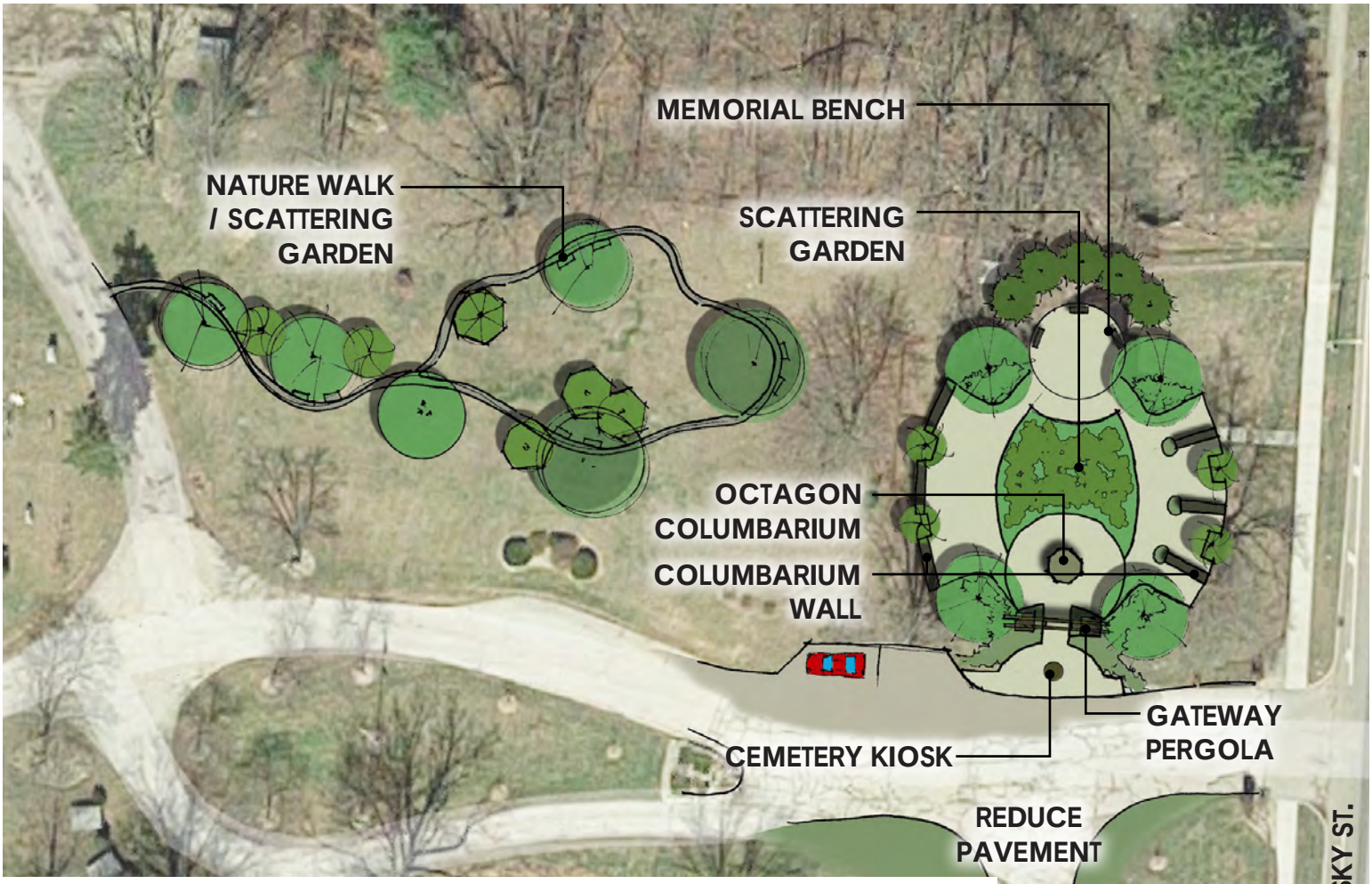
A second area of opportunity just north west of the entrance is an area for a nature walk/ scattering garden where cremation estates can be purchased along a meandering walkway. This walkway will feature memory benches and natural plantings to create a park like setting. With these additions to the entrance this will create approximately 648 cremation spaces.

Support Photos

RETAINING WALL COLUMBARIUM

OCTAGON NICHE COLUMBARIUM

Main Entrance at S. Sandusky Street Concept

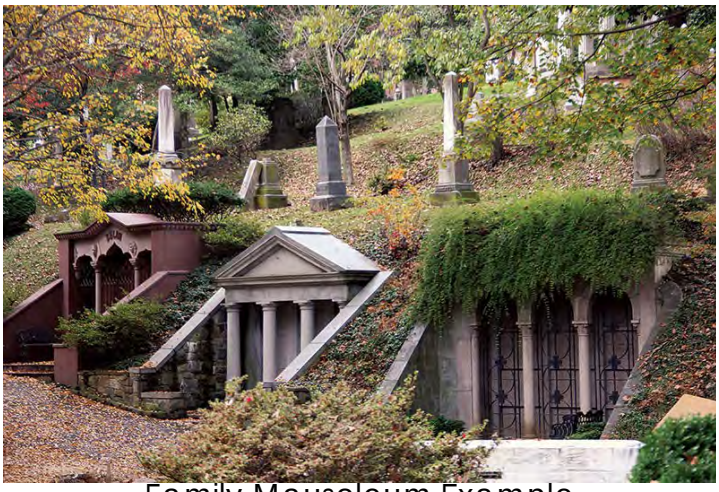


COLUMBARIUM SHELTER

CEMETERY KIOSK

Master Plan Concept
Oak Grove Creek Walk Garden

Design Features


Family Mausoleum Example

A blue line stream / creek meanders from west to east across the cemetery. Near the center of the cemetery is an opportunity for development which can take advantage of this creek. This area was previously a pond . The new development can be utilized as a focal point for a nature walk and cremation garden as well as incorporate the existing family mausoleums. Additional cremation gardens will be located along the walk along as well as ample scattering gardens. Along the walk will be spaces for multiple memory benches and possibly a memory wall. Each node of this walkway will have a retaining wall / family mausoleum to match the existing structure.

To accommodate the new columbariums the slope will have to be re-graded to allow for the walkway. The existing mature trees will be kept to maintain the natural setting of the old growth wooded areas.

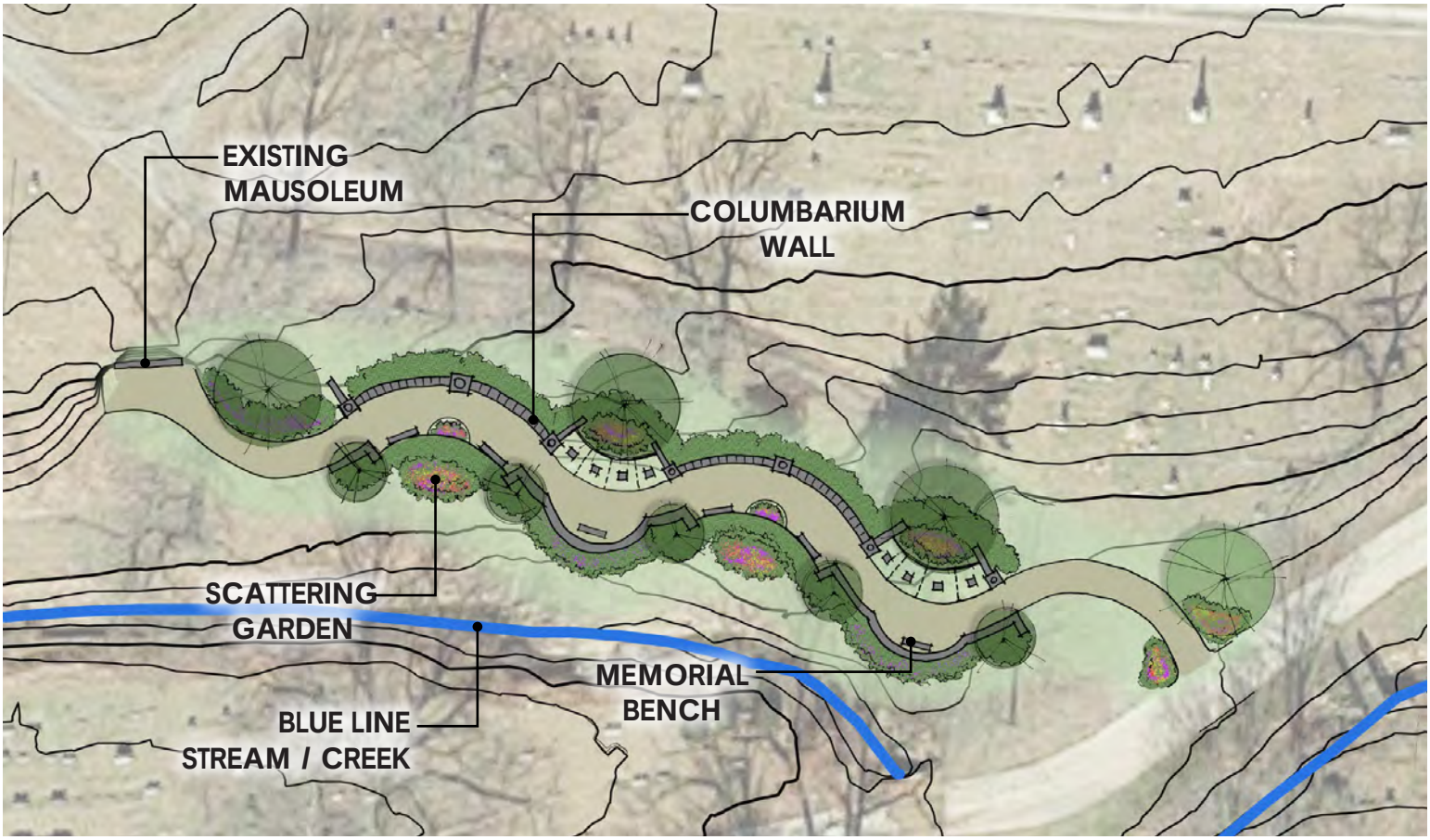
At the entry point of this nature walk is the location of the proposed bridge. The existing creek will be manipulated to reduce the erosion along the hard bend in the creek. It is proposed that the bridge will incorporate existing stones from the old bridge. With these additions to the meandering creek walk area approximately 384 cremations spaces and 8 family plots will be created.

Support Photos

COLUMBARIUM NICHE WALL

SCATTERING GARDEN

Oak Grove Creek Walk Garden



CREMATION GARDEN WALKWAY

CREMATION MEMORIAL BENCH

Master Plan Concept
Oak Grove Memorial Garden

Design Features

The largest area of improvement to the site is the expansion area between Liberty Road and the existing site. The expansion area will utilize the existing access from Liberty Road and connect to the existing cemetery roadway. The main spine that will connect these two areas will have a white line painted on the roadway signifying the main access road. This main roadway will pass by the new cremation burial space which will accent the existing Veterans section. This cremation space will be raised higher than the surrounding area to become the focal point of site expansion. In the expansion area a lake will be created to serve as a prime burial area as well as solve the lack of drainage due to the flat topography of the site. The excavated soil from the lake will be utilized to raise the cremation space and create landscape berms along Liberty Road and the south property line. The site expansion will provide seven new burial sections and approximately 12-13 acres of usable space.

A nature walk will be created on the north side of this expansion area which will provide scattering gardens, columbariums and memorial benches. A niche columbarium will also be located in this nature walk creating additional cremation spaces. A single spoils area will be located on south side of the property blocked by a berm and landscape plantings. Additional plantings will buffer the cemetery from Liberty Road.

The density within the expansion area should be limited to approximately 700 spaces per acre. This will allow for better access from the roadways to each space as well as much needed landscape plantings within the interior of each section. With the addition of plantings and curvilinear roadways, this will match the historic design of the cemetery and create a park like setting to aid in attracting visitors to the cemetery. With these changes to the site there will be approximately 7070 new burials plots based on a 700 space per acre calculation.

Support Photos

LAKESIDE BURIALS

NATURAL WALK AND SCATTERING GARDEN

Oak Grove Memorial Garden

Master Plan Concept
Oak Grove Memorial Garden Cremation Area

Design Features

Within the expansion area at Liberty Road, a new cremation garden will be established. This will provide numerous columbariums as well as a covered niche columbarium to hold services. The columbariums will be double sided walls that can be added to the site as needed. The covered shelter will provide 288 columbarium spaces as well as a covered area for services for the existing Veteran section and the future expansion. Surrounding the columbariums will be scattering gardens as well as two family burial plots. Memorial walls can be incorporated within the scattering gardens that may have the names of deceased inscribed even if they are not interred on site. By doing this the information will be kept in cemetery records for loved ones to locate.

The design of the new burial spaces that will be created on the outside of the cremation garden will accent the design of the entire cremation garden space. With these additions to the expansion area numerous cremation spaces would be established (totals below).

