First Published in the United States of
America in 2012
by University of Kentucky
Department of Landscape Architecture
S305 Agriculture Science Bldg
Lexington, Kentucky 40546-0091
859.257.3980
http://www.uky.edu/Ag/LA/

This project was funded by a generous
grant from the City of Falmouth, Kentucky

Printed by PrintTech, Inc.,
Ann Arbor Michigan

Cover Art: Justin Menke & Jared Kaelin
Written by: Justin Menke & Jared Kaelin
Project leader: Ryan Hargrove
Hand graphics: Justin Menke
Computer graphics: Jared Kaelin

Table of Contents

Introduction 1

Timeline 2

Commercial 4

6 Site Design
8 Building Massing and Character
10 Streetscape and Landscape
14 Vehicle Circulation and Parking
16 Pedestrian and Bicycle Circulation
20 Details: Materials, Lighting, and Signage
24 Open Space
26 Water Management

Single Family Residential 28

30 Site Design
34 Building Massing and Character
36 Streetscape and Landscape
38 Vehicle Circulation and Parking
40 Pedestrian and Bicycle Circulation
42 Details: Materials, Lighting, and Signage
44 Open Space
46 Water Management

Multi-Family Residential 48

50 Site Design
52 Building Massing and Character
54 Streetscape and Landscape
56 Vehicle Circulation and Parking
58 Pedestrian and Bicycle Circulation
62 Details: Materials, Lighting, and Signage
64 Open Space
66 Water Management

Industrial 68

70 Site Design
72 Building Massing and Character
74 Streetscape and Landscape
76 Vehicle Circulation and Parking
78 Pedestrian and Bicycle Circulation
80 Details: Materials, Lighting, and Signage
84 Open Space
86 Water Management

Appendix A: Tree Selection 88

Definitions 94

Contributors 96

Introduction

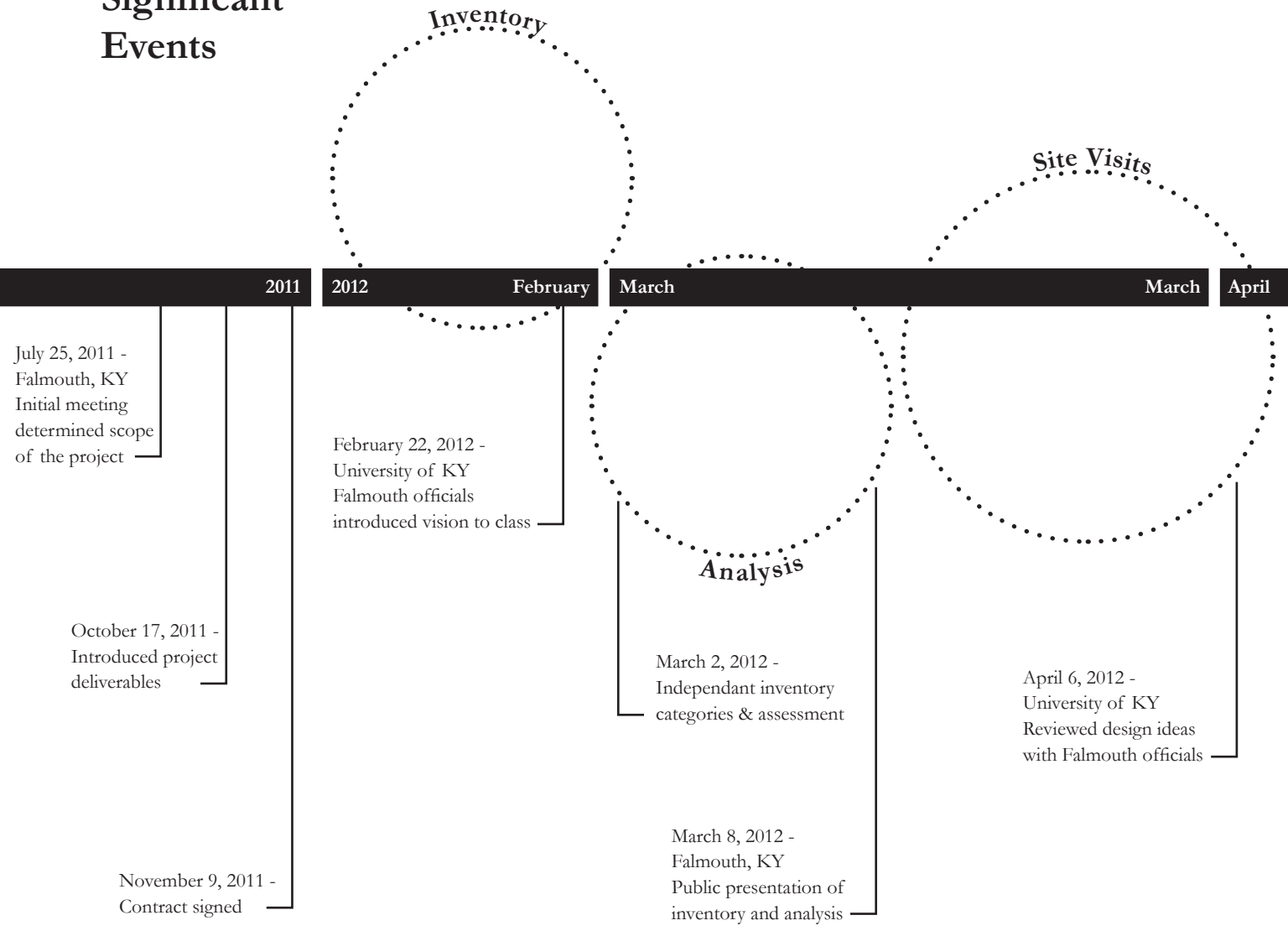
The University of Kentucky, Department of Landscape Architecture set out to create a collection of comprehensive design guidelines for the city of Falmouth, Kentucky. This book is a guide to realizing a vision brought forth by the community of Falmouth, Kentucky, with the goal of creating a wonderful place to live.

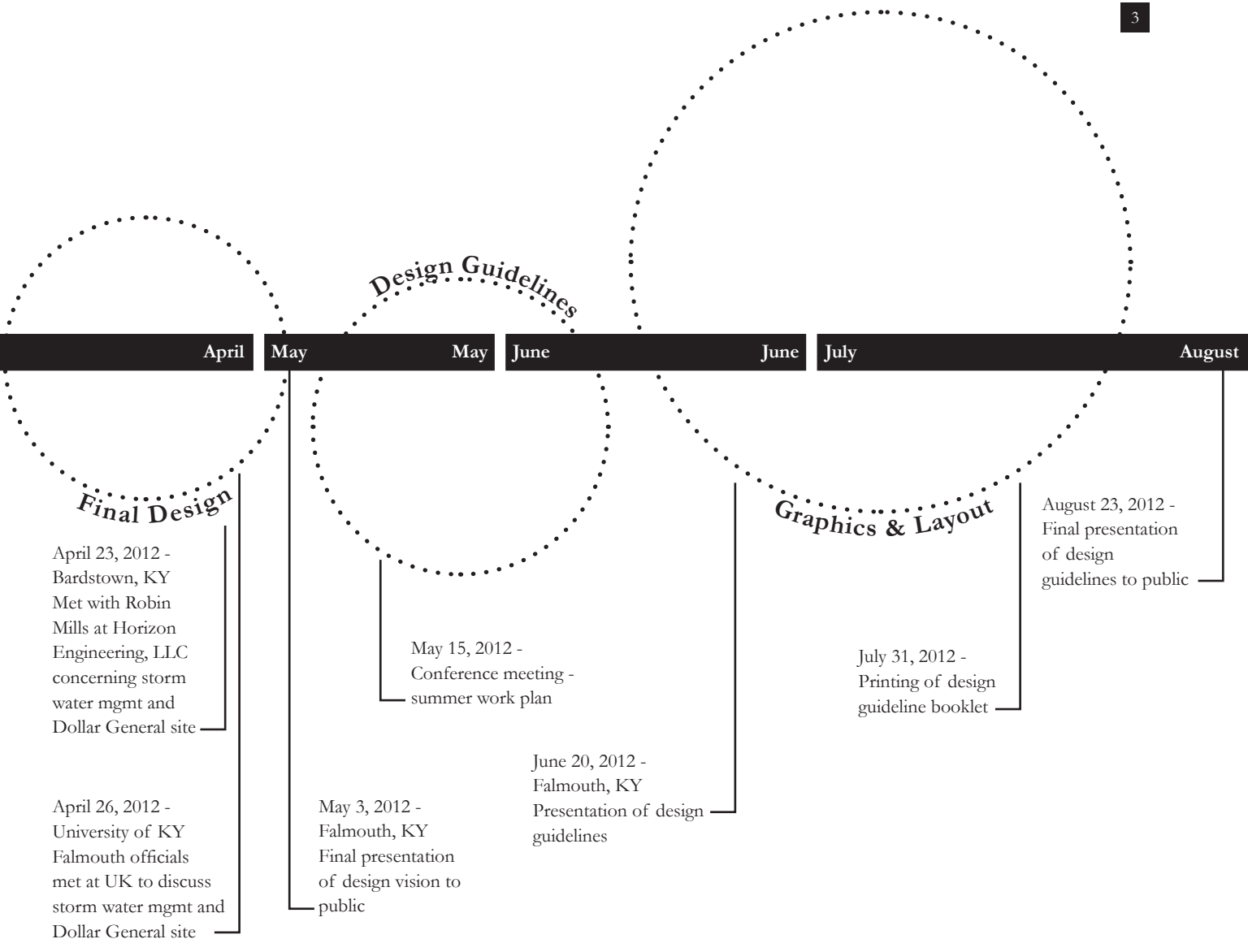
The project began in July 2011 when officials from the City of Falmouth approached project leader Dr. Ryan Hargrove with the idea of developing a series of guidelines for future development. In November of 2011 after extended dialogue with city administrators, in November of 2011 a contract was signed outlining the project scope and deliverables.

This project began in the spring 2012 landscape architecture studio. Students participating in this design studio began this process with an inventory and analysis of topographical character, existing conditions, and man-made influences such as existing land uses, site visits, and ended with final design proposals giving Falmouth a vision of inspiration for the future development of their city. In the initial portion of the project, students were able to hosted meetings with city officials and community members. This participatory approach allowed students to recognize areas of potential improvement and places for immediate opportunity as well as constraints that may have prevented positive development for the community. In May 2012, the students and Dr. Hargrove gave a final presentation representing all the work completed throughout the semester that would serve as a foundation for the next step of the project.

Building upon the visionary portion of the project, two students were hired to work under the direction of Dr. Hargrove to develop a set of design guidelines for Falmouth. This book represents their efforts and contains a series of guidelines to help shape future development. These guidelines are organized as commercial, single family residential, multi family residential, and industrial development. This book may be read as a comprehensive whole or referenced for specific land use development. Each section shares common formatting with prescriptive written guidelines supplemented with illustrative drawings for better understanding and inspiration.

Significant Events




Design Guidelines
April
May
May
June
June
July
August
Final Design
Graphics & Layout
April 23, 2012 - Bardstown, KY Met with Robin Mills at Horizon Engineering, LLC concerning storm water mgmt and Dollar General site
April 26, 2012 - University of KY Falmouth officials met at UK to discuss storm water mgmt and Dollar General site
May 3, 2012 - Falmouth, KY Final presentation of design vision to public
May 15, 2012 - Conference meeting - summer work plan
June 20, 2012 - Falmouth, KY Presentation of design guidelines
July 31, 2012 - Printing of design guideline booklet
August 23, 2012 - Final presentation of design guidelines to public

COMMERCIAL

Site Design.....6
A commercial zone's design excellence directly influences its aesthetic quality and functionality. Buildings working in unison create a complete and seamless composition wherein the visitor's experience is welcoming, attractive and intuitive. Such an environment benefits visitors, businesses and the city alike.

Building Massing and Character.....8
Large buildings should employ various techniques to lessen their perceived mass and become more pedestrian friendly. Long, uninterrupted, non-descript facades can be articulated to provide visual relief and interest. Upper stories can be set back to decrease perceived height. Incorporating ground floor human-scale design elements, such as windows, cornice lines, signage and awnings helps as well.

Streetscape and Landscape.....10
Successful streetscapes incorporate elements that maximize both pedestrian and vehicular experiences. Amenities such as lighting, appropriate plant materials, and benches increase visual interest and functionality. This in turn encourages visitors to linger and can attract those passing by.

Vehicle Circulation and Parking.....14
Vehicle circulation must be safe and intuitive, while not dominating the pedestrian environment. Excessive numbers of driveways in the commercial zone (especially along US 27) is unattractive, not pedestrian friendly, and confusing for drivers. Parking is visually intrusive and should not dominate the streetscape. Parking lots positioned to the side and rear of buildings allow for a more inviting and cohesive streetscape.

Pedestrian and Bicycle Circulation.....16
Pedestrians and cyclists should feel safe navigating the commercial zone. Providing facilities for them will promote walking and cycling. Resulting reduced demand for vehicular accommodation can improve a street's aesthetics and liveliness.

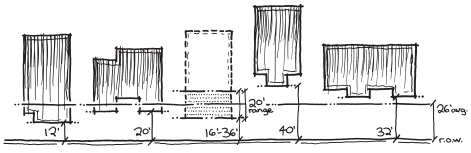
Details: Materials, Lighting, and Signage.....20
Appropriate and quality materials convey a sense of identity and superior value to an area. This fosters pride within the residents and makes a positive impression on visitors. Appropriate and balanced lighting creates a safe and pleasant environment at night without polluting the surrounding area with light. Controlling the amount of signage is important to keep the streetscape from being cluttered and overwhelmed with information—less signage can actually result in more information processed.

Open Space.....24
Open spaces act as gathering points for socializing and recreating. In the commercial zone, they can become outdoor restaurant dining or attractive retail building entrances.

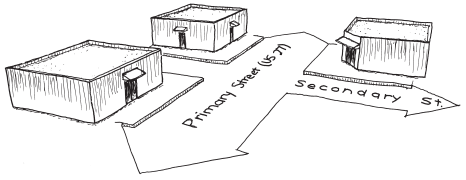
Water Management.....26
New development in the commercial zone should not add to the existing storm water issues, or create new issues. Developments should work to reduce the amount of runoff that leaves their site. The remainder should be piped directly into the river instead of through existing drainage ways that tend to flood (i.e. behind the Judicial Center).

this building takes advantage of its corner location and creates a lively and inviting outdoor dining atmosphere

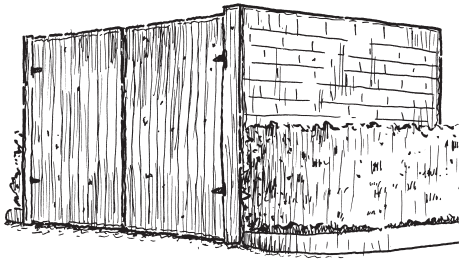
Site Design



a. i. *commercial setbacks; new building shown in dashed line; range shown in dotted texture*



a. iii. *three options for corner building entrances*



d. ii. *dumpster screened with fencing and landscaping*

a. Site buildings to be compatible with surroundings
- i. Site new buildings within 10 percent of the average setback of the adjacent properties
- ii. Orient the primary building entrance towards the street
- iii. Corner buildings shall:
  1. Orient the primary entrance on the larger street or
  2. Provide an entrance on both streets or
  3. Orient the primary entrance on the corner

b. Site buildings and other structures to respect adjacent developments
- i. Do not impede primary views into or from adjacent developments
- ii. Do not impede primary pedestrian access into adjacent developments

c. Define the street wall
- i. Where appropriate, site buildings on the edge of the street right-of-way
- ii. Do not place surface parking on street corners or other prominent viewpoints
  1. Parking should not be the terminus of a visual corridor, instead should be behind the building with access off of a side road

d. Site building equipment and service areas out of public view from the street
- i. Site utilities, dumpsters, and mechanical equipment at the building rear
- ii. Screen dumpster from public view with fencing and/or landscaping
  1. Fencing on at least three sides
     a. Of quality materials (brick, stone, painted concrete block, or wood)
     b. Chain link fencing may only be used on the gate side and only with plastic slats
  2. Landscaping (e.g. upright evergreen shrubs) on at least three sides and in a 3' or greater width bed

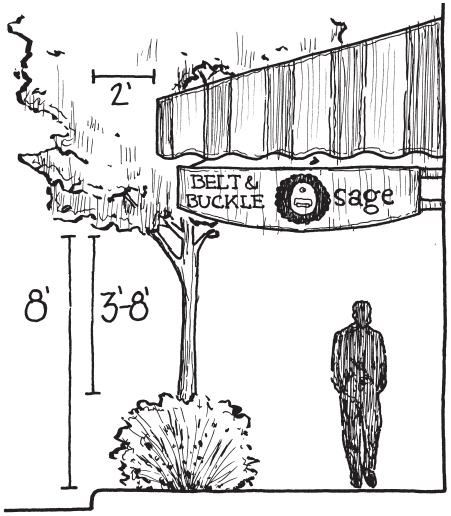
e. Separate loading areas from parking and pedestrian walkways and out of public view from the street
- i. Minimize delivery truck conflicts with pedestrian or automobile
- ii. Site at the building rear or screen from view with landscaping

f. Limit and strategically locate street connections onto arterial roadways (i.e. US 27)
- i. Use shared access driveways, secondary roadways, or internal circulation wherever possible
- ii. Align proposed connections with existing or proposed connections across the roadway

Building Massing and Character

c. *facade articulation and building undulation*

e. *clearly articulated entrance*



h. *protrusions that meet guideline standards; landscaping that meets 3:8 rule according to guideline c. ii. in section streetscape and landscape*

a. First story shall be a minimum of 11 feet in height and maximum of 25 feet
    i. Anything taller must be broken into two or more stories

b. First story front façade shall consist of at least 30 percent non-reflective glass
    i. For corner buildings, required for both façade frontages

c. Any building over 120 feet in length must employ at least one of the following techniques to diminish its perceived bulk:
    i. Façade articulation every 30 feet including:
        1. Varying the façade material or
        2. Designing with columns or posts or
        3. Installing large (at least 4 feet tall) display windows
    ii. Undulate building depth by at least 10 feet every 30 feet

d. Bottom story should appear more massive than the upper stories
    i. Should be of a higher quality material or a heavier (in appearance) material or
    ii. Should have more complex architectural detailing

e. Building entrance shall be clearly articulated (i.e. brick, stone)
    i. Recess entrance or employ awnings, canopies, or other similar treatments

f. Reflective glass (such as mirror glass) shall not be used on the bottom story

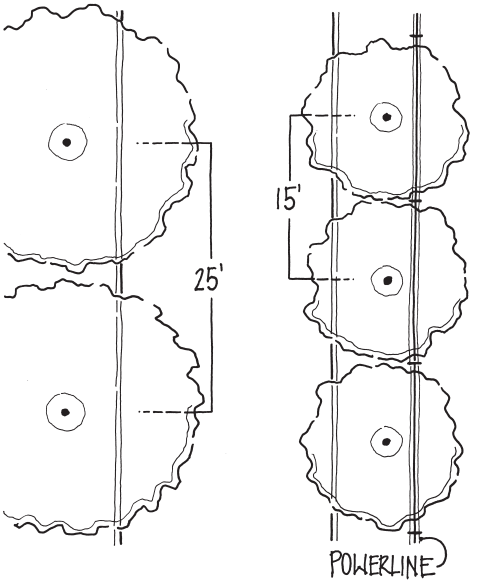
g. Match building story/floor heights at the ends of blocks on adjacent corners

h. Any building protrusions over a sidewalk must have a minimum of 8 feet of clearance
    i. And shall be a minimum of 2 feet horizontal distance from the curb

the recessed area between these buildings creates an opportunity for a unique outdoor space

an attractive and lively streetscape that features many pedestrian amenities, including outdoor dining, street trees, pedestrian scale lighting, and welcoming facades

Streetscape and Landscape



b. ii., iii. *proper street tree spacing*

a. The commercial streetscape according to the three usage zones is described as follows:

i. The frontage zone is located near the building and is maintained by the business owner. It shall include some or all of the following:

1. Low height landscaping
2. News racks, magazine racks, etc.
3. Outdoor seating and dinning
4. Signage and pedestrian lighting
5. Bike racks

ii. The pedestrian zone is dedicated to walking and is therefore clear of obstructions. It is located between the frontage zone and the furnishing zone.

1. A clear walking area must be a minimum of 5 feet wide
2. Must be of a smooth even paving (concrete or well-maintained brick)
    a. No imperfections greater than ½ inch in elevation

iii. The furnishing zone is between the pedestrian zone and the street and may be partially (or wholly) maintained by the city. It shall include some or all of the following:

1. Utility poles and street and parking signage
2. Light poles
3. Street trees
4. Waste containers
5. Outdoor seating and benches
6. Bike racks

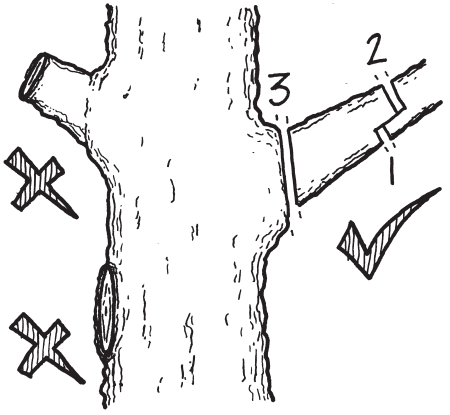
b. Street trees shall be hardy, low maintenance species and appropriately spaced

i. Species shall be selected from the "Urban Tree List" provided within this document (pp. 88-90)

ii. They shall be spaced 25 feet on center wherever possible or appropriate

iii. Species to be planted under utility lines should have a mature height that is lower than the lines

1. These shall be placed 15 feet on center



c. i. *improper pruning technique (left); proper technique (right)*

c. Mature street trees extending into the pedestrian zone shall be limbed up to a height of 8' from the ground

i. Limbs shall be cut cleanly at the branch "collar" in the spring

ii. All landscape shall utilize the 3:8 rule, where no vegetation is allowed between three and eight feet from ground level

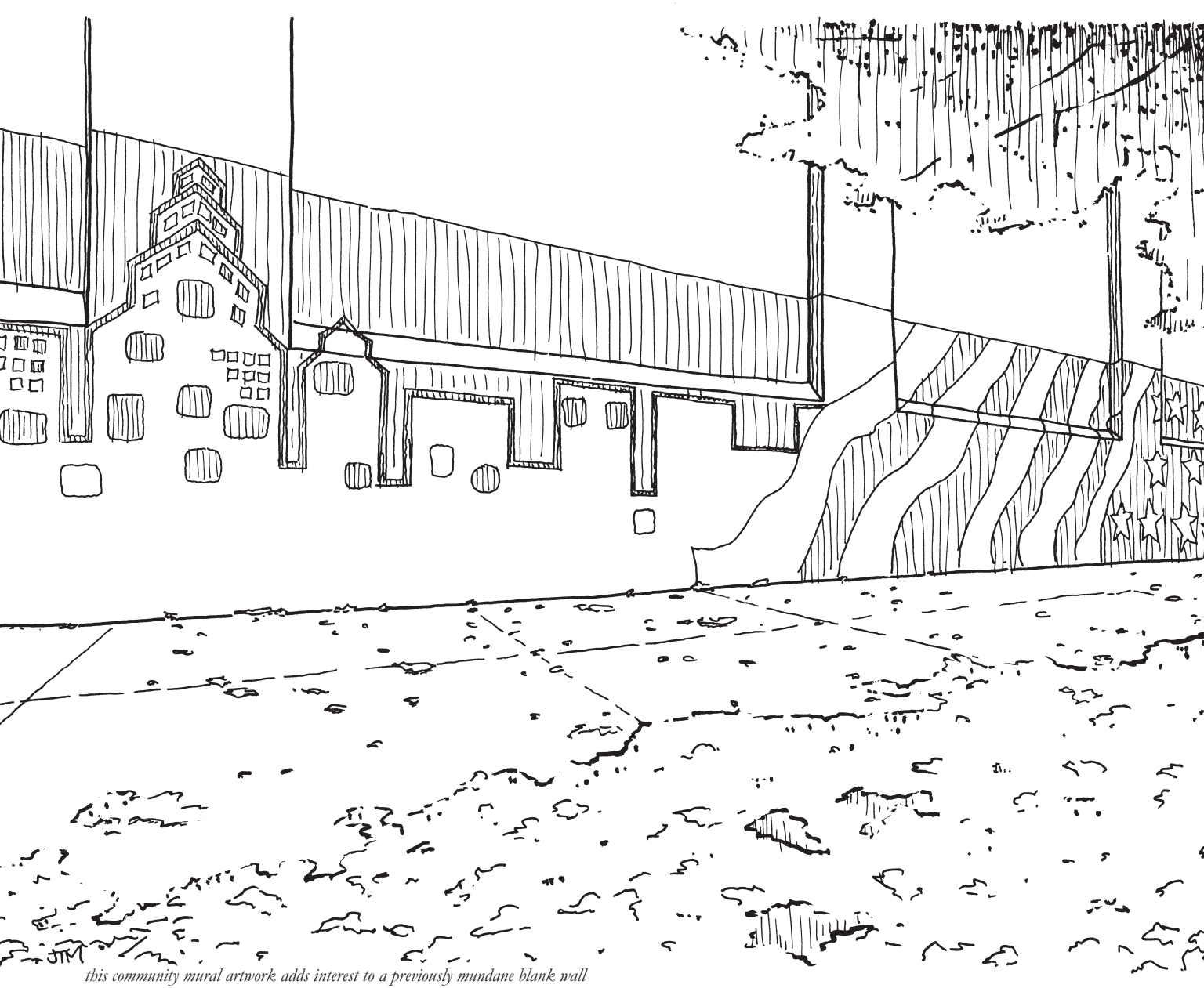
d. Climbing vines or mural art are encouraged for blank walls

e. Developments that are set back from the right-of-way shall be further landscaped

f. Parking lots shall include trees that are hardy, low maintenance species and provide adequate shade

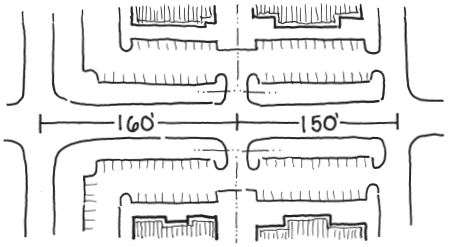
i. Species shall be selected from the "Urban Tree List" provided within this document (pp. 88-90)

ii. One tree per 16 parking spaces shall be provided within designated parking lot landscape zone

