

MINUTES OF A SPECIAL MEETING OF THE PLANNING AND ZONING COMMISSION OF THE CITY OF PEARLAND, TEXAS, HELD ON APRIL 20, 1993, AT 7:00 P.M. IN THE COUNCIL CHAMBERS, CITY HALL, 3519 LIBERTY DRIVE, PEARLAND, TEXAS

The meeting was called to order at 7:03 p.m. with the following present:

Chairman	Richard Tetens
Commissioner	Helen Beckman
Commissioner	Mary Starr
Commissioner	James Garner
Commissioner	Pat Lopez
Division Director - Planning, Public Works & Parks	Richard Burdine
City Engineer	John Hargrove
Chief Building Official	Don Guynes
Assistant to City Secretary	Sharon Parks

Absent from the meeting: Vice Chairman Emil Beltz and Commissioner Jack Womack had excused absences.

APPROVAL OF MINUTES

Commissioner Helen Beckman made a motion, seconded by Commissioner Mary Starr, that the minutes of March 23, 1993 be approved with the correction of the lot sizes in Country Place Section 3 from 60 sq. ft. to 6,000 sq. ft.

Motion passed 5 to 0.

Commissioner Mary Starr made a motion, seconded by Helen Beckman, that the minutes of April 5, 1993 be approved.

Motion passed 4 to 0, with Commissioner James Garner abstaining.

Commissioner Mary Starr made the motion, seconded by Commissioner Pat Lopez, to approve the minutes of April 8, 1993.

Motion passed 3 to 0, with Commissioners Beckman and Garner abstaining.

NEW BUSINESS

PRELIMINARY PLAT OF K-MART

Mr. Al Lentz, agent for K-Mart, addressed the changes on the Preliminary Plat. He stated that the following items have been completed:

1. Show what scale is being used on the graphic scale.
3. 35' building line is required on a major thoroughfare.
4. Fees are due for the preliminary plat - \$875.00.
6. Show responsible individual for Bartlett Properties.
8. Provide year of adjustment of Bench Mark elevation and show Temporary Bench Mark.
9. Provide copy of Zychlinski Subdivision.

The following items have not been completed:

2. Highway 35 is considered a major thoroughfare; therefore a 10' dedication is required.
5. Submit a certificate or letter from a title guaranty company or title attorney indicating a current search.
7. Must have signatures of the Drainage District #4.

Mr. Lentz elaborated on the following items:

Item #2 - He stated that he was under the impression that he could get a 10' utility easement along the front side instead of a 10' dedication and that a sanitary sewer will be placed within the 10' utility easement. The detention areas are being used to meet the requirements of the Drainage District. Also K-Mart has certain parking requirements which means there is only one parking lot to spare. The 10' utility easement and the sanitary sewer will be used as part of the landscape.

Item #5 - There were two title certificates that originally were submitted. There are two different tracts involved - one owned by John Alexander and one owned by the Bartletts. One title has been requested covering both of them, but it has not been received yet.

Preliminary Drainage Plan comments:

1. Place storm sewer computation on Sheet SD2.
2. On Preliminary Paving and Drainage Plan, show how right-of-way for perimeter "interceptor ditch" will be ensured.

Due to the change in site plans, the above 1 & 2 items are being reworked.

Division Director Richard Burdine stated that he has no objection to the 10' utility easement instead of the 10' dedication.

Commissioner James Garner made the motion, seconded by Commissioner Mary Starr, to approve the Preliminary Plat of K-Mart Super Center Pearland, Pearland, Brazoria County, Texas, a replat of 22.9693 acres being part of Lots 26 and 32, Zychlinski Subdivision, contingent upon Items #5 & #7 being met (receipt of the title certificate and signatures of the Drainage District).

Motion passed 5 to 0.

VARIANCE REQUEST ON COUNTRYPLACE SECTION 5

Mr. Steven P. Gardner, Vice President of Bernard Johnson, Inc., 3000 Wilcrest, Suite 200, Houston, Texas, agent for U.S. Homes discussed the following items:

- a. Use of a 20 ft. front building line in lieu of a 25 ft. front building line.
- b. Use of a 5 ft. side building set back line on each side of the lot for a 10 ft. separation between houses instead of a minimum 7 ft. side set back each side and a total of 15 ft. separation between houses. (It was noted that the 10 ft. separation between houses was incorrectly stated as 210 ft.).

A lengthy discussion followed regarding lot sizes, problems with variances if subdivision is annexed, close proximity of houses in case of a fire, and blanket variances setting a precedence.

Commissioner Garner made the motion, seconded by Commissioner Starr, to approve the request for variances on Countryplace Section 5., items (a) use of a 20 ft. front building line in lieu of a 25 ft. front building line and (b) use of a 5 ft. side building set back line on each side of the lot for a 10 ft. separation between houses instead of a minimum 7 ft. side set back each side and a total of 15 ft. separation between houses.

Motion passed 4 to 1 with Commissioner Tetens opposing.

FINAL PLAT OF COUNTRYPLACE SECTION 5

Chief Building Official Don Guynes stated that item #2 on changes from the Staff can be deleted.

Commissioner Beckman made the motion, seconded by Commissioner Starr to approve the Final Plat of Countryplace Section 5 subject to the following changes indicated by Staff:

1. Must have live signatures of owners.
2. Remove "Pearland, Texas" from under the title of the plat.
3. Indicate what arrows are for and show 2 - 8' as Utility Easements on Lot 8, Block 1.
4. Add the word "Block" in front of "1" & "2".
5. Indicate the purpose of the arrows and "5'" and "11'" on Lot 7, Block 2.
6. What is "8'" on right hand side of Lot 12, Block 1?
7. Indicate the purpose of the arrow on Lots 2 & 3. What is "8'" on Lot 2?
8. Indicate purpose of arrows on Reserve C.
9. Why is Note 1 required? Since area is all Zone Z. Note 11 is confusing to homeowners.
10. Update date in title block.
11. Please supply Autocad drawing file for final plat.
- 12.

Motion passed 5 to 0.

VARIANCE REQUEST ON COUNTRYPLACE SECTION 6

A lengthy discussion followed regarding inconsistent lot sizes, blanket variances, problems with variances if subdivision is annexed, lower density, deed restrictions, & market change.

Commissioner Beckman made the motion, seconded by Pat Lopez, to approve the requests by Steve Gardner of Bernard Johnson, Inc., agent for U. S. Homes, for a variance on Countryplace Section 6 for the following:

- a. Use of a 45 ft. wide lot.
- b. Use of a 20 ft. front building line in lieu of a 25 ft. front building line.
- c. Use of 5 ft. side building set back line on each side of the lot for a 10 ft. separation between houses instead of a minimum 7 ft. side set back each side and a total of 15 ft. separation between houses.

Motion passed 3 to 2 with Commissioners Tetens and Garner opposing.

FINAL PLAT OF COUNTRYPLACE SECTION 6

Commissioner Starr made the motion, seconded by Commissioner Beckman, to approve the Final Plat of Countryplace Section 6 with the following recommended changes by Staff:

1. Remove "Pearland, Texas" from the plat title.
2. Indicate the purpose of arrows on Lot 7, Block 7.
3. Explain "8'" on Lot 8, Block 7.
4. Place a 10' Planting Easement on Lots 10 & 11 & Reserve

- A. Exception: 20' Emergency Access Easement. Also place note on the plat: "No access from Lots 10 & 11, Block 7."
5. Variance request required for 45' width on lots.
 6. Provide revised construction plans and drainage plans.
 7. Why is Note 11 required?
 8. Provide Autocad drawings file of final plat.

Motion passed 3 to 2 with Commissioners Tetens and Garner opposing.

DIRECTOR'S REPORT

Division Director Richard Burdine stated that the firm of Bernard Johnson, Inc. has been asked to submit a proposal to update ten year capital improvement program, utilities, the land use assumptions, and the impact fees. We will be considering a 10 year comprehensive plan for utilities.

Also on April 27 at 7 P.M., there will be a follow up on the bus tour trip last March.

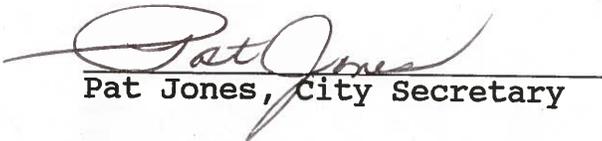
ADJOURNMENT

The meeting adjourned at 8:58 P.M.

Minutes approved as ^{* AMENDED} submitted and/or corrected this 18th day of May A.D., 1993.


Richard Tetens,
Chairman

ATTEST:


Pat Jones, City Secretary

* Commissioner Helen Beckman asked that her comments regarding variance requests for Countryplace be reflected in the minutes. She asked that Mr. Steve Gardner of Bernard Johnson, Inc., agent for U. S. Homes, please advise the developers and builders of Countryplace that we (the Commission) don't want to make a habit of accepting 45' lots in Countryplace.

AGENDA - SPECIAL MEETING OF THE PLANING AND ZONING COMMISSION OF THE CITY OF PEARLAND, TEXAS, TO BE HELD TUESDAY, MARCH 23, 1993, IMMEDIATELY FOLLOWING THE PUBLIC HEARING, IN THE CITY COUNCIL CHAMBERS, CITY HALL, 3519 LIBERTY DRIVE, PEARLAND, TEXAS

- I. CALL TO ORDER
- II. APPROVAL OF MINUTES: Meeting of March 2, 1993
- III. OLD BUSINESS
 - 1. SIGN VACATION CERTIFICATE FOR SITE H-43 FOR FOOD LION
- IV. NEW BUSINESS
 - 1) CONSIDERATION AND POSSIBLE ACTION - Partial Replat of Countryplace Section 3, Lots 20, 21, 22, 36, 37, and 38, Block 1 recorded in Vol 12, Pages 365-366 of the Brazoria County Map Records
100%
 - 2. CONSIDERATION AND POSSIBLE ACTION - Request by Stan Winter of Vernon G. Henry and Associates, Inc., agent for U. S. Home Corporation, for a variance for Countryplace, Section 7 to allow residential lots less than 60 feet wide at the front building line and have an area less than 6,000 square feet
JAMES GARRETT PAT LOTT - pending approval of 7
GRANDER OPPOSED
 - 3. CONSIDERATION AND POSSIBLE ACTION - Preliminary Plat of Countryplace Section 7
 - 4. CONSIDERATION AND POSSIBLE ACTION - Job Description
 - 3. CONSIDERATION AND POSSIBLE ACTION - Changes to Rules and Procedures
- V. DIRECTOR'S REPORT
- VI. ADJOURNMENT

• HELEN
BEKMAN
• MARY
STARR

ask for bench mark
10' 4 1/2 -
15' side lot line.
7' -

POSTED: _____ DAY OF _____, A.D., 1993 _____ P.M.
REMOVED: _____ DAY OF _____, A.D., 1993.



City of Pearland

P. O. Box 2068 • Pearland, Texas 77588-2068 • 485-2411

TO: Planning and Zoning Commission
FROM: Don E. Guynes, Chief Building Official
DATE: April 16, 1993
RE: Preliminary Plat of KMart Super Center

The following are suggested changes for your approval on the above mentioned plat:

1. Show what scale is being used on the graphic scale.
(1" = ?)
2. Highway 35 is considered a major thoroughfare, therefore a 10' dedication is required.
3. 35' building line is required on a major thoroughfare.
4. Fees are due for the preliminary plat - \$875.00.
5. Submit a certificate or letter from a title guaranty company or title attorney indicating a current search.
6. Show a responsible individual for Bartlett Properties.
7. Must have signatures of the Drainage District #4.
8. Provide year of adjustment of Bench Mark elevation and show Temporary Bench Mark.
9. Provide copy of Zycklinski Subdivision.

Preliminary Drainage Plan comments:

1. Place storm sewer computation on Sheet SD2.
2. On Preliminary Paving and Drainage Plan, show how Right of Way for perimeter "interceptor ditch" will be ensured.

BERNARD JOHNSON INCORPORATED

ARCHITECTURE • ENGINEERING • PLANNING

TELEFAX TRANSMITTAL SHEET

FAX No. (713) 977-4781

To SHARON
From STEVE Gardner

Date

Time

J.O.

FAX No.

No. of Pages _____ (including this page)

Message:

THE INFORMATION CONTAINED IN THIS FAX MESSAGE IS CONFIDENTIAL AND IS INTENDED ONLY FOR THE ADDRESSEE NAMED ABOVE. IF YOU ARE NOT THE NAMED ADDRESSEE OR AGENT TO DELIVER IT TO THE ADDRESSEE, NOTE THAT ANY DISSEMINATION OF THE INFORMATION OR DISTRIBUTION OR COPYING OF THIS COMMUNICATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE IMMEDIATELY NOTIFY US BY TELEPHONE AT OUR EXPENSE, AT 713/977-7411. THANK YOU.

Variance Request letter
on Countryplace Section 5 & 6
to include in Packet

any problems or questions, please call Steve Gardner at (713) 977-7411 ext. 269

3000 Wilcrest, Suite 200 • Houston, Texas 77042-0000 • 713/977-7411 • FAX 713/977-4781

Dallas Office No. (214) 631-7200/FAX (214) 631-7485; Bethesda Office No. (301) 493-8400/FAX (301) 493-4313
Richmond Office No. (804) 348-3100/FAX (804) 348-2088



BERNARD JOHNSON INCORPORATED

Architecture • Engineering • Planning

April 16, 1993

Planning and Zoning Commission
City of Pearland
P.O. Box 2068
Pearland, Texas 77588-2063

Reference: U.S. Home Corporation
Countryplace Subdivision Variance Request
BJI J.O. 79003-60

Gentlemen:

The following supplemental information is being provided to support our April 1, 1993 request for variance on the front and side building line set backs for Countryplace Sections 5 and 6. The request is made to use a 20-foot front set back in lieu of a 25-foot and a five-foot side set back (10 feet total between houses) in lieu of a seven-foot side set back (15-foot total between houses).

20-foot front building line set back

1. A variance request was previously made and granted on the preliminary plats for Countryplace Section 5 and Country Grove Section 6. This request was made by Vernon Henry and Associates by letter dated July 14, 1992. A copy is enclosed.
2. Pearland Subdivision regulations allow for a minimum 50-foot right-of-way. Countryplace Sections 5 and 6 have a 60-foot right-of-way. A 60-foot right-of-way with a 20-foot building set back gives the same house separation as a 50-foot right-of-way with a 25-foot building set back.

$$50' \text{ ROW} + 25' + 25' = 60' \text{ ROW} + 20' + 20'$$

$$100' = 100'$$
3. Countryplace Subdivision is built around a golf course where most of the lots back onto fairways. The emphasis for open space (or yard) is directed to the back towards the golf course amenity.
4. Countryplace Subdivision is part of a master planned development by U.S. Home Corporation that is controlled by deed restrictions with architectural constraints. The houses built in the section work with a 20-foot building line. There are very few two story houses and very few fences on the yards. The area appears open.

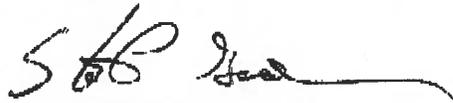
Planning and Zoning Commission
April 16, 1993
Page 2

5. The type of house proposed on the lots in Countryplace Section 6 is narrow with a 75-foot depth. A 25' building line would not allow the type of house to be built on the lot for which the section was designed. The width and depth was specifically designed to fit this house.
6. All previous sections of Countryplace Subdivision were approved and built with a 20-foot building line. To maintain the same appearance as the previous sections, the variance is needed.

Five-Foot Side Building Setback

1. Most of the houses in Countryplace Subdivision are one-story units. Ten-foot separation on one story houses does not give a closed-in or crowded appearance.
2. Since Countryplace Subdivision is an adult community backing on a golf course, there are very few fences between houses. This gives an open appearance between the houses.
3. The lot widths are designed to fit a specific house size plus five feet on each side. With a seven-foot to eight-foot side building set back, the houses would not fit on the lots.
4. All previous sections of Countryplace Subdivision were built with a five-foot building setback. In order to maintain the same appearance throughout the subdivision, a five-foot side lot set back is needed.

Sincerely,



Steven P. Gardner, P.E.
Vice President
Texas Reg. No. 37265

dg PEARLAND.LTR

Attachment

cc: Mr. Rick Gadd

TO

9774781 P.06

Vernon G. Henry and Associates, Inc.
Planning Consultants & Landscape Architects
5800 Memorial Dr., Houston, TX 77007 713/858-21

July 14, 1992

Planning and Zoning Commission
City of Pearland
P.O. Box 2068
Pearland, Texas 77588-2068

Re: Variance Request for Countryplace
Section 5

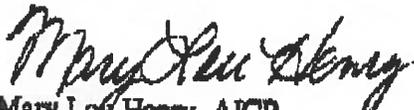
Gentlemen:

On behalf of U.S. Home Corporation, the developer of Countryplace, we request a variance from the following subdivision ordinance requirements in order to maintain a consistent front building setback and provide a uniform buildable area on lots that back to project boundaries.

Section 27-4 (D)(1)(a)(C). Minimum front building setback of 25' on lots 105' or greater in depth. The proposed lots that are backing project boundaries are 110' deep in order to accommodate a 16' wide utility easement all out of one lot. Lots that do not back project boundaries are typically 105' deep and have 20' front setbacks. These lots split the 16' utility easement 8' and 8'.

The lot sizes and setbacks proposed in this section are the same as previously approved for earlier sections in Countryplace.

Very truly yours,


Mary Lou Henry, AICP
Vice President

MLEH/bp
c:\bent\doc

Vice Presidents: Mary Lou Henry, A.I.C.P.

Michael L. Ise, A.S.L.A.



BERNARD JOHNSON INCORPORATED

Architecture • Engineering • Planning

April 1, 1993

City of Pearland
P.O. Box 2068
Pearland, Texas 77588-2063

Reference: U.S. Home Corporation
Countryplace Section 5
BJI J.O. 79003-60

Gentlemen:

On behalf of the U.S. Home Corporation, we request a variance on Countryplace Section 5 for the following items.

1. Use of a 20-foot front building line in lieu of a 25-foot front building line.
2. Use of five-foot side building set back line on each side of the lot for a 10-foot separation between houses instead of a minimum seven-foot side set back each side and a total of 15-foot separation between houses.

The request for variance is based on the following considerations:

20-foot front building line and five-foot side building lines.

All previous sections of Countryplace have been approved with the 20-foot building line and five-foot side building line.

Sincerely,

Steven P. Gardner, P.E.
Vice President
Texas Reg. No. 37265

dg Pearland.11

cc: Mr. Rick Gadd



BERNARD JOHNSON INCORPORATED

Architecture • Engineering • Planning

April 1, 1993

City of Pearland
P.O. Box 2068
Pearland, Texas 77588-2063

Reference: U.S. Home Corporation
Countryplace Section 6
BJI J.O. 79003-60

Gentlemen:

On behalf of the U.S. Home Corporation, we request a variance on Countryplace Section 6 for the following items.

1. Use of a 45-foot wide lot.
2. Use of a 20-foot front building line in lieu of a 25-foot front building line.
3. Use of five-foot side building set back line on each side of the lot for a 10-foot separation between houses instead of a minimum seven-foot side set back each side and a total of 15-foot separation between houses.

The request for variance is based on the following considerations:

Lot Width

The house unit proposed is for a 35-foot wide "garden home." These 45-foot lots replace the 35-foot wide townhome lots originally proposed for Countryplace Section 6. Lot density is decreased from 30 units to 25 units.

20-foot front building line and five-foot side building lines.

All previous sections of Countryplace have been approved with the 20-foot building line and five-foot side building line.

