



April 2, 2018

Cameron MacDonald, PE
Cardon Hiatt Bowden
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Expires 12-31-2018

Subject: Trip Generation Statement - RV Storage - Mesa, Arizona

Dear Mr. MacDonald:

Y2K Engineering, LLC. {Y2K} has been retained to prepare a trip generation statement for the proposed RV Storage development located in the southwest corner of Ellsworth Road and Glencove Avenue in Mesa, Arizona.

EXISTING CONDITIONS

SURROUNDING LAND USE

The proposed site for the RV Storage development is located just north of an existing CVS Pharmacy store. To the north of the site are single family homes, and the area to the west of the site is vacant.

ROADWAY NETWORK

Two driveways are proposed on Glencove Avenue, which is a Maricopa County street. An aerial of the surrounding roadway network is depicted in **Figure 1**.

Glencove Avenue is a two-lane local street, which travels approximately ¼ mile west of Ellsworth Road before ending near the Spook Hill Mountain Preserve. Only the north half-street of Glencove Avenue is currently constructed. The proposed development is being requested to complete the street improvements to its full cross-section.

Ellsworth Road is a major arterial divided by a raised median with two lanes and a bike lane in each direction. The posted speed limit in the vicinity of the site is 45 mph. Per the City of Mesa's Traffic Volume Map, the 2016 daily traffic volume on Ellsworth Road, north of Brown Road, is 7,100 vehicles per day (vpd).

The intersection of **Ellsworth Road and Glencove Avenue** is three legged and controlled by a stop sign with Glencove Avenue stopping for Ellsworth Road. The eastbound left-turn movement from Glencove Avenue onto Ellsworth Road is restricted by a raised median. A northbound left-turn movement from Ellsworth Road to Glencove Avenue is provided. The southbound approach consists of a through lane, shared through/right-turn lane and a bike lane.





Figure 1: Aerial of Existing Roadway Network

PROPOSED DEVELOPMENT

SITE LOCATION, LAND USE, AND ACCESS

The proposed RV Storage development will be located just north of an existing CVS Pharmacy store in the northwest corner of Ellsworth Road and Glencove Avenue in Mesa, Arizona. Two gated driveways are proposed: an entry only on Glencove Avenue and a right-in, right-out on Ellsworth Road. Per the site plan, the driveways are designed per the City of Mesa's detail M-42.

The RV Storage will consist of 25 indoor RV storage units. An employee will not be on site. The site plan is attached to this trip generation statement and depicted in **Figure 2**.