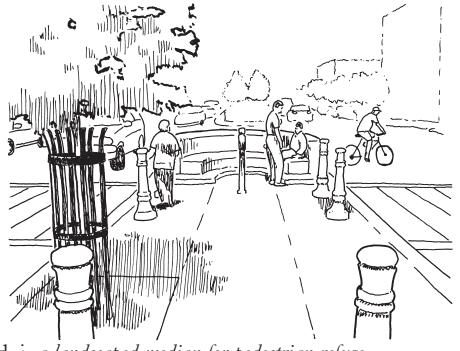


this community mural artwork adds interest to a previously mundane blank wall

Vehicle Circulation and Parking



a. *adequate driveway spacing*



d. i. *a landscaped median for pedestrian refuge*

a. New driveways within 150 feet of existing driveways are prohibited
    i. Properties with less than 150 feet of street frontage should negotiate shared access with adjacent properties

b. A maximum of one total ingress/egress drive is allowed per building. A second entrance may be granted if new access points are located 150 feet from all current entrances and intersections
    i. Two will be allowed for buildings of three or more businesses

c. Parking lots shall not have vehicles back out onto any public road
    i. Vehicles should face the street with a clear view of oncoming traffic both ways

d. Curb cuts shall be a maximum of 30 feet in width
    i. Exceptions can be made for drives that provide a midway pedestrian refuge point (i.e. a landscaped median)

e. Parking shall not be a prominent feature along US 27
    i. Parking lots shall not be located at the corners of intersecting public roads
    ii. Parking should be located behind or alongside buildings
    iii. Break up large lots (>125 spaces) into smaller lots
    iv. Screen with at least 10 feet of landscaping between the parking lot and the right-of-way
        1. Use tree species from the "Urban Tree List" (pp. 88-90)
        2. All parking landscape shall utilize the 3:8 rule, where no vegetation is allowed between three and eight feet from ground level
    v. Negotiate shared parking with adjacent properties
    vi. Street parking is encouraged, but on private roads and side streets only (not on US 27)

f. Parking shall not extend into the public right-of-way

g. Parking lot designs shall:

i. Avoid dead-end aisles

ii. Avoid entrances that lead directly into head-in parking spaces

iii. Provide safe pedestrian circulation including ADA accessible spaces and access to the primary entrance via a sidewalk

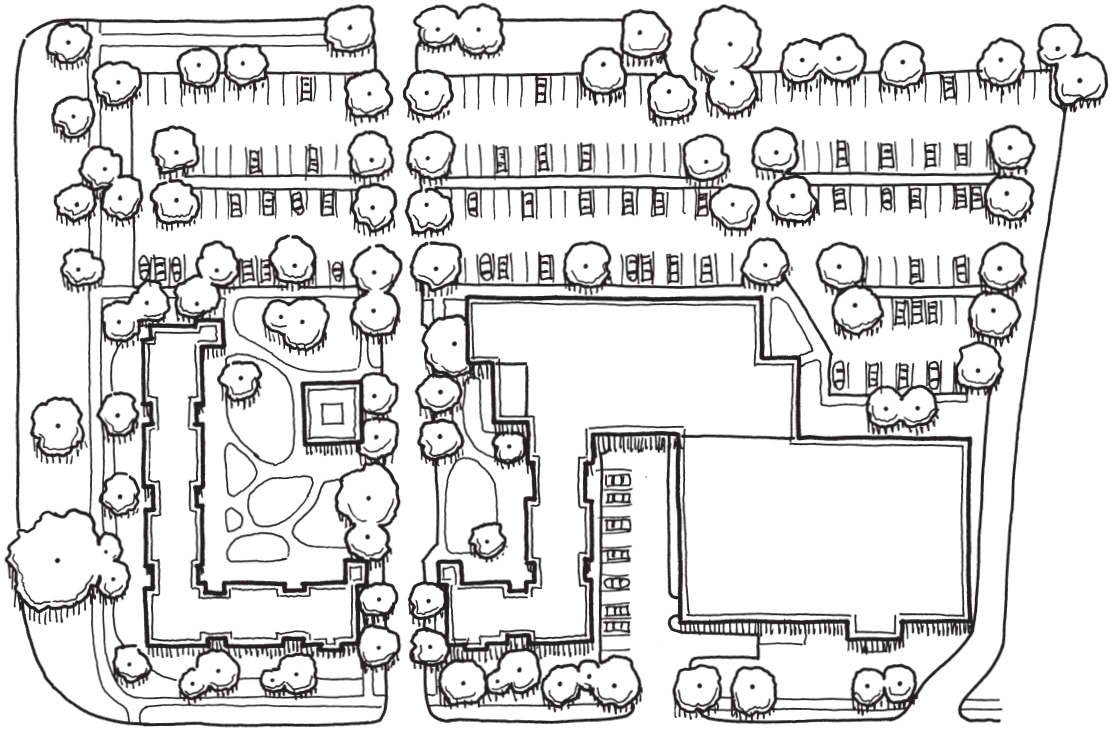
iv. Align parking aisles parallel to pedestrian access to the primary building entrance

h. Parking lot landscape medians should be able to sustain the plant species mature growth. Medians shall be:

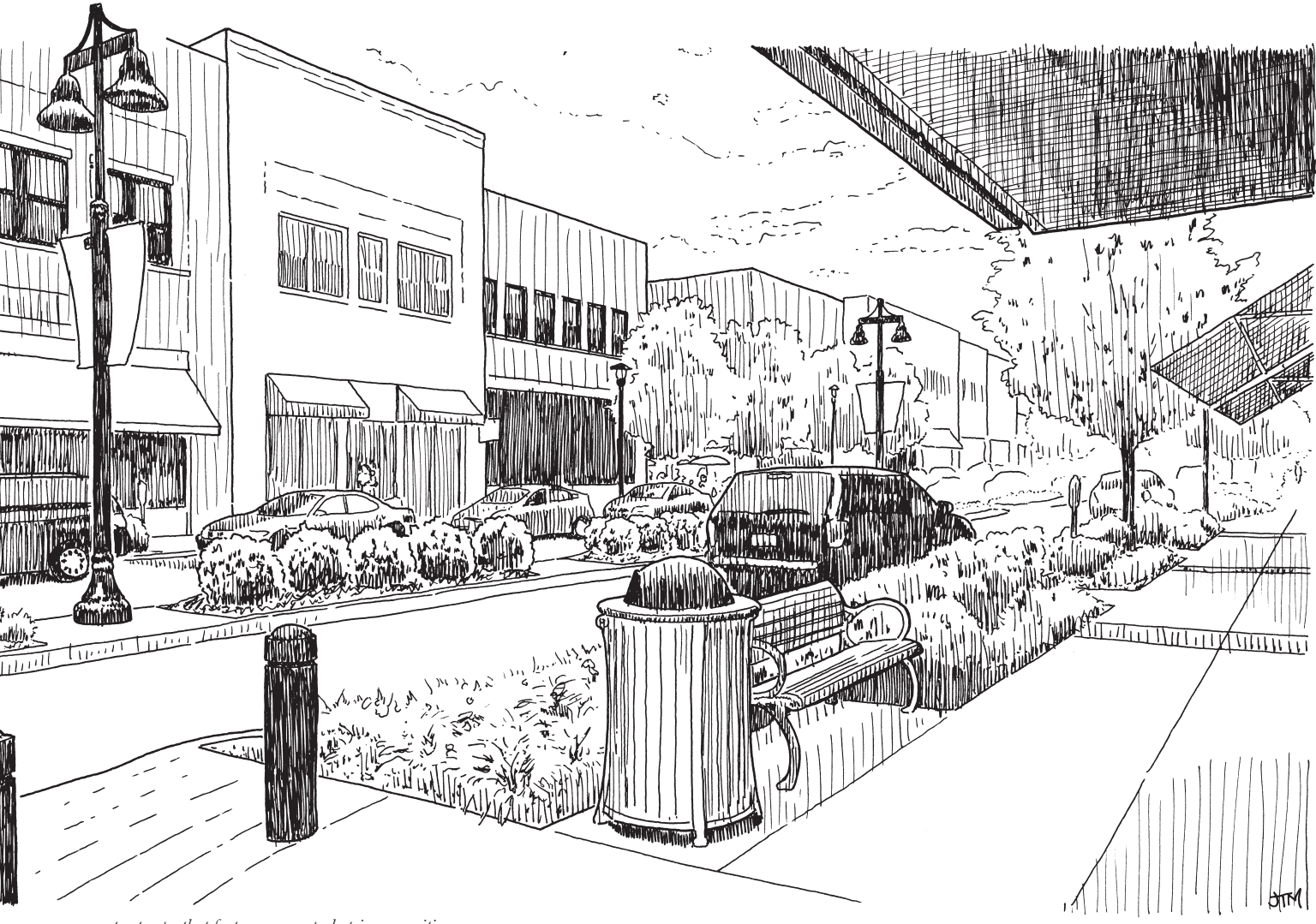
i. At least four feet wide for shrubs and

ii. At least six feet wide for trees

1. No tree should be planted in less than 100 square feet of soil

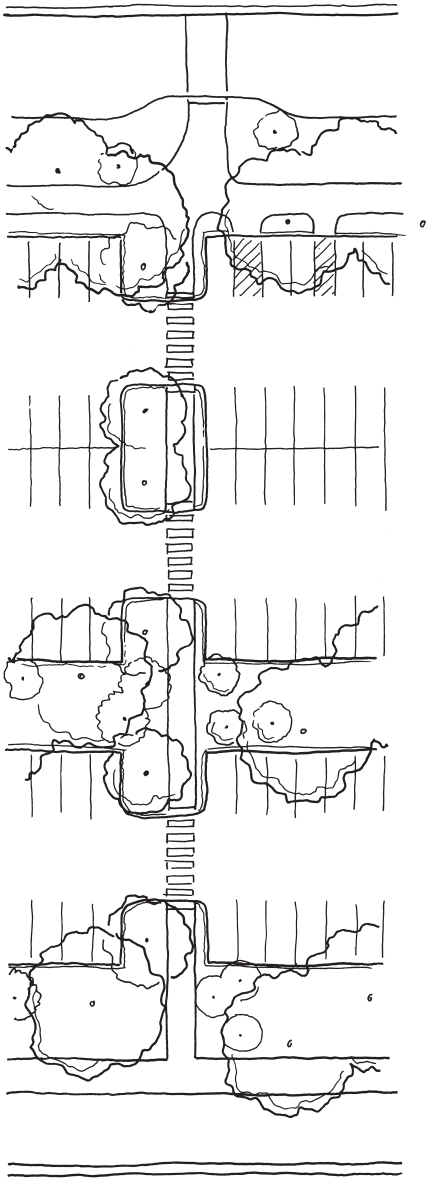


e. v. *a commercial development with shared parking*



a streetscape that features many pedestrian amenities

Pedestrian and Bicycle Circulation



a, c. i. *safe and direct pedestrian access*

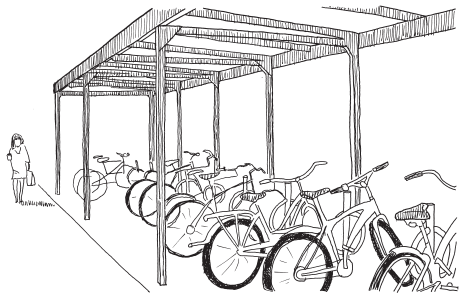
a. All buildings must have clear pedestrian access to the primary building entrance
- i. From right-of-way sidewalk and
- ii. From the parking lot

b. Pathways must be:
- i. At least 5 feet wide
- ii. Of concrete, or well-maintained pavers (e.g. brick or stone)
- iii. Smooth and even
  - 1. No imperfections greater than ½ inch in elevation
- iv. Pathways must meet all ADA requirements.

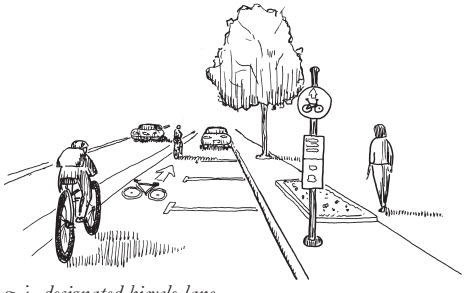
c. Crosswalks are required when a walkway crosses an area accessible to vehicles
- i. Crosswalks across minor intersections shall include one or more of the following:
  - 1. Clear signage and/or crossing aids
  - 2. Painted pavement and/or change pavement material
  - 3. Raised crosswalk
- ii. Crosswalks across major intersections shall include both:
  - 1. Crossing aids
  - 2. Painted pavement or change pavement material

d. Developments shall allow for continuous pedestrian circulation
- i. Within the development and
- ii. Connecting the development to its surroundings

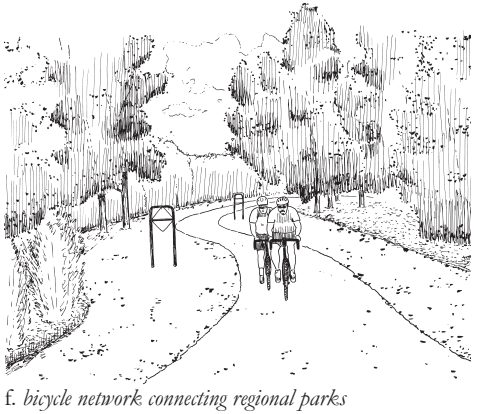
e. Pedestrian amenities are encouraged, but are permitted only in the frontage and furnishing zones (see streetscape and landscape a.i. & a.iii.). They include:
- i. Outdoor seating and dining
- ii. Benches
- iii. Signage
- iv. Waste containers
- v. Pedestrian scale lighting
- vi. News racks, magazine racks, etc
- vii. Bicycle racks



f. *covered bicycle parking*



g. i. *designated bicycle lane*



f. *bicycle network connecting regional parks*

f. Businesses shall accommodate cyclists

i. One bicycle parking space (for example a bicycle fixture loop) per twelve automobile parking spaces shall be provided

ii. The bicycle parking shall connect to a pedestrian walkway

g. Bicycle facilities on roadways should allow for safe travel.

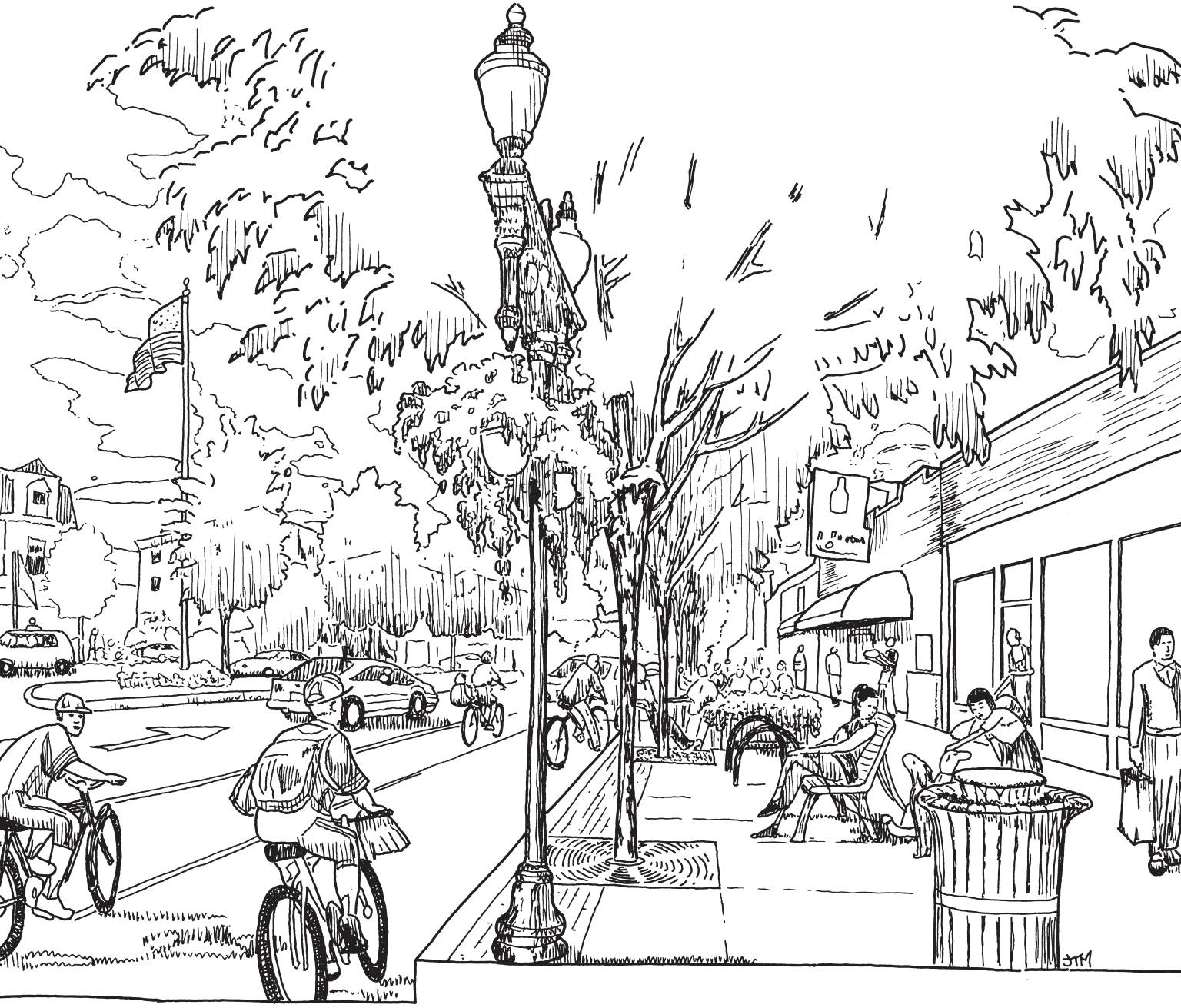
i. Designated bicycle lanes shall:

1. Be at least four feet wide
2. Mark lane boundaries
3. Be marked with standard bicycle lane pavement signage
4. Alert automobiles with upright signage

ii. In areas with undesignated bicycle lanes, undesignated paved shoulders to accommodate shared use shall be as follows:

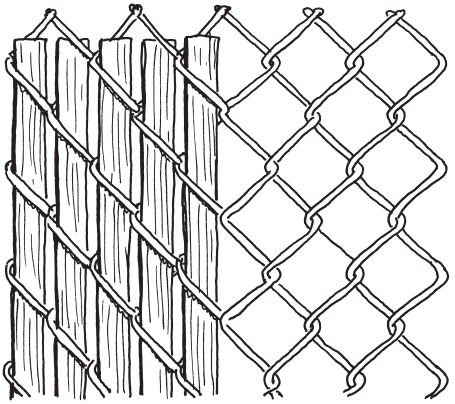
1. At least two feet wide for roads 30 mph and less
2. At least three feet wide for roads 35 mph to 45 mph
3. At least four feet wide for roads 50 mph and greater

h. A bicycle network should be provided to connect with regional parks and attractions (e.g. Kincaid Lake State Park).

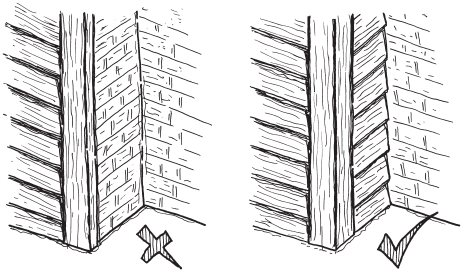


an attractive streetscape that safely accommodates pedestrian and bicycle traffic

Details: Materials, Lighting, and Signage



a. i. 2. *chain link fencing with and without slats*



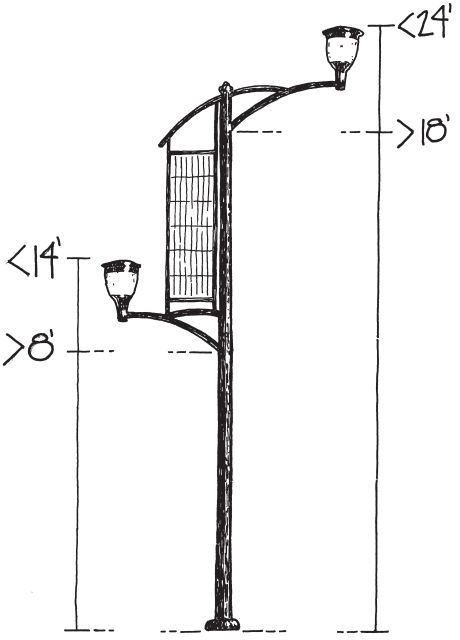
a. iv. *improper and proper material change on building corner*

a. Materials should be of a high quality, appropriate to the surroundings, and consistent within a development
- i. Accessory materials that are not appropriate include:
  - 1. Plywood, particle board, or other lower grade engineered wood product
    - a. (visible from the outdoors)
  - 2. Chain link fencing, with or without slats
    - a. Except for the gate on enclosures (with slats)
  - 3. Asphalt paving for pedestrian use
- ii. Building materials that are not appropriate include:
  - 1. Highly reflective metal
  - 2. Unpainted concrete block
  - 3. Plywood, particle board, or other lower grade engineered wood product
    - a. (visible from the outdoors)
- iii. Paving materials that are appropriate include:
  - 1. Concrete, porous or traditional
  - 2. Brick, stone, or other well-maintained pavers
  - 3. Asphalt, only for vehicular use
- iv. Materials shall not change on the outside corner of a building undulation or on the same plane
  - 1. Material change shall occur on the inside corner of an undulation

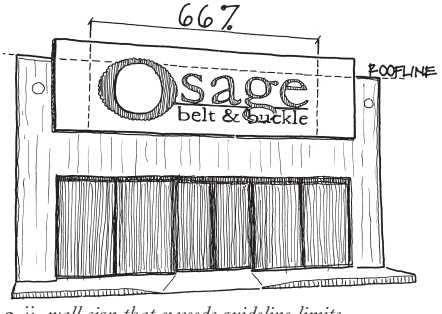
b. Lighting should be evenly balanced, appropriate, and serve a specific function
- i. Pedestrian scale lighting shall:
  - 1. Be no taller than 14 feet in height
  - 2. Provide at least 8 feet of clearance
  - 3. Illuminate to the following levels:
    - a. 1.0 foot-candles for bicycle ways,
    - b. 2.0 foot-candles for pedestrian ways,
    - c. 1.5 foot-candles for plaza areas,
    - d. 5.0 foot-candles for stairways, and
    - e. 5.0 foot-candles for building entrances

balanced lighting in a vibrant commercial setting

the signs on this streetscape create a consistent visual rhythm while retaining their own distinct identities



b. i. 1. & 2., ii. 1. & 2. *lighting dimensions, including clearance height, for pedestrian (left) and vehicle (right)*



c. ii. *wall sign that exceeds guideline limits*

ii. Vehicular scale lighting shall:
- 1. Be no taller than 24 feet in height
- 2. Provide at least 18 feet of clearance
- 3. Illuminate to the following levels:
  - a. 1.0 foot-candles for parking lots
  - b. 1.5 foot-candles for roadways
  - c. 5.0 foot-candles for underpasses

iii. Lighting should provide consistent levels of illumination
- 1. Avoid contrasting pools of light and dark

c. Signs should not clutter, detract from, or otherwise diminish a street's visual quality

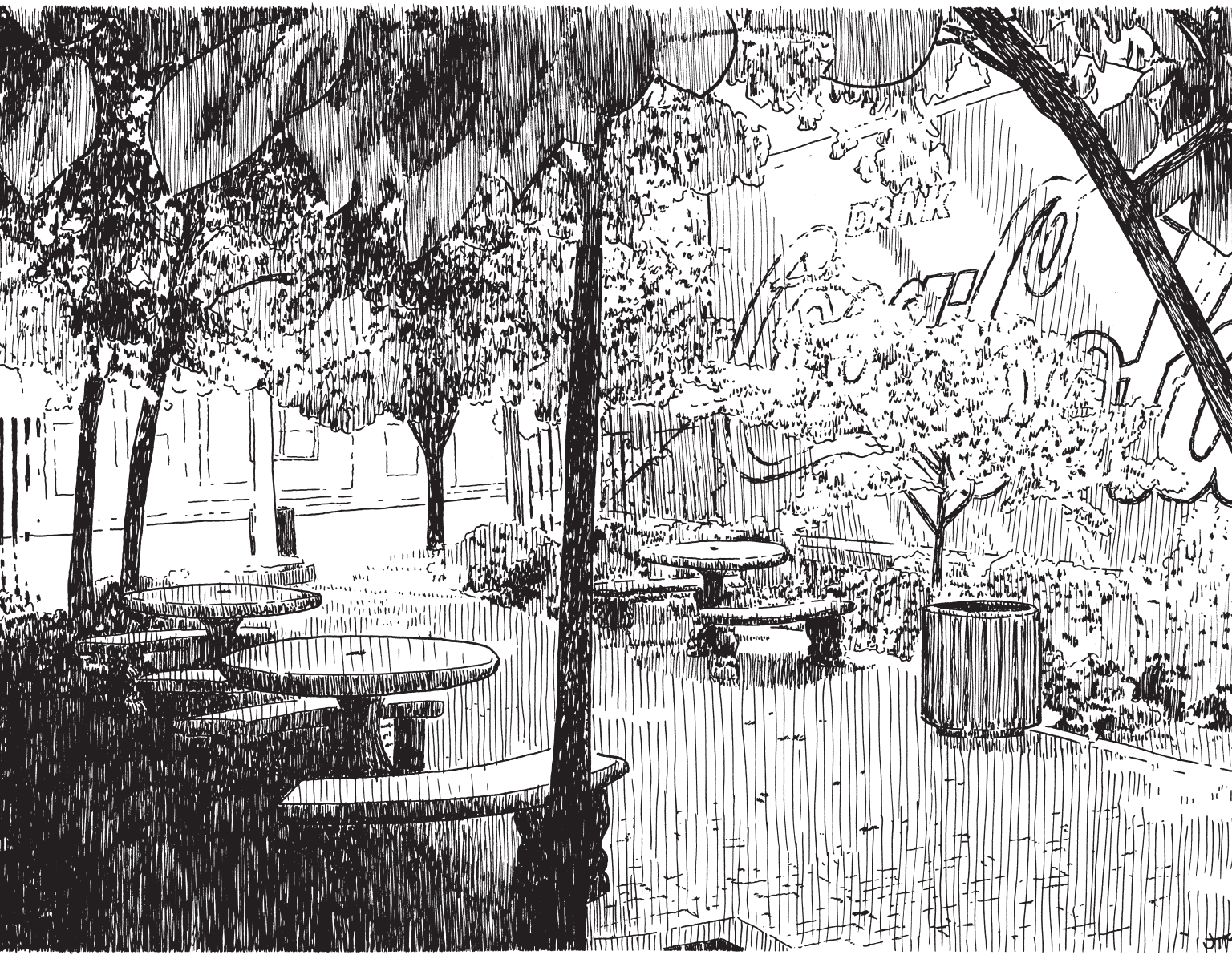
i. Signs shall not:
- 1. Advertise products or vendors
  - a. Only business types and services
- 2. Flash, blink, rotate, or otherwise move
- 3. Be temporary or of cheap material

ii. Wall signs shall not:
- 1. Protrude above the roofline
- 2. Exceed 66 percent of the linear width of the building

iii. Pole signs shall not:
- 1. Exceed 25 feet in height
- 2. Exceed 150 square feet of face area
- 3. Exceed one sign per business

d. Street address numbers shall be displayed at each business entrance

i. And shall be clearly visible from the street



downtown pocket park

Open Space

a. Open spaces can be categorized as such:
    i. Public spaces are owned by a public agency. They are for the use of the general public.
        1. City athletic park
        2. Riverside Cemetery Falmouth
        3. Reconfigured pedestrian bridge
    ii. Semi-public spaces are owned by a private interest. They are for the use of the general public.
        1. Main street pocket park
    iii. Private spaces are owned by a private interest. They are for the use of employees, tenants, or customers only.
        1. Business courtyard
        2. Apartment complex courtyard
        3. Restaurant outdoor dining
    iv. Landscape spaces are owned by either a public agency or a private interest. They can be for the display of plants, and therefore of restricted use, or they can have the ability to move freely throughout, and therefore of active use.
        1. Landscape beds (restricted use)
        2. Open lawn (active use)

