City of Las Cruces®
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Council Action and Executive Summary

Item # 19 **Ordinance/Resolution#** 2663

For Meeting of August 6, 2012 (Ordinance First Reading Date) **For Meeting of** September 4, 2012 (Adoption Date)

Please check box that applies to this item:
☐ QUASI JUDICIAL ☒ LEGISLATIVE ☐ ADMINISTRATIVE

TITLE: AN ORDINANCE REPEALING ARTICLE VI, TRAFFIC STANDARDS, OF CHAPTER 32 OF THE LAS CRUCES MUNICIPAL CODE, AS AMENDED AND REPLACING IT WITH A REVISED ARTICLE VI, TRAFFIC STANDARDS FOR CHAPTER 32 OF THE LAS CRUCES MUNICIPAL CODE, AS AMENDED.

PURPOSE(S) OF ACTION:

To amend the City's Traffic Design Standards.

COUNCIL DISTRICT: N/A		
Drafter/Staff Contact: Dan Soriano	**Department/Section:** Transportation / Street and Traffic Operations	**Phone:** 541-2505
City Manager Signature:		

BACKGROUND / KEY ISSUES / CONTRIBUTING FACTORS:

As part of the overall objective to update the City of Las Cruces Design Standards, city staff has been working on revisions to the various articles toward that effort. The Transportation Department's Streets and Traffic Operations Section was tasked with revising Article VI of the Las Cruces Municipal Code known as the Traffic Standards of the Las Cruces Municipal Code. This article is comprised of various design parameters and processes related to the traffic engineering issues such as street lighting design, placement of driveways, and traffic control sign and marking requirements.

The majority of the revision to the article deals with clarifying and updating portions of the existing language while attempting to reformat the document for ease of use. Research of information from other municipalities and agencies in determining best practices was conducted in devising some of the modifications to the Standards. A summary of the more significant changes is shown in Attachment "A".

As part of the public review process, identified stakeholders throughout the engineering and development community were given an opportunity to review the revised document over a two week period and provide comments to staff. Staff received relatively minor comments from one engineering firm which were incorporated into the final draft.

The revisions to Article VI were also reviewed over a three month period of time by the Development Standards Committee which is comprised of staff from various city departments. Comments received by the committee were incorporated into the rewritten document.

No effects to the budget are anticipated with the approval of this Ordinance.

SUPPORT INFORMATION:

1. Ordinance.
2. Exhibit "A", Proposed Article VI of the City Design Standards.
3. Attachment "A", Summarized listing of changes within revised draft.

SOURCE OF FUNDING:

Is this action already budgeted?			
	Yes	☐	See fund summary below
	No	☐	If No, then check one below:
N/A	*Budget Adjustment Attached*	☐	Expense reallocated from: _____
		☐	Proposed funding is from a new revenue source (i.e. grant; see details below)
		☐	Proposed funding is from fund balance in the _____ Fund.
Does this action create any revenue?			
	Yes	☐	Funds will be deposited into this fund: _____ in the amount of $_____ for FY__.
N/A	No	☐	There is no new revenue generated by this action.

BUDGET NARRATIVE

N/A

FUND EXPENDITURE SUMMARY:

Fund Name(s)	Account Number(s)	Expenditure Proposed	Available Budgeted Funds in Current FY	Remaining Funds	Purpose for Remaining Funds
N/A	N/A	N/A	N/A	N/A	N/A

OPTIONS / ALTERNATIVES:

1. Vote "Yes"; this will repeal the existing standards in the City's Design Standards, Chapter 32 of the Las Cruces Municipal Code, and replace it with the proposed language contained in Exhibit "A".
2. Vote "No"; this will keep the existing language in Article VI in effect.
3. Vote to "Amend"; this action could allow modifications to portions of the revised draft while leaving other sections unchanged.
4. Vote to Table; this action could allow Council to instruct staff to seek alternative direction.

REFERENCE INFORMATION:

The resolution(s) and/or ordinance(s) listed below are only for reference and are not included as attachments or exhibits.

N/A

COUNCIL BILL NO. 13-008
ORDINANCE NO. 2663

AN ORDINANCE REPEALING ARTICLE VI, TRAFFIC STANDARDS, OF CHAPTER 32 OF THE LAS CRUCES MUNICIPAL CODE, AS AMENDED AND REPLACING IT WITH A REVISED ARTICLE VI, TRAFFIC STANDARDS FOR CHAPTER 32 OF THE LAS CRUCES MUNICIPAL CODE, AS AMENDED.

The City Council of the City of Las Cruces is informed that:

WHEREAS, as part of the overall objective toward implementing a City Development Code, Streets and Traffic Operations' staff has revised Article VI of the Las Cruces Municipal Code known as the Traffic Standards; and

WHEREAS, this article is comprised of various design parameters and processes related to various traffic engineering issues such as street lighting design, driveway placement, and traffic control sign and marking requirements; and

WHEREAS, identified stakeholders throughout the engineering and development community were given opportunity to review and comment on the revised draft; the comments were incorporated into the final draft; and

WHEREAS, the revised draft was reviewed by the City Development Standards Committee which is comprised of staff from various City departments with their comments incorporated into the draft.

NOW, THEREFORE, Be it ordained by the governing body of the City of Las Cruces:

(I)

THAT the existing Article VI. Traffic Standards, Chapter 32, Las Cruces Municipal Code, is hereby repealed and replaced with a revised Article VI. Traffic Standards as contained in Exhibit "A" attached hereto and made part of this Ordinance.

(II)

THAT City staff is hereby authorized to do all deeds necessary in the accomplishments of the herein above.

DONE AND APPROVED this _____ day of _____, 2012.

APPROVED:

_____
Mayor

ATTEST:

_____
City Clerk

(SEAL)

VOTE:
Mayor Miyagishima: _____
Councillor Silva: _____
Councillor Smith: _____
Councillor Pedroza: _____
Councillor Small: _____
Councillor Sorg: _____
Councillor Thomas: _____

Moved by: _____

Seconded by: _____

APPROVED AS TO FORM:

_____
City Attorney

Exhibit "A"

ARTICLE VI - TRAFFIC STANDARDS

SECTION 32-400 Purpose

The purpose of this document is to regulate the various traffic-related issues associated with public and private development such as access and median regulations, placement and implementation of traffic calming devices, installation of street lighting, placement of traffic control devices, and preparation of traffic impact studies.

SECTION 32-401 Definitions

a. *ADA Ramps* - A graded incline to provide access to the physically challenged from one level to another level.

b. *Arterial* - A major street not less than 48 feet from face of curb to face of curb, with not less than four lanes of through traffic. For Principal Arterials, the average daily traffic is generally greater than 10,000 vehicles per day. Minor Arterials carry moderate to large volumes of traffic and limit direct access to individual properties. They often carry 5,000 to 15,000 vehicles per day.

c. *Association of American State Highway and Transportation Officials* - a standards setting body which publishes specifications, test protocols and guidelines which are used in highway design and construction throughout the United States

d. *Clear Sight Triangle* - An area of unobstructed vision at street intersections, entrances/exists, permitting a vehicle driver to see approaching vehicles to the right or left. At street intersections, nothing over three (3) feet in height measured from the top of curb, shall be permitted to obstruct a sight line within the triangle formed by the street intersection, created by the property line of each street, extended to a point, and a line drawn between two (2) points on the property line of each street which form a triangular section. If no curb exists, three foot height requirement shall be established from finished elevation at edge of paved roadway.

e. *Collector* - A major street not more than 48 feet from face of curb to face of curb, with an average daily traffic of typically 5000 vehicles or more.

f. *Conduit* - an underground, nonmetallic waterproof enclosure for voltage carrying street light circuits.

g. *Critical Turning Movements* – movements at an intersection causing the greatest delay or possible conflict usually left turn movements or crossing maneuvers.

i. *Driveway Apron* – the drivable portion of the driveway approach extending from the property side of the curb to the sidewalk section and lying between the end slopes of the driveway approach.

j. *Foundations* - An underground concrete base for mounting and supporting an aboveground metal pole, arm and street light fixtures.

