BERGER FOUNTAIN
REHABILITATION PROJECT

LORING PARK, MINNEAPOLIS, MN

ASSESSMENT REVIEW

DAMON FARBER LANDSCAPE ARCHITECTS

CMS COLLABORATIVE / MILLER DUNWIDDIE / MATTSON MACDONALD YOUNG

WELCOME

WELCOME | INTRODUCTIONS

DESIGN TEAM

DAMON FARBER LANDSCAPE ARCHITECTS (DF)

CMS COLLABORATIVE (CMS)

MILLER DUNWIDDIE ARCHITECTS (MDA)

MATTSON MACDONALD YOUNG (MMY)

STAKEHOLDERS

CITIZENS FOR A LORING PARK COMMUNITY (CLPC)

FRIENDS OF LORING PARK (FRIENDS)

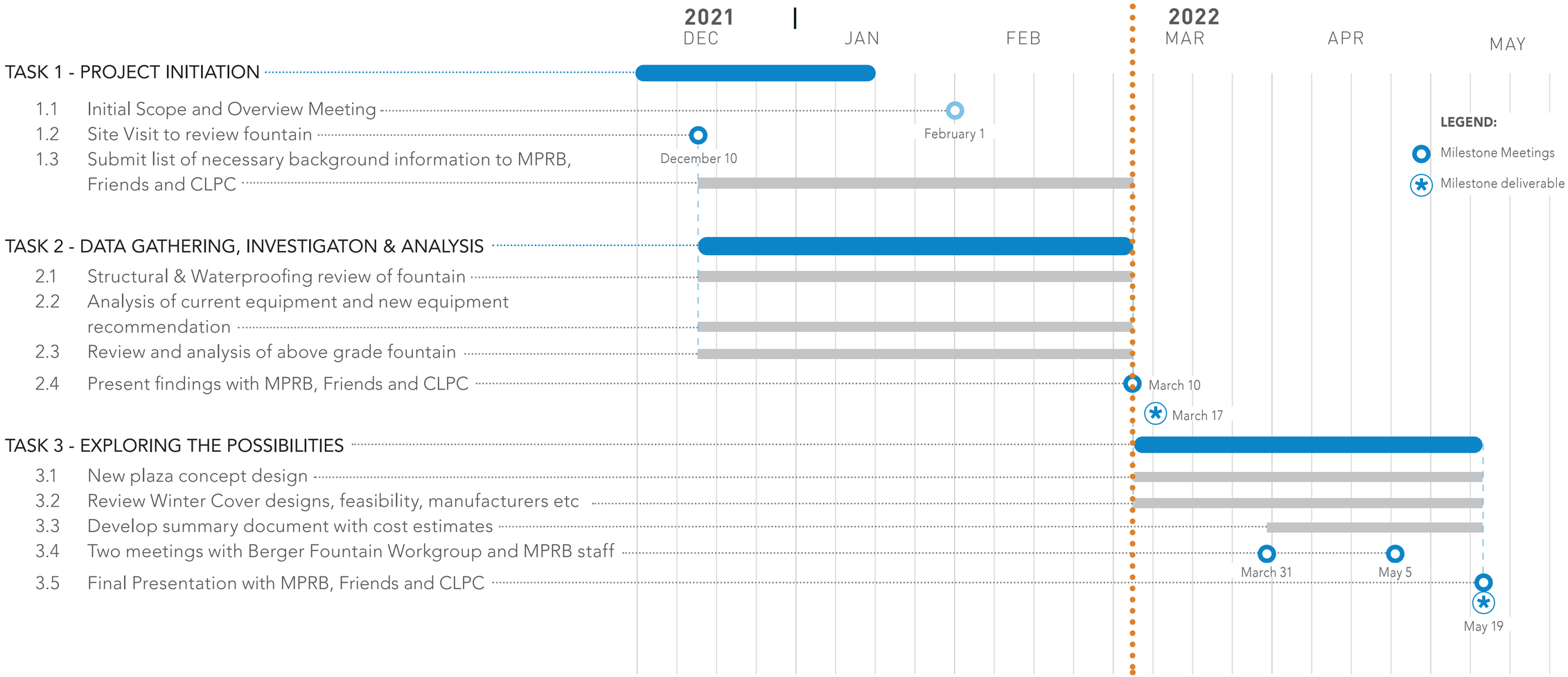
MINNEAPOLIS PARK AND RECREATION BOARD (MPRB)

