CITY OF EL PASO, TEXAS
AGENDA ITEM DEPARTMENT HEAD'S SUMMARY FORM

DEPARTMENT: **Engineering Department**

AGENDA DATE: **November 4, 2008**

CONTACT PERSON/PHONE: **Alan Shubert, City Engineer / 541-4423**

DISTRICT(S) AFFECTED: **District 5**

SUBJECT:

Discussion and Action on Tierra Commercial Unit 5 Subdivision Plat proportionality appeal submitted by River Oaks Properties, Ltd and Ranchos Real XII, Ltd under Section 19.46 of the City Code.

BACKGROUND / DISCUSSION:

Section 19.46 of the El Paso City Code allows a property owner to appeal when a construction requirement has been applied to a development and the property owner believes that the requirement is not roughly proportionate to the development. The purpose of a proportionality appeal is to assure that there is not a disproportionate burden placed on a property owner to construct public improvements that are not roughly proportionate to the property owner's development. An appeal under this section may be submitted by a property owner or applicant to contest any requirement to construct public improvements that is imposed on a development. This appeal is to contest the requirement to construct a traffic light signal at the intersection of Pebble Hills and Zaragoza. Section 19.46 requires the developer to submit a study in support of the appeal. The study submitted by the developer does not comply with the Code requirements. Staff recommendation is to deny the appeal because the improvements required by the City Plan Commission are roughly proportionate to the development.

CITY CLERK DEPT.
08 OCT 30 AM 9:38

PRIOR COUNCIL ACTION:
N/A

AMOUNT AND SOURCE OF FUNDING:
N/A

BOARD / COMMISSION ACTION:
N/A

**********REQUIRED AUTHORIZATION**********

LEGAL: (if required) N/A

FINANCE: (if required) N/A

DEPARTMENT HEAD: _____ **DATE:** 10-30-08

APPROVED FOR AGENDA:

CITY MANAGER: _____ **DATE:** _____

Gordon Mott & Davis P.C.

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September 9, 2008

Via Hand Delivery
& Certified Mail

City Engineer Subdivision
Improvement Plan Engineer
City of El Paso, Texas
Two Civic Center Plaza
El Paso, Texas 79901

Ms. Richarda D. Momsen
Municipal/City Clerk
City of El Paso
Two Civic Center Plaza
El Paso, Texas 79901

Ms. Joyce Wilson, City Manager
City of El Paso
Two Civic Center Plaza
El Paso, Texas 79901

Ms. Guadalupe Cuellar, Assistant City Attorney
Office of the City Attorney
City of El Paso, Texas
Two Civic Center Plaza
El Paso, Texas 79901

Re: Tierra Commercial Unit 5 Subdivision Plat ("Property") – Proportionality Appeal

Dear Sir and Mesdames:

Enclosed please find an appeal submitted on behalf of River Oaks Properties, Ltd. and Ranchos Real XII, Ltd. submitted under Section 19.46 of the City Code. The City's Development Services is in possession of a traffic impact study prepared by Conde Inc. dated March 26, 2008 and revised June 11, 2008 ("TIA") which confirms that the conditions placed on the Property are disproportionate to the development's impact to the area. This TIA satisfies the requirements for a study under City Code Section 19.46.3. A duplicate copy of the TIA is attached for your reference.

NLLF
NETWORK OF LEADING LAW FIRMS
LAWYERS ASSOCIATED WORLDWIDE

We respectfully request that the appeal be submitted to the City Council as soon as possible. Thank you for your attention to this matter.

Sincerely,

GORDON MOTT & DAVIS P.C.

By: /Harrel L. Davis/
Harrel L. Davis

Enclosures

cc: River Oaks Properties, Ltd.
Ranchos Real XII, Ltd.

PROPORTIONALITY APPEAL
SECTION 19.46 MUNICIPAL CODE
CITY OF EL PASO, TEXAS

Basis for Appeal:	The illegal exaction for off site subdivision improvements for Tierra Commercial Unit 5, City of El Paso
Case No:	SUB08-00117
Owner/Appellants:	River Oaks Properties, Ltd. 106 Mesa Park Drive El Paso, Texas 79912 Ranchos Real XII, Ltd. 1790 N. Lee Trevino Dr., Suite 601 El Paso, Texas 79936
Property:	Being a portion of Tracts 4,5, and 7, Section 38 and a portion of Tract 2, Section 39, Township 2, Texas and Pacific Railway Company Surveys, City of El Paso, El Paso County, Texas, referred to as Tierra Commercial Unit 5
Representative District:	5
Acreage:	67.870 ("Proposed Development")
Present Zoning:	C-4 & C-2
Present Land Use:	Vacant
Appellants Representative:	Harrel L. Davis III Gordon, Mott & Davis P.C. 4695 N. Mesa Street, Suite 100 El Paso, Texas 79912

Appellants hereby appeal the conditions placed on Subdivision Case No. SUB08-00117 for Tierra Commercial Unit Five ("Subdivision") by the City of El Paso City Plan Commission ("CPC") on August 28, 2008. The CPC voted to approve the Subdivision with the condition that "intersections at Zaragoza & Pebble Hills and Zaragoza & Rich

Beem Boulevard shall be improved to City's standards with signalization and turning lanes" ("Approval Condition"). The Approval Condition is not proportional to the nature and extent of the impacts created by the Proposed Development on the City's roadway system. Further, the CPC and City staff violated the requirements of Section 212.904 of the Local Government Code and Section 19.10 of the City of El Paso Municipal Code ("Code") related to the Approval Condition requirement by failing to satisfy the proportionality requirements.

STATUTORY JURISDICTION

City Council is empowered to hear and decide this proportionality appeal under section 19.46.4 of the Code and Section 212.904 of the Local Government Code.

STATUTORY STANDING

Appellants standing is conferred pursuant to Tex. Local Government Code Ann. Sec 212.904(a) and Section 19.46.3 of the Code. Appellants are the property owners and developers of the Property.

ARGUMENT

On August 14, 2008, City Plan Commission considered the approval of the City Plan Commission Application Major Subdivision Combination Approval dated July 10, 2008. At this meeting, Appellants representative objected to the Approval Condition based on the City's failure to demonstrate evidence that the Approval Condition was

proportional to the Proposed Development's impact on the City's infrastructure. Appellants' position is supported by the traffic impact study prepared by Conde Engineering, Inc. dated March 26, 2008, revised June 11, 2008 which concludes that the Proposed Development of the Property does not warrant the required Approval Condition. The matter was postponed for reconsideration by the City's Development Coordinating Committee ("DCC"). At DCC, the City staff stated that the Proposed Development's impact did not warrant the Approval Condition. On August 28, 2008, contrary to the statements made at the prior DCC, the staff stated on the record that the Proposed Development did in fact warrant the Approval Condition; however, a professional engineer's opinion was not presented to support that conclusion as required by state law. Further, the City failed to obtain a Facilities Impact Study as required under by the Code. Therefore, the Approval Condition is invalid and should be waived.

CONCLUSION

The Approval Condition is not proportional to the impact created by the Proposed Development. The CPC and City staff violated the requirements of Section 212.904 of the Local Government Code and Section 19.10 of the Code in requiring the Approval Condition by failing to satisfy the proportionality requirements. As such, the Approval Condition is invalid and must be waived.

DATED this 9th day of September 2008.

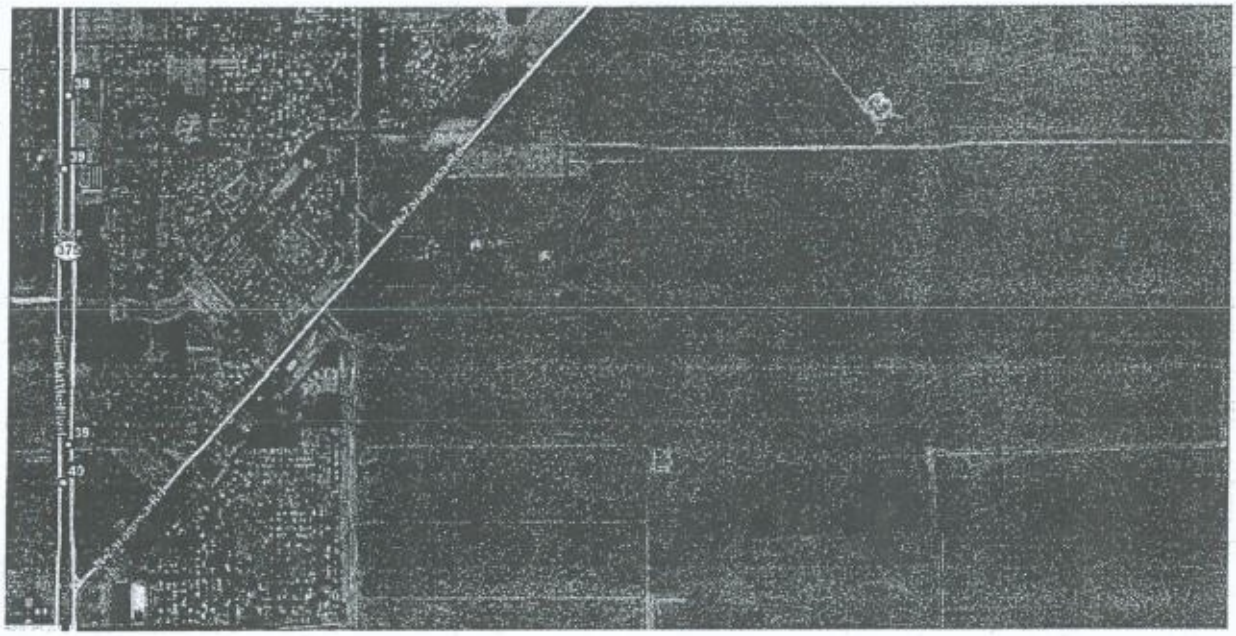
Respectfully submitted,

GORDON MOTT & DAVIS P.C.
4695 N. Mesa Street, Suite 100
El Paso, Texas 79912
(915) 545-1133
(915) 545-4433 (Fax)

By: /Harrel L. Davis III/
Harrel L. Davis III
State Bar No. 05567560
Attorneys for Appellants

TIERRA DEL ESTE III
PHASE II

TRAFFIC IMPACT STUDY



PREPARED FOR:
RANCHO REAL XII, LTD

Date: March 26, 2008
Revised: June 11, 2008

CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
1790 LEE TREVINO DR. STE 400
EL PASO, TEXAS 79936

CONDE INC.

TIERRA DEL ESTE III
PHASE II

TRAFFIC IMPACT STUDY

PREPARED FOR:

Rancho Real XII, LTD

Date: March 26, 2008

Revised Date: June 11, 2008

Prepared by:

CONDE, INC.
1790 Lee Trevino, Suite 400
El Paso, Texas 79936
(915) 592-0283 • Fax (915) 592-0286

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1.0 INTRODUCTION

OBJECTIVE

The objective of this traffic impact study is to perform an analysis of the additional traffic created by the proposed development Tierra Del Este III Phase II. The project abuts Zaragoza Road (FM 659), future Rich Beem Boulevard extension, a portion of undeveloped area to the West, future extension of Pebble Hills Boulevard, a portion of undeveloped area to the North, future extension of John Hayes Street, and undeveloped area to the East, and future extension of Montwood Boulevard, the undeveloped area to the South. The analysis will determine if the existing transportation system will accommodate the generated traffic volumes by the proposed development. In addition, the analysis will determine the capacity and level of service of the projected traffic for the proposed arterials within the development. The Tierra Del Este East III Phase II Traffic Impact Study will evaluate the generated traffic during the morning and evening peak hours.

PROJECT APPROACH

In order to determine the impact of the Tierra Del Este III Phase II on the existing roadways it was necessary to analyze the existing traffic volumes in the area. No current traffic counts were available at the time of the study; therefore the City of El Paso Traffic Department most recent traffic counts were utilized to estimate the existing daily traffic. The level of service for the existing traffic volumes were determined in order to verify the conditions of the existing roadways and compare the traffic impact after the full completion of the project.

The trip generation values for the proposed land uses included single-family detached housing, commercial areas, and park improvements. The trip distribution and trip assignment was estimated in order to determine the weekday, morning, and evening peak hour traffic volumes. The trip generation values for the proposed development were estimated in accordance to the trip generation rates as indicated in the *Institute of Transportation Engineers (ITE) Trip Generation, Seventh Edition (2003).*

The trip distribution was accomplished by using the analogy method. This method was determined by analyzing the existing distribution of the study area. The estimated traffic values generated from the proposed development were added to the existing traffic volumes at the time of the completion of the development to determine the volume-capacity ratios. This method will also verify the level of service of the existing roadways after the completion of the proposed development.

2.0 EXISTING CONDITIONS ANALYSIS

SITE LOCATION AND STUDY AREA

The study area is located East of Zaragoza Rd. and East of Joe Battle Blvd., approximately 5,500 ft east of Tierra Este Street. The development is approximately 621.50 acres and at this time there is public access to the proposed site through J.P Hayes Blvd.; the site is undeveloped desert. Nearby the project site, there is a combination of land uses such as schools, parks, residential and commercial areas; the residential land use consists of multiple family and single family dwellings.

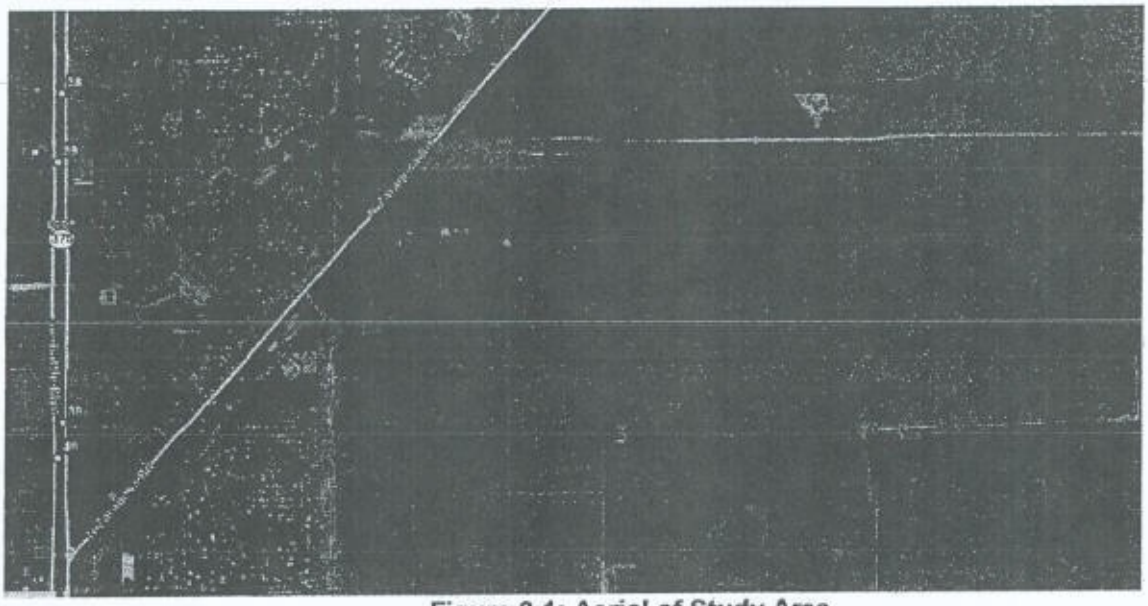


Figure 2-1: Aerial of Study Area.

