Requesting Department:

Development Services

TO: **HONORABLE MAYOR AND TOWN COUNCIL**

THROUGH: **JOHN KROSS, ICMA-CM**
TOWN MANAGER

FROM: **CHRIS ANARADIAN, DEVELOPMENT SERVICES DIRECTOR; BRETT BURNINGHAM, PRINCIPAL PLANNER**

RE: **INTRODUCTION AND PUBLIC HEARING ON MAJOR GENERAL PLAN AMENDMENT GP13-025,** a request by Lindsay Schube on behalf of VIP Homes to amend the General Plan Land Use Map for 140.76 acres at the southeast corner of Hawes and Germann Roads from Employment Type A to Very Low Density Residential (up to 1 dwellings per acre).

DATE: **DECEMBER 18, 2013**

PLANNING & ZONING COMMISSION RECOMMENDATION

The Planning and Zoning Commission recommended the request be approved as presented.

STAFF RECOMMENDATION

Staff concurs with the recommendation of the Planning and Zoning Commission.

PROPOSED MOTION

The applicant has submitted a letter (attached) requesting this case be scheduled for final action before the Town Council on Wednesday, January 15, 2014. The case is currently scheduled for action on February 5, 2014.

Proposed motion:

Move to schedule General Plan Amendment GP13-025 for public hearing, consideration and possible approval on *January 15, 2014* **or** *February 5, 2014.*

RELEVANT GENERAL PLAN AND COUNCIL GOALS

General Plan Land Use Element Goals and Policies:

- **Goal 1: Maintain the Town's unique community character**
  - Policy 1a: Protect and promote the Town's history, location, amenities and development potential to develop a unique, attractive, desirable and economically sustainable community.
  - Policy 1b: Maintain and strengthen the ambiance and character of the Town's equestrian and low-density areas as development occurs in their surrounding areas.
  - Policy 1f: Ensure that new public and private projects reflect the Town's historic character in their design and appearance.

- **Goal 2: Effectively manage the Town's growth**
  - Policy 2: Coordinate the Town's efforts with the private sector to provide the additional infrastructure when and where needed to accommodate new development.

- **Goal 3: Develop superior neighborhoods**
  - Policy 3a: Recognize and maintain the unique character of the Town's low density equestrian areas in the density, design and construction of both the public and private projects planned in areas where these neighborhoods exist.
  - Policy 3b: Provide a diversity of housing opportunities within the Town ranging from lower density residential areas in the desert foothills and equestrian neighborhoods to higher density housing in master planned communities in the Town Center and near future shopping and employment areas.
  - Policy 3d: Ensure compatibility between new projects and existing neighborhoods by providing appropriate transitional treatments when:
    a. New residential subdivisions are adjacent to existing residential areas; and
    b. New development contains lots adjacent to an open space, a non-residential land use or an arterial street.

SUMMARY

When the prior General Plan was adopted in 2002 the property was designated for Employment use, given the proximity of the site to the Union Pacific Railroad and the possibility of the construction of a rail spur to serve the property.

In 2005 the Town Council approved the La Jara Farms subdivision plat permitting the property to be subdivided into 96 one-acre lots. Rezoning was not required to approve the subdivision in the property had existing R1-43, single family residential zoning.

When the current General Plan was adopted in 2008 this subdivision had been "dormant" for a number of years, and the Employment designation was retained indicating the Town was still interested in the possibility of development of employment uses on the property.

Since then, however, the subdivision has been developed for residential use and the applicant is requesting the Employment Designation be replaced with a residential designation reflecting the current use of the property.

HISTORY

September 7, 2005:	Town Council approves the La Jara Farms residential subdivision plat in the R1-43 zoning district.
February 2, 2007:	Council approves an amendment to the La Jara Farms subdivision plat
March 28, 2008:	La Jara Farms subdivision plat recorded.
September 2, 2008:	Current General Plan was adopted.
August 28, 2013:	Staff conducted an Open House to receive public comments on the proposed Major General Plan amendments for 2013.
September 10, 2013:	The applicant conducted a neighborhood meeting to discuss both this General Plan amendment and rezoning request that will follow it, if the amendment is approved.
September 25, 2013:	Staff conducted a second Open House to receive public comments on the proposed Major General Plan amendments for 2013.
October 15, 2013	Planning and Zoning Commission conducts the first Public Hearing on the 2013 proposed Major General Plan amendments.
December 5, 2013	Planning and Zoning Commission conducts the second Public Hearing on the 2013 proposed Major General Plan and voted 6-0 to recommend the request be approved.