k. *Influence Area* – The area around an intersection of two streets defined by the minimum allowable distance from a driveway to the intersection measured from edge of the driveway apron to the centerline of the intersection. Influence Area varies based on classification of both intersecting streets (reference Figure 1).

l. *Intersection* - A point where two or more streets intersect.

m. *Left Turn Bay Storage Length* – the length of the left turn lane used to hold queued left turning vehicles at a median opening or intersection.

n. *Level of Service (LOS)* - is a measure used by traffic engineers to determine the effectiveness of operation of elements of transportation infrastructure ranging from LOS A (highest) to LOS F (lowest).

o. *Local Street* - A minor residential street, not less than 36 feet wide or more than 42 feet, depending on parking requirements which can carry traffic volumes of up to 2500 vehicles per day.

p. *Major Local Street*- A minor street with optional designs that facilitate safe and direct access to properties that have industrial or commercial uses on either or both sides and with access to or connecting collector or arterial streets. Average daily traffic is typically 3000 to 5000 vehicles per day.

q. *Manual on Uniform Traffic Control Devices (MUTCD)* - a document issued by the Federal Highway Administration (FHWA) of the United States Department of Transportation (USDOT) to specify the standards by which traffic signs, road surface markings, and signals are designed, installed, and used

r. *Peak Hour* – the highest consecutive four 15 minute periods where traffic flow is heaviest on a particular road segment or intersection.

s. *Pull Box* - A nonmetallic box of a size specified, installed underground at surface level, and used as a junction point for connecting conduit, and as a pull point for electrical circuits.

t. *Queue* – A line of waiting vehicles.

u. *Right-Of-Way* - The total area of land deeded, reserved by plat, or otherwise acquired by the City, the County, or the State of New Mexico.

v. *Speed Study* - a study to measure, collect, and statistically analyze the speeds of vehicles on a particular street.

w. *Street Light Circuits* - An underground facility consisting of street light foundations, 1-1/2 inch connecting conduit, pull boxes, stub-outs and junction points for electrical service.

x. *Taper Length* – the measured length to transition from a travel lane into an adjacent auxiliary lane, ie left turn bay, deceleration lane, etc.

y. *Traffic Control Device* - A sign, signal, marking, or other device used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, pedestrian facility, or shared-use path by authority of a public agency having jurisdiction

z. *Traffic Count* - a manual or automated count of the number of vehicles traversing a particular street in a given time period.

aa. *Traffic Calming Device* - any modification designed to reduce the speed of traffic on a particular street.

bb. *Traffic Calming Study* - an appraisal of existing traffic conditions and the development of a plan for implementing one or more traffic calming devices in a residential neighborhood.

cc *Utility Easement* - A grant of a strip or area of land by the property owner, or general public, for the specific purpose of locating or maintaining utility systems.

SECTION 32-402 Roadway Classification and Function

This section defines and characterizes City of Las Cruces street facilities, based on the intended function of the roadway. The function of a particular class of roadway is defined in terms of service to through traffic movements versus access to abutting properties. Access point design should be compatible with the function of the roadway since the number, spacing, type and location of access points has a significant effect on capacity, speed and safety. Construction of all access points, regardless of existing curbs or curb cuts, requires a site plan which shall be provided to Community Development and Traffic Engineering for approval **prior** to a building permit being issued by the City of Las Cruces Community Development Department.

The approval of access permits may be granted if both the design and the construction of driveways and median openings are compatible with the intended function of the roadway facility, as defined in this section. Designation of a particular street shall be determined by the classification in accordance with the Metropolitan Planning Organization's Major Thoroughfare Plan.

1. Arterials: The primary function of an arterial is to provide high levels of mobility with limited or restricted access to abutting properties. Because mobility is the primary function of arterials, partial access control is highly desirable. They are usually located one mile apart, designed to limit individual property access, and serve multiple transportation modes.

2. Collectors: Collectors provide access from local streets through neighborhoods to arterials. They are used for short trips within a small geographical area rather than across the region.

3. Local Streets: Local streets by far make up the majority of roadways within the City of Las Cruces. The primary function is to provide neighborhood traffic circulation and property access. There are more miles of local streets in a roadway network, however they carry the least amount of traffic.

SECTION 32-403 Driveway Classifications

Driveway classifications on City streets are as follows:

1. Residential Driveway
   A residential driveway is an entrance to and/or exit from a residential dwelling or dwelling adjacent to a dedicated City street, for the exclusive use and benefit of the residents.

2. Commercial Driveway
   A commercial driveway is an entrance to and/or exit from any commercial/industrial/institutional/office business, or similar type of establishment providing access by employees and/or the public adjacent to a dedicated City street.

SECTION 32-404 Driveway Design Elements

Required design criteria are presented in this section to define access widths, spacing, and offsets.

1. Residential Driveways

   a. Applicable in all residential areas which shall include all dwelling units to include single family homes, and apartments.

   b. Driveway widths shall be measured on the property line.
   c. The minimum width of driveway apron shall be twelve feet (12') and the maximum width shall be twenty-seven feet (27').
   d. A minimum of twenty-two feet (22') of standing curb must remain between any two driveways located on the same lot or single parcel of land.

e. No double or circle driveways shall be installed or maintained, unless the property has a minimum of sixty feet (60') frontage on the affected residential street.

f. Corner property driveway apron shall be no closer than thirty-five feet (35') from the property line at the intersecting local street, fifty feet (50') to the property line along collector streets, and seventy-five (75') to the property line along arterial streets. Under no condition shall driveways encroach on corner curb returns of intersections or within five feet (5') from handicap access ramps.

g. No driveway apron shall be closer than six feet (6') from side property lines, except when serving adjacent properties.

2. Commercial Driveways

a. Applicable to all commercially and industrially zoned properties which shall include commercial businesses, offices, and industrial areas.

b. Driveway widths shall be measured on the property line.

c. The width of two-way driveway aprons shall be based on the classification of roadway which is being accessed.

Street Accessed	Maximum	Minimum
Arterials	40 feet	30 feet
Collectors	40 feet	27 feet
Local Streets	35 feet	27 feet

