Item A: Amendments to Implement the Rough Proportionality Doctrine

35-202 Conventional and Enclave Subdivision.

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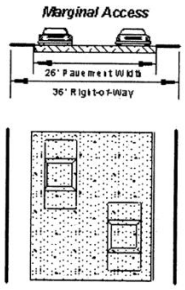
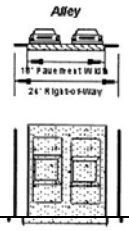
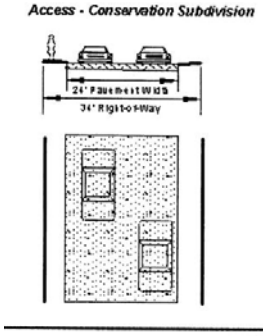
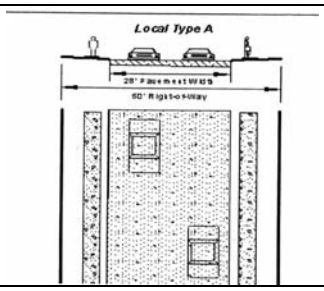
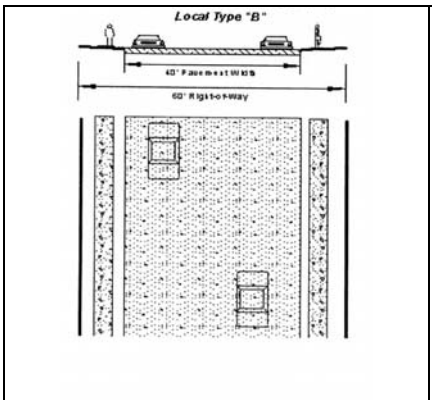
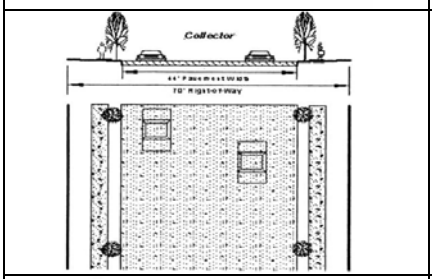
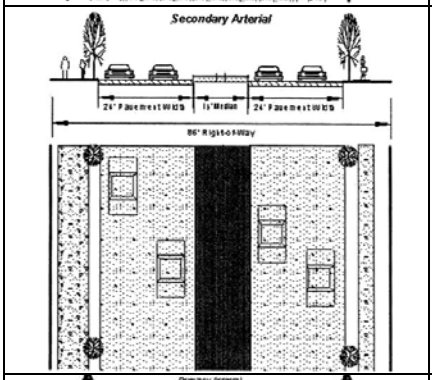
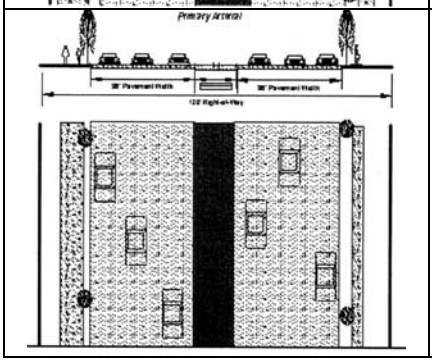
Table 201-1

Street Type	ROW	Pavement Width	Median	Sidewalk Width (ft' with planting strip/ ft ' without planting strip)	Bike Facilities	~~Trees~~ Streetscape Planting	Planting Strips
	36'	26'	Not required	Not required	Not required	Not required	Not required
	24'	18-24'	Not required	Not required	Not required	Not required	Not required
	34'	24'	Not required	~~Not required~~ 4'/6' One side only	Not required	Not required	Not required
	50'	28'	Not required	4'	Not required	Not required	~~2'~~ Not required

	60'	40'	Not required	4'/6'	Not required	Not required	~~2'~~ 3'
	70' – 90'	44' – 55'	Not required	4'/6'	city option	Yes	~~2'~~ 3'
	86' – 110'	48' – 81'	~~14'~~ 16'	4'/6'	Yes – path	Yes	~~2'~~ 3'
	120'	48-~~72~~81'	~~14'~~ 16'	4'/6'	Yes – path	Yes	~~2'~~ 3'

Note: This table of illustration is provided for the convenience of the reader. To the extent that there is any conflict between this table and section 35-506, Table 506-3, the provisions of Table 506-3 shall govern.

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35-207. Traditional Neighborhood Development.

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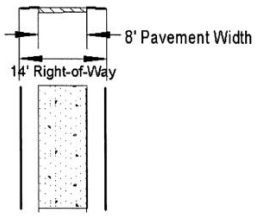
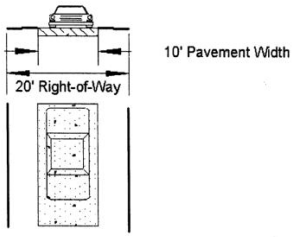
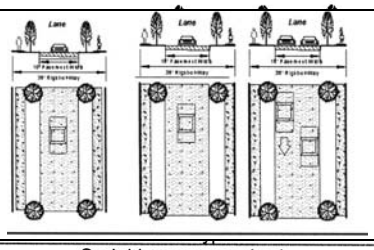
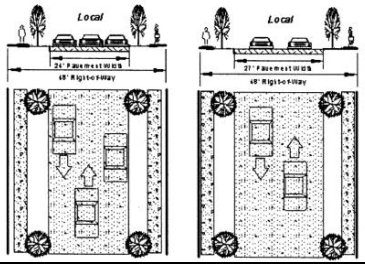
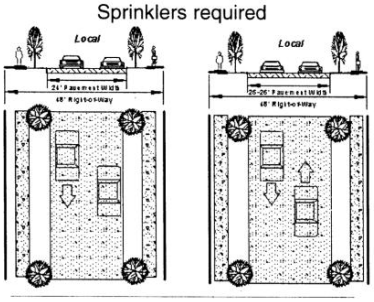
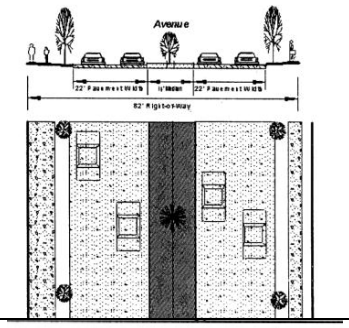
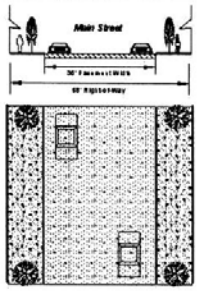
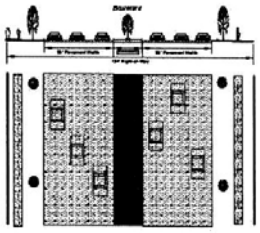
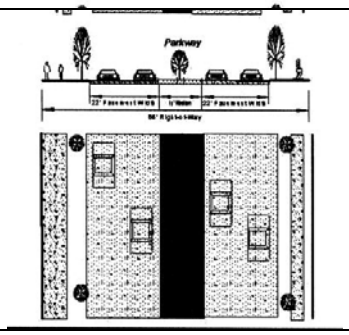
Table 207-5
Illustration of Street Design Guidelines

