



## PUBLIC WORKS COMMITTEE MEETING

FEBRUARY 14, 2023 - 9:00 A.M.

BRIGHTON TOWN HALL AUDITORIUM

### DRAFT AGENDA

#### MEETING CALLED TO ORDER:

#### APPROVE MINUTES:

#### PUBLIC REVIEW OPEN FORUM:

#### OLD BUSINESS

MATTER RE: Town Hall Study

#### NEW BUSINESS

MATTER RE: Chelmsford Ln. Culvert Replacement

MATTER RE: Home Acres Entry Monuments

MATTER RE: Brooklawn Lighting District

MATTER RE: CDBG Proposal

MATTER RE: EECBG Grant

#### TREES:

Address	Description	Recommendation
1393 Clover Street on Rowland Pkwy. L3	46" Silver Maple	Remove and Replace
78 Westland Ave	21" Norway Maple	Remove and Replace
165 Esplanade Drive	23" Norway Maple	Remove and Replace
98 Westland Ave.	10" Zelkova	Remove and Replace
74 Westland Ave.	12" Zelkova	Remove and Replace
90 Maywood Drive	52" Silver Maple	Remove and Replace
West Side of Clover St. Opposite of 774 Clover Street.	26" Red Oak	Remove and Replace in new location
43 Modelane	45" Silver Maple	Remove and Replace in new location
72 North Landing Road	45" Silver Maple	Remove and Replace
120 Glenn Ellyn Way	32" Locust Tree	Remove and Replace
220 Thackery Road	30 Sugar Maple	Remove and Replace
290 Meadow Drive	29" Sycamore Tree	Remove and Replace
298 Meadow Drive	13" Freeman Maple	Remove and Replace

#### MEETING ADJOURNED:

NEXT COMMITTEE MEETING:

March 14, 2023 at 9:00 A.M.

Town Hall Study  
First Priority Project  
February 14, 2023  
Outline



1. Intent: Identify Final Priority Project
2. Proposed Priority Project
3. Alternatives
4. Develop Final Priority Project

Town of  
**Brighton**

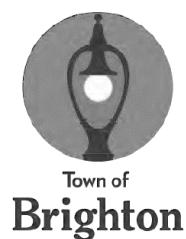


**TOWN OF BRIGHTON TOWN HALL  
EVALUATION –  
TASK C - The First Priority Project  
2300 Elmwood Avenue, Rochester, New York**

**PREPARED FOR:**

Mike Guyon, P.E.  
Commissioner of Public Works  
Public Works Department  
2300 Elmwood Avenue  
Rochester, New York 14618

**February 02, 2023**



## **TASK C - FIRST PRIORITY PROJECT** scope includes:

- 1) MEP improvements per the reduced scope plans<sup>1</sup>
- 2) Full building environmental abatement<sup>2</sup>
- 3) Accessibility upgrades<sup>3</sup>:
  - a. New exterior front entry stairs and ramps, and zero-level landing entry
  - b. First floor restroom and mother's room
  - c. (3) Accessible departmental service counters
- 4) Security upgrades:
  - a. Cameras
  - b. Fobbed entries
  - c. Improved security departmental service counters
- 5) Select finishes:
  - a. Where removed due to mechanical and remediation disturbances
  - b. Auditorium upgrades

The estimate also includes several Add Alternates and Deduct Alternates that were discussed with the Steering Committee and the Public Works Committee.

The content of this Task C Report includes the documentation necessary to quantify the scope reduction from the Task B Programming Exercise to the Task C budget-aligned schematic project. Note that Mechanical, Electrical, Plumbing, and Abatement scopes, as they remained largely unchanged in the First Priority Project, can be referenced in the provided Task B Document. Minor Structural reductions are accounted for in the estimate, including the work necessary for the addition, masonry repointing and roof work.

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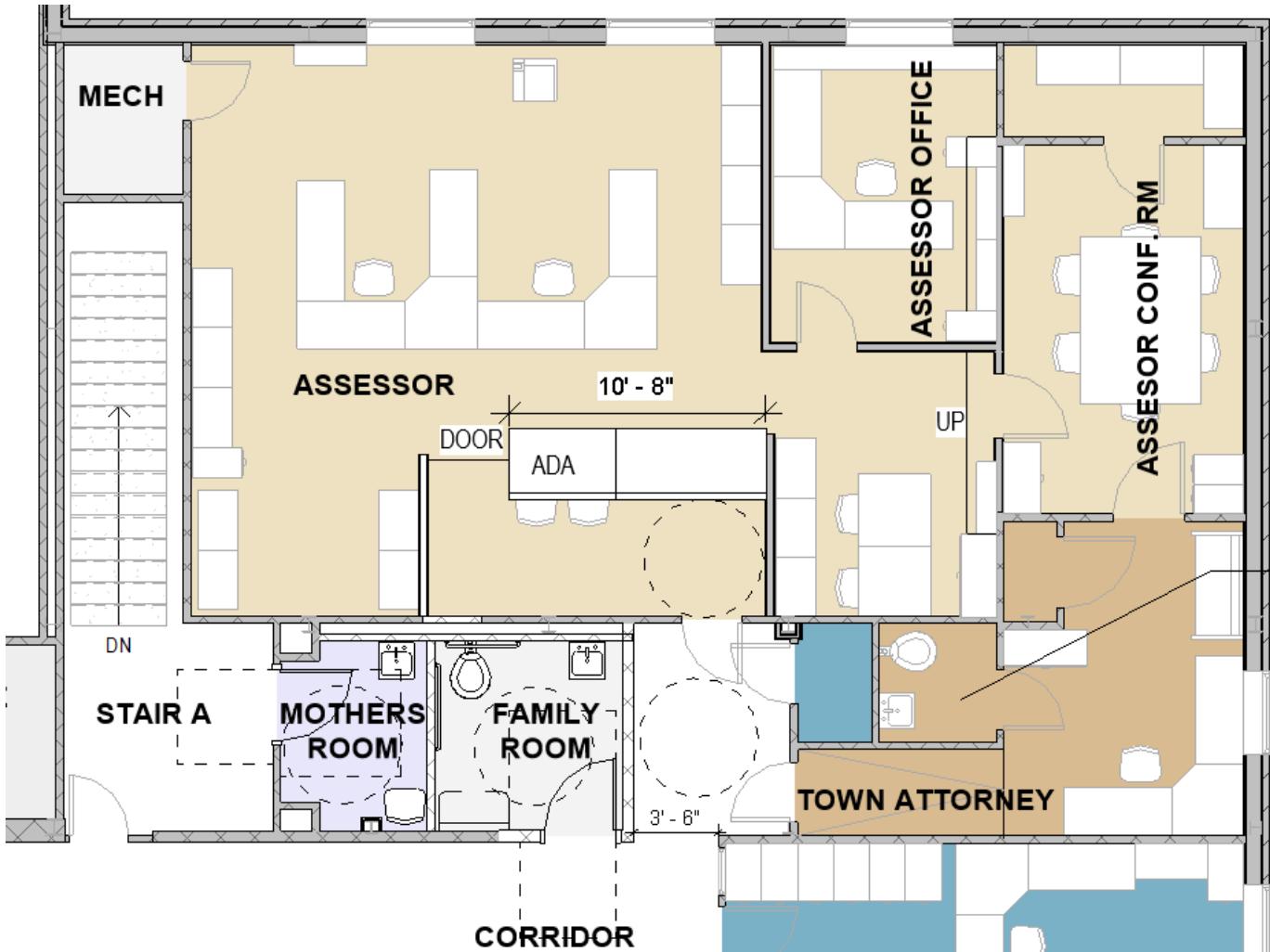
<sup>1</sup> IN/EX Architects made a scope add of (1) bottle-filling station after the PWC meeting. This change is reflected on the First Priority Project sheet A-101.

