



LSC TRANSPORTATION CONSULTANTS, INC.  
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## Apostolic Christian Church Expansion Traffic Memorandum (LSC #184930) October 26, 2018

### Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.

The report provided a conclusion of no "No change to the site access is proposed" without providing analysis of the project related impacts.

Provide the following analysis/narrative:

1. Project related impact to the adjacent road. The Sunday PkHr is more than doubled. What is the PkHr LOS? Is there an increase in delay for through traffic on Old Ranch Road? If not within acceptable standards provide recommendation.
2. Are there potential project-related impact on the adjacent residential neighbors such as speeding or volume concern? If so, provide recommendation.

### Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

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\_\_\_\_\_  
Date

Add PCD Project  
No. PPR1921



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October 26, 2018

David Weesner  
David Weesner & Associates  
2236 East Pikes Peak Avenue  
Colorado Springs, CO 80909

RE: Apostolic Christian Church Expansion  
El Paso County, CO  
Transportation Memorandum  
LSC #184930

Dear Mr. Weesner,

LSC Transportation Consultants, Inc. has prepared this transportation memorandum for the proposed expansion of the Apostolic Christian Church to accompany a submittal to El Paso County. The site is located at 1275 Old Ranch Road in El Paso County, Colorado. Located approximately 1,600 feet west of the intersection of Voyager Parkway/Old Ranch Road, the site's El Paso County parcel number is 6229005008.

This report presents details of the existing church land use and the plans for expansion. The report also contains the estimated vehicle-trip generation of the existing church and the projected increase in vehicle-trips resulting from the planned expansion.

#### **EXISTING LAND USE, EXPANSION PLANS, AND SITE ACCESS**

The church property is 2.66 acres. The existing church is 4,026 square feet, and the proposed expansion would add 5,500 square feet. Post-expansion, the total building square footage would be 9,526 feet.

Currently, the church has 125 seats, but the plans indicate this number will increase to 220 total seats with the expansion.

Old Ranch Road is a paved, two-lane El Paso County Local road west of Voyager Parkway. The posted speed limit on Old Ranch Road west of Voyager is 30 mph. Sight distance in both directions at the existing access point meets the 400-foot sight distance requirement of for a 30-mile-per-hour speed on Old Ranch Road. No change to the existing access to Old Ranch Road is proposed. The site plan is attached.

## **TRIP GENERATION ESTIMATE**

Estimates of the vehicle-trips projected to be generated by the planned expansion of the existing church, as well as the change in trip generation relative to the existing church, have been made using the nationally published average trip generation rates from *Trip Generation, 10<sup>th</sup> Edition, 2017* by the Institute of Transportation Engineers (ITE). Table 1 and Table 2 (attached) show a comparison of existing (based on ITE trip generation rates) and projected trip generation estimates based on the proposed church expansion from 125 seats to 220 seats (and expansion of the building from 4,026 square feet to 9,526 square feet).

### **Average Weekday and Weekday Peak Hours**

Based on the ITE estimate for the proposed renovation, the new church trip generation would be about 66 vehicle-trips on the average weekday, compared to approximately 28 currently (estimates based on ITE rates). During the weekday morning peak hour, approximately 1 vehicle enters and 1 vehicle currently exits the site, while 2 vehicles would enter and 1 vehicle would exit after renovation. During the weekday evening peak hour, approximately 1 vehicle currently enters and 1 vehicle currently exits the site (estimates based on ITE rates). Approximately 2 vehicles are projected to enter and 3 vehicles are projected to exit the site during the weekday evening peak hour after expansion is complete.

### **Average Sunday and Sunday Peak Hour**

After renovations are complete, the 220-seat church is projected to generate about 263 vehicle-trips on the average weekday, which is 152 more than the existing 111 vehicle-trips the 125-seat church currently generates (estimates based on ITE rates). Currently, approximately 19 vehicles enter and 21 vehicles exit the site during the Sunday peak hour of the generator (estimates based on ITE rates). Approximately 46 vehicles are projected to enter and 49 vehicles are projected to exit the site during the Sunday morning peak hour of the generator after 95 new seats are added to the church.

## **SUMMARY/CONCLUSIONS**

This report presents the estimated increase in vehicle-trip generation associated with the proposed 5,500-square-foot church expansion. The projected increase would be about 152 new trips on the average Sunday (76 entering and 76 exiting during a 24-hour period). This report also contains trip generation details for weekday and peak hour time periods.

Access to the church is from Old Ranch Road, which is a paved County Local road with a speed limit of 30 mph. No change to the site access is proposed with this expansion and the access meets County sight distance criteria.