Street Type	ROW	Pavement Width	Median	Sidewalk Width (ft' with planting strip/ ft ' without planting strip)	Bike Facilities	~~Trees~~ Streetscape Planting	Planting Strips
Trail 	14'	8-14'	N/a	N/a	N/a	Yes	N/a
Alley 	20'	10-12'	N/a	No	No	No	N/a
	38'	16-18' (sprinklers not required for 18' one-way)	N/a	4'/6'	No	Yes	6'
Sprinklers not required 	48'	24' or 27'	N/a	4'/6'	No	Yes	6'

Sprinklers required 	48’	22’ or 25-26’	N/a	4’/6’	No	Yes	6’
	82’	27’-48’	~~14’~~ 16’	4’/6’	Yes – path	Yes	6’
	58’	28-36’	N/a	4’/6’	city option	Yes	city option
	124’	44-70’	~~14’~~ 16’	4’/6’	Yes – path	Yes	6-11’
	86’	44’ +	~~14’~~ 16’	4’/6’	Yes – path	Yes	7-20’

Note: This table of illustration is provided for the convenience of the reader. To the extent that there is any conflict between this table and § 35-506, Tables 506-4 and 506-5, the provisions of Tables 506-4 and 506-5 shall govern.

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35-432 Procedures for Subdivision Plat Approval.

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(i) Recording Procedures.

(1) Fees. At the time an application for a plat located within the city limits is submitted to the director of development services, the applicant shall deposit fees covering the cost of recording the plat. Such fees shall be in the form of a check made payable to the City of San Antonio.

(2) Recordation. The director of development services shall file for record an approved plat in the deed and plat records of the county within which the plat is located, provided the property owner consents in writing and the plat meets applicable conditions:

A. No site improvements are required;
B. All required site improvements have been completed and accepted by the director of development services;
C. A performance agreement and a guarantee of performance as described in section 35-437 ~~35-436~~ have been filed with the city clerk;
D. All required impact and drainage fees have been paid; and/or
E. Outstanding liens imposed by the city on sites cleared of debris, removal of health hazards, over growth and or the razing of unsafe building(s) is resolved and approved by the director of finance.

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35-506 Transportation and Street Design.

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(d) Cross-Section and Construction Standards.

(1) ~~Interior~~ Streets.

A. Tables 506-3 and 506-4 provide the standards for all existing and future streets.

B. The subdivider shall dedicate and construct all interior streets within the subdivision plat and shall provide dedication and construction for exterior streets based upon ~~the following tables~~ Tables 506-3 and 506-4.

C. The Planning and Development Services Director shall include the dedication and construction of rights of way for exterior streets in the roughly proportionate determination as described in Section 35-501(b).

Table 506-3
Conventional Street Design Standards

Conventional Street Design Standards Street Type	**Marginal Access**	**Alley**	**Access to Conservation Subdivision**	**Local Type A**	Local Type B	**Collector**	**Secondary Arterial [1]**	**Primary Arterial [2]**
R.O.W. (min.)[1, 2, 8, 11]	36'	24'	~~36~~'34'	50'	60'	70-90'	86-110'	120'[12]
Pavement Width[1, 2, 8]	26'	18-24'	24' [7]	28'	40'	44-55'	48-81'	48-~~72~~81'
Design Speed (mph)	30	20	30	30	30-35	40-45	45	45
Grade (max) [3] ICL **Grade (max) [3] ETJ** **Grade (min) [4]**	12% 10% 0.5%	12% 10% 0.5%	12% 10% 0.5%	12% 10% 0.5%	12% 10% 0.5%	7% 7% 0.5%	5% 5% 0.5%	5% 5% 0.5%
~~**"K" Crest Curve**~~	~~30~~	~~NR~~	~~30~~	~~30~~	~~30~~	~~55~~	~~70~~	~~70~~
~~**"K" Sag Curve**~~	~~35~~	~~NR~~	~~35~~	~~35~~	~~35~~	~~55~~	~~60~~	~~60~~
Centerline Radius (min)	100'	50'	100'	100'	100'	400'	700'	1,200'
~~**Stopping Sight Distance**~~	~~75'~~	~~75'~~	~~75'~~	~~110'~~	~~150'~~	~~200'~~	~~300'~~	~~300'~~
Curb	NR	NR	NR	Yes	Yes	Yes	Yes	Yes
Median	NR	NR	NR	NR	NR	NR	~~14~~16' min.	~~14~~16' min.
Sidewalk Width (see subsection (q)(5))	NR	NR	4/6[10] One Side Only	4' [9]	4[9]/6[10]	4[9]/6[10]	4[9]/6[10]	4[9]/6[10]
Bicycle facilities [6]	NR	NR	NR	NR	NR	Yes ~~City Option~~ [5]	Yes Path [5]	Yes Path [5]
Streetscape Planting	NR	NR	NR	NR	NR	Yes	Yes	Yes
Planting Strips	NR	NR	NR	NR	3' ~~2'~~ Min	3' ~~2'~~ Min	3' ~~2'~~ Min	3' ~~2'~~ Min

Notes and Rules of Interpretation:

NR designates the item is "not required"

ICL designates Inside City Limits

ETJ designates within the Extraterritorial Jurisdiction

Table 506-3 is required for conventional option subdivisions (see § 35-202) or subdivisions not subject to Table 506-4, below, except for ~~(~~access to conservation subdivision~~) which apply only to conservation subdivisions~~ (§ 35-203).

