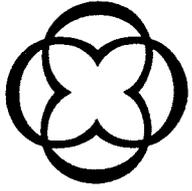
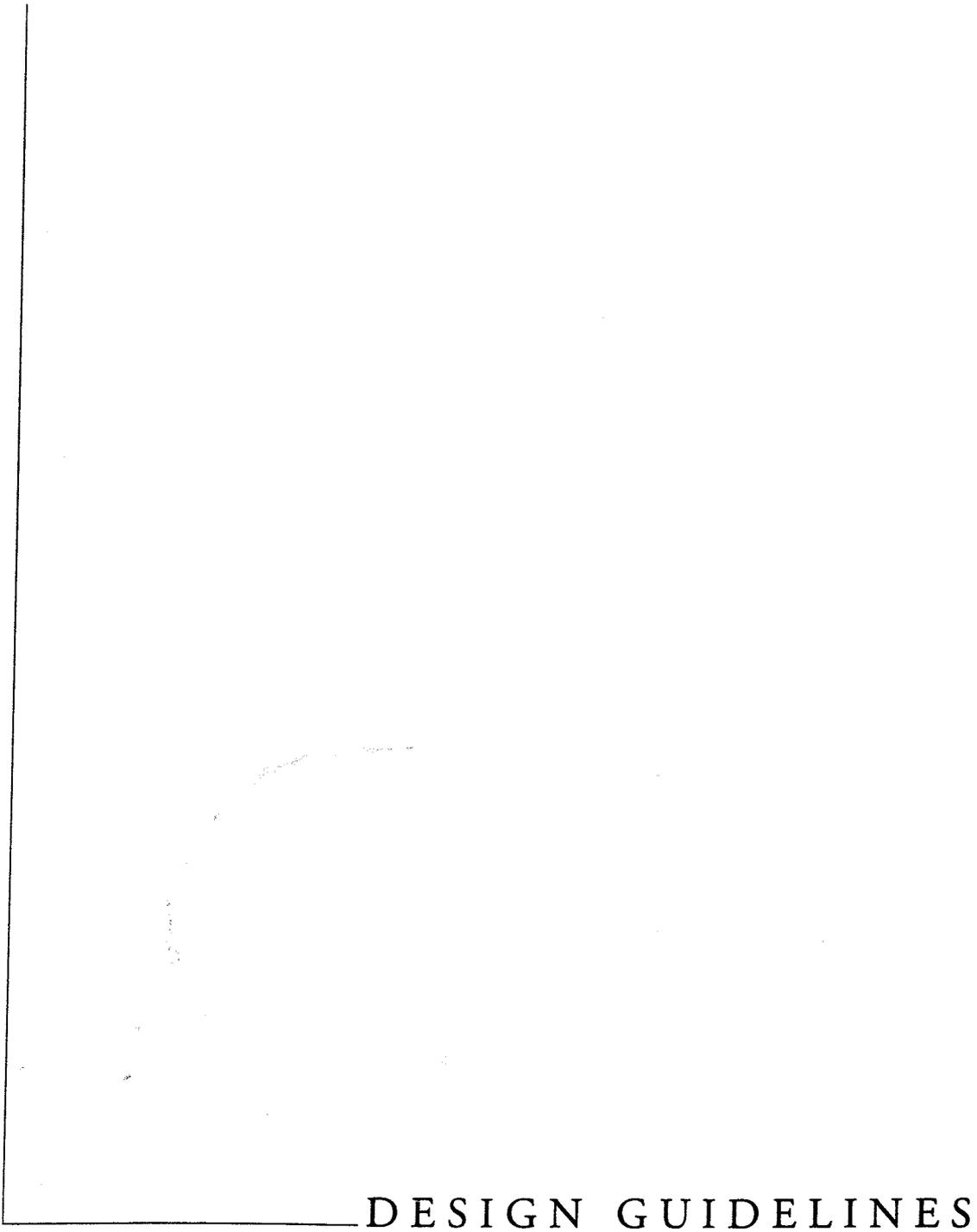


Paul Weinreich 312-427-2888



CANTERA



DESIGN GUIDELINES Warrenville Development Limited Partnership



Cantera is planned as a high-quality, mixed-use development encompassing more than 650 acres of land along the scenic West Branch of the DuPage River. The site is centered around the Winfield Road interchange on Interstate 88 (East-West Tollway) in Warrenville, Illinois.

1 DESIGN CONCEPT

Cantera has been comprehensively planned to maximize aesthetics and function within the mix of proposed building types and land uses. The Master Plan for Cantera provides an orderly layout of open spaces, streets, buildings, and amenities that integrates the site's man-made and natural environments. The overriding objective is to create a harmonious, interrelated group of distinct development areas.

Concepts that guide the Master Plan for Cantera include:

- A *Comprehensive Open Space System*;
- A strong *Street Hierarchy*;
- A coherent pattern of *Building Clusters*;
- A rational plan of proposed *Building Heights*;
- *Pedestrian Activity* areas;
- A comprehensive *Stormwater Management System*;
- Unique *Environmental Art*; and,
- A unifying landscape design that allows for *Flexibility*.



The Master Plan and these planning concepts provide the basis for the Cantera Design Guidelines. The purpose of the Design

Guidelines is to set forth the standards that will guide development at Cantera. They are not intended to limit development choices or design alternatives, but rather to encourage innovation and creativity above an appropriate standard.



COMPREHENSIVE OPEN SPACE SYSTEM

Where feasible, buildings within Cantera will be connected by a continuous open space system. Comprised of landscape, waterscape, pedestrian pathways, and large open areas, the open space system will permit pedestrians to travel by foot or bicycle within Cantera.

The open space system will respond to the ecology of the site with native plants and naturalized materials and will capitalize on the series of interconnected canals that comprise Cantera's comprehensive stormwater management system.



STREET HIERARCHY

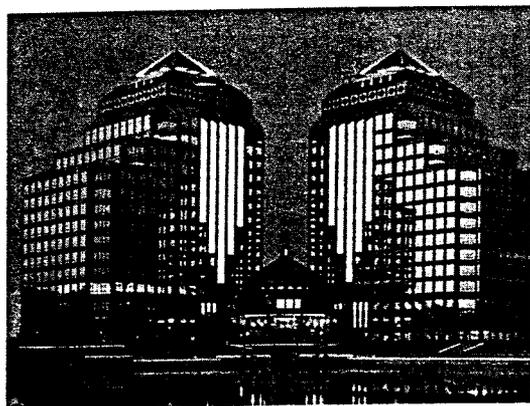
At Cantera, all master planning has been performed in conjunction with sound transportation planning and engineering principles.

There are three distinct types of public streets proposed in the Master Plan for Cantera and this hierarchy is the single strongest form-giver to the layout of lots at Cantera. Each street type serves a different purpose and exhibits different characteristics.





- **Arterial streets:** Broad landscaped boulevards with at least four lanes of traffic, these divided roadways carry high volumes of traffic to and throughout Cantera at relatively high speeds. Intersections and curb cuts are kept to a minimum.
- **Collector streets:** Providing access to multiple parcels and connecting directly to arterial streets, these two-lane undivided roadways carry moderate traffic levels.
- **Local streets:** Offering access to individual parcels, two-lane undivided roadways connect directly to either collector or arterial streets.



Human scale and comfort are the ultimate goal at Cantera. Where appropriate, the Master Plan exhibits a clustered building pattern in which two or more buildings are grouped in proximity to each other and to the comprehensive open space system. Spaces between buildings are as important as the buildings themselves and are intended to be unique in form and character. While small in scale,

such spaces will be rich in landscape materials and character. When possible, these spaces will occur along or adjacent to open space areas, and serve as informal social gathering spaces.

BUILDING CLUSTERS

The Master Plan for Cantera exhibits a strong and simple pattern of allowable building height. In general, taller buildings may be built near the Tollway, and shorter ones near the north and south property lines. More specific height restrictions, as well as setbacks for buildings and parking, are documented in subsequent sections of the Design Guidelines and in the City of Warrenville's Development Control Regulations for Cantera.

BUILDING HEIGHTS



PEDESTRIAN ACTIVITY

A number of public places will occur within the open space system and among the building clusters. These distinct outdoor spaces will serve as activity areas and complement Cantera's built structures and network of open space amenities. The places may be of formal or informal landscape designs and include seating areas, gazebos, and other structures, as well as sculptures or other artwork, to encourage the gathering of people.

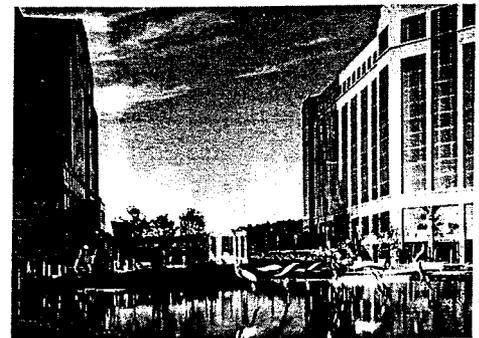


STORMWATER MANAGEMENT SYSTEM

A series of interconnecting canals and ponds that course through Cantera's open space system will form Cantera's stormwater management system. These scenic water features will thus serve both aesthetic and practical functions.

