ZONING CHANGE REVIEW SHEET

CASE: C14-2021-0080 (Technidge 2) DISTRICT: 7

ADDRESS: 13100 1/2 -13200 1/2 Mc Callen Pass; 13200-13300 Center Lake Drive

ZONING FROM: LI-PDA TO: LI-PDA

SITE AREA: 13.510 acres

PROPERTY OWNER: Centerstate 99, Ltd., TECHRIDGE PLD 2019 LP

AGENT: Armbrust & Brown, L.L.P. (Amanda Morrow)

CASE MANAGER: Sherri Sirwaitis (512-974-3057, sherri.sirwaitis@austintexas.gov)

STAFF RECOMMENDATION:

The staff's recommendation is to grant LI-PDA, Limited Industrial Planned Development Area District zoning, to change a condition of zoning.

ZONING AND PLATTING COMMISSION ACTION / RECOMMENDATION: July July 20, 2021: Approved staff's request for postponement to August 3, 2021 by consent (9-0, J. Kiolbassa and E. Ray-absent); H. Smith-1st, C. Acosta-2nd.

August 3, 2021: Approved the staff's recommendation of LI-PDA zoning by consent (9-0, A. Denkler-off the dais); H. Smith-1st, C. Thompson-2nd.

CITY COUNCIL ACTION:

August 26, 2021

ORDINANCE NUMBER:

ISSUES:

In this rezoning request, the applicant is asking to take a 3.858 acre portion of land out of the Dell-Parmer North Development LI-PDA zoned property (approved through Ordinance No. 980430-P – *please see Exhibit D*) between Parmer Lane and Howard Lane and move it to the Parmer Center Development ("Tech Ridge") LI-PDA zoned property (approved through Ordinance No. 990602-92 – *please see Exhibit E*) to the northwest. In addition, the applicant would like to remove the density limitation for multi-family housing for this property (a portion of Lot 3, Block "A", Tech Ridge Section 2 and a portion of Lot 2B, Resubdivision of Lot 2, Block "A", Tech Ridge Section 2) in the Parmer Center PDA (*please see Applicant's Request Letter – Exhibit C*).

This request can be handled as one zoning case as long as the removal of land from the Dell-Parmer North Development PDA does not affect the site development regulations or impact a Transportation Impact Analysis (TIA) for the Dell PDA. After reading the Parmer Center Development PDA and the Dell-Parmer North Development PDA ordinances/restrictive covenant, the staff understands that the Dell-Parmer North Development PDA does not have a TIA. Therefore, the removal of the property from the Dell LI-PDA zoning does not negatively impact that PDA agreement. Please see the TIA Compliance Letter that was submitted to ATD for review (*please see Exhibit F*).

CASE MANAGER COMMENTS:

The property in question is currently an undeveloped 13.510-acre parcel located at the northwest corner of McCallum Pass and Center Lake Drive. The land surrounding this site to the north, south, east and west is zoned LI-PDA. The lot to the east contains a parking area for the General Motors Austin Innovation Center and an office building. To the north there is an office/warehouse use. The lot to the south is developed with a multifamily use (Austin Waters) and a regional wet pond. To the west, there is an industrial use (HID) and undeveloped land.

The applicant would like to add 3.858 acres of land to the Parmer Center Development PDA to develop the overall 13.510 acre area with a maximum of 315 multifamily dwelling units and accompanying site improvements and amenities. Therefore, the applicant is requesting an amendment to Ordinance 990603-92 for the Parmer Center PDA to 1) change Exhibit "E" Site Development Standards Section 2.A. to remove the density limitation for multifamily housing for this property and to 2) amend Exhibit "A" Field Notes to update the field note description to include 3.858 acre tract of land into the Parmer Center Development PDA.

The staff recommends the applicant's request for LI-PDA zoning to join this property with the Parmer Center PDA to develop multifamily uses at this location. The site under consideration is located near the intersection of McCallen Pass, a collector street, and Parmer Lane, a major arterial/highway and is in an area adjacent to a major institutional or employment center. The proposed zoning will promote consistency and orderly planning because the surrounding properties are zoned with the LI-PDA district. LI-PDA zoning will permit the applicant to develop a multifamily residential uses in an area where a variety of

housing opportunities are desirable. The proposed residential development will provide housing options adjacent to a major employer (Dell Computers) and near numerous commercial services (Parmer Center, Tech Ridge Shopping Center).

The applicant agrees with the staff's recommendation.

BASIS FOR RECOMMENDATION:

1. The proposed zoning should be consistent with the purpose statement of the district sought.

Limited industrial service (LI) district is the designation for a commercial service use or limited manufacturing use generally located on a moderately-sized site.

The purpose of a planned development area (PDA) combining district is to:

- (1) provide for industrial and commercial uses in certain commercial and industrial base districts; or
- (2) incorporate the terms of a planned development area agreement into a zoning ordinance following annexation of a property that is subject to a planned development area agreement.
- 2. The proposed zoning should promote consistency and orderly planning.

The proposed LI-PDA zoning designation will promote consistency and orderly planning because the property is surrounded by LI-PDA zoning to the north, south, east and west. These lots are located in an area adjacent to a major institutional or employment center. The tract of land to the south, across Center Lake Drive, is currently developed with a multifamily residential use (Austin Waters Apartments). The site under consideration is a block to the north of the intersection of McCallen Pass, a collector street, and Parmer Lane, a major arterial/highway and is within 0.30 linear miles from the West Parmer Lane Activity Corridor, as designated by the Imagine Austin Comprehensive Plan.

4. The proposed zoning should allow for a reasonable use of the property.

LI-PDA zoning will permit the applicant to develop a multifamily residential uses in an area where a variety of housing opportunities are desirable. The proposed residential development will provide housing options adjacent to a major employer (Dell Computers) and near numerous commercial services (Parmer Center, Tech Ridge Shopping Center).

EXISTING ZONING AND LAND USES:

	ZONING	LAND USES
Site	LI-PDA	Undeveloped
North	LI-PDA	Office/Warehouse
South	LI-PDA	Multifamily (Austin Waters), Regional Wet Pond
East	LI-PDA	Parking Area for General Motors Austin Innovation
		Center, Office Building
West	LI-PDA	Industrial (HID), Undeveloped

AREA STUDY: N/A

TIA: Deferred to Site Plan

WATERSHED: Walnut Creek

NEIGHBORHOOD ORGANIZATIONS:

Austin Lost and Found Pets
Bike Austin
Friends of Austin Neighborhoods
Homeless Neighborhood Association
Neighborhood Empowerment Foundation
North Growth Corridor Alliance
Pflugerville Independent School District
SELTEXAS
Sierra Club, Austin Regional Group
Tech Ridge Neighbors
Yager Community

SCHOOLS: Pflugerville I.S.D.

Parmer Elementary Westview Middle School Connally High School

AREA CASE HISTORIES:

NUMBER	REQUEST	COMMISSION	CITY COUNCIL
C14-2014-0108	LI-PDA to	10/21/14: Approved LI-PDA	11/20/14: Approved LI-PDA
(Tech Ridge:	LI-PDA	zoning on consent (5-0, P.	zoning on consent on all 3 readings
13001 Center		Seeger and R. McDaniel-absent);	(7-0); B. Spelman-1 st , S. Cole-2 nd .
Lake Drive)		C. Banks-1 st , B. Baker-2 nd .	
C14-2012-	LI, GR, and RR to	11/20/12: Approved MF-4	12/06/12: Approved MF-4 zoning
0121(Tech	MF-4	zoning on consent (7-0);	on consent on all 3 readings (7-0);
Ridge Center		P. Seeger-1 st , C. Banks-2 nd .	M. Martinez-1 st , B. Spelman-2 nd .
Phase III			

Apartments:	1	1	
12504-12620			
McCallen Pass)			
C14-2008-0076 (The Ridge: East Parmer Lane)	SF-2 to LI-PDA* *With this LI- PDA request, the applicant is asking for a variance to Section 25-8-341 and 25-8-342 to allow for cut and fill of up to twelve (12) feet on this site.	9/02/08: Approved the staff's recommendation for LI-PDA zoning (5-0, T. Rabago, R. Evans-absent); K. Jackson-1st, C. Hammond-2nd.	9/25/08: Approved LI-PDA district zoning as Zoning and Platting Commission recommended, (7-0), 1 st reading 10/16/12: Approved LI-PDA zoning on 2 nd /3 rd readings (7-0)
C14-03-0050 (Parmer Lane and IH-35: 500 West Parmer Lane)	CS to CH	5/13/03: Approved staff's recommendation of CH-CO zoning, with height limit of 120-feet, by consent (9-0); J. Martinez-1 st , J. Gohil-2 nd .	6/12/03: Approved CH-CO zoning (5-1, Garcia-off dias, Goodman-Nay); all 3 readings
C14-01-0169 (Parmer Center-1.334 acres: 900-1004 Center Ridge Drive)	IP to CS	2/5/02: Approved staff's alternate rec. of CS-CO on consent w/ following conditions: 1) Limit site to TIA conditions and post fiscal for roadway improvements prior to third reading of the case at City Council; 2) Prohibit the following uses: Agricultural Sales and Services, Campgrounds, Commercial Blood Plasma Center, Construction Sales and Services, Drop-Off Recycling Collection Facility, Equipment Repair Services, Equipment Sales, Monument Retail Sales, Vehicle Storage, Veterinary Services, Maintenance and Service Facilities, Art and Craft Studio (General), Art and Craft Studio (Limited), Building Maintenance Services, Convenience Storage, Kennels, Laundry Services, Pawnshops, Adult Oriented Businesses; 3) Make the following uses conditional: Custom Manufacturing, Limited Warehousing and Distribution	3/21/02: Approved CS-CO w/other conditions (7-0); 1 st reading 4/11/02: Approved CS-CO (6-0); 2 nd /3 rd readings

G1 1 01 01 00	TD 0 GG 55	T 0 17 10 0 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2/24/02 4 2 2 2 2 2
C14-01-0168			3/21/02: Approved CS-CO w/
(Parmer Center:	CS	alternate rec. of CS-CO on	other conditions (7-0); 1 st reading
13001-13299		consent w/ following conditions:	4/11/02 A 1.00 CO (C.C.)
North Interstate		1) Limit site to TIA conditions	4/11/02: Approved CS-CO (6-0);
Highway-35		and post fiscal for roadway	2 nd /3 rd readings
Service Road		improvements prior to third	
Northbound)		reading of the case at City	
		Council; 2) Prohibit the	
		following uses: Agricultural	
		Sales and Services,	
		Campgrounds, Commercial	
		Blood Plasma Center,	
		Construction Sales and Services,	
		Drop-Off Recycling Collection	
		Facility, Equipment Repair	
		Services, Equipment Sales,	
		Monument Retail Sales, Vehicle	
		Storage, Veterinary Services,	
		Maintenance and Service	
		Facilities, Art and Craft Studio	
		(General), Art and Craft Studio	
		(Limited), Building Maintenance	
		Services, Convenience Storage,	
		Kennels, Laundry Services,	
		Pawnshops, Adult Oriented	
		Businesses; 3) Make the	
		following uses conditional:	
		Custom Manufacturing, Limited	
		Warehousing and Distribution	
G14.04.0110	an as i	(8-0)	10.07/04
C14-01-0118	GR to CS-1	9/18/01: Approved staff's rec. of	10/25/01: Approved CS-1 (7-0); all
(Capital		CS-1 by consent (9-0)	3 readings
Vineyards-			
Center Park @			
Tech Ridge: 401			
East Parmer			
Lane)	G0 GD	5/9 5/04	0.000
C14-01-0085	GO to GR	6/26/01: Approved staff rec. of	8/2/01: Approved PC rec. of GR-
(Parmer		GR-CO, w/ CO to limit the	CO readings (6-0, Thomas-absent);
Meadows		development intensity to less	all 3 readings
Subdivision:		than 2,000 vehicle trips per day,	
North Lamar		by consent (7-0, Garza-recused	
Blvd. At Parmer		himself, Cravey-absent)	
Lane)		Vrudhula-1 st , Mather-2 nd	

~	~~		
C14-01-0077	DR to CS	2/26/02: Approved GR-CO, w/	4/18/02: Approved GR-CO on 3
(Revocable		CO to limit the site to conditions	readings (5-0, Slusher/ Thomas-
Living Trust –		of the TIA, by consent (7-0, K.	absent)
Walmart		Jackson-absent, Adams-off	
Parmer: 12700-		dais); J. Martinez-1st, J. Mather-	
12800 Block of		2 nd .	
IH 35 Service			
Road			
Southbound)			

RELATED CASES:

C14-98-0032 - Dell-Parmer North Development PDA Zoning C14-98-0265 - Parmer Center Development PDA Zoning SP-2018-0302C – Site Plan Case

OTHER STAFF COMMENTS:

Comprehensive Planning

This case is located on the northwest corner of McCallum Pass and Center Lake Drive on a 13.51 acre vacant parcel, which is part of a larger planned development. The property is not located within an area with an adopted neighborhood plan but is located 0.30 linear miles from the **West Parmer Lane Activity Corridor**. Surrounding land uses include a granite distributor, and a corporate office complex to the north; to the south is a large apartment complex and a detention pond; to the east are several large corporate office parks; and the west is vacant land and an apartment complex. The proposal is to amend the PDA to include additional land area in the Techridige PDA and remove the unit cap for multifamily residences. A waiver is also requested to support a change of land use from Warehouse and Office to Apartments.

Connectivity

There are public sidewalks located along both sides of McCallum Pass but only on one side of Center Lake Drive. Center Lake Drive has unprotected bike lanes along both sides of the street. A public transit stop is located directly in front of the subject property on McCallum Pass. A full-service grocery store is located approximately one mile driving distance from the subject property. Mobility options are average while connectivity options are fair due to the lack of goods, services and civic uses within a quarter of a mile walking distance to this site.

Imagine Austin

The Imagine Austin Growth Concept Map identifies this project as being located near two **Activity Corridors**. **Activity Corridors** are intended to allow people to reside, work, shop, access services, people watch, recreate, and hang out without traveling far distances. They are characterized by a variety of activities and types of buildings located along the roadway — shopping, restaurants and cafés, parks, schools, single-family houses, apartments, public buildings, houses of worship, mixed-use buildings, and offices.

The following Imagine Austin policies are applicable to this case:

- **LUT P3.** Promote development in compact centers, communities, **or along corridors** that are connected by roads and transit that are designed to encourage walking and bicycling, and reduce health care, housing and transportation costs.
- **LUT P5.** Create healthy and family-friendly communities through development that includes a mix of land uses and housing types and affords realistic opportunities for transit, bicycle, and pedestrian travel and provides both community gathering spaces, parks and safe outdoor play areas for children.
- **HN P10**. Create complete neighborhoods across Austin that have a mix of housing types and land uses, affordable housing and transportation options, and access to healthy food, schools, retail, employment, community services, and parks and recreation options.

Analyzing the land uses within a mile radius of this subject property, there are both benefits and challenges to this location. Most importantly, this area of Austin is lacking a variety of goods, services and civic uses for residents within a half of a mile of the subject property, although there are many employers within the area. Based on the policies above, this proposed multi-family project appears to be only partially support the policies of the Imagine Comprehensive Plan.

Environmental

No comments.

Fire

No comments.

Parks and Recreation

Parkland dedication will be required for the new residential units proposed by this development, multifamily with LPDA zoning, at the time of subdivision or site plan, per City Code § 25-1-601. Whether the requirement shall be met with fees in-lieu or dedicated land will be determined using the criteria in City Code Title 25, Article 14, as amended. Should fees in-lieu be required, those fees shall be used toward park investments in the form of land acquisition and/or park amenities within the surrounding area, per the Parkland Dedication Operating Procedures § 14.3.11 and City Code § 25-1-607 (B)(1) & (2). Please confirm that the amendment's increase in allowable units is only applicable to the property currently being rezoned, and not the entire Parmer Center PDA area.

If the applicant wishes to discuss parkland dedication requirements in advance of site plan or subdivision applications, please contact this reviewer: thomas.rowlinson@austintexas.gov. At the applicant's request, PARD can provide an early determination of whether fees in-lieu of land will be allowed.

Site Plan

The applicant will need to clarify if Subchapter E will be followed for the multifamily project(s), specifically the Open Space requirements.

Transportation

The Austin Strategic Mobility Plan (ASMP) calls for 104 feet of right-of-way for McCallen Pass and 120 feet of right-of-way for Center Lake Drive. It is recommended that 60 feet of right-of-way from the existing centerline should be dedicated for Center Lake Drive according to the Transportation Plan at the time of subdivision and/or site plan application, whichever comes first. The site must demonstrate compliance with Tech Ridge TIAs and all approved addendums at the time of site plan.

Water Utility

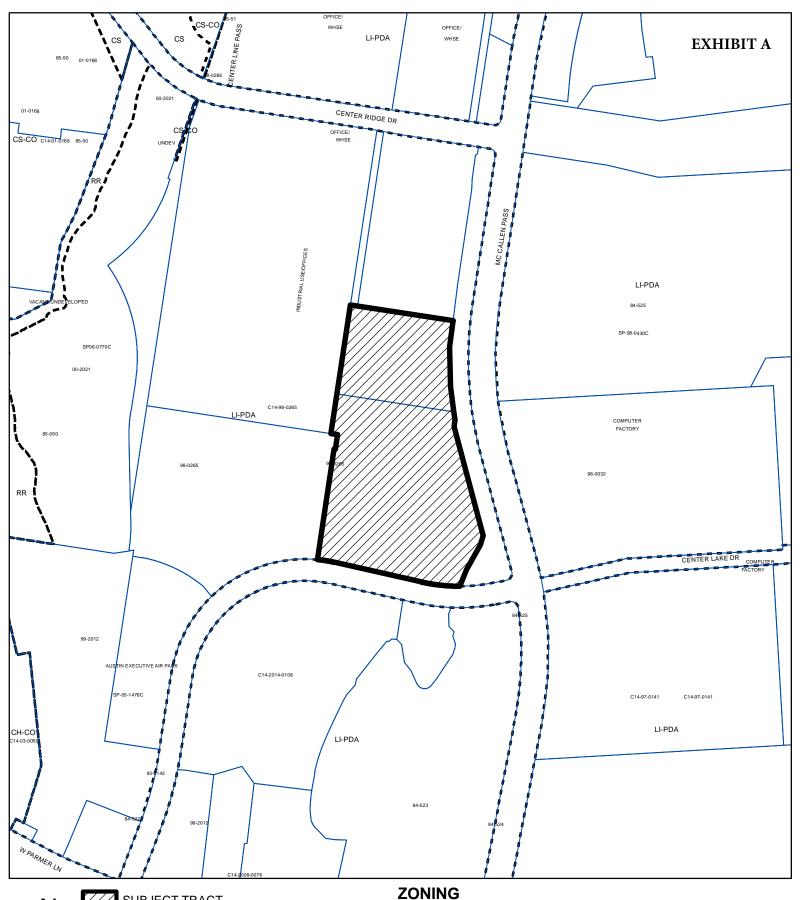
The landowner intends to serve the site with City of Austin water and wastewater utilities. The landowner, at own expense, will be responsible for providing any water and wastewater utility improvements, off site main extensions, utility relocations and or abandonments required by the land use. The water and wastewater utility plan must be reviewed and approved by Austin Water for compliance with City criteria and suitability for operation and maintenance.

Depending on the development plans submitted, water and or wastewater service extension requests may be required. All water and wastewater construction must be inspected by the City of Austin.

The landowner must pay the City inspection fee with the utility construction. The landowner must pay the tap and impact fee once the landowner makes an application for a City of Austin water and wastewater utility tap permit.

INDEX OF EXHIBITS TO FOLLOW

- A: Zoning Map
- B. Aerial Map
- C. Applicant's Request Letter
- D. Dell-Parmer North Development LI-PDA: Ordinance No. 980430-P
- E. Parmer Center PDA: Ordinance No. 980430-P
- F. TIA Compliance Letter

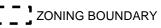




SUBJECT TRACT

PENDING CASE

ZONING CASE#: C14-2021-0080



This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



This product has been produced by the Housing and Planning Department for the sole purpose of geographic reference. No warranty is made by the City of Austin regarding specific accuracy or



Created: 4/21/2021







Techridge 2

ZONING CASE#: C14-2021-0080

LOCATION: 13100-1/2 - 13200-1/2 Mc Callen Pass;

13200 -13300 Center Lake Dr

SUBJECT AREA: 13.510 Acres

GRID: N34

MANAGER: Sherri Sirwaitis



ARMBRUST & BROWN, PLLC

ATTORNEYS AND COUNSELORS

100 Congress Avenue, Suite 1300 Austin, Texas 78701-2744 512-435-2300

FACSIMILE 512-435-2360

Amanda Morrow (512) 435-2368 amorrow@abaustin.com

April 13, 2021

Rosie Truelove, Director City of Austin Housing & Planning Department 1000 E. 11th Street, Suite 200 Austin, Texas 78702

Re: PDA Amendment Application to Ordinance No. 990603-92 (the "Application")

Dear Mrs. Truelove:

This firm represents and this letter is submitted on behalf of the applicant in the above referenced Application. On June 3, 1999, City Council approved Ordinance No. 990603-92 ("Parmer Center PDA") rezoning approximately ±132.752 acres. The site subject to this Application is a ±13.510 acre tract of land located at 13200-13300 Center Lake Drive and 13100 ½ - 13200 ½ Mc Callen Pass, also being a portion of Lot 3, Block "A", Tech.Ridge Section 2 and a portion of Lot 2B, Resubdivision of Lot 2, Block "A", Tech.Ridge Section 2 (the "Property"). A copy of the field notes describing the Property are included with the Application.

More specifically this Application proposes to remove the density limitation for multifamily housing and to make a ±3.858 acre tract of land that is currently subject to Ordinance No. 980430-P ("Dell PDA") part of the Parmer Center PDA. There are no adverse impacts to traffic or site development regulations by incorporating this tract of land into the Parmer Center PDA. A copy of both the Parmer Center PDA and the Dell PDA are included with this Application for review.

The Property is currently undeveloped, however a site plan has been approved for the Property under City of Austin (the "City") Case No. SP-2018-0302C. The approved site plan currently contemplates the Property to be developed with office and limited warehouse/distribution uses. If the Property is rezoned a new site plan for the property will be submitted to the City for the development of 315 dwelling units with associated site improvements.

We hereby request Ordinance 990603-92 be amended as follows.

- 1. Exhibit "A" Field Notes: Update field notes to include the 3.858 acre tract of land currently subject to the Dell PDA.
- 2. <u>Exhibit "E" Site Development Standards Section 2.A.</u>: Remove the density limitation for multi-family housing.

ARMBRUST & BROWN, PLLC Page 2

Thank you in advance for your consideration of this request. Should you have any questions or need additional information during your review of the Application, please do not hesitate to contact me at 512-435-2368 or Amanda Surman at 512-435-2328.

Sincerely,

ARMBRUST & BROWN, PLLC

Amanda Morrow

Director of Land Use and Entitlements

cc: Sherri Sirwaitis

Richard T. Suttle, Jr. Amanda Surman

Steve Mattingly

Location Map CENTER RIDGE DRIVE MCCALLEN PASS SITE CENTER LAKE DR CENTER LAKE DRIVE 35

ORDINANCE NO. 990603-92

AN ORDINANCE REZONING AND CHANGING THE ZONING MAP ACCOMPANYING CHAPTER 25-2 OF THE CITY CODE ON THREE TRACTS OF LAND CONSISTING OF 132.7 ACRES OF LAND OUT OF THE THOMAS C. COLLINS SURVEY NO. 61 IN TRAVIS COUNTY, FROM AVIATION SERVICES (AV) DISTRICT AND GENERAL COMMERCIAL SERVICES (CS) DISTRICT TO LIMITED INDUSTRIAL SERVICES-PLANNED DEVELOPMENT AREA (LI-PDA) COMBINING DISTRICT, GENERALLY KNOWN AS THE PARMER CENTER DEVELOPMENT, LOCALLY KNOWN AS 611 TO 719, 907 AND 905 WEST HOWARD LANE, IN THE CITY OF AUSTIN, TRAVIS COUNTY, TEXAS; AND DECLARING AN EMERGENCY.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:

PART 1. The Zoning Map established by Chapter 25-2-191 of the City Code is amended to change the base zoning districts from Aviation Services (AV) district and General Commercial Services (CS) district to Limited Industrial Services-Planned Development Area (LI-PDA) combining district, on the property described in File C14-98-0265, as follows:

Tract 1: A 131.291 acre tract of land out of the Thomas C. Collins Survey No. 61 in Travis County, the tract of land being more particularly described by metes and bounds in Exhibit "A" incorporated into this ordinance,

Tract 2: A 1.365 acre tract of land out of the Thomas C. Collins Survey No. 61 in Travis County, the tract of land being more particularly described by metes and bounds in Exhibit "B" incorporated into this ordinance,

Tract 3: A 0.096 acre tract of land out of the Thomas C. Collins Survey No. 61 in Travis County, the tract of land being more particularly described by metes and bounds in Exhibit "C" incorporated into this ordinance, (the "Property")

generally known as the Parmer Center Development, locally known as 611 to 719, 907 and 905 West Howard Lane, in the City of Austin, Travis County, Texas, and as more particularly identified in the map attached as Exhibit "D".

PART 2. The Property within the boundaries of the Planned Development Area combining district established by this ordinance shall conform to the site development standards as set forth in the "Site Development Standards" attached as Exhibit "E" to this ordinance.

Except as specifically restricted under this ordinance, the Property may be developed and used in accordance with the regulations established for the Limited Industrial Services (LI) base district and other applicable requirements of the City Code.

PART 3. The Council waives the requirements of Sections 2-2-3, 2-2-5, and 2-2-7 of the City Code for this ordinance.

PART 4. The Council finds that development permits for the property are currently pending and cannot be completed until the appropriate zoning is approved which constitutes an emergency. Because of this emergency, this ordinance takes effect immediately on its passage for the immediate preservation of the public peace, health and safety.

\mathbf{p}_{A}	SSED	AND	APPR	OVE	n
1 /					

June 3 . 1999	\$ Shur Matin
	Kirk Watson
	Mayor

APPROVED: Mohew Martin ATTEST:

Andrew Martin Shirley A. Brown
City Attorney City Clerk

UPDATE EXHIBIT "A" to include the 3.858 acre parcel currently subject to Ordinance 980430-P

FIELD NOTES FOR

131.291 ACRES OF LAND (PARCEL 1)

ALL OF THAT CERTAIN TRACT OR PARCEL OF LAND OUT OF THE THOMAS C. COLLINS SURVEY NO. 61 IN TRAVIS COUNTY, TEXAS, BEING ALL OF LOT 2. BLOCK A AND A PORTION OF LOTS 1 AND 3. BLOCK A. AUSTIN EXECUTIVE AIRPORT. A SUBDIVISION RECORDED IN VOLUME 94. PAGES 209-210 OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS, THE HEREIN DESCRIBED TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2 inch iron pin set at the Northeast corner of said Lot 2. Block A, being in the South r.o.w. line of Dessau Road. for the Northeast corner and PLACE OF BEGINNING hereof:

THENCE along the East line of said Lot 2, Block A, S 10°55'31" W for a distance of 5130.58 feet to a 1/2 inch iron pin found at the Southeast corner of said Lot 2, Block A, for the Southeast corner hereof:

THENCE along the South line of said Lot 2, Block A. N 87°09'40" W for a distance of 598.95 feet to a 1/2 inch iron pin found at the Southwest corner of said Lot 2, Block A. for a Southerly corner hereof:

THENCE along the West line of said Lot 2. Block A. N 11°09'49" E for a distance of 382.03 feet to a 1/2 inch iron pin found in the South line of said Lot 1. Block A. for a Southerly inside ell corner hereof:

THENCE along the South line of said Lot 1, Block A. N 78°50'28" W for a distance of 547.29 feet to a 1/2 inch iron pin found at the Southwest corner of said Lot 1, Block A. for the Southwest corner hereof:

THENCE along the West line of said Lot 1. Block A for the following courses:

N 11°11'49" E for a distance of 805.29 feet to a 1/2 inch iron pin found

S $83^{\circ}27'18"$ W for a distance of 21.23 feet to a 1/2 inch iron pin found

N 13°12'16" E for a distance of 6.38 feet to a 1/2 inch iron pin found at a point of curve

Along a curve to the left whose radius is 660.00 feet, whose arc is 115.17 feet and whose chord bears N $06^{\circ}13'35$ " E for a distance of 115.03 feet to a 1/2 inch iron pin found

N $01^{\circ}11'42"$ E for a distance of 348.85 feet to a 1/2 inch iron pin found at a point of curve

EXHIBIT 'A"

990 C

131.291 ACRES OF LAND - Page Two

Along a curve to the right whose radius is 620.00 feet, whose arc is 108.29 feet and whose chord bears N 06°11'00" E for a distance of 108.15 feet to a 1/2 inch iron pin found

N 11°13'17" E for a distance of 130.00 feet to a 1/2 inch iron pin found at a point of curve

Along a curve to the left whose radius is 660.00 feet, whose arc is 510.65 feet and whose chord bears N $10^{\circ}57^{\circ}49$ " W for a distance of 498.00 feet to a 1/2 inch iron pin found

N 54°11'47" E for a distance of 44.16 feet to a 1/2 inch iron pin found at a point of curve

Along a curve to the left whose radius is 660.00 feet. whose arc is 244.70 feet and whose chord bears N 43°38'17" E for a distance of 243.29 feet to a 1/2 inch iron pin found at the Southwest corner of said Lot 3, Block A:

THENCE along the West line of said Lot 3. Block A for the following courses:

Along a curve to the left whose radius is 660.00 feet, whose arc is 129.14 feet and whose chord bears N $27^{\circ}24'47''$ E for a distance of 128.93 feet to a 1/2 inch iron pin found

N 21°45'34" E for a distance of 32.71 feet to a 1/2 inch iron pin found

N $21^{\circ}07'02$ " E for a distance of 841.44 feet to a 1/2 inch iron pin found

N 19°31'42" E for a distance of 109.81 feet to a 1/2 inch iron pin found

N 11°13'18" E for a distance of 817.63 feet to a 1/2 inch iron pin found

N 00°50'21" W for a distance of 112.00 feet to a 1/2 inch iron pin found

N 15°50'11" W for a distance of 29.47 feet to a 1/2 inch iron pin found

N 18°56'44" W for a distance of 196.52 feet to a 1/2 inch iron pin found at a point of curve

FIELD NOTES
FOR

131.291 ACRES OF LAND - Page Three

Along a curve to the right whose radius is 335.00 feet, whose arc is 238.98 feet and whose chord bears N $01^{\circ}28'29"$ E for a distance of 233.95 feet to a 1/2 inch iron pin found

N 21°55'23" E for a distance of 282.87 feet to a point in the Easterly line of that certain 122.7866 acre tract of land conveyed to Hariel. Inc. by instrument recorded in Volume 12189. Page 1769 of the Real Property Records of Travis County, Texas:

THENCE along the Easterly line of the said 122.7866 acre tract. S 58°59'39" E for a distance of 10.13 feet to an angle point and N 21°55'23" E for a distance of 306.90 feet to a point at the Northeast corner of said 122.7866 acre tract, being in the North line of said Lot 3. Block A. being in the South r.o.w. line of Dessau Road, for the Northwest corner hereof:

THENCE along the North lines of said Lots 1 and 3, Block A. being along the South r.o.w. line of Dessau Road. S 59° 08'00" E for a distance of 5.13 feet to a 1/2 inch iron pin found and S 59°02'29" E for a distance of 55.61 feet to a 1/2 inch iron pin found at the most Northerly Northeast corner of said Lot 1. Block A. for a Northerly corner hereof:

THENCE continuing along the North line of said Lot 1. Block A. S 21°55'19" W for a distance of 542.88 feet to a 1/2 inch iron pin found at an angle point and S 60°16'19" E for a distance of 421.94 feet to a 1/2 inch iron pin found at the Northwest corner of that certain 0.0029 acre tract of land described in Volume 11794. Page 1080 of the Real Property Records of Travis County. Texas:

THENCE along the West. South and East lines of said 0.0029 acre tract for the following courses:

S $29^{\circ}17'52''$ W for a distance of 12.55 feet to a 1/2 inch iron pin found

S 60°37'01" E for a distance of 9.97 feet to a 1/2 inch iron pin found

N 29°29'58" E for a distance of 12.51 feet to a 1/2 inch iron pin found in the North line of said Lot 1. Block A:

THENCE along the North line of said Lot 1, Block A. S 60°16'30" E for a distance of 146.53 feet to a 1/2 inch iron pin found and S 60°16'28" E for a distance of 55.00 feet to a 1/2 inch iron pin found at the most Easterly Northeast corner of said Lot 1. Block A. being in the West line of said Lot 2. Block A:

1. 1 1. 2 4 Beach

FIELD NOTES FOR

131.291 ACRES OF LAND - Page Four

THENCE along the West line of said Lot 2. Block A. N 11°12'11" E for a distance of 386.22 feet to a 1/2 inch iron pin set and N 23°44'24" E for a distance of 162.18 feet to a 1/2 inch iron pin set at the Northwest corner of said Lot 2. Block A. being in the South r.o.w. line of Dessau Road, for a Northerly corner hereof:

THENCE along the North line of said Lot 2. Block A. being along the South r.o.w. line of Dessau Road. S 59°27'16" E for a distance of 533.41 feet to the PLACE OF BEGINNING and containing 131.291 acres of land, more or less.

SURVEYED BY:

ROY D. SMITH SURVEYORS, P.C.

ROY D. SMITH

REGISTERED PROFF November 25, 199

RVEYOR NO. 4094

Job No. 2131

Y

,

.