[1] ~~For secondary arterial type B right-of-ways designated on the Major Thoroughfare Plan, the required right-of-way will be a minimum of 70' with 86' at the intersections as determined by the director of development services.~~

For secondary arterial type B streets the minimum width of right-of-way shall be 70 feet and at intersections with other major arterials on the Major Thoroughfare Plan 86 feet to 110 feet as determined by the Director of Planning and Development Services.

[2] ~~For primary arterial type B right-of-ways designated on the Major Thoroughfare Plan, the required right-of-way will be a minimum of 70' with 120' at the intersections as determined by the director of development services.~~

For primary arterial type B streets the minimum width of right-of-way shall be 70 feet and at intersections with other major arterials illustrated on the Major Thoroughfare Plan the right-of way shall be 86 feet to 120 feet subject to the findings of the TIA as determined by the Director of Planning and Development Services.

[3] ~~See Figure 506-2.~~ Refer to 35-506(d) (3) for grades exceeding maximum values specified in the table.

[4] 0.4% Optional with concrete curb and gutter.

[5] Bicycle path and sidewalks can be combined. See Section 35-506(d)(4).

[6] When designated on bicycle master plan as approved by city council

[7] Entry portion without parking.

[8] Right-of-Way and pavement width requirements in established neighborhoods can be waived by the Director of Planning and Development Services. ~~as required on capital improvement projects~~

[9] ~~. Sidewalks shall be 4 foot in width with a planting strip.~~

[9] In residential areas sidewalks shall be located to provide improved safety, to improve walkway intersection alignment and to reduce sidewalk conflicts with utility poles and mail boxes.

[10] Sidewalks shall be 4 foot in width with a planting strip or 6 foot in width without a planting strip

[11] R.O.W. width and construction design of State maintained streets and certain inner-city streets and certain primary arterials (approved by city council ordinance) pertaining to R.O.W. dedication and design standards within the CRAG area boundary shall take precedence over the standard UDC street R.O.W. and design provisions outlined in Table 506-3 above.

[12] 120 feet is the maximum right of way width but may be varied in accordance with the adopted Major Thoroughfare Plan.

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Table 506-4

Traditional Street Design Standards

Street Type	**Trail**	**Alley**	**Lane**	**Local**	**Avenue**	**Main street**	**Boulevard**	**Parkway**
R.O.W. (min.)	14'	20'	38'	48'	82'	58'	124'	86'
Pavement Width [1]	8'-14'	10'-12'	16'-18'	22'- 27'	27'-48'	28'-36'	44'-70'	44'+
Design Speed (mph)	N/A	20	30	30	35	40	45	45
Grade (max.) **Grade (min.)** [4]	~~10%~~ ~~0.5%~~ Follow AASHTO	10% 0.5%	10% 0.5%	10% 0.5%	7% 0.5%	7% 0.5%	7% 0.5%	5% 0.5%
~~**"K" Crest Curve**~~	~~NR~~	~~NR~~	~~30~~	~~30~~	~~55~~	~~55~~	~~55~~	~~70~~
~~**"K" Sag Curve**~~	~~NR~~	~~NR~~	~~35~~	~~35~~	~~55~~	~~55~~	~~55~~	~~60~~
Curb Radius	N/A	15'	15'	15'	25'	25'	25'	25'
Centerline Radius [2]	~~95'~~ N/A	50'	90'	90'	250'	300'	500'	1,000'
~~**Stopping Sight Distance**~~	~~75'~~	~~75'~~	~~110~~	~~110'~~	~~150'~~	~~200'~~	~~300'~~	~~300'~~
Curb	NR	NR	Yes	Yes	Yes	Yes	Yes	NR
Median	NR	NR	NR	NR	~~14' in.~~ 16' min	NR	~~14' min.~~ 16' min	~~14' min.~~ 16' min
Sidewalk Width (see subsection (q)(5))	NR	NR	4'[7]/6'[7]	4'[7]/6'[7]	4'[7]/6'[7]	4'[7]/6'[7]	4'[7]/6'[7]	4'[7]/6'[7]
Bicycle facilities [3, 6]	NR	NR	NR	NR	Yes ~~City Option~~	Yes ~~City Option~~	Yes ~~City Option~~	Yes Path
Streetscape Planting	Yes	NR	Yes	Yes	Yes	Yes	Yes	Yes
Planting Strips	NR	NR	6'	6'	6'	city Option	6-11'	7-20'

Notes and Rule of Interpretation:

NR designates the item is "not required"

R.O.W. width and construction design of state maintained streets and certain inner-city streets and certain primary arterials (approved by city council ordinance) pertaining to R.O.W. dedication and design standards within the CRAG area boundary shall take precedence over the standard UDC street R.O.W. and design provisions outlined in Table 506-4 above.
Table 506-4 applies only to the following development options: Commercial Center (section 35-204), Commercial Retrofit (section 35-206), Traditional Neighborhood development (section 35-207), and Transit-oriented development (section 35-208), except as provided in footnote 5, below.
1 See Table 506-4A below. The smaller street width with on-street parking prohibited, or the larger street width coupled with on-street parking on one (1) or both sides of the street, may be provided if the adjoining buildings are provided with (1) an NFPA 13D fire sprinkler system for Single-Family Dwelling Units, One-Family Attached Dwelling Units, Two-Family (Duplex) Dwelling Units, Two-Family Attached Dwelling Units; (2) an NFPA 13R fire sprinkler system for Multi-Family buildings; or (3) an NFPA 13 fire sprinkler system for Commercial Building.
2 Lesser radius can be approved by the Director of Planning and Development Services.
3 Bike path and sidewalks can be combined. See subsection 35-506(d)(4).
4 Optional 0.4% with concrete curb and gutter.
5 Any provision in Table 506-3 (entitled "conventional street design standards") notwithstanding, interior streets in a subdivision that would otherwise be required to comply with the provisions of Table 506-3 may instead comply with the provisions of Table 506-4 (entitled "traditional street design standards"), regarding pavement width requirements only, provided that the connectivity ratio (see subsection (e), below and subsection 35-207(g) of this chapter) shall comply with the requirements for a Traditional Neighborhood development. The proposed development shall comply with footnote 1 hereto. Pursuant hereto, street types in such subdivisions shall comply with Table 506-4 as follows: An Alley shall be required to meet the street width standards for an Alley as provided in Table 506-4; a Conservation Access street shall be required to meet the street width standards for a Lane; a Local Type A street shall be required to meet the street width standards for a street; a Local Type B street shall be required to meet the street width standards for an