PROJECT OVERVIEW

SCOPE | SCHEDULE | PROCESS

PROJECT OVERVIEW | SCOPE & PROCESS

PROJECT OVERVIEW | SCHEDULE



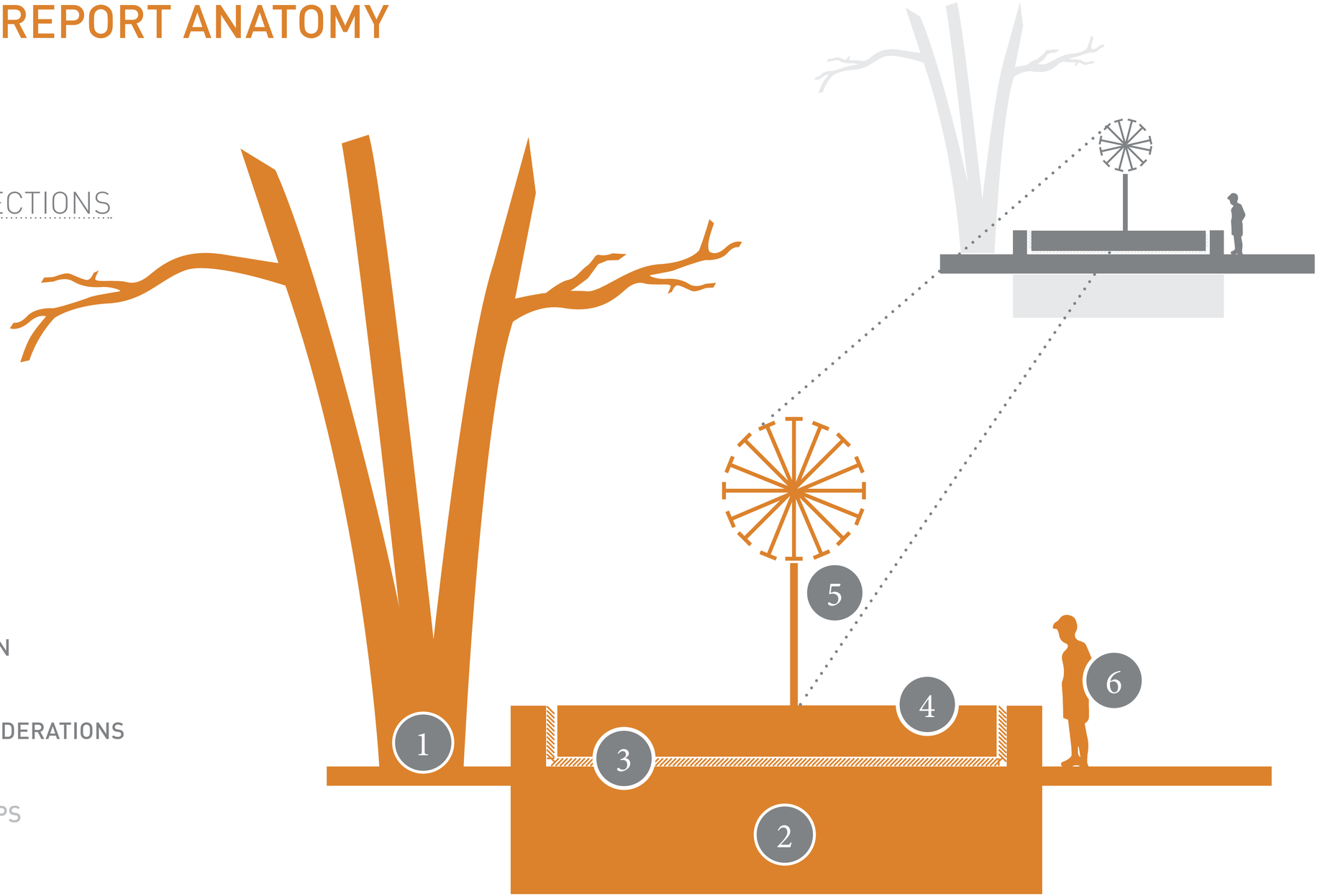
ASSESSMENT RESULTS

30 MINUTES

ASSESSMENT | REPORT ANATOMY

ASSESSMENT SECTIONS

1. SITE
2. VAULT & SYSTEMS
3. WATERPROOFING
4. POOLS & FINISHES
5. DANDELION FOUNTAIN
6. MAINTENANCE CONSIDERATIONS
7. OPTIONS & NEXT STEPS