Sincerely,


Steven P. Gardner, P.E.
Vice President
Texas Reg. No. 37265

dg Pearland.11

cc: Mr. Rick Gadd



City of Pearland

P. O. Box 2068 • Pearland, Texas 77588-2068 • 485-2411

TO: Planning and Zoning Commission
FROM: Don E. Guynes, Chief Building Official
DATE: April 2, 1993
RE: Final Plat of CountryPlace, Section 6

The following are suggested changes for your approval on the above mentioned plat:

1. Remove "Pearland, Texas" from the plat title.
2. Indicate the purpose of arrows on lot 7, block 7.
3. Explain "8'" on lot 8, block 7.
4. Place a 10' Planting Easement on lots 10 & 11 & Reserve
A. Exception: 20' Emergency Access Easement. Also,
place note on the plat: "No access from lots 10 & 11,
block 7."
5. Variance request required for 45' width on lots.
6. Provide revised construction plans and drainage plans.
7. Why is Note 11 required?
8. Provide Autocad drawings file of final plat.



City of Pearland

P. O. Box 2068 • Pearland, Texas 77588-2068 • 485-2411

TO: Planning and Zoning Commission
FROM: Don E. Guynes, Chief Building Official
DATE: April 2, 1993
RE: Final Plat of CountryPlace, Section 5

The following are suggested changes for your approval on the above mentioned plat:

1. Must have live signatures of owners.
2. Change "Section 5" to "Section 5, Phase 1" or "Section 5A".
3. Remove "Pearland, Texas" from under the title of the plat.
4. Indicate what arrows are for and show 2 - 8' as Utility Easements on lot 8, block 1.
5. Add the word "Block" in front of "1" & "2".
6. Indicate the purpose of the arrows and "5'" and "11'" on lot 7, block 2.
7. What is "8'" on right hand side of lot 12, block 1.
8. Indicate the purpose of the arrow on lots 2 & 3. What is "8'" on lot 2?
9. Indicate purpose of arrows on Reserve C.
10. Why is Note 11 required? Since area is all Zone X, Note 11 is confusing to home owners.
11. Update date in title block.
12. Please supply Autocad drawing file for final plat.

Mary Lou Henry and Associates, Inc.
 Planning Consultants & Landscape Architects
 5900 Memorial Dr., Houston, TX 77007 713/868-2121

July 14, 1992

Planning and Zoning Commission
 City of Pearland
 P.O. Box 2068
 Pearland, Texas 77588-2068

Re: Variance Request for Country Grove Townhomes
 Section 6

Gentlemen:

On behalf of U.S. Home Corporation, the developer of Countryplace, we request a variance from the following subdivision ordinance requirements in order to continue the established townhouse program.

1. Section 27-4. (C)(2)(a)2. Residential lot minimum front width 35'. *Proposed lots are 32.5', with corner or end lots 32.8'.*
2. Section 27-4. (D)(1)(a). Minimum 7 feet side building line with aggregate of 15 feet between houses. *Proposed townhouse lots will have common firewalls and 0' side setbacks.*
3. Section 27-4. (D)(1)(a)(C). Minimum front building set back of 25' for lots 105' or greater in depth. *Proposed townhouse lots are 105' deep with 20' front setbacks.*

The present subdivision ordinance does not address townhouse regulations, only single-family detached. The lot sizes and set backs proposed in this section are the same as previously approved for earlier sections in Countryplace. The resulting density of Section 6 is 7.14 du/acre, well below the 9 du/acre permitted in the original agreement between the developer and the City.

Very truly yours,

Mary Lou Henry

Mary Lou Henry, AICP
 Vice President

MLH/bp
 ctms5.doc

Vice Presidents: Mary Lou Henry, A.I.C.P.

Michael L. Ilse, A.S.L.A.

AGENDA - A SPECIAL MEETING OF THE PLANNING AND ZONING COMMISSION OF THE CITY OF PEARLAND, TEXAS, TO BE HELD TUESDAY, APRIL 20, 1993, AT 7:00 P.M. IN THE COUNCIL CHAMBERS, CITY HALL, 3519 LIBERTY DRIVE, PEARLAND, TEXAS

I. CALL TO ORDER

- II. APPROVAL OF MINUTES:** Public Hearing on March 23, 1993, and Special Meetings on April 5 & 8, 1993

III. NEW BUSINESS

1. **CONSIDERATION AND POSSIBLE ACTION - Preliminary Plat for K-Mart with the following suggested changes for your approval on the following:**

1. Show what scale is being used on the graphic scale. (1"= ?)
2. Highway 35 is considered a major thoroughfare; therefore a 10' dedication is required.
3. 35' building line is required on a major thoroughfare.
4. Fees are due for the preliminary plat - \$875.00.
5. Submit a certificate or letter from a title guaranty company or title attorney indicating a current search.
6. Show a responsible individual for Bartlett Properties.
7. Must have signatures of the Drainage District #4.
8. Provide year of adjustment of Bench Mark elevation and show Temporary Bench Mark.
9. Provide copy of Zycklinski Subdivision

Preliminary Drainage Plan comments:

1. Place storm sewer computation on Sheet SD2.
2. On Preliminary Paving and Drainage Plan, show how Right of Way for perimeter "interceptor ditch" will be ensured.

2. **CONSIDERATION AND POSSIBLE ACTION - Request by Steven P. Gardner of Bernard Johnson, Inc., agent for U.S. Homes, for a variance on Countryplace Section 5 on the following items:**

- a. Use of a 20 ft. front building line in lieu of a 25 ft. front building line.
- b. Use of a 5 ft. side building set back line on

each side of the lot for a 10 ft. separation between houses instead of a minimum 7 ft. side set back each side and a total of 15 ft. separation between houses.

3. CONSIDERATION AND POSSIBLE ACTION - Final Plat of Countryplace Section 5 with the following changes for your approval:

1. Must have live signatures of owners.
2. Change "Section 5" to "Section 5, Phase 1" or "Section 5A".
3. Remove "Pearland, Texas" from under the title of the plat.
4. Indicate what arrows are for and show 2 - 8' as Utility Easements on lot 8, block 1.
5. Add the word "Block" in front of "1" & "2".
6. Indicate the purpose of the arrows and "5'" and "11'" on lot 7, block 2.
7. What is "8'" on right hand side of lot 12, block 1?
8. Indicate the purpose of the arrow on lots 2 & 3. What is "8'" on lot 2?
9. Indicate purpose of arrows on Reserve C.
10. Why is Note 1 required? Since area is all Zone Z. Note 11 is confusing to homeowners.
11. Update date in title block.
12. Please supply Autocad drawing file for final plat.

4. CONSIDERATION AND POSSIBLE ACTION - Request by Steven Gardner of Bernard Johnson, Inc., agent for U.S. Homes, for a variance on Countryplace Section 6 on the following items:

- a. Use of a 45 ft. wide lot.
- b. Use of a 20 ft front building line in lieu of a 25 ft. front building line.
- c. Use of 5 ft. side building set back line on each side of the lot for a 10 ft. separation between houses instead of a minimum 7 ft. side set back each side and a total of 15 ft. separation between houses.

5. CONSIDERATION AND POSSIBLE ACTION - Final Plat of Countryplace Section 6 with the following suggested changes for your approval:

1. Remove "Pearland, Texas" from the plat title.
2. Indicate the purpose of arrows on lot 7, block

- 7.
3. Explain "8'" on lot 8, block 7.
4. Place a 10' Planting Easement on lots 10 & 11 & Reserve A. Exception: 20' Emergency Access Easement. Also place note on the plat: "No access from lots 10 & 11, block 7."
5. Variance request required for 45' width on lots.
6. Provide revised construction plans and drainage plans.
7. Why is Note 11 required?
8. Provide Autocad drawings file of final plat.

IV. DIRECTOR'S REPORT

V. ADJOURNMENT

POSTED: 16th DAY OF April, A.D., 1993 5:00 P.M.
REMOVED: 23rd DAY OF April, A.D., 1993.



City of Pearland

P. O. Box 2068 • Pearland, Texas 77588-2068
(713) 485-2411 • Fax (713) 485-8764

MEMORANDUM

To: Don Guynes, Chief Building Official
From: Richard Burdine, Division Director 
Subject: P & Z Agenda for April 20, 1993
Date: April 15, 1993

Please include the following items in a Workshop:

1. Briefing and Discussion - Draft Thoroughfare Plan Update
2. Briefing and Discussion - Urban Aesthetics
 - a. Tree Preservation Guidelines
 - b. Landscaping Requirements
 - c. Building Facade (exterior) Requirements
 - d. Sign Limitations

*c. Park
Dedication
Requirements
Grants*

*P.S. I will give Sharon several documents
for inclusion in the packets.*

ORDINANCE NO. _____

Draft

AN ORDINANCE PROVIDING REQUIREMENTS FOR PARK LAND DEDICATION; TO PROVIDE FOR NECESSARY PLANNING FOR OPEN SPACE PRESERVATION AND PARK DEVELOPMENT; ESTABLISHING A SPECIAL FUND FOR MONEY PAID FOR PARK DEVELOPMENT; CONTAINING A SEVERABILITY CLAUSE; PROVIDING A REPEALER; DECLARING AN EMERGENCY AND PROVIDING AN EFFECTIVE DATE.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PEARLAND, TEXAS:

Section 1. Purpose.

1a. This ordinance is adopted to provide recreational areas in the form of neighborhood parks as a function of subdivision development in the City of Pearland. This ordinance is enacted in accordance with the Home Rule powers of the City of Pearland, granted under the Texas Constitution, and the statutes of the State of Texas, including, but not by way of limitation, Articles 974a and 1175. It is hereby declared by the City Council that recreational areas in the form of neighborhood parks are necessary and in the public welfare, and that the only adequate means to provide for same is by integrating such a requirement into the procedure for planning and developing property or subdivisions in the City, whether such development consists of new construction on vacant land or rebuilding and remodeling of structures on existing residential property.

1b. Neighborhood parks and certain neighborhood-oriented portions of community parks are those parks providing for a variety of outdoor recreational opportunities and within convenient distances from a majority of the residences to be served thereby, the standards for which are set forth in the Pearland Comprehensive Plan. The park zones established by the Parks and Recreation Department and shown on the official Pearland Comprehensive Plan shall be prima facie proof that any park located therein is within such a convenient distance from any residence located therein. The primary cost of neighborhood parks should be borne by the ultimate residential property owners who, by reason of the proximity of their property to such parks, shall be the primary beneficiaries of such facilities. Therefore, the following requirements are adopted to effect the purposes stated.

Section 2. General requirement, land, to be used for single family, duplex, townhouse, or apartment residential purposes.

2a. Whenever a final plat is filed of record with the County Clerk of Brazoria County, Texas, for development of a residential area in accordance with the planning and zoning ordinances of the City, such plat shall contain a clear fee simple dedication of an area of land to the City for park purposes, which area shall equal one acre for each 100 proposed dwelling units. The developer shall work with the Park, Recreation and Beautification Advisory Board to define the optimum location of the dedication, or the feasibility of payment of money in lieu of land, prior to the time of submission of the preliminary plat for final approval. Any proposed plat submitted to the City

for approval shall show the area proposed to be dedicated under this ordinance. The required dedication of this Section may be met by a payment of money in lieu of land when permitted or required by the other provisions of this ordinance.

2b. The City Council declares that development of an area smaller than one acre for public park purposes is impractical. Therefore, if fewer than 100 units are proposed by a plat filed for approval, the developer shall be required to pay the applicable cash in lieu of land amount provided by Section 4b, rather than to dedicate any land area. No plat showing a dedication of less than one acre shall be approved, unless the dedication will add on to an existing park area.

2c. In instances where an area of less than 5 acres is required to be dedicated, the Planning and Zoning Commission shall have the right to accept the dedication for approval on the final plat, or to refuse same, after consideration of the recommendation of the Park, Recreation and Beautification Advisory Board, and to require payment of cash in lieu of land in the amount provided by Section 4b, if the Commission determines that sufficient park area is already in the public domain in the area of the proposed development, or if the recreation potential for that zone would be better served by expanding or improving existing parks.

2d. When one or more developments will be necessary to create a neighborhood park of sufficient size in the same area, the Park, Recreation and Beautification Advisory Board, prior to the time of preliminary plat approval, will work with the developers to define the optimum location of their dedication within their plats. Once a park site has been determined, adjacent property owners who develop around the park site will dedicate land to add onto the existing site unless otherwise determined by the Planning and Zoning Commission.

2e. The dedication required by this Ordinance shall be made by filing of the final plat or contemporaneously by separate instrument unless additional dedication is required subsequent to the filing for the final plat. If the actual number of completed dwelling units exceed the figure upon which the original dedication was based, such additional dedication shall be required, and shall be made by payment of the cash in lieu of land amount provided by Section 4b, or by the conveyance of an appropriate amount of numbered lots to the City.

Section 3. Prior Dedication; Absence of Prior Dedication.

3a. If a replat is filed, the dedication requirement shall be controlled by the ordinance in effect at the time of original platting, except that additional dedication shall be required if the actual density of structures constructed upon the property is greater than the former assumed density. Additional dedication shall be required only for the increase in density and shall be based upon the ratio set forth in Section 2 of this Ordinance, or money in lieu thereof.

3b. At the discretion of the City, any former gift of land to the City may be credited on a per acre basis toward eventual land dedication requirements imposed on the donor of such lands if the former gift is within one-quarter mile of the new development. The Planning and Zoning Commission shall consider the recommendation of the Park, Recreation and Beautification Advisory

Board in exercising its discretion under this Section.

Section 4. Money in Lieu of Land.

4a. The city may, from time to time, decide to purchase land for parks in or near the area of actual or potential development. If the city does purchase park land, subsequent park land dedication for that area shall be in cash only unless otherwise permitted by the Planning and Zoning Commission, upon recommendation of the Park, Recreation and Beautification Advisory Board.

4b. To the extent 4a is not applicable, the dedication requirement shall be met by the dedication of land to the city. If all or a portion of this land is determined to not be in the best interest of the city, the city may require a payment of money in lieu of land, or part land and part money. This will be determined by the Planning and Zoning Commission after considering the Park, Recreation and Beautification Advisory Board recommendations. The dedication requirement shall be met by a payment in lieu of land at a per-acre price set from time to time by resolution by the City Council, sufficient to acquire land, develop park facilities, and provide for adjacent streets and utilities for a neighborhood park to serve the park zone in which such development is located. Unless changed by the City Council, such per-acre price shall be computed on the basis of two hundred fifty dollars (\$250.00) per dwelling unit. Cash payments may be used only for acquisition or improvement of a neighborhood park or neighborhood-oriented portions of community parks located within the same zone as the development, unless such requirement is waived by the developer.

4c. There may be certain situations and circumstances which are unforeseen which arise with respect to certain tracts of land to be developed, including those parcels which were in preliminary plat stage at the time of the passage of the original park land dedication ordinance, which require special attention and consideration by the Planning and Zoning Commission, upon showing of unusual and practical difficulties or unnecessary hardships in the carrying out of the provisions of this ordinances due to topography or other conditions, and not merely a convenience to the applicant, may permit a variance in the strict application of this ordinance, provided such variance will not seriously affect adjoining property or the general welfare of the community. Any variance granted shall not establish a precedent for other tracts, and each parcel or development shall comply with the terms of this ordinance unless the criteria for a variance set forth above are met.

Section 5. Comprehensive Plan Considerations.

Land shown on a comprehensive plan as being suitable for development of the City for a major recreational center, school site, park, or other public use, shall be reserved, for a period of one year after the preliminary plat is approved by the City if within two months after such approval the City Council advises the subdivider of its desire to acquire the land or of the interest of another government unit to acquire the land, for purchase by the interested governmental authority at land appraisal value at the time of purchase. A failure by the City Council to so notify the subdivider shall constitute a waiver of the right to reserve the land. Any waiver of the right to reserve the land shall no longer be effective if the preliminary plat shall expire without adoption of a final plat.

Section 6. Special Fund, Right to Refund.

6a. All funds collected by this dedication process, and interest accrued thereon, will be deposited in the city's park development fund and used solely for the purchase or leasing of park land and development of same. All expenditures from this fund will be reviewed by the Park, Recreation and Beautification Advisory Board and approved by the City Council.

6b. The city shall account for all sums paid in lieu for land dedication under this section with reference to the individual plats involved. Any funds paid for such purposes must be expended by the City within three and one-half (3 1/2) years from the date received by the city for acquisition of development of a neighborhood park as defined herein. Such funds shall be considered to be spent on a first in, first out basis in a particular park zone. If not so expended, the owners of the property on the last day of such period shall be entitled to refund of any funds which were not spent by the city. The owners of such property must request such refund within one (1) year of entitlement, in writing, or such right shall be barred.

6c. After the final plat has been approved, any land dedicated will not be developed for a period of six (6) months. If money was given in lieu of land, it will be held in escrow for six (6) months before it will be spent. If during that six (6) month period the developer decides not to develop the property and abandons the plat, a full refund of money or land will be given.

Section 7. Additional requirements, definitions.

7a. Any land dedicated to the City under this ordinance must be suitable for park and recreation uses. The following characteristics of a proposed area are generally unsuitable:

1. Any area primarily located in the 100 year flood plain.
2. Any areas of unusual topography or slope which renders same unusable for organized recreational activities.

The above characteristics of a park land dedication area may be ground for refusal of any preliminary plat.

7b. Drainage areas may be accepted as part of a park if the channel is constructed in accordance with city engineering standards, if no significant area of the park is cut off from access by such channel, if not less than five (5) acres of the site is above the 100 year flood plain, or if the dedication is in excess of ten (10) acres, not more than fifty percent (50%) of the site should be included in the 100-year flood plain.

7c. Each park must have ready access to public street.

7d. Unless provided otherwise herein, an action by the city shall be by the Planning and Zoning Commission, after consideration of the recommendations of the Park, Recreation and

Beautification Advisory Board. Any proposal considered by the Planning and Zoning Commission under this section shall have been reviewed by the Park, Recreation and Beautification Advisory Board and its recommendation given to the Commission.

7e. In determining the allowable density which may be constructed on a tract of land, the gross acreage prior to any reductions for park land dedication shall determine the allowable number of dwelling units which may be constructed on the remaining property.

Section 8. Repealer.

That all ordinances or parts of ordinances inconsistent or in conflict herewith are hereby repealed.

Section 9. Effective Date.

That this ordinance shall take effect and be in full force and effect from and after the date of its passage.

Section 10. Severability.

If any section, paragraph, subdivision, clause, phrase or provision of this ordinance shall be adjudged or for any reason held to be unconstitutional, void or invalid, the validity of the remaining portions of this ordinance shall not be affected thereby.

Section 11. Emergency.

It being for the public welfare that this ordinance be passed, creates an emergency and public necessity, and the rule requiring this ordinance be read on two separate occasions be, and the same is hereby, waived and this ordinance shall be in full force and effect from and after its passage and approval.

PASSED AND APPROVED by vote of _____ to _____ on this _____ day of _____, 19__.

MAYOR, CITY OF PEARLAND, TEXAS

ATTEST:

CITY SECRETARY

APPROVED AS TO FORM:

CITY ATTORNEY

CRITERIA MANUAL

CITY
of
PEARLAND
TEXAS

March 30, 1993

CRITERIA MANUAL (3-30-93) -1

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IMPORTANT NOTICE

This manual is to be used and interpreted in accordance with the City's ordinances on urban forest preservation and enhancement, codified as Article XIV of Chapter 6 of the City's Code of Ordinances. Unless the context indicates that another meaning is intended, terms used in this manual have the same meanings as in Article XIV.