Avenue; a Collector street shall be required to meet the street width standards for a Main street; a Secondary Arterial shall be required to meet the street width standards for a Boulevard; and Primary Arterial shall be required to meet the street width standards for a Parkway.
6 When designated on bicycle master plan as approved by city council
7 Sidewalks shall be four (4) foot in width with a planting strip or six (6) foot in width without a planting strip.

*** * * * ***

(9) Substandard Existing Streets.

A. Right of Way Dedication

1. Where platted property is adjacent or contiguous to an existing street and the right- of-way width of the existing street is less than the minimum required by this chapter, no building permit shall be issued or any utility connected until the right-of-way width has been dedicated to the minimum width required by this chapter.

2. Where property is being platted adjacent or contiguous to an existing street and the right- of-way width of the existing street is less than the minimum required by this chapter, no plat shall be approved until the right-of-way width has been dedicated to the minimum width required by this chapter.

B. Sidewalks, Curbs and Pavement Construction.

1. Where platted property is adjacent or contiguous to an existing street and the pavement cross-section of the existing street is less than the minimum required by this chapter, no building permit shall be issued or any utility connected until the pavement cross-section has been improved to the minimum pavement cross-section required by this chapter.

2. Where property is being platted adjacent or contiguous to an existing street and the pavement cross-section of the existing street is less than the minimum required by this chapter, no plat shall be recorded until the pavement cross-section has been improved to the minimum pavement cross-section required by this chapter, or a guarantee of performance has been executed and filed as provided in Section 35-437.

C. Exceptions

1. In cases where an existing fence and landscaping is present, the Planning and Development Services Director shall require dedication of the additional right-of-way but may allow existing landscaping and fences to remain until such time as construction is required in accordance with subsection B. The director shall evaluate the condition of the existing fencing and the character of the landscaping and may direct additional reconstruction of the fence or new plantings. In such cases the landscaping required by the director shall not be greater than that required by this chapter for new projects.

2. The provisions of this subsection shall not apply within the Infill development zone “IDZ” as stated in section 35-343(e) provided that ADA standards are met.

3. Where subdivisions are adjacent or contiguous to platted right-of-ways and no street exists, (including paper streets) no building permit shall be granted or any utility connected until one-half (1/2) of the road is constructed adjacent to the proposed development.

(9) Substandard Existing Streets.

~~The Director of Planning and Development Services shall include the improvements to substandard streets in the roughly proportionate determination as described in Section 35-501(b).~~

~~**A. Right of Way Dedication.**~~

~~**1.** Subdivisions and building permits adjacent to existing streets that are substandard to Table 506-3 or 506-4 shall be required to dedicate the minimum right of way widths in conjunction with subdivision plat approval and prior to approval of a building permit. Where subdivisions within the city limits are adjacent to existing streets and right-of-way widths of those existing streets are less than the minimum right-of-way widths as set out in this chapter for all streets, no building permits shall be granted until the right-of-way widths have been dedicated to the minimum widths required by this chapter abutting the development.~~

~~**2.** In cases where an existing fence and landscaping is present, the Planning and Development Services Director shall require dedication of the additional right-of-way but may allow existing landscaping and fences to remain until such time as the right-of-way width is needed for infrastructure improvement. The director shall evaluate the condition of the existing fencing and the character of the landscaping and may direct additional reconstruction of the fence or new plantings. In such cases the landscaping required by the director shall not be greater than that required by this chapter for new projects.~~

~~**B. Sidewalks, Curbs and Pavement Construction.**~~

~~1. In addition, subdivisions Subdivisions of land within the city limits shall require sidewalk and may require curb, and pavement improvements in accordance with article V and ADA guidelines at platting as determined by the Planning and Development Services Director. Substandard existing streets located in the ETJ shall be upgraded to minimum standards as set forth in the code and in connection with plat approval.~~

~~2. The provisions of this subsection shall not apply within the Infill development zone "IDZ" as stated in section 35-343(e) provided that ADA standards are met.~~

~~3. Curb, sidewalk and pavement improvements adjacent to the development for multi-family and commercial developments shall be provided on sub-standard width existing streets at the time of platting building permit. Where previously platted then curb, sidewalk and pavement improvements adjacent to the development shall be required at the time of building permit or utility connection. In cases where an existing fence and landscaping is present, the director of development services shall require dedication of the additional right-of-way but may allow existing landscaping and fences to remain until such time as the right-of-way width is needed for infrastructure improvement. The director shall evaluate the condition of the existing fencing and the character of the landscaping and may direct additional reconstruction of the fence or new plantings. In such cases the landscaping required by the director shall not be greater than that required by this chapter for new projects.~~

~~4. Where subdivisions are adjacent to platted right-of-ways and no street exists, (including paper streets) no building permit shall be granted until one-half (1/2) of the road is constructed adjacent to the proposed development.~~

* * * * *

(12) Design Speed.

A. Applicability. The design speed values listed in Table 506-3 shall be used in conjunction with the American Association of State Highway & Transportation Officials (AASHTO) Policy on Geometric Design of Highways and streets, or latest revision thereof in the design of the streets horizontal and vertical alignment to include but not limited to:

- Intersection sight distance; Vertical K-values;
- Horizontal obstruction offset values;
- Stopping sight distance;
- Transition distance; and
- Turn bay design.

B. Special Considerations. The following design speeds shall be used for the following street types or specified condition:

1. Local Type B:

   i. If houses are fronting this street, the design speed shall be 30 mph.
   ii. If no houses are fronting this street, the design speed shall be 35 mph.

