

MASTER DEVELOPMENT GUIDELINES



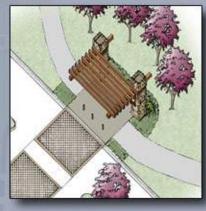












Fort Chaffee Redevelopment Authority



Introduction

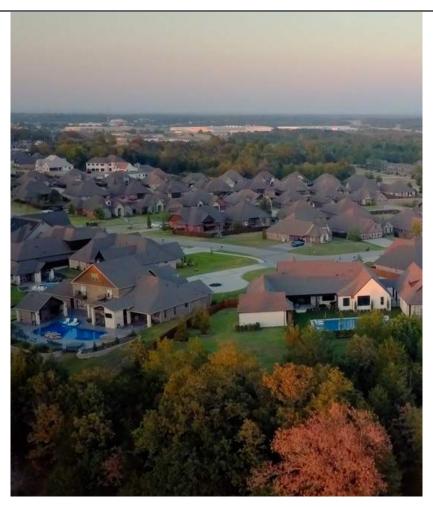
Chaffee Crossing is a place where the rolling hills of opportunity meet sustainable growth at a crossroad in Western Arkansas; where history's past meets the promise of a green community. This confluence of natural resources and smart growth development will soon be recognized as one of the region's most unique master planned communities of significance: a place where affordable residences, mixed use centers and industry will thrive together connected by trails and walkways. Quality of life will be more than a catch phrase in this pedestrian oriented development. Residents can live, work, shop and play in a community that encourages the human experience. With a mix of land uses in compact nodes, the possibility of daily life not dominated by long vehicular commutes will be a reality. The intersection of smart growth and the environment will make Chaffee Crossing a community of distinction.

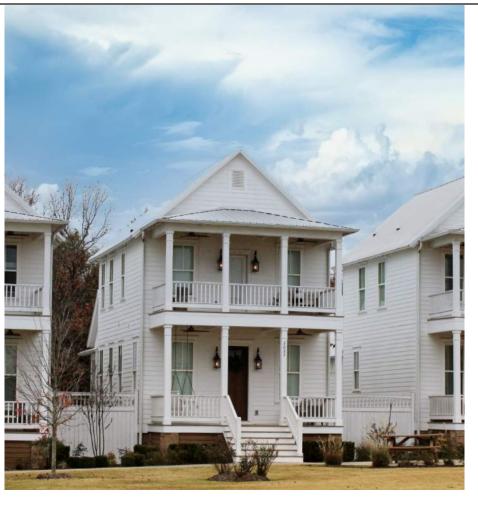
The United State Green Building Council (USGBC) states "The most powerful strategy for achieving environmental sustainability is incorporating high-performance buildings in compact, mixed-use neighborhoods that reduce driving by making walking and transit attractive options for commuting and other trips. A joint venture of the Congress for the New Urbanism, the US Green Building Council, and the Natural Resources Defense Council, acknowledges that more than a third of greenhouse gases and a similar share of other environmental impacts are generated by buildings (primarily heating and cooling them) but another third is generated transporting people and goods to and from those buildings."

The Urban Land Institute (ULI) has identified ten principles for Smart Growth on the Suburban Fringe. These items have merit when discussing the potential growth at Chaffee Crossing. The 10 principles are as follows:

- . Create a shared vision for the future...stay diligent and adhere to it
- 2. Identify and sustain green infrastructure
- 3. Remember that the right design in the wrong place is **not** Smart Growth
- 4. Protect environmental systems and conserve resources
- 5. Provide diverse housing types and opportunities
- 6. Build centers of concentrated mixed uses
- 7. Use multiple connections to enhance mobility and circulation
- 8. Deliver sustainable transportation choices
- 9. Preserve (establish a) the community's character
- 10. Make it easy to do the right thing.

The tenth item can be applied to all aspects of new development as well as to sustainable choices that will define the theme at Chaffee Crossing: Honoring the past - preserving for the future.









Intent of the Design Guidelines

The purpose of the Design Guidelines is to set standards for quality sustainable design and construction at Chaffee Crossing. The Design Guidelines provide a framework to help ensure that consistency in site development is carried throughout all areas in Chaffee Crossing so that each land use type harmoniously contributes to the fabric of the entire community.

Purpose of the Design Guidelines:

- Promote sustainable design with consistent highquality standards throughout Chaffee Crossing
- Promote walkable mixed-use developments with multimodal transportation options
- Provide historic preservation to honor the military past of Fort Chaffee.
- Ensure conformity with the adopted Master Land
 Use Plan
- Connect all development nodes in Chaffee with the Greater Fort Smith trail network to provide unlimited recreational options.
- Facilitate the development process between Fort Smith, Barling and the Design Review Committee (DRC) of the Fort Chaffee Redevelopment Authority (FCRA).
- Provide the DRC with a checklist of review items when processing an application for development.
- Provide FCRA with a document that can be used in marketing efforts as well as serve as a development guide.





History

The Fort Chaffee

Construction of Fort Chaffee, originally named Camp Chaffee, began in September 1941. Troops arrived on base in December 1941 to ready for the imminent conflict of World War II. The name Camp Chaffee was changed to Fort Chaffee in 1956 to recognize the permanent nature of the base. Fort Chaffee was a training facility for US Soldiers during World War II as well as a POW camp for 3,000 German prisoners.

Fort Chaffee is no stranger to holding foreign refugees. In 1975, after the fall of Saigon, it housed Vietnamese refugees. In 1980, Cubans from the Mariel Boatlift were housed at Fort Chaffee; and most recently, Hurricane Katrina victims from Louisiana called Chaffee their temporary home until they were able to re-establish residence. Some of the evacuees even decided to make Fort Smith their new home, providing a slight boost to the local economy in spite of the unfortunate situation of the natural disaster. (source: wikipedia.org).

In 1958, Elvis Presley was inducted into the US Army in Memphis and processed at Fort Chaffee before moving to Fort Hood in Texas for basic training. The Chaffee Barbershop Museum in the Historic Area Node celebrates this time in Chaffee's past. Because much of Fort Chaffee has retained its World War II look, many movies have been filmed on the post. "A Soldier's Story", "Biloxi Blues" and "The Tuskegee Airmen" were all shot at Fort Chaffee. Several buildings at Fort Chaffee are eligible for consideration to the National Register of Historic Places. Preservation of Chaffee's historic past is an important part of the focus in various development nodes in later sections of the Design Guidelines. Unfortunately, on January 29, 2008, high winds fanned a brush fire that burned nearly 100 acres and destroyed 150 abandoned buildings. The FCRA has facilitated the clean-up and removal of debris in the aftermath of this disaster. (source: globalsecurity.org)

From 1987 to 1993 Fort Chaffee served as home for the U.S. Army's Joint Readiness Training Center. The Arkansas Army National Guard received Fort Chaffee when the U.S. Army transferred command in September of 1997. The base now serves as a maneuver training center when each year more than 50,000 National Guard and U.S. Army Reserve Soldiers train at Fort Chaffee. This facility has the capability to be a major mobilization site for up to 26,000 soldiers should the U.S. require additional war-time troops. (source: wikipedia.org).



Barracks in the Historic Area Node



Maness Schoolhouse Building, constructed in 1937



Chaffee Barbershop Museum

Role of the Fort Chaffee Redevelopment Authority

The Fort Chaffee Redevelopment Authority (FCRA), formed as a state chartered public trust through Legislation, was established to regulate and promote development of the 7000+ acres called Chaffee Crossing. This task included management of existing buildings and removal or disposal of World War II-era temporary wood frame buildings. The official Pentagon ceremony that transferred the first 3,800 acres of property from the U.S. Army to the FCRA was on November 15, 2000. The remainder of the property was transferred in phases over the following three years.

The FCRA's mission statement is as follows: "Direct and implement the development of Chaffee Crossing in a manner that promotes economic growth and enhances the quality of place for the region." To this end the Authority's goal is to "maximize the value of Chaffee Crossing by creating an attractive, upscale development that includes sound infrastructure, quality housing, recreational and community facilities, retail establishments and businesses that provide above—average paying jobs."

In the 2009 Strategic Plan, FCRA set forth the following objectives for stewardship of the land to ensure the public receives the full market potential of the property:

- Optimize all available resources to attract quality developers to Chaffee Crossing.
- Develop and promote Chaffee Crossing's historic and recreational facilities.
- Promote public awareness of Chaffee Crossing as a mixed use community.
- Develop and implement a plan for building, demolition and infrastructure improvements.
- Create one stop shop regulatory process.

To accomplish these objectives, FCRA must facilitate long-scale planning efforts, plan for expansion of infrastructure needs and time the land sales to best meet the needs of supply and demand in the development market. Management of the natural and historical resources is a focus that FCRA takes seriously.

Role of the Design Review Committee (DRC)

The Chaffee Crossing Design Review Committee (DRC) is the third entity that reviews projects after they are first submitted to the Real Estate Review Committee (RERC) and then the Fort Chaffee Redevelopment Authority (FCRA) for development consideration. Once the Real Estate Review Committee (RERC) has met with the developer on the property sale price

and has reviewed the scope of the prospective project as it relates to land use, they will make a recommendation to the FCRA Board for project approval.

The second step is the DRC review of the proposed project after the real estate closing. The DRC shall evaluate the design schematics, building elevations, site layout and other physical appearances as it relates to the Master Development Guidelines. Upon completion of their review, the DRC shall furnish the FCRA Board a list of comments for developer compliance.

Establishing the Plan Direction

In order to make Chaffee Crossing a model development for the region, a vision and a set of goals have been created to provide direction and reinforce its identity. As the development process moves forward at Chaffee Crossing, a key ingredient for the success of the project is flexibility. One reccurring theme that was heard throughout the planning process was the need to create a master plan that allows for development phases or 'nodes' so growth can be flexible, based on the market trends in the area, available infrastructure, and needs of the community.

The following vision statement and list of goals were created from discussions with the Fort Chaffee Redevelopment Authority.

Vision Statement

"Create a development that serves as a smart growth model for the region by utilizing growth trends that respond to the market, the context of the area and the community's varied needs."

Development Goals

- Environmentally sensitive to context
- Market-based development with implementation sequenced in nodal phases.
- Create a development that serves as a model for the county and builds consistency across city limit lines.
- Provide varied zoning uses within mixed use classifications to promote flexibility.
- Encourage mixed use development to create a draw for marketability.
- Provide various types of recreation amenities to complete a live/work/play environment.
- Link Chaffee Crossing's nodes to both cities via a trail system.
- Protect and enhance public/private investments.















Community Character

Chaffee Crossing is a growing community located within the cities of Fort Smith, and Barling. The Chaffee Crossing Redevelopment Plan, adopted in 2009 by the Fort Chaffee Redevelopment Authority, established four nodes to promote development concepts for land use options that fit the contextual relationships of existing development patterns. Amenities in each node and connections between these amenities established the framework for the re-development. The four Chaffee Crossing development nodes are as follows: The Historic Area Node, Neighborhood Center Node, Community Destination Node, and the Commercial Node.

All four development nodes in Chaffee Crossing are situated on either side of the proposed I-49 corridor. The three proposed I-49 interchanges will connect the four nodes to the future north – south interstate spine. Three of the four nodes (Historic District Node, Neighborhood Center Node, and Community Destination Node) are connected by Boulevards with the Commercial Node to the north along a Major Arterial.

With a focus on sustainable development to reduce man's foot print on the environment while paying tribute to the history of Fort Chaffee's military past, Chaffee Crossing is poised to be one of the most unique smart-growth communities in the region.

The theme for Chaffee Crossing: Honoring the Past – Preserving for the Future (army green becomes sustainable green) is pervasive throughout the land use plan and design guidelines. By directing growth to incorporate sustainable solutions in all aspects of development, Chaffee Crossing will be promoting forward thinking construction at a time where 'green design' is encouraged by local municipalities and promoted by mainstream America as one way to be good stewards of the earth.

This theme will be carried throughout all aspects of the community, in all four nodes of the development, to unify Chaffee Crossing. Sustainable planning is achieved through the use of 'complete streets' and the establishment of 'walkable' nodes with more compact development pattern. Sustainable design is also achieved through the use of bio-swales (rain gardens) in parking areas, recycled rainwater for irrigation use, and encouraging the use of native building materials to promote localism. Sustainable buildings are encouraged in all land use groups. Mars Petcare, a LEED certified project, is a good example of a new sustainable facility in Chaffee Crossing. Their commitment to the environment should inspire a similar approach to future construction projects.

Design Elements

The design elements chosen throughout Chaffee Crossing will support the theme with matching styles for the following: light poles, site furnishings (benches, trash receptacles, planters), signage, and street tree choices. Banner arms on light poles in the four nodes can be used as a unifying element as well. The materials specification section in this document will give examples of the themed elements.

The five gateways (designated as purple squares on the Future Land Use Plan) establish the identity of Chaffee Crossing for visitors and locals alike. The Primary Entry Gateway design will give an indication of the community character theme: Honoring the past – preserving for the future through design, details, and use of materials. Signage, lighting, landscape and other elements will carry the theme that will be found consistently throughout Chaffee Crossing.

Four of the five gateways are located on the north side along AR 255 at Massard, Chad Colley and at either side of the proposed I-49 northern interchange. A fifth gateway is located at the western property line on Chad Colley. Each gateway will be located in the respective right of ways and designed in a way that they serve as a method of wayfinding, a beacon for the surrounding community and a symbol of the Chaffee Crossing brand.

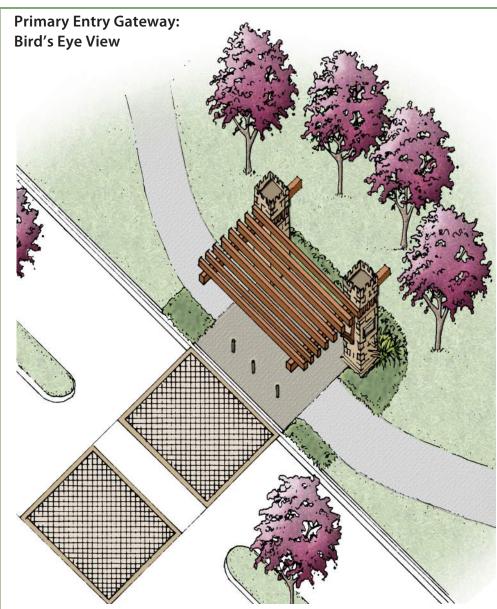
The gateway designs will become the visual identifier for Chaffee Crossing: a physical representation of the ideals that embody the theme. These portals will represent a change of understanding that what lies beyond the gateway is a sustainable community like no other in the region.

