

Appendix D

Forecast Turning Movements

**UNM SOUTH GIBSON COMMERCIAL DISTRICT
EXISTING & PROJECTED TURNING MOVEMENTS**

INTERSECTION: Gibson and Mulberry

Entering Peak Hour

	Southbound Mulberry			Westbound Gibson			Northbound Mulberry			Eastbound Gibson		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2011)				14	1,017	7	15		21	0	2,338	30
Background Growth (2011-2015)	0	0	0	1	57	0	1	0	1	0	131	2
Approved Development*												
2015 No Build	0	0	0	15	1,074	7	16	0	22	0	2,469	32
Destination Enter											0	
Destination Exit					0							
Community Enter											54	
Community Exit					38							
RIRO FF Enter						110						
RIRO FF Exit			105									
Pass-By Enter					-54	54						
Pass-By Exit			52									
2015 Build	0	0	157	15	1,058	171	16	0	22	0	2,523	32
PHF	0.950			0.950			0.950			0.950		
HV %		2.0			4.0			2.0			2.0	

Exiting Peak Hour

	Southbound Mulberry			Westbound Gibson			Northbound Mulberry			Eastbound Gibson		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2011)				19	2,399	0	39		25	0	1,166	61
Background Growth (2011-2015)	0	0	0	1	134	0	2	0	1	0	65	3
Approved Development*												
2015 No Build	0	0	0	20	2,533	0	41	0	26	0	1,231	64
Destination Enter											100	
Destination Exit					113							
Community Enter											119	
Community Exit					124							
RIRO FF Enter						109						
RIRO FF Exit			107									
Pass-By Enter					-56	56						
Pass-By Exit			55									
2015 Build	0	0	162	20	2,715	165	41	0	26	0	1,450	64
PHF	0.965			0.965			0.965			0.965		
HV %		2.0			2.0			2.0			2.0	

* - South Campus Housing

growth rates	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Trip Distribution % Enter											89.8%	
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	89.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Trip Distribution % Enter											25.9%	
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	25.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Trip Distribution % Enter						100.0%						
Trip Distribution % Exit	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Destination

Community

RIRO Fast Food

**UNM SOUTH GIBSON COMMERCIAL DISTRICT
EXISTING & PROJECTED TURNING MOVEMENTS**

INTERSECTION: Gibson and Entrance

Entering Peak Hour

	Southbound Entrance			Westbound Gibson			Northbound Entrance			Eastbound Gibson		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2011)					1,038						2,359	
Background Growth (2011-2015)	0	0	0	0	58	0	0	0	0	0	132	0
Approved Development*												
2015 No Build	0	0	0	0	1,096	0	0	0	0	0	2,491	0
Destination Enter						0				0		
Destination Exit	0		0									
Community Enter						46				54		
Community Exit	33		38									
RIRO FF Enter			32		77							
RIRO FF Exit												
Pass-By Enter												
Pass-By Exit												
2015 Build	33	0	71	0	1,174	46	0	0	0	54	2,491	0
PHF	0.950			0.950			0.950			0.950		
HV %		2.0			4.0			2.0			2.0	

Exiting Peak Hour

	Southbound Entrance			Westbound Gibson			Northbound Entrance			Eastbound Gibson		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2011)					2,418						1,191	
Background Growth (2011-2015)	0	0	0	0	135	0	0	0	0	0	67	0
Approved Development*												
2015 No Build	0	0	0	0	2,553	0	0	0	0	0	1,258	0
Destination Enter						4				100		
Destination Exit	5		113									
Community Enter						101				119		
Community Exit	106		124									
RIRO FF Enter			32		77							
RIRO FF Exit												
Pass-By Enter					-54	54				26	-26	
Pass-By Exit	25		51									
2015 Build	135	0	320	0	2,577	159	0	0	0	245	1,231	0
PHF	0.965			0.965			0.965			0.965		
HV %		2.0			2.0			2.0			2.0	