2. Collector:

   i. If street has a raised median, the design speed shall be 45 mph.
   ii. If street does not have a raised median, the design speed shall be 40 mph.

~~3. Determining K-values at intersections:~~

   ~~i. For local street intersections, where the K-value is on the street that has a stop sign control, a minimum design speed of 15 mph shall be used.~~
   ~~ii. For local street or driveway intersections connecting to a Collector street or higher, where the K-value is on the street that has a stop sign control and does not have the potential of being signalized, a minimum design speed of 20 mph shall be used.~~

4. Turn bay design. Turn bays shall be designed in accordance with the TxDOT design manual for the minimum taper and storage lengths. The deceleration length shall be determined using one of the following:

   i. Using a differential speed of 20 mph from the street's design speed if using the TxDOT Design Manual tables: or
   ii. Using a differential speed of 10 mph from the street's design speed if the stopping sight distance is calculated based on the design topographic conditions.

* * * * *

(e) Connectivity

(2) Projecting Streets.

A. Where adjoining areas are not subdivided or are undeveloped, the arrangement of streets in the subdivision shall make provision for the projection of streets with the appropriate classification based on proposed development plus the anticipated traffic volume from the unsubdivided or undeveloped area (1.5 lots per acre on septic and 4 lots per acre with sewer) ~~into such unsubdivided areas.~~ If the projecting street is a Local Type B with no houses fronting, the Planning and Development Services Director shall include the improvements to projecting streets in the roughly proportionate determination as described in Section 35-501(b).

B. Parcels shall be arranged to allow the opening of future streets and logical further subdivision.

C. Where necessary to the neighborhood pattern, existing streets in adjoining areas shall be continued and shall be at least as wide as such existing streets and in alignment therewith. Where streets change design in alignment and width, the applicant shall provide transition sufficient to ensure safe and efficient traffic flow. This section is not intended to require Local designated streets to project into floodplains, bluffs or other natural features or existing development that has not made accommodations for connection.

D. If a tract is subdivided into parcels larger than ordinary building lots, such parcels shall be arranged to allow the opening of future streets and logical further subdivision.

* * * * *

~~**(8) Major Thoroughfare Plan Designated Arterial Streets.**~~

~~A. Where a proposed plat abuts a designated thoroughfare shown on the major thoroughfare plan and the proposed street alignment is split or separated by an ownership boundary, the applicant of the proposed plat shall include half of the required dedication and construction for plat approval.~~
~~B. If a plat applicant owns all of the land designated as a thoroughfare, and the proposed plat abuts or embraces a thoroughfare alignment, the applicant shall be responsible for one hundred (100) percent dedication and construction or.~~
~~C. A plat applicant may dedicate one hundred (100) percent of the R.O.W and develop an agreement with the owner of the abutting undeveloped tract to equally share the cost and post a guarantee for construction of the full thoroughfare in connection with the approval process.~~

* * * * *

(g) Major Thoroughfare Plan Designated Arterial Streets.~~Dedication of Arterial~~

(1) **Adjacent or Contiguous Arterial Streets.** The subdivider shall dedicate right-of-way and construct the required street to the pavement width and construction standards in accordance with the following table and typical sections in subsection (d) of this section.

Table 506-5

Street Type	Right-of-Way Half Width	Pavement Half Width
Primary arterial	60 ft.	24 ft. with curbs
Secondary arterial	43 ft.	24 ft. with curbs

A. Where a proposed plat is adjacent or contiguous to a designated thoroughfare shown on the major thoroughfare plan and the proposed street alignment is split or separated by an ownership boundary, the applicant of the proposed plat shall include half of the required dedication and the construction or a guarantee of performance executed and filed as provided in Section 35-437 for plat approval.

B. If a plat applicant owns all of the land designated as a thoroughfare, and the proposed plat is adjacent or contiguous to a thoroughfare alignment, the applicant shall be responsible for one hundred (100) percent dedication and construction or a guarantee of performance executed and filed as provided in Section 35-437 or.

C. A plat applicant may dedicate one hundred (100) percent of the right of way and develop an agreement with the owner of the adjacent or contiguous undeveloped tract to equally share the cost and execute and file a guarantee of performance in accordance with Section 35-437 for construction of the full thoroughfare in connection with the approval process.

(2) **Existing Arterial Streets**.

A. Right of Way

i. Where platted property is adjacent or contiguous to existing arterial streets and right-of-way widths of those existing arterial streets are less than the minimum right-of-way widths as set out in this chapter, no building permit shall be issued or any utility connected until the subdivider has dedicated one-half (1/2) of the right-of-way width in accordance with the major thoroughfare plan.

ii. Where property is being platted adjacent or contiguous to existing arterial streets and right-of-way widths of those existing arterial streets are less than the minimum right-of-way widths as set out in this chapter, no plat shall be approved, until the subdivider has dedicated one-half (1/2) of the right-of-way width required in accordance with the major thoroughfare plan.

B. Pavement Cross-Section

i.Where platted property is adjacent or contiguous to existing arterial streets and the pavement cross section of those existing arterial streets are less than the minimum pavement cross-section as set out in this chapter, no building permit shall be issued or any utility connected until the subdivider has constructed (1/2) of the pavement cross-section of the existing street in accordance with the major thoroughfare plan.

ii. Where property is being platted adjacent or contiguous to existing arterial streets and the pavement cross section of those existing arterial streets are less than the minimum pavement cross-section as set out in this chapter, no plat shall be recorded until the subdivider has constructed (1/2) of the pavement cross-section of the existing street in accordance with the major thoroughfare plan, or a guarantee of performance has been executed and filed as provided in Section 35-437.

~~(2) **All Existing Streets.** Where subdivisions are adjacent to existing arterial streets and right-of-way widths of those existing arterial streets are less than the minimum right-of-way widths as set out in this chapter for all streets, the subdivider shall be required to dedicate on the plat one-half (1/2) of the right-of-way width required adjacent to the land being platted to bring the existing arterial streets to the right-of-way widths in accordance with the major thoroughfare plan.~~

*** * * * ***

(m) Pavement and Median Transition.