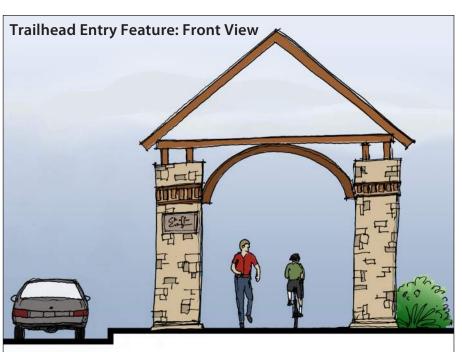
Primary Entry Gateway

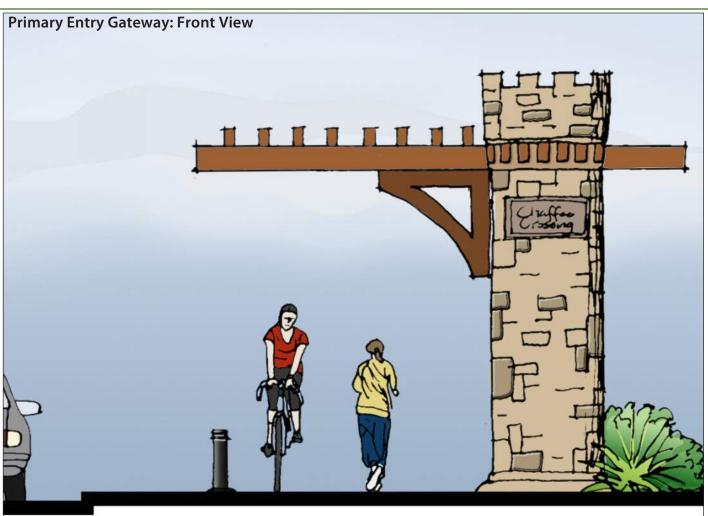
In keeping with the theme, "honor the past and preserve for the future," the primary gateway borrows details from the original Fort Chaffee guard houses in the form of stone columns, including the dentils and the merlon crown. The sustainable aspect is reflected in the wood arbor that shades the seating area and the use of native plants. Decorative paving across the boulevard will help signify 'entry' while acting as a traffic calming device.

<u>Trailhead Entry Feature</u>

This entry feature serves as a portal to Chaffee Crossing's trail system as well as a trail rest stop on either side of the path. The stone columns that support the overhead wood arbor borrow details of the original For Chaffee guard houses with a larger trail rest area that includes a bench, drinking fountain and trash receptacle.

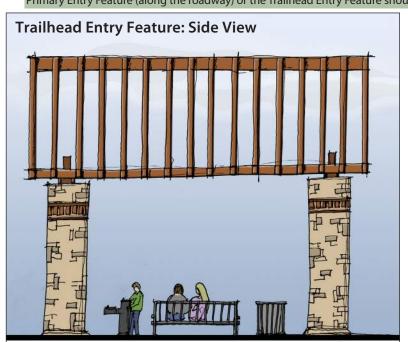


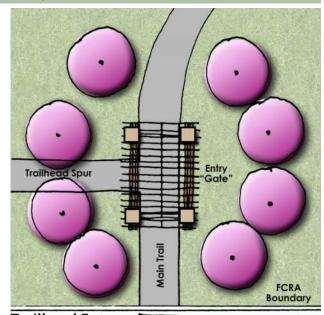




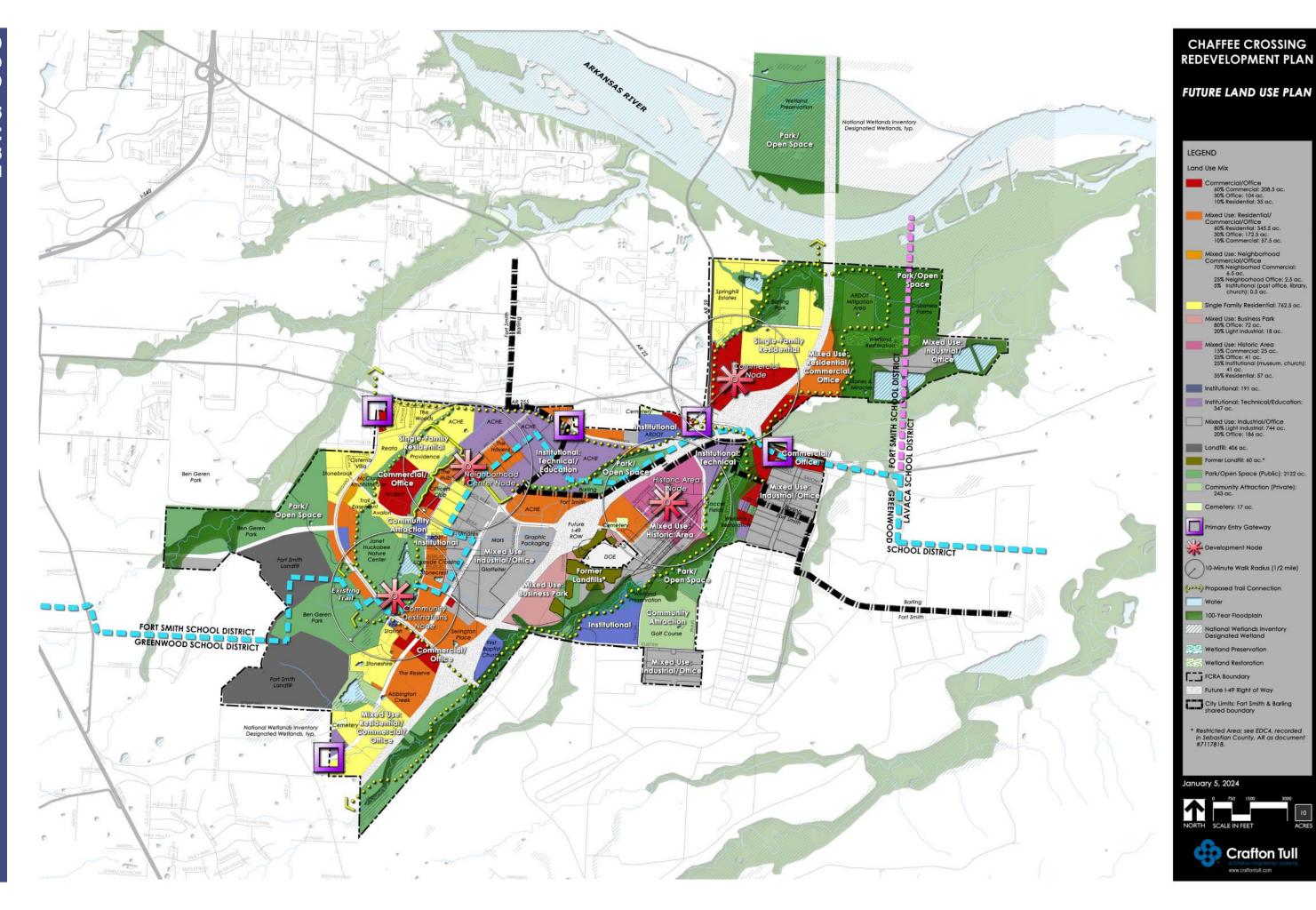
The Primary Entry Gateway (above) occurs on both sides of the road to reinforce the edge of Chaffee Crossing to both entering and exiting vehicles. These columns should be placed behind the sidewalk, and bollards are used to add pedestrian separation in the Entry Gateway area.

The Trailhead Entry Feature (below) occurs along citywide or regional trails as they enter or exit Chaffee Crossing. Typically these features will be placed in conjunction with trailhead parking. In instances where trails follow road rights-of-way as they enter Chaffee Crossing, either the Primary Entry Feature (along the roadway) or the Trailhead Entry Feature should occur, but not both in the same location.





Trailhead Entry Striped Crosswalk



Overview

The concept for the Future Land Use Plan is the creation of four distinct walkable communities (nodes) surrounded by a network of streets and trails to connect various land uses to each other as well as to Fort Smith and Barling beyond the limits of Chaffee Crossing.

The four nodes – the Commercial Node, the Historic Area Node, the Community Destination Node, and the Neighborhood Center Node are shown with a ten-minute walk radius around them on the Land Use Plan. This radius represents the distance a person can walk in ten minutes from the center of each node to reach adjacent land uses.

The <u>Neighborhood Center Node</u>, focused on neighborhood support services such as small-scale retail, offices,

restaurants, and institutional uses, is adjacent to single family neighborhoods as well as employment centers contained within the Mixed Use: Industry/Office area.

The <u>Community Destination Node</u> is adjacent to Single Family Housing and Mixed Use: Residential/Commercial/ Office near a future south I-49 Interchange.

The <u>Commercial Node</u> is located at the northern most I-49 interchange adjacent to Single Family and Mixed Use: Residential/Commercial/Office to support the needs of the residents as well as visitors from I-49.

The only node that is located on the east side of the proposed I-49 right-of-way is the <u>Historic Area Node</u>. This node has strong pedestrian and vehicular connections (the second I-49 interchange) since it has more destination-oriented uses. The Institutional: Technical/Education

land use is adjacent to the Historic Area Node, which will connect day use visitors to the Historic Area Node.

All four nodes support their surrounding uses in a sustainable manner that encourages trail linkages. As each node grows out from its core, special attention should be given to how the land uses on the edges work with the central function of the node. Attention to character and theme will ensure each node has its unique identity and correlate to the overall Chaffee Crossing brand.

The Land Use to Zoning & Design Guidelines Conversion Table, right, depicts the conversion of the land use mixes described in this section to its corresponding Development Guidelines categories (Residential, Non-Residential, Mixed Use, and Mixed Use: Historic Area) that are located on pages 10-17). In addition, the guidelines on pages 18-28 apply to every land use mix herein.

Future Land Use Categories

Mixed Use breakouts by specific land uses as well as examples of appropriate development types within each use are as follows:

C

Commercial/Office

- 60% Commercial regional large retail (box stores, home goods, hotels, outparcel development).
- 30% Office multi-story corporate headquarters (professional offices).
- 10% Residential high density multi-family condos or apartments.



Mixed Use: Residential/Commercial/ Office

- 60% Residential higher density single family (zero lot line) or townhouse (patio homes) or upper floor loft apartments.
- 30% Office professional businesses (banking, medical clinics, professional offices).
- 10% Commercial local retail (grocery, clothing) or services.



Mixed Use: Neighborhood/Commercial/Office

- 70% Neighborhood Commercial support business for adjacent residential (dry cleaner, corner grocery, credit union, café/bakery).
- 25% Neighborhood Office support office for adjacent residential (real estate, insurance, banking).
- 5% Institutional post office, library, church, police station, child care.



Single Family Residential

• Standard residential lot or zero lot-line lots in attractive, interconnected neighborhoods.



Mixed Use: Business Park

- 80% Office service industry office (construction company, medical lab, technology industry).
- 20% Light Industrial small factory, supply company, service business.



Mixed Use: Historic Area

- 35% Residential higher density single family (zero lot line) or townhouse (patio homes) or upper floor loft apartments.
- 25% Office law office, real estate, public agency.
- 25% Institutional museum, church, administrative office.
- 15% Commercial (café, bakery, book store, florist, gift shop).



Institutional

 Public Facility – Municipal / County / State offices, community support, rehabilitation, churches, primary or secondary schools.



Institutional: Technical/Education

Higher Education Facilities – classroom buildings (community college campus, technology employment training, training facility).

Mixed Use: Industrial/Office

- 80% Light Industry large factory (light manufacturing plant, light transport hub, distribution center).
- 20% Office service industry office (warehouse, storage facility).



Landfill

 Municipal land fills, unremediated military land fills.



Park/Open Space: Public

Public land – state-owned nature center, botanical garden, recreational areas, trail heads and bike / hike trail corridors, wet land preserves, public parks, public municipal, county, or state lands.



Community Attraction: Private

 Privately owned open space, community event space, golf course, officer's club, fishing land, event rental facility.

