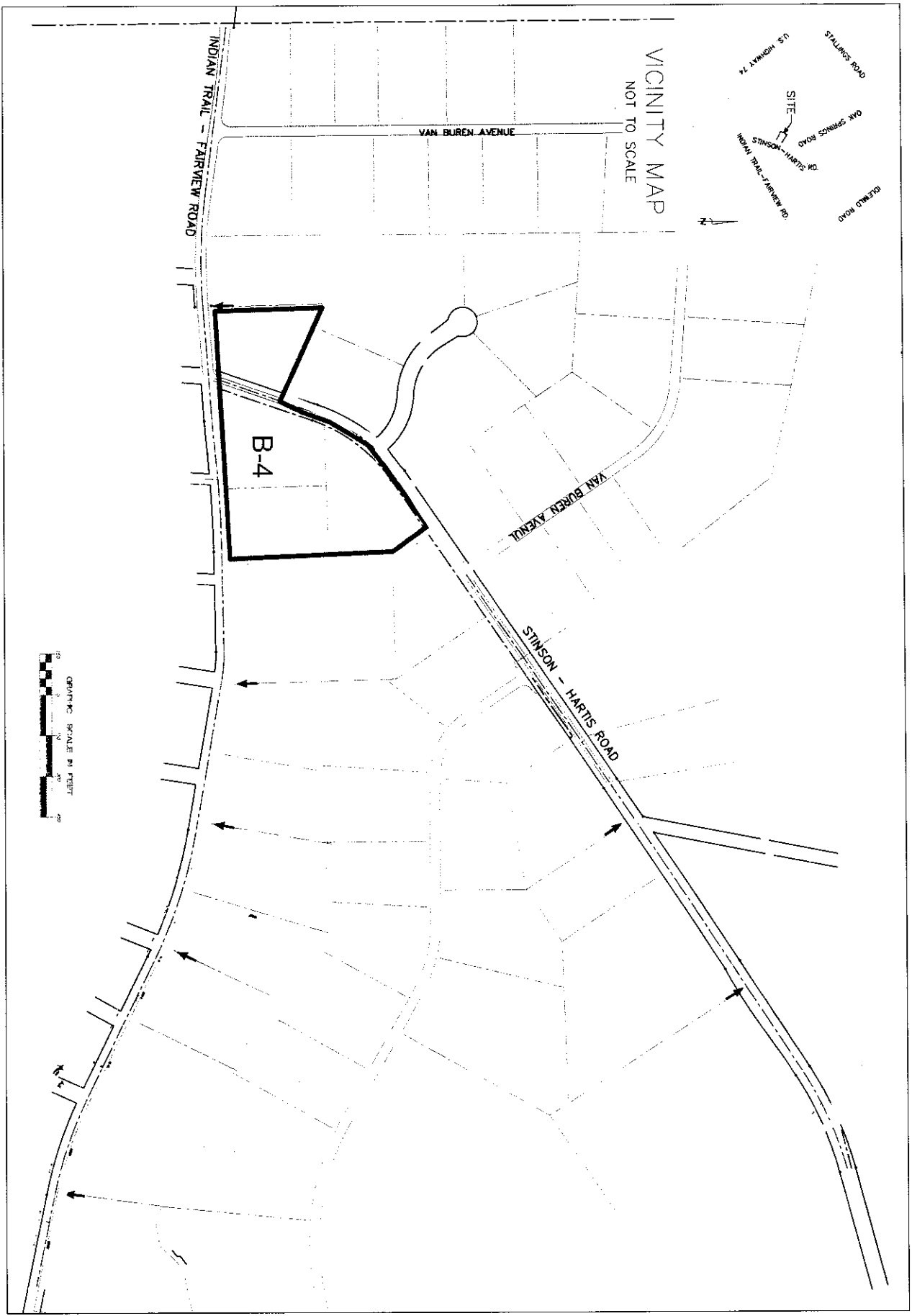


OLD HICKORY BUSINESS PARK

MASTER PLAN

Approved October 10, 2006



1

Introduction

Project Description

Old Hickory Business Park is an approximately 126 acre master planned industrial, showroom, office, employment and commercial center currently developing on Indian Trail-Fairview Road near the Highway 74 corridor. The area included in the Old Hickory is outlined on the attached Old Hickory Business Park site map.

The park owners recognize the need for a master planned development with a mixture of land uses on well-designed streets with lush landscape elements. The Old Hickory concept blends industrial and office space, flex-space buildings, and showroom space with a limited amount of commercial uses along the Indian Trail - Fairview Road frontage.

Purpose of the Master Plan

The purpose of the master plan is to describe the concept for Old Hickory as well as the design principles that support the concept, and to provide a set of guidelines for developing Old Hickory Business Park.

2

Development Concept and Character

The site will be developed to create a campus like setting including a mix of industrial, office, flex-space, showroom along with a limited amount of commercial uses within an environment that accomplishes the following objectives:

- creates a unique sense of place
- includes lush landscape elements
- provides a secure and inviting environment

In support of this concept, a specific set of design principles have been developed. In addition to compliance with local codes, development within the Park shall conform to the standards outlined within this Master Plan. Site plans for development within the Park shall be submitted to the Old Hickory Business Park Architectural Review Committee in addition to the applicable local regulatory agencies.

3

Site Development and Architectural Standards

Mixture of Land Uses

Providing a good mix of land uses is of primary importance in creating an identity for Old Hickory Business Park. Vehicular and pedestrian linkages will be established to connect the commercial services located along Indian Trail – Fairview Road to the industrial and office uses located elsewhere within the park. The combination of complimentary uses located within walking distance of each other will encourage more pedestrian activity and create a livelier atmosphere.

As the Old Hickory site is developed, a variety of uses could be included to create a mixed-use environment, including the following:

- indoor recreational facilities
- industrial space
- office space
- contractor's showrooms
- office/warehouse flex space
- small scale, limited commercial uses of no more than 15,000 square feet in area per tenant and as allowed in the B-4 zoning classification along those portions of the Indian Trail-Fairview Road frontage so indicated on the attached Old Hickory Business Park site map.
- accessory outdoor storage with screening from public rights-of-way, single family zoning and/or single family uses and as required by the Zoning Ordinance.

Interconnected Traffic Circulation

To reduce traffic conflicts as much as possible, Old Hickory's circulation plan will avoid excessive

multiple driveway cuts onto the adjoining public roads, and provide for connected internal traffic circulation. This approach limits traffic movements that might otherwise add to congestion on the adjoining roadways. The traffic plan will provide:

- an interconnected network of internal streets and driveways,
- directional signs that are easily understood,
- vehicular/pedestrian circulation that is clearly delineated; and
- the use of shared driveways along Indian Trail-Fairview Road and Stinson Hartis Road where feasible.

Landscaping

Landscaping plays a critical role in the quality of the built environment. Old Hickory's landscape plan will address the following areas: the streetscapes, the entrance walks and drives, and the internal parking areas. The selection of plant types, sizes and color will be based upon the intended use of the various areas they serve. To the extent reasonably practicable, existing tree canopy will be preserved. A minimum of 10 % of each lot will be devoted to landscape elements.

The park entrances will be designed to be clearly identifiable. Landscaping elements will identify the entrances as focal points. A variety of heights, colors and textures in the landscaping will be employed to enhance the visual quality of the park.

Streetscape treatments will include a tiered landscape system including large maturing trees, small ornamental trees, low-lying evergreen shrubs and ground covers as generally indicated on the attached cross section. (See Exhibit Number 1). Trees will be used within surface parking areas to create shaded areas in accordance with the Town of Indian Trail's shading requirements. Low-lying evergreen plantings or knee walls will be installed at the edges of parking areas to visually break up and screen parking areas from adjacent roadways.

To the extent reasonably practicable, lots will include berming in conjunction with landscaping in order to screen front yard parking and vehicular turn areas. In addition, a single row of 2½" minimum caliper willow oaks shall be planted by the Owner. The front yard must also contain a mix of materials including ground cover and shrubs and shall be fully irrigated

and maintained by the Owner as well. After the completion of construction of Structures and improvements upon any lot, any additional landscaping site work desired to be undertaken by the Owner which is not contained within approved Plans must be submitted to the Architectural Review Committee for approval prior to the commencement to such work.

Screening treatments shall conform to the Zoning Ordinance including the relevant portions of Section 193 and Appendix C. (See Exhibit Number 2).

Safe and Secure Environment

To create a safe and secure environment, the following amenities will be provided at Old Hickory:

- street lighting along all roadways and pedestrian walkways so that pedestrians and automobiles can be clearly seen,
- adequate on site lighting, and
- easily-maintained landscaping that will not block views into the site or interfere with safe levels of lighting.

Setbacks

Setback areas for each lot shall be as follows:

Type of Setback	Lots less than 5 acres		
	Lots less than 5 acres not facing ITF or SH	Lots less than 5 acres facing ITF or SH	Lots greater than 5 acres facing ITF & SH
Front setback for Structures	50 feet	50 feet	50 feet
Front setback for Parking/impervious surface	15 feet	15 feet	20 feet
Side setback for Structures/impervious surface	20	20	20
Rear setback for Structures/impervious	50'	50'	50'

surface

Side and rear setback for Parking/impervious surface 10' 10' 10'

ITF = Indian Trail-Fairview Road
SH= Stinson Hartis Road

Buffers

A landscape buffer of at least 10 feet in width shall be provided along the exterior project edges of the Old Hickory Business Park that do not abut a public street.

A landscape buffer of at least 20 feet in width as measured from top of bank shall be provided along creeks within or abutting the site. Such buffer shall remain undisturbed except to clear creek of felled trees or other obstructions that inhibit the flow of water.