In addition to the stormwater detention canals and ponds, special water and wildlife resource management devices have been created which must be respected by all development. These include:

- **Nature Preserve:** Approximately 37 acres of land located adjacent to the West Branch of the DuPage River serves as a wetland and wildlife habitat area.
- **Wetland Area:** A small, existing area of wetlands (1 acre) near the DuPage River will be protected from development and stormwater runoff.
- **Freshwater Lake:** Adjacent to the Nature Preserve, a freshwater lake has been created to enhance benefits to migratory waterfowl. It will not be impacted by stormwater runoff.
- **West Branch of the DuPage River:** A scenic amenity at Cantera, the river's water quality must be protected. Therefore, stormwater runoff discharged into the river directly or through the stormwater management system will first flow through a buffer of streamside planting and aquatic plants to remove fertilizers, pesticides, road salts, etc.





Public art will be encouraged throughout the open space system of Cantera and will make Cantera more understandable and memorable to visitors, workers, and residents. Artwork envisioned for Cantera includes earthworks, walls, sculptures, fountains, and landscapes that celebrate the unique history of Cantera as a quarry.

ENVIRONMENTAL ART

While the Master Plan for Cantera has been thoughtfully conceived to unify the development through strong design principles and a consistent landscape treatment, it will remain a flexible document able to accept and accommodate change as market conditions, regulatory policy, and user preferences demand. Thus, the Master Plan is viewed as a structural framework for development, not a fixed plan to be implemented exactly as drawn. It is important that developers, architects, engineers, and landscape architects understand this approach to the Master Plan so that as incremental changes occur over time, they are not in conflict with Cantera's original design concept.

FLEXIBILITY



2 SITE PLANNING

The layout of buildings and parking areas is essential to establishing the overall character of Cantera. Important considerations include the relationship between buildings and open spaces, the location of building(s) within a lot, the percentage of a lot covered by buildings and paved areas, and the circulation of vehicles and pedestrians.

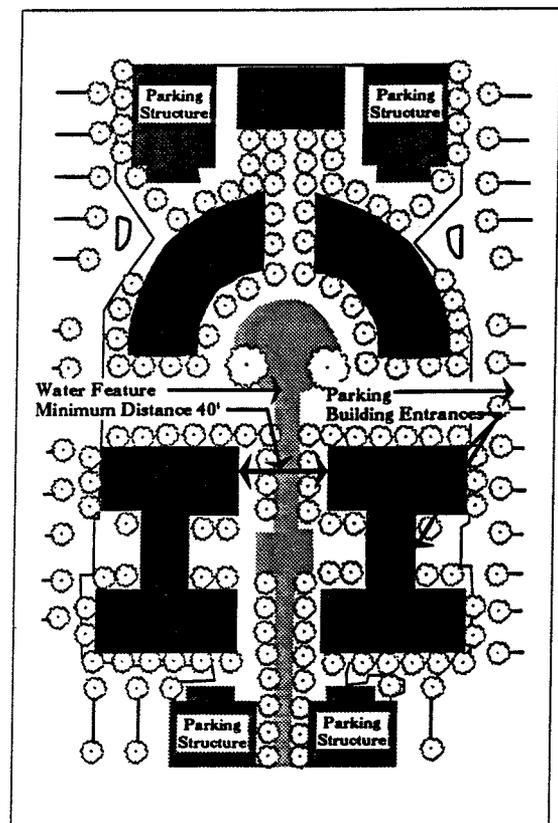
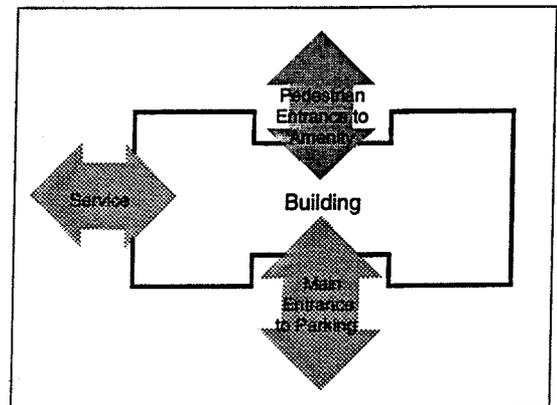
BUILDING PLACEMENT

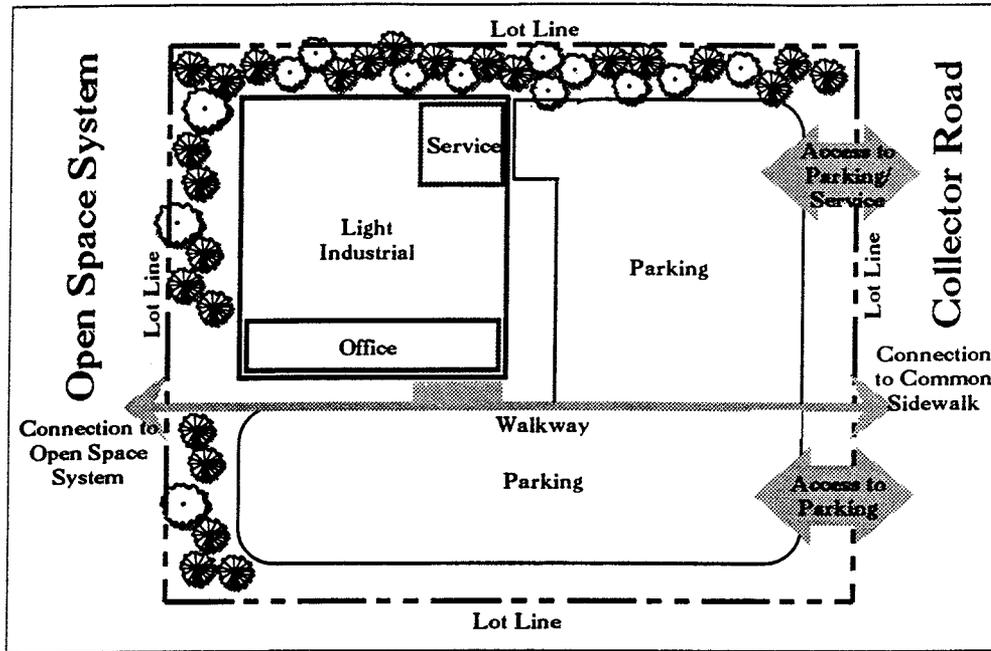
One of the primary goals of the Master Plan for Cantera is to create a series of building clusters around landscape or waterscape amenities, interconnected by a comprehensive open space system. Therefore, buildings should be located near or incorporate the open space system whenever possible.

At least one side of a building within a lot abutting the open space system should be sited adjacent to the open space system and should provide a door to establish a direct pedestrian connection. No parking or service areas are allowed on this side of the building and opaque exterior surfaces along this building edge will be discouraged. Main building entrances should connect with parking areas. Service areas should be located on the side of a building and not near the main entrance or adjacent to the open space system.

When multiple buildings are planned within one parcel or lot, they should be clustered to create clear and usable places for people. The spaces between buildings should be free of parking, service, or other vehicular uses.

Single, stand-alone buildings should also be sited to encourage pedestrian connections to the open space system.





The overall image of Cantera should be clusters of buildings oriented around landscape or waterscape amenities, rather than isolated, freestanding buildings sitting within parking lots. However, each building should have front, rear, and side yards to create an appropriate setting. The following chart, taken from the City of Warrenville's Development Control Regulations for Cantera, provides building setback guidelines to establish building envelopes.

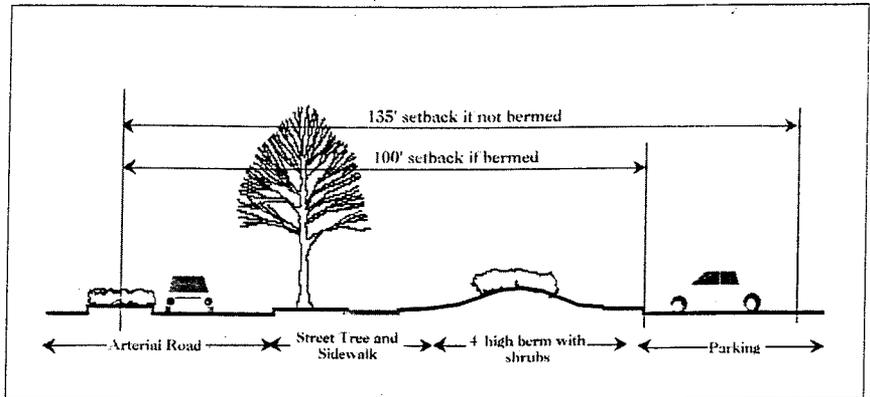
SETBACKS

Land Use	Minimum Lot Size	Minimum Landscape Coverage	Minimum Lot Width	Minimum Front and Corner Side Yards (a)		Minimum Side and Rear Yard (b)		Minimum Distance	
				Building Setback	Parking Setback	Building Setback	Parking Setback	Parking Area to Building	Building to Building
Office/Hotel	2.5 acres (c)	35%	250' Corner lot: 300' Arterial corner: 400' Hotel lot: 350'	Arterial: 150' Collector: 100' Local: 93'	Arterial: 135' (d) Collector: 60' Local: 53'	Side: 20' Rear: 20'	10'	15'	40' (e)
Light Industrial	2.5 acres	30%	250' Corner lot: 300' Arterial corner: 400'	Arterial: 135' Collector: 75' Local: 60'	Arterial: 135' (d) Collector: 60' Local: 53'	Side: 20' Rear: 20'	10'	15'	40' (e)
Commercial	20,000 s.f. (c)	20%	100' Hotel lot: 350' Corner hotel lot: 450'	Arterial: 150' Collector: 80' Local: 73'	Non-retail: 135' (d) Retail: 95' Collector: 60' Local: 53'	Side: 20' Rear: 20'	10'	10'	40' (e)