1. TREE SURVEY STANDARDS

1.1 REQUIRED FIELD DATA

Tree Data submitted for a Tree Survey of Tree Disposition Plan must be obtained from a ground survey. The data that must be obtained in the field are Tree locations, circumferences, types (species), and crown areas (the dripline).

1.1.1 Location

Tree Surveys must be as accurate as possible, but need not be certified. Levels of inaccuracy that will result in a failure to comply with the City ordinance and construction specifications may necessitate new surveys and plan adjustments prior to permit approval.

Trees on City easements adjoining the site must be surveyed.

Trees with 30% or more of their Critical Root Zones extending onto an affected Subject Site or project easement must be surveyed. Trunk locations of off-site Trees may be estimated to avoid trespass problems.

Methods for locating Trees may vary depending on the size of the project and number of Trees. In most cases, taping the distance to the center of the trunk from two (2) known points is a viable option.

1.1.2 Circumference

The circumference of a Tree trunk is measured 4.5 feet above the ground using a ordinary tape measure or diameter tape. (A Tree on a slope shall be measured from the high side.) Measurement is taken just above or just below any unusual swells in the trunk, as closely as possible to the 4 and one-half foot level (see Figure 6-502(1)). For Multiple-Trunk Trees, the trunk Circumference is deemed to equal the Circumference of the largest trunk plus half the Circumference of each additional trunk. Measurements should be accurate to the nearest 1/2 inch.

1.1.3 Type (Species)

Tree types should be accurate to the species level and may be listed by common names or botanical names (e.g. Post Oak or *Quercus stellate*).

Good field references for Houston are: Texas Trees, a Friendly Guide, by Paul W. Cox and Patty Leslie (available from Chickadee Nature Store, 713-956-2670); the Trees For Texas Resource Guide, available from the Texas Department of Agriculture, 512-463-7504; Field Guide to Texas Trees, by Benny J. Simpson; and Trees, Shrubs and Woody Vines of East Texas, by Elray Nixon.

1.1.4 Critical Root Zone; Crown

The Critical Root Zone (or "CRZ") means, for any given Tree, the area within a circle centered on the trunk location. The circle's diameter is one-half the sum of the broadest and the narrowest dripline diameters. See Figure 1b, attached.

The dripline and crown information will also be useful in assessing the impact of projected construction.

1.2 RECOMMENDED ADDITIONAL FIELD DATA

1.2.1 Crown Clearance

This information is often critical in determining whether a given structure of vehicular use area can practically be placed within the dripline of a Tree. If this information is recorded, the surveyor should consider the verticle distance to any major branches.

1.2.2 Condition

This is one of the principal factors in determining whether a Tree should or should not be preserved. Surveyors should not speculate about the condition of the Trees unless they have the necessary credentials; however, if a Tree is obviously in poor condition, it should be noted.

1.2.3 Spot Elevation

Taking an elevation reading near the trunks of some Trees will provide valuable information for project designers. Since grade changes have a very destructive impact on Trees, it is important to get the most accurate information possible.

1.3 PLAN GRAPHICS

The Standard Tree graphics discussed below are important to provide consistent information in the most useful format for efficient plan review. See Figure 2 for examples of Tree graphics.

1.3.1 Trunk Location

The trunk location on the plan must represent the center of the trunk at ground level. If the Tree leans substantially above that point, show the direction of the lean with an arrow.

1.3.2 Critical Root Zone (CRZ); Crown; Retained Trees

The Critical Root Zone should be indicated by a circle centered on the trunk. If the crown is significantly skewed or irregular, show also a circle with a radius in feet equal to the diameter of the Tree in inches or per measurement of crown area whichever is greater. The actual crown may also

be shown if it is skewed and will have a significant impact on construction. Note that the actual amount of critical roots for any tree will depend upon many factors (see Section 2.2.1 Root Zone Impacts).

Trees proposed to be retained are to be represented by circles drawn with a solid line, while Trees proposed to be removed are to be represented by dashed lines. Proposed replacement Trees should be graphically differentiated, as shown in Figure 2.

1.3.3 Sizes and Types

Tree circumferences and types must also be shown on the plan. This information should be shown adjacent to each trunk location. For sites with a large number of Trees, this data should be shown in legend form referenced by a Tree number adjacent to each trunk location. Legends can be useful because they allow for the presentation of other data such as crown configuration, height, condition, etc.

1.4 SMALL-SCALE PROJECTS

The Urban Forester may prescribe the contents for a simple, low-cost Tree Survey for small-scale projects. For these projects, the Urban Forester may allow the deletion of some data and details otherwise required and may make provisions to assist lay persons preparing their own surveys.

2. TREE EVALUATION AND SITE PLANNING

The Urban Forester shall use the following criteria to evaluate Trees shown in Tree Surveys and, working with the applicant and City building officials, the Urban Forester shall approve Tree Disposition Plans if they comply with: this Chapter 2, the provisions of Chapter 3 (relating to mitigation, if applicable) and the other applicable provisions of this manual.

The Urban Forester may prescribe the contents for a simple, low-cost Tree Disposition Plan for small-scale projects. For such projects, the Urban Forester may allow the deletion of some data and details otherwise required and may make provisions to assist lay persons preparing their own plans.

While the guidelines set forth here are intended to be as comprehensive as possible, no printed document can substitute for the knowledge and experience of a qualified urban forester. The recommendations of the City Urban Forester may differ from a simple "face value" interpretation of these guidelines; however, the Forester should work cooperatively with the applicant and with City building officials to reach a mutually agree solution. The forester should also be prepared to justify "non-standard" decisions by presenting the special circumstances that apply.

The process of Tree evaluation and site planning will include:

- › The identification of valuable Trees;
- › An assessment of minimum standards for Tree preservation;
- › An analysis of design constraints and alternatives; and

- › The negotiation of mitigative measures when necessary.

2.1 TREE EVALUATION

The City's ordinances address the preservation of Large Trees. However, not all Large Trees have the same value, due to such factors as type (species) or conditions. Conversely, some smaller trees may have greater value due to their rarity, screening potential or other factors.

2.1.1 Tree Evaluation Method

The following factors must all be considered in determining the value of any tree. Weighing factors are included to aid in this determination.

Using these criteria, a designer can walk the project area and perform a rough analysis of the tree situation before starting the design of the project. The Urban Forester should use these same factors in approving the Tree Disposition Plan.

Ten factors are included: condition, type, size, aesthetics, energy conservation and heat abatement, safety, adjacent Trees, water quality protection, and soil conservation, wildlife habitat and historic significance.

The sum of scores for all ten factors determines the relative value of a Tree. In general highly valued Trees (total rating of 30 or more out of a possible 40) should be preserved if at all possible. In all cases, the initial calculation of replacement inches required will depend on the valuation and size of the Tree being removed.

2.1.2 Condition

In assessing a Tree's condition, the forester considers trunk condition, growth rate, tree structure, insect, and disease problems, crown development and life expectancy. A score is assigned as follows:

- 1 = Poor
- 2 = Fair
- 3 = Good
- 4 = Excellent

2.1.3 Type

The species of Trees found in the City have been divided into four classes based on overall quality. The chart in Appendix A indicates how each species fits in this general classification. A score is assigned as follows:

- 1 = Class IV

- 2 = Class III
- 3 = Class II
- 4 = Class I

2.1.4 Size

Tree sizes are divided into four categories. A score is assigned for each size category as follows:

- 1 = Less than 25 inches circumference (8 inches diameter)
- 2 = Between 25 inches cf. and 50 inches cf. (16 inches diameter)
- 3 = Between 50 inches cf. and 75 inches cf. (25 inches diameter)
- 4 = More than 75 inches cf.

2.1.5 Screening; Aesthetics

Trees may score high in this area if they provide screening and privacy to the property or if they are in good conditions and have exemplary form. A score is assigned as follows:

- 1 = Poor
- 2 = Fair
- 3 = Good
- 4 = Excellent

2.1.6 Energy Conservation and Heat Abatement

If a Tree is shading a building or pedestrian use area in its existing situation, it receives a high score under this category. The energy conservation and heat abatement potential is also considered even if there are not obvious benefits, since trees in general cool the air. For example, large Trees west of a buildable area will score high. A score is assigned as follows:

- 1 = Poor
- 2 = Fair
- 3 = Good
- 4 = Excellent

2.1.7 Safety

If a Tree is in a hazardous situation due to external factors related to man-made features (*not inherent in the condition of the Tree*), for example, its location relative to a road intersection, etc. it receives a low score. Scores reflect the feasibility of mitigating the safety problems and are assigned as follows:

- 1 = Hazardous; low mitigation potential
- 2 = Hazardous; medium mitigation potential

- 3 = Hazardous; high mitigation potential
- 4 = Not hazardous

2.1.8 Adjacent Trees

The proximity of other Trees has a bearing on a Tree's value. Everything else being equal, a lone Tree has greater value than one Tree of many. The fate of other Trees in the vicinity also affects this rating factor. A score is assigned as follows:

- 1 = Many Trees; high retention potential of adjacent Trees
- 2 = Many Trees; low retention potential of adjacent Trees
- 3 = Few adjacent Trees
- 4 = Lone Tree

2.1.9 Water Quality Protection and Soil Conservation

Trees help reduce storm water runoff and enhance ground water recharge by breaking the impact of raindrops and improving soil structure. A Tree's effectiveness in this capacity is correlated with the size of the crown and root area. Large Trees with full crowns and unrestricted root areas score highest in this category. A score is assigned as follows:

- 1 = Poor
- 2 = Fair
- 3 = Good
- 4 = Excellent

2.1.10 Wildlife Habitat

This factor is rated on the basis of the intrinsic value of the type of Tree as a provider of food and forage and general wildlife cover characteristics, or on the basis of field observations of a particular Tree.

Regarding field observations, as an individual Tree may rate higher than the assigned intrinsic value of the genus due to such things as the presence of food-bearing parasites or epiphytes (e.g., mistletoe or grapes) or due to the potential for or actual presence of wildlife nesting cavities. A score is assigned as follows:

- 1 = Poor
- 2 = Fair
- 3 = Good
- 4 = Excellent

2.1.11 Historical Significance

The highest rating in this category reserved for Trees that fit one of the following criteria:

- › The Tree is on a registry of historic or especially important Trees.
- › The Tree has been documented as historically significant.
- › The Tree is rare in the Houston area.
- › Due to its location and size, the Tree serves as a significant landmark on the landscape.

Since historical significance is largely a function of age the Urban Forester's estimate of the age of the Tree also has a bearing on this value. A score is assigned as follows:

- 1 = Less than 20 years old.
- 2 = Between 20 and 40 years old.
- 3 = Greater than 40 years old.
- 4 = Registered, rare or landmark tree.

2.2 TREE PRESERVATION CRITERIA

2.2.1 Root Zone Impacts

Although a Tree's root system ranges will beyond the dripline, for the practical purposes of this Criteria Manual and the ordinances the Critical Root Zone (CRZ) has been established.

Because existing development on a site may affect the actual distribution of tree roots, the Urban Forester may require protection of areas outside the CRZ and may determine that it is not necessary to protect areas within the CRZ where there may be few, if any, significant roots. For example, a Tree growing next to a house on a slab will not normally have as many significant roots beneath the slab as the side of the root system growing without the covering of a non-porous surface. This will allow new buildings to be erected on the site of the old slab near a Tree to be preserved.

Design constraints often dictate that Trees slated for preservation have some encroachment on their CRZ. Weighing this fact with what appears to be an acceptable degree of risk to most Trees, the following maximum allowable impacts have been established for Trees with normal CRS's.

- › A minimum of 75% of the CRZ must be preserved at natural grade, with natural ground cover.
- › No cut or fill greater than two (2) inches will be located within the inner 3/4 of the CRZ.

In order to insure that root zones are adequately preserved, protective fencing should be erected to enclose area with significant roots. Root areas that will be covered with permeable paving must be protected by fencing until the immediate time for construction of the permeable paving. If this is not possible (due to limited access to the site), mitigative measures must be taken to protect the roots as much as possible (see Section 3.1.2).

2.2.2 Crown Impacts

The following is the maximum allowable impact for Tree crowns:

- › A maximum of 30% of the viable portion of a Tree's crown may be removed.

Construction methods must also be considered. For example, a building wall may only require the removal of 30% of the crown, but the scaffolding necessary to construct the building may require the removal of another 20% of the crown.

2.2.3 Deviations from Criteria

These criteria represent minimum standards for determining whether or not a Tree is "preserved". Greater impacts may be allowed, provided that all design alternatives have been proven unfeasible and that some acceptable form of mitigation such as a remedial care program is negotiated (see Section 3.1.1). Conversely, some cases may require that a larger area of root area be preserved to increase the survival potential of particularly valuable Trees.

These design criteria are enforced in the field as well as on the plan. Plan adjustments made during construction must be reviewed and approved by the City Urban Forester prior to the adjustments being made.

2.3 DESIGN CONSTRAINTS AND ALTERNATIVES

In addition to the preservation of valuable Trees, many other factors can affect site planning: reasonable and lawful use of the property, cut and fill limitations, access and egress restrictions, parking and driveway requirements, and impervious cover limitations. Tree preservation is intrinsically less definitive than most of these restrictions, and all factors must be considered together to arrive at a reasonable solution. In some cases it may be desirable or necessary to remove Trees and replace them with newly planted Trees.

In order to best provide for the preservation of Trees, the project designer should carefully consider different design alternatives in the initial planning of the project. Meeting with the City Urban Forester in a preliminary consultation prior to submitting plans for review is advised when there appear to be conflicts.

In the review of a proposed project, the first indicator of how well Trees have been incorporated in the design process is the impact on Large Trees. These Trees are considered on an individual basis, and a proposal to remove any of them is carefully scrutinized.

Another indicator is how the proposal will impact smaller, valuable Trees. These Trees are typically considered in mass as they relate to the overall preservation of the character of the site.

The following sections describe some design alternatives that can be used to preserve Trees.

2.3.1 Permeable Paving

This alternative is less preferable than leaving 75% of the root area natural. The qualities that make a good paving surface are in direct conflict with the qualities necessary to save tree roots. Permeable paving is permitted, however, provided the installation meets City specifications and the following criteria:

- › Finished grade of the permeable paving surface must be a minimum of six (6) inches and a maximum of 18 inches above existing grade to provide room for base and paving material without cutting.
- › A minimum of 60% of the CRZ must remain at natural grade with a natural ground cover.
- › The combined area of permeable paving and natural cover around a Tree must be at least 80% of the CRZ.
- › Permeable paving is only permitted in parking spaces and low traffic drives.

2.3.2 Building Alternatives

In many cases Buildings have been erected very close to the Tree with little adverse effect on the Tree. Construction methods that make this possible include:

- › Pier and beam foundations, with sufficient air space to allow oxygen to penetrate into the soil for the roots.
- › Finished floor elevations that minimize cut and fill.
- › Buildings notched around significant trees.
- › Buildings designed to fit under crowns of adjacent Trees.

To comply with the design criteria requiring retention of 70% of a Tree's crown, consideration must be given to the following:

- › Providing adequate work space during construction;
- › Providing a safe distance between limbs and walls, eaves, roofs, etc.; and
- › Applying proper pruning techniques.

2.3.3 Sidewalks

Sidewalks appear innocuous on plans, but can be very detrimental to Trees because of grading requirements. Some design alternatives that should be considered are:

- › Move sidewalk as far from Tree trunks as possible.
- › Construct sidewalk on grade in the location of the original sidewalk.

- › Provide a finished grade above existing grade for sidewalks required in close proximity to a Tree trunk.
- › Route drainage under sidewalks where elevated grade is required.
- › Reduce width of sidewalk.

2.3.4 Grading

A grade change of a few inches can be extremely detrimental to a Tree. Some design alternatives that can be used to preserve Trees are as follows:

- › Provide Tree well and/or aeration systems for Trees in fill areas. (See Figure 3.)
- › Provide retaining walls to mitigate cuts and fills. (See Figure 4.)

2.3.5 Utilities

Underground water and sewer lines, storm sewers, lawn irrigation systems have significant impact of Trees, as do overhead electric and telephone utilities. Some typical design alternatives that should be considered are as follows:

- › Establish the trenches for underground utilities where they will have the least impact on Trees.
- › Stack underground utility lines to reduce the number of trenches required.
- › Bore or tunnel under Trees to minimize root impacts (See Figure 5.)
- › Hand-dig trenches to avoid cutting any roots larger than one (1) inch diameter.
- › When planting Trees, plant low-growing Trees under power lines.

3. MITIGATIVE MEASURES AND REPLACEMENT TREES

Many of the existing trees in the City grow very slowly, making preservation very critical to avoid long-term impacts. At the same time, land is at a premium, and there is considerable pressure to build on as much land as possible. In many cases, it will be difficult to meet the above minimum standards, in which case, the Urban Forester may specify that Replacement Trees be planted or that special mitigative measures be taken to protect existing Trees.

3.1 MITIGATIVE MEASURES

To protect Large Trees in cases in which it is not possible to meet the minimum design criteria, the Urban Forester may stipulate mitigative measures. Some of these mitigative measures include:

3.1.1 Tree Maintenance

A remedial care program can increase the survival potential to an acceptable level in many cases. The City Urban Forester must review the remedial care program to estimate whether it will accomplish what is necessary to maintain the viability of affected Trees. Such a program might

include schedules for watering, feeding, soil aeration, spraying, etc.

To ensure compliance, the program must be documented by a plan note at the time of plan approval. In addition, prior to issuance of a certificate of occupancy, a person may be required to submit, in especially critical cases, the following:

- › A signed service contract for review and approval by the City; and
- › Fiscal security in an amount equal to the going rate for the approved service plus 15% to cover administrative costs.

These measures are necessary because the remedial care program must typically extend over a minimum 18-month period after completion of the project.

3.1.2 Special Construction Techniques

In conjunction with remedial care, mitigation may include special construction techniques not normally required in standard specifications. Some of these techniques include the following:

- › Leaving existing sidewalks and driveways in place for storage of materials and vehicular access, until construction of the Building is complete.
- › Prior to excavation within Tree driplines or the removal of Trees adjacent to other trees that are to remain, make a clean cut between the disturbed and undisturbed root zones with a rick saw or similar equipment to minimize root damage.
- › In significant root areas that cannot be protected during construction with fencing and where vehicular traffic is anticipated, cover those areas with four (4) inches of organic mulch or gravel topped by two-inch road boards to minimize soil compaction and root damage.
- › Perform all grading within significant root areas by hand or with small equipment to minimize root damage.
- › Water all Trees most heavily impacted by construction activities deeply once a week during periods of hot, dry weather. Spray Tree crowns with water periodically to reduce accumulation on the leaves.
- › When installing concrete adjacent to significant roots of a Tree, use a plastic vapor barrier behind the concrete to prohibit leaching of lime into the soil.

3.2 REPLACEMENT TREES

The most common measure used to mitigate Tree removals in the planting of Replacement Trees. The following factors affect tree replacement:

- › The quantity of Replacement Trees;
- › The available planting area;
- › The anticipated rate of survival of Trees planted;
- › The types of Trees proposed.

3.2.1 Quantities of Replacement Trees

Replacement Tree values will be expressed in terms of caliper inches (diameter) measured per standards outlined in the American Standard of Nursery Stock, a publication prepared by the American Association of Nurserymen and approved by the American National Standards Institute. Measurements are to be taken as follows:

- › 6 inches from the ground for Trees up to and including 4 inches diameter
- › 12 inches from the ground for Trees 4 1/2 inches up to and including 8 inch diameter.
- › 4 1/2 feet above the ground for Trees 9 inches diameter and larger.