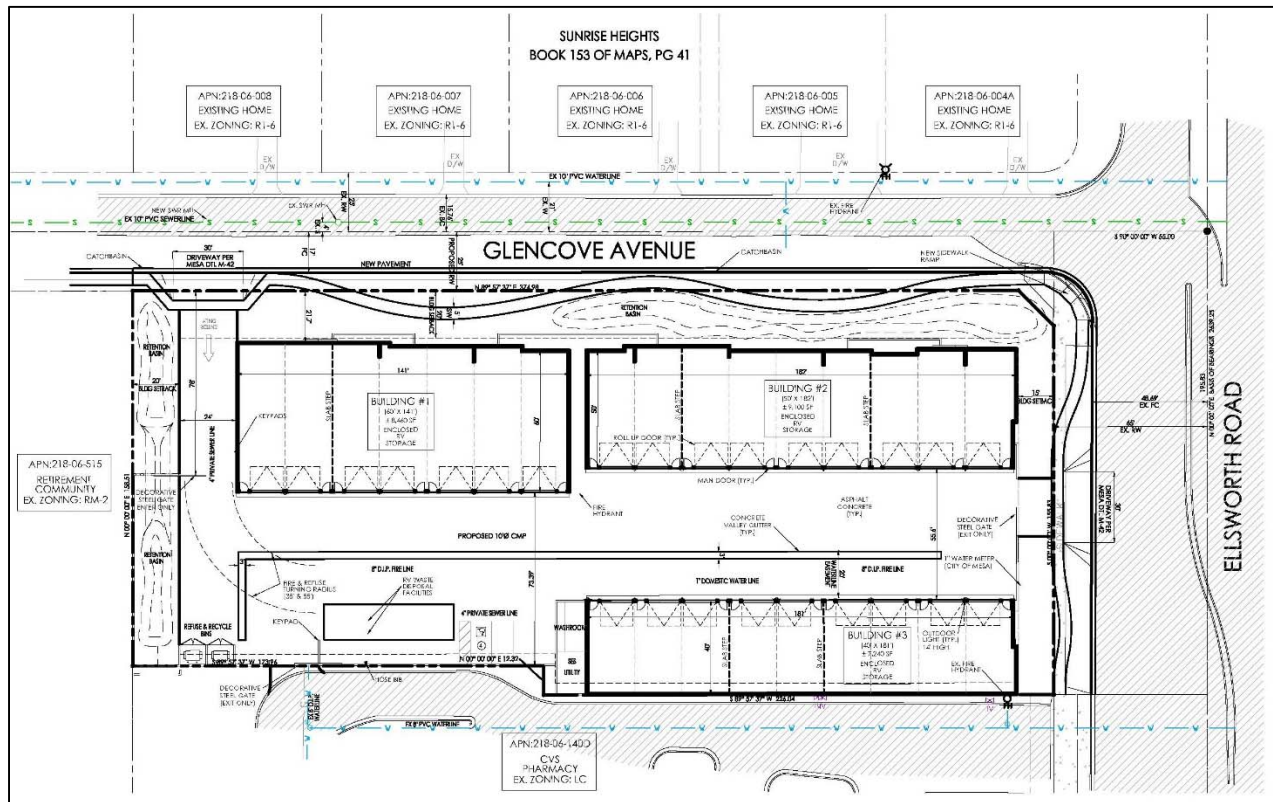


Figure 2: Site Plan

TRIP GENERATION

The trip generation for the project was estimated utilizing the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition. ITE's Trip Generation Manual, 10th Edition contains data collected by various transportation professionals for a wide range of different land uses. The data summarized in the manual include average rates and equations that have been established correlating the relationship between an independent variable that describes the development size and generated trips for each categorized land use. The manual provides information for daily and peak hour trips. Land Use Category (LUC) 151, mini-warehouse, best fits the proposed development. Per the manual, a mini-warehouse is a building in which a number of storage units or vaults are rented for the storage of goods. They are typically referred to as "self-storage" facilities. Specific data for vehicle/RV storage is not include in the manual and trips for RV storage can be expected to be less than typical self-storage facilities. Typical self-storage units generate more trips than just RV storage, since the units may be frequented more often due to business and supply uses.

The weekday generated trips for the proposed RV Storage development are summarized in **Table 1**. The peak hour projections are based on the peak hour of the land use and not necessarily the adjacent street. The ITE average rates were utilized to calculate the trip generation based on the number of storage units. Per the ITE manual, the average daily rate is 17.96 trips per 100 units. The AM and PM peak hour of



generator average rates are 2.31 trips per 100 units and 2.40 trips per 100 units respectively. Because the proposed RV storage development will not have an employee on site, the daily trips were decreased by two trips per day (one entering/one exiting).

Table 1: Trip Generation – Weekday

DESCRIPTION OF LAND USE			GENERATED WEEKDAY TRIPS						
			Daily	AM Peak Hour of Generator			PM Peak Hour of Generator		
Land Use	ITE LUC	SIZE	Total	Enter	Exit	Total	Enter	Exit	Total
Mini-Warehouse	151	25 Units	2	1	0	1	0	1	1

Source: ITE's Trip Generation Manual, 10th Edition

As summarized in **Table 1**, the proposed RV Storage development is anticipated to generate minimal trips with two weekday trips (one entering and one exiting). One trip is anticipated during both the AM peak hour of generator and the PM peak hour of generator.