Notes: (a) As measured from centerline of roadway.
 (b) As measured from property line.
 (c) 5 acre minimum for hotel lots or arterial corner lots.
 (d) Parking setback reduced to 100' with berm.
 (e) Minimum building separation: 40' principal: 20' accessory.
 Source: City of Warrenville Development Control Regulations for Cantera



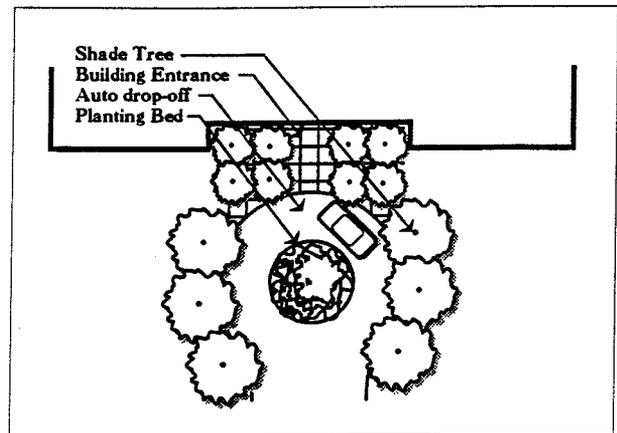
Parking area setbacks along arterial roadways can be reduced from 135' to 100' with a 4'



high berm planted with shrubs. Additional screening requirements for the perimeter of parking areas are presented in Chapter 4 of this document.

PARKING AND VEHICULAR CIRCULATION

A clearly organized system for vehicular circulation and parking is a fundamental objective at Cantera. Therefore, efficient and safe vehicular movement shall be provided within individual lots. Driveways should be located so that access and flow are maximized and entries and circulation routes should be clearly marked and follow simple and regular patterns. The



following table provides the minimum parking requirements for various land uses as outlined in the City of Warrenville's Development Control Regulations for Cantera.

Land Use	Base # of Spaces	Additional Spaces Required
Office (a) First 30,000 sf Over 30,000 sf	4 per 1,000 sf 3 per 1,000 sf	Plus 1 space for each truck or business vehicle kept on site.
Hotel	1 per Room	Plus restaurant, retail, and meeting rooms @ 10 spaces per 1,000 sf.
Retail (b)	4 per 1,000 sf	Plus 1 space for each truck or business vehicle kept on site.
Light Industrial (c) First 10,000 sf Over 10,000 sf	2 per 1,000 sf 1 per 1,000 sf	Plus 1 space for each truck or business vehicle kept on site.

Floor areas listed here represent Gross Floor Area
 Notes: (a) Employee oriented offices. does not include retail or personal services office space.
 (b) Retail includes shopping centers, food stores, department stores, and personal services.
 (c) Light Industry including Wholesaling, Warehousing, Laboratories, Manufacturing Assembly, Light Industry. For Light Industry such as Carriage & Express Firms, Radio/TV/Recording Studios, Mini-Warehouse the requirement is 1 space per employee plus 1 space for each business vehicle kept on site, regardless of square footage.
 Source: City of Warrenville Development Control Regulations for Cantera



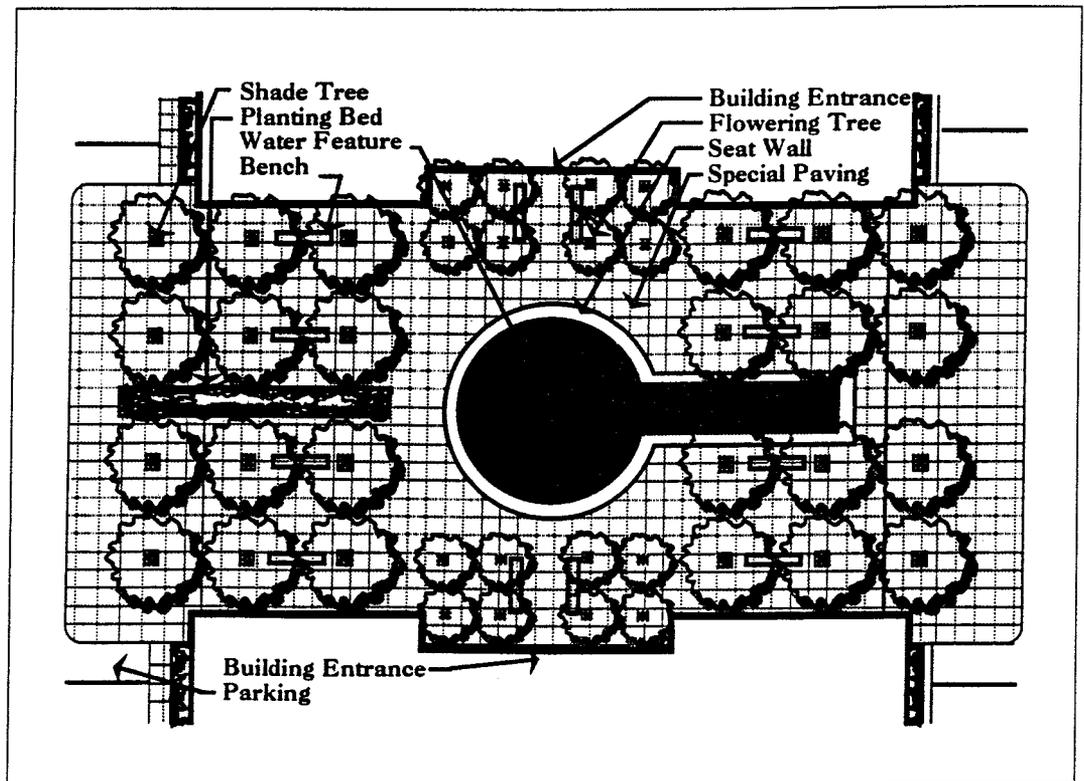
Linking pedestrian circulation and activity areas via a comprehensive network of pathways and amenities is the foundation of the open space system at Cantera. This open space system will link building clusters and site amenities, offering opportunities to walk, jog, or bicycle throughout Cantera and enhancing the project's overall aesthetic quality.

**PEDESTRIAN
CIRCULATION AND
ACTIVITY AREAS**

Within individual lots, pedestrian walkways will connect the building to parking areas, public sidewalks and, as appropriate, to the open space system. Pedestrian walkways shall be asphalt, concrete, brick or stone pavers and shall be at least 6' in width. Gravel or mulch are not acceptable materials. At building entrances, entry walkways shall widen and incorporate at least 400 square feet of special paving.

To supplement and extend the common open space system, pedestrian activity areas should be established within building clusters or adjacent to stand-alone buildings to serve as social gathering spaces. These pedestrian spaces may include a variety of forms such as courtyards, gardens, or parks to encourage pedestrian activity and the gathering of people.

Pedestrian spaces can consist of both paved and unpaved areas, and should include landscape features such as fountains, seating, and sculpture. Planted areas should account for at least 20% of the area and include both shade and flowering trees. Permanent outdoor seating should be provided within activity areas.

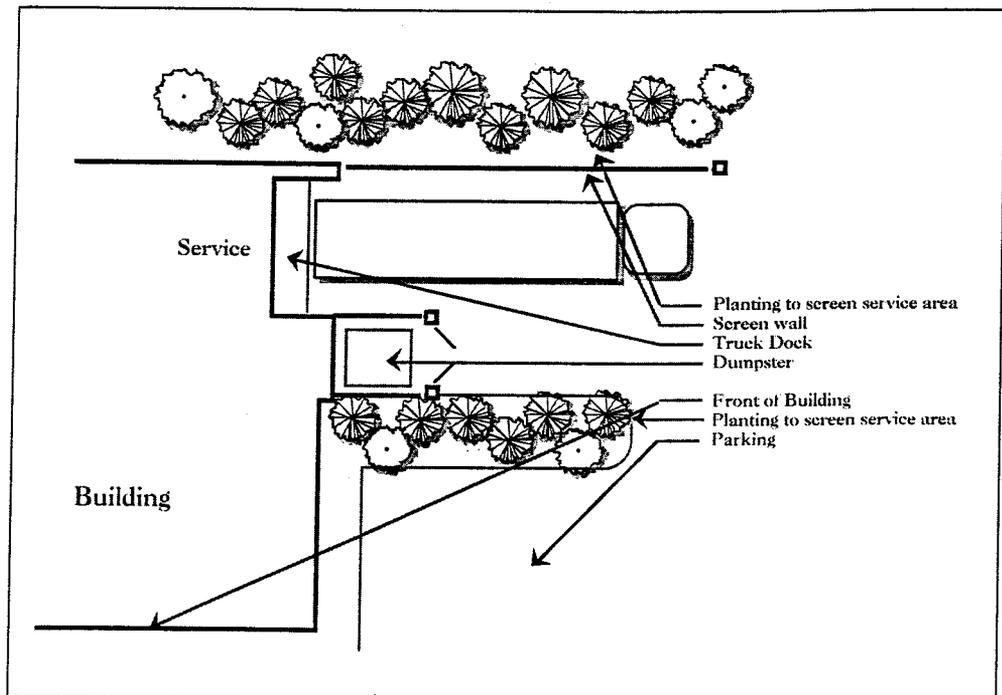


Cantera's open space system of pathways and pedestrian spaces will include sidewalks along at least one side of all arterial, collector, and local streets. The site plan for each proposed building or building cluster shall include a walkway connection from the main entrance of the building to the public sidewalk.