RECENT TRAFFIC IMPACT STUDIES

There was a Traffic Impact Study conducted in 2006 for the first phase of the proposed development, TDE III Concept Plan Phase I. The Phase I Study was revised to reflect the distribution of the traffic generated to the existing roadways north of Zaragoza Rd., since in the original Traffic Impact Study was indicating that all the traffic from Phase I will use Zaragoza Rd. and zero traffic will utilize the existing roadways north of Zaragoza Road. In addition, this report had an incorrect density for the commercial areas abutting Zaragoza Road as per the Tierra Del Este II Traffic Impact Study. The revised report indicates that approximately 53,162 vehicle trips (VT) were being generated; of which 16% will be distributed north of Zaragoza Road to Pebble Hills Blvd., 18% to Rich Beem Blvd., 15% to Edgemere Blvd., 4% to John P. Hayes Blvd. and 47% will utilize Zaragoza Road.

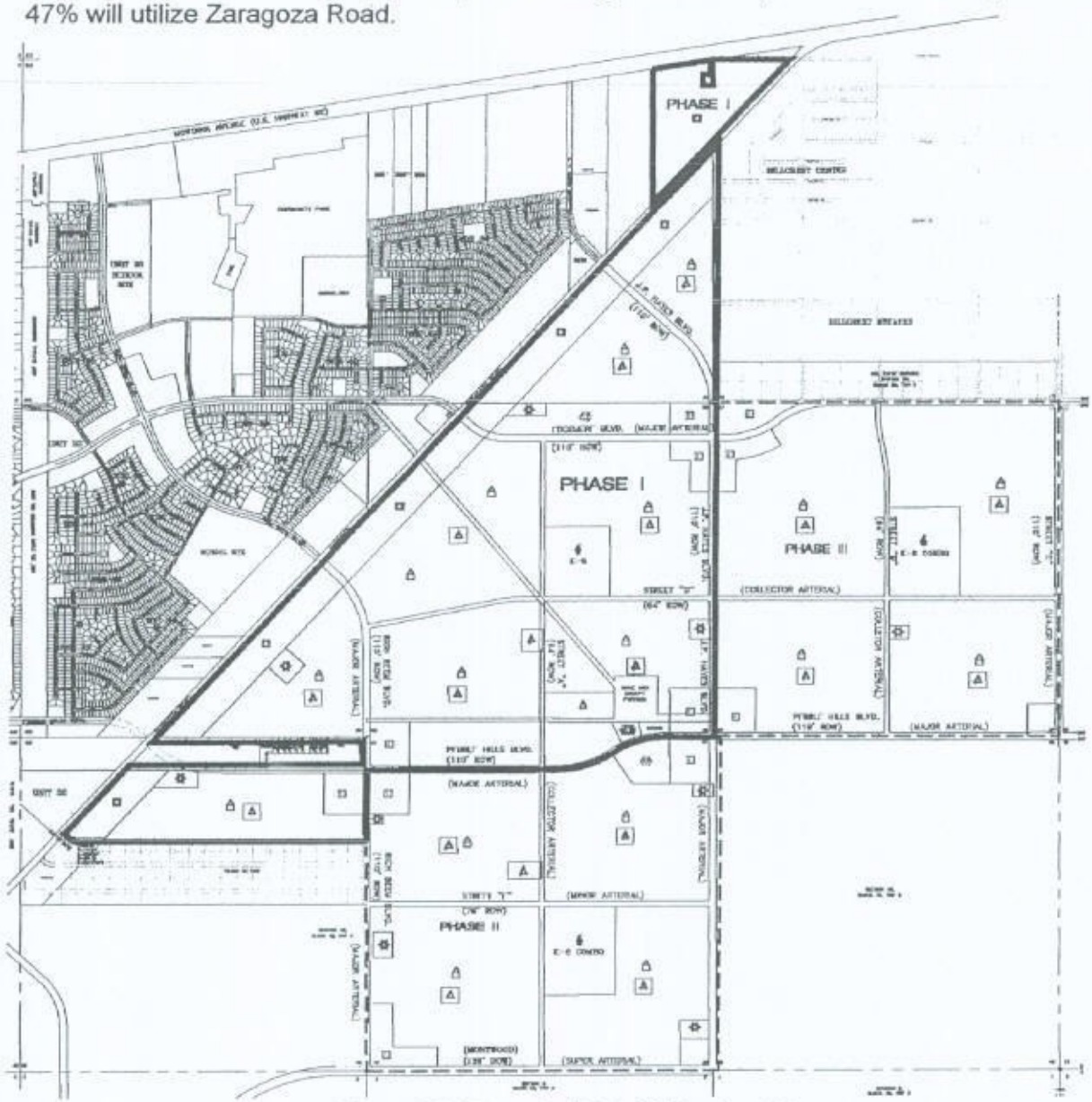


Figure 2-2: Tierra Del Este III Phasing Plan.

SITE ACCESSIBILITY AND ROADWAY SYSTEM

The arterials which will provide ingress and egress to the proposed development are Rich Beem Boulevard, Tim Foster Street, John Hayes Street, and Pebble Hills Boulevard. Montwood Boulevard will be an alternative access to the proposed development when the final section of Montwood Blvd., between the City Limits and the proposed development, is completed.

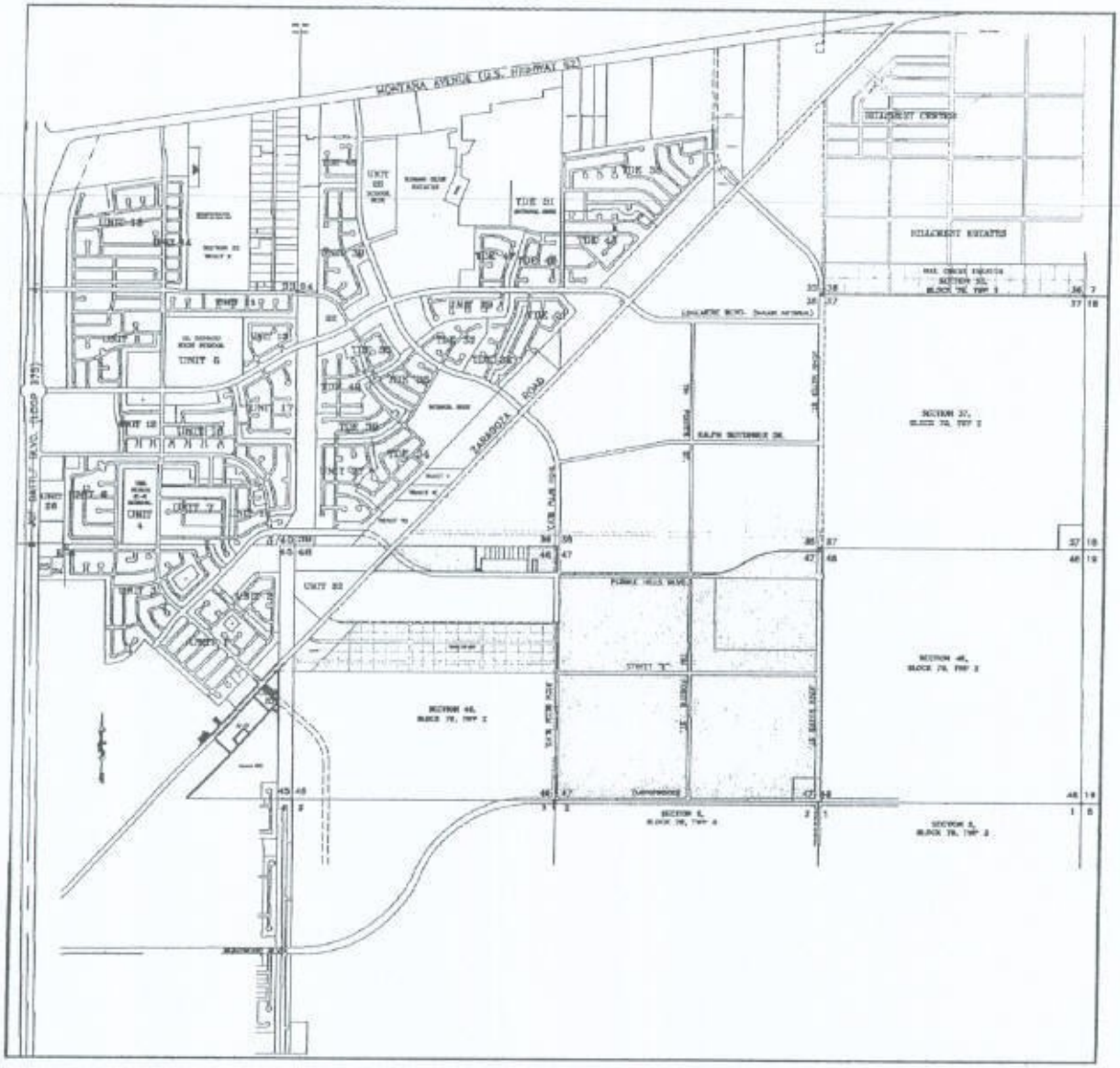
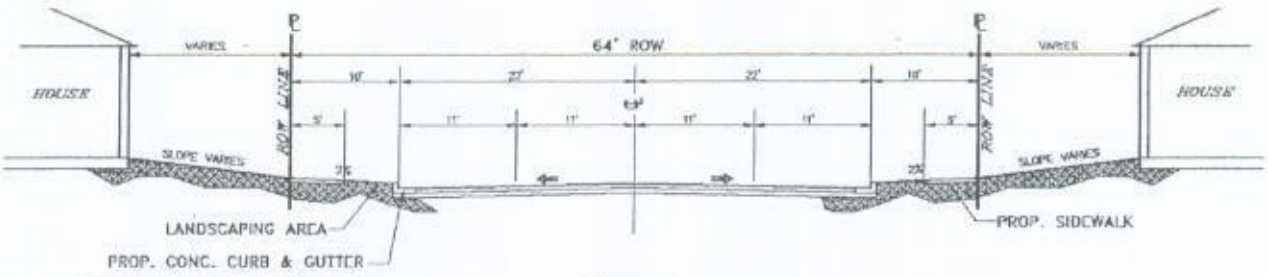


Figure 2-3: Tierra Del Este III Phase II.

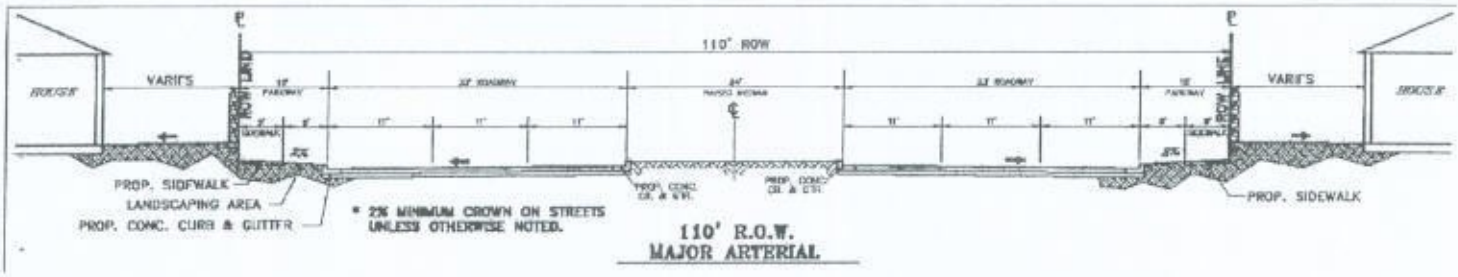
Tim Foster Street is a four lane undivided road with a pavement width of 44 feet and a Right of Way (ROW) of 64 feet. This collector arterial connects the two major arterials of Edgemere Boulevard in Phase I and Montwood Boulevard in Phase II.



* 2% MINIMUM CROWN ON STREETS UNLESS OTHERWISE NOTED.

64' R.O.W.
COLLECTOR ARTERIAL STREET

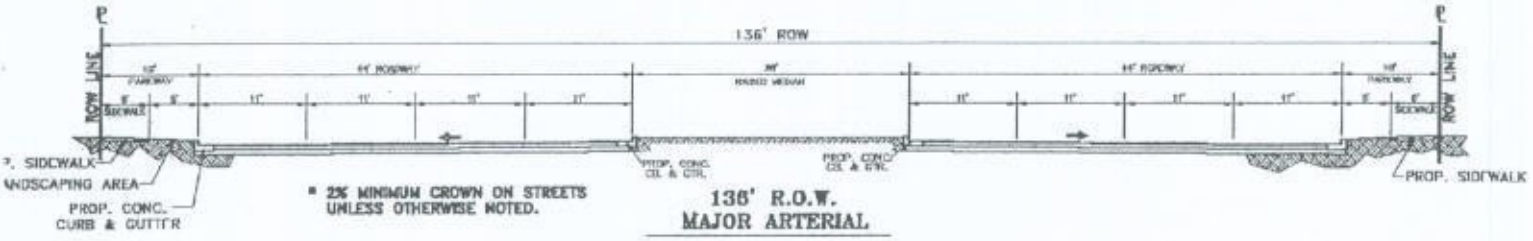
Rich Beem Boulevard, John P. Hayes Street and Pebble Hills Boulevard are six lane divided arterials with a pavement width of 66 feet and a ROW of 110 feet. These three Major arterials, along with Edgemere Boulevard in Phase I, will provide direct access to Zaragoza Road and will be the main access to the study area.



* 2% MINIMUM CROWN ON STREETS UNLESS OTHERWISE NOTED.

110' R.O.W.
MAJOR ARTERIAL

Montwood Boulevard is a eight lane divided arterial with a pavement width of 88 feet and a ROW of 136 feet. This Major arterial will alleviate traffic to Zaragoza Road when the final Montwood Boulevard section between the City Limits and the proposed development is completed.



* 2% MINIMUM CROWN ON STREETS UNLESS OTHERWISE NOTED.

136' R.O.W.
MAJOR ARTERIAL

ROADWAY CAPACITY

In order to determine the congestion for the predicted traffic volume, it is necessary to determine the level of service (LOS) by associating the volume-capacity (V/C) ratio. The following table from the I-10 east Corridor Study performed by Parsons Brinckerhoff, reflects the recommended maximum average daily traffic volumes by facility and Level of Service.