ASSESSMENT | SITE

ASSETS

ALIGNMENT TO LORING GREENWAY

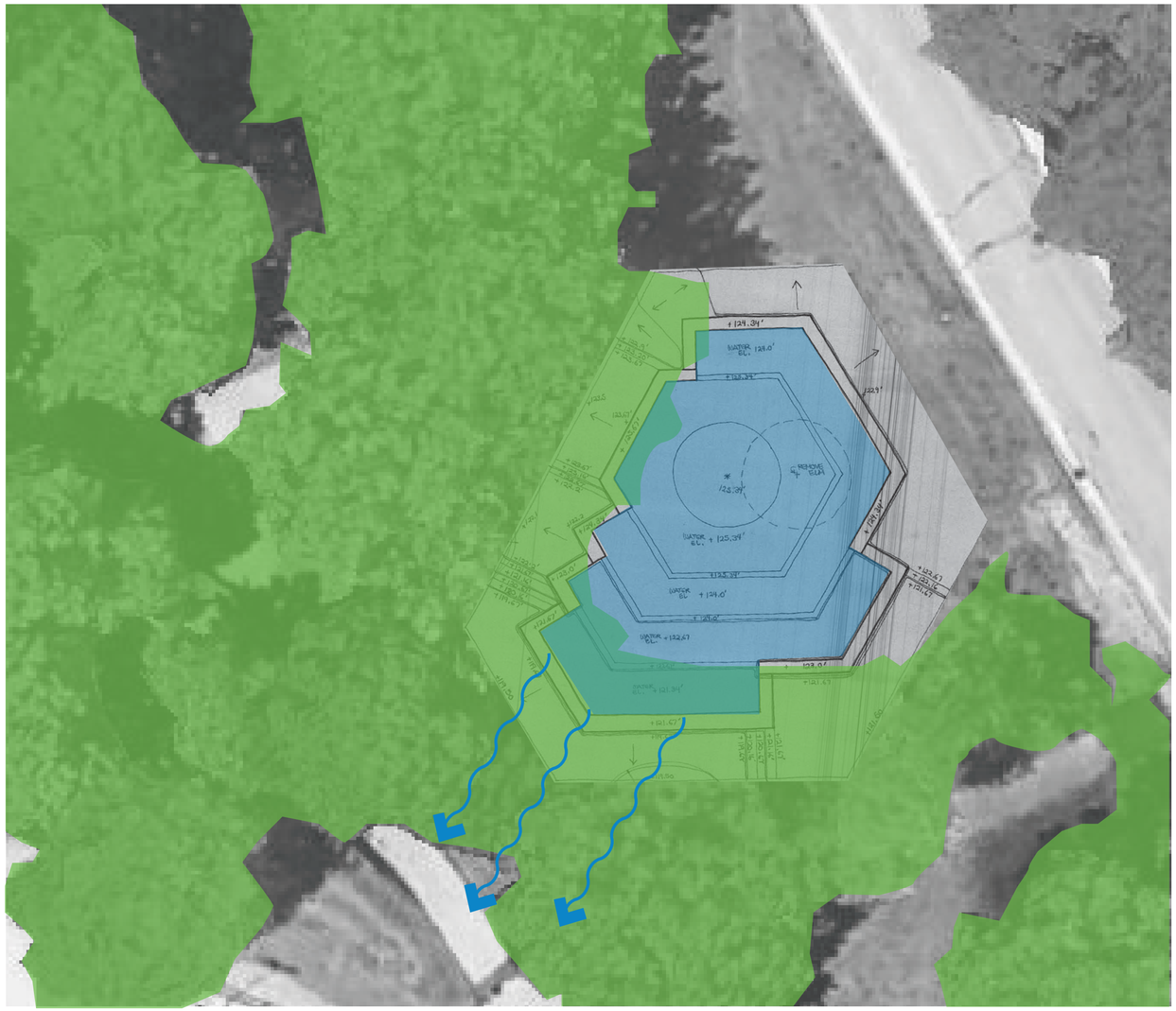
VISIBILITY FROM WILLOW STREET

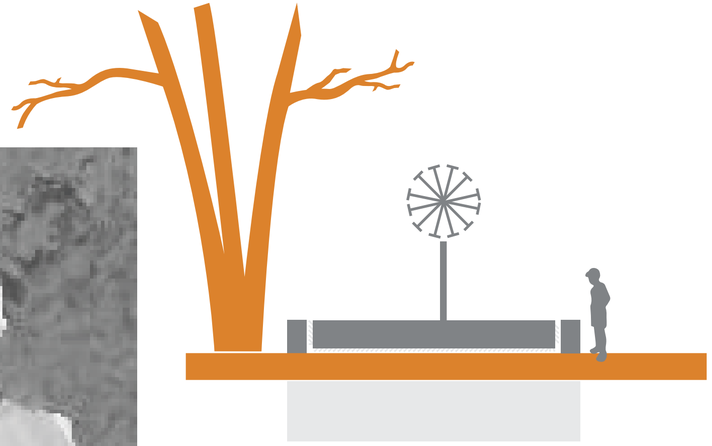
ISSUES

TREE PROXIMITY & DEBRIS

NON-ACCESSIBLE TOPOGRAPHY

FLOODING OF OTHER PARK AMENITIES FROM FOUNTAIN





ASSESSMENT | VAULT & SYSTEMS

VAULT ASSETS

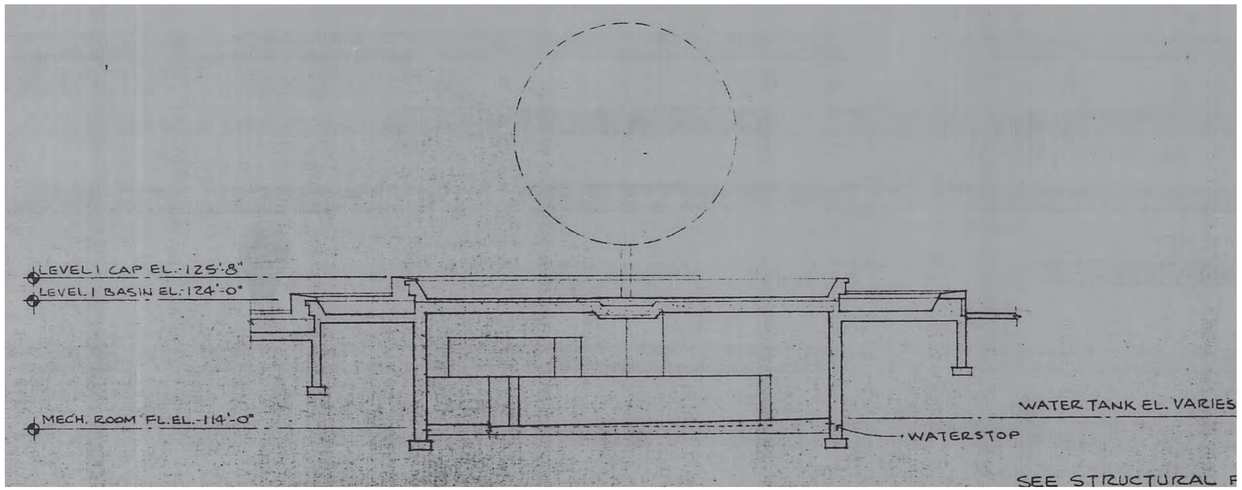
AMPLE SIZE AND SPACE FOR SYSTEMS AND OPERATION

STRUCTURALLY STABLE

VAULT ISSUES

WATER INTRUSION WEAKENING STRUCTURE

HUMID CONDITIONS DEGRADING STRUCTURE AND EQUIPMENT



ASSESSMENT | VAULT & SYSTEMS

SYSTEM ASSETS

NONE

SYSTEM ISSUES

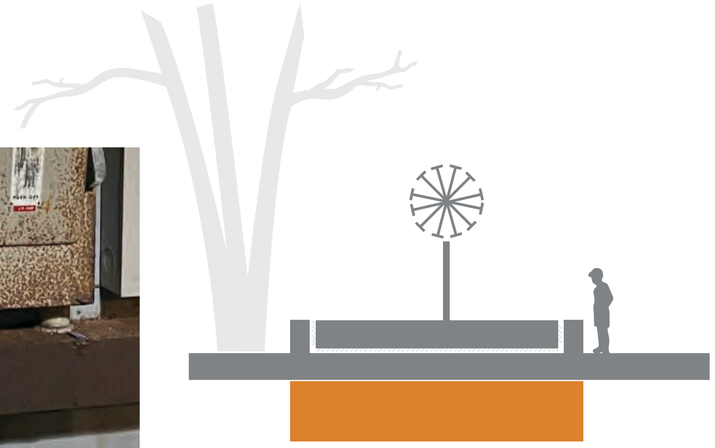