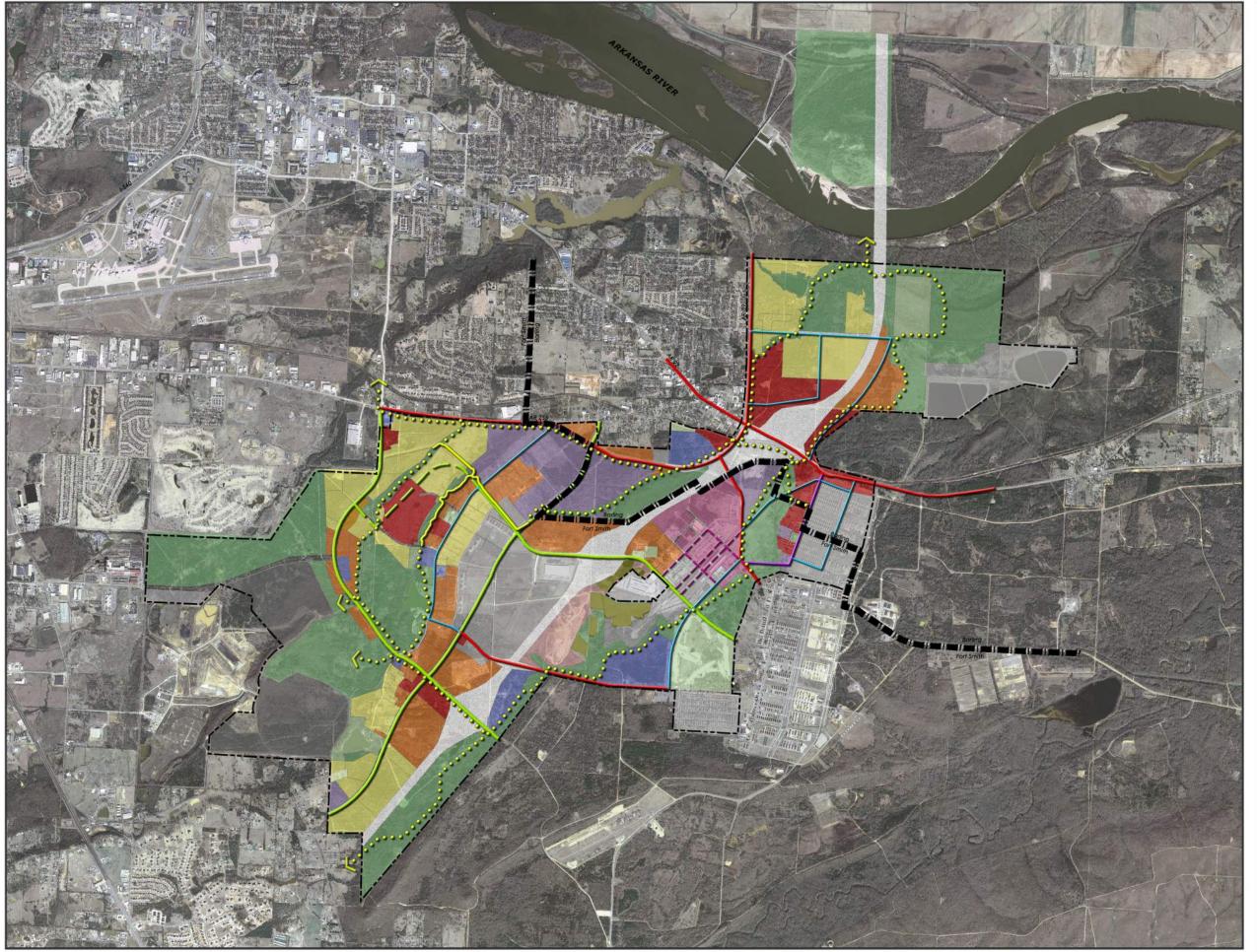


Cemetery

Existing or future cemetery.

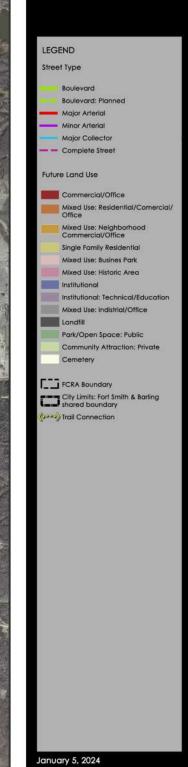
NOTE: The colors used on the following pages correspond to the land use colors shown at left, which correspond to the colors on the land use map.

Chaffee Crossing Land Use Map 2015	City of Fort Smith Zoning District	City of Barling Zoning District	Master Development Guidelines/Overlay District Category
ommercial/Office: variety of separated uses within the	land use district		Non-Residential
60% Commercial	Commercial Neighborhood Compatible (C-1) Commercial Light (C-2) Commercial Moderate (C-3) Transitional (T)	General Commercial (C-1)	Non-Residential
30% Office	Commercial Neighborhood Compatible (C-1) Commercial Light (C-2) Commercial Moderate (C-3) Transitional (T)	Office and Quiet Business (O-1)	Non-Residential
10% Residential	Residential Single Family Rowhouse and Zero Lot Line District (RS-5) Residential Multifamily Low Density (RM-3) Residential Multifamily High Density (RM-4) Residential Mixed Density (RMD)	Medium Density Residential (R-3)	Non-Residential
ixed Use: Residential/Commercial			Mixed Use
combined uses within the	district, either on adjacent parcels or within the same structu Residential Multifamily Low Density (RM-3) Residential Mixed Density (RMD) Residential Mixed Use (RMU) Residential Single Family High Density (RS-4) Residential Single Family Rowhouse and Zero Lot Line District (RS-5)	Planned Unit Development (PUD)	Mixed Use
30% Office	Transitional (T) Commercial Neighborhood Compatible (C-1) Commercial Light (C-2) Commercial Employment Mixed Use (CEMU)	Planned Unit Development (PUD)	Mixed Use
10% Commercial	Transitional (T) Commercial Neighborhood Compatible (C-1) Commercial Light (C-2) Commercial Employment Mixed Use (CEMU)	Planned Unit Development (PUD)	Mixed Use
lixed Use: Neighborhood Commer	cial/Office:		Mixed Use
variety of combined uses within the 70% Neighborhood Commercial	district, either on adjacent parcels or within the same structu Transitional (T) Commercial Neighborhood Compatible (C-1) Commercial Light (C-2)	Planned Unit Development (PUD)	Mixed Use
25% Neighborhood Office 5% Institutional	Transitional (T) Commercial Neighborhood Compatible (C-1) Commercial Light (C-2) No zoning district; granted by conditional use	Planned Unit Development (PUD) Planned Unit Development (PUD)	Mixed Use
5% Institutional	ino zoning district; granted by conditional use	Planned Unit Development (PUD)	Mixed Ose
ingle Family Residential			Residential
100% Single Family Residential	Residential Estate One (RE-1) Residential Single Family Low Density (RS-1) Residential Single Family Medium (RS-2) Residential Single Family Medium/High Density (RS-3)	Single Family Residential (R-1) Low Density Residential (R-2) Medium Density Residential (R-3)	Residential
Aixed Use: Business Park			Non-Residential
80% Office	Industrial Light (I-1)	Office and Quiet Business (O-1)	Non-Residential
20% Light Industrial	Industrial Light (I-1)	Industrial (I-1)	Non-Residential
	of combined uses, predominately within the same structure a	s applied to infill efforts (preservation efforts shall determine	Mixed Use: Historic Area
whether or not a mix of uses within a	Commercial Employment Mixed Use (CEMU)	Planned Unit Development (PUD)	Mixed Use: Historic Area
	Commercial Neighborhood Compatible (C-1) Commercial Employment Mixed Use (CEMU)	·	
25% Office	Commercial Neighborhood Compatible (C-1) Commercial Employment Mixed Use (CEMU)	Planned Unit Development (PUD)	Mixed Use: Historic Area
25% Institutional 35% Residential	Conditional Use Commercial Employment Mixed Use (CEMU) Residential Mixed Use (RMU)	Planned Unit Development (PUD) Planned Unit Development (PUD)	Mixed Use: Historic Area Mixed Use: Historic Area
	Residential Single Family Rowhouse and Zero Lot Line District (RS-5)	, , , , , , , , , , , , , , , , , , ,	
nstitutional			Non-Residential
100% Institutional	No zoning district; granted by conditional use	Public (P-2), Office and Quiet Business (O-1), General Commercial (C-1)	Non-Residential
nstitutional: Technical/Educationa	l		Non-Residential
100% Institutional: Technical/ Educational	No zoning district; granted by conditional use	Public (P-2), Office and Quiet Buisiness (O-1), General Commercial (C-1)	Non-Residential
Mixed Use: Industrial/Office			Non-Residential
80% Industrial	Industrial Light (I-1) Industrial Moderate (I-2)	Industrial (I-1)	Non-Residential
20% Office	Industrial Noderate (1-2)	Office and Quiet Business (O-1)	Non-Residential
andfill			n/a
100% Landfill	Industrial Heavy (I-3)	Industrial (I-1)	n/a
ark/Open Space			n/a
100% Park/Open Space	No zoning district; granted by conditional use	Parks (P-1) R-1, R-2, R-3, O-1, C-1	n/a
Community Attraction (Private): Re	creational, Cultural, or Community Gathering uses		Non-Residential
100% Community Attraction	Commercial Neighborhood Compatible (C-1) Commercial Light (C-2) Commercial Employment Mixed Use (CEMU)	General Commercial (C-1)	Non-Residential
Cemetery			n/a



CHAFFEE CROSSING REDEVELOPMENT PLAN

CIRCULATION PLAN









Vehicular Circulation

All four development nodes in Chaffee Crossing are situated on either side of the proposed I-49 corridor. The Historic District Node is the only one east of the future Interstate. The three proposed I-49 interchanges will connect the four nodes to the future north/south interstate spine. Once I-49 is completed, the land value at each interchange will dramatically increase due to access and exposure. Three of the four nodes (Historic District Node, Neighborhood Center Node, and Community Destination Node) are connected by Boulevards with the exception of the Commercial Node to the north at the intersection of Major Arterials AR 59 and AR 22. The Boulevard connections are important to the vehicular circulation as well as the trail network. Numerous opportunities for trails within the existing 140' right-of-way (or 160' right-ofway for new boulevards) will allow for non-vehicular connections throughout Chaffee Crossing.



A Class I Multi-Use Trail in an urban setting

Complete Streets

Complete Streets are "....roadways designed and operated to enable safe, attractive, and comfortable access and travel for all users. Pedestrians, bicyclists, motorists and public transport users of all ages and abilities are able to safely and comfortably move along and across a complete street." (www.wikipedia.org)

When towns were developed after the turn of the 20th century, pedestrian and carriage circulation shared the thoroughfares. When motorized vehicles arrived on the scene, the increased quantity of automobiles forced the pedestrians off the streets and onto the sidewalks. As motorized vehicle speed increased, bicycle users came into conflict with automobile drivers necessitating a separation of use. Most American towns that grew in the post World War II era developed with transportation networks that focused predominately on the automobile. As America reached the end of the 20th century, urban sprawl and a public consciousness to reduce greenhouse gasses and the consumption of fossil fuel put a collective focus on alternate transportation options. The term 'Complete Streets' came out of this paradigm shift. Many urban areas in America are implementing the complete street layout to provide safe travel for motorists, cyclists, pedestrians and public transportation.

Complete streets in appropriate areas of Chaffee Crossing have several advantages. Not only will they accommodate all users and multiple forms of transit, they will aid in traffic calming along straight thoroughfares with

fewer stop lights. They will further reinforce the concept of creating destinations along key corridors by making them more pedestrian and bicycle friendly. Regional trail connections will connect to the complete streets to allow linkages to other nodes as well as other destinations in the area. The center of the mixed-use nodes has the potential to have the highest density of those respective nodes. A complete street in the core of those nodes will separate multimodal transportation uses and provide a safe environment for all users.

Mixed-use developments and complete streets work well together. In the Historic Area Node, individual buildings adjacent to each other may have different land use classifications yet fit the fabric of the community through building form or complimenting use. One structure may have a commercial use on the first floor and house office or even residential lofts above, while its neighbor may have a different mix altogether. A complete street, with a focus on pedestrian 'walkable' streets will unify the development and provide a safer pedestrian connection between buildings and surrounding blocks. In the other Mixed Use (non Historic) nodes, the complete streets will help calm traffic speeds, connect like-building uses to adjacent parking areas, and encourage retail users to park in one location and shop in multiple stores before becoming a motorist again. 'Walkable' retail areas have the potential to support a better variety of shops and spread the storefront exposure to more shoppers at a more manageable speed.



A Class I Trail connecting neighborhoods to schools





Above two: Complete Streets with on-street parking and Class II Bicycle Lanes

Bicycle & Pedestrian Trails

Bicycle and pedestrian trails are valuable recreational amenities that connect all districts in Chaffee Crossing. The Chaffee Crossing Redevelopment Plan locates a network of class one bikeway trails that link to the Fort Smith trail network as well as possible future open space opportunities in Barling. The three types of bicycle and pedestrian routes are as follows: Class I (multi-use trails separated from vehicular circulation), Class II (on-street striped bicycle lanes) and Class III (signage to designate routes with no dedicated bicycle lane). Within Chaffee Crossing, Class I trails are located along greenways, floodplains, and pathways alongside boulevards. Class II trails occur as striped bicycle lanes along boulevards and complete streets. Any other vehicular circulation routes within Chaffee Crossing may be signed as Class III bicycle routes as deemed appropriate by the Fort Chaffee Redevelopment Authority.

Throughout Chaffee Crossing, various methods of connecting the trail network will be achieved in each land use group using the trail classifications shown above. Adjacent land uses as well as roadway size and type will dictate which trail classification is appropriate.

The Residential land use group is connected by trails that run along the ridge between the existing residential developments and future neighborhoods south of the ridge. These Class I trails will link other residential developments along Massard Road while connecting to the Fort Smith trail system to the west at Ben Geren Park. Linking to Ben Geren Park provides access to a recreational amenity that will bring value to the residential neighborhoods on the west side of Chaffee Crossing. Single family residential also occurs on the north end of Chaffee Crossing in Barling. These neighborhoods will be linked via the trail network to the Barling Park as well as ultimately to the Arkansas River to the north.

The Non-Residential land use group consists of Commercial/Office, Mixed Use: Industrial/Office, Mixed Use: Business Park, Institutional, Institutional: Technical, and Community Attraction. Connection to this land use group occurs in numerous locations since this group is spread throughout Chaffee Crossing. The Class I trail network is proposed to be a figure 8 (two loops) running predominantly north south on either side of I-49. The loops start at Massard, crossing east/west again at AR 255 and finally close in Barling at the north property line near the Arkansas River. This double loop touches the Non Residential group in at least eight locations on both sides of the Interstate. These connections provide opportunities for workers to use alternate transportation to/from work, provide employees recreational options during lunch or breaks, and provide families linkages to the Fort Smith trail system at Ben Geren for greater recreational opportunities after work or on weekends.

The Mixed Use land use group consists of Mixed Use: Residential/Commercial/Office and Mixed Use: Neighborhood Commercial/Office in a neighborhood setting with an allowance for institutional uses as well. This group occurs south of Massard at the first future I-49 interchange and north of Roberts near the second I-49 interchange at the Neighborhood Center Node. One more occurrence is in Barling northeast of the third I-49 interchange. All three of these Mixed Use areas are connected to the trail network via the proposed Class I trail system (see Chaffee Crossing Redevelopment Plan - Future Land Use Plan and/or the Circulation Plan). The Mixed Use: Business Park designations located east of Interstate 49 are split by a proposed Park & Open Space trail network that runs north/south parallel to I-49. This Class I trail will link into the Fort Smith trail network on the north and south end of Chaffee Crossing.