Roadway Class	Good Flow, LOS A-B	Tolerable Flow, LOS C-D	Capacity Flow, LOS E-F
Urban Freeways			
4-Lane	0-44,000	44,001-52,800	52,801-64,400
6-Lane	0-66,000	66,001-79,200	79,201-96,600
8-Lane	0-88,000	88,001-105,600	105,601-128,800
10-Lane	0-110,000	110,001-136,400	136,401-168,600
Urban Divided Streets			
4-Lane	0-16,100	16,101-19,100	19,101-23,000
6-Lane	0-23,500	23,501-27,900	27,901-33,000
8-Lane	0-29,400	29,401-34,900	34,901-42,000
Urban Undivided Streets			
2-Lane	0-7,700	7,701-9,100	9,101-11,000
4-Lane	0-12,600	12,601-14,900	14,901-18,000
6-Lane	0-19,800	19,801-23,500	23,501-28,300
Rural Freeways			
4-Lane	0-20,800	20,801-31,600	31,601-42,000
6-Lane	0-31,200	31,201-47,400	47,401-63,000
Rural Divided Highways			
4-Lane	0-12,000	12,001-17,500	17,501-35,000
6-Lane	0-18,000	18,001-26,200	26,201-52,500
Rural Undivided Highways			
Rolling Terrain 2-Lane	0-2,800	2,801-4,700	4,701-14,700
Level Terrain 2-Lane	0-3,700	3,701-6,100	6,101-17,400
4-Lane	0-9,500	9,501-13,000	13,001-26,000
6-Lane	0-15,000	15,001-19,500	19,501-39,000

Source: Parsons Brinckerhoff, as cited in the I-10 East Corridor Study.

ADJUSTED TRAFFIC VOLUMES AND PROJECTED CONDITIONS OF EXISTING ROADWAYS

There were no recent traffic counts available; therefore the City of El Paso Traffic Department most recent traffic counts were utilized to estimate the existing daily traffic and the level of service for the roadway. The traffic volumes had to be adjusted from the year 2004 to the years 2008, 2015, 2025 and 2035; therefore a growth rate of 3% per year was utilized to project the traffic volumes to the present year as per City of El Paso Traffic Department latest growth rate recommendations.

Projected Volume = (Present Traffic Volume) $((1+0.03)^n)$

N=Number of Projected Years

The adjusted traffic counts and projections for the existing arterials are approximately:

Arterial	PROJECTIONS				
	2004 Traffic Counts	Year-2008	Year-2015	Year-2025	Year-2035
Zaragoza Rd.	17,728	19,953	24,540	32,779	44,321

Table 2-1: Adjusted Traffic Count and Projections

It is recommended that a proposed arterial shall have an acceptable or tolerable LOS from A to D. LOS is defined as a quality measure describing operational conditions within a traffic stream, generally in terms of service measures such as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Letters designate each level, from A to F, with LOS A representing the best operating conditions and F the worst. Generally, a LOS A-B can be described as good conditions, LOS C-D as tolerable flow, and LOS E-F as capacity conditions.

3.0 TIERRA DEL ESTE III PHASE II ROADWAY ALIGNMENT AND TRIP CHARACTERISTICS

TRIP GENERATION

The proposed development has an area of 621.50 acres, of which 414 acres are residential, 99.73 acres of commercial, 21.13 acres of park improvements and 16.83 acres of retention basins; see Appendix A. From the single family units and commercial areas, 30% have been considered to be roadway improvements. Table 3-2 shows the Tierra Del Este III Phase II trip generation rates for the weekday, morning, and evening peak hours derived from the Institute of Transportation Engineers Trip Generation Book Seventh Edition.

Table 3-1: Tierra Del Este III Phase II Proposed Land Use

LAND USE								ITE CODE
Single Family Units	289.80	ac	@	8	Units/ac	2,318	Units	210
Commercial	64.09	ac	@	10	ac/GFP	640.9	GFP	820
Commercial/Industrial	5.73	ac	@	8	ac/GFP	45.84	GFP	820
Park	21.13	ac	@	1	ac	21.13	ac	412
School	70.00	ac	@	1	Students	1,382	Students	530
Ponds	16.64	ac	@	1	ac	16.64	ac	N/A

In order to determine the trip generation values for the single family units, the trip generation rates must be multiplied by the number of units.

The proposed commercial land use is unknown at this time. A shopping center was used for the proposed commercial area, and it is being assumed that for every acre of commercial area, 10,000 and 8,000 square feet of gross floor area will be built for light commercial and for regional commercial, respectively. The requirements for parking, landscaping and setbacks will vary per land use. At this time the type of school is unknown; however, land use 530 from the Institute of Transportation Engineers Trip Generation Book Seventh Edition was selected and used since the High Schools have the highest number of enrolled students. The trip generation rates will determine the approximate traffic generated by the proposed commercial areas and by the school site. There were no morning or evening peak hour data available for the city park data in the ITE trip generation book; therefore the county park data was used.

.Table 3-2: Tierra Del Este III Phase II Trip Generation Rates

Land Use	ITE CODE	Trip Generation Rates								
		Average Weekday			AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Single Family Units	210	4.79	4.78	9.57	0.20	0.57	0.77	0.65	0.37	1.02
Commercial	820	21.47	21.47	42.94	0.63	0.40	1.03	1.80	1.95	3.75
Park	412	1.14	1.14	2.28	0.37	0.15	0.52	0.21	0.38	0.59
School	530	0.86	0.85	1.71	0.28	0.13	0.41	0.07	0.07	0.14

Source: Institute of Transportation Engineers (ITE), Trip Generation, 7th Edition, 2003.

PASS-BY PRIMARY AND DIVERTED TRIPS

The proposed commercial development will attract a portion of the existing traffic passing through, and trips that are diverted from the vicinity that require a diversion from one roadway to another to gain access to proposed site. A 15% of Pass-By Trips of the generated traffic has been reduced as per City of El Paso Traffic Department latest pass-by trips recommendations.

Table 3-3: Tierra Del Este III Phase II Trip Generation Values

Land Use	Trip Generation								
	Average Weekday			AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Single Family Units	11,094	11,094	22,187	464	1,321	1,785	1,513	851	2,365
Commercial	14,733	14,733	29,467	431	276	707	1,235	1,338	2,573
Park	24	24	48	8	3	11	4	8	12
School	1,182	1,182	2,363	387	180	567	97	97	193
TOTALS			54,065			3,070			5,144
	Pass-By 15%		**45,956**			**2,609**			**4,372**

Source: Institute of Transportation Engineers (ITE), Trip Generation, 7th Edition, 2003.

Based on the Traffic Impact Study, the proposed development would generate a total vehicle average volume trip of 45,956 for weekdays, with 2,609 during AM peak hours and 4,372 for PM peak hour; see table 3-3.

TRIP DISTRIBUTION AND TRIP ASSIGNMENT

The Tierra Del Este III Phase II Concept Plan was divided into five quadrants in order to analyze the trip distribution and trip assignment. The determination of the quadrant boundaries where obtained by analyzing the main roadway improvements within the concept plan. The traffic generated was distributed and assigned in two types of analysis. In the first analysis, all the traffic generated was assigned to the existing roadways. In the second analysis, the traffic was distributed to include the future Montwood Blvd. extension.

Each street of the development tying to an existing roadway was taken into consideration for the distribution and assignment analysis. The trip distribution and trip assignments were determined by estimating and analyzing the existing traffic distributions based on the daily traffic counts, traffic movements and demographics as follows:

Table 3-4: Trip Distribution Assignment to Existing Roadways

ADT by Development (24 Hr.)	% Distribution	VT	Assignment	%	VT
54,065 VT From Development To:	Pebble Hills Blvd. 21 %	11105	Montwood Blvd.	0	0
			Zaragoza Rd.	47	5219
			North of Zaragoza	53	5886
	Street E 16 %	8525	Montwood Blvd.	0	0
			Zaragoza Rd.	47	4007
			North of Zaragoza	53	4518
	Montwood Blvd. 11 %	5942	Montwood Blvd.	0	0
			Zaragoza Rd.	47	2793
			North of Zaragoza	53	3149
	Rich Beem Blvd. 18 %	9715	Montwood Blvd.	0	0
			Zaragoza Rd.	47	4566
			North of Zaragoza	53	5149
	Tim Foster St. 16 %	8895	Montwood Blvd.	0	0
			Zaragoza Rd.	47	4181
			North of Zaragoza	53	4714
	John Hayes Blvd. 13 %	6884	Montwood Blvd.	0	0
			Zaragoza Rd.	47	3235
			North of Zaragoza	53	3648
	Zaragoza Rd. 6 %	2999	Montwood Blvd.	0	0
			Zaragoza Rd.	47	1409
			North of Zaragoza	53	1589

AM Peak Hr. by Development	% Distribution	VT	Assignment	%	VT
3,070 VT From Development To:	Pebble Hills Blvd. 21 %	630	Montwood Blvd.	0	0
			Zaragoza Rd.	47	296
			North of Zaragoza	53	334
	Street E 16 %	484	Montwood Blvd.	0	0
			Zaragoza Rd.	47	227
			North of Zaragoza	53	257
	Montwood Blvd. 11 %	337	Montwood Blvd.	0	0
			Zaragoza Rd.	47	159
			North of Zaragoza	53	179
	Rich Beem Blvd. 18 %	552	Montwood Blvd.	0	0
			Zaragoza Rd.	47	259
			North of Zaragoza	53	292
	Tim Foster St. 16 %	505	Montwood Blvd.	0	0
			Zaragoza Rd.	47	237
			North of Zaragoza	53	268
	John Hayes Blvd. 13 %	391	Montwood Blvd.	0	0
			Zaragoza Rd.	47	184
			North of Zaragoza	53	207
	Zaragoza Rd. 6 %	170	Montwood Blvd.	0	0
			Zaragoza Rd.	47	80
			North of Zaragoza	53	90
PM Peak Hr. by Development	**% Distribution**	**VT**	**Assignment**	**%**	**VT**
5,144 VT From Development To:	Pebble Hills Blvd. 21 %	1057	Montwood Blvd.	0	0
			Zaragoza Rd.	47	497
			North of Zaragoza	53	560
	Street E 16 %	811	Montwood Blvd.	0	0
			Zaragoza Rd.	47	381
			North of Zaragoza	53	430
	Montwood Blvd. 11 %	565	Montwood Blvd.	0	0
			Zaragoza Rd.	47	266
			North of Zaragoza	53	300
	Rich Beem Blvd. 18 %	924	Montwood Blvd.	0	0
			Zaragoza Rd.	47	434
			North of Zaragoza	53	490
	Tim Foster St. 16 %	846	Montwood Blvd.	0	0
			Zaragoza Rd.	47	398
			North of Zaragoza	53	449
	0 John Hayes Blvd. 13 %	655	Montwood Blvd.	0	0
			Zaragoza Rd.	47	308
			North of Zaragoza	53	347
	0 Zaragoza Rd. 6 %	285	Montwood Blvd.	0	0
			Zaragoza Rd.	47	134
			North of Zaragoza	53	151

Total Vehicle Trips To Existing Arterials Prior to the Montwood Blvd. Extension

Street Name	Average Weekday	AM Peak Hour	PM Peak Hour
Montwood Blvd.	-	-	-
North of Zaragoza	24,356	1,383	2,317
Zaragoza Road	21,599	1,226	2,055
Totals	**45,956**	**2,609**	**4,372**

From the 45,956 VT being generated, 47% will utilize Zaragoza Rd., while 53% will go north to Loop 375 and Montana Ave. by using the existing roadways north of Zaragoza Road. Therefore the actual traffic volume on Zaragoza Rd. will be 21,599 VT.

Table 3-5 provides the Level of Service on the proposed roadways from the traffic generated from the proposed development Phase II.

Table 3-5: Level of Service for the proposed roadways

Arterial Name	Capacity	Projected VT	LOS
Pebble Hills Blvd. Major Arterial (6 lanes with median)	33,000	11,105	A
Street E Minor Arterial (4 lanes with median)	23,000	8,525	A
Montwood Blvd. Super Arterial (8 lanes with median)	42,000	5,942	A
Rich Beem Blvd. Major Arterial (6 lanes with Raised median)	33,000	9,715	A
Tim Foster St. Collector Arterial (4 Lanes)	18,000	8,895	B
John Hayes Blvd. Major Arterial (6 lanes with median)	33,000	6,884	A

Table 3-6: Trip Distribution Assignment to Existing Roadways Including Montwood Blvd.

ADT by Development (24 Hr.)	% Distribution	VT	Assignment	%	VT
54,065 VT From Development To:	Pebble Hills Blvd. 21 %	11105	Montwood Blvd.	23	2554
			Zaragoza Rd.	35	3887
			North of Zaragoza	42	4664
	Street E 16 %	8525	Montwood Blvd.	23	1961
			Zaragoza Rd.	35	2984
			North of Zaragoza	42	3581
	Montwood Blvd. 11 %	5942	Montwood Blvd.	23	1367
			Zaragoza Rd.	35	2080
			North of Zaragoza	42	2496
	Rich Beem Blvd. 18 %	9715	Montwood Blvd.	23	2235
			Zaragoza Rd.	35	3400
			North of Zaragoza	42	4080
	Tim Foster St. 16 %	8895	Montwood Blvd.	23	2046
			Zaragoza Rd.	35	3113
			North of Zaragoza	42	3736
	John Hayes Blvd. 13 %	6884	Montwood Blvd.	23	1583
			Zaragoza Rd.	35	2409
			North of Zaragoza	42	2891
	Zaragoza Rd. 6 %	2999	Montwood Blvd.	23	690
			Zaragoza Rd.	35	1050
			North of Zaragoza	42	1260
AM Peak Hr. by Development	**% Distribution**	**VT**	**Assignment**	**%**	**VT**
3,070 VT From Development To:	Pebble Hills Blvd. 21 %	630	Montwood Blvd.	23	145
			Zaragoza Rd.	35	221
			North of Zaragoza	42	265
	Street E 16 %	484	Montwood Blvd.	23	111
			Zaragoza Rd.	35	169
			North of Zaragoza	42	203
	Montwood Blvd. 11 %	337	Montwood Blvd.	23	78
			Zaragoza Rd.	35	118
			North of Zaragoza	42	142
	Rich Beem Blvd. 18 %	552	Montwood Blvd.	23	127
			Zaragoza Rd.	35	193
			North of Zaragoza	42	232
	Tim Foster St. 16 %	505	Montwood Blvd.	23	116
			Zaragoza Rd.	35	177
			North of Zaragoza	42	212
	John Hayes Blvd. 13 %	391	Montwood Blvd.	23	90
			Zaragoza Rd.	35	137
			North of Zaragoza	42	164
	Zaragoza Rd.	170	Montwood Blvd.	23	39
			Zaragoza Rd.	35	60

	6 %		North of Zaragoza	42	72
PM Peak Hr. by Development	**% Distribution**	**VT**	**Assignment**	**%**	**VT**
5,144 VT **From Development To:**	Pebble Hills Blvd. 21 %	1057	Montwwod Blvd.	23	243
			Zaragoza Rd.	35	370
			North of Zaragoza	42	444
	Street E 16 %	811	Montwwod Blvd.	23	187
			Zaragoza Rd.	35	284
			North of Zaragoza	42	341
	Montwood Blvd. 11 %	565	Montwwod Blvd.	23	130
			Zaragoza Rd.	35	198
			North of Zaragoza	42	237
	Rich Beem Blvd. 18 %	924	Montwwod Blvd.	23	213
			Zaragoza Rd.	35	324
			North of Zaragoza	42	388
	Tim Foster St. 16 %	846	Montwwod Blvd.	23	195
			Zaragoza Rd.	35	296
			North of Zaragoza	42	355
	John Hayes Blvd. 13 %	655	Montwwod Blvd.	23	151
			Zaragoza Rd.	35	229
			North of Zaragoza	42	275
	Zaragoza Rd. 6 %	285	Montwwod Blvd.	23	66
			Zaragoza Rd.	35	100
			North of Zaragoza	42	120

Total Vehicle Trips To Existing Arterials After Montwood Blvd. Extension

Street Name	Average Weekday	AM Peak Hour	PM Peak Hour
Montwood Blvd.	10,570	600	1,006
North of Zaragoza	19,301	1,096	1,836
Zaragoza Road	16,084	913	1,530
Totals	**45,956**	**2,609**	**4,372**

From the 45,956 VT being generated, 35% will utilize Zaragoza Rd., 23% will use Montwood Blvd., while 42% will go north to Loop 375 and Montana Ave. by using the existing roadways north of Zaragoza Road. Therefore the actual traffic volume on Zaragoza Rd. will be 16,084 VT.