PUBLIC OUTREACH

Planning staff conducted community wide Open Houses on August 28th and September 25th to present the request to the public. Survey forms were distributed at each meeting to solicit comments from those present.

Information on the request has also been posted on the Town of Queen Creek website. Public hearing signs were posted on the property, letters were sent to property owners within 1,200' of the site, an insert was placed in the Town's November 2013 Utility Bill, and a public hearing notice was advertised in the Gilbert Edition of the Arizona Republic. A summary of the comments received to date is attached.

On October 15, 2013 the Planning and Zoning Commission conducted the first Public Hearing for the Major General Plan amendments proposed for 2013, which included this case. On December 5, 2013 the Planning Commission conducted a second Public Hearing, the minutes of which are also attached.

In addition to the Town's outreach efforts, the applicant also conducted a neighborhood meeting on September 10, 2013. Copies of the results are attached.

DISCUSSION

The La Jara Farms subdivision was recorded in two phases. Phase One is currently under construction with 49 lots. Phase Two has been approved for an additional 47 lots under the current subdivision plat. The applicant has filed an additional request, however, for the 75 acres in Phase Two be rezoned to R1-18 in order to allow that portion of the property to be resubdivided for 83 lots containing 18,000+ square feet. Phase Two would also include the permanent location for the Heritage Academy (a charter elementary/high school), which is currently temporarily located on property included in Phase One.

The currently approved La Jara Farms subdivision plat with 90 lots on 141 acres has an overall density of .64 dwellings per acre, well under the up to 1 dwelling per acre that would be allowed in the Very Low Density Residential land use designation. With the additional lots proposed by the rezoning of Phase Two for a total of 132 lots, the overall density would rise to .93 dwellings per acre, which is still consistent with the proposed land use classification.

This request has been reviewed by the Phoenix-Mesa Gateway Airport Authority and a letter has been submitted indicating this property is located within the AOZ III Land Use overflight designation. The housing is permitted within the AOZ III, subject to public disclosure and noise attenuation requirements.

ANALYSIS

The site is bounded on the east by the Ellsworth Suburban Mini-Farms, on the west by the Union Pacific Railroad and undeveloped properties. The property north of the site is located in the City of Mesa and designated for future employment use, but is currently undeveloped; while on the south the property is adjacent to the Fulton Homes at Queen Creek Station project and the Union Pacific Railroad.

A summary of the surrounding area is provided below.

Surrounding Zoning and Land Uses	
North:	City of Mesa – Light Industrial, business parks and vacant property, zoned LI (Light Industrial)
South:	Medium-Density Residential (up to 3 du/ac), zoned R1-43 in Maricopa County.
East:	Very Low Density Residential (0-1 DU/AC) – Ellsworth Suburban Mini-farms, zoned R1-43
West:	Employment Type A, currently vacant, and zoned R1-43.

Staff has reviewed the traffic, drainage, utility and economic impact studies submitted by the applicant and have concluded that:

- The Town's water and wastewater systems will be adequate to accommodate the anticipated demand from the proposed project, once the appropriate line extensions are completed.

- Germann Road and the proposed Fulton Parkway can accommodate the proposed traffic, once construction of the roads is complete.

- The economic impact study submitted by the applicant states the current La Jara Farms subdivision will require approximately $8,200 per year in services more than the direct revenues that will be generated by the project. Including sales taxes paid by the future residents, however, the project is expected to create annual revenues to the Town of $43,000. The project would also generate $1.3 million in development impact fees as a result of the new residential development.

GENERAL PLAN AMENDMENT FINDING OF FACT

General Plan Amendment Finding of Fact Analysis:

By State law and the Town's zoning requirements, an applicant is required to demonstrate a "finding of fact" that their proposed project meets certain "tests" to be considered for approval. Nine factors, or findings of fact, established in the Zoning Ordinance, are to be used in evaluating a General Plan amendment request.

Of these nine criteria, the applicant for a General Plan amendment is asked to provide a written response to the first four. The applicant's proposed findings of fact are contained in the project narrative and shown below, along with the staff's comments on each item.

1. **Whether the development pattern contained in the future land use plan provides appropriate optional sites for the uses proposed in the amendment.**

   Applicant Response - The development pattern previously set forth by Fulton Homes last year along with the existing underlying zoning/development in the area created a unique situation requiring a readjustment to the land use designation on this property in order to better align, transition, and buffer the surrounding parcels/development. The proposed Amendment will also support the existing the Town's General Plan, as discussed previously.

   Staff Comment – Staff agrees with the applicant.