CONCLUSIONS

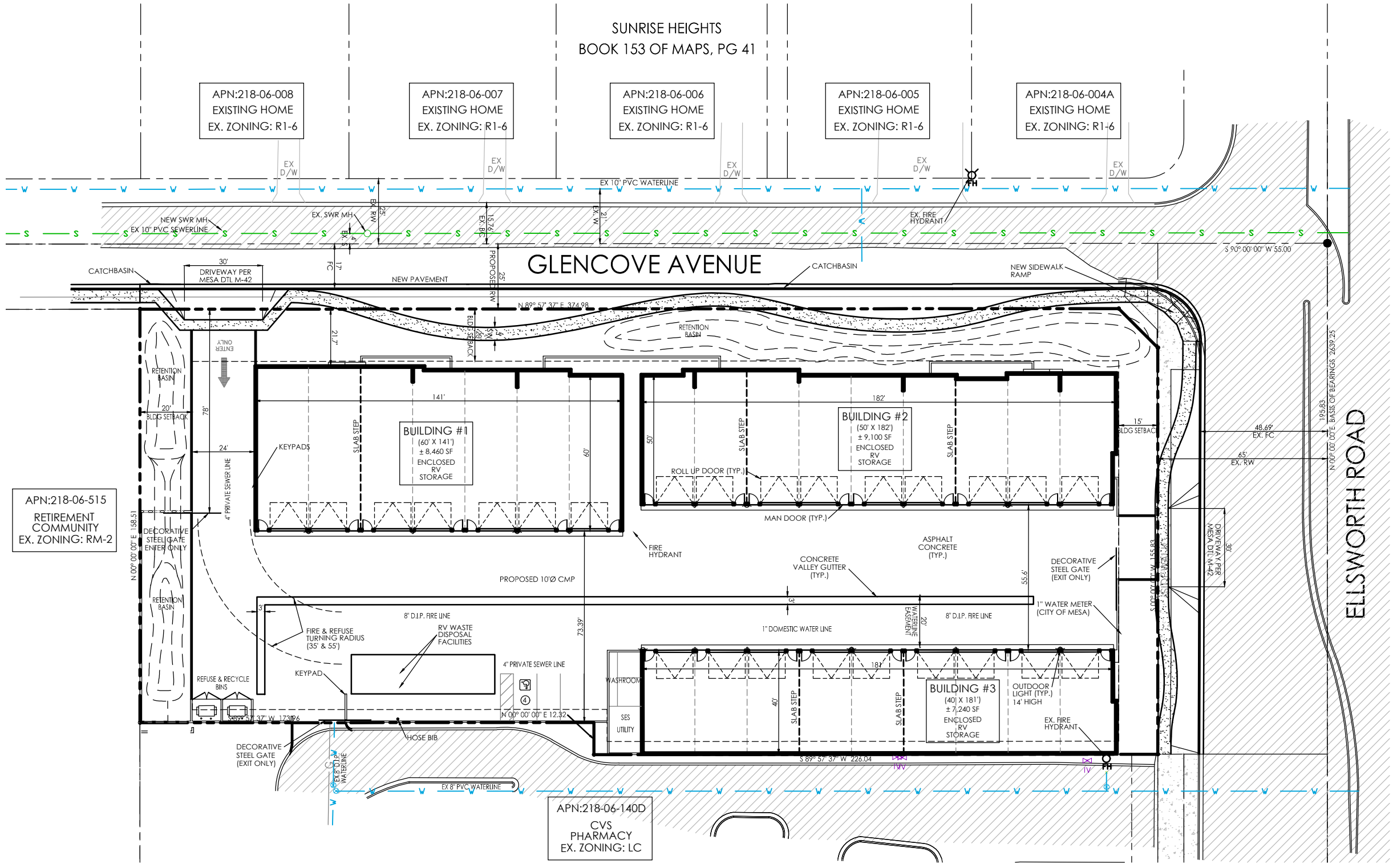
The proposed RV Storage development is anticipated to generate minimal trips with two weekday trips (one entering and one exiting). One trip is anticipated during both the AM peak hour of generator and the PM peak hour of generator. The proposed RV Storage development will have minimal impact to the surrounding streets. With the proposed improvements completing the street cross-section, Glencove Avenue will be adequate for the proposed RV storage access.

Sincerely,
Y2K Engineering, LLC.

Kelly S. Fletcher
Transportation Engineer



ATTACHMENT A:
SITE PLAN



VICINITY MAP
N.T.S.

