

HARBOR LIGHT DEVELOPMENT MU-P REGULATING PLAN

For Lots 1, 2, & 3

Arrowhead Road, Duluth, MN

City of Duluth, MN
Planning Department Submittal

JULY 1, 2020

Final for City Approval

For:
Gospel Tabernacle Church
& Lotus Realty Services

LHB Project:150732



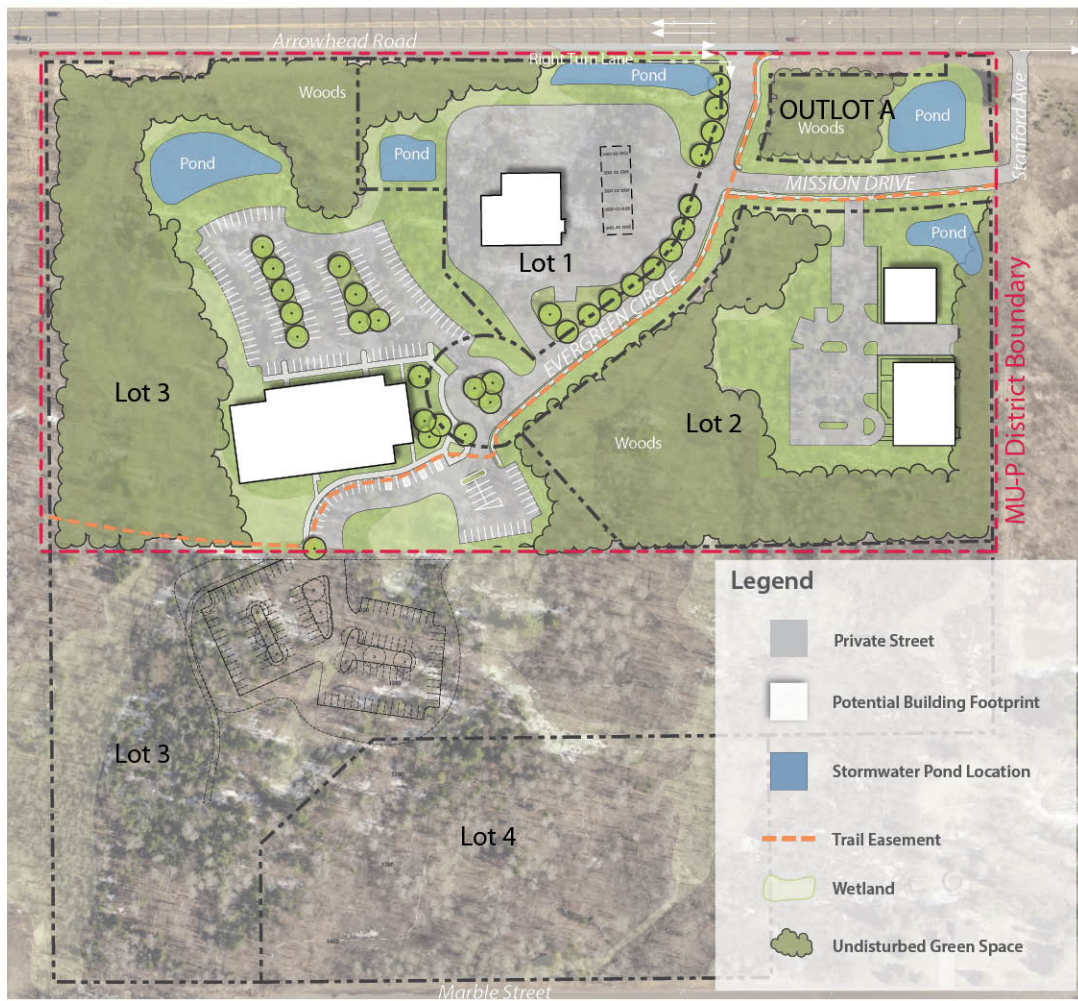
LHB Inc.
21 West Superior Street
Suite 500
Duluth, MN 55802

General Layout of Development

- a) Below is a master plan illustrating the general layout of development areas and building parcels in relation to the natural features to remain, the proposed road, trail, and bicycle circulation systems.

All regulation and code related items are included in the following pages.