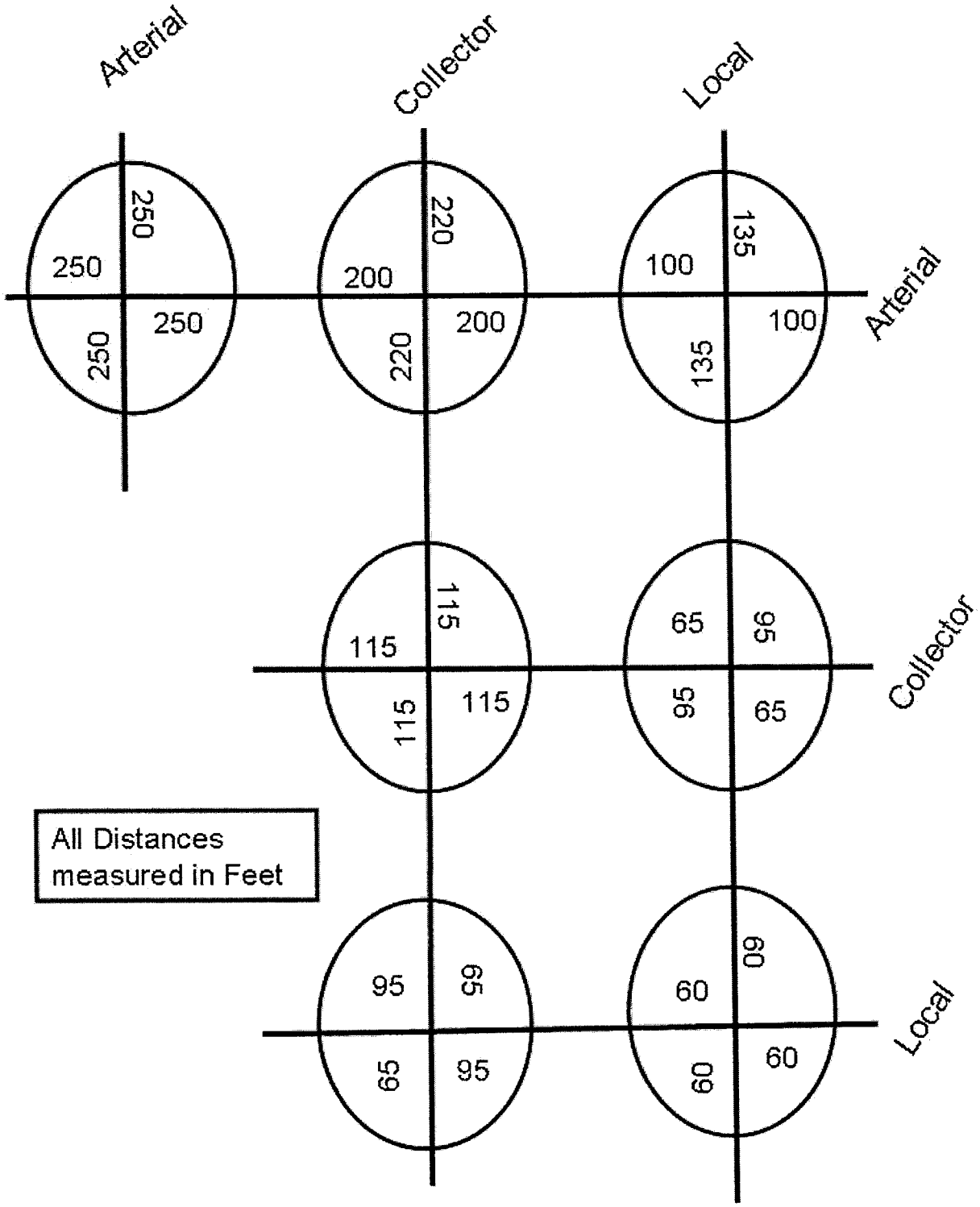
d. A minimum of fifty feet (50') of standing curb must remain between any two two-way driveway aprons located on the same lot or single parcel of land.

e. The width of one-way driveway aprons shall be a minimum of fifteen feet (15') per access lane.

f. A minimum of five feet (5') of standing curb must remain between one-way curb cuts.

g. Driveway distances to adjacent intersections shall meet the minimum requirements, measured in feet, as shown in Figure 1 based on classification of both intersecting streets. The "Influence Area" is the distance measured from the center of the intersection to the edge of the driveway apron closest to that intersection. These should be considered minimum values whereby longer distances may be required if justified by an engineering study and queuing analysis. (Note that if access is along a highway under the authority of the New Mexico State Transportation Department, criteria in accordance with the State Access Management Manual shall apply.)

Figure 1


Arterial
Collector
Local
250
250
250
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220
200
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135
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All Distances measured in Feet
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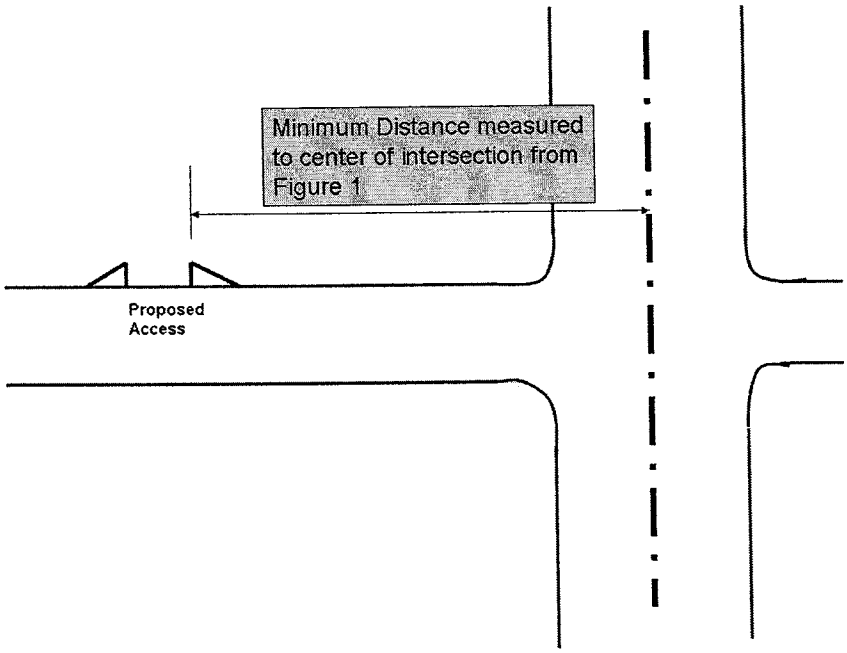
Local



h. No driveway shall be closer than ten feet (10') from side property lines, except when serving adjacent properties.

i. The location of driveways serving adjacent properties will be reviewed to ensure that they do not create conflicting traffic movements or pose sight distance problems for turning traffic. Where feasible, driveways that serve adjacent properties should be combined into one driveway. Developer must show, in plans, all existing or planned driveways on adjacent properties.

j. The access turning radii shall accommodate the turning radius of the largest design vehicle to routinely use the access. Pedestrian safety across the curb cut also needs to be considered for significantly wide access points.

k. A 50-foot minimum turning radius shall be used for an access when combination trucks or single unit vehicles exceeding 30 feet in length are intended to use the access on a daily basis.

l. Construction of all driveways is to comply with City of Las Cruces Design Standards, as amended, City of Las Cruces Standard Specifications for Road Construction, as amended, as well as accessibility standards in place at time of building permit issuance.

3. Construction Costs for Driveways

   The permittee is responsible for all costs associated with placement and/or removal of driveways accessing public right of way. This is to include restoration of existing landscaping, road surfacing, and sidewalk area.

4. Deceleration and Acceleration Lanes

   Warrants for deceleration and acceleration lanes along with the associated design dimensions at driveway locations shall be in conformance with criteria from the New Mexico Department of Transportation's State Access Management Manual, current edition.

SECTION 32-405 Median Openings

The location of openings in a median, to allow left-turn ingress and egress movements at a driveway or local street, will be based on the type and operating speed of the roadway, the volume of traffic expected to make the left-turn movements, and the location relative to other intersecting streets, driveways, and median openings. All requests for median cuts or alterations shall be made at the time of request for a building permit, and shall be included on the construction plans.

1. Median Opening Priority

   All median openings for city street intersections shall take priority over commercial access in determining location of median openings.

2. Traffic Analysis of Median Opening.

   To justify a new median opening, a traffic impact study which defines the ability of the roadway and the driveway to accommodate the opening shall be prepared by a Professional Engineer in the State of New Mexico, retained by the firm or individual requesting the median opening. The analysis shall include, but not be limited to, the following information.

   a. The impact(s) to the operation of adjacent signalized and un-signalized intersections within 500 feet of the proposed opening shall be considered in the analysis.

   b. Adequate sight distance requirements for intersections, based on AASHTO criteria.

   c. Analysis of potential conflicting vehicular movements with recommendations for eliminating those conflicts.

Shared access points for two or more adjacent individual parcels are highly encouraged. Consideration to future development of adjacent parcels must be considered in determining the opening location.

3. Minimum Median Opening Design Standards (Reference Exhibit II)

   a. Minimum Spacing

      A minimum median spacing of 300 feet from adjacent openings shall be required on all collector streets. On arterial streets, spacing shall be as follows.

From Intersection with Arterial or Collector:	500 feet
All Other Openings	300 feet

      This distance shall be measured from face of curb to face to curb. Variance requests to the 500 foot requirement can be submitted to allow openings as close as 300 feet to arterial or collectors, if justified.

   b. Taper Length

      A minimum deceleration taper of 100 feet shall be required on all median openings

   c. Storage Length

      A minimum storage length of 60 feet shall be required on all median openings on City streets, unless the City Traffic Engineer or findings from a prepared Traffic Impact Analysis requires additional storage length.

   d. Commercial Access Requirements

      In order for median openings to be considered for commercial access, the median opening must generate traffic, as demonstrated by a projected trip generation, of not less than 25 left-turn ingress or 25 egress vehicles during the peak hour.

