

CENTER STREET AREA FRAMEWORK + POLICY PLAN



**Pump House Plaza + Pump House Building +
Municipal Plaza + Center Street**

City of Ramsey, Minnesota
November, 2020

ACKNOWLEDGMENTS

This Framework and Policy Plan focuses on the very center of The Center of Ramsey's 320 acre downtown referred to as The COR. The fact that the community is succeeding in the primary vision of having its own downtown and identity cannot be understated. The COR is over half built-out according to plan, with favorable progress continuing even within and through the Great Recession. This is attributable to Ramsey residents, and leadership, holding to the original vision for a pedestrian oriented, successful, vibrant downtown—this Center Street Area Framework and Policy Plan is an implementation strategy that supports the vision and objectives of The COR Design Framework which cites an 'implied responsibility' to carry forth the goals in site planning and design:

"All participants in the development of The COR recognize the local and regional impacts of this project and the various systems that play an important role. Each parcel and each building must fit within the context of the entire plan. Individual projects must complement, not compete with, adjacent development in terms of public green space, walk and trail connections, stormwater management solutions, street layout, parking strategies, land use mix and building design." The Center Street Area Framework and Policy Plan does just this, by integrating and interrelating the above tenets.

The COR Design Framework goes on to list the three Objectives:

- Overall COR design (and all new private development within The COR) will accommodate stormwater from new projects and from off-site, and highlight stormwater features as an amenity.
- Bikeways and pedestrian routes into The COR from adjacent neighborhoods must be designed for safety and ease of access, suggesting that a person on a bicycle has an equally accessible route to [and within] downtown.
- Parks and open space will be easily accessible to all COR residents, visitors, people who work here and also for the citizens of Ramsey and the surrounding area. *This connected green system is reminiscent of the world renowned 'Grand Rounds' of Minneapolis.

* The above is also mirrored in The Circle of Ramsey Greenway, of which The COR, is an integral part and a destination within.

The COR was an organic, citizen led movement in delivering an urban downtown with its amenities for the whole community, while also 'taking some of the development pressure off' the more rural areas of the city. The success in finding that balance has been due to thoughtful, reasoned residents—unified in mission and vision. Future Ramsey residents can thank today's residents and Planning Commission, Economic Development Authority, the Park and Recreation Commission, and City Council for coming together in their collective service to the community.

Parks & Assist. Public Works Superintendent,
Mark Riverblood

TABLE OF CONTENTS

Background + Purpose (Context/Coverage Area/Components).....	3
Pump House Building (Location/Site Plan/Project Description/Design Program).....	5
Rest Room + Maintenance Building (Location/Site Plan/Project Description/Design Program)	7
Pump House Plaza (Location/Site Plan/Project Description/Design Program)	9
Sapphire Apartment Frontage (Location/Site Plan/Project Description/Design Program).....	18
Center Street (Location/Site Plan/Project Description/Design Program)	22
Central Anoka County Regional Trail (Location/Site Plan/Project Description/Design Program)	24
Stormwater Management System (Location/Site Plan/Project Description/Design Program)	26
Future Development Site Frontage (Location/Site Plan/Project Description/Design Program)	30

Background + Purpose

Overview

The purpose of the Center Street Area Framework + Policy Plan is to advance the planning activity for several interrelated projects within this district. Several of these project have timelines that require the work to commence as soon as possible. A summary list of current and potential future projects includes:

- Center Street sidewalk(s) in front of the Sapphire building;
- Center Street streetscape/trail (west side) near the interface of the Affinity and Municipal Plaza;
- Municipal Plaza (north) at the interface with Affinity;
- Municipal Plaza (south) the larger Happy Days site;
- Pump House Plaza the area immediately surrounding the small Pump House No. #3;
- Pump House Exterior potential facade improvements;
- 145th Avenue sidewalk connecting to Center Street.

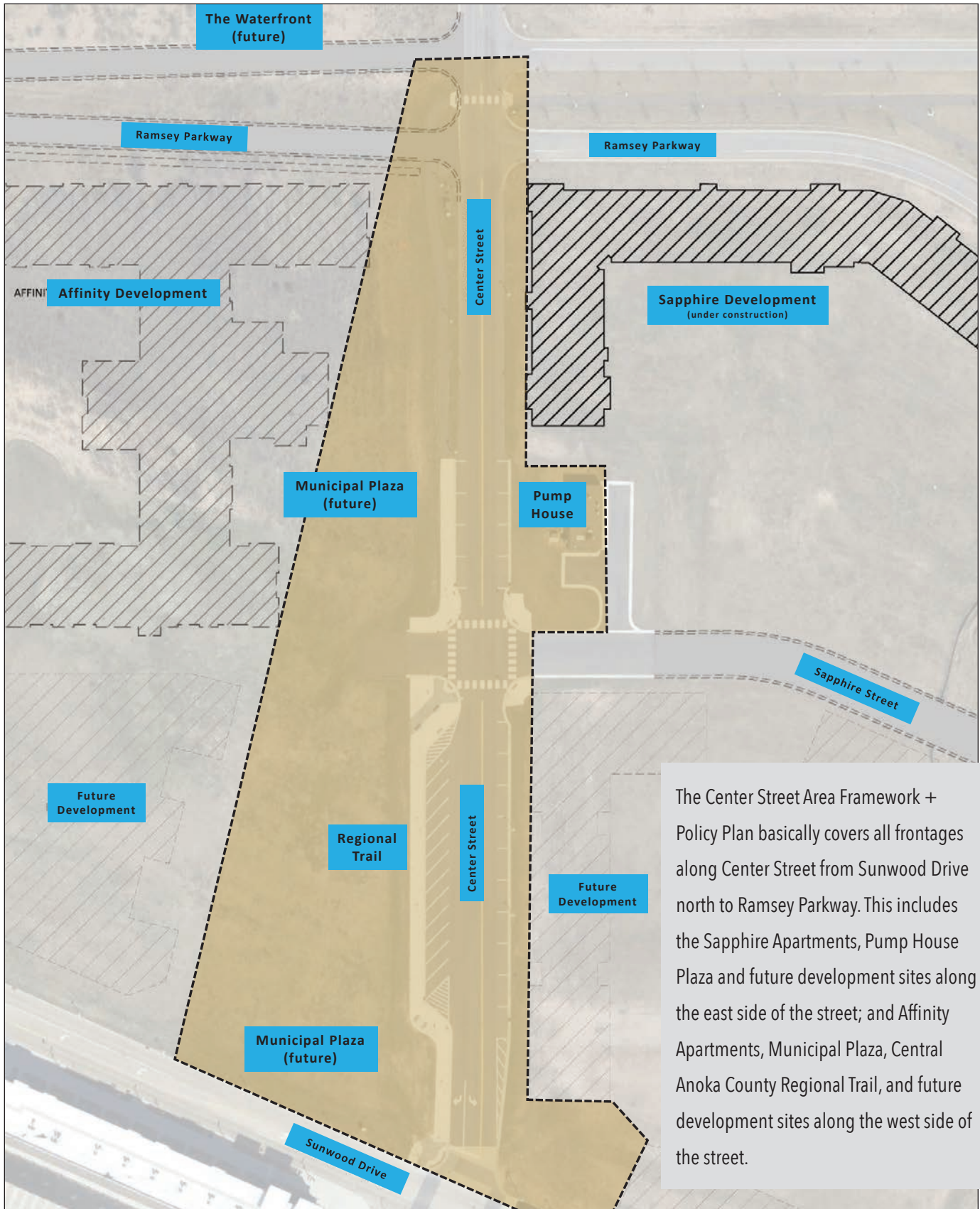
Outcomes + Deliverables

As indicated, the above project listing is merely a summary outline of the work to be performed; the detailed Scope of Services (provided by the Consultant Team), will result in design guidelines to allow the city to develop specifications (cross-sections with details) such that quotations may be sought for work that must be completed like the sidewalk/streetscape adjoining the Sapphire building. Additionally, the scope and cost of other features may be better understood, and accordingly, will result in the ability to proceed with improvements to Municipal Plaza, and the Pump House site (plaza, concrete, landscaping and conceivably an attached public restroom), at such time it is authorized by City Council, (in 2021 or thereafter).

Further, the above referenced Scope of Services will develop the design for the Pump House facade and related architectural treatments, and result in a Design-build RFP that will provide City Council with the cost and contractor (upon approval) that can complete the 2020 Capital Improvement Project for Municipal Pump House #3.

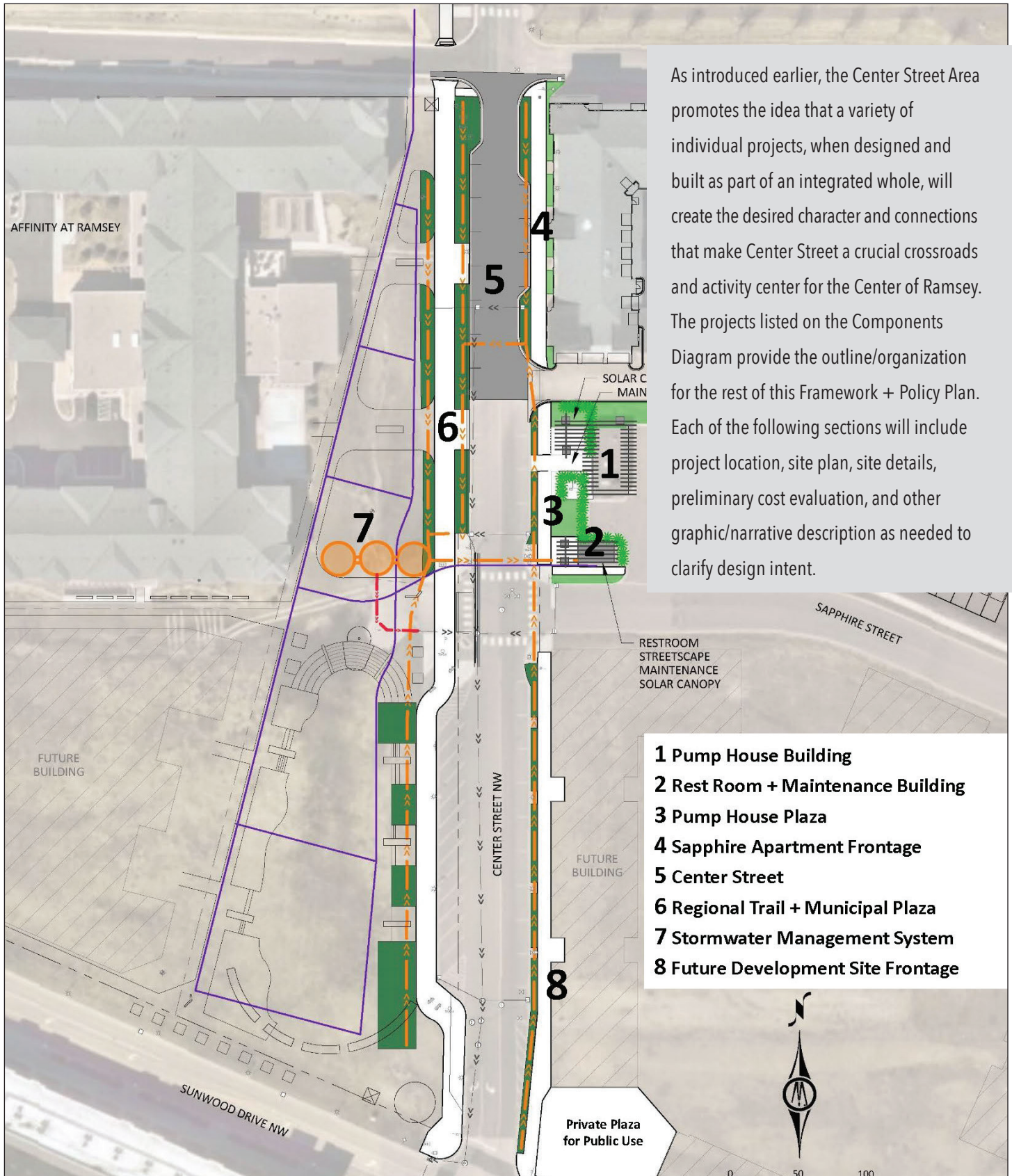


Coverage Diagram

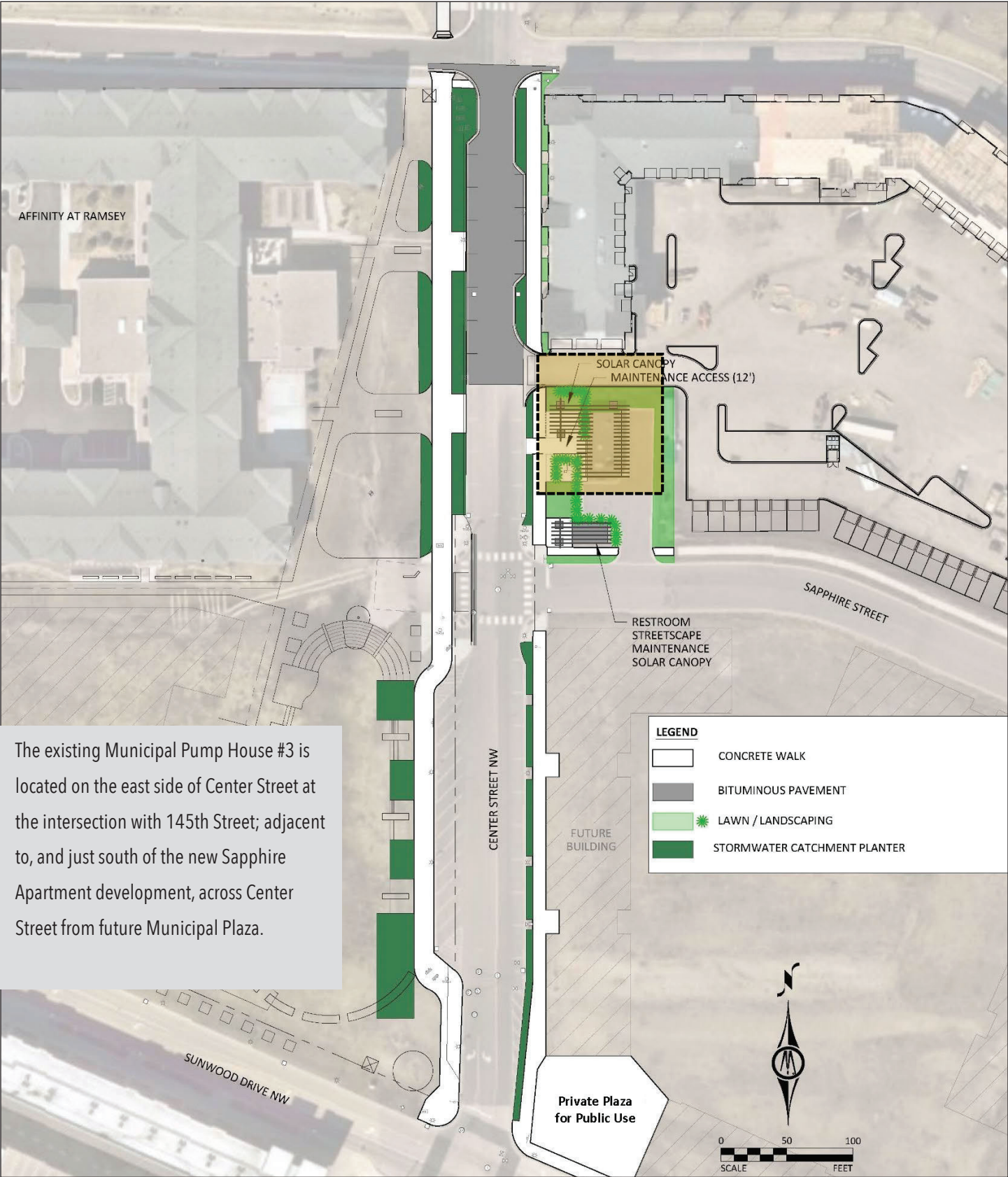


The Center Street Area Framework + Policy Plan basically covers all frontages along Center Street from Sunwood Drive north to Ramsey Parkway. This includes the Sapphire Apartments, Pump House Plaza and future development sites along the east side of the street; and Affinity Apartments, Municipal Plaza, Central Anoka County Regional Trail, and future development sites along the west side of the street.