General Layout (Proposed)



Harbor Light Development



Dimensional Standards & Lot Allocation

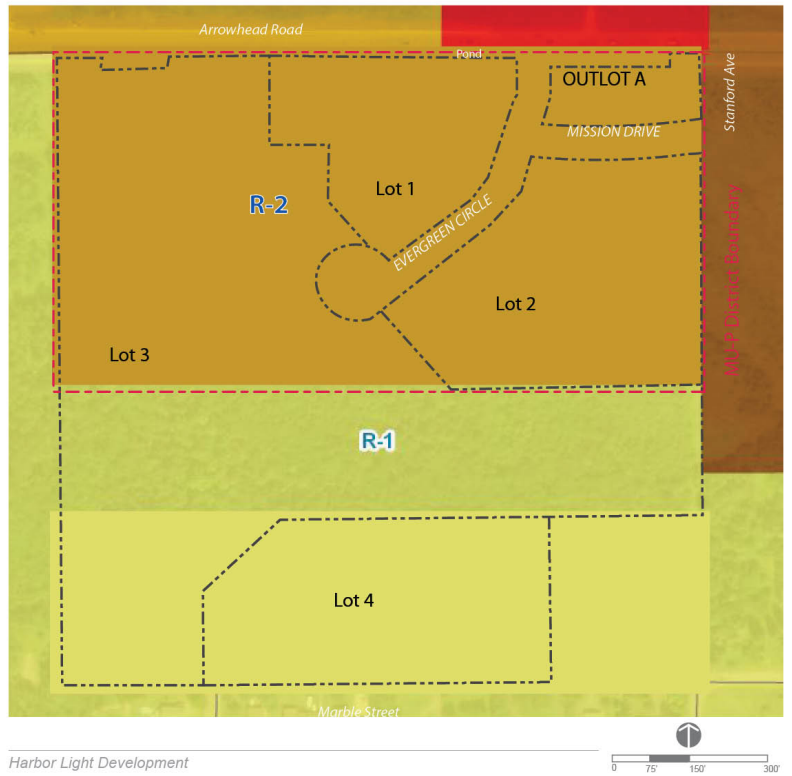
b) Below is a table listing lot sizes, widths, building setbacks, open space, maximum building heights and maximum densities for all proposed development parcels.

Lot	Gross Acres	Open/ Green Space	Net Developed Acres	Permitted Uses <i>*See page 10 for a list of permitted uses.</i>	Maximum Density		Max. Height	Building Setback		
					Type	Lot Standards		Type	Structure Setbacks min.	
1 (B)	3.00 ac	0.78 ac	2.22 ac	Mixed Use/ Commercial	One-family	4,000 sf	45'	Front yard	25'	
					Two-family	2,500 sf		Side yard (buildings < 3 stories)	6'	
					Multi-family	750 sf		Side yard (buildings > 3 stories)	10'	
					Townhouse	2,200 sf		Rear yard	25'	
2 (C)	5.05 ac	3.40 ac	1.65 ac	Mixed Use/ Commercial	One-family	4,000 sf	80'	Front yard	25'	
					Two-family	2,500 sf		Side yard (buildings < 3 stories)	6'	
					Multi-family	750 sf		Side yard (buildings > 3 stories)	10'	
					Townhouse	2,200 sf		Rear yard	25'	
3 (A)	17.79 ac	12.43 ac	5.20 ac	Community/ Civic	One-family	4,000 sf	45'	Front yard (min)	25'	
					Two-family	2,500 sf		Side yard (buildings < 3 stories)	6'	
					Multi-family	750 sf		Side yard (buildings > 3 stories)	10'	
					Townhouse	2,200 sf		Rear yard	25'	
Out-lot A	0.80 ac	0.80 ac	n/a	n/a		n/a	n/a	n/a	n/a	
R/W	0.95 ac	n/a	0.95 ac	Public Right- of-Way		n/a	n/a	n/a	n/a	n/a
Total	27.59 ac	7.41	10.02 ac	n/a		n/a	n/a	n/a	n/a	n/a

Previous Base Zone Districts

- c) To the right is an exhibit showing the parcels previous zone district of R-2 (Residential-Urban).