4. Median Opening Approval

   New median openings and associated left-turn storage may be approved by the City Traffic Engineer upon receipt of a traffic impact study justifying the need for the median opening; the meeting of the minimum requirements in Section 32-404 (2); and, a determination that the opening will not otherwise create a safety hazard.

   Widening, relocating, or other alterations proposed to change or modify an existing median opening, for any reason, must be approved by the City Traffic Engineer, and must meet the requirements outlined in this section. All future median installations shall conform to this policy and shall be approved by the Traffic Engineer.

5. Construction Costs for Median Openings

   a. In existing medians, the cost of constructing a new median opening for private access, for any reason, shall be paid by the party requesting the opening.

   b. In existing medians, the cost of widening, relocating or otherwise changing or altering an existing opening, for any reason, shall be paid by the party requesting the alteration.

   c. In existing medians, the cost of constructing a new median opening for access to dedicated public right-of-way, for any reason, shall be paid by the City.

   d. In existing medians, the cost of constructing a new median opening for access to a new subdivision, for any reason, shall be paid by the developer.

6. Landscaping Consideration for Median Openings

   In the event a median opening is approved by the City Traffic Engineer, and the existing median is landscaped, the Traffic Engineer shall notify the following City staff in writing:

   a. City Manager
   b. Public Works Department Director
   c. Transportation Department Director
   d. City of Las Cruces Landscape Architect

   The party requesting the median opening shall provide plans for review showing existing conditions and proposed alterations.

   - Landscape and irrigation plans must be submitted
   - Quantity and quality of plant and other materials must remain essentially unchanged and or improved.
   - Irrigation plan must clearly show existing irrigation components to remain and new irrigation components to be installed. Locations must be accurate.
   - All irrigation piping proposed for installation under hardscape or paving must be placed in PVC sleeves of diameter equal to or in excess of two (2) times the diameter of the enclosed pipe
   - Public Works Director and City of Las Cruces Landscape Architect approvals must be obtained prior to start of demolition or construction.

   The party requesting the median opening shall be responsible for contacting either the City of Las Cruces Parks and Recreation Department, business or individual responsible for maintaining the landscaping on the median, and securing written approval from both the Public Works Director and Director of Parks and Recreation after providing a landscaping plan and a financial guarantee of performance, prior to beginning any construction on the median opening. See Median Requirements within Landscaping section of this Code.

All design and demolition and construction costs are the responsibility of the party requesting the median opening.

7. Appeals

In the event any applicant is aggrieved by the refusal of the Traffic Engineer to grant any permit for a driveway or a median opening or a variance to the clear sight triangle requirements of this Code, or in the event any owner or occupant is aggrieved by receipt of the notice of proposed revocation provided for in Section 32-404 (8), said applicant, owner, or occupant may, within thirty calendar days (30) after denial of said application or receipt of said notice, appeal the decision of the Traffic Engineer to the Transportation Director by filing written notice of appeal with the City Clerk within said time period.

8. Abandoned Driveways and Median Openings

If any vehicular crossing, other sidewalk crossing, or median opening is clearly abandoned as a crossing, or is no longer used for its intended purpose, any permit previously or hereafter granted for said crossing or median opening as such shall be subject to revocation by the City Traffic Engineer, only after thirty calendar days (30) written notice of such proposed revocation has been given to the owner of the property to which the crossing or median opening is appurtenant. The owner's name and address will be determined from the Assessor's Office of Doña Ana County. Written notice also will be given to the occupant of said premises, if any, if such occupant is other than the owner. It shall be sufficient notice under the provisions of this and the following section to mail said notices by certified mail with return receipt requested. In the event the name and address of the owner cannot be reasonably ascertained from the Assessor's Office, and the premises are unoccupied, it shall be sufficient notice to publish said notice in a newspaper of general circulation in the City of Las Cruces, once a week for four (4) consecutive weeks. In the event the owner of the property is aggrieved by the revocation of any driveway or median opening, the owner may appeal as outlined in Section 32-404 (7).

9. Removal and Restoration Requirements

In the event the Traffic Engineer has revoked any permit for a driveway, use of a sidewalk crossing or median opening under the provisions of Section 32-404 (8), above due to changes taking place within said property, crossing or median opening shall be removed at the expense of the owner of the property. The written notice of revocation shall also set forth requirements for the removal and proper restoration of the curb, sidewalk, or median opening. The time allowed for removal and restoration by the owner or occupant shall be thirty days (30) after notice in the cases provided for in Section 32-404 (8); provided, however, that upon resolution duly passed by the City Council of the City of Las Cruces, that a traffic hazard exists at a non-conforming driveway or median opening which causes imminent danger to life and safety of property, then conformance may be required within a lesser period of time as set by the City Council, but in no event

less than thirty days (30). Each day's delay of the owner in complying with such notice, after the expiration of the time specified, shall constitute a separate violation of this Ordinance. If conformance is not attained within the time allotted, the City may make the necessary removal and restoration and the cost thereof shall constitute a lien on said property.

10. Construction Specifications

All construction of driveways or median openings permitted under this Ordinance shall be done in a manner as defined herein, and as per City of Las Cruces Standard Specifications for Road Construction, as amended. All construction of driveways shall be at the expense of the owner of the abutting property, unless such construction is a part of a major City-funded Capital Improvement Project and/or ADA/sidewalk maintenance program. Construction of median openings shall be paid for as set forth in Section 32-404 (5).

SECTION 32-406 Definition of Clear Sight Triangle

The clear sight triangle is an area of unobstructed vision at street intersections, entrances/exists, permitting a vehicle driver to see approaching vehicles to the right or left. At street intersections, nothing over three (3) feet in height measured from the top of curb shall be permitted to obstruct a sight line within the triangle formed by the street intersection, created by the property line of each street, extended to a point, and a line drawn between two (2) points on the property line of each street which form a triangular section. If no curb exists, three foot height requirement shall be measured from finished elevation at edge of paved roadway. Figure 2 shall establish the minimum dimensions (in feet) of the clear sight triangle measured along the right of way line of the respective roadway based on its defined classification.

Figure 2

	Arterial	Collector	Local
Arterial	40 / 40	30 / 40	30 / 50
Collector		40 / 40	30 / 40
Local			30 / 30

These values are considered minimums. Larger clear sight triangle areas may be needed as determined by the City's Traffic Engineer based on horizontal and vertical curvature of roadways in question with appeal to the Development Review Committee allowed.

Any existing trees located within the clear sight triangle will be allowed to remain if all branches are trimmed to a height of eight (8) feet above the point where the pavement meets the edge of the gutter pan on the street immediately adjacent to the tree(s) in question.

No single post or column or combination of obstructions to view within the designated triangle shall exceed twelve (12) inches in thickness at its greatest cross-section dimension.

For all private driveways accessing a public street, a clear sight triangle shall be formed by a line twenty (20) feet on the front street property line and a line ten (10) feet perpendicular to the front street property line on either side of the entrance/exit and a line connecting these points. The 10' x 20' clear sight triangle shall be maintained clear with the same height requirements as stated in this section.