4.0 VOLUME ANALYSIS OF POST-PROJECT CONDITIONS

To determine how the 45,956 vehicle trips generated by the proposed development may affect the existing traffic in the surrounding roadways, the trips generated by the proposed development were added to the projected traffic volumes.

The Texas Department of Transportation has future plans to widen the Zaragoza Road main lanes from Loop 375 to Montana Ave.; however, a preliminary schematic plan has been developed by TXDOT and the completion date of the construction is unknown at this time. Any future improvements to existing roadways will increase the roadway capacity, which will result in a less congested roadway. See Attachment B for TXDOT Preliminary Schematic of Zaragoza Road Improvements.

Table 4-1 compares the LOS of the proposed development impact on Zaragoza Road prior to and after the development. Ones that TXDOT has completed the Zaragoza Road improvements an approximate capacity of 66,000 will be achieved.

Table 4-1: Post project after full construction

Arterial Name	Capacity	From Phase I	From Phase II	2015 ADT	Total	LOS
Zaragoza Rd. w/o Improvements	33,000	24,986	21,599	24,540	71,125	F
Zaragoza Rd. w/ Zaragoza Rd. Improvements	33,000	24,986	21,599	24,540	71,125	F
Zaragoza Rd. w/ Zaragoza Rd. Improvements & Montwood Blvd. Extension	66,000	24,986	16,085	24,540	65,611	E

The Texas Department of Transportation states that all proposed arterials tying to an existing roadway under TXDOT's jurisdiction require a deceleration lane. The deceleration lane design requirements will vary based on design speed and driveway locations. Deceleration lanes and driveway permits shall be approved by TXDOT. At the time of the completion of the proposed development additional studies may be required.

5.0 CONCLUSIONS

Based on the traffic Study, an arterial with a LOS A to D is acceptable. The LOS capacity analysis for the proposed infrastructure in table 3-5, indicates that all of the proposed arterials have an acceptable LOS. The proposed Tierra Del Este III Phase II infrastructure will provide an alternate route to alleviate future traffic congestion on Zaragoza Road by providing access to Montwood Blvd when completed. The proposed arterials on Tierra Del Este III Phase II will have a combined projected traffic volume of approximately 45,956 ADT. The proposed development arterials have a combined capacity of approximate 167,000 ADT, which indicates that only 28% total capacity of all the proposed Arterials on Tierra Del Este III Phase II will be utilized by the proposed development.

6.0 RECOMENDATIONS

In order to provide an adequate level of service for the proposed arterials, it is required to address the projected congestion in this area. The traffic impact study shows that the proposed development infrastructure will provide sufficient capacity to handle the traffic volumes. According to the volume generated and percentage utilized by the proposed development, the developer should be responsible to improve only the percentage that is being generated by the proposed development. Acceleration lanes, deceleration lanes, traffic control signing, and striping will be appropriately addressed at the time of the subdivision improvement plans.

References

Institute of Transportation Engineers. (2003). Trip Generation (7th ed.). Washington D.C.: Author.

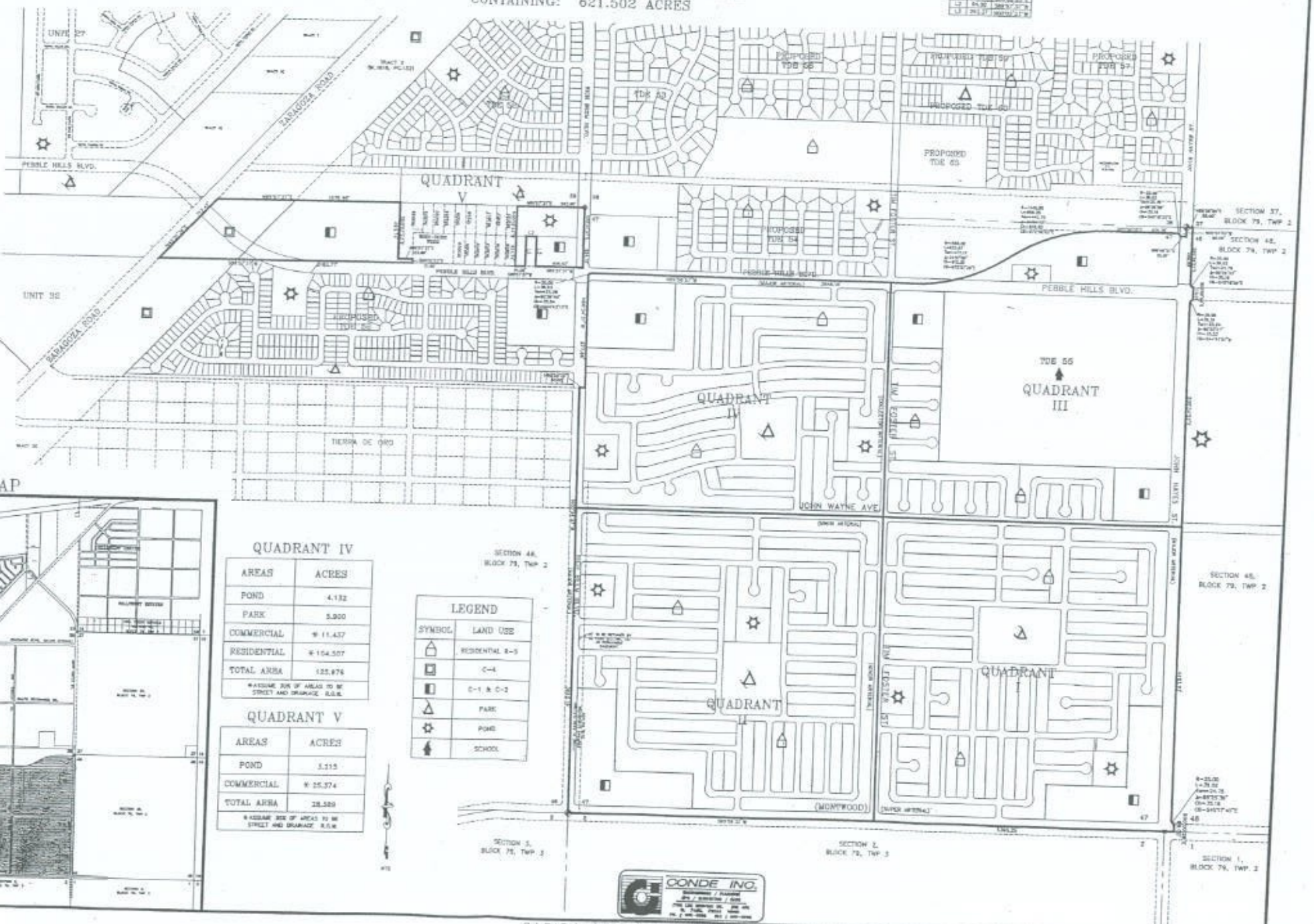
Parsons Brinckerhoff. I-10 east Corridor Study, Table 4.2.

Gateway 2030 Metropolitan Transportation Plan (MTP), El Paso Metropolitan Planning Organization (MPO).

ATTACHMENT A

TIERRA DEL ESTE III
TRAFFIC PLAN PHASE II

BEING A PORTION OF SECTIONS 46, 47, AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 621.502 ACRES



QUADRANT IV

AREAS	ACRES
POND	4.132
PARK	5.900
COMMERCIAL	± 11.437
RESIDENTIAL	± 104.507
TOTAL AREA	125.976

*ASSUME 30% OF AREAS TO BE STREET AND DRAINAGE R.O.W.

QUADRANT V

AREAS	ACRES
POND	3.315
COMMERCIAL	± 25.274
TOTAL AREA	28.589

*ASSUME 30% OF AREAS TO BE STREET AND DRAINAGE R.O.W.

LEGEND

SYMBOL	LAND USE
△	RESIDENTIAL R-5
□	C-4
◧	C-1 & C-3
△	PARK
☼	POND
	SCHOOL

CONDE INC.

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Tierra Commercial Unit 5
Traffic Division Projections for
Intersection of Pebble Hills and Zaragoza

The development site consists of approximately 65 acres commercial property located on Zaragoza Rd. East of LP 375. Access is expected to be provided on Zaragoza Rd., Rich Beem, and Pebble Hills.

Proposed Development: [65 ac * 8,000 sf /ac]
1. Approximately 520,000 square feet of shopping center.

Site Trip Generation:
Per the ITE Trip Generation 7th Edition, Land Use Code 820 (Shopping Center) Average Rate calculation:
520,000 / 1,000 * 42.94 = 22,329 ADT

Site Trip Distribution and Assignment:
The distribution and assignment of the build out site-generated traffic to the road network was determined based on existing traffic patterns of nearby intersection of Rich Beem/Zaragoza and the traffic impact study for Tierra Del Este III revision dated June 11, 2008.

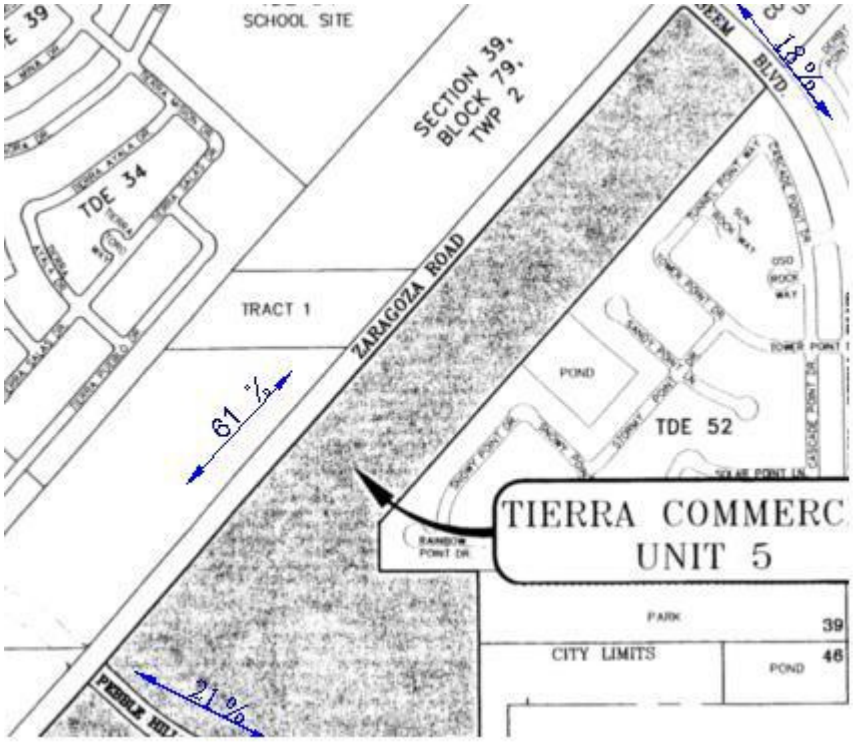


Figure 1: Trip distribution

	% Distribution	ADT
Pebble Hills	21	4689
Zaragoza	61	13621
Rich Beem	18	4019
Total		22329

Table 1: Projected ADT

Vehicles per hour on Major street approach: Zaragoza

24 hour traffic count at adjacent intersection of Rich Beem/Zaragoza was used to estimate the existing ADT at Pebble Hills/Zaragoza. For warrant analysis, the volumes for the major street approach are taken as the sum of both approaches.

Hourly sum of NB/SB approach = Rich Beem Zaragoza NB + Rich Beem Zaragoza SB

Next, we will assume that the hourly distributions at Rich Beem/Zaragoza will be similar at Pebble Hills/Zaragoza.

% of ADT = (Hourly sum of NB/SB approach) / (24 hr ADT for both approaches)

Of the site generated traffic of 13,621 ADT on Zaragoza, we will assume 50% to/from South (6,811). This value is then added to the existing 24hr ADT for both approaches.

Projected ADT Volume at Pebble Hills/Zaragoza w/ Development = 6,811 + 13,607 = 20,418

Finally, the hourly projected volume on Zaragoza is calculated:

Projected hourly volume = % of ADT x 20,418

Date	Time	Existing count Rich Beem Zaragoza NB	Existing count Rich Beem Zaragoza SB	Hourly sum of NB/SB approach	% of ADT	Projected Volume at Pebble Hills Zaragoza w/ Development
8/11/2008	10:00 AM	359	356	715	0.053	1073
8/11/2008	11:00 AM	412	319	731	0.054	1097
8/11/2008	12:00 PM	465	305	770	0.057	1155
8/11/2008	1:00 PM	523	284	807	0.059	1211
8/11/2008	2:00 PM	484	328	812	0.060	1218
8/11/2008	3:00 PM	636	333	969	0.071	1454
8/11/2008	4:00 PM	554	368	922	0.068	1384
8/11/2008	5:00 PM	623	290	913	0.067	1370
8/11/2008	6:00 PM	615	298	913	0.067	1370
8/11/2008	7:00 PM	495	256	751	0.055	1127
8/11/2008	8:00 PM	483	216	699	0.051	1049
8/11/2008	9:00 PM	410	127	537	0.039	806
8/11/2008	10:00 PM	263	77	340	0.025	510
8/11/2008	11:00 PM	137	50	187	0.014	281
8/12/2008	12:00 AM	114	36	150	0.011	225
8/12/2008	1:00 AM	58	30	88	0.006	132
8/12/2008	2:00 AM	28	13	41	0.003	62
8/12/2008	3:00 AM	24	22	46	0.003	69
8/12/2008	4:00 AM	31	39	70	0.005	105
8/12/2008	5:00 AM	76	160	236	0.017	354
8/12/2008	6:00 AM	257	267	524	0.039	786
8/12/2008	7:00 AM	466	469	935	0.069	1403
8/12/2008	8:00 AM	394	357	751	0.055	1127
8/12/2008	9:00 AM	398	302	700	0.051	1050
24 hr				13607		20,418

Table 2: Vehicles per hour on Zaragoza total both approach

Vehicles per hour on Minor street approach: Pebble Hills

We will again assume that the hourly distributions at Rich Beem/Zaragoza will be similar at Pebble Hills/Zaragoza.

% of ADT = (Rich Beem WB volume) / (24 hr Rich Beem ADT)

Of the site generated traffic of 4,689 ADT on Pebble Hills, we will assume 35% goes WB (1,641).