Site Work and Grading

Grading of the lot must be undertaken in order to avoid trespass or other adverse impact upon adjacent properties and to avoid excessive "cuts" of the natural terrain of the lot. A slope ratio of no greater than 4:1 shall be generally required at the setbacks along Indian Trail-Fairview Road and Stinson Hartis Road. Retaining walls shall be constructed of materials compatible with the exterior of structures and other improvements and the location and general description of same shall be included in the Plans to be submitted to the Committee for approval. All berms, channels or swales to be installed or located upon the lot must be undertaken in a manner which will be designed to integrate with the natural terrain and graded or paved portions of the lot to the maximum extent possible. Driveways and parking lots with public road frontage will be constructed with concrete curb and gutter.

Grading and construction shall be subject to the issuance of site plan approval and standard review and permitting processes of the Town of Indian Trail.

Service Areas

No loading, service or outside storage area shall be permitted between the front of the primary building

or structure to be upon the lot and the abutting street. All loading and material handling areas shall be located to the rear or the side of the primary building or structure to be located upon the lot. In the alternative, loading, service and outside storage and materials handling areas may be located in other areas subject to the installation of sufficient berming, natural vegetation or compatible screening of such areas from adjoining lots, streets and adjacent rights-of-way.

Exterior areas which must be secured for safety or security purposes shall be located between the rear exterior of the primary structure or building and the rear boundary of the lot.

All loading, service or outside storage areas shall be screened from the view of public streets.

The location and material of all fences or walls to be constructed upon the lot shall be included within the Plans to be approved by the Architectural Review Committee. Green "tennis screening" must be attached to any perimeter fence located along each side and the rear of the property.

Trash collection areas shall be fully enclosed with a wall to a minimum height of eight feet to block 100 percent of the view into the enclosed area. The enclosure shall match the primary color and material of the building when viewed from public or private right-of-way. Said enclosure shall also include an opaque gate(s) constructed of either synthetic wood or painted corrugated metal affixed to a metal frame.

The trash enclosure panels and gate may be constructed of vinyl on metal posts/supports if they are not visible from the right- of-way. The minimum 8-foot tall gate shall include a self-latching mechanism.

Plant material shall supplement the trash enclosure. Planting material shall screen 25 percent of the dumpster wall area. Planting material shall consist of a minimum of six low branching evergreen shrubs a minimum of 3 feet in height at time of planting. The dumpster pad for said enclosure(s) shall be designed to detail 3.11 in the Land Development Standards Manual.

All service areas shall conform to the Zoning Ordinance including Section 187 and the related policy memo dated April 16, 2004. (See Exhibit Number 3).

All screening materials are to be maintained, repaired and, when necessary, rebuilt in order to remain in good condition.

All turning movements of service/delivery vehicles must be contained on site and maneuvering in the right-of-way is prohibited.

Exterior Lighting

Parking lot lights shall not exceed twenty four feet (24') in height. All parking lights shall be installed on aluminum or fiberglass poles and shall cast metal halide lighting. The location for all lights for signage or illumination of the exterior of structures to be located upon the lot and lights installed as part of the security for the structures must be identified and located upon the Plans and are subject to the approval of the Architectural Review Committee and the Town of Indian Trail. Metal halide lighting will be permitted in conjunction with certain building materials such as reflective glass curtain walls. No wall pack or other lighting shall cast a glare towards the public roads. All exterior lighting fixtures shall utilize cutoff fixtures and the site shall be dark sky compliant.

Utility Lines

All utility lines shall be constructed underground, except for existing utilities in public rights-of-way.

Sidewalks

Sidewalks shall be built along one side of all public streets (as identified on road construction plans) internal to the development. Sidewalks along Indian Trail-Fairview Road and Stinson Hartis Road shall be at least 6 feet in width. Other sidewalks shall be at least 5 feet in width. Such sidewalk shall be designed and constructed to the standards of the Town of Indian Trail or as stated herein.

Statement of Integrity and Design (SID)

A Statement of Integrity and Design (SID) is required prior to approval of the first site plan for Old Hickory Business Park.

The SID shall be submitted with the first site plan or with the construction plan after approval of a sketch plan. Indian Trail Planning Staff shall approve the

SID. This statement shall include a full elevation rendering of all buildings, including predominate color(s) samples, exterior buildings samples, and architectural features.

Exterior Building Materials:

Building materials shall consist of either masonry, stone, brick or finished concrete block, stucco, or wood or a mixture of these materials. Split face concrete block may be used as an architectural accent only.

Facade Articulation:

The facade articulation of the buildings shall conform to the following standards:

- Facades of eighty (80) linear feet or less, excluding glass and doorway areas, may be a single plane.
- Facades greater than eighty (80) linear feet up to a maximum of two hundred fifty (250) linear feet, excluding glass and doorway areas, should have a minimum of three (3) planes, offset by a minimum of two (2) feet.
- Facades greater than two hundred fifty (250) linear feet, excluding glass and doorway areas, should have a minimum of four (4) planes, with each plane being offset by a minimum of three (3) feet.
- The facade should be designed to provide a sense of human scale at ground level by providing a clear architectural distinction between ground floor levels and all additional levels.

Facade Materials.

The facade materials shall conform to the following standards:

- Facades of low-rise buildings (one to two stories) should be a minimum of fifty percent (50%) masonry; consisting of brick, stone, or surfaced concrete, or a mixture of those materials.
- Facades of buildings of three stories or greater should be a minimum of sixty percent (60%) masonry, consisting of brick, stone, or surfaced concrete, or a mixture of those materials.

- Outward facing mirrored glass may not be used.
- No parge and block foundation is permitted.

Exterior Equipment

Exterior equipment such as storage tanks, cooling towers, transformers, antennae, electronic receivers and other similar equipment and facilities, including those located upon the roofs of structures, shall be (i) screened from pedestrian and vehicular view from the streets or (ii) located upon the lot subject to the approval of the Architectural Review Committee so as to minimize, to the extent reasonably practical, visibility from adjacent lots and streets or right of way. The materials used for screening shall be compatible in architectural and aesthetic design of the building materials employed in construction with the primary structure or other improvements located upon the lot.

Signage Standards

A master signage program shall be developed for any building that contains four or more separate businesses within the building or for multiple buildings on one lot. All signage shall be subject to the standard review and permitting processes of the Town of Indian Trail. Ground mounted signs shall be located outside the sight triangle of the lots driveway or public roadways. Signage throughout the Site shall comply with the Town of Indian Trail regulations in effect at the time of the adoption of this Master Plan.

Street Standards

Internal Roads

Streets located within Old Hickory will be built to meet or exceed Town standards and in accordance with the “Typical Section, Commercial Street as outlined in Exhibit 4.

Stinson Hartis Road

Curb and gutter shall not be installed along Stinson Hartis Road. Stinson Hartis Road will conform to the “Typical Ultimate Section, Stinson-Hartis Road” as outlined in Exhibit 4.

Indian Trail – Fairview Road

Indian Trail – Fairview Road shall conform to the “Typical Ultimate Section, Stinson-Hartis Road” as outlined in Exhibit 4.

In addition, the roadway designs of Stinson Hartis Road and Indian Trail- Fairview Road shall be subject to the results of the Traffic Study.

Parking Standards

Parking areas shall conform to the Zoning Ordinance. Parking space dimensions shall conform to Section 180 of the Zoning Ordinance. Parking area aisles and driveways shall conform to Section 181 of the Zoning Ordinance. Section 182, General Design Requirements and Appendix B, Vehicle Accommodation Area Surfaces shall also be adhered to. The number of parking spaces provided shall conform to Section 178.

Parking to the side or rear of buildings is encouraged along Indian Trail-Fairview Road.

Other Ordinance Standards

Development within Old Hickory Business Park shall conform to all other standards of the Zoning Ordinance in effect at the time of the adoption of this Master Plan.

EXHIBIT ONE

STREETSCAPE TREATMENT

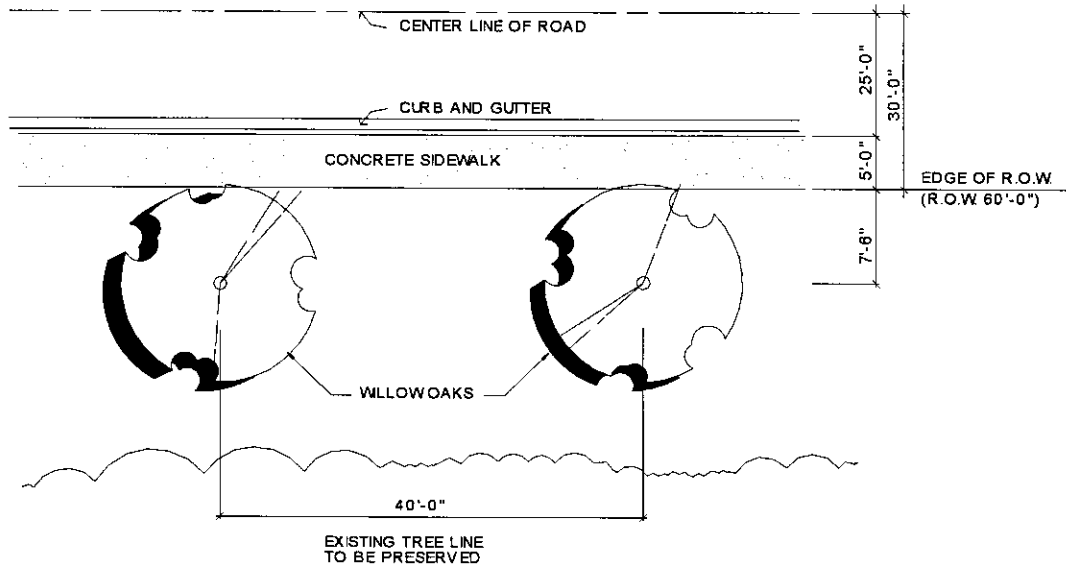


EXHIBIT TWO

SCREENING

The following is a description of an Opaque Screen, Type "A" (ARTICLE XVI, SCREENING AND TREES, Part I, Screening, Section 193 Description of Screens):

A screen that is opaque from the ground to a height of at least six feet, with intermittent visual obstructions from the opaque portion to a height of at least twenty feet. All opaque screen is intended to exclude completely strong impression of special separation. The opaque screen may be composed of a wall, fence, landscaped earth berm, planted vegetation, or existing or natural vegetation will be judged on the basis of the average mature height and density of foliage of the subject species, or field observation of existing vegetation. The opaque portion of the screen must be opaque in all seasons of the year. At maturity, the portion of intermittent visual obstructions should not contain any completely unobstructed openings more than ten feet wide. The portion of intermittent visual obstructions may contain deciduous plants. Suggested planting patterns that will achieve this standard are included in the Appendix C (attached).