SERVICE AND LOADING

Service and loading areas should be located and sized to accommodate truck maneuvering and to minimize impacts on pedestrians and vehicular traffic. Service areas should be located on the side of a building and are not permitted near the main entrance or adjacent to the common open space system without proper screening. For light industrial buildings, service functions should not occupy more than 75% of a building side in terms of linear feet; for office buildings, no more than 25% of a side should be devoted to service uses. Such areas should also be set back, recessed, or enclosed by screening walls or sufficient vegetation so that they are not visible from public areas or adjacent lots.





3 ARCHITECTURE

Cantera is a high quality development where buildings will fit harmoniously within a unifying landscape setting. Because the landscape is conceived as Cantera's unifying element, the architecture should allow the landscape to read clearly. However, buildings need not seek common materials, forms, or character.

The architecture for Cantera should embrace the unique era and region they occupy continuing the legacy of Chicago's traditional architectural style. While highly subjective, this style arises from a horizontal landscape, an infinite horizon, a strong sense of sky, and a bracing climate.

The architecture should achieve a balance between simplicity and complexity in form and massing. Buildings should be designed to express a richness and complexity at pedestrian scale, while expressing a clarity and simplicity farther away, at highway scale. As a result, articulated elevations, corners, and rooflines are encouraged.

To reinforce the pedestrian scale, entrances should have a strong, visible expression. Front and side doors should be clearly identified from pedestrian and parking areas. Buildings facing open space corridors should have a prominent entry door to that amenity to achieve a visual and physical connection. Ornamentation, or the addition of articulation, details, or materials to reinforce form, is encouraged in developing architecture for Cantera.

Buildings at Cantera should reflect and reinforce their position in the Master Plan. Through massing, height, and configuration, the buildings should help to establish an overall sense of order and character.

BUILDING CHARACTER

The three fundamental types of buildings at Cantera include:

- **Gateway Building:** Tall buildings established on Winfield Road at the Tollway interchange. These buildings should emphasize vertical expression, establish a prominent base, and provide a powerful silhouette at the crown.
- **Cluster Building:** A single building within a group of buildings that are typically low-rise to mid-rise in height. They should be conceived as background buildings, creating positive pedestrian open space between or among them and relating strongly to each other in form, height, and character. While elevations and roof profiles should be harmonious throughout a cluster, variations are encouraged.
- **Object building:** A free-standing building of variable height and location with its own identity. This building type is free of contextual relationships to other buildings, but shall follow all requirements included in the City of Warrenville's Development Control Regulations for Cantera.



D E S I G N G U I D E L I N E S

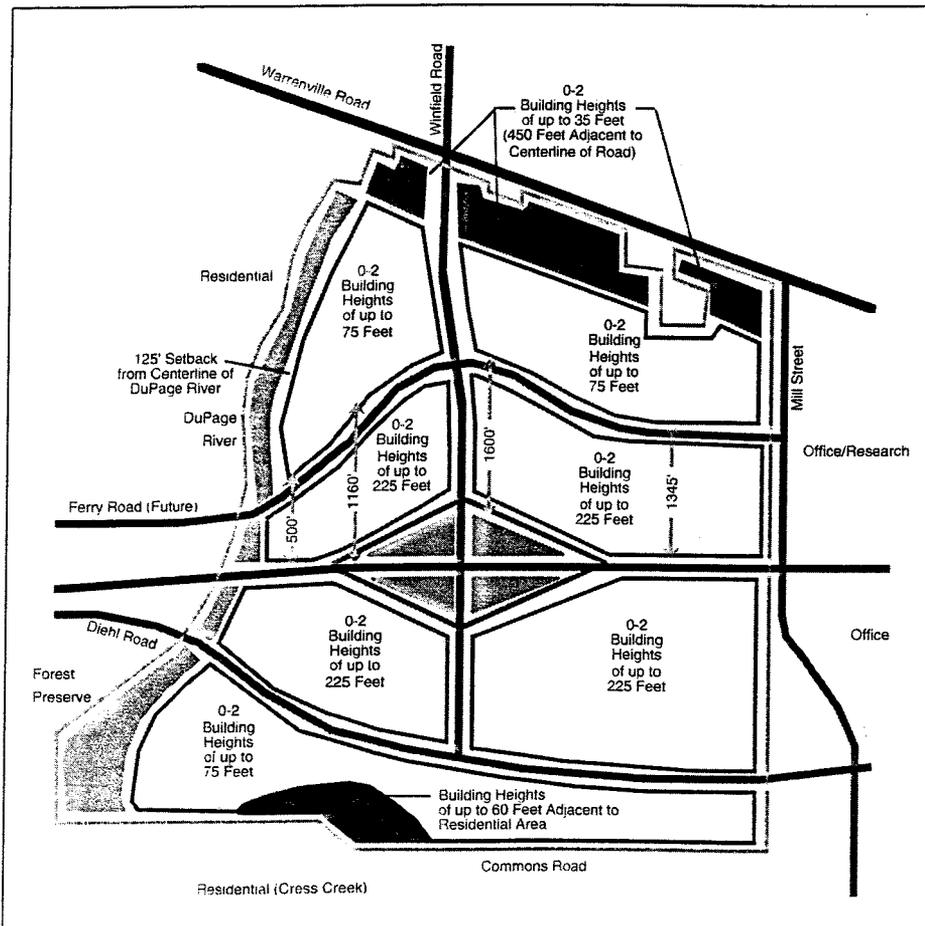
Office buildings, hotels and the office components of light industrial buildings should provide interior daylight and the exterior wall surface should have a minimum glazing percentage of 35%.

Retail buildings should exhibit a minimum glazing percentage of 60%. Exterior articulation and detailing is encouraged and consideration should be given to weather protection with such devices as canopies or colonnades. Single-tenant retail buildings should be strong and simple in profile, maximizing the building envelope and height within given Master Plan constraints. Multi-tenant retail buildings should convey a hierarchy of the tenants by size. For example, a large anchor store should exhibit a higher roof or taller parapet to reinforce its position, whereas a single bay storefront should be consistent in height with its neighbors.

BUILDING HEIGHTS

The Master Plan for Cantera provides a rational plan for allowable building heights. The overall objective is to restrict buildings of maximum height (up to 225') to areas nearest the Tollway, and to place buildings of minimum height (up to 60') in areas nearest to the property lines of Cantera.

For office and hotel buildings, heights shall not exceed:



- 225' in the area between Ferry Road and Diehl Road;
- 75' from Ferry Road north to a line 450' from the centerline of Warrenville Road;
- 75' from Diehl Road south,
- 35' or 2 1/2 stories along Warrenville Road; and
- 60' within the special height restriction area adjacent to the existing Cress Creek residential area at the southern boundary of Cantera.



Industrial buildings shall not exceed 45' in height, regardless of location. Retail buildings shall not be less than 16' in height to a parapet or less than 24' in height to the ridgeline.

Building height shall be defined as the total vertical building dimension from the ground floor to the parapet wall of the top floor (exclusive of mechanical or electrical equipment). The ground floor shall be a function of surrounding grade and shall not vary from the mass grading plan by more than five feet in either direction. The City of Warrenville's Development Control Regulations for Cantera provide more specific information concerning height restrictions.

Materials selected for buildings at Cantera should be durable and honestly expressed. The choice of materials should be guided by functional and aesthetic concerns, free of gimmicks, heroics, or faux finishes. A given material should read clearly and expressively and not try to mask its identity. Therefore, concrete shall look like concrete, steel like steel, and so on. Materials should also be selected to embody their virtues, e.g., concrete for mass, steel for span, brick for texture, etc. An expected life of 50 years shall be the minimum horizon for durability.

BUILDING MATERIALS

Building materials that will be encouraged at Cantera include:

- Steel/aluminum curtain wall;
- Concrete;
- Precast concrete/finished concrete masonry units;
- Stone;
- Brick; and
- Glass: tinted and clear.

Materials that are inappropriate for buildings at Cantera include:

- Plywood/wood;
- Corrugated or pre-engineered metals;
- Unfinished concrete masonry units;
- Composite building panels/gypsum wall panels; and
- Plastics.

Materials on a building shall be expressed on all exterior sides equally. Parking garage walls and fences shall use materials compatible with attendant buildings.