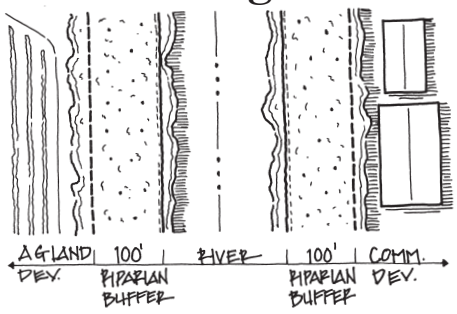
b. Open space shall comprise at least 25 percent of every lot
    i. Exceptions can be made for lots smaller than 2000 square feet.
    ii. Businesses are encouraged to design active open spaces to meet the requirement

c. To qualify, open space must be a surface that percolates water.
    i. Including: permeable/porous paving, lawn/turf, landscape bed, bio-retention, green roof
    ii. Excluding: building footprint, non-permeable paving

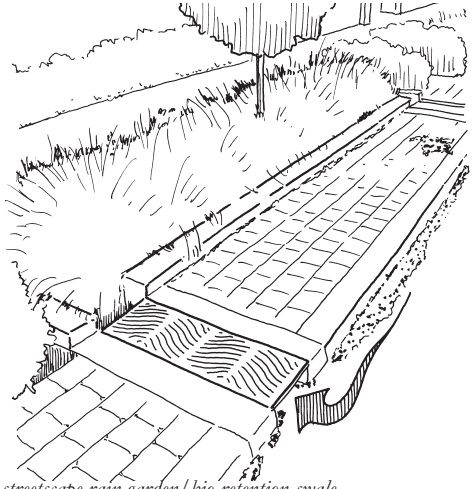
d. Centrally locate and evenly distribute public open spaces
    i. Maximize visibility and pedestrian access to these areas
    ii. Frame open spaces with building facades or landscaping for enclosure
        1. But do not prevent visual surveillance into these areas

e. Open spaces should provide appropriate pedestrian amenities including several of the following:
    i. Signage
    ii. Pedestrian lighting
    iii. Outdoor seating and dinning
    iv. Benches or seat walls
    v. Bike racks
    vi. Waste containers
    vii. Short or low height landscaping
    viii. Shade trees

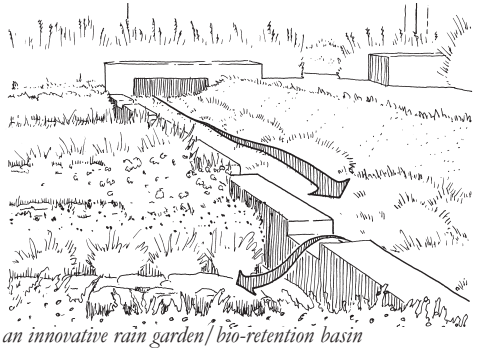
Water Management



a. i. *a 100' riparian buffer separates the river from agriculture and other development*



streetscape rain garden/ bio-retention swale



an innovative rain garden/ bio-retention basin

a. Provide and respect a healthy riparian zone around major waterways and drainage ways
- i. 100 feet on either side of the Licking River shall be designated as a riparian zone
  - 1. The riparian zone shall have at least 80 percent vegetated cover
    - a. Forest cover with underbrush vegetation
  - 2. No more than 10 percent of the riparian zone shall contain development
    - a. Including buildings or other structures, paving over 3 feet wide, or manicured lawn/landscape
- ii. 30 feet on either side of the entire length of the drainage way behind the Judicial Center shall be designated as a riparian zone
  - 1. The riparian zone should have at least 70 percent vegetated cover:
    - a. Long grass or underbrush vegetation
    - b. Over-story vegetation with lawn beneath
    - c. Manicured lawn alone does not qualify
  - 2. No more than 5 percent of the riparian zone should contain development
    - a. Including buildings or other structures, paving over 3 feet wide, or manicured lawn/landscape

b. Developments shall not increase runoff to already over-taxed drainage ways (i.e. behind the Judicial Center)
- i. Use several of the following methods to reduce runoff:
  - 1. Infiltrate runoff through permeable/porous paving
  - 2. Convey runoff into bio-retention basins
  - 3. Convey parking lot runoff into bio-retention islands
  - 4. Slope walkways and driveways into landscape beds
  - 5. Slow runoff in bio-swales
  - 6. Store roof runoff in cisterns
  - 7. Install green roof
  - 8. Pipe runoff directly into the river

c. Detention/retention basins should be consolidated to maximize their effectiveness
- i. Negotiate with adjacent properties for shared basins

d. Polluted water should be naturally filtered before it enters the river
- i. Runoff shall be conveyed through at least 100 linear feet of vegetation or sub-soil
  - 1. Before entering the river or
  - 2. Before entering a pipe directed into the river

e. Natural drainage courses should be preserved to the extent possible
- i. Surface level drainage is encouraged

parking lot bio-retention swale

SINGLE FAMILY RESIDENTIAL

Site Design.....30
A neighborhood should be designed in a cohesive manner but preserve individual freedoms to the home owner. Allowing and encouraging variety while keeping within certain prescribed guidelines works to create an organized yet diverse community. Also, it is important to connect this cohesive community to its surroundings, both physically and visually, to create a cohesive city.

Building Massing and Character.....34
Certain strategies can be employed to create an attractive and relatable front façade. Many houses are designed with an emphasis on the garage, which then tends to dominate the entire house. Setting the garage back, turning it away from the street, and placing windows on the side facing the street, are techniques that can allow the garage to become a more subtle part of the house.

Streetscape and Landscape.....36
An attractive streetscape with abundant trees and other landscaping has benefits beyond the strictly aesthetic. It encourages outdoor leisure, walking, etc, which in turn facilitates community engagement, and it also tends to slow traffic, making the streets safer.

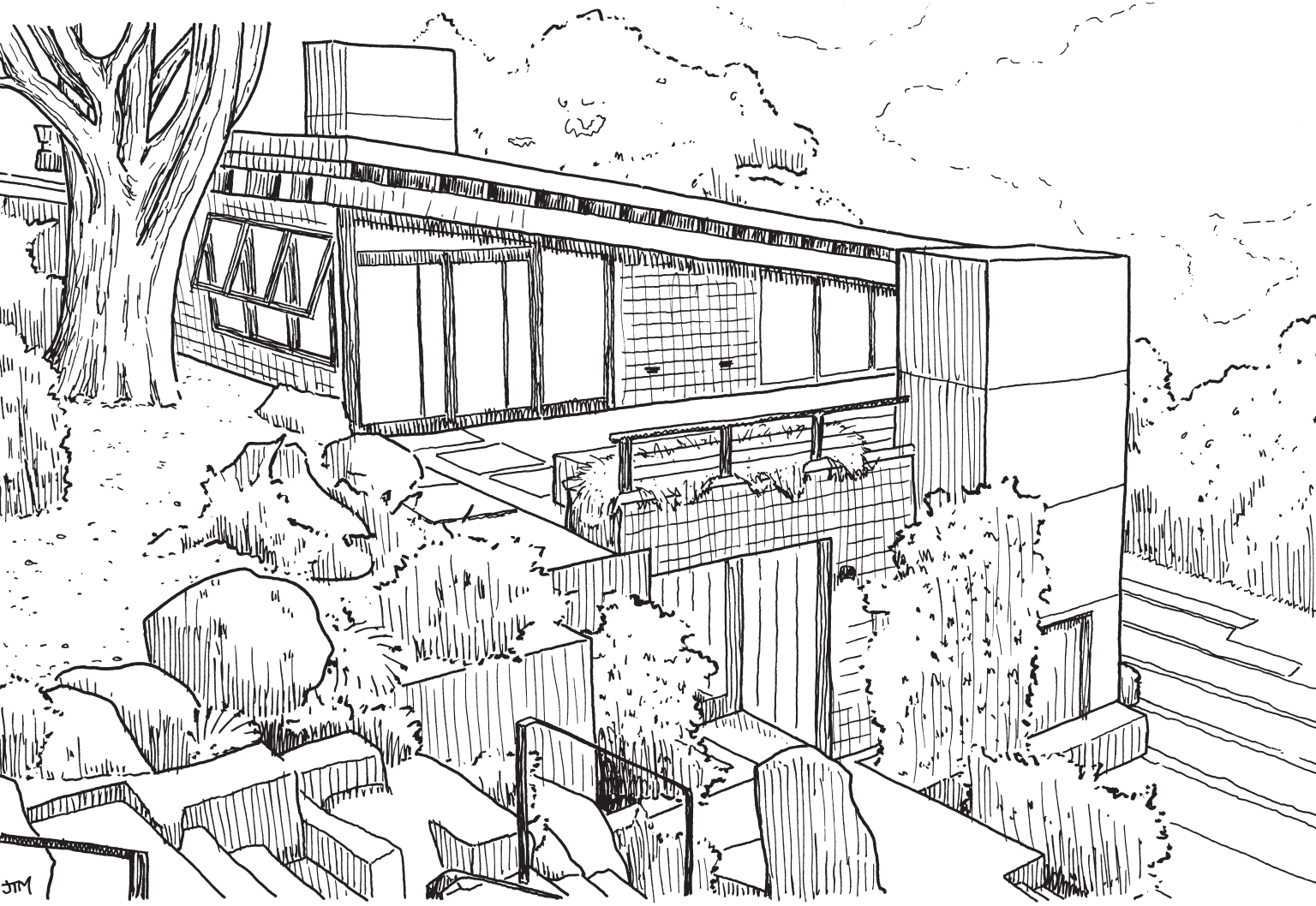
Vehicle Circulation and Parking.....38
A narrow neighborhood street with on street parking slows traffic considerably, making the street much safer for pedestrians. Other techniques, such as meandering streets and installing frequent stop signs, can be used to slow traffic. Speed bumps and tables should be used only as a last resort method.

Pedestrian and Bicycle Circulation.....40
Pedestrians and cyclists should feel safe navigating through neighborhoods. Providing facilities that allow comfortable and enjoyable pedestrian and bicycle circulation will promote walking and cycling. This is not only beneficial to the health of residents, young and old; it also frees up roadways and creates a livelier street.

Details: Materials, Lighting, and Signage.....42
Consistent and quality materials provide a unity and convey a unique neighborhood identity. They can facilitate a pride within the neighborhood, where residents feel encouraged to improve and maintain their own houses, as well as the neighborhood as a whole. Appropriate and balanced lighting provides a safe night environment, while not polluting the area with light.

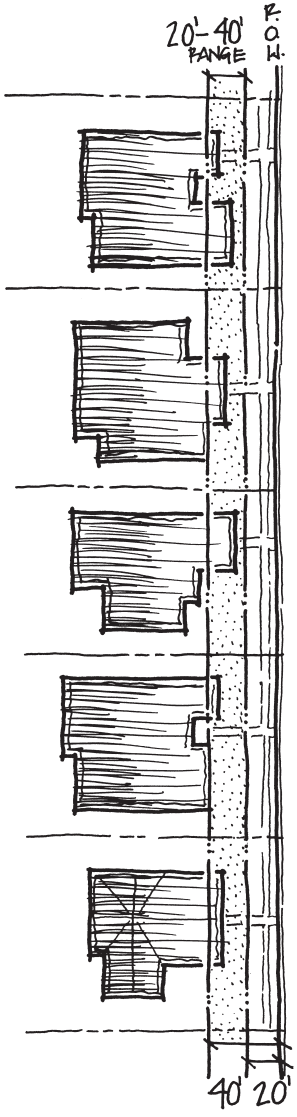
Open Space.....44
Open spaces in neighborhoods, such as open lawn space and parks, act as gathering points for socializing and recreating. They facilitate a healthier community by encouraging physical activity. Yet the benefits are both physical *and* psychological.

Water Management.....46
Residential developments, while not as impervious as dense commercial developments, do contribute to flooding issues resulting from increased water runoff. It is important to employ water management techniques in every area of Falmouth. The individual homeowner can make a considerable difference, through cisterns, rain barrels, and rain gardens.



innovative structure built into the hill side to minimize disturbance and maximize views

Site Design



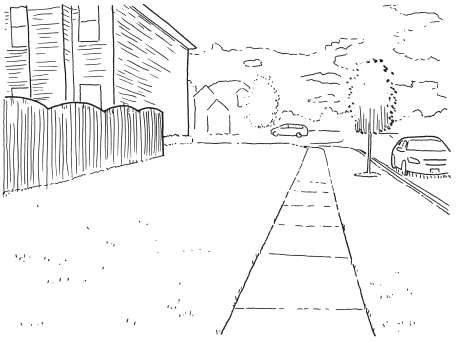
a. i. *setbacks vary while keeping within the prescribed range*

a. Integrate visual diversity into the development
- i. Vary front setbacks while keeping within the range of 20 to 40 feet
- ii. Vary lot sizes within 20 percent of the average lot size
- iii. Vary house size with at least 20 percent of the houses single story and 20 percent two story

b. Limit and strategically locate street connections onto arterial roadways (i.e. US 27)
- i. If appropriate use existing street connections
- ii. Align proposed connections with existing or proposed connections across the roadway

c. Link residential areas with surrounding uses including other residential, schools, parks and open space, commercial, and industrial
- i. Provide vehicular, bicycle, and pedestrian linkages without the need to use major roadways (i.e. US 27)

d. Respect and take advantage of existing topography and natural features
- i. Do not build on slopes greater than 15 percent
  - 1. Unless an innovative structure that greatly minimizes or eliminates hillside disturbance is employed
- ii. Integrate existing topography into the design to the extent feasible
  - 1. Grade changes should transition smoothly
  - 2. If retaining wall should be used, terrace them so that they do not exceed four feet in height
- iii. Preserve prominent and healthy existing trees
- iv. Respect and integrate existing drainage features including swales, streams, and ponds
- v. Maximize views of surrounding landscape



e. *this fence meets the height, setback, and material requirements*

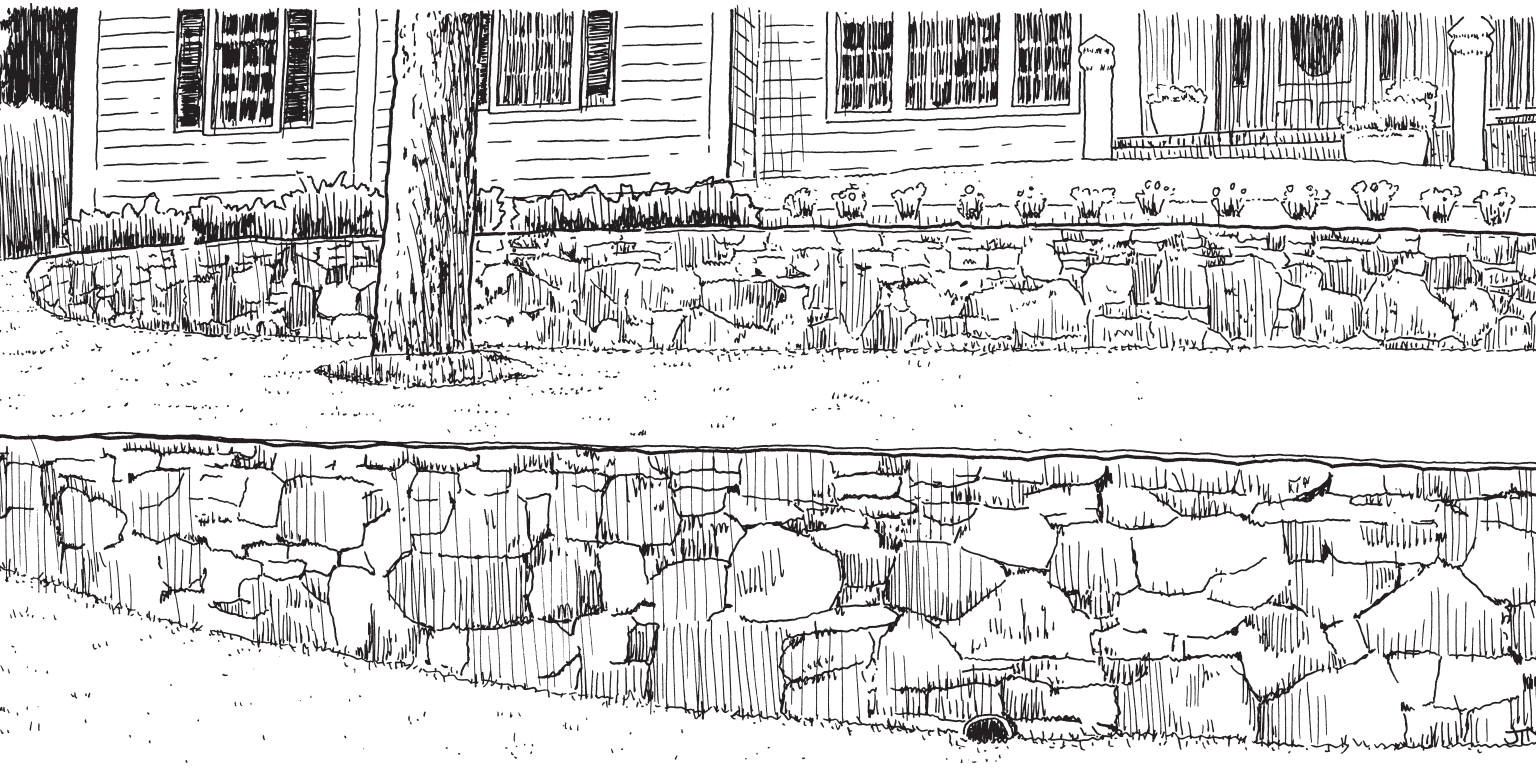
e. Fencing should respect views and circulation and be of quality material
- i. Fencing shall not exceed 7 feet high in rear and side yard
- ii. Fencing in the front yard is prohibited
- iii. Fencing that directly abuts a street or sidewalk is prohibited
  - 1. Must be set back a minimum of 10 feet
- iv. Chain link fencing is prohibited

f. Private driveways should not be visually intrusive from the street
- i. Paving with asphalt is discouraged (use concrete, brick, or pavers)
- ii. Shall be a maximum of 10 feet wide
  - 1. For the first 30 percent from the right-of-way
- iii. One lane circular drives are allowed only where the property is 60 feet or greater in width

g. Lots shall have no more than two separate dwelling units under single ownership
- i. One primary building and one accessory building

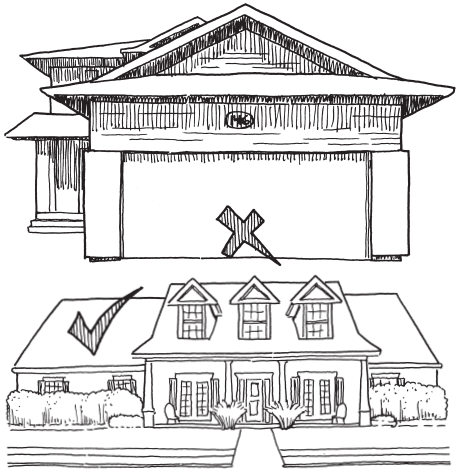
h. Garage setback is a minimum of 20 feet
- i. Front porch setback can be 50 percent closer than building setback

i. Waste containers must be kept in rear of building out of public sight from the roadway

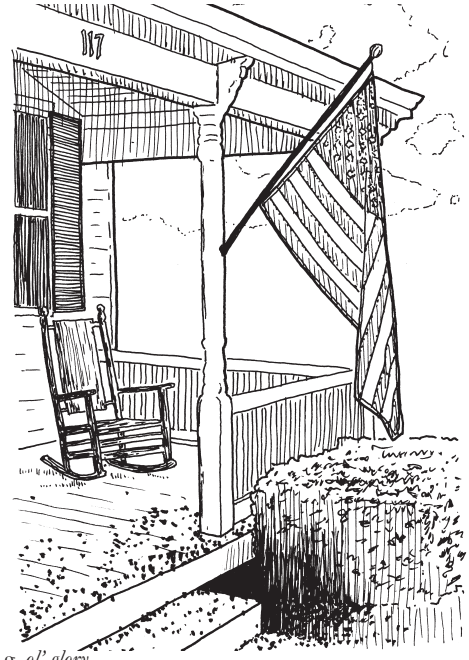


d. *this yard utilizes short retaining walls to accommodate the grade change*

Building Massing and Character



b. *the first garage dominates the front facade while the second is more appropriate*



g. *ol' glory*

a. No new house may be greater than 30 feet in height (two story residence including roof structure)

b. The garage should not dominate the house
- i. The garage shall occupy no more than 50 percent of the façade facing the street
- ii. If the side of the garage faces the street it should incorporate at least one window on the street front façade

c. Two story houses, directly adjacent to single story houses, should reduce their perceived size
- i. The second story shall step-back, especially on the front and sides
- ii. The roof line should be broken up into components

d. Windows should be placed to minimize direct sight lines into adjacent houses' interiors

e. All new development should include porches
- i. Porch shall be at least 50 square feet with no dimension under 6 feet

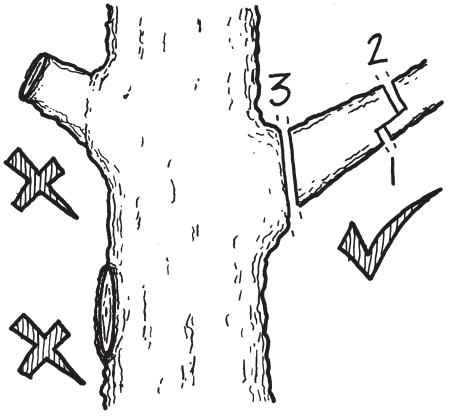
f. Accessory structures should complement the house and not be visually disruptive
- i. They should match house in color, material, or general character
- ii. If appropriate, they should be located in the building rear and out of public site from the roadway

g. Every house is encouraged to proudly display the flag of the United States of America
- i. Shall be on a flag post, attached to the front of the house
- ii. No larger than 4' x 6'

reference to guidelines a, b, c, and e

an attractive streetscape that is safe for pedestrians

Streetscape and Landscape



b. i. *improper pruning technique (left); proper technique (right)*

a. Street trees should be hardy, low maintenance species and appropriately spaced
    i. Species shall be selected from the "Urban Tree List" list provided within this document (pp. 88-90)
    ii. One street tree per associated residential lot shall be provided
    iii. Species to be planted under utility lines should have a mature height that is lower than the lines
        1. In this case, 1.5 street trees per associated residential lot shall be provided

b. Mature street trees extending into the sidewalk shall be limbed up to a height of 8' from the ground
    i. Limbs shall be cut cleanly at the branch "collar" in the spring

c. Integrate prominent and healthy existing trees into the landscape to the extent possible

d. Landscaping must be provided to cover all street facing exposed foundations

Vehicle Circulation and Parking

c. *a shared driveway with parking in the rear*

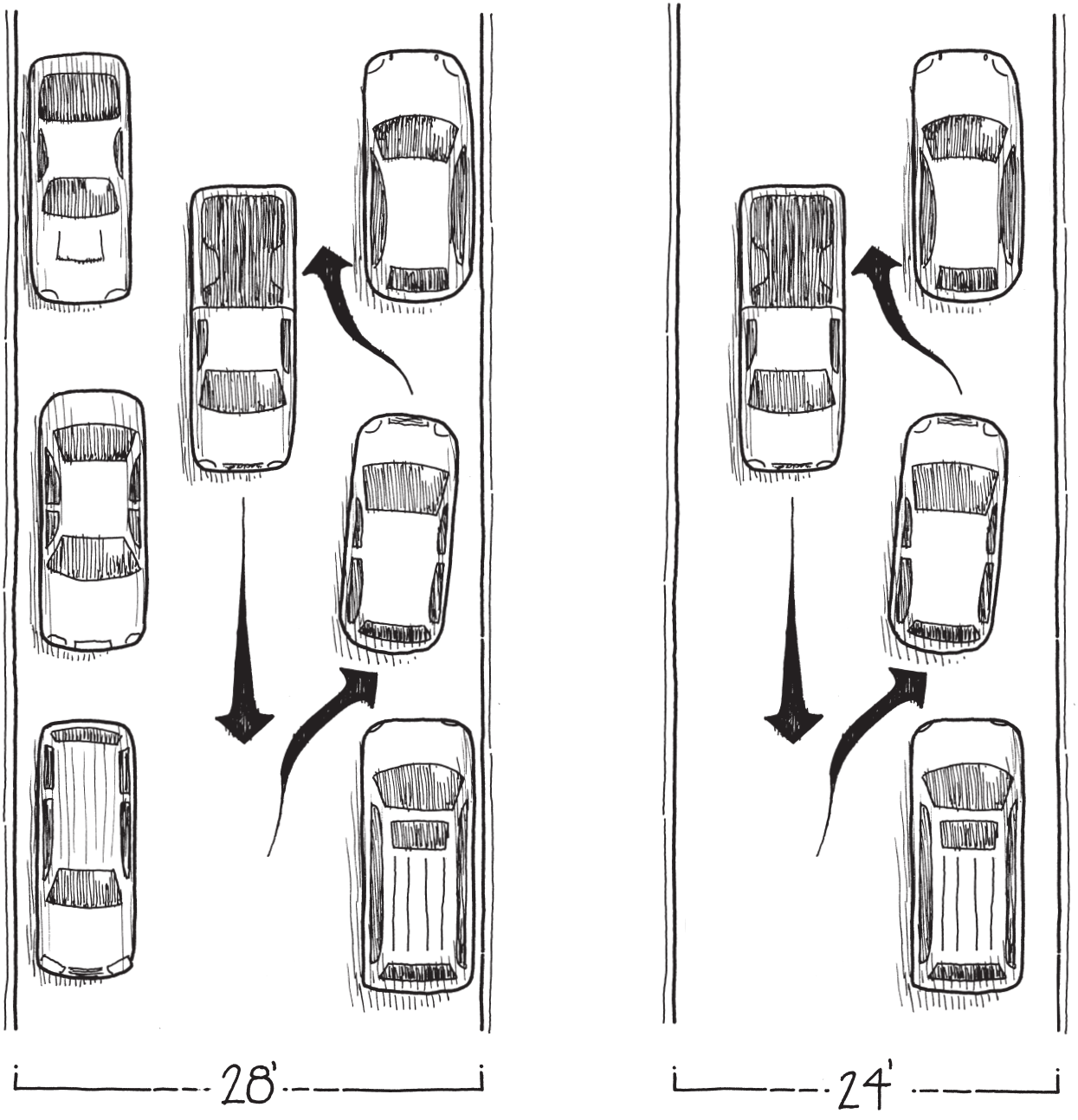
a. Narrow streets with street parking that require passing vehicles to "queue" are encouraged
    i. 28 feet wide street with parking on both sides or
    ii. 24 feet wide street with parking on one side

b. Speed bumps are discouraged and should be used as a last resort method of slowing traffic. Rather do two or all of the following:
    i. Design meandering streets
    ii. Design narrow streets as described above (a.)
    iii. Install frequent stop signs

c. Shared driveways are encouraged
    i. And shall be a maximum of 16 feet wide

d. Vehicles shall not be required to back onto roadways of 35 mph or greater

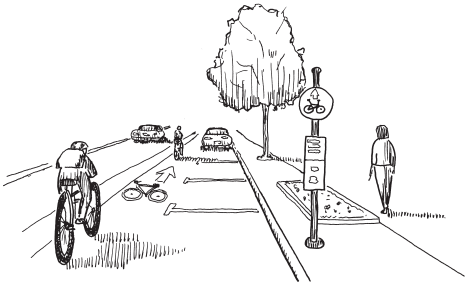
e. On-street parking within 30 feet of intersections is prohibited