APPENDIX C

C-1. Guide for Protecting Existing Trees

Section 199 provides for the retention and protection of large trees when land is developed. In order to better ensure the survival of existing trees, the developer should heed the following guidelines:

- (a) Protect trees with fencing and armoring during the entire construction period. The fence should enclose an area ten feet square with the tree at the center.
- (b) Avoid excavations beneath the crown of the tree.
- (c) Avoid compaction of the soil around existing trees due to heavy equipment. Do not pile dirt or other materials beneath the crown of the tree.
- (d) Keep fires or other sources of extreme heat well clear of existing trees.
- (e) Repair damaged roots and branches immediately. Exposed roots should be covered with topsoil. Severed limbs and roots should be painted. Whenever roots are destroyed, a proportional amount of branches must be pruned so that the tree doesn't transpire more water than it takes in. Injured trees must be thoroughly watered during the ensuing growing year.
- (f) All existing trees which will be surrounded by paving should be pruned to prevent dehydration.
- (g) No paving or other impermeable ground cover should be placed within the dripline of trees to be retained.

C-2. Standards for Street and Parking Lot Trees

Trees planted in compliance with the requirements of Sections 198 and 200 should have most or all of the following qualities. The trees recommended in Section E-10 represent the best combinations of these characteristics.

- (a) Hardiness
 - (1) Resistance to extreme temperatures.
 - (2) Drought resistance.
 - (3) Resistance to storm damage.
 - (4) Resistance to air pollution.
 - (5) Ability to survive physical damage from human activity.
- (b) Life Cycle
 - (1) Moderate to rapid rate of growth.
 - (2) Long Life.
- (c) Foliage and Branching
 - (1) Tendency to branch high above the ground.
 - (2) Wide spreading habit.
 - (3) Relatively dense foliage for maximum shading.
- (d) Maintenance
 - (1) Resistance to pests.
 - (2) Resistance to plant diseases.
 - (3) Little or no pruning requirements.
 - (4) No significant litter problems.

C-3. Formula for Calculating 20% Shading of Paved Vehicle Accommodation Areas

Following is an elementary formula for determining the number of shade trees required in and around paved parking lots in order to presumptively satisfy the shading requirements of Section 199.

[1] Calculate square footage of the vehicle accommodation area. Include parking spaces, driveways, loading areas, sidewalks, and other circulation areas. Do not include building area and any area which will remain completely undeveloped:

sq. ft.

[2] Multiply: X .20

[3] Area to be shaded: sq. ft.

[4] Area shaded by existing trees to be retained in and around the vehicle accommodation area: * sq. ft.

[5] Area shaded by required screening trees, if any: *

[6] Area shaded by required street trees, if any: *

[7] Subtotal: sq. ft.

(If line [7] is greater than line [3], then the shading requirement has been met. If not, go on to line [8].)

[8] Enter the difference between line [7] and line [3]: sq. ft.

[9] Divide line [8]: / 707

[10] Total number of shade trees required within the vehicle accommodation area: trees

*Existing trees retained in compliance with Section 198 will be credited according to their actual crown radius. Shaded area may be calculated as follows: $3.14 \times (\text{crown radius})^2 = \text{shaded area}$. Trees planted within the vehicle accommodation area are credited with shading 707 sq. ft. (Based on Crown radius of 15 ft.). New or existing trees on the perimeter of the parking lot are credited for having only half a crown over the vehicle accommodation area (e.g., new perimeter trees will be crediting for shading 354 sq. ft.). Generally all trees planted in compliance with the screening requirements of Article XV, Part I and the street tree requirements of Section 198 will be considered perimeter trees. When smaller trees such as Dogwoods are planted, the credited shading area will be adjusted downward to 314 sq. ft. for interior trees and 157 sq. ft. for perimeter trees. (Based on a crown radius of 10 ft.)

C-4. Typical Parking Lot Planting Islands

C-5. Guide for Planting Trees

The trees recommended in Section C-10 have minimal maintenance requirements. However, all trees must receive a certain degree of care, especially during and immediately after planting. In order to protect an investment in new trees, the developer and his or her agents should follow these guidelines when planting:

- (a) The best times for planting are early spring and early fall. Trees planted in the summer run the risk of dehydration.
- (b) Plant all trees at least three-and-a-half feet from the end of head-in parking spaces in order to prevent damage from car overhangs.
- (c) Dig the tree pit at least one foot wider than the root ball and at least six inches deeper than the ball's vertical dimension.
- (d) Especially in areas where construction activity has compacted the soil, the bottom of the pit should be scarified or loosened with a pick ax or shovel.
- (e) After the pit is dug, observe sub-surface drainage conditions. Most soils in the area are poorly drained. Where poor drainage exists, the tree pit should be dug at least an additional twelve inches and the bottom should be filled with coarse gravel.
- (f) Backfill should include a proper mix of soil, peat moss and nutrients. All roots must be completely covered. Backfill should be thoroughly watered as it is placed around the roots.
- (g) Immediately after it is planted, the tree should be supported with stakes and guy wires to firmly hold it in place as its root system begins to develop. Staked trees will become stronger more quickly. Remove stakes and ties after one year.
- (h) Spread at least three inches of mulch over the entire excavation in order to retain moisture and keep down weeds. An additional three-inch saucer of

mulch should be provided to form a basin around the trunk of the tree. This saucer helps catch and retain moisture.

(i) The lower trunks of new trees should be wrapped with burlap or paper to prevent evaporation and sun scald. The wrapping should remain on the tree for at least a year.

(j) Conscientious post-planting care, especially watering, pruning and fertilizing, is a must for street and parking lot trees. Branches of new trees may be reduced by as much as a third to prevent excessive evaporation.

C-6. Typical Opaque Screens

C-7. Typical Semi-Opaque Screens

C-8. Typical Broken Screens

C-9. Guide for Planting Shrubs

Shrubs planted for screening purposes should be given a proper culture and sufficient room in which to grow. Many of the guidelines for tree planting listing in Section E-5 also apply to shrubs. However, because specific requirements vary considerably between shrub trees, this Appendix does not attempt to generalize the needs of all shrubs. For detailed planting information or individual species, refer to: Landscape Plants of the Southeast by R. Gordon Halfacre and Anne R. Shawcroft.

C-10. Lists of Recommended Trees and Shrubs

The following lists indicate plantings which will meet the screening and shading requirements of Article XV of the Land Use Ordinance. The lists are by no means comprehensive and are intended merely to suggest the types of flora which would be appropriate for screening and shading purposes. Plants were selected for inclusion on these lists according to four principal criteria: general suitability for the piedmont section of North Carolina, ease of maintenance, tolerance of city conditions, and availability from area nurseries. When selecting new plantings for a particular site, a developer should first consider the types of plants which are thriving on or near that site. Accordingly, native North Carolina species should often be favored. However, if an introduced species has proven highly effective for screening or shading in piedmont towns, it too may be a proper selection. Sections E-11 through E-16 contain descriptions of the trees and shrubs listed here.

(a) Small Trees for Partial Screening

- (1) River Birch (8) American Holly
- (2) American Hornbeam (9) Golden Rain Tree
- (3) Eastern Redbud (10) Crape Myrtle
- (4) Flowering Dogwood (11) Sourwood
- (5) Washington Hawthorn (12) Carolina Cherry-Laurel
- (6) Russian Olive (13) Callery Pear
- (7) Mountain Silverbell

(b) Large Trees for Evergreen Screening

- (1) Deodar Cedar
- (2) Southern Magnolia
- (3) Carolina Hemlock

(c) Large Trees for Shading

- (1) Norway Maple (7) Sycamore
- (2) Red Maple (8) Eastern Red Oak
- (3) Ginkgo (9) Willow Oak
- (4) Honeylocust (10) Scarlet Oak
- (5) Sweet Gum (11) Laurel Oak
- (6) London Plane-Tree (12) Littleleaf Linden

(d) Small Shrubs for Evergreen Screening

- (1) Glossy Abelia (6) Convexa Japanese Holly
- (2) Warty Barberry (7) Indian Hawthorn

- (3) Wintergreen Barberry (8) Azaleas and Rhododendrons
- (4) Dwarf Horned Holly (9) Japanese Yew
- (5) Littleleaf Japanese Holly
- (e) Large Shrubs for Evergreen Screening
 - (1) Hedge Bamboo (6) Japanese Privet
 - (2) Thorny Elaengus (7) Fortune Tea Olive
 - (3) Burford Holly (8) Red Photinia
 - (4) Yaupon Holly (9) Lauretinus Viburnum
 - (5) Laurel or Sweet Bay
- (f) Assorted Shrubs for Broken Screens
 - (1) Japanese Barberry (7) Drooping Leucothoe
 - (2) Fringetree (8) Winter Honeysuckle
 - (3) Border Forsythia (9) Star Magnolia
 - (4) Vernal Witch Hazel (10) Northern Barberry
 - (5) Common Witch Hazel (11) Judd Viburnum
 - (6) Pfitzer Juniper (12) Doublefile Viburnum

C-11. Small Trees for Partial Screening

The following trees are recommended for use in all types of screens. Though smaller than the trees listed in planting lists C-12 and C-13, each of these trees will reach a height of at least 20 feet. Selections marked with an (*) are also recommended as shade trees and may be credited for meeting the 20% shading requirement for paved parking lots.

RIVER BIRCH (*Betula nigra*) Height: 20-40'; Spread: 8-16'.

The River Birch is a native tree which usually grows along stream banks. In landscape design, it is adaptable to either high or low locations, but still requires a lot of moisture. This tree has an interesting, papery bark and a graceful branching habit. It has no special pest or maintenance problems.