SECTION 32-407 Preparation of Traffic Impact Analyses (TIA's)

1. Warranting criteria to determine the need for a Traffic Impact Analysis

A traffic impact analysis will be required from the developer/sub-divider where 100 or more new inbound and/or outbound trips are generated by the development during an adjacent street's peak hour or at the discretion of the City's Development Review Committee and with input from the Traffic Engineer. Smaller developments may warrant a study if there are issues, as determined by the Traffic Engineer, over traffic safety or the development is located in an already congested (LOS D) area. For the purposes of this plan, the development of 160 Single Family Dwelling Units; 220 Multi-Family Dwelling Units; 10,000 Sq. Ft. (gross) Retail; 60,000 Sq. Ft. (gross) Office; or 135,000 Sq. Ft. (gross) manufacturing or a combination thereof to equal or surpass 100 peak hour trips will require a study. Traffic impact analyses will be overseen by the City Traffic Engineer and have consultation with the Las Cruces Metropolitan Planning Organization. The analysis will consist of the following:

a. *Methodologies* shall be based upon the Highway Capacity Manual and the latest edition of the ITE Trip Generation Manual or more recent trip generation study(s) recognized by the Institute of Transportation Engineers (ITE).

b. *Existing traffic volume* for both site and non-site traffic shall be used in the analysis. Traffic conditions surrounding the development shall be first analyzed for existing AM, Noon, and PM peaks, then existing peak conditions with site traffic.

c. *Future traffic volume* shall be based on a ten-year forecast horizon. Forecasts shall be based upon locally adopted zoning, land use and transportation plans and demographic forecasts. It will consider background growth as well as build out of adjacent sites and/or the general vicinity possibly up to a mile away as determined by the City Traffic Engineer. Future traffic conditions surrounding the development shall be analyzed for AM, Noon, and PM peaks without the site development, in comparison to peak conditions with site development traffic included.

d. *Critical turning movements* shall be analyzed at both on-site and off-site intersections at access points affected by the development.

e. *Level Of Service (LOS)* shall be calculated both with and without the site traffic and with any proposed improvements for the existing and the forecast year.

f. *Improvements* justified through the study shall be identified which will bring the adjacent and/or nearby transportation facilities up to a LOS D for that portion of traffic added to the transportation network as a result of the development. Other traffic demand reduction measures may also be considered.

g. *Financing* methods and financial responsibility for any proposed improvement shall also be identified in the report, such as development fees or special assessment districts requiring on-site or off-site improvements. Additional right-

of-way (ROW) may be dedicated for public use in lieu of improvements if agreed to by the City. Otherwise, all improvements to the transportation network, whether on or off-site, as a result of the proposed development, are the financial responsibility of the person, company, or agency responsible for the development. The City may participate in a pro-rata share to accommodate city-wide growth predicted over a twenty-year horizon.

Traffic impact analyses shall be prepared under the supervision of a qualified and experienced Professional Engineer who has training in traffic engineering. All traffic impact analyses shall be certified and stamped by a New Mexico Registered Professional Engineer.

SECTION 32-408 Modifications to Traffic Signals, Traffic Control Signs, Street Lights and/or Roadways

Any request to relocate an existing City-owned street light, traffic signal or traffic control sign must be approved by the City's Traffic Engineer prior to construction, and will be relocated, upon receipt of permission, at the requesters' expense. All sign work shall be performed by a qualified signs and markings technician holding an International Municipal Signal Association (IMSA) level one or better certification or a pre-approved certification equivalent to IMSA. Signal work shall be performed by a qualified traffic signal technician holding an IMSA level two or better certification or a pre-approved certification equivalent to IMSA. All electrical work shall be performed by a journeyman electrician, licensed in the state of New Mexico, working under a New Mexico licensed electrical contractor. All work shall comply with the City of Las Cruces standards and specifications, National Electrical Code and Manual on Uniform Traffic Control Devices and shall be coordinated with the City of Las Cruces Traffic Engineering section.

1. When new development increases the traffic on an existing signalized or non-signalized intersection, the following actions may be required:
   a. A non-signalized intersection may have to be signalized.
   b. An existing signalized intersection may have to be modified.
   c. A signalized or non-signalized intersection's geometry may have to be modified.
   d. The intersection may have to be reconstructed.

2. The signal maintenance shall be the responsibility of the City of Las Cruces.

3. When traffic volumes increase on an existing roadway due to new development or increased land use density, the following actions may be required:

   a. The roadway may need to be reconstructed.
   b. The roadway may need to be widened.
   c. Additional turn-lanes may need to be constructed.
   d. Additional roadways for ingress/egress may need to be constructed.

4. If a modification to an intersection or roadway is required, the permittee will be required to provide all or a portion of the funding for the improvements. The funding requirements shall be determined by the City's Public Works Director and will generally be a pro-rata share based on additional traffic loading being proposed.

5. Acceptable construction of all roadway or intersection modifications must be constructed before the development's acceptance by the City of Las Cruces.

6. A Traffic Signal Warrant Study per the Manual of Uniform on Traffic Control Devices performed by a New Mexico Registered Professional Engineer shall be required when the Traffic Impact Analysis shows a drop in level of service below "B" on an intersection and/or intersections.

7. The City shall review the Traffic Impact Analysis and the Traffic Signal Warrant Study to determine if a signal and/or modification to the roadway system is required.

SECTION 32-409 Audible Pedestrian Traffic Signals

Audible pedestrian signals are to be installed as part of the traffic signal equipment when one of the following warrants is met:

1. Existing or projected pedestrian volumes crossing at the intersection exceed 20 persons per hour over a minimum of four hours during a typical day.

2. A facility which serves the visually challenged community is within 200 feet of the intersection in question.

3. Geometry at the intersection makes pedestrian crossing maneuvers difficult (i.e. skewed intersections, exceptionally wide roadways greater than 100 feet, etc.).

SECTION 32-410 Street Lighting Procedures

The purpose of this section is to establish uniform guidelines and rules for street lighting based on the need to provide for and to improve public safety on all streets open to traffic in the City of Las Cruces.

1. General

   Street lighting can provide safety, security, and convenience. However, street lights are expensive to install and maintain and use significant amounts of energy. Energy savings cannot be justified when the trade-off impacts reduced pedestrian or vehicle safety. Convenience, as the sole justification for lighting, may have to be sacrificed to energy conservation, especially in low density settings. To conserve energy, street and multi-use path lighting should be selected to have a high illuminating efficiency, and to provide no more illumination than necessary.

The guidelines for street lighting designs, area lighting for recreational facilities, and area with high density nighttime activities shall be based on the minimum surface lighting requirements, as recommended by the Illuminating Engineering Society and International Commission on Illumination.

Any request to relocate an existing City-owned street light must be pre-approved by the City's Traffic Engineer prior to construction, and will be relocated at the requesters' expense. All electrical work shall be performed by a journeyman electrician licensed in the state of New Mexico working under a New Mexico licensed electrical contractor. All work shall comply with the City of Las Cruces standards, NEC and MUTCD, and shall be coordinated with the City of Las Cruces Traffic Engineering section.

2. General Guidelines

   a. Street lighting and multi-use path lighting should be located and mounted to prevent light shining upon residential windows, or into the eyes of drivers, pedestrians, and bicyclists.
   b. Street lighting fixtures shall be designed and installed to comply with the City of Las Cruces Lighting Ordinance.

3. Authority

   All lighting designs, pole designs, luminaire designs, and location of poles for all street lighting shall be considered for approval by the City of Las Cruces Traffic Engineer.

4. Underground Light Circuits for Subdivisions

   a. In existing subdivisions where all utilities are presently placed underground, and no street lights exist, the City of Las Cruces is responsible for installation of underground street light circuits.

   b. In new subdivisions, all street lighting shall be installed by the developer concurrently with other associated infrastructure improvements.

   c. In subdivisions where utilities exist overhead and the property owners choose to place these overhead utilities underground, the property owners will be responsible for underground street light circuit installation.

   d. In new subdivisions under development within the City of Las Cruces, all street light circuits are to be placed underground.

All new street lights and associated components shall meet City of Las Cruces lighting specifications.

Any existing street lighting systems annexed into the City of Las Cruces shall be subject to review for compliance with applicable electrical standards. Failure to meet the requirements of those standards could result in possible condemnation; and lighting which does not meet the standards may be scheduled to be replaced with City of Las Cruces standard street lights as funds become available.

