

*City of Oakdale Chapter 25 of the Zoning Code*

**APPENDIX C. WB-PUD**

**WILLOWBROOKE PLANNED UNIT DEVELOPMENT DESIGN STANDARDS**

# **Willowbrooke Planned Unit Development District Design Standards**

## **1. PURPOSE**

- a. The purpose of the Willowbrooke Planned Unit Development District (WB-PUD) is to:
  - i. Provide the background regarding the planning process that resulted in the 3M Foundation Small Area Plan (Willowbrooke neighborhood).
  - ii. Specify the design standards for Land Use, Circulation, and Parks and Open Space to ensure substantial conformity with the 3M Foundation Small Area Plan for property that is zoned WB-PUD.

## **2. ADMINISTRATION**

- a. Development of property zoned WB-PUD shall follow the procedures in Sec.25-3-1100 of the Oakdale Zoning Code with specific procedures as follows:
  - i. The Council Approved Conceptual Master Plan depicted in Figure 2 shall constitute the Concept Plan referenced in Sec. 25-3-1100(b) of the Oakdale Zoning Code.
  - ii. The developer shall submit a Detailed Development Plan/Preliminary Plat per Sec.25-3-1100(d) of the Oakdale Zoning Code. The Detailed Development Plan/Preliminary Plat shall be evaluated for substantial conformance with these Standards and the Concept Plan.
  - iii. The Detailed Development Plan shall be incorporated as part of the WB-PUD re-zoning process.
- b. All submittals for platting, subdivision, and site development of property that is zoned WB-PUD shall be in substantial conformance with these Design Standards, as determined by the City Council.

## **3. INTRODUCTION**

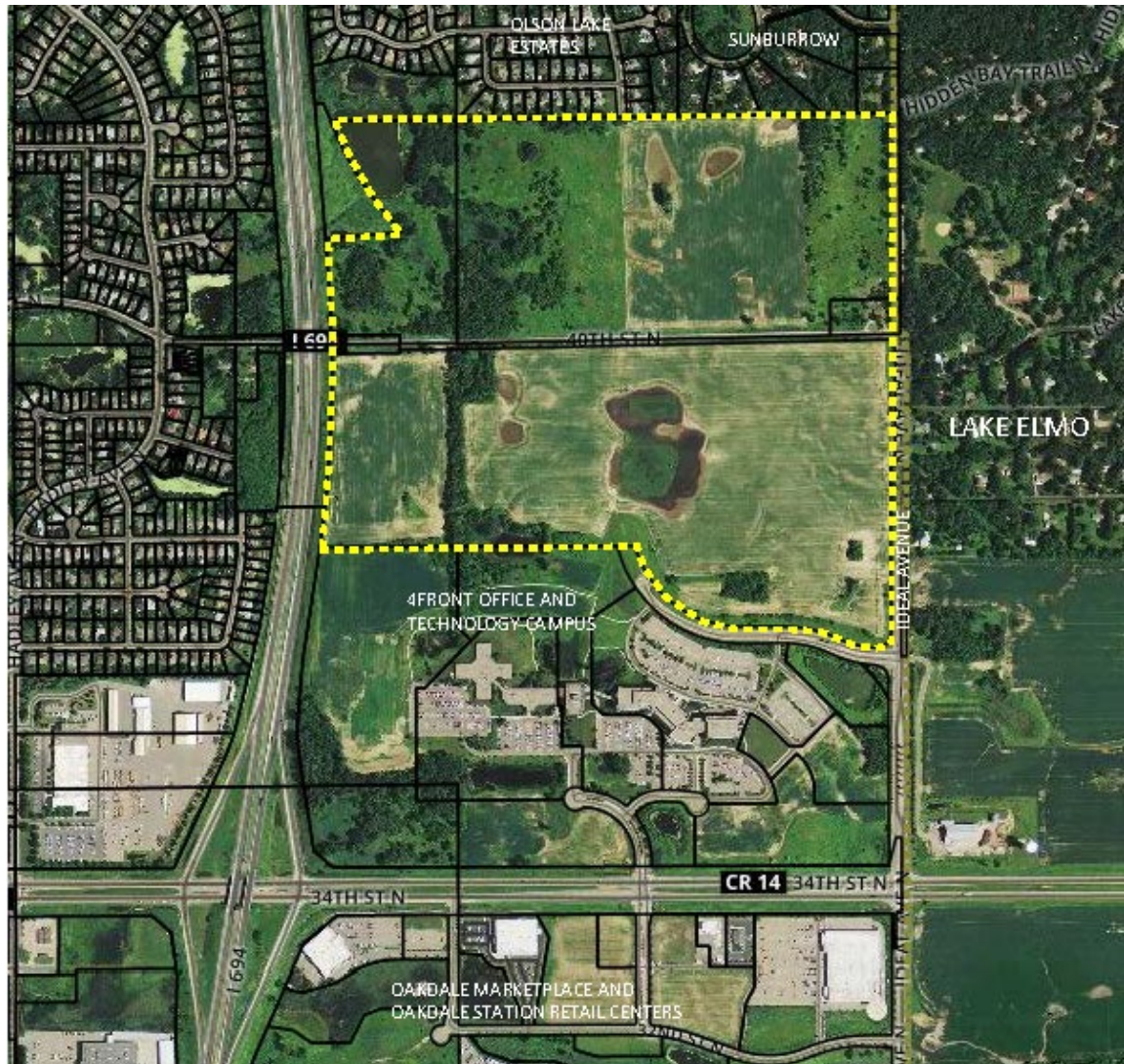
The Small Area Plan accepted by the City Council in September 2017 provides the land use, circulation, and park and open space framework for development of a new residential neighborhood as depicted in the Conceptual Master Plan (the “Plan”). This WB-PUD Zoning District is the outcome of a Small Area Plan for approximately 208 acres to create a new residential neighborhood with a variety of housing types and densities situated within an interconnected park and open space system.

### **a. SITE LOCATION**

The neighborhood is located east of Interstate Highway 694 and is situated on either side of 40th Street North (Figure 1.). Ideal Avenue North (CSAH 13) runs along the eastern edge of the property and is the municipal border between Oakdale and Lake Elmo. Residential neighborhoods border the site to the north, east, and west of Hwy 694. The 4Front Technology and Office campus sits on approximately 122 acres to the south. The Oakdale Marketplace and Oakdale Station retail areas are located south of County Road 14 (within a half-mile of the site) providing a range of goods and services.

The neighborhood contains several wetlands, scattered forested areas, and portions of the site have been farmed. An underground utility pipeline bisects the site from north to south and a second underground utility pipeline crosses the northeastern corner of the site.

FIGURE 1. SITE LOCATION



b. SITE HISTORY AND CONTEXT

The site was part of a larger property purchased by the 3M Company in the late 1960's. The land was held in order to provide for a future corporate campus expansion. In 1975, the City of Oakdale approved plans for a future business campus that would house approximately 18,000 employees. The campus would consist of 9.5 million square feet of office buildings, with 7.5 million square feet located in Oakdale and 2 million square feet on adjacent property in Lake Elmo.

By 1996, 3M had determined that the planned expansion would not occur on the land. The master plan was revised to cover solely the property in Oakdale and eventually accommodate 1.8 million square feet in a multi-use business park. The southern portion of the site was sold to Imation, a spin-off business of 3M. Imation constructed a new building on the eastern portion of the site to house their world headquarters.

In April 2016, the 3M Foundation informed the City of their intention to sell the approximately 208 acres north of the Imation campus. With market demand currently higher for residential development and the fact that there had been no industrial development in the area for the

previous 50 years, the City Council indicated their willingness to consider a change in land use to residential.

In December 2016, Imation sold their campus and surrounding acreage to Slumberland. In 2017, Slumberland re-branded the business park as the 4Front Technology and Office Campus with the intention to form a hub for multiple companies and industries. Approximately 65 acres are available for further office/industrial development around the campus.

c. **SMALL AREA PLANNING PROCESS**

In August 2016, the City Council initiated a Small Area Planning process for the site. The process proceeded in four phases:

- Phase 1: Background Research – Site History; Land Characteristics; Infrastructure Analysis; Market Research; Parks and Open Space Evaluation; Housing Needs and Opportunities; Regulatory Requirements
- Phase 2: Issue Identification, Goals, Vision – Engage Stakeholders; Prepare Vision Statement; Establish Goals and Policies
- Phase 3: Concept Plan Review – Prepare and Evaluate three schematic concept alternatives for a new neighborhood; Refine concept and Approve Conceptual Master Plan
- Phase 4: Comprehensive Plan Amendment/Rezoning to PUD – Complete the required environmental analysis (Alternative Urban Area-wide Review); Compile Small Area Plan Document (including Design Framework); Amend the Comprehensive Plan and Rezone the Site to be consistent with the approved Small Area Plan

The City Council accepted the final Conceptual Master Plan in September 2017 and approved an amendment to the 2030 Comprehensive Plan in May 2018. The Small Area Plan has been incorporated into the Oakdale 2040 Comprehensive Plan as Appendix D.

d. **CONCEPTUAL MASTER PLAN GOALS AND VISION**

The Conceptual Master Plan has been developed to achieve specific goals identified during the planning process. The following goals have been adopted by the City Council for the site:

**GENERAL GOALS**

1. To conduct an effective and organized planning process that includes timely opportunities for the participation of all stakeholders and supports the City Council's decision making at every project milestone.
2. Take full advantage of the opportunity to masterplan this large property to build the City's tax base and create an attractive, cohesive neighborhood, efficiently served by public infrastructure and enhanced by an interconnected, multi-purpose open space system.