For Trees with a value greater than 30 points using the criteria in Section 2.1, replacement calculations will initially require 100% of the diameter of the Tree in question. For example, a Tree with a 75-inch circumference (24-inch diameter) will require 24 caliper inches of Replacement Trees, which could be met by six Trees of 4 inches each or four Trees of 6 inches each.

For Trees with a value from 20 to 30 points, replacement calculations will initially require 75% of the diameter of the Tree in question. In this case, a Tree with a 75-inch circumference (24-inch diameter) will require 18 caliper inches of Replacement Trees.

For Trees with a value from 10 to 19 points, replacement will initially require 50% of the diameter of the Tree in question. In cases where a Tree is dead or judged by the Urban Forester to be in such poor condition that it will not live more than another year, no replacement is required.

In all cases, a reduction may be allowed in the number and sizes of Replacement Trees, if the applicant requests a reduction, and if the applicant demonstrates clearly that one or more of the following sets of circumstances is present: (i) there is not sufficient available space on the affected Subject Site for all the replacements initially calculated, taking into account the space ultimately needed for Trees upon maturity, (ii) there are sufficient remaining Trees on the affected Subject Site to maintain Tree cover and diversity in the city as a whole, or (iii) the number of replacements calculated by formula is unreasonably large, and the overall urban forest would not be substantially and adversely affected if the reduction were allowed.

3.2.2 Available Planting Area

Replacement Trees should be planted on the Subject Site from which existing trees are to be removed. If this is not feasible, a person may initiate a proposal to plant Trees off-site. This may be acceptable if the planting site is in reasonable proximity to the project area.

3.2.3 Survival Potential

Before approving any replacement option, the City forester will assess the probability that Trees planted will survive. This typically requires that some type of irrigation capability be implemented for a minimum of two years. Irrigation may not be required if it can be adequately demonstrated

that, given the size and type of Trees planted, the planting site and the time of year the Trees are planted, the mortality rate is likely to be low.

3.2.4 Types of Replacement Trees

In order to enhance the general quality of the urban forest, 75% of the Replacement Trees required must normally be Class I or Class II species (see Appendix A). The Urban forester may recommend Trees from other Classes. All Trees must be suitable for the environment of the immediate planting site.

3.2.5 Enforcement Criteria

The location, size and type of all Replacement Trees must be shown on the Tree Disposition Plan in a manner which will allow verification of their installation at the time of inspection for Certificate of Occupancy.

Optimum planting times do not always correspond to project completion. For that reason, Replacement Tree plantings may take place after a certificate of occupancy is issued, provided that a person posts fiscal security in an amount equal to the going rate for installed Trees with a one-year guarantee, plus 15% to cover administrative costs. Certificates of occupancy may be issued conditionally in this case.

4. TREE PHYSIOLOGY

The following is a collection of facts regarding tree physiology which provide the basis for the subsequent design standards for preservation (see Figure 6).

4.4.1 Roots

Roots provide three primary functions: 1) support, 2) intake of nutrients and water and 3) storage of food reserves. Cutting a large root has the triple effect of reducing the tree's anchorage, destroying the nutrient intake potential beyond that point and reducing food reserves by a substantial amount.

Tree roots must respire in order to survive. Conditions which restrict the availability of oxygen effectively suffocate affected roots. Such conditions will also result in the accumulation of carbon dioxide and other toxic gases in the soil which adversely affect associated soil microfauna as well as the roots. Typical conditions which inhibit this essential gas exchange are compaction of the soil, addition of new soil (fill) and ponding of water.

Trees establish a balance between root and crown areas such that destroying a portion of one may lead to the destruction of a portion of the other.

Roots of adjacent trees are typically intermingled through the sharing of rootstock by several stems,

grafting of roots by like species of trees or a general sharing of the same space. It is important to make a clean cut when severing roots rather than tearing them. A ripping action (as with a dozer) affects roots of one (1) or more trees far beyond the point of contact. Roots left jagged are also unable to produce the callous growth necessary to close the wound; thus decay becomes more extensive. In addition, cleanly cut roots can generate new roots more readily than torn roots.

The soil pH is an important factor in the functioning of the root system. Leaching of the lime from concrete can increase alkalinity to potentially lethal levels.

Approximately 99 percent of a tree's roots occur within the first three (3) feet of soil and most of the fine feeder roots which collect the moisture and nutrients are located in the first twelve (12) inches of soil.

Typically, a tree's root system extends as much as two (2) to three (3) times the distance to the dripline.

4.4.2 Trunk

A tree's trunk serves as a conduit for nutrients and water going to the leaves and food materials going to the roots. In addition, it is a major food reserve storage area.

The sapwood contains the cells which serve as the upward transport system for nutrients and water. In most trees, the sapwood is found within the last few inches of the outer trunk wood.

The phloem, located in a very thin layer of cells just inside the bark, serves as the downward transport system for food materials, enzymes, hormones and other materials produced by the leaves.

The cambium is the tissue layer located between the phloem and sapwood that creates the cells for both transport systems.

The proximity of all these important structures to the outer extremities of the trunk and branches make their protection against injury so critical.

Contrary to popular belief, tree wound dressing is not a corollary to antiseptics used on animal wounds which prevent infection and promote healing. The only sure cure is prevention where trees are concerned. Trees never "heal" wounds, but rather, seal off or compartmentalize the affected area provided all conditions are right for such activity. There are arboricultural techniques which can increase the chances of a tree successfully compartmentalizing some wounds, but simply applying tree wound dressing is not chief among them. (Note: Because tree wound dressing masks odors emitted by wounds which attract insect vectors, it is a vital procedure in the protection of oak trees against the oak wilt fungus. Tree wound dressing should be applied to oaks immediately after wounding.)

The root collar is the interface of the tree trunk and root system evidenced by a flaring of the trunk

near the ground surface. The proximity of this structure to the root system promotes the misconception that the root flare can be covered with fill such as top soil dressing. This portion of the trunk is not adapted to the same conditions as the underground roots. In addition to reducing aeration, fill material which tends to keep the root flare and trunk area moist, can facilitate invasion by soil borne fungi and insects. When this happens, the tree trunk can be girdled by decay agents, resulting in death. Some species of trees are more susceptible to this than other; however, covering the root flare should be avoided as a general rule.

4.4.3 Crown

The tree's branches and leaves make up the crown. Branches serve the same transport and food storage function as the trunk in addition to giving rise to the leaves. Leaves manufacture the food and other substances required to sustain the whole tree.

Removal of more than 30 percent of a tree's crown can severely impact the tree's ability to provide sufficient food quantities for continued growth or protection against debilitation by disease.

APPENDIX A: CLASSES OF TREES

Class I

Carya spp. - Hickories
Carya illinoensis - Pecan
*Diospyros texana - Texas Persimmon
*Ilex opaca - American Holly
*Ilex vomitoria - Yaupon Holly
Juglans nigra - Black Walnut
Liquidambar styraciflua - Sweetgum
Magnolia grandiflora - Southern Magnolia
Magnolia virginiana - Sweetbay
Nyssa sylvatica - Tupelo
Pistacia chinensis - Chinese Pistache
*Prunus mexicana - Mexican Plum
Quercus alba - White Oak
Quercus falcata - Southern Red Oak
Quercus lyrata - Overcup Oak
Quercus macrocarpa - Bur Oak
Quercus muehlenbergii - Chinkapin Oak
Quercus nigra - Water Oak
Quercus nuttallii - Nuttall Oak
Quercus shumardii - Shumard Oak
Quercus texana - Spanish or Texas Oak
Quercus virginiana - Live Oak
Taxodium distichum - Baldcypress
Ulmus crassifolia - Cedar Elm

Class II

Acer rubrum - Red Maple
Betula nigra - River Birch
Bumelia langinosa - Gum Bumelia
*Cercis canadensis - Redbud
*Crataegus spp. - Hawthorns
Diospyros virginiana - Eastern Persimmon
*Ehretia anacua - Anaqua
*Ginkgo bilboa - Ginkgo
Juniper spp. - Junipers, Cedar
*Lagerstromia????? - Crapemyrtle
Liriodendron tulipifera - Tulip-poplar
Pinus elliotii - Slash Pine

Ailanthus altissima - Tree of Heaven
Albizia julibrissin - Silktree
Catalpa spp. - Catalpa
Celtis lacvigata - Sugarberry
Chilopsis linearis - Desert Willow
Cupressus arizonica - Arizona Cypress
Eleagnus angustifolius - Russian Olive
Firmiana simplex - Chinese Paraslo Tree
Maclura azedarch - Chinaberry
Morus rubra - Red Mulberry
Pinus edulis - Pinion Pine
Pinus ponderosa - Ponderosa Pine
Populus spp. - Cottonwoods and Poplars
Prunus blireiana - Ornamental Plum
Robinia pseudoacacia - Black Locust
Salix spp. - Willows
Tamarix spp. - Tamarisk
Thuja spp. - Arborvitae
Ulmus pumila - Siberian Elm
Ziyphus jujube - Jujube

ALL OTHER TREES OR AS DIRECTED BY THE CITY URBAN FORESTER

* Indicates suggested trees fro planting under powerlines.

SECTION 33-102. APPLICATION

(a) The requirements of this article shall only apply to a building site where any of the following conditions is present:

- (i) there is new construction of a nonresidential or multi-family residential building for which a building permit is required;
- (ii) there is an enlargement exceeding 1,000 square feet in area of the exterior dimensions of an existing nonresidential or multi-family residential building for which a building permit is required; or
- (iii) there is either a new parking lot for which site plans are required for initial construction under the provisions of chapter 26 of this Code or an existing parking lot which is expanded in area to provide additional parking spaces.

(b) The requirements of this article apply to the entirety of the building site if it is completely developed by the new construction of a building (or buildings) and appurtenant surface parking area. In case the entirety of the building site is only partially developed by new construction or enlargement, the requirements of this article shall be applied incrementally, such that trees, shrubs, and landscape buffers are required only with respect to and in proportion to new or increased building area and off-street parking spaces. This subsection shall control over any other conflicting or inconsistent provision.

(c) The requirements of this article do not apply to the reconstruction of an existing building of which fifty percent (50%) of the existing building floor area or less was physically destroyed or ruined by flooding, fire, windstorm or act of God. This exemption shall apply only where reconstruction of that building will not result in an increase in the paving area of the parking facilities to be provided.

(d) Nothing in this article shall be construed to require a landscape plan or landscape plan review for finish work performed by an owner, a tenant or on behalf of a tenant, in a portion of a building unless that tenant finish work or remodeling results in an increase in the paving area of the parking facilities to be provided or in an enlargement of the exterior dimensions of an existing building.

SECTION 33-103. LANDSCAPE PLAN REQUIRED.

(a) A landscape plan for the building site shall be submitted to the department by an applicant for a building permit for approval in accordance with the provisions of this article.

(b) The landscape plan may be depicted on either the development plans or parking lot site plan, provided the drawing scale is sufficient to properly depict the landscape plan requirements. The landscape plan shall identify and show the locations of existing and proposed utility lines, roadways, sidewalks, street lights, trees, shrubs, groundcovers, natural features, other landscape

elements, and planting or construction details. Where credit is being requested for the preservation of existing trees and associated understory, the landscape plan shall also demonstrate the manner in which the requirements for preservation established under section 33-112 are to be satisfied. A plant schedule shall be provided which includes quantities, minimum size at time of planting, and botanical and common names keyed to the plan.

(c) The department shall review the landscape plan to verify compliance with all requirements of this article prior to the issuance of a building permit. If an artificial lot is delineated, it shall be depicted on the building plans prior to the issuance of the building permit.

(d) No building permit shall be issued by the building official for the construction or alteration of a building within the City unless the director approves the landscape plan verifying that the applicant has provided for the planting of trees and shrubs to the extent required in this article.

(e) Except as provided in subsection (f) below, no final certificate of occupancy shall be issued by the building official for the occupancy of a new or altered building unless the plantings required by this article have been provided. Prior to the issuance of a certificate of occupancy, the building official shall inspect the planting provided to verify compliance with the approved landscape plan.

(f) A six-month conditional certificate of occupancy may be issued if the owner provides the building official with either the documented assurances specified in section 33-114 or a bond or assigned certificate of deposit as set forth in section 33-115.

SECTION 33-104. TOTAL TREE PLANTING REQUIREMENT.

At least fifty percent (50%) of the total tree requirement created by this article must be met by planting or causing the planting of trees in compliance with the provisions contained herein.

SECTION 33-105. TREE PLANTING EQUIVALENCY CREDITS.

The following credits may be claimed for up to fifty percent (50%) of the total tree requirement under this article:

(a) Credit for planting trees exceeding the minimum caliper required. Credit toward the total tree requirement shall be given for the planting of trees that exceed the minimum caliper required by this article at the rate of two trees for each tree planted with a caliper of four inches (4") and greater, as measured twelve inches (12") above the root collar.

(b) Credit for depositing with the city's department of parks and recreation a sum of money equal to the cost of planting the required trees. Money so deposited shall be placed in a special fund designated for the purposes of planting street trees in city parks or public street rights-of-way. The credit shall be calculated based on a planting cost per tree of one hundred dollars (\$100.00) per 15-gallon container-grown tree, planted and maintained for a year, subject to a cost adjustment adjusted from (the month of passage of this Ordinance) pursuant to section 33-101(a). The maximum allowable credit under this option shall not exceed thirty percent (30%) of the total

tree requirement.

(c) Credit for preserving existing on-site trees. Credit for the preservation of existing on-site trees (including any to be transplanted) may be granted when requested and depicted on the landscape plan in accordance with section 33-103. In order to be eligible for credit, an existing tree to be preserved on the site shall be in good condition, and shall be true to species habitat and form.

Credit for preserving existing trees shall be granted based upon the following schedule:

<u>TREE CALIPER</u> (INCHES)	<u>CREDIT</u> (NUMBER OF TREES)
Minimum 4" to 6"	2 Trees
Greater than 6" but less than 12"	4 Trees

SECTION 33-106. ARTIFICIAL LOT DELINEATION.

(a) In general. If the building site is over two acres in size, the applicant may request that the building official designate an artificial lot to satisfy the requirements of this article. If requested, the building official shall designate an artificial lot consistent with the purposes and policies of this article as determined from the criteria established below. No artificial lot may be delineated by the building official unless it:

- (1) wholly includes the area on which the construction work is to be done;
- (2) has an area that does not exceed fifty percent (50%) of the area of the building site; and
- (3) depicts and includes all proposed and existing buildings and structures, access drives, appurtenant parking required for the building expansion or new building construction, and other areas functionally appurtenant to the buildings or structures.

**SECTION 33-107. REVIEW OF BUILDING PERMITS AND
CERTIFICATE OF OCCUPANCY
APPLICATIONS.**

(a) The director shall review building permit applications for the construction or expansion of a building or parking lot to determine if the proposed landscape plan complies with the provisions of this article.

(b) When a certificate of occupancy is sought, the building official shall determine

whether the applicant has complied with sections 33-114 and 33-115.

(c) The director shall approve an application for a building permit or certificate of occupancy which complies with the provisions of this article and all other provisions of the ordinances of the City.

(d) The director shall deny in writing all applications for a building permit or certificate of occupancy that do not comply with the provisions of this article.

SECTION 33-108. STREET TREES REQUIRED.

(a) Street trees shall be planted within the public street rights-of-way, or on private property within ten feet (10') parallel and adjacent to a local street right-of-way, or on private non-residential property within twenty-five feet (25') parallel and adjacent to a major thoroughfare, or in the esplanade pursuant to the requirements of section 33-111(b). (See figure E.) When the building site abuts a designated state or federal highway or road or any designated county road and street trees are not otherwise required by law, street trees shall be planted on private property in accordance with this section. The number of street trees planted shall equal the total number of trees (T) required under the following formula:

$T = (X/30)$ where X shall represent the length in linear feet measured along all sides of the property line on the public street(s). (See figure B).

(b) Street trees planted in accordance with this section shall be of a species listed in appendix A-3. In the case of trees planted within the public rights-of way, trees shall be planted in a location which conforms with the requirements of section 33-111 of this article. The trees shall be planted so as not to interfere with existing utilities, roadways, sidewalks, or street lights.

(c) If trees are planted at specific intervals, spacing intervals shall depend upon the potential mature height of the tree, as follows:

**MATURE HEIGHT
(IN FEET)**

**PLANTING INTERVALS EXCLUSIVE OF
DRIVING ENTRANCES (IN FEET)**

Large Trees (40' +)	45' - 55'
Medium Trees (30' - 40')	35' - 45'
Small Trees (to 30')	25' - 35'

If a street canopy effect is desired, large trees may be planted at intervals less than forty-five feet (45'). When the spacing interval exceeds 40 feet, smaller ornamental trees may be placed between the larger trees in order to meet the requirements of this section, provided the spacing does not exceed the aforementioned intervals for small trees. Trees shall not be required at specific planting intervals, as long as parking lot screening is provided in accordance with section 33-109.

(d) Credit for the preservation of existing trees within the planting area as defined in subsection (b) may be requested in lieu of meeting a portion of the street tree planting requirement

pursuant to section 33-105(c). If credit is requested under that subsection, the applicant must satisfy the requirements established under section 33-112.

SECTION 33-109. PARKING LOT PLANTING OF TREES AND SHRUBS REQUIRED.

(a) In addition to any street trees which may be required pursuant to section 33-108, the owner of a building site included under section 33-102 shall provide one (1) tree for every ten (10) parking spaces, rounding up or down in the case of a fraction to the nearest whole number, and in no case shall be less than one (1) tree. Trees planted in accordance with this subsection must be located in the interior of a parking lot which is being expanded, the trees required pursuant to this subsection may be planted in any area within or adjacent to the entire parking lot.

(b) In addition to the street tree and parking lot tree requirements established within section 33-108 and subsection (a), above, the owner of a building site included under section 33-102 shall plant or cause shrubs to be planted along the perimeter of all parking surfaces so that the parking lot is screened from all adjacent public streets, exclusive of driveway entrances, pedestrian walkways and visibility triangles. Shrubs shall be maintained at a height of no more than thirty-six inches (36") nor less than eighteen inches (18") as measured from the surrounding soil line. The number of shrubs required under this subsections shall be equal to the total number of street trees required under this article multiplied by ten (10). No less than seventy-five percent (75%) of the shrubs required under this section shall be planted long the perimeter of the parking surface adjacent to the public street unless street trees are planted within the public right-of-way or on private property in accordance with section 33-108. In that instance, the shrubs required by this section may be planted anywhere on the property, excluding the landscape buffer or esplanade.

SECTION 33-110. LANDSCAPE BUFFER REQUIRED.

The owner of a building site included under section 33-102 and which is to be developed or expanded for a non-residential or a multi-family residential use adjacent to any existing single-family residential property shall provide a landscape buffer adhering to at least one of the following two buffer types:

- (1) Either a wood, concrete or masonry opaque screening fence with a minimum height of six feet (6') along the entire property line or entire artificial lot line, if any, adjacent to the single-family residential property; or
- (2) Evergreen screening on the property line or artificial lot line.
 - (i) The evergreen screening shall contain a minimum width of fifteen (15') of green space as measured from the property line. This area shall extend along that portion of the property line or artificial lot line where proposed non-residential and multi-family residential projects abut existing single-family residential developments. The area shall be planted in combinations of compatible evergreen trees and shrubs. The arrangement of plantings in buffer areas shall provide maximum

protection to adjacent properties and avoid damage to existing plant material. Possible arrangements include planting in parallel, serpentine, or broken rows. Plant materials shall be sufficiently large and planted in such a fashion as to be capable of forming a continuous year-round screen of at least six feet (6') in height as measured from the root collar or surrounding soil line within three (3) annual growing seasons. All plantings shall be installed and maintained in accordance with the standards contained with appendices B and E. No buildings, structures, storage of materials, or parking shall be permitted within the buffer area; buffer areas shall be maintained and kept free of all debris, rubbish, weeds, and tall grass.