5. Warrants for Street Lights

   a. *Limited Access Facilities*

      a. The City of Las Cruces shall be responsible for lighting major streets going over or under a freeway that has been approved by the City of Las Cruces. The City of Las Cruces shall pay the monthly power bill for these lights.

      b. The City of Las Cruces is not responsible for necessary lighting of structures or interchanges intersecting with local streets.

      c. The City of Las Cruces may install street lights at the intersection of local streets with frontage roads. The freeway frontage road is deemed to terminate at its approach to an off-ramp and begin at its connection to an on-ramp.

   b. *Arterial Streets*

      i. Street lighting may be installed along arterial streets when traffic volumes, nighttime crashes, nighttime pedestrian use, and/or roadway hazards show a need for improved lighting.

      ii. Minimum warrant considerations for arterial streets would be an average daily traffic in excess of 10,000 vehicles, and an 85th percentile speed of 40 miles per hour, or greater based on an engineering study.

   c. *Collector Streets*

      i. Street lighting may be installed along collector streets when traffic volumes, nighttime crashes, nighttime pedestrian use, and/or roadway hazards show a need for improved lighting.

      ii. Minimum warrant considerations for collector streets would be an average daily traffic in excess of 5,000 vehicles, and an 85th percentile speed of 35 miles per hour, or greater based on an engineering study.

6. Mid-Block Street Lighting

   a. Mid-block street lighting may be installed bordering schools, parks, large community centers, churches, housing projects and other civic facilities where a study demonstrates a need and the location satisfies the requirements of this section.

   b. Residential mid-block lighting may be installed upon petition of owners of property adjacent to the proposed site for a distance of approximately 250 feet each side of the proposed light.

   c. Residential mid-block lighting shall be spaced at an average distance of 400 feet apart, but not less than 250 feet, to provide an acceptable light level as defined by the Illuminating Engineering Society.

   d. In new subdivisions, all mid-block lighting shall be installed concurrently by the developer with other improvements.

7. Street Lighting Spacing

   a. Local Streets: Lighting will be on one side only. Average spacing will be generally 250-400 ft. using high pressure sodium lighting, light emitting diodes (LEDs) or other preapproved lamp type.

   b. Collector: Lighting will be installed on both sides preferably using staggered spacing (spacing which alternates spacing pattern relative to each side of the street). Spacing will be 250-300 ft. using high pressure sodium lighting. If another lamp type is proposed, i.e. light emitting diodes (LEDs), metal halide, etc., a lighting design showing IES accepted average illumination levels must be provided.

   c. Arterial: Lighting will be installed on both sides using staggered spacing. Spacing on each side will be 250-300 ft. using high pressure sodium lighting. If another lamp type is proposed, i.e. light emitting diodes (LEDs), metal halide, etc., a lighting design showing IES accepted average illumination levels must be provided.

8. Street Lighting Location

   a. *Improved Streets*: Consideration must be given to the effect pole placements have on abutting properties. In view of this, the City will make a reasonable concession in a lighting pattern, to avoid placing a pole at a point where it would have a detrimental effect on the abutting property. The City's intent is to focus such concessions primarily on residential properties. In most cases, the pole

should be located adjacent to the property line but more importantly lateral placement should conform to the specifications of both street light pole and light head design.

Once the permit to use the right-of-way is issued, adherence to approved pole locations is expected. Exceptions are hereby granted for longitudinal shifts up to +/- ten (10) feet, measured parallel to the roadway, where unforeseen underground obstructions are encountered at the time of construction, providing such a shift does not interfere with driveways.

Street lighting may be installed on a cul-de-sac street/local street intersection if the center of the radius of cul-de-sac to centerline of intersecting local street is greater than 300 feet. When this condition is met, the street light is considered as an intersection light. If the distance described above is less than 300 feet, the intersection of the cul-de-sac with the local street shall be considered a mid-block location for street lighting purposes. The placement of a street light at the end of the cul-de-sac shall be treated as a mid-block light.

Street light placement shall not interfere with pedestrian use of the ADA ramps, sidewalks, driveways, multi-use paths, or utility infrastructure. A thirty six (36) inch minimum width must be maintained free and clear of all obstructions on all sidewalks.

b. *New Street Construction*: Two sets of drawings of proposed street construction shall be furnished to the City Public Works Department through the building permit application process for the purpose of locating street lights. One set of drawings, showing street light locations and power sources, shall be submitted to El Paso Electric Company by subdivision developer, along with installation information and instructions. El Paso Electric Company will provide the City with one set of drawings showing the proposed construction. All efforts will be made to avoid conflicts and duplications, and to coordinate construction efforts.

   Preliminary plans for local and collector streets will show an accurate survey tie to all poles (i.e. stationing and offsets) and plans for new construction should show utility easements.

   All plans will be reviewed by the City for proposed paving width and alignment, prior to submittal to the individual utility companies..

c. *Company-Initiated Construction*: If a utility company wants to make a change in a pole location, reference should be made to station numbers on the project plans. All poles, both existing and proposed, shall be shown on plans. Existing poles which are to remain shall be noted. Standard utility symbols shall be applied to denote poles existing, proposed, or to be removed.

9. Street Light Location at Intersections

a. The most important aspect of one-side lighting design is to light the intersections with the desired pole location behind the sidewalk at the center of curve at the corner radius. In an effort to achieve reasonable uniformity, deviations away from the center of curve may be permitted up to fifteen (15) feet. This applies to intersections on major streets and minor locals.

b. All intersections within the City with curb, gutter and paved street may be lighted, when warranted.

10. Street Light Replacement and Relocation

The following policy is to establish uniform guidelines, and is not intended to supersede or conflict with any provisions of the existing franchise agreement between the El Paso Electric Company and the City of Las Cruces, New Mexico, Dona Ana County.

Arterial or Collector Streets:

a. Poles will be relocated to the standard utility location behind proposed or existing sidewalk, where normal right-of-way exists. Desired exception to standard location is to be requested on a case by case basis..

b. Where a pole line has been established behind the curb face, and it is necessary for one or two poles be relocated, the City will not require these poles to be placed behind the sidewalk area if ADA requirements can be accommodated or maintained.

c. When transmission or distribution facilities are installed on major or collector streets, consideration should be given to spacing the poles to accommodate future street lights. Poles located at intersections should be located so as to allow for future street lights. Poles located at intersections should be located so as to allow for future traffic control devices. Along collector and residential streets where residences or building fronts do not face the street and where poles for new or reconstructed transmission or major distribution lines can be spaced from alley to alley or rear property (future or existing), intersection street lights may be located or relocated at an intersection corner on the opposite side of the street from the distribution line, in order to improve the entire appearance of the residential area.

11. Street Light Procedures for New Subdivisions

Preliminary Review

The developer, or a representative, shall submit to the Transportation Department, Streets and Traffic Operations Section a master utility plan of a proposed subdivision, showing the electrical utility location runs and service points, either underground or above ground. Also, the master utility plan shall contain location of all utility lines

(gas, water, sewer, fire hydrants, street lighting etc.). Also, show location, botanical and common name, and mature size of trees and shrubs in the parkways and medians to be retained as part of the final parkway and median landscape plan. The Transportation Department will review the plan for street light locations, and connecting conduit runs to electrical service points. The plan shall be returned to the developer with any comments, for review by the developer's registered New Mexico Professional Engineer. Upon satisfactory acceptance of the changes by City staff, said changes then shall be incorporated into the construction plans.

Developer Responsibility

If the developer, upon approval of the subdivision plat, elects to indemnify the improvements, he shall include the street lighting in the indemnity agreement. If the developer elects to proceed with the installation of the improvements without an indemnity agreement, the City shall hold the subdivision plat. In either case, the building permit will be issued based on the approved plans, and the developer's portion of the street lighting will be inspected as part of the roadway improvements.

The developer shall be required to construct the entire street light system within the local street system as well as on arterials and collectors associated with the development of the subdivision, complete in place. Costs associated with installing light standards/luminares, wiring, and service meters associated with lighting on designated collectors or arterials as part of the new development will be shared equally between developer and the City of Las Cruces. This includes, but is not limited to, all underground connecting conduits, wires, concrete foundations, poles, luminaries, fuses, fuse holders, ground rods, pull boxes, electrical service, and controls. All street lights and associated components shall comply with the City of Las Cruces Traffic Standards and applicable Electrical Codes. All electrical work shall be performed by a journeyman electrician licensed in the state of New Mexico working under a New Mexico licensed electrical contractor. Energizing flat-rated street lighting systems will be the responsibility of the City of Las Cruces as demand warrants based primarily on number of occupied homes within the subdivision.