2. **That the amendment constitutes an overall improvement to the Town of Queen Creek General Plan and not solely for the good or benefit of a particular landowner or owners at a particular point in time.**

   Applicant Response - The proposed Amendment constitutes an overall improvement to the Queen Creek General Plan as it will rectify an existing land use designation that is no longer viable or appropriate at this location which is certainly beneficial to the Town as a whole.

   Staff comment – With the approval of the La Jara Farms subdivision in 2005, and the subsequent development of the subdivision for residential lots, staff agrees that the existing land use designation should be modified to accurately reflect those areas that are still appropriate for future Employment oriented uses.

3. **The degree to which the amendment will impact the community as a whole or a portion of the community by:**

   a. **Significantly altering acceptable existing land use patterns.**

      Applicant Response - The proposed Amendment will not adversely impact the community. The proposed change maintains the existing land use patterns in the area while strategically maintaining the employment land use designation at a major intersection.

      Staff Comment – Staff agrees with the applicant.

   b. **Requiring larger and more expensive improvements to roads, sewer, or water systems that are needed to support the prevailing land uses in which, therefore, may negatively impact development of other lands. The Commission and/or Town Council may also consider the degree to which the need for such improvements will be mitigated pursuant to binding commitments by the applicant, public agency, or other sources when the impacts of the uses permitted pursuant to the General Plan Amendment will be felt.**

Applicant Response - The proposed Amendment will not have an adverse impact on the Town's infrastructure. Furthermore, it will provide for the extension and ultimate improvement to the infrastructure in the area as this project develops. The end result is the Town can dramatically improve services while increasing its tax revenues.

Staff Comment – Staff agrees with the applicant.

c. Adversely impacting existing uses due to increased traffic on existing systems.

Applicant Response - The proposed Amendment will not have an adverse impact on existing uses in the area due to increased traffic on the existing system, because the recently approved Fulton Homes development proposes more intense uses and housing densities resulting in the need for significant street improvements in the area. Moreover, VIP Homes will be required to complete the half-street improvements adjacent to their property; resulting in improving those streets for their residential development as well as the area as a whole. Finally, the number of vehicles from a very low density single-family development will certainly be much less than from employment type uses currently proposed. The existing street network in the area can and will be able to handle the small increase in traffic as a result of this very low density land use development.

Staff Comment – Staff agrees with the applicant.

d. Affecting the livability of the area or the health and safety of the residents.

Applicant Response - The proposed Amendment will not adversely affect the livability of the area or affect the health or safety of the residents. In fact, the ultimate development will result in greater livability as well as long term health and safety by encouraging new services, retail, and employment opportunities.

Staff Comment – Staff agrees with the applicant.

4. That the amendment is consistent with the overall intent of the General Plan.

Applicant Response - The Amendment is consistent with the overall intent of the General Plan, its vision, goals and policies.

Staff Comment – Staff agrees with the applicant.

The remaining five criteria are evaluated by the Planning and Zoning Commission and Town Council when the application is considered:

5. **Whether there was an error in the original General Plan adopted that the Council failed to take into account then existing facts, projects or trends that were reasonably foreseeable to exist in the future.**

6. **Whether events subsequent to the General Plan adoption have invalidated the Council's original premises and finding made upon plan adoption.**

   Staff Comment – Initiation of construction on the previously approved La Jara Farms subdivision will result in this property being developed for residential use, thus changing the original premise made upon plan adoption that the area may be suitable for future employment use.

7. **Whether any or all of the Council's original premises and findings regarding the General Plan adoption were mistaken.**

8. **Whether events subsequent to the General Plan adoption have changed the character or condition of the area so as to make the application acceptable.**

9. **The extent to which the benefits of the Plan amendment outweigh any of the impacts identified in Subsections One (1) through Eight (8) hereto.**

STAFF CONCLUSION

Although the Town's General Plan has designated this property for future Employment Use for many years, the underlying zoning has remained R1-43, Single Family Residential. With the recording of the La Jara Farms residential subdivision plat in 2008 and the upcoming construction of new homes on the property, staff recommends that the land use designation be changed to accurately reflect the current use of the property.

