

# CITY OF ALBUQUERQUE



January 11, 2018

Terry Brown, P.E.  
P.O. Box 92051  
Albuquerque, NM 87199

**Re: McLeod / Pan American Development  
McLeod Rd. / Pan American Frontage Rd.  
Traffic Impact Study Comments**  
Engineer's Stamp dated 1-05-2018 (F17D032)

Dear Mr. Brown,

The subject Traffic Impact Study received on January 8, 2018 has been reviewed and approved by the Transportation Development Section. All comments have been adequately addressed.

The final Traffic Impact Study shall be valid for a period of three years. Should significant modifications to the approved development proposal occur, the approved study shall be revised to incorporate any changes.

If you have any questions, please feel free to contact me at (505) 924-3633.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ernest Armijo', is written over a light blue circular stamp.

Ernest Armijo, P.E.  
Senior Engineer, Planning Dept.  
Development Review Services

via: email  
C: Applicant, File

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

**Project Title:** McLeod / Pan American Development Building Permit #: \_\_\_\_\_ City Drainage #: F11D032

DRB#: \_\_\_\_\_ EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_

Legal Description: \_\_\_\_\_

City Address: Corner of McLeod / Pan American Freeway

**Engineering Firm:** \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

**Owner:** MDG Development Contact: Wes Butero

Address: 6801 Jefferson St. NE Suite 300, Albuquerque, NM 87109

Phone#: 505-338-2149 Fax#: n/a E-mail: wes@mdgrealestate.com

**Architect:** \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

**Other Contact:** Terry O. Brown, P.E. Contact: Terry Brown

Address: P. O. Box 92051, Albuquerque, NM 87199

Phone#: 505-883-8807 Fax#: N/A E-mail: tobe@swcp.com

Check all that Apply:

**DEPARTMENT:**

- HYDROLOGY/ DRAINAGE
- TRAFFIC/ TRANSPORTATION
- MS4/ EROSION & SEDIMENT CONTROL

**CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**

*Handwritten initials: TAO*

**TYPE OF SUBMITTAL:**

- ENGINEER/ ARCHITECT CERTIFICATION
- CONCEPTUAL G & D PLAN
- GRADING PLAN
- DRAINAGE MASTER PLAN
- DRAINAGE REPORT
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL)
- TRAFFIC IMPACT STUDY (TIS)
- EROSION & SEDIMENT CONTROL PLAN (ESC)
- OTHER (SPECIFY) \_\_\_\_\_



- BUILDING PERMIT APPROVAL
- CERTIFICATE OF OCCUPANCY
- PRELIMINARY PLAT APPROVAL
- SITE PLAN FOR SUB'D APPROVAL
- SITE PLAN FOR BLDG. PERMIT APPROVAL
- FINAL PLAT APPROVAL
- SIA/ RELEASE OF FINANCIAL GUARANTEE
- FOUNDATION PERMIT APPROVAL
- GRADING PERMIT APPROVAL
- SO-19 APPROVAL
- PAVING PERMIT APPROVAL
- GRADING/ PAD CERTIFICATION
- WORK ORDER APPROVAL
- CLOMR/LOMR
- PRE-DESIGN MEETING
- OTHER (SPECIFY) \_\_\_\_\_

IS THIS A RESUBMITTAL?:  Yes  No

DATE SUBMITTED: 01/07/2018 By: Terry O. Brown

COA STAFF: \_\_\_\_\_ ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

**McLeod / Pan American Freeway Development**

**Site Traffic Analysis**

January 5, 2018

FINAL

**Presented to:**

New Mexico Department of Transportation  
District 3

City of Albuquerque Transportation Development

**Prepared for:**

MDG Real Estate  
6801 Jefferson St. NE # 300  
Albuquerque, NM 87109



A handwritten signature in blue ink that reads "Terry O. Brown".

Terry O. Brown P.E.  
P.O. Box 92051  
Albuquerque, NM 87199  
505 · 883 · 8807

**McLeod / Pan American Development  
(Southeast Corner)  
Site Traffic Analysis**

## **Executive Summary**

The purpose of this study is to evaluate the transportation conditions before and after implementation of the proposed McLeod / Pan American Development, determine the impact of the development on the adjacent transportation system and recommend mitigation measures where necessary. This study is prepared to meet the requirements of the New Mexico Department of Transportation, District 3 associated with its review of the McLeod / Pan American Development.

For the purpose of this report, it is assumed that the Pan American Frontage Rd. is oriented in a north-south direction when, in fact, it is oriented in a northeasterly – southwesterly direction. It is also assumed for the purposes of this report that McLeod Rd. is oriented in an east-west direction when, in fact, it is oriented in a southeast – northwest direction.

The proposed development is located at the southeast corner of McLeod Rd. / Pan American Frontage Rd. The study area includes the intersections of McLeod Rd. / Pan American Frontage Rd., McLeod Rd. / Driveway “A” and Driveway “B” / Pan American Frontage Rd.

The proposed development, which will be constructed in essentially one phase, is described as a 74,823 S.F. Floor and Decor building plus a 2,400 S.F. restaurant or generic retail building use. As such, the project is projected to generate approximately 1,061 trips daily. During the weekday AM Peak Hour period, it is anticipated that it will generate approximately 29 entering trips and 20 exiting trips. During the weekday PM Peak Hour period, it is anticipated that it will generate approximately 47 entering trips and 49 exiting trips.

The development will be accessed primarily via two driveways, Driveway “A” and “B”. (Driveway “A”) is an existing unsignalized full access driveway along the south side of McLeod Rd. approximately 200 feet east of Pan American Frontage Rd. (centerline to centerline). The second access driveway (Driveway “B”) is a proposed unsignalized right-in, right-out only driveway located along the east side of Pan American Frontage Rd. approximately 470 feet south of McLeod Rd. (centerline to centerline). There is a third driveway on McLeod accessing the back of the retail facility that will be utilized primarily for employees, deliveries, and overflow parking if needed. In an effort to work with the New Mexico Department of Transportation to consolidate access points on the Pan American Frontage Road, the developer has agreed that at the time of redevelopment or change in the use of the property to the south of this proposed development, they will enter into a cross-access agreement with the adjacent property owner to allow them to share Driveway “B” to access their property. A copy of the driveway permit application for

Driveway “B” with the proposed condition of approval and draft language for cross access easement in included in this study.

Analysis results are included in the following table:

**EXECUTIVE SUMMARY RESULTS TABLE**

INTERSECTION NO. & NAME	SIGNALIZATION	2018 AM(PM) PEAK HOUR		2040 RECOMMENDATIONS
		NO BUILD	BUILD	
1 - McLeod Rd. / Pan Am Frontage	Unsignalized	u- 0.9 (u- 1.0 )	u- 1.4 (u- 1.7 )	Construct NB RT decel lane as long as feasible, approx. 315 feet with 100'-100' reverse curve transition.
2 - McLeod Rd. / Driveway "A"	Unsignalized	u- 1.2 (u- 2.0 )	u- 2.7 (u- 3.2 )	Design / construct full access driveway.
3 - Driveway "B" / Pan Am Frontage	Unsignalized	u- 0.0 (u- 0.0 )	u- 0.0 (u- 0.0 )	Construct NB right turn lane as long as feasible. Design to allow neighbor to use Driveway "B" in the future.