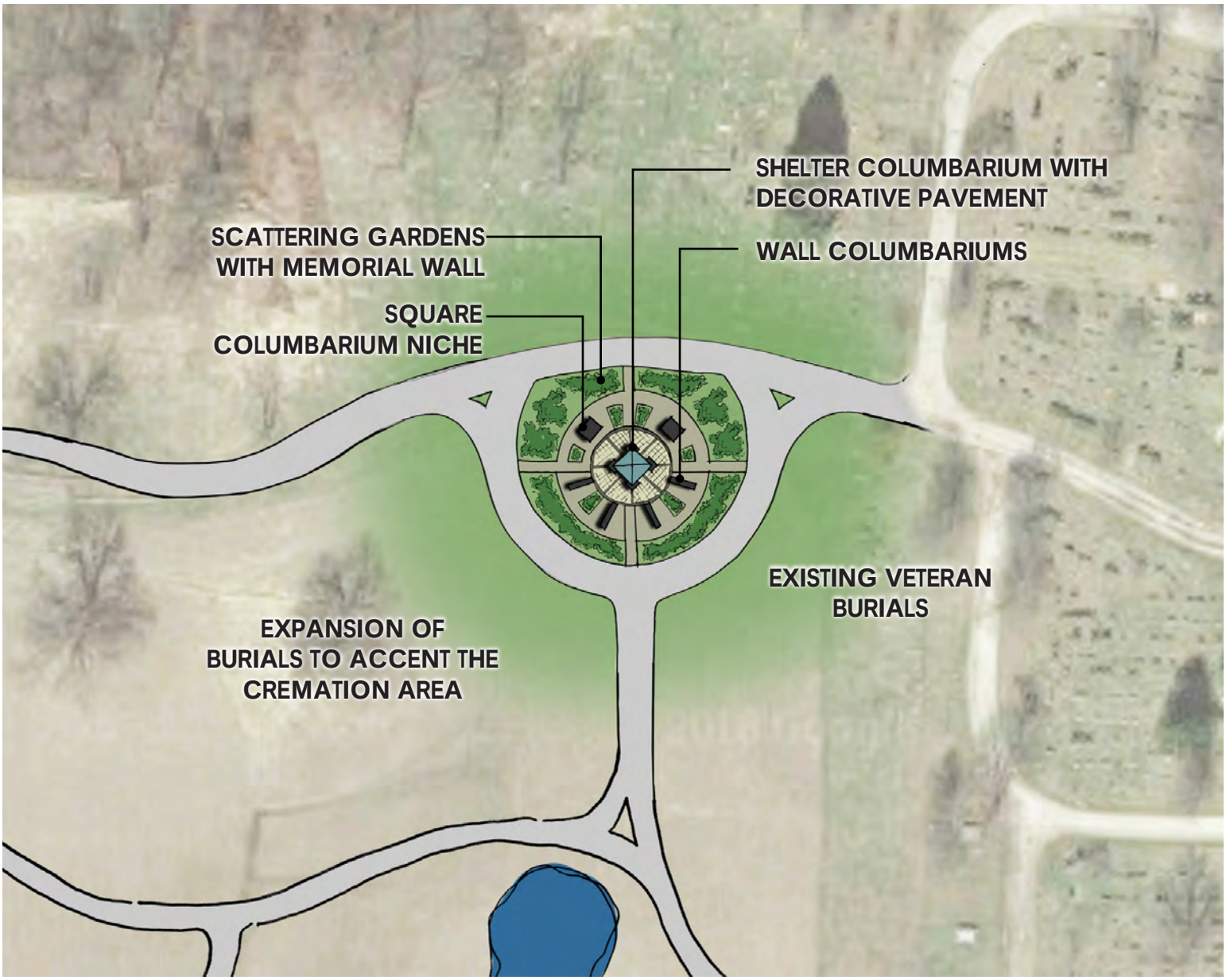
Cremation in Covered Shelter - 288 total
Cremation Walls - 112 per wall (8 total) - 896 total
Cremation Box - 2
Memorial Wall for Scattering Garden

Support Photos

WALL COLUMBARIUM

COLUMBARIUM AND SCATTERING GARDEN

Cremation Area at Oak Grove Memorial Garden



Sites and Cost Analysis

Burials

Area	Acreage	Space / Acre	Total	Spaces / Year	Total Years
Memorial Garden	+/-10.1 AC	700 / AC	+/-7,070	+/- 51	+/- 138

Cremation

Area	Spaces	Family Sites	Spaces / Year	Total Years
Gateway Garden	648	0	+/- 29	+/- 22
Cremation Area at Memorial Garden	1184	0	+/- 29	+/- 54
Creek Walk Garden	384	8	+/- 29	+/- 13

Burial Sites

The density of ground burial spaces per acre may be established for section design purposes at over 1000 sp/ac. This density is very high and may eventually be necessary to meet future burial needs of the cemetery. However, the modern sections have been laid out to provide direct access to all spaces from adjacent alleys. These designs have a lower density (700 sp/ac). Determining the density of ground burials is an important decision for cemetery staff due to the City's desire to enhance the visual character of the cemetery. It is recommended that the cemetery maintain around 700 spaces per acre, but consider increasing the amount of plantings throughout each section. Ground burial density should not exceed 850 spaces per acre to coincide with the overall character of the cemetery. Ground burials have been proposed in the expansion area that total approximately 10.1 acres, providing +/- 7070 ground burial spaces at 700 spaces/acre.

According to the Cremation Association of North America, cremation spaces have continued to increase every year. In 2017 the cremation rate was 51.6% compared to only 28% in 2002. By 2022 the projected cremation rate is 57.8%. With this projected increase every year there will be a continued demand for cremation spaces. The total number of cremation spaces shown in the concepts is approximately 2200 spaces and can increase with additional niche columbariums added to each development.

With the trends in cremation this will decrease the number of direct burial spaces sold each year therefore increasing the longevity of burial spaces in the cemetery.

Opinion of Probable Construction Cost

Oak Grove Memorial Garden

Site Improvements		Total Cost
General Conditions	$	12,000
Demolition	$	20,000
Site Prep/Excavation	$	110,000
Site Utilities	$	10,000
Hardscape	$	203,200
Landscape	$	93,000
Sub-total Site Improvements	$	448,200
Contingency	$	67,230
Total Cost of Construction	**$**	**515,430**

Memorial Garden - Cremation Area

Site Improvements		Total Cost
General Conditions	$	12,000
Site Prep/Excavation	$	11,500
Site Utilities	$	5,000
Hardscape	$	43,500
Site Amenities	$	1,110,000
Landscape	$	25,000
Sub-total Site Improvements	$	1,207,000
Contingency	$	181,050
Total Cost of Construction	**$**	**1,388,050**

Oak Grove Gateway Garden

Site Improvements		Total Cost
General Conditions	$	12,000
Demolition	$	15,000
Site Prep/Excavation	$	6,500
Site Utilities	$	2,000
Hardscape	$	58,296
Site Amenities	$	729,500
Landscape	$	25,000
Sub-total Site Improvements	$	848,296
Contingency	$	127,244
Total Cost of Construction	**$**	**975,540**

Oak Grove Creek Walk Garden

Site Improvements		Total Cost
General Conditions	$	12,000
Demolition	$	5,000
Site Prep/Excavation	$	11,500
Hardscape	$	51,200
Site Amenities	$	404,000
Landscape	$	25,000
Sub-total Site Improvements	$	508,700
Contingency	$	76,305
Total Cost of Construction	**$**	**585,005**

Recommendations

Phasing Recommendations

Phase 1 - Oak Grove Memorial Garden

- To generate interest and momentum, the initial focus should be to create the Oak Grove Memorial Garden that will connect Liberty Road to the existing cemetery.
- The adjacent ground burials to the new connector road will be included within the first phase to generate revenue.
- The revenue generated from the initial development will contribute to secondary phases of the project.
- Along with the burials and connector roadway a need for Cremation Gardens will have to be addressed.
- Additional phases will be completed when burial occupancy pre-sold.

Phase 1A - Oak Grove Cremation Area at Memorial Garden

- The Cremation Area within the Memorial Garden will need to be incorporated to address other burial options.
- Two Columbarium Niches and scattering gardens will create the initial space.
- The revenue generated from the initial columbariums will contribute to secondary phase columbariums.
- Scattering gardens with Memorial Walls are also included as additional revenue to fund the growth of the Cremation Area.
- Phase 1B and 1C will create additional wall columbariums and a commital shelter / columbarium.

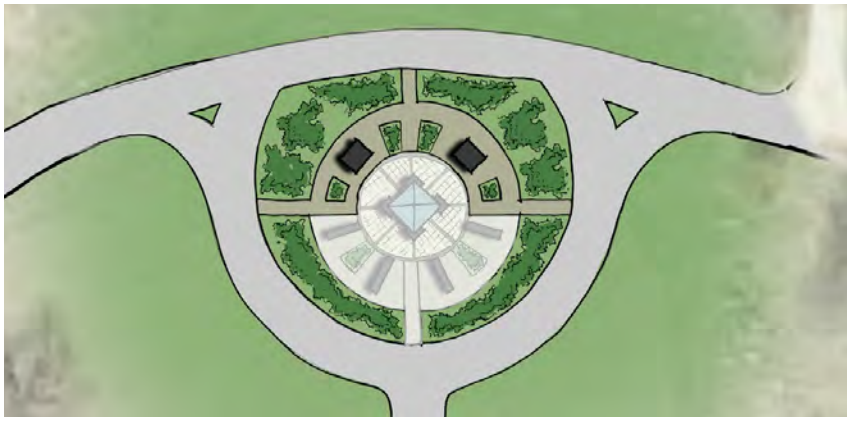
Phase 2 - Oak Grove Gateway Garden

- The removal of the existing house and reduction in pavement is the first phase of the Gateway Garden.
- A kiosk station and parking will be pivotal in creating a successful experience for guests.
- To generate funds for the Gateway Garden there should be a columbarium Niche located within the first phase of construction.
- Once funds have been generated, the Gateway Pergola should be incorporated.
- Phase 2A will consist of additional Columbarium Walls and scattering gardens as well as memorial benches.

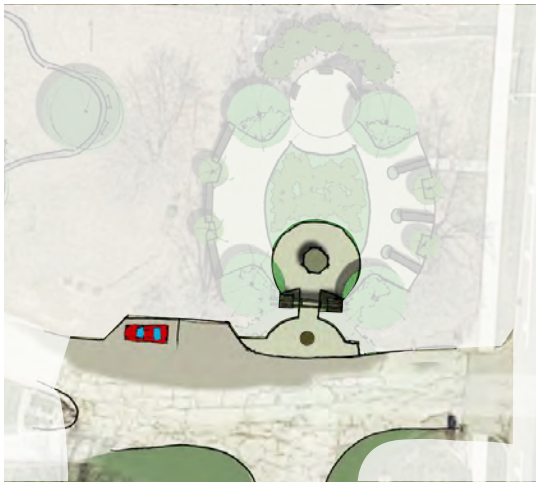
Stakeholders have provided input based on a visual preference survey for site amenities. The support photos are located in Appendix VI.