The Mixed Use: Historic Area land use group, which consists of commercial, office, institutional and residential, is centrally located in Chaffee Crossing just east of I-49 south of AR 255. The Historic Area Node boasts the largest number of operable existing structures from Chaffee's military past. The most significant is the Barbershop Museum which gained notoriety when Elvis Presley received his regulation haircut at the start of his military service. A church, numerous barracks and other original army structures have been renovated for current use in this node. With the potential for a village style re-development that will include buildings with mixed uses, this walkable neighborhood could experience a large number of visitors due to the location of the Barbershop Museum. The Class I trail, that runs in an open space park just east of this node connects the Historic District to the technical/educational uses north and the Mixed Use: Business Park on the south.



A Class I Multi-Use Trail with striping to separate uses

Land Use Classifications



Description & Intent

This Historic Area Node has been designated to facilitate the creation of a pedestrian-friendly environment to encourage the redevelopment of the historic core into a community and/or tourist destination. This may be achieved through new development with buildings with minimum front setbacks, that may have no side setbacks. Parking in the rear is encouraged as is street parking on a complete street design solution.

Intent

- Key existing Chaffee Crossing buildings shall remain, be preserved, and/or be renovated.
- Infill development (new construction) shall have a contextual relationship to its surroundings in both scale and character.
- The open spaces between the buildings shall include streets, plazas and parks. Amenities shall be provided to reinforce the Mixed Use: Historic Area as a destination within Chaffee Crossing.

Site Design & Development Standards

Lot Size

• 40' minimum width x 90' minimum depth. Building Setbacks

• USE: First Floor Non-Residential Uses:

Front Yard - no minimum setback requirement.
Side Yard - no minimum setback requirement.
Rear Yard - no minimum setback with alley access.
Street Side Yard (corner lot) - no minimum setback.

• USE: First Floor Residential Uses:

Front Yard - no minimum setback.
Side Yard - no minimum setback from property line

Rear yard - no minimum setback.

Street Side Yard (corner lot) - no minimum setback.

Site Utilities

- Electric service shall be located underground.
- Cable, telephone, and gas service shall be located within the rear yard (preferred).
- All utilites and accessories shall be screened from view of other properties and the street.

Perimeter Landscape

on each side.

- Along public street rights of way within setbacks: (front - minimum 10' width; side and rear - minimum 5' width) parallel to street right-of-way (ROW) to consist of one (1) tree plus ten (10) shrubs per 40' of ROW frontage.
- Site visibility triangle clearance is required (refer to municipal codes, typical site triangle is 25').

Entry Landscape

Not applicable

Building Landscape (per each 40'x 90' area)

- One (1) shade tree per front yard plus one (1) shade tree per rear yard per 40 linear feet of lot width, OR
- In-lieu fee of \$500 per tree required for the purchase and installation of trees within street rights-of-way within the Mixed Use: Historic Area.

Signage

Monument signs or dual post signs shall be permit-

- ted. Dual post signs shall have a max height of 78" and a max square footage of 16 sq. ft. Monument signs shall have a max height of 4' and a max square footage of 20 sq. ft.
- Directional signage is allowed, within each lot, with a maximum of 6 square feet.
- Banners for special events shall be a maximum of 32 sq. ft. shall be permitted for a maximum of 14 continuous days. Light pole banners located within public right of way or along private streets are only allowed to be utilized by the Fort Chaffee Redevelopment Authority and the City of Fort Smith.
- The Fort Chaffee Redevelopment Authority shall be allowed to install floodlights within the Historic-Mixed Use Area. All site lighting shall conform to section 27-602-5 of the UDO and to "Lighting", page 23.
- Refer to "Architectural Character," page 19, for wall signage requirements.

Architectural Character

Refer to "Architectural Character" (including Historic Preservation and Historic Character), page 19.

Accessory Buildings

• Refer to "Architectural Character", page 19.
Container Modifications

Containers are defined as cargo containers, to include intermodal containers, SeaLand containers, ISO containers, and Conex containers. Such containers meet the high-quality building material.

- All uses must comply with the Chaffee Crossing Historic District Planned Zoning District
- Must meet or exceed City of Fort Smith UDO unless a variance is granted
- Shall have a contextual relationship with its surroundings

- Must be located on a poured concrete or asphalt surface
- No storage allowed
- Must be a high-architectural standard and no raw containers allowed
- Developments are approved on a case-by-case basis Landscape Materials
- Crepe myrtles are excluded from plant selection.
- Refer to "Landscape Materials", pages 24-27.

Circulation Standards

Roadway Heirarchy

- Boulevards: Refer to applicable municipal codes.
- Arterials, Collectors, and Local (Residential) Streets: Refer to applicable municipal codes.
- Complete Streets: Refer to Roadway Design Standards, this section.

Roadway Layout

Refer to applicable municipal codes.

Roadway Design Standards

- Boulevards: Refer to applicable municipal codes.
- Arterials, Collectors, and Local (Residential) Streets: Refer to applicable municipal codes.
- Complete Streets:
 - Minimum 70' ROW to include at least one vehicular lane and one 5' bicycle lane in each direction of travel, 5' minimum sidewalk on each side. On-street parking is encouraged in mixed-use and non-residential areas (10' minimum width), and center medians are allowed in lieu of on-street parking. Two-lane complete streets are appropriate within the Mixed Use: Historic Area
 - Complete Streets within other mixed use areas may accommodate up to two (2) lanes of vehicular traffic and one (1) bicycle lane in each direction of travel, separated by a landscaped central median and accommodating a 5' sidewalk on each side of the road. On-street parking is not encouraged along four-lane complete streets.
 - Complete Streets are allowed, but not required, in non-Historic Area Node areas of Chaffee Crossing.

Street Lights

Refer to "Lighting", page 23.

Roadway Landscape

- Trees spaced 40' on center (o.c.) along boulevards, arterials, collectors, and complete streets.
- Trees shall be aligned with on-street parking striping and maintain site visibility triangles at intersections.
- Tree grates must be used around trees located within sidewalks.

Site Furnishings

Refer to "Site Elements", pages 20-22.

Sidewalks

5' wide minimum sidewalks required along both sides of streets in public rights-of-way.

<u>Trails</u>

 Class I separated multi-use trails shall be 10' wide minimum, 12' wide preferred width, paved with asphalt or concrete. Class II bicycle lanes shall be 4' minimum width clear of the gutter, located in each direction of travel.
 Class II bicycle lanes shall be 5' minimum width clear of the gutter if on-street parking is present.

Access Management: All Collector & Arterial Streets

- Any street that requires a center turn lane shall have a median for controlled access as opposed to a continuous center turning lane.
- The median separates opposing traffic which minimizes potential vehicular conflicts.
- Street trees and light fixtures should be located within medians at or greater than 6' in width.

Parking Layout Standards

Parking Requirements

- On-street parking shall be credited toward the requirement at the rate of 1 space per 20 l.f. of street frontage along local streets where on-street parking is allowed.
- Parking requirements within the Mixed Use: Historic Area shall be 50% of that required by the applicable municipal code.
- Only paved parking is permitted.
- Surface parking shall be limited to the side and rear
 of structures. No parking shall be allowed within the
 front yard setback.
- Shared off-site public parking within 500' of the site may be credited toward parking requirements within Mixed-Use areas for non-residential uses only.
- Refer to applicable Municipal codes for other requirements.

Parking Layout and Landscape Islands

- Parking lots shall be a minimum of 10' off of the edge of pavement on private roads
- In parking lots with greater than 20 parking spaces, a minimum of 5 square feet (s.f.) of landscape area is required per 100 s.f. of vehicular use area, located in islands distributed throughout the lot.
- Minimum area of a landscape area (island) shall be 64 s.f., with no individual landscape area (island) exceeding 350 s.f. unless the lot is greater than 30,000 s.f., in which case no individual landscape area (island) shall exceed 1,500 s.f.
- Trees shall be set back 4' from the pavement edge of parking lot.
- Parked vehicles may not overlap the landscape area greater than 2.5'.

Parking Lot Screening

- Parking lots shall be screened from street rights of way.
- Screening may consist of a vegetative buffer, nonliving opaque structure, fence with landscape, or berm.
- The screening material must be a minimum of 2' in height.

<u>Parking Lot Landscape</u>

- One (1) shade tree per eight (8) surface parking spaces is required, to be located within islands or adjacent to the parking lot.
- Spacing shall correspond with parking striping where applicable.

Parking Lot Lighting

Refer to "Lighting", page 23.

7'-6" 10'-0" 5' MIN. 12'-0" LANE
PARKING BIKE LANE
55'-0" BACK TO BACK

70'-0" RIGHT OF WAY

COMPLETE STREET



Land Use Classifications



Description & Intent

The creation of a pedestrian-friendly environment to encourage the development of new village style communities where the mixed uses support other uses in the node. The mixes may occur vertically in the same building (i.e. residential or office above commercial) or horizontally with buildings of different uses adjacent to one another.

<u>Intent</u>

- The creation of walkable neighborhoods that feature small-scale commercial retail and services that may be accommodated in multi-use structures
- To create a mixed use village using Traditional Neighborhood Development (TND) traits
- Flexibility in standards to accommodate a mixed use development rather than suburban style pat-

SIDEWALK TREATMENT:

NON-RESIDENTIAL USE

PARKING

0'-6" CURB

Site Design & Development Standards

Lot Size

• 40' minimum width x 90' minimum depth.

Building Setbacks

USE: First Floor Non-Residential Uses:

Front Yard - no minimum setback requirement. Side Yard - no minimum setback requirement. Rear Yard - 25' minimum setback with alley access. Street Side Yard (corner lot) - no minimum setback requirement.

USE: First Floor Residential Uses:

Front Yard - 20' minimum setback. Side Yard - 10' minimum setback from one (1) property line OR 5' minimum setback each side. Rear yard - 10' minimum setback. Street Side Yard (corner lot) - 20' minimum setback.

Site Utilities

- Electric service shall be located underground.
- Cable, telephone, and gas service shall be located within the rear yard (preferred).
- All utilites and accessories shall be screened from view of other properties and the street.

Along perimeter boundary within setbacks: (front - minimum 20' width; side and rear - minimum 10'

width) parallel to street right-of-way (ROW) to consist of one (1) tree plus ten (10) shrubs per 40' of ROW frontage.

Site visibility traingle clearance is required (refer to municipal codes, typical site triangle is 25').

Entry Landscape

Not applicable

Building Landscape (per each 40' x 90' area)

• One (1) shade tree per front yard plus one (1) shade tree per rear yard per 40 linear feet of lot width.

<u>Signage</u>

- Monument signs are restricted to 20 square feet of vertical area per lot, with a 4' maximum height.
- Pylon signs and billboard signs are not allowed.
- Banners and portable signs are not allowed.
- Refer to "Architectural Character," page 19, for wall signage requirements.

Architectural Character

• Refer to "Architectural Character", page 18.

• Refer to "Architectural Character", page 19.

Landscape Materials

SIDEWALK TREATMENT:

RESIDENTIAL USE

0'-6" CURB

Refer to "Landscape Materials", pages 24-27.

8'-0" 14'-0" LANE 13'-0" LANE 3'-0" 10'-0" 20'-0" MIN FRONT SETBACK

38'-0" BACK TO BACK

60'-0" RIGHT OF WAY

RESIDENTIAL COLLECTOR STREET

Circulation Standards

Roadway Heirarchy

- Boulevards: Refer to applicable municipal codes.
- Arterials, Collectors, and Local (Residential) Streets: Refer to applicable municipal codes.
- Complete Streets: Refer to Roadway Design Standards, this section.

Roadway Layout

Refer to applicable municipal codes.

Roadway Design Standards

- Boulevards: Refer to applicable municipal codes.
- Arterials, Collectors, and Local (Residential) Streets: Refer to applicable municipal codes.
- Complete Streets:
 - Minimum 70' ROW to include at least one vehicular lane and one 5' bicycle lane in each direction of travel, 5' minimum sidewalk on each side. On-street parking is encouraged in mixed-use and non-residential areas (10' minimum width), and center medians are allowed in lieu of on-street parking. Two-lane complete streets are appropriate within the Mixed Use: Historic Area.
 - Complete Streets within other mixed use areas may accommodate up to two (2) lanes of vehicular traffic and one (1) bicycle lane in each direction of travel, separated by a landscaped central median and accommodating a 5' sidewalk on each side of the road. On-street parking is not encouraged along four-lane complete streets.
 - Complete Streets are allowed, but not required, in non-Historic Area Node areas of Chaffee Crossing.

Street Lights

Refer to "Lighting", page 23.

Roadway Landscape

- Trees spaced 40' on center (o.c.) along boulevards, arterials, collectors, and complete streets.
- Trees shall be aligned with on-street parking striping and maintain site visibility triangles at intersections.
- Tree grates must be used around trees located within sidewalks.

Site Furnishings

Refer to "Site Elements", pages 20-22.

5' wide minimum sidewalks required along both sides of streets.

- Class I separated multi-use trails shall be 10' wide minimum, 12' wide preferred width, paved with asphalt or concrete.
- Class II bicycle lanes shall be 4' minimum width clear of the gutter, located in each direction of travel. Class II bicycle lanes shall be 5' minimum width clear of the gutter if on-street parking is present.

Access Management: All Collector & Arterial Streets

- Any street that requires a center turn lane shall have a median for controlled access as opposed to a continuous center turning lane.
- The median separates opposing traffic which minimizes potential vehicular conflicts.
- Street trees and light fixtures should be located within medians at or greater than 6' in width.