In summary, the proposed development does not have a significant adverse impact to the adjacent transportation system and the minimal impact to the transportation system can be mitigated by the recommended measures described in this report and summarized in the table above. In summary, the recommendations of this study are:

- ◆ Design of the site must maintain adequate sight distances for traffic approaching, entering, and exiting the site from all driveways.
- ◆ The site should be accessed primarily via 2 driveways with a third driveway at the back (east side) of the retail center for employees, deliveries, and overflow parking if needed. Driveway “A” will be an existing full access unsignalized intersection with one entering lane and one exiting lane via McLeod Rd. Driveway “B” is a proposed right-in, right-out, only unsignalized driveway with one entering lane and one exiting lane via Pan American Frontage Rd.
- ◆ **McLeod Rd. / Pan American Frontage Rd.** – Design and construct a northbound right turn deceleration lane to a length of 315 feet plus a 100'-100' reverse curve transition.
- ◆ **Driveway “B” / Pan American Freeway** – A northbound right turn deceleration lane is warranted based on the projected volumes generated by this development. The northbound right turn deceleration lane should be constructed to the maximum length possible (approximately 75 feet long plus a 50'-50' reverse curve transition).
- ◆ **Driveway “B” / Pan American Freeway** - The developer will grant cross-access to the adjoining neighbor to the south for a future shared driveway. The design of the proposed development will allow this neighbor to access / share Driveway “B” / Pan American Freeway in the future when the property to the south is redeveloped.
- ◆ **Driveway “A” / McLeod** – McLeod Rd. is a City maintained roadway. Driveway “A” on McLeod shall be designed and constructed to meet City of Albuquerque standards.
- ◆ Construct bicycle lanes, curb and gutter, and sidewalks along frontage of property as required by the New Mexico Department of Transportation and / or the City of Albuquerque. Sidewalk along Pan American Freeway (along the property line) will be offset due to drainage mitigation measures.

**McLeod / Pam American Development  
(Southeast Corner)  
Traffic Impact Study**

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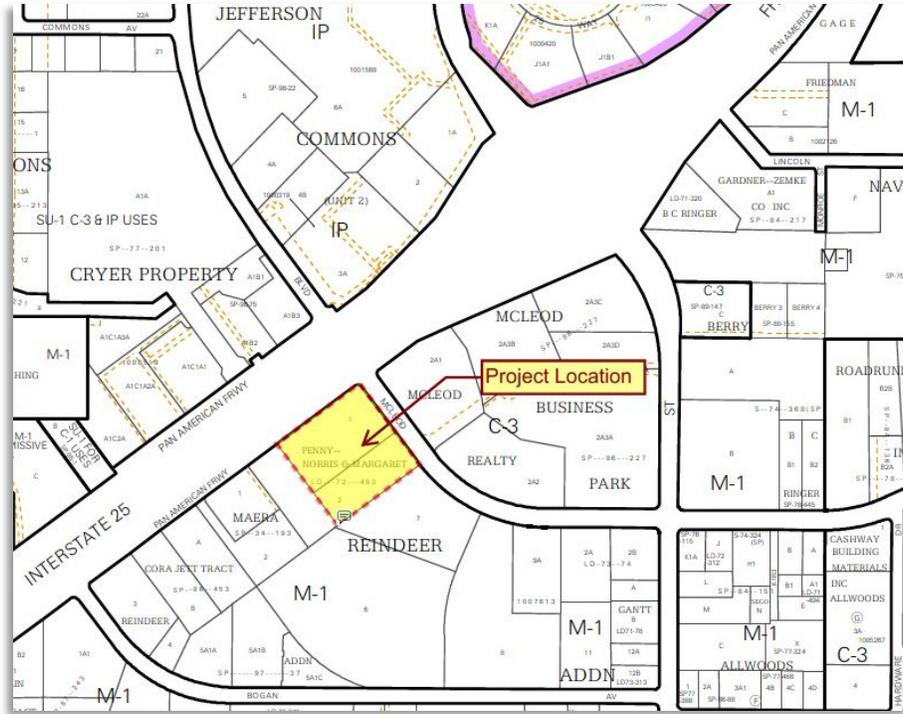
**McLeod / Pan American Development  
(Southeast Corner)  
Traffic Impact Study**

## **Introduction**

The purpose of this study is to evaluate the transportation conditions before and after implementation of the proposed McLeod / Pan American Development and determine the impact of the development on the adjacent transportation system. The recommendations of this study will provide measures to mitigate the impact of the development of the site plan on critical intersections and street segments. This study is prepared to meet the requirements of the New Mexico Department of Transportation, District 3 associated with its review of the McLeod / Pan American Development as shown on the plan on Page A-3 in the Appendix of this report.

The proposed development is located at the southeast corner of McLeod Rd. / Pan American Frontage Rd. on Lot 1-A and 2 of Norris and Margaret Penny Addition. If the property were to develop in a manner significantly different than the proposed plan considered in this report such that the number of generated trips is significantly greater, then an update to this study may be required by the New Mexico Department of Transportation, District 3.

Following is a vicinity map depicting the location of the proposed project:



## Description of Proposed Development

The proposed project is described as the development of a proposed 4.9-acre property into a 74,823 S.F. Floor and Decor building plus a 2,400 S.F. restaurant or generic retail building use. The project lies in the city limits of Albuquerque, NM. The project fronts on two major collector roadways, McLeod Rd., which is maintained by the City of Albuquerque and Pan American Frontage Rd., which is maintained by the New Mexico Department of Transportation, District 3.