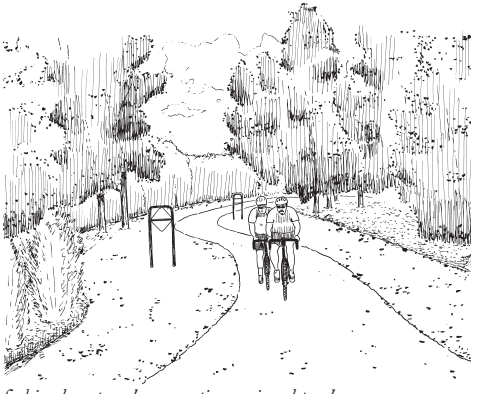
a. *how narrow streets with on street parking would function to slow through traffic to a safer speed*

a safe neighborhood crosswalk

Pedestrian and Bicycle Circulation



e. i. *designated bicycle lane*



f. *bicycle network connecting regional parks*

a. All homes must have clear pedestrian access to the primary building entrance from the sidewalk

b. Pathways must be:
- i. At least 4 feet wide
- ii. Of concrete, or well-maintained pavers (e.g. brick or stone)
- iii. Smooth and even
  1. No imperfections greater than ½ inch in elevation

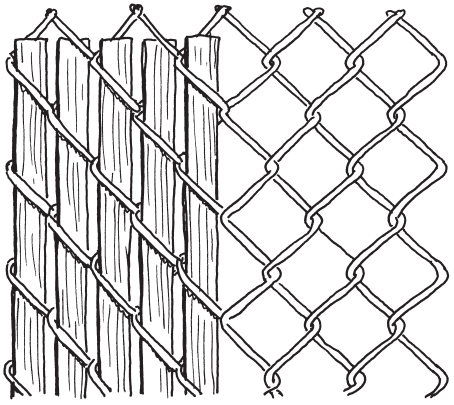
c. Crosswalks are required when a walkway crosses an area accessible to vehicles
- i. Crosswalks across minor intersections (including driveways) shall include one or more of the following:
  1. Clear signage and/or crossing aids
  2. Painted pavement and/or change pavement material
  3. Raised crosswalk (i.e. driveway comes up to grade with the sidewalk)
- ii. Crosswalks across major intersections shall include both:
  1. Crossing aids
  2. Painted pavement or change pavement material

d. Neighborhood developments shall allow for continuous pedestrian circulation
- i. Within the development and
- ii. Connecting the development to its surroundings

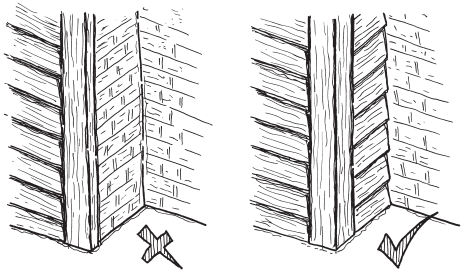
e. Bicycle facilities on roadways should allow for safe travel.
- i. Designated bicycle lanes shall:
  1. Be at least four feet wide
  2. Mark lane boundaries
  3. Be marked with standard bicycle lane pavement signage
  4. Alert automobiles with upright signage
- ii. In areas with undesignated bicycle lanes, undesignated paved shoulders to accommodate shared use shall be as follows:
  1. At least two feet wide for roads 30 mph and less
  2. At least three feet wide for roads 35 mph to 45 mph
  3. At least four feet wide for roads 50 mph and greater

f. A bicycle network should be provided to connect with regional parks and attractions (e.g. Kincaid Lake State Park)

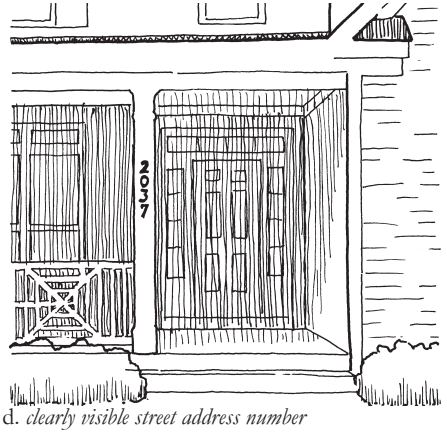
Details: Materials, Lighting, and Signage



a. i. 2. *chain link fencing with and without slats*



a. iii. *improper and proper material change on building corner*



d. *clearly visible street address number*

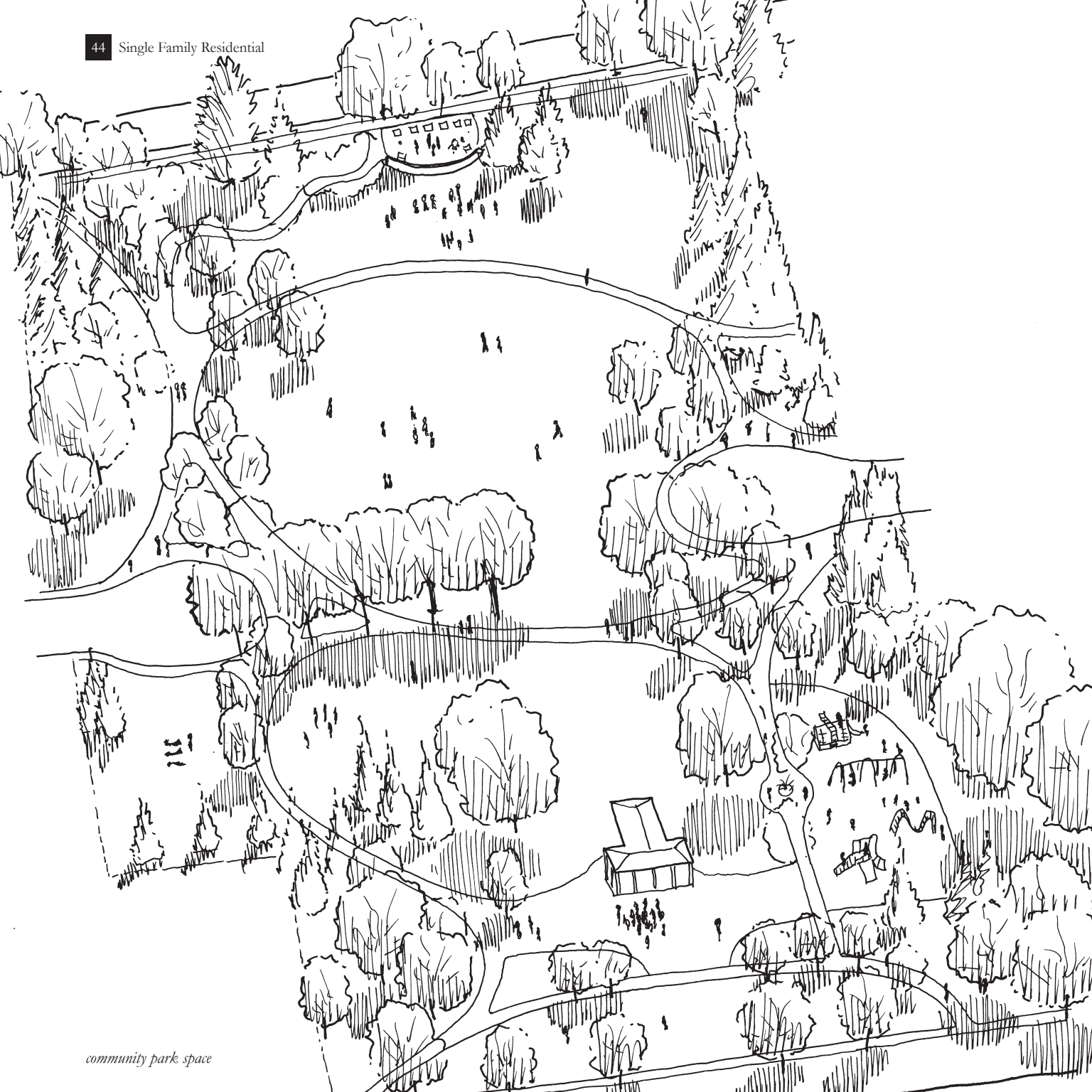
a. Materials should be of a high quality, appropriate to the surroundings, and consistent within a development
    i. Accessory materials that are not appropriate include:
        1. Plywood, particle board, or other lower grade engineered wood product
            a. (visible from the outdoors)
        2. Chain link fencing, with or without slats
            a. Except for the gate on enclosures (with slats)
        3. Asphalt paving for driveways or pedestrian use
    ii. Building materials that are not appropriate include:
        1. Highly reflective metal
        2. Unpainted concrete block
        3. Plywood, particle board, or other lower grade engineered wood product
            a. (visible from the outdoors)
    iii. Materials shall not change on the outside corner of a building undulation or on the same plane
        1. Material change shall occur on the inside corner of an undulation

b. Lighting should be evenly balanced, appropriate, and serve a specific function
    i. Pedestrian scale lighting shall:
        1. Be no taller than 14 feet in height
        2. Provide at least 8 feet of clearance
        3. Illuminate to the following levels:
            a. 1.0 foot-candles for bicycle ways,
            b. 2.0 foot-candles for pedestrian ways,
            c. 1.5 foot-candles for plaza areas,
            d. 5.0 foot-candles for stairways, and
            e. 5.0 foot-candles for building entrances
    ii. Vehicular scale lighting shall:
        1. Be no taller than 24 feet in height
        2. Provide at least 18 feet of clearance
        3. Illuminate to the following levels:
            a. 1.5 foot-candles for roadways
            b. 5.0 foot-candles for underpasses
    iii. Lighting should provide consistent levels of illumination
        1. Avoid contrasting pools of light and dark

c. No signage of any kind shall be permitted in the front yard or visible from the street
    i. Including all commercial and political advertisements
    ii. One exception includes temporary signs from lawn treatment companies
        1. Must be removed within 36 hours

d. Street address numbers shall be displayed at each residence entrance
    i. And be clearly visible from the street

a. *this street has a consistency resulting from similar materials on the houses and in the landscaping*



community park space

Open Space

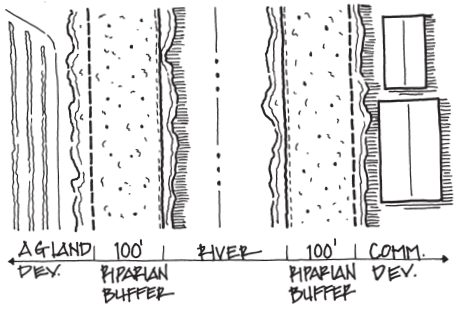
a. New developments should have public open spaces for use by the neighborhood residents
    i. At least ten total acres of public open per square mile of development shall be provided

b. Centrally locate and evenly distribute public open spaces
    i. Maximize visibility and pedestrian access to these areas
    ii. Frame open spaces with building facades or landscaping for enclosure
        1. But do not prevent visual surveillance into these areas

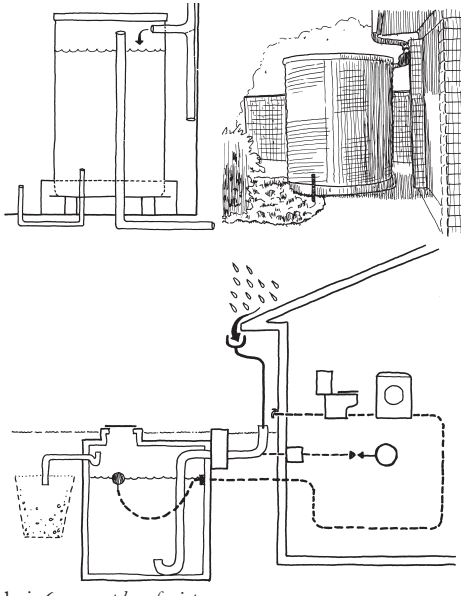
c. Open spaces should provide appropriate pedestrian amenities including several of the following:
    i. Signage
    ii. Pedestrian lighting
    iii. Outdoor seating and dinning
    iv. Benches or seat walls
    v. Bike racks
    vi. Waste containers
    vii. Low level landscaping

d. Open spaces should provide opportunity for recreation including (but not limited to):
    i. Open mown fields
    ii. Soccer goals
    iii. Basketball goals
    iv. Walking/bicycle trails

Water Management



a. i. *a 100' riparian buffer separates the river from agriculture and other development*



b. i. 6. *examples of cisterns*

a. Provide and respect a healthy riparian zone around major waterways and drainage ways

- i. 100 feet on either side of the Licking River shall be designated as a riparian zone
  - 1. The riparian zone shall have at least 80 percent vegetated cover
    - a. Forest cover with underbrush vegetation
  - 2. No more than 10 percent of the riparian zone shall contain development
    - a. Including buildings or other structures, paving over 3 feet wide, or manicured lawn/landscape
- ii. 30 feet on either side of the entire length of the drainage way behind the Judicial Center shall be designated as a riparian zone
  - 1. The riparian zone should have at least 70 percent vegetated cover:
    - a. Long grass or underbrush vegetation
    - b. Over-story vegetation with lawn beneath
    - c. Manicured lawn alone does not qualify
  - 2. No more than 5 percent of the riparian zone should contain development
    - a. Including buildings or other structures, paving over 3 feet wide, or manicured lawn/landscape

b. Developments shall not increase runoff to already over-taxed drainage ways (i.e. behind the Judicial Center)

- i. Use several of the following methods to reduce runoff:
  - 1. Infiltrate runoff through permeable/porous paving
  - 2. Convey runoff into bio-retention basins
  - 3. Convey parking lot runoff into bio-retention islands
  - 4. Slope walkways and driveways into landscape beds
  - 5. Slow runoff in bio-swales
  - 6. Store roof runoff in cisterns
  - 7. Pipe runoff directly into the river

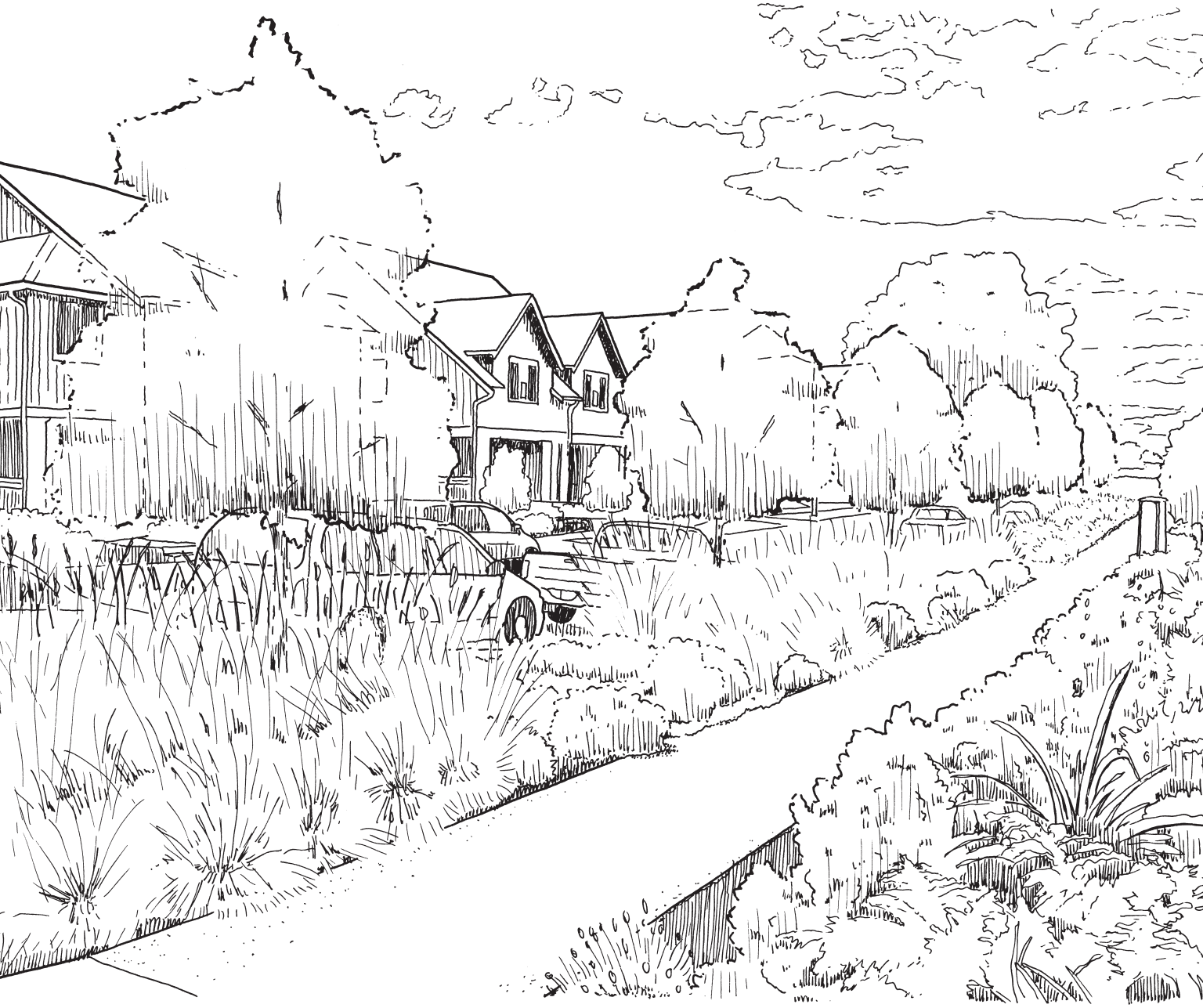
c. Detention/retention basins should be consolidated to maximize their effectiveness

d. Polluted water should be naturally filtered before it enters the river

- i. Runoff shall be conveyed through at least 100 linear feet of vegetation or sub-soil
  - 1. Before entering the river or
  - 2. Before entering a pipe directed into the river

e. Natural drainage courses should be preserved to the extent possible

- i. Surface level drainage is encouraged
- ii. Design new development around natural detention/retention basins
- iii. Design public parks around detention/retention basins



bio-retention techniques in a residential setting

MULTIFAMILY RESIDENTIAL

Site Design.....50
The design of a multi-family development is important because of its size and relative prominence within the community. It should be attractive and relate to surrounding developments. And it should be welcoming to both the resident and the visitor.

Building Massing and Character.....52
Large buildings, including multi-family developments, must employ techniques to become more relatable and attractive to the pedestrian. Long expanses of indistinct facade are both monotonous and imposing. Façade articulation provides visual relief and interest. Articulating individual resident units not only breaks up the façade, but also provides residents with an identity to their unit within the expanse of the building.

Streetscape and Landscape.....54
An attractive streetscape with abundant trees and pedestrian amenities encourages outdoor activities and engagement between residents *and* between residents and visitors.

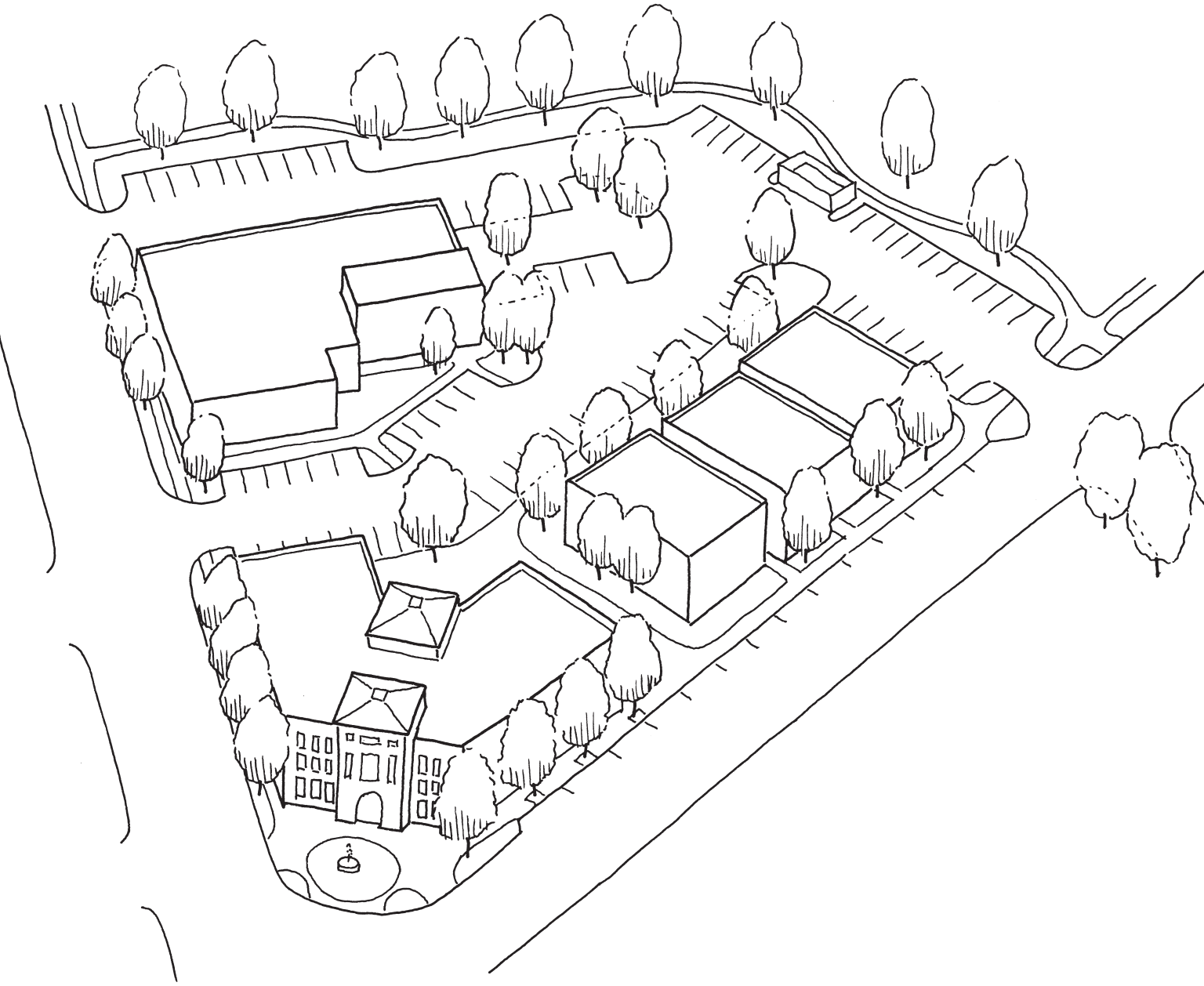
Vehicle Circulation and Parking.....56
Parking lots have the dangerous potential to be a prominent feature in a multi-family development. In order to prevent this from happening, larger lots can be broken up into smaller lots, they can be heavily landscaped and screened, and street parking can be integrated wherever feasible.

Pedestrian and Bicycle Circulation.....58
Pedestrians and cyclists should feel safe navigating to and through multi-family developments. Providing facilities that allow comfortable and enjoyable pedestrian and bicycle circulation will promote walking and cycling. This is not only beneficial to the health of residents, young and old; it also frees up roadways and creates a livelier street.

Details: Materials, Lighting, and Signage.....62
Appropriate and quality materials convey a sense of identity and superior value to an area. This fosters pride within the residents and makes a positive impression on visitors to Falmouth. Appropriate and balanced lighting creates a safe and pleasant environment at night without polluting the area with light.