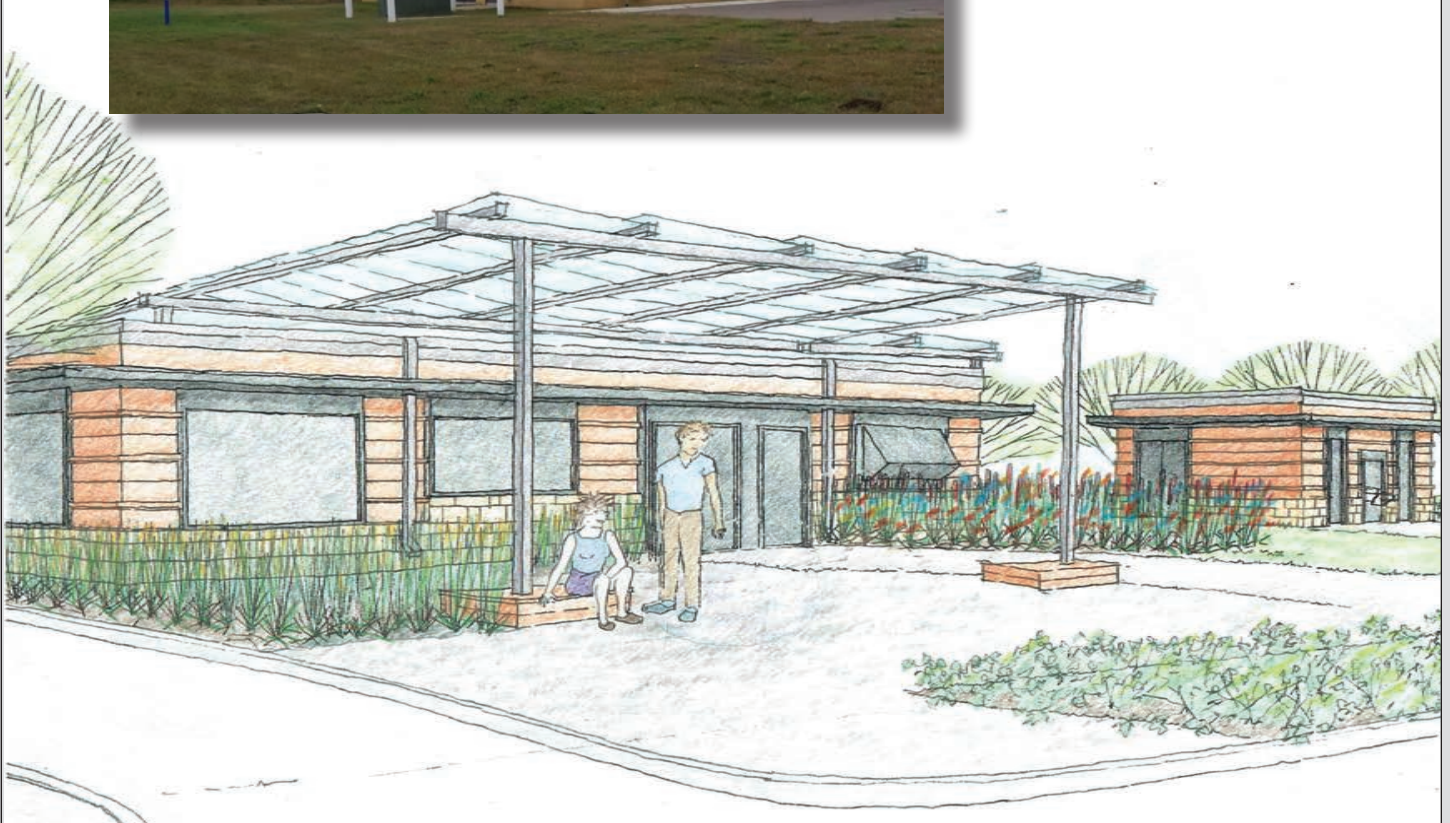
Components Diagram



Pump House Building Location Map



The existing Municipal Pump House #3 is located on the east side of Center Street at the intersection with 145th Street; adjacent to, and just south of the new Sapphire Apartment development, across Center Street from future Municipal Plaza.



Pump House Building

PROJECT DESCRIPTION

Since the time of its construction, Municipal Pump House #3 has been a simple concrete masonry building. As new development occurs around it, Pump House #3's appearance can contribute to the character of surrounding buildings and the proposed plaza by applying new exterior finishes to the existing building. Stone, wood, and metal finishes and colors compliment other civic buildings in Ramsey Downtown District.

Note: the sequence of project design and construction will begin with Pump House Building facade improvements, followed by Pump House Plaza site and landscape improvements, and then additional project feasibility evaluation and detailed design related to the Rest Room + Maintenance Building.

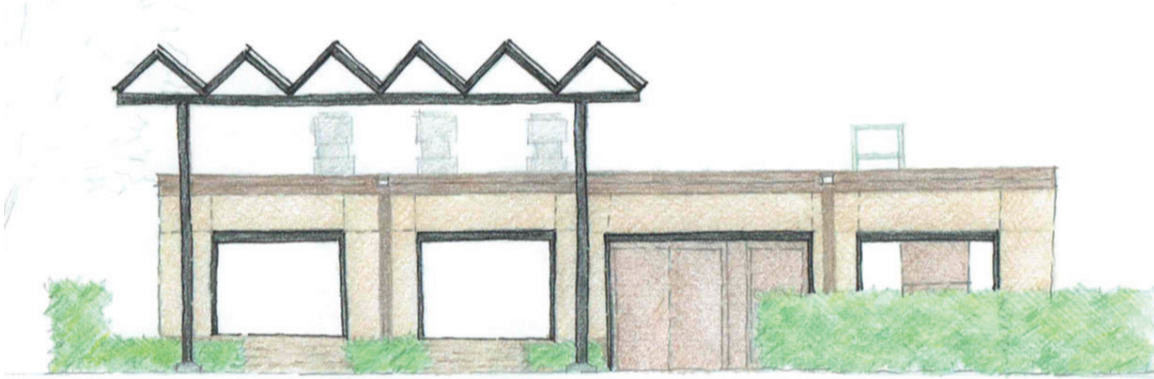
Preliminary estimate of potential construction cost: \$175,000 - 190,000



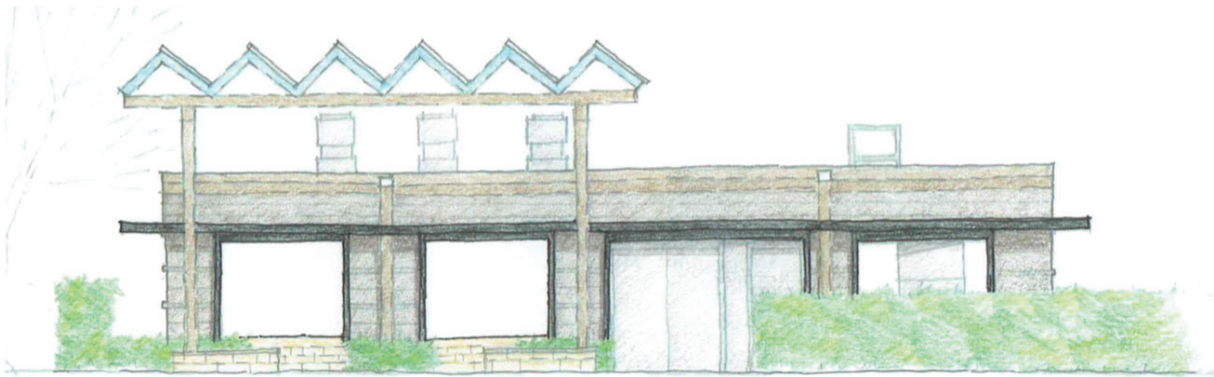
The feasibility of adding photo-voltaic array over Pump House #3 and the adjacent plaza, shall be evaluated based upon additional cost estimates and pay-back timeline.

Pump House Building Project Elements

Three alternative exterior façade treatments have been considered:



- Concept A: Split-faced concrete masonry & cement board siding



- Concept B: Limestone & wood siding

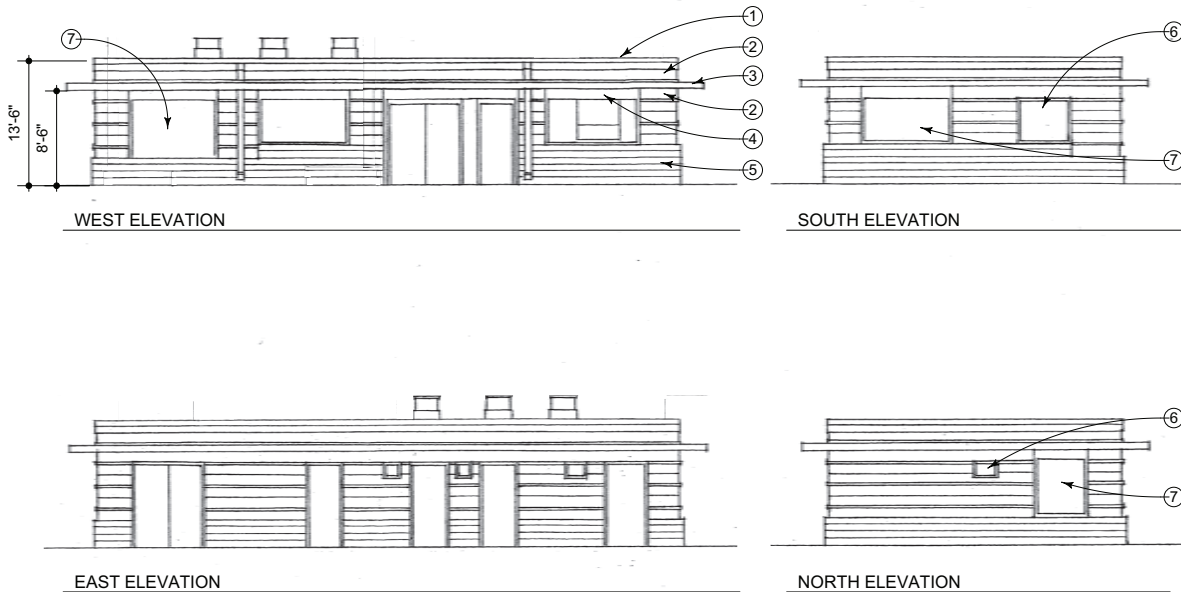


- Concept C: Limestone & brick

Based on design refinements, cost considerations, the limestone and wood siding alternative has been selected for design development.

Pump House Building Project Elements

Concept B Developed Design.