**LAND USE**

1. Realize the opportunity to reimagine the City's preferred land uses on this property and re-guide the land use designations to reflect this new vision.
2. Achieve a successfully integrated mixture of land uses that responds to market opportunities and takes full advantage of the property's potential.

**HOUSING**

1. Provide a variety of housing choices, types, styles, and price points to serve current and future residents' needs and preferences at different stages of their life cycle, with an emphasis on market supported move-up housing.
2. Select housing products that support Oakdale's economic development opportunities with an eye towards the future expansion of the 4Front Technology and Office Campus.

## **TRANSPORTATION**

1. Design and build a network of roadways and trails, to create a multi-modal transportation system with connections to parks, the Gateway trail, employment and shopping opportunities.
2. Emphasize accessibility for people of all ages and abilities.
3. Fully support pedestrian and bicycle infrastructure to promote active and healthy living.

## **PARKS, OPEN SPACE AND AMENITIES**

1. Create and maintain an integrated system of active and passive recreation spaces.
2. Conserve, restore and augment natural resources, including native and indigenous trees and grasses to support wildlife habitat, clean air, and water quality.
3. Explore the opportunities for innovative natural resource based storm water management.

## **SUSTAINABILITY & RESILIENCY**

1. Promote inclusivity and fairness in all land use, housing, and transportation decision-making.
2. Plan infrastructure to promote resilience and sustainability.
3. Promote healthy living, locally grown food, clean energy, air, and water quality.

These goals are illustrated in the Conceptual Master Plan (Figure 2) through the arrangement of and relationship between the streets, areas for housing, and organization of the parks, trails, and open space system.

The vision for the neighborhood is designed around an interconnected open space system that allows for preservation and enhancement of existing natural features, allows bicyclists and pedestrians to move through the open space system, provides for stormwater treatment and infiltration, and gives all housing areas access to a dispersed park system – essentially, providing “homes in a park”. The design principles Fredrick Law Olmsted used to develop the Emerald Necklace in Boston informed this Plan, as well as the principles of the Radburn super block in New Jersey.

The passive and active open spaces are located to maximize the benefits of existing wetlands, proposed stormwater ponds, and the pipeline easement corridors. Nearly every lot has views of open space amenities and has direct access to a sidewalk, trail, or both.

The theme of “homes in a park” and the “Emerald Necklace” translates into the circulation system by providing views of open space at T-intersections, curvilinear roadways to calm traffic, allowing for on-street parking rather than concentrated parking lots for park and open space access, and incorporating a sidewalk and trail system throughout the neighborhood to give priority to pedestrians and bikers, on par with the automobile, and provide a healthy alternative to automobile transportation.

The Plan provides areas for a range of housing types and densities with lower-density housing generally adjacent to existing neighborhoods and medium- and higher-density housing adjacent to open space amenities and the employment opportunities at the 4Front Technology and Office Campus.



FIGURE 2. COUNCIL APPROVED CONCEPTUAL MASTER PLAN



e. **CONSISTENCY WITH THE COMPREHENSIVE PLAN**

The City's Comprehensive Plan was amended on May 22, 2018 guiding the future land use of the project area toward a mixed-residential neighborhood that includes low- and medium-density single-family residential uses (4-8 dwelling units per acre) and high density multi-family residential uses (35-55 dwelling units per acre) organized in distinctive neighborhoods that integrate parks, trails, and open space in the form of one cohesive development. The Small Area Plan was incorporated into the Oakdale 2040 Comprehensive Plan as Appendix D.

The Small Area Plan achieves the following 2040 Comprehensive Plan goals:

Land Use Goal 2: Certain policies shall guide the City's actions in ensuring the redevelopment and development of certain parcels and areas.

Policy 1: The City shall prepare small area and redevelopment plans that include elements such as, but not limited to, land use, intensity and location, roads, trail and sidewalks, open space, public utilities, and transit.

Transportation Goal 4: Sidewalks, trails, and bikeways shall be connected within the city and between adjacent cities.

Policy 6: Support the rehabilitation and reconstruction of complete streets that enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

Parks and Trails Goal 2: Recreational programming, park facilities and open space shall be accessible to all physical abilities and incomes.

Policy 1. Develop a plan to ensure programming, parks and open spaces are accessible for all abilities and incomes.

Policy 2. Develop a plan to ensure the public use of open space, including wetlands, is open to all pedestrians and bicyclists.

Parks and Trails Goal 3: Parks shall be integrated into the City's pedestrian system.

Policy 1. The City shall develop a plan to connect parks to each other via the City's trail and sidewalk system.

Housing Goal 1: All people, regardless of age, income, family status, ability, race or ethnicity, shall have realizable choices and access to a safe, stable, and affordable home.

Housing Choice Policies

Policy 1. Guide and zone land to facilitate and promote the construction of a full range of housing choices to include single-family detached homes, twin homes, townhomes, duplexes-fourplexes, and multifamily buildings.

Policy 2. Promote the development of a variety of housing types within close proximity and safe pedestrian access to shopping and services, including transit, and schools, parks, trails, and open space.



#### 4. LAND USE

- a. Land uses and the development framework for the new neighborhood is shown on Figure 3. The land uses include High-Density Residential, Medium-Density Residential, and Low-Density Residential. The density generally decreases from the interface with the 4Front campus on the south and the I-694 corridor to the west, to lower density housing in the northern portion of the neighborhood.

FIGURE 3. LAND USE FRAMEWORK





**TABLE 1. RESIDENTIAL DEVELOPMENT SUMMARY, REQUIRED DENSITY, PERMITTED USES, AND PERFORMANCE STANDARDS**

	LOW DENSITY RESIDENTIAL	MEDIUM DENSITY RESIDENTIAL	HIGH DENSITY RESIDENTIAL
DENSITY <sup>1</sup>	3-5 DU/Ac	5-15 DU/Ac	35-55 DU/Ac
NET ACRES	38.9	24.0	34.7
DEVELOPMENT TOTAL	183	181	1,046
LOT WIDTH	60-65 feet	40-55 feet (excluding townhomes)	N/A
LOT DEPTH	110 -130 feet <sup>2</sup>	N/A	N/A
PERMITTED USES	Single-family detached dwellings	Single-family; Two-family; Townhomes	Multifamily Buildings; Townhomes
ACCESSORY USES	Private residential recreation equipment and facilities; storage sheds (limited to 120 square feet)	Private residential recreation equipment and facilities; storage sheds (limited to 120 square feet)	Private residential recreation equipment and facilities; accessory buildings (including detached trash enclosures)

<sup>1</sup>Dwelling Units per Acre

<sup>2</sup>Single-family low density lots abutting Olson Lake Estates and Sunburrow shall have a minimum lot depth of 130 feet

SINGLE FAMILY PERFORMANCE STANDARDS <sup>1</sup>		
SETBACKS	LOW DENSITY RESIDENTIAL	MEDIUM DENSITY RESIDENTIAL
FRONT	25 feet	25 feet
INTERIOR SIDE	5 feet	5 feet
CORNER SIDE	10 feet	10 feet
REAR ABUTTING LOT	30 feet <sup>2</sup>	20 feet
REAR ABUTTING GREEN SPACE	15 feet	20 feet
BUILDING HEIGHT	40 feet	40 feet
REQUIRED PARKING	2 off-street spaces	2 off-street spaces

<sup>1</sup>See also Sec.4.b.

<sup>2</sup>Single-family low density lots abutting Olson Lake Estates and Sunburrow shall have a minimum rear yard setback of 50 feet

MEDIUM DENSITY TOWNHOME PERFORMANCE STANDARDS <sup>1</sup>	
SETBACKS	
FRONT	10 feet
FRONT OF BUILDING TO FRONT OF FACING BUILDING	10 feet
SIDE OF BUILDING TO FRONT OF FACING BUILDING	40 feet
REAR	10 feet
REAR OF BUILDING TO REAR OF OPPOSITE BUILDING	60 feet
GARAGE TO CURB	24 feet
BUILDING HEIGHT	N/A
REQUIRED PARKING	2 off-street spaces

<sup>1</sup>See also Sec.4.b.