Open Space.....64
Open spaces act as gathering points for socializing, outdoor dining, and recreating. In multi-family developments, open spaces become areas for the residents to get to know one other, which fosters and strengthens a community's identity.

Water Management.....66
Falmouth has a special relationship with water; in order to respect the power of water, developers should employ water management techniques that collect and infiltrate water and slow runoff. New multi-family developments should not add to the existing storm water issues, and certainly should not create new issues.



b. iii. *a multifamily development that successfully addresses the street corner*

Site Design

a. Integrate visual diversity into the development
    i. Vary front setbacks while keeping within the range of 20 to 40 feet based on existing adjacent properties

b. Site buildings to be compatible with surroundings
    i. Site new buildings within 10 percent of the average setback of the adjacent properties
    ii. Orient primary building entrance towards the street
    iii. Corner buildings shall:
        1. Orient the primary entrance on the larger street or
        2. Provide an entrance on both streets or
        3. Orient the primary entrance on the corner
    iv. Maximize views from development without impeding primary view of or from existing development

c. Limit and strategically locate street connections onto arterial roadways (i.e. US 27)
    i. If appropriate use existing street connections
    ii. Align proposed connections with existing or proposed connections across the roadway

d. Link residential areas with surrounding uses including other residential, schools, parks and open space, commercial, and industrial
    i. Provide vehicular, bicycle, and pedestrian linkages without the need to use major roadways (i.e. US 27)

e. Respect and take advantage of existing topography and natural features
    i. Do not build on slopes greater than 15 percent
    ii. Integrate existing topography into the design to the extent feasible
        1. Grade changes should transition smoothly
        2. If retaining wall should be used, terrace them so that they do not exceed four feet in height
    iii. Preserve prominent and healthy existing trees
    iv. Respect and integrate existing drainage features including swales, streams, and ponds
    v. Maximize views of surrounding landscape

Building Massing and Character

a, b, c. *a dynamic building massing*

a. Any building over 120 feet in length must employ one of the following techniques to diminish its perceived bulk:
    i. Façade articulation every 30 feet including:
        1. Varying the façade material or
        2. Designing with columns or posts
    ii. Undulate building depth by at least 10 feet every 30 feet
    iii. Include open porches for all units

b. Rooflines of any building over 120 feet in length shall be broken up with gables, projections, or other articulation

c. Articulate individual units
    i. But not with dramatically different architectural styles

d. Bottom story should appear more massive than the upper stories
    i. Should be of a higher quality material or a heavier (in appearance) material (i.e. brick, stone)

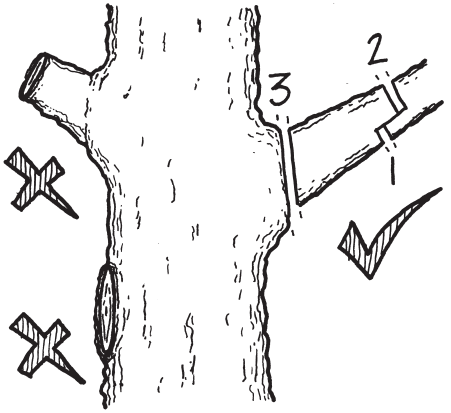
e. Building entrance shall be clearly articulated
    i. Recess entrance or employ awnings, canopies, or other similar treatments

f. Internal building circulation, including internal stairwells, is encouraged

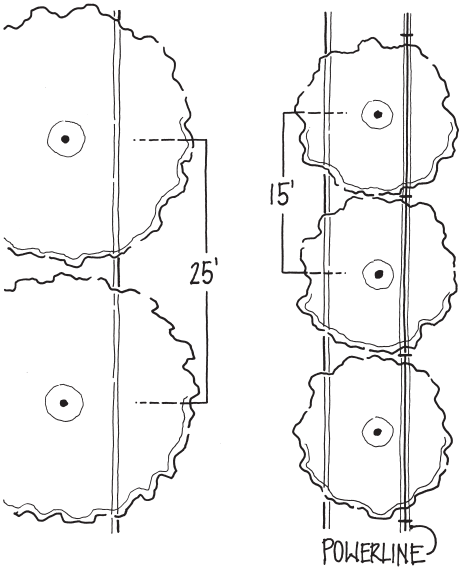
reference to guidelines a, b, c, d, e, and f

a. i. *a semi-public zone along the street with outdoor seating and a playground*

Streetscape and Landscape



c. i. *improper pruning technique (left); proper technique (right)*



b. ii., iii. *proper street tree spacing*

a. The multi-family streetscape according to the three usage zones is described as follows:

i. The semi-public zone is between the building and the sidewalk. It is intended for the residents but accessible to the general public. It includes some or all of the following:

1. Landscape courtyards/patios
2. Outdoor seating and picnicking
3. Pedestrian lighting

ii. The pedestrian zone is dedicated to walking and is therefore clear of obstructions. It is located between the semi-public zone and the furnishing zone.

1. Must be a minimum of 5 feet wide, wherever possible
2. Must be of a smooth even paving (concrete or well-maintained pavers)
   a. No imperfections greater than ½ inch in elevation

iii. The furnishing zone is between the pedestrian zone and the street. It should include some or all of the following:

1. Utility poles and street and parking signage
2. Light poles
3. Street trees
4. Waste containers
5. Outdoor seating and benches
6. Bike racks

b. Street trees should be hardy, low maintenance species and appropriately spaced

i. Species shall be selected from the "Urban Tree List" provided within this document (pp. 88-90)
ii. They shall be spaced 25 feet on center
iii. Species to be planted under utility lines should have a mature size lower than that of the lines
   1. These shall be placed 15 feet on center

c. Mature street trees extending into the pedestrian zone shall be limbed to a clearance of 8 feet

i. Limbs shall be cut cleanly at the branch "collar" in the spring

d. Integrate prominent and healthy existing trees into the landscape to the extent possible

e. Landscaping shall be provided to cover all exposed foundations

f. Parking lots should include trees that are hardy, low maintenance species and provide adequate shade

i. Species shall be selected from the "Urban Tree List" provided within this document (pp. 88-90)
ii. One tree per 16 parking spaces shall be provided within designated parking lot landscape zone

Vehicle Circulation and Parking

a. Adjacent developments should negotiate shared access points and shared parking whenever possible

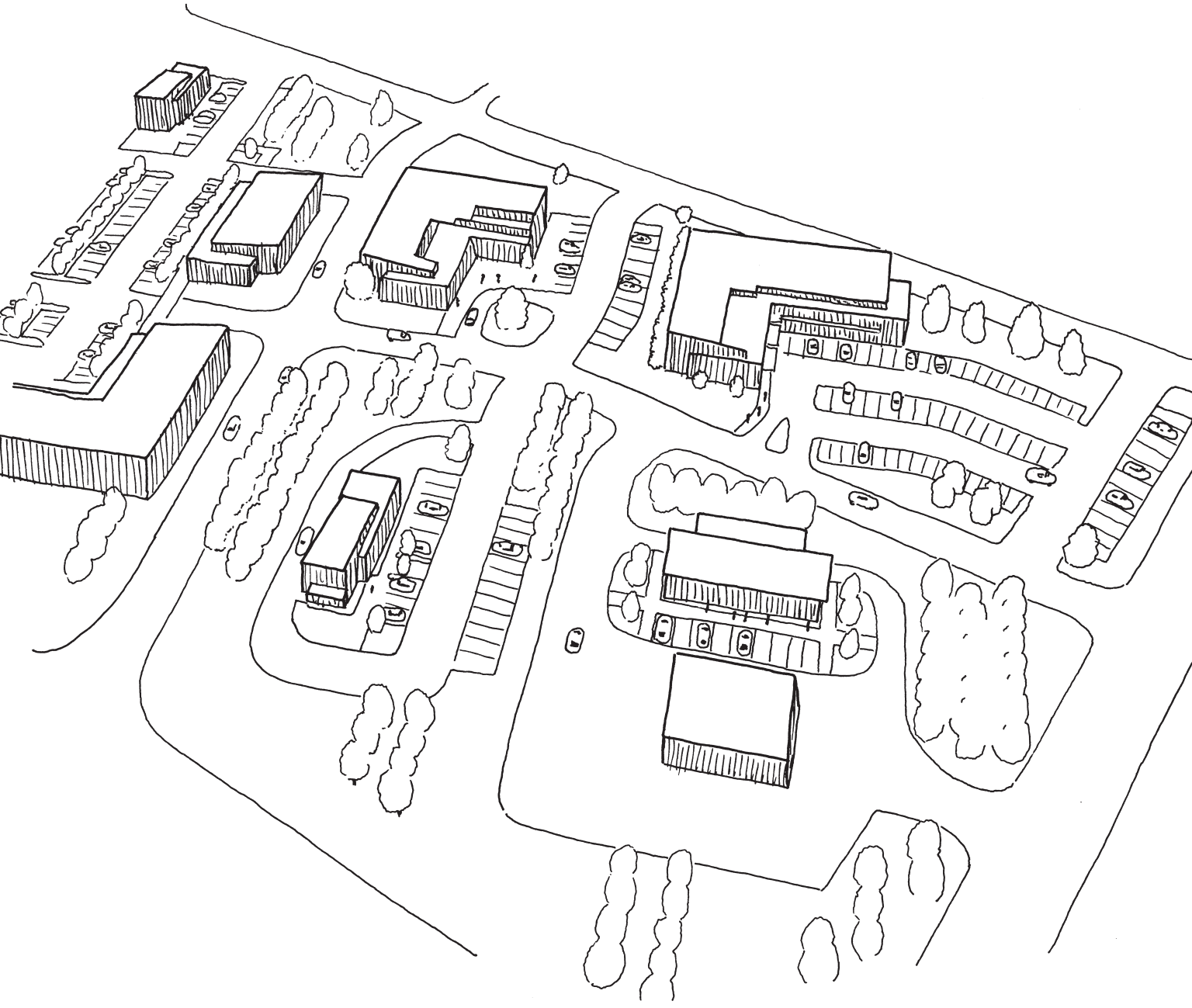
b. Parking lots shall not have vehicles back out onto any public road
    i. Vehicle nose shall face the street with a clear view of oncoming traffic both ways

c. Parking should not be a prominent feature of the development
    i. Parking should be located behind or alongside buildings
        1. Or central to a group of buildings
    ii. Break up large lots (>125 spaces) into smaller lots
    iii. Screen lots with at least 10 feet of landscaping
        1. Select tree species from the "Urban Tree List" (pp. 88-90)
        2. All parking landscape shall utilize the 3:8 rule, where no vegetation is allowed between three and eight feet from ground level
    iv. Negotiate shared parking with adjacent properties
    v. Street parking is encouraged, but on private roads and side streets only (not on US 27)

d. Parking shall not extend into the public right-of-way

e. Parking lot designs shall:
    i. Avoid dead-end aisles
    ii. Avoid entrances that lead directly into head-in parking spaces
    iii. Provide separate and safe pedestrian circulation
    iv. Align parking aisles parallel to pedestrian access to the primary building entrance

f. Parking lot landscape medians should be able to sustain the plant species mature growth. Medians shall be:
    i. At least four feet wide for shrubs and
    ii. At least six feet wide for trees
        1. No tree shall be planted in less than 100 square feet of soil

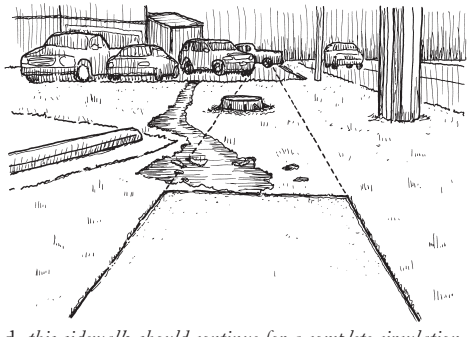


c. ii. *a multifamily development with multiple smaller lots, rather than one large lot*

a pedestrian trail system that connects this multifamily development with its surroundings

Pedestrian and Bicycle Circulation

c. *a safe pedestrian crosswalk*



d. *this sidewalk should continue for a complete circulation network*

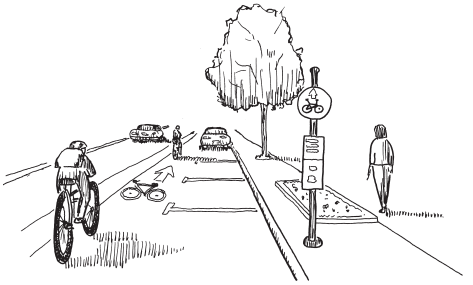
a. All buildings must have clear pedestrian access to the primary building entrance from the sidewalk

b. Pathways must be:
- i. At least 5 feet wide
- ii. Of concrete, or well-maintained pavers (e.g. brick or stone)
- iii. Smooth and even
  - 1. No imperfections greater than ½ inch in elevation
- iv. Pathways must meet all ADA requirements.

c. Crosswalks are required when a walkway crosses an area accessible to vehicles
- i. Crosswalks across minor intersections shall include one or more of the following:
  - 1. Clear signage and/or crossing aids
  - 2. Painted pavement and/or change pavement material
  - 3. Raised crosswalk
- ii. Crosswalks across major intersections shall include both:
  - 1. Crossing aids
  - 2. Painted pavement or change pavement material

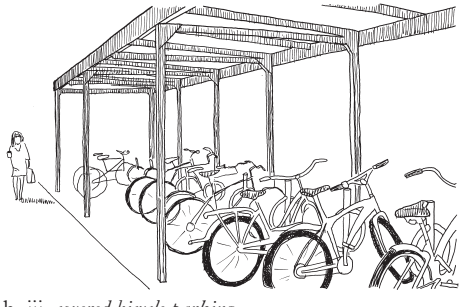
d. Developments shall allow for continuous pedestrian circulation
- i. Within the development and
- ii. Connecting the development to its surroundings

e. Pedestrian amenities are encouraged, but are permitted only in the semi-public and furnishing zones (see streetscape and landscape a.i. & a.iii.). They include:
- i. Outdoor seating and dining
- ii. Benches
- iii. Signage
- iv. Waste containers
- v. Pedestrian scale lighting
- vi. Bicycle racks



f. i. *designated bicycle lane*

g. *bicycle network connecting regional parks*



h. iii. *covered bicycle parking*

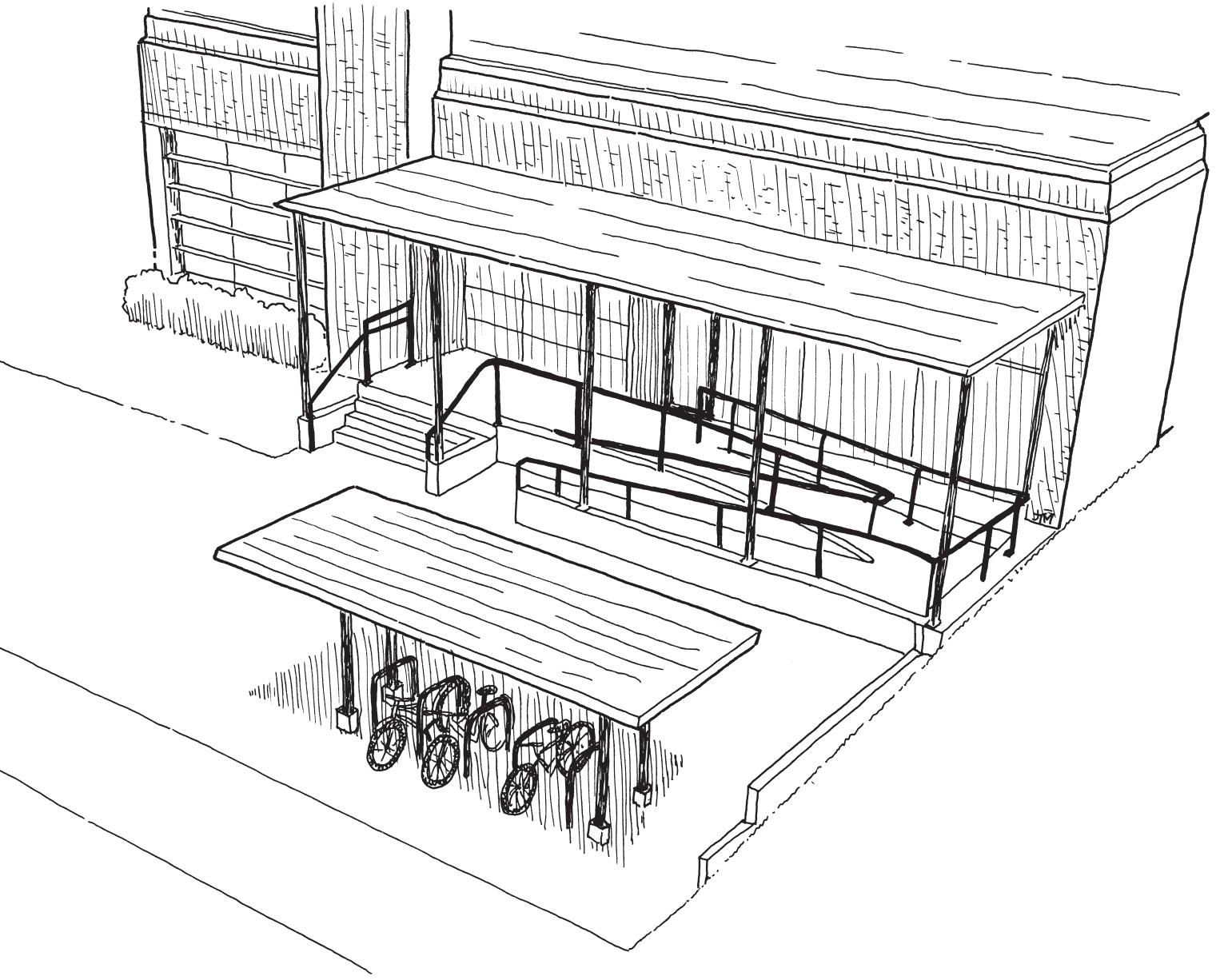
f. Bicycle facilities on roadways should allow for safe travel.

- i. Designated bicycle lanes shall:
  1. Be at least four feet wide
  2. Mark lane boundaries
  3. Be marked with standard bicycle lane pavement signage
  4. Alert automobiles with upright signage
- ii. In areas with undesignated bicycle lanes, undesignated paved shoulders to accommodate shared use shall be as follows:
  1. At least two feet wide for roads 30 mph and less
  2. At least three feet wide for roads 35 mph to 45 mph
  3. At least four feet wide for roads 50 mph and greater

g. A bicycle network should be provided to connect with regional parks and attractions (e.g. Kincaid Lake State Park).

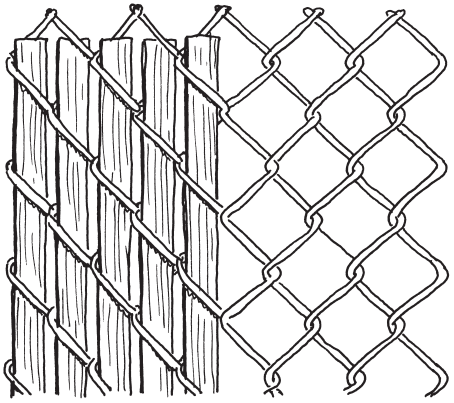
h. Developments should accommodate cyclists

- i. One bicycle parking space per one residence unit shall be provided
- ii. The bicycle parking shall connect to a pedestrian walkway
- iii. At least 50 percent of the bicycle parking shall be weather protected

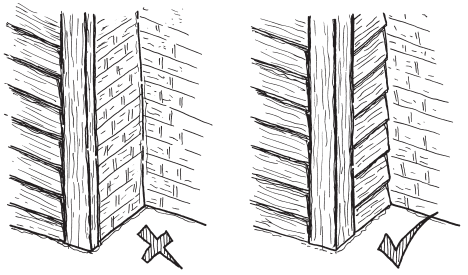


h. *this multifamily development accomodates bicycles with covered parking near the building entrance*

Details: Materials, Lighting, and Signage



a. i. 2. *chain link fencing with and without slats*



a. iii. *improper and proper material change on building corner*

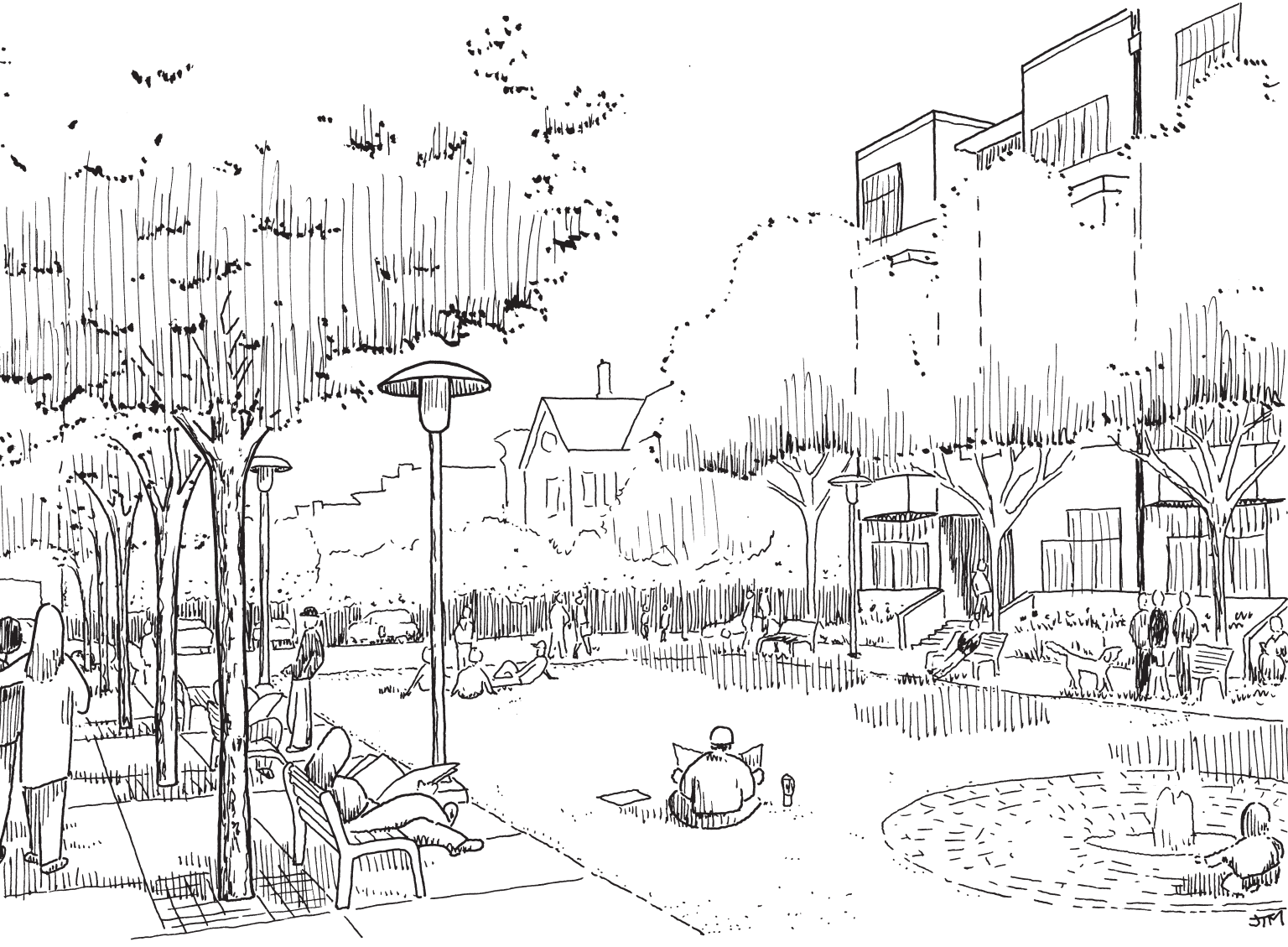
a. Materials should be of a high quality, appropriate to the surroundings, and consistent within a development
    i. Accessory materials that are not appropriate include:
        1. Plywood, particle board, or other lower grade engineered wood product
            a. (visible from the outdoors)
        2. Chain link fencing, with or without slats
            a. Except for the gate on enclosures (with slats)
        3. Asphalt paving for driveways or pedestrian use
    ii. Building materials that are not appropriate include:
        1. Highly reflective metal
        2. Unpainted concrete block
        3. Plywood, particle board, or other lower grade engineered wood product
            a. (visible from the outdoors)
    iii. Materials shall not change on the outside corner of a building undulation or on the same plane
        1. Material change shall occur on the inside corner of an undulation

b. Lighting should be balanced, appropriate, and serve a specific function
    i. Pedestrian scale lighting shall:
        1. Be no taller than 14 feet in height
        2. Provide at least 8 feet of clearance
        3. Illuminate to the following levels:
            a. 1.0 foot-candles for bicycle ways,
            b. 2.0 foot-candles for pedestrian ways,
            c. 1.5 foot-candles for plaza areas,
            d. 5.0 foot-candles for stairways, and
            e. 5.0 foot-candles for building entrances
    ii. Vehicular scale lighting shall:
        1. Be no taller than 24 feet in height
        2. Provide at least 18 feet of clearance
        3. Illuminate to the following levels:
            a. 1.0 foot-candles for parking lots
            b. 1.5 foot-candles for roadways
            c. 5.0 foot-candles for underpasses
    iii. Lighting should provide consistent levels of illumination
        1. Avoid contrasting pools of light and dark

c. No signage of any kind shall be permitted visible from the street
    i. Including commercial and political advertisements
    ii. One exception includes temporary signs from lawn treatment companies
        1. Must be removed within 36 hours

d. Street address numbers shall be displayed at each residence entrance and be clearly visible from the street
    i. Numbers shall be a maximum of 6 inches in height

b. *balanced lighting that is appropriate and safe for pedestrians*



a multi-family complex courtyard open space

Open Space

a. Open spaces can be categorized as such:
    i. Public spaces are owned by a public agency. They are for the use of the general public.
        1. City athletic park
        2. Riverside Cemetery Falmouth
        3. Reconfigured pedestrian bridge
    ii. Semi-public spaces are owned by a private interest. They are for the use of the general public.
        1. Main street pocket park
    iii. Private spaces are owned by a private interest. They are for the use of employees, tenants, or customers only.
        1. Business courtyard
        2. Apartment complex courtyard
        3. Restaurant outdoor dining
    iv. Landscape spaces are owned by either a public agency or a private interest. They can be for the display of plants, and therefore of restricted use, or they can have the ability to move freely throughout, and therefore of active use.
        1. Landscape beds (restricted use)
        2. Open lawn (active use)