* - South Campus Housing

growth rates	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Trip Distribution % Enter						3.7%				89.8%		
Trip Distribution % Exit	3.7%	0.0%	89.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Trip Distribution % Enter						22.0%				25.9%		
Trip Distribution % Exit	22.0%	0.0%	25.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Trip Distribution % Enter			29.5%		70.5%							
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Destination

Community

RIRO Fast Food

**UNM SOUTH GIBSON COMMERCIAL DISTRICT
EXISTING & PROJECTED TURNING MOVEMENTS**

INTERSECTION: Gibson & University

Entering Peak Hour

	Southbound University			Westbound Gibson			Northbound University			Eastbound Gibson		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2011)	153	19	81	25	962	118	59	28	51	170	2,164	29
Background Growth (2011-2015)	9	1	5	1	54	7	3	2	3	10	121	2
Approved Development*												
2015 No Build	162	20	86	26	1,016	125	62	30	54	180	2,285	31
Destination Enter					0							
Destination Exit										0		
Community Enter					46	5						
Community Exit	4									5		
RIRO FF Enter			41		36							
RIRO FF Exit	35											
Pass-By Enter												
Pass-By Exit												
2015 Build	200	20	127	26	1,098	130	62	30	54	180	2,291	31
PHF	0.934			0.934			0.934			0.934		
HV %		7.0			4.0			3.0			3.0	

Exiting Peak Hour

	Southbound University			Westbound Gibson			Northbound University			Eastbound Gibson		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2011)	190	31	156	52	2,009	169	60	23	52	107	999	56
Background Growth (2011-2015)	11	2	9	3	113	9	3	1	3	6	56	3
Approved Development*												
2015 No Build	201	33	165	55	2,122	178	63	24	55	113	1,055	59
Destination Enter					4							
Destination Exit										5		
Community Enter					101	11						
Community Exit	12									106		
RIRO FF Enter			41		36							
RIRO FF Exit	36											
Pass-By Enter												
Pass-By Exit												
2015 Build	248	33	206	55	2,263	190	63	24	55	113	1,165	59
PHF	0.961			0.961			0.961			0.961		
HV %		4.0			2.0			2.0			2.0	

* - South Campus Housing

growth rates	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Trip Distribution % Enter					3.7%							
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.7%	0.0%
Trip Distribution % Enter					22.0%	2.5%						
Trip Distribution % Exit	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	22.0%	0.0%
Trip Distribution % Enter			37.4%		33.1%							
Trip Distribution % Exit	33.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Destination

Community

RIRO Fast Food

UNM SOUTH GIBSON COMMERCIAL DISTRICT
EXISTING & PROJECTED TURNING MOVEMENTS

INTERSECTION: University & East Road

Entering Peak Hour

	Southbound University			Westbound ABQ Housing Svcs			Northbound University			Eastbound West Road		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2011)	16	253		1		2		316	6			
Background Growth (2011-2015)	1	14	0	0	0	0	0	18	0	0	0	0
Approved Development*												
2015 No Build	17	267	0	1	0	2	0	334	6	0	0	0
Destination Enter			0									
Destination Exit										0		0
Community Enter			58				5					
Community Exit										41		4
RIRO FF Enter		41										
RIRO FF Exit		35										
Pass-By Enter												
Pass-By Exit												
2015 Build	17	343	58	1	0	2	5	334	6	41	0	4
PHF	0.934			0.934			0.934			0.934		
HV %		3.0			2.0			7.0			2.0	

Exiting Peak Hour

	Southbound University			Westbound ABQ Housing Svcs			Northbound University			Eastbound West Road		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2011)	11	377		4		18		299	3			
Background Growth (2011-2015)	1	21	0	0	0	1	0	17	0	0	0	0
Approved Development*												
2015 No Build	12	398	0	4	0	19	0	316	3	0	0	0
Destination Enter			6									
Destination Exit										7		0
Community Enter			127				11					
Community Exit										133		12
RIRO FF Enter		41										
RIRO FF Exit		36										
Pass-By Enter		-3	3				3	-3				
Pass-By Exit										3		28
2015 Build	12	472	136	4	0	19	14	313	3	142	0	40
PHF	0.961			0.961			0.961			0.961		
HV %		2.0			2.0			4.0			2.0	