City of Las Cruces Transportation/Street and Traffic Operations' Responsibility

Upon request from the developer, the City Traffic Engineer shall provide the bolt circle template for street light foundations, as shown on the approved construction drawings.

Contractor/Developer Information Contact

For information concerning the below items, Contractor is to contact the subdivision's designated Public Works Project Manager who will in turn consult with Transportation Department/Streets/Traffic Operations personnel, as needed.

a. Information concerning design specifications.

b. Any conflict of street light locations, requiring relocation as a solution.

c. Any changes or rerouting of conduit runs.

d. Request for additional street lights, within the scope of the City of Las Cruces Outdoor Lighting Ordinance.

e. Request to omit a street light, as shown on the plans.

f. All other items concerning street lights which are not shown above.

12. Joint Use of Underground Trench

Joint use of a trench for the installation of electrical service by El Paso Electric Company, or for street light circuits, is acceptable when approved by the City Public Works Department, Transportation Department, and El Paso Electric Company.

SECTION 32-411 Placement of Traffic Control Devices

The most current edition of the Manual on Uniform Traffic Control Devices (MUTCD) shall govern the use and placement of traffic control devices, whether temporary or permanent, within public right of way.

All traffic control devices shall be installed complete and in place before any street or road is opened to public access. All traffic control devices shall be installed by a qualified signs and markings technician holding an IMSA Sign Level I or better certification (or a pre-approved certification equivalent to IMSA).

An approved traffic control plan for establishing temporary traffic control is required for any agency or qualified persons working within or next to any driving lane, sidewalk, multi-use path or at any other place that would impede the movement of other pedestrians or vehicles within the City of Las Cruces public right-of-way. This includes but not limited to any work that requires the use of any kind of traffic control devices such as cones, barrels, channeling devices, barricades etc. being placed within the public right-of-way.

All temporary traffic control devices shall be furnished erected and maintained by the contractor or qualified responsible party. All traffic control devices shall only be erected and maintained by a qualified person certified in Work Zone Safety (or a pre-approved certification equivalent to IMSA.)

A traffic control plan shall be submitted to the City of Las Cruces Public Works Department through the formal plan review process prior to placement on any street under City of Las Cruces jurisdiction. All plans shall comply with the most current edition of the MUTCD indicating dates, times and duration of work, traffic devices to be used, placement of devices, and the order that devices are to be placed and removed. An approved traffic control plan is

required before any part of the public right-of-way is blocked or any traffic control device is placed within the public right-of-way (this includes all traffic, vehicular, pedestrian, bikes etc.) The approved traffic control plan must remain on site or be immediately available and presented to City of Las Cruces Public Works inspection staff, Risk Management staff, or Codes Enforcement for review to insure the work zone is set up per plan. An emergency contact number for the contractor must also be provided. Failure to comply with this requirement may result in work stoppage, removal of traffic devices at the violators' expense, and citations per applicable city municipal code.

Any request to install or relocate an existing city traffic control device must be pre-approved by the City Streets and Traffic Operations section prior to construction and will be at the requesters' expense. All Sign work shall be performed by a qualified signs and markings technician holding an IMSA Level I certification or better (or a pre-approved certification equivalent to IMSA).

1. Temporary traffic control devices: All traffic control plans for placement of temporary traffic control devices within city right of way are required to be submitted to the Public Works Department and Transportation Department for approval. Traffic control plans shall include, but not be limited to, the following information.

    a. Spacing of appropriate signage shown in feet.

    b. Calculation of taper lengths per the MUTCD.

    c. Sign code references per the MUTCD.

    d. Phasing of traffic control placement, as necessary.

    e. Dates and times of day for short duration lane closures of ten working days or less.

    Contractor is required to adhere to the approved traffic control plan regarding setup and duration of lane closure(s).

2. Permanent traffic control devices: In private developments, placement of all new signing and/or markings shall be the responsibility of the developer or owner. Placement shall be in accordance with the submitted sign plan as approved by the City's Traffic Engineer.

SECTION 32-412 Variance Process

Formal variances requested to this Article must be submitted through the City of Las Cruces' Traffic Engineer for approval by the City of Las Cruces' Transportation Director. Upon receipt of the request, the Traffic Engineer will conduct a site visit which may also include a complete study of traffic volumes, pedestrian volumes, and traffic impacts on

existing facilities. If the request does not create a traffic safety problem in the judgment of the Traffic Engineer, a variance may be granted.

SECTION 32-413 City of Las Cruces Traffic Calming Policy and Devices

Purpose

This policy provides a procedure to evaluate and implement requests for traffic calming measures on residential streets in the City of Las Cruces

Terminology

a. *Speed Study* - a study to measure, collect, and statistically analyze the speeds of vehicles on a particular street.

b. *Traffic Calming Device* - any modification designed to reduce the speed of traffic on a particular street.

c. *Traffic Calming Study* - an appraisal of existing traffic conditions and the development of a plan for implementing one or more traffic calming devices in a residential neighborhood.

d. *Traffic Count* - a manual or automated count of the number of vehicles traversing a particular street in a given time period.

Warranting Criteria for Placing Traffic Calming Devices

a. Street type - limited to residential streets classified as collector or local.

b. Speed limit - the posted speed limit may not be more than thirty (30) miles per hour.

c. Lanes of traffic - limited to streets having only one lane of moving traffic in each direction.

d. Traffic volumes- 3000 vehicles per day is the maximum volume for consideration of traffic calming devices.

Initiation of Study

a. Petition - A study may be initiated upon receipt of a petition signed by property owners of at least seventy-five (75%) percent of the residents fronting on the street where the Traffic Calming Study is requested. A block shall consist of

every developed property having frontage on the street to be studied between successive intersecting streets.

b. City Council Recommendation - A Traffic Calming Study may be initiated at the direction of the City Council.

c. Recommendation of the Traffic Engineer - A study can be initiated if determined warranted by the City's Traffic Engineer.

Data Collection and Coordination with Neighborhood

Data Collection Phase – The following data and information shall be collected by the City staff:

a. Street classification.

b. Traffic volumes (average weekday for each street).

c. Traffic speeds (average weekday for each street)

d. Posted Speed Limits (for each street).

e. Physical data (for each street including the number of lanes, width, grade, and alignment).

f. Crash data reports (for each street being studied).

g. Community facilities and schools.

h. Emergency vehicle routes.

i. Transit bus routes.

j. Through truck routes.

Neighborhood Meeting – Upon completion of the data collection, a Neighborhood Meeting may be conducted. The meeting shall include an overview of traffic calming, what it is intended to do, what criteria are used in selecting traffic calming devices and their location(s) and an opportunity for residents to provide comments and questions.

Establishing Location Priorities and Design Criteria

a. Priority Criteria – the following criteria shall be used in establishing priorities for installing traffic calming devices in a residential neighborhood:

Priority will be given to streets demonstrating high traffic volumes.

Traffic speed - priority shall be given to streets where the speed limit is exceeded by the highest recorded vehicle speed and by the most number of vehicles exceeding the posted speed.

Capital Projects - Streets with planned capital projects scheduled within two years shall have the Traffic Calming Device installed in conjunction with this project. Streets with planned capital projects scheduled in excess of two years may have the Traffic Calming Device installed prior to the commencement of the project.

The following roadway characteristics will also be considered:

Emergency vehicle access.
Roadway grades
Sight distance.
School and/or community facility access and/or truck.
Bus routes.
Pedestrian and/or bicycle safety.
Drainage.

b. Traffic Safety - The traffic volume and speed criteria may be modified if a crash problem exists and such crash problem would be corrected by placement of the Traffic Calming Device.

c. Design Criteria - The latest edition of the City of Las Cruces Road Design Standards shall be used, where applicable.

d. Approved Traffic Calming Devices – The City shall develop and maintain a list and description of approved Traffic Calming Devices for use within the City. Such a list shall be an appendix to this policy and be amended from time to time as various devices are introduced or tested within the City.