HIGH DENSITY MULTIFAMILY PERFORMANCE STANDARDS <sup>1</sup>	
LOCAL STREET RIGHT-OF-WAY	30 feet
COLLECTOR STREET RIGHT-OF-WAY	35 feet
I-694 RIGHT-OF-WAY	60 Feet
BUILDING HEIGHT	N/A
REQUIRED PARKING	1.5 – 2.0 spaces/unit

<sup>1</sup>See also Sec.4.c.

b. LOW- AND MEDIUM-DENSITY RESIDENTIAL PERFORMANCE STANDARDS

- i. Low-Density Residential housing areas are located north of 40th Street North and feature large areas of interconnected trails, parks with recreational amenities, and open space with throughout the neighborhoods.
- ii. Medium-Density Residential areas are located south of 40th Street North and provide neighborhoods that may feature detached single-family homes on smaller lots as well as twinhomes/two-family detached dwellings and/or townhomes. These areas feature smaller neighborhood parks and open space, and off-street trail systems connecting to larger open spaces and a central community park.
- iii. Single-family lots adjacent to the existing neighborhood to the north (Olson Lake Estates and Sunburrow) shall have a greater lot depth to provide a rear-yard buffer between developments.
- iv. Lots with Double Street Frontages
  1. Double fronted lots shall be very limited. Less than 5% of total single- and two-family lots are to be such "double frontage lots" as illustrated on the Plan. If and where such lots are created, fencing along the rear property boundary shall comply with the standards applicable to rear yards abutting public open space contained in this manual.

c. HIGH-DENSITY RESIDENTIAL PERFORMANCE STANDARDS

- i. High-Density Residential housing areas are located on the west and southeast areas of the property adjacent to park and open space amenities as well as employment and retail/service areas. These areas provide for townhomes and multi-family residential buildings.
- ii. Building Materials and Architectural Standards
  1. Exterior surface materials of residential buildings shall be subject to the standards for Office and Commercial buildings in Sec. 25-175(c) of the Oakdale Zoning Code.
  2. All building fronts shall include a minimum of four (4) from the following:
    - a. Architectural detailing, such as cornice, awning, parapet, or columns.
    - b. A visually pleasing primary front entrance that, in addition to doors, shall be accented a minimum of one hundred fifty (150) square feet around the door entrance. Entrances shall be clearly articulated and obvious from the street or sidewalk.
    - c. Contrasting, yet complementary material colors.
    - d. A combination of horizontal and vertical design features.
    - e. Irregular building shapes.
    - f. Horizontal offsets of at least 4 feet in depth.
    - g. Vertical offsets in the roofline of at least 4 feet.
    - h. Fenestration at the first floor level which is recessed horizontally at least 1 foot into the façade.
    - i. Varying roof lines and roof accents.
    - j. Other similar architectural features in the overall architectural concept.
  3. Multi-story buildings shall have the ground floor distinguished from the upper floors by having one or more of the following:
    - a. Awning
    - b. Trellis
    - c. Arcade
    - d. Window lintels
    - e. Intermediate cornice line
    - f. Brick detailing such as quoins or corbels
- iii. Additional Performance Standards
  1. Screening of Utilities

- a. All mechanical equipment located on the roof or around the perimeter shall be screened from ground level view with materials that are comparable and compatible with that of the exterior building materials. Mechanical equipment located on the roof shall be screened at a distance of 2.5 times the height of the building.
    - 1) A raised parapet or other architectural feature that is an integral part of the building is encouraged as a method of screening for rooftop mechanical equipment or to soften the rooftop view.
    - 2) Screening for rooftop mechanical equipment shall incorporate similar architectural features of the building and/or be constructed of a material and color compatible with other elements of the building.
  - b. All ground mechanical equipment shall be one hundred percent (100%) screened from view by opaque landscaping or a screen wall shall be provided to be compatible with the architectural treatment of the principal building.
- 2. Trash Handling
  - a. All trash, recycling and related handling equipment shall be stored within the principal structure, within an attached structure accessible from within the principal structure, or within an unattached structure. Such attached storage area shall be separated from the principal structure by a firewall. Recycling areas shall also be provided. Trash, recycling, and rubbish receptacles shall be totally screened from eye level view from public streets and adjacent residential properties. Attached and detached structures shall be of the same material and architecturally harmonious with principal structure and shall be enclosed by a roof and readily served through an opaque door or gate system properly designed and constructed for abusive use.
- 3. Site Amenities
  - a. All multi-family housing development shall incorporate at least three of the following:
    - 1) Patterned materials on walkways (on-site)
    - 2) Bicycle racks
    - 3) Trash receptacles (decorative)
    - 4) Pedestrian lighting
    - 5) Fountains, sculptures, mobiles, kiosks, or banners
    - 6) Flower boxes, or container landscaping
- 4. Parking Lots and Circulation
  - a. All parking for the development shall conform to the standards in Sec. 25- 161(b) of the Oakdale Zoning Code.
  - b. Within a private development, walkways shall be provided to separate pedestrians and vehicles and shall link ground level doorways within the site to the main building entry point, parking lot, and public sidewalks.
  - c. Where pedestrian walks cross drive aisles, they shall be clearly marked with signage, special paving and/or striping, landscaping or similar methods.
- 5. Landscaping
  - a. All development shall conform to the standards for landscaping in Sec. 25-175 (h) items (1)-(10) of the Oakdale Zoning Code.
- 6. Lighting
  - a. All exterior lighting shall be designed and arranged to direct illumination away from adjacent properties. All exterior lighting shall be arranged and designed to illuminate directly below or inboard of the property lines of the site such that the point source of light is not directly discernable by pedestrian or vehicular traffic in the public right of way. Site lighting shall have a maximum height of 30' to the illumination source. Lighting shall be designed such that there is a maximum 0.5 foot-candles at any property line. No offsite glare will be allowed. A photometric

plan inclusive of all site lighting and specification sheets for each lighting fixture shall be submitted for review.

7. Noise Mitigation

- a. Interstate 694 forms the western boundary of the Plan area. Development adjacent to this edge shall utilize grading, landscaping, building orientation and other site planning techniques to provide noise mitigation.
- b. The architectural design shall avoid the orientation of living spaces to this noise source, to the extent possible, and incorporate noise insulation and other building techniques and features to meet applicable Federal and State indoor noise standards.
- c. Site design and building orientation shall, to the extent possible, locate private recreational facilities and exterior balconies away from the noise source.

d. GENERAL PERFORMANCE STANDARDS FOR ALL RESIDENTIAL USES

i. Landscape Requirements

1. Essential to the aspirations of the Plan is the establishment and maintenance of a healthy and sustainable urban forest and prairie landscape to meet the stated goal to conserve, restore and augment natural resources, including native and indigenous trees and grasses to support wildlife habitat, clean air, and water quality.
  - a. The approved PUD incorporates by reference in full the Willowbrooke Landscape Framework Plan, which specifies the landscape typologies, landscape plan, and tree palette.
  - b. The Willowbrooke Landscape Framework Plan includes an approved plant list for trees and shrubs and identifies areas for prairie and alternative turf lawn establishment.
  - c. The Willowbrooke Landscape Framework Plan specifies the location and minimum number of street trees and trees to be established in the parks and open spaces to meet the overall urban forest character that is inherent to the Plan.
  - d. The Willowbrooke Landscape Framework Plan design ensures a healthy diversity of plant species within the landscape typologies described in the Plan.
2. Private property owners are strongly encouraged to utilize the approved tree palette, native and native cultivar prairie plantings, and alternative turf lawns for landscaping within their lots.
  - a. Fertilizer. Excess fertilizer causes weeds in native plantings and cause declines in water quality.
    - i. A slow release fertilizer (Milorganite for example) shall be used when fertilization is absolutely necessary.
    - ii. Fertilizers are also carried by the discharge of lawn waste into natural areas. Lawn clippings shall not be discharged into the prairie and lawn wastes (e.g. pet waste, leaves, twigs, grass-clippings) shall not be placed in the prairie areas.