* - South Campus Housing

growth rates 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40%

Trip Distribution % Enter			5.2%										Destination
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.2%	0.0%	0.0%	
Trip Distribution % Enter			27.7%				2.5%						Community
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	27.7%	0.0%	2.5%	
Trip Distribution % Enter		37.4%											RIRO Fast Food
Trip Distribution % Exit	0.0%	33.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

**USNM SOUTH GIBSON COMMERCIAL DISTRICT
EXISTING & PROJECTED TURNING MOVEMENTS**

INTERSECTION: Avenida Cesar Chavez & University

Entering Peak Hour

	Southbound University			Westbound Cesar Chavez			Northbound University			Eastbound Cesar Chavez		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2011)	63	164	68	26	297	86	54	197	34	366	365	152
Background Growth (2011-2015)	4	9	4	1	17	5	3	11	2	20	20	9
Approved Development*			4				2			25		
2015 No Build	67	173	76	27	314	91	59	208	36	411	385	161
Destination Enter		0		0								
Destination Exit								0	0			
Community Enter		38		20								
Community Exit							27	14				
RIRO FF Enter		27		14								
RIRO FF Exit										26	14	35
Pass-By Enter												
Pass-By Exit												
2015 Build	67	238	76	62	314	91	59	235	50	437	399	195
PHF	0.924			0.888			0.942			0.894		
HV %	2.0			2.0			2.0			2.0		

Exiting Peak Hour

	Southbound University			Westbound Cesar Chavez			Northbound University			Eastbound Cesar Chavez		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2011)	131	243	305	33	479	116	142	221	25	327	437	102
Background Growth (2011-2015)	7	14	17	2	27	6	8	12	1	18	24	6
Approved Development*			20				9			16		
2015 No Build	138	257	342	35	506	122	159	233	26	361	461	108
Destination Enter		20		11								
Destination Exit								5	1			
Community Enter		83		45								
Community Exit							86	47				
RIRO FF Enter		27		14								
RIRO FF Exit										26	14	36
Pass-By Enter												
Pass-By Exit												
2015 Build	138	386	342	104	506	122	159	325	74	387	476	143
PHF	0.907			0.907			0.907			0.907		
HV %	2.0			2.0			2.0			2.0		

* - South Campus Housing

growth rates 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40%

Trip Distribution % Enter		4.2%		1.0%									Destination
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	1.0%	0.0%	0.0%	0.0%	

Trip Distribution % Enter		18.0%		9.7%									Community
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	18.0%	9.7%	0.0%	0.0%	0.0%	

Trip Distribution % Enter		24.3%		13.1%									RIRO Fast Food
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.3%	13.1%	33.1%	

UNM SOUTH GIBSON COMMERCIAL DISTRICT
EXISTING & PROJECTED TURNING MOVEMENTS

INTERSECTION: Avenida Cesar Chavez & Langham

Entering Peak Hour

	Southbound Langham			Westbound Cesar Chavez			Northbound Langham			Eastbound Cesar Chavez		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2011)	1		73	4	418	1	10		3	386	1,023	18
Background Growth (2011-2015)	0	0	4	0	23	0	1	0	0	22	57	1
Approved Development*	0				24	1	29	1	11		12	
2015 No Build	1	0	77	4	465	2	40	1	14	408	1,092	19
Destination Enter												0
Destination Exit							0					
Community Enter												46
Community Exit							32					
RIRO FF Enter												32
RIRO FF Exit											74	
Pass-By Enter												
Pass-By Exit												
2015 Build	1	0	77	4	465	2	72	1	14	408	1,166	97
PHF	0.863			0.863			0.863			0.863		
HV %		2.0			2.0			2.0			2.0	