Next, the projected hourly volume is calculated:

Projected hourly Volume from Development WB on Pebble Hills = %ADT x 1,641

Date	Time	Rich Beem WB volume	% of ADT	Projected Volume from Development WB on Pebble Hills
8/11/2008	10:00 AM	55	0.094	155
8/11/2008	11:00 AM	55	0.094	155
8/11/2008	12:00 PM	59	0.101	166
8/11/2008	1:00 PM	36	0.062	101
8/11/2008	2:00 PM	43	0.074	121
8/11/2008	3:00 PM	36	0.062	101
8/11/2008	4:00 PM	58	0.099	163
8/11/2008	5:00 PM	39	0.067	110
8/11/2008	6:00 PM	20	0.034	56
8/11/2008	7:00 PM	21	0.036	59
8/11/2008	8:00 PM	5	0.009	14
8/11/2008	9:00 PM	9	0.015	25
8/11/2008	10:00 PM	1	0.002	3
8/11/2008	11:00 PM	1	0.002	3
8/12/2008	12:00 AM	1	0.002	3
8/12/2008	1:00 AM	0	0.000	0
8/12/2008	2:00 AM	1	0.002	3
8/12/2008	3:00 AM	0	0.000	0
8/12/2008	4:00 AM	0	0.000	0
8/12/2008	5:00 AM	1	0.002	3
8/12/2008	6:00 AM	17	0.029	48
8/12/2008	7:00 AM	32	0.055	90
8/12/2008	8:00 AM	38	0.065	107
8/12/2008	9:00 AM	56	0.096	157
24 hour		584		1641

Table 3: Vehicles per hour on Pebble Hills WB approach

Warrants for a Traffic Signal:

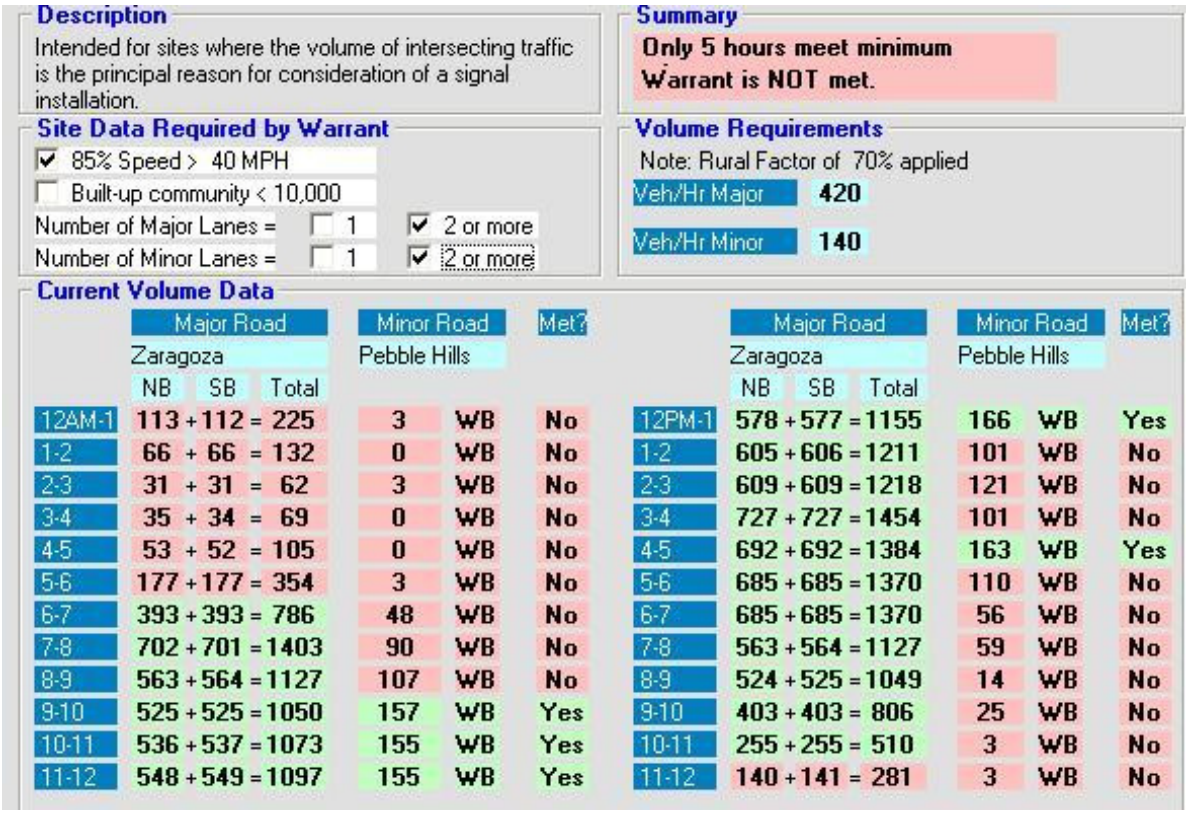
Warrant 1, Eight-hour vehicular volumes:

Condition A: Minimum Vehicular Volume (major street speed exceeds 40 mph)

Number of lanes for moving traffic in each direction	Vehicles per hour/ Major street/ Both approaches	Vehicles per hour/ Minor street/ Higher volume approach
Both streets – 2 each	420	140

Condition B: Interruption of Continuous Traffic (major street speed exceeds 40 mph)

Number of lanes for moving traffic in each direction	Vehicles per hour/ Major street/ Both approaches	Vehicles per hour/ Minor street/ Higher volume approach
Both streets – 2 each	630	70



Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 5 hours meet minimum
Warrant is NOT met.

Site Data Required by Warrant

- [x] 85% Speed > 40 MPH
- [ ] Built-up community < 10,000
- Number of Major Lanes = [ ] 1 [x] 2 or more
- Number of Minor Lanes = [ ] 1 [x] 2 or more

Volume Requirements

Note: Rural Factor of 70% applied

Veh/Hr Major	420
Veh/Hr Minor	140

Current Volume Data

	Major Road Zaragoza NB	SB	Total	Minor Road Pebble Hills		Met?
12AM-1	113	112	225	3	WB	No
1-2	66	66	132	0	WB	No
2-3	31	31	62	3	WB	No
3-4	35	34	69	0	WB	No
4-5	53	52	105	0	WB	No
5-6	177	177	354	3	WB	No
6-7	393	393	786	48	WB	No
7-8	702	701	1403	90	WB	No
8-9	563	564	1127	107	WB	No
9-10	525	525	1050	157	WB	Yes
10-11	536	537	1073	155	WB	Yes
11-12	548	549	1097	155	WB	Yes

	Major Road Zaragoza NB	SB	Total	Minor Road Pebble Hills		Met?
12PM-1	578	577	1155	166	WB	Yes
1-2	605	606	1211	101	WB	No
2-3	609	609	1218	121	WB	No
3-4	727	727	1454	101	WB	No
4-5	692	692	1384	163	WB	Yes
5-6	685	685	1370	110	WB	No
6-7	685	685	1370	56	WB	No
7-8	563	564	1127	59	WB	No
8-9	524	525	1049	14	WB	No
9-10	403	403	806	25	WB	No
10-11	255	255	510	3	WB	No
11-12	140	141	281	3	WB	No

Figure 2: Warrant 1a

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

11 hours meet minimum volumes.
Warrant is met!

Site Data Required by Warrant

- [x] 85% Speed > 40 MPH
- [ ] Built-up community < 10,000
- Number of Major Lanes = [ ] 1 [x] 2 or more
- Number of Minor Lanes = [ ] 1 [x] 2 or more

Volume Requirements

Note: Rural Factor of 70% applied

Veh/Hr Major	630
Veh/Hr Minor	70

Current Volume Data

	Major Road Zaragoza NB	SB	Total	Minor Road Pebble Hills		Met?		Major Road Zaragoza NB	SB	Total	Minor Road Pebble Hills		Met?
12AM-1	113	112	225	3	WB	No	12PM-1	578	577	1155	166	WB	Yes
1-2	66	66	132	0	WB	No	1-2	605	606	1211	101	WB	Yes
2-3	31	31	62	3	WB	No	2-3	609	609	1218	121	WB	Yes
3-4	35	34	69	0	WB	No	3-4	727	727	1454	101	WB	Yes
4-5	53	52	105	0	WB	No	4-5	692	692	1384	163	WB	Yes
5-6	177	177	354	3	WB	No	5-6	685	685	1370	110	WB	Yes
6-7	393	393	786	48	WB	No	6-7	685	685	1370	56	WB	No
7-8	702	701	1403	90	WB	Yes	7-8	563	564	1127	59	WB	No
8-9	563	564	1127	107	WB	Yes	8-9	524	525	1049	14	WB	No
9-10	525	525	1050	157	WB	Yes	9-10	403	403	806	25	WB	No
10-11	536	537	1073	155	WB	Yes	10-11	255	255	510	3	WB	No
11-12	548	549	1097	155	WB	Yes	11-12	140	141	281	3	WB	No

Figure 3: Warrant 1b

Warrant 2, Four-hour volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours is the principal reason for consideration of a signal installation.

Summary

11 hours meet minimum volumes.
Warrant is met!

Site Data Required by Warrant

- [x] 85% Speed > 40 MPH
- [ ] Built-up community < 10,000
- Number of Major Lanes = [ ] 1 [x] 2 or more
- Number of Minor Lanes = [ ] 1 [x] 2 or more

Volume Requirements

Show Volumes

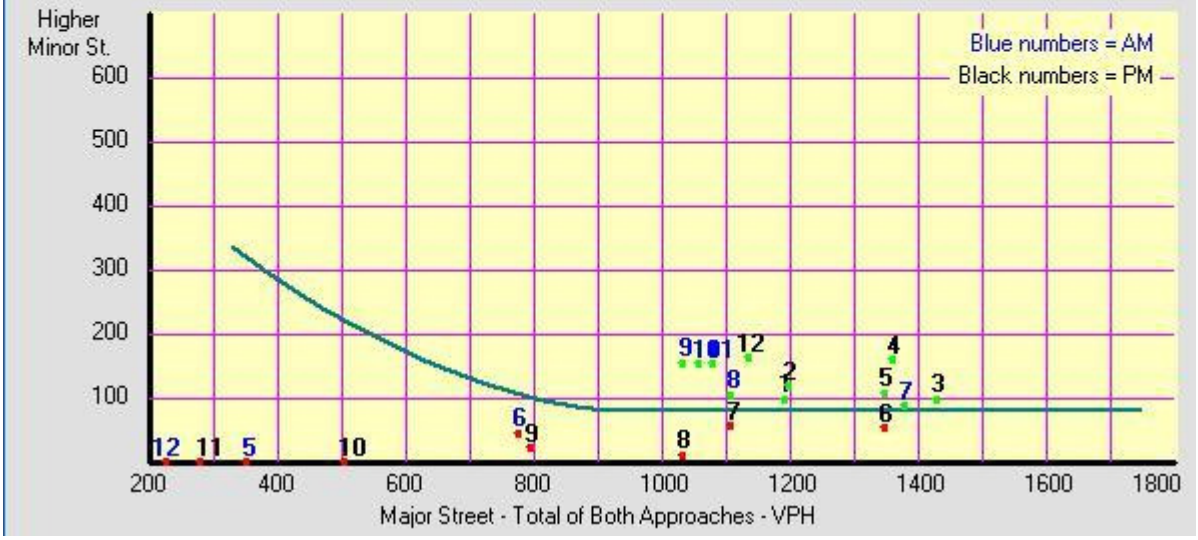


Figure 4: Warrant 2

Summary:

Currently the Pebble Hills connection to Zaragoza does not exist, and therefore there is no cross traffic and no need for a signal. However, Tierra Commercial Unit 5 contains the portion of Pebble Hills, where it makes connection with Zaragoza.

Based solely on the traffic generated due to the development, this study is to determine whether the warrants per MUTCD are met and signals justified at the intersection of Pebble Hills and Zaragoza.

Warrant 1 Condition A: Warrant is NOT met
Warrant 1 Condition B: Warrant is met
Warrant 2: Warrant is met
Warrant 3: Not Applicable
Warrant 4: Data is not available. Intersection does not exist.
Warrant 5: Data is not available. Intersection does not exist.
Warrant 6: Not Applicable
Warrant 7: Data is not available. Intersection does not exist.
Warrant 8: Not Applicable

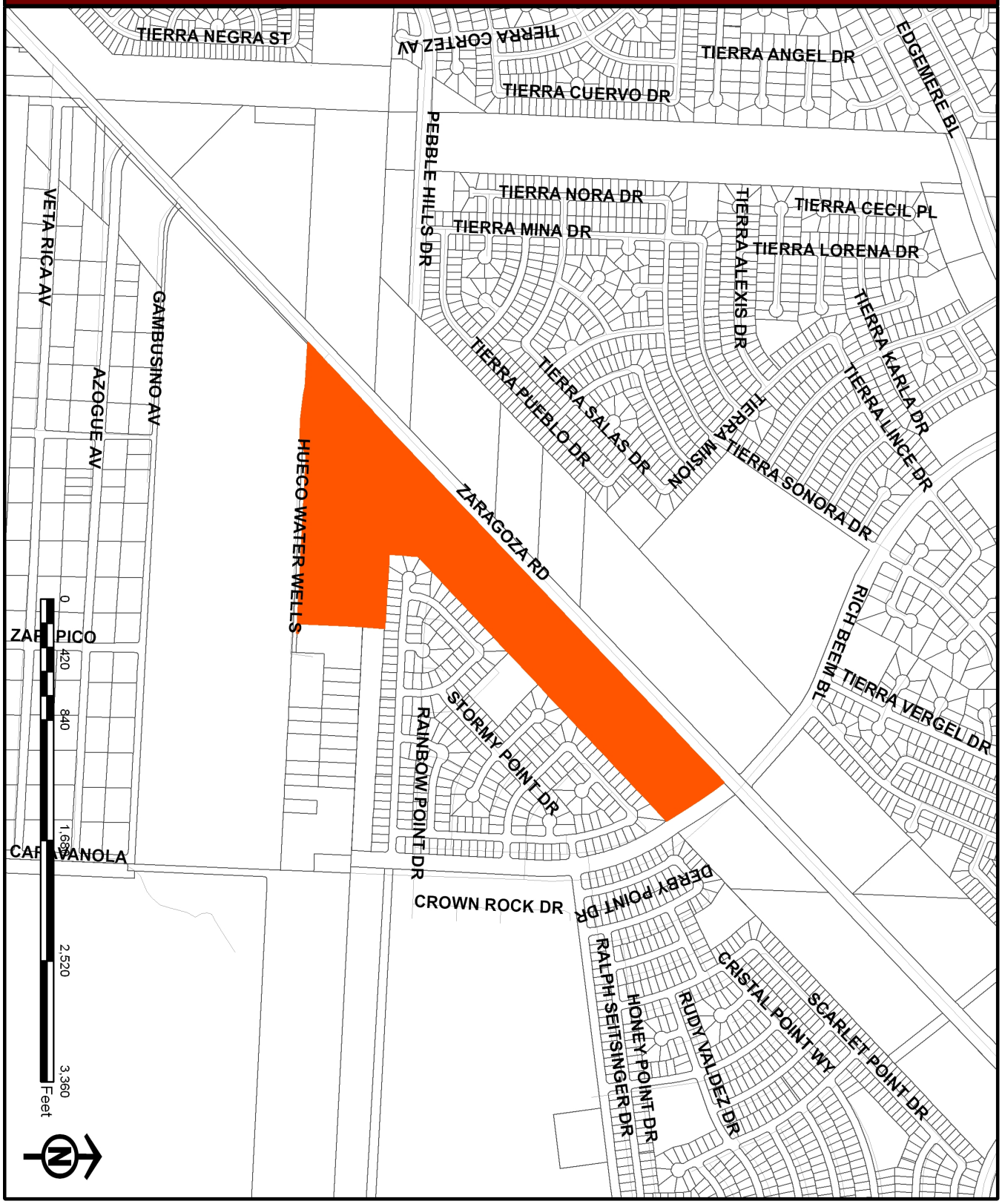
In conclusion, this proposed intersection meets Warrant 1 condition B and Warrant 2 for the installation of a traffic signal.