Where cross section changes occur, appropriate pavement transition shall be provided. Transition shall be described as a ratio of lateral transition width to transition length in feet. The following formulas shall be used in computing appropriate transition:

(1) Local Street to Local Street, Local Street to Collector, Collector to Collector.

$$\cancel{L = 20W}\ \underline{L=WS^2/60}$$

Where:
L = Transition length in feet measured along the centerline of the street.
W = Transition width measured as the difference in pavement width from the centerline to the pavement edge of the two (2) cross sections.
S = Design Speed for the street found in Table 506-3 or Table 506-4.

(2) Arterial Streets Except Freeways.

$$\cancel{L = DW}\ \underline{L = SW}$$

Where:
L = Transition length in feet measured along the centerline of the street.
~~**D** = Design speed of 60 miles per hour.~~
S = Design Speed for the street found in Table 506-3 or Table 506-4.
W = Transition width measured as the difference in pavement width from the centerline to the pavement edge of the two (2) cross sections.

*** * * * ***

(n) Medians.

(1) Openings. Medians shall be continuous. Openings in the median may be provided for public streets or driveways provided the ~~centerline~~ spacing between median openings is in accordance with Table 506-5.1 ~~at least four hundred (400) feet~~. When medians are open, left turn bays and median radii shall be provided in accordance with 35-502(e) (2) and curbed. Existing medians shall be modified to conform to these requirements where necessitated by the traffic generated by the proposed development, as set forth in the Traffic ~~traffic~~ Impact Analysis (see subsection 35-502~~(l)(1)~~ (e) (2) of this chapter). Where existing streets are

improved, dual left turn lanes can be approved if supported by a TIA (see section 35-502).

In determining if a median opening request should be approved, the City will require a traffic engineering analysis by a Licensed Professional Engineer. The median opening analysis shall be at the expense of the requestor.

Table 506-5.1 Guidelines for Spacing Median Openings:

Functional Classification: *(Divided roadway subject to the requested median opening)*	**Minimum Spacing Between Median Openings:**
Arterial	**From Freeway**: Outside of the functional area or 660 feet, whichever is less, as measured from the projected right of way line of the intersecting freeway as illustrated in Figure 506-6.1
	From another Arterial: Outside of the functional area or 500 feet, whichever is less, as measured from the projected right of way line of the intersecting arterial as illustrated in Figure 506-6.1.
	Elsewhere along Arterial: Outside the functional area or 400 feet, whichever is less, as measured between the nose of the median opening and the nose of the next median opening as illustrated in Figure 506-6.2.
Collector/Local (including Modified Collectors)	**From Freeway or Arterial:** 400' or outside the functional area, whichever is less, as measured from the projected right of way line of the intersecting freeway or arterial as illustrated in Figure 506-6.1.
	Elsewhere along the Collector or Local Street: Outside the functional area or 400 feet, whichever is less, as measured between the nose of the median opening and the nose of the next median opening as illustrated in Figure 506-6.2.

Figure 506-6.1 Methodology to Measure Median Opening Distance from a Projected Right of Way Line of an Intersecting Freeway or Arterial:

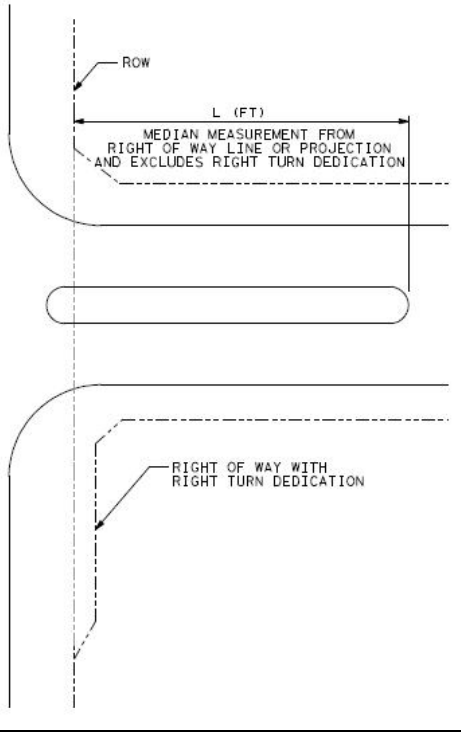
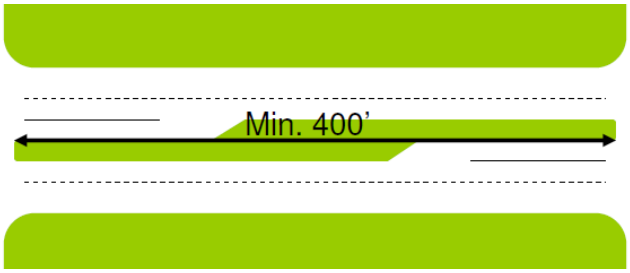


Figure 506-6.2 Methodology to Measure Distances Between the Noses of the Median Openings:



* * * * *

35-B101 Table B101-1

TABLE B101-1

A	B	C	D	E	F	G

(A) MATERIAL/INFORMATION	MASTER DEVELOPMENT PLAN	PUD PLAN	MAJOR PLAT APPLICATION	MINOR PLAT APPLICATION	DEVELOPMENT PLAT APPLICATION	SPECIFIC USE AUTHORIZATION
F. PLANNING						
*****						
(5) All existing easements or right-of-way and street names, including those contiguous to the development area, their nature, width, and the volume and page number of their recording.			*	*	*	*
(6) All existing easements or right-of-way with street names impacting the development area, their nature and width.	*	*			*	*
(7) The location and widths of all proposed public and private streets within the development's boundaries.			*	*	*	*
(8) The approximate location and widths of all proposed public and private streets within the development's boundaries.		*			*	*
(9) The approximate location and widths of all proposed public and private streets major thoroughfares, collectors and local b streets within the development's boundaries. For Master Plans (MDPs) 100 acres or less, the double line representation of all streets shall be required. (See exhibit "A")	*				*	*
*****						
(18) The schematic location of all existing and proposed streets, as well as proposed access points. For master development plans (MDPs) greater than 100 acres and more than one (1) sheet is necessary to accommodate the entire site, single line representation of all streets not listed in subsection (9) shall be allowed or the engineer can choose to submit a supplemental for his development showing all streets in double line representation. Additional supplemental plans shall be submitted as additional segments of the original master plan are developed. (See Exhibit "B")	*	*			*	*