Exiting Peak Hour

	Southbound Langham			Westbound Cesar Chavez			Northbound Langham			Eastbound Cesar Chavez		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2011)	4		194	4	1,175	1	11		25	121	858	0
Background Growth (2011-2015)	0	0	11	0	66	0	1	0	1	7	48	0
	2				15	0	18	1	7		57	
2015 No Build	6	0	205	4	1,256	1	30	1	33	128	963	0
Destination Enter												1
Destination Exit							2					
Community Enter												100
Community Exit							105					
RIRO FF Enter												32
RIRO FF Exit											76	
Pass-By Enter												
Pass-By Exit												
2015 Build	6	0	205	4	1,256	1	136	1	33	128	1,039	134
PHF	0.845			0.845			0.845			0.845		
HV %		2.0			2.0			2.0			2.0	

* - South Campus Housing

growth rates 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40% 1.40%

Trip Distribution % Enter												1.3%	Destination
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	

Trip Distribution % Enter												21.9%	Community
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	21.9%	0.0%	0.0%	0.0%	0.0%	0.0%	

Trip Distribution % Enter												29.5%	RIRO Fast Food
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.5%	0.0%	

UNM South Gibson Commercial District Growth Rate Determination

AWDT ALL	
Year	AWDT
2006	247,700
2007	252,400
2008	252,300
2009	266,200
2010	258,500

$$\text{Linear Growth Rate} = \{[(258,500-247,700)/4]/258,500\} \times 100 = 1.04\%$$

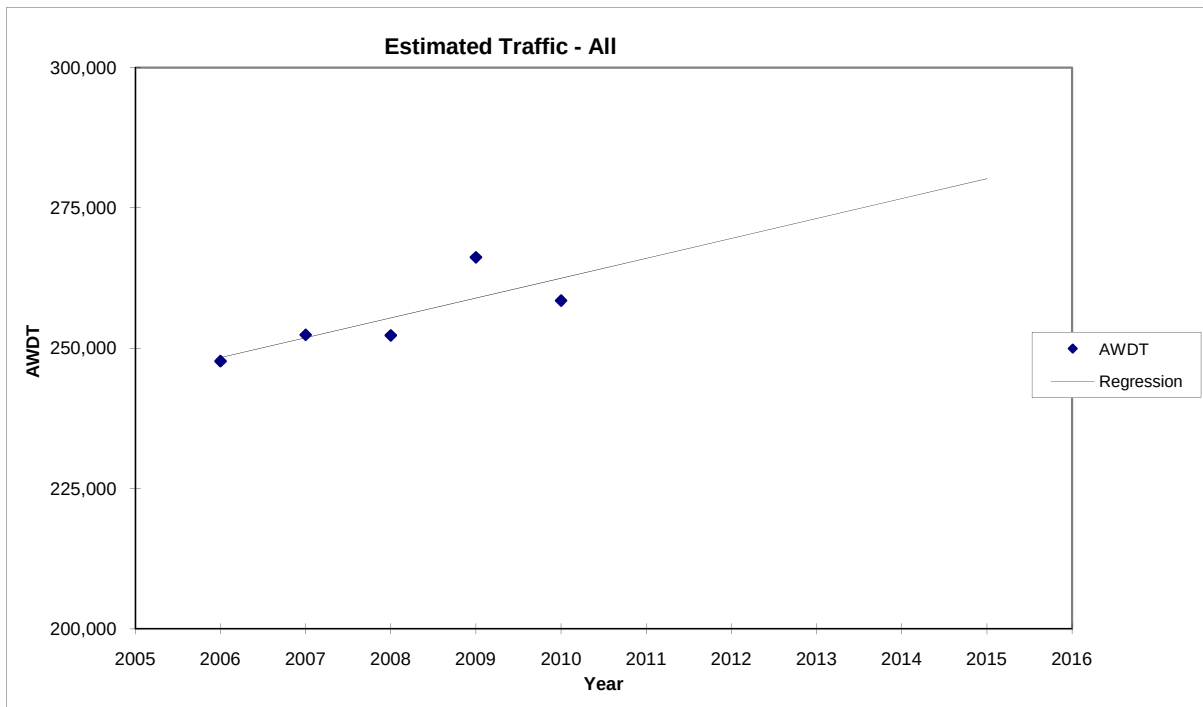
Projected AWDT	
2006	248,340
2007	251,880
2008	255,420
2009	258,960
2010	262,500
2011	266,040
2012	269,580
2013	273,120
2014	276,660
2015	280,200