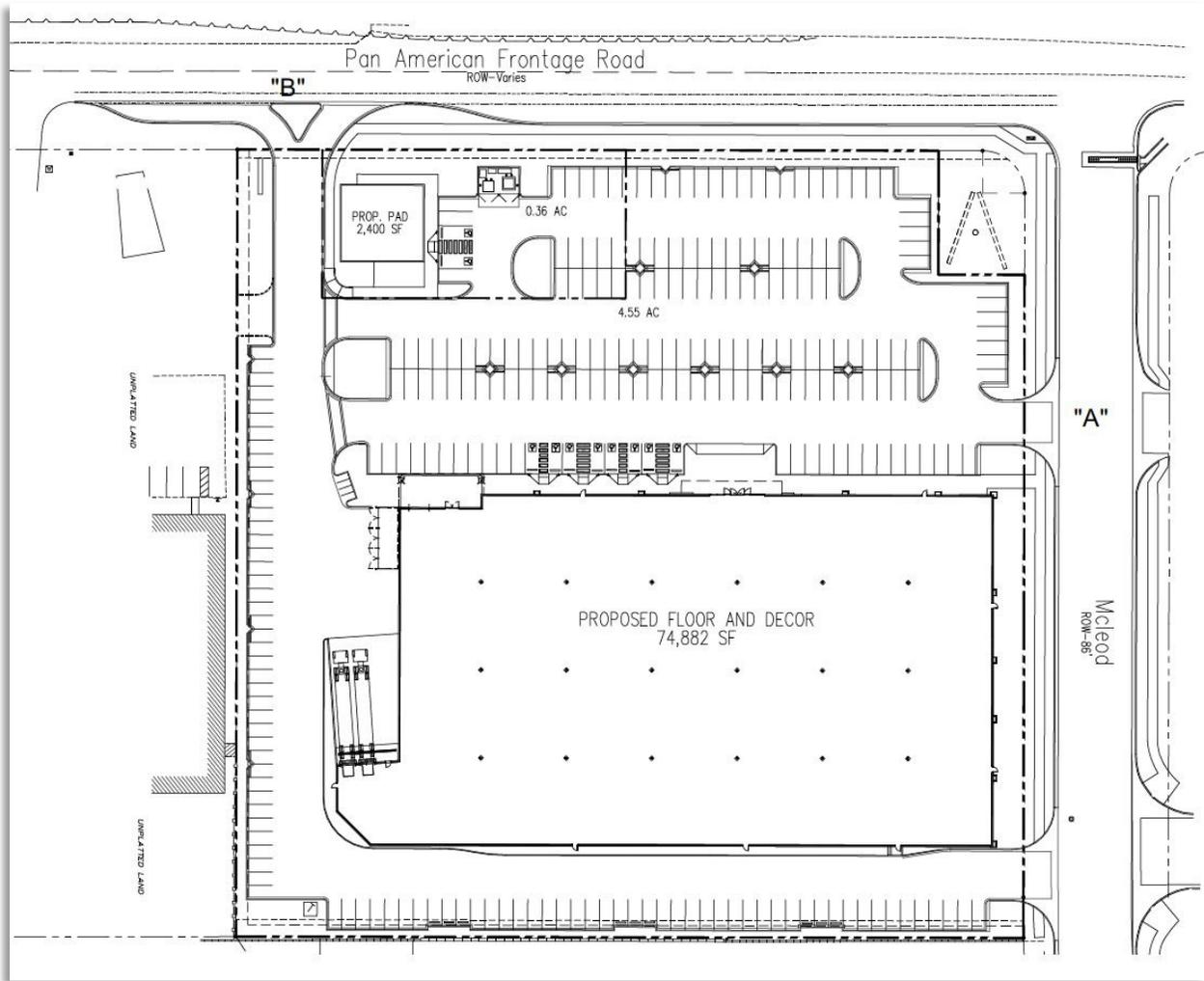
This development will be constructed in essentially one phase. Existing zoning is M-1.

For the purpose of this report, it is assumed that the Pan American Frontage Rd. is oriented in a north-south direction when, in fact, it is oriented in a northeasterly – southwesterly direction. It is also assumed for the purposes of this report that McLeod Rd. is oriented in an east-west direction when, in fact, it is oriented in a southeast – northwest direction.

Two primary access driveways will be utilized for the proposed development. A third driveway on McLeod on the east side of the project is a service driveway and will not be analyzed in this Study. The first access driveway (Driveway “A”) is an existing unsignalized full access driveway along the south side of McLeod Rd. approximately 200 feet east of Pan American Frontage Rd. (centerline to centerline). The second access driveway (Driveway “B”) is a proposed unsignalized right-in, right-out only driveway located along the east side of Pan American Frontage Rd. approximately 470 feet south of McLeod Rd. (centerline to centerline). In an effort to work with the New Mexico

Department of Transportation to consolidate access points on the Pan American Frontage Road, the developer has agreed that at the time of redevelopment or change in use of the property to the south of this proposed development, they will enter into a cross access agreement with the adjacent property owner to allow them to utilize / share Driveway "B" to access their property.

Following and on Appendix Page A-3 is the proposed site development plan depicting driveway



(access) locations:

## Study Area Conditions

A Traffic Impact Study Scoping Meeting was held on Tuesday, August 1, 2017 at 2:30 pm at New Mexico Department of Transportation, District 3 with staff (Nancy Perea, Margaret Haynes, Brad

Julian and Peter Kubiak). At the Scoping Meeting, it was determined that the study area would include the following list of intersections to analyzed in the Traffic Impact Study:

1. McLeod Rd. / Pan American Frontage Rd.
2. McLeod Rd. / Driveway "A"
3. Driveway "B" / Pan American Frontage Rd.

This scope of study was based on the assumption that the parcel in question would be developed as 74,823 S.F. Floor and Decor building plus a 2,400 S.F. restaurant or generic retail building use as shown on the proposed site plan.

There are no other known land development projects in the area which need to be incorporated into the background traffic model for this study. Also, there are no known Transportation Improvement Program projects in the area that need to be considered in the Traffic Impact Study.

Pan American Frontage Rd. and McLeod Rd. are not served by public transit services in this area.

Pan American Frontage Rd. and McLeod Rd. are designated on the Futures 2040 Metropolitan Transportation Plan (2040 Long Range Bikeway System Map) with Proposed Bicycle Lane and Pan American Frontage Rd. is designated as an Existing Bicycle Route. See Appendix Page A-7.

There are no pedestrian facilities in the project area – sidewalks, trails or paths.

Pan American Frontage Rd. is classified as a Major Collector Roadway on the Mid-Region Council of Government's Futures 2040 Long Range Roadway System Map, Appendix Pages A-5 thru A-6. Pan American Frontage Rd. is a two-lane, one-way roadway with no raised median, curb and gutter or sidewalk. The posted speed limit along this section of Pan American Frontage Rd. is 45 MPH.

McLeod Rd. is classified as a Major Collector Roadway on the Mid-Region Council of Government's Futures 2040 Long Range Roadway System Map, Appendix Pages A-5 thru A-6. McLeod Rd. is a two-lane roadway with curb and gutter along both sides of the street and with sidewalk along both sides of the street except along the proposed development frontage. The posted speed limit along this section of McLeod Rd. is 35 MPH.

## **Analysis of Existing Conditions**

For this project, the existing conditions (2017) were not analyzed because the analysis would be less than one year away from the implementation year (2018). Therefore, the implementation year NO BUILD Conditions should closely approximate the 2017 existing conditions.

Existing traffic volumes (turning movement counts) were collected at the intersections targeted for analysis in this study on Wednesday, January 14, 2015 and are included on Appendix Page A-37.

As Pan American Frontage Rd. is a New Mexico Department of Transportation maintained facility, analysis of the unsignalized intersections along Pan American Frontage Rd. will need to meet the requirements of the New Mexico Department of Transportation's State Access Management Manual Table 15.C-1 (Minimum Acceptable Level of Service Standards) as follows:

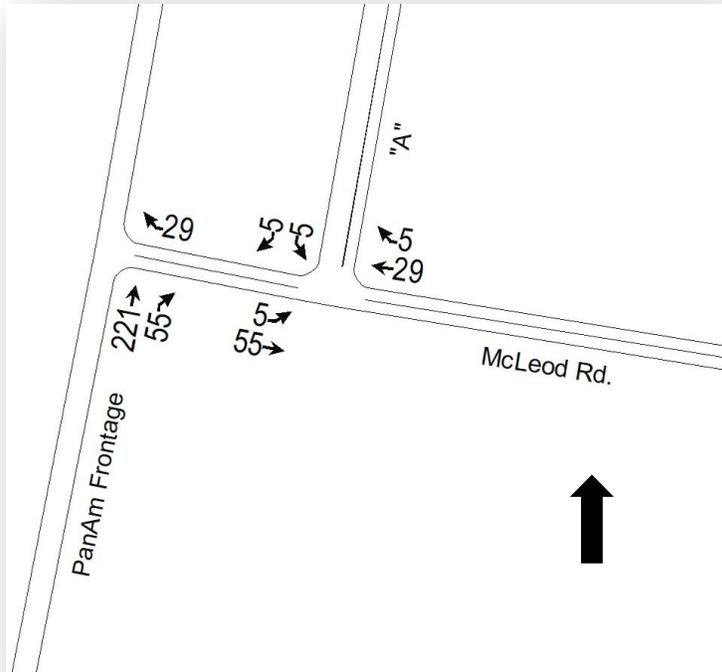
<b>Table 15.C-1</b>								
<b>Minimum Acceptable Level of Service Standards</b>								
<b>Facility Type<sup>1</sup></b>	<b>Access Categories</b>							
	<b>UINT</b>	<b>UPA</b>	<b>UMA</b>	<b>UCOL</b>	<b>RINT</b>	<b>RPA</b>	<b>RMA</b>	<b>RCOL</b>
Freeway Sections	D	-	-	-	C	-	-	-
Ramp Junctions	D	-.2	-.2	-.2	C	-.2	-.2	-.2
Weaving Areas	D	-.2	-.2	-.2	C	-.2	-.2	-.2
Multi-Lane Highways	-	D	D	C	-	C	C	B
Two-Lane Highways	-	D	D	C	-	C	C	B
Signalized Intersections	-	D	D	D	-	C	C	C
Unsignalized Intersections	-	D	D	D	-	D	D	C