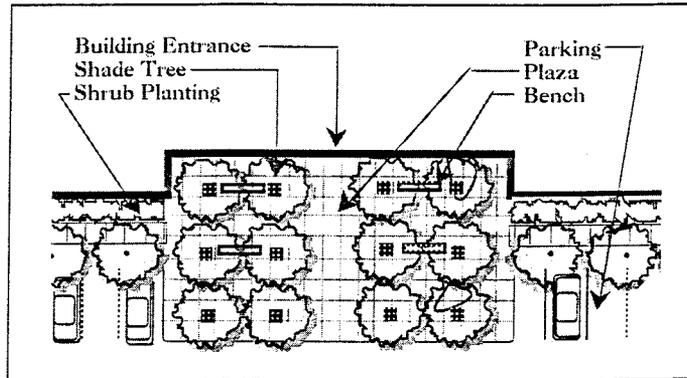
4 LANDSCAPE

The landscape of Cantera is conceived as the primary unifying element for the site. The landscape should enable current and future buildings to be located within a mature, established setting, thereby helping to ensure visual compatibility throughout the project.

Landscape guidelines are provided to ensure an appropriate choice of landscape materials to complement Cantera's architecture and Master Plan. The landscape will help establish a distinctive overall image for Cantera while encouraging individual identification and expression.

BUILDING FOUNDATIONS

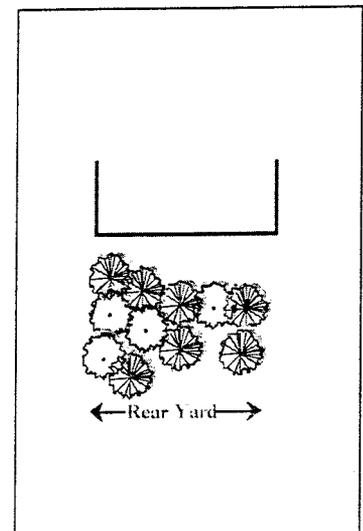
- **Front Yards:** The landscape treatment for front yards should complement building architecture. The treatment should also recognize the regular rhythms of



the streetscape and exhibit species, spacing, and character that reinforce the streetscape. Special landscape treatment should be provided at building entrances to provide strong visual access to the front door.

The front yard shall include at least one major shade tree (with a minimum caliper of 3") per 40' of frontage. The front yard should be primarily deciduous in character (at least 75% of the planting in the yard). Areas for water retention (which remain wet) may be provided in front yards; however, dry detention areas may not. For retention areas, a minimum of 40% of the perimeter area shall be planted in riparian plant materials.

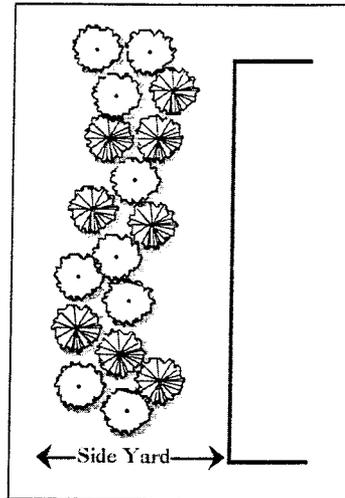
- **Rear Yards:** Landscaping in rear yards may be informal in character with clusters or groves of plantings, and shall respond to the character of adjacent or nearby open spaces. Where a rear yard abuts a canal, wetland, or water body, a riparian palette of plantings should be used. The riparian, aquatic, woodland, or prairie plantings, as appropriate, should be located to frame or screen views and provide definition and scale.





When the exterior building surface is opaque, rear yards should be primarily evergreen in character (at least 75% evergreen trees) to serve as a buffer. When exterior building surfaces are glazed, the rear yard should be primarily deciduous in character (at least 75% deciduous). Retention and detention areas may occur in rear yards. For retention, a minimum of 25% of the perimeter area shall be planted in riparian plant material.

- Side Yards:** The landscape for side yards should not delineate or regularize property lines. Side yard landscapes between two like uses should be predominantly deciduous in character (at least 75% deciduous) and appear to blend seamlessly with the adjoining property. There shall be a minimum of two major shade trees and one flowering tree per 25' of property line. The trees should be planted in groves with an informal massing pattern.



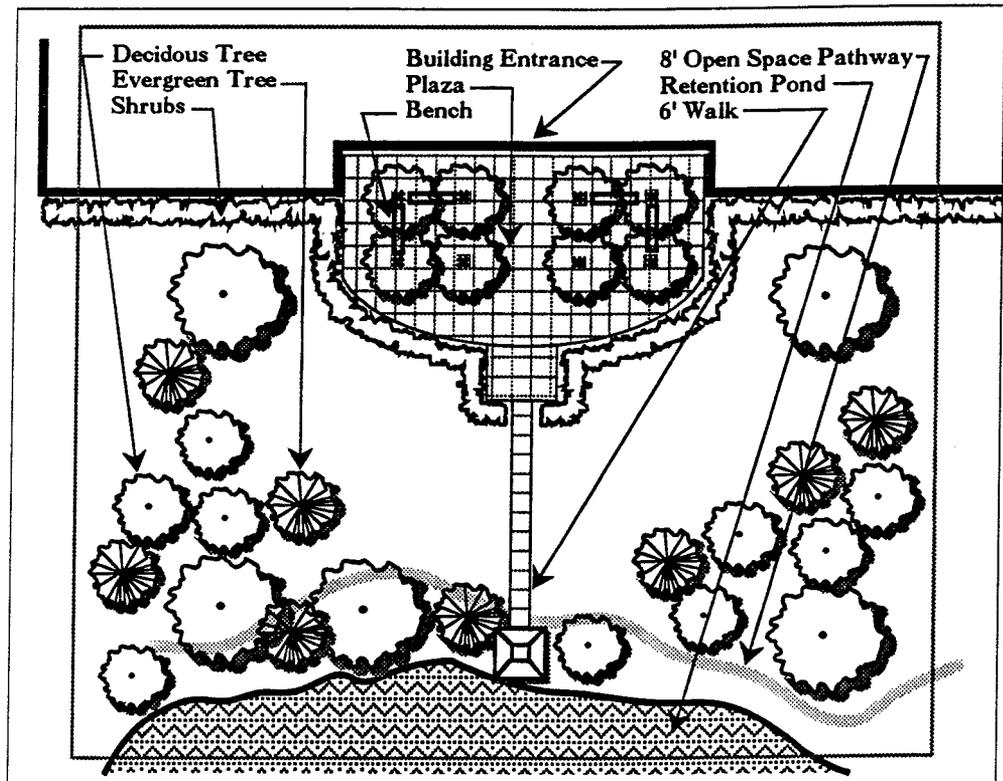
When two unlike uses abut each other, the landscape should be predominantly evergreen in character (at least 75% evergreen trees) to provide visual screening, yet should not appear as a straight line or wall of plantings. There shall be a minimum of one evergreen tree per 10' of property line planted in at least a double row on a staggered grid that will provide 100% visual screening within 5 years of planting. In addition, two major shade trees and one flowering tree shall be provided per 50' of property line and planted in clusters or a meandering line. Retention and detention areas may occur in side yards. For retention, a minimum of 30% of the perimeter area shall be planted in riparian plant material.



AMENITY AREAS

Landscape areas within individual lots adjacent to the open space system should assume the character of this amenity. Through the use of compatible materials and appropriate design, such a landscape should serve as a continuation of the amenity area, further linking buildings to the open space system.

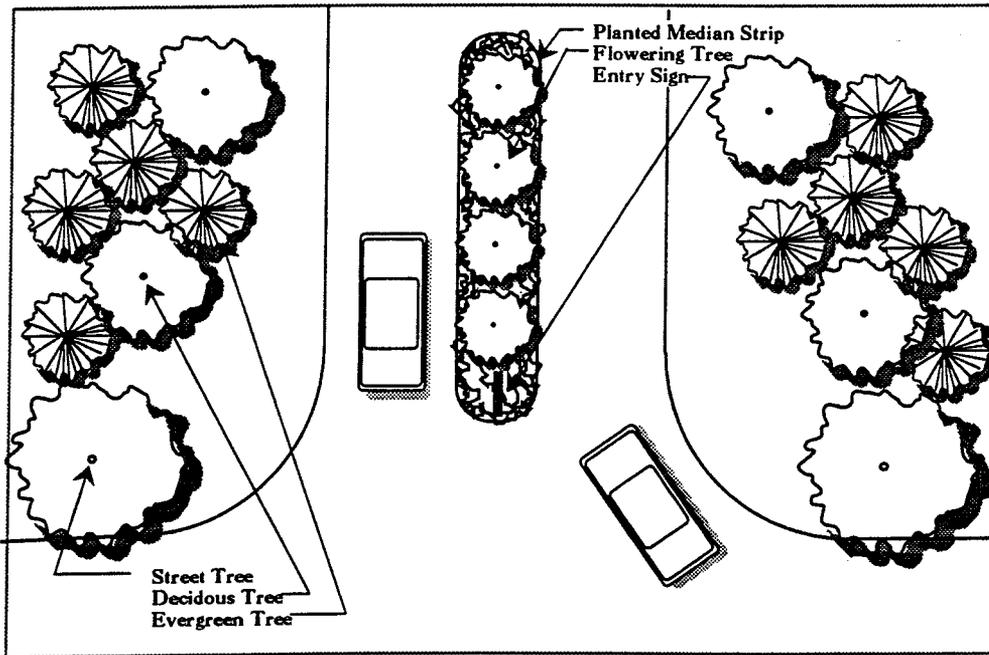
Special features in the landscape such as decorative plantings, fountains, art, patios, etc., should be located in areas conducive to pedestrian use. Therefore, positions such as those adjacent to parking lots, service areas, etc., are less likely places for emphasis than front doors, rear doors, or areas adjacent to the comprehensive open space system.