- (ii) The preservation of existing vegetation within the landscape buffer may be used to meet the requirements of this section provided the vegetation is preserved in accordance with section 33-112 of this article.

SECTION 33-111. GENERAL PLANTING STANDARDS.

(a) Trees and shrubs planted in a parkway shall be planted in accordance with the applicable standards required by appendix B or E. The following additional limitations shall apply:

- (1) When located in the visibility triangle, trees shall be headed to a minimum height of seven feet (7'), and shrubs shall be maintained at a maximum height of thirty inches (30") as measured from the surrounding soil line.
- (2) Trees shall be planted at least five feet (5') from the back of the existing curb of any public street, pavement edge, and sidewalk.

(b) In addition to the tree and shrub planting standards contained within appendices B and E, trees and shrubs in esplanades shall be planted according to the following requirements as illustrated in figure C:

- (1) Trees in any major thoroughfare street esplanade shall not be planted closer to the end of the esplanade than seventy-five feet (75').
- (2) Trees in any local street esplanade shall not be planted closer to the end of the esplanade than fifty feet (50').
- (3) Trees planted in any esplanade shall be located not closer than fifty feet (50') from any mid-block opening in the esplanade.
- (4) Shrubs planted in any esplanade shall not be planted closer to the end of the esplanade than twenty-five feet (25') or closer than three feet

(3') from the back of the curb or the final approved design line for the curb of any public street. Use of ground covers or annuals and perennials conforming with the height restrictions of a visibility triangle shall not be restricted.

- (5) Trees planted in the esplanade shall not be located closer than five feet (5') from the back of the curb or the final approved design line for the curb. Trees shall not be spaced at intervals of less than thirty feet (30').

(c) Any tree located within a parking lot must be planted and maintained within a permeable area which has a radius of not less than three feet (3'). No tree shall be planted closer than three feet (3') from a curb or tire stop.

SECTION 33-112. PRESERVATION OF EXISTING TREES AND ASSOCIATED UNDERSTORY.

(a) The following procedure shall be required where credit for the preservation of existing trees and associated understory is being requested to be applied toward the total tree planting requirement pursuant to section 33-105 (c). Where such credit is being requested, the applicant shall also supply the following information to the building official for review with the building plans.

- (1) Tree and associated understory preservation plan. This overlay shall be integrated into the proposed landscape plan and shall include:
 - (i) Delineation of proposed limit of clearance and establishment of tree protection zones which shall extend to just outside the dripline of the tree and understory to be protected, if any.
 - (ii) Proposed soil stabilization practices, i.e., silt fence, hay bales.
 - (iii) Specimen trees to be preserved and for which credit is being requested.
 - (iv) The proposed finished grade and elevation of land within six feet (6') of or within the dripline of any tree to be preserved, whichever is greater, shall not be raised or lowered more than three inches (3") unless compensated for by welling or retaining methods.
 - (v) Existing and proposed location of all trees and plant materials to be relocated at the drawing scale.
 - (vi) A landscaping tabulation, and itemized credit requests for existing trees to be preserved which have a minimum of four inches (4") in caliper and greater.

- (vii) Tree and associated understory preservation details.
- (viii) Specification of ground plane treatment as either turf or sod. If a combination of both is utilized, the limit of each shall be indicated.

(b) The following tree relocation information shall be provided on the landscape plan or in a report for the transplantation of existing specimen trees when preservation credit is being requested for them. This information shall include an assessment of the cost of transplanting the trees as opposed to the potential mortality rate which may result from the attempted transplantation. If relocation is elected, the following information shall be provided:

- (i) Transplanting techniques;
- (ii) Equipment to be utilized;
- (iii) Locations of existing trees and proposed locations for transplanted trees;
- (iv) Genus, species, caliper, height and general condition of the existing tree;
- (v) Pruning and maintenance schedule and methods to be followed; and
- (vi) Which form of assurance of performance will be provided, i.e., executed contract, bond or assigned certificate of deposit.

(c) If preservation credit is requested, the trees shall be protected and preserved as set forth in appendix C.

(d) The department shall make recommendations to minimize damage to existing vegetation during the site construction phase. The department shall also suggest possible uses for those trees removed as a result of development such as the creation of wood chip mulch from removed hardwood trees.

SECTION 33-113. DUTY; AFFIRMATIVE DEFENSES.

(a) All owners of building sites included under section 33-102 shall plant or cause the planting of trees or shrubs required in sections 33-108 and 33-110 or secure the planting equivalency credits allowed in section 33-105.

(b) All owners and lessees of new or expanded parking lots on building sites included under section 33-102 shall additionally plant trees or shrubs in compliance with section 33-109.

(c) No person shall remove or alter any street tree or shrub planted in the public right-of-way without the written permission of the department of parks and recreation unless otherwise authorized by law.

- (d) It shall be an affirmative defense under this article that:
- (1) The actor caused the tree or shrub to be planted and maintained in accordance with this article, but the tree or shrub died more than two years after the issuance of the certificate of occupancy.
 - (2) The actor caused the tree or shrub to be planted and maintained on the public right-of-way in accordance with this article, but the tree or shrub died and (i) was removed by the owner with the written permission of the department of parks and recreation, or (ii) the period allowed by this article for replacing the tree or shrub has not yet elapsed.
 - (3) The actor caused the tree or shrub to be planted or maintained on private property in accordance with this article but the tree or shrub died and the period allowed by this article for replacing the tree or shrub has not yet elapsed.
 - (4) The building permit for the actor's property is for single-family residential use.
 - (5) The actor's property has an unexpired conditional certificate of occupancy, and the actor has provided an executed contract or a bond or assigned certificate of deposit in accordance with this article; or
 - (6) A variance or waiver was secured for the building site in conformity with the requirements of this article.

SECTION 33-114. WHEN REQUIRED LANDSCAPING (TREES, SHRUBS OR FENCES) MUST BE INSTALLED; DOCUMENTED ASSURANCE.

(a) Except as otherwise provided in subsection (b) and section 33-115, all proposed landscaping must be installed in accordance with the approved landscape plan prior to issuance of a final certificate of occupancy on a building site.

(b) The property owner may elect to provide the building official with documented assurances that the landscaping will be completed within a six-month period. If so, a conditional certificate of occupancy may be issued by the building official for six months. For purposes of this section, "documented assurance" shall mean a copy of an executed contract for the proper installation of the required landscaping in accordance with the approved landscape plan within a six-month period.

(c) The property owner is responsible for notifying the building official when the landscape installation is complete. If the property owner fails to notify the building official within the prescribed six-month period, the building official shall revoke the conditional certificate of occupancy.

SECTION 33-115. BOND; ASSIGNED CERTIFICATE OF DEPOSIT.

(a) Prior to the issuance of any conditional certificate of occupancy, any applicant who has not provided the documented assurance set forth in section 33-114 shall file with the director a bond which bond shall be executed by the applicant as principal and by a good and sufficient corporate surety company licensed to do business in the State of Texas. The bond in the sum of 1.25 times the proposed cost to install the required landscaping improvements and fences, based upon the adjusted costs established in appendix F, shall be payable to the city and conditioned that the principal and surety will pay all amounts required to install the landscaping and fences required by this article. The bond shall provide that it will remain in full force and effect until released by the director pursuant to this article.

(b) In lieu of such bond, an applicant for a conditional certificate of occupancy may, upon payment to the city of a nonrefundable one hundred dollar (\$100.00) fee, assign an account with a financial institution insured by the Federal Deposit Insurance Corporation to the city. Such account shall have a deposit of not less than the amount required under subsection (a). Under such an assignment, the financial institution must agree not to release, make payment from, or otherwise divert or dispose of the funds in such account, except it shall agree to disburse all or such portion of the funds in the account as may be directed by city council resolution.

Upon installation and inspection of the required landscaping, the city shall release the assigned deposit to the property owner.

When requesting a conditional certificate of occupancy, the owner must grant the city permission to enter upon his land for the purpose of installing the required landscaping within the specified six-month period. If permission is not granted, the owner's application for a conditional certificate of occupancy shall be denied.

(c) In the event that any holder of a conditional certificate of occupancy who has previously furnished an account assignment under subsection (b) elects to furnish a bond under subsection (a) instead, then the holder shall be entitled to disbursement of the account proceeds in the same manner and under the same terms provided in subsection (b).

SECTION 33-116. APPEAL OF DENIAL OF BUILDING PERMITS.

Appeals from the denial of a building permit for non-compliance with this article shall be reviewed in the same manner as appeals from development plat disapprovals under section 42-87 of this code.

SECTION 33-117. VARIANCE PROCEDURE.

(a) An applicant for a building permit may make written application to the director for a variance from the requirements of this article other than those which may be made the basis of a request for a waiver under Section 33-121. A completed application for a variance shall include:

- (1) Completed application on form supplied by the city; and

- (2) A non-refundable fee of two hundred dollars (\$200.00).

This application package shall be reviewed by the department.

(b) Within seven (7) days of the date the application is accepted, the director shall forward a copy of the application to the traffic engineer who shall file his report and recommendations regarding the proposed variance with the secretary of the commission.

(c) A staff report regarding the variance request shall be provided to the commission prior to the meeting at which the variance shall be considered.

SECTION 33-118. STANDARDS FOR VARIANCE.

(a) The commission is authorized to consider and grant variances from the provisions of this article by majority vote of those members present and voting, when the commission determines that the following conditions exist:

- (1) The imposition of the terms, rules, conditions, policies and standards of this article would deprive the owner or applicant of the property of reasonable use of the land or building;
- (2) The circumstances supporting the granting of the variance are not the result of a hardship imposed or created by the applicant, and the general purposes of this article are observed and maintained; and
- (3) The intent of this article is preserved; and
- (4) The granting of such a variance will not be injurious to the public health, safety or welfare.

SECTION 33-119. APPLICABILITY OF VARIANCE.

Any variance granted under the provisions of this section will apply only to the specific property and use upon which the commission was requested to grant a variance by the applicant. All variances as granted shall be in writing, shall be signed by the secretary of the commission and maintained as a permanent record of the commission.

SECTION 33-120. MITIGATION FOR LOSS OF INSTALLED AND PRESERVED VEGETATION.

(a) All proposed, existing or relocated vegetation shall be maintained in accordance with this article and appear healthy for a minimum of two years from the issuance of the final certificate of occupancy. Dying, damaged or removed trees shall be replaced at the owner's expense with another living plant that complies with the approved landscape plan. The tree replacement quantity shall be equal to or greater than the original or credited quantity for the tree in question.

(b) The director shall notify the owner of a building site in writing when a plant is discovered which does not meet the requirements of subsection (a), above. The owner shall then replace the plant within one year from receipt of the written notice or between November 1st and April 1st, whichever period is less.

SECTION 33-121. INTERFERENCE WITH EXISTING UTILITIES, CURBS, SIDEWALKS, DRAINAGE FACILITIES, ROADWAYS, STREET LIGHTS, APPEAL OF DENIAL OF WAIVER.

(a) The director shall grant a waiver when requested in the application if the area in which the planting is required by this article is too small to accommodate the required planting without damage to existing utilities, curbs, sidewalks, roadways, street lights or drainage facilities, and the planting requirements of this article may not be otherwise satisfied pursuant to this article.

(b) A waiver shall be granted where the director finds the following:

- (1) That a literal application of this article will result in damage to existing utilities, roadways, street lights, curbs, sidewalks or drainage facilities;
- (2) The waiver, if granted, will not be contrary to the public interest;
- (3) The waiver, if granted, will not be detrimental to the public health, safety, or welfare; and
- (4) The waiver, if granted, will not result in a violation of any other applicable ordinance, regulation or statute.

(c) No later than the thirtieth (30th) calendar day following the filing of the required application for a waiver, the director shall issue to applicant a written notice that the waiver has been granted or refused. Any notice of refusal of an application for a waiver must include a written report explaining in detail the reasons for such refusal. The issuance of a written notice to the applicant shall be complete upon deposit of such notice in the United States mail, First Class postage paid, addressed to the applicant at address given on the application for the waiver.

(d) The applicant may appeal the denial of a waiver to the Commission in the manner provided in Section 33-116.

APPENDIX A-1

LARGE TREES FOR HOUSTON

*D Means Deciduous, and E Means Evergreen

<u>BOTANICAL NAME</u>	<u>*COMMON NAME</u>	<u>COMMENTS</u>
<i>Acer rubrum</i> var <i>drummondii</i>	D-Drummon Red Maple	Wet Sites
<i>Acer rubrum</i> var <i>tridens</i>	D-Trident Red Maple	Wet Sites
<i>Acer barbatum</i>	D-Southern or Texas Sugar Maple	
<i>Betula nigra</i>	D-River Birch	Wet Sites
<i>Bumelia lanuginosa</i>	D-Chittamwood, Gum bumelia or Wooly Bucket	Drought-tolerant/Attracts Birds
<i>Carya cordiformis</i>	D-Bitternut Hickory	
<i>Caraya illinoenses</i>	D-Pecan	Nut
<i>Carya texana</i>	D-Black Hickory	Drought-tolerant
<i>Caraya tomentosa</i>	D-Mockery Nut Hickory	Fruit
<i>Diospyros virginiana</i>	D-Persimmon, eastern	Fruit
<i>Ehretia anacua</i>	D-Anacua	Flowering/Fruit/Drought- tolerant
<i>Fraxinus americana</i>	D-White Ash	
<i>Fraxinus Pennsylvanica</i>	D-Green Ash	
<i>Ginkgo biloba</i>	D-Ginkgo	Male only
<i>Ilex opaca</i> (and cultivars)	E-American Holly	Female/Fruit
<i>Juglans nigra</i>	D-Black Walnut	
<i>Liquidambar styraciflua</i>	D-Sweetgum	Fall color
<i>Liquidendron tulipifera</i>	D-Tulip tree or Yellow Poplar	Flowering/Wet sites
<i>Magnolia grandiflora</i>	E-Southern Magnolia	Flowering
<i>Magnolia virginiana</i>	E-Sweet Bay Magnolia	Flowering/Wet sites
<i>Metasequoia glyptostroboides</i>	D-Dawn Redwood	
<i>Nyssa aquatica</i>	D-Water tupelo	Wet Sites
<i>Nyssa sylvatica</i> var <i>biflora</i>	D-Swamp tupelo or Black Gum	Wet Sites
<i>Nyssa sylvatica</i> var <i>sylvatica</i>	D-Black Gum	Fruit/Fal color
<i>Pinus palustris</i>	E-Longleaf Pine	
<i>Pinus taeda</i>	E-Loblolly Pine	
<i>Pinus glabra</i>	E-Spruce Pine	
<i>Plantanus mexicana</i>	D-Mexican Sycamore	Wet Sites
<i>Plantanus occidentalis</i>	D-Sycamore	
<i>Prunus serotina</i>	D-Black Cherry	Flowering/Fruit
<i>Quercus acutissima</i>	D-Sawtooth Oak	
<i>Quercus alba</i>	D-Oaks, White	Fall color
<i>Quercus canbii</i>	D-Canby Oak	
<i>Quercus falcata</i>	D-Southern Red Oak	
<i>Quercus laurifolia</i>	D-Laurel Oak	
<i>Quercus lyrata</i>	D-Overcup Oak	Wet Sites

Quercus macrocarpa	D-Bur Oak	Wet Sites/Drought tolerant
Quercus michauxii	D-Swamp Chestnut Oak	Fall color
Quercus muehlenbergii	D-Chinkapin Oak	Drought-tolerant
Quercus nutallii	D-Nutall Oak	Fall color/Wet Sites
Quercus palustris	D-Pin Oak	Fall color
Quercus phellos	D-Willow Oak	
Quercus polymorpha	D-Monterrey Oak	
Quercus rizophyllia	D-Loquat Leaf Oak	
Quercus shumardii	D-Shumard Oak	Fall color
Quercus stellata	D-Post Oak	
Quercus virginiana	D-Live Oak	
Sassafras albidum	D-Sassafras	Fall color/Attracts Birds
Taxodium distichum var distichum	D-Bald Cypress	Wet Sites/Drought-tolerant
Taxodium distichum var nutans	D-Pond Cypress	
Taxodium mucronatum	D-Montezuma Bald Cypress	
Tilia caroliniana	D-Carolina Basswood	
Ulmus americana	D-American Elm	
Ulmus alata	D-Winged Elm	
Ulmus crassifolia	D-Cedar Elm	Drought-tolerant
Ulmus parvifolia var drakii	D-Drake Elm	
Zelkova serrata	D- Japanese Zelkova	

APPENDIX A-2

SMALL TREES FOR HOUSTON

* D Means Deciduous, and E Means Evergreen

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>	<u>COMMENTS</u>
<i>Acer leucoderme</i>	D-Chalk Maple	Fall color
<i>Acacia wrightii</i>	D-Wright Acacia	Flowering/Drought-tolerant
<i>Aesculus pavia</i> var <i>pavia</i>	D-Red Buckeye	Flowering
<i>Aesculus pavia</i> var <i>flavescens</i>	D-Red Buckeye	Yellowing Flowers
<i>Aesculus glabra</i> var <i>arguta</i>	D-White Buckeye	Flowering/Drought-tolerant
<i>Asimina triloba</i>	D-Pawpaw	Flowering/Fruit
<i>Bauhinia congesta</i>	D-Anacacho Orchid Tree	Flowering/Drought-tolerant
<i>Carpinus caroliniana</i>	D-American Hornbeam, Ironwood or Blue Beach	Wet Sites/Fall color
<i>Cercis canadensis</i>	D-Eastern Redbud	Flowering
<i>Cercis canadensis</i> var <i>texensis</i> cultivars	D-Texas Redbud	Flowering/Drought-tolerant
<i>Cercis canadensis</i> var <i>mexicana</i>	D-Mexican Redbud	Flowering/Drought-tolerant
<i>Chionanthus virginicus</i>	D-Fringe Tree	Flowering/Attracts Birds
<i>Chionanthus retusus</i>	D-Chinese Fringe Tree	Flowering/Drought-tolerant
<i>Cornus florida</i>	D-Flowering Dogwood	Flowering/Attracts Birds
<i>Cotinus obovatus</i>	D-American Smoke Tree	Fall color/Drought-tolerant
<i>Cratagus marshallii</i>	D-Parsley Leaf Hawthorn	Flowering/Attracts Birds
<i>Cratagus opaca</i>	D-May haw	Flowering/Fruit/Attracts Birds
<i>Cratagus spathulata</i>	D-Little Hip Hawthorn	Flowering/Attracts Birds
<i>Cratagus viridis</i>	D-Green Hawthorn	Flowering
<i>Cratagus texana</i>	D-Texas Hawthorn	Flowering
<i>Cratagus reverchonii</i>	D-Reverchon Hawthorn	Flowering
<i>Cyrilla racemiflora</i>	D-Titi	Wet Sites
<i>Diospyros texana</i>	D-Texas Persimmon	Fruit/Drought-tolerant
<i>Eysenhardtia texana</i>	D-Texas Kidneywood	Flowering/Drought-tolerant
<i>Halesia diptera</i>	D-Two-winged Silverbell	Flowering
<i>Ilex cassine</i>	E-Dahoon Holly	Female-Fruit/Attracts Birds
<i>Ilex decidua</i>	D-Possum Haw	Female-Fruit/Attracts Birds
<i>Ilex vomitoria</i>	E-Yaupon	Female-Fruit/Attracts Birds
<i>Malus angustifolia</i>	D-Southern Crabapple	Flowering/Fruit
<i>Myrica cerifera</i>	E-Southern Wax Myrtle	Wet Sites/Attracts Birds
<i>Ostrya virginiana</i>	D-Eastern Hop Hornbeam	
<i>Parkinsonia aculeata</i>	D-Retama	Flowering/Drought-tolerant
<i>Pistacia chinensis</i>	D-Chinese Pistacio	Fall color/Drought-tolerant
<i>Pistacia texana</i>	D-Texas Pistache	Drought-tolerant
<i>Prosopis glandulosa</i> var <i>glandulosa</i>	D-Mesquite	Drought-tolerant
<i>Prunus mexicana</i>	D-Mexican Plum	Flowering/Fruit/