Based on the above table, unsignalized intersections along Pan American Frontage Rd. should be level-of-service D or better.

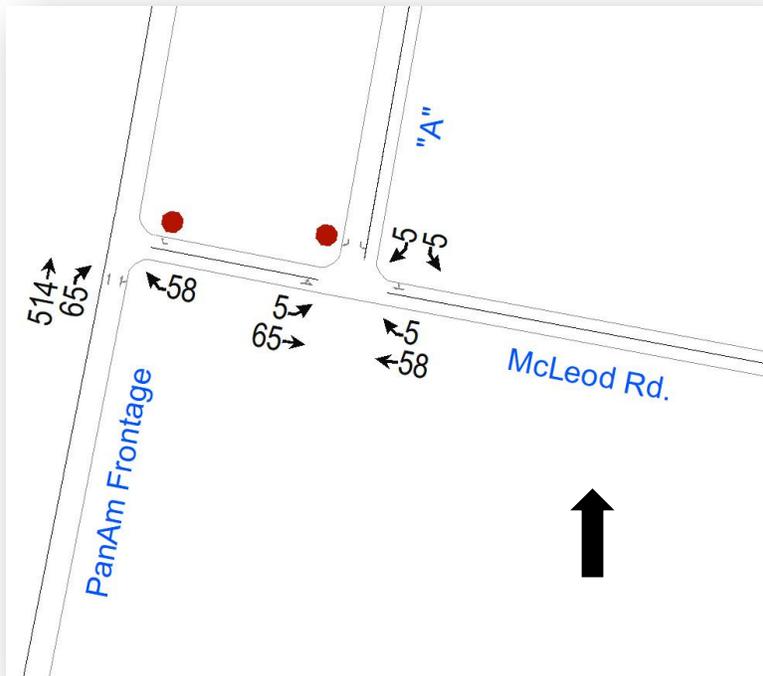
## **Analysis of Implementation Year Conditions**

### ***Traffic Projections***

Background traffic was taken from the recent traffic count (Appendix A-37) conducted for this project and displayed on the following graphics:



**2017 AM Peak Hour Background Traffic Volumes**



**2017 PM Peak Hour Background Traffic Volumes**

This study assumes that the development will be implemented in essentially one phase during the Implementation Year (2018).

Projected trips were calculated based on the ITE trip generation data for Floor & Décor Store and Shopping Center uses. Trips for the development were determined based on land use defined on the Conceptual Site Development Plan on Page A-3 in the Appendix of this report. The following table summarized the trip generation rate for the project:

*McLeod / I-15 Site (SE Corner)*

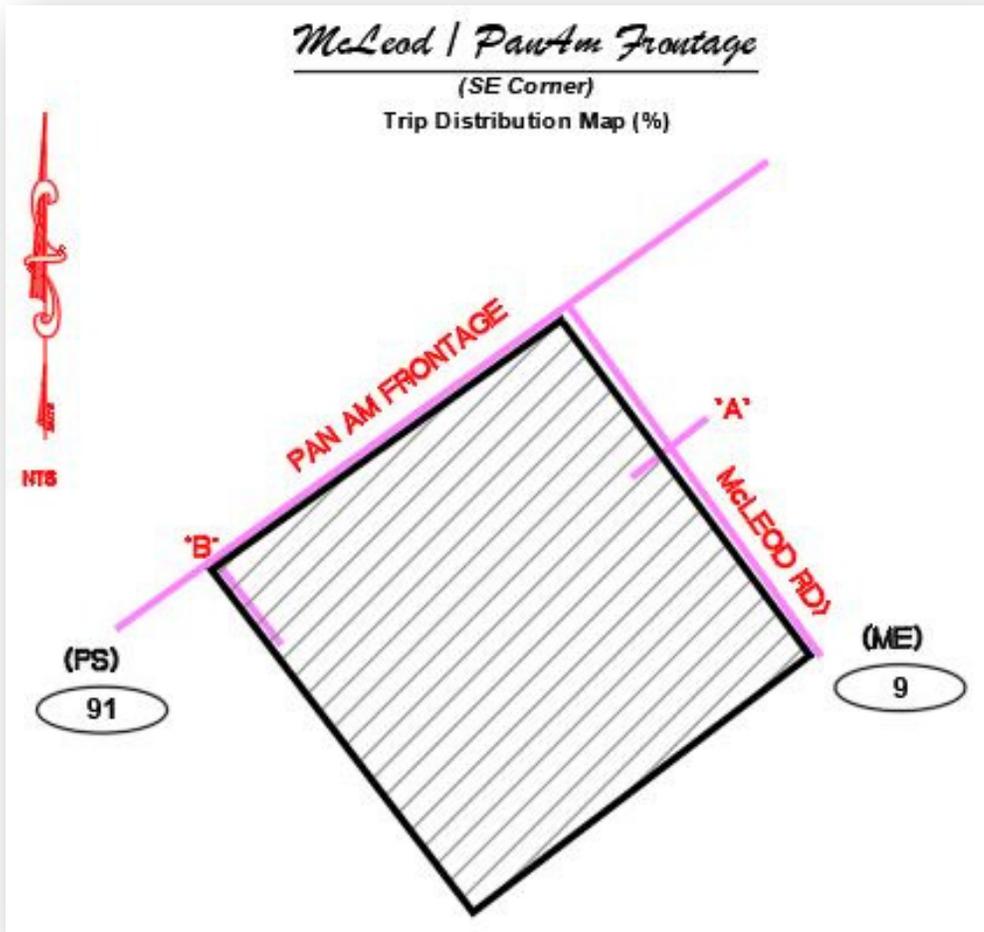
**Trip Generation Data (ITE Trip Generation Manual - 9th Edition)**

USE (ITE CODE)	DESCRIPTION	24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.		
		GROSS	ENTER	EXIT	ENTER	EXIT	
<b>Summary Sheet</b>		Units					
	Floor & Décor Store	74.82	460	19	14	23	23
	Shopping Center (820)	2.40	601	10	6	24	26
<b>Subtotal Trips Generated</b>			<b>1,061</b>	<b>29</b>	<b>20</b>	<b>47</b>	<b>49</b>

Land use for the pad site fronting on the Pan American Frontage Rd. could be either restaurant use (no drive-thru window) or generic retail. This analysis assumes generic retail since it would generate slightly more trips than a restaurant with no drive-thru window.