<sup>2</sup> The original terrazzo flooring in the entry Lobby is scheduled to remain due to its "historic" and good condition. The floor can remain in place as long as the material is not disturbed as it will trigger an asbestos project. This includes Impacts such as drilling, breaking, sanding, etc. (email Lu Engineers, 01.30.2023)

<sup>3</sup> This project is compliant with current standards (2009 ICC A117.1). If NYS State were to adopt ICC 2017, note that turning radius' will change from 60" clear to 67" clear.



- MEP UPGRADES
- ABATEMENT
- UNI-SEX/ FAMILY + MOTHERS
- ACCESSIBLE COUNTERS
- SECURITY
- RAMPS, STAIRS, ENTRY
- RELOCATION ESTIMATE



- **MEP UPGRADES**
  - PER EXISTING PLANS + MOTHERS AND FAMILY RM
  - REMOVED FIRE PROTECTION (REDUCED SCOPE)
- **ABATEMENT**
  - FULL ENVIRONMENTAL REMEDIATION
- **UNI-SEX / FAMILY + MOTHERS**
  - ADJUSTED ASSESSOR SPACE AND DOOR TO MOTHERS
- **ACCESSIBLE COUNTERS**
  - BASIS OF DESIGN PER DIAGRAM AND AS SHOWN ON PLAN
  - COUNTERS CONFIGURED IN EXISTING CONDITION
- **SECURITY**
  - INCLUDES (10) FOBBED DOORS
  - VIDEO SURVEILLANCE
- **FINISHES**
  - ONLY WHERE DEMO'D FOR ABATEMENT AND/OR MECHANICAL = MOST CEILINGS & LIGHTING, SOME FLOORS
  - UPGRADES TO AUDITORIUM



- - - DOES NOT INCLUDE - - -
- BRICK AND PARAPET REPAIRS
- WOOD WINDOW REFURBISHMENT

# BRIGHTON TOWN HALL

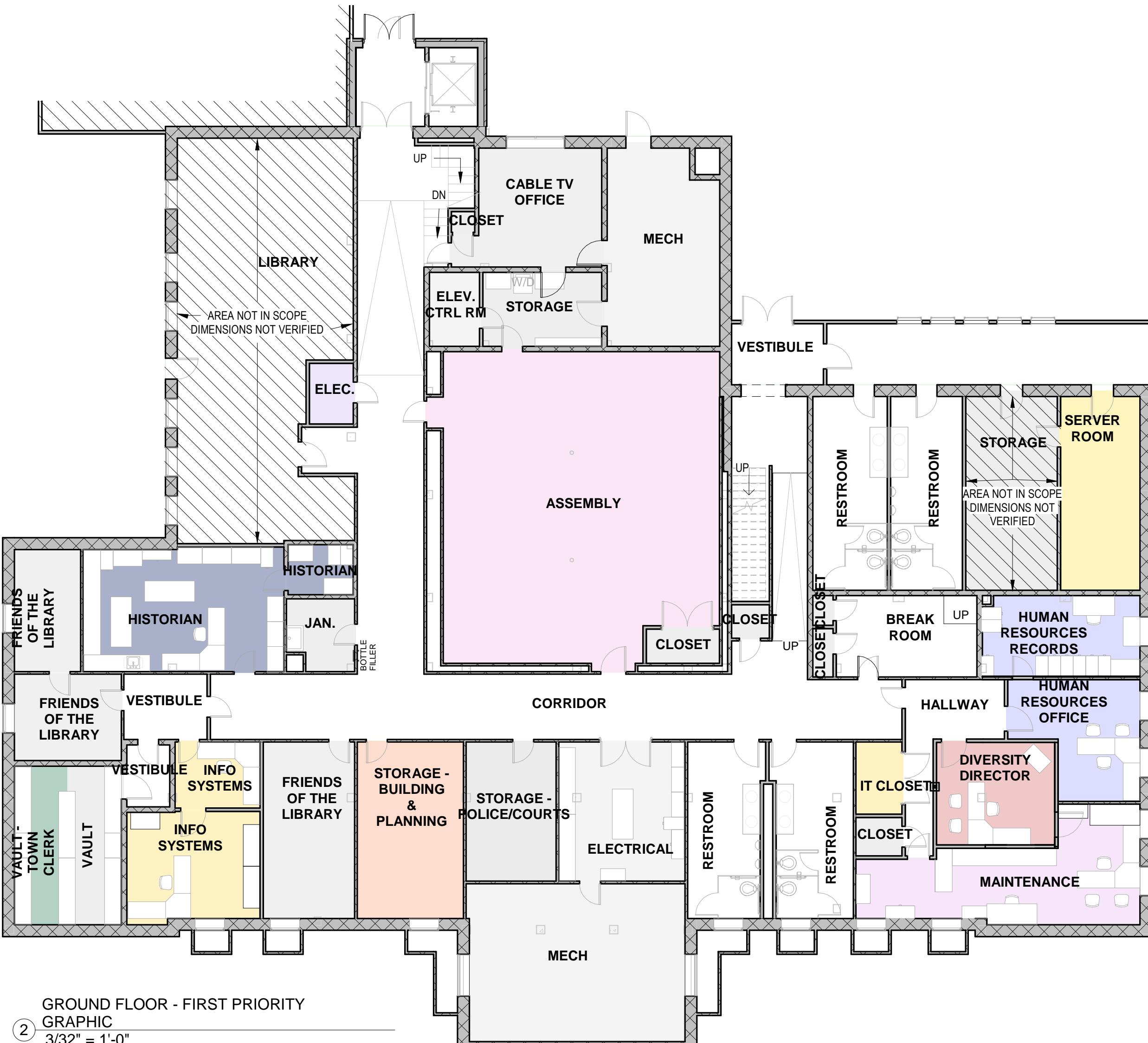
## FIRST PRIORITY PROJECT

2300 ELMWOOD AVENUE  
BRIGHTON, NY 14618

01/30/2023

SCHEMATIC SET  
PROJECT #22-001

Sheet List	
Sheet Number	Sheet Name
LS - 100	SCHEMATIC CODE REVIEW - GROUND FLOOR
LS - 101	SCHEMATIC CODE REVIEW - FIRST FLOOR
AD-100	DEMOLITION & ABATEMENT PLANS
A-100	FIRST PRIORITY PROJECT - GROUND FLOOR
A-101	FIRST PRIORITY PROJECT - FIRST FLOOR
A-500	FINISH PLANS
A-501	REFLECTED CEILING PLANS