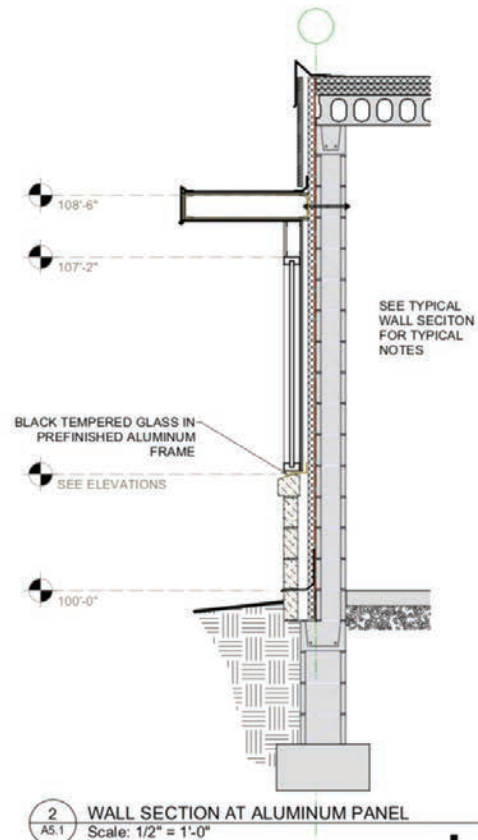
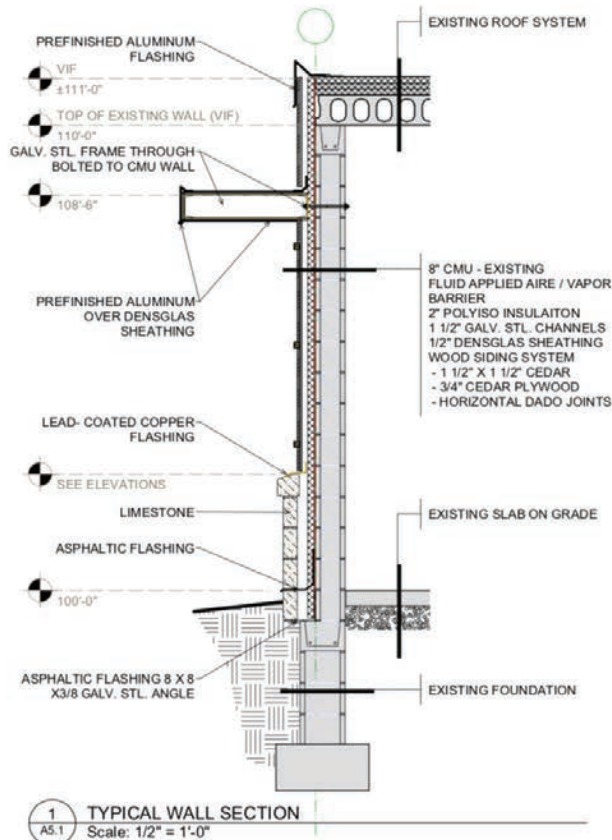


NOTES

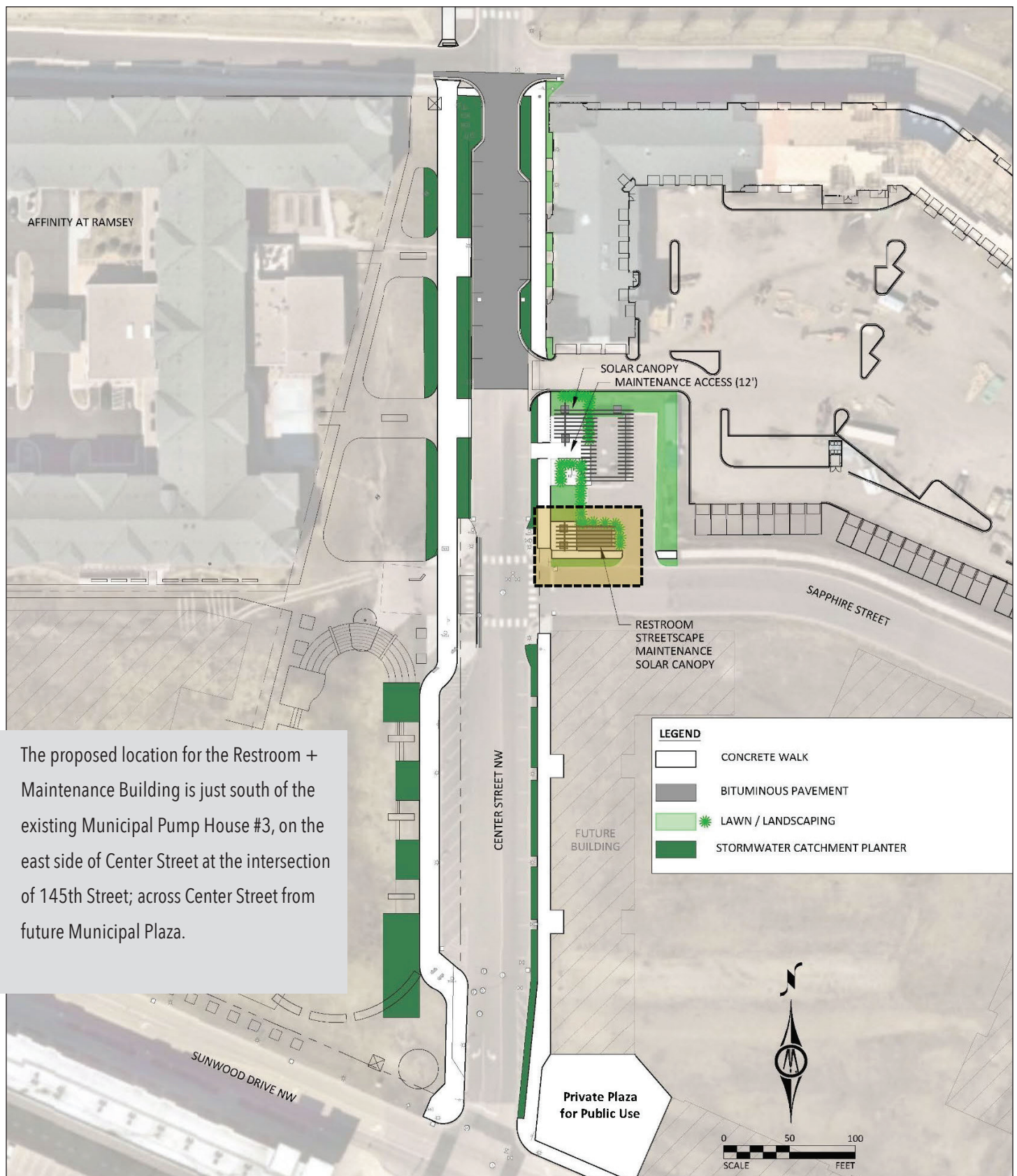
- 1 ALUMINUM CAP FLASHING
- 2 WOOD SIDING
- 3 ALUMINUM EYEBROW
- 4 ALUMINUM FRAME
- 5 LIMESTONE BASE
- 6 EXISTING VENT
- 7 SMOKED GLASS WITH ALUMINUM FRAME

BUILDING ELEVATIONS AT PUMP HOUSE- CONCEPT B.1

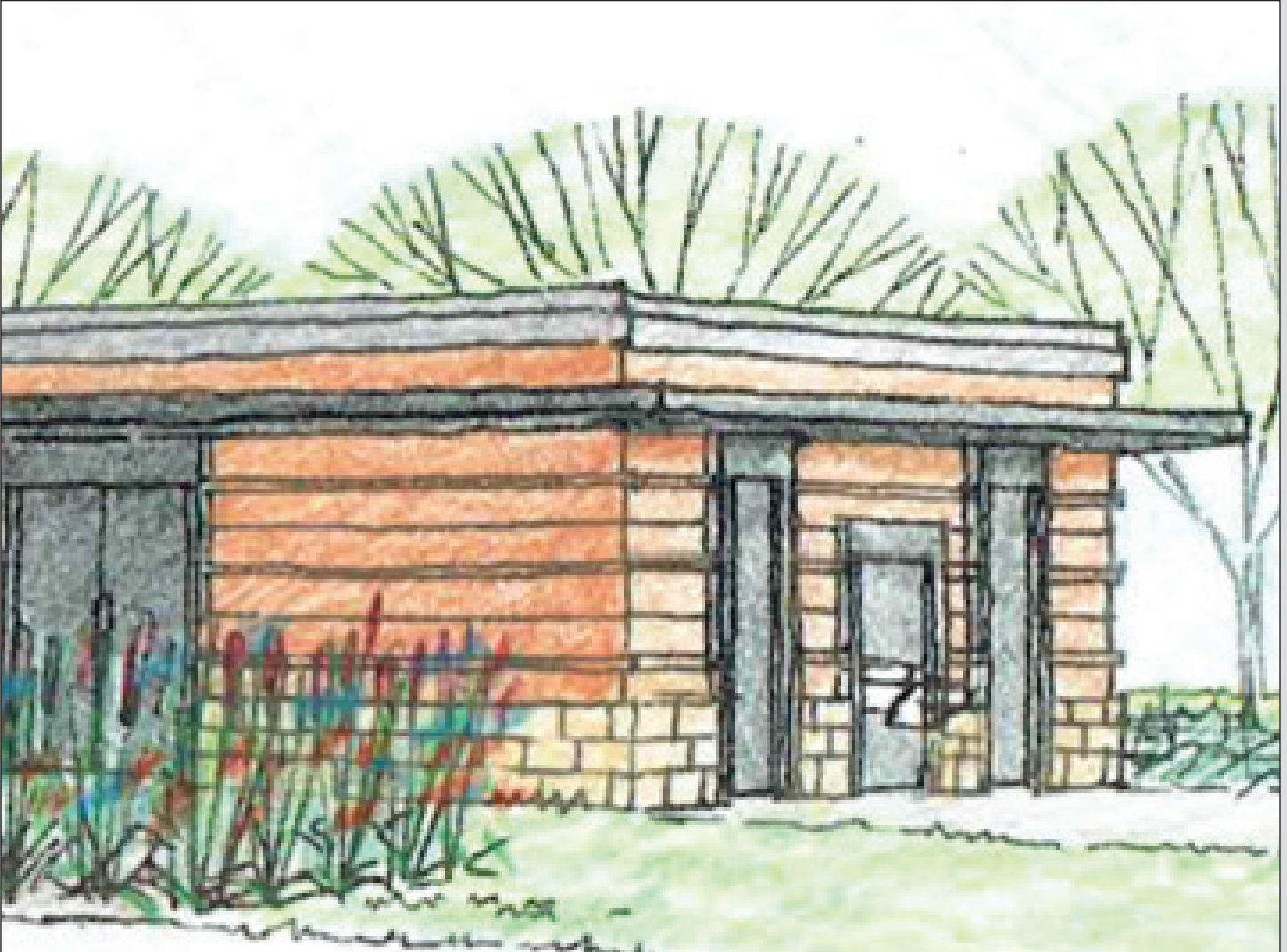
SCALE: 1/8" = 1'-0"



Restroom + Maintenance Building Location Map



The proposed location for the Restroom + Maintenance Building is just south of the existing Municipal Pump House #3, on the east side of Center Street at the intersection of 145th Street; across Center Street from future Municipal Plaza.



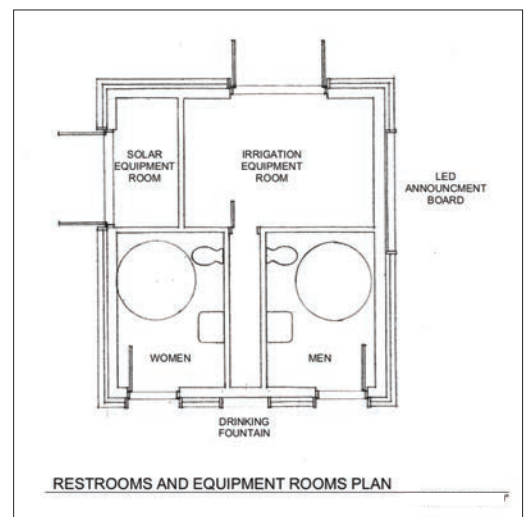
Restroom + Maintenance Bldg

PROJECT DESCRIPTION

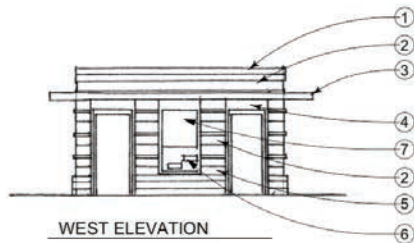
A proposed Restroom + Maintenance Building will be sided with the same materials as the adjacent Pump House #3. This building will support community activities at Center Street's Municipal Plaza. It will also house equipment for the plaza's irrigation system and for the solar array at the Pump House building.

Note: the sequence of project design and construction will begin with Pump House Building facade improvements, followed by Pump House Plaza site and landscape improvements, and then additional project feasibility evaluation and detailed design related to the Rest Room + Maintenance Building.

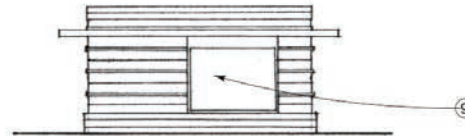
Potential construction cost included in preliminary estimate for the Stormwater Management System described on page 27.



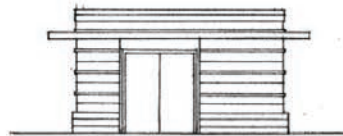
Restroom + Maintenance Bldg Project Elements



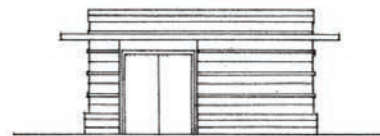
WEST ELEVATION



SOUTH ELEVATION



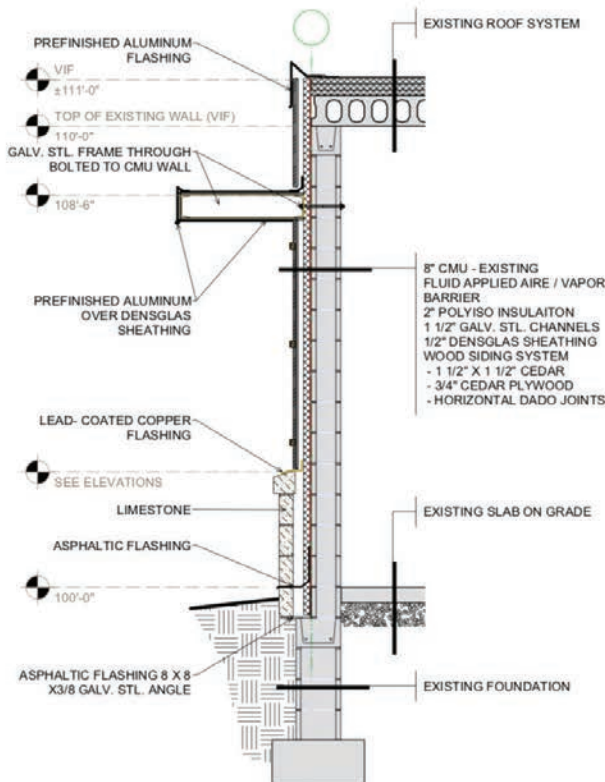
EAST ELEVATION



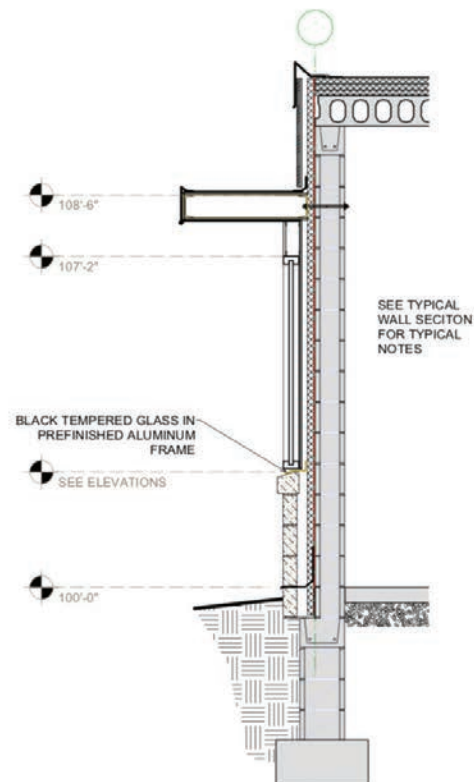
NORTH ELEVATION

NOTES

- 1 ALUMINUM CAP FLASHING
- 2 WOOD SIDING
- 3 ALUMINUM EYEBROW
- 4 ALUMINUM FRAME
- 5 LIMESTONE BASE
- 6 DRINKING FOUNTAIN
- 7 LED DISPLAY
- 8 EXISTING VENT
- 9 SMOKED GLASS WITH ALUMINUM FRAME