Pass-by trips were not applied to this project. See Appendix Pages A-8 thru A-10 for more information regarding the trip generation.

Trip Distribution was determined using the recent traffic volume counts to calculate the existing traffic directional trends in percentages. The commercial Trip Distribution map can be found below and in the Appendix on Page A-11.

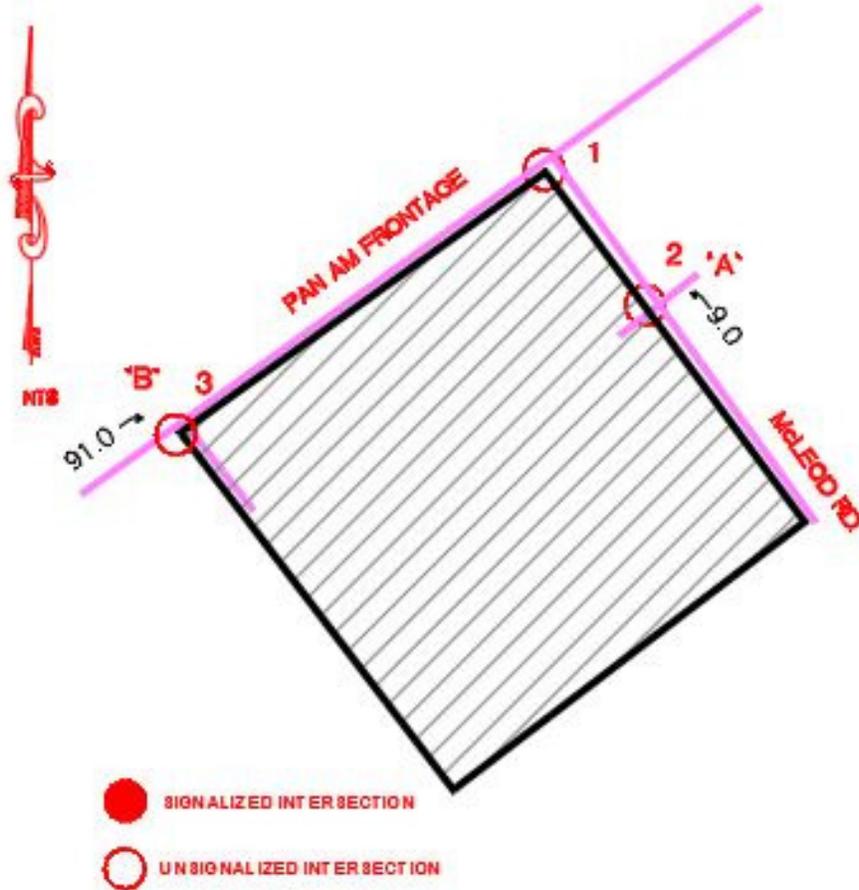


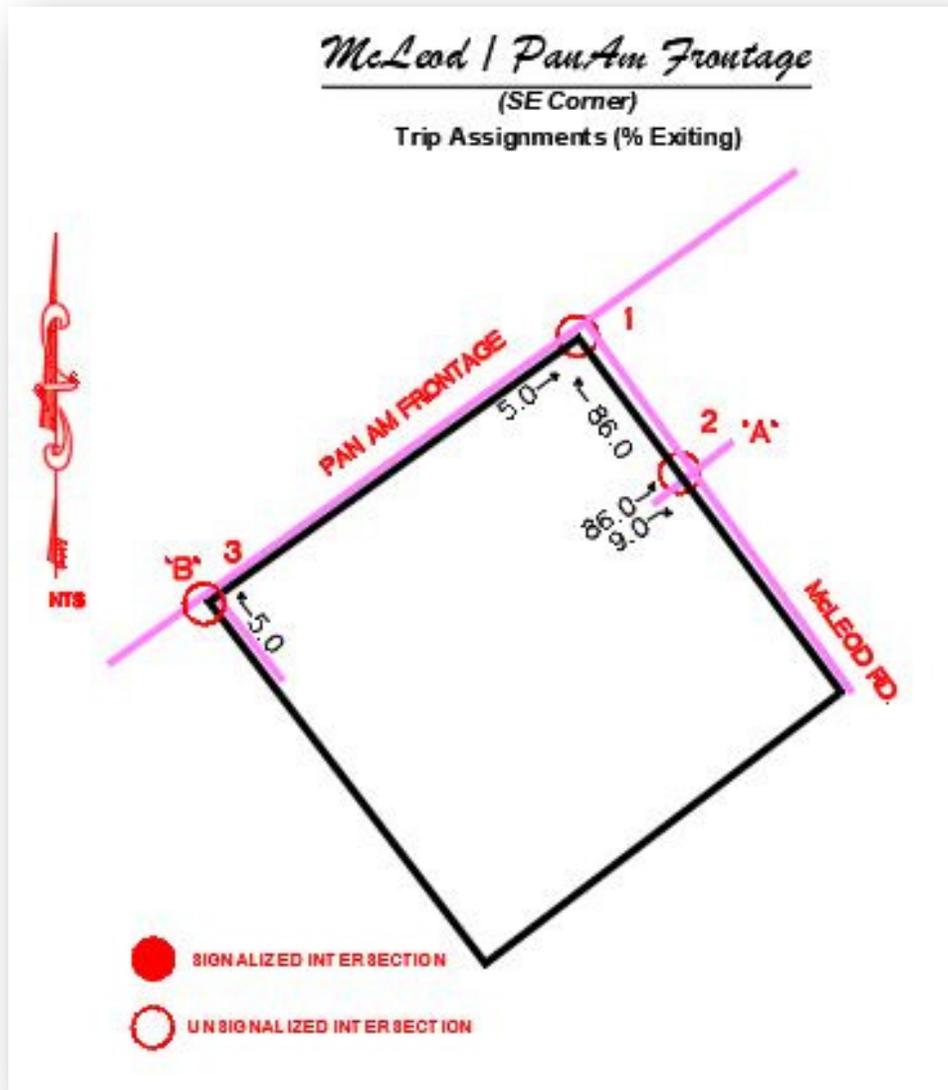
Trip assignments are first made on a percentage basis derived from data established in the trip distribution determination process and logical routing. Those percentages are then applied to the projected trips to determine individual traffic movements. Percentage trip assignments for commercial trips are shown below and in the Appendix on Pages A-12 thru A-13. No adjustments for pass-by trips on this project were applied.