ELECTRICAL AND MECHANICAL COMPONENTS HAVE SEVERE CORROSION

MECHANICALS NOT OPERATING AS DESIGNED

OUTDATED, NON-REPAIRABLE, AND END OF LIFE

UNSUSTAINABLE MAINTENANCE AND OPERATIONS

DRAIN DESIGN EASILY CLOGS



ASSESSMENT | WATERPROOFING

WATERPROOFING ASSETS

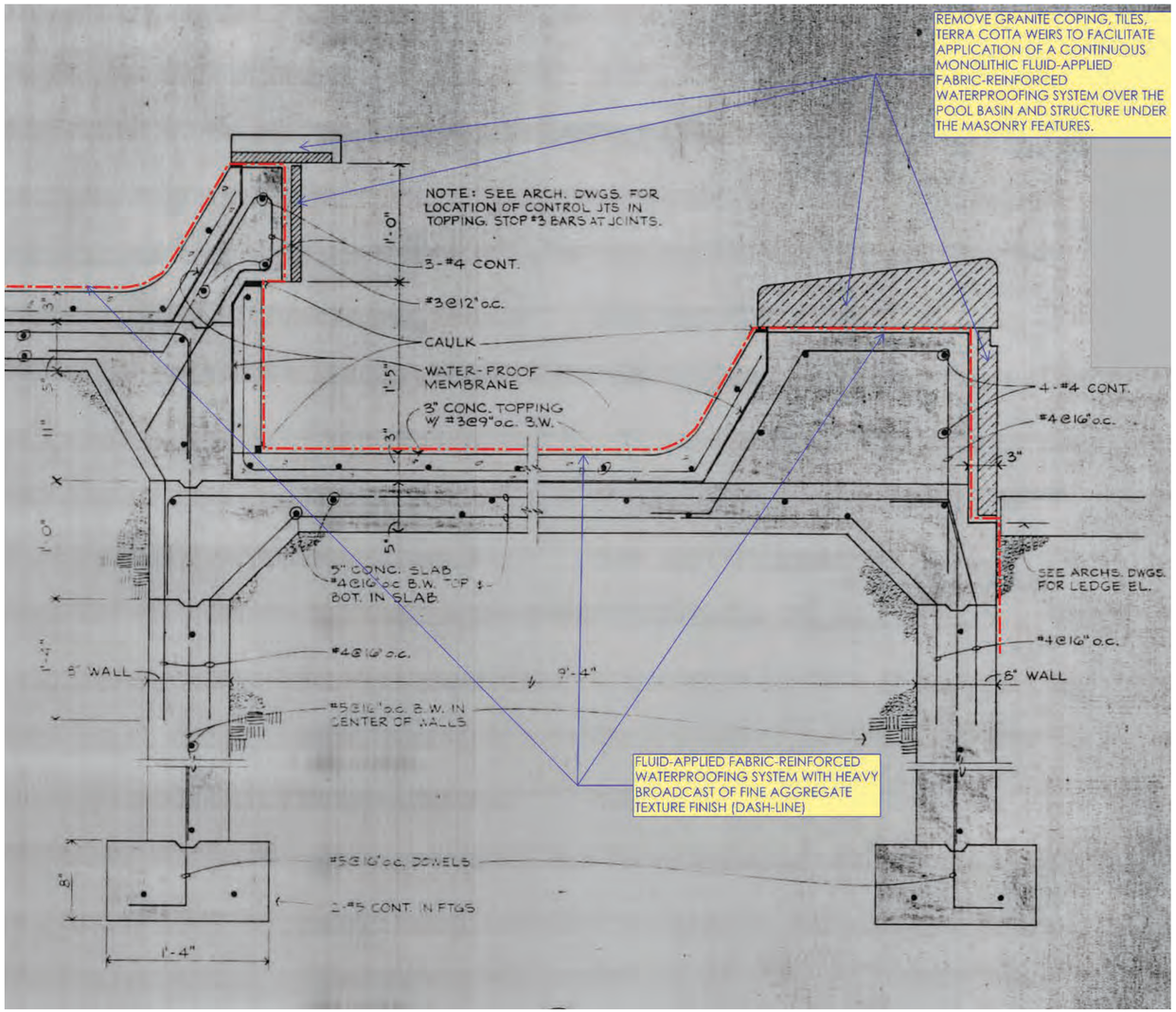
NONE

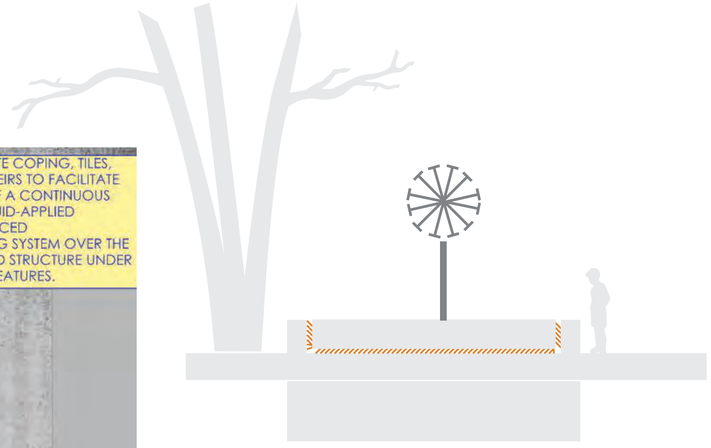
WATERPROOFING ISSUES

LEAKING

END OF LIFE

NOT REPAIRABLE; REQUIRES COMPLETE REPLACEMENT





ASSESSMENT | POOLS & FINISHES

POOLS & FINISHES ASSETS

ORIGINAL CHARACTER

CLASS A MATERIALS

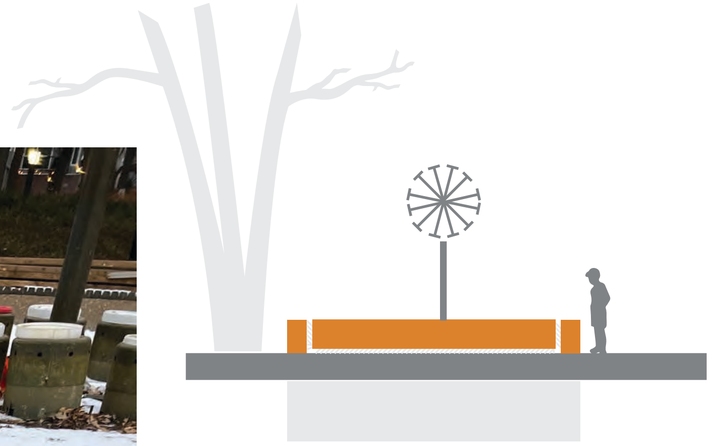
POOLS & FINISHES ISSUES

TOP SLAB IN POOLS DETERIORATED