1 TYPICAL WALL SECTION
Scale: 1/2" = 1'-0"



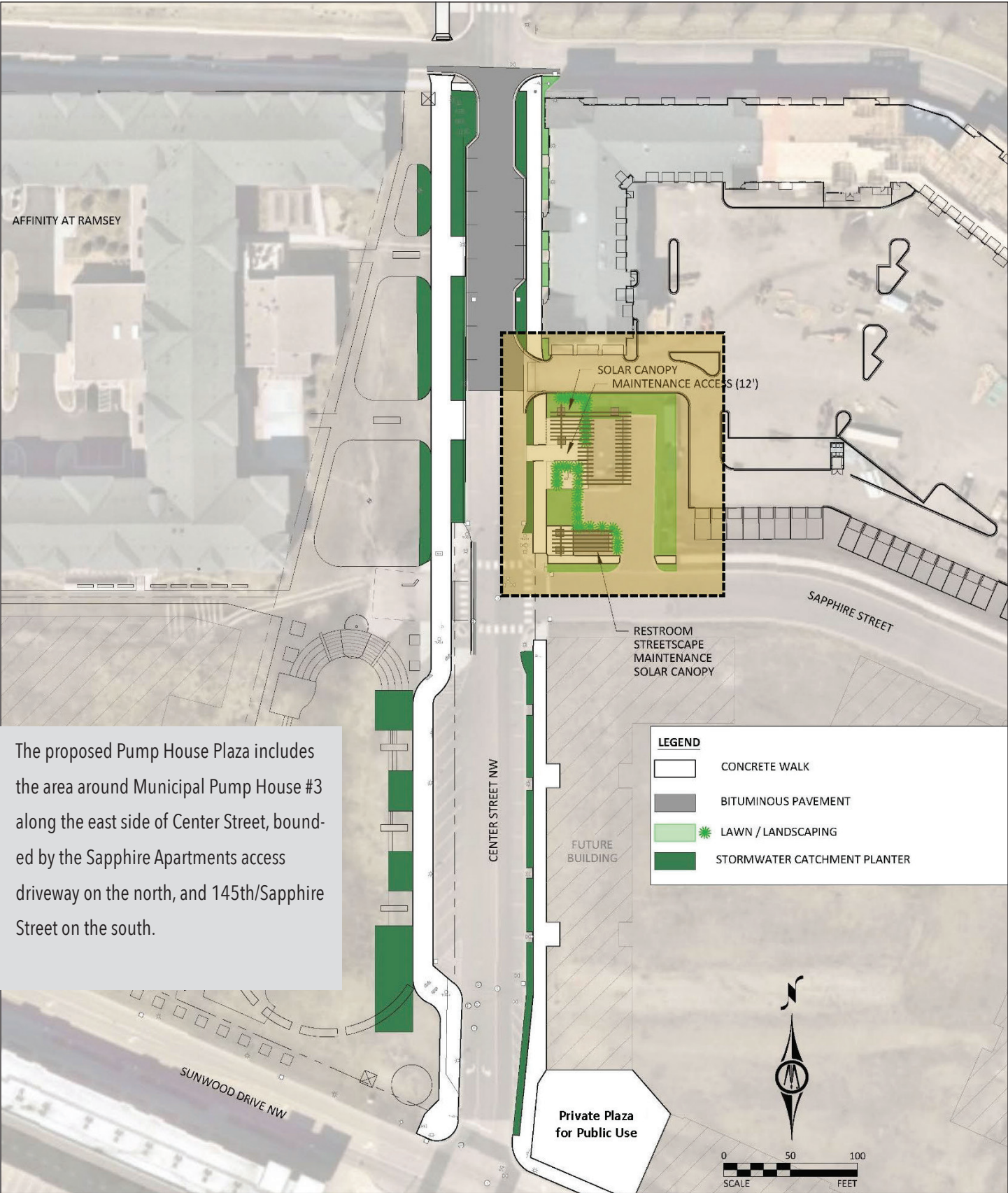
2 WALL SECTION AT ALUMINUM PANEL
Scale: 1/2" = 1'-0"

Restroom + Maintenance Bldg Project Elements

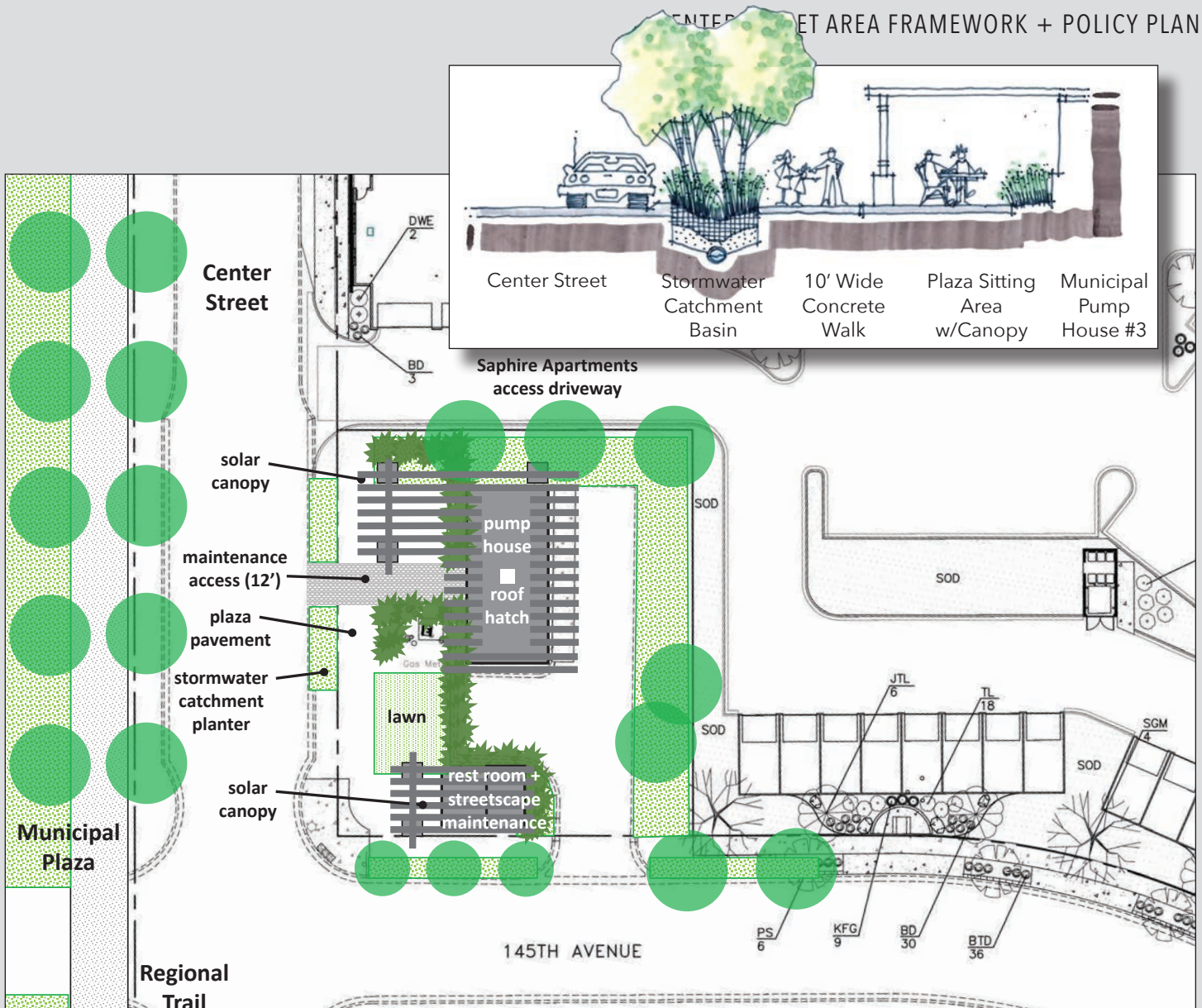


A LED Community Information Board is proposed for the Sapphire Street façade of the Restroom + Maintenance Building. This LED display panel can be used to announce events of community interest, to present the schedule for Municipal Plaza activities, display digital art, etc.(These images shows the capabilities of LED panels.)

Pump House Plaza Location Map



The proposed Pump House Plaza includes the area around Municipal Pump House #3 along the east side of Center Street, bounded by the Sapphire Apartments access driveway on the north, and 145th/Sapphire Street on the south.



Pump House Plaza

PROJECT DESCRIPTION

The Conceptual Site Plan for Pump House Plaza includes the following elements:

- Paved plaza/sitting area along east façade of the Pump House Building;
- Solar canopy/shade structure over the plaza/sitting area;
- Paved (10' minimum width) north/south pedestrian walkway;
- Stormwater catchment basin/planters between pedestrian walk and Center Street;
- Small open lawn/flex space for information/crafts/food tent and other uses;
- Variety of landscape plantings to provide shade, color, screening.

Note: the sequence of project design and construction will begin with Pump House Building facade improvements, followed by Pump House Plaza site and landscape improvements, and then additional project feasibility evaluation and detailed design related to the Rest Room + Maintenance Building.

Preliminary estimate of potential construction cost: \$70,000 - 90,000

The primary objective is to create a series of smaller, pedestrian-scaled public spaces along the east side of Center Street to complement and enhance Municipal Plaza, especially for various events that include the temporary closure of the street. All three of these major elements (Municipal Plaza, Center Street, east frontage public spaces) will seamlessly fit together, including consistent materials, finishes and furnishings to create a unique identity and inviting destination crossroads in the heart of the COR District.

Pump House Plaza Project Elements

Pavement



Concrete plaza with broom finish and tooled joints to create interesting pattern is preferred; color additives, acid tints or etching, and exposed aggregate are other acceptable options.

Furniture



Light weight (moveable) and stackable furniture in a variety of colors is preferred; many choices available, but should consider consistent or complimentary 'family' of furniture for all COR public places.

Stormwater Basins



Curb-cuts on both street side and plaza side of each basin direct surface water flow, but still create a physical/visual separation for pedestrian circulation, snowplowing and other maintenance operations.