# McLeod / PanAm Frontage

(SE Corner)

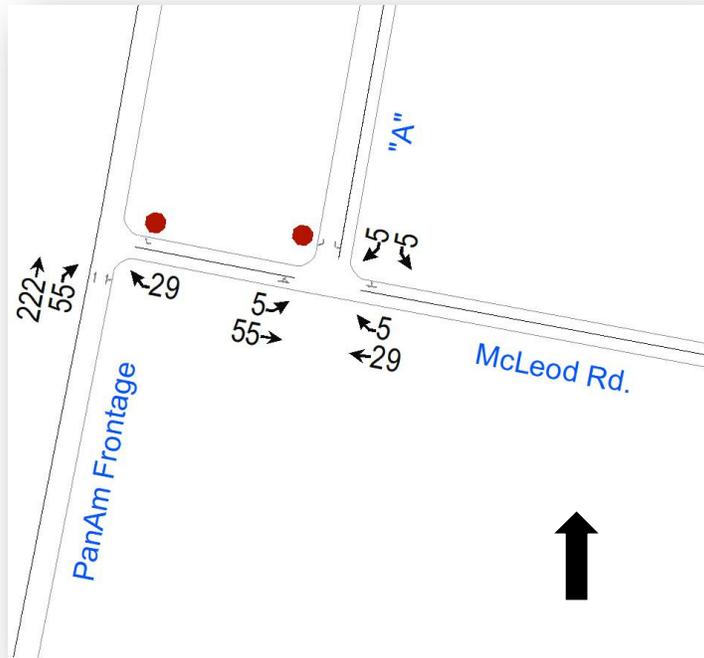
Trip Assignments (% Entering)



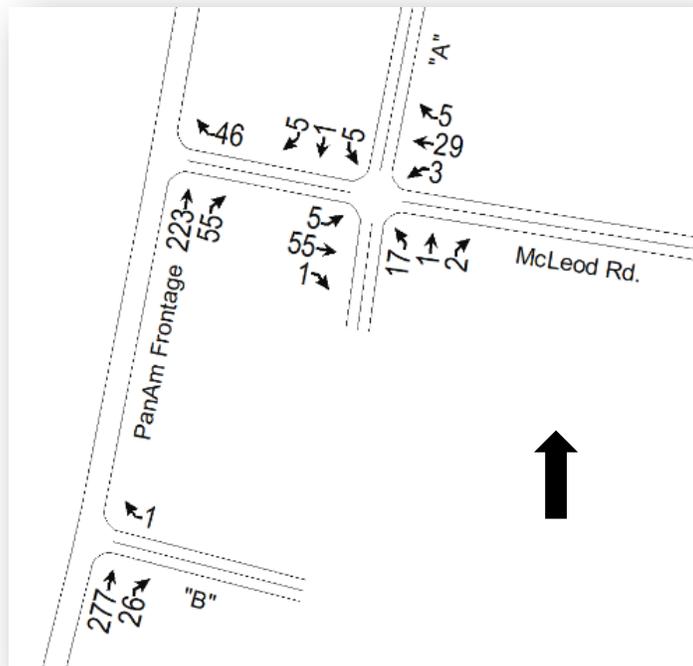


A generic 0.5% background traffic growth rate was assumed to be appropriate for the analysis based on the amount of growth in the area. The growth rate utilized for each approach to an intersection is printed at the top of the Turning Movement sheets for each intersection (Appendix Pages A-15 thru A-19).

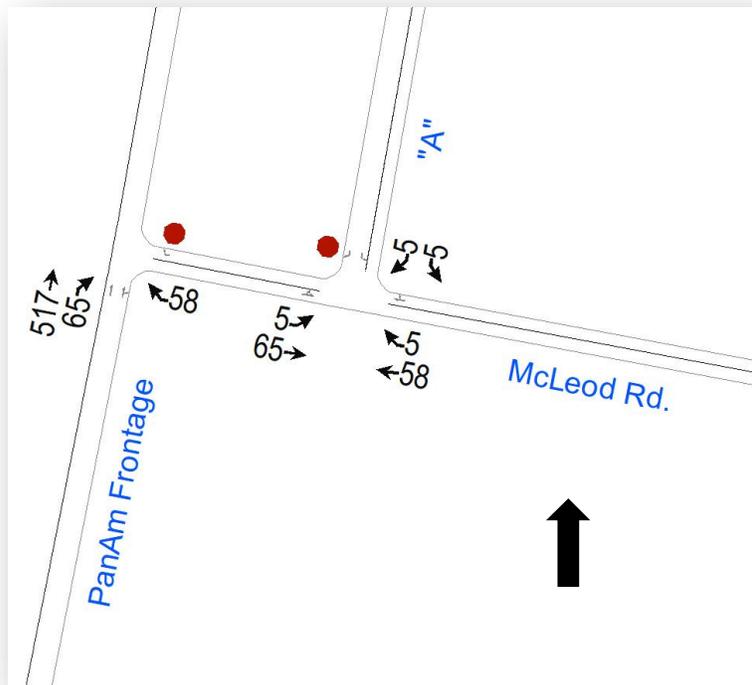
The trip generation, trip distribution and trip assignments were utilized along with the existing 2017 background traffic volumes and the assumed traffic growth rate to determine the Implementation year NO BUILD and BUILD volumes, see Appendix Pages A-14 thru A-20. Implementation year AM Peak Hour and PM Peak Hour NO BUILD and BUILD volumes are displayed on the following graphics:



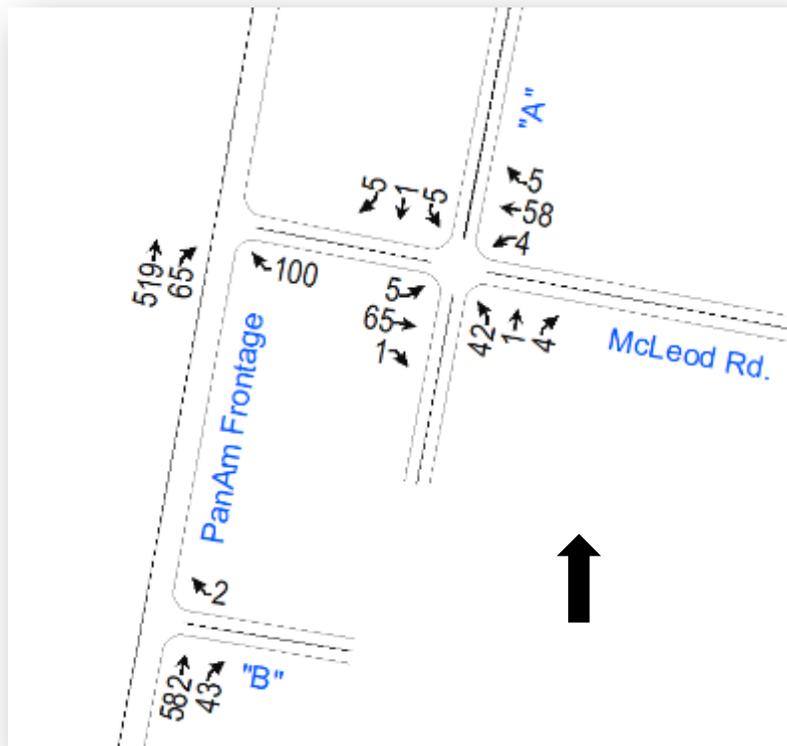
**2018 AM Peak Hour NO BUILD Traffic Volumes**



**2018 AM Peak Hour BUILD Traffic Volumes**



2018 PM Peak Hour NO BUILD Traffic Volumes



2018 PM Peak Hour BUILD Traffic Volumes

## Traffic Analysis

A capacity analysis was conducted for the Implementation Year (2018) NO BUILD and BUILD Conditions and the results are summarized as follows:

### #1 – McLeod Rd. / Pan American Frontage Rd. - Pages A-21 thru A-30

The results of the 2018 analysis of the unsignalized intersection of McLeod Rd. / Pan American Frontage Rd. are summarized in the following table:

**Intersection: 1 - McLeod Rd. / Pan Am Frontage**

<b>2018 AM Peak Hour BUILD</b>					<b>2018 PM Peak Hour BUILD</b>														
<b>(EXIST. GEOM.)</b>																			
<b>NO BUILD</b>					<b>BUILD</b>														
	Lanes	LOS	Delay		Lanes	LOS	Delay		Lanes	LOS	Delay								
<b>WBR</b>	1	A	- 9.6	1	A	- 9.7	<b>WBR</b>	1	B	- 11.2	1	B	- 11.8						
<b>NBT</b>	2	N/A	- 0.0	2	N/A	- 0.0	<b>NBT</b>	2	N/A	- 0.0	2	N/A	- 0.0						
<b>NBR</b>	>	N/A	- 0.0	>	N/A	- 0.0	<b>NBR</b>	>	N/A	- 0.0	>	N/A	- 0.0						
<b>Intersection: u - 0.9</b>					<b>u - 1.4</b>					<b>Intersection: u - 1.0</b>					<b>u - 1.7</b>				

NOTE: ">" designates a shared lane with adjacent thru lane.