Previous Base Zone

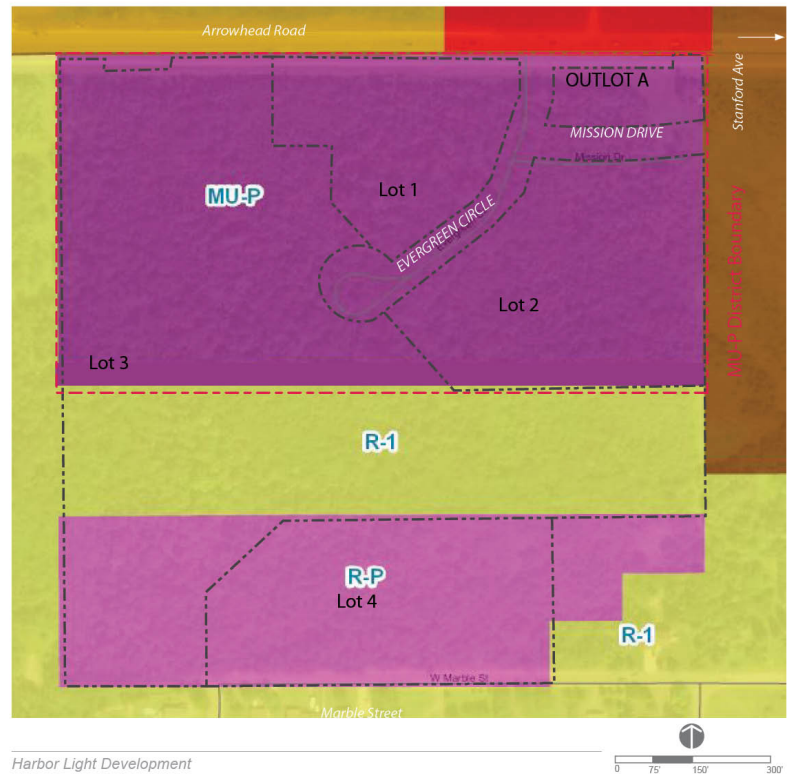


MU-P ZONE

Below is an exhibit illustrating current zoning of the property, which consists of MU-P zone to the north (shown in purple), and an R-1 zone to the south. In addition, this exhibit shows a proposed R-P zone that may occur in the future for the southern-most property that directly abuts Marble Street, illustrated by the dashed red line.

**For the purposes of this Plan, only content pertaining to the MU-P zone is included within.*

Zoning (Current)



Traffic Impact Analysis

- d) A traffic impact study was conducted for the Harbor Light Development by Westwood, Inc. in November of 2016. In addition, a revised trip generation and queuing lengths study was done in March of 2018 to further assess future conditions and address potential design changes for the proposed intersection of Arrowhead Road and Evergreen Circle.

A summary of the traffic impact analysis findings and recommendations are below:

- Although development land uses and sizes are not finalized, the general land use types and sizes can be accommodated from a traffic perspective.
- A single site access onto Arrowhead Road can operate acceptably as a side-street in the short term, but should be considered for signalization in the long-term, depending on the types of land use that are considered.
- Arrowhead Road will need to be re-stripped at the intersection with the Harbor Light access road to allow for a westbound left turn lane. (200 feet of storage).
- The Harbor Light access road (now called Evergreen Circle) is recommended to have a dedicated right turn lane and a dedicated left turn lane approaching Arrowhead Road. It is recommended that the right turn lane have a stacking length of 250 feet (for unsignalized condition) and that the left turn lane be a continuation of the northbound approach lane.
- The creation of a southerly connection to Marble Street may relieve some traffic volume approaching Arrowhead Road, as some development traffic may divert to the neighborhood to the south. Conversely, the connection with Marble Street may cause

traffic from that southerly neighborhood to use the Harbor Light north-south road to access Arrowhead Road and beyond. Nevertheless, as the Harbor Light development is built out, signalization will likely be warranted at Arrowhead Road.

There will be a natural surface trail for pedestrian traffic only, that will connect from Evergreen Circle to Marble Street to the south. In the future, and once Lots 3 and 4 are fully developed, the public trail will be required to be paved.

A development agreement memorializing understandings about multi-use trails and traffic control solutions for Evergreen Circle and Stanford Avenue intersections with Arrowhead Road has been executed.