Parking Layout Standards

Parking Requirements

- Refer to applicable Municipal codes.
- On-street parking shall be credited toward the requirement at the rate of 1 space per 20 l.f. of street frontage along local streets where on-street parking is allowed.
- Parking requirements within the Mixed Use: Historic Area shall be 50% of that required by the applicable municipal code.
- Surface parking shall be limited to the side and rear of structures. No parking shall be allowed within the front yard setback.
- Shared off-site public parking within 300' of the site may be credited toward parking requirements within Mixed-Use areas for non-residential uses

Parking Layout and Landscape Islands

- In parking lots with greater than 20 parking spaces, a minimum of 5 square feet (s.f.) of landscape area is required per 100 s.f. of vehicular use area, located in islands distributed throughout the lot.
- Minimum area of a landscape area (island) shall be 64 s.f., with no individual landscape area (island) exceeding 350 s.f. unless the lot is greater than 30,000 s.f., in which case no individual landscape area (island) shall exceed 1,500 s.f.
- Trees shall be set back 4' from the pavement edge of parking lot.
- Parked vehicles may not overlap the landscape area greater than 2.5'.

Parking Lot Screening

- Parking lots shall be screened from street rights of way as well as adjacent properties.
- Screening may consist of a vegetative buffer, nonliving opaque structure, fence with landscape, or
- The screening material must be a minimum of 4' in height within 12 months of installation.

Parking Lot Landscape

- One (1) shade tree per eight (8) surface parking spaces is required, to be located within islands or adjacent to the parking lot.
- Spacing shall correspond with parking striping where applicable.

Parking Lot Lighting

Refer to "Lighting", page 23.





Description & Intent

The creation of commercial, industrial, office, institutional and technical developments that are connected to surrounding land uses via a multi-modal transportation network that binds Chaffee Crossing community.

<u>Intent</u>

 To guide the appropriate development of nonresidential uses with a larger community context

- To establish a strong street presence, though setbacks are greater than in other mixed use categories.
- To promote parking on the sides and rear of the buildings.

Site Design & Development Standards

Lot Size

• Refer to applicable municipal codes.

Building Setbacks

• Refer to applicable municipal codes.

Site Utilities

- Electric service shall be located underground.
- Cable, telephone, and gas service shall be located within the rear yard (preferred).
- All utilites and accessories shall be screened from view of other properties and the street.

Perimeter Landscape

Along perimeter boundary within setbacks: (front

 minimum 20' width; side and rear - minimum
 10' width) parallel to street right-of-way (ROW) to
 consist of one (1) tree plus ten (10) shrubs per 40' of

ROW frontage.

Site visibility traingle clearance is required (refer to municipal codes, typical site triangle is 25').

Entry Landscape

not applicable

Building Landscape

 Between parking lot and building: one (1) tree plus four (4) shrubs per 40 linear feet (l.f.) of the building.

<u>Signage</u>

- Monument signs are restricted to 100 square feet of vertical area per lot, with a 10' maximum height.
- Pylon signs and billboard signs are not allowed.
- Banners and portable signs are not allowed.
- Refer to "Architectural Character," page 19, for wall signage requirements.

Architectural Character

Refer to "Architectural Character", page 18.

Accessory Buildings

Refer to "Architectural Character", page 19.

25'-0" FRONT SETBACK

Landscape Materials

• Refer to "Landscape Materials", pages 24-27.

Circulation Standards

Roadway Heirarchy

• Refer to applicable municipal codes

Roadway Layout

Refer to applicable municipal codes

Roadway Design Standards

• Refer to applicable municipal codes

Street Lights

Refer to "Lighting", page 23.

Roadway Landscape

- Trees spaced 40' on center (o.c.) along boulevards, arterials, collectors, and complete streets.
- Trees shall be aligned with on-street parking striping and maintain site visibility triangles at intersections.

Site Furnishings

• Refer to "Site Elements", pages 20-22.

Sidewalks

 5' wide minimum sidewalks required along both sides of streets.

<u>Trails</u>

- Class I separated multi-use trails shall be 10' wide minimum, 12' wide preferred width, paved with asphalt or concrete.
- Class II bicycle lanes shall be 4' minimum width clear of the gutter, located in each direction of travel. Class II bicycle lanes shall be 5' minimum width clear of the gutter if on-street parking is present.

Access Management: All Collector & Arterial Streets

- Any street that requires a center turn lane shall have a median for controlled access as opposed to a continuous center turning lane.
- The median separates opposing traffic which minimizes potential vehicular conflicts.
- Street trees and light fixtures should be located within medians at or greater than 6' in width.

Parking Layout Standards

Parking Requirements

Refer to applicable municipal codes.

Parking Layout and Landscape Islands

- In parking lots with greater than 20 parking spaces, a minimum of 5 square feet (s.f.) of landscape area is required per 100 s.f. of vehicular use area, located in islands distributed throughout the lot.
- Minimum area of a landscape area (island) shall be 64 s.f., with no individual landscape area (island) exceeding 350 s.f. unless the lot is greater than 30,000 s.f., in which case no individual landscape area (island) shall exceed 1,500 s.f.
- Trees shall be set back 4' from the pavement edge of parking lot.
- Parked vehicles may not overlap the landscape area greater than 2.5'.

Parking Lot Screening

- Parking lots shall be screened from street rights of way as well as adjacent properties.
- Screening may consist of a vegetative buffer, nonliving opaque structure, fence with landscape, or berm
- The screening material must be a minimum of 4' in height within 12 months of installation.

Parking Lot Landscape

- One (1) shade tree per eight (8) surface parking spaces is required, to be located within islands or adjacent to the parking lot.
- Spacing shall correspond with parking striping where applicable.

Parking Lot Lighting

Refer to "Lighting", page 23.

5'-0" 12'-0" 14'-6" LANE 12'-0" MEDIAN SIDEWALK 0'-6" CURB 66'-0" BACK TO BACK



Land Use Classifications



Description & Intent

The creation of sustainable neighborhoods in various density configurations in locations well connected by a network of multi-modal transportation options. The residential developments are situated in locations that will capitalize on connections to recreational opportunities as well as support services in adjacent land use groups.

<u>Intent</u>

- To encourage residential development that promotes both internal and external connectivity while allowing each neighborhood to differentiate itself.
- To reinforce walkability and connectivity through best practices in street layout that limits or removes the need for cul-de-sacs and streets with no external connections
- Entry features with signage, landscape and lighting to establish neighborhood branding.

Site Design & Development Standards

Lot Size

• Refer to applicable municipal codes.

Building Setbacks

• Refer to applicable municipal codes.

Site Utilities

- Electric service shall be located underground.
- Cable, telephone, and gas service shall be located within the rear yard (preferred).
- All utilites and accessories shall be screened from view of other properties and the street.

Perimeter Landscape (neighborhood perimeter)

- Along perimeter boundary of the development on all sides fronting street rights-of-way (ROW) and within setbacks (front setback - minimum 20' width: side and rear setbacks - minimum 10' width): parallel to street ROW to consist of one (1) tree plus ten (10) shrubs per 40' of ROW frontage.
- Site visibility traingle clearance is required (refer to municipal codes, typical site triangle is 25').

Neighborhood Entry Feature & Landscape

• Applicable to all proposed residential developments

- Developments with streets or driveways with only two (2) lanes: landscape required at the intersection of the external street and the internal street leading into the development.
- Developments with streets or driveways exceeding two (2) lanes or 38'-0": an 8' minimum landscaped median is required, planted with one (1) tree and ten (10) shrubs per 50 l.f. of median length.
- Must be located within a designated easement maintained by the subdivision property owners' association (POA).
- The primary neighborhood entrance is to include a monument sign or architectural feature, to be approved by the Chaffee Crossing Design Review Committee (DRC).

Building Landscape

- Residential lots under 14,000 s.f.: minimum two (2) shade trees per lot; min. one (1) tree in the front
- Residential lots over 14,000 s.f.: minimum three (3) shade trees per lot; min. two (2) trees in the front
- **Evergreen and Ornamental Trees:** Two (2) evergreen or ornamental trees may be substituted for each shade tree up to 30% of the required shade tree number.
- Tree Preservation Credit: One (1) existing shade

- tree may be substituted for two (2) new shade trees as required above.
- Qualifying species for preservation include oak, hickory, maple, birch, pecan, sweetgum, ash, locust, poplar, sycamore, elm, cypress, and dogwood.
- Tree(s) must be preserved during construction according to the Existing Tree Protection Detail, page 28.

<u>Signage</u>

- Monument signs are restricted to 60 square feet of vertical area per lot, with a 6' maximum height.
- Pylon signs and billboard signs are not allowed.
- Banners and portable signs are not allowed.

Architectural Character

Refer to "Architectural Character", page 18.

Accessory Buildings

In Residential areas, the following criteria apply:

- All garages, storage buildings, decks, greenhouses, gazebos, trellises, and other structures must be compatible in design and material with the resi-
- Pre-fabricated metal outbuildings are not permitted.
- Refer to "Architectural Character", page 19.

Landscape Materials

Refer to "Landscape Materials", pages 24-27.

Circulation Standards

Roadway Heirarchy

Refer to applicable municipal codes

Roadway Layout

Refer to applicable municipal codes

Roadway Design Standards

Refer to applicable municipal codes

Refer to "Lighting", page 23.

Roadway Landscape

- Trees spaced 40' on center (o.c.), aligned with onstreet parking striping and maintain site visibility triangles at intersections.
- Street trees required along collectors, arterials, boulevards, and complete streets but are not required along residential streets.

Refer to "Site Elements", pages 20-22.

5' wide minimum sidewalks required along both sides of streets.

Trails

- Class I separated multi-use trails shall be 10' wide minimum, 12' wide preferred width, paved with asphalt or concrete.
- Class II bicycle lanes shall be 4' minimum width clear of the gutter, located in each direction of travel. Class II bicycle lanes shall be 5' minimum width clear of the gutter if on-street parking is present.

Access Management: All Collector & Arterial Streets

- Any street that requires a center turn lane shall have a median for controlled access as opposed to a continuous center turning lane.
- The median separates opposing traffic which minimizes potential vehicular conflicts.
- Street trees and light fixtures should be located within medians at or greater than 6' in width.

Parking Layout Standards

(Applicable to parks or schools that may occur within Residential use areas.)

Parking Requirements

Refer to applicable municipal codes.

Parking Layout and Landscape Islands

- In parking lots with greater than 20 parking spaces, a minimum of 5 square feet (s.f.) of landscape area is required per 100 s.f. of vehicular use area, located in islands distributed throughout the lot.
- Minimum area of a landscape area (island) shall be 64 s.f., with no individual landscape area (island) exceeding 350 s.f. unless the lot is greater than 30,000 s.f., in which case no individual landscape area (island) shall exceed 1,500 s.f.
- Trees shall be set back 4' from the pavement edge of parking lot.
- Parked vehicles may not overlap the landscape area greater than 2.5'.

Parking Lot Screening

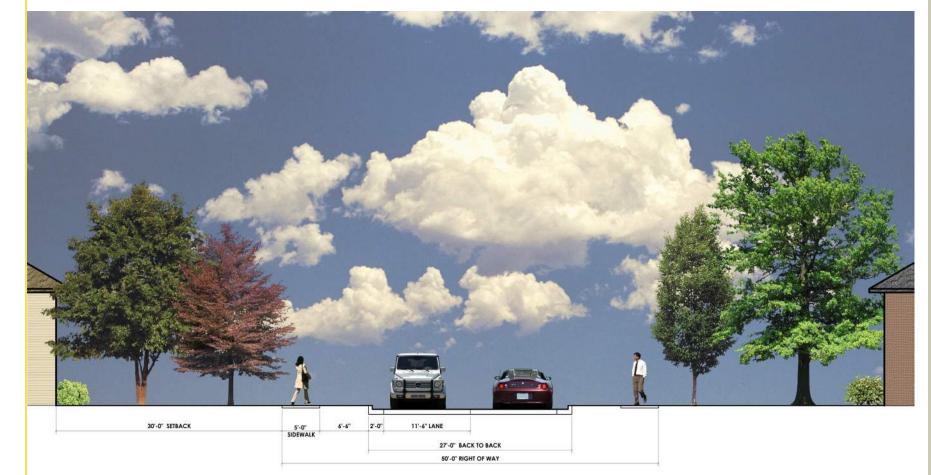
- Parking lots shall be screened from street rights of way as well as adjacent properties.
- Screening may consist of a vegetative buffer, nonliving opaque structure, fence with landscape, or
- The screening material must be a minimum of 4' in height within 12 months of installation.

Parking Lot Landscape

- One (1) shade tree per eight (8) surface parking spaces is required, to be located within islands or adjacent to the parking lot.
- Spacing shall correspond with parking striping where applicable.

Parking Lot Lighting

Refer to "Lighting", page 23.



RESIDENTIAL STREET

Architecture

Major elements of architectural design will affect or reinforce the desired visual character of the community.

The intent of the design process is to guarantee that individual structures must relate to one another, building by building, and site by site. The criteria or guidelines presented here do not discourage creative design or individuality, rather they provide continuity and an image that will make this community a unified development.

General Architectural Intent

Although no single style of architectural design is to prevail, individual neighborhoods and development parcels will benefit from a specific architectural style appropriate to the particular site and development program. All buildings within a single or defined land bay or neighborhood should therefore be compatible in design and all building elements should receive equal design consideration.

Although many buildings are based on the principles of a particular style or period - traditional, contemporary, etc. - it is important that each building be viewed not only for the successful interpretation of the style or period, but also the thoroughness of the result based on its original design intent and its relationship to adjacent context.

Design elements to be reviewed include height and massing, facade treatment, proportion, rhythm, design details, materials, texture, and color.

Building envelopes and how they are articulated to form the exterior visual character of a development are essential concerns in the visual analysis of any building. Pertinent factors include massing, roof and façade articulation, materials, color, and building's relationship to its adjacent context (e.g. ground plane, horizontal and vertical elements, natural features, view corridors, and existing and proposed buildings/developments).

Elements such as entrance detailing, cornices, and windows should complement each other to create a unified appearance on all facades rather than a juxtaposition of competing elements. The design elements should never appear as a series of individually emphasized pieces but as part of a unifying comprehensive design statement.

These same principles are equally valid regarding the relationship of internal floor plans to facades. Any building that is well designed has a program (space needs), a plan, a massing or form, as well as, facades. A good exterior design is reflective of a good plan and vice versa.

Particular concerns of architectural design include:

- All architectural plans must conform to municipal standards and requirements.
- All architectural plans must be submitted and approved by FCRA. The guidelines herein express standards above and beyond those established at the municipal level.