FIELD NOTES FOR

1.365 ACRES OF LAND (PARCEL 2)

ALL OF THAT CERTAIN TRACT OR PARCEL OF LAND OUT OF THE THOMAS C. COLLINS SURVEY NO. 61 IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT CERTAIN 103.32 ACRE TRACT OF LAND CONVEYED TO CENTERLINE PARTNERS, L.P. BY INSTRUMENT RECORDED IN VOLUME 12011, PAGE 328 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS, THE HEREIN DESCRIBED TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2 inch iron pin set in the North line of said 103.32 acre tract, being in the South r.o.w. line of Dessau Road, being at the Northeast corner of Lot 2, Block A, Austin Executive Airport, a subdivision recorded in Volume 94, Pages 209-210 of the Plat Records of Travis County, Texas. for the Northwest corner and PLACE OF BEGINNING hereof;

THENCE along the North line of said 103.32 acre tract, being along the South r.o.w. line of Dessau Road, S 59°27'16" E for a distance of 24.60 feet to a 1/2 inch iron pin set at the Northeast corner of said 103.32 acre tract, being at the northwest corner of Palmer North Section One, a subdivision recorded in Volume 100, Pages 366-368 of the Plat Records of Travis County, Texas, for the Northeast corner hereof;

THENCE along the East line of said 103.32 acre tract, being along the West line of Palmer North Section One, S 11°11'04" W for a distance of 5122.37 feet to a 1/2 inch iron pin found at the Southeast corner of said 103.32 acre tract, being at the Southeast corner of said Lot 2, Block A, for the most Southerly corner hereof;

THENCE along the East line of said Lot 2, Block A, N 10°55'31" E for a distance of 5130.58 feet to the PLACE OF BEGINNING and containing 1.365 acres of land, more or less.

SURVEYED BY:

ROY D. SMITH SURVEYORS, P.C.

ROY D. SMITH

REGISTERED PROFESSINGS

November 25, 1998

Job No. 2131

NO. 4094

EXHIBIT 'B"

FIELD NOTES FOR

0.096 ACRE OF LAND (PARCEL 3)

ALL OF THAT CERTAIN TRACT OR PARCEL OF LAND OUT OF THE THOMAS C. COLLINS SURVEY NO. 61 IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT CERTAIN 103.32 ACRE TRACT OF LAND CONVEYED TO CENTERLINE PARTNERS, L.P. BY INSTRUMENT RECORDED IN VOLUME 12011, PAGE 328 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS, THE HEREIN DESCRIBED TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING FOR REFERENCE at a 1/2 inch iron pin found at the Southwest corner of Lot 3, Block A, Austin Executive Airport, a subdivision recorded in Volume 94, Pages 209-210 of the Plat Records of Travis County, Texas;

THENCE along the West line of said Lot 3, Block A for the following courses:

Along a curve to the left whose radius is 660.00 feet, whose arc is 129.14 feet and whose chord bears N 27°24''47" E for a distance of 128.93 feet to a 1/2 inch iron pin found

N 21°45'34" E for a distance of 32.71 feet to a 1/2 inch iron pin found in the South line of said 103.32 acre tract, for the Southeast corner and PLACE OF BEGINNING hereof;

THENCE along the South line of said 103.32 acre tract, N 60°45'02" W for a distance of 10.08 feet to a 1/2 inch iron pin set at the most Westerly Southwest corner of said 103.32 acre tract for the Southwest corner hereof;

THENCE along the West line of said 103.32 acre tract, N 21°47'51" E for a distance of 840.07 feet to a 1/2 inch iron pin found at an angle point in the West line of said Lot 3, Block A, for the most Northerly corner hereof;

THENCE along the West line of said Lot 3, Block A, S 21°07'02" W for a distance of 841.44 feet to the PLACE OF BEGINNING and containing 0.096 acre of land, more or less.

SURVEYED BY:

ROY D. SMITH SURVEYORS, P.C.

ROY D. SMITH

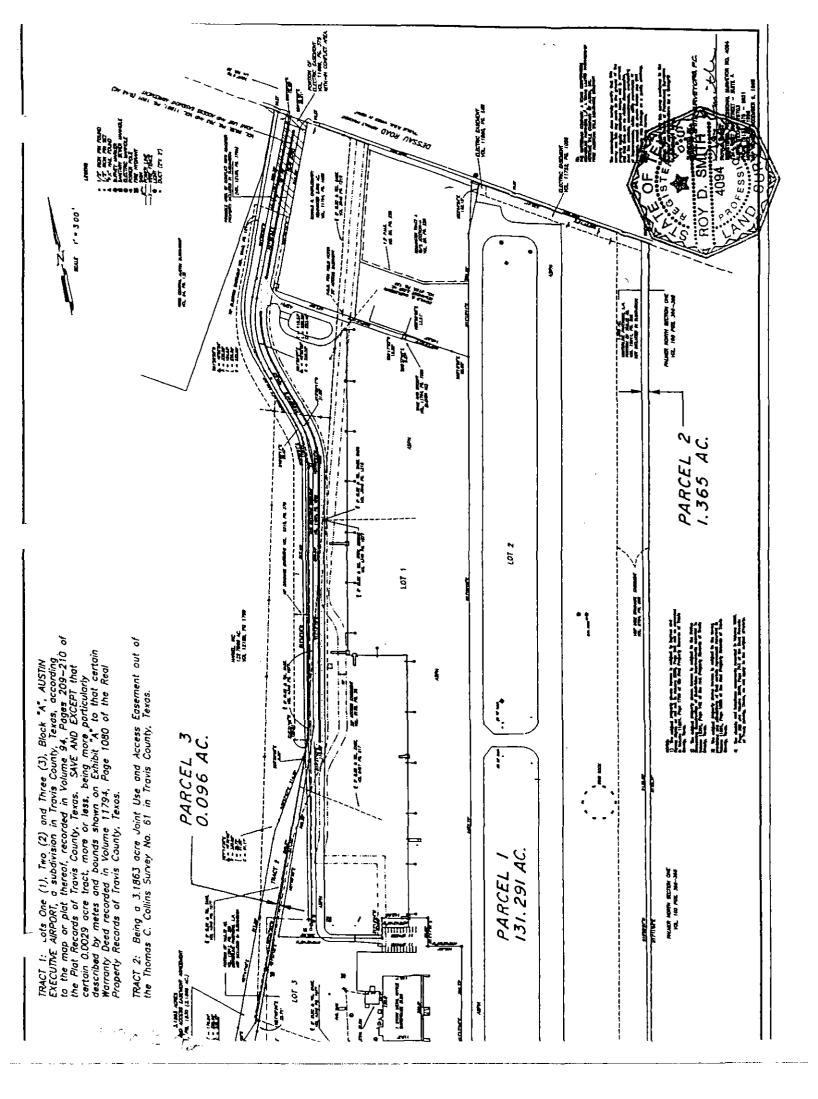
REGISTERED PROFESS

November 25, 1998

Job No. 2131

EXHIBIT "C"

NO. 4094



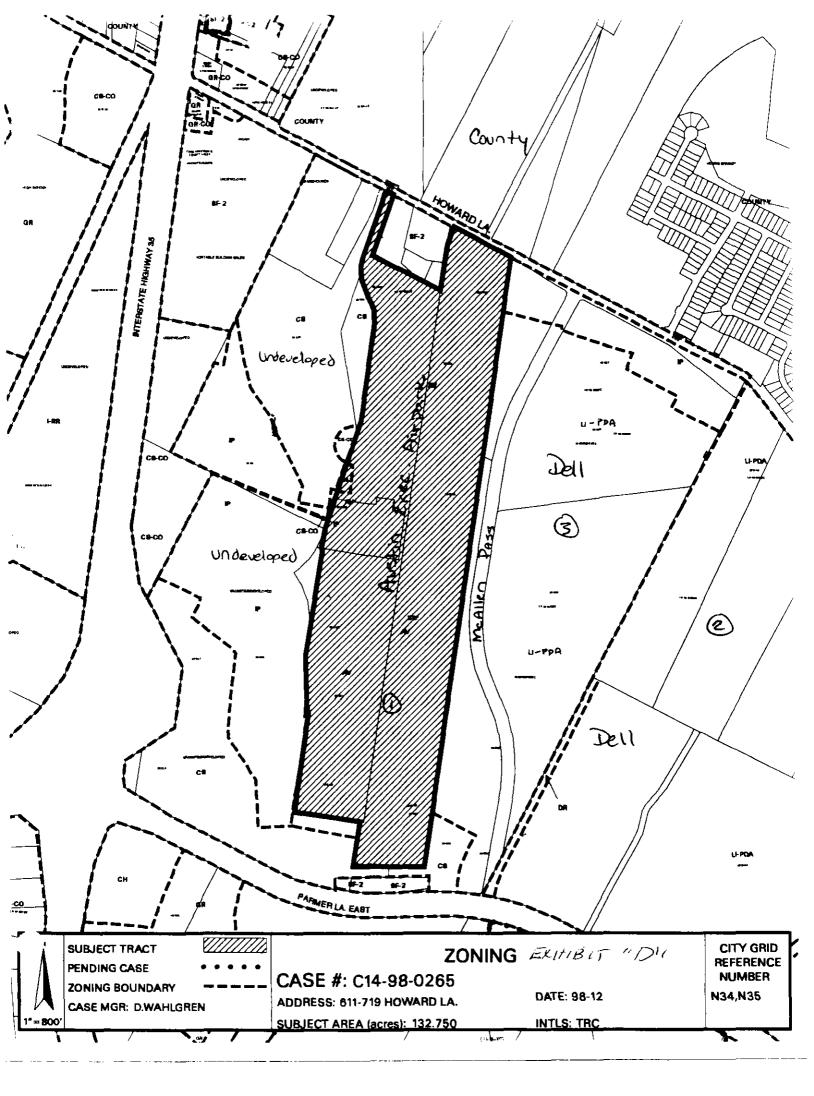


EXHIBIT "E" SITE DEVELOPMENT STANDARDS

Applicable Site Development Regulations Section 1.

Development on the Property shall comply with applicable City of Austin regulations as modified herein. Development on the Property will occur over time through the submission of multiple site plans.

Section 2. **Authorized Uses**

A. All Limited Industrial (LI) uses are permitted on the Property, except as set forth in Subsection B and C of this section. The following are additional permitted uses:

Multi-Family Housing, not to exceed 300 units

В. The following uses are prohibited as principal and accessory uses of the Property:

Automotive Sales Residential Treatment Campground Veterinary Services **Exterminating Services** Club or Lodge **Funeral Services** Congregate Living Transitional Housing Kennels Resource Extraction Monument Retail Sales

Stone Yards and Grain Elevators

Railroad Facilities (except Terminals and Light Rail)

C. The following uses are prohibited principal uses of the Property, but are permitted as accessory uses to office, light manufacturing, assembly, and warehousing and distribution principal uses:

Agricultural Sales and Services Laundry Services Automotive Rentals Basic Industry Automotive Repair Services Outdoor Entertainment Automotive Washing (of any type) Scrap & Salvage

Art & Craft Studio Recycling Center (Limited, General & Industrial)

Construction Sales & Services Counseling Services

Maintenance & Service Facilities Convenience Storage

Equipment Repair Services Indoor Entertainment Vehicle Storage

General Warehousing & Distribution

Equipment Sales

052799 parmercenter.sds

1

Section 3. Site Development Regulations

A. Performance Standards

Development of the Property shall conform with all applicable provisions of the PDA Planned Development Area performance standards established by Section 25-2-648 of the City Code.

B. Base District Regulations

- 1) Development of the Property shall conform to the site development regulations authorized for the Industrial Park (IP) district as set forth in the City Code, except as provided for in this ordinance.
- 2) Calculations for zoning impervious cover, building coverage, and floor-to-area ratios shall be based on the gross site area of the entire Property.
- 3) A site within the Property may extend across a public street or right-of-way.

C. Buffers and Setbacks

- A 50-foot landscaped buffer zone shall be provided and maintained along the northern boundary of the Property adjacent to the Howard Lane/Dessau Road rightof-way.
- 2) Improvements permitted within the buffer zone shall be limited to fences, drainage, sidewalks, utility improvements and improvements that may be required by the City of Austin or that are specifically authorized by the site development regulations for the Property.

Section 4. Landscaping

A. Street Yard Requirements

Street yard requirement calculations shall be based on the gross site area of the entire Property. Alternative compliance for truck staging areas shall be allowed.

Section 5. Transportation

A. Off-Street Parking

- 1) Off-street parking may be provided at any location on the Property, regardless of proximity to a particular building.
- There shall be at least one off-street parking space per 300 square feet of office or administrative activity space designed for human occupancy. There shall be at least one off-street parking space per 1,000 square feet of indoor manufacturing space designed for human occupancy.
- There shall be at least one off-street loading space per 140,000 square feet of occupied office, administrative, and indoor manufacturing space.
- 4) For manufacturing and related support and test/sort areas, the number of square feet in the unoccupied mechanical, electrical, machine, air return and interstitial, utility, service and similar spaces shall not be included in determining parking and loading space computations.
- 5) Accessory uses, including kitchen, cafeteria, dining, auditorium and similar spaces, recreational facilities, and day-care center and other similar facilities, shall not be included in the areas used to determine the required parking and loading space computations.
- 6) Bicycle parking plan must be approved by the City of Austin Bike and Pedestrian Coordinator.

B. Fiscal Security

The owner shall post fiscal security for required traffic improvements identified in the Traffic Impact Analysis prepared by WHM Transportation Consultants, dated April, 1999, or as subsequently amended and approved by the City, before release of a site plan for the property or at a time otherwise determined appropriate by the Director.

Section 6. Water Quality

A. The Director of the Watershed Protection Utility ("Director") or its successor department may grant a variance to authorize up to 12 feet of cut and fill for the site in general to construct parking areas, driveways, temporary spoil sites, landscape berms, buildings, loading docks, and other facilities. The Director may grant a variance to authorize cut and

- fill to construct a detention/water quality pond. The provisions of Section 25-8-42 and 25-8-43 of the City Code apply to the variances requested under this section.
- B. Existing stock ponds with wetland characteristics located on the Property may be removed if mitigation is provided. Mitigation may occur within on-site or off-site wet pond water quality controls within the same drainage area or an equivalent mitigation strategy approved by the Director may be used.

Section 7. Master Plan

The owner of the Property shall track zoning impervious cover, building coverage, floor-to-area ratios, street yard compliance and off-street parking as development occurs on the Property. Current data on the standards shall be provided with each site plan that is submitted to the City for approval.

Section 8. Amendments to City Code

If the City Code is amended to authorize the director of a City department to administratively approve an amendment to or variance of any matters contained herein, the Owner of the Property shall be entitled to obtain an amendment or variance through the administrative process and shall not be required to seek Planning Commission or City Council approval of the amendment or variance.

ORDINANCE NO. 980430-P

AN ORDINANCE REZONING AND CHANGING THE ZONING MAP ACCOMPANYING CHAPTER 13-2 OF THE CITY CODE ON APPROXIMATELY 450 ACRES OF LAND OUT OF THE ALEXANDER WALTERS SURVEY NO. 67, IN TRAVIS COUNTY, TEXAS, FROM "LI" LIMITED INDUSTRIAL DISTRICT AND "LI-PDA" LIMITED INDUSTRIAL SERVICES DISTRICT-PLANNED DEVELOPMENT AREA COMBINING DISTRICT DEVELOPMENT RESERVE DISTRICT TO "LI-PDA" LIMITED INDUSTRIAL SERVICES DISTRICT-PLANNED DEVELOPMENT AREA COMBINING DISTRICT, GENERALLY KNOWN AS THE DELL-PARMER NORTH DEVELOPMENT, LOCALLY KNOWN AS 301 EAST HOWARD LANE, IN THE CITY OF AUSTIN, TRAVIS COUNTY, TEXAS.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:

PART 1. The Zoning Map established by Chapter 13-2-22 of the City Code is amended to change the respective base zoning districts on the property (the "Property") described in File C14-98-0032, as follows:

Tract 1: From "LI" Limited Industrial district to "LI-PDA" Limited Industrial Services district-Planned Development Area combining district.

150.576 acre tract of land out of the Thomas C. Collins Survey No. 61, Travis County, Texas, SAVE & EXCEPT a 0.099 acre parcel for R.O.W. recorded in Volume 12735, Page 1961, of the Real property Records of Travis County, Texas, the remaining 150.477 tract of land being more particularly described by metes and bounds in Exhibit "A" incorporated into this ordinance,

Tract 2: From "LI-PDA" Limited Industrial Services district-Planned Development Area combining district to "LI-PDA" Limited Industrial Services district-Planned Development Area combining district.

32.485 acre tract of land out of the Alexander Walters Survey No. 67, Travis County, Texas, the tract of land being more particularly described by metes and bounds in Exhibit "B" incorporated into this ordinance

- Tract 3: From "LI-PDA" Limited Industrial Services district-Planned Development Area combining district to "LI-PDA" Limited Industrial Services district-Planned Development Area combining district.
- 33.342 acre tract of land out of the Alexander Walters Survey No. 67, Travis County, Texas, the tract of land being more particularly described by metes and bounds in Exhibit "C" incorporated into this ordinance,
- Tract 4: From "LI-PDA" Limited Industrial Services district-Planned Development Area combining district to "LI-PDA" Limited Industrial Services district-Planned Development Area combining district.
- 33.346 acre tract of land out of the Alexander Walters Survey No. 67, Travis County, Texas, the tract of land being more particularly described by metes and bounds in Exhibit "D" incorporated into this ordinance,
- Tract 5: From "LI-PDA" Limited Industrial Services district-Planned Development Area combining district to "LI-PDA" Limited Industrial Services district-Planned Development Area combining district.
- 56.495 acre tract of land out of the Alexander Walters Survey No. 67, Travis County, Texas, the tract of land being more particularly described by metes and bounds in Exhibit "E" incorporated into this ordinance,
- Tract 6: From "LI-PDA" Limited Industrial Services district-Planned Development Area combining district to "LI-PDA" Limited Industrial Services district-Planned Development Area
- 135.075 acre tract of land out of the Alexander Walters Survey No. 67 and the Menucan Hunt Survey No. 88, Travis County, Texas, the tract of land being more particularly described by metes and bounds in Exhibit "F" incorporated into this ordinance,
- Tract 7: From "LI-PDA" Limited Industrial Services district-Planned Development Area combining district to "LI-PDA" Limited Industrial Services district-Planned Development Area
- 10.721 acre tract of land out of the Alexander Walters Survey No. 67, Travis County, Texas, the tract of land being more particularly described by metes and bounds in Exhibit "G" incorporated into this ordinance,

generally known as the Dell-Parmer North Development, locally known as 301 East Howard Lane, in the City of Austin, Travis County, Texas, and as more particularly identified in the map attached as Exhibit "H".

PART 2. The Property within the boundaries of the Planned Development Area combining district established by this ordinance shall conform to the site development standards as set forth in the "Site Development Standards" attached as Exhibit "I" to this ordinance.

Except as specifically restricted under this ordinance, the Property may be developed and used in accordance with the regulations established for the "LI" Limited Industrial Services base district and other applicable requirements of the Land Development Code.

PART 3. The Council waives the requirements of Sections 2-2-3, 2-2-5, and 2-2-7 of the City Code for this ordinance.

PART 4. This ordinance takes effect on May 11, 1998.

PASSED AND APPROVED

April 36 , 1998. § Mu Thut Kirk Watson

APPROVED: Wasten Martin ATTEST: James

Andrew Martin
City Attorney

James E. Aldridge City Clerk

Mayor

FIELDNOTE DESCRIPTION

BEING a 150.576 acre tract of land out of the Thomas C. Collins Survey No. 61 in Travis County, Texas and being a portion of that certain 267.278 acre tract described in Vol. 7779, page 388 Deed Records of said county, SAVE & EXCEPT that 0.099 Acre parcel of land for R.O.W. Acquisition recorded in Volume 12735, Page 1961 of the Real Property Records of Travis County, Texas, a remaining 150.477 acre tract being more particularly described by metes and bounds as follows:

BEGINNING at a 1/2 inch iron rod found in the South Right-of-Way line of West Dessau Road according to a Street Deed recorded in Volume 10247, Page 296 R.P.R.T.C.T. (1.66 acre tract to City of Austin for street widening), a 1/2 inch iron rod was found for reference marking the Northeast corner of said 267.278 acre tract and situated N 30° 03' 36" E, a distance of 66.50 feet;

THENCE departing said Right-of-Way line, along or near the East line of said Thomas C. Collins Survey and the West line of the Alexander Walters Survey and the general line of a barbed wire fence, the following two (2) calls:

South 30° 03' 36" West, a distance of 2,598.25 feet to a 1/2 inchiron rod found for corner at a fence intersection for angle point;

South 29° 56' 55" West, a distance of 2,129.86 feet to a 1/2 inch iron rod (with TxD.0.T. Aluminum cap) found for corner in the curving North Right-of-Way line of Parmer Lane (Farm-Market Road # 734 - 200' wide) as set forth in a Community Facilities contract between the City of Austin and Airpark Associates dated Sept. 20, 1984 and from said iron rod a $1\frac{1}{4}$ inch iron pipe was(previously) found for reference marking the Southeast corner of said 267.278 acre tract bearing S 29° 56' 55" W, a distance of 33.95 feet;

THENCE along the said North Right-of-Way line of Parmer Lane the following Three (3) calls:

along a circular curve to the left having a radius of 2,009.86 feet through a central angle of 09° 53′ 30″, an arc length of 346.98 feet, a chord bearing North 83° 25′ 39″ West a chord distance of 346.55 feet to a 1/2 inch iron rod (with TxD.O.T. aluminum cap) found for the Point of Tangency to said curve;

North 88° 25' 30" West, a distance of 27.31 feet to a 1/2 inch iron rod (with TxD.O.T. aluminum cap) found for a Point of curvature of a non-tangent, circular curve to the left having a radius of 2,496.19 feet;

along said circular curve to the left, Chord bearing North 85° 16' 14" West, a chord distance of 83.14 feet to a 1/2 inch iron rod found for the Southeast corner of a 2.256 acre L.C.R.A. "substation" tract as described in Vol. 9790, Page 985 R.P.R.T.C.T.;

THENCE departing said North R.O.W. line of proposed Parmer Lane, along the East then North line of said 2.256 acre L.C.R.A. tract the following four (4) calls:

150.477 acres continued.....

North 48° 39' 08" East, a distance of 14.06 feet to a 1/2 inch iron rod found for angle point;

North 3° 43' 45" East, a distance of 94.09 feet to a 1/2 inch iron rod found for angle point;

North 42° 41' 03" West, a distance of 14.07 feet to a 1/2 inch iron rod found for angle point;

North 86° 13' 44" West, a distance of 328.93 feet to a 1/2 inch iron rod found for corner;

THENCE departing the North line of said L.C.R.A. tract, across the said 267.278 acre tract the following three (3) calls:

North 2° 50' 25" East, a distance of 82.63 feet to a 1/2 inch iron rod found in the Airport's emergency sand pit;

South 87° 08' 52" East, a distance of 299.61 feet to a 1/2 inch iron rod in concrete found for corner;

North 11° 11′ 43″ East, a distance of 5,122.29 feet to a 1/2 inch iron rod in concrete found for corner in the said South Right-of-Way line of West Dessau Road;

THENCE along the aforementioned new South Right-of-Way line of West Dessau Road the following five (5) calls:

Along a circular curve to the right having a central angle of 4° 43' 00", a radius of 1,456.64 feet, an arc length of 119.91 feet, a chord bearing of South 57° 07' 57" East, a chord distance of 119.88 feet to a 1/2 inch iron rod found for a point of tangency;

South 54° 43' 18" East, a distance of 305.59 feet to a 1/2 inch iron rod found for the point of curvature of a circular curve to the right having a radius of 1,456.64 feet;

Along said circular curve to the right through a central angle of 4° 43′ 03″, an arc length of 119.95 feet, a chord bearing of South 57° 05′ 18″ East a chord distance of 119.90 feet to a 1/2 inch iron rod found for the point of tangency;

South 59° 27' 05" East, a distance of 1,255.22 feet to a 1/2 inch iron rod Set for a point of curvature of a circular curve to the right having a radius of 1,678.67 feet;

Along said circular curve to the right through a central angle of 13° 20' 42", an arc length of 390.99 feet, a chord bearing of South 52° 46' 55" East, a chord distance of 390.10 feet to the POINT OF BEGINNING and containing an area of 150.477 Acres of land.

GREGORY E. WEST

4188

OF SURVEY

A 188

OF SURVEY

A 188

OF SESSION OF SURVEY

A 188

OF SURVEY

A 1



32.485 ACRES
MARTHA LUCILLE McADAMS VERTREES
TRACT 2

FN NO. 97-398 (MM) SEPTEMBER 18, 1997 BPI JOB NO. 725-05.92

DESCRIPTION

OF A 32.485 ACRE TRACT OR PARCEL OF LAND OUT OF AND A PART OF THE ALEXANDER WALTERS SURVEY NO. 67, SITUATED IN TRAVIS COUNTY, TEXAS, BEING ALL OF THAT CERTAIN 32.48 ACRE TRACT CONVEYED TO MARTHA LUCILE MCADAMS VERTREES BY DEED OF RECORD IN VOLUME 6424, PAGE 325 OF THE DEED RECORDS OF TRAVIS COUNTY, TEXAS; SAID 32.485 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING, at a 1/2 inch iron rod found at the northwesterly corner of that certain 149.591 acre tract known as Parcel 3 conveyed to Ridge Investors Limited by deed of record in Volume 12038, Page 1581 of the Real Property Records of Travis County, Texas, being in the easterly line of that certain 150.477 acre tract conveyed to Northpoint Business Park (Austin) PIP, L.P. by deed of record in Volume 12735, Page 1954 of said Real Property Records, same being the southwesterly corner of said 32.48 acre tract;

THENCE, N29°43'18"E, along the easterly line of said 150.477 acre tract, being the westerly line of said 32.48 acre tract, a distance of 2772.01 feet to a 1/2 inch iron rod found in the curving southerly right-of-way line of Dessau Road (R.O.W. varies), being the northeasterly corner of said 150.477 acre tract, same being the northwesterly corner of said 32.48 acre tract;

THENCE, along the southerly line of Dessau Road, being the northerly line of said 32.48 are tract the following two (2) courses and distances:

- 1) Along a non-tangent curve to the right, having a radius of 636.46 feet, a central angle of 11°34′13″, an arc distance of 128.53 feet, and a chord which bears S39°08′07″E, a distance of 128.31 feet to a 1/2 inch iron rod found at the point of tangency;
- 2) S34°39′56″E, a distance of 458.51 feet to a 1/2 inch iron rod found at the northwesterly corner of that certain 33.34 acre tract of land conveyed to Martha Lucile McAdams Vertrees, et. al. by deed of record in Volume 8495, Page 747 of said Deed Records, being the northeasterly corner of said 32.48 acre tract, from which a 1/2 inch iron rod found in the northerly line of said 33.34 are tract bears S34°39′56″E, a distance of 427.84 feet;

THENCE, S29°43'02"W, leaving the southerly line of Dessau Road, along the westerly line of said 33.34 acre tract, being the easterly line of said 32.48 acre tract, a distance of 2525.92 feet to a 1/2 inch iron rod found in the northerly line of said Parcel 3, being the southeasterly corner of said 32.48 acre tract;

980430.P

EXHIBIT "B"

FN 97-398 (MM) SEPTEMBER 18, 1997 PAGE 2 OF 2

THENCE, N60°27'00"W, along the northerly line of said Parcel 3, being the southerly line of said 32.48 acre tract, a distance of 533.33 feet to the **POINT OF BEGINNING**, containing an area of 32.485 acres (1,415,062 sq. ft.) of land, more or less, within these metes and bounds.

I, JOHN T. BILNOSKI, A REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THE PROPERTY DESCRIBED HEREIN WAS DETERMINED BY A SURVEY MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION. A LAND TITLE SURVEY WAS PREPARED TO ACCOMPANY THIS FIELDNOTE DESCRIPTION.

BURY & PITTMAN, INC. ENGINEERS-SURVEYORS 3345 BEE CAVE ROAD SUITE 200 AUSTIN, TEXAS 78746

JOHN T. BILNOSKI, R.P.L.S.

NO. 4998

STATE OF TEXAS

33.342 ACRES - TRACT 3 MARTHA LUCILE McADAMS VERTREES, ET. AL. FN NO. 97-399 (MM) SEPTEMBER 18, 1997 BPI JOB NO. 725-05.92

DESCRIPTION

OF A 33.342 ACRE TRACT OR PARCEL OF LAND OUT OF AND A PART OF THE ALEXANDER WALTERS SURVEY NO. 67, SITUATED IN TRAVIS COUNTY, TEXAS, BEING ALL OF THAT CERTAIN 33.34 ACRE TRACT CONVEYED TO MARTHA LUCILE McADAMS VERTREES, ET. AL. BY DEED OF RECORD IN VOLUME 8495, PAGE 747 OF THE DEED RECORDS OF TRAVIS COUNTY, TEXAS; SAID 33.342 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING, at a 1/2 inch iron rod found in the northerly line of that certain tract of land called Parcel 3 conveyed to Ridge Investors Limited by deed of record in Volume 12038, Page 1581 of the Real Property Records of Travis County, Texas, being the southeasterly corner of that certain 32.48 acre tract conveyed to Martha Lucile McAdams Vertrees by deed of record in Volume 6424, Page 325 of said Deed Records, same being the southwesterly corner of said 33.34 acre tract, from which a 1/2 inch iron rod found in the easterly line of that certain 150.477 acre tract conveyed to Northpoint Business Park (Austin) PIP, L.P. by deed of record in Volume 12735, Page 1954 of said Real Property Records, same being the northwesterly corner of said Parcel 3, and also being the southwesterly corner of said 32.48 acre tract bears, N60°27′00″W, a distance of 533.33 feet;

THENCE, N29°43'02"E, along the easterly line of said 32.48 acre tract, being the westerly line of said 33.34 acre tract, a distance of 2525.92 feet to a 1/2 inch iron rod found in the southerly right-of-way line of Dessau Road (R.O.W. varies), being the northeasterly corner of said 32.48 acre tract, same being the northwesterly corner of said 33.34 acre tract;

THENCE, along the southerly line of Dessau Road, being the northerly line of said 33.34 acre tract, the following Two (2) courses and distances:

- 1) S34°39′56″E, a distance of 427.84 feet to a 1/2 inch iron rod found at the point of curvature of a non-tangent curve to the left;
- 2) Along said non-tangent curve to the left, having a radius of 1088.37 feet, a central angle of 12°31′02″, an arc distance of 237.77 feet and a chord which bears S40°53′32″E, a distance of 237.30 feet to a 1/2 inch iron rod found at the northwesterly corner of that certain tract of land conveyed to Muecke-McAdams Texas, Ltd. by deed of record in Volume 12963, Page 243 of said Real Property Records, being the northeasterly corner of said 33.34 acre tract;

FN 97-398 (MM) SEPTEMBER 18, 1997 PAGE 2 OF 2

THENCE, S29°42′54″W, leaving the southerly line of Dessau Road, along the westerly line of said Muecke-McAdams Texas, Ltd. Tract, being the easterly line of said 33.34 acre tract, a distance of 2259.27 feet to a 1/2 inch iron rod found in the northerly line of said Parcel 3, being the southwesterly corner of said Muecke-McAdams Texas, Ltd. tract, same being the southeasterly corner of said 33.34 acre tract;

THENCE, along the northerly line of said Parcel 3, being the southerly line of said 33.34 acre tract, the following two (2) courses and distances:

- 1) N60°49′23″W, a distance of 171.55 feet to a 1 inch iron pipe found for an angle point;
- 2) N60°27'00"W, a distance of 438.17 feet to the POINT OF BEGINNING containing an area of 33.342 acres (1,452,390 sq. ft.) of land, more or less within these metes and bounds.

I, JOHN T. BILNOSKI, A REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THE PROPERTY DESCRIBED HEREIN WAS DETERMINED BY A SURVEY MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION. A LAND TITLE SURVEY WAS PREPARED TO ACCOMPANY THIS FIELDNOTE DESCRIPTION.

BURY & PITTMAN, INC. ENGINEERS-SURVEYORS 3345 BEE CAVE ROAD SUITE 200 AUSTIN, TEXAS 78746

JOHN 7. BILNOSKI, R.P.L.S.

NO. 4998

STATE OF TEXAS



33.346 ACRES
MUECKE-McADAMS TEXAS, LTD.

FN NO. 97-400 (MM) SEPTEMBER 18, 1997 BPI JOB NO. 725-05.92

DESCRIPTION

OF A 33.346 ACRE TRACT OR PARCEL OF LAND OUT OF AND A PART OF THE ALEXANDER WALTERS SURVEY NO. 67, SITUATED IN TRAVIS COUNTY, TEXAS, BEING ALL OF THAT CERTAIN 33.34 ACRE TRACT CONVEYED TO MUECKE-MCADAMS TEXAS, LTD. BY DEED OF RECORD IN VOLUME 12963, PAGE 243 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS; SAID 33.346 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING, at a 1/2 inch iron rod found in the northerly line of that certain tract of land called Parcel 3 conveyed to Ridge Investors Limited by deed of record in Volume 12038, Page 1581 of said Real Property Records, being the southeasterly corner of that certain tract of land conveyed to Martha Lucile McAdams Vertrees, Et. Al. by deed of record in Volume 8495, Page 747 of the Deed Records of Travis County, Taxas, same being the southwesterly corner of said 33.34 acre tract;

THENCE, N29°42'54"E, along the easterly line of said McAdams Vertrees tract, being the westerly line of said 33.34 acre tract, a distance of 2259.27 feet to a 1/2 inch iron rod found in the curving southerly right-of-way line of Dessau Road (R.O.W. varies), being the northeasterly corner of said McAdams Vertrees tract, same being the northwesterly corner of said 33.34 acre tract;

THENCE, along the southerly line of Dessau Road, being the northerly line of said 33.34 acre tract, the following two (2) courses and distances:

- 1) Along a non-tangent curve to the left, having a radius of 1088.37 feet, a central angle of 12°52′54″, an arc distance of 244.70 feet and a chord which bears S53°35′30″E, a distance of 244.18 feet to a 1/2 inch iron rod set at the point of tangency of said curve;
- 2) S60°00'57"E, a distance of 408.80 feet to a 1/2 inch iron rod found at the northwesterly corner of that certain 56.51 acre tract conveyed to McAdams Properties, Ltd. by deed of record in Volume 12335, Page 136 of said Real Property Records, being the northeasterly corner of said 33.34 acre tract;

THENCE, \$29°43'23"W, leaving the southerly line of Dessau Road, along the westerly line of said 56.51 acre tract, being the easterly line of said 33.34 acre tract, a distance of 2222.77 feet to a 1/2 inch iron rod found in the northerly line of said Parcel 3, being the southwesterly corner of said 56.51 acre tract, same being the southeasterly corner of said 33.34 acre tract;

FN 97-400 (MM) SEPTEMBER 18, 1997 PAGE 2 OF 2

THENCE, N60°49'23"W, along the northerly line of said Parcel 3, being the southerly line of said 33.34 acre tract, a distance of 651.03 feet to the POINT OF BEGINNING, containing an area of 33.346 acres (1,452,554 sq. ft.) of land, more or less, within these metes and bounds.