ii. Signage

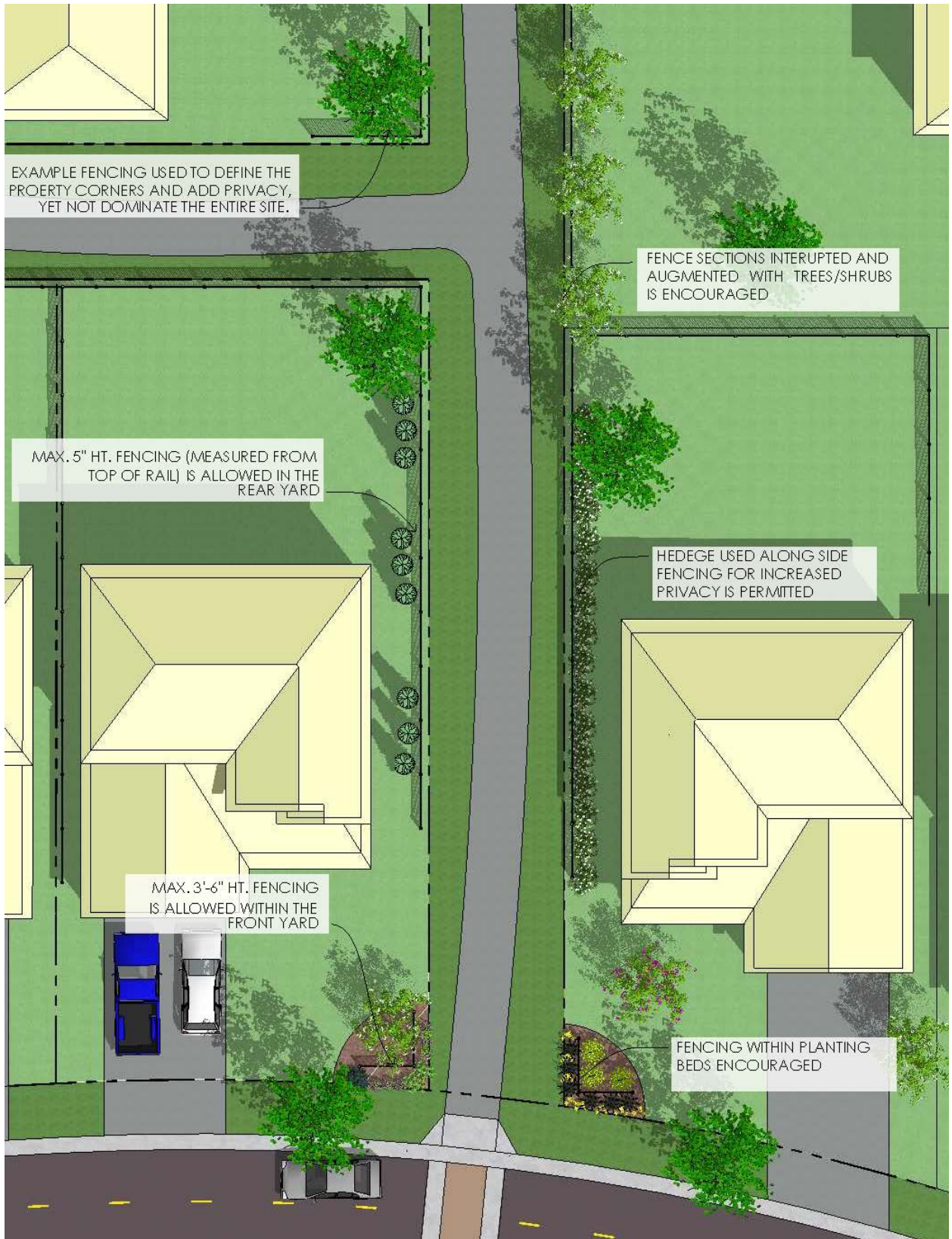
1. Identity and Entry Setting Monument Signage

- a. Project identity signage will be allowed at key locations throughout the neighborhoods, upon approval of a PUD Signage Plan.
- b. Monument signs shall be incorporated into an approved landscape plan.
- c. A sign permit will be required for all signage installation and future signage changes.



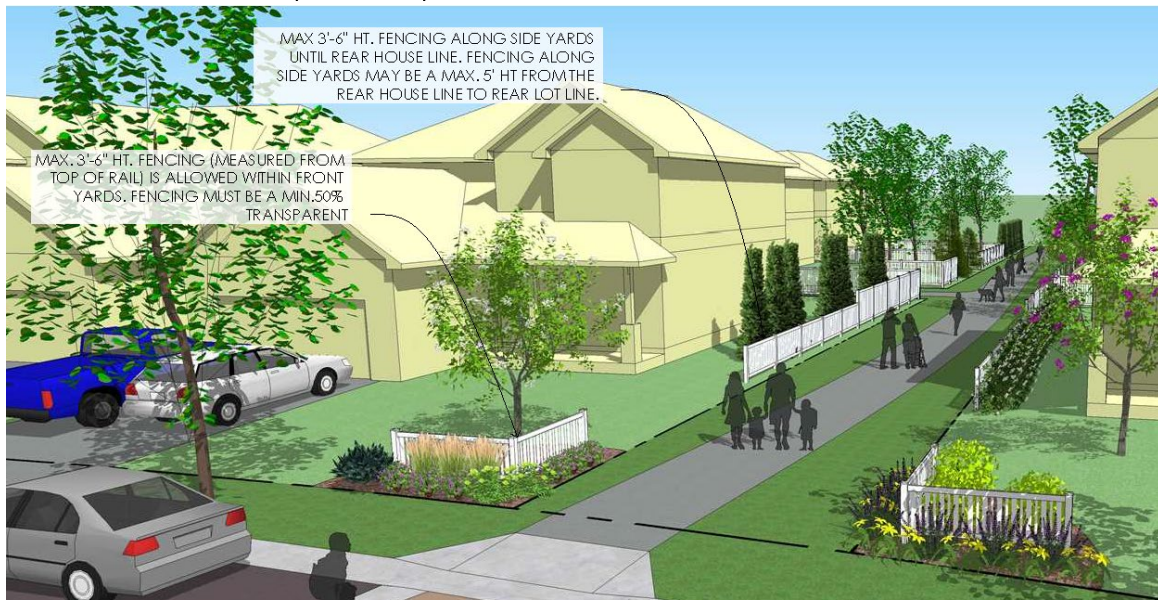
- iii. Private Fences Abutting Public Trails, Parks, and Open Space
  - 1. Fencing on private lots and multifamily grounds adjacent to public trails, parks, and open space is permitted to indicate the transition between public and private land and provide a level of security for children and small pets.
  - 2. Where yards abut parks, trails, and open space, fencing may be allowed subject to material and height standards to promote the feeling of homes in a park and provide more visibility of park land from homes to enhance safety.
  - 3. Private yards abutting open space are intended to be visually integrated into the park and open space system preserving views from homes and the aesthetic character of a continuous park-like setting.
  - 4. Fences along property lines abutting trails and open space are not intended to provide total visual privacy on private property (see Figures 4-7).
    - a. Taller and more opaque privacy fences are allowed within yard areas, provided they are set back at least 20 feet from the rear property line and at least 10 feet from the side property line. Opaque fences are not permitted in front yards except for small sections that may screen utilities.
    - b. Height: Boundary line fences adjacent to public open space shall not exceed three feet six inches (3'6") in height in the front and side yards, and shall not exceed five feet (5') in height in the rear yard (at the rear setback line or the rear of the house). Height is measured to the top of rail the fence structure (see Figure 6). Fencing shall step horizontally with the grade (see Figure 7.).
    - c. Materials: Fence materials shall be the same or similar in material, design, and color along contiguous property boundaries abutting public open space.
    - d. Transparency: Fences shall be a minimum of 50 percent transparent.
  - 5. Property owners are encouraged to use landscaping including trees, shrubs, and vines for enhanced screening and the framing of key view corridors.
  - 6. All other residential boundary line fences shall conform to the requirements in Sec. 25-159(a)-(c).