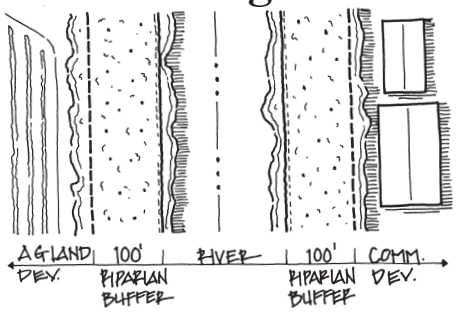
b. Open space shall comprise at least 25 percent of the development.
    i. Developments are encouraged to design active open spaces to meet the requirement
    ii. Decks and outdoor patios directly adjacent to the building can fulfill up to 50 percent of the open space requirement

c. To qualify, open space must be a surface that percolates water.
    i. Including: permeable/porous paving, lawn/turf, landscape bed, bio-retention, green roof
    ii. Excluding: building footprint, non-permeable paving

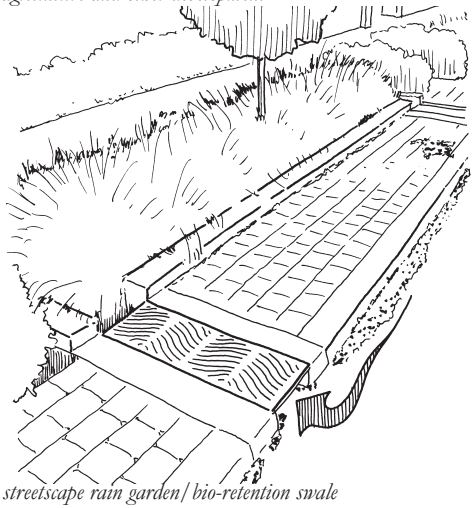
d. Centrally locate and evenly distribute public open spaces
    i. Maximize visibility and pedestrian access to these areas
    ii. Frame open spaces with building facades or landscaping for enclosure
        1. But do not prevent visual surveillance into these areas

e. Open spaces should provide appropriate pedestrian amenities including several of the following:
    i. Signage
    ii. Pedestrian lighting
    iii. Outdoor seating and dinning
    iv. Benches or seat walls
    v. Bike racks
    vi. Waste containers
    vii. Low height landscaping

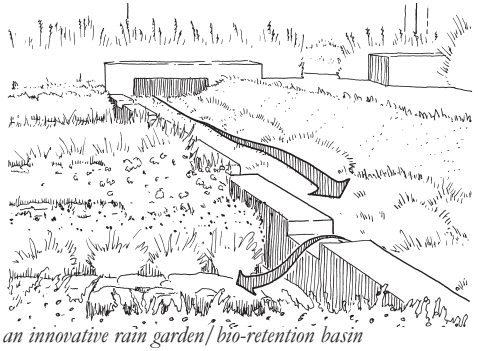
Water Management



a. i. *a 100' riparian buffer separates the river from agriculture and other development*



streetscape rain garden/bio-retention swale



an innovative rain garden/bio-retention basin

a. Provide and respect a healthy riparian zone around major waterways and drainage ways

- i. 100 feet on either side of the Licking River shall be designated as a riparian zone
  - 1. The riparian zone shall have at least 80 percent vegetated cover
    - a. Forest cover with underbrush vegetation
  - 2. No more than 10 percent of the riparian zone shall contain development
    - a. Including buildings or other structures, paving over 3 feet wide, or manicured lawn/landscape
- ii. 30 feet on either side of the entire length of the drainage way behind the Judicial Center shall be designated as a riparian zone
  - 1. The riparian zone shall have at least 70 percent vegetated cover:
    - a. Long grass or underbrush vegetation
    - b. Over-story vegetation with lawn beneath
    - c. Manicured lawn alone does not qualify
  - 2. No more than 5 percent of the riparian zone shall contain development
    - a. Including buildings or other structures, paving over 3 feet wide, or manicured lawn/landscape

b. Developments shall not increase runoff to already over-taxed drainage ways (i.e. behind the Judicial Center)

- i. Use several of the following methods to reduce runoff:
  - 1. Infiltrate runoff through permeable/porous paving
  - 2. Convey runoff into bio-retention basins
  - 3. Convey parking lot runoff into bio-retention islands
  - 4. Slope walkways and driveways into landscape beds
  - 5. Slow runoff in bio-swales
  - 6. Store roof runoff in cisterns
  - 7. Install green roof
  - 8. Pipe runoff directly into the river

c. Detention/retention basins should be consolidated to maximize their effectiveness

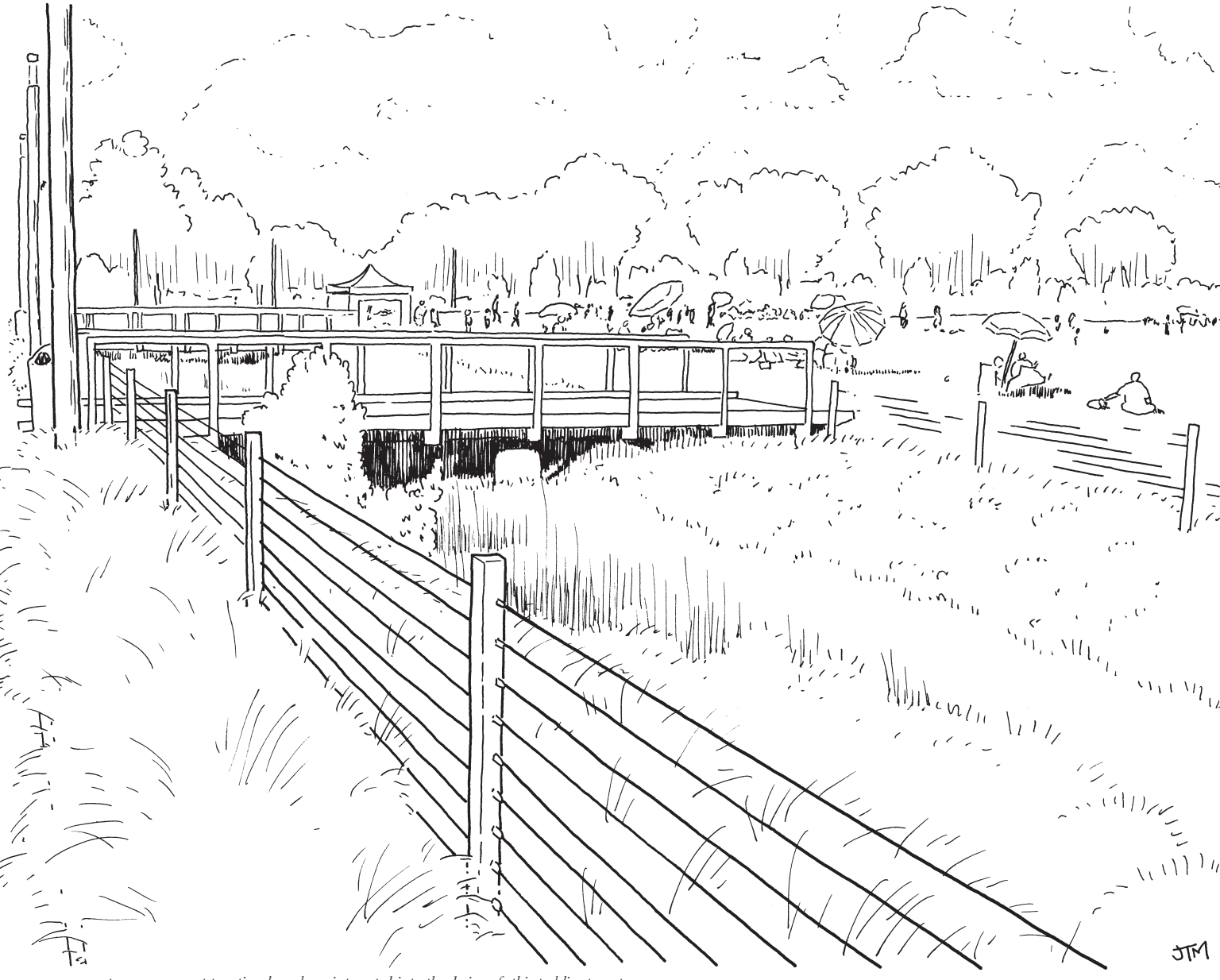
- i. Negotiate with adjacent properties for shared basins

d. Polluted water should be naturally filtered before it enters the river

- i. Runoff shall be conveyed through at least 100 linear feet of vegetation or sub-soil
  - 1. Before entering the river or
  - 2. Before entering a pipe directed into the river

e. Natural drainage courses should be preserved to the extent possible

- i. Surface level drainage is encouraged
- ii. Design new development around natural detention/retention basins
- iii. Design public parks around detention/retention basins



water management practices have been integrated into the design of this public open space

INDUSTRIAL

Site Design.....70
Industrial development is an integral part a city's economy. Therefore it should be designed to work in conjunction with the community, just as any other development would. Industrial development should not be tucked away and hidden, but should gracefully transition into surrounding uses. It should also invite visitors and provide for them safe and attractive facilities.

Building Massing and Character.....72
Many industrial building are inherently massive. These larger buildings can be placed towards the center and rear of an industrial area, in order to minimize the affect on their surroundings.

Streetscape and Landscape.....74
Landscaping has the ability to soften the transition between industrial uses and non-industrial uses while buffering from the undesirable views. Attractive landscaping can also help to articulate a visitor entrance and can help separate service areas from visitor areas.

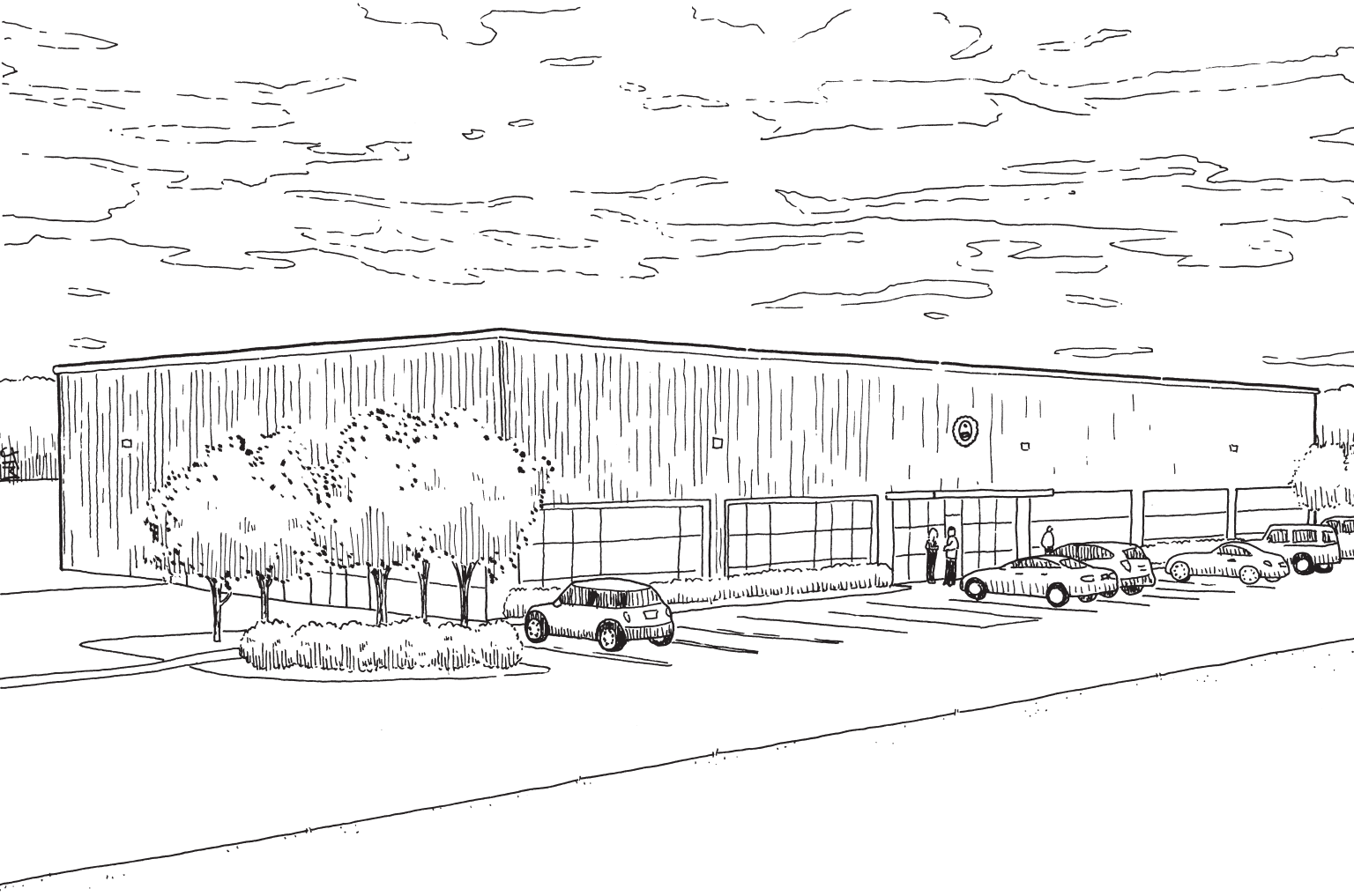
Vehicle Circulation and Parking.....76
Vehicle circulation must be safe and intuitive, while not dominating the pedestrian environment. And parking should not be a prominent feature in the industrial area. To reduce the visual disturbance of parking, lots can be screened with landscaping, large lots can be broken into smaller lots, and lots can be placed to the side of a building.

Pedestrian and Bicycle Circulation.....78
Pedestrians and cyclists should feel safe navigating to and through industrial developments. They should have adequate circulation facilities, which are separate from vehicle circulation. And entrances should be clearly articulated to the visitor.

Details: Materials, Lighting, and Signage.....80
Large industrial buildings can increase their visual interest through the creative use of materials; lighting should be appropriate and balanced to create a safe and pleasant environment at night without polluting the surrounding area with light; and signage should be of a subtle scale and consolidated to prevent a cluttered look.

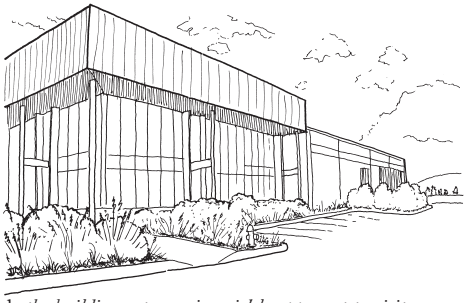
Open Space.....84
Open spaces act as gathering points for socializing and recreating. In the industrial zone, open spaces can become outdoor break space.

Water Management.....86
Falmouth has a special relationship with water; in order to respect the power of water, developers should employ water management techniques that collect and infiltrate water and slow runoff. New industrial developments should not add to the existing storm water issues, and certainly should not create new issues.



c. *the visitor area is clearly separate from the service area in this industrial building*

Site Design



d. *the building entrance is quickly apparent to visitors*

a. Minimum building setbacks shall be as follows:
- i. Front setback from an arterial street shall be 60 feet
- ii. Front, rear, and side setback from a local public street shall be 30 feet
- iii. Side and rear setbacks abutting an industrial use is 10 feet
- iv. Side and rear setbacks abutting a non-industrial use is 25 feet

b. Site loading docks, outside storage, and service areas must be outside of public view from roadway
- i. Locate in rear of building (away from primary road) and
- ii. Screen from view with fencing and/or landscaping
  1. Fencing on at least three sides
     a. Of quality materials (stone, painted concrete block, or wood)
     b. Chain link fencing may only be used on the gate side and only with plastic slats
  2. Landscaping on at least three sides and in a 3' or greater width bed
- iii. No loading or services shall be conducted between a building and any public street

c. Clearly separate visitor parking from loading docks and service areas
- i. Prevent service equipment conflict with vehicles and pedestrians

d. Clearly separate the primary building entrance and any associated offices and/or sales areas from loading docks and service areas
- i. Provide a direct path from parking to primary building entrance

e. Maximum block length is 1320 feet

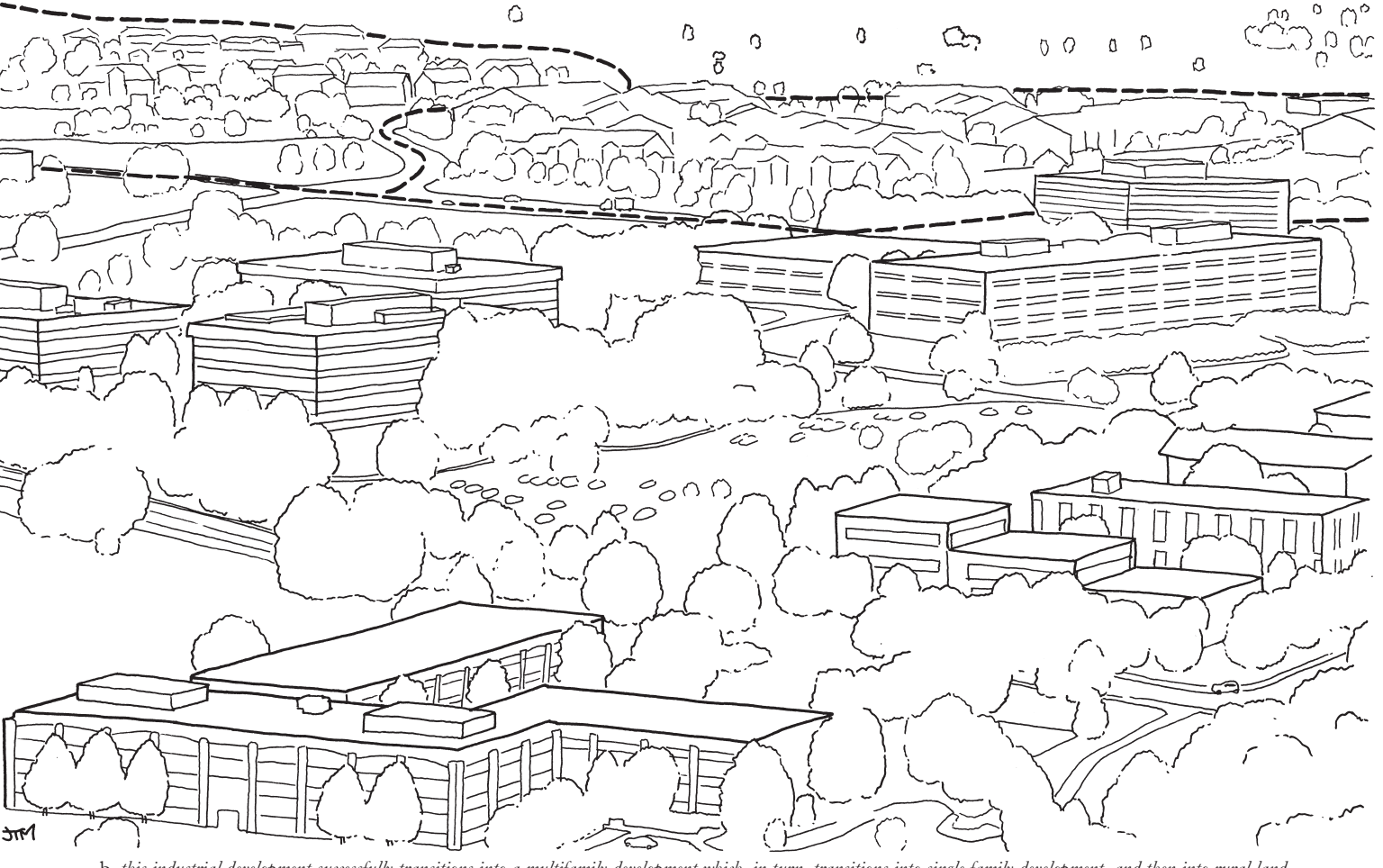
f. Limit and strategically locate street connections onto arterial roadways (i.e. US 27)
- i. If appropriate, use existing street connections
- ii. Align proposed connections with existing or proposed connections across the roadway

Building Massing and Character

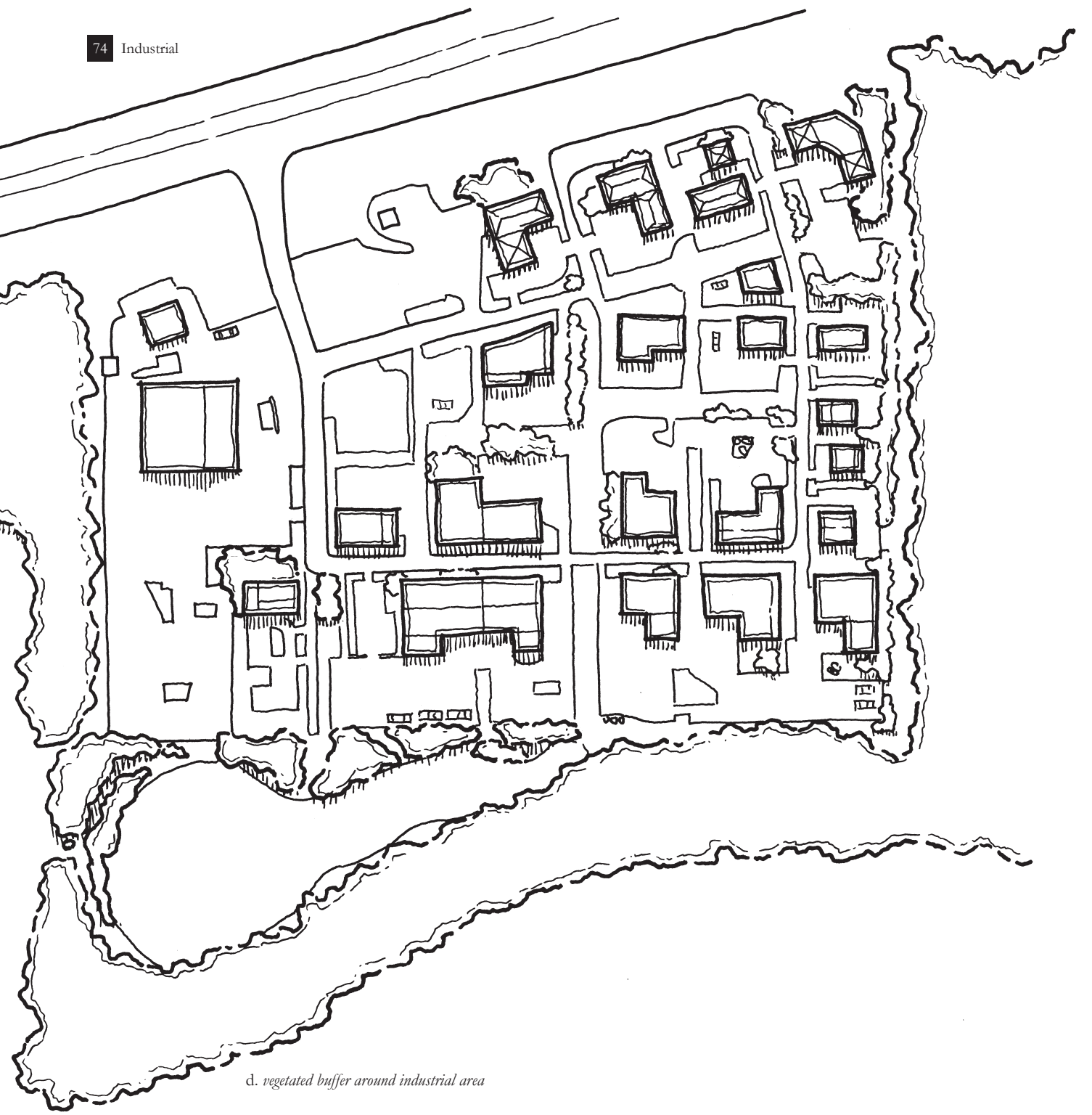
a. The maximum building height is 40 feet to the parapet and 50 feet including architectural projections

b. New development should be compatible with adjacent development
    i. Building height shall transition up from non-industrial uses (especially residential)
        1. Tallest buildings should be located towards the center and back of the industrial zone

c. The base of the building should appear more massive than the upper stories
    i. Should be of a higher quality or a heavier (in appearance) material (i.e. brick, stone)

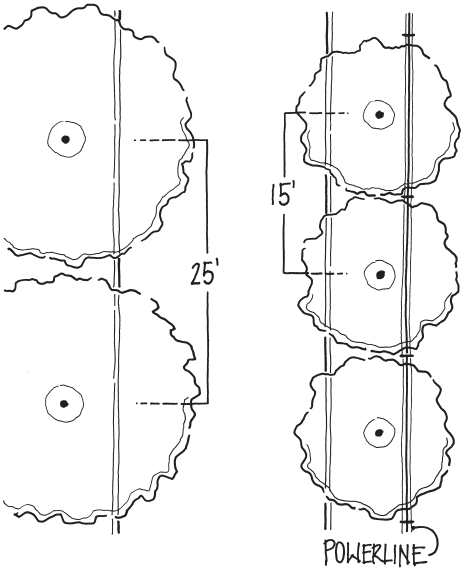


b. *this industrial development successfully transitions into a multifamily development which, in turn, transitions into single family development, and then into rural land*



d. *vegetated buffer around industrial area*

Streetscape and Landscape



a. ii., iii. *proper street tree spacing*

c. *visitor entrances articulated with landscape*

a. Street trees should be hardy, low maintenance species and appropriately spaced
    i. Species shall be selected from the "Urban Tree List" provided within this document (pp. 88-90)
    ii. They shall be spaced 25 feet on center
    iii. Species to be planted under utility lines should have a mature height that is lower than the lines
        1. These shall be placed 15 feet on center