ATTACHMENTS

1. Existing General Plan Map
2. Existing classification and proposed change
3. Applicant Narrative
4. Concept Plan
5. Fiscal Impact Analysis summary
6. Traffic Analysis summary
7. Applicant Neighborhood Meeting Minutes and public comments
8. Comments received at the Town's Open Houses and other Public Comments
9. Letter from Phoenix-Mesa Gateway Airport
10. December 6, 2013 letter from Lindsey Schube

Town of Queen Creek
2008 General Plan Map

Power Rd
Sossaman Rd
Hawes Rd
Ellsworth Rd
Crismon Rd
Signal Butte Rd
Meridian Rd
Ironwood Rd
Germann Rd
Queen Creek Rd
Ocotillo Rd
Recker Rd
Chandler Heights Rd
Riggs Rd
Hunt Highway
Combs Rd
Empire Rd
GP13-025
GP13-026
GP13-028
GP13-030
GP13-029
GP13-027

N
W
E
S

Town Center

Town Center Boundary

General Plan Land Use Legend

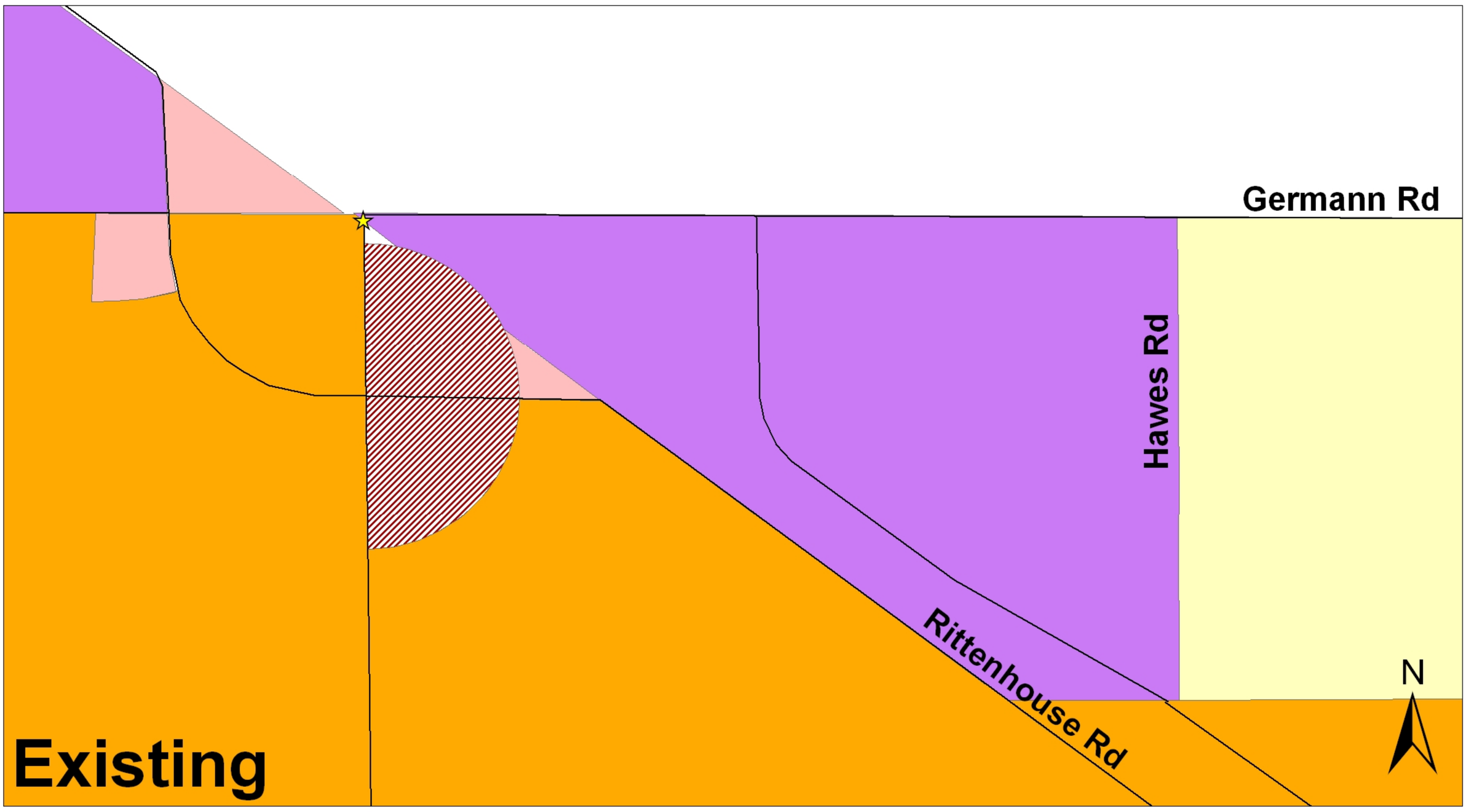
- Very Low Density Residential (0-1 DU/AC)
- Low Density Residential (0-2 DU/AC)
- Medium Density Residential (0-3 DU/AC)
- Master Planned Community (0-1.8 DU/AC)
- Medium High Density Residential Type A (0-5 DU/AC)
- Medium High Density Residential Type B (0-8 DU/AC)
- Mixed Use
- Neighborhood Commercial
- Community Commercial
- Office/Services
- Commercial
- Employment Type A
- Employment Type B
- Public/Quasi-Public
- Open Space
- Regional Commercial Center
- San Tan Regional Park
- Noise Contours
- Future Intersection Modification
- Resort / Tourism / Entertainment
- General Plan Amendments 2013