Circulation Plan

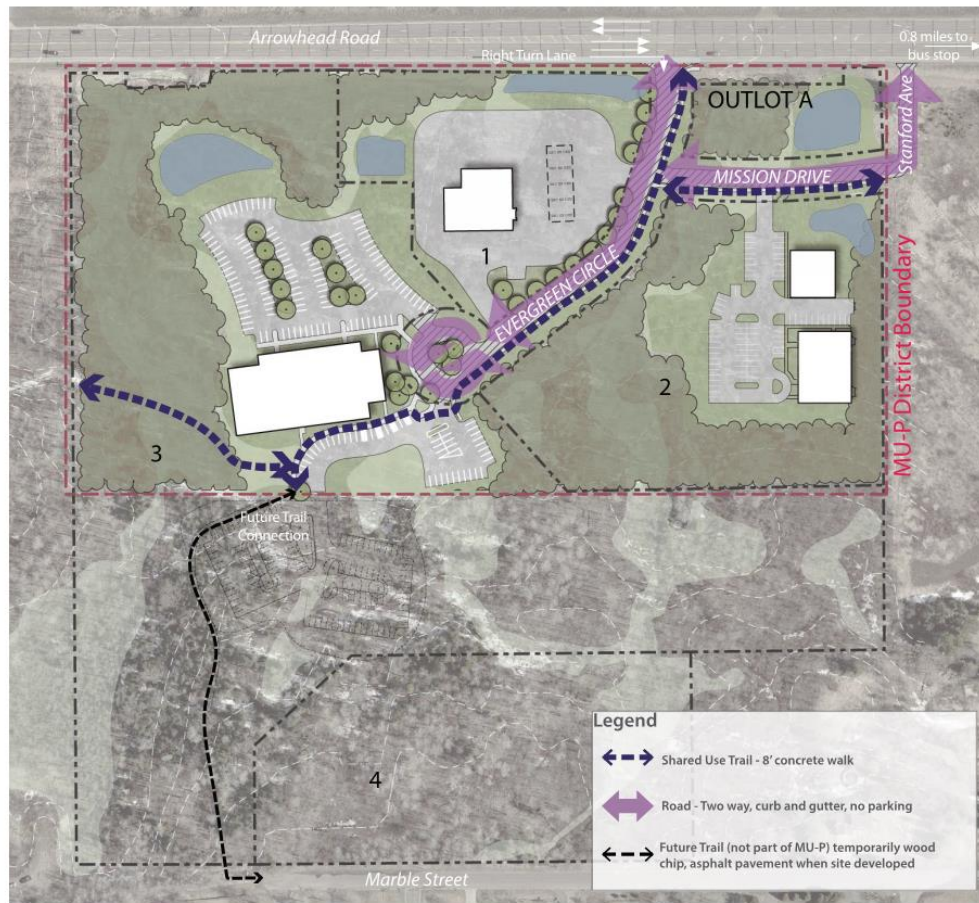
- e) Below is a circulation plan overlaid on the general layout plan. The MU-P will include two new public roads; Evergreen Circle and Mission Drive, and a third public road, Stanford Avenue, which resides outside the MU-P boundary. The roads will be asphalt pavement with concrete curb and gutter and maintained by the City.

An 8-foot wide multi-use trail will run along Evergreen Circle and a 5-foot wide sidewalk will run along Mission Drive. The extra wide trail along Evergreen Circle will be a part of a multi-use trail connecting Arrowhead Road and Stanford Avenue to Marble Street. The portion of the trail beyond Evergreen Circle will not be paved until the build out of Lot 3, and then continued outside the scope of the MU-P. The trail will be a compacted gravel trail until the complete buildout occurs, with the future trail consisting of asphalt. The segments of the trail south of Evergreen Circle cul-de-sac will be privately owned and maintained, but accessible to the public via an easement to be dedicated at time of building permit principle structure on Lot 1. Signage to be installed at both ends of trail identifying trail as open to public usage. The MU-P is 0.8 mile away from a bus stop and it is not proposed to have a new transit stop at this time. There will be an E/W natural surface trail connecting the cul-de-sac at Evergreen Circle with Sonside Park (located to the west) which will be maintained by the owner of Lot 3, but made available to the public via an easement to be dedicated at the time of building permit for the principle structure of Lot 3. Signage to be installed at both ends of the trail. Sidewalks and trails will connect to the main entry of buildings and there will be ample space available near building entries for future bike racks.

Development Guiding Principle 3: Enhance Connectivity with a New Public Pathway

The public pathway system currently serving the Duluth Heights neighborhood is poor and not very well connected. The MU-P zone will enhance local connectivity by featuring a new pedestrian pathway system, linking together adjacent neighborhoods while also providing enhanced access to Arrowhead Road and surrounding amenities. This new network of pedestrian paths will create additional outdoor recreational opportunities, as well as provide alternative transportation throughout the area by encouraging healthy outdoor activities, while increasing public access to nature.