***AMERICAN HORNBEAM (*Carpinus carolina*) Height: 20-30'; Spread: 12-25'.**

This native tree has a natural yet refined appearance. It is slow growing, but at maturity it serves as an excellent small shade tree. Its fluted, "muscular" trunk is an interesting feature. In the wild, the American Hornbeam is common in moist rich soil, yet, when used in landscape design, it is soil tolerant and does not require an unusual amount of water. It has no pests and no special maintenance problems.

EASTERN REBUD (*Cercis canadensis*) Heights: 20-30'; Spread: 12-25'.

This native tree is covered by beautiful pink flowers in the Spring and develops a dense round crown when allowed to grow in direct sunlight. The Redbud has some pests, and its fruits pods may present a litter problem, but it recommends itself for being drought resistant and tolerant of polluted city air.

***FLOWERING DOGWOOD (*Cornus florida*) Heights: 15-30'; Spread: 15-20'.**

The Dogwood is a native woodland tree which is very popular for landscape planting. It is considered to be a fairly hardy tree, but, when planted in direct sun, it must be frequently watered. A healthy Dogwood will develop attractive horizontal branches and a bushy crown. Dogwoods look best when planted in groups or when used as an accent in borders. These trees should be guarded against borers and other pests.

WASHINGTON HAWTHORN (*Crataegus phaenopyrum*) Height: 25-30'; Spread: 25-30'.

Hawthorns generally require spraying to prevent disease and insect infestation. However, they are an excellent choice for screening because of their extremely dense and thorny branches. They have proved to be excellent as a headlight screen on highway medians and, when planted close together, they form an impenetrable living fence. They prefer sun and are tolerant of most types of soil. The Washington Hawthorn is generally considered to be the best of the

Hawthorns.

RUSSIAN OLIVE (*Elaeagnus augustifolia*) Height: 15-20'; Spread: 20-30'.
The Russian Olive can withstand severe exposure and will grow in almost any soil. Its toughness and wide spreading habit make it an exceptional screening plant. The foliage is an attractive silver-gray color and its flowers, though inconspicuous, are very fragrant. The Russian Olive is especially notable for its rapid growth. It has no pest problems but it may require periodic trimming of dead twigs.

MOUNTAIN SILVERBELL (*Halesia monticola*) Height: 20-40'; Spread: 20'.

Silverbells are attractive multi-stem trees which are native to the southeastern United States. They are excellent plants for a natural effect and are best placed where their small flowers and pods will be closely observed. Compared to other trees on this list, its crown is more open and irregular. The Mountain Silverbell has no pests, no maintenance problems, and no special soil requirements.

AMERICAN HOLLY (*Ilex opaca*) Height: 15-30'; Spread: 10-20'.

This familiar native tree possesses a pyramidal evergreen crown with abundant red berries in the winter. It grows best in full sun and prefers moist yet well drained soils. If the lower limbs are allowed to grow naturally, they will branch to the ground. Hollies should be protected from high winds. The American Holly is a relatively slow grower.

GOLDEN RAIN TREE (*Koelreuteria paniculata*) Height: 20-30'; Spread: 15-20'.

This is an extremely hardy tree, tolerant of city conditions, drought resistant, and capable of growth in most kinds of soil. It bears beautiful yellow flowers and interesting seed pods on its rounded crown. The Golden Rain Tree is a rapid grower but is relatively short lived.

CRAPE MYRTLE (*Lagerstroemia indica*) Height: 15-25'; Spread: 15-20'.

This popular flowering tree is decorative and interesting in all seasons. However, it should not be expected to stand alone as a screen. It is most effective against an evergreen background. It grows best in direct sun and may develop mildew problems when planted in shade. Crape Myrtle may be pruned to a desired shape, but when left on its own it will form a densely branching crown.

SOURWOOD (*Oxyndrum arboreum*) Height: 20-30'; Spread: 10-15'.

Sourwoods are handsome native trees which are most effective in landscape sign when planted in groups. They are easy to transplant and as each tree matures it assumes a slender form with upright branches. Sourwood prefers relatively dry acid soils. Its only special maintenance problems may be infestations or webworms.

CAROLINA CHERRY-LAUREL (*Prunus caroliniana*) Height: 20-30'; Spread: 15-20'.

This tree is prized for its dense evergreen foliage. It may be trimmed as a hedge, but also serves as an excellent screen in its natural form. The Cherry-Laurel grows rapidly and has no pests. However, it may not be as cold hardy as other trees on this list.

***CALLERY PEAR (*Pyrus calleryana*) Height: 20-40'; Spread: 20-30'.**

The Callery Pear has recently gained popularity as a city street tree because it is impervious to air pollution. Furthermore, it will grow in relatively infertile soils. It is a beautiful, upright tree which grows rapidly and is long lived. However, it may be subject to an assortment of pests and diseases. The "Bradford" variety is recommended for its vigorous habit of growth.

C-12. Large Trees for Evergreen Screening

The following trees are ideal for screening large scale areas such as shopping centers and industrial sites. They are also effective in combination with other, smaller screening plants. All three are moderate to fast growers. They are not considered to be shade trees.

DEODAR CEDAR (*Cedrus deodara*) Height: 40-150'; Spread: 30'+.

The Deodar Cedar is a useful and attractive evergreen. It should be allowed plenty of room in order to assume its beautiful natural form. Its pendulous branches should be allowed to touch the ground. It prefers relatively dry soils, grows rapidly, and is easy to maintain. "True Cedars" such as the Deodar are not native to North America, but they have become quite popular in the South as a landscape tree.

SOUTHERN MAGNOLIA (*Magnolia grandiflora*) Height: 40-60'; Spread: 25'+.

Magnolias are striking trees which serve well as screens when their branches are allowed to grow to the ground. Generally, this tree does well in city conditions, but it should be planted in quite rich acidic soils and it requires a lot of moisture. Furthermore, Magnolias require ample space for growth. If planted in full sunlight, they will grow rapidly. Because it drops large waxy leaves, seed pods, and flowers, the Magnolias may present a litter problem.

CAROLINA HEMLOCK (*Tsuga caroliniana*) Height: 30-70'; Spread: 20'+.

This native of rocky locations in the Northern Carolina mountains adapts well to city locations. It may be sheared or pruned to any shape, but when it grows naturally, its graceful branches form an excellent high screen. The Hemlock prefers cooler, partially shaded locations and does best in highly fertile soils. It grows quite rapidly.

C-13. Large Trees for Shading

The following trees may be used for screening, but they are recommended especially for shading trees and parking lots. Unless otherwise noted, they will grow rapidly. Each species will attain a mature spread of at least thirty feet.

NORWAY MAPLE (*Acer platanoides*) Height: 40-50'; Spread: 50'+.

Maples as a group are not particularly tolerant to city conditions. The Norway Maple is an exception, however, as it is relatively invulnerable to air pollution and has no special maintenance requirements. This tree assumes a wide spreading form and provides very dense shade. In the autumn, the leaves are a brilliant red and yellow. The Norway Maple grows rapidly, but it is subject to ice and wind damage. Plenty of room should be available for its shallow roots and it should be given ample water.

RED MAPLE (*Acer rubrum*) Height: 40-50'; Spread: 25'+.

This tree is an example of a Maple which is not recommended where there will be high concentrations of air pollution. However, with its excellent shading characteristics and beautiful colors, it should not be ignored. This tree grows rapidly, but, unlike the Norway Maple, it does not become brittle with age. The Red Maple is a native tree which is usually found in moist, even swampy areas, but it adapts well to a variety of situations. Although subject to Maple insects and diseases, it is usually a long lived tree.

GINKGO or MAIDENHAIR TREE (*Ginkgo biloba*) Height: 40-80'; Spread: 30'+.

The Ginkgo is a tree which is recommended for several outstanding reasons. It is one of the oldest surviving species of trees. It is adaptable to any soil, climate, or degree of exposure to the sun. It does quite well in the city. It has no pests, no diseases, and no pruning requirements. In sum, it is a tree of exceptional vitality. The N.C. Department of Forest Resources calls the Ginkgo, "probably the best all around street tree." Two reservations are worth stating, however. First, only male trees should be planted because female Ginkgos bear a messy, malodorous fruit. Second, the Ginkgo is a slow grower. When young, it has a rather gangly appearance. It takes 25 to 30 years to assume its mature, symmetrically spreading form.

HONEYLOCUST (*Gleditsia triacanthos*) Height: 50-75'; Spread: 25'+.

Its open, spreading form and feathery leaves may give the Honeylocust a frail a

frail appearance, but it is in fact a quite sturdy tree, notable for its resistance to city conditions. Grass and shrubs thrive beneath a Honeylocust because it casts light shade. This tree is especially useful for its ability to be transplanted at a relatively advanced age. Accordingly, it may be used for immediate effect in a landscape design. The Honeylocust has its own pests and diseases, but it is fairly hardy. Thornless and fruitless varieties such as "Moraine" are recommended.

SWEET GUM (*Liquidambar styraciflua*) Height: 60-100'; Spread: 50'+.

The Sweet Gum is a native bottomland tree which adapts to a variety of soils. Its dense foliage and balanced form make it an excellent shade tree for large open areas. The Sweet Gum needs sun and plenty of room to achieve maximum size and beauty. In the fall, its leaves turn a brilliant wine and gold color. Other than clean up of its prickly seed balls, the Sweet Gum poses no special maintenance problems.

LONDON PLANE-TREE (*Platanus acerifolia*) Height: 70-100'; Spread: 30'+.

The London Plane-Tree is excellent for streets and parking lots for a variety of reasons. It puts out its branches high enough above the ground so as not to obstruct traffic. Its broadly spreading crown makes it especially useful along wide streets. The London Plane is one of the world's hardiest trees in polluted air. Although it needs plenty of sun and moisture, it is undemanding about soil. Finally, it is very long lived. The London Plane-Tree is a hybrid of the Sycamore, and like the Sycamore, it may suffer for certain diseases. However, it is more resistant to leaf blight than the Sycamore.