MEP ENGINEER:  
**M/E ENGINEERING, P.C.**  
300 Trolley Blvd.  
Rochester, NY 14606  
585.288.5590

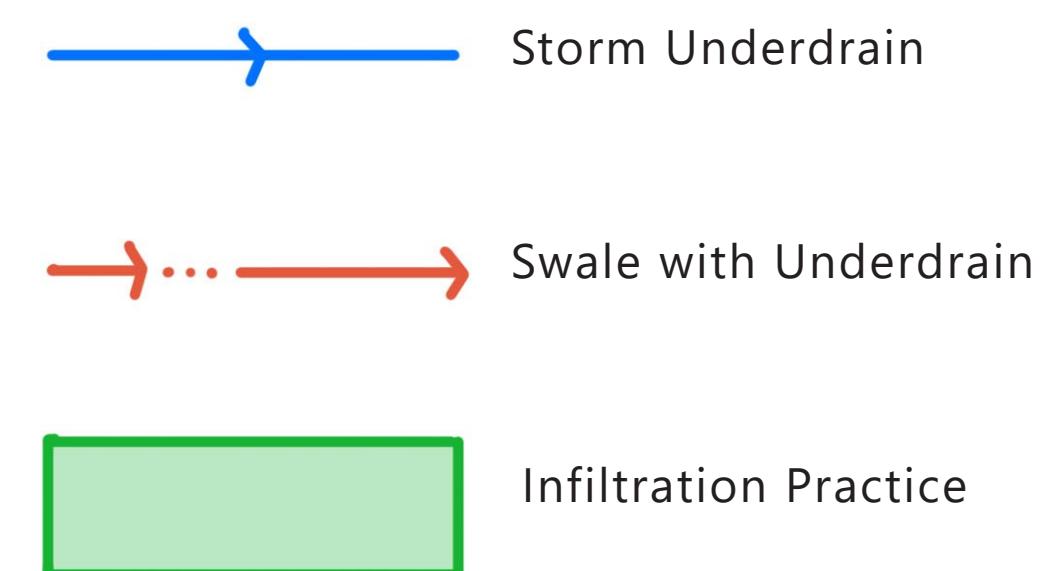
CIVIL ENGINEER:  
**EDR, D.P.C.**  
274 North Goodman Street  
Rochester, NY 14607  
585.271.0040

ARCHITECT:  
**IN/EX ARCHITECTURE, P.C.**  
133 S. Fitzhugh Street  
Rochester, NY 14608  
585.398.7886

STRUCTURAL ENGINEER:  
**JENSEN BRV ENGINEERING**  
1653 E. Main Street #3  
Rochester, NY 14609  
585.482.8130

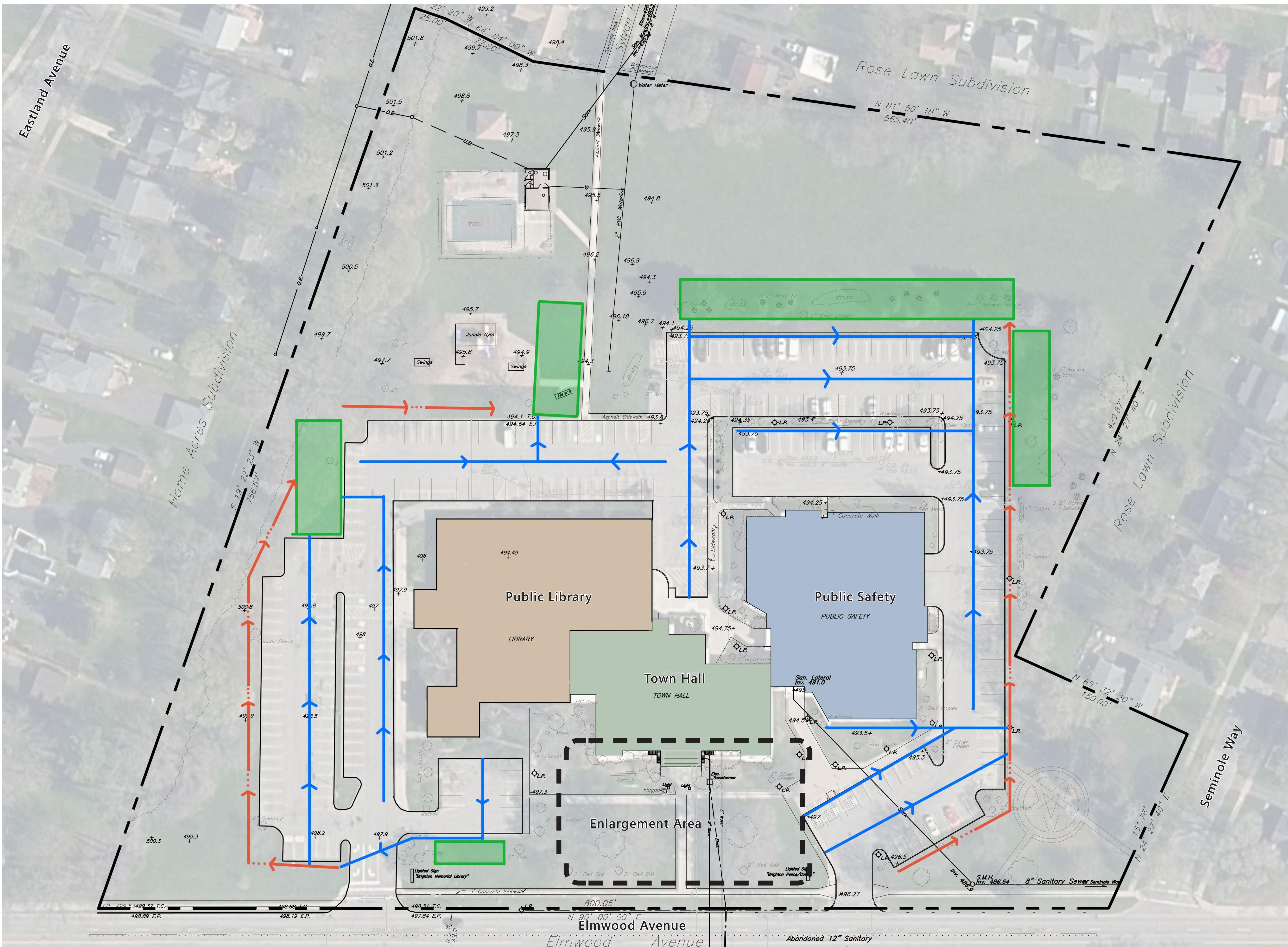
ENVIRONMENTAL ENGINEERS:  
**LU ENGINEERS**  
280 E Broad St Suite 170  
Rochester, NY 14604  
585.352.4410