Oak Grove Memorial Garden - Phase 1

Oak Grove Cremation Area - Phase 1A



Oak Grove Gateway Garden - Phase 2

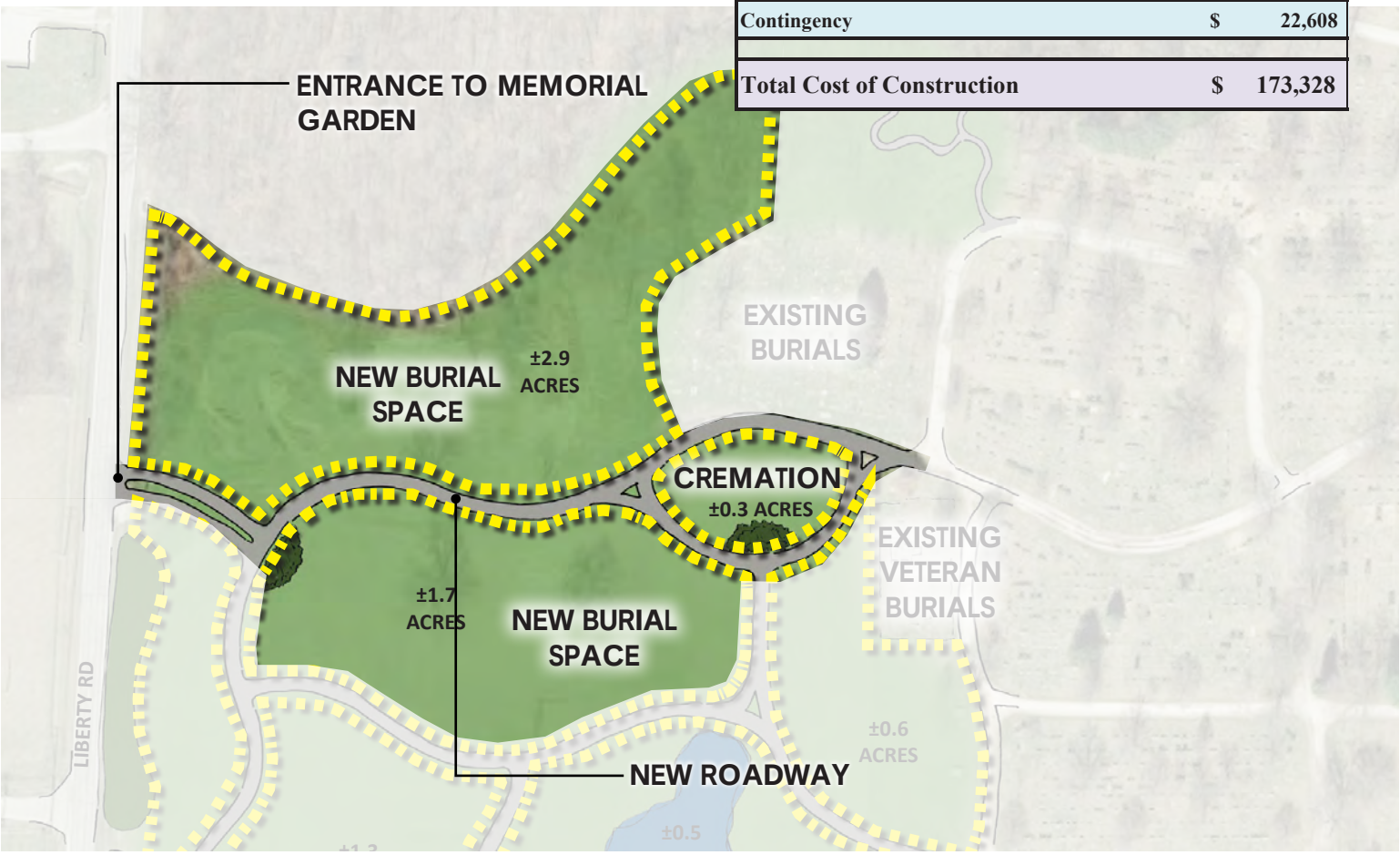


Recommendations Phase 1& 1A

Oak Grove Memorial Garden - Phase 1

The recommendation to establish the Oak Grove Memorial Garden is for the creation of a new and modern cemetery burial section created for the patrons of Oak Grove Cemetery to facilitate a unique blend of a modern cemetery alongside the established historic and natural cemetery grounds. This Memorial Garden demonstrates the willingness of the City of Delaware to adapt its unused cemetery for the burial of casketed remains and the inurnment of cremated remains for future generations to come. 700 interment spaces per acre will allow for both monument and non-monument burials.

Oak Grove Memorial Garden - Phase 1		
Site Improvements		Total Cost
General Conditions	$	12,000
Demolition	$	5,000
Site Prep/Excavation	$	30,000
Site Utilities	$	10,000
Hardscape	$	62,720
Landscape	$	31,000
Sub-total Site Improvements	$	150,720
Contingency	$	22,608
Total Cost of Construction	$	173,328

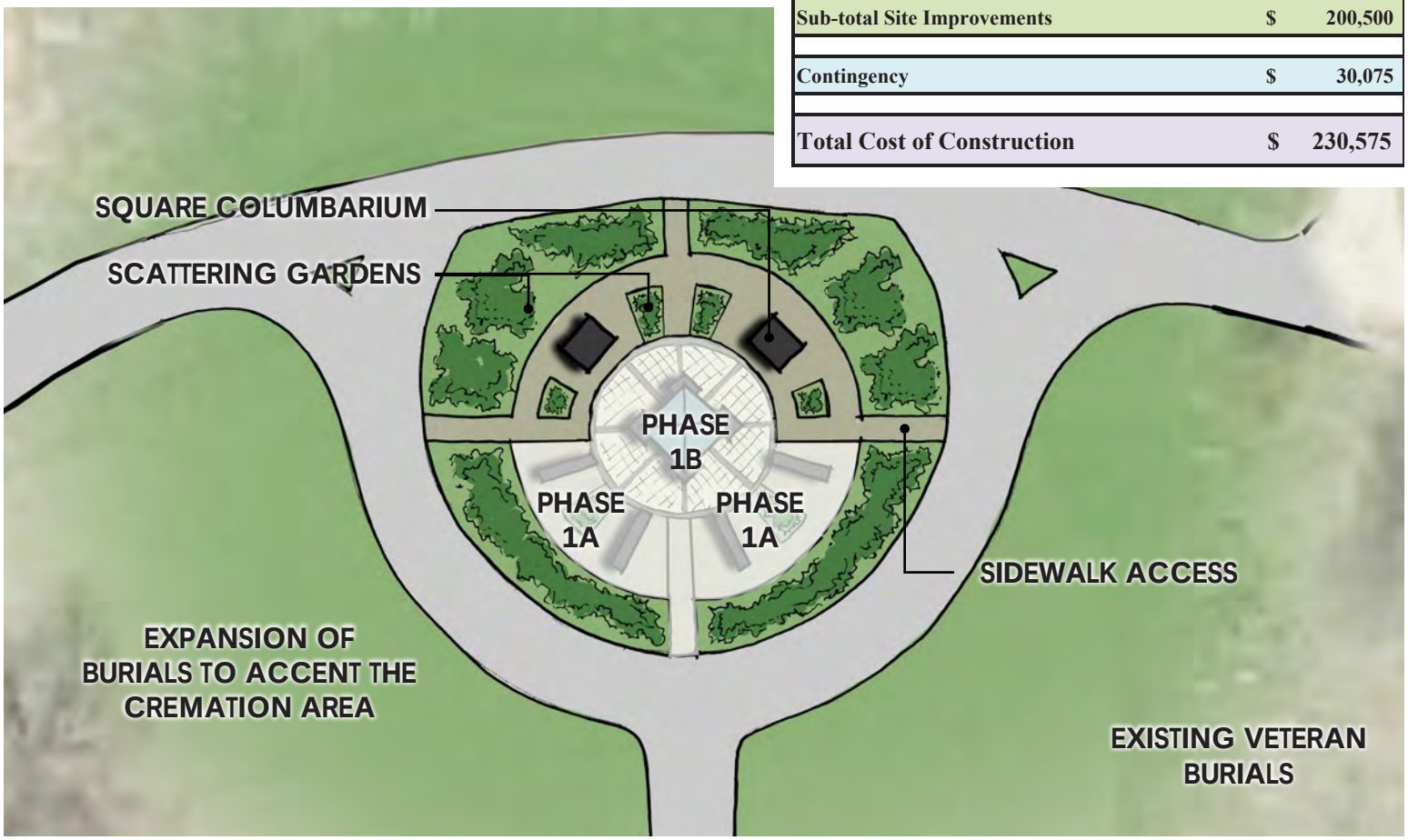


Cremation Area in Oak Grove Memorial Garden - Phase 1A

The recommendation that Oak Grove Cemetery establishes multiple sources of revenue pertaining to the final disposition of cremated remains. Once created in the new Oak Grove Memorial Garden, the cremation garden will allow for the scattering of cremated remains in a natural garden setting which will surround a future open air shelter with 288 cremation niches in supporting granite columns. As the Ohio cremation rate nears 60% of all final dispositions, it is imperative that Oak Grove Cemetery institutes a policy to allow for these dispositions which will be in high demand by the future patrons of Oak Grove Cemetery.

Memorial Garden - Cremation Area Phase 1

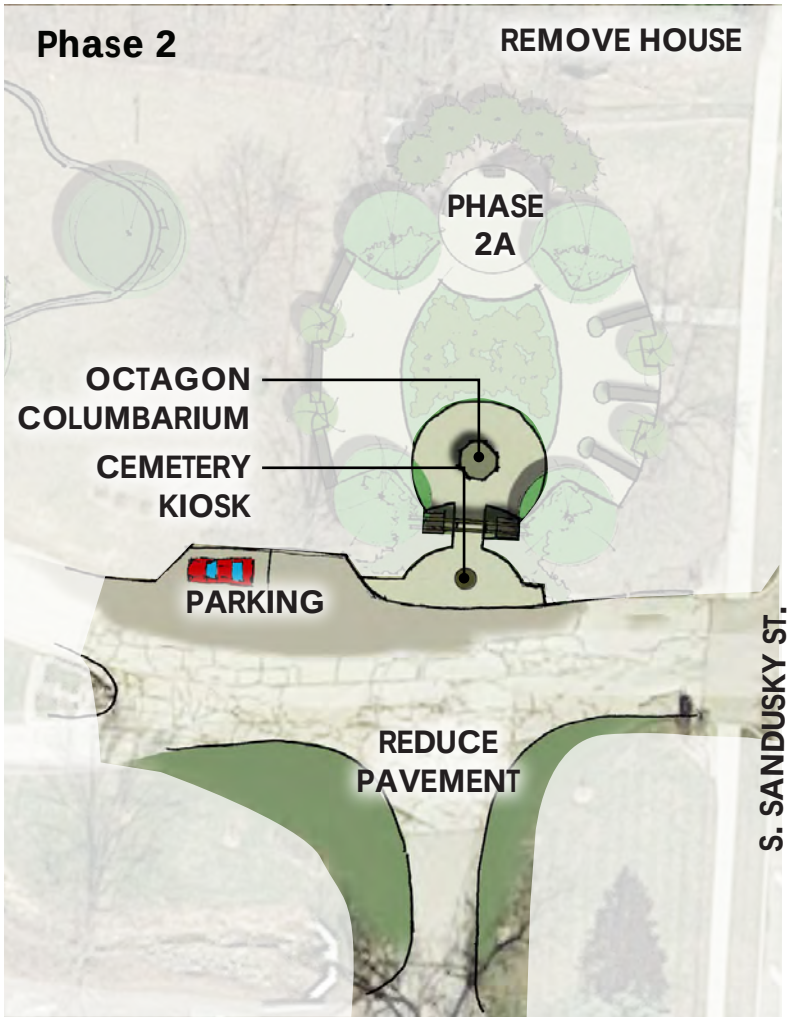
Site Improvements		Total Cost
General Conditions	$	12,000
Site Prep/Excavation	$	11,500
Site Utilities	$	2,000
Hardscape	$	16,000
Site Amenities	$	149,000
Landscape	$	10,000
Sub-total Site Improvements	$	200,500
Contingency	$	30,075
Total Cost of Construction	$	230,575



Recommendations Phase 2

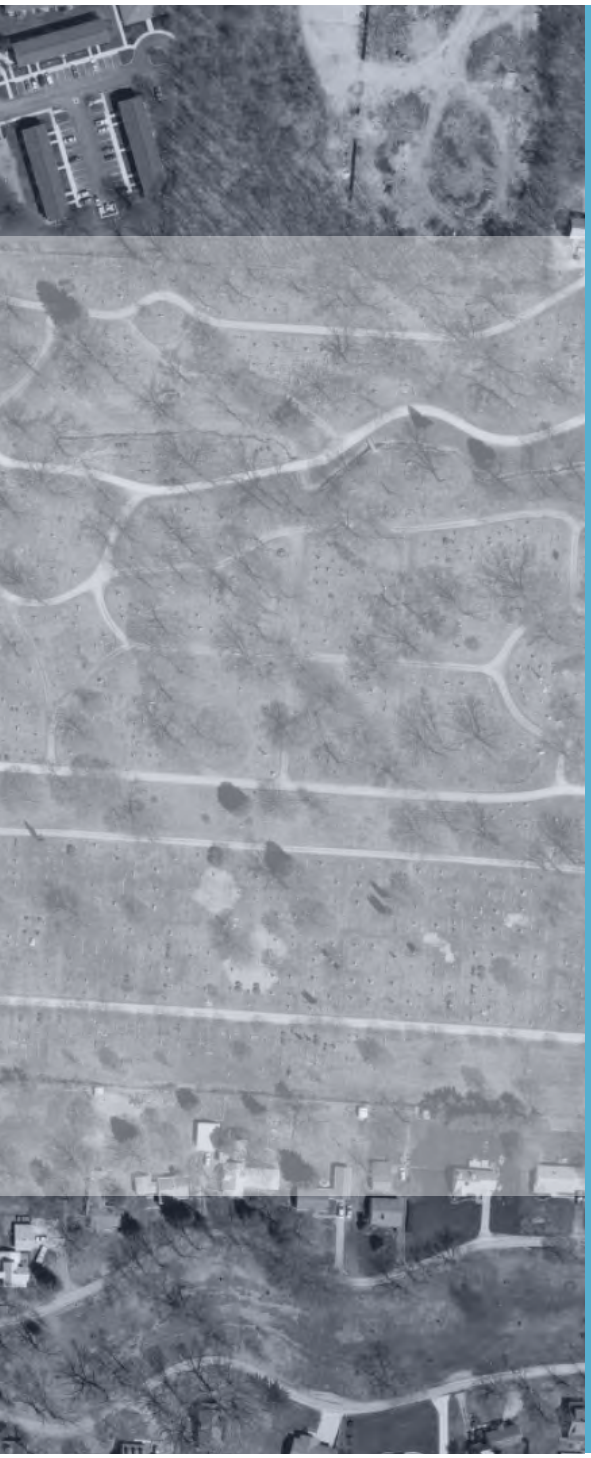
Phase 2 - Oak Grove Gateway Garden

The main entrance to the cemetery is located at South Sandusky Street. The removal of the house located at the main entrance and the establishment of a cremation inurnment and remembrance facility at this location is a viable recommendation not only to accommodate the demand of future cremations but for the opportunity to create remembrances of loved ones in a granite memorial wall. Additionally, the 72 niche octagon columbarium will allow for cremation disposition conveniently located at the cemetery's front entrance. This unique front entrance facility will not only provide options for the final disposition of cremated remains but will incorporate the long term history of Oak Grove Cemtery with the construction of the Gateway Monument.