The 2018 analysis of the intersection of McLeod Rd. / Pan American Frontage Rd. demonstrates that the delays and levels-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour NO BUILD and BUILD conditions analyzed in this report. Therefore, no recommendations are made for the intersection of McLeod Rd. / Pan American Frontage Rd.

#2 – McLeod Rd. / Driveway “A” - Pages A-21 thru A-30

The results of the 2018 analysis of the full access unsignalized intersection of McLeod Rd. / Driveway “A” are summarized in the following table:

**Intersection: 2 - McLeod Rd. / Driveway "A"**

	<u>2018 AM Peak Hour BUILD</u>				<u>2018 PM Peak Hour BUILD</u>				
	(EXIST. GEOM.)				(EXIST. GEOM.)				
	NO BUILD		BUILD		NO BUILD		BUILD		
	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	
EBL	>	A - 7.3	>	A - 7.3	EBL	>	A - 7.4	>	A - 7.4
EBT	1	A - 7.3	1	A - 7.3	EBT	1	A - 7.4	1	A - 7.4
EBR		N/A - 0.0	>	A - 7.3	EBR		N/A - 0.0	>	A - 7.4
WBL		N/A - 0.0	>	A - 7.4	WBL		N/A - 0.0	>	A - 7.4
WBT	1	N/A - 0.0	1	A - 7.4	WBT	1	N/A - 0.0	1	A - 7.4
WBR	>	N/A - 0.0	>	A - 7.4	WBR	>	N/A - 0.0	>	A - 7.4
NBL		N/A - 0.0	>	A - 9.5	NBL		N/A - 0.0	>	A - 9.9
NBT		N/A - 0.0	1	A - 9.5	NBT		N/A - 0.0	1	A - 9.9
NBR		N/A - 0.0	>	A - 9.5	NBR		N/A - 0.0	>	A - 9.9
SBL	1	A - 8.9	>	A - 9.1	SBL	1	A - 9.1	>	A - 9.3
SBT		N/A - 0.0	1	A - 9.1	SBT		N/A - 0.0	>	A - 9.3
SBR	>	A - 8.9	>	A - 9.1	SBR	>	A - 9.1	>	A - 9.3
Intersection:		<b>u - 1.2</b>		<b>u - 2.7</b>	Intersection:		<b>u - 2.0</b>		<b>u - 3.2</b>

NOTE: ">" designates a shared lane with adjacent thru lane.

The 2018 analysis of the intersection of McLeod Rd. / Driveway “A” demonstrates that the delays and levels-of-service will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of McLeod Rd. / Driveway “A”.

#3 – Driveway “B” / Pan American Frontage Rd. – Pages A-21 thru A-30

The results of the 2018 analysis of the right-out only unsignalized intersection of Driveway “B” / Pan American Frontage Rd. are summarized in the following table:

**Intersection: 3 - Driveway "B" / Pan Am Frontage**

<u>2018 AM Peak Hour BUILD</u>					<u>2018 PM Peak Hour BUILD</u>								
<b>(EXIST. GEOM.)</b>													
		<b>NO BUILD</b>		<b>BUILD</b>				<b>BUILD</b>					
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay				
<b>WBR</b>		N/A -	0.0	1	A -	9.5	<b>WBR</b>		N/A -	0.0	1	B -	10.8
<b>NBT</b>		N/A -	0.0	2	N/A -	0.0	<b>NBT</b>		N/A -	0.0	2	N/A -	0.0
<b>NBR</b>		N/A -	0.0	>	N/A -	0.0	<b>NBR</b>		N/A -	0.0	>	N/A -	0.0
<b>Intersection:</b>		<b>u - 0.0</b>		<b>u - 0.0</b>		<b>Intersection:</b>		<b>u - 0.0</b>		<b>u - 0.0</b>		<b>u - 0.0</b>	

NOTE: ">" designates a shared lane with adjacent thru lane.

The 2018 analysis of the intersection of Driveway “B” / Pan American Frontage Rd. demonstrates that the delays and levels-of-service will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of Driveway “B” / Pan American Frontage Rd.

***Impact Assessment***

Utilizing projected traffic volumes resulting from the development of this site in conjunction with projected 2018 traffic volumes for the adjacent transportation network, this report concludes that development of the subject site will have minimal adverse impact on the adjacent transportation system.

***Access Design Specifications***

A Determination of Warrants for Auxiliary Lanes was completed for the intersection of McLeod Rd. / Pan American Frontage Rd. and determined that a northbound right turn deceleration lane is warranted (400 feet with a 12.5:1 taper). Due to the proximity of the Driveway “B” it does not appear that the recommended length can be constructed, however, it is recommended that an eastbound right turn deceleration lane is constructed as long as feasible. According to aerial photography, it appears that a left turn deceleration lane of approximately 315 feet with a 100’ – 100’ reverse curve transition may be constructed. See Appendix Pages A-31 thru A-36 for Deceleration Lane Worksheets.

A Determination of Warrants for Auxiliary Lanes was completed for Driveway “B” and determined that a northbound right turn deceleration lane is warranted. The New Mexico Department of Transportation’s State Access Management Manual stipulates that the right turn deceleration lane should be designed and constructed to a length of 400 feet with a 12.5:1 taper. Due to the proximity of the driveway to the south it does not appear that the recommended length can be constructed. See Appendix Pages A-31 thru A-36 for Deceleration Lane Worksheets.

Sight distance at Driveway “B” is adequate. There are no vertical or horizontal curves along this portion of the project and there are no structures that are blocking sight distance into and out of the driveways.

Sidewalk along McLeod Rd. fronting the proposed development is recommended in order to create pedestrian access continuity along McLeod Rd.

Currently Bicycle lanes do not exist along this portion of Pan American Frontage Rd. and although it is shown as proposed on the 2040 Long Range Bikeway System Map, it is not recommended to be constructed at this time due to lack of connectivity.