I, JOHN T. BILNOSKI, A REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THE PROFERTY DESCRIBED HEREIN WAS DETERMINED BY A SURVEY MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION. A LAND TITLE SURVEY WAS PREPARED TO ACCOMPANY THIS FIELDNOTE DESCRIPTION.

BURY & PITTMAN, INC. ENGINEERS-SURVEYORS 3345 BEE CAVE ROAD SUITE 200 AUSTIN, TEXAS 78746

JCHN A. BILNOSKI, R.P.L.S.

NC. 4998

STATE OF TEXAS



56.495 ACRES
McADAMS PROPERTIES, LTD.
TRACT 5

FN NO. 97-401 (MM) SEPTEMBER 18, 1997 BPI JOB NO. 725-05.92

DESCRIPTION

OF A 56.495 ACRE TRACT OR PARCEL OF LAND OUT OF AND A PART OF THE ALEXANDER WALTERS SURVEY NO. 67, SITUATED IN TRAVIS COUNTY, TEXAS, BEING ALL OF THAT CERTAIN 56.51 ACRE TRACT CONVEYED TO McADAMS PROPERTIES, LTD. BY DEED OF RECORD IN VOLUME 12335, PAGE 136 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS; SAID 56.495 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING, at a 1/2 inch iron rod found in the northerly line of that certain tract of land called Parcel 3 conveyed to Ridge Investors Limited by deed of record in Volume 12038, Page 1581 of the Real Property Records of Travis County, Texas, being the southeasterly corner of that certain 33.34 acre tract conveyed to Muecke-McAdams Texas, Ltd. by deed of record in Volume 12963, Page 243 of said Real Property Records, same being the southwesterly corner of said 56.51 acre tract;

THENCE, N29°43'23"E, along the easterly line of said 33.34 acre tract, being the westerly line of said 56.51 acre tract, a distance of 2222.77 feet to a 1/2 inch iron rod found in the southerly line of Dessau Road (R.O.W. varies), being the northeasterly corner of said 33.34 acre tract, same being the northwesterly corner of said 56.51 acre tract;

THENCE, along the southerly line of Dessau Road, being the northerly line of said 56.51 acre tract the following two (2) courses and distances:

- 1) \$60°00'57"E, a distance of 786.24 feet to a 1/2 inch iron rod found at the point of curvature of a non-tangent curve to the right;
- Along said non-tangent curve to the right, having a radius of 424.98 feet, a central angle of 25°56′57″, an arc distance of 192.47 feet and a chord which bears S47°45′47″E, a distance of 190.83 feet to a 1/2 inch iron rod found at the most northwesterly corner of that certain tract of land called Parcel 4 conveyed to Ridge Investors Limited by deed of record in Volume 12038, Page 1581 of said Real Property Records, same being the northeasterly corner of said 56.51 acre tract;

EXHIBIT "E"

FN 97-401 (MM) SEPTEMBER 18, 1997 PAGE 2 OF 2

THENCE, S22°14′40″W, leaving the southerly line of Dessau Road, along the westerly line of said Parcel 4, being the easterly line of said 56.51 acre tract, a distance of 2184.44 feet to a 1/2 inch iron rod set, being an angle point in the westerly line of that certain tract of land called Parcel 2, Tract 2 conveyed to Ridge Investors Limited by deed of record in Volume 12038, Page 1581, of said Real Property Records, being the northeasterly corner of said Parcel 3, same being the most southwesterly corner of said Parcel 4, same being the southeasterly corner of said 56.51 acre tract;

THENCE, N60°49'23"W, along the northerly line of said Parcel 3, being the southerly line of said 56.51 acre tract, a distance of 1256.91 feet to the **POINT OF BEGINNING**, containing an area of 56.495 acres (2,460,942 sq. ft.) of land, more or less, within these metes and bounds.

I, JOHN T. BILNOSKI, A REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THE PROPERTY DESCRIBED HEREIN WAS DETERMINED BY A SURVEY MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION. A LAND TITLE SURVEY WAS PREPARED TO ACCOMPANY THIS FIELDNOTE DESCRIPTION.

BURY & PITTMAN, INC. ENGINEERS-SURVEYORS 3345 BEE CAVE ROAD SUITE 200 AUSTIN, TEXAS 78746

JOHN T. BILNOSKI, R.P.L.S.

NO. 4998

STATE OF TEXAS

A DESCRIPTION OF 135.075 ACRES OF LAND OUT OF THE ALEXANDER WALTERS SURVEY NO. 67 AND THE MENUCAN HUNT SURVEY NO. 88 IN TRAVIS COUNTY, TEXAS, SAID 135.075 ACRES BEING ALL OF THAT CERTAIN 23.099 ACRE TRACT (CALLED PARCEL 4), AND ALL OF THAT CERTAIN 1.537 ACRE TRACT (CALLED PARCEL 2, TRACT 2), A 108.952 ACRE PORTION OF THAT CERTAIN 149.591 ACRE TRACT OF LAND (CALLED PARCEL 3) AS CONVEYED TO RIDGE INVESTORS LIMITED BY DEED RECORDED IN VOLUME 12038, PAGE 1581 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS AND THAT CERTAIN 1.181 ACRE TRACT AND 0.306 ACRE TRACT CONVEYED TO RIDGE INVESTORS LIMITED BY DEED RECORDED IN VOLUME 13059, PAGE 0386 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS; SAID 135.075 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2-inch iron rod found for the northwest corner of the original 149.591 acre tract, same being the southwest corner of that certain 32.48 acre tract conveyed to Martha Lucile McAdams by deed recorded in Volume 6424, Page 325 of the Deed Records of Travis County, Texas, same also being in the west line of that certain 150.576 acre tract conveyed to Harris Ridge Joint Venture by deed recorded in Volume 11811, Page 1447 of the Real Property Records of Travis County, Texas;

THENCE with the north line of the herein described tract and the south line of the said 32.48 acre tract, S60°36'14"E, a distance of 533.25 feet to a 1/2-inch iron rod found at the southeast corner of the said 32.48 acre tract, same being the southwest corner of that certain 33.34 acre tract of land referred to as "Tract 1" as recorded in Volume 8495, Page 747 o f the Deed Records of Travis County, Texas;

THENCE continuing with the north line of the herein described tract and the south line of the said "Tract 1", the following two (2) calls:

- 1. S60°46'44"E, 378.17 feet to a 3/4-inch iron pipe found,
- 2. S60°30′26"E, 231.57 feet to a 1/2-inch iron rod found for the southeast corner of the said "Tract 1", same being the southwest corner of that certain 33.34 acre tract of land conveyed to Huebert O. Mueke, et al by deed recorded in said Volume 12592, Page 1279 of the Real Property Records of Travis County, Texas;

THENCE continuing along the north line of the herein described tract, and the south line of said 33.34 acre tract the following two (2) calls:

- S60°29'57"E, 454.32 feet to a 1/2-inch galvanized iron pipe found, and
- 2. S62°00'18"E, 196.78 feet to a 1/2-inch iron rod found at the southeast corner of the said 33.34 acre tract, same being the southwest corner of that certain 56.51 acre tract of land referred to as "Tract 3" as recorded in said Volume 8495, Page 747 of the Deed Records of Travis County, Texas;

THENCE continuing with the north line of the herein described tract and the south line of the said "Tract 3" the following two (2) calls:

EXHIBIT "F"

980430-P

- 1. S60 32'43"E, 613.29 feet to a 1 and 1/2-inch galvanized iron pipe found, and
- 2. S61°22'17"E, 643.92 feet to a 1/2-inch iron rod found for the southeast corner of the said "Tract 3", same being on the west line of Krause Lane as vacated on November 25, 1986, by order of the Travis County Commissioner's Court, Cause 11313.

THENCE along the common line between said 56.51 acre tract and that certain 1.73 acre vacated portion of Krause Lane, N22°05'48"E, 2,184.37 feet to a 1/2-inch rod found in the aforementioned curving south line of Dessau Road (ROW Varies);

THENCE along said south line of Dessau Road the following five (5) courses:

- a distance of 127.47 feet along the arc of said curve to the right having a central angle of 17°45'35", a radius of 411.25 feet and a chord which bears S25°13'45"E, 126.96 feet to a 1/2-inch iron rod found for the end of said curve;
- 2. S 15°55'22" E a distance of 496.08 feet to a point
 for corner;
- 3. S 22°06'14" E a distance of 86.19 feet to a point for corner;
- 4. S 39°37'17" E a distance of 40.77 feet to a point for corner;
- 5. S 59°55'15" E a distance of 172.63 feet to a point for corner in the west line of Harris Ridge Boulevard (90' ROW);

THENCE with the west line of Harris Ridge Boulevard the following eight (8) courses:

- 1. S 28°57′54" W a distance of 24.37 feet to a 1/2-inch iron rod found for the beginning of a curve;
- 2. a distance of 20.53 feet along the arc of a curve to the right having a central angle of 06°10'35", a radius of 190.43 feet and a chord which bears S31°14'44"W, 20.52 feet to a 1/2-inch iron rod found for the point of tangency of said curve;
- 3. S29°14'32"W, 68.83 feet to a 1/2-inch iron rod found for the point of curvature of a curve to the left;
- 4. a distance of 69.04 feet along the arc of a curve to the left having a central angle of 06°07'57", a radius of 645.00 feet and a chord which bears S26°41'05"W, 69.00 feet to a 1/2-inch iron rod found for the end of said curve;
- 5. S23*31'12"W, 141.43 feet to a 1/2-inch iron rod found for the point of curvature of a curve to the right;
- 6. a distance of 59.46 feet along the arc of a curve to the right having a central angle of 06°08'17", a radius of 555.00 feet and a chord which bears S26°35'50"W, 59.43 feet to a 1/2-inch iron rod found for the end of said

- 7. S29 42'53"W a distance of 730.37 feet to a 1/2-inch iron rod found for the point of curvature of a curve to the right;
- 8. a distance of 1,026.76 feet along the arc of a curve to the right having a central angle of 43°23'38", a radius of 1355.00 feet and a chord which bears S51°26'13"W, 1,002.39 feet to a 1/2-inch iron rod set for the point of tangency said curve;
- 8. S 73'06'13" W a distance of 271.53 feet to northwest terminus point of existing Harris Ridge Boulevard;

THENCE southwesterly with the proposed extension of said Harris Ridge Boulevard the following two (2) courses:

- S 73°06'13" W a distance of 356.44 feet to the point of curvature of a curve to the left;
- 2. a distance of 619.85 feet along the arc of a curve to the left having a central angle of 30°04'56", a radius of 1180.59 feet and a chord which bears S58°03'57"W a distance of 612.75 feet to a 1/2-inch iron rod set for the end of said curve;

THENCE N59°48'56"W, 817.95 feet to a 1/2-inch iron rod set for corner;

THENCE S29 43'06"W, 596.00 feet to a 1/2-inch iron rod set for corner in the existing north line of Parmer Lane (200' ROW);

THENCE westerly along said north line of Parmer Lane the following two (2) courses:

- 1. N60°01'59"W, 953.86 feet to a Texas Department of Transportation aluminum cap in concrete found for the point of curvature of a curve to the left;
- 2. 659.99 feet along the arc of a curve to the left having a central angle of 18°48'52", a radius of 2,009.86 feet and a chord bearing N69°23'13"W, 657.02 feet to a 1/2inch iron rod set for corner in the common line between the aforementioned 149.591 acre tract and 150.576 acre tract;

THENCE N29°31'10"E, along said common line a distance of 2,022.56 feet to the POINT OF BEGINNING of the herein described tract and containing 135.075 acres of land.

I HEREBY CERTIFY THAT THIS METES AND BOUNDS DESCRIPTION WAS PREPARED FROM AN ACTUAL SURVEY PERFORMED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO REST OF MY KNOWLEDGE.

STEVEN R. MCANGUS, R.P.L.S. NO. 3680

(The bearings shown herein are referenced to Harris Ridge Phase I, Section II recorded in Vol. 86, Pg. 125A of the Plat Records of Travis County, Texas.)

3680

480430 Rec

7

10.721 ACRES LOT 3, BLOCK "A" PARMER NORTH SECTION TWO FN NO. 98-057 (MJJ) FEBRUARY 23, 1998 BPI JOB NO. 725-03.00

DESCRIPTION

OF 10.721 ACRES OF LAND OUT OF THE ALEXANDER WALTERS SURVEY NO. 67 SITUATED IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT 149.591 ACRE TRACT OF LAND CALLED PARCEL 3 CONVEYED TO RIDGE INVESTORS BY DEED OF RECORD IN VOLUME 12038, PAGE 1581 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS; SAID 10.721 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a concrete monument found at the point of curvature (Highway Centerline Station 56+38.92, 100' Left) in the northerly line of Parmer Lane (200' R.O.W.), being the southerly line hereof, from which a concrete monument found in the southerly line of Parmer Lane bears S30°07'48"W, a distance of 200.01 feet;

THENCE, N59°53′06″W, along the northerly line of Parmer Lane, being the southerly line hereof, a distance of 676.57 feet to a 1/2 inch iron rod set with aluminum cap for the southwesterly corner hereof, from which a 1/2 inch iron rod found bears N12°55′40″E, a distance of 3.10 feet and also from which a concrete monument found in the northerly line of Parmer Lane at the point of tangency of a curve to the right (Highway Centerline Station 40+08.49, 100′ Left) bears N59°53′06″W, a distance of 953.86 feet;

THENCE, leaving the northerly line of Parmer Lane, over and across said 149.591 acres, the following five (5) courses and distances:

- 1) N29°46′26″E, a distance of 596.09 feet to a 1/2 inch iron rod set with aluminum cap for the northwesterly corner hereof from which a 1/2 inch iron rod found bears N04°39′12″W, a distance of 3.66 feet;
- 2) S59°39′53″E, a distance of 817.95 feet to a 1/2 inch iron rod set with aluminum cap for the point of curvature of a non-tangent curve to the right and the northeasterly corner hereof from which a 1/2 inch iron rod found bears N43°01′36″E, a distance of 4.59 feet;
- 3) Along said non-tangent curve to the right having a radius of 1180.59 feet, a central angle of 10°29'33", an arc length of 216.20 feet and a chord which bears S37°54'45"W, a distance of 215.90 feet to a 1/2 inch iron rod set with aluminum cap for the end of said curve;
- 4) S32°39′58″W, a distance of 356.63 feet to a 1/2 inch iron rod set with aluminum cap for the point of curvature of a curve to the right;

EXHIBIT "G"

FN 98-057 (MJJ) February 23, 1998 Page 2 of 2

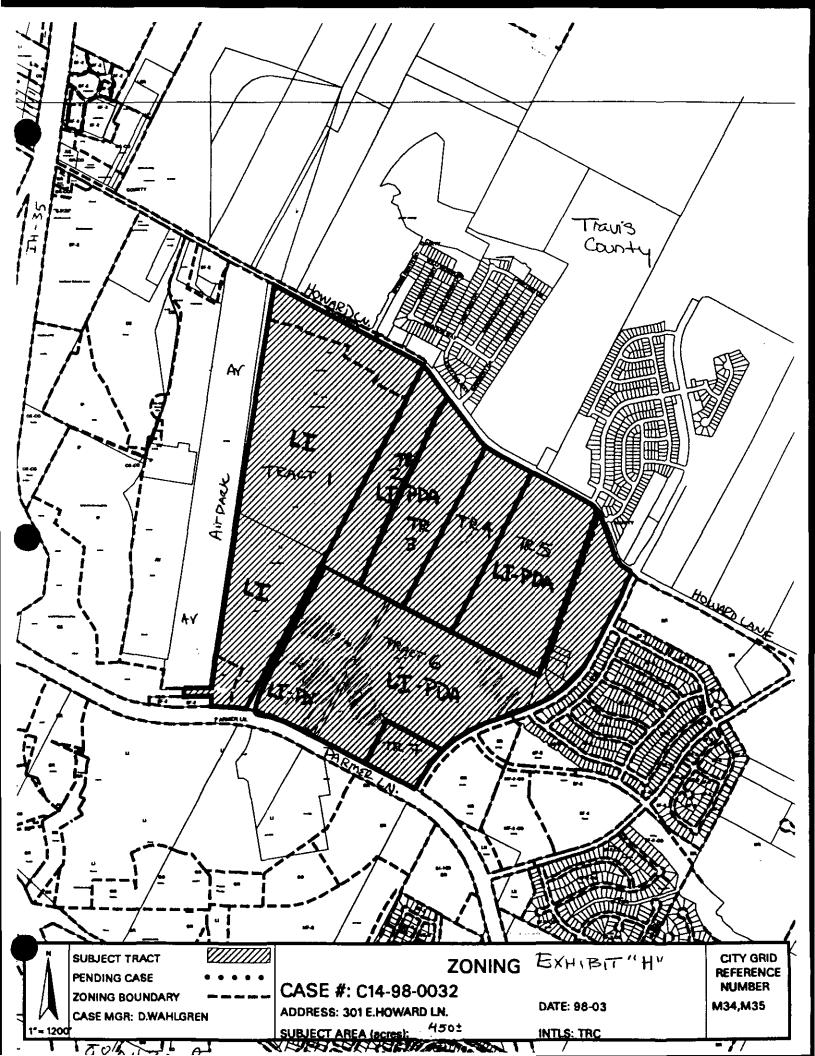
Along said curve to the right having a radius of 25.00 feet, 5) a central angle of 89°21'15", an arc length of 38.99 and a chord which bears S77°20'37"W, a distance of 35.16 feet to a 1/2 inch iron rod set with aluminum cap in the curving northerly line of Parmer Lane for the southeasterly corner hereof;

THENCE, along the curving northerly line of Parmer Lane, along a curve to the left having a radius of 2009.86 feet, a central angle of 01°54'22", an arc length of 66.86 feet and a chord which bears N58°55′55″W, a distance of 66.86 feet to the POINT OF BEGINNING containing an area of 10.721 acres (467,002 sq. ft.) of land more or less, within these metes and bounds.

I, JOHN T. BILNOSKI, A REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY STATE THAT THIS DESCRIPTION IS BASED UPON BY A SURVEY PERFORMED ON THE GROUND UNDER MY DIRECTION AND SUPERVISION.

BURY & PITTMAN, INC. ENGINEERS-SURVEYORS 3345 BEE CAVE ROAD SUITE 200 AUSTIN, TEXAS 78746

JOHN T! BILNOSKI R.P.L.S. NO. 4998 STATE OF TEXAS



SITE DEVELOPMENT STANDARDS

Section 1. Applicable Site Development Regulations

Development on the Property shall comply with applicable City of Austin regulations as of November 14, 1997, except as modified herein. Development on the Property will occur over time through the submission of multiple site plans.

Section 2. Authorized Uses

A. All "LI" Limited Industrial uses are permitted on the Property, except as set forth in Subsection B and C of this section. The following are additional permitted uses:

Crop Production
Animal Production

B. The following uses are prohibited as principal and accessory uses of the Property:

Automotive Sales

Campground

Exterminating Services

Funeral Services

Club or Lodge

Congregate Living

Transitional Housing

Monument Retail Sales

Residential Treatment

Veterinary Services

Club or Lodge

Tongregate Living

Transitional Housing

Resource Extraction

Stone Yards and Grain Elevators

Railroad Facilities (except Terminals and Light Rail)

C. The following uses are prohibited principal uses of the Property, but are permitted as accessory uses to office, light manufacturing, assembly, and warehousing and distribution principal uses:

2/26/98 delistds.2nd

Agricultural Sales and Services

Automotive Rentals

Automotive Repair Services

Automotive Washing (of any type)

Art & Craft Studio

(Limited, General & Industrial)

Construction Sales & Services

Convenience Storage

Equipment Repair Services

Equipment Sales

General Warehousing & Distribution

Laundry Services
Basic Industry

Outdoor Entertainment

Scrap & Salvage

Recycling Center

Counseling Services

Maintenance & Service Facilities

Indoor Entertainment

Vehicle Storage

Section 3. Site Development Regulations

A. Performance Standards

Development of the Property shall conform with all applicable provisions of the PDA Planned Development Area performance standards established by Section 13-2-269 of the Land Development Code.

B. Base District Regulations

- 1) Development of the Property shall conform to the site development regulations authorized for the "IP" Industrial Park district as set forth in the Land Development Code, except as provided for in this ordinance.
- 2) Calculations for zoning impervious cover, building coverage, and floor-to-area ratios shall be based on the gross site area of the entire Property.
- 3) A site within the Property may extend across a public street or right-of-way.

C. Buffers and Setbacks

- 1) A 50-foot landscaped buffer zone shall be provided and maintained along the northern boundary of the Property adjacent to the Howard Lane/Dessau Road right-of-way in the area between Harris Ridge Boulevard and the western boundary of the residential lots west of Greinert Drive.
- An 80-foot landscaped buffer zone shall be provided and maintained along the property line adjacent to Harris Ridge Boulevard from Josh Ridge Boulevard to

2/26/98 dellstds.2nd

Howard Lane/Dessau Road. The buffer zone shall contain a four to six foot high undulating berm and a minimum of three shade trees and four ornamental trees trees per 100 linear feet along the Harris Ridge right-of-way. Construction of the berm shall begin prior to or concurrent with the construction of any building or parking lot within the area between Harris Ridge Boulevard and the existing row of trees located approximately 300 feet to 600 feet west of Harris Ridge Boulevard. Construction of the berm shall be diligently continued to completion.

Improvements permitted within the buffer zone shall be limited to fences, drainage, sidewalks, utility improvements and improvements that may be required by the City of Austin or that are specifically authorized by the site development regulations for the Property.

- A 200-foot building setback shall be maintained from the existing right-of-way line of Harris Ridge Boulevard and between Howard Lane/Dessau Road and Parmer Lane. Improvements permitted within the setback shall be limited to fences, parking, driveways, landscaping, drainage, sidewalks, utility improvements and improvements that may be required by the City of Austin or that are specifically authorized by the site development regulations for the Property.
- A 300-foot setback, inclusive of the 200-foot building setback established in Subsection C(3) of this section, shall be maintained along Harris Ridge Boulevard from Parmer Lane to Howard Lane/Dessau Road. No structure shall be built to a height greater than 37 feet within the area. Utility improvements may be constructed within the setback.
- 5) All distances shall be measured from the right-of-way lines that existed on November 14, 1997, or that are shown on the preliminary plan for Harris Ridge (City of Austin File No. C8-84-0150).

Section 4. Landscaping

A. Street Yard Requirements

Street yard requirement calculations shall be based on the gross site area of the entire Property. Alternative compliance for truck staging areas shall be allowed.

2/26/98 delistds.2nd

B. Tree Protection

The owner of the Property is not required to replace a tree that is less than 19 inches in diameter after the tree is removed. The owner of the Property is required to replace each tree that is 19 inches or greater in diameter inch for inch, after the tree is removed. A surveyed tree that is eight inches or greater in diameter that is permanently preserved within the Property shall be counted toward the replacement of a tree that is 19 inches or greater in diameter that is removed.

Section 5. Transportation

A. Traffic Impact Analysis

No traffic impact analysis shall be required in connection with any zoning, subdivision, site development permit, or other city permit or approval with respect to the Property. No off-site traffic improvements shall be required in connection with any development.

B. Access.

There shall be no curb cuts for vehicular access from the Property to Harris Ridge Boulevard between Josh Ridge Boulevard and Howard Lane. All vehicular access to the Property shall be from other adjacent public streets or through other portions of the Property.

C. Off-Street Parking

- 1) Off-street parking may be provided at any location on the Property, regardless of proximity to a particular building.
- There shall be at least one off-street parking space per 300 square feet of office or administrative activity space designed for human occupancy. There shall be at least one off-street parking space per 1,000 square feet of indoor manufacturing space designed for human occupancy.
- There shall be at least one off-street loading space per 140,000 square feet of occupied office, administrative, and indoor manufacturing space.
- 4) For manufacturing and related support and test/sort areas, the number of square feet in the unoccupied mechanical, electrical, machine, air return and interstitial,

2/26/98 delistds.2nd

utility, service and similar spaces shall not be included in determining parking and loading space computations.

- 5) Accessory uses, including kitchen, cafeteria, dining, auditorium and similar spaces, recreational facilities, and day-care center and other similar facilities, shall not be included in the areas used to determine the required parking and loading space computations.
- 6) Bicycle parking may be provided as deemed appropriate by the owner of the Property.

Section 6. Water Quality

- A. The Director of the Watershed Protection Utility ("Director") or its successor department may grant a variance to authorize up to 20 feet of cut and fill to construct parking areas, driveways, temporary spoil sites, buildings, and loading docks between buildings. The Director may grant a variance to authorize up to 12 feet of cut and fill to construct a landscape berm. The provisions of Section 13-2-506 of the City Code apply to the variances requested under this section.
- B. Existing stock ponds with wetland characteristics located on the Property may be removed if mitigation is provided. Mitigation may occur within on-site or off-site wet pond water quality controls within the same drainage area or an equivalent mitigation strategy approved by the Director may be used.

Section 7. Master Plan

The owner of the Property shall track zoning impervious cover, building coverage, floor to area ratios, street yard compliance and off-street parking as development occurs on the Property. Current data on the standards shall be provided with each site plan that is submitted to the City for approval.

Section 8. Amendments to City Code

If the City Code is amended to authorize the director of a City department to administratively approve an amendment to or variance of any matters contained herein, the Owner of the Property shall be entitled to obtain an amendment or variance through the administrative process and shall not be required to seek Planning Commission or City Council approval of the amendment or variance.

2/26/98 dellstds.2nd

Austin American-Statesman

PO#: 980430P Ad ID#: 5BM400600 Acct#: 5124992499

Account Name: CITY CLERKS OFFICE

CITY CLERKS OFFICE PO BOX 1088 AUSTIN,TX

78767

AFFIDAVIT OF PUBLICATION

THE STATE OF TEXAS COUNTY OF TRAVIS

Before me, the undersigned authority, a Notary Public in and for the County of Travis, State of Texas, on this day personally appeared:

SHARON JANIAK

Classified Advertising Agent of the Austin American-Statesman, a daily newspaper published in said County and State that is generally circulated in Travis, Hays, Burnet and Williamson Counties, who being duly sworn by me, states that the attached advertisement was published in said newspaper on the following dates, to wit:

First Published: 5/14/98 Last Published: 5/14/98
Times Published: 1 Classification: 9980
Lines: 26 Cost: \$72.54

and that the attached is a true copy of said advertisement.

ORDINANCE NO. 980430-P

AN ORDINANCE REZONING AND
CHANGING THE ZONING MAP ACCOMPANYING CHAPTER 13-2 OF
THE CITY CODE ON APPROXIMATELY
450 ACRES OF LAND OUT OF THE
ALEXANDER WALTERS SURVEY NO.
67. IN TRAVIS COUNTY, TEXAS, FROM
"U" UMITED INDUSTRIAL DISTRICT
AND "U-PDA" LIMITED INDUSTRIAL
SERVICES DISTRICT-PAINNED DEVELOPMENT AREA COMBINING DISTRICT DEVELOPMENT RESERVE
BIBRICT TO "U-PDA" LIMITED INDUSTRIAL SERVICES DISTRICT-PAINNED DEVELOPMENT
AREA
COMBINING DISTRICT, GENERALLY
NOWN AS THE DELL-PARMER
NORTH DEVELOPMENT, LOCALLY
SNOWN AS 331 ESS HOWARD
LANE, IN THE CITY OF AUSTRIA, TRAVIS
COUNTY, TEXAS.

Mayor, Kirk Watso

SWORN AND SUBSCRIBED TO BEFORE ME, this the 4 day of Way 199

TAYLON STARR
NOTARY PUBLIC
State of Texas
Comm Exp 08-05-2001

Notary Public in and for TRAVIS COUNTY, TEXAS

305 South Congress Ave., P.O. Box 670, Austin, Texas 78767-0670 512-445-3541

ORDINANCE NO. 990603-92

AN ORDINANCE REZONING AND CHANGING THE ZONING MAP ACCOMPANYING CHAPTER 25-2 OF THE CITY CODE ON THREE TRACTS OF LAND CONSISTING OF 132.7 ACRES OF LAND OUT OF THE THOMAS C. COLLINS SURVEY NO. 61 IN TRAVIS COUNTY, FROM AVIATION SERVICES (AV) DISTRICT AND GENERAL COMMERCIAL SERVICES (CS) DISTRICT TO LIMITED INDUSTRIAL SERVICES-PLANNED DEVELOPMENT AREA (LI-PDA) COMBINING DISTRICT, GENERALLY KNOWN AS THE PARMER CENTER DEVELOPMENT, LOCALLY KNOWN AS 611 TO 719, 907 AND 905 WEST HOWARD LANE, IN THE CITY OF AUSTIN, TRAVIS COUNTY, TEXAS; AND DECLARING AN EMERGENCY.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:

PART 1. The Zoning Map established by Chapter 25-2-191 of the City Code is amended to change the base zoning districts from Aviation Services (AV) district and General Commercial Services (CS) district to Limited Industrial Services-Planned Development Area (LI-PDA) combining district, on the property described in File C14-98-0265, as follows:

Tract 1: A 131.291 acre tract of land out of the Thomas C. Collins Survey No. 61 in Travis County, the tract of land being more particularly described by metes and bounds in Exhibit "A" incorporated into this ordinance,

Tract 2: A 1.365 acre tract of land out of the Thomas C. Collins Survey No. 61 in Travis County, the tract of land being more particularly described by metes and bounds in Exhibit "B" incorporated into this ordinance,

Tract 3: A 0.096 acre tract of land out of the Thomas C. Collins Survey No. 61 in Travis County, the tract of land being more particularly described by metes and bounds in Exhibit "C" incorporated into this ordinance, (the "Property")

generally known as the Parmer Center Development, locally known as 611 to 719, 907 and 905 West Howard Lane, in the City of Austin, Travis County, Texas, and as more particularly identified in the map attached as Exhibit "D".

PART 2. The Property within the boundaries of the Planned Development Area combining district established by this ordinance shall conform to the site development standards as set forth in the "Site Development Standards" attached as Exhibit "E" to this ordinance.

Except as specifically restricted under this ordinance, the Property may be developed and used in accordance with the regulations established for the Limited Industrial Services (LI) base district and other applicable requirements of the City Code.

PART 3. The Council waives the requirements of Sections 2-2-3, 2-2-5, and 2-2-7 of the City Code for this ordinance.

PART 4. The Council finds that development permits for the property are currently pending and cannot be completed until the appropriate zoning is approved which constitutes an emergency. Because of this emergency, this ordinance takes effect immediately on its passage for the immediate preservation of the public peace, health and safety.