## LEGEND



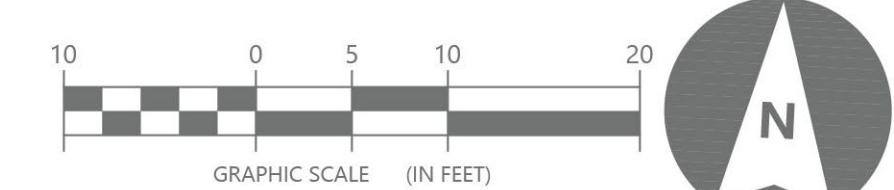
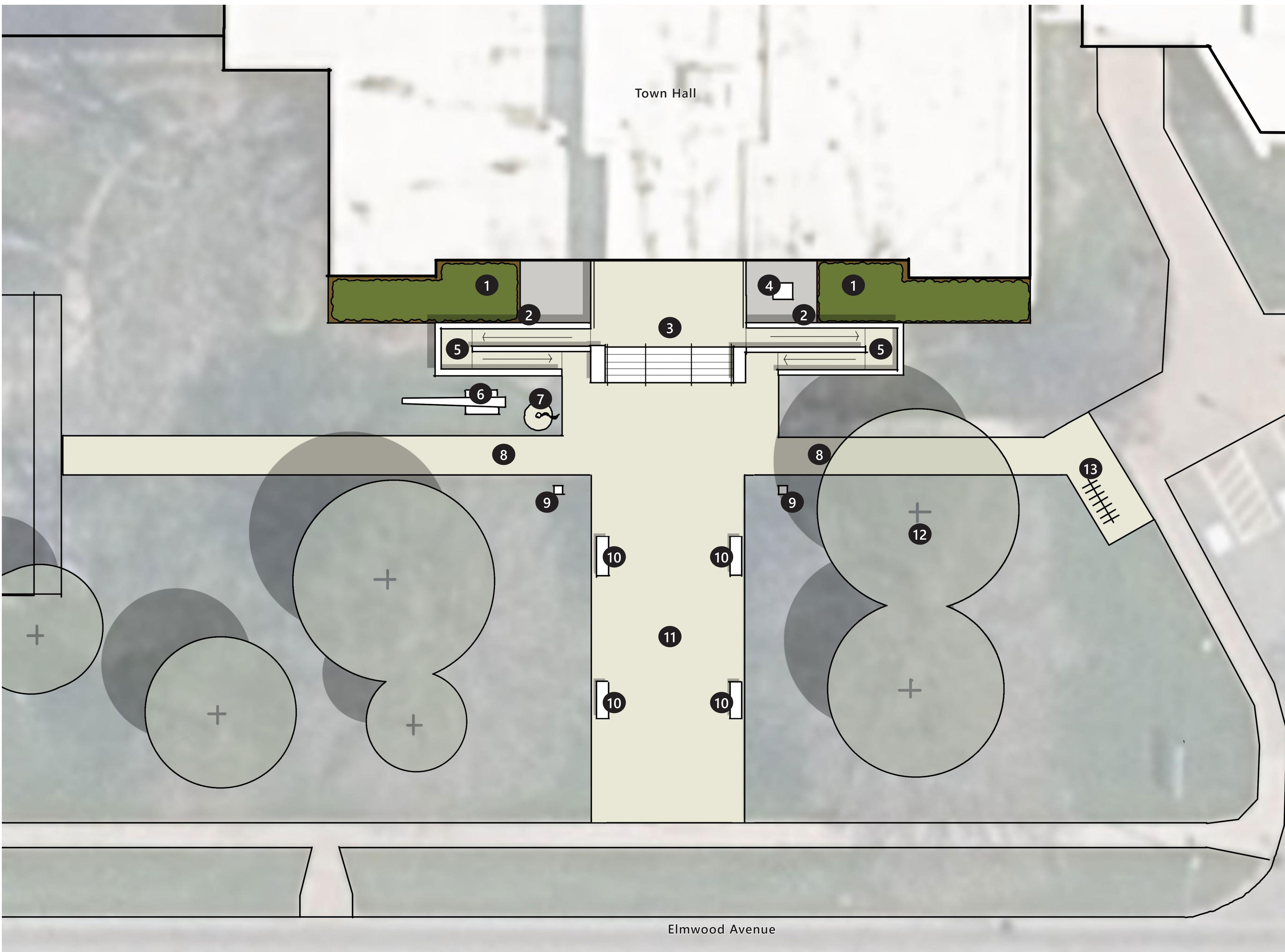
### Notes:

1. This graphic does not show the pavement storm sewer system, which is needed for conveyance.
2. This assumes regrading and full depth asphalt replacement of parking lots.
3. Infiltration practices to be determined. Examples include dry well, bioretention, underground storage.



## LEGEND

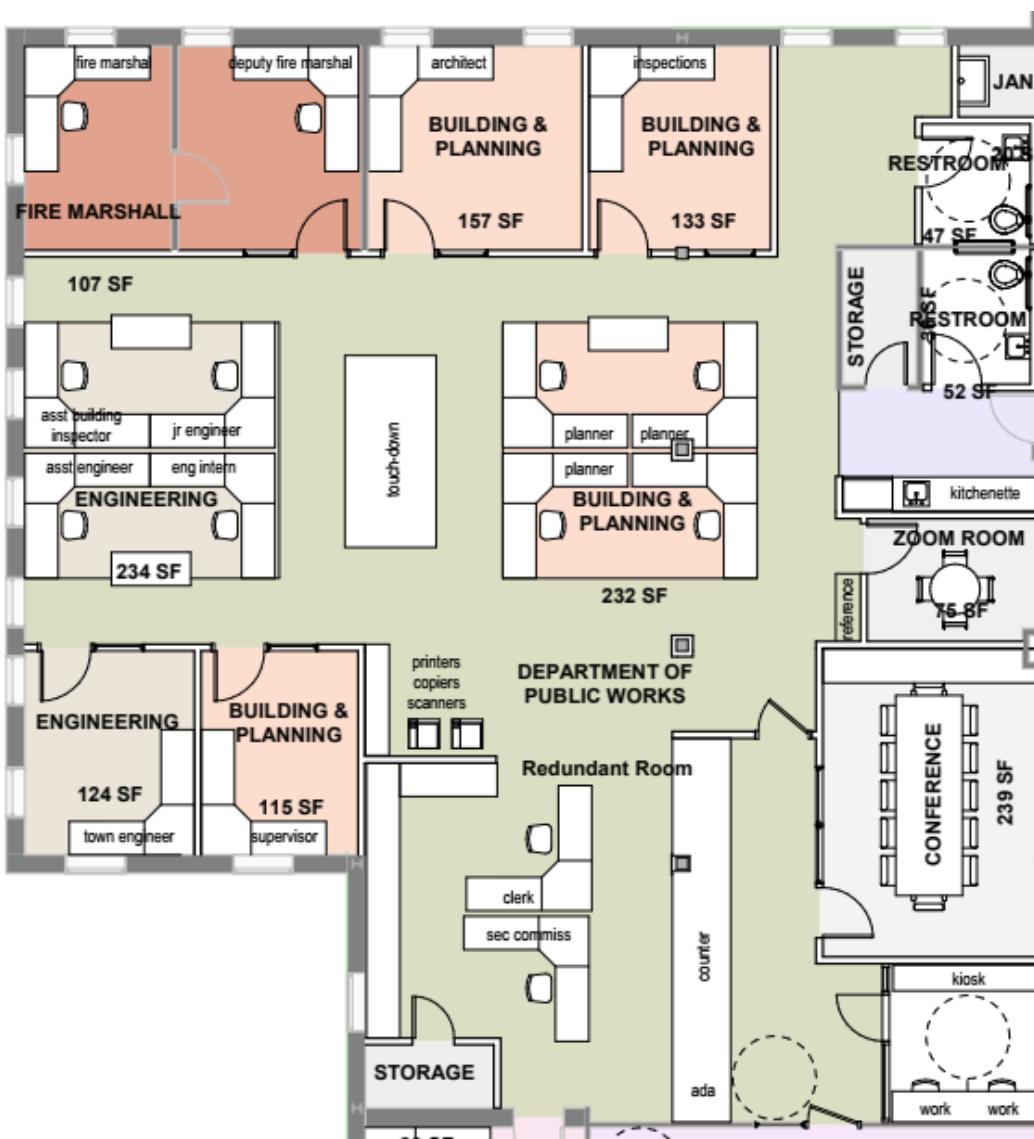
- 1 Planting Beds
- 2 Decorative Drainage Stone
- 3 Enlarged Landing with Steps to Match Existing
- 4 Relocated Electrical Transformer
- 5 ADA Ramps
- 6 Reinstalled Cannon Following Construction
- 7 Relocated Flagpole
- 8 Walkways at or Below 5% Slope
- 9 Relocated Bollard Lights
- 10 Benches with Backs
- 11 Concrete Walkway Plaza
- 12 Existing Trees to Remain, Typ.
- 13 Relocated Bikeshare Station