*** * * * ***

~~19-82. Traffic impact analysis (TIA) required.~~

~~A TIA shall be performed by the property owner (or its agent) according to the format established in section 19-83 of this division, as follows:~~

~~(1) When an activity on or change to property occurs that generates more than one thousand (1,000) PHT, the property owner (or its agent) shall perform and submit to the city a TIA under the level 3 format specified in section 19-83(1). This TIA must be signed and sealed by a professional engineer, registered to practice in Texas.~~

~~(2) When an activity on or change to property occurs that generates five hundred one (501) PHT to one thousand (1,000) PHT, the property owner (or its agent) shall perform and submit to the~~

~~city a TIA under the level 2 format specified in section 19-83(1). This TIA must be signed and sealed by a professional engineer, registered to practice in Texas.~~

~~(3) When an activity on or change to property occurs that generates one hundred one (101) PHT to five hundred (500) PHT, the property owner (or its agent) shall perform and submit to the city a TIA under the level 1 format specified in section 19-83(2). This TIA must be signed and sealed by a professional engineer, registered to practice in Texas.~~

~~(4) When an activity on or change to property occurs that generates one hundred (100) PHT or less, the property owner (or its agent) shall provide a completed city PHT generation form certifying that the activities to be conducted on the property will generate one hundred (100) PHT or less. No TIA will be required for activities generating one hundred (100) PHT.~~

~~(5) When an activity on, or change to, property occurs that varies from the activity on which a previous TIA was submitted and accepted, and the new activity or change, places the project into a level different from that of the previous TIA or generates an increase of at least 100 PHT (or ten (10) percent for a level 3 TIA) relative to the previous TIA, the property owner (or its agent) shall perform and submit to the city an amended TIA under the formats specified in sections 19-83 (1) or (2) (as appropriate). For the purposes of this section, the amendment will be satisfactory to determine if the increase in PHT impacts capacity and requires additional mitigation as defined herein.~~

~~19-83. TIA format.~~

~~The following information shall be provided in the following format, as required by section 19-82 of this division as follows:~~

~~(1) Level 2 and 3 TIA format. A level 2 TIA and a level 3 TIA, when required, shall consist of:~~

~~a. Traffic analysis map.~~

~~1. Land use, site and study area boundaries, as defined (provide map).~~

~~2. Existing and proposed site uses.~~

~~3. For TIAs that use land use as a basis for estimating projected traffic volumes, existing and proposed land uses on both sides of boundary streets for all parcels within the study area (provide map).~~

~~4. Existing and proposed roadways and intersections of boundary streets within the study area of the subject property, including traffic conditions (provide map).~~

~~5. All major driveways and intersecting streets adjacent to the property will be illustrated in detail sufficient to serve the purposes of illustrating traffic function; this may include showing lane widths, traffic islands, medians, sidewalks, curbs, traffic control devices (traffic signs, signals, and pavement markings), and a general description of the existing pavement condition.~~

~~6. Photographs of adjacent streets of the development and an aerial photograph showing the study area.~~

~~b. Trip generation and design hour volumes (provide table).~~

~~1. A trip generation summary table listing each type of land use, the building size assumed, the average trip generation rates used (total daily traffic and a.m./p.m. peaks), and the resultant total trips generated shall be provided.~~

~~2. Generated vehicular trip estimates may be discounted in recognition of other reasonable and applicable modes, e.g., transit, pedestrian, bicycles. Furthermore, trip generation estimates may also be discounted through the recognition of passby trips and internal site trip satisfaction.~~

~~3. Proposed trip generation calculations for single-story commercial properties shall be based on a floor-to-area (building size to parcel size) ratio of 0.25 or more.~~

~~c. Trip distribution (provide figure by site exit). The estimates of percentage distribution of trips by turning movements from the proposed development.~~

~~d. Trip assignment (provide figure by site entrance and boundary street). The direction of approach of site-attracted traffic via the area's street system.~~

~~e. Existing and projected traffic volumes (provide figure for each item). Existing traffic volumes are the numbers of vehicles on the streets of interest during the time periods listed below, immediately prior to the beginning of construction of the land development project. Projected traffic volumes are the numbers of vehicles, excluding the site-generated traffic, on the streets of interest during the time periods listed below, in the build-out year.~~

~~1. a.m. peak hour site traffic (including turning movements).~~

~~2. p.m. peak hour site traffic (including turning movements).~~

~~3. a.m. peak hour total traffic including site-generated traffic and projected traffic (including turning movements).~~

~~4. p.m. peak hour total traffic including site-generated traffic and projected traffic (including turning movements).~~

~~5. For special situations where peak traffic typically occurs at non-traditional times, e.g., major sporting venues, large specialty Christmas stores, etc., any other peak hour necessary for complete analysis (including turning movements).~~

~~6. Total daily existing traffic for street system in study area.~~

~~7. Total daily existing traffic for street system in study area and new site traffic.~~

~~8. Total daily existing traffic for street system in study area plus new site traffic and projected traffic from build-out of study area land uses.~~

~~f. Capacity analysis (provide analysis sheets in appendices).~~

~~1. A capacity analysis shall be conducted for all public street intersections and junctions of major driveways with public streets which are significantly impacted (as agreed to by developer's engineer and the city traffic engineer) by the proposed development within the previously defined study boundary. A capacity analysis is required as shown below:~~

	~~Boundary Street~~	~~Non-Boundary Street within Study Area~~
~~Existing conditions~~	~~Required~~	~~Required~~
~~Phase 1~~	~~Required~~	~~Not required~~
~~Intermediate construction Phases~~	~~Required~~	~~Not required~~
~~Final phase/build-out year (existing infrastructure)~~	~~Required~~	~~Required~~
~~Final phase/build-out year (proposed infrastructure)~~	~~Required~~	~~Required~~