$\mathbf{P}^{\mathbf{A}}$	SSED	AND	APPR	OVE	n
1 /					

June 3 . 1999	\$ Shur Matin
	Kirk Watson
	Mayor

APPROVED: Mohew Martin ATTEST:

Andrew Martin Shirley A. Brown
City Attorney City Clerk

FIELD NOTES FOR

131.291 ACRES OF LAND (PARCEL 1)

ALL OF THAT CERTAIN TRACT OR PARCEL OF LAND OUT OF THE THOMAS C. COLLINS SURVEY NO. 61 IN TRAVIS COUNTY, TEXAS, BEING ALL OF LOT 2. BLOCK A AND A PORTION OF LOTS 1 AND 3. BLOCK A. AUSTIN EXECUTIVE AIRPORT. A SUBDIVISION RECORDED IN VOLUME 94. PAGES 209-210 OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS. THE HEREIN DESCRIBED TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2 inch iron pin set at the Northeast corner of said Lot 2. Block A, being in the South r.o.w. line of Dessau Road. for the Northeast corner and PLACE OF BEGINNING hereof:

THENCE along the East line of said Lot 2, Block A, S 10°55'31" W for a distance of 5130.58 feet to a 1/2 inch iron pin found at the Southeast corner of said Lot 2, Block A, for the Southeast corner hereof:

THENCE along the South line of said Lot 2, Block A. N 87°09'40" W for a distance of 598.95 feet to a 1/2 inch iron pin found at the Southwest corner of said Lot 2, Block A. for a Southerly corner hereof:

THENCE along the West line of said Lot 2. Block A. N 11°09'49" E for a distance of 382.03 feet to a 1/2 inch iron pin found in the South line of said Lot 1. Block A. for a Southerly inside ell corner hereof:

THENCE along the South line of said Lot 1, Block A. N 78°50'28" W for a distance of 547.29 feet to a 1/2 inch iron pin found at the Southwest corner of said Lot 1, Block A. for the Southwest corner hereof:

THENCE along the West line of said Lot 1. Block A for the following courses:

N 11°11'49" E for a distance of 805.29 feet to a 1/2 inch iron pin found

S 83°27'18" W for a distance of 21.23 feet to a 1/2 inch iron pin found

N 13°12'16" E for a distance of 6.38 feet to a 1/2 inch iron pin found at a point of curve

Along a curve to the left whose radius is 660.00 feet, whose arc is 115.17 feet and whose chord bears N $06^{\circ}13'35"$ E for a distance of 115.03 feet to a 1/2 inch iron pin found

N 01°11'42" E for a distance of 348.85 feet to a 1/2 inch iron pin found at a point of curve

EXHIBIT 'A"

131.291 ACRES OF LAND - Page Two

Along a curve to the right whose radius is 620.00 feet, whose arc is 108.29 feet and whose chord bears N 06°11'00" E for a distance of 108.15 feet to a 1/2 inch iron pin found

N 11°13'17" E for a distance of 130.00 feet to a 1/2 inch iron pin found at a point of curve

Along a curve to the left whose radius is 660.00 feet, whose arc is 510.65 feet and whose chord bears N $10^{\circ}57^{\circ}49$ " W for a distance of 498.00 feet to a 1/2 inch iron pin found

N 54°11'47" E for a distance of 44.16 feet to a 1/2 inch iron pin found at a point of curve

Along a curve to the left whose radius is 660.00 feet. whose arc is 244.70 feet and whose chord bears N 43°38'17" E for a distance of 243.29 feet to a 1/2 inch iron pin found at the Southwest corner of said Lot 3, Block A:

THENCE along the West line of said Lot 3. Block A for the following courses:

Along a curve to the left whose radius is 660.00 feet, whose arc is 129.14 feet and whose chord bears N $27^{\circ}24'47''$ E for a distance of 128.93 feet to a 1/2 inch iron pin found

N 21°45'34" E for a distance of 32.71 feet to a 1/2 inch iron pin found

N $21^{\circ}07'02$ " E for a distance of 841.44 feet to a 1/2 inch iron pin found

N 19°31'42" E for a distance of 109.81 feet to a 1/2 inch iron pin found

N 11°13'18" E for a distance of 817.63 feet to a 1/2 inch iron pin found

N 00°50'21" W for a distance of 112.00 feet to a 1/2 inch iron pin found

N 15°50'11" W for a distance of 29.47 feet to a 1/2 inch iron pin found

N 18°56'44" W for a distance of 196.52 feet to a 1/2 inch iron pin found at a point of curve

FIELD NOTES
FOR

131.291 ACRES OF LAND - Page Three

Along a curve to the right whose radius is 335.00 feet, whose arc is 238.98 feet and whose chord bears N $01^{\circ}28'29"$ E for a distance of 233.95 feet to a 1/2 inch iron pin found

N 21°55'23" E for a distance of 282.87 feet to a point in the Easterly line of that certain 122.7866 acre tract of land conveyed to Hariel. Inc. by instrument recorded in Volume 12189. Page 1769 of the Real Property Records of Travis County, Texas:

THENCE along the Easterly line of the said 122.7866 acre tract. S 58°59'39" E for a distance of 10.13 feet to an angle point and N 21°55'23" E for a distance of 306.90 feet to a point at the Northeast corner of said 122.7866 acre tract, being in the North line of said Lot 3. Block A. being in the South r.o.w. line of Dessau Road, for the Northwest corner hereof:

THENCE along the North lines of said Lots 1 and 3, Block A. being along the South r.o.w. line of Dessau Road. S 59° 08'00" E for a distance of 5.13 feet to a 1/2 inch iron pin found and S 59°02'29" E for a distance of 55.61 feet to a 1/2 inch iron pin found at the most Northerly Northeast corner of said Lot 1. Block A. for a Northerly corner hereof:

THENCE continuing along the North line of said Lot 1. Block A. S 21°55'19" W for a distance of 542.88 feet to a 1/2 inch iron pin found at an angle point and S 60°16'19" E for a distance of 421.94 feet to a 1/2 inch iron pin found at the Northwest corner of that certain 0.0029 acre tract of land described in Volume 11794. Page 1080 of the Real Property Records of Travis County. Texas:

THENCE along the West. South and East lines of said 0.0029 acre tract for the following courses:

S $29^{\circ}17'52''$ W for a distance of 12.55 feet to a 1/2 inch iron pin found

S 60°37'01" E for a distance of 9.97 feet to a 1/2 inch iron pin found

N 29°29'58" E for a distance of 12.51 feet to a 1/2 inch iron pin found in the North line of said Lot 1. Block A:

THENCE along the North line of said Lot 1, Block A. S 60°16'30" E for a distance of 146.53 feet to a 1/2 inch iron pin found and S 60°16'28" E for a distance of 55.00 feet to a 1/2 inch iron pin found at the most Easterly Northeast corner of said Lot 1. Block A. being in the West line of said Lot 2. Block A:

1. 1 1. 2 4 Beach

FIELD NOTES FOR

131.291 ACRES OF LAND - Page Four

THENCE along the West line of said Lot 2. Block A. N 11°12'11" E for a distance of 386.22 feet to a 1/2 inch iron pin set and N 23°44'24" E for a distance of 162.18 feet to a 1/2 inch iron pin set at the Northwest corner of said Lot 2. Block A. being in the South r.o.w. line of Dessau Road, for a Northerly corner hereof:

THENCE along the North line of said Lot 2. Block A. being along the South r.o.w. line of Dessau Road. S 59°27'16" E for a distance of 533.41 feet to the PLACE OF BEGINNING and containing 131.291 acres of land, more or less.

SURVEYED BY:

ROY D. SMITH SURVEYORS, P.C.

ROY D. SMITH

REGISTERED PROFF November 25, 199

RVEYOR NO. 4094

Job No. 2131

Y

,

.

FIELD NOTES FOR

1.365 ACRES OF LAND (PARCEL 2)

ALL OF THAT CERTAIN TRACT OR PARCEL OF LAND OUT OF THE THOMAS C. COLLINS SURVEY NO. 61 IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT CERTAIN 103.32 ACRE TRACT OF LAND CONVEYED TO CENTERLINE PARTNERS, L.P. BY INSTRUMENT RECORDED IN VOLUME 12011, PAGE 328 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS, THE HEREIN DESCRIBED TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2 inch iron pin set in the North line of said 103.32 acre tract, being in the South r.o.w. line of Dessau Road, being at the Northeast corner of Lot 2, Block A, Austin Executive Airport, a subdivision recorded in Volume 94, Pages 209-210 of the Plat Records of Travis County, Texas. for the Northwest corner and PLACE OF BEGINNING hereof;

THENCE along the North line of said 103.32 acre tract, being along the South r.o.w. line of Dessau Road, S 59°27'16" E for a distance of 24.60 feet to a 1/2 inch iron pin set at the Northeast corner of said 103.32 acre tract, being at the northwest corner of Palmer North Section One, a subdivision recorded in Volume 100, Pages 366-368 of the Plat Records of Travis County, Texas, for the Northeast corner hereof;

THENCE along the East line of said 103.32 acre tract, being along the West line of Palmer North Section One, S 11°11'04" W for a distance of 5122.37 feet to a 1/2 inch iron pin found at the Southeast corner of said 103.32 acre tract, being at the Southeast corner of said Lot 2, Block A, for the most Southerly corner hereof;

THENCE along the East line of said Lot 2, Block A, N 10°55'31" E for a distance of 5130.58 feet to the PLACE OF BEGINNING and containing 1.365 acres of land, more or less.

SURVEYED BY:

ROY D. SMITH SURVEYORS, P.C.

ROY D. SMITH

REGISTERED PROFESSINGS

November 25, 1998

Job No. 2131

NO. 4094

EXHIBIT 'B"

FIELD NOTES FOR

0.096 ACRE OF LAND (PARCEL 3)

ALL OF THAT CERTAIN TRACT OR PARCEL OF LAND OUT OF THE THOMAS C. COLLINS SURVEY NO. 61 IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT CERTAIN 103.32 ACRE TRACT OF LAND CONVEYED TO CENTERLINE PARTNERS, L.P. BY INSTRUMENT RECORDED IN VOLUME 12011, PAGE 328 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS, THE HEREIN DESCRIBED TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING FOR REFERENCE at a 1/2 inch iron pin found at the Southwest corner of Lot 3, Block A, Austin Executive Airport, a subdivision recorded in Volume 94, Pages 209-210 of the Plat Records of Travis County, Texas;

THENCE along the West line of said Lot 3, Block A for the following courses:

Along a curve to the left whose radius is 660.00 feet, whose arc is 129.14 feet and whose chord bears N 27°24''47" E for a distance of 128.93 feet to a 1/2 inch iron pin found

N 21°45'34" E for a distance of 32.71 feet to a 1/2 inch iron pin found in the South line of said 103.32 acre tract, for the Southeast corner and PLACE OF BEGINNING hereof;

THENCE along the South line of said 103.32 acre tract, N 60°45'02" W for a distance of 10.08 feet to a 1/2 inch iron pin set at the most Westerly Southwest corner of said 103.32 acre tract for the Southwest corner hereof;

THENCE along the West line of said 103.32 acre tract, N 21°47'51" E for a distance of 840.07 feet to a 1/2 inch iron pin found at an angle point in the West line of said Lot 3, Block A, for the most Northerly corner hereof;

THENCE along the West line of said Lot 3, Block A, S 21°07'02" W for a distance of 841.44 feet to the PLACE OF BEGINNING and containing 0.096 acre of land, more or less.

SURVEYED BY:

ROY D. SMITH SURVEYORS, P.C.

ROY D. SMITH

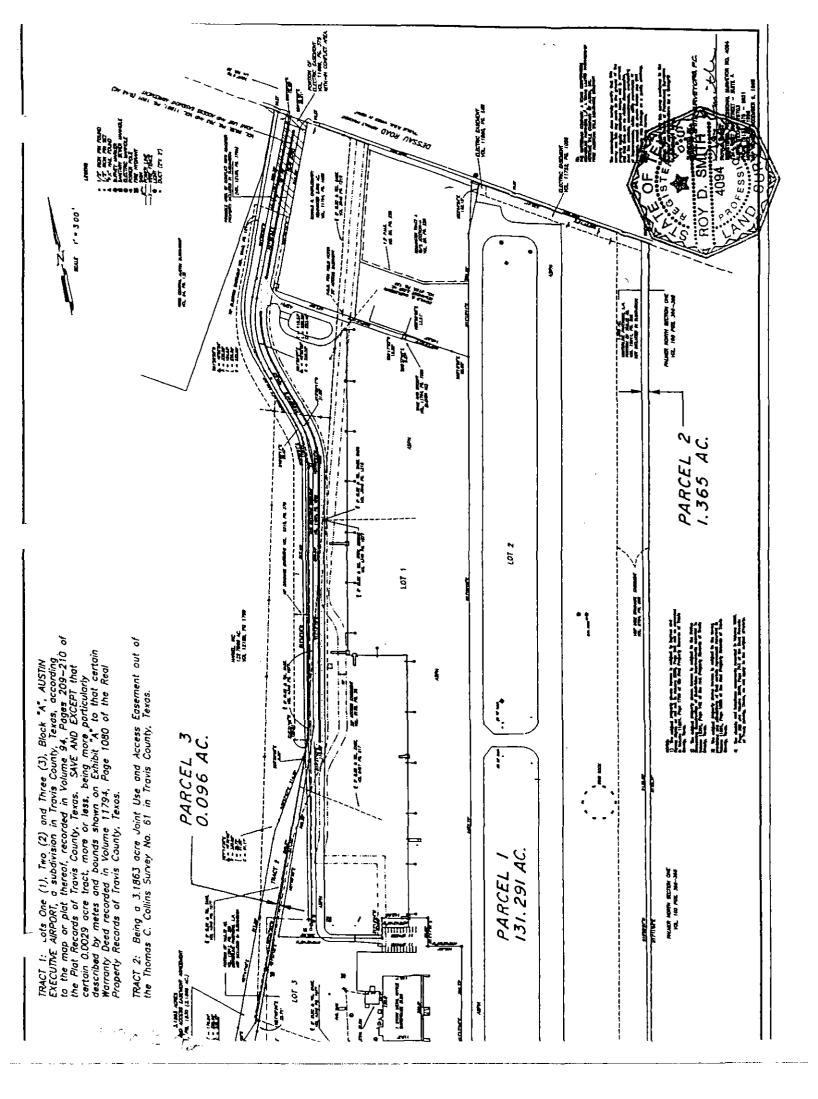
REGISTERED PROFESS

November 25, 1998

Job No. 2131

EXHIBIT "C"

NO. 4094



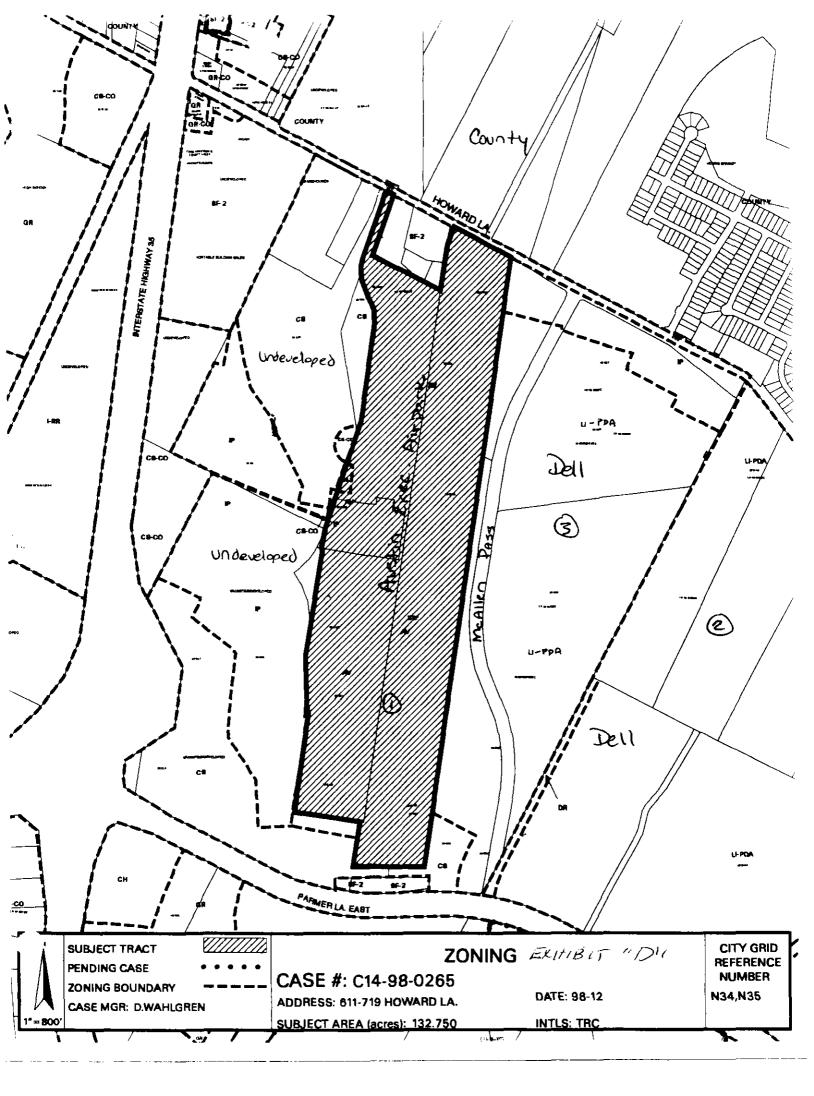


EXHIBIT "E" SITE DEVELOPMENT STANDARDS

Section 1. Applicable Site Development Regulations

Development on the Property shall comply with applicable City of Austin regulations as modified herein. Development on the Property will occur over time through the submission of multiple site plans.

Section 2. Authorized Uses

A. All Limited Industrial (LI) uses are permitted on the Property, except as set forth in Subsection B and C of this section. The following are additional permitted uses:

Multi-Family Housing, not to exceed 300 units

B. The following uses are prohibited as principal and accessory uses of the Property:

Automotive Sales

Campground

Exterminating Services

Funeral Services

Kennels

Monument Retail Sales

Residential Treatment
Veterinary Services

Club or Lodge

Congregate Living

Transitional Housing

Resource Extraction

Stone Yards and Grain Elevators

Railroad Facilities (except Terminals and Light Rail)

(Limited, General & Industrial)

C. The following uses are prohibited principal uses of the Property, but are permitted as accessory uses to office, light manufacturing, assembly, and warehousing and distribution principal uses:

Agricultural Sales and Services
Automotive Rentals
Automotive Repair Services
Automotive Washing (of any type)

Laundry Services
Basic Industry
Outdoor Entertainment
Scrap & Salvage

Automotive Washing (of any type) Scrap & Salvage
Art & Craft Studio Recycling Center

Construction Sales & Services Counseling Services

Convenience Storage Maintenance & Service Facilities

Equipment Repair Services Indoor Entertainment Equipment Sales Vehicle Storage

General Warehousing & Distribution

Section 3. Site Development Regulations

A. Performance Standards

Development of the Property shall conform with all applicable provisions of the PDA Planned Development Area performance standards established by Section 25-2-648 of the City Code.

B. Base District Regulations

- 1) Development of the Property shall conform to the site development regulations authorized for the Industrial Park (IP) district as set forth in the City Code, except as provided for in this ordinance.
- 2) Calculations for zoning impervious cover, building coverage, and floor-to-area ratios shall be based on the gross site area of the entire Property.
- 3) A site within the Property may extend across a public street or right-of-way.

C. Buffers and Setbacks

- A 50-foot landscaped buffer zone shall be provided and maintained along the northern boundary of the Property adjacent to the Howard Lane/Dessau Road rightof-way.
- 2) Improvements permitted within the buffer zone shall be limited to fences, drainage, sidewalks, utility improvements and improvements that may be required by the City of Austin or that are specifically authorized by the site development regulations for the Property.

Section 4. Landscaping

A. Street Yard Requirements

Street yard requirement calculations shall be based on the gross site area of the entire Property. Alternative compliance for truck staging areas shall be allowed.

Section 5. Transportation

A. Off-Street Parking

- 1) Off-street parking may be provided at any location on the Property, regardless of proximity to a particular building.
- There shall be at least one off-street parking space per 300 square feet of office or administrative activity space designed for human occupancy. There shall be at least one off-street parking space per 1,000 square feet of indoor manufacturing space designed for human occupancy.
- There shall be at least one off-street loading space per 140,000 square feet of occupied office, administrative, and indoor manufacturing space.
- 4) For manufacturing and related support and test/sort areas, the number of square feet in the unoccupied mechanical, electrical, machine, air return and interstitial, utility, service and similar spaces shall not be included in determining parking and loading space computations.
- 5) Accessory uses, including kitchen, cafeteria, dining, auditorium and similar spaces, recreational facilities, and day-care center and other similar facilities, shall not be included in the areas used to determine the required parking and loading space computations.
- 6) Bicycle parking plan must be approved by the City of Austin Bike and Pedestrian Coordinator.

B. Fiscal Security

The owner shall post fiscal security for required traffic improvements identified in the Traffic Impact Analysis prepared by WHM Transportation Consultants, dated April, 1999, or as subsequently amended and approved by the City, before release of a site plan for the property or at a time otherwise determined appropriate by the Director.

Section 6. Water Quality

A. The Director of the Watershed Protection Utility ("Director") or its successor department may grant a variance to authorize up to 12 feet of cut and fill for the site in general to construct parking areas, driveways, temporary spoil sites, landscape berms, buildings, loading docks, and other facilities. The Director may grant a variance to authorize cut and

- fill to construct a detention/water quality pond. The provisions of Section 25-8-42 and 25-8-43 of the City Code apply to the variances requested under this section.
- B. Existing stock ponds with wetland characteristics located on the Property may be removed if mitigation is provided. Mitigation may occur within on-site or off-site wet pond water quality controls within the same drainage area or an equivalent mitigation strategy approved by the Director may be used.

Section 7. Master Plan

The owner of the Property shall track zoning impervious cover, building coverage, floor-to-area ratios, street yard compliance and off-street parking as development occurs on the Property. Current data on the standards shall be provided with each site plan that is submitted to the City for approval.

Section 8. Amendments to City Code

If the City Code is amended to authorize the director of a City department to administratively approve an amendment to or variance of any matters contained herein, the Owner of the Property shall be entitled to obtain an amendment or variance through the administrative process and shall not be required to seek Planning Commission or City Council approval of the amendment or variance.



March 23, 2021

Sangeeta Jain Austin Transportation Department 901 S. MoPac Expressway, Building 5, Suite 300 Austin, Texas 78746

RE: Tech Ridge PDA – TIA Compliance

Dear Sangeeta,

The purpose of this letter is to request a waiver of the TIA requirement for the Tech Ridge development located in the vicinity of IH 35, Howard Lane, McAllen Pass, and Parmer Lane in Austin, Texas, as shown in Figure 1. A waiver is requested in support of a change of land use from Warehouse and Office to Apartments within the site for the development of 315 multifamily units (the "Project"). This request also proposes to add a 3.858 acre tract of land from the neighboring Dell PDA to the Project. While the land in the Dell PDA is not subject to a TIA requirement, assumptions have been made within this report for the density proposed within this area. This letter will summarize the total trips that were modeled for this land area, document land uses that have been constructed to-date, and summarize the remaining trips for this project given the proposed change from Warehouse and Office to Apartments in order to obtain approval of Project changes discussed above.

PREVIOUS TIAS AND TRAFFIC STUDIES

The project limits for the Tech Ridge development are shown on Figure 1. This land area has been included in multiple TIAs and zoning cases completed over several years. Those TIAs, which are provided in the technical addendum of this report, include the following:

- Centerstate TIA (April 1999) shown in green on Figure 1
- Techridge TIA (December 1999) shown in orange on Figure 1
- 2008 TIA Letter Addendum (December 22, 2008) shown in blue on Figure 1
- Zoning Case C14-2008-0076 shown in pink on Figure 1
- Zoning Case C14-2014-0108 shown in red in Figure 1

The land area for the Bella Sarah apartment project located just west of Tech.Ridge Section 1 was included in the Techridge TIA as Tract E and was limited to 2,000 trips per day. The Bella Sarah apartment project currently consists of 102 dwelling units, which generates 783 trips per day. This project does not impact the trips for the Tech Ridge development.

TRIP GENERATION SUMMARY FOR MODELED LAND USE

The total allowable trips approved for this Project is a combination of trips modeled in the above referenced studies. The original land use mix reflected in the Centerstate TIA, which covers the land area now known as Tech.Ridge Sections 1-3, assumed the following uses:

• 325,000 square feet of Research/Development

- 325,000 square feet of Manufacturing
- 609,000 square feet of General Office
- 80 dwelling units of Multifamily Apartments

The Techridge TIA covered the land area shown in orange on Figure 1; however, only the area immediately east of Center Lake Drive, which is labeled as Tracts G and H in the Techridge TIA, is considered Tech.Ridge Section 1. The Techridge TIA proposed the following land uses for Tracts G and H in addition to the uses established in the Centerstate TIA:

- 5,000 square feet of Fast Food with Drive Through
- 60,000 square feet of General Office.

The December 22, 2008 TIA Letter Addendum revised the land area shown in blue on Figure 1, which corresponds to the area labeled as Tracts G and H in the Technidge TIA which is known today as Tech.Ridge Section 1. The land uses contemplated with the 2008 TIA Letter Addendum replaced the proposed land uses reflected for Tracts G and H of the Technidge TIA. The land uses proposed with the 2008 TIA Letter Addendum included the following:

- 210 rooms of Hotel
- 5,109 square feet of High-Turnover Restaurant
- 169,500 square feet of General Office

Combining the updated land uses from the Centerstate TIA and the 2008 TIA Letter Addendum, the total number of trips for this project area was estimated to be 17,433 trips per day using the latest edition (10th) of the ITE Trip Generation Manual, as shown in Table 1. Copies of the above referenced reports are provided as enclosures to this letter. Table 1 provides a trip generation summary of the total allowable trips for this project.

Table 1. Summary of Daily & Peak Hour Trip Generation - Total Allowable

Land	Land Use	Size	24-Hour				PM Peak Hour			
Use Code		Size	Two Way Volume	Enter	Exit	Total	Enter	Exit	Total	
140	Manufacturing	325,000 SF	1,187	155	47	202	68	150	218	
221	Multifamily (Mid-Rise)	80 DU	434	7	22	29	21	14	35	
310	Hotel	210 Rooms	1,944	59	41	100	67	64	131	
710	General Office	778,500 SF	7,767	652	106	758	128	672	800	
760	Research and Development Center	325,000 SF	3,529	102	35	137	24	135	159	
932	High-Turnover (Sit- Down) Restaurant	5,109 SF	572	28	23	51	31	19	50	
-	-	-	2,000*	-	-	-	-	-	-	
	Total Allowable		17,433	1,003	274	1,277	339	1,054	1,393	

^{* =} Trips added to total allowable from zoning case C14-2008-0076

The final piece of this project is zoning case C14-2008-0076, shown in pink on Figure 1, which limited the total number of trips on that tract to 2,000 trips per day, but did not assign a particular land use to the property. For the purposes of this report, that land area will not be included in the discussion; however, the additional 2,000 trips per day were included in the total allowable trips.

TRIP GENERATION SUMMARY FOR ACTUAL LAND USE

As shown in Table 2, the land use mix on the site consists of Manufacturing, Warehousing, Multifamily (Mid-Rise), Hotel, General Office, and High-Turnover Sit-Down Restaurant. Table 2 summarizes the actual land uses that have been built to-date, or for which there is an active site plan, and the currently proposed multifamily development for this Project. As discussed previously, the current request would convert the previously proposed Warehouse and Office uses in Tech.Ridge Section 2 to Apartments. The sum of the built to-date and proposed uses would generate a total of 10,316 unadjusted trips per day, as shown in Table 2 below. This results in an estimated 7,117 daily trips remaining for the site.

Table 2. Summary of Daily & Peak Hour Trip Generation - Built To-Date and Proposed

- abio 21 outsindly of bully diff out from 111p obtained									
Land Use	Land Use	Size	24-Hour Two Way	AM	Peak Ho	our	PI	M Peak Ho	our
Code	Land 036	0126	Volume	Enter	Exit	Total	Enter	Exit	Total
	То	tal Allowable	17,433	1,003	274	1,277	339	1,054	1,393
	Actual Built To-Date								
140	Manufacturing	693,398 SF	2,351	331	99	430	144	321	465
150	Warehousing	18,280 SF	74	21	7	28	8	22	30
221	Multifamily (Mid-Rise)	310 DU	1,688	27	77	104	80	51	131
310	Hotel	210 Rooms	1,944	59	41	100	67	64	131
710	General Office	189,333 SF	1,971	175	29	204	33	176	209
932	High-Turnover (Sit- Down) Restaurant	5,109 SF	573	28	23	51	31	19	50
		Total	8,601	641	276	917	363	653	1,016
	Currently Proposed								
221	Multifamily (Mid-Rise)	315 DU	1,715	27	78	105	81	52	133
		Total	1,715	27	78	105	81	52	133
	Buil	t + Proposed	10,316	668	354	1,022	444	705	1,149
		Remaining	7,117	335	-80	255	-105	349	244

I am hereby requesting a waiver of the TIA requirement for this Project, since the combined total trips for the built to-date and proposed uses will generate fewer trips than those modeled in the approved TIAs and subsequent updates.

Sangeeta Jain March 23, 2021 Page 4

Please feel free to contact me if you have any questions or need additional information to approve this TIA waiver request.

Sincerely,

HDR Engineering, Inc.

Kathleen G. Smith, P.E., PTOE

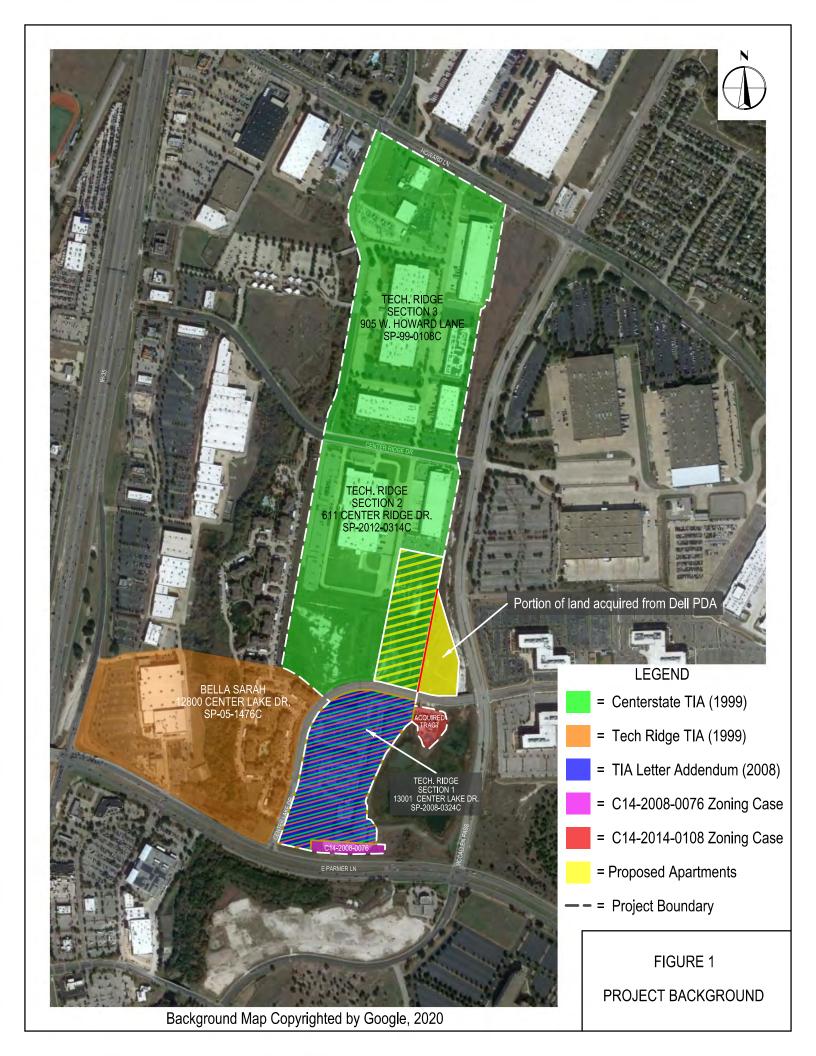
Senior Project Manager

Cc: James M. Schissler; Civilitude

Amanda Morrow, Amanda Surman; Armbrust & Brown

Enclosures

MM





TECH.RIDGE

<Traffic Impact Analysis Update>

Austin, Texas

September 10, 2014

TECH.RIDGE

< TRAFFIC IMPACT ANALYSIS UPDATE>

Prepared for Centerstate 99, Ltd.

Prepared by

HDR Engineering, Inc.

Texas PE Firm # F-754 504 Lavaca St. #1175 Austin, Texas 78701 Telephone 512-904-3700 Facsimile 512-904-3773 Website: hdrinc.com

September 10, 2014



TABLE OF CONTENTS

Table of Contents	į. i
List of Figures	ii
List of Tables	iii
Introduction	. 4
Previous TIAs and Traffic Studies	. 4
Trip Generation Summary for Modeled Land Use	. 6
Trip Generation Summary for Actual Land Use	. 7
Summary and Recommendations	. 9
Technical Addendum	10

LIST OF FIGURES

1 Area Location Map...... 5

LIST OF TABLES

1	Centerstate TIA (April 1999)	
	tech.ridge section one, two, and three	
	Summary of Unadjusted Daily and Peak Hour Trip Generation	;
2	Techridge (December 1999)	
	tech.ridge section one	
	Summary of Unadjusted Daily and Peak Hour Trip Generation)
3	December 22, 2008 TIA Letter Addendum	
	tech.ridge section one	
	Summary of Unadjusted Daily and Peak Hour Trip Generation	
4	Actual Land Use To-Date	
	tech.ridge section one, two, and three	
	Summary of Unadjusted Daily Trip Generation	,
5	Actual Land Use To-Date Plus Proposed Apartments	
	tech.ridge section one, two, and three	
	Summary of Unadjusted Daily Trip Generation	

< TRAFFIC IMPACT ANALYSIS UPDATE >

INTRODUCTION

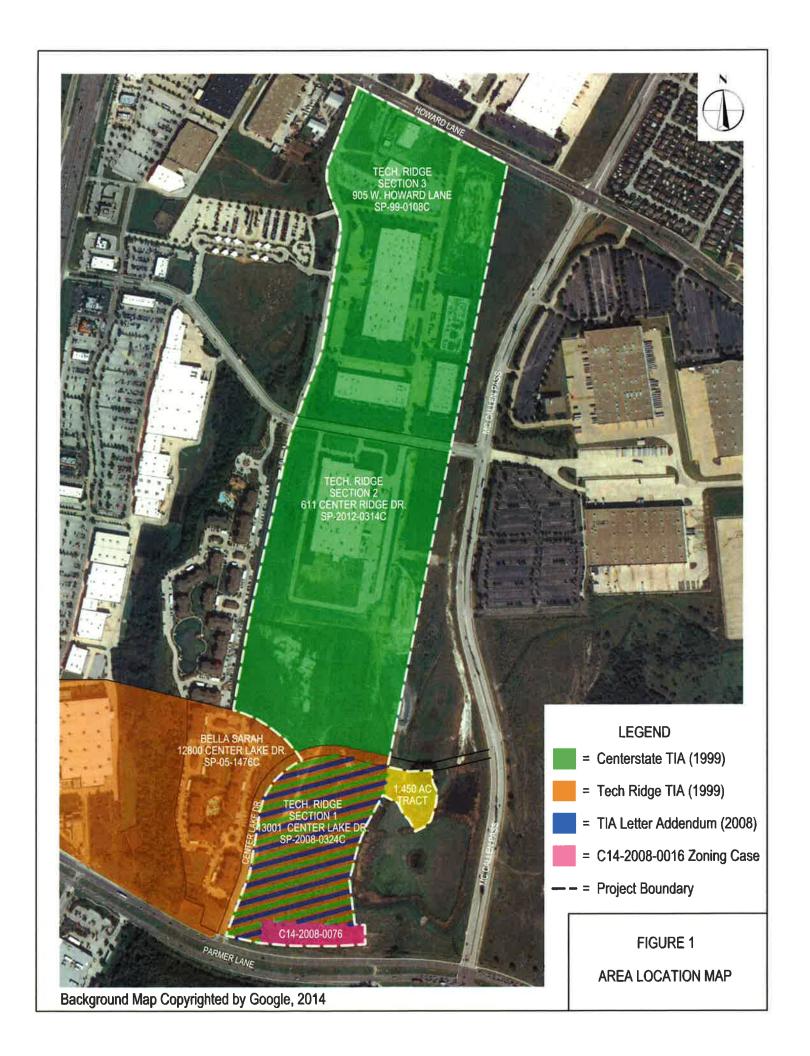
HDR Engineering, Inc. has been retained by Centerstate 99, Ltd. to perform a traffic impact analysis (TIA) update for the "tech.ridge section one, two, and three" development located in the vicinity of IH 35, Howard Lane, McAllen Pass, and Parmer Lane, as shown in Figure 1. This update is associated with a current request by Centerstate 99, Ltd. to change a land use within the project from General Office to Apartments. The request also proposes to add a 1.450 acre tract, shown in yellow on Figure 1, from a neighboring PDA to the project. No trips will be transferred with the 1.450 acre tract. The purpose of this update is to summarize the total trips that were modeled for this land area, document land use that has been constructed to-date, and summarize the remaining trips for this project given the change from Office to Apartments in order to obtain approval of the project changes discussed above.