SYCAMORE (*Platanus occidentalis*) Height: 70-100'; Spread: 60'+.

The Sycamore is probably the fastest growing shade tree on this list. Within ten years, it can grow to a height of between thirty and forty feet. It is easily transplanted, but it needs plenty of space. As one of nature's most massive trees, Sycamores have been known to grow to a height of 170 feet with a trunk 10 feet across. The Sycamore is a native tree which typically grows in floodplains, but it thrives in a variety of situations. Its tolerance of severe conditions has long made it a favorite choice as a street tree. Sycamores are susceptible to fungi and leaf blight and their large leaves and seed balls may present a litter problem.

EASTERN RED OAK (*Quercus rubra*) Height: 50-70'; Spread: 40'+.

This tree grows faster than any other Oak, two feet or more per year. It is prized as a tree because its high branching habit gives it an ideal shape. The Red Oak grows in almost any average soil and presents no special maintenance problems.

WILLOW OAK (*Quercus phellos*) Height: 60-80'; Spread: 30'+.

This is another rapidly growing Oak. It has proven to be quite successful as a street and parking lot tree. Its slender leaves give it a finer texture than that of other Oaks, but it still casts excellent shade. The Willow Oak is native to bottomland soils, and thus it needs plenty of moisture. It often spreads majestically as it matures so it should be given ample room to grow. No significant pests or diseases afflict the Willow Oak.

SCARLET OAK (*Quercus coccinea*) Height: 60-80'; Spread: 40'+.

This is a third Oak which grows rapidly and is easy to maintain. The Scarlet Oak is more difficult to transplant than the Red or the Willow, but it may be a worthwhile selection for its excellent foliage.

LAUREL OAK (*Quercus laurifolia*) Height: 40-60'; Spread: 30'+.

The Laurel Oak grows more slowly than the other Oaks listed above, but it has the advantage of being nearly evergreen in piedmont sections of North Carolina. It has proven to be a good street tree and does quite well under city conditions. It presents no special maintenance problems.

LITTLELEAF LINDEN (*Tilia cordata*) Height: 30-50'; Spread: 25'+.

Lindens are notable for their exceptional symmetry and their ability to grow in poor soils. The Littleleaf Linden requires plenty of moisture, but it has proven to be useful for city planting and is especially recommended as a street tree. With its

many thick branches and abundant foliage, the Linden provides very dense shade. It should be sprayed for aphids in order to prevent sticky droppings from the leaves.

C-14 Small Shrubs for Evergreen Screening

The following shrubs are recommended for informal (unclipped) hedges or screens. Each species grows to a height of less than six feet; therefore, these shrubs are appropriate for Semi-opaque Screens.

GLOSSY ABELIA (*Abelia grandiflora*) Height: 4-6'; Spread: 3-5'.

Abelia is quite common in local nurseries and tends to be less expensive than other shrubs on this list. It bears pale pink flowers throughout the summer. Although it has proven quite popular for informal hedges, it has several drawbacks. Abelia should be pruned and thinned to maintain its best form. It may drop its leaves due to low temperatures, lack of pruning, or starvation.

WARTY BARBERRY (*Barberis verruculosa*) Height: 3-4'; Spread: 3-4'.

Barberrys as a group have proven to be excellent as hedge plants. With their dense, spiny limbs, they are effective barriers in public places. The Warty Barberry is a shrub with a neat, compact habit. It is soil tolerant and has no special maintenance requirements. It grows slowly, but it will reach a height of 3 to 4 feet within five years.

WITERGREEN BARBERRY (*Berberis julianae*) Height: 4-6'; Spread: 2-5'.

This is another Barberry which forms an impenetrable thorny hedge. In fact, it grows even more densely than the Warty Barberry. It is pest resistant and is very hardy. No pruning is required. Because it is fairly slow growing, it will take eight to ten years to reach a height of 5 to 6 feet.

DWARF HORNED HOLLY (*Ilex cornuta* 'rotunda') Height: 3'; Spread: 3-4'.

This shrub is an excellent selection for a low hedge. It is soil tolerant and requires no pruning or other special care once established. With its spiny leaves, this plant appears to be and is in fact rugged. Like all Hollies, it grows best in full sun, but unlike others of its species, it produces bright red berries without sexes being present.

LITTLELEAF JAPANESE HOLLY (*Ilex crenata* 'microphylla') Height: 4-6'; Spread 5-7'.

This Holly is a good substitute for the more finicky and often more expensive Boxwood. It withstands pruning, but is quite attractive in its natural form. Although considered to be slow growing, it will form a stiff 6-foot tall hedge within ten years. The Littleleaf Japanese Holly grows well in both sun and shade and does well in city conditions.

CONVEXA JAPANESE HOLLY (*Ilex crenata* 'convexa') Height: 4-6'; Spread: 3-5'.

The Convexa Japanese Holly is another good Boxwood substitute. This shrub is considered to be one of the most attractive, hardy and serviceable Hollies for landscape use. It is attractive in either a clipped or unclipped form. It grows faster than the Littleleaf Japanese Holly.

INDIA HAWTHORN (*Raphiolepis indica*) Height: 3-4'; Spread: 4-5'.

With its spreading, irregularly branching, the India Hawthorn makes an excellent informal hedge. It is tolerant of a variety of soils and is fairly drought resistant. However, it may not be as cold tolerant and pest resistant as other shrubs on this list.

AZALEAS AND RHODODENDRONS (*Rhododendron* species) Height: 3'+; Spread: 3'+.

Many varieties of Azaleas and Rhododendrons are dense and evergreen and are, therefore, good screening material. The universal popularity of this large shrub family belies the fact that its members must not be planted indiscriminately. As a group, Rhododendron species prefer cool, moist, well drained, acidic soil which

has a fairly high organic content. They do best in shade or partial shade particularly when they are planted in extremely hot or windy locations. If planted in full sun, they should receive plenty of water. In spite of these requirements, once established in good soil with the correct culture and water, both Rhododendrons and Azaleas tend to take care of themselves. Some relatively hardy and vigorous species are: Kurume Azaleas (*R. obtusum*), Show Azaleas (*R. mucronatum*), Indian Azaleas (*R. indicum*), and the native Carolina Rhododendron (*R. carolinianum*).

JAPANESE YEW (*Taxus cuspidata*) Height: 4-6'; Spread: 5-7'.

The versatile Yew is commonly available from local nurseries in a wide variety of sizes and shapes. The Japanese Yew serves as excellent screening material in either a clipped or unclipped form. It tolerates poor growing conditions and flourishes in almost any kind of soil. (Soggy soil may hamper its growth, however.) It is comparatively pest free and is hardy under trying winter conditions. The Yew's best feature is its rich shiny green needles which grow densely on all varieties.

C-15. Large Shrubs for Evergreen Screening

The following shrubs are recommended for high hedges or screens. Each species grows to a height of more than 6 feet; therefore, these shrubs are appropriate for Opaque Screens.

THORNY ELAENGUS (*Elaeagnus pungens*) Height: 8-10' Spread: 6-10'.

This shrub is tolerant of many adverse conditions. It will grow rapidly in relatively infertile, dry soils. Its dense thorny branches form an excellent natural hedge. It is one of the most common evergreen shrubs in the south.

BURFORD HOLLY (*Ilex cornuta* "Burfordii") Height: 8-15'; Spread: 6-8'.

The Burford Holly has been called, "one of the best and most serviceable of all broad leaved evergreens for general planting in the South." It is soil tolerant, grows rapidly, requires no pruning, and usually has no pest problems. Its dark green leaves lack the usual Holly spines.

YAUPON HOLLY (*Ilex vomitoria*) Height: 5-15'; Spread: 6-12'.

This is another versatile Holly, slower growing than the Burford, but equally as adaptable to adverse conditions. It is a native shrub which has proven to be one of the most drought resistant of all Hollies. It may be clipped to maintain any desired height. The Yaupon Holly is very heavily fruited and will attract birds.

LAUREL or SWEET BAY (*Lauris nobilis*) Height: 10-12'; Spread: 8-10'.

Laurel is a tough low maintenance shrub which does best in fertile, well drained soils. Pruning is not required but it may be sheared to any desired form. It screens well with a single row planting. The Laurel has been a popular landscaping plant since ancient times.

JAPANESE PRIVET (*Ligustrum japonicum*) Height: 6-10'; Spread: 5-6'.

The Japanese Privet will survive almost any adversity including heat, cold, drought, air pollution, and poor soil. Accordingly, it is one of the most popular hedge plants in America. This and other Ligustrums are fast growing and remarkably pest free. They are ideal as a high screen in large scale areas. It has been said that if a Ligustrum will not grow in a particular location, then nothing will.

FORTUNE TEA OLIVE (*Osmanthus fortunei*) Height: 9-12'; Spread: 5-7'.

This *Osmanthus* hybrid is a popular, though non-descript, shrub. With its vigorous growth, it will form an excellent screen or border. It is soil tolerant. The Fortune Teal Olive is most notable for its inconspicuous yet highly fragrant flowers.

RED PHOTINIA (*Photinia glabra*) Height: 6-10'; Spread: 4-5'.

This low maintenance shrub is often selected for its glossy saw toothed leaves which are a bright red when they first appear. Photinia forms a good hedge when planted in full sun. It has somewhat looser foliage than other plants on this list.

In recent years, Red Photinia has become very popular in the Southeast.

LAURESTINUS VIBURNUM (*Viburnum tinus*) Height: 10-12'; Spread: 10-12'.

This Viburnum is prized for its luxuriant dark green foliage. It is valuable for screens and, through sometimes clipped as a formal hedge, it can remain uncut for years and still keep its good form. It grows best in medium fertile soils and prefers dry conditions in the late summer. All Viburnums withstand city conditions well.

C-16. Assorted Shrubs for Broken Screens

The following is a sampling of shrubbery which would be appropriate in a Broken Screen. Because many of these plants are deciduous, they are not suitable for Opaque and Semi-Opaque Screens. (Note: Many of the evergreen shrubs described in planting list E-14 and E-15, are also suitable for Broken Screens.)