Circulation Plan



Natural Resources Inventory

- f) Approximately 11± acres of the MU-P property are planned for a new public roadway and mixed-use development. A wetland delineation and comprehensive tree survey were conducted to mark these natural resources within the site. The balance of the site (7± acres) will remain in its natural condition, which consists of mature wooded vegetation and wetlands on varied topography. Approximately 85% of the naturally occurring wetlands will be undisturbed, allowing the diverse landscape to continue to act as a rich ecological feature benefiting local wildlife, and the surrounding environment.

Below is the tree preservation plan approved by the city illustrating the wetlands and trees to be protected (illustrated by the light green hatch).

[Development Guiding Principle 2: Celebrate & Maintain the Natural Setting with Sustainable Development](#)

The overall site concept plan has been designed with sustainability in mind; not only have wetlands been avoided to the best extent possible, but preserving mature trees and natural drainage ways have also been taken into consideration. The placement of buildings has been sited to minimize earth-moving activities and take advantage of certain viewsheds, and climatic conditions (like western exposures for daylighting and heat gain).

Tree Preservation Map (Conservation Area 1)



Common Open Space

- g) The below MU – P Common Open Space Plan is intended to maximize the natural beauty and ecological features of the site while also providing new public amenities to the Duluth Heights and nearby neighborhoods. The areas shown as passive recreational space are considered common open space and total 65% of total land area (this only includes areas outside of the right-of-ways). Protection and maintenance of the open space will be the responsibility of the private landowners, however access to these public spaces will be provided via trail, public road, or parking lot access.

Lot 1 (3.0 ac) = Total common open space is **.78 acres**

Lot 2 (5.05 ac) = Total common open space is **3.40 acres**

Lot 3 (17.79 ac) = Total common open space is **12.43 acres**

Outlot A (.80 ac) = Total common open space is **.80 acres**

Development Guiding Principle 1: Provide an Inclusive Publicly Accessible Mixed-Use Space

The Harbor Light Development mission is built around a welcoming community. On Parcel 3 (the largest of the lots), a new church will be constructed and will be an inclusive space, inviting the public to gather, be active, and enjoy association and fellowship with others. The new church building will feature a sanctuary space, but will also include indoor classrooms, and passive outdoor recreational spaces for people of all ages. Retail convenience is planned for the two smaller parcels which will add variety to the mixed-use development and will be interconnected via public road and a new pathway system. The entire MU-P zone will be publicly accessible to visitors as well as residents in adjacent neighborhoods.



Permitted + Special Uses

h) Below is a list of permitted uses within the MU-P by Lot:

Lots 1 & 2 (Mixed Use/Commercial)

- Dwelling: townhouse, multi-family, live-work, single-family
- Bank
- Office
- Medical or Dental Clinic
- Lodging (Hotel or Motel)
- Restaurant (less than 5,000 sf with or without drive-thru)
- Restaurant (5,000 sf or more with or without drive-thru)
- Retail store less than 10,000 sf
- Filling Station (with or without convenience store)
- Garden Material Sales
- Personal Services or Repair, large more than 10,000 sf
- Personal Services or Repair, small less than 10,000 sf
- Event Center
- Preschool
- Parking Lot

Lots 3 (Community/Civic)

- Club or lodge (private)
- Park, playground or forest reserve
- Religious assembly, small (less than 50,000 sq. ft.)
- Religious assembly, large (50,000 sq. ft. or more)
- Agriculture, community garden
- Agriculture, farmers market
- Agriculture, urban

Outlot A

- Storm Pond

Maximum Densities

- i) Please refer to the Dimensional Standards & Lot Allocation table on page 3 for maximum densities, minimum lot standards, and maximum square footage for nonresidential land uses.

Utility Plan

- j) Please refer to the City approved utility plans in the appendix for the detailed design of the utility components.

Public utilities, including water, sanitary and storm sewer will be installed under the public road and within the public right-of-way of Evergreen Circle, Mission Drive and Stanford Avenue will be maintained by the City of Duluth, Public Works & Engineering Department. Private utility hook-ups extending from the City mainlines will be installed for each lot and will be designed to meet City engineering standards. Each private utility will be maintained and paid for by the private landowner.

See page 14 for additional information on storm water management.