FIRST PRIORITY PROJECT						
AREA	CONTRACTS					TOTAL COST
	GC	FP	PL	MC	EC	
RENOVATIONS	\$ 1,869,346	\$ -	\$ 30,558	\$ 2,177,873	\$ 623,533	\$ 4,701,311
RAMP, STEPS AND ASSOCIATED SITE WORK	\$ 781,265	\$ -	\$ -	\$ -	\$ 27,911	\$ 809,175
<b>BASE BID TOTAL PROJECT CONSTRUCTION COST</b>	<b>\$ 2,650,610</b>	<b>\$ -</b>	<b>\$ 30,558</b>	<b>\$ 2,177,873</b>	<b>\$ 651,444</b>	<b>\$ 5,510,486</b>

# Agenda:

1. Review Phase One Plan
2. Review Alternatives

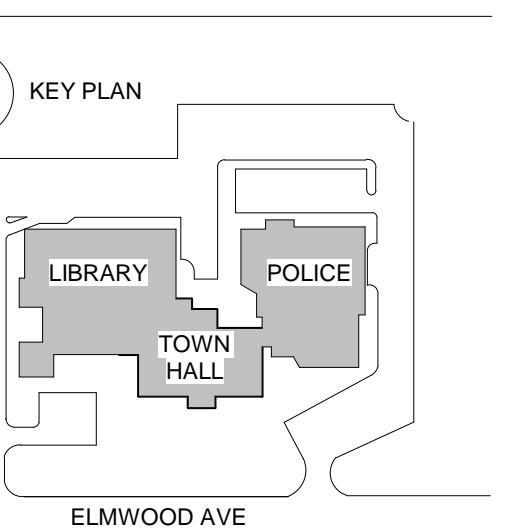


- **ALT #1 - DPW AREA**
  - PROGRAMMATIC AREA OF GREATEST NEED
  - WOULD REQUIRE THE MOST RE-WORKING OF MEP IN FUTURE PHASE
- **ALT #2 – BALANCE OF RENOVATION/ RECONFIGURATION**
- **ALT #3 - PAVING & STORM**
- **ALT #4 - ADDITION**
  - PROGRAMMATIC NEED
  - NECESSARY TO MAKE ANY SPACE CHANGES ON GROUND LEVEL
- **ALT #5 - SNOW MELT SYSTEM**
- **ALT #6 - VALUE ENGINEERED MEP (DEDUCT)**
- **ALT #7 - REDUCED ABATEMENT (DEDUCT)**



**BRIGHTON TOWN HALL**  
**2300 ELMWOOD AVENUE**  
**BRIGHTON, NY 14618**

TOWN OF BRIGHTON



IN/EX ARCHITECTURE P.C.  
133 S. FITZHUGH STREET  
ROCHESTER, NY 14608  
585.398.7886

REV. #   DESCRIPTION   DATE  

JOB NO. 0000  
SCALE 1/8" = 1'-0"  
ISSUE DATE 08/19/2022

THIS IS A SINGLE SHEET OF A COHESIVE  
SET OF CONSTRUCTION DOCUMENTS  
(INCLUDES DRAWINGS AND SPECIFICATIONS).  
INTERPRETATION OF THE DRAWINGS  
AS PRESENTED SHOULD BE BASED ON  
THE ENTIRE SET OF DOCUMENTS.

DRAWING TITLE

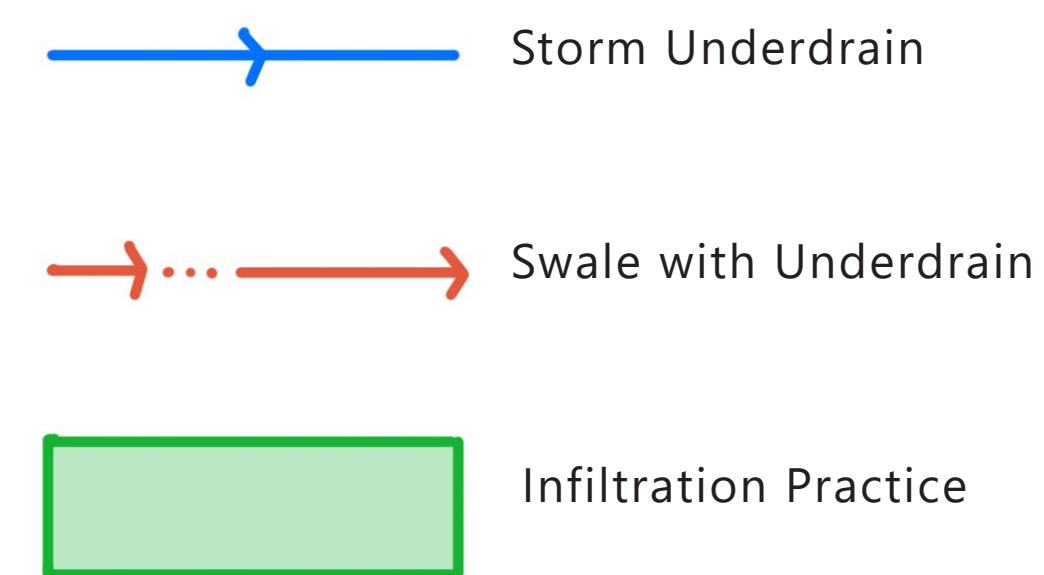
**PROPOSED FIRST  
FLOOR PLAN**

**A-101**

ISSUED FOR DRAFT



## LEGEND



### Notes:

1. This graphic does not show the pavement storm sewer system, which is needed for conveyance.
2. This assumes regrading and full depth asphalt replacement of parking lots.
3. Infiltration practices to be determined. Examples include dry well, bioretention, underground storage.