PREVIOUS TIAS AND TRAFFIC STUDIES

The project limits for "tech.ridge section one, two, and three" are shown on Figure 1. This land area has been included in multiple TIAs and zoning cases completed over several years. Those TIAs, which are provided in the technical addendum of this report, include the following:

- Centerstate TIA (April 1999) shown in green on Figure 1 tech.ridge section one, two, and three
- Techridge TIA (December 1999) shown in orange on Figure 1- tech.ridge section one plus other land area
- A December 22, 2008 TIA Letter Addendum shown in blue on Figure 1 tech.ridge section one
- Zoning case C14-2008-0076 shown in pink on Figure 1

As shown in Figure 1, the area known as "tech.ridge section one" has been analyzed in three different studies. The land area for the Bella Sarah apartment project located just west of the project limits was included in the Techridge TIA as Tract E and was limited to 2,000 trips per day. The project currently consists of 102 dwelling units, which generates 783 trips per day. This project does not impact the trips for "tech.ridge section one, two, and three."



TRIP GENERATION SUMMARY FOR MODELED LAND USE

The total number of trips modeled for this land area is a combination of the trips modeled in the references discussed previously. The Centerstate TIA covered the land area shown in green in Figure 1, which is now known as "tech.ridge sectons one, two, and three." The land use and trip generation table from that report is replicated in Table 1 below, and the original table can be found in the technical addendum. The proposed project was to have generated approximately 11,261 unadjusted weekday daily trips upon build-out.

Table 1.

Centerstate TIA (April 1999)

tech.ridge section one, two, and three

Summary of Unadjusted Daily and Peak Hour Trip Generation

	Size	24-Hour Two-Way	AM Peak Hour		PM Peak Hour	
Land Use		Volume	Enter Exit E			Exit
Research/Development	325,000 SF	2,700	317	65	53	302
Manufacturing	325,000 SF	1,242	183	55	87	154
Office	609,000 SF	6,705	836	114	154	42
Multi-family Apartments	80 DU	614	7	36	42	20
Total		11,261	1,343	270	336	1,229

The Techridge TIA covered the land area shown in orange on Figure 1. However, only the area immediately east of Center Lake Drive, which is labeled as Tracts G and H in the report, is considered "tech.ridge section one." The portion of the land use and trip generation table from that report that provides information for Tracts G and H is replicated in Table 2 below, and the original table can be found in the technical addendum. These two tracts were to have generated approximately 3,141 unadjusted weekday daily trips upon build-out.

Table 2.

Techridge (December 1999)

tech.ridge section one

Summary of Unadjusted Daily and Peak Hour Trip Generation

			24-Hour Two-Way	AM Peak Hour		PM Peak Hour	
Tract	Land Use	Size	Volume	Enter	Exit	Enter	Exit
G	Fast Food w / Drive	2,500 sf	1,240	64	61	44	40
G	Fast Food w / Drive	2,500 sf	1,240	64	61	44	40
Н	Office	60,000 sf	661	82	11	15	74
	Total		3,141	210	133	103	154

Given the information provided above, the resulting total number of trips for the project area known as "tech.ridge section one, two, and three" is 14,402 (11,261 + 3,141 = 14,402) trips per day.

The December 22, 2008 TIA Letter Addendum revised the land area shown in blue on Figure 1, which again corresponds to the area known as "tech.ridge section one." The land use and trip generation table from that letter report is replicated in Table 3 below and essentially replaces the information in Table 2 above. This section of the project was planned to generate approximately 4,526 unadjusted weekday daily trips upon build-out.

Table 3.

December 22, 2008 TIA Letter Adendum
tech.ridge section one
Summary of Unadjusted Daily and Peak Hour Trip Generation

			AM Peak Hour		PM Peak Hour	
Land Use	Size	Two-Way Volume	Enter Exit		Enter	Exit
Hotel	210 rooms	1,873	82	59	71	76
High Turnover Restaurant	5,109 sf	650	31	28	34	22
General Office	169,500 sf	4,526	365	121	151	321
Total		4,526	365	121	151	321

Given this change, the resulting total number of trips for the total project area, known as "tech.ridge section one, two, and three" is 15,787 (11,261 + 4,526 = 15,787) trips per day. It is important to note that the 2008 report used the latest available edition of the Trip Generation manual; therefore, the office trips in section one will have slightly different rates than the office trips in sections two and three.

The final piece of this project is zoning case C14-2008-0076, shown in pink, on Figure 1, which limited the total number of trips on that tract to 2,000 trips per day, but did not assign a particular land use to the property. For the purposes of this report, that land area will not be included in the discussion; however, it will be important to remember the additional 2,000 trips per day that are available for this project.

TRIP GENERATION SUMMARY FOR ACTUAL LAND USE

The total number of trips resulting from the actual land use that has been built to-date, or for which there is an active site plan, is 6,947 trips per day as summarized in Table 4. Only the 24-hour volume is reviewed when determining whether a TIA is required, therefore, only 24-hour volume is shown on the table. To-date, there are 8,840 trips per day remaining for the project.

Table 4.

Actual Land Use To-Date
tech.ridge section one, two, and three
Summary of Unadjusted Daily Trip Generation

	Land Use	Size	24-Hour Trip Rate*	24-Hour Two-Way Volume
tech.ridge section one	Hotel	210 Rooms	8.92	1,873
	High-Turnover Rest.	5,109 SF	127.23	650
tech.ridge section two	Office	66,149 SF	11.01	728
	Manu./Warehousing	178,585 SF	3.82	682
	Manu./Warehousing	80,000 SF	3.82	306
	Manu./Warehousing	57,600 SF	3.82	220
	Office	19,200 SF	11.01	211
tech.ridge section three	Warehousing	18,280 SF	3.82	70
	Office	88,216 SF	11.01	971
	Manufacturing	7,505 SF	3.82	29
	Manu./Warehousing	316,076 SF	3.82	1,207
Total				6,947
Remaining				8,840

^{*}Per thousand square feet where applicable.

As discussed previously, the current request would convert the previously proposed office use in "tech.ridge section one" to apartments. Table 5 summarizes the resulting total trips generated by the project upon completion.

Table 5.

Actual Land Use To-Date Plus Proposed Apartments
tech.ridge section one, two, and three
Summary of Unadjusted Daily Trip Generation

	Land Use	Size	24-Hour Two-Way Volume
tech.ridge section one	Hotel	210 Rooms	1,873
	High-Turnover Rest.	5,109 SF	650
	Apartments (proposed)	310 DU	2,381
tech.ridge section two	Office	66,149 SF	728
	Manu./Warehousing	178,585 SF	682
	Manu./Warehousing	80,000 SF	306
	Manu./Warehousing	57,600 SF	220
	Office	19,200 SF	211
tech.ridge section three	Warehousing	18,280 SF	70
	Office	88,216 SF	971
	Manufacturing	7,505 SF	29
	Manu./Warehousing	316,076 SF	1,207
Total			9,328
Remaining			6,459

HDR Engineering, Inc.

As shown in Table 5, there are 6,459 trips per day remaining for the "tech.ridge section one, two, and three" project upon completion of the proposed apartments project.

SUMMARY AND RECOMMENDATIONS

The following comments are provided in summary of this report:

- 1. Upon review of all available traffic studies associated with the "tech.ridge section one, two, and three" project, the total number of trips is 15,787 trips per day.
- 2. The currently approved land use that has either been constructed or is under construction generates approximately 6,947 trips per day.
- 3. The proposed apartments project would generate approximately 2,381 trips per day, resulting in 6,459 trips remaining for the "tech.ridge section one, two, and three" project.
- 4. The total remaining trips does not include the 2,000 trips per day available for the land area associated with zoning case C14-2008-0076.

HDR Engineering, Inc.

TECHNICAL ADDENDUM

HDR Engineering, Inc.

CENTERSTATE

TRAFFIC IMPACT ANALYSIS

Prepared For

The Bob Liverman Company

April 1999

CENTERSTATE

TRAFFIC IMPACT ANALYSIS

Prepared For

The Bob Liverman Company

Prepared by

WHM Transportation Engineering Consultants, Inc. 2717 Rio Grande Street Austin, Texas 78705 Phone: 512-473-8343

Fax: 512-473-8237

April 1999

TABLE OF CONTENTS

	<u>Page</u>
Table of Contents	. Ĭ
List of Figures	ı ii
List of Tables	. iii
Certification Statement	iv
Synopsis	, 1
Introduction	. 5
Site and Access Characteristics	. 5
Existing Thoroughfare System	5
Future Roadway Improvements	. 6
Traffic Analysis	8
Signalized Intersection Level of Service	. 9
Unsignalized Intersection Level of Service	10
1997 Existing Conditions	12
Signalized Intersection	. 12
Unsignalized Intersection	12
2004 Forecasted Conditions with Site Generated Traffic	15
Site Generated Traffic	15
Directional Distribution	15
Analysis Assumptions	16
Intersection Analysis	18
Summary and Recommendations	25
References	27

LIST OF FIGURES

<u>Fig</u>	<u>ure</u>	Page
1	Area Map	3
2	Site Plan	4
3	IH 35 and Howard Lane Existing Geometric and Traffic Volume Conditions	13
4	Harris Ridge Boulevard and Howard Lane Existing Geometric and Traffic Volume Conditions	14
5	IH 35 and Howard Lane 2004 - Geometric and Traffic Volume Conditions	20
6	Harris Ridge Boulevard and Howard Lane 2004 - Geometric and Traffic Volume Conditions	21
7	McCallen Pass and Howard Lane 2004 - Geometric and Traffic Volume Conditions	22
8	Driveway A and Howard Lane 2004 - Geometric and Traffic Volume Conditions	23
9	Driveway B and Howard Lane 2004 - Geometric and Traffic Volume Conditions	24

LIST OF TABLES

Ta	<u>ble</u>	Page
1	Signalized Intersection: Level of Service Measurement and Qualitative Descriptions	10
2	Unsignalized Intersection: Level of Service Measurement	11
3	Summary of Unadjusted Daily and Peak Hour Trip Generation	15
4	Forecast Directional Distribution of Site-Oriented Traffic	16

CERTIFICATION STATEMENT

I hereby certify that this report complies with Ordinance requirements and applicable technical requirements of the City of Austin and is complete and accurate to the best of my knowledge.

*
HEIDI RAE WESTERFIELD

82790

6/STER

Heidi Westerfield, P.E. Engineer

CENTERSTATE

TRAFFIC IMPACT ANALYSIS

SYNOPSIS

Centerstate is a proposed 132 acre research and development, manufacturing, and office project located at 905 Howard Lane in northeast Austin as shown in Figure 1. The site is currently occupied by Centerline Properties Inc., as the Austin Executive Airpark. Planned land uses include 325,000 square feet of research and development, 325,000 square feet of manufacturing facilities, 609,000 square feet of office, and 80 dwelling units of multi-family apartments.

The site is bounded on the west by other commercial facilities and vacant land, on the north by Howard Lane, on the east by Dell Computer Corporation manufacturing facilities which are currently under construction, and on the south by vacant land. Access is to be provided via two driveways on Howard Lane. An analysis was conducted that evaluated the impact of traffic generated by the project with the findings and recommendations reported herein.

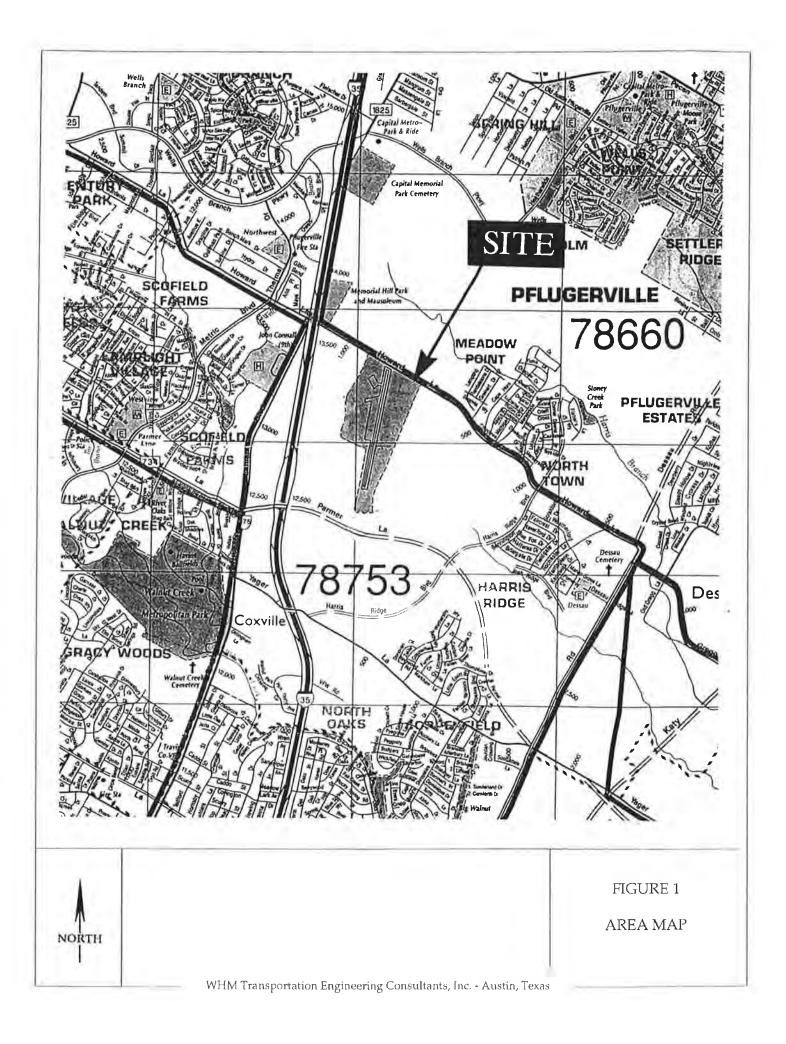
The purpose of the Traffic Impact Analysis (TIA) is to examine the interaction of existing and programmed land use activities, their intensity and traffic characteristics, and identify actions that would create a successful, effective and safe development program under both existing and future traffic conditions.

By utilizing accepted traffic engineering methods and techniques, a TIA for the project was conducted. Existing traffic conditions were examined on area roadways and at selected intersections and compared with traffic conditions that could be expected in 2004 considering both site generated and external (background) traffic. Based on the analysis, recommended actions were identified, and are summarized as follows:

1. The Howard Lane and IH 35 interchange will operate at an acceptable level of service under site plus forecasted conditions. As shown in Figure 5, improvements assumed at the interchange include the use of existing pavement under the IH 35 mainlanes to expand the cross-section of Howard Lane to six lanes, the widening of Howard Lane to a four lane divided section, addition of a westbound right turn lane on Howard Lane, addition of a southbound left turn lane on the IH 35 West Frontage Road, addition of a northbound right turn lane on the IH 35 East Frontage

Road, and installation of appropriate pavement markings and signal timing. Site traffic will comprise 19 percent and 17 percent of total traffic at the intersection for the AM and PM peak periods, respectively.

- 2. The intersection of Harris Ridge Boulevard and Howard Lane will operate at an acceptable level of service under site plus forecasted conditions. As shown in Figure 6, improvements assumed to be constructed at the intersection are the widening of Howard Lane to a four lane divided section, restriping of the northbound approach on Harris Ridge Boulevard, and the installation of a traffic signal when appropriate warrants are met. The City of Austin has committed to the funding of this signal as part of the Dell Community Facilities Contract.
- 3. The intersection of McCallen Pass and Floward Lane will operate at an acceptable level of service under site plus forecasted conditions. McCallen Pass is currently under construction as a four lane divided arterial from Parmer Lane to Howard Lane, and will have three approach lanes at the Howard Lane intersection. Howard Lane is currently under construction as a four lane divided roadway. A traffic signal should be installed at the intersection when warrants are met. The City of Austin has committed to the funding of this signal as part of the Dell Community Facilities Contract. Lane use and pavement markings should be as shown in Figure 7.
- 4. The intersection of Driveway A and Howard Lane will operate at an acceptable level of service under site plus forecasted conditions. Howard Lane is currently under construction as a four lane divided roadway. An eastbound right turn lane should be constructed at the intersection to accommodate site traffic. Driveway A should be constructed with three approach lanes to the intersection. A traffic signal should be installed at the intersection when warrants are met. Lane use and pavement markings should be as shown in Figure 8.
- 5. The intersection of Driveway B and Howard Lane will operate at an acceptable level of service under site plus forecasted conditions. Howard Lane is currently under construction as a four lane divided roadway. Driveway B will function as right in/out due to the median on Howard Lane. Lane use and pavement markings should be as shown in Figure 9.





INTRODUCTION

Centerstate is a proposed 132 acre research and development, manufacturing, and office project located at 905 Howard Lane in northeast Austin as shown in Figure 1. The site is currently occupied by Centerline Properties Inc., as the Austin Executive Airpark. Planned land uses include 325,000 square feet of research and development, 325,000 square feet of manufacturing facilities, 609,000 square feet of office, and 80 dwelling units of multi-family apartments.

Site and Access Characteristics

The site is bounded on the west by other commercial facilities and vacant land, on the north by Howard Lane, on the east by Dell Computer Corporation manufacturing facilities which are currently under construction, and on the south by vacant land. Access is to be provided via two driveways on Howard Lane.

Since the project will impact traffic flow on III 35 and Howard Lane, the programmed development activity and traffic related characteristics require evaluation. Examining the interaction of existing and programmed land use activities, their intensity, and traffic characteristics is necessary to render an appreciation of appropriate actions required to create a successful, efficient, and safe program. This report on the analysis of the traffic conditions, present and future, responds to these objectives.

EXISTING THOROUGHFARE SYSTEM

As indicated on the site location map shown in Figure 1, the project is located near the intersection of IH 35 and Howard Lane. The interrelationship of these roadways and others in the area is shown on Figure 1. To adequately define the significance of these roadways, a further characterization is provided for each.

(1) IH 35 - The Austin Metropolitan Area Transportation Plan (Ref. 1) classifies IH 35 in the site vicinity as a six-lane freeway. Currently, this roadway has three travel lanes in each direction. IH 35 is an important roadway for the proposed project. It serves as a primary access route for a large portion of the project-related traffic. The traffic volumes for year 1997 on IH 35 north and south of Parmer Lane were 129,000 and 133,000 vehicles per day (vpd), respectively (Ref. 2).

- Howard Lane The Austin Metropolitan Area Transportation Plan classifies Howard Lane with an ultimate four lane divided major arterial cross-section from IH 35 to Dessau Road (Ref. 1). The existing roadway between IH 35 and Greinert Lane is under construction as a four lane divided facility. The section from Greinert Lane to Dessau Road is a two lane undivided roadway 20 feet in width and is currently very congested during peak hours. Howard Lane is an important roadway for the proposed project. It serves as a primary access route for a large percentage of the project-related traffic. The 1997 traffic volume on Howard Lane west of Dessau Road was approximately 7,290 vpd (Ref. 3).
- (3) <u>Harris Ridge Boulevard</u> This roadway is currently primarily residential in nature. It is classified as a four lane divided major arterial north of Parmer Lane. The roadway intersects Howard Lane on the north and extends south to its termination north of Parmer Lane. The 1997 traffic volume on this roadway south of Howard Lane was approximately 1,660 vpd (Ref. 3).
- (4) <u>Dessau Road</u> The Austin Mctropolitan Area Transportation Plan classifies Dessau Road as a four lane divided major arterial in the site vicinity. Proposed roadway improvements to Dessau Road will make the roadway an attractive route for site traffic in the future. The 1997 traffic volume on this roadway south of Yager Lane (now Parmer Lane) was approximately 12,800 vpd and 12,060 vpd at Harris Branch (Ref. 3). However, the traffic count was conducted while the roadway was under construction; therefore, traffic volumes may be underestimated.

FUTURE ROADWAY IMPROVEMENTS

Several pertinent roadway improvements have been recommended and approved by the Austin City Council, Travis County Commissioner's Court, and the Texas Department of Transportation. The Austin Metropolitan Area Transportation Plan catalogs the classifications of these major roadways and documents proposed improvements (Ref. 1).

- (1) <u>IH 35</u> No improvements are proposed to the mainlanes of this roadway at this time. Proposed interchange improvements are discussed under each associated intersecting roadway.
- (2) Howard Lane The existing roadway between IH 35 and Greinert Lane is under construction as a four lane divided facility. The section from Greinert Lane to Dessau Road is under design; construction will begin in early 1999. The IH 35 and Howard Lane interchange was designed and constructed to accommodate a six lane section underneath the IH 35 mainlanes.

As part of the Dell Community Facilities Contract, the City of Austin has committed to funding traffic signals to be installed at the intersections of Howard Lanc with McCallen Pass and Harris Ridge Boulevard.

(3) Harris Ridge Boulevard - This roadway is proposed to be constructed as a six lane divided major arterial from Parmer Lane to IH 35 in 1999. A temporary connection will be constructed to intersect Harris Ridge Boulevard at Yager Lane east of IH 35 until the year 2005. In 2005, the Harris Ridge Boulevard interchange is proposed to be constructed with a six lane section in the location of the existing Yager Lane interchange. At that time, Yager Lane will be realigned to intersect with Harris Ridge Boulevard east of IH 35.

North of Parmer Lane, Harris Ridge Boulevard is proposed to be constructed with a four lane divided section to Northtown (Wells Branch Parkway). The existing section of Harris Ridge Boulevard between Howard Lane and Parmer Lane will be constructed in conjunction with development of the Dell Computer Campus.

Funds have been privately escrowed to construct Harris Ridge Boulevard from IH 35 to north of Parmer Lane. Design of the facility is underway, with construction expected to be completed in 1999. Moreover, as part of the Dell Community Facilities Contract, the City of Austin has committed to funding traffic signals to be installed at the intersections of Harris Ridge Boulevard with Howard Lane and Parmer Lane.

(4) McCallen Pass/Heatherwilde Boulevard/Arterial #14 - This roadway is proposed to extend from Parmer Lane north beyond FM 1825 in Pflugerville as a four lane

divided major arterial. A section of this roadway (Heatherwilde Boulevard) has been constructed north of the site from Wells Branch Parkway to north of FM 1825. South of Parmer Lane, McCallen Pass is being constructed to intersect with Harris Ridge Boulevard in conjunction with development of the Metrotech Property. McCallen Pass is currently under construction as a four lane divided roadway from Parmer Lane to Howard Lane in conjunction with development of the Dell Computer Campus. The remaining portions of this roadway will be completed with private funds as development occurs.

As part of the Dell Community Facilities Contract, the City of Austin has committed to funding traffic signals to be installed at the intersections of McCallen Pass with Howard Lane and Parmer Lane.

(5) <u>Dessau Road</u> - This roadway is currently under construction from Howard Lane to FM 1825 in Pflugerville. The roadway is being extended with a four lane divided section to provide alternative access to IH 35 for residents in Pflugerville and northeast Austin. Construction is scheduled to be completed in June 1999.

TRAFFIC ANALYSIS

In order to assess the traffic implications of the proposed development, two time periods and travel conditions were evaluated:

- (1) 1997- Existing Conditions
- (2) 2004 Forecasted Conditions with Site Generated Traffic

Intersections in the vicinity of the site are considered the locations of principal concern because they are the locations of highest traffic conflict and delay. The standard used to evaluate traffic conditions at intersections is Level of Service (LOS), which is a qualitative measure of the effect of a number of factors such as speed, volume of traffic, geometric features, traffic interruptions, freedom to maneuver, safety, driving comfort, convenience, and operating cost. A description of two types of intersections and the standards used to evaluate their operation follows.

Signalized Intersection Level of Service

Signalized intersection LOS is defined in terms of delay, which is a direct and/or indirect measure of driver discomfort, frustration, fuel consumption, and lost travel time. The levels of service have been established based on driver acceptability of various delays. A benefit of using delay as the basis for intersection LOS is the ease with which the public can relate to delay as opposed to the previous concept which related LOS to the volume to capacity ratio. The delay for each approach lane group is calculated based on a number of factors including lane geometrics, percent of trucks, peak hour factor, number of lanes, signal progression, volume, signal green time to total cycle time ratio, roadway grades, parking conditions, and pedestrian flows.

Because delay is a complex measure, its relationship to capacity is also complex. The LOS analysis procedures used in this report are drawn from the Highway Capacity Manual (Ref. 4) and PASSER III-90 (Ref. 5). Table 1 summarizes the levels of service that are appropriate for different levels of average stopped and total delay and a qualitative description for each. In urban areas, levels of service for signalized intersections of A to D are acceptable, while LOS E or F is unacceptable. The intersection LOS is computed as a weighted average of the vehicle delay; therefore, an intersection may have a LOS C or D and have individual movements which are LOS E or F.

Table 1. Signalized Intersection: Level of Service Measurement and Qualitative Descriptions (Ref. 4, 5)

Level of Service	Stopped Delay per Vehicle (sec)	Total Delay per Vehicle (sec)	Qualitative <u>Description</u>
A	<5.0	<6.5	Good progression and short cycle lengths
В	5.1 to 15.0	6.6 to 19.5	Good progression or short cycle lengths, more vehicle stops
C	15.1 to 25.0	19.6 to 32.5	Fair progression and/or longer cycle lengths, some cycle failures
D	25.1 to 40.0	32.6 to 52.0	Congestion becomes noticeable, high volume to capacity ratio
Е	40.1 to 60.0	52.1 to 78.0	Limit of acceptable delay, poor progression, long cycles, and/or high volume
F	>60.0	>78.0	Unacceptable to drivers, volume greater than capacity

Unsignalized Intersection Level of Service

Unsignalized intersection LOS is defined in terms of average total delay. Total delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position.

The analysis method assumes that major street through traffic is not affected by minor street flows. Major street left-turning traffic and the traffic on the minor approaches will be affected by opposing movements. Stop or yield signs are used to assign the right-of-way to the major street. This designation forces drivers on the controlled street to judgmentally select gaps in the major street flow through which to execute crossing or turning maneuvers. Thus, the capacity of the controlled legs is based upon two factors:

- 1. The distribution of gaps in the major street traffic stream.
- 2. Driver judgment in selecting gaps through which to execute their desired maneuvers.

The LOS procedure computes a capacity for each movement based upon the critical time gap required to complete the maneuver and the volume of traffic which is opposing the movement. The average total delay for any particular movement is calculated as a function of the capacity of the approach and the degree of saturation. The degree of saturation is defined as the volume for a movement, expressed as an hourly flow rate, divided by the capacity of the movement, expressed as an hourly flow rate. Table 2 shows the relationship between the average total delay and the LOS. The overall intersection LOS is computed as a weighted average of the vehicle delay for each movement; therefore, an intersection may have a LOS C or D and have individual movements which are LOS E or F.

Analysis was performed using the microcomputer program "Highway Capacity Software" by the Federal Highway Administration (Ref. 6), which is based on the procedures contained in the Highway Capacity Manual (Ref. 4). In general, levels of service for intersection movements of A to D are acceptable, while a LOS of E or F is unacceptable.

Table 2. Unsignalized Intersection: Level of Service Measurement (Ref. 4)

Level of <u>Service</u>	Average Total <u>Delay (sec/veh)</u>
A	<5.1
В	5.1 to 10.0
С	10.1 to 20.0
D	20.1 to 30.0
E	30.1 to 45.0
F	>45.0

1997 Existing Conditions

The analysis of existing traffic required the acquisition of secondary data from the City of Austin, as well as the collection of primary data on adjacent roadways and intersections. A field survey was designed and implemented to obtain the necessary data and to verify the trends established by data available from previous years.

Traffic counts were conducted at the intersections of Howard Lane with IH 35 and Harris Ridge Boulevard during the months of September and October, 1997.

Signalized Intersection

The intersection of IH 35 and Howard Lane within the study area is signalized. Existing roadway geometrics of the intersection are presented in Figure 3 along with current turning movement counts and levels of service (LOS). A brief description of the intersection follows.

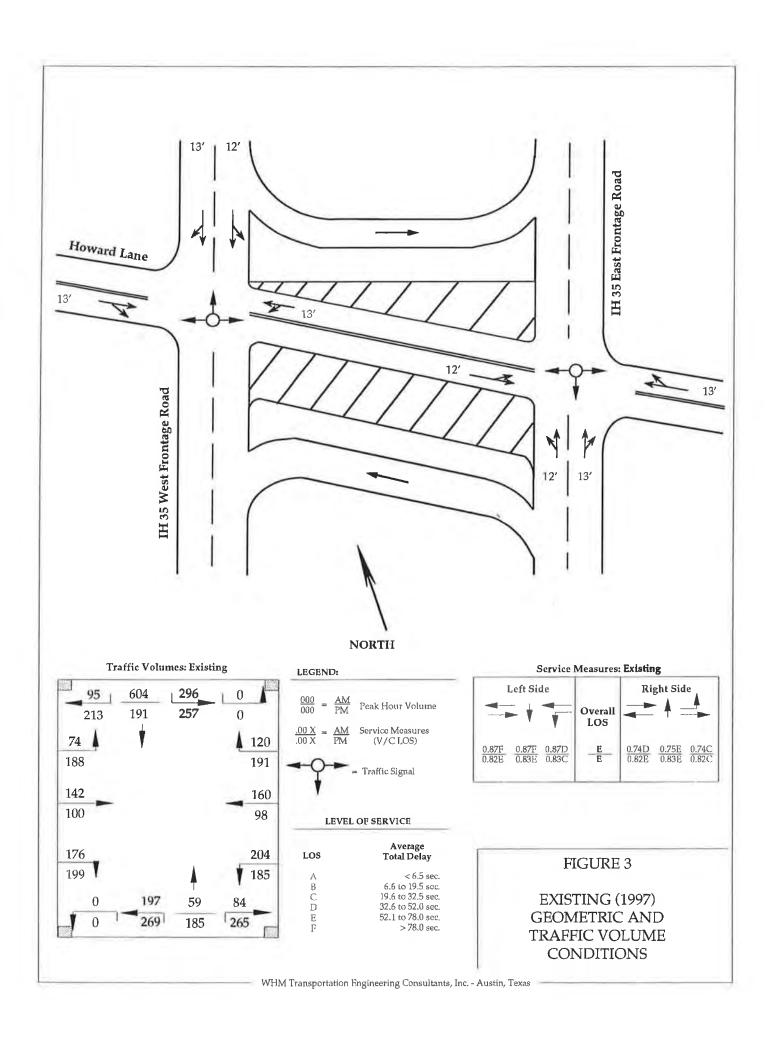
III 35 and Howard Lane

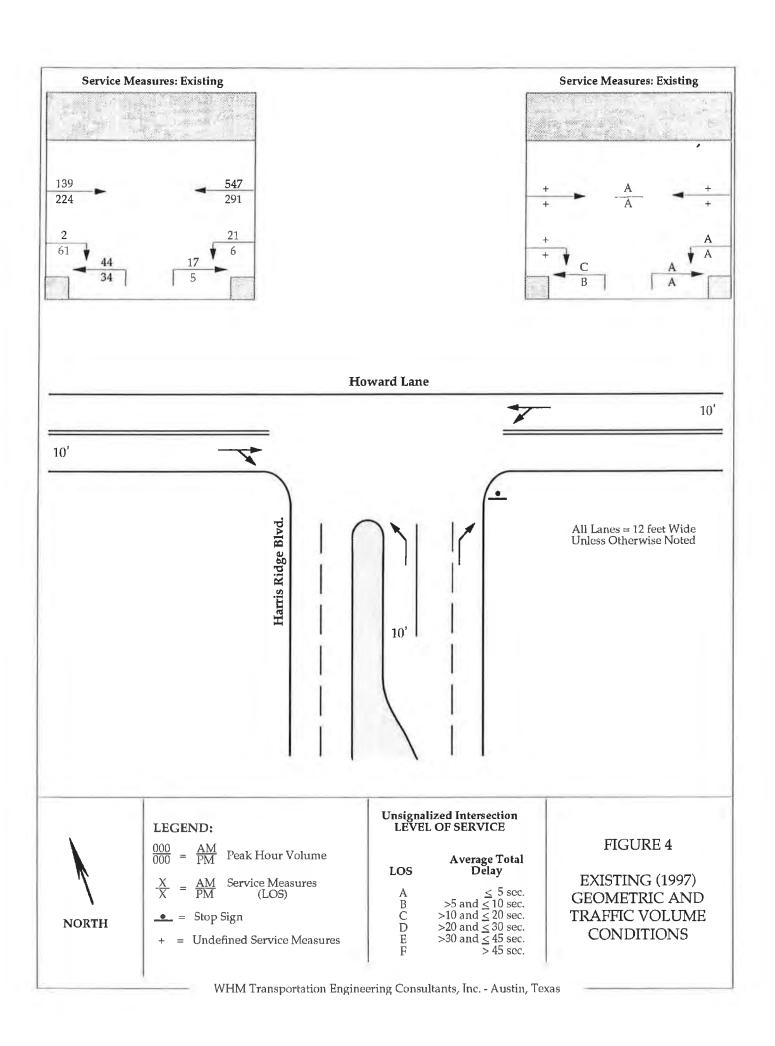
This interchange actually consists of two intersections where Howard Lane crosses the east and west IH 35 frontage roads. Two lanes are provided on the northbound and southbound frontage road approaches and one lane is provided on each of the Howard Lane approaches. Capacity is available to create additional lanes under the IH 35 mainlanes; however, the additional capacity cannot be realized until Howard Lane is widened to a four lane divided section. All movements occur as shown in Figure 3. Current overall levels of service are E for both the AM and PM peak periods.

Unsignalized Intersection

Harris Ridge Boulevard and Howard Lane

The intersection of Harris Ridge Boulevard with Howard Lane is controlled by a stop sign on Harris Ridge Boulevard. Existing roadway geometrics of this intersection are presented in Figure 4 along with current traffic volumes. The eastbound and westbound approaches on Howard Lane have single approach lanes. Since Harris Ridge Boulevard is designated as a four lane divided arterial roadway, the northbound approach has three lanes and reflects the ultimate cross-section of the roadway at the intersection. Since Harris Ridge Boulevard has not been constructed north of Howard Lane, only two of the northbound approach lanes are used, providing for left and right turns from Harris Ridge Boulevard to Howard Lane. Current overall LOS is A for both the AM and PM peak periods.