Regression Output	
R Square	0.61
Standard Error	5.13E+03
Observations	5
Intercept	-6,852,900
Std Err of Intercept	3,255,026
Coefficient	3,540
Std Err of Coefficient	1.62E+03

Regression Equation
AWDT = 3,540 x Year - 6,852,900

USE
Coefficient Growth Rate 1.37%

$$\begin{aligned} \text{Estimated Annual Growth Rate} \\ &= [(280,200-258,500)/258,500] \times 100\% = 8.39\% \\ &8.39\%/5 = 1.68\% \end{aligned}$$



UNM South Gibson Commercial District Growth Rate Determination

AWDT on I-25
(North of Gibson)

Year	AWDT
2006	107,100
2007	110,100
2008	110,400
2009	118,300
2010	113,200

$$\text{Linear Growth Rate} = \{[(113,200-107,100)/4]/113,200\} \times 100 = 1.35\%$$

Projected AWDT

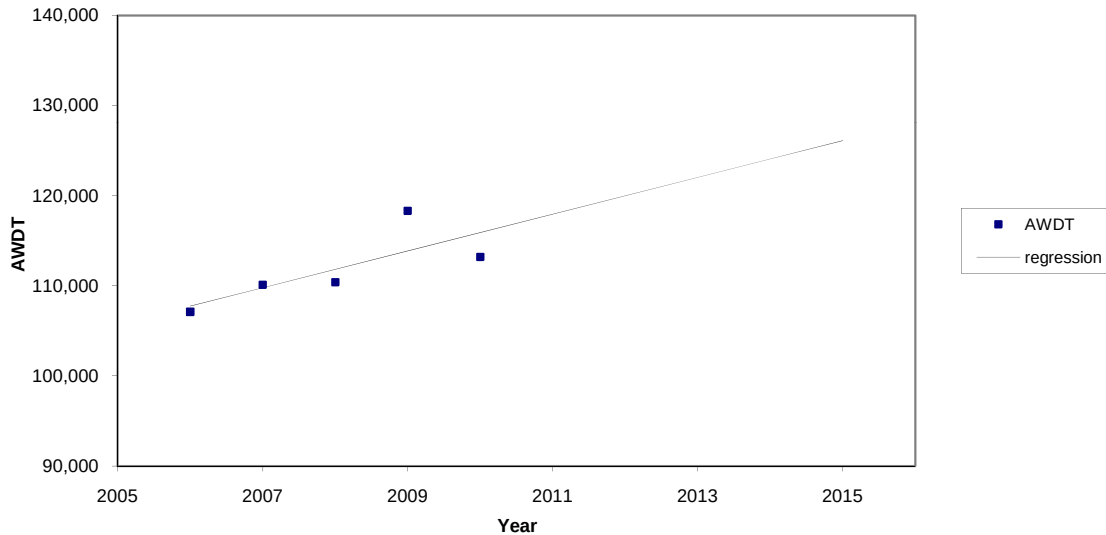
2006	107,740
2007	109,780
2008	111,820
2009	113,860
2010	115,900
2011	117,940
2012	119,980
2013	122,020
2014	124,060
2015	126,100

Regression Output	
R Square	0.58
Standard Error	3.14E+03
Observations	5
Intercept	-3,984,500
Std Err of Intercept	2.E+06
Coefficient	2,040
Std Err of Coefficient	992

Regression Equation
 AWDT = 2,040 x Year - 3,984,500 Coefficient Growth Rate 1.80%

Estimated Annual Growth Rate
 $[(126,100-113,200)/113,200] \times 100\% = 11.40\%$
 $11.40\%/5 = 2.28\%$