ENTRIES

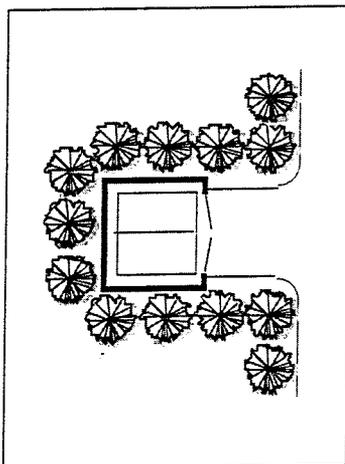
The landscape should visually and physically reinforce vehicular and pedestrian entry zones to individual lots. Main entrances should be flanked by groves of predominantly evergreen species to create a year-round portal (a minimum of 65% evergreen trees). Flowering trees, shrubs, and groundcovers should be positioned at each entry to provide seasonal interest. Major shade trees should flank entry drives in regular rhythms, extending the pattern of street trees into the site and providing visual clues and clarity to visitors of their destination. All entry and driveway groves shall be set back to allow for adequate sight distance for vehicles.



Vegetative materials should be utilized whenever possible to screen service areas, opaque exterior building surfaces, and unlike building uses from adjacent buildings. Service areas should be visually unobtrusive from public streets and the open space system, and achieve a strong fit within the overall landscape character. This may be accomplished with vegetative materials, fences, or walls that blend into site landscaping.

SCREENING

Plantings shall consist of evergreen trees or shrubs, planted 6' on center in double rows on a staggered grid.



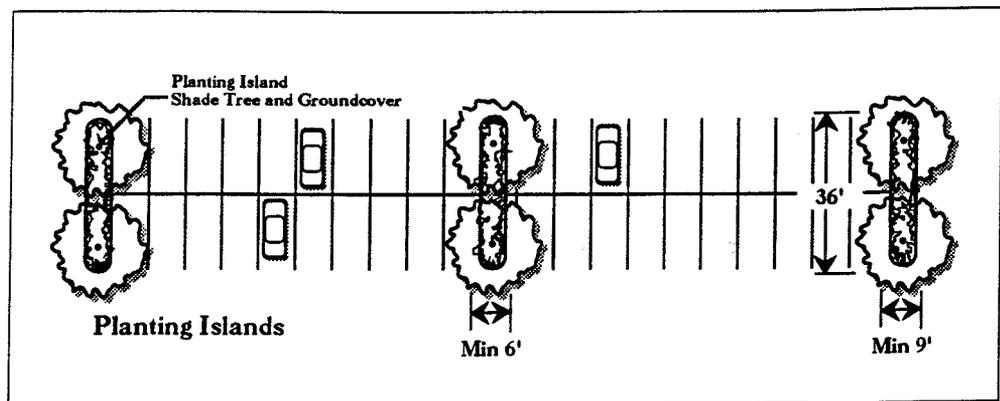
Exterior building surfaces that are opaque, and common property lines between unlike buildings, shall be buffered by vegetative measures that are primarily evergreen in character (a minimum of 75% evergreen trees). These evergreen buffers should be massed for visual interest and should not consist of isolated lines of planting. Architectural elements such as fences and walls should not be used to screen buildings.



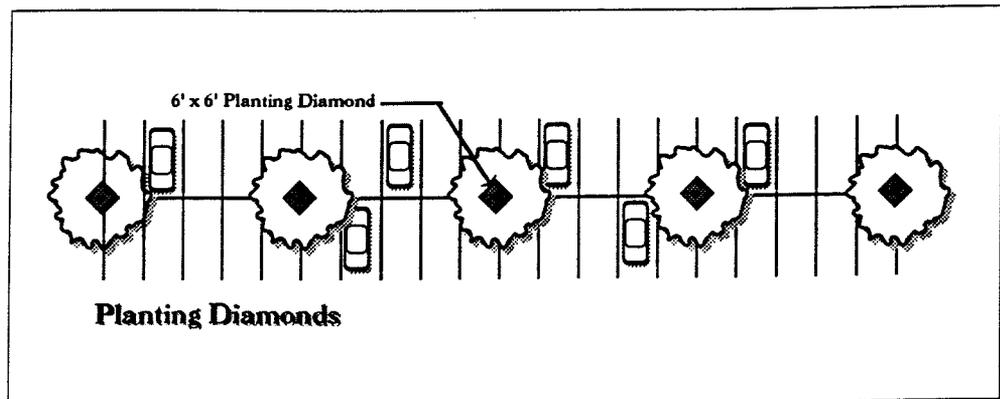
PARKING AREAS

Parking lots should utilize planting materials to visually balance the large areas of pavement. Live landscape should be provided on a minimum of 10% of a parking lot. A single tree species shall be used for each parking lot although the species can vary among lots.

No more than 10 automobiles shall be parked in a line without a planting island. The typical planting island should be 9' wide by 36' long (the minimum size for an interior island is 6' wide by 36' long). Planting islands shall include a minimum of one major shade tree (3" caliper) and have shrubs and groundcover continuously at ground level. Lawn is not permitted on an island.



In lieu of planting islands, parking diamonds may be provided. These are 6' by 6' planters placed at least every 5 parking spaces that include a major shade tree.



Parking perimeter areas located in a front yard shall be bermed to a minimum height of 2' with continuous shrubbery, or a minimum height of 3' with a planted lawn. On side yards, perimeter areas shall be planted with intermittent bands of shrubbery equivalent to at least one shrub per 6' of parking lot length, or with a berm at least 2' high planted with lawn. Areas adjacent to an entry drive shall have evergreen shrubs planted continuously on a berm at least 18" high.



Landscape materials at Cantera should reinforce and be compatible with the character and micro-environment of individual areas. A list of appropriate plantings at Cantera, selected both for hardiness and availability is provided in the Appendix.

PLANTING PALETTE

Plant materials shall meet American Association of Nurserymen standards for sizing, condition, and installation. When installed, all required deciduous shade trees shall be a minimum 3" caliper along entry drives, in front, rear or side yards, and in parking areas. All required ornamental trees shall be a minimum 3" caliper when installed. Evergreen trees planted in front, side, and rear yards to screen opaque exterior surfaces, and to provide a buffer for buildings of unlike uses, should be 9' in height at installation; evergreen trees planted to screen service areas should be 6' in height at installation.



5 SIGNAGE

Sign guidelines are intended to establish a coordinated, consistent, and flexible graphic system that provides information and business identification in a distinctive and aesthetically pleasing manner. There are five types of signs: entry signs, building/tenant identification signs, directional signs, regulatory signs, and temporary signs. These sign categories are outlined below.

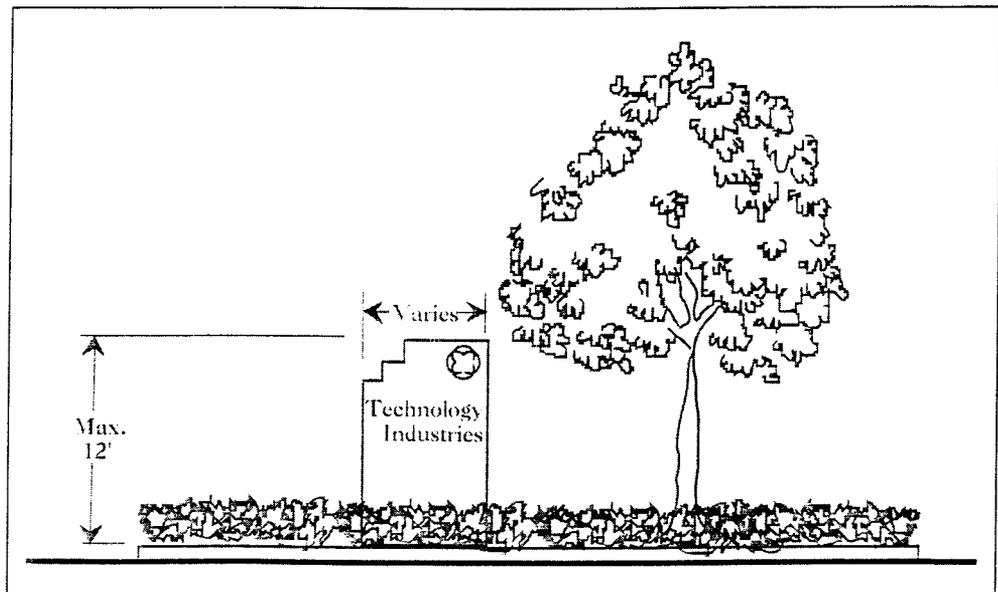
Placement of a sign should reflect the best position for viewing from roadways and the best visual relationship to the architecture of the building. Signs should be placed at decision points within the flow of pedestrian and vehicular traffic. In addition to coordination with decision points, the number of signs should be minimized and information should be effectively combined to avoid sign clutter.

ENTRY SIGNS

Entry signs should identify the lot or tenant(s) at or near the entry drive and be clearly visible to passing vehicles. Tenant directories should not be a part of entrance signs.