**FIGURE 4. FENCES ABUTTING TRAILS AND OPEN SPACE: HEIGHT AND LOCATIONAL STANDARDS**





**FIGURE 5. FENCE HEIGHT, LOCATION, TRANSPARENCY**



**FIGURE 6. FENCE HEIGHT MEASUREMENT**



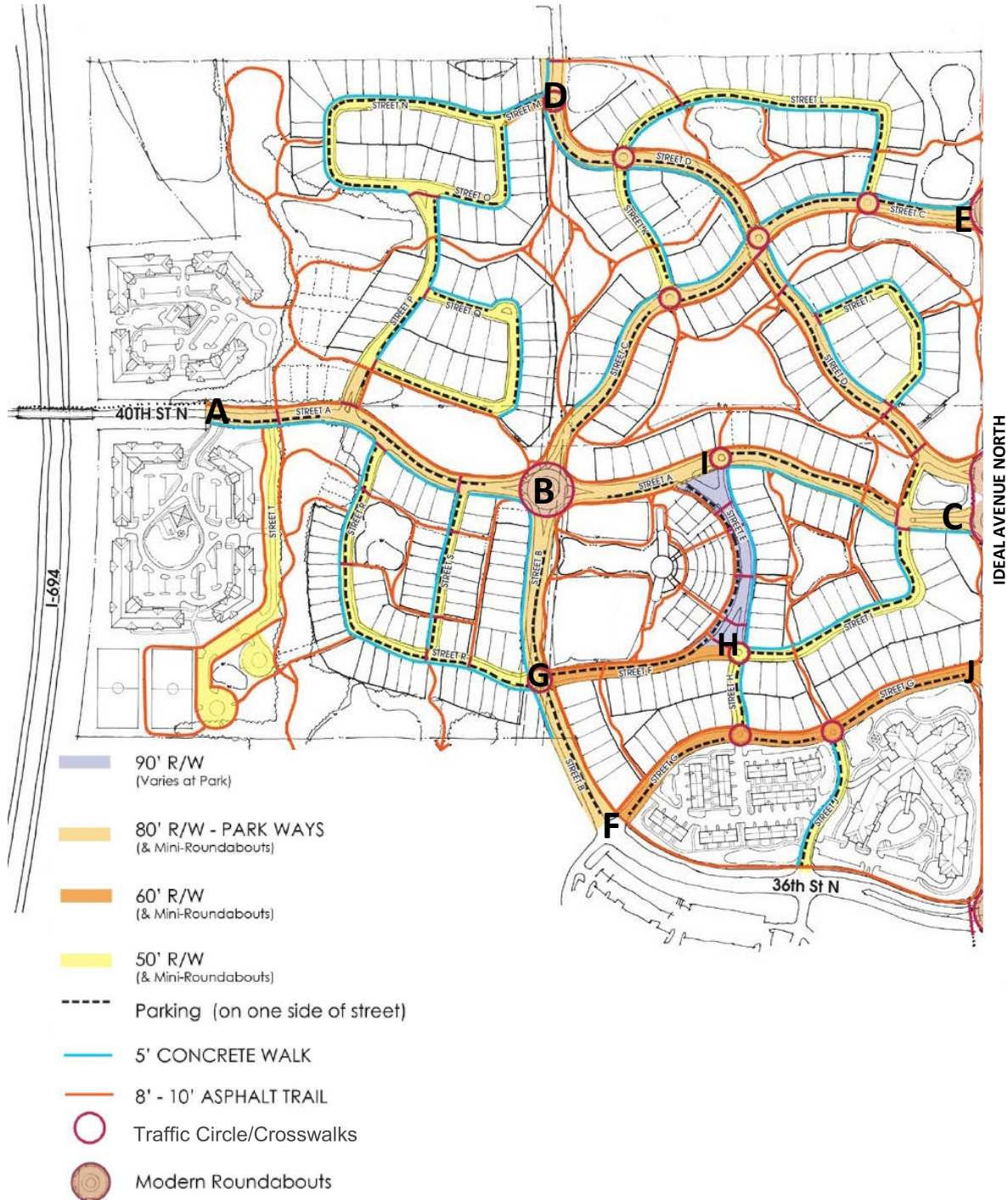
**FIGURE 7. EXAMPLE: FENCE STEPPING DOWN WITH GRADE**



## 5. CIRCULATION

- a. Roadways through the new neighborhood are designed to have a parkway feel with wide boulevards and views of open space adjacent to the roadway and at T-intersections (Figure 8.). Parking is provided on-street on one or both sides of the roadway. Sidewalks and trails are located at the outer edge of the right-of-way to provide maximum area for boulevards and tree planting along the roadway. These features, along with traffic circles, are essential elements that calm traffic and provide a safer and more enjoyable residential environment while providing for efficient automobile circulation. Any proposed modifications to the circulation system shall be in substantial conformance with the circulation framework.

FIGURE 8. CIRCULATION FRAMEWORK





**TABLE 2. CIRCULATION STANDARDS**

SEGMENT	RIGHT-OF-WAY WIDTH	CROSS-SECTION
G – H (CENTRAL PARK)	90 FEET	FIGURE 10
A – B – C (40 <sup>th</sup> STREET NORTH)	80 FEET	FIGURE 11
B – G – F (36 <sup>th</sup> ST. N. TO 40 <sup>th</sup> ST. N.)	80 FEET	FIGURE 11
C – D (IDEAL – HELMO)	80 FEET	FIGURE 12
B – E (36 <sup>th</sup> STREET EXTENSION)	80 FEET	FIGURE 12
F- J AND G-H	60 FEET	FIGURE 13
LOCAL STREETS	50 FEET	FIGURES 14 AND 15

**b. CIRCULATION PERFORMANCE STANDARDS****i. Existing Roadway: 40<sup>th</sup> Street North**

1. 40<sup>th</sup> Street North shall be redesigned concurrent with the development of the site.
  - a. The roadway is envisioned as a main east-west connection between Hadley Avenue North and Ideal Avenue North at Lake Jane Trail.
  - b. The roadway is designated as a parkway with wide boulevards, parks and open space immediately adjacent along the majority of the road, and a signature roundabout feature.

**ii. Internal and External Connectivity**

1. Collector streets (parkways with 80ft. right-of-way) shall be designed to connect existing streets on the periphery of the neighborhood as follows:
  - a. 40<sup>th</sup> Street North shall connect to Lake Jane Trail at Ideal Avenue (A-B-C on Figure 8.).
  - b. Helmo Avenue North shall connect to Ideal Avenue North at Lake Jane Trail (D-C on Figure 8.).
  - c. 36<sup>th</sup> Street North shall connect to 40<sup>th</sup> Street North at the central roundabout (B – G – F on Figure 8.). This roadway shall extend northeastward to connect to Ideal Avenue across from Pebble Park (B-E on Figure 8.).
2. Connections to Ideal Avenue North shall substantially conform with the configuration shown on Figure 16 with connections at 38<sup>th</sup> Street North, 40<sup>th</sup> St. N./Lake Jane Trail, and one northern connection approximately across from Pebble Park.
3. Local streets (50ft. and 60ft. rights-of-way) shall provide connectivity between neighborhoods and to collector Streets.
  - a. Block lengths, to the extent practicable and in substantial conformance with Figure 8, shall not exceed 600-700 feet or 10 lots (whichever is lesser) between intersections or major curves.

**iii. Parkway Character**

1. The Plan illustrates streets exposed to park or open space views strategically located on one side or both sides of the roadway. A minimum of 50% of parkways (80' and 90' ROW) shall meet this criterion.

**iv. Curvilinear Streets**

1. A minimum of 80% of the streets within the project area shall be designed with a curvilinear form, as illustrated in Figure 8. Variations from alignments shown may be

- approved where storm water management issues, or other valid civil engineering issues justify the change.
2. Except where shown on Figure 8, straight street segments exceeding 300 feet are not allowed within the Plan area.
- v. Intersections
- “T” Intersections are emphasized throughout the Plan. Where four-way and multilane intersections occur, round-a-bouts and mini-round-a-bouts are to be used. It is recommended a minimum of 74% of intersections in the development be “T” intersections, per the Plan.
1. T-Intersections with open space views
    - a. Where “T” Intersections occur, it is recommended to have the focus of a drivers’ eyes on the open space and trail amenities adjacent to the roadway.
    - b. A minimum 76% of “T” Intersections shall have an open space amenity focus and sightlines to landscaped areas, trails, and parkland beyond.
  2. Roundabouts and Mini-roundabouts
    - a. The Plan illustrates roundabouts at the majority of intersections in the development as a traffic calming strategy that also facilitates the safe movement of vehicles.
    - b. The islands of the roundabouts may be used for branding, identity, sculpture and/or planting, with grading to create and reinforce visual interest and restrict cross-roundabout views. Such design shall be reviewed by the City Engineer/Public works director to ensure safety and maintenance requirements are met.
- vi. Trail Crossings at Streets
1. The Plan illustrates frequent sidewalk and trail crossings located at street intersections and intermittently along streets, as shown on Figure 8. Such crossings accomplish the Plan’s goals of providing continuity of linked park and open space, and support traffic speed calming.
  2. Raised pavement and special pavement marking may be utilized at trail crossings (Figure 9.).
  3. Pedestrian crossing signs with motion-activated, or pedestrian-controlled crossing lights, or comparable safety devices as approved by the City, are required on all collector and sub-collector routes, at a minimum.