2004 Forecasted Conditions With Site Generated Traffic

The year 2004 was established as the year in which the project would become fully operational. This time frame was used to assess the major roadway effects and to facilitate the evaluation of alternative improvements. The forecasted traffic was projected using available information. This process was facilitated by using trends established by prior data for the major roadways in the immediate vicinity of the project site.

Site Generated Traffic

Determining the site generated traffic or the traffic which is considered to be contributed by development of the proposed manufacturing and office facilities was a major analysis process element. Unadjusted total trips per day as well as the peak hour traffic associated with the project were estimated using the microcomputer program "Trip Generation" by Microtrans Corporation (Ref. 7), which is based on recommendations and data contained in the Institute of Transportation Engineers report Trip Generation (Ref. 8). Table 3 provides a detailed summary of the traffic production which is directly related to the assumed land use activity. As a point of reference, the unadjusted total trips per day generated by the project land uses were estimated at 11,261.

Table 3. Summary of Unadjusted Daily and Peak Hour Trip Generation (Ref. 8)

Proposed Land Use	Size (SF)	24 Hour Two-Way <u>Volume</u>	AM Peak <u>Enter</u>	k Hour <u>Exit</u>	PM Pea <u>Enter</u>	
Research/Development Manufacturing Office Multi-family Apartments	325,000 325,000 609,000 80 DU	2,700 1,242 6,705 <u>614</u>	317 183 836 Z	65 55 114 <u>36</u>	53 87 154 <u>42</u>	302 154 753 <u>20</u>
Total	1,300,000	11,261	1,343	270	336	1,229

Directional Distribution

Once site generated trips were known, the next step involved distribution of those trips to appropriate geographic directions and logical connecting roadways. The major

thoroughfares which have a direct bearing on the accessibility of the project have been previously identified. Site traffic distribution assumptions are shown in Table 4.

Table 4. Forecast Directional Distribution of Site Oriented Traffic

	% of Traffic		
<u>Direction</u>	Entering	Exiting	
North IH 35	30	30	
South IH 35	35	35	
West Howard	10	10	
South McCallen	5	5	
South Harris Ridge	5	5	
East Howard	<u>15</u>	<u>15</u>	
Total	100	100	

Given the total site generated traffic and the directional distribution by approach, the next step in the process was to assign the traffic destined to and from the project to the most likely travel paths. This was done by investigating a number of alternative travel patterns as well as ingress/egress points along the project boundaries. Primary consideration was given to the traffic flow and safety of the major roadways.

Analysis Assumptions

The traffic impact analysis process involves the use of primary data and engineering judgment on transferable parameters. Specifically, engineering judgment is required for estimation of background traffic growth, pass-by capture, internal capture, and transit trip reductions, all of which are further described below.

Background Traffic

A background traffic growth rate of five percent was applied to all traffic. In addition to the growth rates applied to traffic volumes, background traffic volumes for 2004 included estimated traffic volumes for the following projects:

LaQuinta Inn and Suites SP-98-0012C

Northeast Corner of Yager and IH 35 SP-97-0347D

Metrotech - Phase A SP-97-0262D

Parmer Center C14-97-0001 (Centerstate site)
Austin Executive Airpark C14-93-0143 (same as Parmer Center)
Tom Kite Golf Center C14-93-0094
Howard Route Service Center C14-98-0212
Strasburger Enterprises Zoning C14-96-0131
Pflugerville ISD Middle School #4
Parmer North C14-97-0141, 0168, 0169, 0170

Pass-By Capture

Studies have shown that retail land uses will capture from 20 to 60 percent of their traffic as pass-by trips, depending upon their size (Ref. 8). It is well documented that many other land uses also experience significant pass-by trip capture, such as drive-in banks and restaurants. The amount of trip reduction which each tract may attribute to the pass-by phenomenon will depend directly on the type of land use which is developed. No pass-by reductions have been assumed for the project.

Transit Trips

The provision of transit service to an area may reduce the expected number of trips by providing a mode of travel alternative to the private automobile. The reduction may be in two forms, either a reduction in site generated trips or a reduction in background trips. The provision of transit service to the area would have some impact on site generated trips. No reductions have been assumed for potential transit trips.

Internal Capture

Once the total buildout of proposed land uses occurs, there will be some interaction among the uses within this development. Internal capture is accounted for in two ways. First, to account for internal capture among similar retail land uses in adjacent areas, the sizes may be combined during the trip generation process. Because the equations used in trip generation estimations are logarithmic, the number of trips generated by a site does not increase in direct proportion to an increase in the square footage of a development. By combining retail projects in close proximity to each other, a lower number of trips will be estimated, thereby taking into account the internal capture factor. The second way to account for internal capture is to reduce the expected number of trips directly by some percentage which reflects expected multipurpose trip-making among different types of land uses which are in close proximity. However, as with pass-by trip reductions, internal capture depends on the type and quantity of land uses.

The internal capture reduction was assumed to be 10 percent since there is a likelihood that multipurpose trip-making will take place within the development.

Intersection Analysis

The total 2004 traffic demand will be the sum of traffic generated by the proposed project, traffic generated by other developments, and changes in existing traffic. Build out year 2004 roadway geometrics of the study area intersections are presented in Figures 5 through 9 along with forecast turning movement counts and levels of service (LOS). A brief description of the intersections follows.

IH 35 and Howard Lane

As shown in Figure 5, overall intersection LOS is D during both the AM and PM peak periods under site plus forecasted traffic conditions at this intersection. The year 2004 analysis assumed use of the additional pavement under the IH 35 mainlanes to expand the cross-section of Howard Lane to six lanes. This also assumes that the Howard Lane approaches to the IH 35 interchange have been upgraded to a four lane divided section to accommodate necessary lane use. An additional lane is assumed to be provided on each of the frontage roads approaches. Site traffic will comprise 19 percent and 17 percent of total traffic at the intersection for the AM and PM peak periods, respectively. Figure 5 shows proposed lane use as well as forecasted traffic conditions.

Harris Ridge Boulevard and Howard Lane

As shown in Figure 6, overall intersection LOS is C during the AM and PM peak periods under site plus forecasted traffic conditions. Improvements assumed to be constructed at the intersection are the widening of Howard Lane to a four lane divided section and the installation of a traffic signal when appropriate warrants are met. The City of Austin has committed to the funding of this signal as part of the Dell Community Facilities Contract. Lane use and pavement markings should be installed as shown in Figure 6.

McCallen Pass and Howard Lane

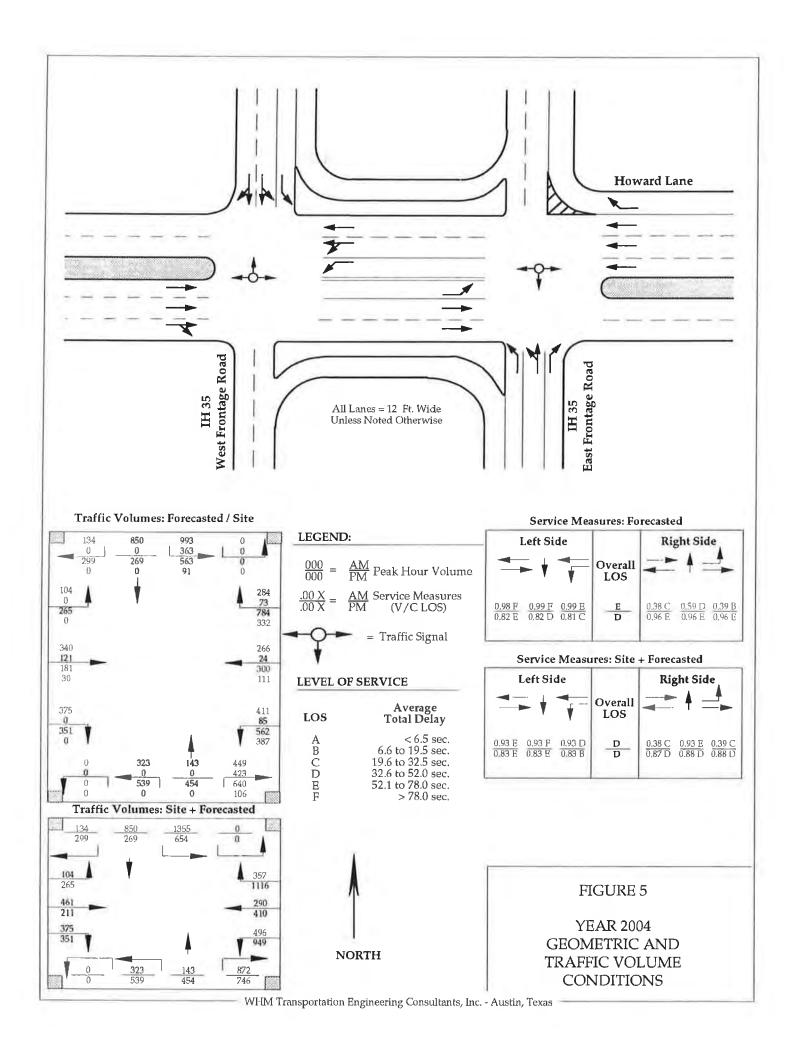
As shown in Figure 7, overall intersection LOS is B and C during the AM and PM peak periods, respectively, under site plus forecasted traffic conditions at this proposed intersection. McCallen Pass will be constructed as a four lane divided arterial from Parmer Lane to Howard Lane, and will have three approach lanes at the Howard Lane intersection. Howard Lane is assumed to be widened to a four lane divided roadway for future conditions. A traffic signal should be installed at the intersection when warrants are met. The City of Austin has committed to the funding of this signal as part of the Dell Community Facilities Contract. Lane use and pavement markings should be as shown in Figure 7.

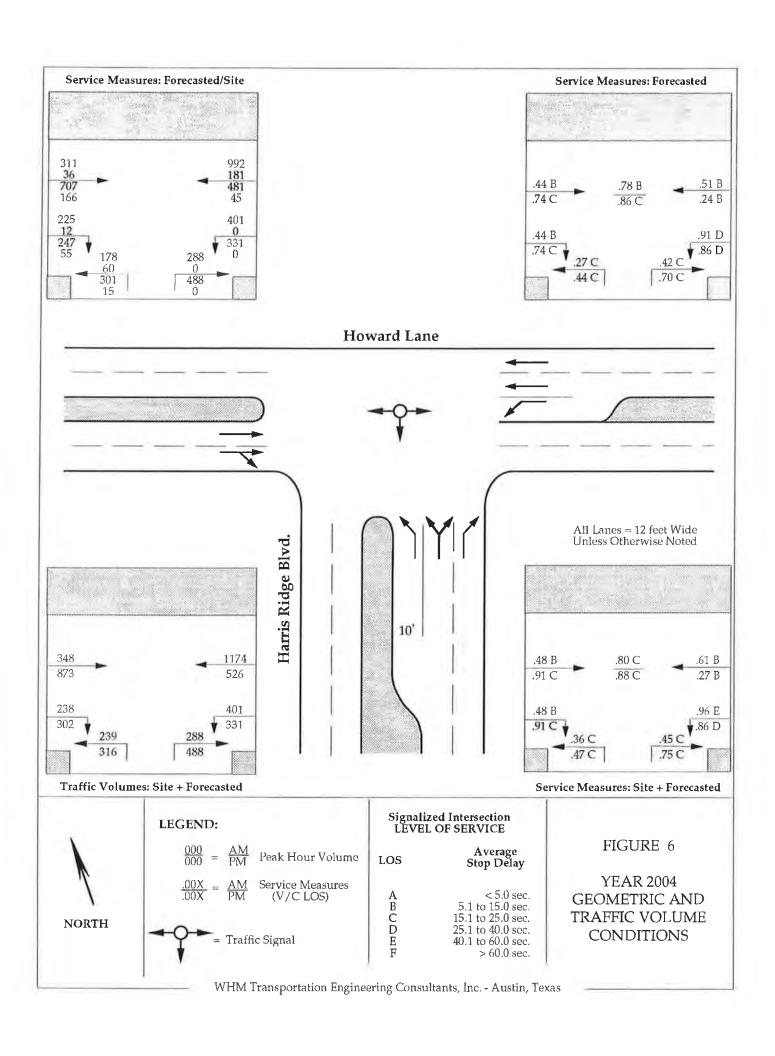
Driveway A and Howard Lanc

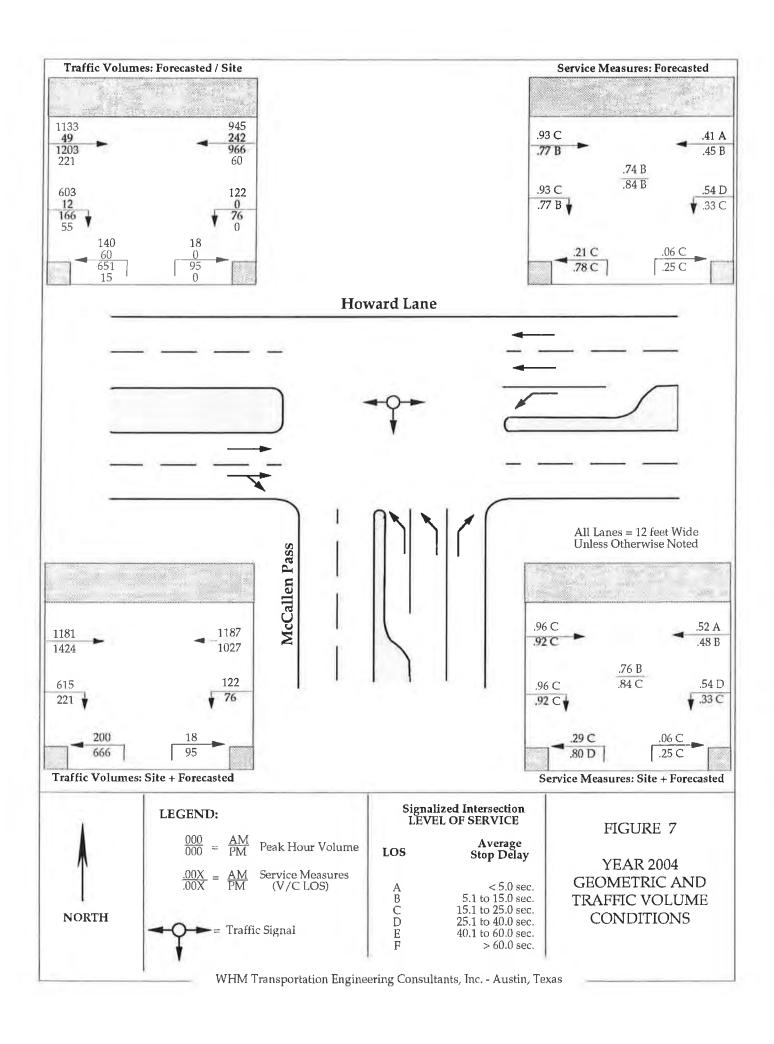
As shown in Figure 8, overall intersection LOS is C during both the AM and PM peak periods under site plus forecasted traffic conditions. Driveway A should be constructed with three approach lanes to Howard Lane. Howard Lane is assumed to be widened to a four lane divided roadway, with an eastbound right turn lane constructed for site traffic turning into the driveway. A traffic signal should be installed at the intersection when warrants are met. Lane use and pavement markings should be as shown in Figure 8.

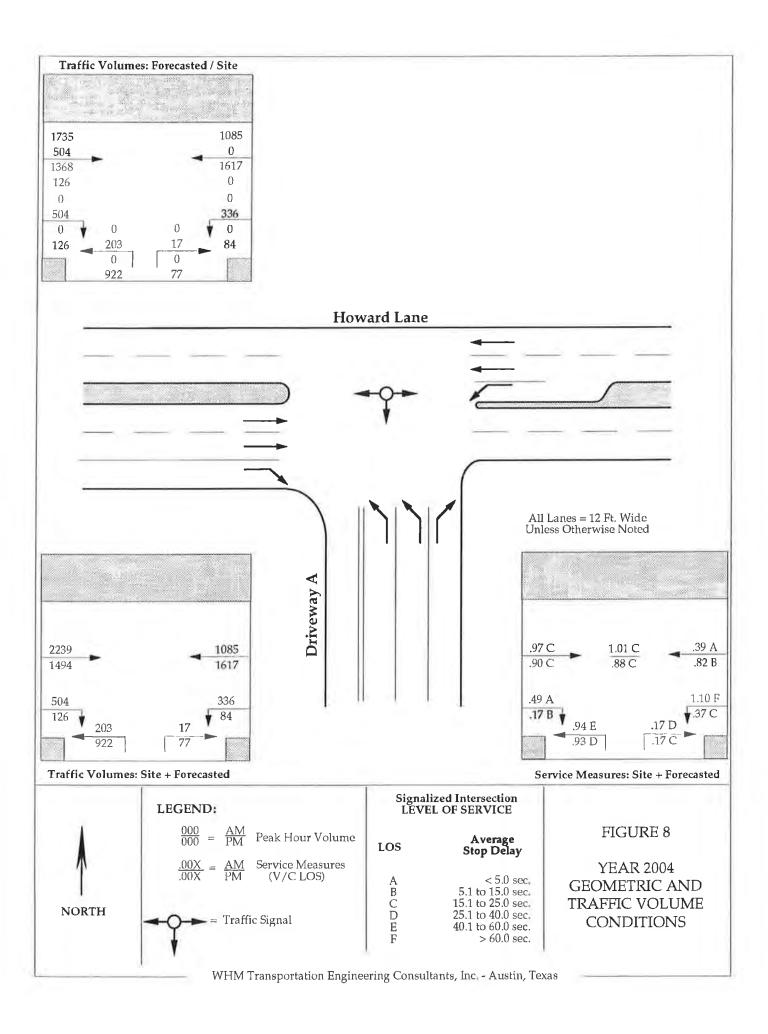
Driveway B and Howard Lane

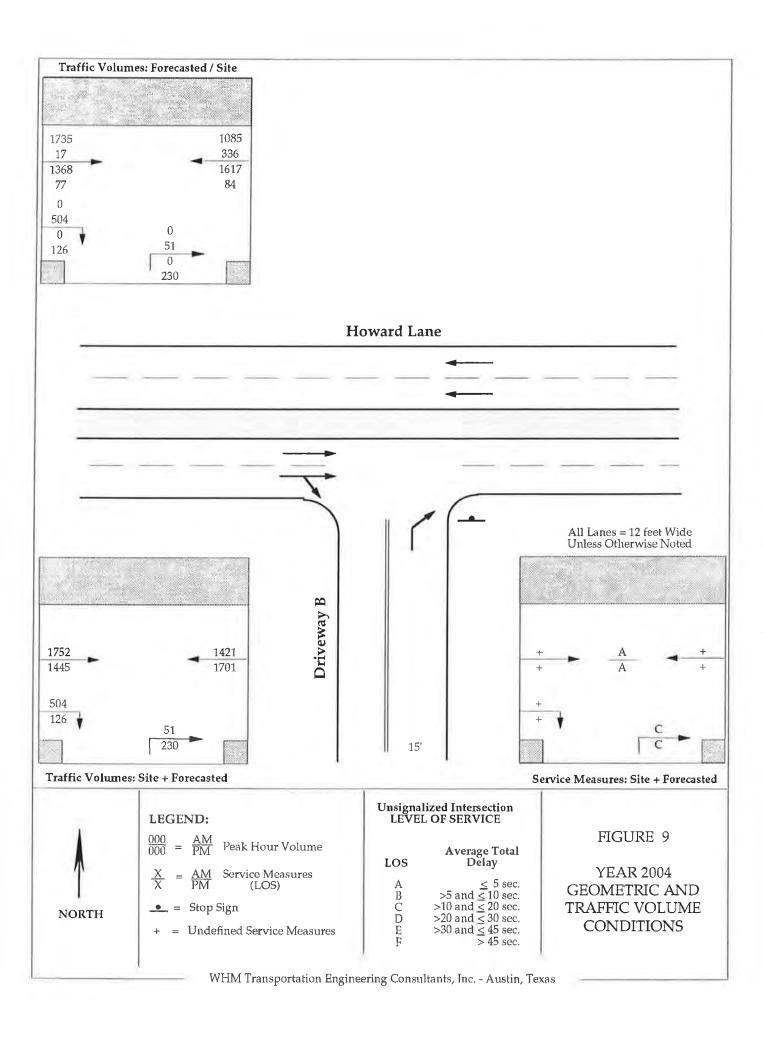
As shown in Figure 9, overall intersection LOS is A during both the AM and PM peak periods under site plus forecasted traffic conditions. Driveway B will function as right in/out due to the median on Howard Lane. Howard Lane is assumed to be widened to a four lane divided roadway for future conditions. Lane use and pavement markings should be as shown in Figure 9.











SUMMARY AND RECOMMENDATIONS

The preceding analyses have illustrated the effects of site generated and forecasted traffic demand upon the street and network adjacent to and in the vicinity of the project site. Generated traffic volumes were developed in a conservative scenario and assuming site development by 2004. Based on analysis of existing and projected conditions and in order to provide the safest and most effective movement into and out of the site, the following recommendations were developed.

- 1. The Howard Lane and IIH 35 interchange will operate at an acceptable level of service under site plus forecasted conditions. As shown in Figure 5, improvements assumed at the interchange include the use of existing pavement under the IH 35 mainlanes to expand the cross-section of Howard Lane to six lanes, the widening of Howard Lane to a four lane divided section, addition of a westbound right turn lane on Howard Lane, addition of a southbound left turn lane on the IH 35 West Frontage Road, addition of a northbound right turn lane on the IH 35 East Frontage Road, and installation of appropriate pavement markings and signal timing. Site traffic will comprise 19 percent and 17 percent of total traffic at the intersection for the AM and PM peak periods, respectively.
- 2. The intersection of Harris Ridge Boulevard and Howard Lane will operate at an acceptable level of service under site plus forecasted conditions. As shown in Figure 6, improvements assumed to be constructed at the intersection are the widening of Howard Lane to a four lane divided section, restriping of the northbound approach on Harris Ridge Boulevard, and the installation of a traffic signal when appropriate warrants are met. The City of Austin has committed to the funding of this signal as part of the Dell Community Facilities Contract.
- 3. The intersection of McCallen Pass and Howard Lane will operate at an acceptable level of service under site plus forecasted conditions. McCallen Pass is currently under construction as a four lane divided arterial from Parmer Lane to Howard Lane, and will have three approach lanes at the Howard Lane intersection. Howard Lane is currently under construction as a four lane divided roadway. A traffic signal should be installed at the intersection when warrants are met. The City of Austin has committed to the funding of this signal as part of the Dell Community Facilities Contract. Lane use and pavement markings should be as shown in Figure 7.

- 4. The intersection of Driveway A and Howard Lane will operate at an acceptable level of service under site plus forecasted conditions. Howard Lane is currently under construction as a four lane divided roadway. An eastbound right turn lane should be constructed at the intersection to accommodate site traffic. Driveway A should be constructed with three approach lanes to the intersection. A traffic signal should be installed at the intersection when warrants are met. Lane use and pavement markings should be as shown in Figure 8.
- 5. The intersection of Driveway B and Howard Lane will operate at an acceptable level of service under site plus forecasted conditions. Howard Lane is currently under construction as a four lane divided roadway. Driveway B will function as right in/out due to the median on Howard Lane. Lane use and pavement markings should be as shown in Figure 9.

REFERENCES

- Austin Metropolitan Area Transportation Plan, Austin Transportation Study, December 12, 1994.
- 1997 Traffic Map, Austin District, Texas Department of Transportation, Austin, Texas.
- 1997 Traffic Volumes, Compiled by the Austin Transportation Study in cooperation with the Texas Department of Transportation, Travis County and the City of Austin, September 1997.
- Highway Capacity Manual, (SR 209), Transportation Research Board, Washington, D.C., 1994.
- PASSER III 90, Texas Transportation Institute, Texas A&M University, College Station, Texas, March 1991.
- 6. "Highway Capacity Software," United States Department of Transportation, Federal Highway Administration, January 1995.
- 7. Buttke, Carl H., "Trip Generation," Microtrans Corporation, Portland, Oregon, 1997.
- Trip Generation, Sixth Edition, Institute of Transportation Engineers, Washington, D.C., 1997.

TECHRIDGE

TRAFFIC IMPACT ANALYSIS

Prepared For

Barshop & Oles Company

December 1999



TECHRIDGE

TRAFFIC IMPACT ANALYSIS

Prepared For

Barshop & Oles Company

Prepared by

WHM Transportation Engineering Consultants, Inc. 2717 Rio Grande Street Austin, Texas 78705 Phone: 512-473-8343

Fax: 512-473-8237

December 1999

TABLE OF CONTENTS

Table of Contents	*****************
List of Figures	i
List of Tables.	ii
Certification Statement	iv
Synopsis	1
Introduction	5
Site and Access Characteristics	5
Existing Thoroughfare System	5
Future Roadway Improvements	
Traffic Analysis	9
Signalized Intersection Level of Service	9
Unsignalized Intersection Level of Service	10
1999 - Existing Conditions	12
Signalized Intersections	13
Unsignalized Intersections	
2001 - Forecasted Conditions with Site Generated Traffic	16
Site Generated Traffic	16
Analysis Assumptions	17
Intersection Analysis	21
Summary and Recommendations	
References	

LIST OF FIGURES

<u>Figures</u> Pa	<u>ige</u>
1. Area Site Location Map3	}
2. Conceptual Site Plan4	Ŀ
3 IH 35 and Parmer Lane 1999 Existing Geometric and Traffic Volume Conditions14	Į
4 McCallen Pass and Parmer Lane 1999 Existing Geometric and Traffic Volume Conditions	5
5 IH 35 and Parmer Lane 2001 Site Plus Forecasted Geometric and Traffic Volume Conditions	ļ
6 McCallen Pass and Parmer Lane 2001 Forecasted Geometric and Traffic Volume Conditions25	;
7 McCallen Pass and Parmer Lane 2001 Site Plus Forecasted Geometric and Traffic Volume Conditions26)
8 Harris Ridge and Parmer Lane 2001 Site Plus Forecasted Geometric and Traffic Volume Conditions	7
9 IH 35 East Frontage Road and Driveway A 2001 Site Plus Forecasted Geometric and Traffic Volume Conditions28	}
10 Driveway B and Parmer Lane 2001 Site Plus Forecasted Geometric and Traffic Volume Conditions29)
11 Driveway C and Parmer Lane 2001 Site Plus Forecasted Geometric and Traffic Volume Conditions30)
12 Driveway D and Parmer Lane 2001 Site Plus Forecasted Geometric and Traffic Volume Conditions31	

LIST OF TABLES

Table	<u>es</u>	Page
1	Signalized Intersection: Level of Service Measurement and Qualitative Descriptions	10
2	Unsignalized Intersection: Level of Service Measurement	12
3	Summary of Unadjusted Daily and Peak Hour Trip Generation	17
4	Summary of Pass-By and Internal Capture Reductions	19
5	Summary of Adjusted Daily and Peak Hour Trip Generation	20
6	Forecasted Overall Directional Distribution of Site Oriented Traffic	21

CERTIFICATION STATEMENT

I hereby certify that this report complies with Ordinance requirements and applicable technical requirements of the City of Austin and is complete and accurate to the best of my knowledge.

I do hereby certify that the engineering work being submitted herein complies with all provisions of the Texas Engineering Practice Act, including Section 131.152(e). I hereby acknowledge that any misrepresentation regarding this certification constitutes a violation of the Act, and may result in criminal, civil and/or administrative penalties against me, as authorized by the Act.

(Signature of Responsible Engineer) Texas P.E. #

Signature of Submitter

Printed Name of Submitter

12/13/99

7/12

Date

12/13/44

Date



TECHRIDGE

TRAFFIC IMPACT ANALYSIS

SYNOPSIS

The Techridge project is a multi-use project located in north Austin in the vicinity of the IH 35 and Parmer Lane intersection, as shown in Figure 1. This proposed mixed use development will consist of eight tracts, A through H. Tracts A, B, C, F, G and a portion of Tract H will be discussed and analyzed as "site traffic" in this report. Tract A will consist of a 200 room hotel, Tracts B and C will each have a 7,500 square foot high turnover restaurant, and Tracts F and G will each consist of two fast food restaurants with drive-throughs.

Tracts D and E were previously submitted to the City for review and are being processed with a waiver of the TIA requirement. Neither of the proposed developments on Tracts D or E reached the traffic threshold which requires a TIA. The majority of Tract H, a planned 240,000 square foot office, was included in the Park/Centerstate TIA. Only 60,000 square feet of office on Tract H is included as "site traffic" in this TIA since the remainder was accounted for in the Park/Centerstate TIA. Traffic for development on the remainder of Tract H and on Tracts D and E is included as "background traffic" in this TIA.

The property is currently vacant. This Traffic Impact Analysis (TIA) is being submitted for two purposes: The TIA is being submitted for the west tracts, Tracts A, B, and C, to fulfill requirements for site plan applications. The TIA is being submitted for the east tracts, Tracts F, G, and a portion of H to fulfill requirements for an LI-PDA zoning application.

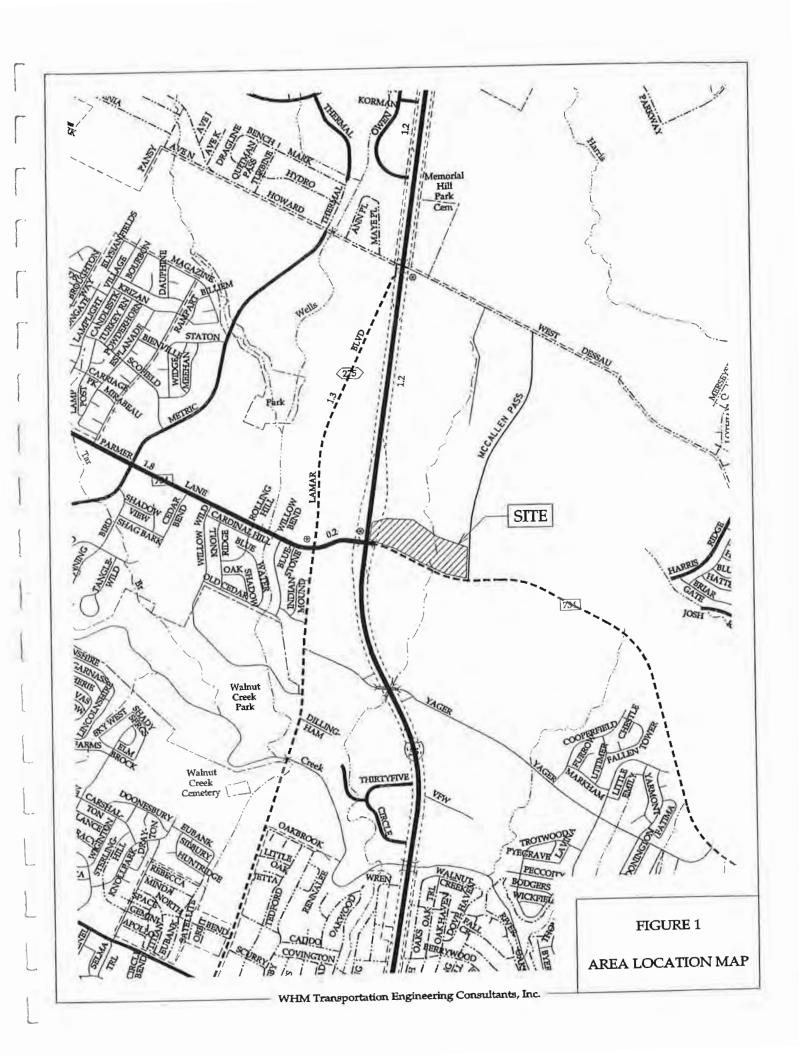
As shown in Figure 1, the project is located on the northeast corner of IH 35 and Parmer Lane. Access is to be provided for Tracts A, B, C, and D via two driveways, labeled A and B on Figure 2. Access to Tracts E, F, G, and H will be provided via two driveways labeled C and D on Figure 2, which is a conceptual site plan for the project.

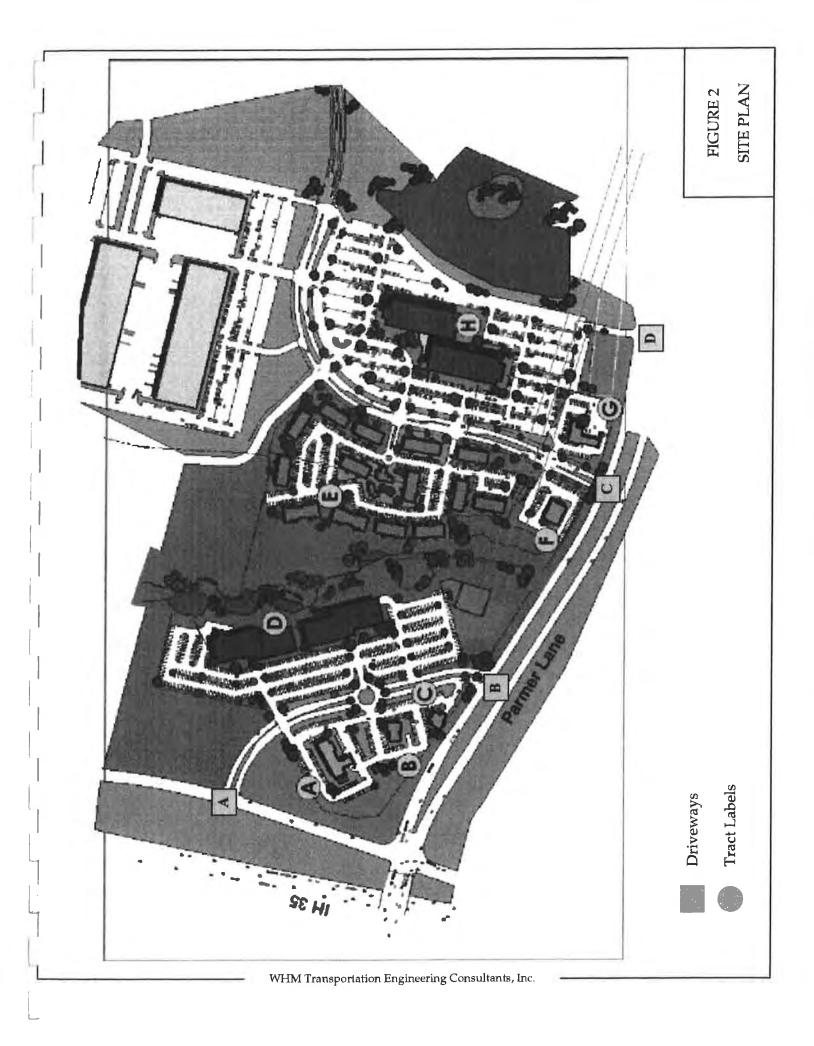
The purpose of the TIA is to examine the interaction of existing and planned land use activities, their intensity and traffic characteristics, and identify actions that would create a successful, effective, and safe development program under both existing and future traffic conditions. The traffic-related characteristics of the proposed development activities require evaluation to determine their effect on the adjacent roadway network.