ALTERNATES						
AREA	CONTRACTS					TOTAL COST
	GC	FP	PL	MC	EC	
ALT #1 - ADD DPW AREA RENOVATIONS	\$ 785,412	\$ -	\$ 63,692	\$ 52,235	\$ 134,346	\$ 1,035,684
ALT #2 - ADD ALL OTHER RENOVATIONS	\$ 1,190,994	\$ -	\$ 335,686	\$ 130,840	\$ 1,036,822	\$ 2,694,342
ALT #3 - ADD PAVING / STORM	\$ 1,505,367	\$ -	\$ -	\$ -	\$ -	\$ 1,505,367
ALT #4 - ADDITION	\$ 468,301	\$ -	\$ 18,660	\$ 14,620	\$ 31,432	\$ 533,014
ALT #5 - ADD SNOW MELT SYSTEM	\$ -	\$ -	\$ -	\$ 146,932	\$ 12,856	\$ 159,788
ALT #6 - DEDUCT HVAC VALUE ENGINEERING	\$ -	\$ -	\$ -	\$ (437,923)	\$ (29,690)	\$ (467,612)
ALT #7 - DEDUCT ABATEMENT ONLY AS REQUIRED FOR FIRST PRIORITY PROJECT	\$ (292,610)	\$ -	\$ -	\$ -	\$ -	\$ (292,610)
<b>ALTERNATES TOTALS</b>	<b>\$ 3,657,464</b>	<b>\$ -</b>	<b>\$ 418,038</b>	<b>\$ (93,296)</b>	<b>\$ 1,185,767</b>	<b>\$ 5,167,973</b>

RELOCATION ESTIMATE	\$ 380,000
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RAMP, STEPS AND ASSOCIATED SITE WORK	\$ 781,265	\$ -	\$ -	\$ -	\$ 27,911	\$ 809,175
<b>BASE BID TOTAL PROJECT CONSTRUCTION COST</b>	<b>\$ 2,650,610</b>	<b>\$ -</b>	<b>\$ 30,558</b>	<b>\$ 2,177,873</b>	<b>\$ 651,444</b>	<b>\$ 5,510,486</b>

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<b>TOTAL PROJECT CONSTRUCTION COST WITH ALTERNATES</b>	<b>\$ 6,308,074</b>	<b>\$ -</b>	<b>\$ 448,597</b>	<b>\$ 2,084,577</b>	<b>\$ 1,837,211</b>	<b>\$ 10,678,459</b>
<b>RELOCATION ESTIMATE</b>						<b>\$ 380,000</b>

# Technical Memo

To: Evert Garcia, P.E., Town Engineer, Town of Brighton  
 From: Dan Clark, P.E., Senior Bridge Engineer, Ravi Engineering  
 Date: 2/1/2023  
 Re: Chelmsford Lane Culvert Failure

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Ravi Engineering and Land Surveying, PC was contacted by the Town of Brighton on Friday January 22, 2023 in regards to a hole that opened up in the shoulder of Chelmsford Lane in the vicinity of an existing 6'x10' corrugated metal pipe that carries Buckland Creek under Chelmsford Lane.

On Tuesday January 24, 2023 Waldin Dilone and I visited the site, inspected the culvert, and spoke with Mike Guyon and Steve Zimmer both with the Town of Brighton. The Town of Brighton had already closed the road upon identifying the hole in the shoulder and after our inspection, we recommend maintaining the roadway closure until the structure is either rehabilitated or replaced.

Investigating the soil failure from the surface, it was apparent that part of the existing CMP culvert pipe had failed leading to the undermining of the fill soil above the culvert. Further investigation from inside the culvert verified the pipe failure as approximately 50" of the metal pipe had collapsed, causing the wash out of the fill material along and above the existing culvert. The failure has caused approximately two (2) feet of the existing roadway pavement to undermine leaving no soil below the asphalt surface. Several photos of the existing conditions are attached. Additionally, the failure of the culvert has exposed a 6" diameter conduit that appears to be existing underground private electric and telephone lines. Impacts to these private utilities will need to be considered during the repair/replacement process. Also noted, the stone outlet headwall has major cracking and is out of plumb.

Buckland Creek in this location is a NYSDEC Regulated Class B Stream and has been studied by FEMA as part of Monroe County's County Wide Flood Insurance Study dated March 2008. Based on the flood study at this location there is a documented floodway and floodplain that will play a part in the ultimate rehabilitation/replacement option for this culvert. Given this detailed FEMA study, a full hydraulic analysis will need to be completed to verify that there is no impact to the 100-year flood plain.

A review of the NYSDEC Environmental Mapper shows no endangered or threatened animals/plants within the project area and the project is not located within an archeologically sensitive area. Additionally, the structure is not historically eligible nor are there any historic properties near the culvert location.

Based on our review of the site and the failure condition of the existing pipe we have identified one rehabilitation option and two replacement options that the Town could further investigate.

The feasible rehabilitation project for the structure would be to line the structure with a new steel pipe that would have a slightly reduced hydraulic opening. The steel pipe would be slid through the existing structure with the void

space between the new and existing culvert sealed with grout. The area of the existing culvert that has failed would then be either grouted or filled with soil material. This option would cause minor disturbance around the culvert, provide a relatively quick construction schedule and not impact the existing private utilities. While a rudimentary preliminary hydraulic review shows that this option may have a negative impact on the site flood levels, a more detailed hydraulic analysis is recommended before ruling this option out.

The other two feasible options would be the complete replacement of the existing structure with either a precast concrete box culvert or a 3-side precast concrete span unit structure on footings. Both options would utilize precast wingwall systems, have similar disturbance areas, and would impact the private utilities that cross Buckland Creek at this location. Preliminary hydraulics show that a 8' rise x 10' span box culvert embedded 2' into the stream bottom or a 6' rise x 10' span three sided structure would pass all storm events and have no impact on the 100-year flood plain. Utilizing the 3-sided span units would require the need for footings and possible piles depended on the depth of bedrock at the project location.

All three options will require further investigating to verify structure size and required environmental permits and restrictions.

If determined hydraulically feasible, the rehabilitation option would be cheaper in design and construction costs over the two similar replacement options.

Below are several photos showing the existing culvert conditions.

Open hole in shoulder.



Looking through hole into failed culvert.



Failed sections inside of culvert approximately 50" in length.



Failed sections inside culvert approximately 50" in length.



Cracked headwall at outlet end



Utility and pavement undermining



At this time, RE&LS would recommend maintaining the existing road closure until the existing structure can be rehabilitated or replaced. In addition, we recommend placing a steel road plate over the existing hole and extending into Chelmsford Road a minimum of five feet.

Feel free to contact me to discuss further or if you have any questions.

Sincerely,

Dan Clark



Daniel Clark, P.E., Senior Bridge Engineer, Transportation

Ravi Engineering & Land Surveying, P.C.