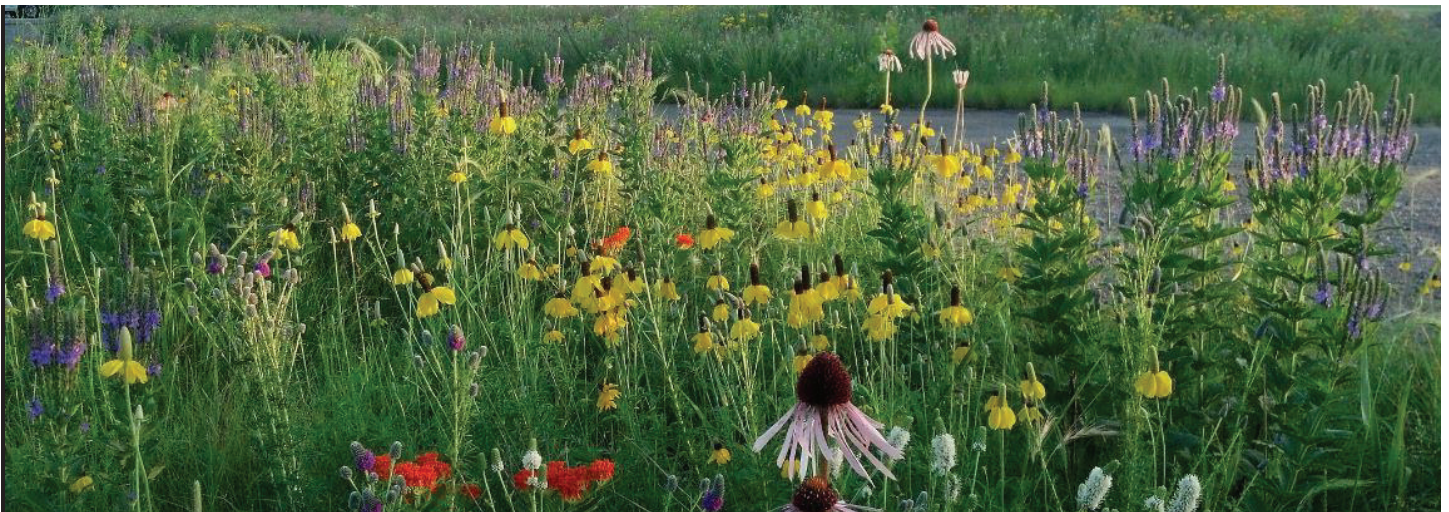
Pump House Plaza Project Elements

Water Feature



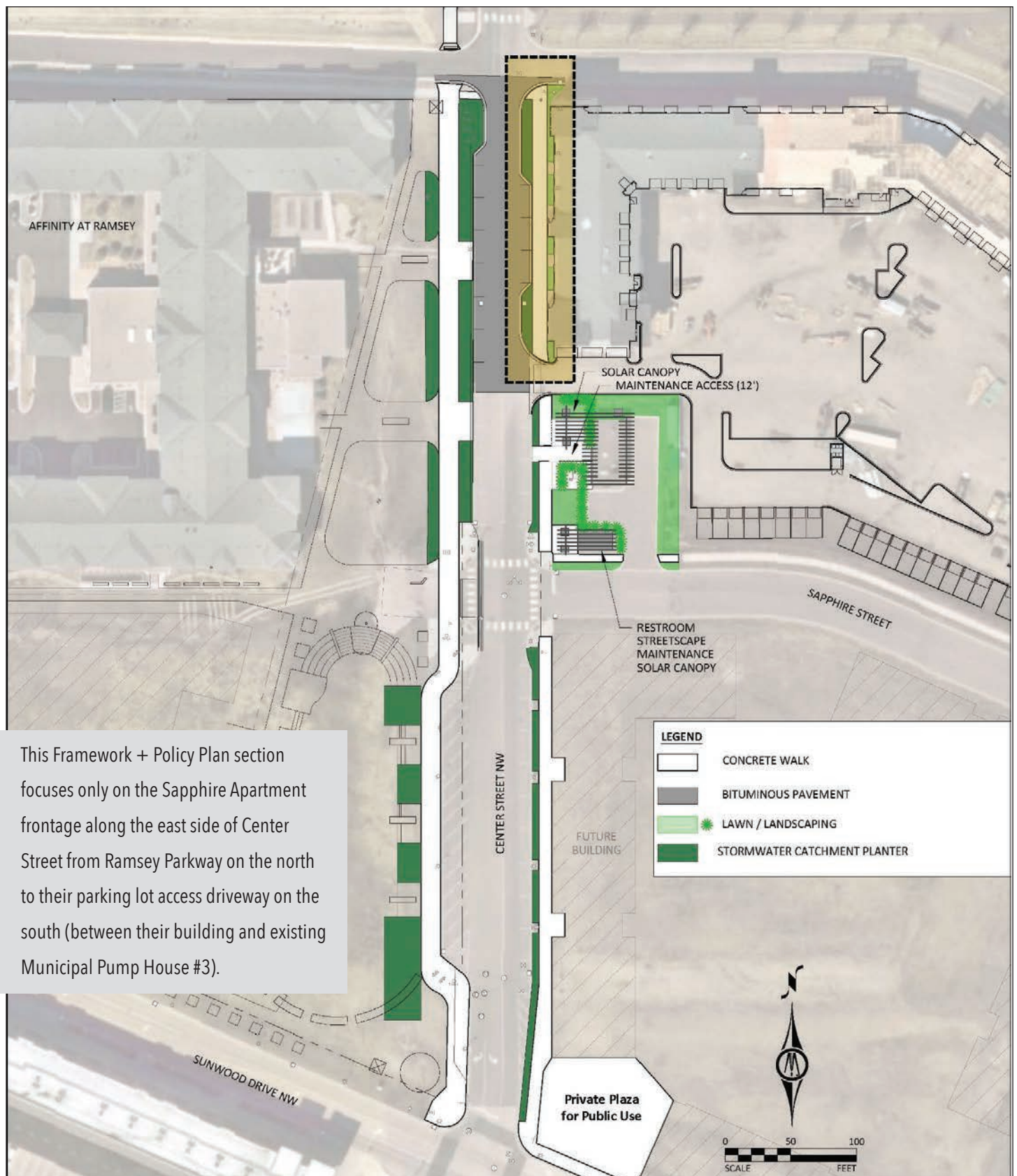
The soothing sound of water can be an important element in the design of public places; small, self-contained water features are preferred, for ease of maintenance, winter shut-down and other considerations.

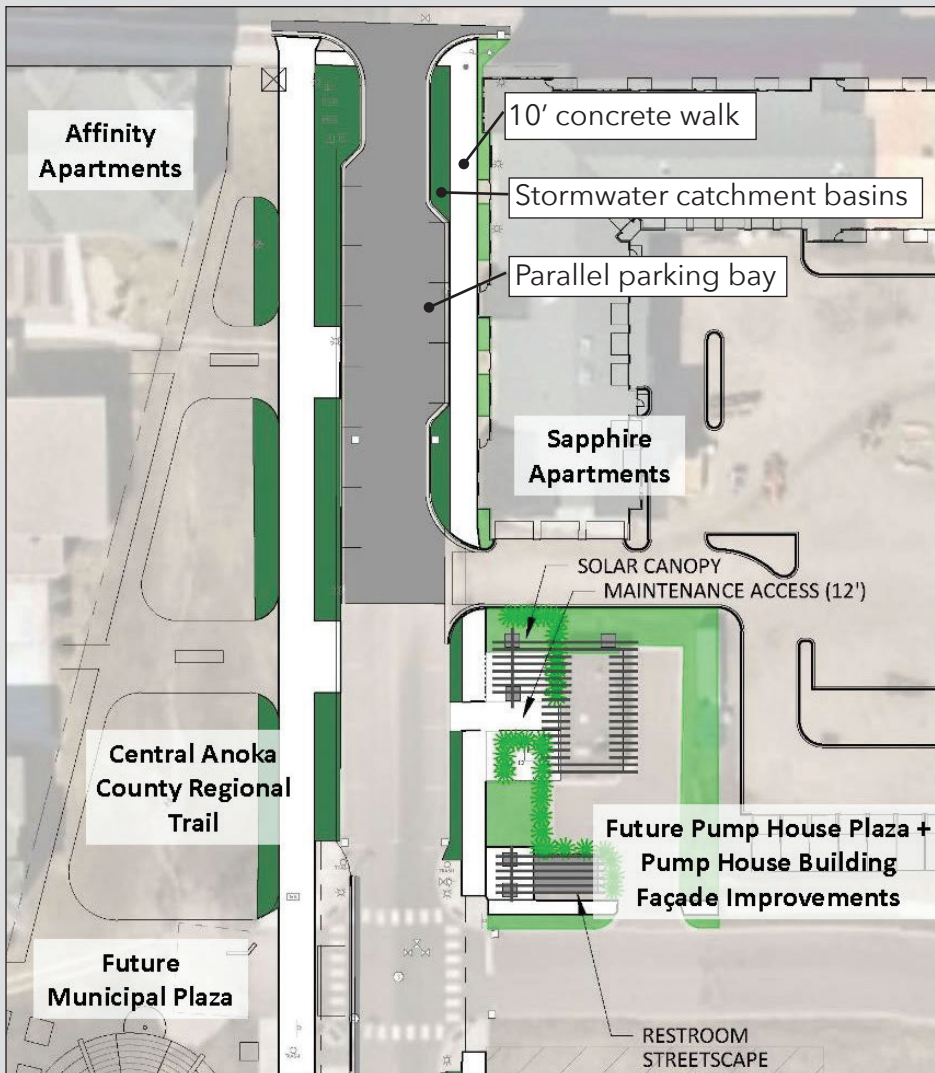
Landscape



Landscape elements should reflect, or compliment, existing streetscape plantings, and further promote a consistent COR District identity and character; a simple landscape palette provides shade, seasonal color, screening (parking areas/utility boxes), and softens building elevations.

Sapphire Apartment Frontage Location Map





Sapphire Apartment Frontage

PROJECT DESCRIPTION

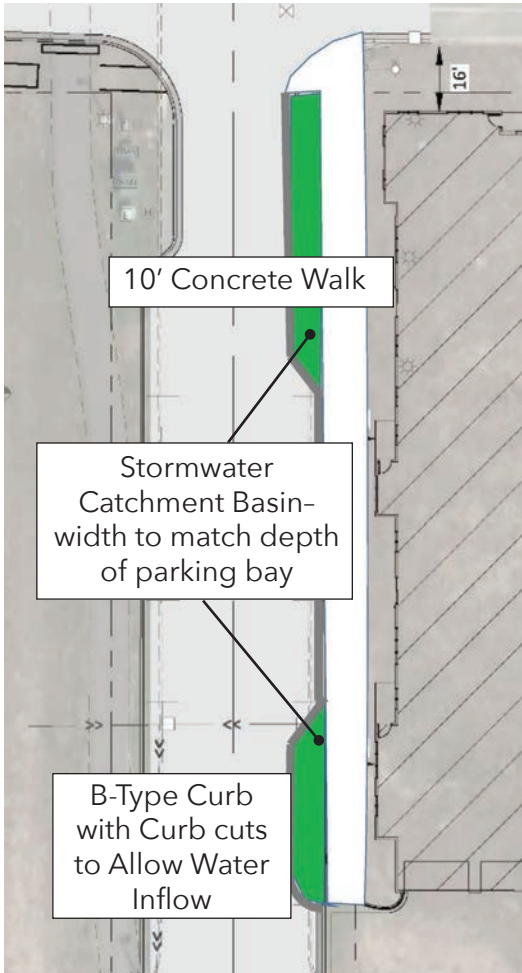
The Concept Site Plan for the Sapphire Apartment Frontage along the east side of Center Street includes three primary elements:

- A 10' wide concrete walk;
- Stormwater catchment basins;
- Parallel parking bay.

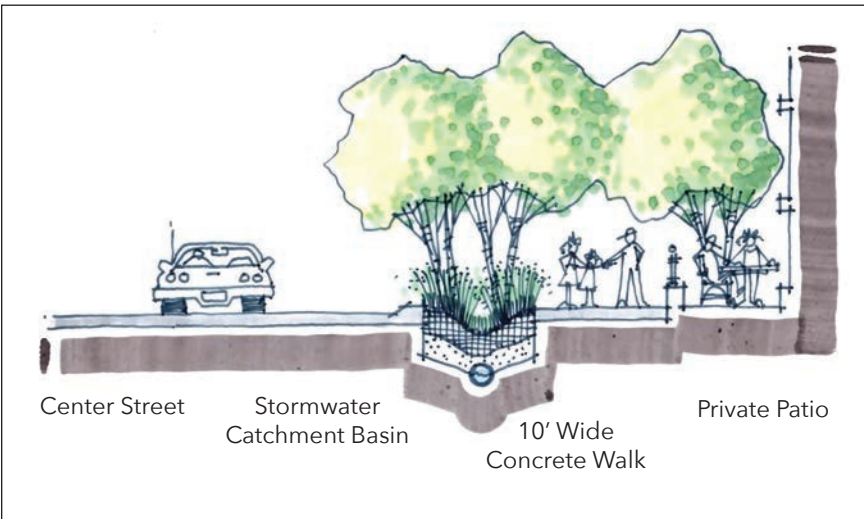
Preliminary estimate of potential construction cost: \$65,000 - 80,000

The Sapphire Apartment Frontage will be the first segment of public (pedestrian) realm to be completed, and as such plays an important role in establishing these elements as the benchmark for future projects along the east side of Center Street. A gracious walkway width (10'), connected stormwater basins, and landscape plantings that complement existing streetscape, will not only further enhance the desired Downtown District street character, but also set design expectations for Pump House Plaza and the now-vacant development site at Sunwood Drive.

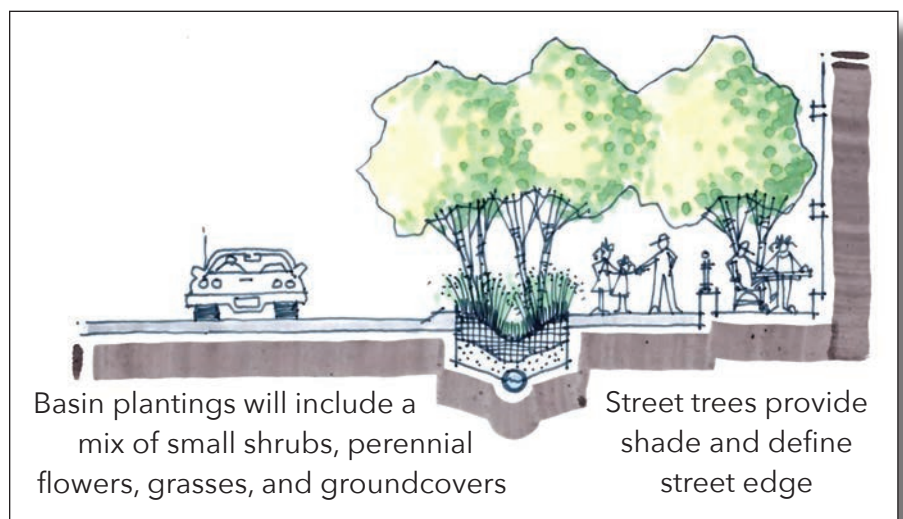
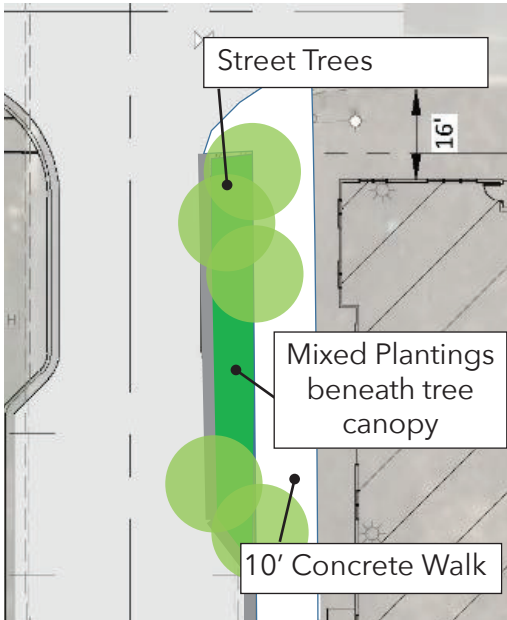
Sapphire Apartment Frontage Project Elements