Prunus umbellata
Prunus augustifolia
Rhamnus carolina

Rhus copallina
Sophora secundiflora
Sophora affinis
Ungnadia speciosa
Viburnum rufidulum

D-Flatwoods Plum
D-Creek Plum
D-Carolina Buckthorn

D-Sumac
E-Texas Mountain Laurel
D-Eve's Necklace
D-Mexican Buckeye
D-Rusty Balck Haw Viburnum

Drought-tolerant
Flowering/Fruit
Flowering/Fruit
Fall color/Fruit/Attracts
Birds/Drought-tolerant
Fall color
Flowering/Drought-tolerant
Flowering
Flowering/Drought-tolerant
Flowering/Fall color/Drought
tolerant/Attracts Birds

**APPENDIX A-3
DEPARTMENT OF PARKS AND RECREATION
STREET TREES**

***D Means Deciduous, and E Means Evergreen
(See Appendices A-1 and A-2 for comments.)**

I. Generally

<u>*COMMON NAME</u>	<u>BOTANICAL NAME</u>
D-Texas Sugar Maple	Acer barbatum
D-Pecan	Carya illinoensis
D-Anacua	Ehretia anacua
D-Ginkgo	Ginkgo biloba
D-Black Gum	Nyssa sylvatica var sylvatica
D-Sawtooth Oak	Quercus acutissima
D-Southern Red Oak	Quercus falcata
D-Overcup Oak	Quercus lyrata
D-Bur Oak	Quercus macrocarpa
D-Chinkapin Oak	Quercus muehlenbergii
D-Nuttal Oak	Quercus nutallii
D-Monterrey oak	Quercus polymorpha
D-Shumard Oak	Quercus shumardii
D-Post Oak	Quercus stellata
D-Live Oak	Quercus virginiana
D-Bald Cypress	Taxodium distichum var distichum
D-Montezuma Bald Cypress	Taxodium distichum mucronatum
D-Winged Elm	Ulmus alata
D-Cedar Elm	Ulmus crassifolia
E-American Holly	Ilex opaca
D-Swamp Chestnut Oak	Quercus michauxii
D-Drake Elm	Ulmus parvifolia var drakii

II. Under Power Lines

<u>*COMMON NAME</u>	<u>BOTANICAL NAME</u>
D-Gum Bumelia	Bumelia lanuginosa
D-Black Hickory	Carya texana
D-Eastern Persimmon	Diospyros virginiana
D-Anacua	Ehretia anacua
D-Ginkgo - male only	Ginkgo biloba
D-Sweetbay	Magnolia virginiana
D-Black Cherry	Acer rubrum var drummondii
D-Shining Sumac	Rhus copallina
D-Live Oak	Quercus virginiana
D-Carolina Basswood	Tilia caroliniana

D-Winged Elm
D-Cedar Elm
D-Drake Elm
D-American Holly
D-Chinese Pistacio

Ulmus alata
Ulmus crassifolia
Ulmus parvifolia var *drakii*
Ilex opaca
Pistachia chinensis

APPENDIX B

TREE PLANTING

I. Tree Selection

Trees planted under Section 33-108 must be selected from the Street Trees List (Appendix A-3). All plant stock shall meet the Standard for Nursery Stock Specifications, as established by the American Association of Nurserymen (1986 ed.) on file in the office of the city secretary.

The following factors should be considered in the selection of trees from the tree and shrub lists, Appendices A-1, A-2, A-3, and D:

- A. Hardiness of trees for the specific site, i.e., soil conditions, PH, drainage.
- B. Mature plant size, form and growth rates, i.e., proximity to overhead utility lines.
- C. Drought tolerance.
- D. Pest and insect resistance.

II. Tree Planting

- A. Holes for the trees should be excavated 1 1/2 to 2 feet greater in width than the diameter of the soil ball. The sides of the hole should be vertical and the bottom horizontal. Trees should be planted with the top of the root ball two inches (2") above existing grade. No holes should be left uncovered overnight.
- B. Trees should be set in an upright plumb position at depth two inches (2") higher than grown in the container. Care should be taken so as not to injure the root system, trunk, or foliage. The trunk should not be used as a lever in positioning or moving the tree in the planting hole.
- C. The backfill should consist of topsoil excavated from the planting hole. If there is not enough topsoil, a supplement of similar topsoil should be furnished. Each planting hole should be backfilled and tamped lightly so as not to damage roots. a saucer should be constructed 6-8 inches above soil grade around the planting hole and should be a minimum of six feet (6") in diameter, free of weeds and grass.
- D. Any pruning should be done according to the standards of the National Arborist Association (Rev. 1988) (The Meeting Place Mall, Route 101, P. O. Box 1094, Amherst, NH. 03031), on file in the office of the city secretary. All damaged limbs should be removed. The tree should be maintained in a shape appropriate to its species. Street trees should be pruned in accordance with the standards for hazard pruning contained in Class III.

- E. Trees planted hereunder should be staked with a minimum of two (2) stakes, eight feet (8') long, attached to the tree with plastic tree chain, one inch (1") in size, or equivalent, in a manner that is secure and will not injure the tree. Any 100-gallon trees should be tri-staked (3 stakes). Other types of securing ties or devices may be used if designed for that purpose.
- F. Mulch shall be placed loosely around trees planted hereunder within twenty-four (24) hours after planting to a uniform depth of 3-4 inches and to a diameter of six feet (6'). No leaves, branches, roots or other foreign material may be used as a mulch. This area should be maintained free of weeds and grass vegetation with a 3-4 inch mulch cover for a minimum period of one (1) year.

III. Watering

The following watering schedule may be utilized and revised during prolonged periods or rain or drought.

<u>PERIOD</u>	<u>WATERING SCHEDULE</u>
Initial Watering After Planting	Root zones should be slow-soaked every 7 days for 4 weeks.
November December January February	In the absence of sufficient rainfall, root zones should be slow-soaked on a 21-day watering schedule.
October March April	In the absence of sufficient rainfall, root zones should be slow-soaked on a 14-day watering schedule.
May June July August September	In the absence of sufficient rainfall, root zones should be slow-soaked on a 7-day watering schedule.

APPENDIX C

TREE PROTECTION

(a) General Procedures

- (1) Trees to be preserved must be clearly tagged in the field with ribbon.
- (2) Tree wells shall be made of a durable material and set a minimum of four feet (4') from any tree they are designed to protect.
- (3) Retaining walls of a durable material, i.e. stone, or treated lumber, are to be constructed around each tree immediately after the grade is lowered. A retaining wall must be at least four feet (4') from the tree it is designed to preserve.
- (4) Any understory clearing within six feet (6') of existing tree trunks should be done by hand.
- (5) No building materials are to be stacked or stockpiled within the dripline or within six feet (6') of any tree to be preserved, whichever is greater.
- (6) Topsoil shall not be stockpiled within the dripline or within six feet (6') of any tree to be preserved, whichever is greater.
- (7) Selective thinning of dead or dying vegetation, tree stumps and other undesired growth is required in buffer areas. Supplemental vegetation shall comply with the landscape buffer requirements of this article.

(b) Tree Protection Zones.

Tree protection zones shall be established prior to construction. During construction a barrier shall be maintained at all times between the tree and the work areas. The barrier shall be composed of wood, wire, snowfence and braces of similar noninjurious material. These areas shall be clearly marked with signs stating "**tree protection zone**". In tree protection zones the following restrictions shall apply:

- (1) No soil compaction from vehicular traffic and material storage.
- (2) No trunk and limb damage from equipment, nailing, bolting and guying.
- (3) No poisoning from pouring of concrete, lime, paint thinner and other soil contaminants.
- (4) No root suffocation or damage to roots from fill soil or grade change.
- (5) No improper pruning or trimming of branches. Pruning should be done in accordance with the standards of the National Arborist Association (Rev. 1988)

on file in the office of the city secretary. Street trees should be pruned in accordance with the standards for hazard pruning contained in class III of those standards.

(c) Maintenance in Tree Protection Zones.

- (1) A watering and monitoring schedule for tree protection zones should be implemented to compensate for damage to existing root systems. Trees should be watered at intervals that provide sufficient water during periods of drought, and waterings should be suspended during periods of heavy rainfall. Tree root systems should be drenched and allowed to dry.

<u>PERIOD</u>	<u>WATERING SCHEDULE</u>
Initial	In the absence of sufficient rainfall, root zones should be drenched every 21 days.
December	
January	
October	In the absence of sufficient rainfall, root zones should be drenched every 14 days.
March	
April	
May	
June	In the absence of sufficient rainfall, root zones should be drenched every 7 days.
July	
August	
September	

- (2) Trees shall be fertilized annually. A 3-1-1 ratio of nitrogen, phosphorus, and potassium ("NPK") containing a slow-release, nonburning nitrogen should be applied according to manufacturer's instructions.

(d) Permitted Activities in Tree Protection Zones.

- (1) Specially Designated Sidewalks:
Sidewalks are permitted if laid on top of the existing grade with fill placed at the sides. Sidewalks shall not be cut into the ground.
- (2) Utility Lines:
Utility lines shall be tunneled beneath tree roots in order to protect feeder roots, rather than trenched or open cut.
- (3) Sodding and Ground Cover:
Placement of sod or other ground cover and the preparation of ground surface for such cover is permitted. No tilling of the soil shall be allowed.

APPENDIX D

SHRUB LIST

<u>Expected Height After 3 Years</u>	<u>Common Name Evergreens</u>	<u>Botanical Name</u>
1 - 3 ft.	Japanese Boxwood	<i>Buxus microphylla japonica</i>
1 ft.	Dwarf Euonymus	<i>Euonymus japonica</i> 'Microphylla'
2 - 3 ft.	Silver King Euonymus	<i>Euonymus japonica</i> 'Silver King'
1 - 2 ft.	Dwarf Gardenia	<i>Gardenia jasminoides</i> 'Radicans'
2 - 3 ft.	Dwarf Burford Holly	<i>Ilex cornuta</i> 'Burfordii Nana'
2 - 3 ft.	Dwarf Chinese Holly	<i>Ilex cornuta</i> 'Rotunda'
1 - 2 ft.	Compact Chinese Holly	<i>Ilex crenata</i> 'Compacta'
1 - 3 ft.	Dwarf Yaupon Holly	<i>Ilex vomitoria</i> 'Nana'
1 - 2 ft.	Primrose Jasmine	<i>Jasminum mesnyi</i>
3 - 4 ft.	Texas Sage	<i>Leucophyllum frutescens</i>
3 - 4 ft.	Dwarf Wax Myrtle	<i>Myrica cerifera</i>
1 ft.	Dwarf Purple Nandina	<i>Nandina domestica nana</i> 'Purpurea'
2 - 3 ft.	Harbor Dwarf Nandina	<i>Nandina domestica nana</i> 'Harbor Dwarf'
2 - 3 ft.	Dwarf Oleander	<i>Nerium oleander</i>
1 - 2 ft.	Turner's Dwarf Pittosporum	<i>Pittosporum tobira</i> 'Turner's Dwarf'
1 - 2 ft.	Wheeler's Dwarf Pittosporum	<i>Pittosporum tobira</i> 'Wheeler's Dwarf'
3 - 4 ft.	Fraser's Photinia	<i>Photinia x fraseri</i>
2 - 3 ft.	Red Elf Pyracantha	<i>Pyracantha</i> 'Red Elf'
2 - 4 ft.	Indian Hawthorne	<i>Raphiolepis indica</i>
2 - 3 ft.	Red Spirea	<i>Spiraea x bumalda</i> 'Anthony Waterer'
3 - 4 ft.	Spring Bouquet Vib	<i>Viburnum tinus</i> 'Spring Bouquet'
6 ft.	Red Tip Photinia	<i>Photinia glabra</i>
6 ft.	Chinese Photinia	<i>Photinia serrulata</i>
6 ft.	Waxleaf Ligustrum	<i>Ligustrum japonicum</i>
6 ft.	Southern Wax Myrtle	<i>Myrica cerifera</i>

APPENDIX E

SHRUB PLANTING

I. Shrub Selection

Shrubs planted in public rights-of-way shall be selected from the Parks and Recreation Department Perennial Shrub List (Appendix D). Shrubs planted in other areas may also be selected from that list.

The following factors should be considered when making a selection from the Shrub List for planting:

- A. Hardiness for the specific site selected.
- B. Present and ultimate size, branching habits, and growth rate. The plant shall be at least eighteen inches (18") in height as measured from the surrounding soil line, shall have a minimum eighteen inch (18") width at the widest portion when planted and shall be capable of growth not less than thirty (30") in height as measured from the surrounding soil line within three annual growing seasons.
- C. Resistance to pests.

II. Shrub Planting.

- A. Holes for shrubs should be excavated six inches (6") greater in width than the diameter of the soil ball. The sides of the hole should be vertical and the bottom horizontal. Shrubs should be planted with top of root ball slightly above existing grade. No holes should be left uncovered overnight.
- B. Shrubs should be set in an upright plumb position at a depth slightly higher than grown in the container. Care should be taken not to injure the root system, trunk, or foliage. The trunk should not be used as a lever in positioning or moving the shrub in the planting hole.
- C. Holes should be backfilled with soil and tamped lightly and carefully so as not to damage roots. The shrub should be watered to settle soil around the roots and remove air pockets.
- D. All damaged branches shall be removed.
- E. A minimum three-inch (3") layer of mulch shall be placed loosely at the base to retard weed growth and conserve moisture.

III. Watering

The following watering schedule may be utilized and revised during prolonged periods of rain or drought.

PERIOD

Initial
Watering
After
Planting

WATERING SCHEDULE

Root zones should be drenched every 7 days for 4 weeks.

November
December
January
February

In the absence of sufficient rainfall, root zones should be drenched on a 21 day watering schedule.

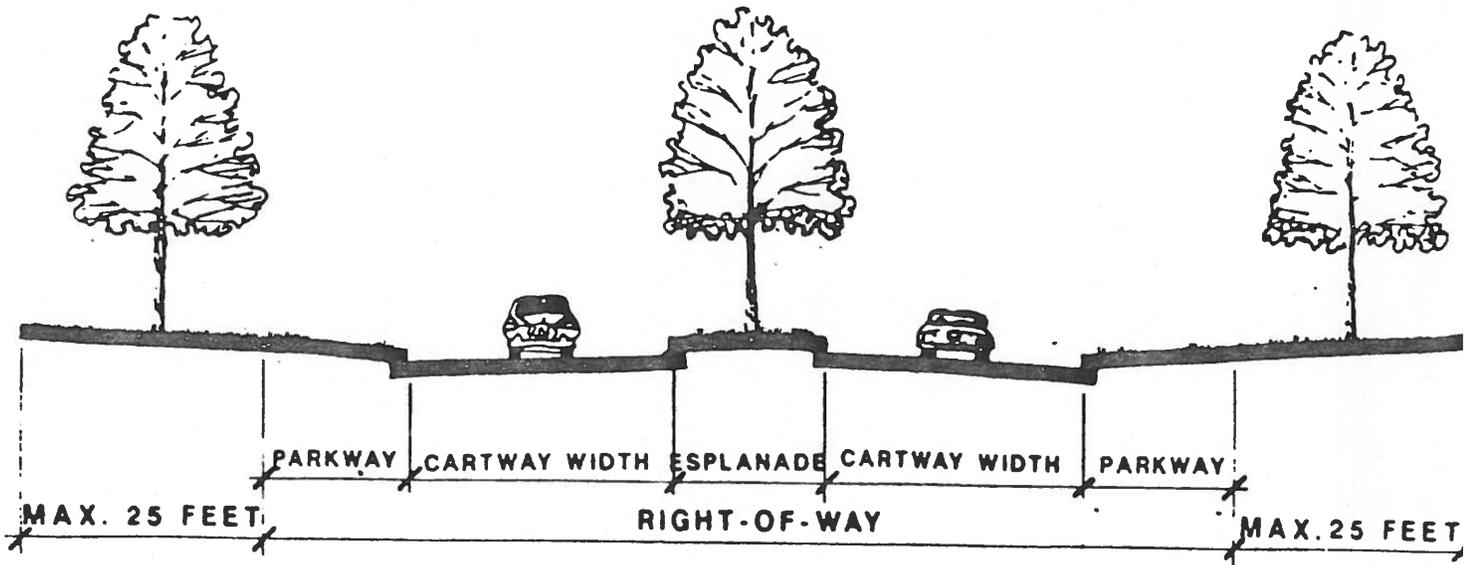
October
March
April

In the absence of sufficient rainfall, root zones should be drenched on a 14 day watering schedule.

May
June
July
August
September

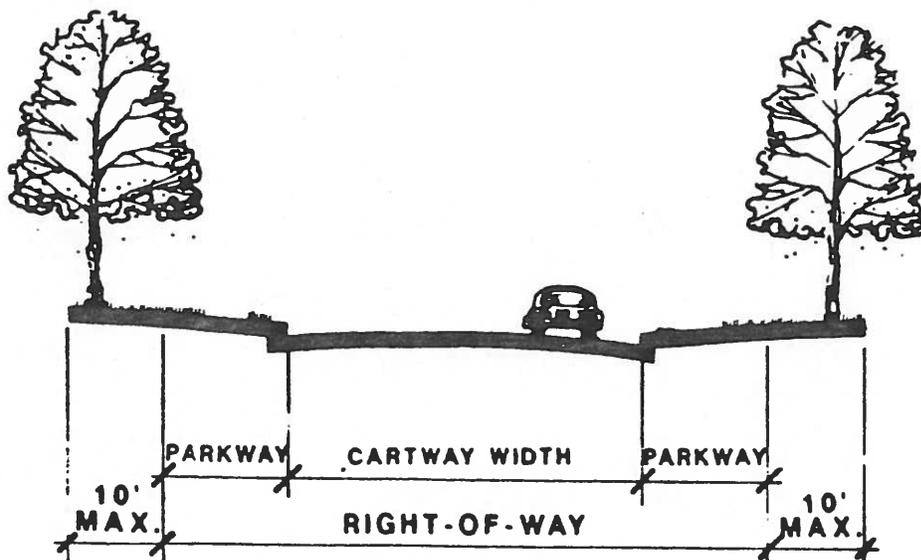
In the absence of sufficient rainfall, root zones should be drenched on a 7 day watering schedule.