Oak Grove Gateway Garden - Phase 1		
Site Improvements		Total Cost
General Conditions	$	12,000
Demolition	$	15,000
Site Prep/Excavation	$	6,500
Site Utilities	$	5,000
Hardscape	$	13,696
Site Amenities	$	132,000
Landscape	$	7,500
Sub-total Site Improvements	$	191,696
Contingency	$	28,754
Total Cost of Construction	$	220,450

Appendix



Rules and Regulations I

Best Practices and Recommendations II

Financial Recommendations III

Marketing and Future Development IV

Cemetery Operational Documents V
Acceptance of Responsibility Form
Disinterment/Dis-inurnment Authorization Form
Grave or Niche Opening and Closing Service Request
Interment and Inurnment Authorization Form
Interment / Inurnment Right Price Schedule
Miscellaneous Price Schedule
Opening and Closing Price Schedule
Purchase Agreement
Vital Statistics

Stakeholder Input Visual Preference Survey VI

1 S. Sandusky Street
Delaware, Ohio 43015

Oak Grove Cemetery

334 Sandusky Street
Delaware, Ohio 43015
Telephone: (740) 363-2971

oakgrove@delawareohio.net

RULES AND REGULATIONS

Amended Date _____

PURPOSE

These rules and regulations are designed for the protection of owners of interment, entombment or inurnment rights as a group. They are intended, not as restraining, but rather as to prevent the inconsiderate from taking unfair advantage of others. Their enforcement will help protect the Cemetery and create and preserve its beauty. These Rules and Regulations are hereby adopted as the Rules and Regulations of Oak Grove Cemetery, and all owners of interment or inurnment rights, visitors and contractors performing work within the Cemetery. All shall be subject to said rules and regulations, amendments or alterations as shall be adopted by the Cemetery from time to time, hereby superseding all previous Rules and Regulations.

DEFINITIONS

“Burial Vault” shall mean an outside burial container as specified by the Cemetery to incase human or cremated remains.

"Cemetery" shall mean not only the land and the improvements thereon, but the Cemetery, its employees, and duly authorized representatives of the City of Delaware Ohio.

"Contractor(s)" shall mean any person or persons, firms or corporations or anyone other than an employee of the Cemetery engaged in placing erecting or repairing any memorial or monument and performing any work on the Cemetery grounds.

“Crypt” means a space in a building or mausoleum for the placement of human remains.

“Dis-entombment” shall mean the removal of the remains of a deceased human being from a crypt.

“Dis-interment” shall mean the removal of the remains of a deceased human being from a grave.

“Dis-inurnment” shall mean the removal of cremated remains from a grave or niche.

“Entombment” shall mean the placement of human remains in a building or mausoleum crypt.

"Grave" means a space of ground in the Cemetery used, or intended to be used, for burial.

"Owner" shall mean the owner of rights of interment, entombment or inurnment.

“Interment, Entombment or Inurnment Right shall mean the ownership of the right of burial, entombment or inurnment of human remains in a grave, crypt or niche.

"Interment" shall mean burial of the remains of a deceased human being.

"Inurnment" shall mean the burial or placement of cremated human remains in a grave or niche.

"Memorial or Monument" shall mean any marker placed upon any grave for identification or in memory of the interred or inurned.

“Niche” shall mean a space used for the inurnment of cremated remains.

“Second Interment Right” shall mean the ownership of an additional right of burial, entombment or inurnment of human remains in a grave, crypt or niche.

CEMETERY HOURS

The visiting hours of the cemetery are from 8:00 a.m. until dusk daily.

OWNERSHIP

Interment, entombment or Inurnment rights shall be used for no other purpose than the disposition of the human dead.

Upon refusal of the Cemetery to permit interment, entombment or inurnment because of its requirements, the Cemetery may at its discretion refuse to let anything be done in violation of its said requirements and rules and regulations.

SUPERVISION OF CEMETERY

The Cemetery reserves the right to compel all persons coming into the Cemetery to obey all rules and regulations adopted by the Cemetery.

These rules and regulations may be changed by the Cemetery or the City of Delaware, without notice to any owner of the Cemetery.

The Cemetery shall take reasonable responsible precaution to protect owners and the property rights of owners within the Cemetery from loss or damage, but it distinctly disclaims all responsibility for loss or damage from causes beyond its reasonable control. The Cemetery is not and shall not be liable for damage caused by elements, acts of God, common enemy, thieves, vandals, strikers, malicious mischief makers, explosions, unavoidable accidents, invasion, insurrections, riots, or orders of any Military or civil authority, whether the damage be direct or collateral.

The Cemetery reserves the right to correct any errors that may be made by it either in making interments, dis-interments, entombments, dis-entombments, inurnments, dis-inurnments or removals, or in the inscriptions, transfer, or conveyance and substituting and conveying in lieu thereof other interment, entombment or inurnment rights of equal value and similar location as far as possible, or as may be selected by the Cemetery or, in the sole discretion of the Cemetery, by refunding the amount of money paid on account of said purchase. In the event such error shall involve the interment, entombment or inurnment of the remains of any person in such property, the Cemetery reserves and shall have the right to remove and transfer such remains so interred to such

other property of equal value and similar location as may be substituted and conveyed in lieu thereof. The Cemetery shall also have the right to correct any errors made by allowing the placement of an improper inscription, including an incorrect name or date on the memorial or monument. Upon correction no further liability shall exist against the Cemetery.

The right to enlarge, reduce, replant or change the boundaries or grading of the Cemetery or of a grave, from time to time, including the right to modify or change the locations of or any part thereof or remove or re-grade walks or paths, is hereby expressly reserved by the Cemetery. The Cemetery reserves to itself and to those acting on behalf or permitted by the Cemetery the right to lay, maintain and operate, or alter or change pipe lines or gutters for sprinkling systems, drainage, lakes etc., not sold to individual owners, for Cemetery purposes, including the preparation for the interment, entombment or inurnment of dead human bodies, or for anything necessary, incidental or convenient thereto. The Cemetery reserves to itself and to those lawfully entitled thereto and those permitted by the Cemetery to do so, a perpetual right of ingress and egress over graves for passage to and from other graves.

SPECIAL CARE AND ENDOWMENT FUNDS

In compliance with ORC 759.12, interment, entombment or inurnment right owners desiring additional care of their lots may arrange for such care with the Finance Department of the City of Delaware, which will be willing to give an estimate of the cost of the work desired. This may be provided for by an annual payment made by the interment, entombment or inurnment right owner, or by the establishment of an endowment under a special care agreement, whereby the City of Delaware will hold and invest the principal sum deposited and use the annual income to defray the cost of such special care. Such arrangements may be made to include the maintenance of any memorial structure or any other purpose or use not inconsistent with the purpose for which the Cemetery was established or is being maintained.

Special care provided by the establishment of such an endowment, shall be limited absolutely to the income received from the investment of the endowment fund, with no part of the principal being expended, anything herein stated to the contrary notwithstanding.

SALE AND PURCHASE OF INTERMENT, ENTOMBMENT AND INURNMENT RIGHTS

All sales or transfers are final and non-exchangeable.

No interment, entombment or inurnment right can be sold, assigned, transferred, pledged or hypothecated without the written approval of the Cemetery.

In compliance with ORC 759.13, the price of interment, entombment or inurnment rights and the opening and closing of graves, crypts or niches shall be determined by the Cemetery.

All lots/spaces shall be sold back to the City of Delaware at 75% of the original cost or a minimum of $500 per lot/space. The lot owner may assign or reserve a lot or space for another person, but the deed remains in the name of the original lot owner.

The Cemetery shall issue a "Warranty Deed" or "Certificate of Ownership" to the new Owner subject to the provisions of said deed or certificate. The same rule shall apply in all cases of assignment for interment, entombment or inurnment rights.

All transfers of any interment, entombment or inurnment right, whether same be by conveyance or assignment are subject to all rules and regulations of the Cemetery, which are now in full force and effect or which may be hereafter adopted.

The subdivision of interment, entombment or inurnment right is not allowed without the consent of the Cemetery and no one shall be buried in any grave that does not have an interest therein, except by written consent of the Cemetery.

The Cemetery may exchange interment, entombment or inurnment rights, when desired by Owners. When such an exchange is made, the original conveyance must be surrendered by proper assignment, or by re-conveyance, if considered necessary by the Cemetery before any change is affected.

Each owner is vested with the ownership of his or her interment, entombment or inurnment right for the sole purpose of interment, entombment or inurnment of human dead bodies. Under the rules and regulations of the Cemetery, the interment, entombment and inurnment rights cannot be conveyed without the consent of the Cemetery, nor may any use, division or improvements of them be made when prohibited by the Cemetery. The Owner of interment, entombment or inurnment rights may dispose of same by will, subject to the foregoing conditions; if the Owner dies in estate, the interment, entombment or inurnment rights will descend to his or her heirs according to law. The Cemetery cannot and will not be responsible for the carrying out of the intent of the owner.

VETERAN'S SECTION

These Rules and Regulations pertaining to the Veteran's Section of Oak Grove Cemetery are distinct and separate from the Rules and Regulations governing the remainder of the Cemetery.

Interment Rights in the veteran's sections were originally purchased by the Delaware County Veteran's Administration at half the cost of a single interment right in the flush section. The Delaware County Veteran's Administration and Oak Grove Cemetery each own half of an interment right for each grave. Oak Grove Cemetery is responsible for the care and maintenance of the entirety of the Veteran's Section.

Veterans must provide the Cemetery Administration with a DD214, (honorable discharge papers), to purchase a right of interment or inurnment in the veteran's section.

The right of interment or inurnment may be used for a veteran, spouse of a veteran, a dependent of a veteran, a divorced spouse when given permission by the veteran or his heirs and a surviving spouse who has or has not remarried.

Delaware County Veteran's Services may donate a right of interment to an indigent veteran, their spouse and/or an authorized dependent of an indigent veteran. When a right of interment is donated by the Delaware County Veteran's Administration for an indigent veteran, spouse or dependent, it is deducted from the inventory of spaces owned by the Delaware County Veteran's Administration. No refunds are issued to a veteran, surviving spouse or a dependent that elects not to use the space. The unused right of interment will revert to the Delaware County Veteran's Administration and will be resold or used for an additional indigent veteran.

Interment or inurnment rights in the veteran's section will be charged at the current rate of a single Interment or inurnment right in a flush section of the Cemetery.

The Delaware County Veteran's Administration allows four inurnment rights on a single grave in the cremation portion of the Veteran's Section. A right of inurnment is assessed at one-fourth the cost of a single interment right in the Veteran's Section.

For every two interment rights purchased by a veteran, an interment right deed will be issued to the Delaware County Veteran's Administration for one additional interment right in the Veterans Section.

Flat bronze markers and replicas provided by the United States Government for veterans, non-veteran spouses and dependents are the only markers or

monuments permitted in the Veteran's Section.

Bronze markers for identification purposes in this section will be placed at the foot of the grave for all interments except inurnments whereby the memorial will be placed on top of the cremation burial.

CEMETERY MAINTENANCE

All work on graves or within the Cemetery will be done by the employees of the Cemetery under the direction of the Cemetery, except when permission is otherwise granted. All grading, landscaping work, and improvements of any kind, and all care of and all plantings, trimmings, removals of trees, shrubs, and herbage of any kind and all interments, entombments, inurnments, dis-interment's, dis-entombments, dis-inurnments and removals shall be made under the direction of the Cemetery.

No enclosure of any kind, such as a fence, coping, hedge or ditch, shall be permitted around any grave. Grave mounds shall not be allowed, and no grave shall be raised above the established grade.

The general care of the entire Cemetery grounds and graves is assumed by the Cemetery.