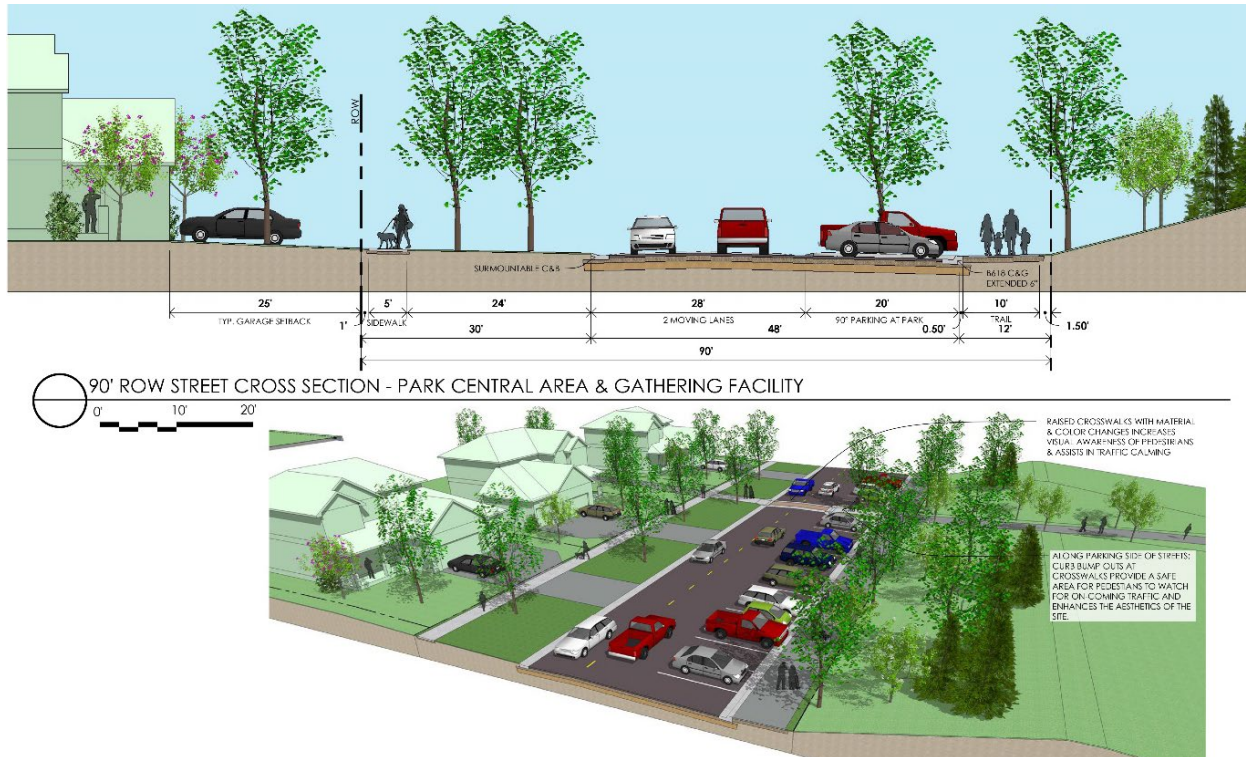
**FIGURE 9. MID-BLOCK TRAIL CROSSING**



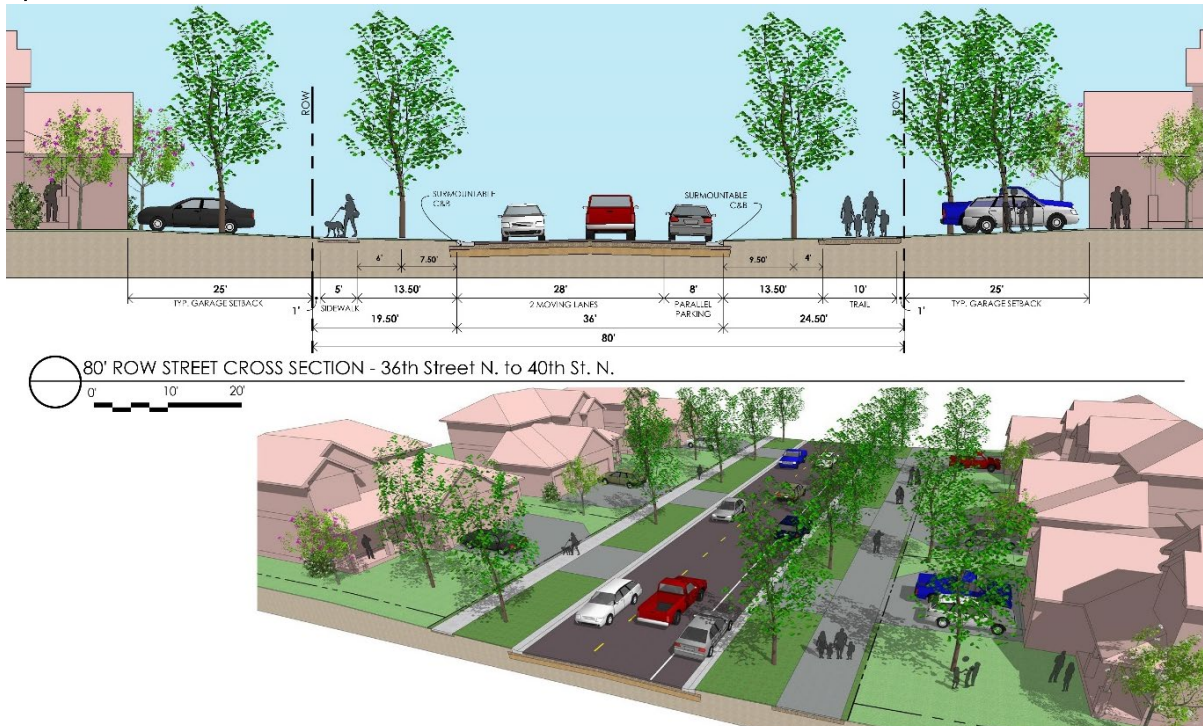
### c. STREET SECTIONS

The following figures illustrate typical roadway cross sections for roadway types shown in Figure 8 and described in Table 2.

**FIGURE 10. 90FT RIGHT-OF-WAY AT THE CENTRAL COMMONS PARK**

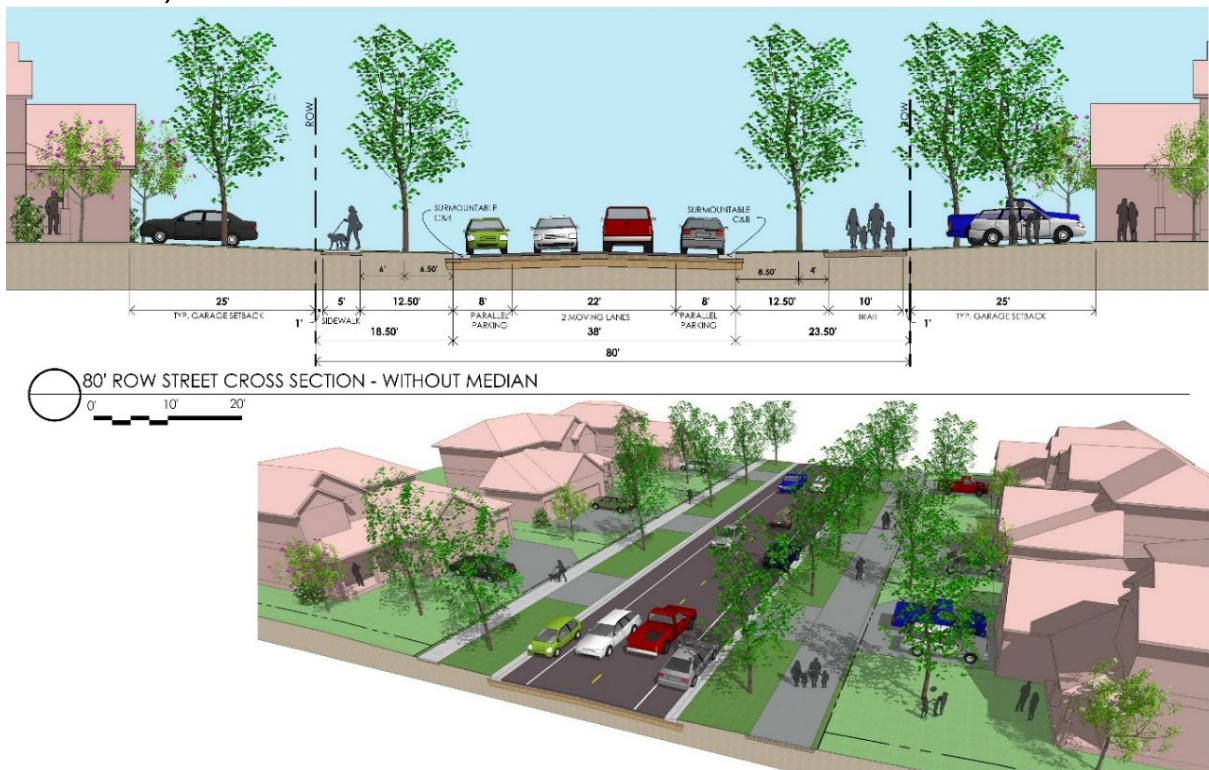


**FIGURE 11. 80FT RIGHT-OF-WAY: PARKWAYS (36<sup>TH</sup> ST N TO 40<sup>TH</sup> ST N; 40<sup>TH</sup> ST N FROM I-694 TO IDEAL AVE N)**