JAPANESE BARBERRY (*Barberis thunbergii*) Height: 3-5'; Spread: 3-5'.

This extremely common deciduous shrub is considered to be one of the toughest members of the Barberry family. It survives drought, poor soils, exposure, and the worst city conditions. With its many thorns, the Japanese Barberry is often used as an impenetrable barrier, but is attractive enough to stand alone as a specimen plant. It requires no special maintenance and, when planted singly, needs no pruning.

FRINGETREE (*Chioanthus virginicus*) Height: 10-30'; Spread: 8-10'.

The Fringetree is known for its profusion of beautiful flowers. It is considered to be one of the most striking native American shrubs. It is relatively difficult to transplant, but once established it does well in cities as it endures heavy smoke and dust. The mature Fringetree's only drawback is that its leaves appear rather late in the Spring.

BORDER FORSYTHIA (*forsythia intermedia*) Height: 8-10'; Spread: 7-10'.

Forsythias are well known shrubs which bloom bright yellow quite early in the Spring. There are two commonly available forms of this shrub: the weeping Forsythia *suspensa* and the more upright Forsythia *intermedia*. The latter is preferred for screening purposes. With its graceful branches, the Border Forsythia presents a good deciduous foliage mass and should be given plenty of room to grow. It transplants easily and withstands poor growing conditions. It should be thinned occasionally to ensure vigorous growth.

VERNAL WITCH HAZEL (*Hamamelis vernalis*) Height: 4-6'; Spread: 2-3'.

This rapidly growing native shrub is excellent for bordering and naturalizing. It assumes a dense, upright form, thriving in even the most polluted air. Other than plenty of watering, the vernal Witch Hazel requires no special maintenance.

COMMON WITCH HAZEL (*Hamamelis virginiana*) Height: 8-15'; Spread: 7-14'.

This shrub is a larger version of Vernal Witch Hazel with many of the same qualities. It is another native woodland plant which has adapted well to landscaping uses. The Common Witch Hazel is recommended for shady areas, but when planted in the sun it grows to be a splendid well rounded specimen. It is especially useful in large areas.

PFITZER JUNIPER (*Juniperus chinensis 'Pfitzeriana'*) Height: 4-6'; Spread: 6-9'.

This evergreen is recommended for Broken Screens rather than full fledged hedges because its form lends itself to massing rather than row planting. Pfitzer Juniper has been known to grow 6 feet high and spread 10 to 15 feet within ten years. Thus it should be given plenty of room to grow. Despite its exotic appearance, it is a commonly used landscape plant. Junipers, as a group, withstand hot, poor, dry soils of city areas probably better than any other

evergreens. However, they do suffer from certain pest problems and should therefore be watched closely once they are planted.

DROOPING LEUCOTHOE (*Leucothoe fontanesiana*) Height: 3-4'; Spread: 4-6'.

Drooping Leucothoe is a moundlike shrub which is good for planting in front of and between other flora and beneath trees. It is hardy in city conditions and gives a natural effect when planted along borders. This native evergreen is graceful and attractive in all seasons. It is easy to transplant but requires a heavy mulch and should be provided with at least partial shade. Old branches should be pruned occasionally to stimulate new growth.

WINTER HONEYSUCKLE (*Lonicera fragrantissima*) Height: 6-8'; Spread: 6-8'.

The only resemblance between this shrub and the more familiar Honeysuckle vine is its extremely fragrant flowers. The Winter Honeysuckle has a leathery semievergreen leaves and assumes a globe shape as it rapidly grows. It is a tough plant, soil tolerant and virtually maintenance free.

STAR MAGNOLIA (*Magnolia stellata*) Height: 10-12'; Spread: 8-10'.

This handsome specimen shrub is considered to be the hardiest of all the Magnolias. It forms a broad, rounded mass. It becomes tree-like with age but continues to branch to the ground. Early in the Spring, it produces numerous fragrant white flowers. The Star Magnolia should not be planted adjacent to shallow rooting trees. It should be allowed plenty of sun.

NORTHERN BAYBERRY (*Myrica pensylvanica*) Height: 3-6'; Spread: 3-8'.

This shrub, often used for windbreaks at the beach, is also effective for shrub masses in Piedmont areas. Its ability to tolerate salt and sands translates into a quality for withstanding the rigors of city life. Bayberry normally forms a dense, spreading mound. While it is evergreen at the shore, it may annually drop its leaves in less temperate climates.

JUDD VIBURNUM (*Viburnum juddii*) Height: 8'; Spread: 6'.

Viburnums are sturdy shrubs which are commonly available in area nurseries. The Judd Viburnum is rounded and dense. It bears loose clusters of fragrant white flowers in the early Spring. If given plenty of water, it will grow rapidly. Its fall fruit is attractive to birds.

DOUBLE VIBURNUM (*Viburnum plicatum tomentosum*) Height: 8-10; Spread: 8-10'.

The Doublefile Viburnum grows larger than the Judd and is noted for its strong Horizontal branching habit. It is a very serviceable accent plant in shrub borders. The Double Viburnum should be carefully watered in periods of extended drought.

EXHIBIT THREE

SERVICE AREAS

Loading and Unloading Areas shall conform to the following standards and the attached policy memo dated April 16, 2004.

The loading and unloading area must be of sufficient size to accommodate the numbers and types of vehicles that are likely to use this area, given the nature of the development in question. The following table indicates the number and size of spaces that, presumptively, satisfy the standard set forth in this subsection. However, the permit issuing authority may require more or less loading and unloading area if reasonably necessary to satisfy the foregoing standard.

Number of spaces with maximum Gross Leasable Area dimensions of 12 feet x 55 feet and overhead of Building clearance of 14 feet from street grade

1,000 - 19,999 1

20,000 - 79,999 2

80,000 - 127,999 3

128,000 - 191,999 4

192,000 - 255,999 5

256,000 - 319,999 6

320,000 - 391,999 7

Plus one (1) for each additional 72,000 square feet or fraction thereof.

be used to satisfy the area requirements for loading and unloading facilities.

Town of Indian Trail



P.O. Box 2430
Indian Trail, North Carolina 28079
Telephone 704-821-5401
Fax 704-821-9045
PLANNING AND DEVELOPMENT DEPARTMENT

POLICY MEMO

TO: Planning Staff

FROM: Lee Bailey
Director of Planning

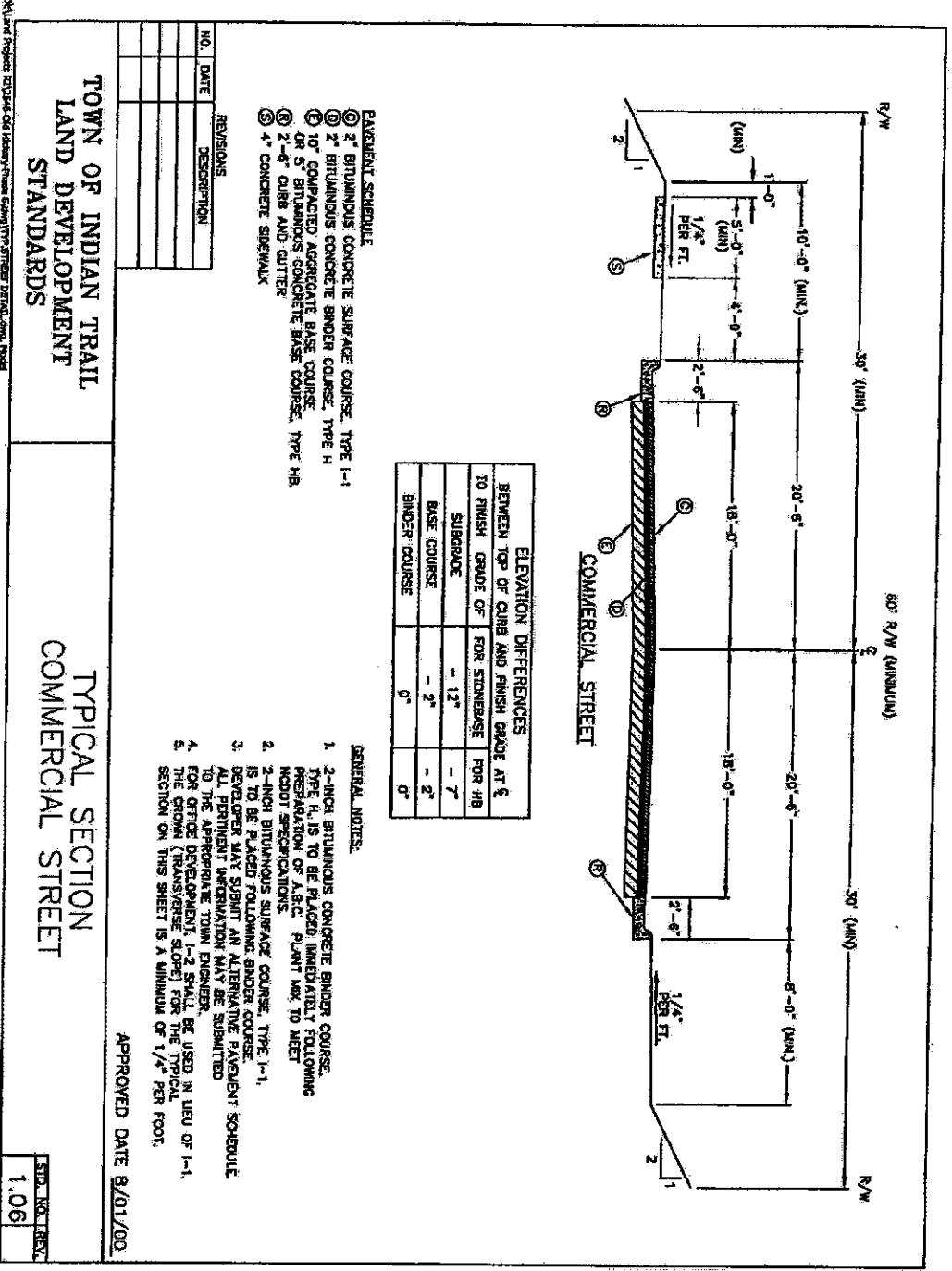
DATE: Friday, April 16, 2004

SUBJECT: Section 187 Loading and Unloading

This memo serves as an interpretation and clarification of Section 187 Loading and Unloading.