Buffer Plan

- k) The buffering or transitioning between uses of different intensities will be attained with the vegetation provide in the areas put into conservation as outlined in the tree preservation report. The buffering between uses that do not have a conservation area between should follow section 50-25.5 of the Duluth UDC.

Buffer Plan



Stormwater Collection

- l) Please refer to the City approved stormwater plans in the appendix for detailed design of the stormwater components on site.

Storm water runoff from the roadways will be directed to storm water storage basins via storm sewer or direct drainage and will collect into a public stormwater pond on Outlot A. From there, storm water will outlet into the project's receiving waters, the Chester Creek watershed at the required water quality and peak rate controls allowed. A summary of the stormwater requirements are below:

Stormwater Design Requirements

Requirement	Compliance	Comments / Compliance Method
No net increase of TSS/TP from predevelopment conditions.	Yes	This is in compliance by biofiltrating of rainfall from the new impervious.
Peak Discharge Rate Control-Discharging 90% or less of the 2yr storm event and 75% or less of the 10yr & 100yr storm events.	Yes	Peak discharges were controlled by limiting the amount of impervious surfaces and the underground storage facility.
Runoff Volume Control	Yes	Runoff volumes were reduced by the maximum extent practicable by the use of structural and non-structural BMP's

[Development Guiding Principle 5: Use Innovative Stormwater Management Design Principles](#)

The Harbor Light Development Stormwater Plan will meet and endeavor to exceed minimum stormwater requirements on site, through the use of best management practices. Because the project site is in the Chester Creek watershed, (a protected trout stream) the stormwater design will be required to achieve a certain rate, water quality and temperature control. Specifically, storm water will drain to new catch basins and be routed via storm sewer to biofiltration basins located near the low areas of the site. The basins will then treat and cool the storm water by filtering it through a sand and compost filter prior to discharging the storm water to existing culverts underneath Arrowhead Road. The storm controls will provide mitigation of increased developed runoff by providing enhanced water quality, rate and volume control, TSS and TP removal, and thermal reduction to the maximum extent practical. The site is sloped with bedrock near the surface, preventing natural infiltration to occur. This project will use both aboveground storage as well as non-structural controls to treat the runoff as efficiently as possible, as it relates to the site grades and local geology.

In addition, the site has natural occurring wetlands which will be protected and avoided as much possible as well as celebrated for their ecological value. The site will encourage diversity of species and wildlife within the green space, offering not only exclusive habitat, but opportunities for birders and other wildlife watchers.

Off-Street Parking

- m) Off-street parking to be provided in driveways, surface lots and garages.

Public Amenities

- o) A publicly accessible trail network system will be included in the MU-P, as well as common open space areas. See section d, Circulation Plan for location of the trail and see Section g, Common Open Space for the location of the recreational passive space.

The multi-use trail system throughout the development will provide new connections to the adjoining neighborhoods and streets that have not otherwise existed before. A paved trail will run north – south from Arrowhead Road to Marble Street providing a new pedestrian and bike corridor for the local community. In addition, an informal footpath will link to the adjacent neighborhood to the west. This public amenity totals over 1 mile of new trails.

The MU-P district will also be providing a public benefit by conserving naturally sensitive areas and allowing community access to 17 acres of green space that has previously been privately owned. The common open space is comprised of preserved wetlands along with a designated tree conservation area with high-quality woods that include white pine, red pine, maple, birch, aspen and basswood species. The green space areas are home to wildlife habitat and act as buffers from wind as well as provide screening from other developed areas. Additional footpaths and/or walking trails will develop naturally over time and will provide additional access to the community green space.

Preserving this ample green space will be benefiting the community in multiple ways, as providing the opportunity to experience nature in a close setting has been shown to be beneficial to human health and wellness by reducing stress, improving general mood and attitude, increase mental health, improve mindfulness and creativity. It will also provide homeowners a chance to connect with each other as the presence of trees and landscape has been shown to promote community connections. Lastly, views of green space are linked to greater perceptions of well-being, neighborhood satisfaction and safety.



Figure 1: Example of paved multi-use trail and natural surface trail



Figure 2: Example of common open space with informal footpath



Figure 1: Example of trail signage

Architectural Building Standards

- p) For all proposed buildings in the MU-P district, architectural drawings illustrating building type and design features will need to be submitted to the Land Use Supervisor for review and approval to ensure they meet the visual intent of the district. Proposed buildings will comply with the UDC Chapter 50.30 to implement building design standards.