Estimated Traffic - I-25 North of Gibson



UNM South Gibson Commercial District Growth Rate Determination

AWDT on I-25
(South of Gibson)

Year	AWDT
2006	87,600
2007	89,900
2008	90,500
2009	95,600
2010	94,700

$$\text{Linear Growth Rate} = \{[(94,700-87,600)/4]/94,700\} \times 100 = 1.87\%$$

Projected AWDT

2006	87,680
2007	89,670
2008	91,660
2009	93,650
2010	95,640
2011	97,630
2012	99,620
2013	101,610
2014	103,600
2015	105,590

Regression Output	
R Square	0.867
Standard Error	1.42E+03
Observations	5
Intercept	-3,904,260
Std Err of Intercept	9.05E+05
Coefficient	1,990
Std Err of Coefficient	451

Regression Equation

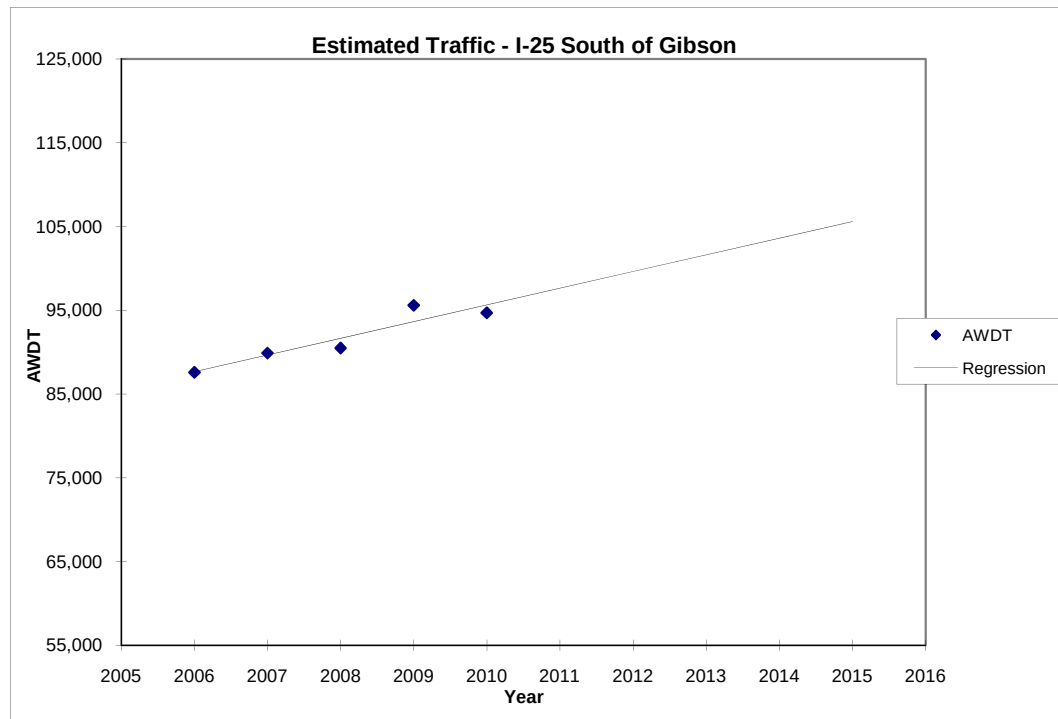
$$\text{AWDT} = 1,990 \times \text{Year} - 3,904,260$$

Coefficient Growth Rate 2.10%

Estimated Annual Growth Rate

$$((105,590-94,700))/94,700 \times 100\% = 11.50\%$$

$$11.50\%/5 = 2.30\%$$



UNM South Gibson Commercial District Growth Rate Determination

AWDT on Gibson
(East of I-25)

Year	AWDT
2006	28,800
2007	28,500
2008	28,100
2009	28,400
2010	28,600

$$\text{Linear Growth Rate} = \{[(28,600-28,800)/4]/28,600\} \times 100 = -0.17\%$$