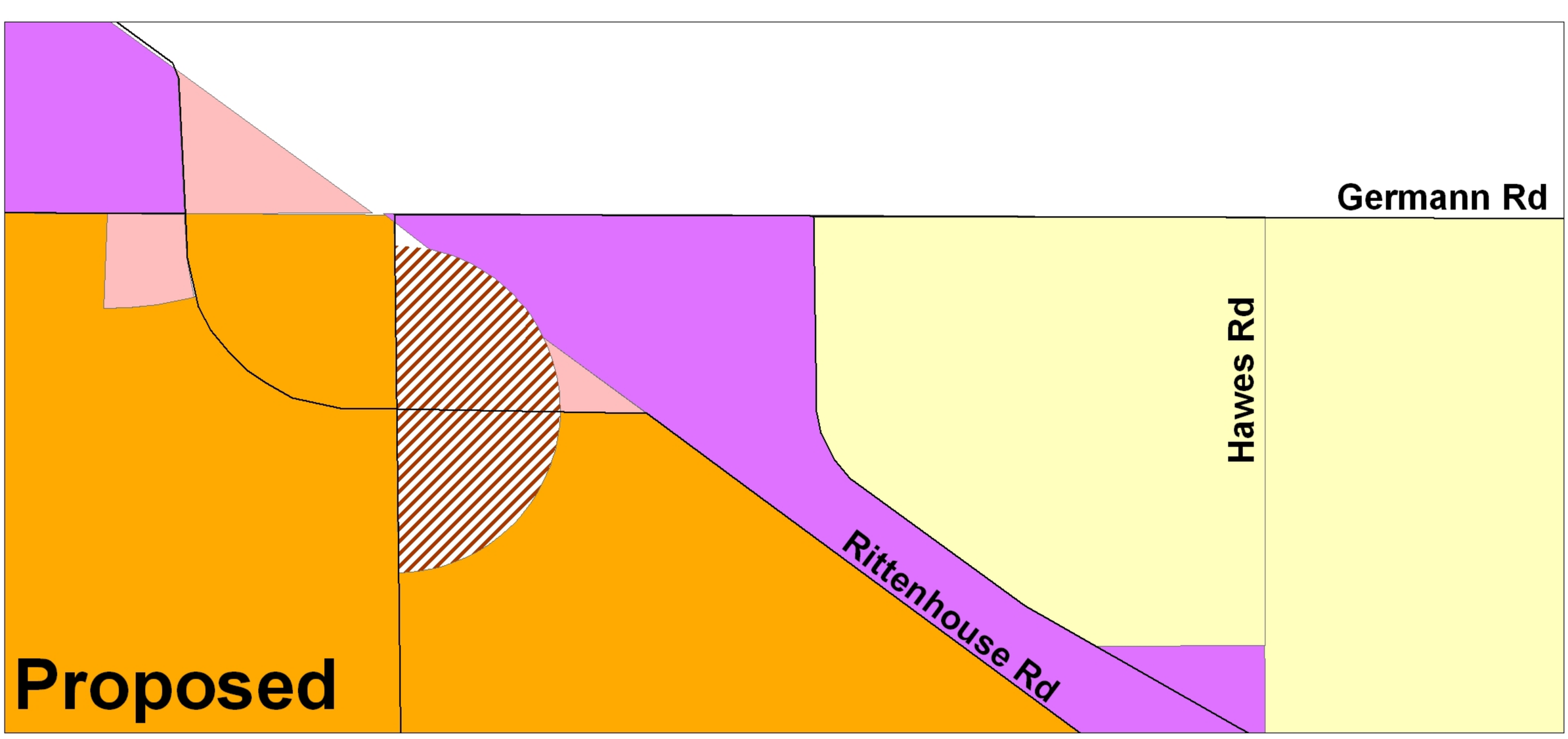
Modified by Resolutions 813-09, 814-09, 824-10, 924-12 and 934-13

All information is believed to be accurate as the date of publication, however is not guaranteed.