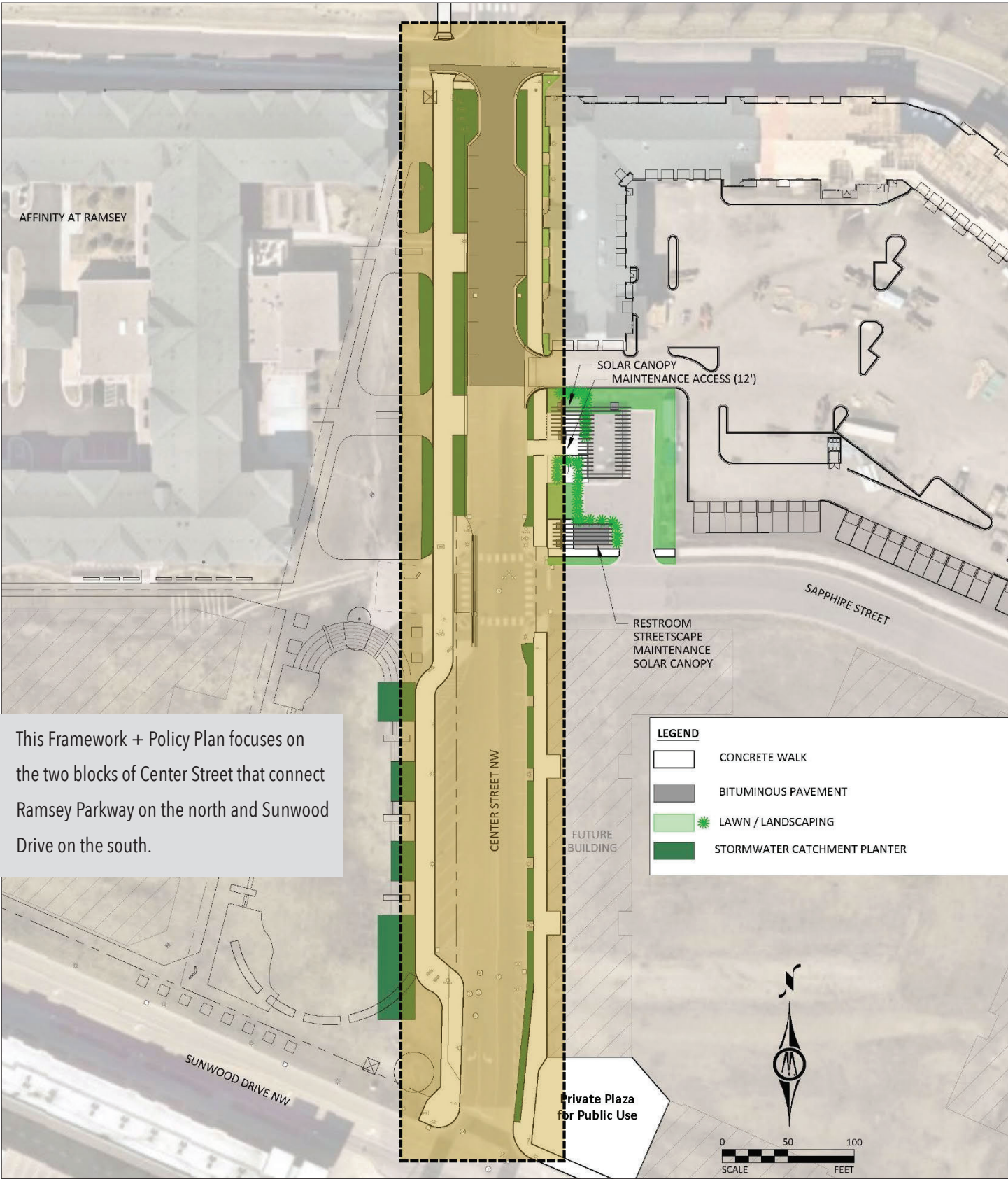
Stormwater catchment basins will be connected to existing storm sewer located in Center Street - future phases will route this water to underground cisterns in Municipal Plaza for irrigation and other re-use purposes.



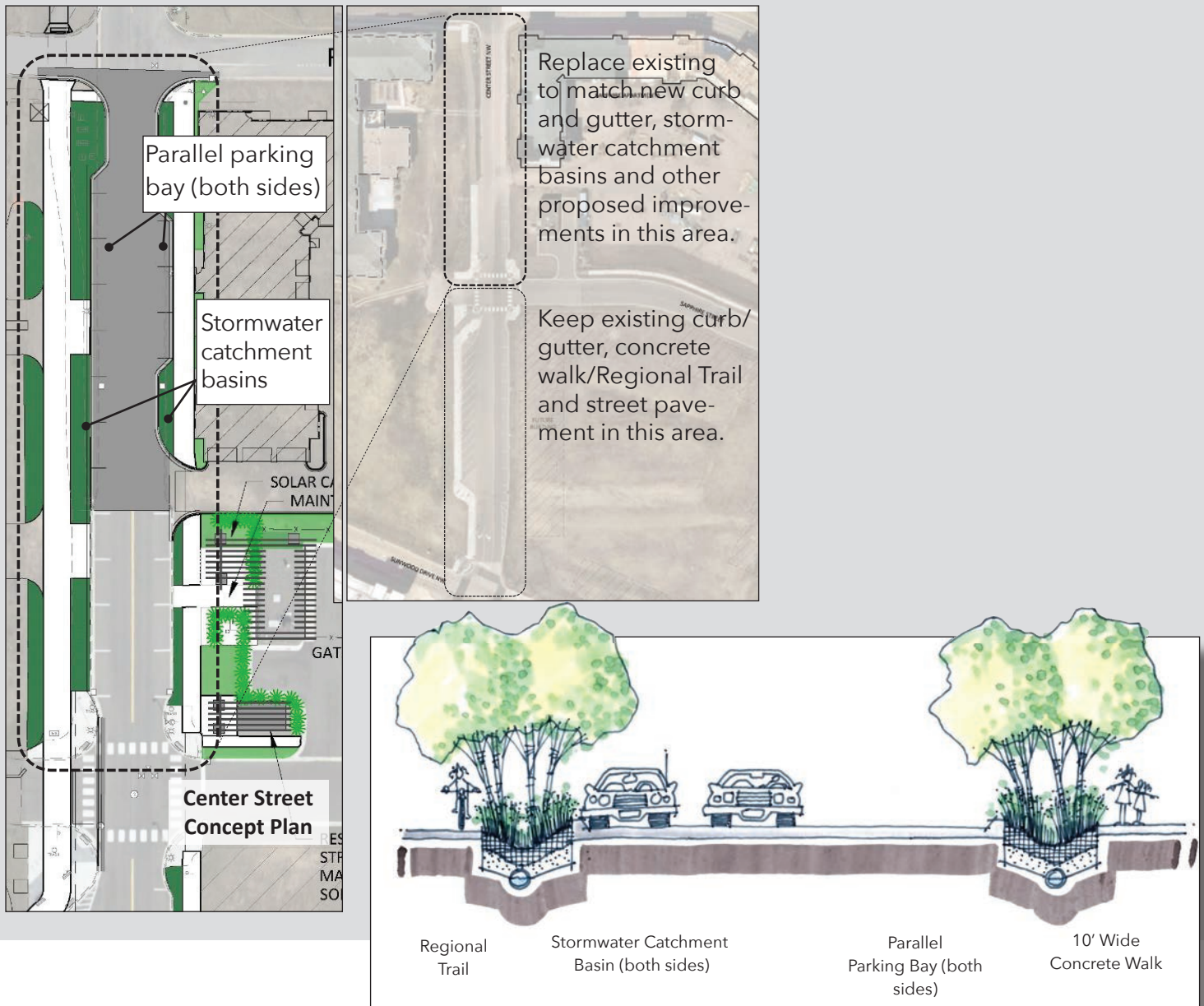
Sapphire Apartment Frontage Project Elements



Center Street Location Map



This Framework + Policy Plan focuses on the two blocks of Center Street that connect Ramsey Parkway on the north and Sunwood Drive on the south.



Center Street

PROJECT DESCRIPTION

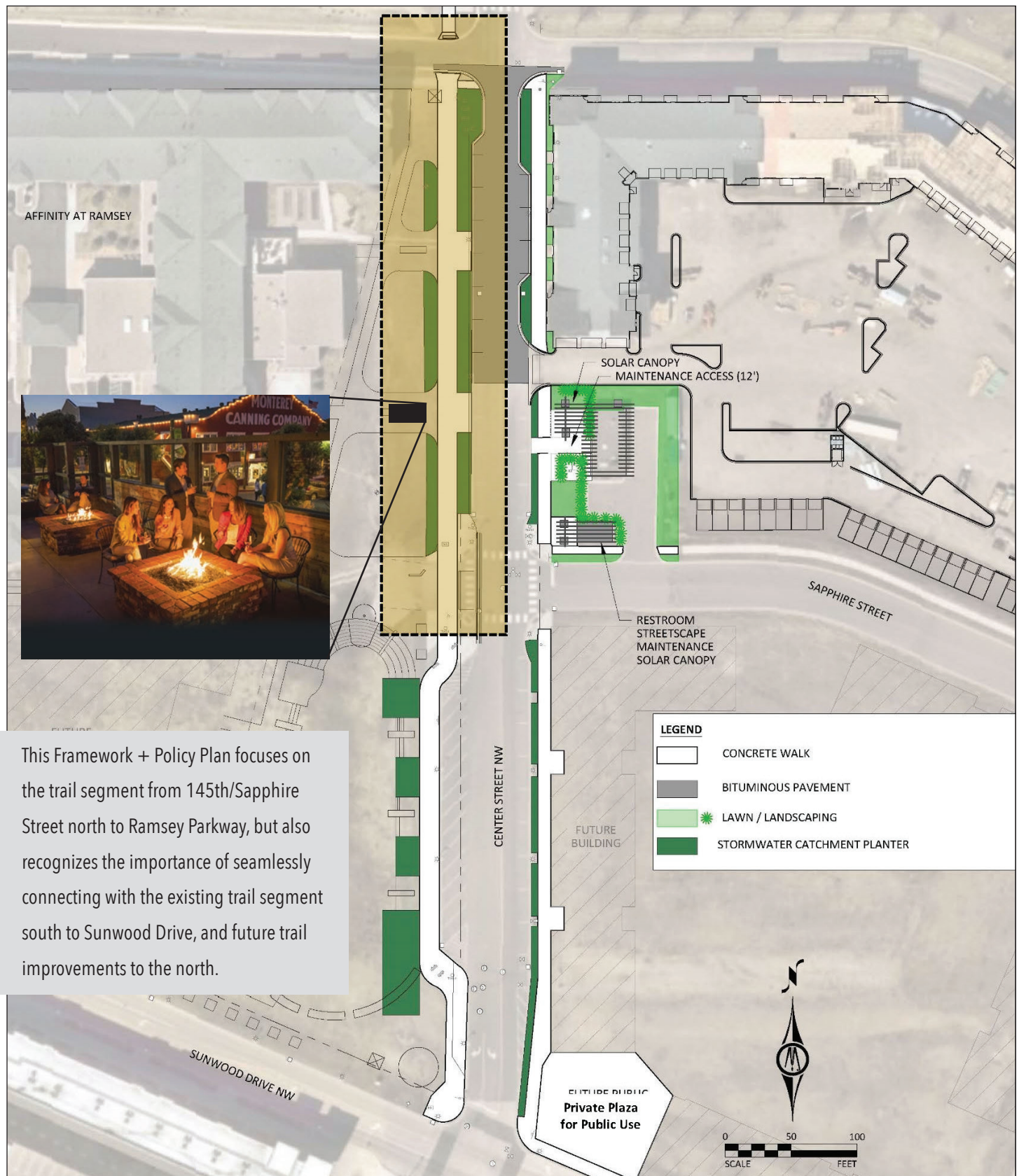
The primary purpose of the Conceptual Site Plan for Center Street is to illustrate how this key north/south connector ties together all the other pieces of this Framework + Policy Plan.

At the same time, it also promotes various opportunities for innovative district infrastructure as an integral part of current and proposed street, park, trail and private development project design – suggesting shared systems for stormwater capture/reuse, energy production/distribution, waste handling/recycling and other technologies.

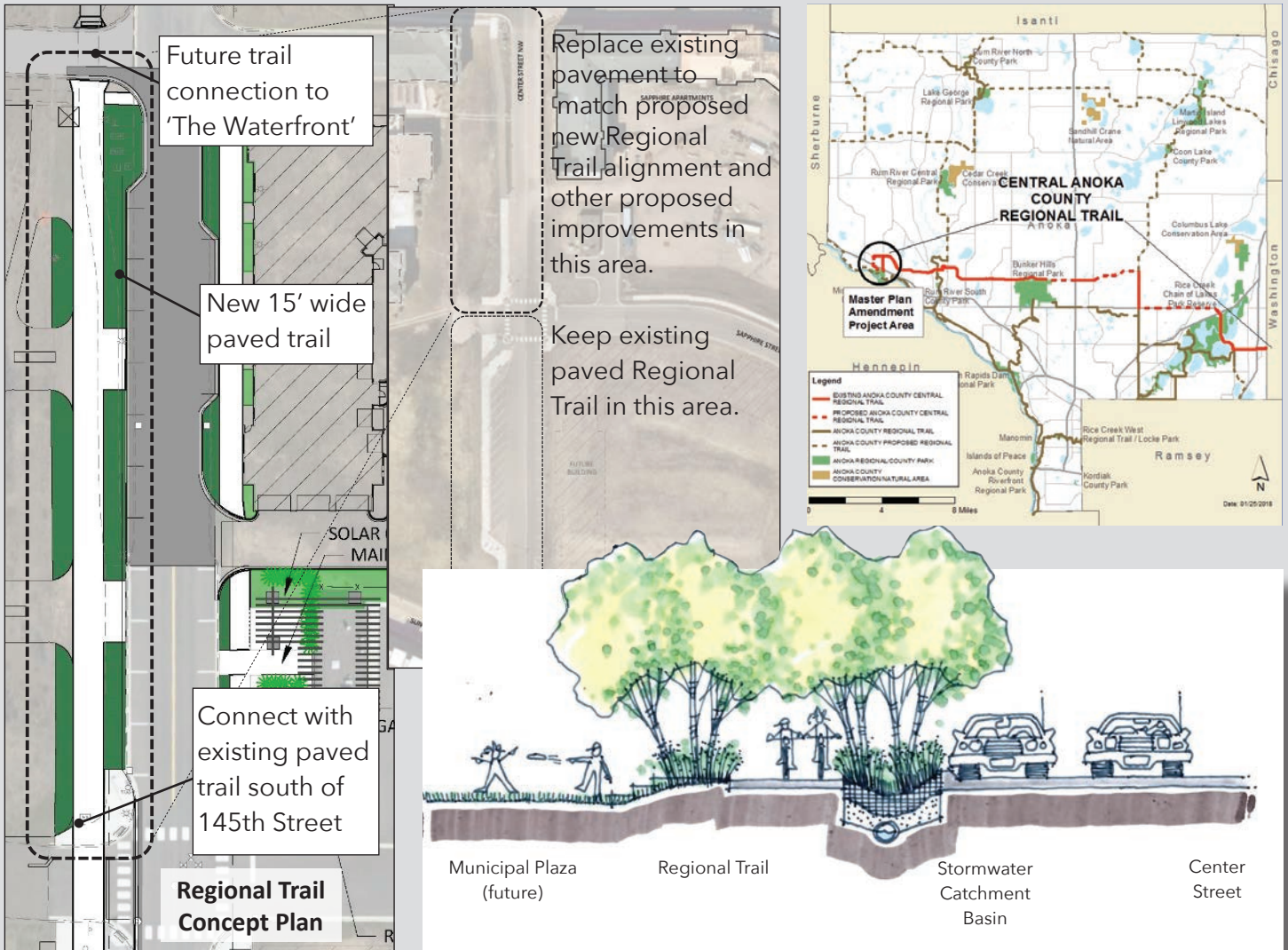
Potential construction cost to be determined as part of other Center Street projects.