SPILLWAY AND APRON TILES INAPPROPRIATE FOR CLIMATE

FINISH MATERIALS NOT REPLACEABLE / NO ATTIC STOCK AVAILABLE

SUBSTANTIAL ANNUAL MAINTENANCE REQUIRED



ASSESSMENT | DANDELION FOUNTAIN

FOUNTAIN ASSETS

NEIGHBORHOOD ICON

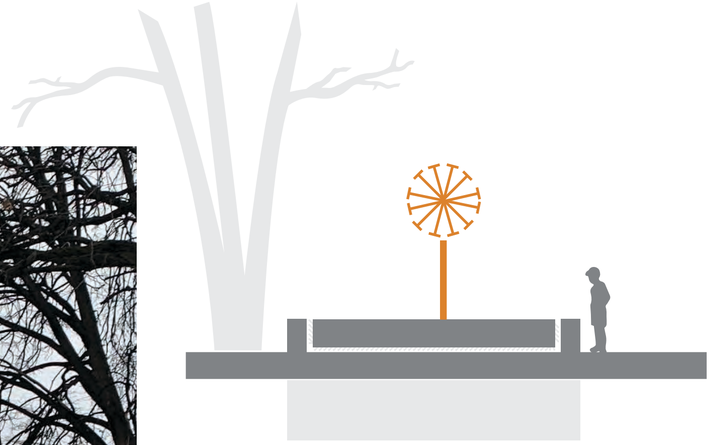
FOUNTAIN ISSUES

LABOR INTENSIVE SEASONAL MAINTENANCE

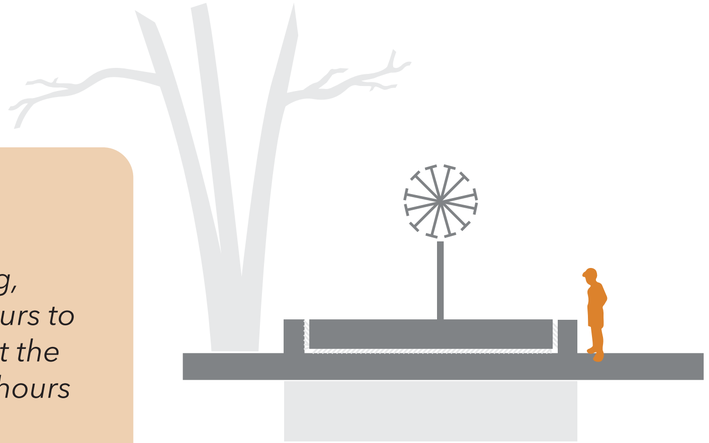
PARTS NO LONGER AVAILABLE; CUSTOM MACHINING REQUIRED

EMITTERS CLOG WITH ALGAE MID-SEASON

DANDELION DESIGN USES MORE THAN AVERAGE VOLUME OF WATER FOR A WATER FEATURE



ASSESSMENT | MAINTENANCE CONSIDERATIONS



EXISTING FOUNTAIN MAINTENANCE ACTIVITIES: LABOR & BUDGETARY COMMITTMENTS, FREQUENCY:

Fountain Head: *"Rough estimate for plumbing shop: about a week to reinstall arms on the fountain in the spring, another week to dismantle in the fall, about 4 hours to move from the fountain to the basement and another 4 hours to move from the basement to the fountain in the spring. Figure a couple hours when we come to winterize/blowout the fountain and service line, another couple hours in the spring turning it back on and filling it. Figure 2 guys X 100 hours each at $50.00 an hour= $10,000."*

Pool and Mechanical Repairs:

1. *Reset loose granite and/or patch pool slab (annual)*
2. *Caulking (annual)*
3. *Repair spill tiles (annual)*
4. *Machine missing or damaged parts from fountain assembly/disassembly*

Maintenance during operational season:

1. *Clear drains (daily)*
2. *Clean out rods and emitters (monthly)*
3. *Add water (daily)*

Water Bill: *65,000 gallons of water used annually in operation*

Power Bill: *In-efficient lighting and circulation system*

Liability: *Safety issues inside vault, water purification issues, leaking water/erosion/flooding*

QUESTIONS

5 MINUTES

THREE OPTIONS & NEXT STEPS

10 MINUTES

OPTIONS | OPTION 1: Stabilize and Repair in Place

EFFORTS

Remove decay and systems and replace in-kind with slight modifications to the original design.

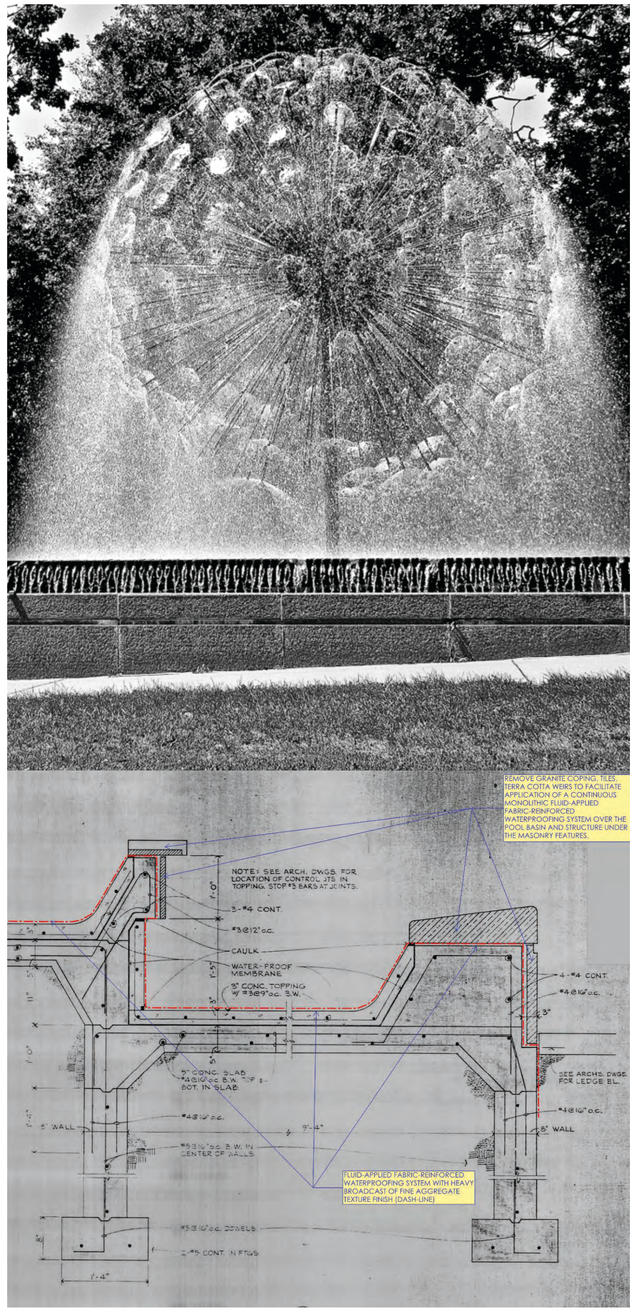
1. Replace all mechanical, electrical, and plumbing systems.
2. Modify drain system to self-clean.
3. Replace waterproofing and pool finish slabs.
4. Clean and replace or stabilize rebar and patch concrete in structural slab, vault walls and floor.
5. Reset granite veneer.
6. Replace glazed apron tile and spill blocks with readily available material suited to Minnesota freeze/thaw cycles but similar in appearance and water effect.
7. Replace dandelion fountain head with “off the shelf” system to match existing.
8. Provide a winter cover.

ADVANTAGES

1. Maintains original design intent with modern equipment and suitable materials.

DISADVANTAGES

1. Does not address site issues: topography vs. accessibility and tree debris.
2. Maintains a higher level of maintenance.
3. Concealed infrastructure remains unchanged - potential unknown issues remain.
4. Cost associated with retrofiting to existing structure.
5. Does not align with long-term master plan.



OPTIONS | OPTION 2: Rebuild & Enhance

EFFORTS

Rebuild vault, systems; rebuild dandelion. Introduce additional amenities.