Entry signs shall be placed within the first 20 percent of the distance between a vehicular entrance and a building. No entry sign shall be closer than 10' to any property line or 12.5' to the curb of a road or drive. Entry signs shall be placed so that they are visible and legible to vehicles according to speed at the following distances:

<u>Speed</u>	<u>Distance</u>
20 mph	100'
25 mph	175'
30 mph	250'
45 mph	300'





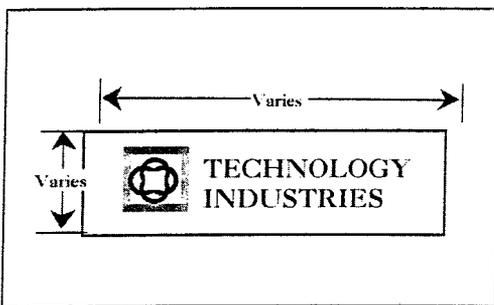
Entry signs shall be placed so they do not obscure any other identification, information, or vehicular control signs. Generally, one entry sign is sufficient. More than one sign may be used where a lot has vehicular entrances on more than one side of the building, or when the nature of the lot and adjacent roadways require more than one sign for proper identification.

Entry signs shall be constructed of materials that match or complement the predominant materials of the architecture. In addition, entry signs on arterial or collector streets shall incorporate limestone in the sign. All entry signs shall be externally illuminated.

Entry signs shall not exceed 48 square feet in size nor 12' in height. Letters shall not exceed 24" in height for a multi-tenant lot nor 12" for a single-tenant lot. The minimum letter size shall be 5". There shall be no more than two typefaces used on an entrance sign. Word and letter spacing should be even; the space between words shall be one half the height of the upper case letters.

Building identification signs exhibit the name and identifying symbol of the primary building tenant(s). These identification signs shall be mounted on the building and shall be limited to two signs per building, and one sign per wall. These signs shall be consistent in their location and size to ensure uniformity, clarity, and quick comprehension. The design of the signs shall be compatible with the architecture.

BUILDING/TENANT IDENTIFICATION



Identification signs may be up to 2' high and 8' in length for buildings up to three stories. For buildings three to eight stories in size, signs may be up to 3' high and 10' in length. Signs may be 4' high and 12' in length for buildings above eight stories. All identification signs shall be externally illuminated.

*Reverse Channel
back illuminated*

Directional signs serve to guide the motorist or pedestrian through Cantera. To minimize clutter, such signs should identify only primary activities and tenant locations and shall be limited to key decision points on vehicular and pedestrian circulation systems.

DIRECTIONAL SIGNS

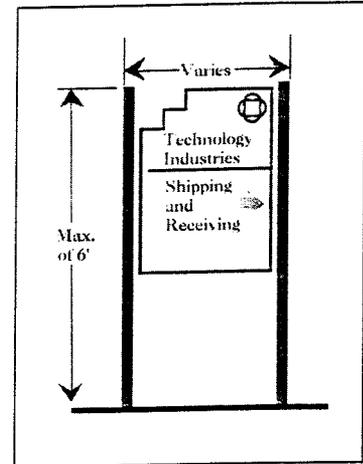
All directional signs shall be placed so they do not obscure any other sign, especially regulatory signs. Directional signs should be eliminated where tenant identification signs fulfill the role of directing motorists or pedestrians.



Directional signs shall be constructed of materials that complement the materials used on the building and shall use reflective material for typography. Directional arrows are recommended on non-illuminated signs. The back side of all directional signs shall be painted to match the primary field color for the sign.

The following rules shall apply to all directional signs at Cantera:

- Directional signs shall not exceed 24 square feet in size nor 6' in height.
- Directional signage shall be placed within the lot or parcel no closer than 6' to a curb and shall be positioned so that there is a clear line-of-sight before the point at which a direction must be changed or an action taken.
- Wording shall be flush to the left without indentation and word spacing shall be equal to one half of the height of the upper case letters.
- Letter style, height, and spacing shall be the same for all directional signs on a lot. In all cases, the message shall be legible and precise. The letters shall be a minimum of 4 1/2" in height and a maximum of 8" in height.



REGULATORY SIGNS

Regulatory signs display laws governing traffic movement. They have prescribed locational requirements (placement) and compositional characteristics (size, color, etc.) that leave little flexibility for variation. However, to avoid a proliferation of signs, careful planning should be undertaken to eliminate redundancy and improve safety.

Regulatory signs shall be sited to provide adequate sight lines from cars, buses, and trucks. The use of reflective materials for the symbol field and typography is required. All sign poles and signboard backs shall be painted white.

TEMPORARY SIGNS

Temporary signs may be used for construction information, future tenant identification, or property marketing purposes. Temporary signs shall be no more than 32 square feet in size and shall not exceed 8 feet in height. All such signs shall be located at least 12.5 feet from any lot line.

The number of temporary signs allowed per site is as follows: on lots of five acres or less, 1 temporary sign is permitted; on lots of more than five acres but less than ten acres, 2 temporary signs are permitted; and on lots of ten acres or more, 3 temporary signs are permitted.



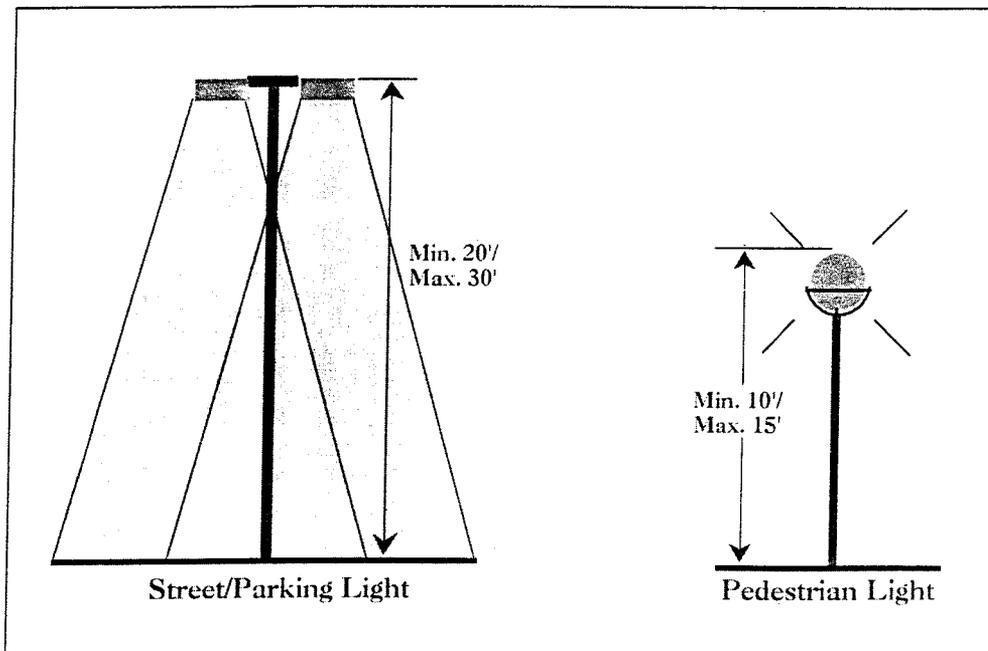
6 LIGHTING

Exterior lighting at Cantera shall be designed as a coordinated system that performs a number of functions related to security, circulation, and identity. The system shall also be attractive, compatible with the architecture, and easy to maintain. Lots shall have consistent fixtures and poles throughout.

Streets and parking lots shall be illuminated with hidden-source metal halide lamps mounted on poles that are a minimum of 20' in height and a maximum of 30' in height. They should have a contemporary design. Roadway-type "cobra head" or "high mast" fixtures shall not be used. All light poles shall be painted anodized bronze. The average illumination should be .5 footcandles. The illumination shall not exceed .1 footcandles along the perimeter of the site, as measured on a horizontal surface at ground level and on a vertical level at 6'.

Exterior lighting shall also be provided along walkways, at exterior steps, at building entries, and at plaza areas. These lights shall be visible-source metal halide lamps mounted on poles that are a minimum of 10' in height and a maximum of 15' in height. All light poles shall be painted anodized bronze. Light fixtures shall be contemporary in style, rather than traditional or themed.

Security lighting shall be restricted to storage and service areas and shall be mounted on the surface of the building. Building light fixtures shall be painted to match the color of the building surface and shall not be marked above the roof line. The use of bare-lamp decorative lighting is not permitted on the exterior of buildings.