1. Projects with Gross Lease Space less than 5,000 square feet and without loading docks do not have to provide a 12' x 55' loading space.
2. Projects with Gross Lease Space between 5,001 and 19,999 square feet that are subdivided into units less than 2,500 square feet and without loading docks do not have to provide a 12' x 55' loading space.
3. Projects with Gross Lease Space between 5,001 and 19,999 square feet that are not subdivided into multiple units and without loading docks will be reviewed on a case by case basis as to a need to provide a 12' x 55' loading space.
4. Any project with Gross Lease Space up to 19,999 square feet with a loading dock does have to provide a 12' x 55' loading space.

EXHIBIT FOUR
STREET STANDARDS



ELEVATION DIFFERENCES			
BETWEEN TOP OF CURB AND FINISH GRADE AT 6'			
TO FINISH GRADE OF		FOR STONEBASE FOR #8	
SUBGRADE	-	12"	-
BASE COURSE	-	2"	-
BINDER COURSE	-	0"	-

- PAVEMENT SCHEDULE**
- ① 2" BITUMINOUS CONCRETE SURFACE COURSE, TYPE 1-1
 - ② 2" BITUMINOUS CONCRETE BINDER COURSE, TYPE H
 - ③ 10" COMPACTED AGGREGATE BASE COURSE
 - ④ 3" BITUMINOUS CONCRETE BASE COURSE, TYPE HB
 - ⑤ 2'-8" CURB AND GUTTER
 - ⑥ 4" CONCRETE SIDEWALK

- GENERAL NOTES:**
1. 2-INCH BITUMINOUS CONCRETE BINDER COURSE, TYPE H, IS TO BE PLACED IMMEDIATELY FOLLOWING PREPARATION OF A.B.C. PLANT MIX TO MEET MOIST SPECIFICATIONS.
 2. 2-INCH BITUMINOUS SURFACE COURSE, TYPE 1-1, IS TO BE PLACED FOLLOWING BINDER COURSE.
 3. DEVELOPER MAY SUBMIT AN ALTERNATIVE PAVEMENT SCHEDULE TO THE APPROPRIATE TOWN ENGINEER.
 4. FOR OFFICE DEVELOPMENT, 1-2 SHALL BE USED IN LIEU OF 1-1.
 5. THE GROUND (TRANSVERSE SLOPE) FOR THE TYPICAL SECTION ON THIS SHEET IS A MINIMUM OF 1/4% PER FOOT.

REVISIONS

NO.	DATE	DESCRIPTION

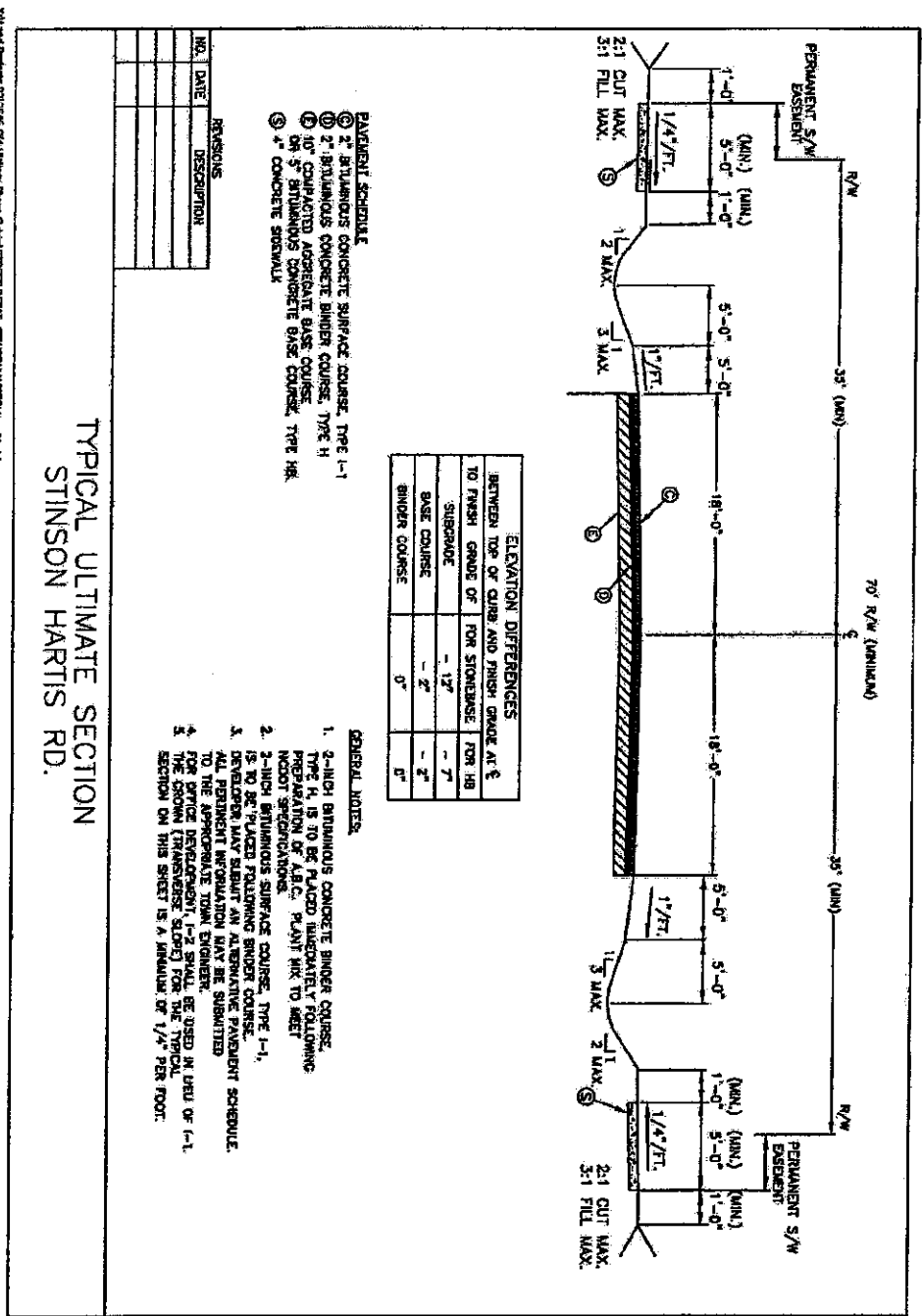
**TOWN OF INDIAN TRAIL
LAND DEVELOPMENT
STANDARDS**

**TYPICAL SECTION
COMMERCIAL STREET**

APPROVED DATE 8/01/00

STD. NO. 1.06

Related Project: 2024-06-15: Indian Trail Land Development Standards



ELEVATION DIFFERENCES	
BETWEEN TOP OF CURB AND FINISH GRADE AT §	
TO FINISH GRADE OF FOR STOREHOUSE FOR HB	- 12"
SUBGRADE	- 7"
BASE COURSE	- 2"
BINDER COURSE	0"

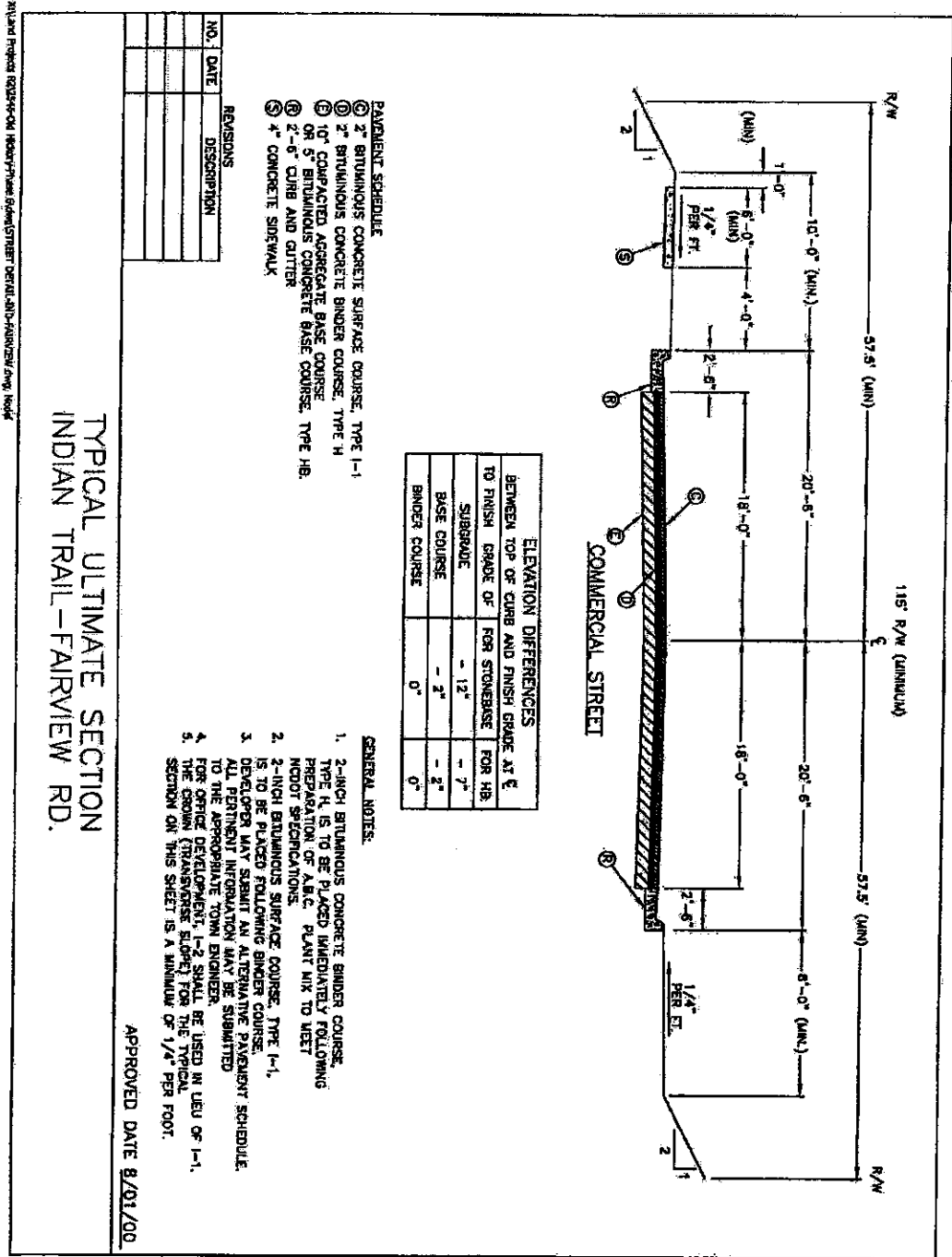
- PAVEMENT SCHEDULE**
- ① 2" BITUMINOUS CONCRETE SURFACE COURSE, TYPE I-1
 - ② 2" BITUMINOUS CONCRETE BINDER COURSE, TYPE H
 - ③ 10" COMPACTED AGGREGATE BASE COURSE
 - ④ 5" BITUMINOUS CONCRETE BASE COURSE, TYPE HK
 - ⑤ 4" CONCRETE SIDEWALK