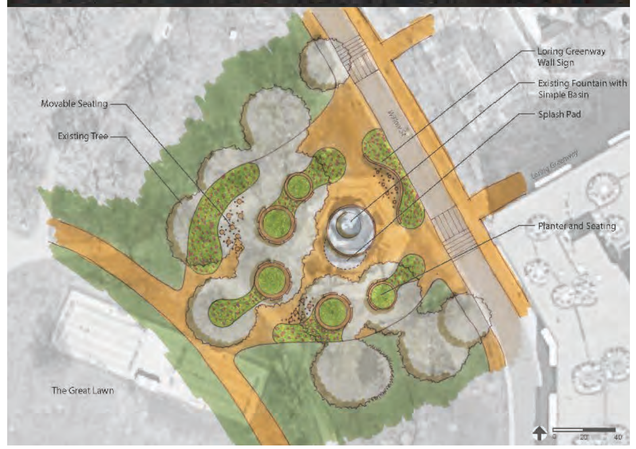
1. Demo structural, mechanical, electrical, and plumbing systems.
2. Shift fountain location and pools away from trees and site slope.
3. Redesign infrastructure to perform with minimal maintenance and high efficiency.
4. Construct new vault with mechanical, electrical, and plumbing systems below grade; provide new pools with waterproofing, finishes and fountain head above grade.
5. Replace dandelion fountain head with “off the shelf” system to emulate existing.
6. Provide a winter cover, if needed.

ADVANTAGES

1. Maintains iconic fountain element.
2. New infrastucture and systems built with better efficiency to last 50+ years.
3. Aligns with long-term master plan.
4. Creates flexibility for more user amenities.
5. Opportunity for better alignment with Loring Greenway entrance, better accessibility and fewer issues with tree debris.

DISADVANTAGES

1. Splash pad concept requires intensive labor/maintenance.
2. Dandelion design uses unsustainable amounts of water.
3. Dandelion maintenance remains intensive.



OPTIONS | OPTION 3: Redesign, Demolish, and Rebuild

EFFORTS

Complete water feature re-envisioning.

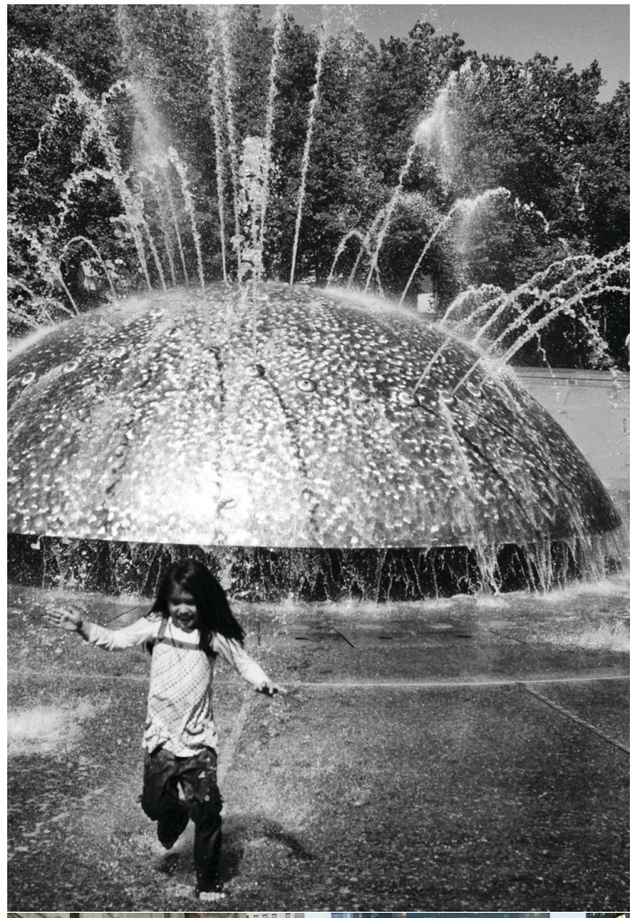
1. Design a new water feature with community input. New design should perform with minimal maintenance and high efficiency.
2. Demo existing structural, mechanical, electrical, and plumbing systems.
3. Shift new water feature location away from trees and site slope.
4. Construct new vault with mechanical, electrical, and plumbing systems below grade; provide new pools with waterproofing, finishes and water feature above grade.

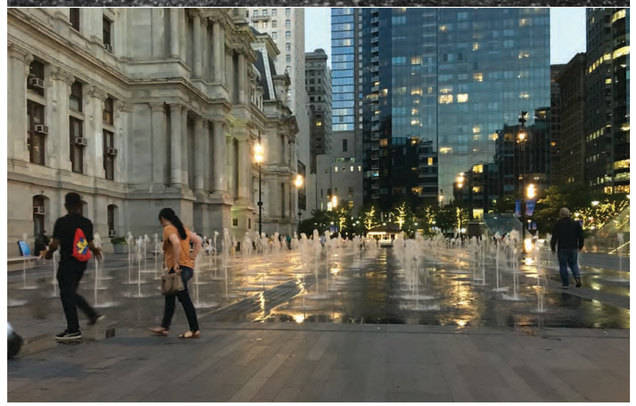
ADVANTAGES

1. Allows community to select new water feature icon.
2. Maximum sustainability for operation and maintenance.
3. New infrastucture and systems built with better efficiency to last 50+ years.
4. Creates flexibility for more user amenities.
5. Opportunity for better alignment with Loring Greenway entrance, better accessibility and fewer issues with tree debris.
6. Dandelion design element can take on new form.
7. Maximum benefit from expenditure.