Project Implementation

a. Scheduling - A Traffic Calming Plan shall be scheduled for project implementation upon identification of the funding source.

b. Project Completion – Completion of the project shall be subject to work crew schedules, availability of funding, and scheduling of road construction projects.

Installation of Traffic Calming Devices (TCD)

At a minimum, the following items should be reviewed prior to construction for each TCD installation:

a. Geometric

   i. Alignment
   ii. Turning radius
   iii. Horizontal and vertical curves
   iv. Super-elevation
   v. Major geometric features, such as sidewalks, curbs, etc.
   vi. Roadway width
   vii. Sight distances

b. Safety

   i. Channelization
   ii. Illumination
   iii. Signing
   iv. Safety Zone (clearance of obstructions from traveled roadway)
   v. Crosswalk locations

c. Utilities

   i. Water, wastewater, and gas
   ii. Franchise utilities (such as telephone, etc.)
   iii. Storm drainage
   iv. Location of fire hydrants

d. Design Vehicles

   i. Local emergency vehicle characteristics
   ii. Minimum design vehicle (bus, single-unit truck or passenger car)
   iii. Public transit and school bus stops and routes
   iv. Bicycles and wheelchairs

e. Other

   i. Landscaping
   ii. Pedestrians and bicycles
   iii. Handicapped access
   iv. Parking
   v. Mail delivery routes
   vi. Emergency access

Project Evaluation-Modification, Removal

Evaluation - The Traffic Engineering Staff shall evaluate the traffic calming project from a safety standpoint within a one-year period after installation. The evaluation will include, at a minimum, a review of traffic volumes, speeds and crashes.

Modification or Removal - If, upon evaluation by City Staff, it is deemed that a hazardous situation or condition is created by the traffic calming project, such situation or condition shall be immediately corrected through modification or removal of the Traffic Calming Device(s). Residents of the affected area may, upon submission of a petition signed by property owners of seventy-five (75%) percent of the households facing on the block of the street on which the traffic calming project is located, request removal or modification of a Traffic Calming Device or Devices.

Appendix A: City of Las Cruces' Approved Traffic Calming Devices

STREET TREES

May be included as part of choker, traffic circle, crosswalk refuge, chicane to give a visual perception of a narrower roadway. An irrigation system would also have to designed.

YARD SIGN PROGRAM

a. Definition

Motorist awareness program whereby Yard signs are erected by residents and displayed with message ("RESPECT OUR NEIGHBORHOODS AND PLEASE DRIVE 25!") for other residents and drivers.

b. Placement

Yard signs should only be placed on your private property. Place yard signs at least 10' from the edge of street, out or the public right-of-way. Yard signs are not to be nailed, stapled, taped, or fastened in any form to any street sign pole or utility device, city or private. Provided free of charge to any resident living within city limits, by the Transportation Department.

c. Advantages

Demonstrates concern by area residents for speeding vehicles in their neighborhood.

The more signs that are displayed, the more effect they have in reducing speeds.

Helps to more effectively address localized speeding problems.

d. Disadvantages

Short term solution.

RADAR DOLLY PROGRAM

a. Definition

Radar Dolly is a variable speed messaging unit that detects and displays the speed at which the driver is traveling. Unit is posted at 25MPH.

b. Placement

Radar dolly shall be placed on a resident's property and is secured to a permanent structure. Unit is signed out to resident for use for up to three business days.

c. Advantages

Make drivers better aware of their driving speed while in the neighborhood area.

Demonstrates concern by area residents for speeding vehicles in their neighborhood.

d. Disadvantages

Short term solution to address speeding.

CHOKER

a. Definition

A physical constriction built at the curbside of the roadway effectively reducing the width of the travel lane.

b. Placement

Normal turning radii should be accommodated. Visibility should be a key design consideration with features such as advance warning signs, reflective channelization, reflectors on curbs and elevated landscape elements.

c. Advantages

Effective lane narrowing results in lower speeds, provides parking protection, and shortens pedestrian crossing distance.
With landscape enhancements, improves aesthetic value of intersection.

d. Disadvantages

Potential drainage problems; increases maintenance costs.

RAISED CROSSWALK

a. Definition

A raised hump (a pavement undulation) in the roadway with an 8'-10' wide flat top, extending across the road perpendicular to the direction of traffic flow. The top is typically striped with MUTCD-compliant crosswalk markings.

b. Placement

Where significant number of pedestrians (10-20 per hour in a minimum four hour period of a typical day) cross the roadway with 85th percentile speeds greater than 30 MPH, speed hump placing considerations apply.

c. Advantages

Effectively reduces speeds, provides improved visibility for crossing pedestrians.

d. Disadvantages

Slows emergency vehicles and buses; increases noise and maintenance cost.

TRAFFIC CIRCLE

a. Definition

A circular intersection which provides counter-clockwise, one way operations by placing an elevated area in the middle of the intersection. Approaching vehicles yield to traffic already in the circle.

b. Placement

Street grades approaching the intersection should not exceed ten percent.

c. Advantages

Effectively reduces speeds, fewer left-turn crashes, can be visually attractive.
With landscape enhancements, improves aesthetic value of intersection.

d. Disadvantages

Placement of circle may require parking removal.

CROSSWALK REFUGE

a. Definition

A physical constriction (a median) built in the middle of the roadway with a cut provided for the crosswalk.

b. Placement

Where significant number of pedestrians (minimum of 10-20 pedestrians per hour for a minimum four hours of a typical day) cross the roadway. Special consideration can be given to designated school walking routes.

c. Advantages

Provides refuge for pedestrians when crossing the roadway; effective lane narrowing results in lower speeds. May allow space for landscape enhancements with increased aesthetic value of the crossing point.

d. Disadvantages

Increases maintenance cost.

CHICANE

a. Definition

Physical constrictions (three/set) built at the curbside of the roadway to create a 45-degree bend in a formerly straight street. This forces cars to negotiate the narrowed street in a snake-like fashion. The 45-degree bend can also be achieved by alternating parking from one side of the street to the other.

b. Placement

Normal turning radii should be accommodated. Chicane sets are to be placed 400-600 feet apart. Visibility should be a key design consideration with features such as advance warning signs, reflective channelization, curb-mounted reflectors, and elevated landscape.

c. Advantages

The snake-like alignment and the lane narrowing result in lower speeds provide parking protection, shorten pedestrian crossing distance.
With landscape enhancements, improves aesthetic value of street.

d. Disadvantages

May contribute to head-on collisions, potential drainage problems and higher maintenance costs.

DIVERTER

a. Definition

Physical barrier constructed to completely restrict passage of traffic and/or disallow certain movements through an intersection.

b. Advantages

Effective control in reducing traffic volumes.

c. Disadvantages

Placement of diverters can have an adverse impacts to local traffic.

STREET TREES

Street trees planted along both sides of the street ROW can make the street appear narrower than it is and can result in traffic calming. Landscaping and street trees have been shown to reduce traffic speeds by creating a more pedestrian friendly and enclosed environment. Vertical elements such as street trees serve to alert vehicles to the presence of pedestrians, and cause them to reduce their speeds. Street trees and a landscaping strip are often used in conjunction with other traffic calming techniques such as traffic diverters and chicanes.

City of Las Cruces®
PEOPLE HELPING PEOPLE

Summary of Major Revisions to, Article VI, Traffic Standards
Chapter 32, City of Las Cruces Municipal Code

Section 32-401	**Definitions section added at the beginning of the article.**
Section 32-404.2(g)	**Driveway distance criteria modified using the concept of "Influence Area"**
Section 32-404.4	**Reference to NMDOT Access Management Manual for warrant of acceleration/deceleration lanes added.**
Section 32-406	**Clear Sight Triangle criteria simplified from current code.**
Section 32-410.11	**Section revised to now require Developer's to install all Nstreet lighting associated with their respective development on the local street system. Lighting systems on major roadways will be installed by Developer but City will continue to cost share on a 50%-50% basis.**
Section 32-411	**Added text to include additional requirements for traffic control plans submitted to the City of Las Cruces for approval. IMSA certification required for person responsible for erecting and maintaining field signs.**