An analysis was conducted that evaluated the impact of traffic generated by the project with the findings and recommendations reported herein.

Existing traffic conditions were examined on area roadways and at selected intersections and compared with traffic conditions that could be expected with the development considering both site generated and external (background) traffic. Based on the analysis, recommended actions were identified, and are summarized as follows:

- 1. The signalized diamond interchange of IH35 and Parmer Lane operates at an unacceptable LOS F under forecasted (without site) traffic conditions as well as under site plus forecasted traffic conditions. Site traffic comprised approximately 4.7 percent and 2.8 percent of the AM and PM peak periods, respectively. Site traffic has a negligible impact on the levels of service at this intersection as can be seen by comparing the v/c ratio for the forecasted and site plus forecasted condition for both the AM and PM peak periods. A comparison of this nature results in a difference of less than ten percent. An intersection improvement assumed for forecasted and site plus forecasted conditions was the creation of an additional westbound left turn lane on the west side of the diamond interchange via striping modifications as per the previous Ridge Tract and Metrotech TIA's.
- 2. The intersection of McCallen Pass and Parmer Lane operates at unacceptable LOS F under forecasted (without site) traffic conditions as well as under site plus forecasted traffic conditions. In order to accommodate future traffic, the following improvements have been identified:
 - a) Install a traffic signal at this intersection in accordance with the City's agreement with Dell Computer Corporation.
 - b) Construct an additional left turn lane in the eastbound approach.
 - c) Reassign northbound lane uses to provide one left, one left/through shared, and one through/right shared lane.
 - d) Reassign southbound lane uses to provide one left, one through, and one right turn lane.
- 3. Site driveways A, B, C, and D are right-in, right-out driveways and will operate at an acceptable level of service for future conditions. They should be constructed at least 30 feet in width.





INTRODUCTION

The Techridge project is a multi-use project located in north Austin in the vicinity of the IH 35 and Parmer Lane intersection, as shown in Figure 1. This proposed mixed use development will consist of eight tracts, A through H. Tracts A, B, C, F, G and a portion of Tract H will be discussed and analyzed as "site traffic" in this report. Tract A will consist of a 200 room hotel, Tracts B and C will each have a 7,500 square foot high turnover restaurant, and Tracts F and G will each consist of two fast food restaurants with drive-throughs.

Tracts D and E were previously submitted to the City for review and are being processed with a waiver of the TIA requirement. Neither of the proposed developments on Tracts D or E reached the traffic threshold which requires a TIA. The majority of Tract H, a planned 240,000 square foot office, was included in the Park/Centerstate TIA. Only 60,000 square feet of office on Tract H is included as "site traffic" in this TIA since the remainder was accounted for in the Park/Centerstate TIA. Traffic for development on the remainder of Tract H and on Tracts D and E is included as "background traffic" in this TIA.

The property is currently vacant. This Traffic Impact Analysis (TIA) is being submitted for two purposes: The TIA is being submitted for the west tracts, Tracts A, B, and C, to fulfill requirements for site plan applications. The TIA is being submitted for the east tracts, Tracts F, G and a portion of H, to fulfill requirements for an LI-PDA zoning application.

SITE AND ACCESS CHARACTERISTICS

As shown in Figure 1, the project is located on the northeast corner of IH 35 and Parmer Lane. Access is to be provided for Tracts A, B, C, and D via two driveways, labeled A and B on Figure 2. Access to Tracts E, F, G, and H will be provided via two driveways labeled C and D on Figure 2, which is a conceptual site plan for the project.

EXISTING THOROUGHFARE SYSTEM

As indicated on the area wide and conceptual site location maps (Figures 1 and 2), the project is located at the northeast corner of the intersection of IH 35 and Parmer Lane. The interrelationship of these roadways and others in the area are shown on Figure 1. To adequately describe the significance of these roadways, a further characterization is provided for each. Average daily traffic estimates for these

roadways were taken from the <u>1997 TxDOT Traffic Map</u> (Ref. 1) and the 1997 Traffic Volume Report (Ref. 2), compiled by Travis County. The Austin Metropolitan Area Transportation Plan catalogs the classifications of these major roadways and documents proposed improvements (Ref. 3). In addition, the Austin Bicycle Plan (Ref. 4) proposes recommendations, which are discussed below.

- IH 35 The Austin Metropolitan Area Transportation Plan (Ref. 3) classifies IH 35 in the site vicinity as a six-lane freeway. Currently, this roadway has three travel lanes in each direction. IH 35 is an important roadway for the proposed project. It serves as a primary access route for a large portion of the project-related traffic. The traffic volumes for year 1998 on IH 35 north and south of Parmer Lane were 138,000 and 137,000 vehicles per day (vpd), respectively (Ref. 2).
- Parmer Lane (FM 734) This roadway borders the site on the south. At present it is a four lane divided major arterial from IH35 to Dessau Road (Ref. 3) with right-of-way reserved for a six lane section. The 1998 traffic volumes on Parmer Lane were approximately 34,000 and 10,400 vehicles per day (vpd), respectively, west and east of IH 35 (Ref. 2). The Austin Bicycle Plan (Ref. 4) recommends Priority 1 Route 2 from IH 35 to Dessau Road.
- Harris Ridge Boulevard This roadway is currently primarily residential in nature. It is classified as a four-lane divided major arterial north of Parmer Lane. The roadway intersects Howard Lane on the north and extends south to its termination north of Parmer Lane. The 1997 traffic volume on this roadway south of Howard Lane was approximately 1,660 vpd (Ref. 2). The Austin Bicycle Plan (Ref. 4) recommends Priority 2 Route 230 from Parmer Lane to IH 35.
- 4 <u>McCallen Pass</u> This roadway was recently constructed and is currently a T-intersection at Parmer Lane. It is a four-lane divided roadway from Parmer Lane to Howard Lane.

FUTURE ROADWAY IMPROVEMENTS

Several pertinent roadway improvements have been recommended and approved by the Austin City Council, Travis County Commissioner's Court, and the Texas Department of Transportation (TxDOT). The Austin Metropolitan Area Transportation Plan catalogs the classifications of these major roadways and documents proposed improvements (Ref. 3).

- IH 35 TxDOT is currently in the process of completing a Major Investment Study (MIS) for improvements on IH 35 between Georgetown and Buda. Results of the MIS study will be used to determine ultimate improvements to the roadway in the long term. In the interim, before the MIS is completed, TxDOT is implementing recommendations from a bottleneck study to reduce congestion at ramp locations in the site vicinity. Modifications will include closure of the northbound entrance ramp located south of Parmer Lane during the PM peak period, and closure of the southbound entrance ramp located south of Howard Lane at all times.
- 2 Parmer Lane TxDOT is currently looking at Parmer Lane to develop traffic improvement alternatives that will mitigate current congestion in several locations. Parmer Lane has been constructed from IH35 through Cameron Road as a four lane divided arterial with right-of-way (ROW) for six lanes. Another improvement planned along Parmer Lane is an extension from Cameron Road to US 290. Construction of this extension is proposed to occur in the near future; however, it has not been scheduled.
- Harris Ridge Boulevard This roadway is proposed to be constructed as a six lane divided major arterial from Parmer Lane to IH 35. A temporary connection will be constructed to intersect Harris Ridge Boulevard at Yager Lane east of IH 35 until the year 2005. In 2005, the Harris Ridge Boulevard interchange is proposed to be constructed with a six lane section in the location of the existing Yager Lane interchange. At that time, Yager Lane will be realigned to intersect with Harris Ridge Boulevard east of IH 35.

North of Parmer Lane, Harris Ridge Boulevard is proposed to be constructed with a four lane divided section to Northtown (Wells Branch Parkway). The existing section of Harris Ridge Boulevard between Howard Lane and Parmer Lane will be

constructed in conjunction with development of the Dell Computer Campus. The remaining sections will be completed with private funds as development occurs along the roadway.

McCallen Pass/Heatherwilde Boulevard/Arterial #14 - This roadway is proposed to extend from Parmer Lane north beyond FM 1825 in Pflugerville as a four lane divided major arterial. A section of this roadway (Heatherwilde Boulevard) has been constructed north of the site from Wells Branch Parkway to north of FM 1825. South of Parmer Lane, McCallen Pass is under construction to intersect with Harris Ridge Boulevard in conjunction with development of the Metrotech Property. McCallen Pass has been constructed as a four lane divided roadway from Parmer Lane to Howard Lane in conjunction with development of the Dell Computer Campus. The remaining portions of this roadway will be completed with private funds as development occurs.

TRAFFIC ANALYSIS

In order to assess the traffic implications of the proposed development, two time periods and travel conditions were evaluated:

- 1. 1999 Existing Conditions
- 2. 2001 Forecasted Conditions with Site Generated Traffic

Intersections in the vicinity of the site are considered the locations of principal concern because they are the locations of highest traffic conflict and delay. The standard used to evaluate traffic conditions at intersections is level of service (LOS), which is a qualitative measure of the effect of a number of factors such as speed, volume of traffic, geometric features, traffic interruptions, freedom to maneuver, safety, driving comfort, convenience, and operating cost.

Two types of intersections to be evaluated are signalized and unsignalized, which use different criteria for assessment of operating levels. The analysis procedures are described in the following sections.

Signalized Intersection Level of Service

Signalized intersection LOS is defined in terms of delay, which is a direct and/or indirect measure of driver discomfort, frustration, fuel consumption, and lost travel time. The levels of service have been established based on driver acceptability of various delays. A benefit of using delay as the basis for intersection LOS is the ease with which the public can relate to delay as opposed to the previous concept which related LOS to the volume to capacity ratio. The delay for each approach lane group is calculated based on a number of factors including lane geometrics, percent of trucks, peak hour factor, number of lanes, signal progression, volume, signal green time to total cycle time ratio, roadway grades, parking conditions, and pedestrian flows.

Because delay is a complex measure, its relationship to capacity is also complex. Analysis was performed using the microcomputer program "Highway Capacity Software" by the Federal Highway Administration (Ref. 5), which is based on the procedures contained in the Highway Capacity Manual (Ref. 6), and PASSER III (Ref. 7). In general, levels of service for intersection movements of A to D are acceptable, while an overall LOS of E or F is unacceptable. Table 1 summarizes the levels of service that are appropriate for different levels of average stopped delay and total delay, and a qualitative description for each. In urban areas, overall levels of service for signalized

intersections of A to D are acceptable, while overall LOS E or F is unacceptable. The intersection LOS is computed as a weighted average of the vehicle delay; therefore, an intersection may have an overall LOS C or D and have individual movements, which are LOS E or F (Ref. 6).

Table 1. Signalized Intersection: Level of Service Measurement and Qualitative Descriptions

Level of Service	Stopped Delay Per Vehicle (sec)	Total Delay <u>Per Vehicle (sec)</u>	Qualitative Description
A	< 5.0	< 6.5	Good progression and short cycle lengths
В	5.1 to 15.0	6.6 to 19.5	Good progression or short cycle lengths, more vehicle stops
С	15.1 to 25.0	19.6 to 32.5	Fair progression and/or longer cycle lengths, some cycle failures
D	25.1 to 40.0	32.6 to 52.0	Congestion becomes noticeable, high volume to capacity ratio
E	40.1 to 60.0	52.1 to 78.0	Limit of acceptable delay, poor progression, long cycles, and/or high volume
F	> 60.0	> 78.0	Unacceptable to drivers, volume greater than capacity

Unsignalized Intersection Level of Service

Unsignalized intersection LOS is defined in terms of average total delay. Total delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. This time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position.

The analysis method assumes that major street through traffic is not affected by minor street flows. Major street left-turning traffic and the traffic on the minor approaches will be affected by opposing movements. Stop or yield signs are used to assign the right-of-way to the major street. This designation forces drivers on the controlled street to judgmentally select gaps in the major street flow through which to execute crossing or turning maneuvers. Thus, the capacity of the controlled legs is based upon two factors:

- 1. The distribution of gaps in the major street traffic stream.
- Driver judgment in selecting gaps through which to execute their desired maneuvers.

The LOS procedure computes a capacity for each movement based upon the critical time gap required to complete the maneuver and the volume of traffic which is opposing the movement. The average total delay for any particular movement is calculated as a function of the capacity of the approach and the degree of saturation. The degree of saturation is defined as the volume for a movement, expressed as an hourly flow rate, divided by the capacity of the movement, expressed as an hourly flow rate. Table 2 shows the relationship between the average total delay and the LOS. The overall intersection LOS is computed as a weighted average of the vehicle delay for each movement; therefore, an intersection may have an overall LOS C or D and have individual movements, which are LOS E or F (Ref. 6).

Analysis was performed using the microcomputer program "Highway Capacity Software" by the Federal Highway Administration (Ref. 5), which is based on the procedures contained in the Highway Capacity Manual (Ref. 6). In general, overall levels of service of A to D are acceptable, while an overall LOS of E or F is unacceptable.

Table 2. Unsignalized Intersection: Level of Service Measurement

Level of Service	Average Total <u>Delay</u> (<u>sec/veh)</u>	Qualitative <u>Description</u>
A	< 5.1	Good progression and short cycle lengths
В	5.1 to 10.0	Good progression or short cycle lengths, more vehicle stops
С	10.1 to 20.0	Fair progression and/or longer cycle lengths, some cycle failures
D	20.1 to 30.0	Congestion becomes noticeable, high volume to capacity ratio
E	30.1 to 45.00	Limit of acceptable delay, poor progression, long cycles, and/or high volume
F	> 45.0	Unacceptable to drivers, volume greater than capacity

1999 - EXISTING CONDITIONS

The analysis of existing traffic required the acquisition of secondary data from the City of Austin and the Texas Department of Transportation (TXDOT), as well as the collection of primary data on adjacent roadways and intersections. A field survey was designed through discussions with City of Austin staff and implemented to obtain the necessary data and to verify the trends established by data available from previous years.

Traffic counts were conducted at McCallen Pass and Parmer Lane during November 1999 and at IH 35 and Parmer Lane during March 1999.

Signalized Intersections

The intersection of IH 35 and Parmer Lane is the only intersection within the study area that is signalized. This intersection is a diamond interchange with Parmer Lane forming the east and west approaches, and the IH 35 frontage roads forming the north and south approaches. Parmer Lane consists of two through and one left turn lane in the westbound direction, and one through and two left turn lanes in the eastbound direction. The IH 35 frontage roads have three lane sections with separate right turn lanes, as shown in Figure 3. The current overall level of service is C for both the AM and PM peak periods.

Unsignalized Intersections

The following intersections within the study area are unsignalized:

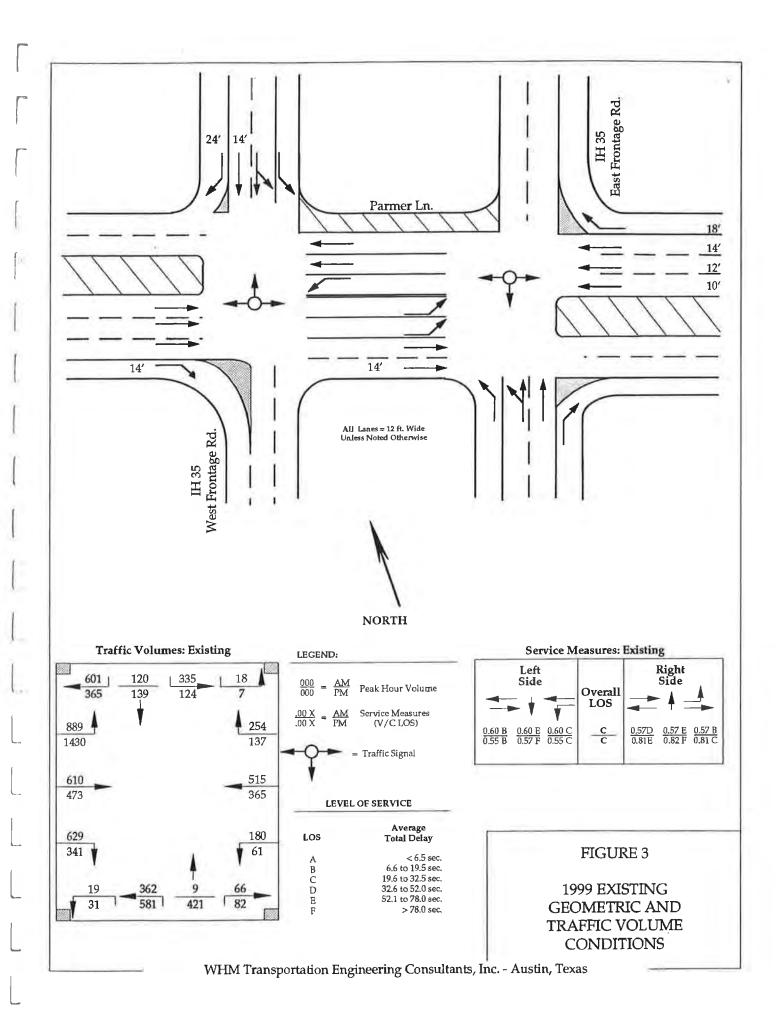
- McCallen Pass and Parmer Lane
- Harris Ridge Boulevard and Parmer Lane

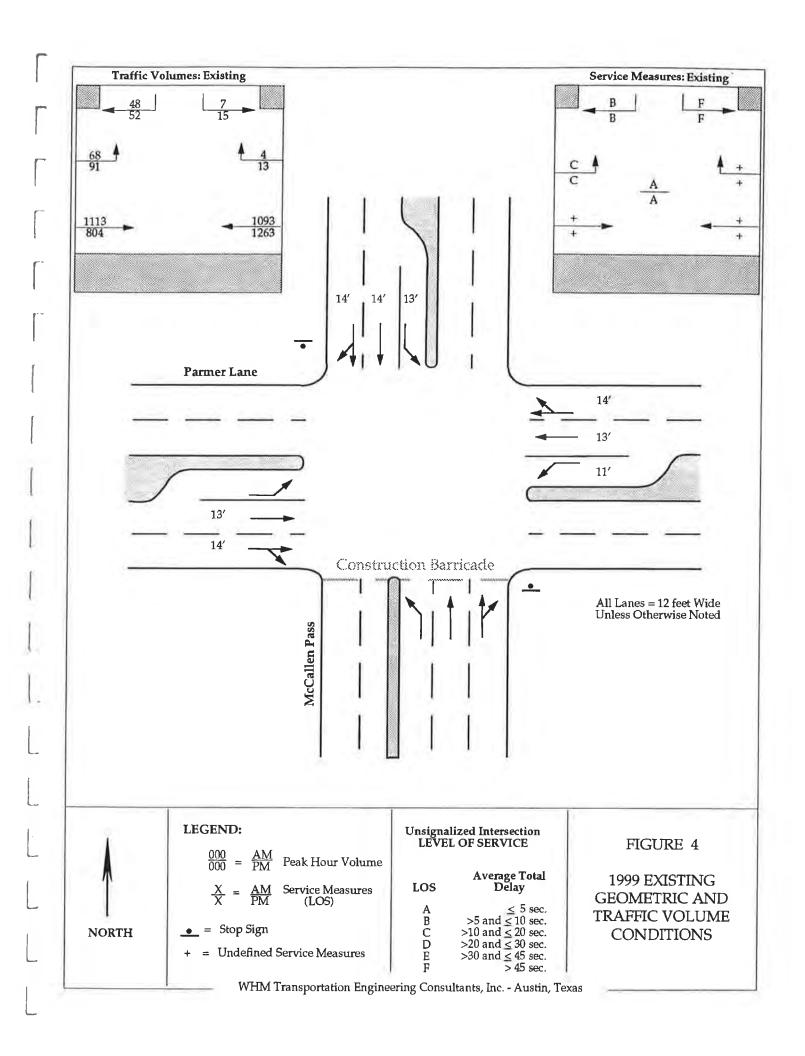
McCallen Pass and Parmer Lane

The northbound fourth approach to this intersection is currently under construction. The existing intersection is a T-intersection with Parmer Lane forming the east and west approaches, and McCallen Pass forming the southbound approach. Parmer Lane consists of a four lane section, with two approach lanes serving through traffic in each direction, and a left turn bay in the eastbound and westbound directions, as shown in Figure 4. The current overall level of service is A for both the AM and PM peak periods.

Harris Ridge Boulevard and Parmer Lane

This intersection is currently under construction, and therefore, was not analyzed for existing conditions.





2001 - FORECASTED CONDITIONS WITH SITE GENERATED TRAFFIC

The year 2001 was established as the year in which the project would become occupied. This time frame was utilized to assess the major roadway effects and to facilitate the evaluation of alternative improvements. The forecasted traffic was projected using available information. This process was facilitated by using trends established by prior data for the major roadways and intersections in the immediate vicinity of the project site.

Site Generated Traffic

Determining the site generated traffic, or the traffic that will be generated due to the development of the proposed project, was a major analysis process element. Unadjusted total trips per day, as well as the peak hour traffic associated with the project, were estimated using the microcomputer program "Trip Generation" by Microtrans Corporation (Ref. 8), which is based on recommendations and data contained in the Institute of Transportation Engineers report <u>Trip Generation</u> (Ref. 9). Table 3 provides a detailed summary of the estimated traffic produced by the assumed land use activity for the Technidge site. As a point of reference, the total unadjusted trips per day were estimated at 9,361.

Table 3. Summary of Unadjusted
Daily and Peak Hour Trip Generation (Ref. 9)

	Proposed		24 Hour Two Way	AM I		PM I Ho	
Tract	Land Use	<u>Size</u>	<u>Volume</u>	<u>Enter</u>	<u>Exit</u>	Enter	<u>Exit</u>
Α .	Hotel	200 rm	1,784	78	56	70	72
В	High Turnover Rest.	7,500 sf	978	36	33	49	33
C	High Turnover Rest.	7,500 sf	978	36	33	4 9	33
F	Fast Food w/Drive	2,500 sf	1,240	64	61	44	40
F	Fast Food w/ Drive	2,500 sf	1,240	64	61	44	40
G	Fast Food w/ Drive	2,500 sf	1,240	64	61	44	40
G	Fast Food w/ Drive	2,500 sf	1,240	64	61	44	40
H	Office	60,000 sf	661	82	11	15	74
	Total		9,361	488	377	359	372

Analysis Assumptions

The traffic impact analysis process involves both the use of primary data and engineering judgment on transferable parameters. Specifically, engineering judgment is required for estimation of background traffic growth, pass-by capture, internal capture, and transit trip reductions, all of which are further described in the following paragraphs.

Background Traffic

Traffic growth rates for Parmer Lane were examined. Comparison of existing peak hour traffic volumes collected at a study intersection to historical counts conducted at the same intersection resulted in the finding that peak hour traffic volumes on Parmer Lane increased annually by approximately 3 percent between 1997 and 1998. Similarly, traffic volumes on IH 35 in the area of the site have also increased annually by 3 percent. Historically, traffic volumes in most U.S. cities have grown at rates of two to three percent annually. Therefore, based on these local comparisons, a 3 percent annual growth rate has been assumed for the study. Traffic for the following additional proposed developments was included in background traffic estimates for the analysis: Technidge Sec. 1 (SP-99-0191C), Timberline Ph. B-1 (SP-99-0156D), Residence Inn (SP-99-0011C), Park Central Sec. 1 (SP-98-0031C), La Quinta Inn (SP-98-0012C), Parmer Center

(C14-97-0001), Metrotech (C14-96-0154), Techridge Sec. 4 (SP-99-0205D), Techridge Sec. 2 and 3 (SP-99-0108C/127C), Tract D - Techridge Plaza (SP-99-0209C), Tract E - Parmer Lane Partners Tract PDA (C14-99-2012), and Dell North Tract.

Pass-By Capture

Studies have shown that retail land uses will capture from 20 to 60 percent of their traffic as pass-by trips, depending upon their size (Ref. 10). It is well documented that many other land uses also experience significant pass-by trip capture, such as drive-in banks and restaurants. The amount of trip reduction that each tract may attribute to the pass-by phenomenon will depend directly on the type of land use that is developed. An AM peak hour pass-by reduction was assumed for the fast food restaurants with drive throughs. For the PM peak hour analysis, a pass-by reduction was included for the high turnover restaurants and fast food restaurants with drive throughs, based on information contained in the ITE Trip Generation Handbook (Ref. 10). If the high turnover restaurants are open in the AM peak hours, there will likely be a pass-by reduction associated with these uses. However, no reduction was taken since the ITE Trip Generation Handbook does not provide data to support a reduction. A summary of the pass-by capture reduction percentages is shown in Table 4.

Internal Capture

Once the total buildout of proposed land uses occurs, there will be some interaction between the uses within this development. Internal capture is accounted for in two ways. First, to account for internal capture among similar retail land uses in adjacent areas, the sizes may be combined during the trip generation process. Because the equations used in trip generation estimations are logarithmic, the number of trips generated by a site does not increase in direct proportion to an increase in the square footage of a development. By combining retail projects in close proximity to each other, a lower number of trips will be estimated, thereby taking into account the internal capture factor. The second way to account for internal capture is to reduce the expected number of trips directly by some percentage which reflects expected multipurpose tripmaking among different types of land uses which are in close proximity. As with passby trip reductions, internal capture depends on the type and quantity of land uses. Reductions for internal capture were obtained from information contained in the ITE Trip Generation Handbook (Ref. 10). An average of the internal capture rates for trip origins and trip destinations were used. These are shown in Table 4.

Transit Trips

The provision of transit service to an area may reduce the expected number of trips by providing a mode of travel alternative to the private automobile. The reduction may be in two forms, either a reduction in site generated trips or a reduction in background trips. The provision of transit service to the area would have some impact on site generated trips. Currently fixed route transit service is not provided by Capital Metro in the area. Therefore, no reduction in trips has been assumed for transit ridership to and from the site.

Table 4. Summary of Pass-By and Internal Capture Reductions

	Pass-By Reductions %			Capture
Land Use	AM Peak	PM Peak	<u>AM Peak</u>	PM Peak
Hotel High Turnover Rest. Fast Food w/ Drive Office	0 0 49 0	0 43 50 0	0 19 19 4	0 27 27 3

Table 5 provides a detailed summary of the adjusted traffic production, which is directly related to the assumed land use activity. As a point of reference, the total adjusted trips per day were estimated at 5,555.

Table 5. Summary of Adjusted
Daily and Peak Hour Trip Generation

	Proposed		24 Hour Two Way	AM Peak Hour		PM Peak Hour	
<u>Tract</u>	Land Use	<u>Size</u>	<u>Volume</u>	<u>Enter</u>	<u>Exit</u>	<u>Enter</u>	Exit
A	Hotel	200 rm	1,784	78	56	70	72
В	High Turnover Rest.	7,500 sf	593	29	27	20	14
C	High Turnover Rest.	500 sf	593	29	27	20	14
F	Fast Food w/ Drive	2,500 sf	484	27	26	16	15
F	Fast Food w/Drive	2,500 sf	484	27	26	16	15
G	Fast Food w / Drive	2,500 sf	484	27	26	16	15
G	Fast Food w/Drive	2,500 sf	484	27	26	16	15
\mathbf{H}	Office	60,000 sf	649	7 9	11	15	72
	Total		5,555	323	225	189	232

Directional Distribution

Once site generated trips were known, the next step involved distribution of those trips to appropriate geographic directions and logical connecting roadways. The major thoroughfares, which have a direct bearing on the accessibility of the project, have been previously identified.

Traffic counts conducted during the study, as well as information on the directional approach of site users, provided the basis for the overall directional distribution of traffic approaching and departing the project site, as summarized in Table 6.

Table 6. Forecasted Overall

Directional Distribution of Site Oriented Traffic

	% of Site Traffic		% of Site Traffic		
	for AN	I Peak	for PM Peak		
Direction/Roadway	Entering	Exiting	Entering	Exiting	
North: IH 35	30	25	15	35	
South: IH 35	30	35	35	30	
North: McAllen Pass	5	5	5	5	
East: Parmer Lane	15	15	25	10	
West: Parmer Lane	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	
Total	100	100	100	100	

Given the total site generated traffic and the directional distribution by approach, the next step in the process is to assign the traffic destined to and from the project to the most likely travel paths. This step was performed by investigating a number of alternative travel patterns, as well as ingress/egress points along the project boundaries. Primary consideration was given to the traffic flow and safety of the major roadways.

It should be noted that site Driveways B, C and D, located on Parmer Lane, are to be right-in, right-out driveways accessible only to westbound traffic on Parmer Lane. In order to distribute site traffic to and from these driveways, it was necessary to assume u-turns maneuvers would be executed along Parmer Lane. For traffic entering Driveways B, C and D from the west, u-turns were assumed to occur at the McCallen Pass/Parmer Lane intersection. For traffic exiting Driveways B, C and D and destined to east Parmer Lane, u-turns were assumed at an approved median opening to be constructed approximately 700 feet east of IH 35. The median opening has been approved by TxDOT for left-in-only access to a property associated with the Metrotech development located on the south side of Parmer Lane. Discussions with TxDOT staff have indicated that u-turn maneuvers will be permitted at this median opening to allow traffic from the Technidge site to access areas to the east.

Intersection Analysis

The total 2001 traffic demand will be the sum of traffic generated by this proposed development and changes in existing background traffic patterns. Buildout year 2001

roadway geometrics of the study area intersections are presented in Figures 4 through 10 along with forecasted turning movement volumes and LOS. A brief description of the intersections follows.

IH 35 and Parmer Lane

As shown in Figure 5, the overall intersection LOS is F during both the AM and PM peak periods under site plus forecasted traffic conditions. However, this intersection operates at LOS F for forecasted conditions as well. Site traffic comprised approximately 4.7 percent and 2.8 percent of the AM and PM peak periods, respectively. Site traffic has a negligible impact on the levels of service at this intersection as can be seen by comparing the v/c ratio for the forecasted and site plus forecasted condition for both the AM and PM peak periods. A comparison of this nature results in a difference of less than ten percent. Intersection improvements assumed creation of an additional westbound left turn lane on the west side of the diamond interchange via restriping as proposed in the Ridge Tract and Metrotech TIAs.

McCallen Pass and Parmer Lane

Intersection improvements for the future conditions assumed signalization of the intersection. As shown in Figure 6, the forecasted (without site) traffic conditions result in a LOS F for both peak periods. To improve operations, this study recommends construction of an additional left turn lane on the eastbound approach, reassignment of northbound lane uses to provide one left, one left/through shared, and one through/right shared lane, and reassignment of southbound lane uses to provide one left, one through, and one right lane. Figure 7 shows the site plus forecasted traffic volumes and service measures with these changes. Although the overall intersection LOS remained F during the AM and PM peak periods under site plus forecasted traffic conditions, the v/c ratio is improved substantially.

It should be noted that both forecasted and site plus forecasted analyses have assumed split phasing patterns for the northbound and southbound McCallen Pass approaches. Several phasing options were examined for the intersection, and the split phasing pattern provided for the most efficient operation of the traffic signal. Also, the likelihood of pedestrian activity across Parmer Lane at McCallen Pass is extremely low, thereby removing the necessity to incorporate pedestrian walk times into the phasing pattern.

Moreover, the site plus forecasted northbound lane use assignment takes advantage of the split phasing pattern by designating the inside through lane as a shared left/through lane. When the Harris Ridge Boulevard interchange at IH 35 is constructed and opened (projected to be 2004), traffic patterns at the McCallen Pass/Parmer Lane intersection will likely change. At that time, turning movement counts should be collected to determine appropriate lane use and phasing patterns for the intersection.

Harris Ridge Boulevard and Parmer Lane

As shown in Figure 8, the overall intersection LOS is C and D during the AM and PM peak periods under site plus forecasted traffic conditions, respectively. The analysis assumes construction of Harris Ridge Boulevard on the north and south sides of Parmer Lane and installation of the traffic signal at this intersection in accordance with the agreement between the City of Austin and Dell Computer Corporation.

IH 35 and Driveway A

As shown in Figure 9, Driveway A will function as a right-in, right-out only driveway and will operate at an acceptable LOS A during both the AM and PM peak periods. This driveway is located approximately 720 feet north of Parmer Lane on the IH 35 frontage road.