TOWN OF QUEEN CREEK ARIZONA

Town of Queen Creek
2013 General Plan Amendment
GP13-025 La Jara Farms





General Plan Land Use Legend

- Very Low Density Residential (0-1 DU/AC)
- Low Density Residential (0-2 DU/AC)
- Medium Density Residential (0-3 DU/AC)
- Master Planned Community (0-1.8 DU/AC)
- Medium High Density Residential Type A (0-5 DU/AC)
- Multifamily
- Mixed Use
- Neighborhood Commercial
- Community Commercial
- Office/Services
- Commercial
- Employment Type A
- Employment Type B
- Public/Quasi-Public
- Open Space
- Regional Commercial Center
- San Tan Regional Park
- Noise Contours
- Future Intersection Modification
- Resort / Tourism / Entertainment

Modified by Resolutions 813-09, 814-09, 824-10, 924-12 and 934-13

All information is believed to be accurate as the date of publication, however is not guaranteed.

Created by Sidney Urias 480-358-3094

TOWN OF QUEEN CREEK ARIZONA

LA JARA FARMS
MAJOR GENERAL PLAN AMENDMENT

Narrative

Southwest Corner of Germann and Hawes Roads
Queen Creek, Arizona.

Approximately 141 Gross Acres.

Applicant/Representative:

Beus Gilbert PLLC c/o Lindsay C. Schube, Esq.
701 North 44th Street
Phoenix, Arizona 85008
lschube@beusgilbert.com
480 / 429.3017 office
480 / 429.3100 fax

Prepared for:

VIP Homes
3048 East Baseline Road, Suite 102
Mesa, Arizona 85204

Prepared: June 2013

MAJOR GENERAL PLAN AMENDMENT NARRATIVE

TABLE OF CONTENTS

EXHIBITS

APPENDICES

1. REQUEST

Beus Gilbert PLLC, on behalf of VIP Homes is pleased to submit for your consideration an application for a Major General Plan Amendment for approximately 141 gross acres called La Jara Farms (the "Property"), which is currently zoned R1-43, (Rural Estate District – 1 Acre Per Dwelling Unit). The Major General Plan Amendment request is to change the existing land use designation of "Employment Type A" to a land use designation of "Very Low Density Residential (0-1 du/ac)" (the "Amendment"), and concurrently rezoning approximately 75 acres to R1-18 (Suburban Residential Type B District - 18,000 Square Feet Per Dwelling Unit). Finally, we will be amending Phase Two (2) of the original approved Final Plat to accommodate the proposed R1-18 rezoning to single-family lots (i.e., 83 lots).

AMENDMENT TO LAND USE PLAN

An amendment to the Town's General Plan Land Use Plan for approximately 141 gross acres, generally located at the southwest corner of Germann Road and Hawes Road from "Employment Type A" to "Very Low Density Residential (0-1 du/ac)" will be an improved Land Use Designation for this specific property. The subject Property is in the immediate vicinity existing homes and/or proposed residential projects. Another important element for consideration is the fact that single-family homes are already under construction in Phase 1 of the Property pursuant to the approved Final Plat.

Although the Amendment will eliminate the current land use designation of "Employment Type A," the Town will still maintain this land use designation at a key strategic area located at the southwest corner of Queen Creek Parkway and Germann Road for future employment type uses. By maintaining the land use designation of "Employment Type A" at Queen Creek Parkway and Germann Road, with excellent street frontages/access as well as the necessary infrastructure, it is more likely this location will develop for future employment types of land uses than the subject Property. Moreover, the proposed land use designation of "Very Low Density Residential (0-1 du/ac)" is a natural extension of the existing single-family developments in the area and particularly to the east. The vision for this Property is to create a viable/high quality residential development that meets many of the Towns goals and objectives, such as:

- Maintain a balanced community.
- Maintain the Town's unique community character.
- Protect and promote the Town's history, location, amenities and development potential to develop a unique, attractive, desirable and economically sustainable community.
- Maintain and strengthen the ambiance and character of the Town's equestrian and low-density areas as development occurs in their surrounding areas.
- Coordinate efforts with the private sector to provide additional infrastructure when and where needed to accommodate new/appropriate development.
- Provide a diversity of housing opportunities within the Town.
- Promote housing in master planned communities near future shopping and employment areas.

- Ensure compatibility between new projects and existing neighborhoods by providing appropriate transitional/buffer treatments when new residential subdivisions are adjacent to existing residential areas, non-residential land uses, or arterial streets (i.e., Queen Creek Parkway).

In addition, the following change to the Land Use Plan is requested in order to provide that certain existing land use designations remain compatible with the underlying zoning/development, prevailing development that is occurring in the area, market demand, and strategically realign the General Plan in this area of the Town to capture the most sustainable level of development possible.