## Summary of Deficiencies, Anticipated Impacts, and Recommendations

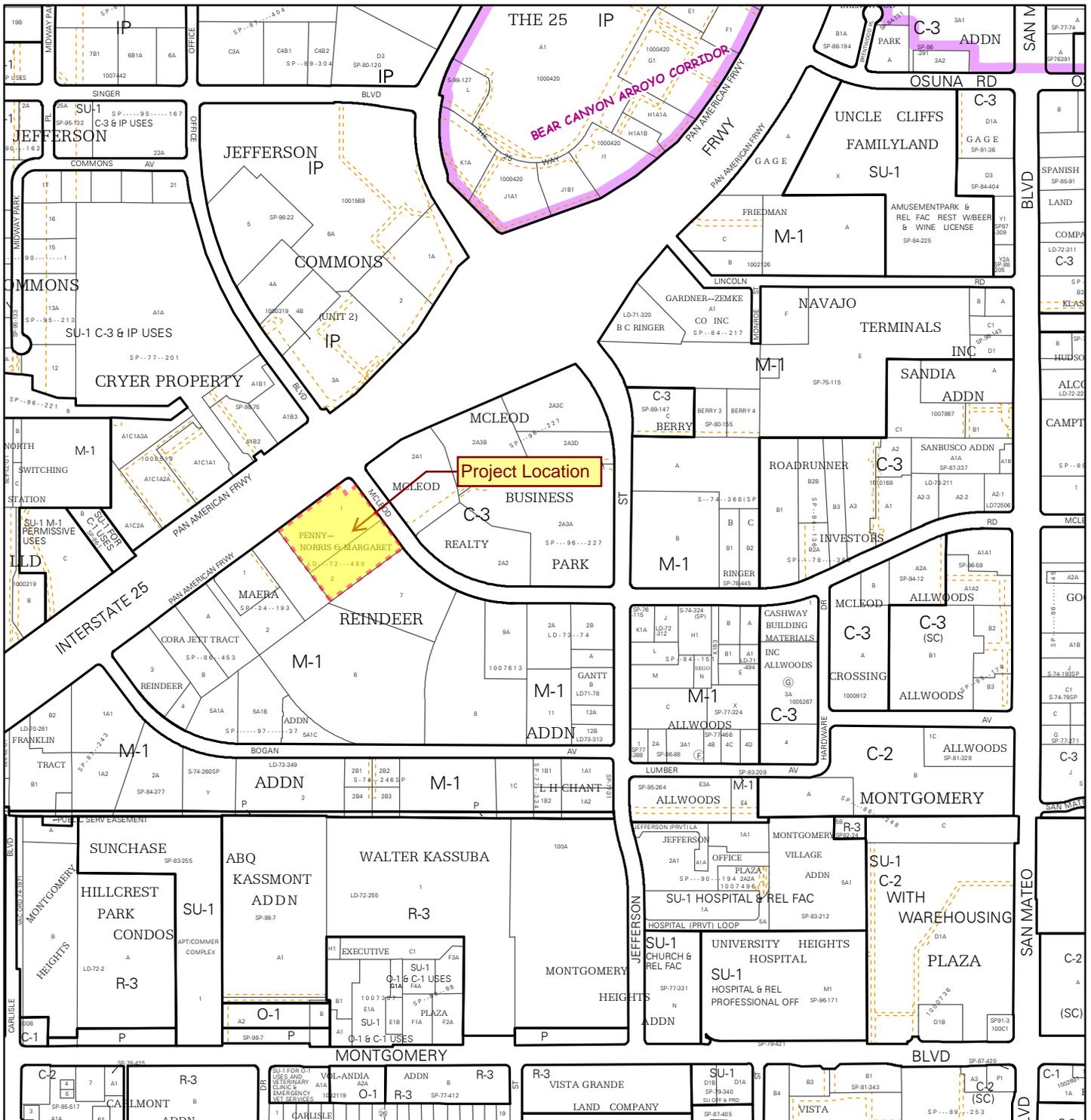
- ◆ Design of the site must maintain adequate sight distances for traffic approaching, entering, and exiting the site from all driveways.
- ◆ The site should be accessed primarily via 2 driveways with a third driveway at the back (east side) of the retail center for employees, deliveries, and overflow parking if needed. Driveway “A” is an existing full access unsignalized intersection with one entering lane and one exiting lane via McLeod Rd. Driveway “B” is a proposed right-in, right-out, only unsignalized driveway with one entering lane and one exiting lane via Pan American Frontage Rd.
- ◆ **McLeod Rd. / Pan American Frontage Rd.** – Design and construct a northbound right turn deceleration lane to a length of 315 feet plus a 100’-100’ reverse curve transition.
- ◆ **Driveway “B” / Pan American Freeway** – A northbound right turn deceleration lane is warranted based on the projected volumes generated by this development. The northbound right turn deceleration lane should be constructed to the maximum length possible (approximately 75 feet long plus a 50’-50’ reverse curve transition).
- ◆ **Driveway “B” / Pan American Freeway** - The developer will grant cross-access to the adjoining neighbor to the south for a future shared driveway. The design of the proposed development will allow this neighbor to access / share Driveway “B” / Pan American Freeway in the future when the property to the south is redeveloped.
- ◆ **Driveway “A” / McLeod** – McLeod Rd. is a City maintained roadway. Driveway “A” on McLeod shall be designed and constructed to meet City of Albuquerque standards.
- ◆ Construct bicycle lanes, curb and gutter, and sidewalks along frontage of property as required by the New Mexico Department of Transportation and / or the City of Albuquerque. Sidewalk

along Pan American Freeway (along the property line) will be offset due to drainage mitigation measures.

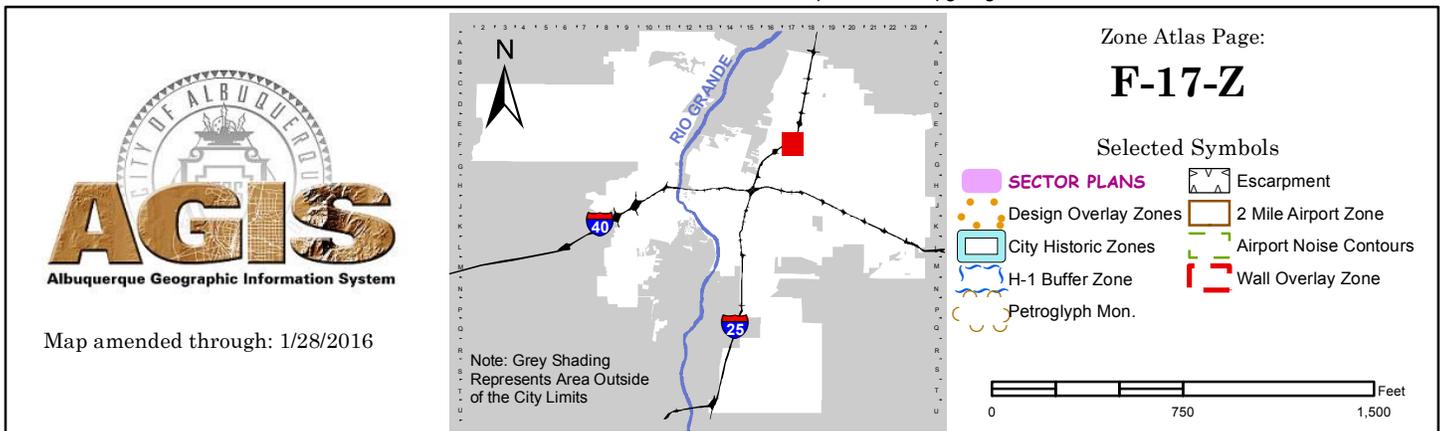
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## APPENDIX



For more current information and details visit: <http://www.cabq.gov/gis>





*McLeod / Pan American Development*

(Southeast Corner)

Aerial Map