It's important to note however, that this document also presents a somewhat cautious approach, seeking to minimize disruption to existing Center Street improvements. The basic objective is to work with existing curb lines, parking bays and other pavement dimensions as the starting point for completing street construction to Ramsey Parkway and northward to Bunker Lake Boulevard. (Also refer to the Sapphire Apartments Frontage and Central Anoka County Regional Trail information in this Plan)

Regional Trail + Municipal Plaza Location Map



This Framework + Policy Plan focuses on the trail segment from 145th/Sapphire Street north to Ramsey Parkway, but also recognizes the importance of seamlessly connecting with the existing trail segment south to Sunwood Drive, and future trail improvements to the north.



Regional Trail + Municipal Plaza

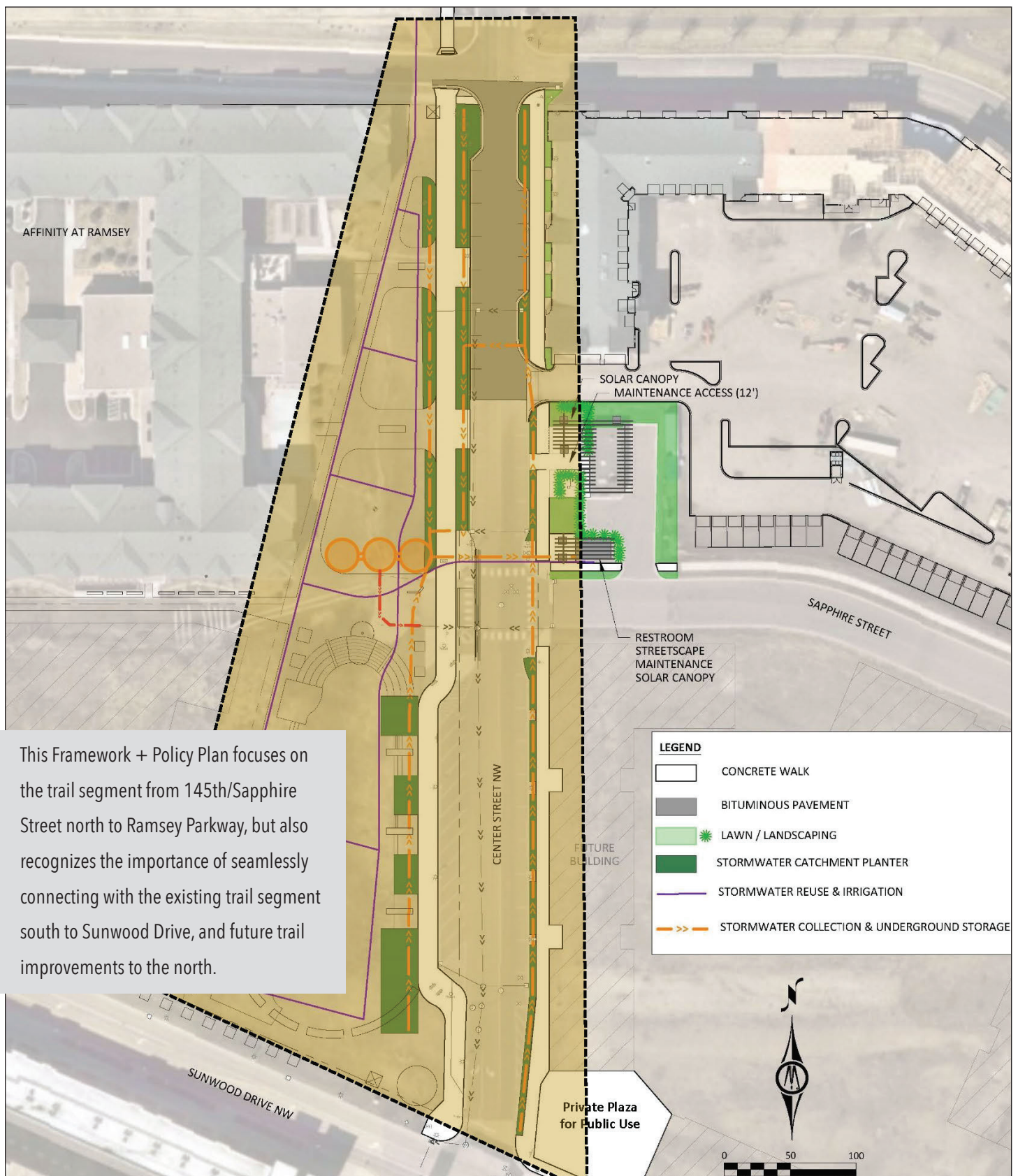
PROJECT DESCRIPTION

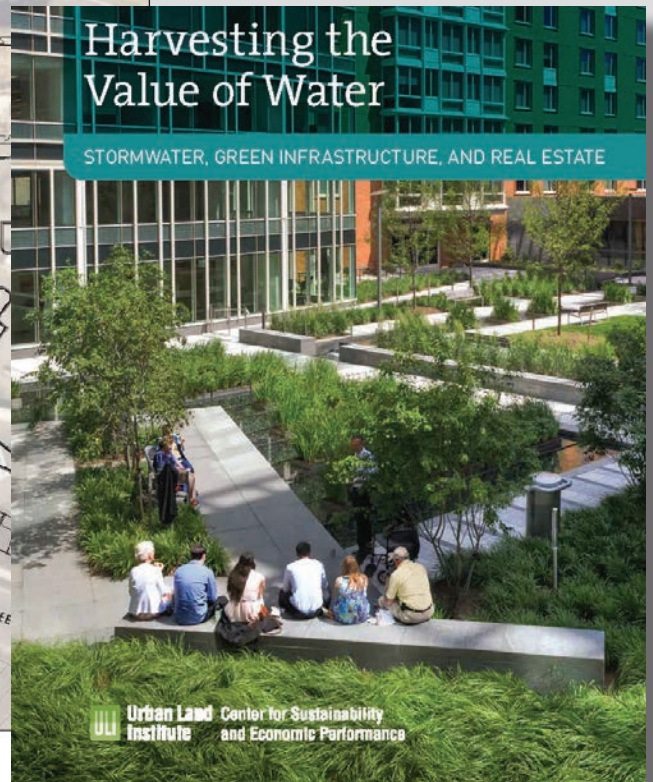
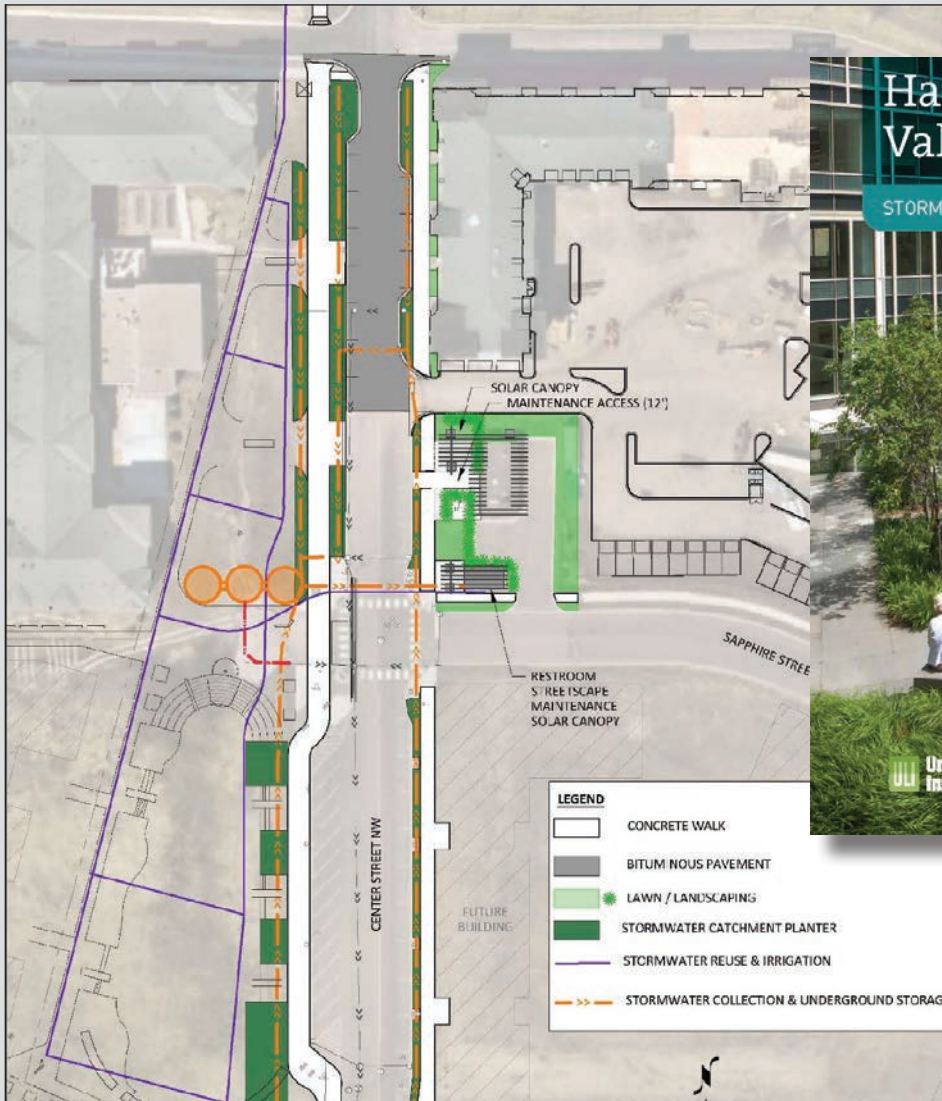
The Central Anoka County Regional Trail is a 26 - mile paved regional trail that traverses the middle of the county connecting Mississippi West Regional Park in Ramsey, to Bunker Lake Regional Park, on to the Rice Creek Chain of Lakes Park Reserve in Lino Lakes and Centerville, MN. All but a portion of this Regional Trail in Ham Lake is off-roadway, in place, and in use today, linking residents and trail users to many different destinations and facilities in the county—recreational, business, schools and residential. The trail will be an important connection to the Mississippi River and Mississippi West Regional Park once the remaining portions of the elevated pedestrian crossing over Hwy #10 are funded and the bridge is in place. This pedestrian and bicycle route links not only the isolated Mississippi Recreation District to the other of the 10 districts (and the rest of the city)—but also welcomes all the residents on the South side of Hwy #10, safely to Ramsey's downtown businesses and related recreational opportunities.

It may be noted, that this trail is an integral part of the Circle of Ramsey Greenway, and accordingly, this downtown area in Ramsey becomes both the nexus of the regional trail system, local trail system, as well as providing non-motorized opportunities in connecting the rest of Ramsey to The COR.

Preliminary estimate of potential construction cost: \$80,000 - 100,000

Stormwater Management System Location Map





Stormwater Management System

PROJECT DESCRIPTION

Bolton & Menk, has completed a preliminary study that analyzes the feasibility of integrating stormwater reuse for irrigation of the proposed Municipal Plaza and adjacent Center Street landscape improvements. The reuse system envisioned will include best management practices to collect and treat runoff, storage tanks to store the runoff, and a pump station and piping to convey reuse water to irrigation areas and surface water features. Most of the stormwater runoff will be generated from Center Street NW and the sidewalks on either side of the road. Stormwater runoff is proposed to be collected and treated by a combination of tree vaults and rain gardens located within the boulevard and parking 'bump-outs' on both sides of the street. It is assumed that the runoff would drain directly into each of the rain gardens and tree vaults through surface capture systems (i.e., curb cuts). Water collected and stored within the storage tanks will discharge via gravity flow to the

pump house wet well, where it will be filtered and treated. The Metropolitan Council Stormwater Reuse Guide Water Balance Tool for Constant Irrigation Demand was used to determine the percent of time the stormwater reuse system would be functioning, and assumed 1" of water over the irrigable area per week is required for adequate vegetation growth and health. Preliminary estimate of potential construction cost: \$800,000 - 950,000

Stormwater Management System Project Elements

SOURCE Site Data				
	Impervious Area	83,417	square feet	
	Impervious Area	1.91	acres	
USE Demand Data				
	Irrigation Area	57,206	square feet	
	Irrigation Area	1.31	acres	
	Irrigation Season	13	39	week number
Storage Data				
	Storage Provided	150,000	gallons	
	Total Storage Required	454,037	gallons	%
	Weeks that Flows Must be Augmented	85	weeks	10.2%
	Weeks that Reuse System will Meet Demand	752	weeks	89.8%

Exhibit 1: Excerpt from the Met Council Reuse Water Balance Tool.



Exhibit 2: Example concrete vault storage tank (Storm Trap).



Exhibit 3: Example underground fiberglass storage tanks (Xerxes).

Exhibit 1 summarizes the preliminary reuse system sizing. According to the reuse calculator, there will be enough captured stormwater water in approximately 90% of the pumping season weeks to apply 1-inch per week of water over the area to be irrigated (a total of 454,000 gallons required). Since rainfall contributes to that total, as well as stored water in that tank, the total required volume per year does not translate to the size of the tank required. Instead, the volume of the tank can be modified to target an irrigation efficiency.

The storage volume could be a single concrete vault or multiple fiberglass underground units. Given the size of individual cisterns, plastic is not available. Fiberglass tanks generally are available up to 50,000 gallons in size. A 50,000-gallon tank has dimensions of approximately 68 feet long with a 12-foot diameter. Three tanks, with space between, could fill a footprint of approximately 5,000 square feet. Concrete vaults can be sized to fit multiple footprint sizes.