The Cemetery shall direct all improvements within the grounds and upon all graves before, as well as, after interments, entombment or inurnments have been made therein. The Cemetery shall direct all planting, sodding, surveying and general improvements.

If any tree, shrub or plant standing upon any grave, by means of its roots, branches, or otherwise, becomes detrimental to adjacent graves or avenues, or if for any other reason its removal is deemed necessary, the Cemetery shall have the right to remove such tree, shrub or plant, or any part thereof, or otherwise correct the condition existing in its sole and absolute discretion.

No person shall pluck or remove any plant or flower, either wild or cultivated from any part of the Cemetery

BURIAL REGULATIONS

No interment, entombment or inurnment shall be made unless the internment, entombment or inurnment right and the opening and closing fees for such grave, crypt or niche have been paid in advance.

All interments, entombments, inurnments, dis-interments, dis-entombments and dis-inurnments shall be completed by the Cemetery employees.

The Cemetery reserves the right to compel all persons authorized to order the

opening and closing of a grave, crypt or niche to appear at the Cemetery more than 24 hours in advance of such interment, entombment or inurnment to select the desired grave, crypt or niche to be opened. In addition, the completion and execution of the Cemetery's Interment, Entombment, Inurnment Authorization form may be required. This form must be executed by the owner of the interment, entombment or inurnment right owner or their legal representative. In the absence of the owner or representative a faxed document or email maybe accepted at the discretion of the Cemetery.

Funeral processions, upon entering the grounds of the Cemetery, shall be subject to the direction of the Cemetery or authorized employees of the Cemetery.

The Cemetery must be notified of an impending interment, entombment or inurnment service no later than 12:00 noon of the prior business day. Notification of a Monday service must be received no later than 3:00 PM on the previous Friday.

The hours for committal services at the Cemetery are 9:00 a.m. to 4:00 p.m. Monday through Friday and 9:00 a.m. to 12:00 p.m. on Saturdays. Funerals entering the Cemetery after 4:00 p.m. Monday through Friday and after 12:00 p.m. on Saturdays will be charged additional late arrival fees. No committal services may take place after 1:00 p.m. on Saturdays.

No interments, entombments, inurnments, dis-interment's, dis-entombments or dis-inurnments shall be permitted on Sundays, or on any of the following holidays: New Year's Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day and other City approved holidays.

An immediate interment, entombment or inurnment when required by the laws of the State of Ohio or under the rules and regulations of the Board of Health, interments, inurnments or entombments may be made on any day including Sundays or holidays whereby an additional fee will be added to the regular charge of such interment, inurnment or entombment. Entrance into the cemetery for an immediate interment, entombment or inurnment will be permitted for immediate family and funeral directors and or legal officials.

The scheduling of all interment, entombment or inurnment services shall be completed by the Cemetery. The Cemetery reserves the right to schedule interment, entombment or inurnment services according to the Cemetery's availability of service times and needs.

Per 3705.17 of the Ohio Revised Code, all interments, inurnments or entombments must be accompanied by a Burial Permit or Certification of Cremation issued by a local registrar or sub-registrar. No interment, inurnment or entombment shall take place in the Cemetery unless such a permit is presented

and made available to the Cemetery Personnel.

The Cemetery shall have the right to have the interment, inurnment or entombment service at the final disposition location according to the Cemetery's schedule and current weather conditions.

When a removal is to be made from a single grave to another grave, the formerly occupied single grave space and all rights therein revert to the Owner thereof. If the steel or concrete vault and same is in a removable condition, charge for removal of vault must be paid in advance.

Application for dis-interment, dis-entombment or dis-inurnment must comply with the provisions of Section 517.23 of the Ohio Revised Code.

Any person desiring to remove a body from the grave space of another must present a written permit signed by the Owner, the next of kin and himself to have such removal made. These shall remain on file in the office of the Cemetery. No such removal shall be made without the written consent of the Cemetery, and then only on such conditions as the Cemetery shall prescribe.

All human remains not cremated must be contained in a concrete or steel burial vault specified by the Cemetery prior to burial.

All cremated remains must be contained in a concrete, steel or other non-decomposing vault approved by the Cemetery prior to inurnment.

The maximum amount of remains per grave space is limited to two sets of human cremated remains or one set of cremated remains and one full size human burial. When so desired, a second right on a single grave for the interment of human remains or inurnment of cremated remains may be purchased from the Cemetery.

A grave space may contain one infant casket and or vault not exceeding 24” in length and one full size human burial.

The remains of any person who died of a contagious disease will not be permitted in or on the Cemetery grounds, except when placed in a hermetically sealed casket. In case of doubt on the part of the Cemetery as to the nature of the disease, satisfactory evidence from the attending physician or otherwise will be required.

MEMORIALIZATION REGULATIONS

Only one individual marker or monument and a second flush marker shall be allowed on each grave site. All markers or monuments shall be

placed on a foundation installed by the Cemetery at a fee determined by the Cemetery. All charges for foundation installations shall be paid for in advance.

All markers, monuments or vases shall be placed as designated on the Cemetery layout plan. Exceptions, due to individual circumstances, will be determined by the Cemetery.

No interment, entombment or inurnment right owner shall erect, place or remove, or cause to be erected, placed or removed, on any grave in the cemetery any markers, monuments or vase until it is first approved by the Cemetery.

The Cemetery is not responsible for damage to any markers, monuments or vase or the future restoration of such that may occur to other than an approved marker or monument.

One marker or monument up to a maximum of 30" wide for a single grave and 48" wide for two side by side adjoining graves is permitted. All bases shall be no more than 4" wider than the marker or monument for which they are associated with. Monuments larger than 48" x 1' maybe used on 3 or more adjoining Cemetery spaces with the Cemetery's permission as to the size and location of the monument. A second flush marker for the identification of cremated remains not exceeding 24" x 12" in size, may be set in front of the grave marker or monument on a single grave.

Markers or monuments shall not exceed 36" in height without prior approval of the Cemetery.

Section Restrictions

Garden of Peace: Flush Markers only shall be permitted with the exception of corner or feature lots.

Garden of Peace Babyland: 8" x 16" or 10" x 20" flush Markers shall be permitted.

Memorial Lawn Singles (East Side): Flush Markers or Bevel Monuments shall be permitted.

Sylvanside Singles and Eastview: Flush markers, Bevel Monuments and Slant Monuments with base shall be permitted.

Wesleyan (South Side): Flush markers, Bevel Monuments and Slant

Monuments without base shall be permitted.

Wesleyan (Cremation Corner): Flush Markers shall be permitted.

Northside Singles: Flush markers, Bevel Monuments and Slant Monuments without base shall be permitted.

Veterans Sections (Memorial Lawn, Veteran's West, and Soldier's Circle): 24" x 12" Flush Bronze Markers shall be permitted per Delaware County Veteran's Association.

Maple Lawn: Flush Markers or Bevel Monuments shall be permitted.

Southside Singles: Flush markers, Bevel Monuments and Slant Monuments without base shall be permitted.

If any inscription or object is placed on any memorial, monument or other structure, and it is determined by the Cemetery to be offensive, the Cemetery shall have the right to enter upon such grave to remove, change or correct the offensive inscription or object at the expense of the owner. The name or inscription on each monument or marker must correspond with the name and record in the Cemetery records and no changes shall be made except upon request of Cemetery.
While the Cemetery will exercise all possible care to protect raised lettering, carving or ornaments on any marker, monument or other structure, on any grave, it disclaims responsibility for any damage or injury thereto.

No coping, curbing, fencing, ground cover, grave blankets, hedging, grave mounds, borders, walks, field stones, rocks or enclosures of any kind, shall be allowed around any grave; the Cemetery reserves the right to remove the same if so erected, planted or placed.

No marker, monument or vase may be placed upon a grave unless the interment or inurnment fees have been fully paid.

Temporary grave markers will be removed by the Cemetery and discarded after six (6) months.

All monuments must be first grade, clear stone for memorial purposes. Monuments must be free from sap or anything which will cause rust stains and cracks. Monuments must be guaranteed to be free of all faults that may develop within five years from the setting date. If a fault is found by the Cemetery the monument will be replaced without cost to the Cemetery or lot owner, by the provider of such monument or memorial.

Contractors who engage in the business of cleaning monuments, (not connected with established retail dealers already on the approved list of dealers), and all other persons or establishments, must procure a permit from the Cemetery before any work on the Cemetery property is commenced. In order to secure such a permit, it should be necessary for the person or firm to submit satisfactory evidence of their ability to perform the work for which they have been engaged.

All Contractors who conduct work upon the Cemetery property are under the direction of the Cemetery and its staff.

Contractors engaged in erecting monuments or other structures are prohibited from attaching ropes to monuments, trees and shrubs; from scattering their material over adjoining lots; from blocking avenues or pathways; and from leaving their material on the grounds longer than is necessary. They must do as little injury to the grass, trees and shrubs as possible. They must remove all debris and restore the ground and sod to its original condition. Damage done to lots, walks, drives, trees, shrubs or other property by such Contractors or their agents, shall be repaired by Cemetery staff. The cost of such repairs shall be charged to the Contractor.

All work performed by the Contractor shall proceed promptly until the erection of the monument or memorial is complete provided such work is not a disruption for a Cemetery funeral service.

No material, machinery or other materials for the construction of vaults, mausoleums, monuments or such structures or monuments themselves, may be brought into the Cemetery until required for immediate use; nor, under any circumstances, when a funeral is in process; or between Saturday noon and Monday morning; and no work shall be done during said time; nor shall such material be placed on lots adjoining the one on which such a structure is to be erected without special permission from Cemetery.

All Contractors shall abide by the Rules and Regulations of Oak Grove Cemetery. Any Independent Contractor who violates such rules of the Cemetery, shall not be permitted on the Cemetery property.

The use of bronze is approved for doors and window grilles of mausoleums and other mausoleum fixtures, statuary and tablets when attached to monuments or markers of natural stone provided the bronze has been cast for an alloy containing not less than 85 percent copper and not more than 5 percent lead. No other metals are approved for such use unless they are substantially non-corrosive and are of proved permanency. All bronze tablets are to be approved by the Cemetery.

Mausoleums or tombs, either wholly or partially above ground, shall be constructed only upon Cemetery locations so designed and shall be built of first-grade material similar in all respects to the stone used in other memorials upon the Cemetery. All parts of the mausoleum or tomb above ground shall be of natural granite from approved producers.
Detailed plans, specifications and locations within the Cemetery for the placement of such mausoleums or tombs shall be subject to the approval of Cemetery.

All entombments in private mausoleums, shall be conducted by the Cemetery Staff.

Private mausoleums or tombs shall be maintained consistent with the standards of the Cemetery. If it is determined by the Cemetery that such monument, mausoleum or tomb is unsightly, dilapidated or a menace to visitors, the Cemetery shall have the right, at the expense of the lot owner, either to correct the condition or to remove it.

The Cemetery without any liability, reserves the right to correct any errors that may occur in the placing of foundations or memorials.

No monument or marker shall be removed from the cemetery unless approved by Cemetery.

DECORATION OF LOTS

Flowers, decorations, and small flags are welcome and will be removed as soon as the decorations fade and wither, and the right is reserved by the Cemetery to make such removal. Also, winter wreaths, and artificial flowers will be removed at such time as is specified by the Cemetery, and the Owner thereby forfeits all rights, title and interest to the same, and the Cemetery may dispose of them by sale, destruction or in any other way it deems best at its sole and absolute discretion.

All work and planting of any kind on all graves is strictly prohibited. From March 1st to Thanksgiving all decorations shall be placed in the urns located on the monument or its base. From November 1st to March 15th, artificial flowers, wreaths, grave blankets and related decorations or approved decorations may be used. All winter decorations will be removed after March 15th of each year.

Permanent urns must be placed in a row next to a marker or monument on an approved cement base.

Shephard hooks are permitted but are required to be flush against the marker or monument to make it possible to mow and trim around effortlessly. Sheppard hooks not being used after July 1st of each year will be removed by cemetery

staff.

The placing of potted flowers, plants, wreaths, baskets or American flags on graves is not permitted except on Easter, Mother's Day, Father's Day, Memorial Day, Independence Day, Veterans Day, and Christmas Day. Holiday decorations are permitted 5 days before and will be removed 7 days after the special days herein set forth.

The digging of holes for any purpose whatsoever is strictly prohibited.

GENERAL REGULATIONS

No children under the age of 16 are permitted within the Cemetery without adult supervision. All children must display appropriate behavior while on the grounds of the Cemetery.

Pets must always be on a leash per codified City of Delaware ordinance 505.011. Pet owners are responsible for cleaning up after their pet.

Bringing lunches, food, beverages or illegal substances for consumption within the Cemetery is strictly forbidden.

No article or sign of any kind will be permitted on any grave, or tree, except decorations in compliance with these Rules and Regulations.

The sitting or leaning on monuments or walls is not permitted.

The Cemetery is not responsible for theft or damage to anything placed on graves or grounds of the Cemetery.