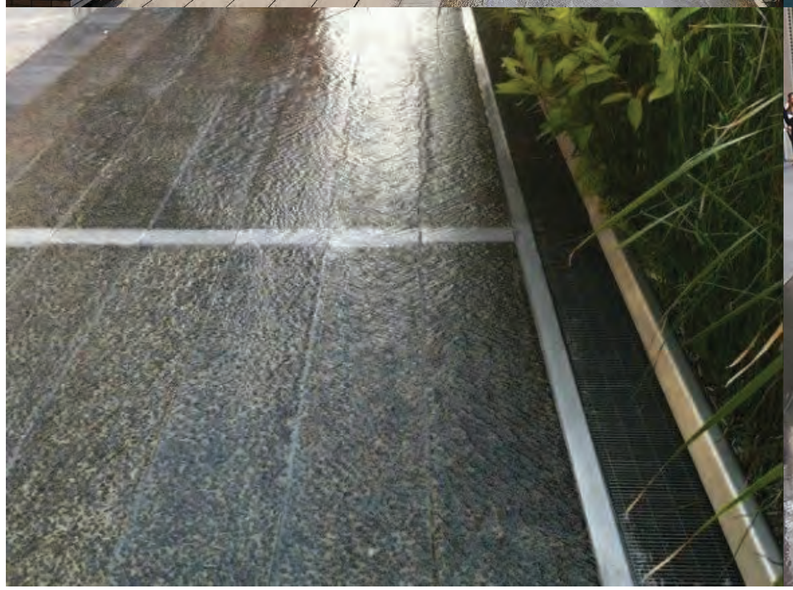
DISADVANTAGES

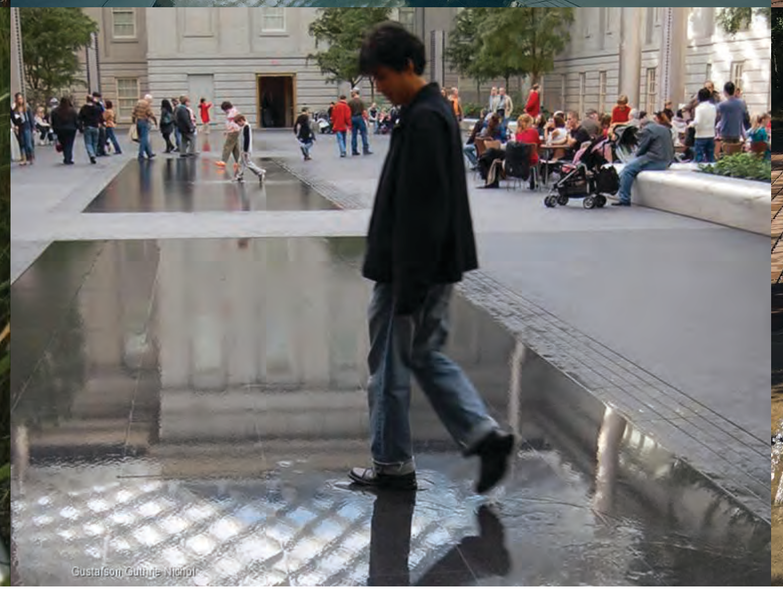
1. Dandelion icon modified or eliminated.
2. Greater initial upfront costs despite signifcantly reduced maintenance costs.



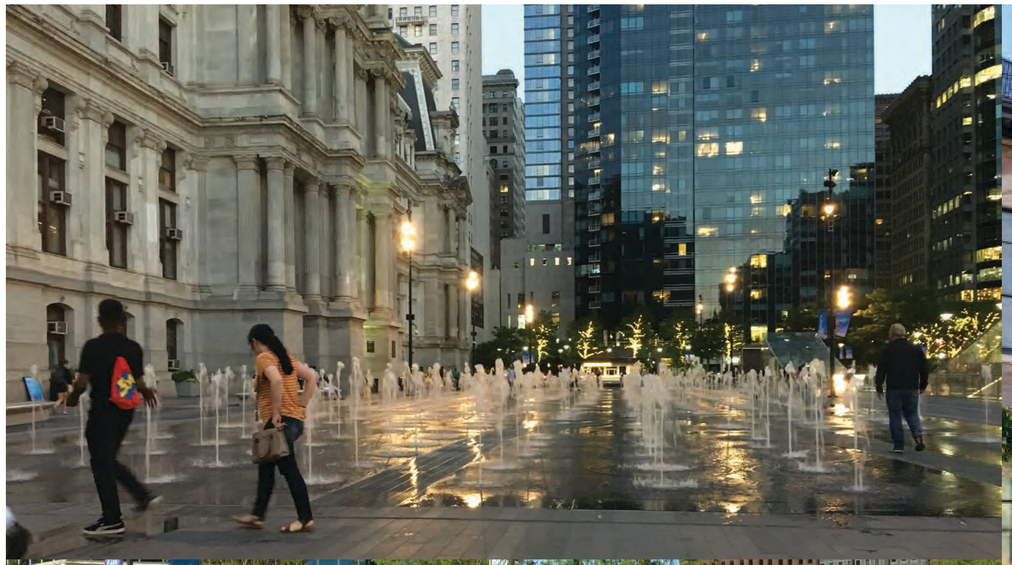


OPTIONS | OPTION 3: Redesign, Demolish, and Rebuild





OPTIONS | OPTION 3: Redesign, Demolish, and Rebuild



NEXT STEPS | REFINEMENT & DOCUMENT

QUESTIONS

5 MINUTES

THANK YOU !