Height and Massing

Most buildings will be one to three story structures. Several sites indicated by FCRA may accommodate taller buildings.

Building massing will be divided into smaller elements to provide interest. These elements help define exterior spaces and can be created through varying rooflines and articulation of the building's exterior.

The massing of larger building prototypes such as multi-family residential buildings should be articulated to reflect entrances, location of individual dwelling units, and balconies.

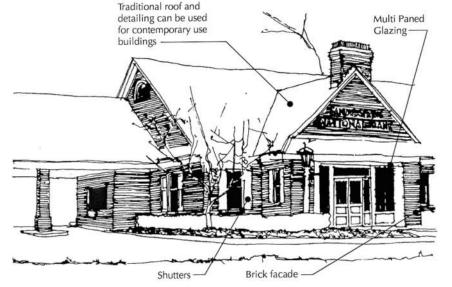
Façade/Building Envelope Treatment

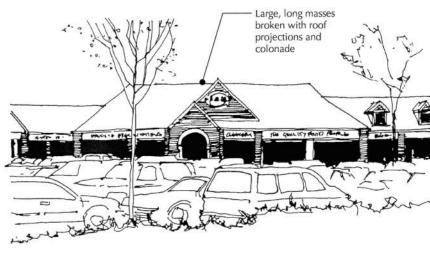
A façade/building envelope may have four components top - roof, middle -wall articulation, base - relationship to ground plane, and entryways.

1. **Top**: Roof area consists of such elements as the mass, pitch, dormers, chimneys, and cornices.

All structures should have a strong roofline definition. Sloped roofs in combination with flat roofs may enliven the building profile and in some cases, provide screening for mechanical equipment. Canopies, towers, cupolas, domes, and other architectural elements that add variety to the roofline are encouraged provided they are of a consistent scale and do not detract from the overall character of the site.

- a. Residential building rooflines should be varied to reflect individual units or rooms, with dormers and other devices to punctuate the roof plane.
- b. The visible portion of sloped roofs should be sheathed with a roofing material complementary to the architectural style of the building and other surrounding buildings.
- c. Roof mounted mechanical or utility equipment must be screened. The materials, color, shape, and size of screening should be architecturally integrated with the structure. Equipment should be screened by solid building elements (e.g., parapet wall) instead of after-the-fact add-on screening (e.g., wood or metal slats).





Traditional Architectural Concepts for Commercial/Retail Areas

- Middle: Wall articulation includes material, texture, and fenestration.
 - a. Buildings should enhance the public realm and their facades should animate the street environment. Long, blank, unarticulated street facades should be avoided. Facades should instead be divided into a series of structural bays (e.g., columns, pilasters, and masonry piers that frame window and door elements). The structural bays, windows, and other openings should reflect the architectural character and style. Window treatments provide an opportunity to create architectural definition and detailing particularly for residential and smaller scaled buildings.
 - Potentially monolithic street wall facades should be broken by vertical and horizontal articulation (e.g. sculpted, carved, or penetrated wall surfaces defined by recesses and reveals).
 These treatments include:
 - Breaks (reveals, recesses) in the surface of the wall itself.
 - Placement of window and door openings.
 - Articulation of the structural bays.
 - The placement of balconies, awnings, and/ or canopies.
- 3. **Base**: Relationship of the façade/building envelope to the ground.
 - a. Articulation of the building's base is encouraged and achieved by a change in materials or a change in setback. The building's base should be scaled and detailed to complement pedestrian activity, particularly for commercial, office, business, retail, and residential related uses.

- Entryways: These elements include the main entrance, important secondary entrances and associated steps, ornamentation, and doors.
 - a. Building entrances should be a significant part
 of the overall facade but be at pedestrian scale.
 Canopies, awnings, and overhead projections
 are also encouraged. The main entry to buildings, leading to a lobby, stair, or central corridor
 should be apparent from the street and convey
 a sense of arrival in one or more of the following
 ways:
 - Flank the entry with columns, decorative fixtures or other details.
 - Recess the entry within a larger arched or case decorative opening.
 - Cover the entry by a portico (formal porch) projecting from or set into the building face.
 - Punctuate the entry by a change in roofline, a tower or a break in the surface of the subject wall.

Proportion

Proportion is the relationship of height and width. Use of rectilinear forms both horizontal and vertical is a common way to emphasize proportions. The main massing of a typical structure in this planned community will be horizontal with vertically oriented windows and doors. Elements such as rooflines, cornices, and fascias emphasize the horizontal and visually terminate the building. Generally, the roof and facade complement and balance each other while the main entrance area is more ornate and complements the cornice and fascia. All elements of design should be consciously selected to produce a unified design.

Rhythm

Rhythm is the regular recurrence of elements such as windows, doors, columns, pilasters, and architectural details (e.g. materials, color). For example; varying window and floor heights, the space between windows, on columns are often used to emphasize either a horizontal or vertical rhythm. The rhythm of buildings and their facades should enhance and be compatible with the surrounding context.

Design Details

Detailing is one of the most significant aspects of a successful architectural design.

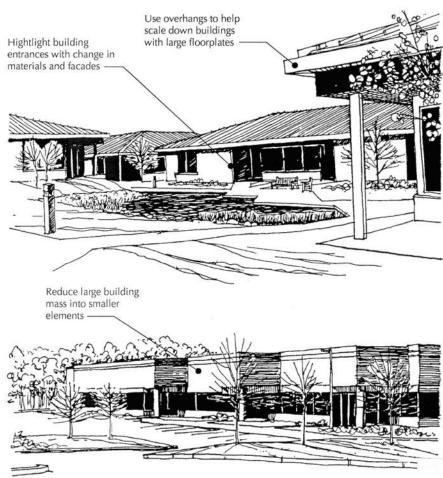
The details of any style, traditional or contemporary, determine the success and completeness of a design. This does not mean that vast amounts of detailing or trim applied to the surface of a building necessarily generates a design of high quality nor does minimization of detailing imply poor quality.

Maintenance, craftsmanship, and cost strongly affect the feasibility and appropriateness of design details. As long as the detailing is compatible with the design intent, it can be successful.

Special attention must be paid to the scale and proportion of detailing. For example; the overall proportions and mass of a cornice are more important than the amount of detailed dentil work it contains. Details such as railings, medallions, mullions, and other architectural elements are encouraged provided they contribute to the quality of development.

Beware of details that are not of the period style of the overall building, or are non-functional in relation to the buildings. Such superfluous features are distract-





Contemporary Architectural Concepts For Commercial/Office, Business Park/Campus, and Light/Business Industrial Areas

ing and should be discouraged.

Materials

As architectural styles vary from parcel to parcel, the building materials will vary as well.

- Only quality material such as brick, stone, pre-cast, stucco, and wood will be allowed and will be evaluated in relation to the overall function of the building as well as its architectural design.
- Hardie Board siding is an allowed material within all land use categories except <u>Mixed Use: Industrial/Office</u>.
- EIFS/"Dryvit" is only allowed on structures within the <u>Mixed Use: Industrial/Office</u> designations and may only cover 50% of the building facade, with the other 50% brick or stone.
- Metal buildings may be permitted only as industrial buildings within the Mixed Use: Industrial/Office areas and only with special exception, and their facades must be in context with the surrounding environment. Office buildings may not be metal, including those attached to industrial buildings.
- The construction of metal buildings in areas other than <u>Mixed Use: Industrial/Office</u> is prohibited, as

- is the use of EIFS/"Dryvit".
- Primary and secondary exterior materials of different colors and textures are allowed for architectural interest, however, a minimum of different materials should be used.
- More contemporary and synthetic materials such as plastics, some metals, and brick facing do not have the same character, mass or appearance as traditional and original materials. For example, an aluminum door does not give the same impression as an oakpaneled door in terms of sound, color, weight, and texture. The use of such contemporary materials will therefore be prohibited.

<u>Texture</u>

Texture may be defined as the arrangement, size, and quantity of repeated elements. More repeated elements create a stronger sense of texture. This does not mean that the greater sense of texture applied to the surface of a building necessarily generates a design of high quality nor does minimization of texture imply poor quality. The texture of a surface is created by the uniform and numerous bricks, the patterns of stone or of wood siding, the placement of windows and doors, and the degree of detailing and embellishment.

Color

Color is a means of emphasis. Used wrongly or too intensely, it provides inappropriate emphasis to details. The more intense chromatic colors tend to distract from a harmonious design and are discouraged. In general, earth tones or white should be used. Lighter colors distinguish elements from the building surfaces whereas darker colors tend to cause elements to recede.

Special Guidelines

Utility Attachments

All projections, utility boxes, vents, flues, gutters, and downspouts should be painted to match the surface from which they project or painted a color compatible with the building materials and design.

Roof-top Heating, Ventilation, and Air Conditioning (HVAC) Units

Non-Residential and Mixed Uses: All rooftop HVAC units, including controls, control panels, PVC plumbing, and vent pipes will be effectively screened from view of street rights-of-way and adjacent residential properties.

Accessory Buildings

Secondary buildings located behind the primary buildings on the same lot are to be defined as an accessory building. <u>Mixed Use and Non-Residential</u> areas may have accessory buildings provided they meet the following requirements.

- Location on the lot: Must be located in the rear of the lot behind the primary building within the rear and side setback restrictions. Its proximity shall be situated so that the primary building screens the accessory building when viewed from the front of the lot.
- Size: The maximum size is 1/4th the size of the primary building; restricted to one story in height.
- Materials: Shall match the primary building. Roof pitch and character of the accessory shall be relevant to the primary building at a smaller scale. An exception to this rule may occur in the Non Residential: Mixed Use Industrial/Office sites.
- Screening: Evergreen plant material shall be used to screen the accessory building from all views to the façades from the surrounding rights-of-way.
 The maximum height of the plant material shall be limited to the height of the bottom of the eve of the accessory roof.

For <u>Residential</u> areas: all garages, storage buildings, decks, greenhouses, gazebos, trellises, and other structures, must be compatible in design and material with the residence. Pre-fabricated metal outbuildings are not permitted.

Screening of Trash Enclosures

Opaque screening (wood, masonry, stone) is required to screen trash enclosures on all sides in all Non-Residential, Mixed Use (non-residential), and multi-family uses.

oundations

In steep sloped areas, some buildings may have exposed foundations and/or "walk-out" basement levels. Where foundations are exposed, their treatment should be appropriate to the architecture of the building. Concrete block or poured concrete foundations should be parged and painted to match the siding. If site conditions call for large areas of exposed foundation, the DRC may require that the building façade treatment (brick, stone, siding, etc.) be continued to grade.

Wall Signs

Each separately owned lot in Non-Residential or Mixed Use categories is allowed one wall sign for each separate structure on the lot. In Non-Residential areas the wall sign for the principal structure shall not exceed 20% of the wall area on which it is located and may not exceed 8' in height. In Mixed Use areas the wall sign for the principal structure shall not exceed 20% of the wall area

on which it is located and may not exceed 8' in height. The wall sign area for accessory structures is not limited. Wall signs are not permitted in Residential areas.

Historic Conservation

FCRA-identified buildings within the Mixed Use:

Historic Area shall be preserved, conserved, and/or restored based on historical significance. The future use of the rehabilitated structure will dictate the level of historical accuracy. The Chaffee Barbershop Museum is a good example of preservation based on a specific year. Photographs and historical information, if available, will be beneficial in a time specific preservation process. If the goal of the preservation is adaptive re-use, historical accuracy may not be an issue. Preservation of a barrack for use as an office or restaurant is a good example of this. Adaptive re-use is encouraged since it will keep existing buildings in the node that match adjacent historically significant buildings.

Historic Character

Infill developments in the <u>Mixed Use: Historic Area</u> shall maintain a consistent look with similar materials and design aesthetic with the surrounding historic structures preserved for re-use. New buildings in this node shall be designed to complement the existing historical structures to promote a cohesive node that blends old with new.

New construction in the Historic Area Node shall use building materials that are consistent with or complementary to adjacent historic structures. The height of new structures shall not exceed 100 feet. Design details shall be in keeping with character of the surrounding historic structures.

Sustainable Design Elements

Sustainable projects shall follow United States Green Building Council (USGBC) guidelines for compliance to LEED (Leadership in Energy & Environmental Design) principals and standards. LEED certification is encouraged, but not required

NOTE: The principals within the Architectural Character portion of this document have been adapted from the 2002 <u>Design/Development Guidelines for A Planned Mixed-Use Community at Chaffee Crossing</u>, by LDR International, Inc. and Atkins Americas, Inc.



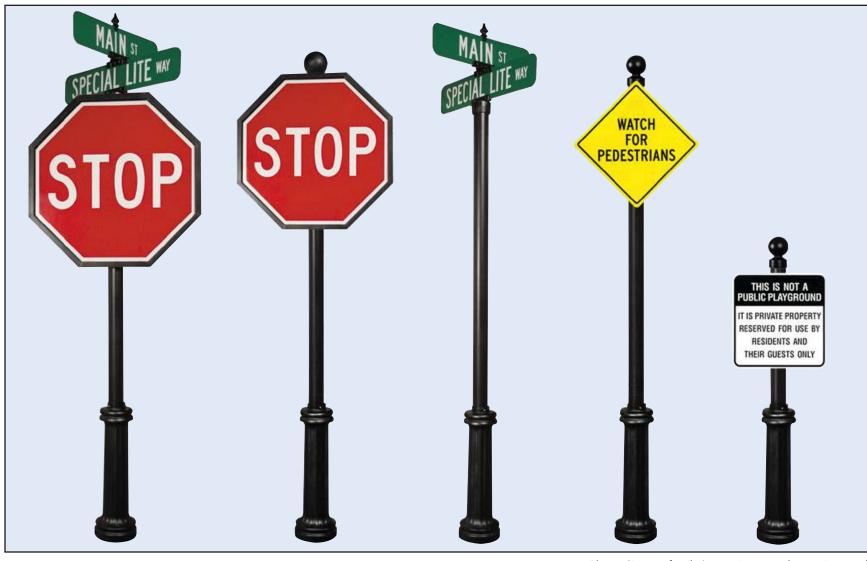


Above: Litter Recepticle Left: Bench



Above: Bicycle Rack Below: Tree Grate





Overview

The key to branding a community is quality design with a constant theme. A unified design palette throughout all of Chaffee Crossing will connect the different nodes and various land uses to one another. Through site furnishings, site lighting and landscape selections, Chaffee Crossing will be seen as one destination rather than a collection of neighborhoods or individual sites.