~~2. Capacity analysis will follow the principles established in the latest edition of the transportation research board's Highway Capacity Manual (HCM), unless otherwise directed by the director of public works. Capacity will be reported in quantitative terms as expressed in the HCM and in terms of traffic level of service.~~

~~3. Capacity analysis will include traffic queuing estimates for all critical applications where the length of queues is a design parameter, e.g., auxiliary turn lanes, and at traffic gates.~~

~~g. Conclusions and requirements.~~

~~1. Roadways and intersections, within the study area, that are expected to operate at level of service D, E, or F, under traffic conditions including projected traffic plus site-generated traffic must be identified and viable recommendations made for raising the traffic conditions to level of service C or better.~~

~~2. As depicted in Table 1, roadways and intersections within the project site and along its boundary streets which are projected to operate at level of service D, E, or F, without site-generated traffic, need not be brought up to level of service C by the proposed development. Such roadways and intersections, under conditions which include site-generated traffic, must be brought up to the projected Level of Service that would exist without the site-generated traffic, by altering on-site and/or off-site traffic demands and/or capacities. Level of service notwithstanding, required traffic impact mitigation improvements are limited to those that can be implemented within the project site and along its boundary streets.~~

~~Table 1. Minimum Acceptable Level of Service~~

	~~Level of Service, Without Development~~					
~~Projected Level of Service~~	~~A~~	~~B~~	~~C~~	~~D~~	~~E~~	~~F~~
~~A~~	~~NA~~					
~~B~~	~~B~~	~~NA~~				
~~C~~	~~C~~	~~C~~	~~NA~~			
~~D~~	~~C~~	~~C~~	~~C~~	~~NA~~		
~~E~~	~~C~~	~~C~~	~~C~~	~~D~~	~~NA~~	
~~F~~	~~C~~	~~C~~	~~C~~	~~D~~	~~E~~	~~NA~~

~~3. For phased construction projects, implementation of these traffic improvements must be accomplished no later than the completion of the project phase for which the capacity analyses show that they are required. Plats for project phases subsequent to a phase for which a traffic improvement is required may be approved only if the traffic improvements are completed or bonded.~~

~~4. Additional limitations on traffic impact mitigation requirements are as follows:~~

~~i. Off-site traffic impact mitigation improvements are not required on public streets for which a funded capital improvement project is scheduled to be accomplished within three years of the TIA review.~~

~~ii. Requirements for mitigation for land development projects located inside the circumferential freeway, Interstate Highway 410, will be considered on a case by case basis and may be waived by the city council for city-sponsored infill development projects.~~

~~5. Voluntary efforts, beyond those herein required, to mitigate traffic impacts are encouraged as a means of providing enhanced traffic handling capabilities to users of the land development site as well as others.~~

~~6. Traffic mitigation tools include, but are not limited to, pavement widening, turn lanes, median islands, access controls, curbs, sidewalks, traffic signalization, traffic signing, pavement markings, etc.~~

~~(2) Level 1 TIA format. A level 1 TIA, when required, shall consist of:~~

~~a. Traffic analysis map.~~

~~1. Site and study area boundaries, as defined (provide map).~~

~~2. Existing and proposed site uses.~~

~~3. All major driveways and intersecting streets adjacent to the property will be illustrated in detail sufficient to serve the purposes of illustrating traffic function; this may include showing lane~~

~~widths, traffic islands, medians, sidewalks, curbs, traffic control devices (traffic signs, signals, and pavement markings), and a general description of the existing pavement condition.~~

~~b. Peak hour trip generation. The estimates of peak hour trips generated by the development and the percentage distribution of such trips from each site exit and to each site entrance.~~

~~19-83.1. TIA review fees.~~

~~The following fees are established for TIA review. All fees must be paid at the time the TIA is submitted for review.~~

~~(1) Level 1 . . . $ 300.00~~

~~(2) Level 2 . . . 800.00~~

~~(3) Level 3 . . . 1,000.00~~

~~19-84. Point at which TIA is required.~~

~~(a) The appropriate level TIA as required by section 19-82 may only be required by the city as part of the approval process for the following activities for each respective category of property, as follows:~~

~~Category~~	~~Description~~	~~Point at which TIA is Required~~
~~Pre-development~~	~~Property which is not the subject of a valid POADP filed pursuant to chapter 35, division 2 of this Code, or other permit as defined by Texas Local Government Code § 245.001 et seq.~~	~~May be required as a condition of acceptance of a POADP~~
~~Pre-platting~~	~~Property which is the subject of a valid POADP filed pursuant to chapter 35, division 2, or for which a POADP is not required prior to platting~~	~~May be required at the time of platting, as a part of the plat approval process~~
~~Platted~~	~~Property which is the subject of a valid plat which has been accepted and approved by the city~~	~~May be required at the time a building permit is requested~~
~~Post-TIA~~	~~Property which is the subject of a TIA provided at one of the points identified above (or for which the director of public works has determined no TIA is needed) or voluntarily provided by the developer~~	~~No further TIA required at any point~~

~~(b) A TIA may be required any time a property owner seeks to rezone property that is the subject of a POADP in a manner that: (i) would change the character of use (i.e., commercial, multi-family, residential etc.) of the property from the use(s) proposed in the POADP; and (ii) results in the PHT under the proposed zoning and use exceeding by more than one hundred (100) PHT the maximum PHT that could have been generated by uses permitted in the existing land use classification, or results in a TIA level different from that derived from the existing POADP.~~

~~(c) A TIA may be required any time a property owner seeks to rezone property that is not the subject of a POADP in a manner that would result in the PHT under the proposed zoning and use exceeding by more than one hundred (100) PHT the maximum PHT that could have been generated by uses permitted in the existing zoning, or results in a TIA level different from that derived from the existing zoning.~~

~~(d) The requirement to perform a TIA under subsection (b) or (c) of this section shall not apply if the existing zoning is a temporary zoning resulting from annexation.~~

~~(e) A POADP or other permit, as defined by Texas Local Government Code § 245.001 et seq., that is altered or modified as a result of a city requirement based on information provided in compliance with this division will not be considered to have been initiated by the property owner of its representative for the purpose of interpreting or enforcing this Code.~~