Projected AWDT

2006	28,580
2007	28,530
2008	28,480
2009	28,430
2010	28,380
2011	28,330
2012	28,280
2013	28,230
2014	28,180
2015	28,130

Regression Output	
R Square	0.09
Standard Error	2.85E+02
Observations	5
Intercept	128,880
Std Err of Intercept	180,720
Coefficient	-50
Std Err of Coefficient	9.00E+01

Regression Equation

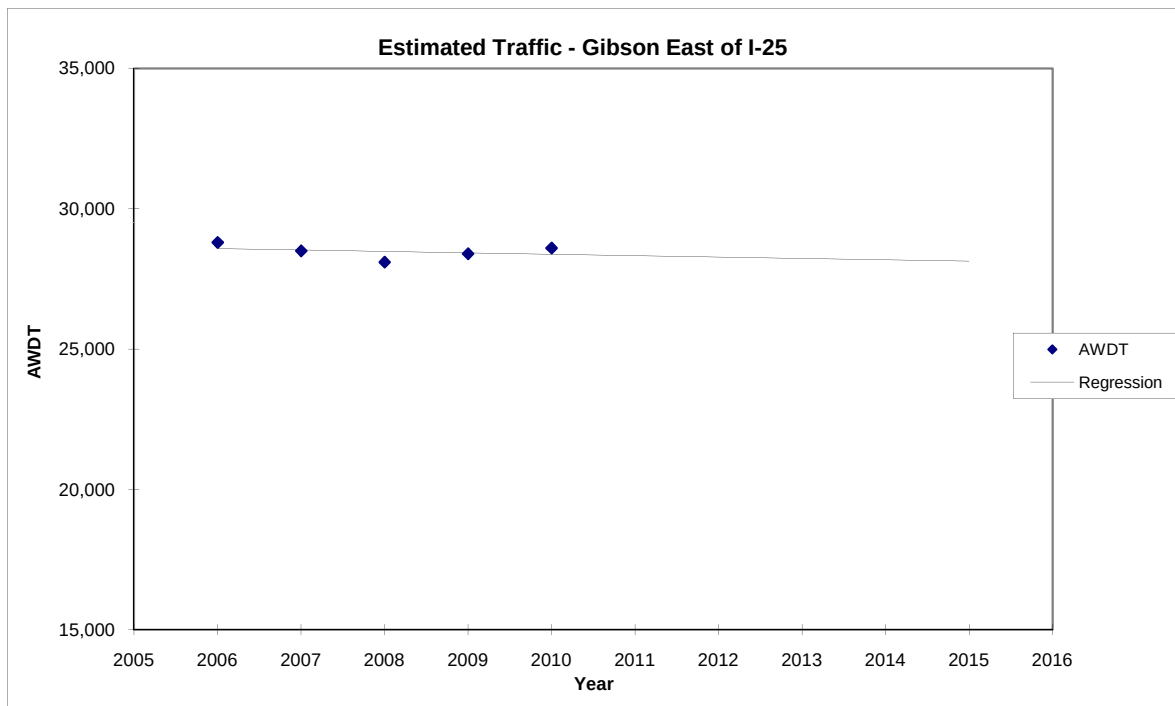
$$\text{AWDT} = -50 \times \text{Year} + 128,880$$

Coefficient Growth Rate -0.17%

Estimated Annual Growth Rate

$$[(28,130-28,600)/28,600] \times 100\% = -1.64\%$$

$$-1.64\%/5 = -0.33\%$$



UNM South Gibson Commercial District Growth Rate Determination

AWDT on Gibson
(West of I-25)

Year	AWDT
2006	16,600
2007	16,400
2008	16,400
2009	17,100
2010	15,300

$$\text{Linear Growth Rate} = \{[(15,300-16,600)/4]/15,300\} \times 100 = -2.12\%$$

Projected AWDT	
2006	16,740
2007	16,550
2008	16,360
2009	16,170
2010	15,980
2011	15,790
2012	15,600
2013	15,410
2014	15,220
2015	15,030