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF MARICOPA, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

THE SOUTH 495 FEET OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 9, TOWNSHIP 1 NORTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THE WEST 620 FEET THEREOF; AND EXCEPT ANY PORTION LYING WITHIN THE SOUTH 15 FEET OF THE WEST 150 FEET OF THE NORTH 455 FEET OF THE SOUTH 495 FEET OF THE WEST 150 FEET OF THE EAST 205 FEET OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 9, AS CONDEMNED IN DOCUMENT NO. 2001-1080374; AND EXCEPT THAT PORTION CONVEYED IN DOCUMENT NO. 2003-0653765, DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 9; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 9, A DISTANCE OF 299.15 FEET; THENCE SOUTH 90 DEGREES 00 MINUTES 00 SECONDS WEST DEPARTING SAID EAST LINE A DISTANCE OF 65.00 FEET TO A POINT ON A LINE WHICH IS PARALLEL WITH AND 65.00 FEET WESTERLY OF, AS MEASURED AT RIGHT ANGLES, FROM THE EAST LINE OF SAID SOUTHEAST QUARTER, SAID POINT BEING THE POINT OF BEGINNING; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, ALONG SAID PARALLEL LINE, A DISTANCE OF 244.17 FEET TO A POINT ON A LINE WHICH IS PARALLEL WITH AND 55.00 FEET NORTHERLY OF, AS MEASURED AT RIGHT ANGLES, FROM THE SOUTH LINE OF SAID SOUTHEAST QUARTER; THENCE SOUTH 89 DEGREES 59 MINUTES 12 SECONDS WEST, ALONG SAID PARALLEL LINE, A DISTANCE OF 140.00 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST A DISTANCE OF 15.00 FEET TO A POINT ON A LINE WHICH IS PARALLEL WITH AND 40.00 FEET NORTHERLY OF, AS MEASURED AT RIGHT ANGLES, FROM THE SOUTH LINE OF SAID SOUTHEAST QUARTER; THENCE SOUTH 89 DEGREES 59 MINUTES 12 SECONDS WEST, ALONG SAID PARALLEL LINE, A DISTANCE OF 250.00 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, A DISTANCE OF 271.48 FEET; THENCE NORTH 89 DEGREES 59 MINUTES 12 SECONDS EAST, A DISTANCE OF 173.94 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, A DISTANCE OF 12.32 FEET; THENCE NORTH 89 DEGREES 59 MINUTES 12 SECONDS EAST, A DISTANCE OF 216.04 FEET TO THE POINT OF BEGINNING; AND EXCEPT ANY PORTION LYING WEST OF THE WEST LINE OF THE EAST 455 FEET THE SOUTH 495 FEET OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 9, AS CONVEYED IN DOCUMENT NO. 2016-0775073.

SITE AND BUILDING DATA

PROJECT ADDRESS: XXXX ELLSWORTH AVE, MESA, ARIZONA
APN: 218-06-140E
TOTAL GROSS AREA: 78,634 square feet
TOTAL NET AREA: 64,368 square feet
CURRENT ZONING: LC
PROPOSED ZONING: LC
FRONT SETBACK: 20 FEET
REAR SETBACK: 5 FEET
SIDE SETBACK: (EAST - 15 FEET, WEST 20 FEET)
LOT COVERAGE: 38.5%

BUILDING HEIGHT: 30 FEET (MAX)
USE: MINI STORAGE
TYPE OF CONSTRUCTION: METAL
BUILDING AREA: ±24,800 SF
TOTAL PARKING STALLS: 4 ADA PARKING STALLS:1
OCCUPANCY CLASSIFICATION: GROUP S
OCCUPANCY LOAD: 200 GROSS (PARKING GARAGE)
USE: SELF STORAGE

OWNER

LAVIGNA INVESTMENT CORPORATION
1223 S. CLEARVIEW AVE #103
MESA, ARIZONA 85209
PH: 480.222.5800

ARCHITECT

SKETCH ARCHITECTURE COMPANY
2454 EAST SOUTHERN AVENUE, SUITE 110
MESA, ARIZONA 85204
PH: 480.668.8015

REVISIONS:	
REV 1:	CITY STAFF COMMENTS

VINEYARD GROUP

1223 S. Clearview Ave.
Mesa, Arizona 85209
Phone: 480.720.4030

PROJECT NO.
2017-08

SHEET NO.
1 of 2

EXP DATE: 06/30/2019