Driveway B and Parmer Lane

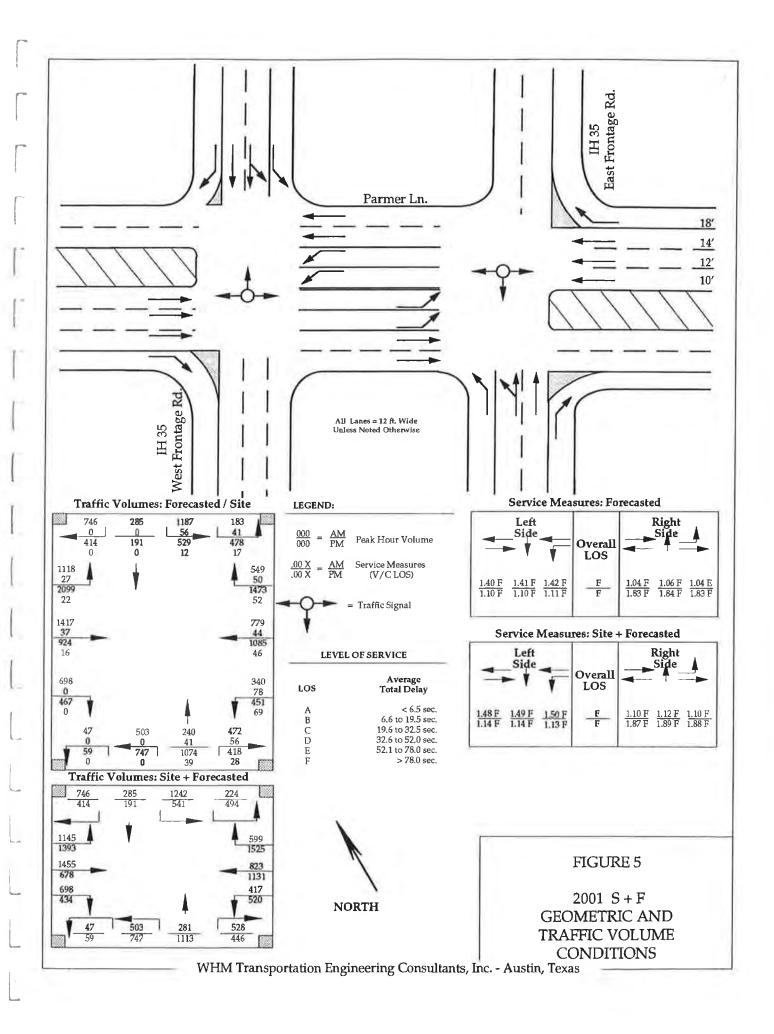
As shown in Figure 10, Driveway B will function as a right-in, right-out only driveway and will operate at an acceptable LOS A and B during the AM and PM peak periods, respectively.

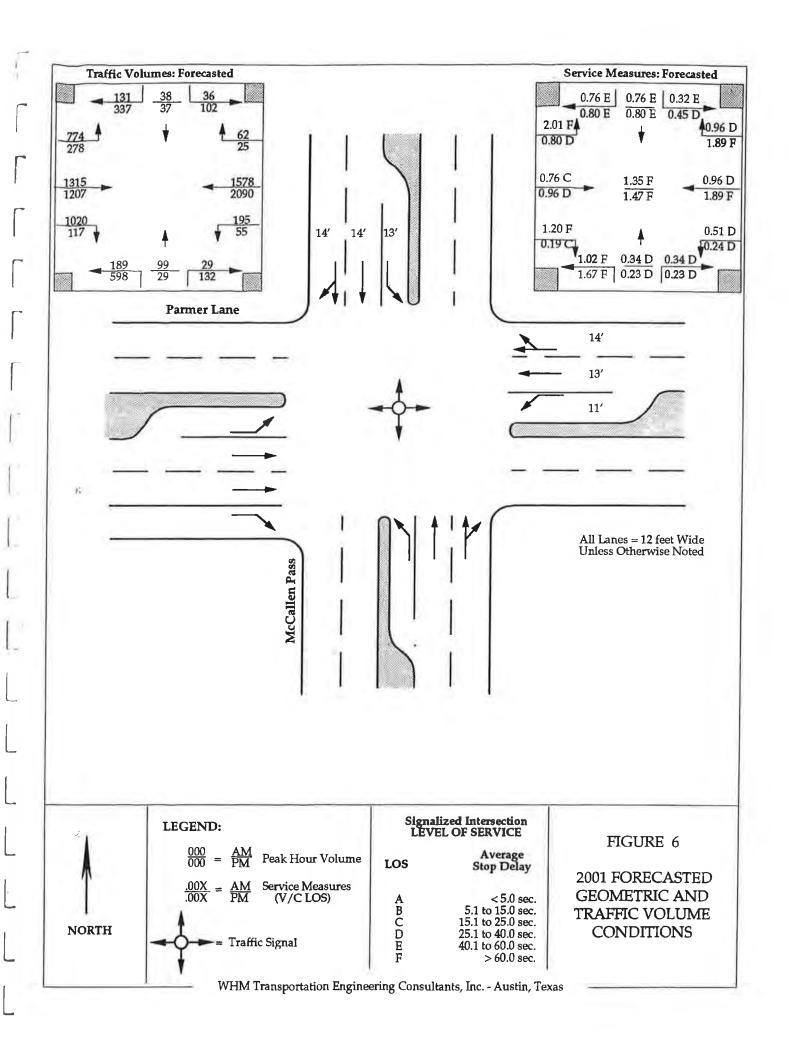
Driveway C and Parmer Lane

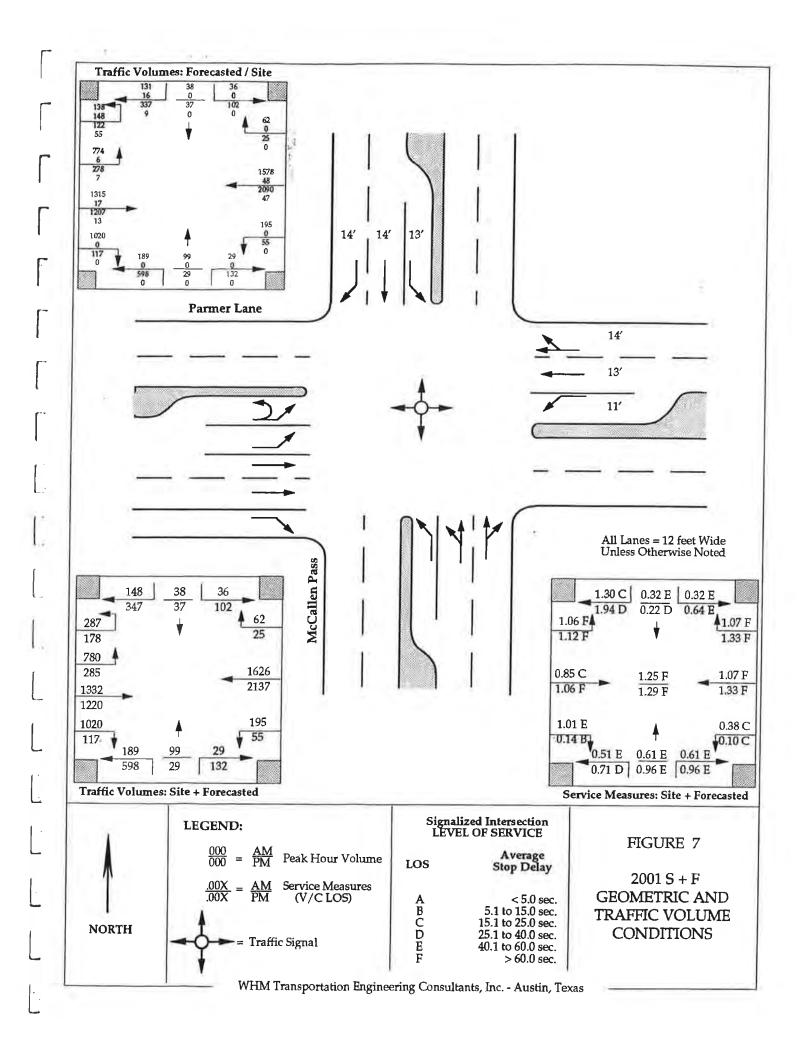
As shown in Figure 11, Driveway C will function as a right-in, right-out and left-in driveway and will operate at an acceptable LOS A and B during the AM and PM peak periods, respectively.

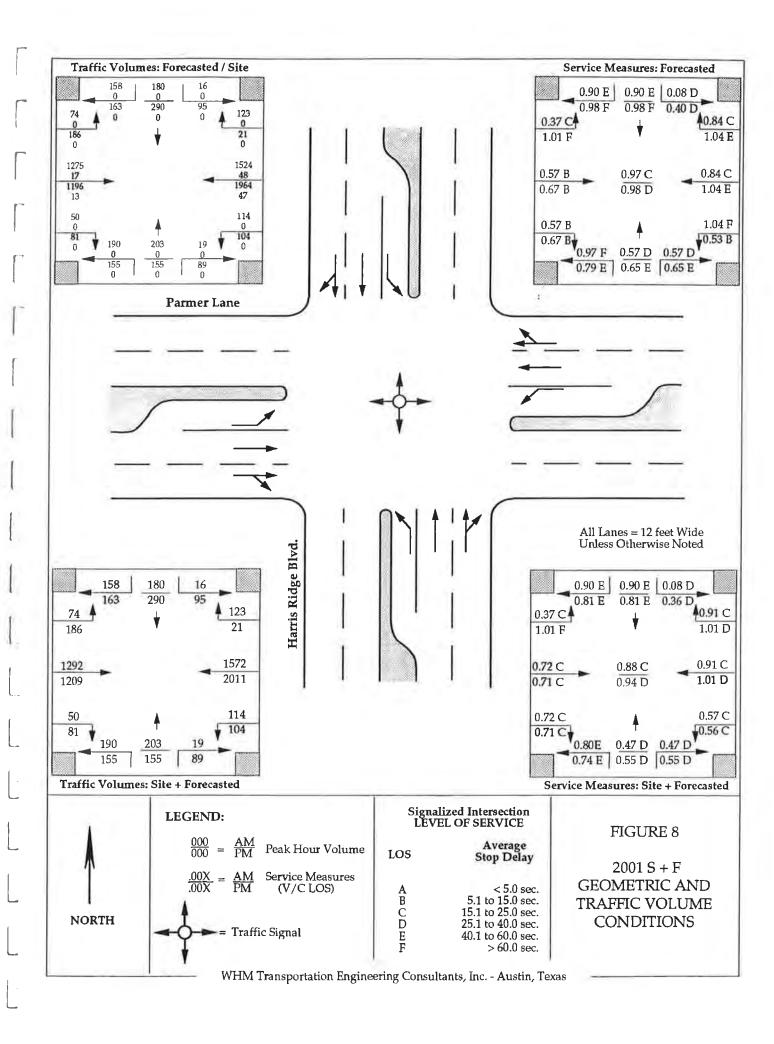
Driveway D and Parmer Lane

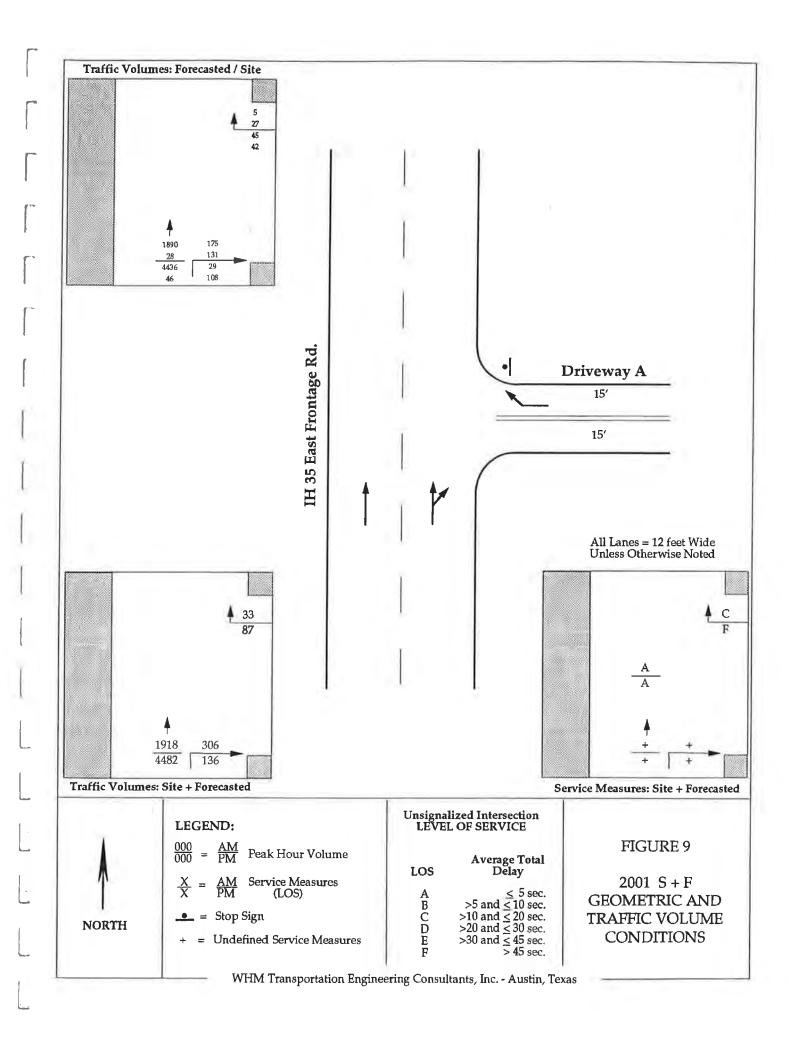
As shown in Figure 12, Driveway D will function as a right-in, right-out only driveway and will operate at an acceptable LOS A during both the AM and PM peak periods.

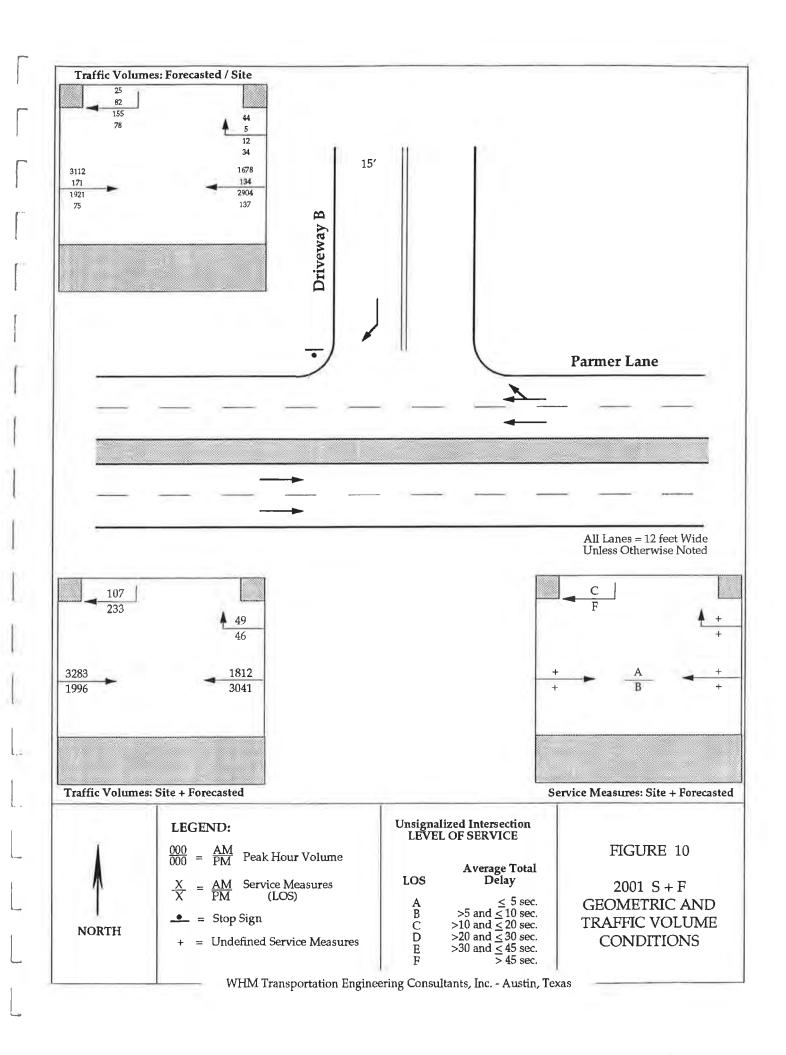


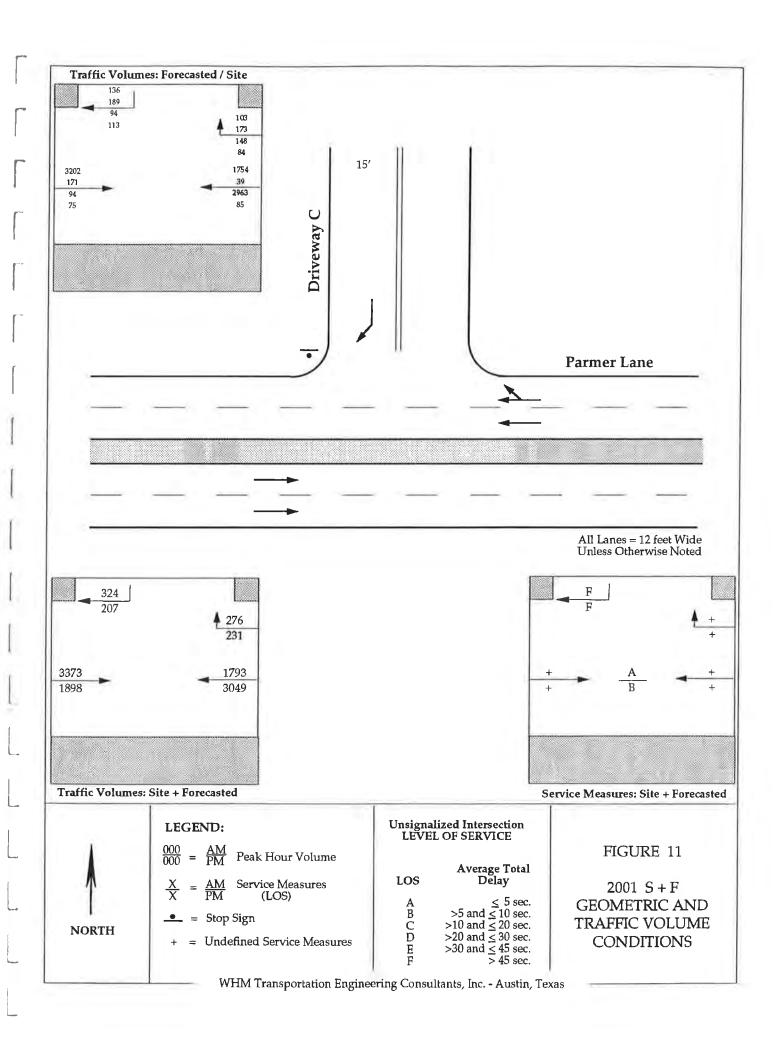


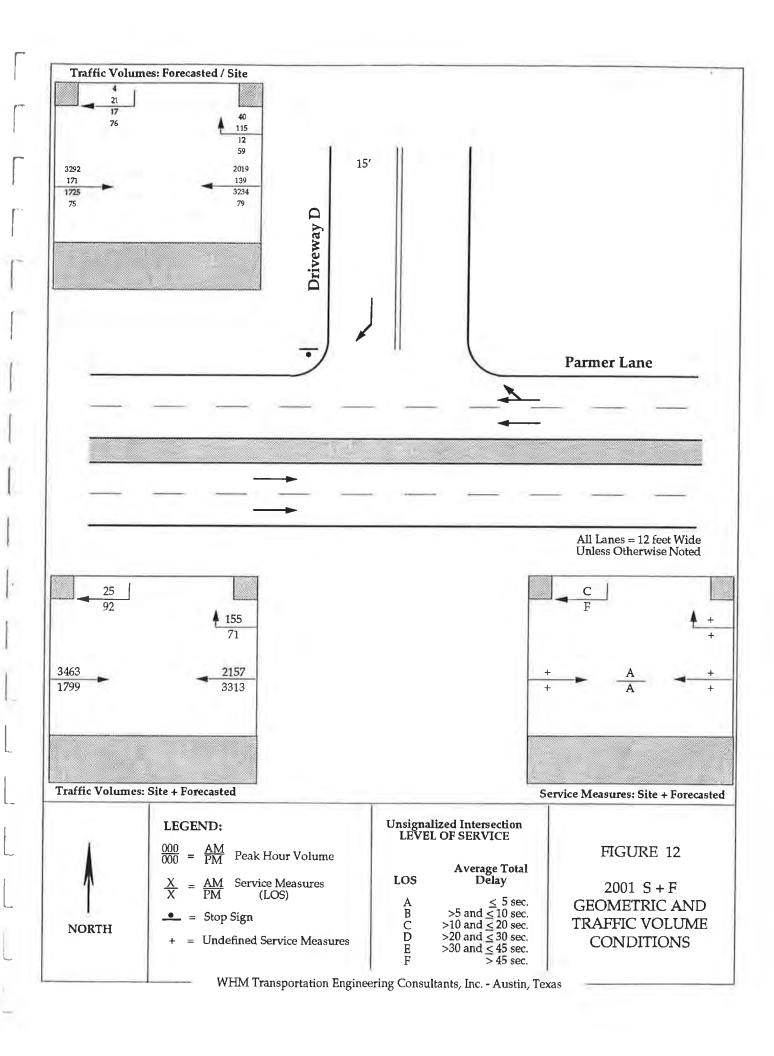












SUMMARY AND RECOMMENDATIONS

The preceding analyses have illustrated the effects of site generated and forecasted traffic demand upon the street and roadway network adjacent to and in the vicinity of the project site. Based on the analysis, recommended actions were identified, and are summarized as follows:

- 1. The signalized diamond interchange of IH35 and Parmer Lane operates at an unacceptable LOS F under forecasted (without site) traffic conditions as well as under site plus forecasted traffic conditions. Site traffic comprised approximately 4.7 percent and 2.8 percent of the AM and PM peak periods, respectively. Site traffic has a negligible impact on the levels of service at this intersection as can be seen by comparing the v/c ratio for the forecasted and site plus forecasted condition for both the AM and PM peak periods. A comparison of this nature results in a difference of less than ten percent. An intersection improvement assumed for forecasted and site plus forecasted conditions was the creation of an additional westbound left turn lane on the west side of the diamond interchange via striping modifications as per the previous Ridge Tract and Metrotech TIA's.
- 2. The intersection of McCallen Pass and Parmer Lane operates at unacceptable LOS F under forecasted (without site) traffic conditions as well as under site plus forecasted traffic conditions. In order to accommodate future traffic, the following improvements have been identified:
 - a) Install a traffic signal at this intersection in accordance with the City's agreement with Dell Computer Corporation.
 - b) Construct an additional left turn lane in the eastbound approach.
 - c) Reassign northbound lane uses to provide one left, one left/through shared, and one through/right shared lane.
 - d) Reassign southbound lane uses to provide one left, one through, and one right turn lane.
- 3. Site driveways A, B, C, and D are right-in, right-out driveways and will operate at an acceptable level of service for future conditions. They should be constructed at least 30 feet in width.

REFERENCES

- 1. 1997 Traffic Map, Austin District, Texas Department of Transportation, Austin, Texas.
- 1997 Traffic Volume Report, Compiled by the Capital Area Metropolitan Planning Organization for roadways within the CAMPO study, in cooperation with the Texas Department of Transportation, Travis County and the City of Austin, September 1998.
- 3. <u>Austin Metropolitan Area Transportation Plan</u>, Austin Transportation Study, December 12, 1994.
- Austin Bicycle Plan, Part 2: Recommended Facilities, City of Austin, Department of Public Works and Transportation, 1998.
- "Highway Capacity Software," United States Department of Transportation, Federal Highway Administration, January 1995.
- Highway Capacity Manual, (SR 209), Transportation Research Board, Washington, D.C., 1994.
- PASSER III 90, Texas Transportation Institute, Texas A&M University, College Station, Texas, March 1991.
- 8. Buttke, Carl H., "Trip Generation," Microtrans Corporation, Portland, Oregon, 1997.
- 9. <u>Trip Generation</u>, An Informational Report, Sixth Edition, Institute of Transportation Engineers, Washington, D.C., 1997.
- Trip Generation Handbook, An ITE Proposed Recommended Practice, Institute of Transportation Engineers, Washington, D.C., October 1998.



December 22, 2008

Ms. Shandrian Jarvis
City of Austin
Watershed Protection and Development Review Department
505 Barton Springs Road, 4th Floor
Austin, Texas 78704

Re:

Traffic Impact Analysis Letter Addendum Tech. Ridge Section One (SP-2008-0324C)

Dear Ms. Jarvis:

The purpose of the this letter addendum is to determine the pro-rata share for the improvements recommended in Oertli Traffic Impact Analysis (TIA) for the Tech.Ridge Section One development bounded by Parmer Lane and Center Lake Drive.

Based on recommendations and data contained in the Institute of Transportation Engineers (ITE) Trip Generation, the entire proposed project will generate approximately 9,549 unadjusted daily trips. Table 1 provides a detailed summary of traffic production, which is directly related to the proposed land uses shown within the "Tech.Ridge Section One, SP-2008-0324C", and "Tech.Ridge Section Two, SP-99-0127C".

Table 1: Trip Generation Table

	Size	24 Hour Two Way Volume	AM Peak Hour		PM Peak Hour	
Land Use			Enter	Exit	Enter	Exit
Proposed Land Uses Section One (SP-2008-0324C)						
Hotel	210 rooms	1,873	82	59	71	76
High Turnover Restaurant	5,109 sf	650	31	28	34	22
General Office	169,500 sf	2,003	252	34	46	223
Total		4,526	365	121	151	321
Proposed Land Use Section Two (SP-99-0127C)						
Manufacturing	541,500 sf	2,069	303	92	146	255
Total		2,069	303	92	146	255
Total Sections One and Two		9,549	1,066	307	446	932

BURY+PARTNERS-PUBLIC WORKS, INC. 221 West Sixth Street, Suite 600 Austin, Texas 78701



Below is the description of improvements for the intersections of IH-35 and Parmer Lane and McCallen Pass and Parmer Lane from the Oertli Tract TIA. Based on the recommended improvements, Oertli Tract development did not contribute to the improvements listed for the IH-35 and Parmer Lane and was not analyzed for the Tech.Ridge Section One development.

"The Oertli Tract development and its interaction with the surrounding roadway network have been analyzed for build-out (2013) conditions. The intersection analyses revealed that the following improvements would be necessary to accommodate background traffic:

• As recommended in the TIA for the Vina Plaza development, the intersection of I-35 and Parmer Lane needs to be re-striped along Parmer Lane to provide four (4) approach lanes on the east approach to the northbound access road, and the east approach to the southbound access road intersection should be re-striped to accommodate two (2) through lanes and two (2) left-turn lanes.

Based on the Oertli Tract TIA below are the proposed improvements recommended:

It is recommended that the following improvements be made at the intersection of Parmer Lane and McCallen Pass:

- Eastbound right-turn lane with 100 feet of storage.
- Signal timing improvement during the PM Peak period. The proposed timings are shown in Appendix E."

As part of the pro-rata share for the intersection of Parmer Lane and McAllen Pass, the calculations for the PM peak periods are included in the Appendix and were determined to be seven (7%) percent for the improvements listed in the Oertli Tract TIA. Table 2 outlines the contribution Tech.Ridge Section One development based on the Pro-Rata Share.

Table 1: Pro-Rata Share Table

Intersection	Listed Improvements	Total Cost	Pro-Rata Share	Pro-Rata Cost
Parmer Lane and McAllen Pass	Eastbound right-turn lane with 100 feet of storage	\$36,000	7.0%	\$2,520
	Signal timing improvement	\$2,500	7.0%	\$175
		Total Cost for In	\$2,695	

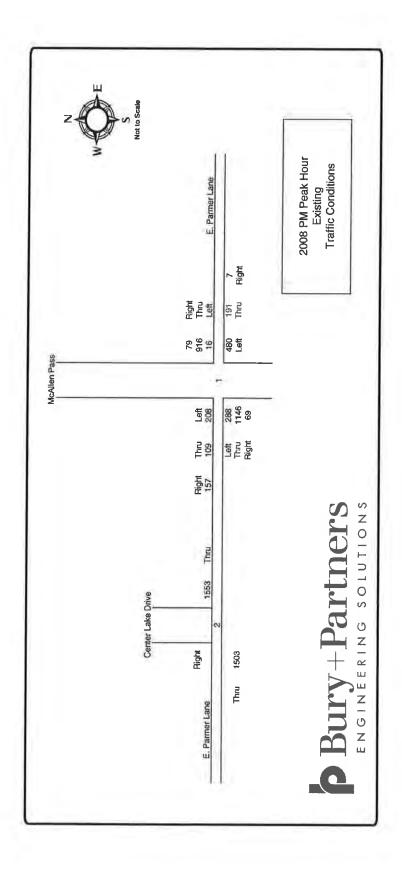


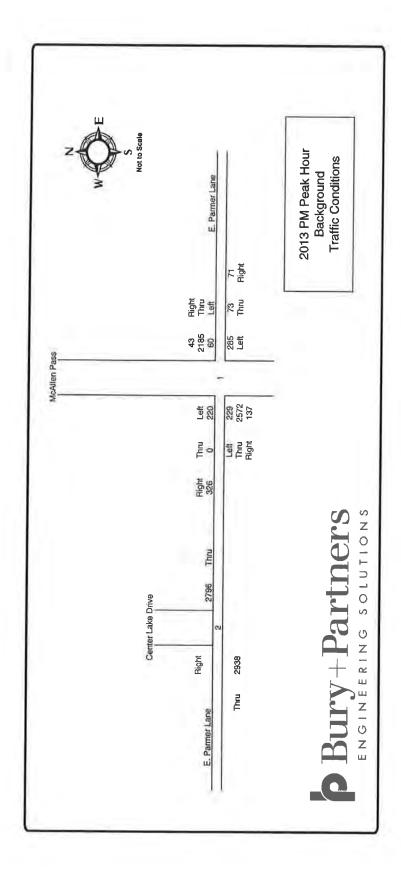
Please feel free to contact me if you have any questions or need additional information to approve this TIA Letter Addendum.

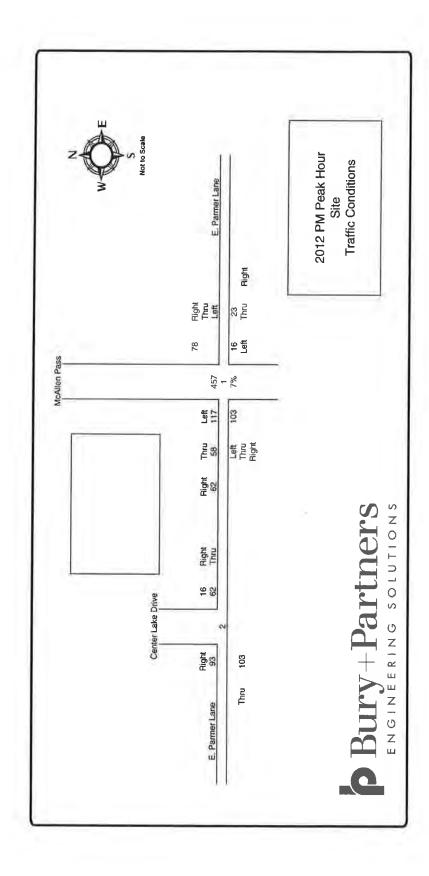
Sincerely,

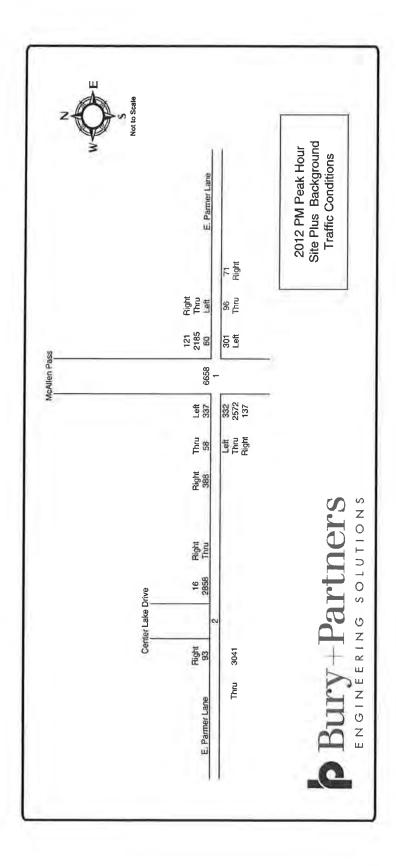
Alejandro Reyna, P.E. Project Engineer

cc: Bob Liverman, Live Oak-Gottesman











Findings and Recommendations

The Oertli Tract development and its interaction with the surrounding roadway network have been analyzed for build-out (2013) conditions. The intersection analyses revealed that the following improvements would be necessary to accommodate background traffic:

As recommended in the TIA for the Vina Plaza development, the intersection of I-35 &
Parmer needs to be restriped along Parmer to provide four approach lanes on the east
approach to the northbound access road, and the east approach to the southbound access
road intersection should be restriped to accommodate two through lanes and two left-turn
lanes.

In addition, the following improvements will be necessary to accommodate traffic generated by the proposed development:

- It is recommended that the following improvements be made at the intersection of Parmer Lane and McCallen Pass:
 - o Eastbound right-turn lane with 100 feet of storage. Pro-rata share: 8%.
 - Signal timing improvement during the PM Peak period. The proposed timings are shown in Appendix E. Pro-rata share: 8%.
- It is recommended that the following improvements be made at the intersection of Parmer Lane and Harris Ridge Boulevard:
 - o Westbound right-turn lane with 100 feet of storage. Pro-rata share: 6%.
 - o Restriping of the southbound approach to accommodate a left-turn lane, a shared left/through lane, and a shared through/right lane. *Pro-rata* share: 6%.
- It is recommended that the following improvements be made at the intersection of Parmer Lane and Harris Glenn Boulevard:
 - o The southbound approach should include a five-section signal head for right turns, and that the right turn overlap be used during the complementary left turn phase. *Pro-rata* share: 8%.
 - o Dual left on eastbound Parmer approach. Pro-rata share: 8%.
 - Signal timing improvement during both peak periods. The proposed timings are shown in Appendix E. Pro-rata share: 8%.
- It is recommended that Dessau Road be widened to six lanes from Parmer Lane to north
 of Bradbury Lane. The developer's recommended pro-rata share in this improvement is
 8%.
- It is recommended that all approaches at the intersection of Dessau Road and Parmer Lane include a dual left and a right-turn lane. The storage lengths of the dual lefts should match the currently provided storage lengths for the left-turn lanes that they are replacing, and for each approach, the right-turn lane storage length should match the storage length of dual left on the same approach. Some storage lengths will be insufficient to handle the traffic demand, but the proper storage lengths would be prohibitively expensive. Instead, it is recommended that the appropriate jurisdictions consider a major geometric overhaul at this intersection, which could include a grade separation. The developer's recommended *pro-rata* share in the eastbound dual left is 9%; in the southbound dual left, it is 23%; in the southbound right-turn lane, it is 9%. In the remaining turn lanes, the developer's recommended *pro-rata* share is zero. The calculation of the developer's recommended *pro-rata* share in a major geometric overhaul would require further study.

Oertli Tract Page 24