Selection of design elements consistent with the community character theme: "Honoring the past – preserving for the future" will provide a recognizable brand to the entire community. The site amenity selections are critical in promoting the sustainable ideals that Chaffee Crossing considers worthy. These design elements play a role far greater than a tree to shade a walk or a bench to provide seating. A 'family' of site elements should be considered when manufacturers provide the option (see sign family above). These elements unify the character of Chaffee Crossing into one cohesive community.

Site Furnishings

By selecting manufacturers that use recycled material and wood from re-growth and managed forests Chaffee Crossing will meet their sustainable goal of being a good steward of the environment. Site furnishings from companies that are members of the USGBC (United States Green Building Council) that have adopted environmentally sustainable processes in their manufacturing methods using energy efficient building solutions and the use of green products in their facility is one way to promote green products in the built environment. Another way is to insist on furniture that uses recycled steel and aluminum as well as recycled plastics. Powder coating to reduce rust and environmentally friendly lead-free finishes will eliminate hazardous air pollutants and will not generate hazardous waste. Furniture that is well designed and well constructed will have useful lives in outdoor spaces without the need for cleaning chemicals to maintain the finish. Longevity and low maintenance translate to better stewardship of the environment.

Above: Signage family (street signs, regulatory signs, and informational signs); all pole signs shall include the ball topper option (pictured on the pedestrian sign), rather than the top finial (pictured on the street sign).

Below: Non-lighted bollard



Site Elements

The site elements shown below or approved alternates submitted to FCRA for review/acceptance shall be used in Chaffee Crossing. Alternates must match the design specifications for FCRA consideration to ensure all site elements match the design intent for a consistent theme at Chaffee Crossing.

All street signs must meet the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD) standards.

Site Furnishings Specifications

Tree Grates:
Manufacturer: Neenah Foundry
Product: Majestic Collection Tree Grate
Type: R-8718-A
Size: 60" x 60" square; 16" diameter opening expandable to 36" opening.
Color/Finish: Black powder coat finish

Benches:

Manufacturer: Landscape Forms
Product: Plainwell Aluminum bench
Type: Classic bench with curved arms – all metal
Size: 72" long x 25" x 32".
Color/Finish: Black powder coat finish

Trash/Ash:

Manufacturer: Landscape Forms –
Product: Plainwell litter receptacle
Type: Side-opening; all metal
Size: 30" d x 45" ht.
Color/Finish: Black powder coat finish

Bollards (non-lighted)

Manufacturer: Landscape Forms
Product: Annapolis Bollard
Type: Embedded, non-lit, without sleeve
Size: 6" diameter x 33" high
Color/Finish: Black powder coat finish
Refer to "Lighting" section for **lighted** bollards.

• Bicycle Racks

Manufacturer: Landscape Forms
Product: Pi bicycle rack
Type: Embedded rack
Size: Embedded: 2" deep x 22" wide x 43" high
Color/Finish: Black powdercoat

Street Signs

Manufacturer: Forsite

Product: Single and Double Street Signs and Posts with Breakaway Poles

Type: BA-410/WRB1/TRO/TSB3 (Single);

BA-410/WRB1/TRO/DBL/TSB3 (Double)

Size: 3" O/D smooth sided break away sign pole, decorative wrap around base, dual sign blade holders, ball topper, sign blades

Color/Finish: Poles - Black powdercoat.

Sign blades - green.

Refer to applicable municipal codes for street naming requirements.

Stop Signs

Manufacturer: Forsite

Product: Stop Signs and Posts (alone or with street signs) with Breakaway Poles

Type: BA-410/WRB1/BP-24OCT/TSB2 (alone)
BA-410/WRB1/BP-24OCT/TRO/TSB3 (Single);
BA-410/WRB1/BP-24OCT/TRO-DBL/TSB3 (Double)

Size: 3" O/D smooth sided break away sign pole, decorative wrap around base, octagonal back plate, ball topper, sign blades

Color/Finish: Black powdercoat

Regulatory Signs

Manufacturer: Forsite

Product: Regulatory Signs and Posts with Breakaway Poles

Type: BA-410-WRB1/TSB2/SLOW

BA-410-WRB1/TSB2/SPEED

BA-410-WRB1/TSB2/PEDESTRIAN

BA-410-WRB1/TSB2/CROSSING

Size: 3" O/D smooth sided break away sign pole, decorative wrap around base, ball topper, sign Color/Finish: Black powdercoat

Informational Signs

Manufacturer: Forsite

Product: Informational Signs and Posts with Breakaway Poles

Type: BA-406/WRB1/TSB2/HANDICAP

BA-406/WRB1/TSB2/PRIVATE

BA-406/WRB1/TSB2/SPEED

BA-406/WRB1/TSB2/GUARD

Size: 3" O/D smooth sided break away sign pole, decorative wrap around base, ball topper, sign Color/Finish: Black powdercoat

Light Poles: Refer to "Lighting" section, page 23

Perimeter Walls and Fences (applied only to the perimeter of a development)

- Shall not compete with architecture or prominent
- May be partially or completely opaque.
- Preferred material is wood, brick, or stone.
- Wood fences must have top rail and post (RESIDEN-TIAL applications only)
- 6' maximum height
- Split rail or horizontal board fencing is allowed where screening is not required; shall not exceed
- Vehicular site triangles must be maintained

<u>Flagpoles</u>

- Residential Uses: May be mounted on fronts of houses and be resi-
- Non-Residential Uses: Freestanding flagpoles up to 30' in height are
- Mixed Use Areas: May be mounted on fronts of houses and be residential in scale. Freestanding flagpoles up to 30' in

Antennas and Satellite Dishes

- Residential or Mixed Uses: Antennas and satellite dishes (no larger than 36" in diameter) may be used in residential areas as property owner association (POA) covenants and restrictions allow. Antennas and satellite dishes shall be placed on the side or rear of buildings.
- Non-Residential Uses: Antennas and satellite dishes may be used in commercial and industrial areas when necessary for the day to day operations of a particular facility. These shall be located at the side or rear of the building and must be screened with an opaque material.

Cell Towers

- New commercial communication towers are prohibited.
- Existing commercial communication towers may be modified or replaced with towers of the same size and scale of the one being replaced.

Solar Panels

Must be integral to the building's architecture (not freestanding).



Freestanding flagpoles up to 30' in height are permitted in non-residential applications.



Banners are encouraged as attachments to light poles.



architecture.



Pre-constructed mailboxes should have a consistent character throughout the development.

Solar panels must be an integral part of the building

Mail Delivery

Residential Uses: Residential mail delivery may include brick encased mailbox columns, OR

> Manufacturer: Forsite Product: Savannah Mailbox on Ashland Post Type: SCS-1014-SPK-600 Color/Finish: Black powdercoat, OR

Manufacturer: Forsite Product: Savannah Mailbox on 4" square post with decorative wrap around base Type: SCS-1014-SPK-700-WRB3 Color/Finish: Black powdercoat

- Non-Residential and Mixed Uses: Non-residential and mixed-use mail delivery shall occur at the building facade or within the interior of the building per U.S. Postal Service requirements. Mailboxes must be approved by FCRA in the case that the U.S. Postal Service will not deliver to the building facade or interior.
- Plastic newspaper boxes are prohibited (all uses).

Recreational Equipment

- Basketball backboards are to be located away from the street.
- Play equipment is allowed but restricted to rear yards unless portable in nature and shall be screened from perimeter roads.
- Recreational equipment is not permitted in any front yard within the Mixed Use: Historic Area unless it is located within a public park.



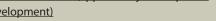
Architectural mailboxes may be brick or stone



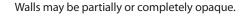
- dential in scale.
- permitted.
- height are permitted in non-residential areas.

Split rail or horizontal board fencing is allowed where

screening is not required.







Lighting Overview

Site lighting is an important part of any streetscape, whether its pole lights along a residential avenue, lighting for pedestrians in a mixed use setting, or lights bollards that provide definition along a path's edge at a trail head. Well designed site lighting will add to the safety of the area as well as create a visual statement that supports the aesthetic brand of the community. Lighting is most effective when proper spacing of the fixtures is employed. The spacing is determined by the intended use of the area being lit, the speed of the traveler, the height of the pole and the type of fixture chosen. Properly spaced site lighting provides direction at night in areas where pedestrians and vehicles require additional visibility for safe passage.

Accent lighting is employed to illuminate signage or up-lighting trees for aesthetic reasons. Accent lighting can add to the atmosphere of an urban node by bathing adjacent elements in ambient light as well as down-lighting areas for better visibility for a 'full moon' effect. Flood lights are most commonly used for illuminating signs or entry features where the goal is illumination for reading or identifying information. Both flood lights and accent lights should be positioned so they don't create visual distractions for drivers and pedestrian or so they don't cause 'hot spots' where the fixtures' light wash out a sign due to direct targeting. Shields or barn doors can be added to floods and accent lights to reduce the possibility of visual distractions that may blind a passing viewer.

Street Lights

Sustainable lighting should be considered whenever site lighting is selected for a new development or chosen to reduce maintenance or fixture costs at an existing facility. The goal of sustainable outdoor lighting is to select the most energy effective light fixtures that meet design and functional needs while helping reduce carbon emissions. Efficient and effective lighting is one of the first steps toward reducing energy consumption in America.

Dark sky regulations are not in place at Chaffee Crossing, but selecting light fixtures that have partial cut-off reflectors or hoods (full cut-off being optimal) to reduce misdirected lighting known as skyglow shall be encouraged. Light trespass is another form of wasted light, where light from a fixture spills onto a neighboring property which can become a nuisance, especially in or around residential land uses. Both skyglow and light trespass can be avoided by understanding how luminaires perform and which fixture should be used on which site. Refer to specified materials within "Lighting Design and Specifications", page 23, as well as applicable municipal codes for lighting requirements.

Adhering to sustainable lighting technique is one more way Chaffee Crossing will distinguish itself as an environmentally-friendly community.

Lighted Bollard

Lighting Design and Specifications

Roadway Lighting

- All minor arterials and major collectors will use consistent lighting poles and fixtures that include light shielding for partial cutoff.
- Specifications: Roadway Pole Lights
 - All public roadways will use the Lumec fixture Harmonia Series Z65F-M20A (32" tall x 19" wide) with polycarbonate optics & shielding for light trespass photometry.
 - This fixture will be mounted on the Lumec pole APR4U-20, base LBC1, and arm M20A with black powder coat finish
 - Mounting height range 18'-26'.

Parking Lighting

- Consistent pole, fixture design, and lamp color that is compatible with adjacent roadway lighting shall be used.
- Lamp fixture must include light shielding for partial cutoff.
- Mounting height range 20'-30'.

Pedestrian Lighting

- All minor arterials and major collectors will use consistent lighting poles and fixtures that include light shielding for partial cutoff.
- Specifications: <u>Pedestrian Pole Lights</u>
 - All public roadways will use the Lumec fixture Harmonia Series Z65F-M20A (32" tall x 19" wide) with polycarbonate optics & shielding for light trespass photometry.
 - This fixture will be mounted on the Lumec pole APR4U-12, base LBC1, and arm M20A with black powder coat finish.
 - Mounting height range 12'-14'
- Specifications: <u>Pedestrian Bollard Lights</u>
 - Manufacturer: Landscape Forms
 - Product: Annapolis Bollard
- Type: Embedded with low voltage light, without sleeve
- Size: 6" diameter x 33" high
- Color/Finish: Black powder coat finish

Common Areas

- Pedestrian lighting is required (mounting height 12'-14').
- Must be integrated into overall landscape and architectural theme.
- Indirect or concealed lighting may be used.

Recreation Areas

- Provide standard lighting levels for night time play and minimize impact on adjacent parcels.
- Mounting height as required for specific activity.

Special Effects Lighting

- Floodlighting restricted to areas of specific importance.
- Light source shall not be visible (shields or 'barn doors' may be used).
- Landscape lighting (bollards, uplighting, recessed wall lights, moonlighting) is encouraged.
- Specifications: <u>Uplights/Landscape Lights</u>
 Option A:
 - Manufacturer: LSI Greenlee Lighting
 - Product: Bullet Uplight
 - Type: CBM175 FCB BLK FL GS with AG 175 MH 120 BLK
 - Size: 13 3/4" long x 7 1/2" diameter
 - Color/Finish: Black

Option B:

- Manufacturer: Kim Lighting
- Product: Scarab Series Bullet Uplight
- Type: 6750-D-NF-175MH120-BL-AGS74
- Size: 10 5/16" long x 6 1/2" diameter
- Color/Finish: Black

- Specifications: <u>Flood Lights</u>
 Option A:
- Manufacturer: LSI Greenlee Lighting
- Product: Flood light
- Type: SLS 175 MH MT HF BLK JB BD
- Size: 14" wide x 9 1/4" tall x 7 1/4" deep
- Color/Finish: Black

Option B:

- Manufacturer: Kim Lighting
- Product: Flood light
- Type: AFL13-175MH120-BL-P-BD/BL-P-JB1/
- Size: 14" wide x 10 3/8" tall x 6 3/4" deep
- Color/Finish: Black



LSI Greenlee CBM Series Bullet Uplight



Kim Lighting Scarab Series Bullet Uplight



LIS Greenlee SLS Series Flood Light



KIM lighting Architectural Floodlight AFL13



Trees: Primary (continued) Pin Oak Shumard Oak Tulip Poplar 'Arnold' Willow Oak **Trees: Secondary (continued)** Southern Magnolia Sugar Maple Water Oak Weeping Willow Shrubs: Secondary

Boxwood

Abelia

Landscape Materials

Materials Sizes

Trees

Shade Trees: 2.5"-3" caliper Evergreen Trees: 6'-8' height Ornamental Trees: 8'-10' height

Shrub

Large Deciduous Shrubs: 3'-4' height x 2.5'-3' spread x 4' on center (o.c.)