2. DESCRIPTION OF PROPOSAL

GENERAL OVERVIEW

As stated, La Jara Farms is comprised of approximately 141 gross acres generally located at the southwest corner of Germann Road and Hawes Road (see attached "Aerial Vicinity Map" - ***Exhibit A*** *& "Legal Description" –* ***Appendix 1***). In 2012, Fulton Homes processed a Major Amendment to the Town's General Plan to correct/revise the General Plan to accurately, and more realistically, reflect both the local real estate market and the ownership of the property that had changed dramatically since Fulton Homes acquired the property. With that said, Fulton Homes brought together all seven property owners, to put forth the Major General Plan Amendment to the Town's General Plan for approximately 483 acres (i.e., the Queen Creek Station area). The result was a Major General Plan Amendment that essentially "downzoned" from one residential designation to another of lower intensity along with reallocating existing land use designations to areas that are more compatible based on changes that occurred in the Town over the last five years. Thus, VIP Homes is proposing to do the same by slightly readjusting their land use based on those changes by Fulton Homes.

This proposed Amendment will provide a land use designation that is fully compatible and complimentary with the other land uses in the area. The result of this proposed Amendment is to provide for a smooth transition between existing and new developments of varying residential intensities while building upon the uniqueness of the Town and this area while maintaining a density of less than 1 unit an acre.

TRAFFIC IMPACT STUDY

A Traffic Impact Study was completed and confirmed that the proposed Amendment will have no significant impact to the overall circulation system within in the area. In fact, the future development of this property will enhance and improve the flow of traffic and circulation. (See the attached "Traffic Impact Study" - ***Appendix 2***).

PROPOSED AMENDMENT

The proposed Amendment responds to a number of Goals and Policies within the Town's General Plan, including the following:

Land Use Element Goals & Policies

Goal 1 - Policy la
This Amendment will protect and promote the Town's development potential to develop a unique, attractive, desirable and economically sustainable residential community by providing for a land use that responds to the current vision and development landscape of the Town.

Goal 2 Policies 2b & 2e
This Amendment will help the Town coordinate its efforts with the private sector to provide the additional infrastructure, when and where needed, to accommodate new development, and develop roads adequate to accommodate the Town's existing and projected traffic needs.

Goal 3 -- Policy 3b
This Amendment will help the Town to provide a diversity of housing opportunities.

Goal 3 – Policy 3d
This Amendment will help ensure compatibility between new projects and existing neighborhoods by providing appropriate transitions/buffers. The Amendment is compatible with the surrounding existing development.

Goal 4 – Policy 4e
This Amendment will keep intact a key strategic employment area, more appropriate suited and sized, while encouraging the development of the surrounding properties and infrastructure emphasizing that employment property's key potential for development.

Growth Areas Element Goals & Policies

Goal 1—Policy la
Again, this Amendment will continue to preserve and direct new commercial, office and employment uses to the Germann/Queen Creek Road Corridor Growth Area by maintaining significant (and appropriate) development area opportunities for these uses at key intersections.

Transportation & Circulation Element Goals & Policies

Goal 4 – Policy 4c
This Amendment is consistent with the Town's goal to evaluate requested changes to the General Plan to ensure the proposed development can be adequately served by the existing or future transportation facilities.

Parks, Trails & Open Space Element Goals & Policies

Goal 1 – Policy 1h
This Amendment will allow VIP Homes to incorporate open space into their subdivision design/development via the concurrent rezoning/plat applications.

Economic Development Element Goals & Policies

An Economic and Fiscal Impact Analysis concluded that the proposed Amendment will help stabilize the Town and encourage new ancillary development; such as retail, office, and employment uses (See the attached "Economic and Fiscal Impact Analysis" - ***Appendix 3***).

Goal 1 – Policy ld
By maintaining key commercial/employment components of appropriate size at the major intersection in the area, this Amendment will help grow the retail and service base of the Town and enhance the sales tax base.

Goal 2 – Policy 2b & 2d
This Amendment continues to maintain and support new employment growth in the Germann Road/Ellsworth Road corridor.

Cost of Development Element Goals & Policies

Goal 1—Policy la
This Amendment helps the Town maintain designated areas and land uses that will encourage future revenue or employment generating land uses. Furthermore, readjusting the employment land use designation will ensure that this future revenue generating land use is located in an appropriate location.

3. RELATIONSHIP TO SURROUNDING PROPERTIES

The existing and proposed General Plan Land Use Maps (See attached "Existing and Proposed General Plan Land Use Maps" - **Exhibits B & C**) along with the existing and proposed zoning (See attached "Existing and Proposed Zoning Maps" - **Exhibits D & E**) for the adjacent parcels, clearly show how the property will fit nicely in within the existing context. Moreover, the proposed Amendment will preserve, enhance, transition, and buffer those adjacent parcels once the La Jara Farms development is built.