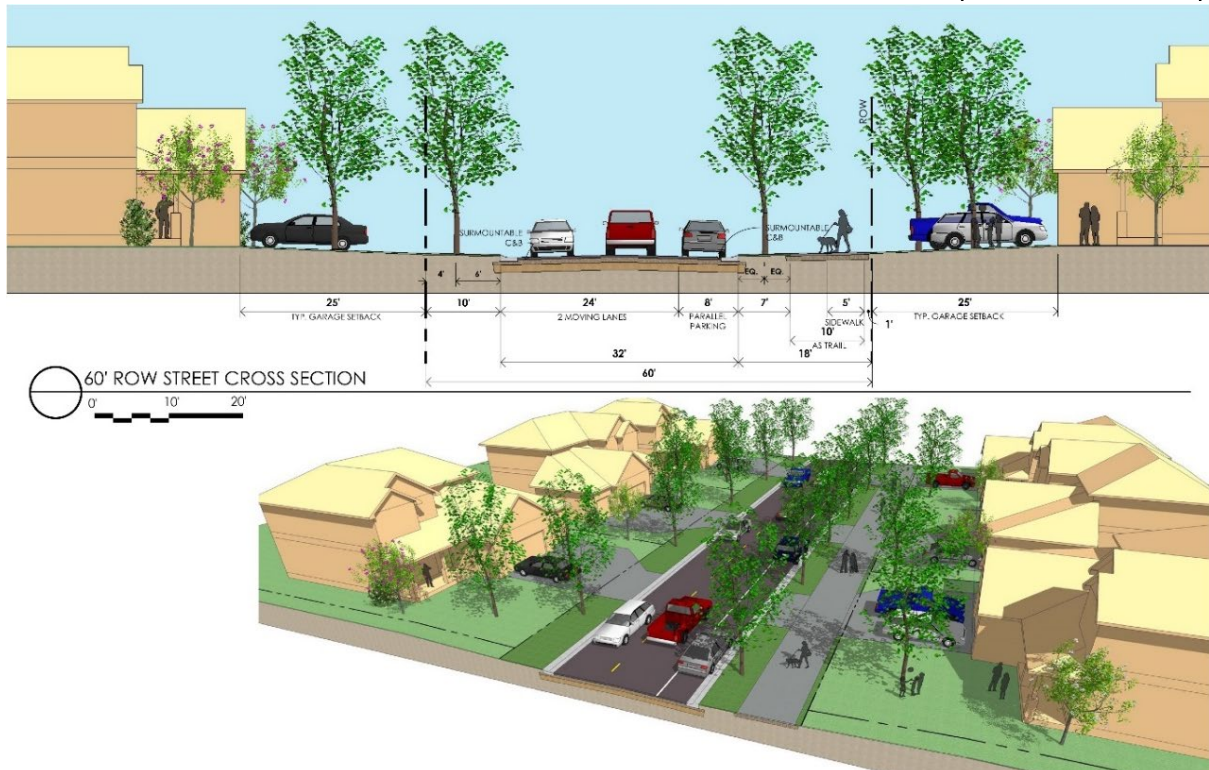




**FIGURE 12. 80FT RIGHT-OF-WAY: PARKWAYS (HELMO AVE N TO IDEAL AVE N; 36<sup>TH</sup> ST N EXTENSION TO PEBBLE PARK)**

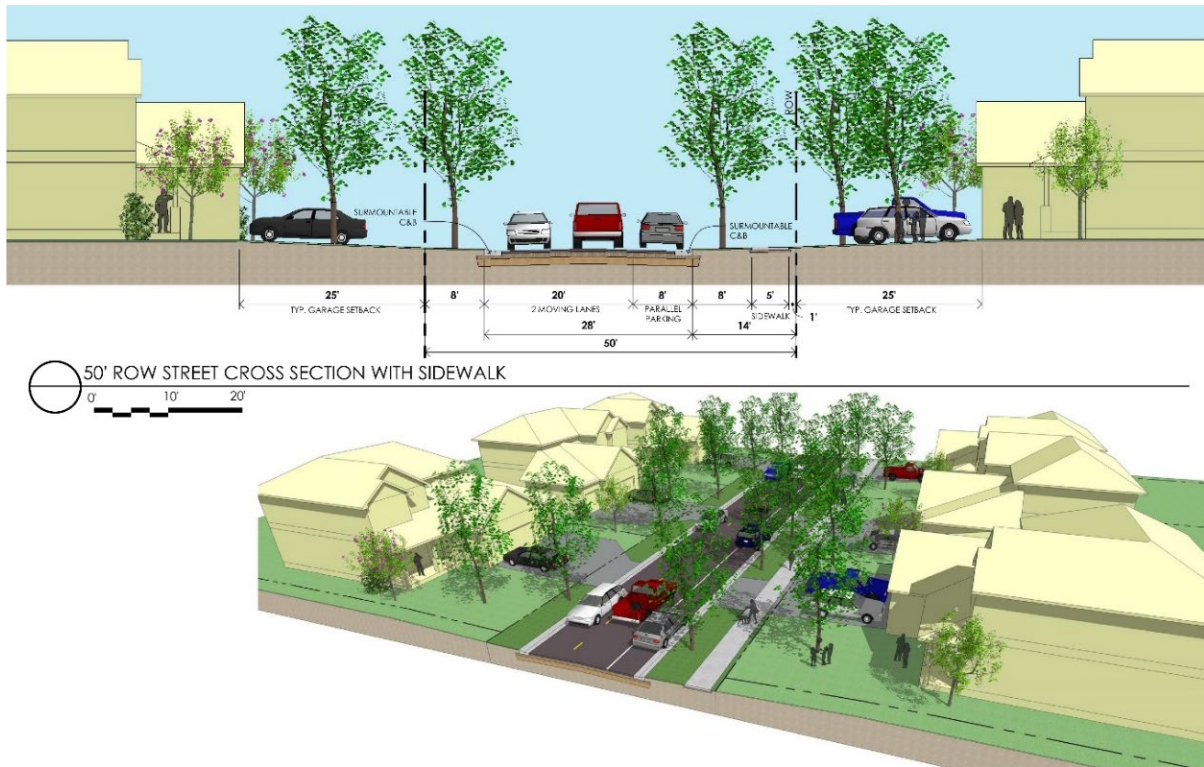


**FIGURE 13. 60FT RIGHT-OF-WAY: LOCAL STREETS WITH HIGHER TRAFFIC VOLUMES (SOUTH OF 40<sup>TH</sup> ST N)**

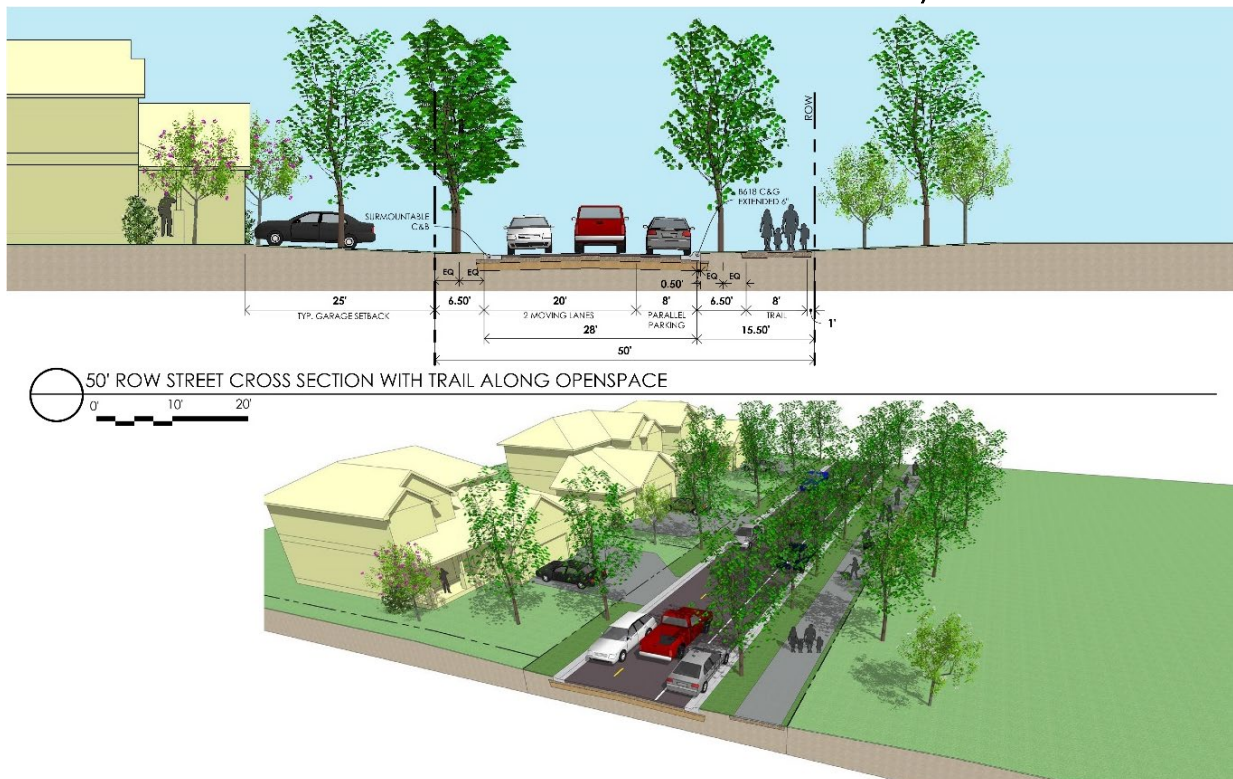




**FIGURE 14. 50FT RIGHT-OF-WAY: LOCAL STREET WITH SIDEWALK**



**FIGURE 15. 50FT RIGHT-OF-WAY: LOCAL STREET WITH TRAIL ALONG OPEN SPACE/PARK**



## 6. PARKS, OPEN SPACE, AND TRAILS

- a. This section provides guidance for parks, open space, and trail elements for the Small Area Plan. The result of the Plan's trail, sidewalk, park, and open space system will emulate an "emerald necklace"; a connected system of interlinked parks and open spaces that create the visual perception of "homes in a park".
- b. The park and open space system is the major organizing design feature for the new neighborhood (Figure 16.). Inspired by Boston's Emerald Necklace designed by Fredrick Law Olmsted and the Radburn plan, the open space system is dispersed throughout the entire neighborhood via interconnected parkland, natural open space, stormwater management features, and wetlands. This system provides public access to all active and passive open space areas, provides contiguous habitat and stormwater flow areas, preserves existing stands of mature trees, and showcases vistas and views as one moves throughout the neighborhood.
- c. The Willowbrooke Landscape Framework Plan shall serve as the guiding document for establishing and long-term maintenance of the park and open space system.

**FIGURE 16. PARK AND OPEN SPACE FRAMEWORK**





d. PARK AND OPEN SPACE PERFORMANCE STANDARDS

- i. The dedication of parkland established through the build out of the area, shall meet or exceed that shown on the master plan (Figure 16).
  1. Park and open space shall be 25 percent of total site area. The amount of land dedicated shall be in substantial conformity with the approved master plan.
  2. Stormwater ponds, wetlands, pipeline easements, and boulevards shall be incorporated into the park, open space, and trail system as it will assist in the establishment of the “Emerald Necklace” and the desired aesthetic of homes in a park.
- ii. The trail and sidewalk system shall result in an interconnected network from east to west and north to south to resemble an “Emerald Necklace” or tight-knit web as illustrated in Figure 16.
  1. The sidewalk and trail system shall provide many options for users including direct connections (through parks and open spaces or adjacent to roadways) and loops of varying distances around neighborhoods and through parks and open spaces.
- iii. The majority of trails, parks, and open space shall be separated from roadways to contribute to the aesthetic of “homes in a park”.
- iv. Preservation of Natural Areas
  1. Woodland Reserve: A forested corridor of existing mature trees shall be preserved and enhanced as depicted on the Conceptual Master Plan and the Willowbrooke Landscape Framework Plan.
  2. Wetlands: Wetlands shall be preserved and minimum buffer requirements shall be maintained per Valley Branch Watershed District rules.
- v. Restoration of Natural Areas
  1. The interconnected park and open space system provides opportunities for substantial natural resource enhancement and ecosystem restoration as shown in the Willowbrooke Landscape Framework Plan.
  2. An implementation plan for restoration and enhancement shall be developed by the City in accordance with the Landscape Framework Plan to guide the land management for the natural area restoration.
- vi. Stormwater Management
  1. Areas for stormwater ponding shall be integrated into the park and open space system with sufficient upland area for a trail or boardwalk around the perimeter to provide amenity and access for maintenance.
  2. Innovative stormwater management and best practices are encouraged throughout the development.
- vii. Wetland Preservation/Enhancement
  1. Wetlands shall be preserved throughout the site and vegetative buffers maintained per Valley Branch Watershed District requirements.
  2. Enhancement of vegetative buffers is encouraged as well as integration with other upland native plant restoration.
- viii. Open Space Linkages: An essential component of creating the “Emerald Necklace” is interconnected parks and open spaces. Open space linkages shall provide the “chain” connections between the larger “jewel” areas of active or passive recreation amenities and preserved natural areas. Open space linkage width and connectivity shall be in substantial conformance with the Conceptual Master Plan. Landscape typologies (Woodland Reserve; Prairie Reserve; Prairie Corridor) shall be applied to these areas consistent with the Landscape Framework Plan.