The Cemetery shall have the right to remove any dead or damaged tree, shrub or vine.

No touching, scraping, rubbing or spraying of liquids on the memorials or monuments is permitted for any purpose.

No person shall use profane or boisterous language or in any way disturb the quiet and good order of the Cemetery.

All persons are forbidden to hunt fowls or other animals in or around the Cemetery.

All persons are strictly forbidden to break or injure any tree or shrub, or mar any landmark, memorial or monument, or in any manner deface the grounds of the Cemetery.

No money shall be paid to the attendants of the Cemetery grounds. The entire time of the persons regularly employed on the grounds belongs to the Cemetery. Visitors and Owners must not otherwise engage them. All orders, inquiries and complaints must be left at the Cemetery Office.

No person or persons other than an employee of the Cemetery so authorized shall be permitted to bring or carry firearms within the Cemetery, except a military guard of honor, and they only when in the charge of an Officer and during a military service.

All persons are reminded that the grounds are sacredly devoted to the burial of the dead and that the provisions and penalties of the law, as provided by statute, will be strictly enforced in all cases of wanton injury, disturbance and disregard of the rules and the laws of the State of Ohio.

MODIFICATIONS AND AMENDMENTS

The Cemetery may, and it hereby expressly reserves the right to at any and all times, with or without notice to the Interment, Entombment or Inurnment Right Owners, adopt new Rules and Regulations, or to amend, alter and/or repeal any rule, regulation and/or article, section, paragraph and/or sentence in the Rules and Regulations.

Special cases may arise in which the literal enforcement of a rule may impose unnecessary hardship. The Cemetery, therefore, reserves the right without notice, to make exceptions, suspensions or modifications of any of the Rules and Regulations, at its sole and absolute discretion; and such temporary exceptions, suspensions or modifications shall in no way be construed as affecting the general application of these Rules and Regulations, or as creating any enforceable precedence.

1 S. Sandusky Street
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Oak Grove Cemetery

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Best Practice Cemetery Recommendations

The following Best Practice Cemetery Procedures are recommendations pertaining to methods and procedures for the operation of Oak Grove Cemetery and its documents administered and owned by the City of Delaware Ohio. These methods and procedures are based upon normal cemetery operating conditions. Extenuating circumstances such as multiple, weekend or holiday purchases or burials may require changes to these policies. Deviations, when needed will require both City and Cemetery personnel to implement such measures to remedy such deviations. It is understood that the Cemetery offices are located in the City building and and not on the Cemetery property.

1. **Internet Web Site**: Oak Grove's current web site provides Cemetery section maps, photographs from within those sections and burial information for both Oak Grove Cemetery and St Mary's Cemetery. It is recommended that this web site be updated to include the following information:

    A. Oak Grove Cemetery's policies and procedures
    B. Cemetery Rules and Regulations (downloadable pdf)
    C. Deceased burial location information specific to Oak Grove
    D. New or planned Cemetery development with photographs
    E. Opening and Closing Price Sheets
    F. Interment and Inurnment Right Price Sheets

2. The phone number for the Cemetery should be directed to the City offices. An off-hour emergency Cemetery Phone Number should be directed to the Supervisor of the Cemetery Operations.

3. All purchases for pre-need, at-need burial spaces, opening and closings and monument foundations should be completed on a formal **Cemetery Purchase Agreement**. (see attached sample)

   Purchase Agreement Forms are significant for the City Cemetery Offices because they provide a written agreement between the cemetery and the customer regarding every purchase. Purchase Agreement forms provide a detailed history of the customer's transactions with the cemetery in case there are any misunderstandings in the future. If a complaint concerning Oak Cemetery or the City of Delaware regarding the Cemetery is ever brought before the Ohio Cemetery Dispute Resolution Commission, a copy of the previously completed Purchase Agreement will be requested by the Commission.

4. Any payments for pre-need or at-need burial spaces and or Opening and Closing fees should be paid in advance of the burial that is being performed. Upon receiving a phone call at the Cemetery City Office for an upcoming interment or inurnment, the Delaware City Employee receiving the call should complete the **Vital Statistics** document. This information will be used for information about the deceased, the authorizing party, funeral information and cemetery arrival time. (see attached sample) It is important for the City Cemetery Office to complete this document for each interment or inurnment to ensure that every step is taken for all interments or inurnments. This document is also helpful to ensure the interment or inurnment will fit within the cemetery's schedule and allow the process to begin.

5. The caller most often the local funeral director upon providing information for the Vital Statistics document should be reminded that the authorizing party that is ordering the interment or inurnment should come to the Cemetery office to view and authorize the expected grave or niche that is to be used and to execute the **Interment Inurnment Authorization Form**. (see attached sample) No interment or inurnment should commence without the Authorization Form being completed.

   An Interment/Inurnment Authorization Form helps remove much of the liability from an incorrect interment or inurnment location within the cemetery. As provided on the sample The Interment Inurnment Authorization Form should dictate all of the pertinent burial information including the name of the deceased, when the interment or inurnment will occur, and most importantly where the interment or inurnment in the cemetery will take place. The next of kin will execute this form after they have been shown the burial location by cemetery personnel. The importance of the document comes into play if an interment or inurnment ever occurs in the wrong location, by the next of kin properly executing

the Interment Inurnment Authorization Form; they are accepting the responsibility of the deceased being interred in the specified location.

Additionally, payments for pre-purchased or at the time of need interment or inurnment rights and/or opening and closing fees must be paid in advance of the burial that is being performed. These fees may be collected at the time of the execution of the Interment Inurnment Authorization Form, thereby eliminating the collection of funds at the time of the committal service.

6. If a pre-purchase of an interment or inurnment right has not been completed the authorizing party should be asked to come to the Cemetery to select the Interment or Inurnment location, complete a Cemetery Purchase Agreement and the Interment Inurnment Authorization Form.

7. Upon receipt of the completed Interment, Inurnment Authorization Form at the Cemetery Office, the Grave or Niche Opening and Closing Service Request Form may now be completed and distributed to the Cemetery Personnel for the Opening and Closing of the grave or niche to be completed.

8. The **Grave or Niche Opening and Closing Service Request Form** may now be completed by the Cemetery office and distributed to the Cemetery maintenance personnel for the grave or niche to be opened and closed. (see attached sample)

9. All forms completed or collected by the Cemetery personnel such as the Vital Statistics, Cemetery Purchase Agreement, the Interment Inurnment Authorization Form, the Grave or Niche Opening and Closing Service Request Form and the Burial Transit Permit delivered by the participating Funeral Director should be returned to the City Cemetery office for permanent filing.

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Financial Recommendations

The following Financial Recommendations are for Oak Grove Cemetery located in Delaware Ohio. They are based upon a review of Oak Grove's current pricing schedules, financial policies and procedures. A comparison of pricing for cemeteries within a 20-mile radius was also conducted.

The cemeteries that were compared within the 20-mile radius of Oak Grove Cemetery were Kingwood Memorial Park in Lewis Center Ohio, Radnor Township Cemetery in Radnor Township, Delaware County Ohio and Berkshire Township Cemetery in Berkshire Township, Delaware County Ohio.

All price change recommendations were based upon the financial expectations of Oak Grove Cemetery, the expectations of the Cemetery's current client base and the competing cemeteries.

Revenue generated from Opening and Closing fees and the sale of Interment/Inurnment Rights is the essence of revenue for the Oak Grove Cemetery operation. It is important to generate as much income from these fees as practically possible. The cemetery has very little other sources of self-sustaining income which must be used for the care and maintenance of Oak Grove Cemetery for generations to come.

Income Recommendations

1. Opening and Closing Fees

Current Policy – The current weekday opening and closing fee of $825 for Oak Grove Cemetery is based upon a price schedule adopted in 2012. The current Saturday opening & closing fee is $1,000. The cremation opening and closing weekday fee is $625. The cremation opening and closing fee for a Saturday burial is $725.

Recommendation – The weekday opening and closing fee should be increased to $1,100 before 4:00 PM. After 4:00 PM, the rate should be increased by $25 for each 15 minutes of the funeral procession arrival time at the Cemetery gates. The Saturday, the opening & closing rate should be increased to $1,250 between the hours of 9:00 AM and 12:00 PM. After 12:00 PM, the rate should be increased by $25 for each 15 minutes of the funeral procession arrival time at the Cemetery gates.
The weekday opening and closing fee for cremated remains should be increased to $825 before 4:00 PM and the rate should be increased by $25 for each 15 minutes of the funeral procession arrival time at the Cemetery gates. The Saturday opening & closing rate for cremation burial should be increased to $950 before 12:00 PM. After 1:00 PM, the rate should be increased by $25 for each 15 minutes of the funeral procession arrival time at the Cemetery gates.

2. Interment Right Charges

Current Policy – Based upon a price schedule adopted in 2012 the current price for a single interment right in the monument section of Oak Grove Cemetery is $1,000. The current price for a single interment right in the flush marker section of Oak Grove Cemetery is $950. Single cremation inurnment rights are being sold for $500 and interments rights for infants in the Baby land Section are being sold for $100.

Recommendation – Oak Grove Cemetery should increase the single Interment Right sale price in the monument section for full size burials to $1,500. The Cemetery should increase the single Interment Right sale price in the flush marker section for full size burials to $1,300. The inurnment right sale price (cremation right) should be increased to 50% of the recommended interment right sale price in both the monument and flush marker sections. An inurnment right is usually ½ of the right that is required for a full-size burial. Infant interment rights should be increased to $500.

New interment rights in the Oak Grove Memorial section will be in considerable demand as the sections are developed, landscaped and completed. The initial sale price for these interment rights should be introduced at a lessor rate to drive visitation and purchases within that section. The first-year introductory sale price should be $1,000 for a full-size interment right. At the beginning of the second year following development the interment rights in this section should be increased to the normal price of $1,500. All policies regarding inurnment rights in this section should be followed as recommended in the previous paragraph.

3. Monument Foundation Prices

Currently – Oak Grove Cemetery is selling foundations for monuments at $110 per square foot with a stipulation that the minimum charge shall be $220.00 Government marker foundations are provided for $175.

Recommendation - Oak Grove Cemetery should change the monument foundation fee to $1.00 per square inch (length x width) of the required monument base. Ohio cemeteries traditionally charge by the square inch thereby eliminating confusion with foundations that may fall in between an exact square foot. The minimum foundation fee should be increased to $225 and the Government monument fee should be increased to $225.

4. Additional Interment Right Fees

Currently – When an individual has purchased an interment right, they have acquired the right to one full size or cremation burial in a certain location within the cemetery. Presently at Oak Grove, when an interment right owner wants to inter cremated remains on a grave location whereby a full-size burial has occurred in the past, the Cemetery is allowing the second right or use for no additional fee. If this policy were to continue the revenue from the sale of interment rights in Oak Grove will continue to diminish as the rate of cremation burials increase.

Recommendation – Oak Grove Cemetery should initiate a charge for a second interment/inurnment right fee for any burial of remains on a grave whereby the first internment/inurnment right has been used. The fee for the second right should be 50% of the current sale price of the first full size interment/inurnment right fee in a cemetery section.

5. Inurnment Right Fees

Currently, Oak Grove Cemetery does not offer the sale of inurnment rights for niches within Columbarium's on the Cemetery property.

The proposed Cemetery Master Plan recommends the creation of cremation gardens that surround columbarium structures. These columbaria will offer both single and double cremation niches. The initial selling price of single niches should be $4,500 and double niches for $8,000.

Comments

The Financial recommendations provided within this review are for the protection and advancement of Oak Grove Cemetery.

All fees for services or products that the Cemetery extends to its clientele should be increased annually by a minimum of 3% to offset increased operational expenses.

The operation, care and maintenance of a cemetery in today's environment especially a facility that falls within the responsibilities of a municipality is a difficult task. It is often expected that the fees that are charged for the normal day to day activities of the cemetery operation are reduced in some fashion for the municipal residents. However, it is also imperative that the cemetery be maintained and cared for in such a way as to show respect for the loved ones whose remains are interred, entombed or inurned upon the grounds of the cemetery property. The expense of the Cemetery property to be maintained will either be managed by charging appropriate fees or by increasing the taxable revenue.