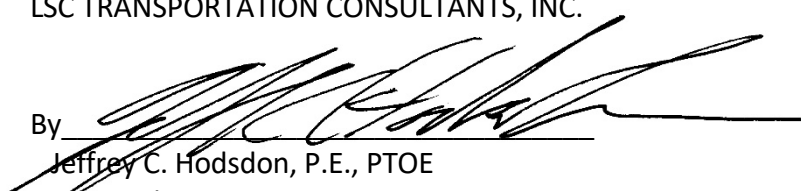
\* \* \* \* \*

Please contact me if you have any questions.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By



Jeffrey C. Hodsdon, P.E., PTOE  
Principal

JCH/JAB:bjwb

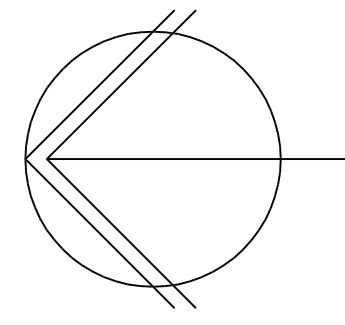
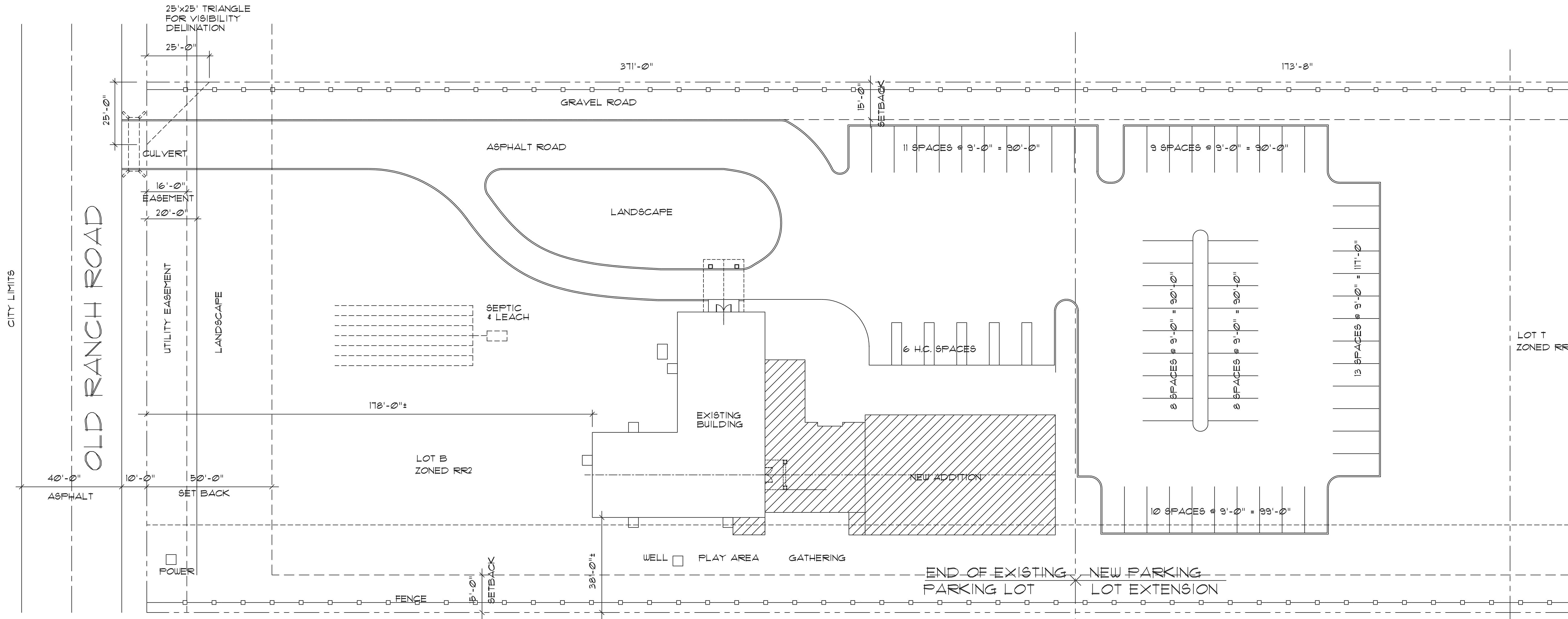
Enclosures: Table 1 and Table 2  
Site Plan

**Table 1: Trip Generation Table (Weekday)**

				Trip Generation Rates <sup>(1)</sup>					Total Trips Generated				
				Avg	A.M.		P.M.		Avg	A.M.		P.M.	
ITE	Value	Units	Weekday Traffic	In	Out	In	Out	Weekday Traffic	In	Out	In	Out	
Code													Description
<u>Existing Site</u>													
560	Church	4.026	KSF	6.95	0.20	0.13	0.22	0.27	28	1	1	1	1
<u>Proposed Renovations</u>													
560	Church	9.526	KSF	6.95	0.20	0.13	0.22	0.27	66	2	1	2	3
Change in Trip Generation									38	1	1	1	1

**Table 2: Trip Generation Table (Sunday)**

				Trip Generation Rates <sup>(1)</sup>			Total Trips Generated		
ITE		Value	Units	Avg Sunday Traffic	A.M.		Avg Sunday Traffic	A.M.	
Code	Description				In	Out		In	Out
<u>Existing Site</u>									
560	Church	4.026	KSF	27.63	4.80	5.19	111	19	21
<u>Proposed Renovations</u>									
560	Church	9.526	KSF	27.63	4.80	5.19	263	46	49
Change in Trip Generation							152	26	29



NORTH

# SITE PLAN

SCALE: 1" = 20'

JOB NO: 1717  
DATE: 10-16-17  
REV: 4-30-18

DRWN: DNW

APOLSTOLIC CHRISTIAN CHURCH

DAVID WEESNER ASSOCIATES  
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DRAWING

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SHEET OF