RIGHTS-OF-WAY PROFILES



MAJOR THROUGHFARE / DIVIDED ROADWAY

APPROX. SCALE: 1" = 20'-0"

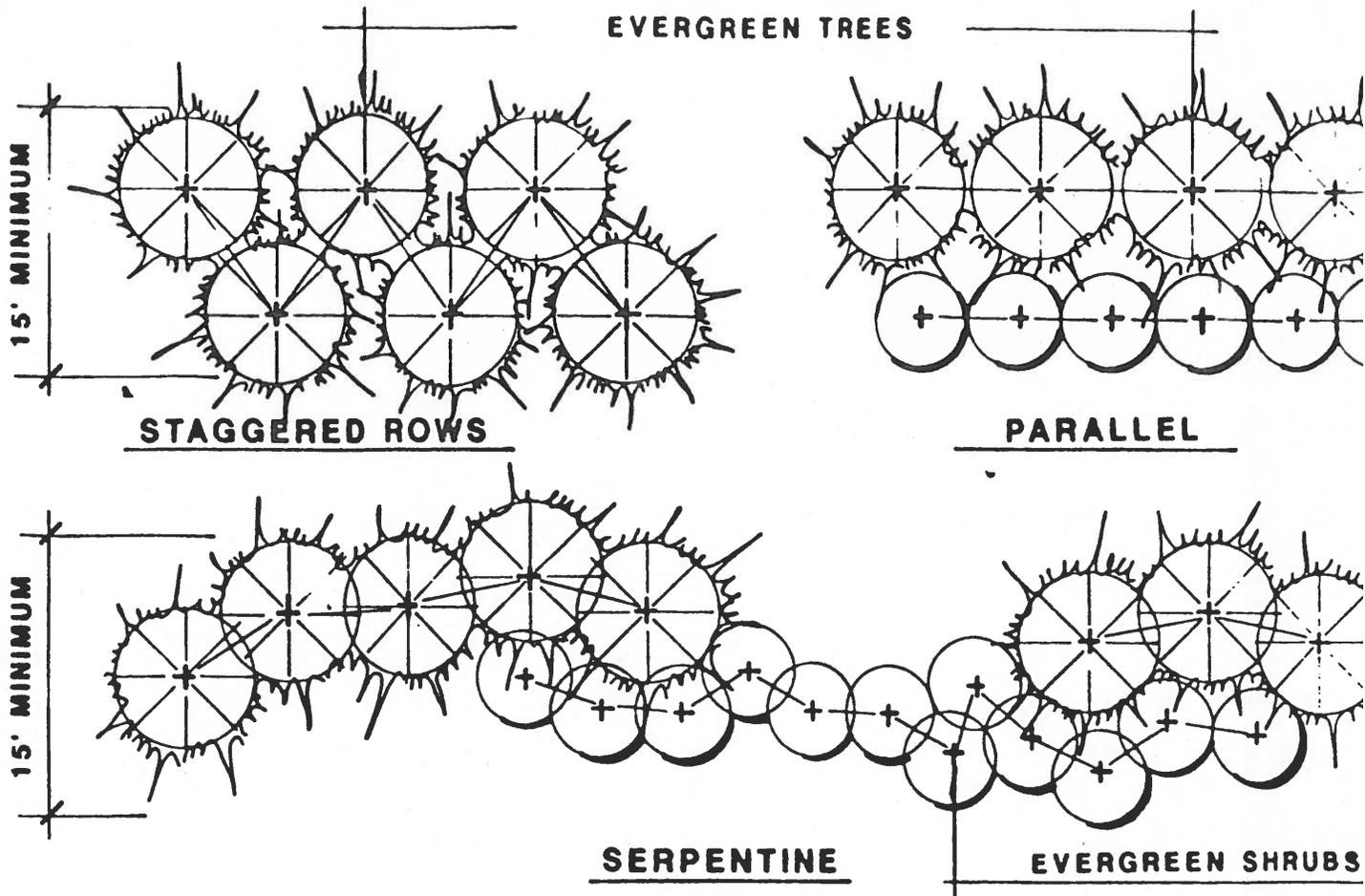


LOCAL STREET

APPROX. SCALE: 1" = 20'-0"

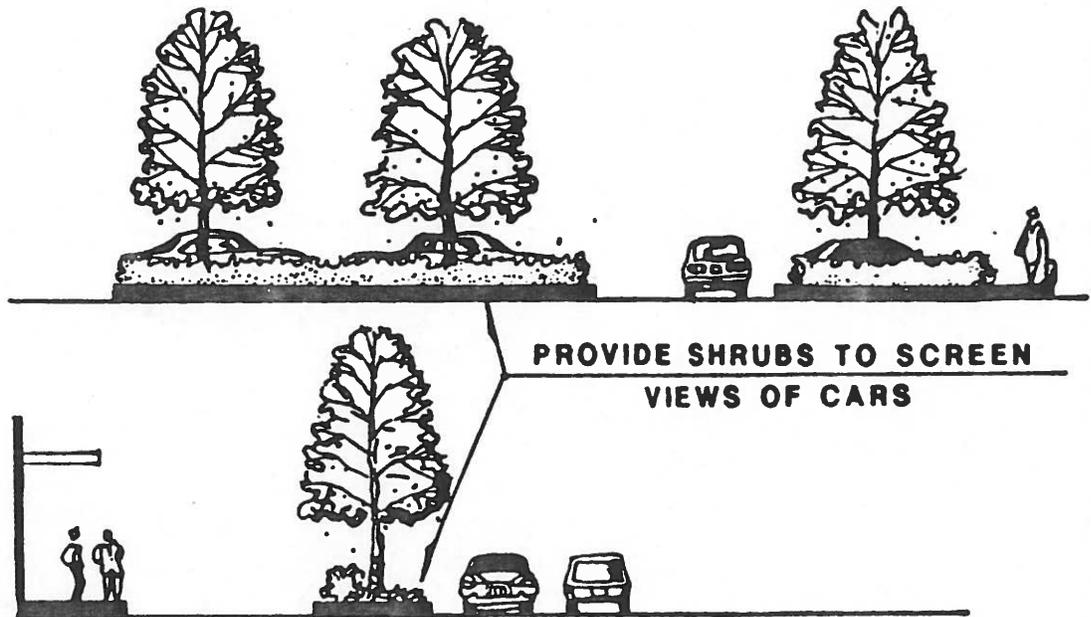
FIGURE E

EVERGREEN & PARKING



EVERGREEN BUFFER TECHNIQUES

SCALE: 1" = 10'-0"



PARKING LOT SCREENS

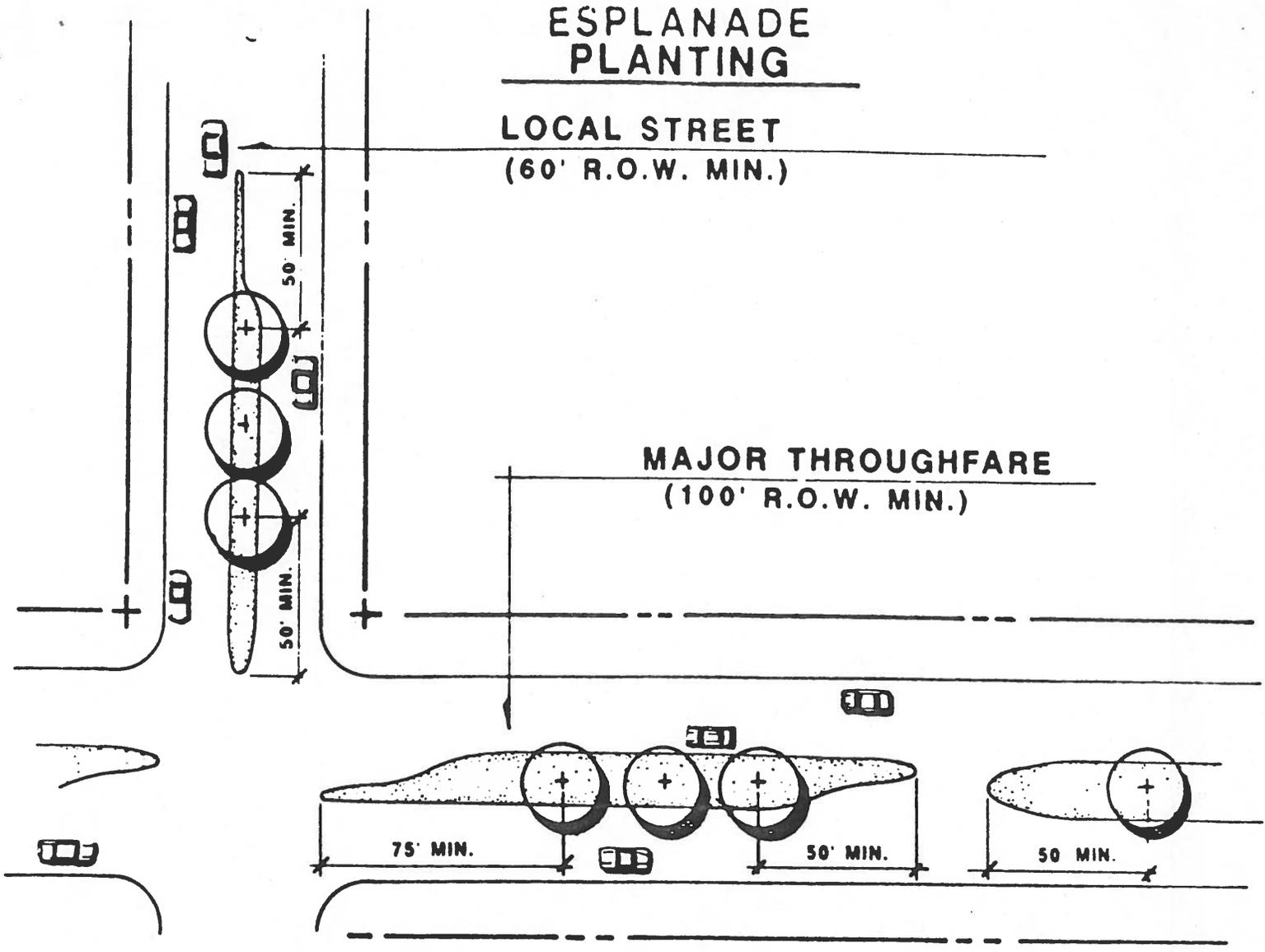
NOT TO SCALE

FIGURE D

ESPLANADE PLANTING

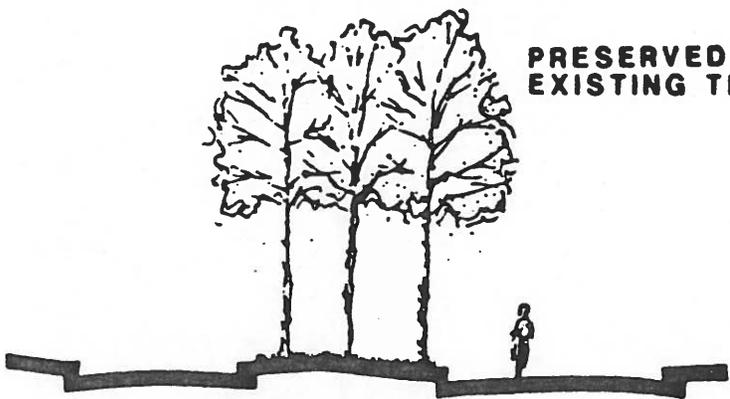
LOCAL STREET
(60' R.O.W. MIN.)

MAJOR THROUGHFARE
(100' R.O.W. MIN.)

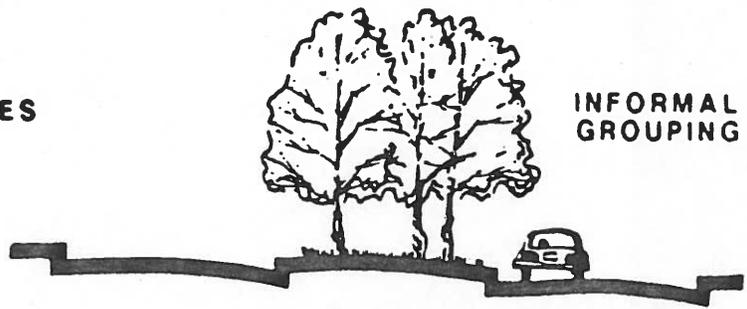


TREE LOCATION

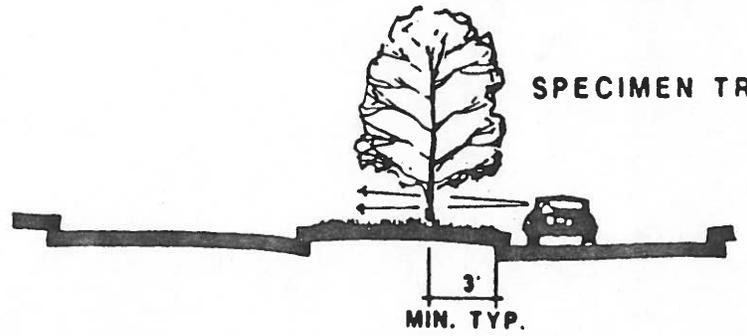
APPROX. SCALE: 1" = 50'-0"



PRESERVED
EXISTING TREES



INFORMAL
GROUPING



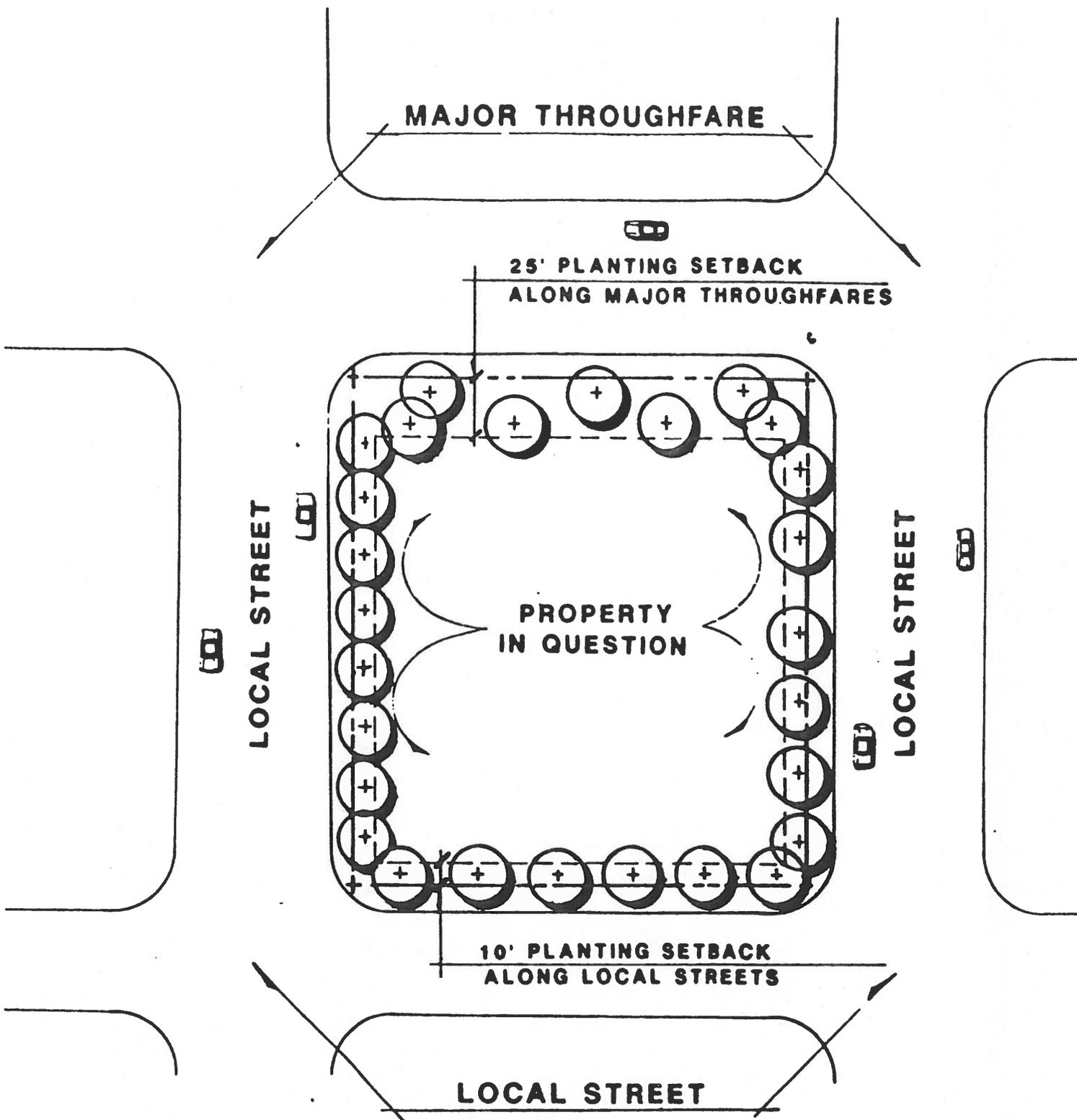
SPECIMEN TR

TREE PLANTING OPTIONS

NOT TO SCALE

FIGURE C

TREE PLANTING



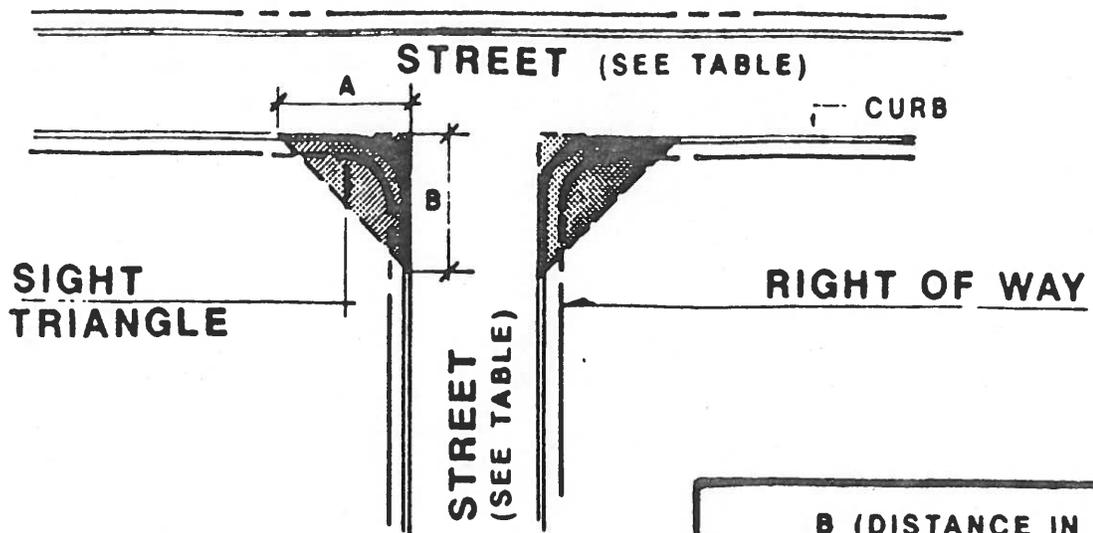
STREET TREE REQUIREMENT

SCALE: 1" = 60'-0"

FORMULA: TOTAL PROPERTY LINE
LENGTH ALONG LOCAL OR MAJOR
THROUGHFARES DIVIDED BY 30

FIGURE B

TRIANGLES



**TYPICAL REQUIREMENTS
BY STREET TYPE
(MEASURED ALONG THE CURB FACE)**

A (DISTANCE IN FEET)		B (DISTANCE IN FEET)	
		LOCAL STREET OR ALLEY	MAJOR THROUGHFARE
25'	LOCAL STREET OR ALLEY	25'	45'
45'	MAJOR THROUGHFARE	25'	45'

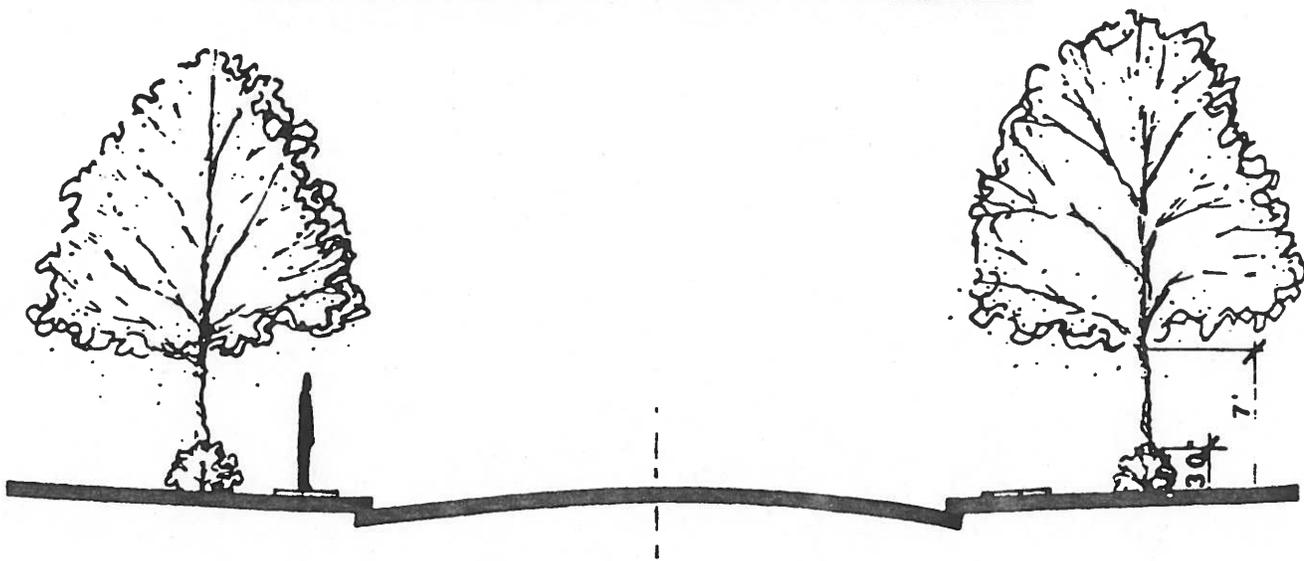


FIGURE A

URBAN FOREST PRESERVATION AND ENHANCEMENT

Section 6-501. Purpose; Findings.