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Cemetery Marketing and Future Development Information

Marketing Plan

An effective marketing plan for Oak Grove Cemetery should include the following:

a. An internet web site for a cemetery is becoming one of the most important avenues of communication to reach the cemetery customer. The web site should contain information regarding the cemetery's policies and procedures, rules and regulations, a decoration policy, deceased burial location information, cemetery section maps, cemetery photos, price sheets and phone numbers. The average cemetery customer is interested in the cemetery hours of operation, who to contact with a question, where a friend or loved one maybe buried and the fees associated with a future interment or inurnment within the cemetery.
b. The cemetery should strive to get general information regarding the property and new development to as many individuals that will consider Oak Grove as their burial or inurnment permanent location. Local newspapers and signage where possible are valuable methods of updating the current or future cemetery customer as to what products or services are available at Oak Grove Cemetery.
c. A Logo should be created which should be put on any cemetery document that is visible to the cemetery customer as well as any advertisement displaying the products or services Oak Grove provides.
d. Key messages should also be included on all cemetery documents and advertisement displays. Key Messages should include verbiage that stipulates what Oak Grove Cemetery is to the cemetery customer in a few words. Some examples of Key messages would be; Oak Grove, Delaware's Family Cemetery, Oak Grove, Delaware's Memorial Garden,

Oak Grove, a Place of Remembrance, Oak Grove, Delaware's Premier Garden of Memories.

e. Volunteer groups are important for a Municipal owned Cemetery. These groups bring a wealth of information and knowledge into the overall cemetery operation. Of course, these groups become walking and talking advertisements for the Cemetery throughout the Delaware community. Additionally, these groups may help with the care and management of specific areas including the different floral gardens within the cemetery. A program should be designed by the Cemetery staff for the maintenance of theses areas as allowing these groups to participate without management assistance can be a cause of disorganization for the Cemetery operations.
f. Cemetery Conservation Board – A group of Delaware residents should be appointed as the Conservation Board for the Cemetery and its operations. An official from the City of Delaware should also be appointed to this Board to represent the Cemetery. The purpose of this group would be to discuss and formulate new ideas for the natural development of the Cemetery, its gardens and to assist in the management of the Volunteer groups described in Item e. Members of this Board should rotate membership on a bi-annual basis and should meet quarterly.

Future Development

The Cemetery Master Plan that has been developed by McGill Smith Punshon defines new areas of development that are important to the future financial existence of Oak Grove Cemetery. The Oak Grove Memorial Garden is the largest new area of development. This area consists of 12-13 acres of useable space of which approximately 10 acres will be exclusive for the sale of interment rights. With 700 interment spaces assigned per acre this provides more than 7000 additional interment rights for Oak Grove Cemetery. The balance of the property has been designed for cremation burial, scattering and columbarium inurnment rights with support for an open-air shelter. Traditional full-size burial of human remains is still the dominating factor for final dispositions. However, approximately 48% of all Ohio final dispositions of human remains results in cremation. The cremation rate is increasing by 2% per year. Therefore, in 10 years the cremation rate in the State of Ohio will be close to 70%. In 20 years, the Ohio rate of cremation will be close to 90%. Columbarium inurnment, cremation burial and cremation scattering will be the dominating method of which Oak Grove Cemetery provides service to its future customer base. With these statistics in mind the 7000 additional interment rights that are being created within the Master Plan may require a conversion to additional methods of cremation disposition years into the future.

The master Plan describes three separate areas of the Cemetery that promote the development of final disposition for cremated remains. These areas may

contain Columbarium units as well as scattering gardens for those that prefer a natural disposition of cremated remains. Each area is important as they provide different design scenarios within a specified environment for Oak Grove's future customers. As the rate of cremation continues to climb these developments become very important for the future of Oak Grove.

Information below provides additional details for cremation disposition as well as an option for Green Burial:

Columbarium

A columbarium is similar to a mausoleum, but instead of spaces for caskets, a columbarium has spaces called niches for urns which contain cremated remains. Each niche may be personalized by family members and friends, and may often include photographs, trinkets and mementos to commemorate the life of the deceased. These items may be placed inside the niche as long as the available space allows. Niches usually contain one cubic foot of interior space for one set of cremated remains.

Columbarium's are most often located in a specified area of the Cemetery. Columbarium's are usually constructed of granite and placed on a poured concrete pad in the Cemetery. As in the purchase of an interment right, columbarium niches or inurnment rights are purchased in perpetuity.

Columbarium Image

Cremation Scattering Garden

A Scattering Garden is a location that is set aside within a cemetery that is used for the spreading or broadcasting of cremated remains. The garden may be an

area in the Cemetery that will not be used for interment or inurnment rights and will benefit from the addition of bushes or flowers. Four inches of mulch should be added once all the plantings are completed. To complete a scattering, an area within the garden consisting of 4 feet by 2 feet should be racked clear of mulch. The cremated remains are removed from the container in which they were delivered to the Cemetery and are mixed with or placed on top of the soil where the mulch was removed. It is important to note that these cremated remains are placed on a commingled basis and are non-recoverable. The mulch is replaced and an area within the scattering garden should be designated for a permanent memorial designating everyone's name with a birth and death date designating whose cremated remains were scattered in the garden.

Green Burial

This option is not recommended for Oak Grove as a Green Burial Section requires considerably more attention than standard burial options. Green burial is a very simple form of burial that is occurring in a few of Ohio's cemeteries. A Green burial occurs without the deceased being embalmed and most often occurs with a bio-degradable casket or simply without one. Green burial advocates state that this burial is a way of caring for the dead with minimal environmental impact that furthers the conservation of natural resources, reduces carbon emissions, protects cemetery maintenance employee's health and promotes the restoration and/or preservation of the cemetery grounds.

The size of the Green Burial grave could be as large as 10' x 20' feet or may be similar to a family lot in Oak Grove Cemetery. The grave depth is usually 3.5 feet. The depth of this grave ensures that the remains are undisturbed and will decompose quickly. Vaults are not used and the soil is mounded over the grave. The graves are usually leveled several times in the course of a year as the natural decomposition of the remains occurs.

It is important to note that Green burial sections are not maintained as other sections of the Cemetery. These sections will not permit heavy equipment such as backhoes, trucks, utility vehicles or mowers to transport over the graves. A 10-foot pathway at the foot of each row of graves will permit this equipment to enter the section for the maintenance and digging of the graves. Wild flowers, shrubs or perennials are usually planted over the rows of graves to maintain the natural integrity often associated with a Green burial cemetery section.

The image below depicts the difference between a standard burial and a Green Natural Burial.

Green vs Standard Burial Image

1 S. Sandusky Street
Delaware, Ohio 43015

Oak Grove Cemetery

334 Sandusky Street
Delaware, Ohio 43015
Telephone: (740) 363-2971

oakgrove@delawareohio.net

Document Descriptor

Acceptance of Responsibility Form: This document is to be used for an individual who claims that they are the owner and of interment or inurnment right through inheritance, divorce or ancestry.

Disinterment/Dis-inurnment Authorization Form: This document is to be completed when an order is given to the cemetery to disinter or dis-inurn a deceased remains. This document is to be used in addition to all State required procedures and documents described in 517.23 and 517.24 of the Ohio Revised Code.

Grave or Niche Opening and Closing Service Request: The document is the directive that is completed by the Cemetery office and distributed to the maintenance personnel for a grave or niche to be opened and closed.

Interment and Inurnment Authorization Form: This document is be completed by the authorizing party prior to the opening of a grave or niche for a burial or inurnment in Oak Grove Cemetery.

Interment / Inurnment Right Price Schedule: Price Schedule for interment rights within Oak Grove Cemetery.

Miscellaneous Price Schedule: Price Schedule for miscellaneous products or services offered by Oak Grove Cemetery.

Opening and Closing Price Schedule: Price Schedule for the opening and closing services of full-size graves, cremation graves, infant graves and niches offered by Oak Grove Cemetery.

Purchase Agreement: This document is to record all sales in Oak Grove Cemetery.

Vital Statistics: The is the initial document to be completed when an opening and closing of a grave or niche is requested by a funeral director or other authorized party

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Acceptance of Responsibility Form

Date: _____

To The Superintendent of Oak Grove Cemetery:

I, _____

Do hereby accept full responsibility for the Interment or Inurnment rights concerning the location described below at Oak Grove Cemetery in Delaware Ohio. I also accept responsibility for any financial expenditure incurred by Oak Grove Cemetery as a result of this action.

Section [ ] Row/Lot [ ] Grave/Niche [ ]

Specific Instructions:

_____

_____

_____

_____
Declared Authorizing Party Printed Name

_____
Declared Authorizing Party Signature

_____
Street Address

_____
City, State, Zip

_____
Phone

_____
Oak Grove Cemetery Witness or Notary

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OHIO

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Disinterment, Disentombment or Dis-Inurnment Authorization Form

To the Management of Oak Grove Cemetery:

You are hereby authorized and instructed to ( ) Disinter, ( )Disentombment or ( ) Dis-inurn the Remains of:

Name of Deceased: _____

Current Interment Location: Section: _____ Row / Lot: _____

Grave / Crypt / Niche: _____

Original Cause of Death: _____

_____

_____

( ) Deceased remains will be reinterred, re-entombed or re-inurned at Oak Grove Cemetery:

New Interment Location: Section:_____ Row / Lot:_____

Grave / Crypt / Niche: _____

( ) Other location outside the boundaries of Oak Grove Cemetery

No pecuniary consideration has been or will be received by me for this order.
To be signed only by the surviving spouse of the deceased or surviving parents of a fetal death. All others must file for a court order with the probate court of this county.

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CITY OF DELAWARE OHIO

1 S. Sandusky Street
Delaware, Ohio 43015

Oak Grove Cemetery

334 Sandusky Street
Delaware, Ohio 43015
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oakgrove@delawareohio.net

Grave or Niche Opening and Closing Service Request

Service Type: ☐ Interment ☐ Inurnment

Service Date: _____ Service Time: _____

Deceased Name: _____Funeral Home: _____

Service Location

Section: _____ Lot: _____ Grave: _____

Vault Type: _____

Building: _____ Side: _____ Level: _____ Niche:_____

Special Notes: _____

_____

_____

Grave or Niche Verified and Opened By: _____

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Interment, and Inurnment Authorization Form

Deceased Name:_____ **Deceased Age:**_____ **Deceased Sex: Male** ____ **Female**____

Deceased Address:_____**Funeral Home:**_____

Contact Name: _____ **Relationship:**_____ **Phone:** _____

Section:_____ **Row/Lot:**_____ **Grave/Niche:**_____ **Service Date:**_____ **Service Time:**_____

Service Type - Military, Religious, Normal:_____ **Procession Service Size:**_____

Service Special Needs: _____

Vault Type:_____**Service Charge:$**_____**Terms:**_____

Notes:_____

_____

The undersigned hereby certify that they are all of the legal custodians of the herein named deceased, having the full legal authority to direct the interment or other final disposition of the remains of the deceased, and hereby authorize Oak Grove Cemetery to make disposition of the remains of the deceased as indicated above. The undersigned hereby further certify and represent that they are the owner(s) or authorized representative(s) of the owner(s) of the above described Interment Rights and hereby authorize use of said Interment Rights for the interment or other final disposition of the remains of the herein named deceased. Oak Grove Cemetery is hereby authorized to allow to be installed any outer burial container purchased in connection with this interment in the interment rights, described herein. The undersigned, jointly and severally, agree to indemnify and hold harmless Oak Grove Cemetery, its affiliates, and their respective agents, officers, directors, and employees from any and all liability, including reasonable attorney's fees, and against any loss, damage, suit, or claim which any of them may sustain in connection with the interment or other final disposition authorized hereunder. The undersigned acknowledge that Oak Grove Cemetery will follow the directions of the undersigned in reliance upon the undersigned's representation of authority, without independent inquiry of such authority, and that therefore the foregoing indemnify and cover claims by third parties as to superior right or authority for final disposition, including claims of Oak Grove Cemetery's own negligence. If prior to final disposition Oak Grove Cemetery becomes aware of a dispute as to such authority, Oak Grove Cemetery is authorized to suspend arrangements pending resolution of such dispute, and the undersigned authorize Oak Grove Cemetery to apply to a court of competent jurisdiction, at the undersigned's cost, for an order directing final disposition. Further, the undersigned agree that Oak Grove Cemetery shall have the right to correct any error in this interment, at its own expense, without any liability for such error.