The vehicular volumes on the side street will not be able to enter the major street without suffering excessive delay or hazard. Therefore, at this point in time, the proposed signal is warranted, necessitated, and 100% attributable to the volume of traffic being generated by Tierra Commercial Unit 5 development.

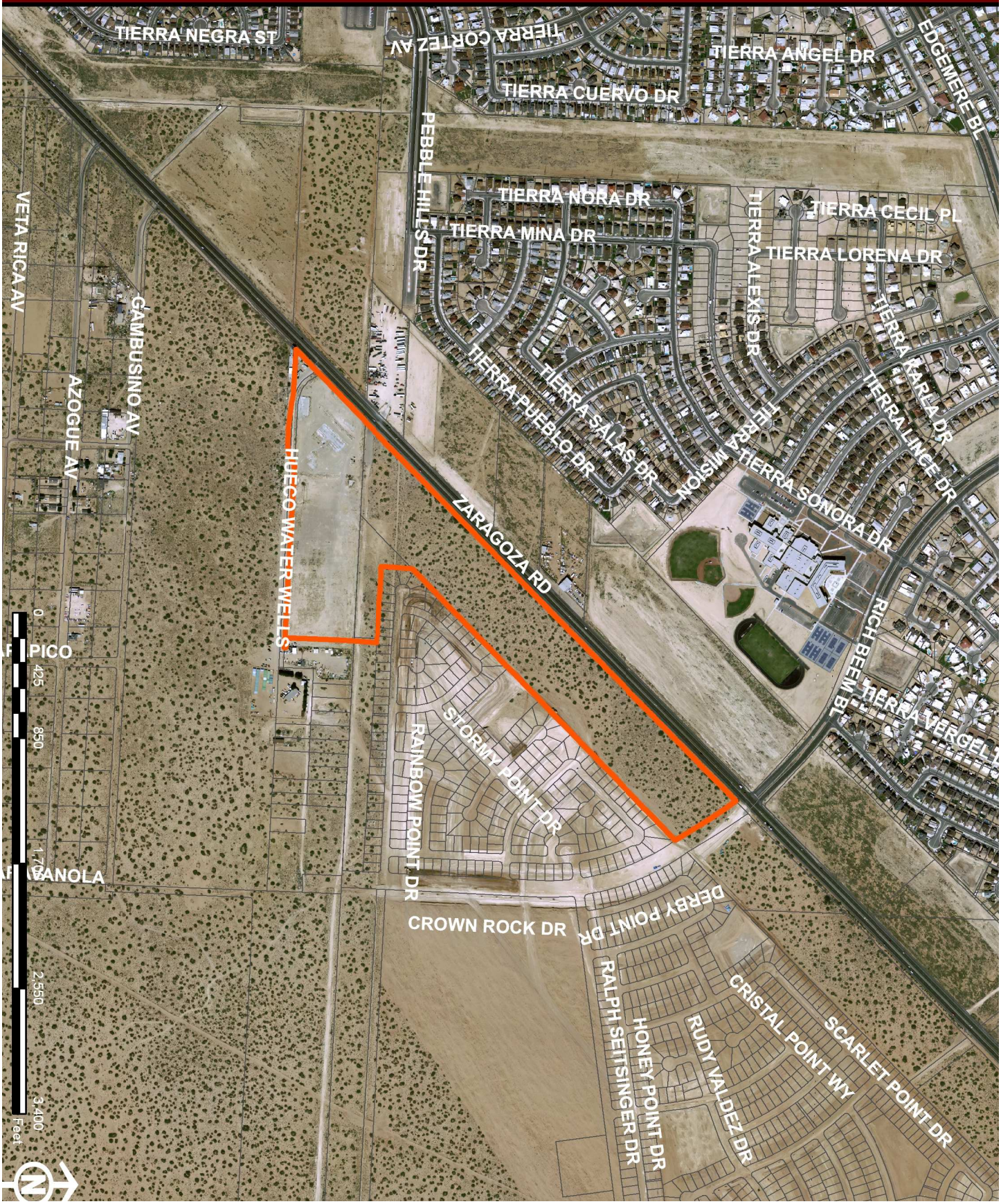
Prepared By: _____ 10/23/08
Anthony Do, Engineer Associate

Approved By: _____ 10/23/08
Ted Marquez, P.E.
Assistant City Engineer

TIERRA COMMERCIAL UNIT FIVE

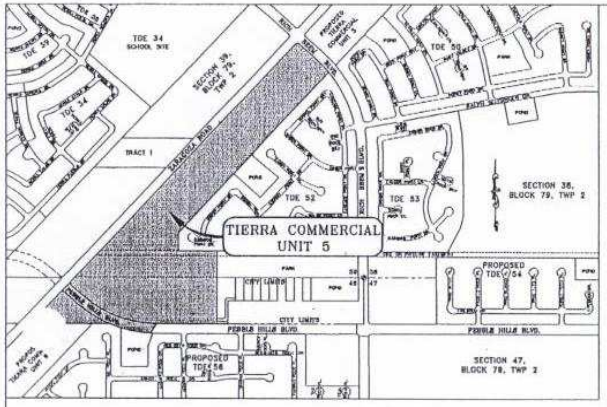


TIERRA COMMERCIAL UNIT FIVE



TIERRA COMMERCIAL UNIT 5

BEING PORTION OF TRACTS 4, 5, AND 7, SECTION 38,
AND PORTION OF TRACT 2, SECTION 39, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 67.870 ACRES



LOCATION MAP SCALE:1"=600'

NOTES:

WATER AND SEWER SERVICES HAVE BEEN EXTENDED TO THIS SUBDIVISION (TIERRA COMMERCIAL UNIT 5) FROM EXISTING EL PASO WATER UTILITIES/PUBLIC SERVICE BOARD FACILITIES.

THE INSTRUMENT ASSURING THE CERTIFICATION THAT WATER AND SEWER SERVICES FACILITIES DESCRIBED BY THIS PLAT ARE IN COMPLIANCE WITH THE MODEL RULES ADOPTED UNDER SECTION 16.343, TEXAS WATER CODE IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
INSTRUMENT No._____ DATE_____

TAX CERTIFICATE FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORDS SECTION.
INSTRUMENT No._____ DATE_____

RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
INSTRUMENT No._____ DATE_____

SET 1/2" REBAR WITH CAP MARKED TX 6162 AT ALL EXTERIOR BOUNDARY CORNERS UNLESS OTHERWISE NOTED.

"U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS".

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO 480212 0017 B, DATED SEPTEMBER 4, 1991 THIS PROPERTY IS IN FLOOD HAZARD ZONE X (OUTSIDE THE 500 YEAR FLOOD-PLAIN).

BEARING BASIS IS TRUE NORTH FOR A TRANSVERSE MERCATOR SURFACE PROJECTION AS DETERMINED BY GPS METHODS BASED AT A SET ∫ REBAR WITH CAP "5182" WITH COORDINATES:
LATITUDE: 31°47'01.298"N
LONGITUDE: 106°14'58.705"W
HEIGHT: 3928.22mN

Tierra Commercial Unit 5 Notes

Tierra Commercial Unit 5 is subject to the Annexation Agreement entered into by Ramirez Real IV LTD with the City of El Paso on January 31, 2006, having other conditions the agreement requires the following:

Item #1: Owner agrees to pay a water and wastewater connection fee to the El Paso Water Utilities Department of the City for each three quarter inch (3/4") equivalent water meter that is connected to the public water system as shown hereon. The water and wastewater connection fee shall be increased by three (3) percent on March 1, 2008, and each year thereafter. Payment of the water and wastewater connection fee shall be due at the time of application for water and wastewater to the system.

Water Size	Water ($)	Wastewater ($)
5/8" x 3/4"	588	228
1"	1,358	805
1 1/2"	2,870	1,810
2"	4,528	2,824
3"	8,558	5,718
4"	14,130	9,500
6"	28,000	18,100
8"	52,857	34,413
10"	75,149	49,129

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	1305.00	668.31	342.78	661.10	N78°36'36"E	29°20'36"
C2	25.00	39.28	25.01	35.36	N87°36'10"E	90°01'13"
C3	1445.00	232.45	116.44	232.23	S43°20'20"E	9°12'13"
C4	1260.00	882.33	458.13	873.05	S83°35'24"E	40°06'59"
C5	1195.00	887.45	465.31	867.20	S85°41'56"E	42°32'59"
C6	75.00	39.27	20.00	38.38	S02°28'26"E	90°00'00"
C7	1305.00	429.48	216.70	427.55	S08°54'28"E	18°51'21"
C8	25.00	39.27	25.00	35.36	S87°21'34"W	90°00'00"
C9	1280.00	35.98	17.99	35.98	S89°11'58"E	1°36'54"

LINE TABLE

LINE	LENGTH	BEARING
L1	123.88	N88°57'37"E
L2	30.67	S00°02'23"E
L3	129.28	S33°24'21"W
L4	1.18	S42°21'24"W
L5	50.00	S41°28'28"E
L6	66.28	S33°24'21"W
L7	64.18	S33°24'21"W

GRAPHIC SCALE
(IN FEET)
1 inch = 400 ft.

FINAL PLAT
To be considered by the City Plan Commission. Recommendations concerning this Plat must be filed by:

DATE OF PREPARATION: JULY 01, 2008

CONDE INC.
ENGINEERING / PLANNING
SITE / SUBDIVISION / CIVIL

DEDICATION

RIVER OAKS PROPERTIES I, LTD., property owner of this land hereby present this plat and dedicate to the use of the public the drives, street, drainage easement as shown said open and designated, and the right to ingress and egress for service and construction.

Witness our signature this _____ day of _____, 2008.

RIVER OAKS PROPERTIES I, LTD.
A TEXAS LIMITED PARTNERSHIP
BY: RIVER OAKS ASSET MANAGEMENT, INC.
ITS GENERAL PARTNER

By _____
Adam Frank, VICE-PRESIDENT

ATTEST: NOT REQUIRED

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

Before me, the undersigned authority, on this day personally appeared Adam Frank, Vice-President of RIVER OAKS ASSET MANAGEMENT, INC., GENERAL PARTNER OF RIVER OAKS PROPERTIES I, LTD. A TEXAS LIMITED PARTNERSHIP, ON BEHALF OF SAID LIMITED PARTNERSHIP, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same as the act and deed of said corporation for the purpose and considerations therein expressed.

Given under my hand and seal of office this _____ day of _____, 2008.

_____ _____
Notary Public in and for El Paso County My Commission Expires

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

Before me, the undersigned authority, on this day personally appeared Adam Frank, Vice-President of RIVER OAKS PROPERTIES, LTD., known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same as the act and deed of said corporation for the purpose and considerations therein expressed.

Given under my hand and seal of office this _____ day of _____, 2008.

_____ _____
Notary Public in and for El Paso County My Commission Expires

CITY PLAN COMMISSION

This subdivision is hereby approved as to the platting and as to the condition of the dedication in accordance with Chapter 212 of the Local Government Code of Texas this _____ day of _____, 2008.

_____ _____
Secretary Chairperson

Approved for filing this _____ day of _____, 2008.

_____
Development Services Director

FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas.

this _____ day of _____, 2008, A.D. in

File No. _____

_____ _____
County Clerk By Deputy

Prepared by and under the supervision of:
YVONNE CONDE CURRY, P.E.
Registered Professional Engineer
Registration No. 84642

This plat represents a survey made on the ground by me or under my supervision and complies with the current Texas Board of Professional Land Survey Professional and Technical Standards.

_____ _____
Yvonne Conde Curry, P.E. Ron R. Conde,
Registered Professional Land Surveyor
Texas License No. 5182

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Applicant Appeal Deficiencies

- **Applicant did not provide a study for Tierra Commercial Unit 5 in support of their appeal as required in Section 19.46.3.c.**

1) Impact of proposed development on roadway system to be utilized by development.

The study submitted by applicant does not contain all of Tierra Commercial Unit 5, and contains additional property outside of the subdivision.

2) Comparison of the capacity of City's public facilities to be used by the development.

The study does not contain an analysis of the capacity of the proposed intersection(s) impacted by Tierra Commercial Unit 5.

3) Any other information that shows alleged disproportionality between the impacts of the development and the requirement imposed.

Study does not contain any information relating to the traffic impacts necessitated by and attributable to Tierra Commercial Unit 5.

Traffic Engineering Study for Tierra Commercial Unit 5

- No site plan or information was provided by applicant as to specific uses or buildings. Traffic Engineering study is based on typical regional commercial uses.
- Applicant used ITE Trip Generation Land Use Code 820 (Shopping Center) for entire commercial acreage.
- Tierra Commercial Unit 5 is a proposed commercial (C-4) development of approximately 65 acres.
- Estimated building area of 8,000 square feet per acre.
- ITE Trip Generation, 7th Edition, calculation of 42.94 average daily trips per 1,000 square feet.
- Site projected traffic is 22,329 ADT.

- Per Section 19.16.020.M.2 Signalization – The subdivider shall pay all costs for providing a traffic signalization system, including devices, conduits, wiring, etc., which is necessitated by and attributable to the proposed development.

Trip Distribution

- **Distribution of proposed Tierra Commercial Unit 5 site-generated traffic (based on distribution percentages used in developer's Traffic Impact Analysis for TDE III Phase 2 Land Study).**

- **Note: Access to Zaragoza Road must be approved by TxDOT. No access has been approved to date for Tierra Commercial Unit 5.**

	% Distribution	ADT
Pebble Hills	21	4,689
Zaragoza	61	13,621
Rich Beem	18	4,019
Total	100	22,329

Traffic Engineering Conclusion

- Currently the Pebble Hills connection to Zaragoza does not exist, there is no cross traffic and no need for a traffic signal.
- Tierra Commercial Unit 5 contains the total ROW of Pebble Hills at the intersection with Zaragoza.
- Based solely on traffic generated by the proposed development, the Manual of Uniform Traffic Control Devices, Warrants 1b and 2 are met.
- The vehicular traffic will not be able to enter the major street without suffering excessive delay or hazard.
- At this point in time, the proposed signal is necessitated by and 100% attributable to Tierra Commercial Unit 5 .