2110 South Clinton Avenue, Suite 1 | Rochester, New York 14618

Cell: 585.295.3789 | Fax: 585.697.1764

[dclark@ravieng.com](mailto:dclark@ravieng.com) | [www.ravieng.com](http://www.ravieng.com)

cc: Mike Guyon, P.E., Superintendent of Highways, Town of Brighton

Rick Papaj, P.E., Director of Transportation, Ravi Engineering

# REPORT OF SITE VISIT & WORKLIST UPDATE

## HOME ACRES ENTRY MONUMENTS

Town of Brighton, New York

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Monroe & Southern  
Parkway

Elmwood & Eastland

Elmwood & Westland

Highland & Edgemere

December 2022

Prepared for:

Mr. Mike Guyon, Commissioner of Public Works  
Town of Brighton  
2300 Elmwood Avenue  
Rochester, NY 14618

Prepared by

Jennifer Ahrens, Architect  
Bero Architecture PLLC  
32 Winthrop Street  
Rochester, NY 14607

#### 4.2 Historic Preservation

The Brighton Historic Preservation Commission was created to identify and designate historic properties and sites with the Town to foster civic pride and sense of community. We do not know if the Home Acres Entry Monuments have received historic designation, a designation that recognizes the significance of a property for historical, cultural, and/or architectural value as part of the Town's heritage.

If the sites are designated, any repairs that modify the appearance or materials will require review by and approval by the Brighton Historic Preservation Commission – a Certificate of Appropriateness. Our repair recommendations follow the Secretary of the Interiors Standards for Rehabilitation, a preservation approach generally accepted by commissions.

#### 4.3 Maintenance

Regular and ongoing maintenance is necessary to maximize the service life of each of the exposed materials. The use of proper repair techniques and materials is critical to the success of any maintenance effort. Although simple in construction, these gateways are exposed to harsh conditions from weather and their proximity to roadways. Regular inspections and prompt repair should be part of a maintenance plan moving forward.

Our suggested maintenance plan by time interval is as follows:

##### SEASONAL (SPRING & FALL)

- Inspection + documentation. Record incidents such as vehicular impacts, vandalism, and physical changes. Take photographs.
- Seasonal repairs. Remove weed and vine growth, trim back vegetation.
- \$1,200/year

##### EVERY FIVE YEARS

- Inspect mortar joints. Repoint open and deteriorated joints.
- Inspect caps. Patch as needed.
- Repaint and touch-up metalwork at lampposts.
- \$6,400/5 years

We generally do not recommend treating these masonry walls with a water-repellent coating.. Water-repellent coatings are often referred to as “sealers” and are intended to keep liquid water from penetrating the masonry surface, but allow water vapor to enter or leave the surface. For this reason, they are considered “breathable” and are usually transparent. Although they are more vapor permeable than older formulas of sealers, they still reduce the vapor permeability of the masonry. And once water vapor is within the wall system, it can condense at cold areas, turn to liquid water, and then cannot escape through the water-repellent coating applied. We recommend routine inspection and repointing of failed joints as the best practice for maintenance.

## ESTIMATE OF PROBABLE CONSTRUCTION COSTS

### 5 WORKLIST

In the following Worklist spreadsheet, preferred repairs are indicated as an “Opinion of Probable Construction Costs” with 1.) the assigned priority level, 2.) dollar value per unit, and 3.) a markup calculation.

The following is our three-level priority categorization used for this report.

1. Essential [E]: Life safety and immediate stabilization
2. Preservation [P]: Work which can be deferred, but required for long-term stabilization
3. Optional [O]: Restoration of historic detail(s) or optional improvements

\* Priorities are assigned on the basis of an item’s importance as it relates to occupancy and preservation of the property, and without knowledge of available funds.

Prevailing wages are used as a general guide for trade labor rates per hour of work. Prevailing wages are determined by the NYS Department of Labor and closely approximate union wages; the overhead and profit percentages are from RS Means - Commercial Renovation Cost Data 2022.

Prevailing Wage Rates		Monroe County - 7/1/2022 until 06/30/2023		
Trade	Hourly Wage	OH & P *	Billing Rate	Crew Rate
Asbestos Laborer	\$ 51.35	58.00%	\$ 81	.
Carpenter - Building	\$ 55.90	58.90%	\$ 89	.
5th year apprentice	\$ 41.25	58.90%	\$ 66	\$ 154
Electrician	\$ 67.41	53.60%	\$ 104	.
6th year apprentice	\$ 58.99	53.60%	\$ 91	\$ 194
Elevator Constructor	\$ 94.34	53.00%	\$ 144	.
8th year apprentice	\$ 82.85	53.00%	\$ 127	\$ 271
Glazier	\$ 54.75	58.60%	\$ 87	.
Ironworker	\$ 61.72	61.00%	\$ 99	.
Laborer - Building (basic)	\$ 50.35	58.90%	\$ 80	.
Mason - Building	\$ 58.49	60.20%	\$ 94	.
4th year apprentice	\$ 49.68	60.20%	\$ 80	\$ 173
Operating Eng - Building (Master Mechanic)	\$ 71.26	55.80%	\$ 111	.
Painter	\$ 48.35	58.30%	\$ 76	.
Plumber	\$ 63.41	54.10%	\$ 98	.
5th year apprentice	\$ 42.99	54.10%	\$ 66	\$ 164
Roofer	\$ 55.00	72.10%	\$ 95	.
4th year apprentice	\$ 39.94	72.10%	\$ 69	\$ 163
Sheet Metal worker	\$ 64.34	55.70%	\$ 100	.
5th year apprentice	\$ 52.42	55.70%	\$ 82	\$ 182
Sprinkler Fitter	\$ 65.83	54.30%	\$ 102	.
10th year apprentice	\$ 56.36	54.30%	\$ 87	\$ 189
Tile setter	\$ 59.30	56.10%	\$ 93	

\* OH & P percentages obtained from: RS Means - Commercial Renovation Cost Data 2023.

In keeping with the 2002 Report of Site Visit, we priced a portion of the work scope by Unit Prices. The following unit prices do NOT include the mark-up – the markup is reflected in the Worklist.

The following Unit Prices are provided for informational purpose and incorporated into the Worklist:

Piers:

Rake and repoint \$1,200/pier – all stone masonry joints

## Rails:

Rake and repoint \$90/LF - entire face of stone masonry rail  
Rake and repoint \$25/LF – for 12" depth or approximately one course in height

### Cast Stone:

Replace pier cap	\$3,200/cap – custom fabricated member
Replace rail cap	\$110/LF – manufacturer's stock members
Replace rail cap	\$180/LF – custom fabricated members

The “Opinion of Probable Construction Costs” is 1.) based on limited site visits that do not observe every single problem with a building, and 2.) preliminary information available in our office: estimating handbooks, limited contact with a supplier or trade contractor, past experience, and project scope review.

Contractor bid pricing is, of course, the most accurate pricing as they are asked to provide such information much more often than architects, and they represent a direct line from materials to labor to finished product.

Prices are also highly dependent on the size of the project and the construction environment at the time of bidding, and are, at best, guesses based on limited time and budget. Accordingly, Bero Architecture PLLC cannot warrant or represent that bids or negotiated prices will not vary from the prices shown.