Suggested exterior building materials include brick, stone, wood clapboard, hardboard, concrete or vinyl siding with complimentary color choices. The MU-P desires durable construction techniques that are ecologically sensitive while also promoting visual harmony throughout the neighborhood. And will need to be submitted to the Land Use Supervisor for review and approval.

Phasing Plan

- q) Harbor Light Development will take shape over a 5-10 year timeframe. Phasing of the development is anticipated to be as follows:

PHASE 1: (2017- 2020)

Final Design + Construction of Public Roads (Evergreen Circle, Mission Drive & Stanford Ave), + Convenience Store on Lot 1

PHASE 2: (2020-2022)

Construction of mixed-use buildings + site development of Lot 2

PHASE 3: (2025 and beyond)

Construction of new church + site development of Lot 3

Streetscape

- r) For all proposed buildings that interface with the public street and/or pedestrian spaces, cross sections that demonstrate the proportions of buildings and the relationship between the proposed buildings, pedestrian spaces and the streetscape will need to be submitted to the Land Use Supervisor for review and approval to ensure that spatial dimensions and desired visual elements that form the street's character are being adhered to.

Urban design best practices, such as siting buildings so that primary entrances are visible and accessible from the street, terracing retaining walls to minimize impacts to streets, providing curb ramps and marked crosswalks for pedestrian safety, and planting street trees for shade and aesthetic beauty, will be incorporated into the site designs. In addition, site furnishings, such as bike racks, trash receptacles and outdoor seating/benches will be considered as well, depending on the types of buildings proposed.

Below are examples of typical cross sections showing spatial dimensions and street character for residential front yards, sidewalks, tree lined boulevards, pedestrian lighting, two-way traffic, on-street parking and commercial uses with off-street parking.

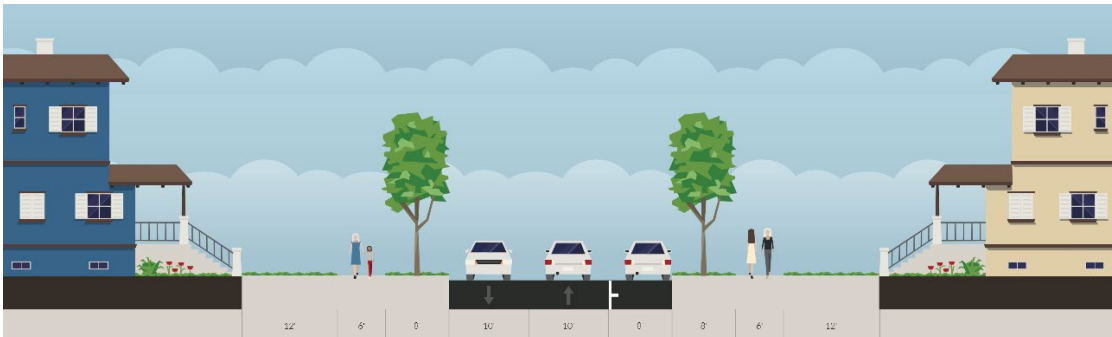


Figure 4: Example of Residential Streetscape

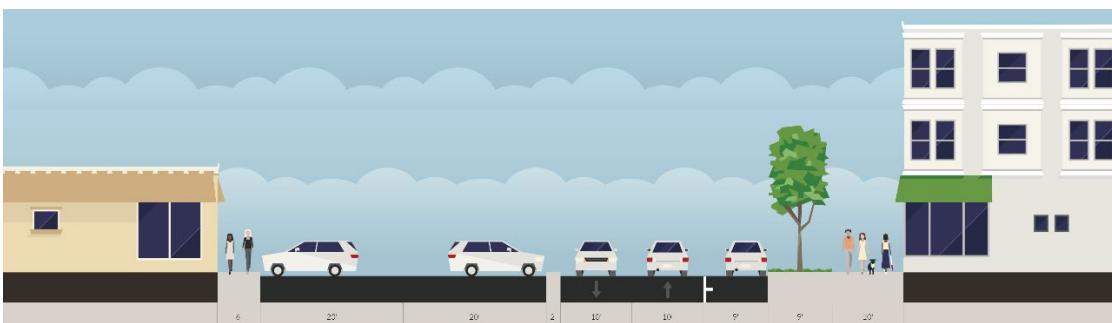


Figure 5: Example of Commercial Streetscape