- Questions or Clarification?

Traffic Control Signal Needs Study

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

11 hours meet minimum volumes.
Warrant is met!

Site Data Required by Warrant

- [x] 85% Speed > 40 MPH
- [ ] Built-up community < 10,000

Number of Major Lanes = [ ] 1 [x] 2 or more

Number of Minor Lanes = [ ] 1 [x] 2 or more

Volume Requirements

Note: Rural Factor of 70% applied

Veh/Hr Major 630

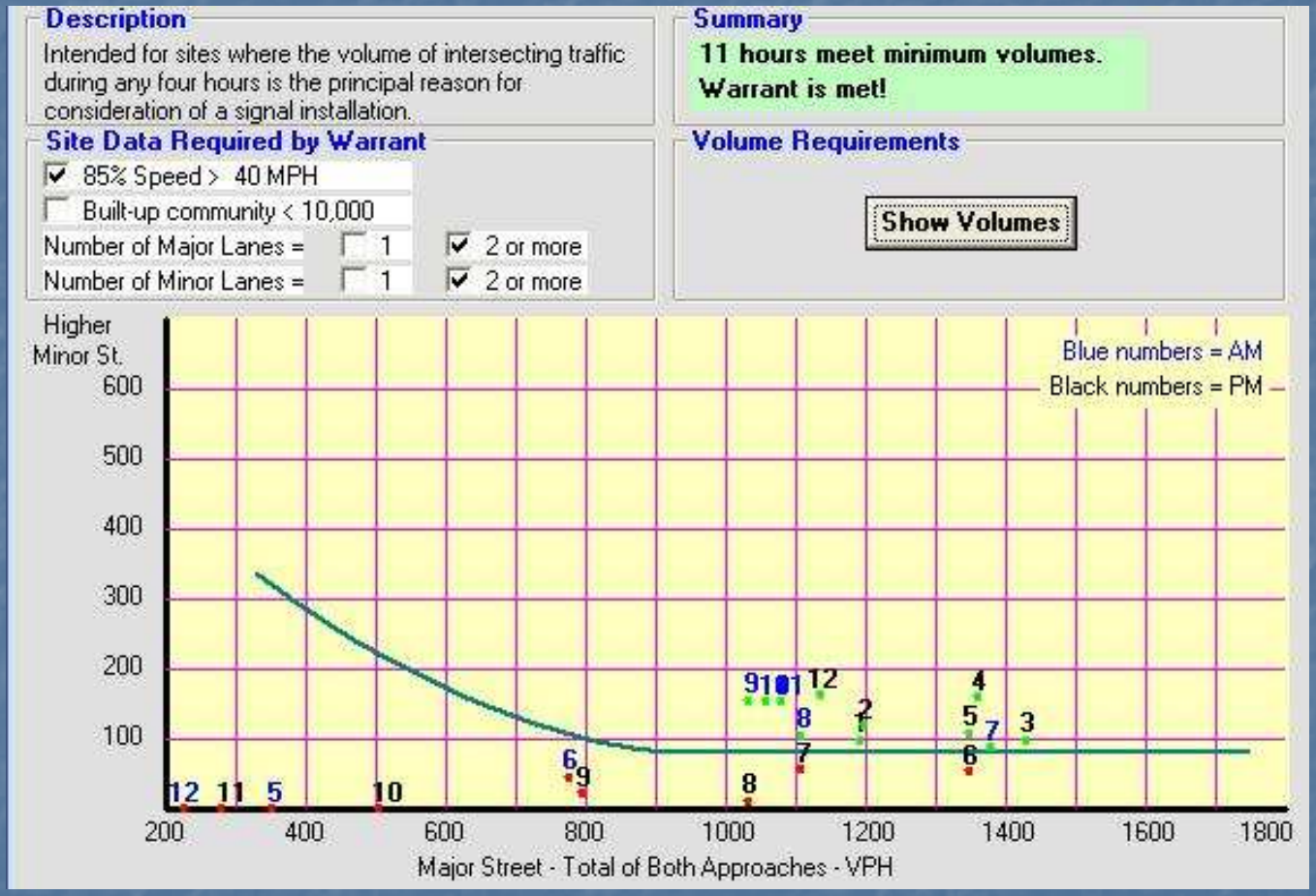
Veh/Hr Minor 70

Current Volume Data

	Major Road Zaragoza NB	SB	Total	Minor Road Pebble Hills		Met?		Major Road Zaragoza NB	SB	Total	Minor Road Pebble Hills		Met?
12AM-1	113	112	225	3	WB	No	12PM-1	578	577	1155	166	WB	Yes
1-2	66	66	132	0	WB	No	1-2	605	606	1211	101	WB	Yes
2-3	31	31	62	3	WB	No	2-3	609	609	1218	121	WB	Yes
3-4	35	34	69	0	WB	No	3-4	727	727	1454	101	WB	Yes
4-5	53	52	105	0	WB	No	4-5	692	692	1384	163	WB	Yes
5-6	177	177	354	3	WB	No	5-6	685	685	1370	110	WB	Yes
6-7	393	393	786	48	WB	No	6-7	685	685	1370	56	WB	No
7-8	702	701	1403	90	WB	Yes	7-8	563	564	1127	59	WB	No
8-9	563	564	1127	107	WB	Yes	8-9	524	525	1049	14	WB	No
9-10	525	525	1050	157	WB	Yes	9-10	403	403	806	25	WB	No
10-11	536	537	1073	155	WB	Yes	10-11	255	255	510	3	WB	No
11-12	548	549	1097	155	WB	Yes	11-12	140	141	281	3	WB	No

- ***Warrant 1b, Eight-hour vehicular volumes***

Traffic Warrants



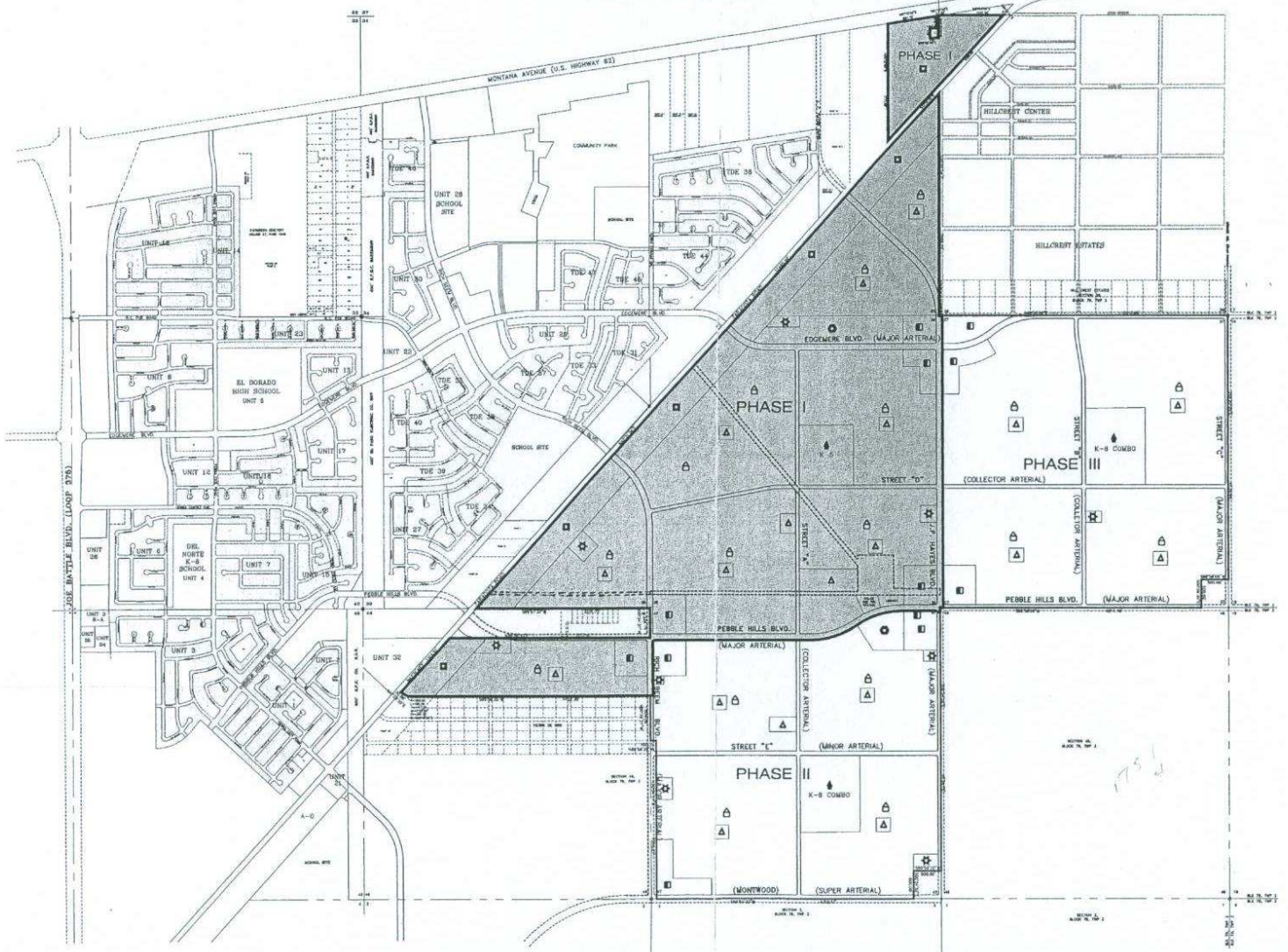
- ***Warrant 2, Four-hour vehicular volumes***

TDE Phase I Traffic Impact Analysis - 2006 (contains northern portion of Tierra Commercial Unit 5)

	% Distribution	ADT
Pebble Hills	30	13,620
Rich Beem	35	15,976
Edgemere	25	12,677
John Hayes	10	3,745
Zaragoza	(direct from abutting commercial property)	40,750
Total	100	86,768

PHASE I - ANEXATION PLAN

BEING A PORTION OF SECTIONS 35, 36, 37, 38, 39, 46, AND 47,
BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILROAD Co. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 1,113.673 ACRES



LEGEND		
SYMBOL	LAND USE	* AREA (ACRES)
	RESIDENTIAL R-5	1,751.035
	PDC	81.146
	C-4	206.903
	C-2	102.124
	SCHOOL	108.415
	PARK	49.426
	R-2	42.544
	POLICE SUBSTATION AND FIRE STATION	2.000
	LIBRARY	2.000
	TOTAL AREA	2,287.593

* ASSURE 20% OF AREAS TO BE STREET AND DRAINAGE R.O.W.

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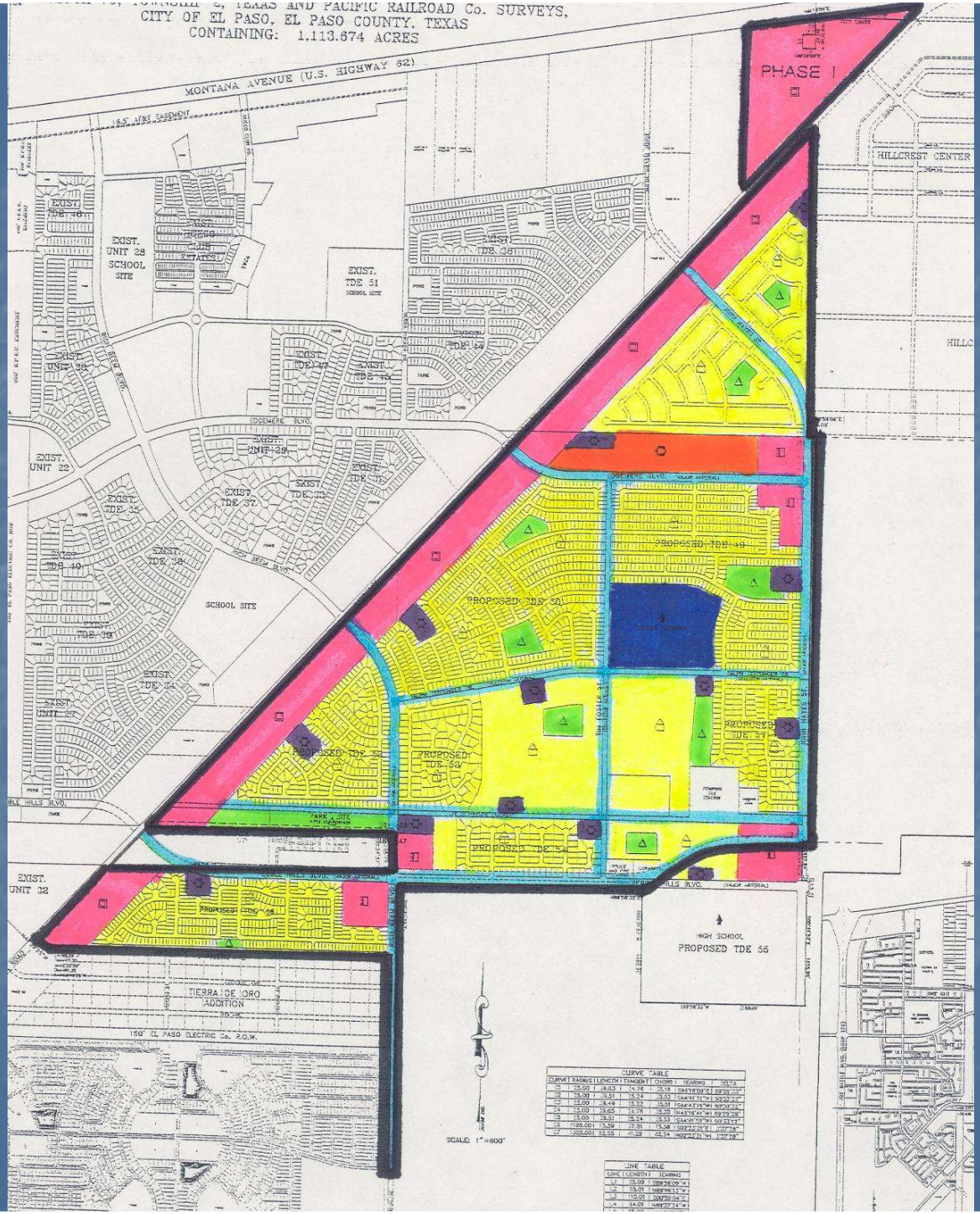
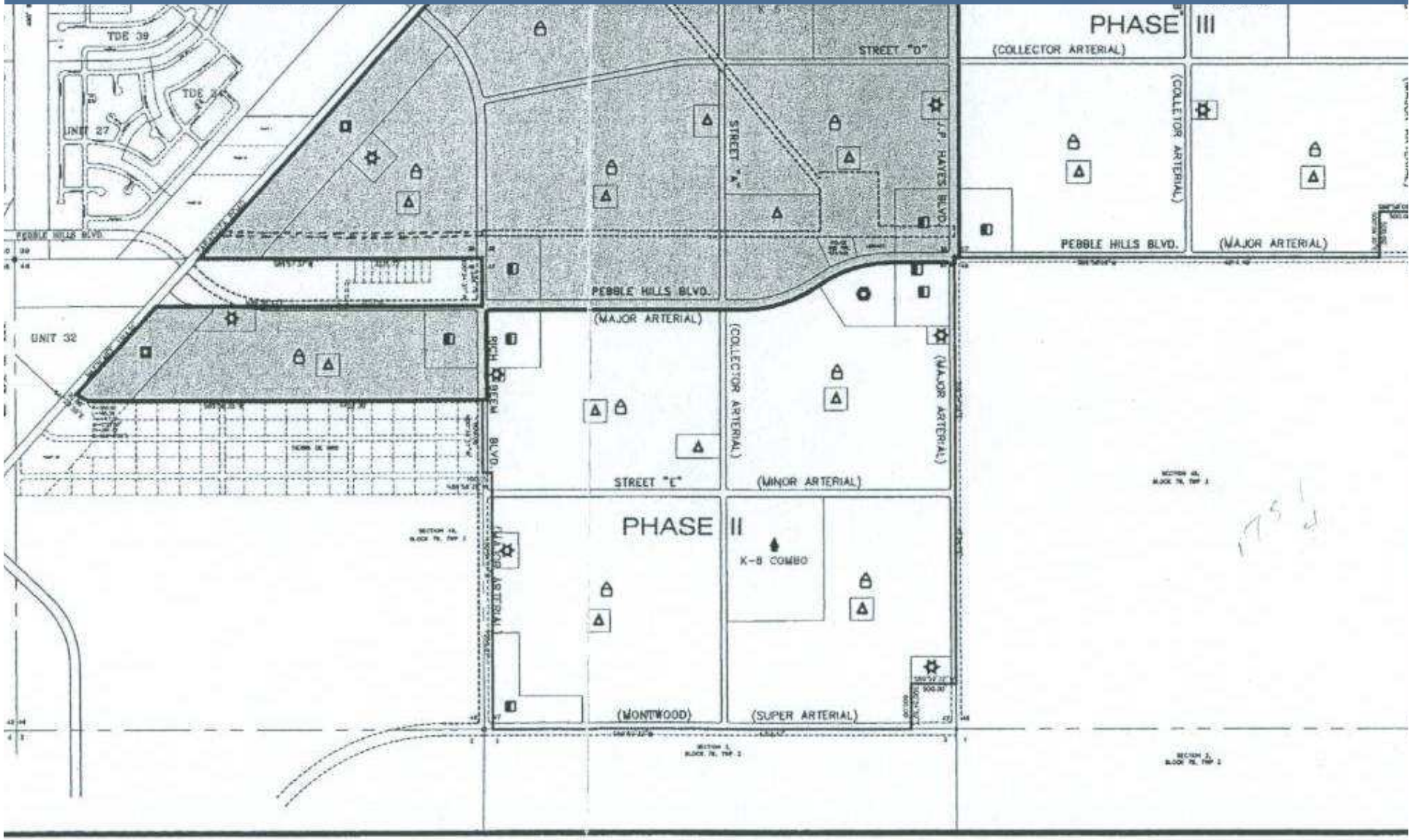

CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 1,113.674 ACRES
MONTANA AVENUE (U.S. HIGHWAY 62)
PHASE I
HILLCREST CENTER
EXIST. UNIT 28 SCHOOL SITE
EXIST. TDE 51 SCHOOL SITE
EXIST. TDE 38
EXIST. UNIT 30
EXIST. UNIT 22
EXIST. UNIT 29
EXIST. TDE 37
EXIST. TDE 36
EXIST. TDE 40
EXIST. TDE 39
EXIST. UNIT 27
EXIST. UNIT 32
SCHOOL SITE
PROPOSED TDE 49
PROPOSED TDE 50
PROPOSED TDE 52
PROPOSED TDE 53
PROPOSED TDE 54
PROPOSED TDE 56
PROPOSED TDE 55
HIGH SCHOOL
PROPOSED TDE 55
PARK A SITE
TIERRA DE ORO ADDITION
150' EL PASO ELECTRIC Co. R.O.W.
SCALE 1"=600'
CURVE TABLE
LINE TABLE

TDE III Phase 2 Traffic Impact Analysis - 2008 (contains southern portion of Tierra Commercial Unit 5)

	% Distribution	ADT
Pebble Hills	21	11,105
Rich Beem	18	9,715
Tim Foster/ Edgemere	16	8,895
John Hayes	13	6,884
Montwood	11	5,942
Charles Foster	16	8,525
Zaragoza	5	2,999
Total	100	54,065



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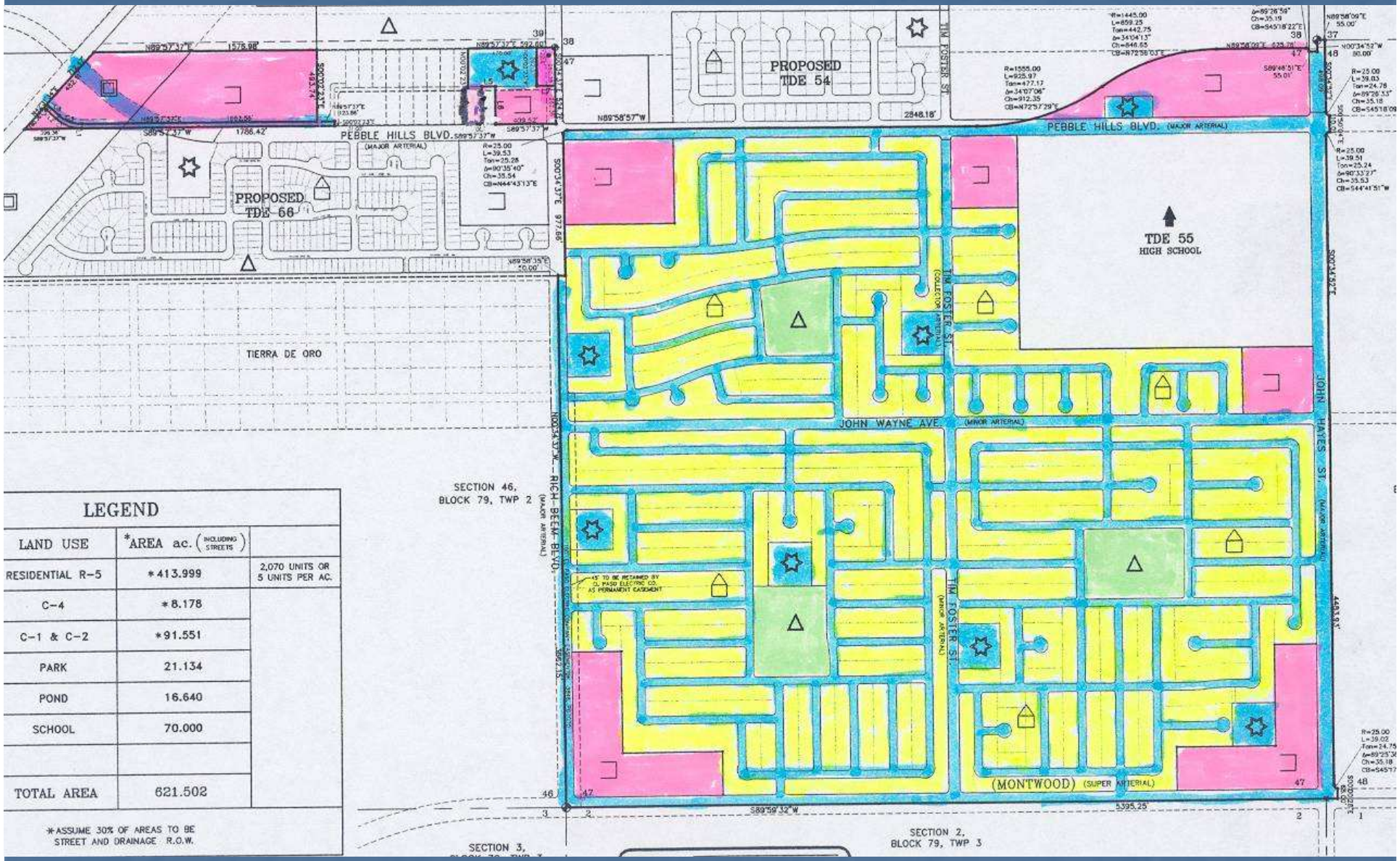


LEGEND

LAND USE	*AREA ac. (INCLUDING STREETS)	
RESIDENTIAL R-5	*413.999	2,070 UNITS OR 5 UNITS PER AC.
C-4	*8.178	
C-1 & C-2	*91.551	
PARK	21.134	
POND	16.640	
SCHOOL	70.000	
TOTAL AREA	621.502	

*ASSUME 30% OF AREAS TO BE STREET AND DRAINAGE R.O.W.

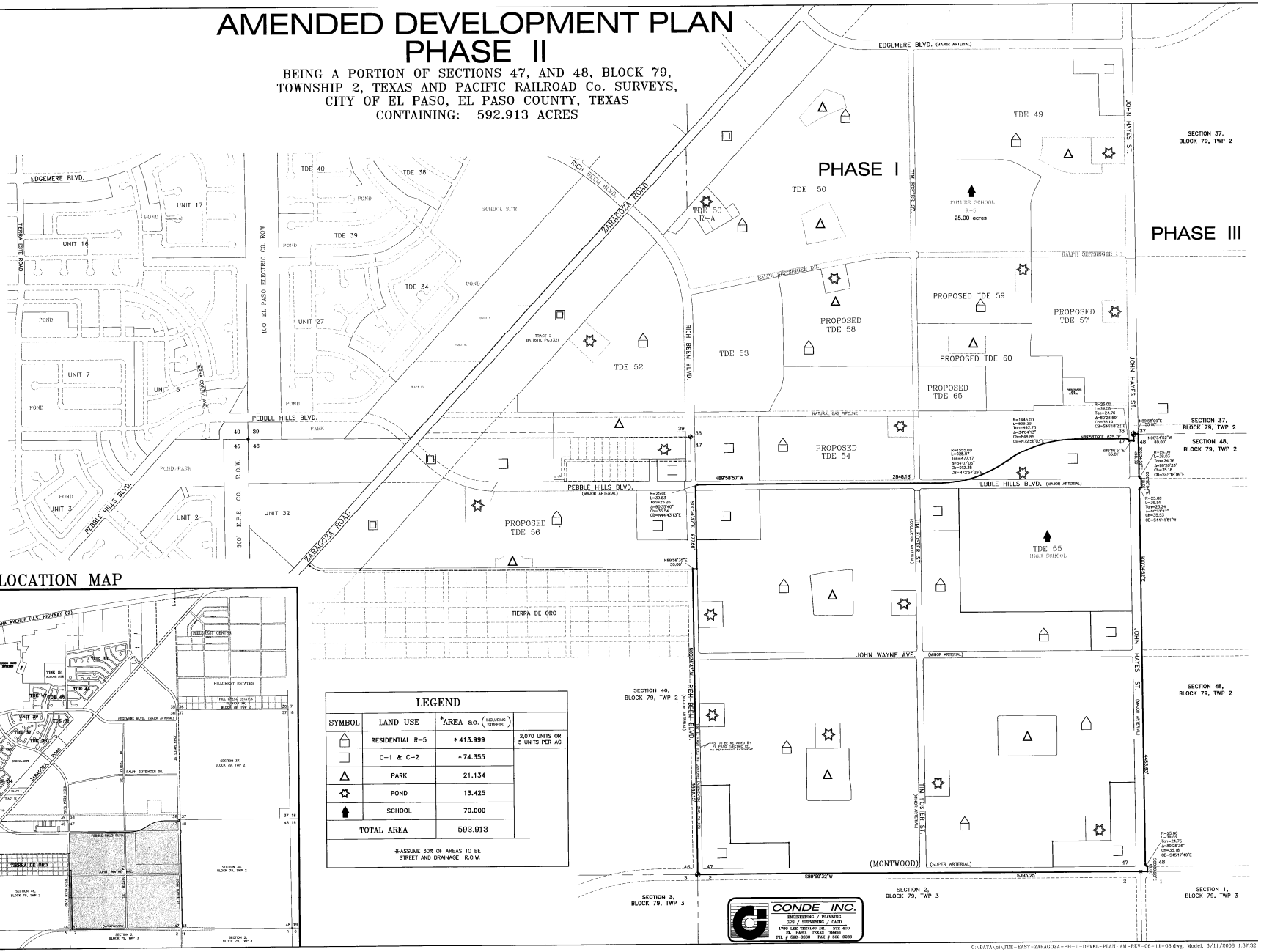
Development and Annexation History

- Development agreement for Phases 1, 2, and 3 approved in 2006.
- Phase I Annexed in 2006 (includes northern portion of Tierra Commercial Unit 5).
- TIA shows projected build out traffic of 13,620 ADT at Pebble Hills & Zaragoza for Phase I.

- Phase 2 Land Study submitted and approved in 2008 (includes southern portion of Tierra Commercial Unit 5).
- TIA shows build out traffic of 11,105 ADT at Pebble Hills & Zaragoza for Phase 2.
- Phase 2 annexation currently in process.

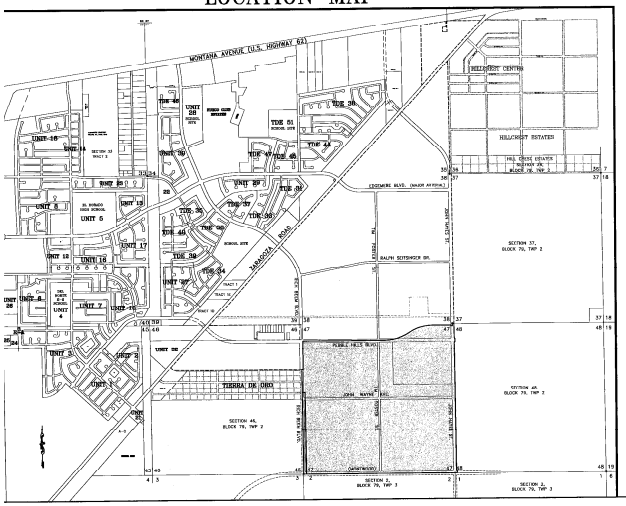
AMENDED DEVELOPMENT PLAN
PHASE II

BEING A PORTION OF SECTIONS 47, AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILROAD Co. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 592.913 ACRES



SCALE: 1"=500'

LOCATION MAP



LEGEND			
SYMBOL	LAND USE	*AREA ac. (INCLUDING STREETS)	
△	RESIDENTIAL R-5	*413.999	2,070 UNITS OR 5 UNITS PER AC.
□	C-1 & C-2	*74.355	
△	PARK	21.134	
☆	POND	13.425	
⬆	SCHOOL	70.000	
TOTAL AREA		592.913	

*ASSUME 30% OF AREAS TO BE STREET AND DRAINAGE R.O.W.

CONDE INC.
ENGINEERING / PLANNING
GPS / SURVEYING / CADD
1790 LEE TREVINO DR. SUITE 800
EL PASO, TEXAS 79936
PH. # 590-0303 FAX # 590-0590

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