The “Opinion of Probable Construction Costs” rounds estimated costs between \$1 and \$9,999 to the nearest \$100, between \$10,000 and \$99,999 to the nearest \$1,000, between \$100,000 and \$999,999 to the nearest \$10,000, etc.

We used the Prime Contractor (PC) markup for the Worklist as we assume a masonry firm will likely perform all the work required for the repairs. The (GC) markup represents a General Contractor will be hired to coordinate one (1) project with multiple repairs and/or trades. When an individual item or a particular group of items are related, and the work can be completed with minimal impact to other worklist items (perhaps as an isolated small project), then a Prime Contractor (PC) is the assumed markup. If a study, or design by an architect or engineer is recommended, then a Professional Services (PS) markup is used to indicate the probable cost of those fees.

This report generally assumes listed work items will be coordinated into either a GC construction contract(s) that has been designed and specified by a licensed Architect in consultation with the Owner's program and budget.

Please refer to the table below for the process by which the markups are calculated.

Markups	GC	PRIME-Rehab	PS
General conditions	10.00%	10.00%	10.00%
General contractor's overhead	10.00%	10.00%	
General contractor's profit	10.00%	5.00%	
Contingency	15.00%	15.00%	15.00%
Professional fees	10.00%	10.00%	
Compounded and rounded	1.68	1.61	1.27

Work Item	Quantity	Unit	Cost per Unit	Subtotal	Markup	Subtotal	Totals By Location	Essential	Preservation	Optional
<b>WORKLIST - HOME ACRES ENTRY MONUMENTS</b>										
<b>HIGHLAND &amp; EDGEMERE ENTRY GATES</b>										
PIER REPAIRS							\$ 87,300			
Replace pier cap, salvage and reinstall pommel	5	ea	\$ 3,200	\$ 16,000	1.61	\$ 25,700				\$ 25,700
Materials: HE.A.1, HE.A.2, HE.A.4, HE.D.1, HE.D.3										
Replace pier cap, salvage and reinstall light-post	2	ea	\$ 4,000	\$ 8,000	1.61	\$ 12,900				\$ 12,900
Materials: HE.B, HE.C										
Repoint stone masonry - all piers	7	ea	\$ 1,200	\$ 8,400	1.61	\$ 13,500				\$ 13,500
Rebuild 12" top of east elevation pier HE.D.3	8	hrs	\$ 94	\$ 750	1.61	\$ 1,200				\$ 1,200
RAIL REPAIRS										
Replace rail cap	90	lf	\$ 110	\$ 9,900	1.61	\$ 15,900				\$ 15,900
Materials: HE.A.3, HE.D.2										
Provide joint protective system	12	hrs	\$ 94	\$ 1,124	1.61	\$ 1,800				\$ 1,800
Repoint stone masonry	90	lf	\$ 90	\$ 8,100	1.61	\$ 13,000				\$ 13,000
REMOVE VEGETATION										
Remove (2) trees	8	hrs	\$ 80	\$ 640	1.61	\$ 1,000				\$ 1,000
Equipment	1	ls	\$ 800	\$ 800	1.61	\$ 1,300				\$ 1,300
Trim existing vegetation	4	hrs	\$ 80	\$ 320	1.61	\$ 500				\$ 500
Remove ivy	4	hrs	\$ 80	\$ 320	1.61	\$ 500				\$ 500
<b>ELMWOOD &amp; EASTLAND ENTRY GATES</b>										
PIER REPAIRS							\$ 32,000			
Replace pier cap, salvage and reinstall pommel	1	ea	\$ 3,200	\$ 3,200	1.61	\$ 5,100				\$ 5,100
Material: EE.D.4										
Repoint cap joint at pommel	12	hrs	\$ 94	\$ 1,124	1.61	\$ 1,800				\$ 1,800
EW.A.1, EW.A.3, EW.D.1, EW.D.3, EW.D.4										
Repoint stone masonry	3	ea	\$ 1,200	\$ 3,600	1.61	\$ 5,800				\$ 5,800
RAIL REPAIRS										
Replace rail caps	70	lf	\$ 110	\$ 7,700	1.61	\$ 12,400				\$ 12,400
Materials: EW.A.2, EW.D.2										
Provide joint protective system	12	hrs	\$ 94	\$ 1,124	1.61	\$ 1,800				\$ 1,800
Repoint stone masonry	35	lf	\$ 90	\$ 3,150	1.61	\$ 5,100				\$ 5,100

Work Item	Quantity	Unit	Cost per Unit	Subtotal	Markup	Subtotal	Totals By Location	Essential	Preservation	Optional
<b>ELMWOOD &amp; WESTLAND ENTRY GATES</b>							<b>\$ 25,800</b>			
<b>PIER REPAIRS</b>										
Repoint cap joint at pommel	12	hrs	\$ 94	\$ 1,124	1.61	\$ 1,800			\$ 1,800	
EE.A.1, EE.A.3, EE.D.1, EE.D.3										
Repoint stone masonry - EW.D.3 (S)	8	hra	\$ 94	\$ 750	1.61	\$ 1,200			\$ 1,200	
<b>RAIL REPAIRS</b>										
Replace rail caps	84	lf	\$ 110	\$ 9,240	1.61	\$ 14,900			\$ 14,900	
Materials: EE.A.2, EE.D.2										
Provide joint protective system	12	hrs	\$ 94	\$ 1,124	1.61	\$ 1,800			\$ 1,800	
Repoint stone masonry	42	lf	\$ 90	\$ 3,780	1.61	\$ 6,100			\$ 6,100	
<b>MONROE &amp; SOUTHERN PARKWAY ENTRY GATES</b>							<b>\$ 30,500</b>			
<b>PIER REPAIRS</b>										
Repoint cap joint at pommel	12	hrs	\$ 94	\$ 1,124	1.61	\$ 1,800			\$ 1,800	
MS.A.1, MS.A.3, MS.D.1, MS.D.3										
Repoint stone masonry	72	lf	\$ 25	\$ 1,800	1.61	\$ 2,900			\$ 2,900	
<b>RAIL REPAIRS</b>										
Replace rail caps	100	lf	\$ 110	\$ 11,000	1.61	\$ 17,700			\$ 17,700	
Materials: MS.A.2, MS.D.2										
Provide joint protective system	12	hrs	\$ 94	\$ 1,124	1.61	\$ 1,800			\$ 1,800	
Repoint stone masonry	156	lf	\$ 25	\$ 3,900	1.61	\$ 6,300			\$ 6,300	
<b>TOTAL - WORKLIST REPAIRS - Preliminary Estimated Costs</b>							<b>\$ 175,600</b>	\$ 3,300	\$ 172,300	\$ 0
<b>TOTAL ESSENTIAL</b>								\$ 3,300		
<b>SUBTOTAL ESSENTIAL + PRESERVATION</b>									\$ 175,600	
<b>SUBTOTAL ESSENTIAL + PRESERVATION + OPTIONAL (ALL IDENTIFIED WORK)</b>										\$ 175,600
<b>KEY</b>										
ls	lump sum									
ea	each									
lf	linear foot									
sf	square foot									
hrs	hours									
crhrs	crew hours									