(a) The purpose of this Article is to preserve and enhance the urban forest of the City.

(b) The City Council has determined the following: The urban forest is of great value in the maintenance of public health and welfare. The urban forest can aid in the conservation of vital energy resources and natural resources and in the preservation of the City's heritage and quality of life. Trees are a valuable amenity to the urban environment, creating greater human comfort by providing shade, cooling the air through evaporation, restoring oxygen to the atmosphere, reducing glare, reducing noise levels, providing an ecological habitat for songbirds and other animal and plant species, providing for more effective transitions between different land uses and breaking the monotony of urbanized development, pre-development, or construction. The urban forest of the City should be preserved and enhance, to the maximum extent reasonably feasible, for future generations. Mature Trees, if destroyed, can be replaced only after generations of time.

Section 6-502. Definitions.

Unless the context otherwise clearly requires a different meaning, the following terms, as used in this Article, shall have the meaning indicated below.

Circumference. The Circumference of a Tree means the circumference of its trunk, measured as prescribed in the Criteria Manual and in Figure 1 attached to the Criteria Manual. For conversion to diameter the Circumference can be divided by 3.142.

Critical Root Zone means, for any given Tree, the area within a circle centered on the trunk location. The circle's diameter is one-half the sum of the broadest and the narrowest dripline diameters. See Figure 1b attached to the Criteria Manual.

Criteria Manual means the "Criteria Manual" dated June 19, 1992, a copy of which is on file in the office of the City Secretary. The Criteria Manual is approved, adopted and incorporated into this Article by reference.

Damage of Damaged. To "damage" a Tree means to take any action which could result in a Tree's death, either immediately or after a reasonable period of time. Some examples of such action, which are not intended to limit this definition, are as follows: severing the main trunk or large branches or large roots, girdling, poisoning, carving, mutilating, touching with live wires, piercing with nails or spikes, crushing or exposing the roots, digging or drilling any hole larger than three cubic feet (or a trench) within the Critical Root Zone, covering a substantial part of the Critical Root Zone or compacting a substantial part of the soil in the Critical Root Zone.

Large Tree means a Tree with a Circumference of 19 inches or more. In case a Tree is

removed, it is presumed to have been a Large Tree if the diameter of the stump is six (6) inches or greater, measured in any direction. (Also see the definition of Significant Trees.)

Located. A Tree is "Located" within a given Subject Site if any part of its trunk is within the Subject Site at ground level.

Multiple-Trunk Tree means a Tree with two or more trunks visibly connected above the ground.

Person means any individual, entity, corporation, trust, unincorporated organization, partnership, or any other form of entity.

Protected Tree means:

(a) A Large Tree Located within: (i) the front 25 feet of any existing or potential Building Site located within any Subject Site (measured from the Front Street Line of the Building Site), (ii) the area within each abutting street out to the centerline of the street, or (iii) for corner Subject Sites only, the side 10 feet of any Building Site located within the Subject Site (measured from the Side Street Line of the Building Site).

(b) A Significant Tree anywhere in the City.

Qualified Tree means any Tree listed in Class I or II of the Criteria Manual which has a trunk diameter of at least two inches, measured six inches above the ground.

Replacement Tree means a Tree meeting the minimum criteria for Replacement Trees as set out in the Criteria Manual and this Article.

Significant Tree means a Large Tree with Circumference of 36 inches or more. In case a Tree is removed, it is presumed to have been a Significant Tree if the diameter of the stump is twelve (12) inches or greater, measured in any direction. (Also see definition of Large Tree.)

Street Gutter Flow Line means the Street Gutter Flow Line of the curb adjacent to and bordering upon a Visibility Triangle. If there is no curb, the height restrictions set forth in this Article shall be based upon the actual level of the street adjacent to and bordering upon the Visibility Triangle.

Subject Site for any given Development or Pre-Development Activity includes:

(a) The Subdivided Lot upon which the Development or Pre-Development Activity would occur; and

(b) Any portion of an adjoining Subdivided Lot which:

- (i) Is under common ownership with the first Subdivided Lot;
- (ii) Is not part of another Subject Site; and
- (iii) Has been included by the owner of the Subject Site by the submission of a plat, legal description of other document to the City showing the adjoining Subdivided Lot (or portion thereof) as part of the Subject Site for the given Building or Structure; and

(c) Any Street area (out to the centerline of the Street) abutting the Subdivided Lots described in (a) or (b) above.

Tree means a woody plant having one well-defined stem or trunk, a defined crown and a mature height of at least eight (8) feet.

Tree Disposition Plan specifies how Large Trees, which includes Significant Trees, and Critical Root Zones will be protected from Development and Pre-Development Activity. It may specify Large Trees to be relocated, removed, or replaced. Unless otherwise indicated in the Criteria Manual, the Tree Disposition Plan must depict for any given Subject Site: (a) every Large Tree Located in the Subject Site, and (b) every Large Tree Located elsewhere which has 30% or more of its Critical Root Zone in such Subject Site.

Tree Survey is an on-the-ground survey containing the location of Trees, their Circumferences, types (species), crown areas (dripline) and other data, all as more particularly described in the Criteria Manual. Unless otherwise indicated in the Criteria Manual, the Tree Survey must depict for any given Subject Site: (a) every Large Tree Located in the Subject Site, and (b) every Large Tree Located elsewhere which has 30% or more of its Critical Root Zone in such Subject Site.

Urban Forester means a Person so designated and acting under this Article.

Visibility Triangle means the area at a Street corner lying within a triangle beginning at the precise intersection point of the curbs of each of the two Streets forming the corner and extending twenty feet along each curb line away from the curb intersection point, with the third side being determined by drawing a straight line connecting the ends of such twenty-foot extensions. If there is no curb on such a Street, the twenty-foot line shall follow the central flow line of the ditch paralleling the uncurbed Street. The Visibility Triangle may include both public and private property.

Section 6-503. Permits Required for Trees Not Covered by A Tree Survey or Tree Disposition Plan Due to Development or Construction.

(a) *Permits Required.* In general, permits must be obtained by all Persons who wish to

remove or Damage Protected Trees not covered by a Tree Disposition Plan (that is, Protected Trees not involved with Development or Pre-Development Activity on a Subject Site.) See Section 6-509 for a more particular description of the requirement for a permit.

(b) *Criteria For Issuance Of Permits.* The Building Official shall only issue a permit under this section if (i) and either (ii) or (iii) are present:

(i) Application.

An application for the permit must be filed by the owner of the Subject Site where the activity would occur.

(ii) Tree in Poor Condition.

A permit shall be issued without penalty or cost (including the requirement of any Replacement Trees) if the Tree in question is diseased, severely damaged or dead on the Subject Site.

(iii) The Tree in question causes an unreasonable impediment to use and enjoyment of the Subject Site. Any permit issued under this subparagraph shall be reviewed by the Urban Forester for determination of the requirement of any Replacement Trees.

(c) *Conditions Required.* Any permit issued under subparagraph (iii), above, must require that any Replacement Tree required by this Article be planted and, if Located on a Subject Site controlled by the applicant, be thereafter maintained. If the permit would authorized Damage to a Protected Tree, the permit must contain conditions reasonably calculated to minimize the Damage to the Protected Tree.

Section 6-504. Requirement for Tree Surveys and Tree Disposition Plans Due to Development or Construction on Subject Site.

(a) *Required For Pre-Development and Development Permits.* The Building Official shall not issue any permit for any Development or Pre-Development Activity within the City unless the following documentation has been delivered to the Building Official, or the Urban Forester:

(i) Tree Survey.

A Tree Survey must have been filed and approved by the Urban Forester as being in compliance with this Article before the commencement of any activity

(including, without limitation, demolition).

(ii) Tree Disposition Plan.

A Tree Disposition Plan for the activity and the affected areas on the Subject site must have been filed and approved by the Urban Forester as being in compliance with this Article.

(iii) Permit Conditions Inserted.

The building permit must contain an express condition prohibiting the removal, Damaging or death of any Large Tree except as authorized by an approved Tree Disposition Plan.

(b) *"Low-Impact" Exception.* This section does not apply to a Subject Site, project or other activity that will not have any significant, adverse effect upon any Large Tree, as determined by the Urban Forester.

(c) *Criteria For Decisions.* A Tree Disposition Plan shall not authorize the removal, Damage or death of a Large Tree unless the Tree is diseased, severely damaged or dead, or unless it causes an unreasonable impediment to the use and enjoyment of the applicant's property. As a condition to removing the subject Tree, a Tree Disposition Plan shall require Replacement Trees to the extent provided in the Criteria Manual. If a Tree Disposition Plan permits Damage to a Tree, the Tree Disposition Plan shall include conditions reasonably calculated to minimize the Damage.

Section 6-505. Replacement Trees; Streets.

(a) *Number of Replacement Trees.* A permit or Tree Disposition Plan which authorizes the removal of or Damage to a Protected Tree shall normally require that the Protected Tree be relocated or replaced with one or more newly planted Trees on the same Subject Site, or, if requested by the applicant and so agreed by the Urban Forester, in the proximity of the Subject Site, subject to the provisions of the Criteria Manual.

(b) *Minimum Size.* Replacement Trees must normally have a trunk diameter of at least two inches measured six inches from the ground. The Urban Forester may prescribe a proportionally smaller trunk diameter for species of Trees typically smaller than normal.

(c) *Qualified Trees Under Zoning Ordinance.* To be a "Qualified Tree" under the Zoning Ordinance, a Tree must comply with the definition of "Qualified Tree" set out in this Article.

(d) *Standard of Review.* The Urban Forester shall use reasonable best efforts to determine the type and number of Replacement Trees required in an attempt to minimize any undue burden

resulting from this Article.

(e) *Trees In Streets.* Before issuing or approving a permit or Tree Disposition Plan to authorize establishing or maintaining a Tree or decorative landscaping (or any related appurtenances such as lighting or a watering system) in a Street, the Building Official must: (i) be satisfied that TEX. REV. CIV. STAT. art. 1085c has been complied with and (ii) determine there would be no violation of the provisions of this Article relating to Visibility Triangles. The Building Official is designated by the City Council to make the determinations contemplated by Section 3 of said art. 1085c.

Section 6-506. Protective Fencing.

(a) *Fences Required.* Unless otherwise specified in the applicable Tree Disposition Plan, each Protected Tree to be preserved must be fenced during Development or Pre-development Activity.

(b) *Fence Criteria.* The Tree Disposition Plan shall specify protective fencing of the Critical Root Zone whenever reasonably practicable, unless a different area is prescribed in accordance with the Criteria Manual. Unless the Tree Disposition Plan specifies otherwise: (i) a six-foot fence must surround each Protected Tree or group of Protected Trees, effectively preventing Persons, machinery, trash, material and other items from occupying the area within the protective fencing, and (99) the fence may incorporate existing fences or walls as well as temporary fencing.

(c) *Fence Permit.* A separate fence permit is not required for construction of a fence under this section, if a building permit for the work is in effect and a Tree Disposition Plan has been approved.

(d) *Trash, Storage Prohibited.* It shall be unlawful for any Person to use the area within the protective fencing, required by this section, for trash disposal, storage, vehicle parking or any other use that could adversely affect tree roots.

Section 6-507. Visibility Triangles.

It shall be unlawful for any Person to plant, grow or maintain any plant, except a Tree within a Visibility Triangle, if the plant has (or probably will have) a height greater than three feet above the Street Gutter Flow Line. It shall be unlawful for any Person to plant, grow or maintain a Tree which has branches or foliage within or above a Visibility Triangle at a height lower than fifteen feet above the Street Gutter Flow Line. It is presumed that a Person who owns or controls real property within the City maintains all Trees and plants on that property. The City may enter a Visibility Triangle and remove growths prohibited by this section, and there shall be no liability to others for taking or not taking such action.

Section 6-508. Administration; Cooperation; Appeals.

(a) *Urban Forester.* The City Manager shall appoint an experienced and qualified Person to chief Urban Forester for the City, which shall be a full-time, City employee position. The City Manager may designate one or more other Urban Foresters to act in the absence of the chief; persons so designated may not necessarily be employees of the city, but the City Manager shall make an adequate provision for obtaining their services by contract if they are not City employees. A person designated must hold at least a bachelor's degree from an accredited four-year college or university in urban forestry or arboriculture or must have equivalent skills and experience.

(b) *Referral; Duties.* The Building Official shall refer Tree Surveys, Tree Disposition Plans and applications for Tree permits to a designated Urban Forester, who shall work with the applicant and other City departments as required to administer the provisions of this Article. The Urban Forester may establish categories of simple, routine or low-risk surveys, plans and applications, which may be handled summarily, without submission to the Urban Forester. The fees for such applications may be reduced accordingly, if so provided in the fee schedule.

(c) *Applicability to City Projects.* For all City projects that may impact Large Trees, the appropriate documents (Tree permits or Tree Surveys and Tree Disposition Plans) shall, whenever practicable, be submitted to the Urban Forester for evaluation and recommendations, prior to public hearings (if held) or final decisions taken by City council or City staff. City approval of a City-owned Subject Sites or projects shall follow the same guidelines for Tree replacement as private Subject Sites or projects, except as authorized by City Council.

(d) *Reference And Training.* The City Manager is authorized to obtain training and reference materials for the Building Official and other City staff members who may be called upon to enforce this Article. The Building Official is authorized to maintain reference materials on file and to make them available, without charge, to Persons who request information in connection with construction or other activities within the City that could affect the urban forest.

(e) *Cooperation.* It is desired of the City to establish a cooperative working relationship with Persons seeking to improve property within the City. Interested Persons are invited and encouraged to meet and confer with City staff and to retain the services of expert foresters to provide advice and assistance to themselves and the City. The Urban Forester shall use reasonable best efforts to determine the type and amount of Replacement Trees required in an attempt to minimize any undue burden resulting from this Article.

(f) *Decisions And Appeals.* When making decisions or performing other duties under this Article, the Urban Forester and the Building Official both shall be subject to the standards and procedures generally applicable to the Building Official under this Chapter (see, e.g., Sections 6-11, et seq.). Appeals of decisions made by either the Building Official or the Urban Forester, and applications for variances, are heard by the Building and Standard Commission, in accordance with this Chapter.

Section 6-509. Violations.

(a) *Removal, Damaging, Killing of Protected Trees.* Except as authorized by a permit issued under this Article, it shall be unlawful, at any time: (i) for a Person to remove, Damage or kill a Protected Tree within the City; (ii) for a Person, who owns or controls any existing or potential Subject Site, to cause or allow a Protected Tree to be removed, damaged or killed if it is Located within the Subject Site.

(b) *Affirmative Defenses.* It shall be an affirmative defense to prosecution under this Article that: (i) immediate action to remove, Damage or kill the Tree in question was necessary to prevent harm to Persons or property, (ii) a permit application was filed within five days thereafter, (iii) an appropriate permit or amendment was obtained, (iv) there was full compliance with all conditions of the permit or amendment, or (v) an approved Tree Disposition Plan (contained in a building or other permit) authorized and sanctioned the conduct in question.

(c) *Conditions.* It shall be unlawful for any Person who applies for or receives a permit regulated by this Article to fail or to refuse to comply with a condition of the permit or this Article. Any related permit for the Building Site in question may be withheld until the condition is complied with to the satisfaction of the Urban Forester, building official or any other City staff members who are called upon to enforce this Article. All permits are subject to revocation or suspension as provided for in this Chapter (see, e.g., Section 6-25).

Section 6-510. Other Regulations; Conditions.

(a) *Conflicts With Other Regulations.* In any case where another City ordinance, rule or regulation would require the removal, Damage or death of a Large Tree, under circumstances where this Article would prohibit such action, it is the intent of the City Council that all of the Applicable Regulations shall be read together and harmonized so that, if reasonably practicable, the Large Tree is not removed, Damaged or killed.

(b) *Liberal Interpretations Authorized.* All City officials, boards and commissions are authorized and encouraged to interpret other ordinances, rules and regulations liberally in order to minimize conflicts with this Article and to protect existing Large Trees, except in circumstances where there might be hazards to Persons or property.

(c) *Variances.* The need to protect or preserve a Large Tree shall be considered sufficient "hardship" in all cases where a hardship is required for the issuance of a variance under City ordinances, unless additional grounds are required by state law.

AGENDA - A WORKSHOP FOR THE PLANNING AND ZONING COMMISSION OF THE CITY OF PEARLAND, TEXAS, TO BE HELD TUESDAY, APRIL 20, 1993, IMMEDIATELY FOLLOWING THE SPECIAL MEETING IN THE COUNCIL CHAMBERS, CITY HALL, 3519 LIBERTY DRIVE, PEARLAND, TEXAS

I. CALL TO ORDER

II. PURPOSE OF WORKSHOP:

1. ~~Briefing and Discussion~~ - Draft Thoroughfare Plan Update
Consideration of Possible Action
2. ~~Briefing and Discussion~~ - Urban Aesthetics
Consideration of Possible Action -
 - a. Tree Preservation Guidelines
 - b. Landscaping Requirements
 - c. Park Dedication Requirements
 - d. Building Facade (exterior) Requirements
 - ✓ e. ~~Sign Limitations~~ *OK*

III. ADJOURNMENT

POSTED: 16th DAY OF April, A.D., 1993 5:00 P.M.
REMOVED: 23rd DAY OF April, A.D., 1993.

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III. ADJOURNMENT

POSTED: ^{16th}~~5th~~ DAY OF April, A.D., 1993 ~~5:00~~ P.M.

REMOVED: 23rd DAY OF April, A.D., 1993.