REVISIONS

NO.	DATE	DESCRIPTION

- GENERAL NOTES**
1. 2-INCH BITUMINOUS CONCRETE BINDER COURSE, TYPE H, IS TO BE PLACED IMMEDIATELY FOLLOWING PREPARATION OF A.B.C. PLANT MIX TO MEET MOIST SPECIFICATIONS.
 2. 2-INCH BITUMINOUS SURFACE COURSE, TYPE I-1, IS TO BE PLACED FOLLOWING BINDER COURSE.
 3. REVEALER MAY SUBMIT AN ALTERNATIVE PAVED/UNT PAVED SCHEDULE.
 4. ALL REVEALER INFORMATION MAY BE SUBMITTED TO THE APPROPRIATE TOWN ENGINEER.
 5. FOR THE REVEALER, 1/2" 5# FILL BE USED IN DEPTH OF 1-1.
 6. THE SLOPE THROUGHOUT SHALL BE AS SHOWN IN THIS SECTION ON THIS SHEET IS A MINIMUM OF 1/4" PER FOOT.

Standard Project 2025-04 (Revision 4) - 6/14/2025 - STINSON HARTIS RD. - 2437526.01



Indian Trail Roadway - Indian Trail - Fairview Rd. - 2007

EXHIBIT FIVE
USE TABLE

EXHIBIT 5 - ZM 2006-002 OLD HICKORY MASTER PLAN B-4 USE TABLE AS AMENDED BY THE IT PLANNING BOARD ON 9/19/2006

USES	DESCRIPTION	RA40	R40	RA20	R20	R8	R6	O	B2	B3	B4	HC	LI	HI
1.000	Residential													
	1.110 Single-Family Detached One dwelling unit per lot													
	1.111 Site Built and Modular	Z	Z	Z	Z	Z	Z	Z						
	1.112 Class A Mobile Homes	Z	Z	Z	S BOA	Z	Z							
	1.113 Class B Mobile Homes	Z	S BOA	Z	S BOA	Z	Z							
	1.114 Class C Mobile Homes													
	1.115 Class D Mobile Homes													
	1.120 Single-Family Detached, more than one dwelling unit per lot													
	1.121 Site Built and Modular	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA						
	1.122 Class A Mobile Homes	S BOA		S BOA	S BOA	S BOA	S BOA							
	1.123 Class B Mobile Homes	S BOA		S BOA	S BOA	S BOA	S BOA							
	1.124 Class C Mobile Homes	S BOA		S BOA		S BOA	S BOA							
	1.125 Class D Mobile Homes													
	1.200 Two-Family Residences													
	1.210 Two-Family Conversion	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA						
	1.220 Primary Residence with Accessory Apartment	Z	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA						
	1.230 Duplex	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA						
	1.240 Two-Family Residence	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA						
	1.300 Multi-Family Residence													
	1.310 Multi-Family Conversion													
	1.320 Multi-Family Town homes													
	1.330 Multi-Family Apartments													

¹ Amended 8/9/95, Ordinance #

EXHIBIT 5 - ZM 2006-002 OLD HICKORY MASTER PLAN B-4 USE TABLE AS AMENDED BY THE IT PLANNING BOARD ON 9/19/2006

Z - Use by Right; Permit Issued by Zoning Administrator																				
S - Special Use Permit Required																				
USES	DESCRIPTION	RA40	R40	RA20	R20	R8	R6	O	B2	B3	B4	HC	LI	HI						
1.400	Homes emphasizing special services treatment or supervision	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA						
1.410	Homes for Handicapped, aged or infirm	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA						
1.420	Nursing care, intermediate care homes	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA						
1.430	Child care homes	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA						
1.440	Halfway houses	S BOA	S BOA	S BOA										S BOA						
1.500	Miscellaneous rooms for rent situations																			
1.510	Rooming houses, boarding houses	Z		S BOA							Z	Z	Z							
1.520	Bed and breakfast establishments	Z		S BOA							Z	Z	Z							
1.530	Tourist homes and other temporary res. Renting by the day or week or institutions							S BOA												
1.540	Hotels, motels, and similar businesses providing overnight accommodation																			
1.610	Temporary emergency, construction and repair residences	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z						
1.620	Temporary dependant care residences	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA						
1.700	Home occupations																			
1.750	Live/Work Units													S TC						
1.800	Planned residential developments						S TC													
2.000	Sales and Rental of goods, merchandise, or equip																			
2.100	No storage or display of goods outside fully enclosed building																			
2.110	High volume traffic generation																			
2.111	Convenience stores	S BOA									S BOA			Z	Z	Z	Z	Z	Z	
2.112	ABC Stores	S BOA									Z			Z	Z	Z	Z	Z	Z	
2.113	Other	S BOA									Z			Z	Z	Z	Z	Z	Z	

EXHIBIT 5 - ZM 2006-002 OLD HICKORY MASTER PLAN B-4 USE TABLE AS AMENDED BY THE IT PLANNING BOARD ON 9/19/2006

USES	DESCRIPTION	RA40	R40	RA20	R20	R8	R6	O	B2	B3	B4	HC	LI	HI
2.200	Storage and display of goods with and/or Outside fully enclosed building allowed													
2.210	High volume traffic generation										Z	S BOA		
2.220	Low-volume traffic generation										Z	S BOA		
2.230	Wholesale sales										Z	Z	Z	Z
3.000	Office, clerical, research and services not primarily related to goods or merchandise							S BOA						
3.100	All operations conducted entirely within fully enclosed building													
3.110	Operations designed to attract and serve customers or clients on the premises, such as the offices of attorneys and other professionals, insurance and stock brokers, travel agents, government office building, etc. ²							Z	Z	Z	Z	Z	Z	Z
3.120	Operations designed to attract little or no customer or client traffic other than employees of the entity operating the principal use ³								Z	Z	Z	Z	Z	Z
3.130	Offices or clinics of physicians or dentists with not more than 10,000 square feet of gross floor area ⁴							Z	Z	Z	Z	Z	Z	Z
3.200	Operations conducted within or outside fully enclosed building													
3.210	Operations designed to attract and serve customers or clients on the premises ⁵										Z		Z	
3.220	Operations designed to attract little or no customer or client traffic other than the employees of the entity operating the principal use ⁶										Z		Z	
3.230	Banks with drive-in windows								Z		Z	Z		
Z	Use by Right; Permit issued by Zoning Administrator													

² Amended 5/9/2006, Ordinance #

³ Amended 5/9/2006, Ordinance #

⁴ Amended 5/9/2006, Ordinance #

⁵ Amended 5/9/2006, Ordinance #

⁶ Amended 5/9/2006, Ordinance #

EXHIBIT 5 - ZM 2006-002 OLD HICKORY MASTER PLAN B-4 USE TABLE AS AMENDED BY THE IT PLANNING BOARD ON 9/19/2006

S - Special Use Permit Required												
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EXHIBIT 5 - ZM 2006-002 OLD HICKORY MASTER PLAN B-4 USE TABLE AS AMENDED BY THE IT PLANNING BOARD ON 9/19/2006

USES DESCRIPTION	RA40	R40	RA20	R20	R8	R6	O	B2	B3	B4	HC	LI	HI
11.000 Scrap Materials Salvage Yards, Junkyard, Automobile Graveyards													S BOA
12.000 Services and Enterprises Related to Animals													
12.100 Veterinarian	S BOA									S BOA	S BOA		
12.200 Animal Shelter ⁷	S BOA									S BOA	S BOA	S BOA	
12.200 Evening Kennel	S BOA									S BOA	S BOA	S BOA	
12.200 Animal Foster Care ⁹	Z	Z	Z	S BOA	S BOA	S BOA							
13.000 Emergency Services													
13.100 Police Stations	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z
13.200 Fire Stations	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z
13.300 Rescue Squad Ambulance Service	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z
13.400 Civil Defense Operations	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z
14.000 Agricultural, Silver cultural, Mining, Quarrying Operations													
14.100 Agricultural operations, farming (not exempt as bona-fide farms)													
14.110 Excluding Livestock	Z	Z	Z	Z								Z	Z
14.120 Including Livestock	Z											Z	Z
14.130 Poultry, hog and rabbit meat production centers													
14.101 On tracts of less than ten acres	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z
14.132 On tracts of less than ten acres													
14.200 Silver cultural operations	Z	Z	Z	Z									
14.300 Mining or quarrying operations, including on-site sales of products	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	S BOA	Z

⁷ Amended 8/8/06, Ordinance #

⁸ Amended 8/8/06, Ordinance #

⁹ Amended 8/8/06, Ordinance #