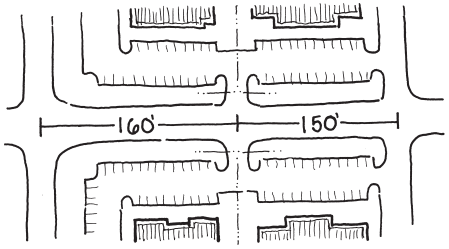
b. Mature street trees extending into the pedestrian zone shall be limbed up for the first 8' from the ground
    i. Limbs shall be cut cleanly at the branch "collar" in the spring

c. Articulate entries (site and building) with dynamic landscaping
    i. Layer the landscaping with ascending plant heights (groundcover, to perennials, to shrubs, to trees)
    ii. Including signage within the landscape is encouraged

d. Provide a vegetated buffer zone between industrial and non-industrial uses
    i. Heavily plant the buffer zone with a 3:1 to 2:1 mix of deciduous and evergreen trees
        1. Select species from the "Additional Tree List" provided within this document (pp. 91-93)
        2. Plants should layered and staggered and spaced no more than 20 feet on center

e. Parking lots should include trees that are hardy, low maintenance species and provide adequate shade
    i. Species shall be selected from the "Urban Tree List" provided within this document (pp. 88-90)
    ii. One tree per 16 parking spaces shall be provided within designated parking lot landscape zone

Vehicle Circulation and Parking



a. *adequate driveway spacing*

a. New driveways within 150 feet of existing driveways are prohibited
    i. Properties with less than 150 feet of street frontage should negotiate shared access with adjacent properties

b. A maximum of one total ingress/egress drive is allowed per building. A second entrance may be granted if new access points are located 150' from all current entrances and intersections
    i. Two will be allowed for buildings of three or more businesses

c. Vehicles shall not back out on to a public road from a parking lot onto any road
    i. Vehicles should face the street with a clear view of oncoming traffic both ways

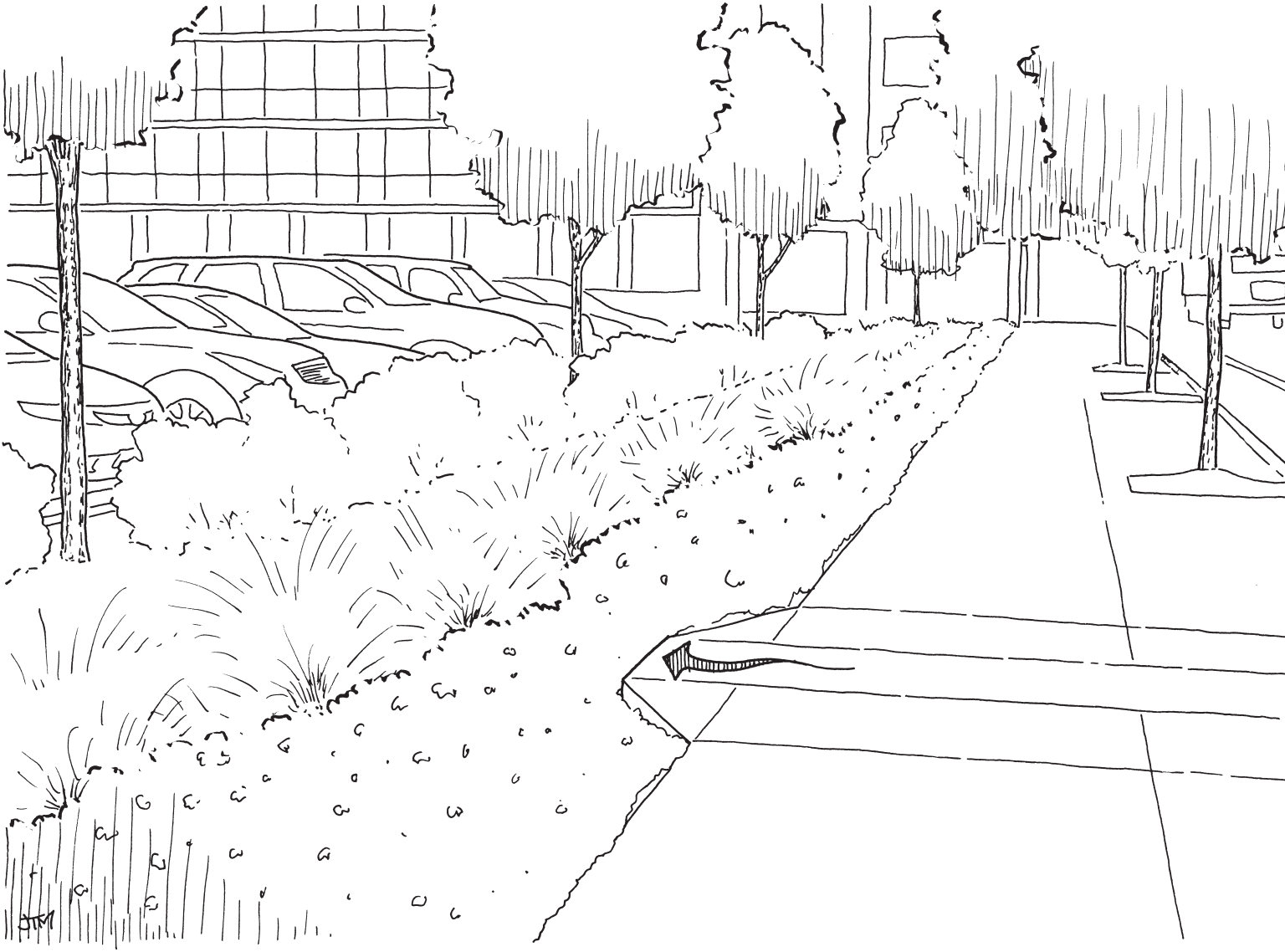
d. Curb cuts shall be a maximum of 30 feet in width
    i. Exceptions can be made for drives that provide a midway pedestrian refuge point (i.e. a landscaped median)

e. Parking should not be a prominent feature along US 27
    i. Parking lots shall not be located at the corners in intersecting public roads
    ii. Parking should be located behind or alongside buildings
    iii. Break up large lots (>125 spaces) into smaller lots
    iv. Screen with at least 10 feet of landscaping
        1. Select tree species from the "Urban Tree List" (pp. 88-90)
        2. All parking landscape shall utilize the 3:8 rule, where no vegetation is allowed between three and eight feet from ground level
    iii. Negotiate shared parking with adjacent properties

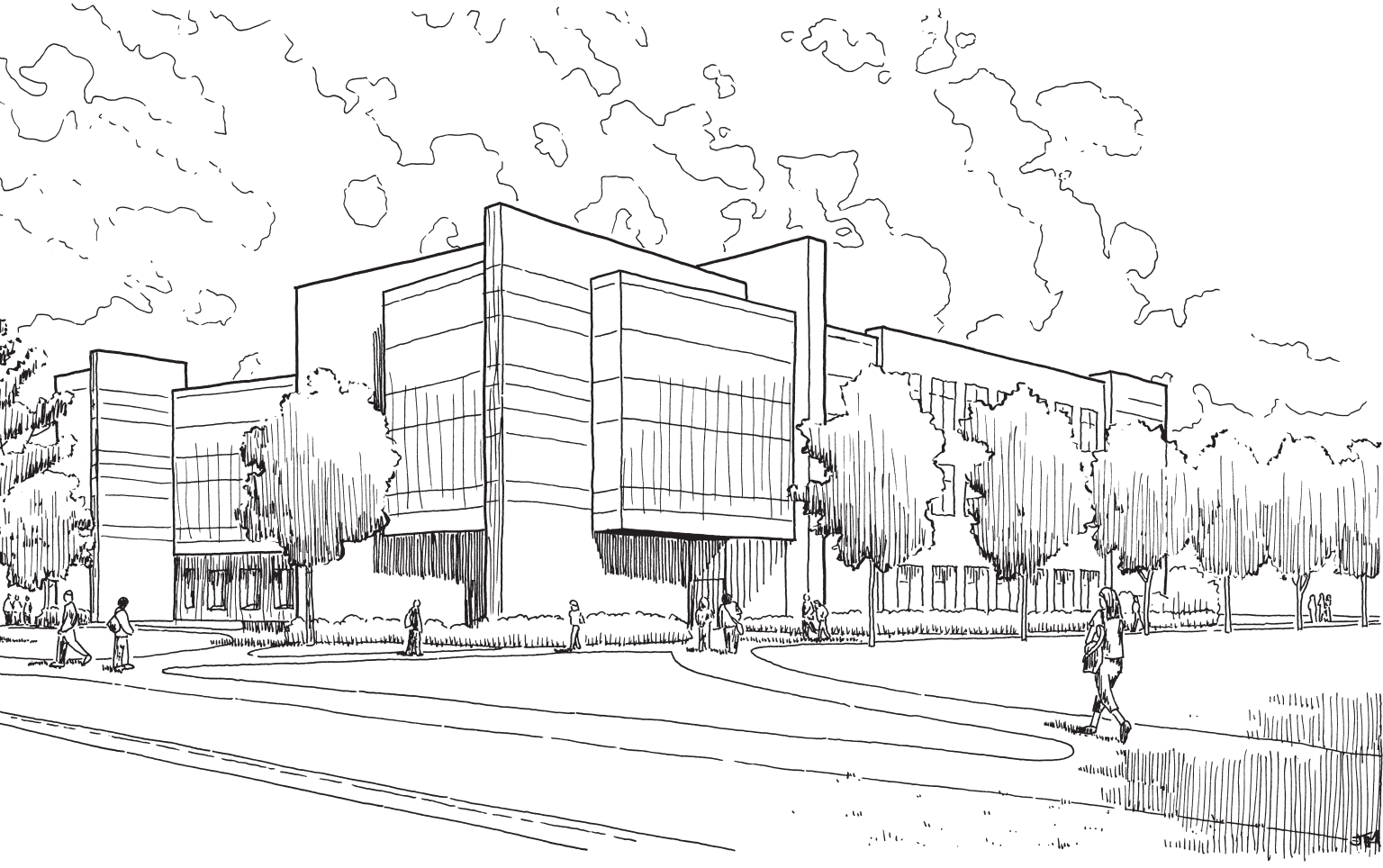
f. Parking shall not extend into the public right-of-way

g. Parking lot designs shall:
    i. Avoid dead-end aisles
    ii. Avoid entrances that lead directly into head-in parking spaces
    iii. Provide safe pedestrian circulation including ADA accessible spaces and access to the primary entrance via a sidewalk
    iv. Align parking aisles parallel to pedestrian access to the primary building entrance

h. Parking lot landscape medians should be able to sustain the plant species' mature growth. Medians shall be:
    i. At least four feet wide for shrubs and
    ii. At least six feet wide for trees
        1. No tree shall be planted in less than 100 square feet of soil

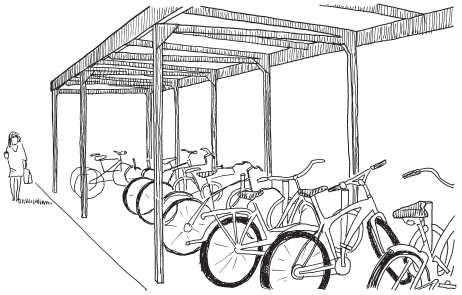


e. *a parking lot that is screened with 10 feet of landscaping (and follows the 3:8 rule for landscaping)*

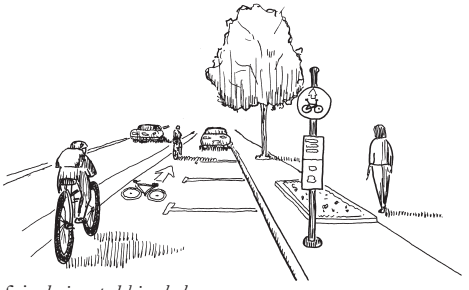


a., b. *a pedestrian friendly industrial complex on a cloudy day*

Pedestrian and Bicycle Circulation



e. *covered bicycle parking*



f. i. *designated bicycle lane*

g. *bicycle network connecting regional parks*

a. All buildings must have clear pedestrian access to the primary building entrance from the sidewalk
    i. Visitor access shall be clearly separate from loading docks and service areas

b. Pathways must be:
    i. At least 4 feet wide
    ii. Of concrete, or well-maintained pavers (e.g. brick or stone)
    iii. Smooth and even
        1. No imperfections greater than ½ inch in elevation
    iv. Pathways must meet all ADA requirements.

c. Crosswalks are required when a walkway crosses an area accessible to vehicles
    i. Crosswalks across minor intersections shall include one or more of the following:
        1. Clear signage and/or crossing aids
        2. Painted pavement and/or change pavement material
        3. Raised crosswalk
    ii. Crosswalks across major intersections shall include both:
        1. Crossing aids
        2. Painted pavement or change pavement material

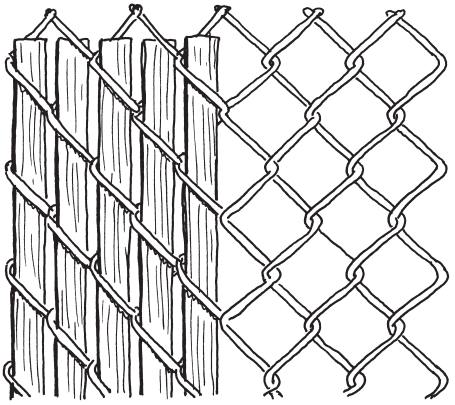
d. Developments shall allow for continuous pedestrian circulation
    i. Within the development and
    ii. Connecting the development to its surroundings

e. Businesses should accommodate cyclists
    i. One bicycle parking space per twelve automobile parking spaces shall be provided
    ii. The bicycle parking shall connect to a pedestrian walkway

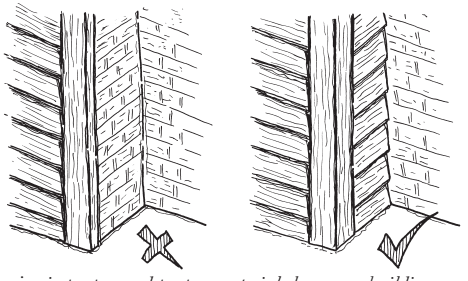
f. Bicycle facilities on roadways should allow for safe travel.
    i. Designated bicycle lanes shall:
        1. Be at least four feet wide
        2. Mark lane boundaries
        3. Be marked with standard bicycle lane pavement signage
        4. Alert automobiles with upright signage
    ii. In areas with undesignated bicycle lanes, undesignated paved shoulders to accommodate shared use shall be as follows:
        1. At least two feet wide for roads 30 mph and less
        2. At least three feet wide for roads 35 mph to 45 mph
        3. At least four feet wide for roads 50 mph and greater

g. A bicycle network should be provided to connect with regional parks and attractions (e.g. Kincaid Lake State Park)

Details: Materials, Lighting, and Signage



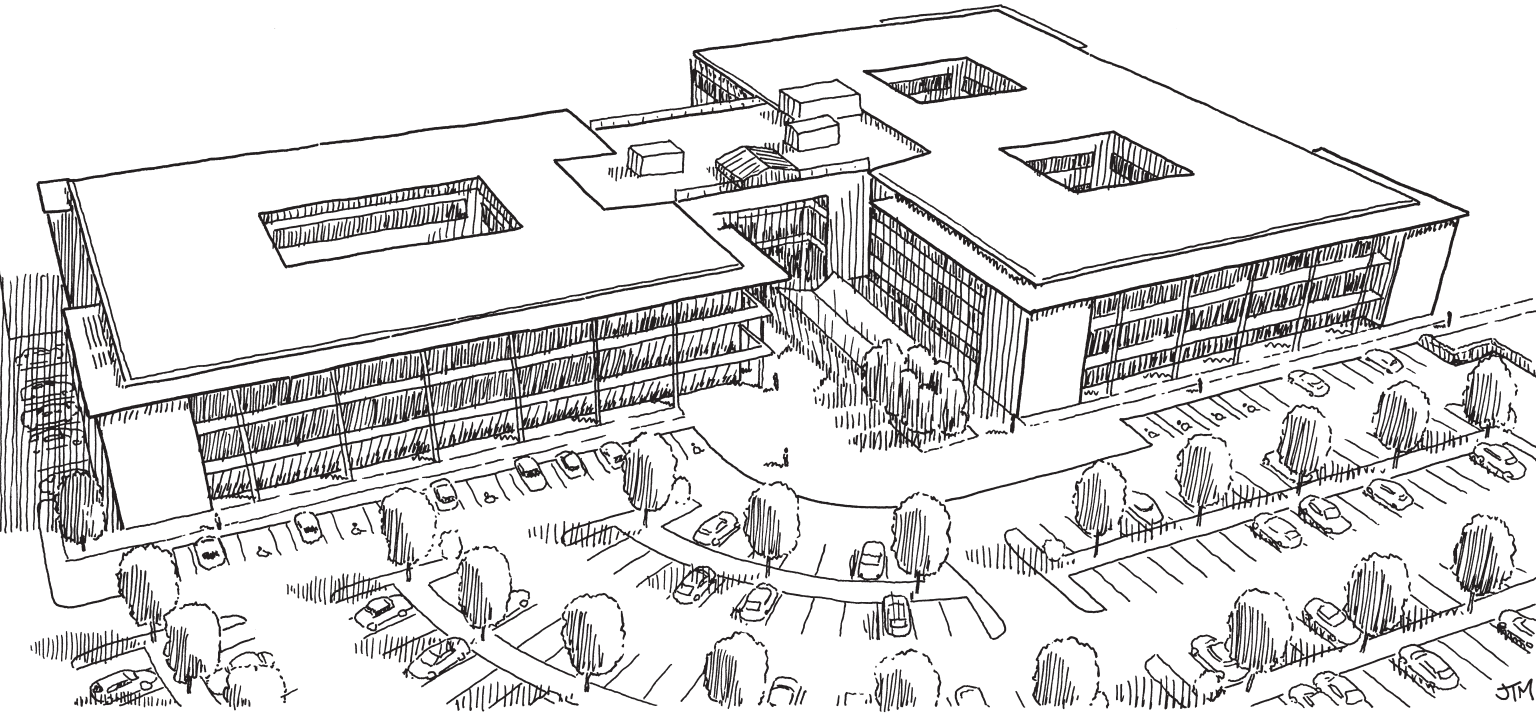
a. i. 2. *chain link fencing with and without slats*



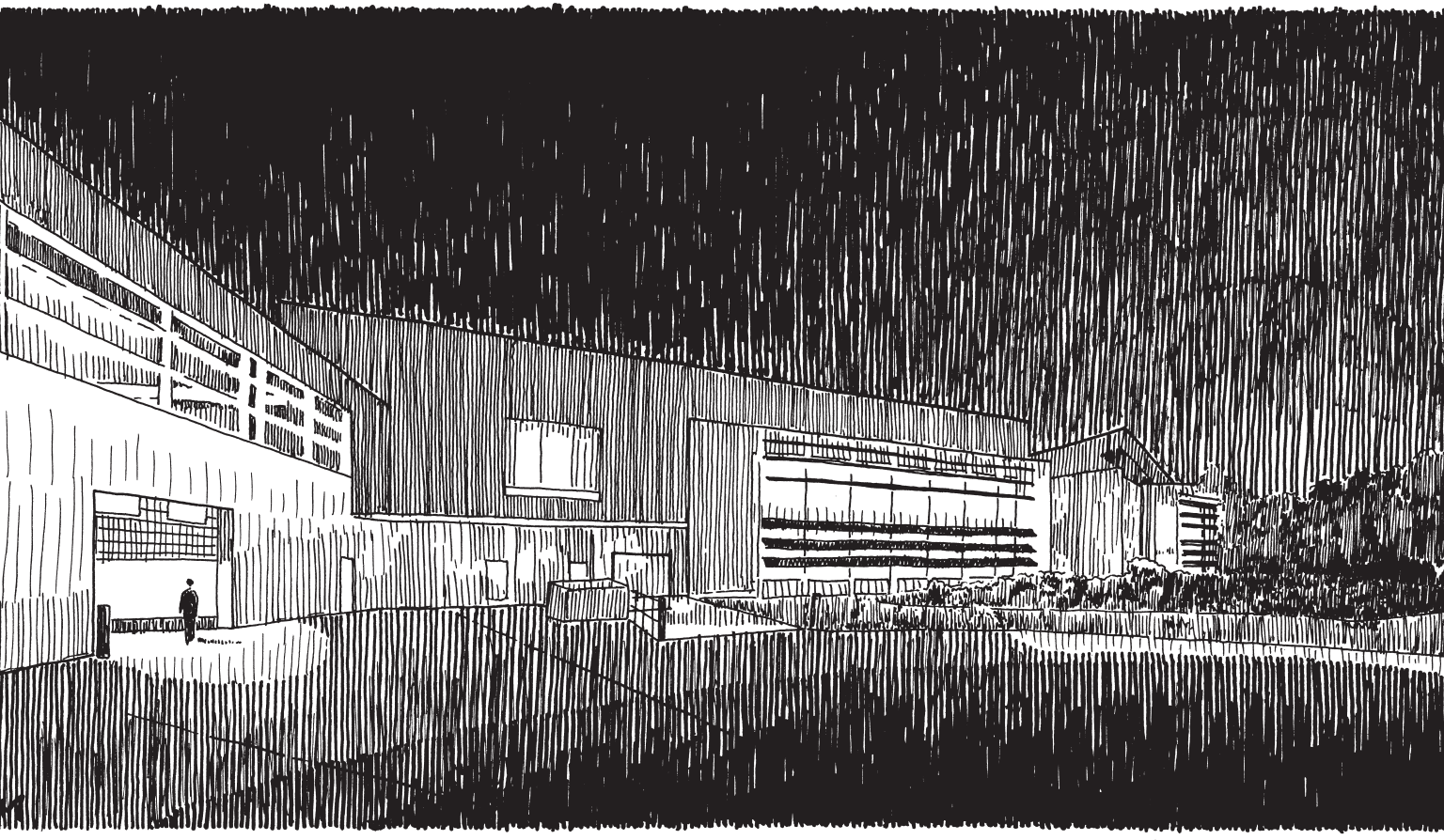
a. iv. *improper and proper material change on building corner*

a. Materials should be of a high quality, appropriate to the surroundings, and consistent within a development
- i. Accessory materials that are not appropriate include:
  - 1. Plywood, particle board, or other cheap wood product
    - a. (visible from the outdoors)
  - 2. Chain link fencing, with or without slats
    - a. Except for the gate on enclosures (with slats)
  - 3. Asphalt paving for pedestrian use
- ii. Building materials that are not appropriate include:
  - 1. Highly reflective metal
  - 2. Unpainted concrete block
  - 3. Plywood, particle board, or other lower grade engineered wood product
    - a. (visible from the outdoors)
- iii. Paving materials that are appropriate include:
  - 1. Concrete, porous or traditional
  - 2. Brick, stone, or other well-maintained pavers
  - 3. Asphalt, only for vehicular use
- iv. Materials should not change on the outside corner of a building undulation or on the same plane
  - 1. Material change should occur on the inside corner of an undulation

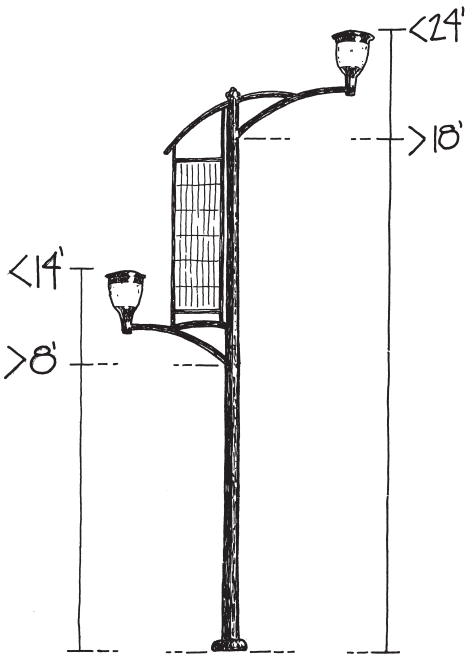
b. Lighting should be balanced, appropriate, and serve a specific function
- i. Pedestrian scale lighting shall:
  - 1. Be no taller than 14 feet in height
  - 2. Provide at least 8 feet of clearance
  - 3. Illuminate to the following levels:
    - a. 1.0 foot-candles for bicycle ways,
    - b. 2.0 foot-candles for pedestrian ways,
    - c. 1.5 foot-candles for plaza areas,
    - d. 5.0 foot-candles for stairways, and
    - e. 5.0 foot-candles for building entrances



an innovative industrial building that incorporates attractive and quality materials into the design



b. *appropriate lighting for an industrial setting*



b. i. 1. & 2., ii. 1. & 2. *lighting dimensions, including clearance height, for pedestrian (left) and vehicle (right)*

ii. Vehicular scale lighting shall:
- 1. Be no taller than 24 feet in height
- 2. Provide at least 18 feet of clearance
- 3. Illuminate to the following levels:
  - a. 1.0 foot-candles for parking lots
  - b. 1.5 foot-candles for roadways
  - c. 5.0 foot-candles for underpasses

iii. Lighting should provide consistent levels of illumination
- 1. Avoid contrasting pools of light and dark