Regression Output	
R Square	0.208
Standard Error	6.76E+02
Observations	5
Intercept	397,880
Std Err of Intercept	429,261
Coefficient	-190
Std Err of Coefficient	2.14E+02

Regression Equation

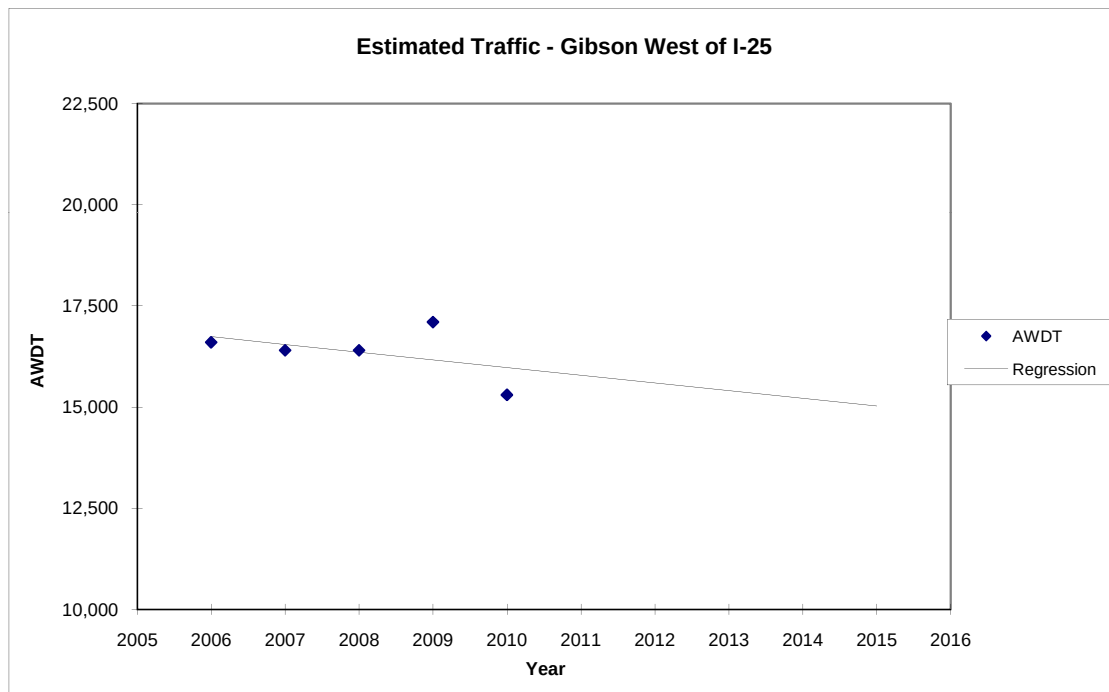
$$\text{AWDT} = -190 \times \text{Year} + 397,880$$

Coefficient Growth Rate -1.24%

Estimated Annual Growth Rate

$$[(15,030-15,300)/15,300] \times 100\% = -1.76\%$$

$$-1.76\%/5 = -0.35\%$$



UNM South Gibson Commercial District Growth Rate Determination

AWDT on University
(North of Gibson)

Year	AWDT
2006	7,600
2007	7,500
2008	6,900
2009	6,800
2010	6,700

$$\text{Linear Growth Rate} = \{[(6,700-7,600)/4]/6,700\} \times 100 = -3.36\%$$

Projected AWDT

2006	7,600
2007	7,350
2008	7,100
2009	6,850
2010	6,600
2011	6,350
2012	6,100
2013	5,850
2014	5,600
2015	5,350

Regression Output	
R Square	0.893
Standard Error	158
Observations	5
Intercept	509,100
Std Err of Intercept	100,400
Coefficient	-250
Std Err of Coefficient	50

Regression Equation
AWDT = -250 x Year + 509,100

Coefficient Growth Rate -3.73%

Estimated Annual Growth Rate

$$\begin{aligned} [(5,350-6,700)/6,700] \times 100\% &= -20.15\% \\ -20.15\%/5 &= -4.03\% \end{aligned}$$