Stormwater Management System Project Elements

Rainfall Event	Rainfall Depth (IN)	Runoff Volume (CF)	Runoff Volume (GA)
1" Event	1.00	5,500	41,140
1-Year	2.46	14,700	109,956
2-Year	2.86	17,600	131,648
5-Year	3.58	22,700	169,796
10-Year	4.26	27,500	205,700

Table 1: Summary of expected runoff volumes.

Additional Considerations

A simplified estimate of stormwater runoff expected from the street section was assembled to ensure the watershed can produce enough runoff to adequately fill the tanks. Table 1 is a summary of expected runoff volumes for a variety of events. A rainfall event producing between 3.6 and 4.3 inches in 24 hours (5-year to 10-year return interval) can completely fill the tank.

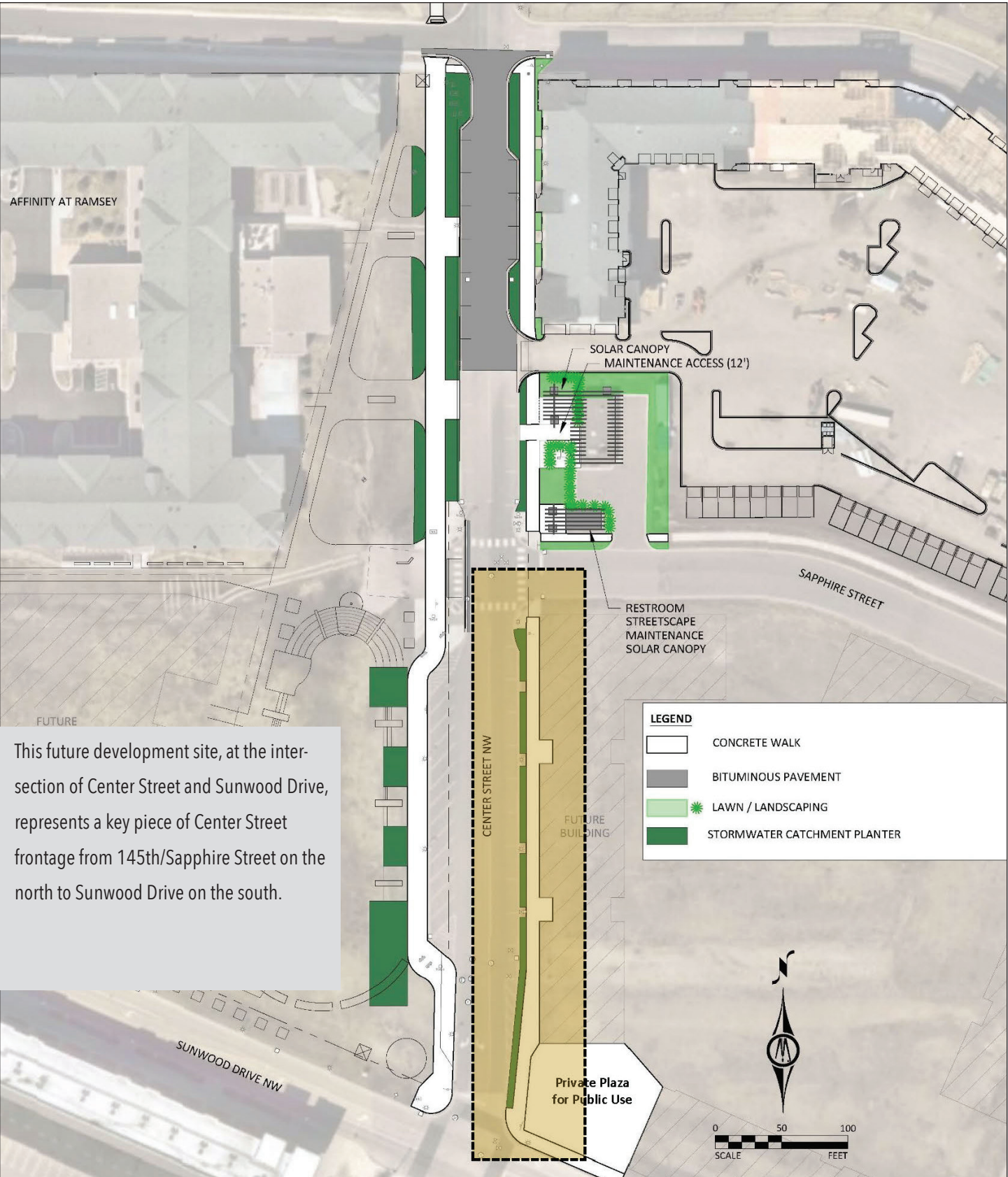
During final design, additional hydraulic information will be provided to provide an effective high flow bypass system. In other words, if the tank is full and the City experiences a 100-year rainfall event, there will be adequate bypass capacity to reduce local

flooding and protect the tank(s). Also, since the COR trunk storm sewer system is already designed to accommodate a 100-year rainfall event with discharge to regional flood storage areas, the bypass system will effectively mimic the originally designed scenario. In between events when irrigation is occurring, or the tanks is being filled, there will be hydraulic relief on the trunk system and volume control provided.

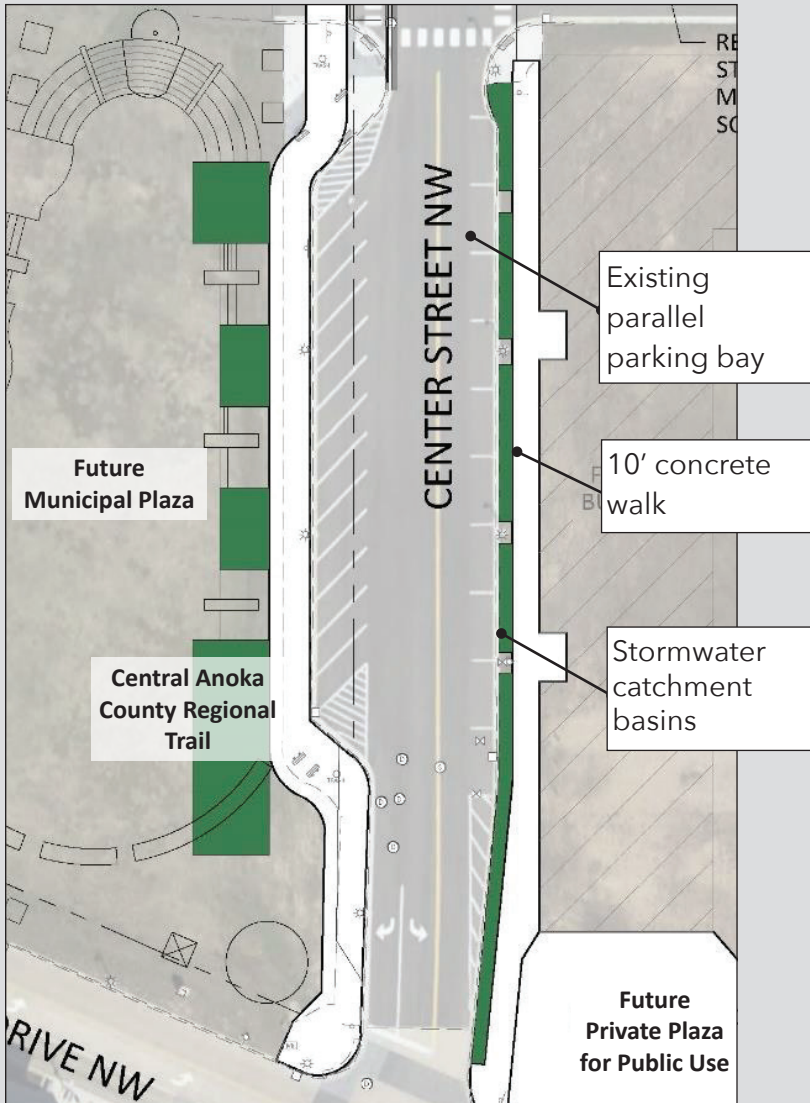
Since the reuse water will pass through a filter and potentially other treatment methods, the impact to groundwater resources through the infiltration of irrigation water is expected to be very minimal. Impacts to groundwater resources in the Downtown District are not anticipated.



Future Development Site Frontage Location Map



This future development site, at the intersection of Center Street and Sunwood Drive, represents a key piece of Center Street frontage from 145th/Sapphire Street on the north to Sunwood Drive on the south.



Future Development Site Frontage

PROJECT DESCRIPTION

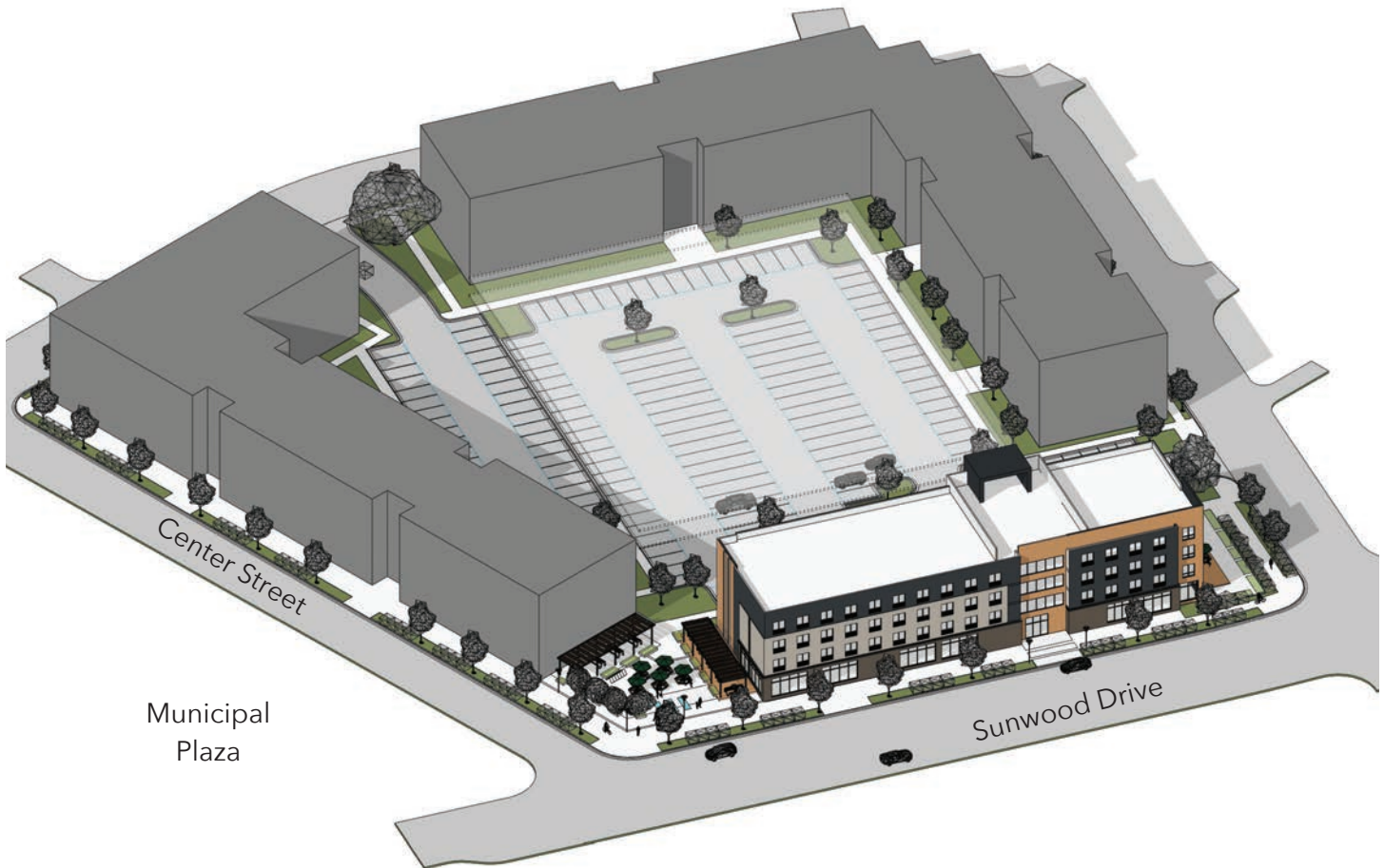
The Concept Site Plan for the Future Development Site Frontage along the east side of Center Street matches recommendations for Sapphire Apartment Frontage and Pump House Plaza to the north, including three primary elements:

- A 10' wide concrete walk;
- Stormwater catchment basins;
- Parallel parking bay.

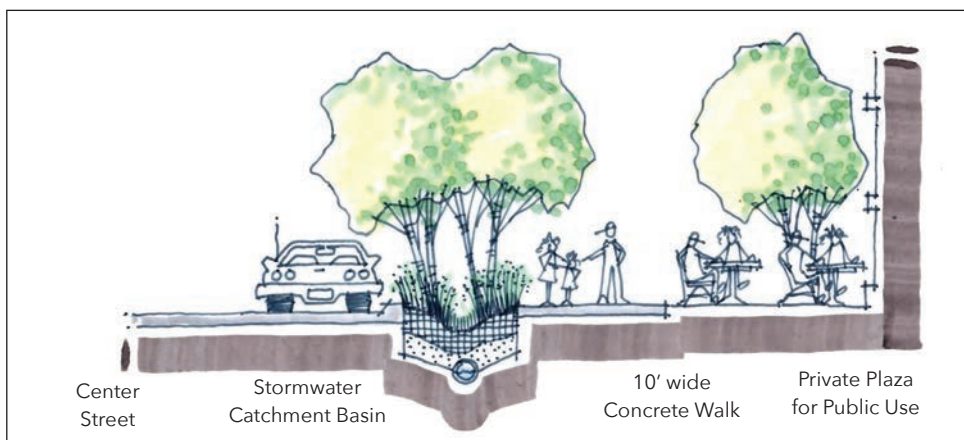
Preliminary estimate of potential construction cost: \$80,000 - 100,000

Following in the footsteps of the Sapphire Apartment project, future development of this site will also include a gracious pedestrian walkway (10' width), connected stormwater basins, and landscape plantings that complement existing streetscape, further enhancing the desired Downtown District street character as a welcoming local and regional destination.

Future Development Site Frontage Project Elements



Stormwater catchment basins will be connected to existing storm sewer located in Center Street – future phases will route this water to underground cisterns in Municipal Plaza for irrigation and other re-use purposes.



Future Development Site Frontage Project Elements