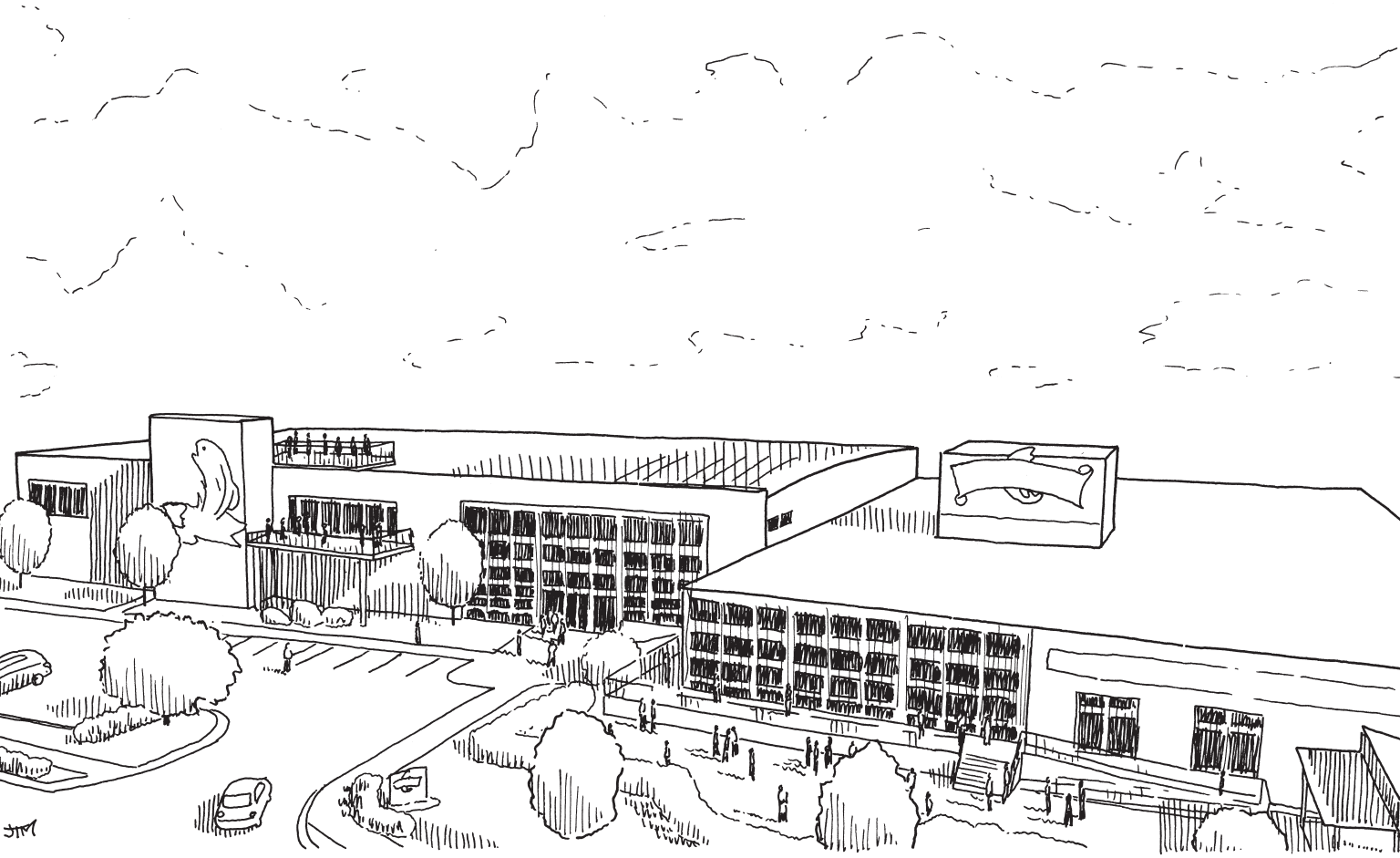
c. Signs should not clutter, detract from, or otherwise diminish a street's visual quality

i. Signs shall not:
- 1. Advertise products or vendors
  - a. Only business types and services
- 2. Flash, blink, rotate, or otherwise move
- 3. Be temporary or of cheap material

ii. Wall signs shall not:
- 1. Protrude above the roofline
- 2. Exceed 66 percent of the linear width of the building

iii. Pole signs shall not:
- 1. Exceed 25 feet in height
- 2. Exceed 150 square feet of face area
- 3. Exceed one sign per business

d. Street address numbers shall be displayed at each business entrance and be clearly visible from the street



this industrial complex provides several different options for outdoor break space

Open Space

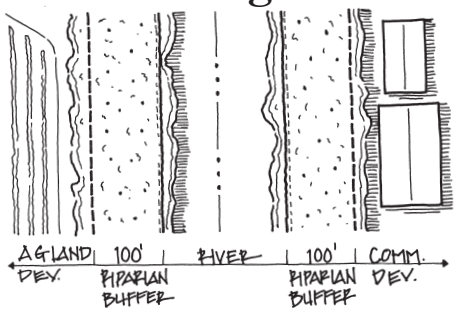
a. Open spaces can be categorized as such:
    i. Public spaces are owned by a public agency. They are for the use of the general public.
        1. City athletic park
        2. Riverside Cemetery Falmouth
        3. Reconfigured pedestrian bridge
    ii. Semi-public spaces are owned by a private interest. They are for the use of the general public.
        1. Main street pocket park
    iii. Private spaces are owned by a private interest. They are for the use of employees, tenants, or customers only.
        1. Business courtyard/break space
        2. Apartment complex courtyard
        3. Restaurant outdoor dining
    iv. Landscape spaces are owned by either a public agency or a private interest. They can be for the display of plants, and therefore of restricted use, or they can have the ability to move freely throughout, and therefore of active use.
        1. Landscape beds (restricted use)
        2. Open lawn (active use)

b. Open space shall comprise at least 25 percent of every lot.

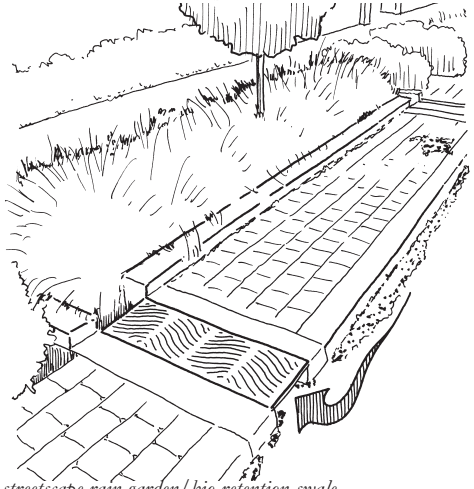
c. To qualify, open space must be a surface that percolates water.
    i. Including: permeable/porous paving, lawn/turf, landscape bed, bio-retention, green roof
    ii. Excluding: building footprint, non-permeable paving

d. Open spaces should provide appropriate pedestrian amenities including several of the following:
    i. Signage
    ii. Pedestrian lighting
    iii. Outdoor seating and dinning
    iv. Benches or seat walls
    v. Bike racks
    vi. Waste containers
    vii. Low height landscaping

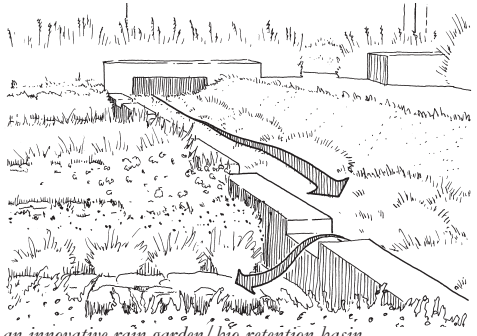
Water Management



a. i. *a 100' riparian buffer separates the river from agriculture and other development*



streetscape rain garden/bio-retention swale



an innovative rain garden/bio-retention basin

a. Provide and respect a healthy riparian zone around major waterways and drainage ways

- i. 100 feet on either side of the Licking River shall be designated as a riparian zone
  - 1. The riparian zone shall have at least 80 percent vegetated cover
    - a.Forest cover with underbrush vegetation
  - 2. No more than 10 percent of the riparian zone shall contain development
    - a. Including buildings or other structures, paving over 3 feet wide, or manicured lawn/landscape
- ii. 30 feet on either side of the entire length of the drainage way behind the Judicial Center shall be designated as a riparian zone
  - 1. The riparian zone shall have at least 70 percent vegetated cover:
    - a. Long grass or underbrush vegetation
    - b. Over-story vegetation with lawn beneath
    - c. Manicured lawn alone does not qualify
  - 2. No more than 5 percent of the riparian zone should contain development
    - a. Including buildings or other structures, paving over 3 feet wide, or manicured lawn/landscape

b. Developments shall not increase runoff to already over-taxed drainage ways (i.e. behind the Judicial Center)

- i. Use several of the following methods to reduce runoff:
  - 1. Infiltrate runoff through permeable/porous paving
  - 2. Convey runoff into bio-retention basins
  - 3. Convey parking lot runoff into bio-retention islands
  - 4. Slope walkways and driveways into landscape beds
  - 5. Slow runoff in bio-swales
  - 6. Store roof runoff in cisterns
  - 7. Install green roof
  - 8. Pipe runoff directly into the river

c. Detention/retention basins should be consolidated to maximize their effectiveness

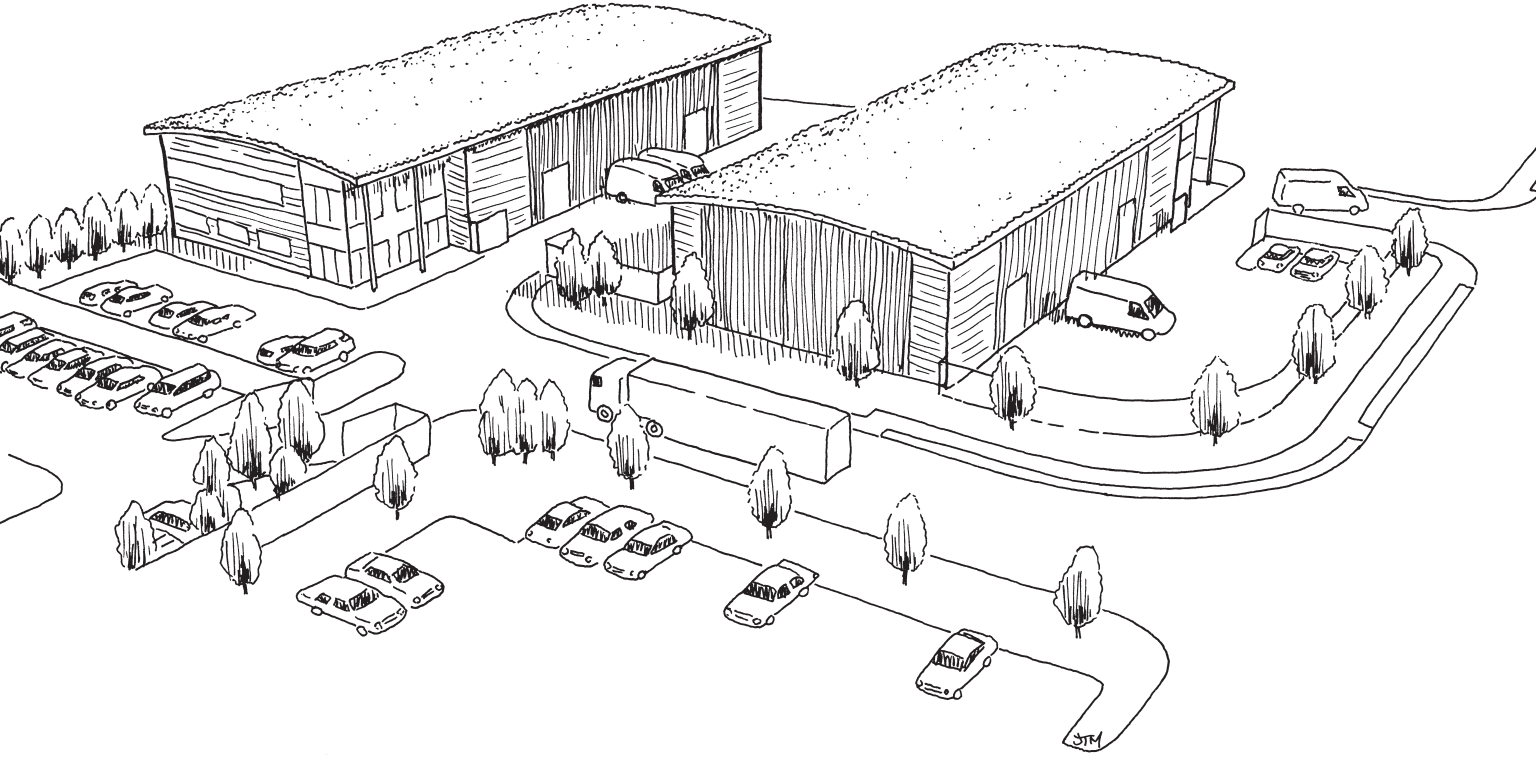
- i. Negotiate with adjacent properties for shared basins

d. Polluted water should be naturally filtered before it enters the river

- i. Runoff shall be conveyed through at least 100 linear feet of vegetation or sub-soil
  - 1. Before entering the river or
  - 2. Before entering a pipe directed into the river
- ii. Particularly harmful pollutants (and those that will not be naturally filtered out) should not enter the city storm water system or the river

e. Natural drainage courses should be preserved to the extent possible

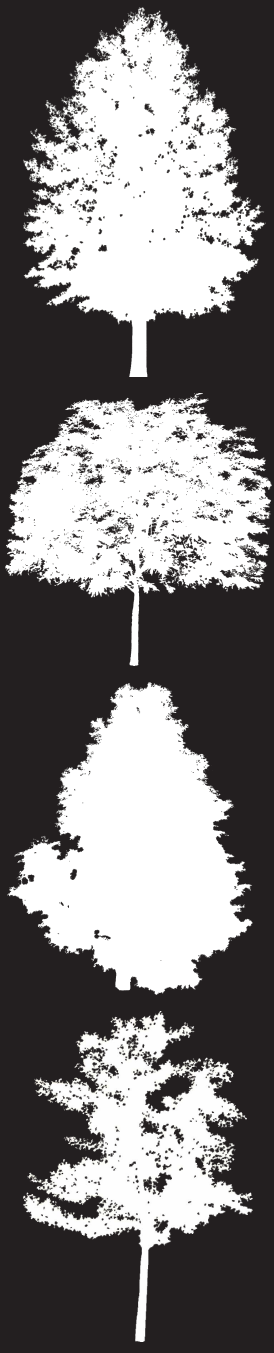
- i. Surface level drainage is encouraged



b. i. 7. *a green roof on these industrial buildings controls water runoff (and qualifies for open space, according to open space guideline b.)*

Urban Tree List:

Tree Species Recommended for Restricted Spaces and Other Harsh Situations (e.g. streetscape, parking lot, landscaped median)



Pin Oak

Quercus palustris

- strong form, even when young
- flood tolerant during the dormant season
- though small, acorns can produce significant litter

Thornless Honeylocust

Gleditsia triacanthos

- select a thornless (inermis) and fruitless (male) variety
- does not produce much litter
- produces a pleasing filtered shade

Bald Cypress

Taxodium distichum

- attractive foliage with a uniquely soft look
- cypress produces "knees" in areas of occasional flooding
- tolerates flooding well
- alternative is *Metasequoia glyptostroboides* (Dawn Redwood)

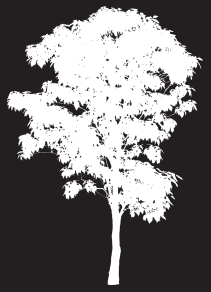
Ginkgo

Ginkgo biloba

- select a fruitless (male) variety
- outstanding yellow fall color
- course branching pattern with varied form

Large

Over 50 feet when mature



Tree Lilac

Syringa reticulata

- beautiful flower set in spring
- fragrant flowers
- *Syringa pekinensis* is a good alternative, yet underused

Osage Orange

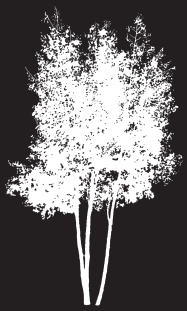
Maclura pomifera

- select a thornless (inermis) and fruitless (male) variety
- attractive glossy leaves
- tough, tough, tough tree

American Holly

Ilex opaca

- evergreen foliage and brilliant red berries
- more attractive when allowed to branch to the ground
- beware, the foliage is prickly



River Birch

Betula nigra

- winter appeal due to the very attractive bark
- single truck selections better in tight locations
- tolerates flooding well

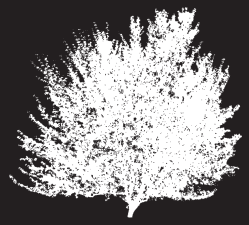
Medium

25 - 50 feet when mature

Oakleaf Hydrangea

Hydrangea quercifolia

- attractive exfoliating bark
- good fall color and abundant white panicle flowers
- coarse texture should be considered in planting design



Crabapple

Malus

- huge variety of cultivars
- loved for its flowers and fruit
- beware of the high potential to sucker from the roots

Hawthorn 'Winter King'

Crataegus viridis 'Winter King'

- bark flakes off to reveal a bright orange color
- prolific red pomes
- inch long thorns could be a hazard

Arrowwood Viburnum

Viburnum dentatum

- attractive dark blue/black fruit that birds love
- white flowers with yellow stamen
- suckers spread; plant should be in a bounded location

Small

10 - 25 feet when mature

Additional Tree List:

Tree Species Recommended for Normal/Healthy Situations (e.g. lawn, park space, planting beds)

Large

Over 50 feet when mature

Deciduous

Acer x freemanii (Hybrid Maple)
Acer rubrum (Red Maple)
Acer saccharum (Sugar Maple)
Cercidiphyllum japonicum (Katsura Tree)
Eucommia ulmoides (Hardy Rubber Tree)
Fagus sylvatica (European Beech)
Ginkgo biloba (Ginkgo)
Gleditsia triacanthos (Honeylocust)
Gymnocladus dioica (KY Coffee Tree)
Larix deciduas (European Larch)
Liquidambar styraciflua (Sweetgum)
Liriodendron tulipifera (Tulip Tree)
Magnolia acuminate (Cucumbertree Magnolia)
Metasequoia glyptostroboides (Dawn Redwood)
Nyssa sylvatica (Black Gum)
Platanus x acerifolia (London Planetree)
Quercus acutissima (Sawtooth Oak)
Quercus alba (White Oak)
Quercus bicolor (Swamp White Oak)
Quercus coccinea (Scarlet Oak)
Quercus imbricaria (Shingle Oak)
Quercus muehlenbergii (Chinquapin Oak)
Quercus palustris (Pin Oak)
Quercus phellos (Willow Oak)
Quercus prinus (Chestnut Oak)
Quercus robur (English Oak)
Quercus rubra (Red Oak)
Quercus shumardii (Shumard Oak)
Sassafras albidum (Sassafras)
Taxodium ascendens (Pond Cypress)
Taxodium distichum (Bald Cypress)
Tilia cordata (European Linden)
Tilia tomentosa (Silver Linden)
Ulmus americana (American Elm)
Ulmus parvifolia (Chinese Elm)
Zelkova serrata (Zelkova)

Evergreen

Abies nordmanniana (Nordmann Fir)
Cedrus libani (Hardy Cedar of Lebanon)
Picea abies (Norway Spruce)
Picea pungens (Colorado Spruce)
Pinus densiflora (Japanese Red Pine)
Pinus nigra (Austrian Pine)
Pinus resinosa (Red Pine)
Pinus strobes (White Pine)
Pseudotsuga menziesii (Douglas Fir)
Thuja occidentalis (American Arborvitae)
Thuja plicata (Giant Arborvitae)
Tsuga Canadensis (Canadian Hemlock)

Deciduous

Acer buergeranum (Trident Maple)
Acer campestre (Hedge Maple)
Acer cissifolium (Ivy-leaved Maple)
Acer griseum (Paperbark Maple)
Acer tataricum (Tatarian Maple)
Aesculus x carnea (Red Horse Chestnut)
Aesculus pavia (Red Buckeye)
Alnus glutinosa (Black Alder)
Amelanchier arborea (Downy Serviceberry)
Amelanchier Canadensis (Shadblow Serviceberry)
Amelanchier grandiflora (Apple Serviceberry)
Amelanchier laevis (Allegheny Serviceberry)
Asimina triloba (Pawpaw)
Betula alleghaniensis (Yellow Birch)
Betula lenta (Sweet Birch)
Betula nigra (River Birch)
Betula platyphylla (Asian White Birch)
Betula populifolia (Gray Birch)
Carpinus betulus (European Hornbeam)
Carpinus caroliniana (American Hornbeam)
Castanea mollissima (Chinese Chestnut)
Catalpa bungei (Manchurian Catalpa)
Celtis occidentalis (Hackberry)
Cercidiphyllum magnificum (Weeping Katsura)
Cladrastris kentuckea (American Yellowwood)
Corylus colurna (Turkish Filbert)
Halesia caroliniana (Carolina Silverbell)
Koelreuteria paniculata (Golden Raintree)
Maackia amurensis (Amur Maackia)
Maclura pomifera (Osage Orange)
Magnolia virginiana (Sweet Bay)
Morus alba (White Mulberry)
Ostrya virginiana (Hop Hornbeam)
Oxydendrum arboretum (Sourwood)
Phellodendron amurense (Cork Tree)
Prunus (Okame Cherry)
Prunus serrulata (Kwanzan Japanese Cherry)
Prunus x yedoensis (Yoshino Cherry)
Robinia pseudoacacia (Black Locust)
Sorbus alnifolia (Korean Mountain Ash)
Stewartia pseudocamellia (Japanese Stewartia)
Syringa pekinensis (Pekin Lilac)
Syringa reticulata (Japanese Tree Lilac)

Evergreen

Abies concolor (White Fir)
Chamaecyparis obtuse (Hinoki Cypress)
Chamaecyparis pisifera (Thread Cypress)
Ilex attenuata (Foster No. 2 Holly)
Ilex opaca (American Holly)
Ilex pendunculosa (Longstalk Holly)
Juniperus chinesis (Chinese Juniper)
Juniperus virginiana (Eastern Red Cedar)
Magnolia grandiflora (Southern Magnolia)
Osmanthus americanus (Devilwood)
Pinus bungeana (Lacebark Pine)
Pinus densiflora (Dragon's Eye Jap. Red Pine)
Pinus parviflora (Japanese White Pine)
Pinus strobes (White Pine)
Pinus virginiana (Virginia Pine)
Taxus baccata (English Yew)
Tsuga Carolina (Carolina Hemlock)

Medium

25 - 50 feet when mature

Small

10 -25 feet when mature

Deciduous

Acer ginnala (Amur Maple)
Acer japonicum (Fullmoon Maple)
Acer nikoense x A. griseum (Hybrid Trifoliate Maple)
Acer palmatum (Japanese Maple)
Acer tegmentosum (Manchu Striped Maple)
Aesculus parviflora (Bottlebrush Buckeye)
Betula nigra 'Fox Valley' (Dwarf River Birch)
Buddleia alternifolia (Fountain Buddleia)
Cercidiphyllum japonicum (Weeping Katsura Tree)
Cercis canadensis (Eastern Redbud)
Chionanthus retusus (Chinese Fringe Tree)
Chionanthus virginicus (Fringe Tree)
Clethra barbinervis (Japanese Clethra)
Cornus alternifolia (Pagoda Dogwood)
Cornus florida (Flowering Dogwood)
Cornus kousa (Kousa Dogwood)
Cornus mas (Cornelian Cherry Dogwood)
Corylus avellana (Curly European Filbert)
Cotinus obovatus (American Smoketree)
Cotoneaster multiflorus (Many-Flowered Cotoneaster)
Crataegus crus-galli (Cockspur Hawthorn)
Crataegus lavallei (Lavalle Hawthorn)
Crataegus viridis 'Winter King' (Hawthorn)
Forsythia intermedia (Border Forsythia)
Fothergilla major (Large Fothergilla)
Hamamelis x intermedia (Witch Hazel)
Hamamelis virginiana (Common Witch Hazel)
Hydrangea paniculata (Panicle Hydrangea)
Ilex deciduas (Possum Haw)
Ilex serrata (Finetooth Holly)
Ilex verticillata (Winterberry)
Kolkwitzia amabilis (Beauty Bush)
Larix decidua (European Larch)
Ligustrum ovalifolium (California Privet)
Lindera benzoin (Spicebush)
Lonicera fragrantissima (Fragrant Honeysuckle)
Lonicera tatarica (Tatarian Honeysuckle)
Magnolia (Hybrid Magnolias)
Magnolia loebneri (Loebner Magnolia)
Magnolia soulangiana (Saucer Magnolia)
Magnolia stellata (Star Magnolia)
Malus (Crabapple)
Malus floribunda (Flowering Crabapple)
Physocarpus opulifolius (Eastern Ninebark)
Prunus x (Hally Jolivette Cherry)
Prunus subhirtella (Higan Cherry)
Rhododendron arborescens (Sweet Azalea)
Styrax japonicus (Japanese Snowbell)
Syringa vulgaris (Common Lilac)
Viburnum burkwoodii (Burkwood Viburnum)
Viburnum dentatum (Arrowwood Viburnum)
Viburnum opulus (Cranberry Bush Viburnum)
Viburnum plicatum (Doublefile Viburnum)
Viburnum prunifolium (Black Haw)
Viburnum rufidulum (Southern Blackhaw)

Evergreen

Abies korneana (Korean Fir)
Buxus sempervirens (Common Boxwood)
Chamaecyparis obtuse (Hinoki Cypress)
Ilex attenuata 'Sunny Foster' (Holly)
Ilex crenata (Japanese Holly)
Juniperus chinensis (Chinese Juniper)
Juniperus virginiana (Eastern Red Cedar)
Pinus mugo (Mugho Pine)
Rhododendron catawbiense (Catawba Rhododendron)
Taxus cuspidate (Japanese Yew)
Taxus media (Anglojap Yew)
Tsuga candadensis (Canadian Hemlock)
Viburnum pragense (Pragense Viburnum)

Definitions

3:8 rule: Landscape vegetation should not be present in the range of 3 feet to 8 feet from ground level. This allows for unobstructed vision for both pedestrian and vehicle traffic.

accessory building: Any building detached from the primary dwelling unit and may or may not have occupants (e.g. detached garage, carport, shed, gazebo).

accessory structure: Any small structure detached from the primary structure (e.g. mail box, bird house, swimming pool)

bio-retention basin: Landscaped depressions used to collect, treat, and infiltrate storm-water runoff.

bio-retention island: A bio-retention basin used in parking lots between parking aisles.

bio-swale: A landscaped channel that partially treats and infiltrates storm-water as it is conveyed down slope

branch collar: Bulge at the connection of a branch to the tree trunk or larger branch. Proper pruning at this bulge allows the tree to heal more quickly and fully.

curb cut: Ramp graded down from the top surface of a sidewalk to the surface of an adjoining street or driveway.

detention basin: Depression that is used to collect and slow release storm-water. In the absence of a rain event, it may be "dry" or may be "wet".

egress: An exit drive for vehicles.

facade: The front wall of a building, especially a decorated one.

foot-candles: A unit of measure of the intensity of light falling on a surface, equal to 1 lumen per square foot.

green roof: A roof covered with vegetation, for aesthetic value, water retention, and energy conservation.

ingress: An entrance drive for vehicles.

parapet: The wall along a roofline edge

pole sign: A sign raised above ground level by a pole or multiple poles.

retention basin: Depression that is used to collect and infiltrate storm-water. Unlike a detention basin, the retention basin does not allow the slow release of storm-water.

right-of-way: A strip of land that is granted, through an easement or other mechanism, for transportation purposes. A street right-of-way can include the street, median, shoulder, landscape buffer, and sidewalk.

riparian zone: Buffer between a flowing body of water and adjacent developed land. Buffer is important for ecological and hydrological reasons.

wall sign: A sign attached parallel to a building façade.

Contributors