D E S I G N G U I D E L I N E S



APPENDIX

PALETTE

Evergreen Trees

<i>Abies concolor</i> - White Fir	<i>Picea pungens</i> - Colorado Spruce
<i>Cedrus atlantica</i> - Atlas Cedar	<i>Pinus nigra</i> - Austrian Pine
<i>Cedrus deodara</i> - Deodar Cedar	<i>Pinus strobus</i> - White Pine
<i>Juniperus chinensis</i> - Chinese Juniper	<i>Thuja occidentalis</i> - Arborvitae
<i>Juniperus virginiana</i> - Red Cedar	<i>Tsuga canadensis</i> - Canadian Hemlock
<i>Picea abies</i> - Norway Spruce	<i>Tsuga caroliniana</i> - Carolina Hemlock
<i>Picea glauca</i> - White Spruce	

Deciduous/Shade Trees

<i>Acer campestre</i> - Hedge Maple	<i>Platanus occidentalis</i> - Sycamore
<i>Acer platanoides</i> - Norway Maple	<i>Platanus acerifolia</i> - London Plane Tree
<i>Acer rubrum</i> - Red Maple	<i>Populus nigra</i> 'Italica' - Lombardy Poplar
<i>Acer saccharum</i> - Sugar Maple	<i>Quercus rubra</i> - Red Oak
<i>Aesculus hippocastenum</i> - Horse Chestnut	<i>Quercus macrocarpa</i> - Bur Oak
<i>Amelanchier canadensis</i> - Shadblow Serviceberry	<i>Quercus palustris</i> - Pin Oak
<i>Betula nigra</i> - River Birch	<i>Quercus robur</i> - English Oak
<i>Betula papyrifera</i> - Paper Birch	<i>Quercus velutina</i> - Black Oak
<i>Celtis occidentalis</i> - Common Hackberry	<i>Salix babylonica</i> - Weeping Willow
<i>Fraxinus americana</i> - White Ash	<i>Sophora japonica</i> - Chinese Scholar Tree
<i>Fraxinus pennsylvanica</i> - Green Ash	<i>Tilia cordata</i> - Littleleaf Linden
<i>Ginkgo biloba</i> - Ginkgo (male variety only)	<i>Tilia tomentosa</i> - Silver Linden
<i>Gleditsia triacanthos</i> var. <i>inermis</i> - Thornless Honey Locust	<i>Tilia euchlora</i> 'Redmund' - Redmund Crimean Linden
<i>Gymnocladus dioica</i> - Kentucky Coffee Tree	<i>Ulmus parvifolia</i> - Lacebark Elm
<i>Liquidambar styraciflua</i> - Sweet Gum	<i>Zelkova serrata</i> - Japanese Zelkova

Ornamental/Flowering Trees

<i>Cercis canadensis</i> - Eastern Redbud	<i>Malus hopa</i> - Red Flowering Crab
<i>Cornus alternifolia</i> - Pagoda Dogwood	<i>Malus sargentii</i> - Sargent Crab
<i>Cornus florida</i> - Flowering Dogwood	<i>Prunus sargentii</i> - Sargent Cherry
<i>Crataegus phaenopyrum</i> - Washington Hawthorn	<i>Prunus serotina</i> - Black Cherry
<i>Magnolia soulangeana</i> - Saucer Magnolia	<i>Prunus subhirtella</i> - Higan Cherry
<i>Malus floribunda</i> - Japanese Flowering Crab	



Evergreen Shrubs

<i>Juniperus communis</i> - Common Juniper	<i>Pyracantha coccinea</i> - Fire Thorn
<i>Juniperus horizontalis</i> - Creeping Juniper	<i>Taxus baccata</i> - English Yew
<i>Juniperus sabina</i> - Savin Juniper	<i>Taxus cuspidata</i> - Japanese Yew
<i>Pinus mugo mugo</i> - Mugo Pine	

Deciduous Shrubs

<i>Acer ginnala</i> - Amur Maple	<i>Prunus glandulosa</i> - Flowering Almond
<i>Amelanchier alnifolia</i> - Serviceberry	<i>Prunus tomentosa</i> - Nanking Cherry
<i>Berberis thunbergii</i> - Japanese Barberry	<i>Rhamnus cathartica</i> - Buckthorn
<i>Caragana arbarescens</i> - Siberian Peashrub	<i>Rhus glabra</i> - Smooth Sumac
<i>Chaenomeles speciosa</i> - Flowering Quince	<i>Rhus rugosa</i> - Rugosa Rose
<i>Cornus serica</i> - Red Osier Dogwood	<i>Salix discolor</i> - Pussy Willow
<i>Cotoneaster adpressus</i> - Creeping Cotoneaster	<i>Sambucus canadensis</i> - Buffaloberry
<i>Cotoneaster divaricatus</i> - Spreading Cotoneaster	<i>Spiraea vanhouttei</i> - Vanhoutte Spiraea
<i>Cotoneaster horizontalis</i> - Rock Spray	<i>Symphoricarpos albus</i> - Snowberry
<i>Euonymus alatus</i> - Winged Euonymus	<i>Syringa chinensis</i> - Rouen Lilac
<i>Forsythia intermedia</i> - Forsythia	<i>Syringa vulgaris</i> - Common Lilac
<i>Forsythia suspensa</i> - Weeping Forsythia	<i>Viburnum carlesii</i> - Korean Spice Bush
<i>Hamamelis japonica</i> - Japanese Witch Hazel	<i>Viburnum dentatum</i> - Arrowwood
<i>Ligustrum amurense</i> - Amur Privet	<i>Viburnum lantata</i> - Wayfaring Tree
<i>Ligustrum vulgare</i> - Common Privet	<i>Viburnum tomentosa</i> - Doublefile Viburnum
<i>Lonicera tatarica</i> - Tatarian Honeysuckle	<i>Viburnum trilobum</i> - American Highbush Cranberry
<i>Magnolia stellata</i> - Star Magnolia	<i>Weigela florida</i> - Rose Weigela
<i>Philadelphus coronarius</i> - Mock Orange	
<i>Potentilla fruticosa</i> - Bush Cinquefoil	

Groundcover

<i>Ajuga reptans</i> - Carpet Bugle	<i>Juniperus horizontalis</i> - Creeping Juniper
<i>Cotoneaster adpressa</i> - Creeping Cotoneaster	<i>Lonicera japonica</i> 'Halliana' - Halls Honeysuckle
<i>Cotoneaster horizontalis</i> - Rock Spray	<i>Mahonia aquifolium</i> - Oregon Grapeholly
<i>Euonymus fortunei</i> var. <i>coloratus</i> - Purple Wintercreeper	<i>Pachysandra terminalis</i> - Japanese Pachysandra
<i>Hedera helix</i> - English Ivy	<i>Parthenocissus quinquefolia</i> - Virginia Creeper
<i>Hemerocallis fulva</i> - Daylily	<i>Vinca minor</i> - Periwinkle
<i>Hosta</i> sp. - Plantain Lily	
<i>Juniperus chinensis</i> var. <i>sargentii</i> - Sargent Juniper	



Riparian Perennials

Alisma ssp. - Water Plantain	Mimulus ringens - Monkey Flower
Allium cernuum - Nodding Wild Onion	Monarda fistulosa - Prairie Bergamot
Anemone canadensis - Meadow Anemone	Oxpolis rigidior - Cowbane
Asclepias incarnata - Swamp Milkweed	Polygonum spp. - Knotweed
Aster novae-angliae - New England Aster	Ranunculus scleratus - Buttercup
Aster simplex - Panicked Aster	Rudbeckia hirta - Black-Eyed Susan
Bidens cernua - Spanish Needle	Rumex orbiculatus - Great Water Dock
Boltonia latisquama - False Aster	Scirpus lineatus - Red Bulrush
Carex normalis - Normal Sedge	Scutellaria lateriflora - Skullcap
Eryngium yuccifolium - Rattlesnake Master	Solidago gigantea - Giant Goldenrod
Helenium autumnale - Sneezeweed	Thalictrum dasycarpum - Purple Meadow Rue
Heliopsis helianthoides - False Sunflower	Verbena hastata - Marsh Vervain
Hordeum jubatum - Squirrel Tail Barley	Veronia fasciculata - Common Ironweed
Leersia oryzoides - Rice Cut Grass	Veronicastrum virginicum - Culver's Root
Liatris spicata - Marsh Blazing Star	Zizia aurea - Golden Alexander
Ludwigia polycarpa - False Loosestrife	
Mentha arvensis - Mint	

Prairie Grasses

Andropogon gerardi - Big Bluestem	Sorghastrum nutans - Indian Grass
Andropogon scoparius - Little Bluestem	Sporobolus heterolepis - Prairie Dropseed
Panicum virgatum - Prairie Switch Grass	

Prairie Perennials

Asclepias tuberosa - Butterfly Weed	Parthenium integrifolium - Wild Quinine
Aster azureus - Sky Blue Aster	Petalostemum albidum - White Prairie Clover
Avena sativa - Common Oats	Potentilla arguta - Prairie Cinquefoil
Baptisma leucantha - White Wild Indigo	Pycnanthemum virginicum - Mountain Mint
Ceanothus americanus - New Jersey Tea	Ratibida pinnata - Yellow Coneflower
Coreopsis tripteris - Tall Coreopsis	Rosa carolina - Early Wild Rose
Desmanthus illinoensis - Illinois Sensitive Plant	Rudbeckia hirta - Black-Eyed Susan
Echinacea pallida - Pale Purple Coneflower	Silphium laciniatum - Compass Plant
Elymus canadensis - Canadian Wild Rye	Verbena simplex - Hoary Vervain
Eryngium yuccifolium - Rattlesnake Master	Veronicastrum virginicum - Culver's Root
Hordeum vulgare - Barley	Zizia aurea - Golden Alexanders
Hordeum jubatum - Squirrel Tail Barley	
Lespedeza capitata - Round-Headed Bush Clover	
Liatris aspera - Prairie Blazing Star	
Monarda fistulosa - Prairie Bergamot	



D E S I G N G U I D E L I N E S