- ix. Recreation

Park and open space areas shall provide a combination of manicured active recreation opportunities and passive natural areas. Habitat restoration and reforestation activities



shall occur throughout the system with minimal areas for managed turf as shown on the Landscape Framework Plan.

1. Planning Process

- a. A planning process shall be established for the identification and development of park, trail, and open space amenities throughout the new neighborhood. The process shall articulate a set of goals to guide the development of specific park and open space plans.

2. Passive Recreation

- a. There are significant opportunities for passive recreation across the site where existing natural resources are present and habitat restoration occurs as described in the Landscape Framework Plan. These areas shall be designed for minimal impact on the natural resources while providing access for wildlife viewing, small picnic areas, community gardens and orchards, walking, and biking.
- b. Minimum Standards
  - i. Passive recreation areas shall be part of the public park and open space system as shown on the Landscape Framework Plan.
  - ii. Open space linkages shall be considered passive recreation areas, but may contain recreational amenities such as play equipment, benches, water features, and wayfinding signage incorporated into the Landscape Typologies (Woodland Reserve; Prairie Reserve; Prairie Corridor).
- c. Parking shall be provided on-street for public access to these areas.

3. Active Recreation

- a. It is the intent of the Plan that large areas of open space dispersed throughout the neighborhoods provide opportunities for active recreation in primarily informal settings with on-street parking.
- b. Minimum Standards
  - i. Three areas for active recreation shall be provided as shown on the Landscape Framework Plan:
    - 1. Neighborhood Park - North of 40<sup>th</sup> Street N.; west of the Koch Pipeline easement
    - 2. Neighborhood Park - The Plan depicts an area for multiple athletic fields and associated parking at the southwest corner of the site adjacent to high-density multi-family housing.
    - 3. The Commons: South of 40<sup>th</sup> Street N.; east of the 36<sup>th</sup> Street North extension
  - ii. Active recreation areas shall be a minimum of two acres.
  - iii. Active recreation areas shall have at least one acre of open space for amenity development.
- c. Parking shall be provided on-street with the following exceptions:
  - i. Parking may be provided in a lot as depicted on the Conceptual Master Plan (Figure 2) for the recreation fields at the southwest corner of the site.
  - ii. 90 degree parking at the Central Commons Park
- d. Lighting
  - i. Tall standard lighting for recreational fields is limited to the park area in the southwest corner of the site and subject to the standards in Sec. 25-175(i).

4. Trails

- a. A robust trail system shall offer numerous pathways connecting areas of housing to the parks and open space system for safe and scenic passage for bicycles and pedestrians throughout the neighborhood with minimal street crossings.
- b. The trail and sidewalk system shall result in an interconnected network to resemble an “Emerald Necklace” as shown on the master plan (Figure 16).

- c. Where there are larger park and open space areas, trails shall be generally located along the perimeter to allow for active use park programming, vegetation restoration, tree preservation, and preservation of wetland buffer vegetation.
- d. Linear open space corridors shall facilitate trail connections as well as providing areas that aid in wildlife movement with fewer vehicle conflicts.
- e. Minimum Standards
  - i. The trail network shall connect all areas of the neighborhoods to allow pedestrians and bicycles to move throughout the “Emerald Necklace” park and open space system.
  - ii. Trails shall be a minimum of 8 feet in width; 10-12 feet preferred on main east-west and north-south trail segments to provide sufficient width for bicycles and pedestrians to use the same pathway.
    - 1. Trail width may be narrower in sensitive natural areas and/or boardwalks may be utilized.
    - 2. Trail pavement alternatives may be selected as appropriate as indicated in the Landscape Framework Plan.
  - iii. Linear feet of the trail and sidewalk system shall be 3-5 times the linear feet of roadway and the alignment shall be in substantial conformance with the circulation plan depicted in Figure 8.
- f. Street crossings
  - i. Frequent trail crossings shall occur at street intersections and intermittently along streets. This enhances the connectivity of the pedestrian flow and acts as a traffic calming mechanism (see Figure 9.).