Signature of Declared Authorizing Party _____ **Date:** _____

Relationship to Deceased:___ _____

Print Name:_____
First Name **Last Name** **Phone**

Address:_____
Street **City** **State** **Zip**

Witness:_____ **Date:**___ _____

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Interment / Inurnment Right Price Schedule

Effective Date: _____

Location or Grave Size	Price
Adult Full Interment Right Monument Section	$1,500
Adult Full Interment Right Flush Marker Section	$1,300
Oak Grove Memorial Garden Introductory Pricing	$1,000
Second Interment Right for Cremated Remains	½ of Current Adult Full Interment Right
Single Niche Inurnment Right	$4,500
Double Niche Inurnment Right	$8,000
Baby or Child Interment Right Baby land Section (Maximum Grave Opening 3 Feet in Length)	$500

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Miscellaneous Price Schedule

Effective Date: _____

Type of Product or Service	Price
Deed Transfer	$100
Monument or Marker Foundation	$1.00 per sq. inch (length x width) $225 minimum
Government Marker Foundation	$225
Interment Right Buy Back	75% of original purchase price or $500 minimum
Returned Check Fee	$30
Payment Plan Administrative Fee	$30
Shrub Removal	$100

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Opening and Closing Price Schedule

Effective Date: _____

Type or Time of Service	Price
Adult Full Monday - Friday (9:00 AM - 4:00 PM)	$1100
Adult Full or Cremation Overtime Monday - Friday (each 15 min after 4:00 PM)	$25
Adult Full Saturday (9:00 AM - 12:00 PM)	$1250
Adult Full, Cremation or Entombment Overtime Saturday (each 15 min after 12:00 PM)	$25
Entombment	$925
Entombment Saturday	$1075
Baby or Child (maximum 3 feet in length and from 9:00 AM - 4:00 PM)	$300
Cremation (cremation vault required)	$825
Cremation Saturday (cremation vault required) (9:00 AM - 12:00 PM)	$950
Niche	$875
Niche Saturday	$925
Disinterment (removal or re-interment of vault must be completed by vault vendor)	$2200

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Purchase Agreement

This PURCHASE AGREEMENT (Agreement) made at Delaware Ohio this ____ day of _____ , 20___
Between _____hereafter designated as Purchaser and Oak Grove Cemetery organized under the laws of the State of Ohio, hereafter designated as the Cemetery situated in the County of Delaware and the State of Ohio, witnessed: That the Purchaser agrees to purchase from Oak Grove Cemetery the following:

_____ Interment, Inurnment, Second Interment or Inurnment Right, described as……..
……Section:_____ Row/ Lot: _____Grave(s), Niches(s): _____…….…….... $_____
_____ Interment, Inurnment and Entombment Opening and Closing Fee ……..…….... $_____
_____ Monument or Marker Foundation……..…….. $ _____
_____ Cremation Vault …… ……..……..$ _____
_____ Other Product or Service ……..……..$ _____

Terms: _____

_____

_____

Purchase Price ……... $ _____
Sales Tax ……...……$ _____
Total Purchase Price ……$ _____
Down Payment ……$ _____
Balance Due …… $ _____

Conditions of Interment or Inurnment

1. These interment or inurnment right(s) are to be used for the interment of deceased or cremated human beings only and the Purchaser's rights are limited by and subject to the Cemetery's rules and regulations as now existing or as amended in the future.
2. This purchase agreement conveys only a right to be interred or inurned in the interment space(s) and in no way is any real estate title conveyed to the Purchaser. Furthermore, only one interment or inurnment right is guaranteed by this agreement. Additional internment or inurnment rights may be purchased as specified by the Oak Grove Cemetery Rules and Regulations.
3. Services related to interment or inurnment in these interment or inurnment space(s) are not included in the rights conveyed and are subject to the Cemetery's service charges and availability. These charges will be determined at the time they are purchased and are subject to change.
4. The Cemetery shall use the Purchaser's address for any official notices concerning interment or inurnment rights. The purchaser shall notify the cemetery of any change in their address.
5. The terms and conditions described herein are binding upon the Purchaser's heirs, successors and assigns and enforceable only by the Cemetery.
6. It is understood that no interment or inurnment shall be made and the interment right shall not pass to the Purchaser until the Purchase Price thereof be fully paid (unless mutually agreed upon).
7. The Purchaser, all heirs and assigns agree to comply with all Rules and Regulations of Oak Grove Cemetery now or hereafter established and any and all laws and ordinances which have or may hereafter be enacted by any proper authority relating to the burial of the dead.

Purchaser _____ Date _____

Purchaser _____ Date _____

Address _____

City, Sate, Zip _____

Phone_____

_____
Oak Grove Cemetery Representative

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Vital Statistics

To Be Completed for All Cemetery Committal Service Calls

Deceased Name: _____ Call in Date: _____

Last Place of Residence: _____

Date of Death: _____ Name of Spouse: _____

Person in Charge of Arrangements: _____

Relationship: _____ Phone: _____

Address: _____

Funeral Information

Interment #: _____ Date of Interment: _____ Arrival Time: _____

Committal Location: Graveside: _____

Bill To: _____ Terms: _____

Address: _____

Section: _____ Row/Lot: _____ Grave #: _____

Lot Owner's Name: _____

Relationship to Lot Owner: _____ Vault Type: _____

Funeral Home: _____ Funeral Director: _____

Funeral Home Phone: _____

Payment Information

Interment Charge: $ _____

Additional Charge: $ _____

Additional Charge: $ _____

Total Amount Due: $ _____

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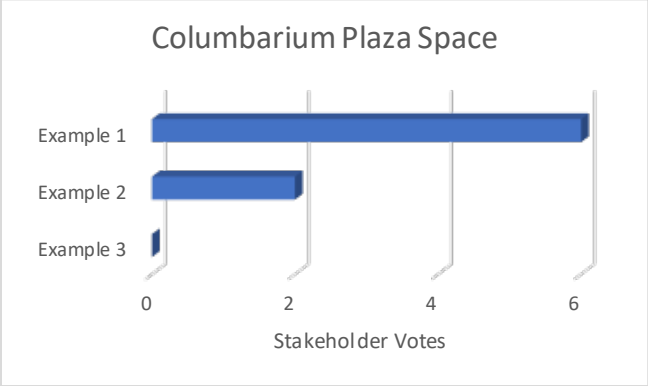
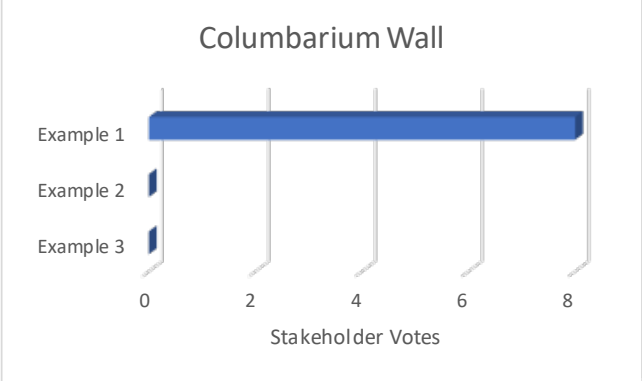
Stakeholder Input
Visual Preference Survey

Appendix VI

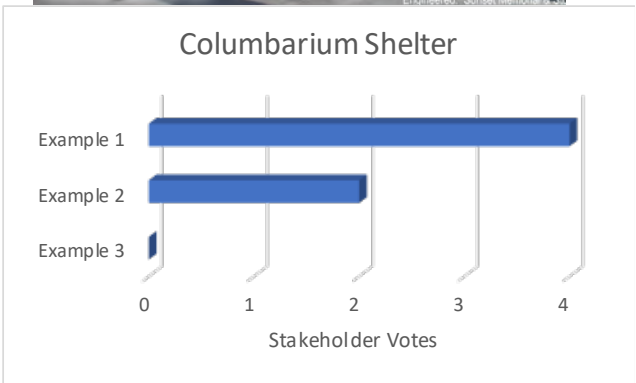




Example 1

Example 2

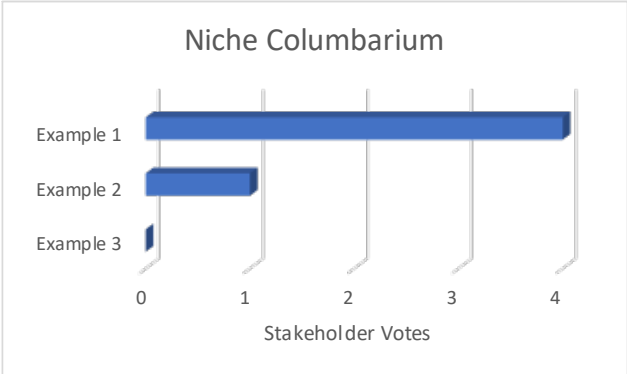
Example 3


Columbarium Shelter
Example 1
Example 2
Example 3
0
1
2
3
4
Stakeholder Votes

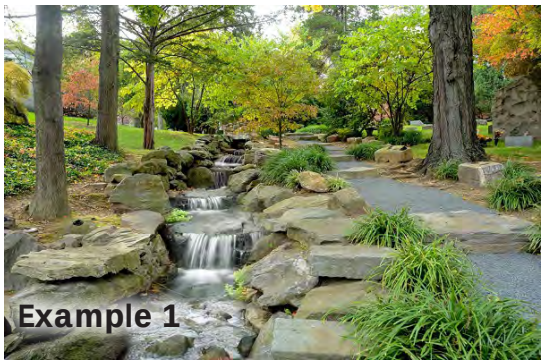
Example 1

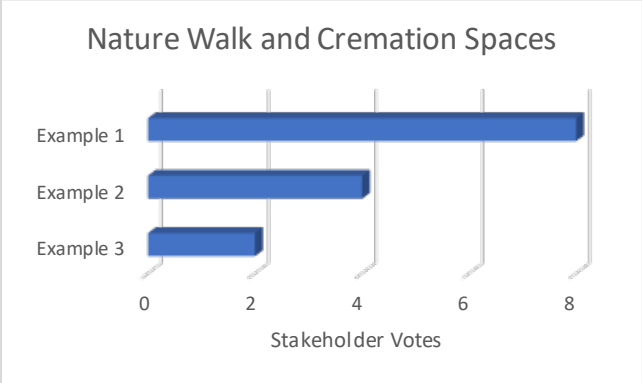
Example 2

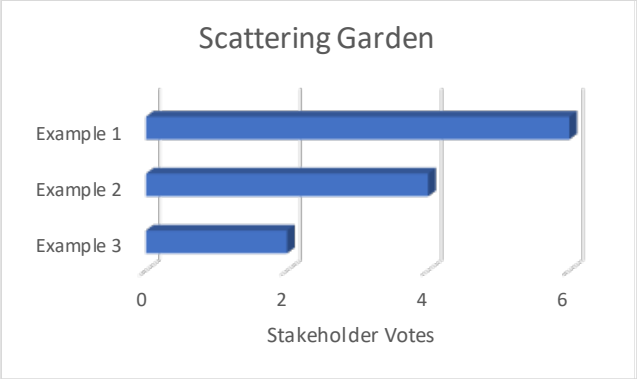
Example 3

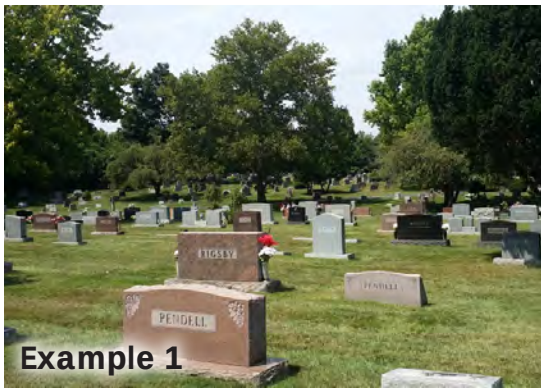

Niche Columbarium
Example 1
Example 2
Example 3
0
1
2
3
4
Stakeholder Votes

Stakeholder Input
Visual Preference Survey
Appendix VI



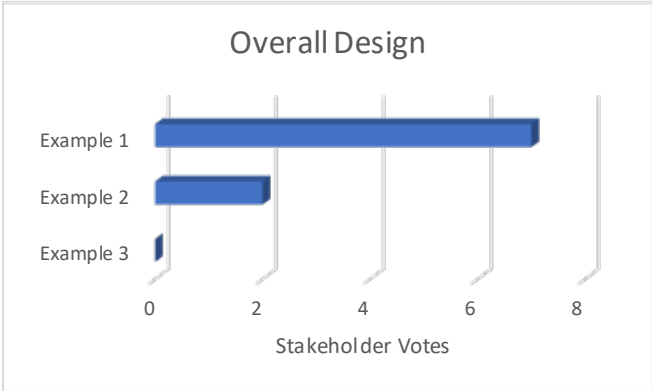





Example 1

Example 2

Example 3

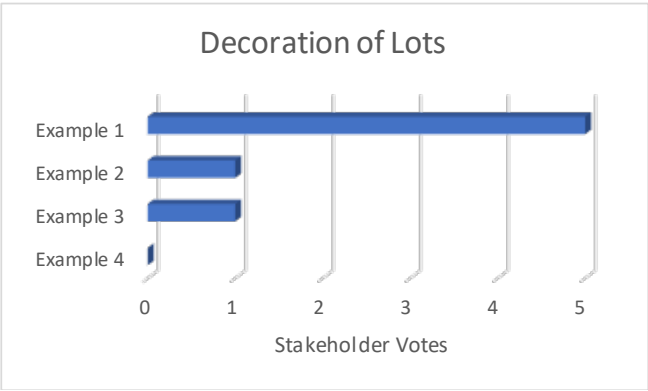

Overall Design
Example 1
Example 2
Example 3
0
2
4
6
8
Stakeholder Votes

Example 1

Example 2

Example 3

Example 4


Decoration of Lots
Example 1
Example 2
Example 3
Example 4
0
1
2
3
4
5
Stakeholder Votes