Evergreen Shrubs: 18"-24" height x 18"-24" spread x 30" o.c.

Broadleaf Evergreen Shrubs: 24"-30" height x 24"-30" spread x 3' o.c.

Low Spreading Shrubs: 15"-18" spread x 30" o.c.

Groundcover

2.25" peat pot x 8" o.c. or 4" pot x 12" o.c.

<u>Allowed Tree Species (in required landscape areas)</u>

• Primary:

Bald cypress

Chinese elm *

Chinese pistachio

Columnar red maple *

Ginkgo (male)

Honey locust *

Pin oak

Shumard oak

Tulip poplar 'Arnold'

Willow oak

• Secondary:

American holly

Crepe myrtle

Dogwood

Hawthorn

Redbud

River birch

Southern magnolia

Sugar maple

Water oak

Weeping willow

* Allowed street tree species

<u>Allowed Shrub Species (in required landscape areas)</u>

Prima

Evergreen hollies (maximum 4' mature height) Nandina

• Secondary:

Chinese Photinia

Abelia

Boxwood

Chinese photinia

Allowed Grasses (in required turf areas)

Mayer Z-52 zoysia

Emerald zoysia

Bermuda grass (including hybrids)

Centipede

St. Augustine

Allowed Ground Covers (in required landscape areas)

Primary:

Dwarf nandina

Junipers

Liriope

Carpet rose

Mondo grass

Periwinkle

Spreading euonymus

Secondary

Carolina jessamine

English ivy

Honeysuckle

Xeriscape Option

- Encouraged
- Must include rain sensors
- Must use 50% vegetation indigenous to Arkansas
- Must use water efficient irrigation systems
- Must use organic mulches
- Must use drought-tolerant plant materials

Sustainable Landscape Options

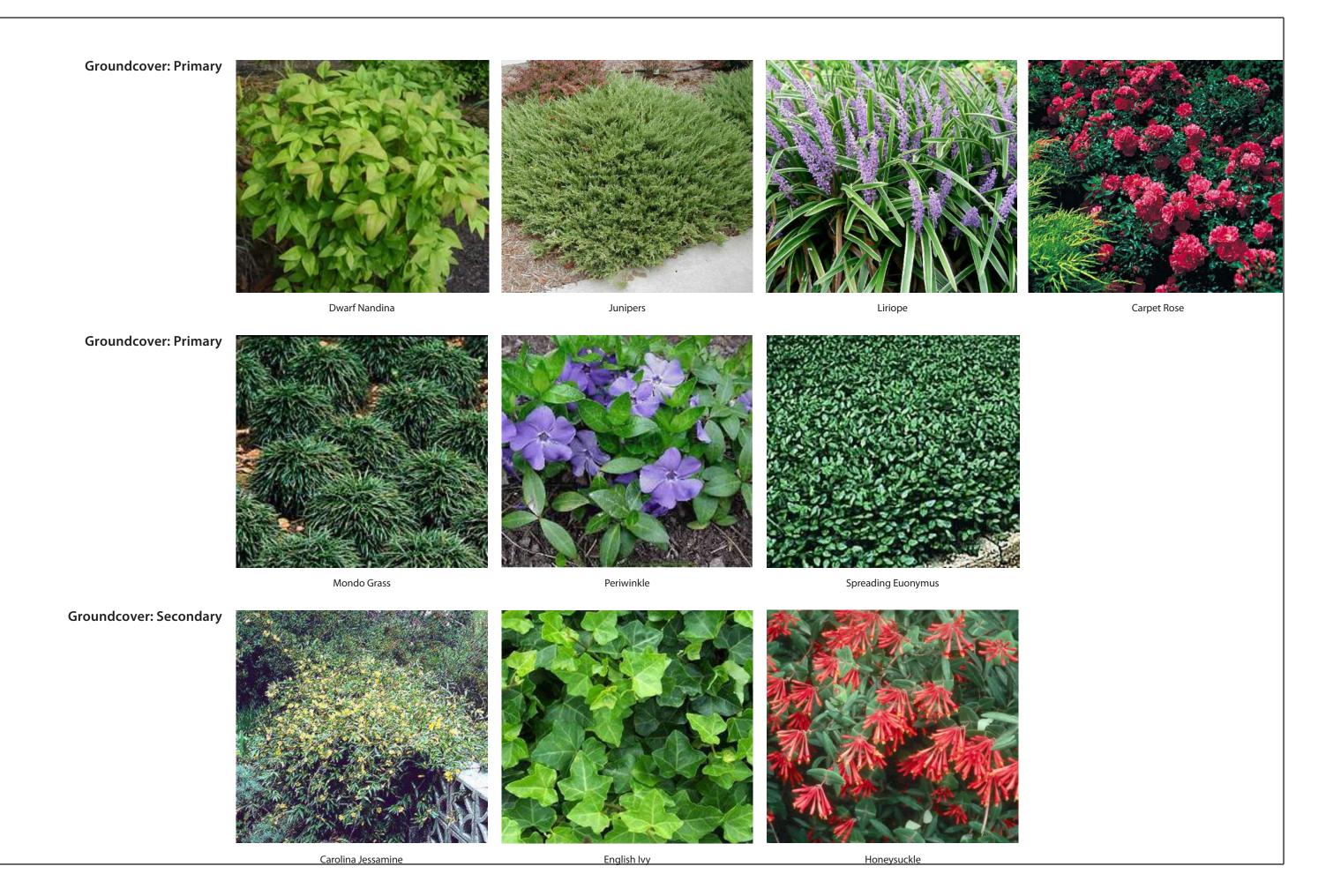
• The use of native or adaptive plant materials, drip irrigation, and/or drainage solutions such as bioswales (rain gardens) are encouraged.

Maintenance and Irrigation

Residential Uses:

Within public landscape areas (such as street rights of way or entry landscape areas), landscape materials must be maintained. Dead plant materials must be replaced within one year of the death of the plant. Defective landscape materials must be replaced within three months. Irrigation is required.

Landscape materials must be maintained. Dead plant materials must be replaced within one year of the death of the plant. Defective landscape materials must be replaced within three months. Irrigation is required.



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Sustainable Landscapes

Incorporating a native plant palette provides opportunities to show the public examples of attractive plantings that require less water & maintenance and are perfectly suited to thrive in the Chaffee Crossing climate. Not all native plants are as showy as their non-native counterparts, and some may be a little harder to locate but the long term benefits of using natives will outweigh the detractors.

The use of native grasses and wildflower areas will help reduce maintenance. Not all open space areas need to be mowed and irrigated turf. Where a more natural, less manicured area is permitted, the use of native grass or even wildflowers is a sustainable alternative. Most native grasses, like Buffalo Grass are drought tolerant (don't need irrigation) and can be left to grow to a mature height of 12" similar to a short grass prairie. Wildflowers can be introduced to an area, once it is properly prepared, by broadcast seeding. Wildflower areas are virtually maintenance free and require little watering once established. The cost to establish and maintain a native grass or wildflower area is significantly less than the cost (and burden on the environment) of a mowed and irrigated turf area.

The use of native materials like stone, wood harvested in the area, or other construction materials is a green practice that not only showcases the local resources, but also supports the local economy and is eco-friendly by reducing the need to transport materials across the country when a local alternative is within reach. This sustainable approach allows the Chaffee Crossing community to embrace the unique asssets of the area.

Rain gardens or bio-swales are vegetated depressions designed to capture run-off from parking areas or roof drainage. This planted buffer acts as a series of filters to protect the groundwater supply as run-off returns / percolates back into the earth. Native plants and semiaquatic plants in the bio-swale provide natural habitat areas for local wildlife and are a more eco-friendly alternative to large open detention storage areas. Storm water run-off is considered to be one of the main sources of water pollution nation-wide. These designated drainage/filter areas can also help reduce erosion on the site and reduce flooding by alleviating storm water system needs. Rain gardens can reduce landscape maintenance in large parking areas since they don't need to be mowed, fertilized or even watered in most cases. They also effectively break up large areas of pavement that helps reduce the heat island effect.



Rain garden along street



Use of native stone and plant materials



Pink Muhly Grass



Black-Eyed Susans



Purple Coneflower



Use of native stone within the landscape design



St John's Wort

Bioswale



Inland Sea Oats





Beautyberry



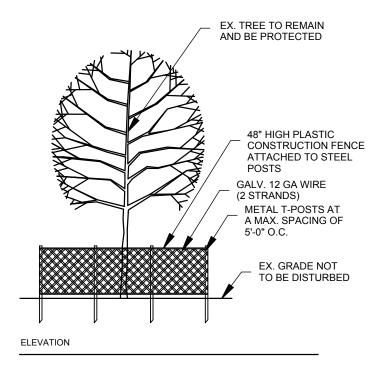
Sweetspire

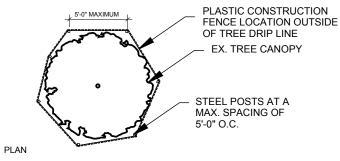


Tuscan Blue Rosemary



Grey Owl Juniper





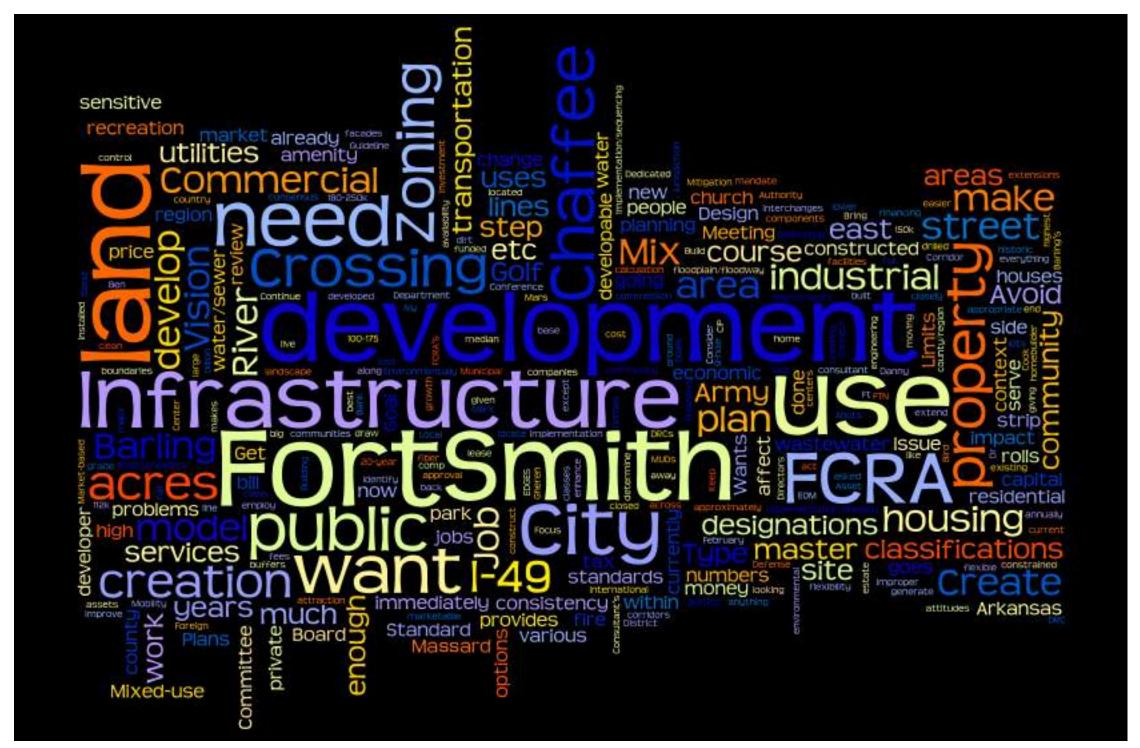


TREE PROTECTION NOTES:

- 1. PRIOR TO GRADING, BRUSH REMOVAL, OR CONSTRUCTION, THE CONTRACTOR SHALL CLEARLY TAG OR MARK ALL TREES TO BE PRESERVED.
- 2. THE DEVELOPER SHALL ERECT A PLASTIC MESH FENCE A MINIMUM OF FOUR (4') FEET IN HEIGHT AROUND EACH TREE OR GROUP OF TREES TO PREVENT THE PLACEMENT OF EQUIPMENT, MATERIALS, DEBRIS, OR FILL WITHIN THE DRIP LINE.
- 3. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROHIBIT CLEANING, PARKING, OR STORAGE OF EQUIPMENT OR MATERIALS UNDER THE CANOPY OF ANY TREE OR GROUP OF TREES BEING PRESERVED. THE CONTRACTOR SHALL NOT ALLOW THE DISPOSAL OF ANY WASTE MATERIAL SUCH AS, BUT NOT LIMITED TO, PAINT, OIL, SOLVENTS, ASPHALT, CONCRETE, MORTAR, ETC., IN THE CANOPY AREA.
- 4. NO ATTACHMENTS OR WIRES OF ANY KIND, OTHER THAN THOSE OF A PROTECTIVE NATURE, SHOULD BE ATTACHED TO ANY TREE.
- 5. NO FILL OR EXCAVATION MAY OCCUR WITHIN THE DRIP LINE OF A TREE TO BE PRESERVED UNLESS THERE IS A SPECIFIC APPROVED PLAN FOR USE OF TREE WELLS OR RETAINING WALLS. MAJOR CHANGES OF GRADE (SIX INCHES OR GREATER) WILL REQUIRE ADDITIONAL MEASURES TO MAINTAIN PROPER OXYGEN AND. WATER EXCHANGE WITH THE ROOTS. IN ADDITION, THE CONTRACTOR SHALL ADHERE TO THESE GUIDELINES TO PROTECT THE TREES TO BE PRESERVED.



The construction process is often times harmful to existing trees when proper tree protection precautions are not followed (specifically, disturbing the tree within its dripline). Refer to the Existing Tree Protection Detail, left, for proper measures to save existing trees. This detail must be followed in order to qualify for the Tree Protection Credit within residential developments.



This word frequency analysis represents staff, FCRA Board, and DRC input obtained during the project kickoff meeting.

Source: www.wordle.com