4. PUBLIC UTILITIES AND SERVICES

Utilities arid services will be provided as follows:

Water:	Town of Queen Creek
Sewer:	Town of Queen Creek
Electric:	Salt River Project
Gas:	Southwest Gas
Cable:	Cox Communications
Telephone:	Qwest/Century Link
Police:	Maricopa County Sheriff
Fire:	Town of Queen Creek
School:	Queen Creek Unified School District

WATER

Potable water will be provided by the Town of Queen Creek. Preliminary discussions with the Town indicate that existing water lines near the project boundaries can be tapped and new lines extended within and around the project to serve its potable water needs.

The proposed water system improvements will be designed and developed in accordance with Town of Queen Creek and Maricopa County Environmental Services Department (MCESD) requirements.

WASTEWATER

The initial phase of the development will be development with septic systems as approved. Sewer service will be provided by the Town of Queen Creek's sewer system for the second phase of the project. There is existing infrastructure in place to serve this project. The proposed Major General Plan Amendment will not result in a significant increase in the overall wastewater demand or impact the current infrastructure.

Furthermore, we will work with Fulton Homes to ensure both projects are adequately serviced and the connections of the proposed developments to existing infrastructure improvements are coordinated and the conveyance of wastewater is in accordance to Town of Queen Creek and MCESD requirements.

PRELIMINARY UTILITY REPORT

The proposed Amendment is far less dramatic than the existing employment land use designation and will have no significant impact on the Preliminary Utility Report completed in 2007 and as similarly determined during the Fulton Homes Major General Plan Amendment last year.

SCHOOLS

Efforts will be coordinated with the Queen Creek Unified School District throughout the entitlement process to ensure that our responsibilities for adequate educational facilities are accomplished for the District. More importantly, the proposed La Jara Farms development will be incorporating a Charter School site within their subdivision development that will support many of the new students that will locate to this subdivision, which should reduce demand to the School District.

5. PUBLIC PARTICIPATION

While the proposed Amendment has already been discussed with a key stakeholder in the area, we will be implementing significant neighborhood outreach efforts and conducting neighborhood meetings with the adjacent surrounding property owners to address any questions they may have with the proposed General Plan Amendment and subsequent development.

As always, we are committed to providing an open dialogue and public participation throughout the entitlement process.

6. FINDINGS OF FACT

State Law requires four (4) Findings of Fact to grant approval of a Major General Plan Amendment. The following below outlines how those four (4) are satisfied.

1. The development pattern contained in the Land Use Plan inadequately provides appropriate optional sites for the use proposed in the amendment.

The development pattern previously set forth by Fulton Homes last year along with the existing underlying zoning/development in the area created a unique situation requiring a readjustment to the land use designation on this Property in order to better align, transition, and buffer the surrounding parcels/development. The proposed Amendment will also support the existing the Town's General Plan, as discussed previously.

2. That the amendment constitutes an overall improvement to the Queen Creek General Plan and is not solely for the good or benefit of a particular landowner or owners at a particular point in time.

The proposed Amendment constitutes an overall improvement to the Queen Creek General Plan as it will rectify an existing land use designation that is no longer viable or appropriate at this location which is certainly beneficial to the Town as a whole.

3. *That the amendment will not adversely impact the community as a whole or a portion of the community by*:

(a) *Significantly altering acceptable existing land use patterns.*

The proposed Amendment will not adversely impact the community. The proposed change maintains the existing land use patterns in the area while strategically maintaining the employment land use designation at a major intersection.

(b) *Requiring larger and more expensive improvements to roads, sewer or water systems than are needed to support the prevailing land uses and which, therefore may negatively impact development of other lands.*

The proposed Amendment will not have an adverse impact on the Town's infrastructure. Furthermore, it will provide for the extension and ultimate improvement to the infrastructure in the area as this project develops. The end result is the Town can dramatically improve services while increasing its tax revenues.

(c) *Adversely impacting existing uses due to increased traffic on existing systems.*

The proposed Amendment will not have an adverse impact on existing uses in the area due to increased traffic on the existing system, because the recently approved Fulton Homes development proposes more intense uses and

housing densities resulting in the need for significant street improvements in the area. Moreover, VIP Homes will be required to complete the ½ streets adjacent to their property resulting in improving those streets for their residential development as well as the area as a whole. Finally, the number of vehicles from a very low density single-family development will certainly be much less than that from employment type uses currently proposed. The existing street network in the area can and will be able to handle the small increase in traffic as a result of this very low density land use development.

(d) *Affecting the livability of the area or the health and safety of the residents.*

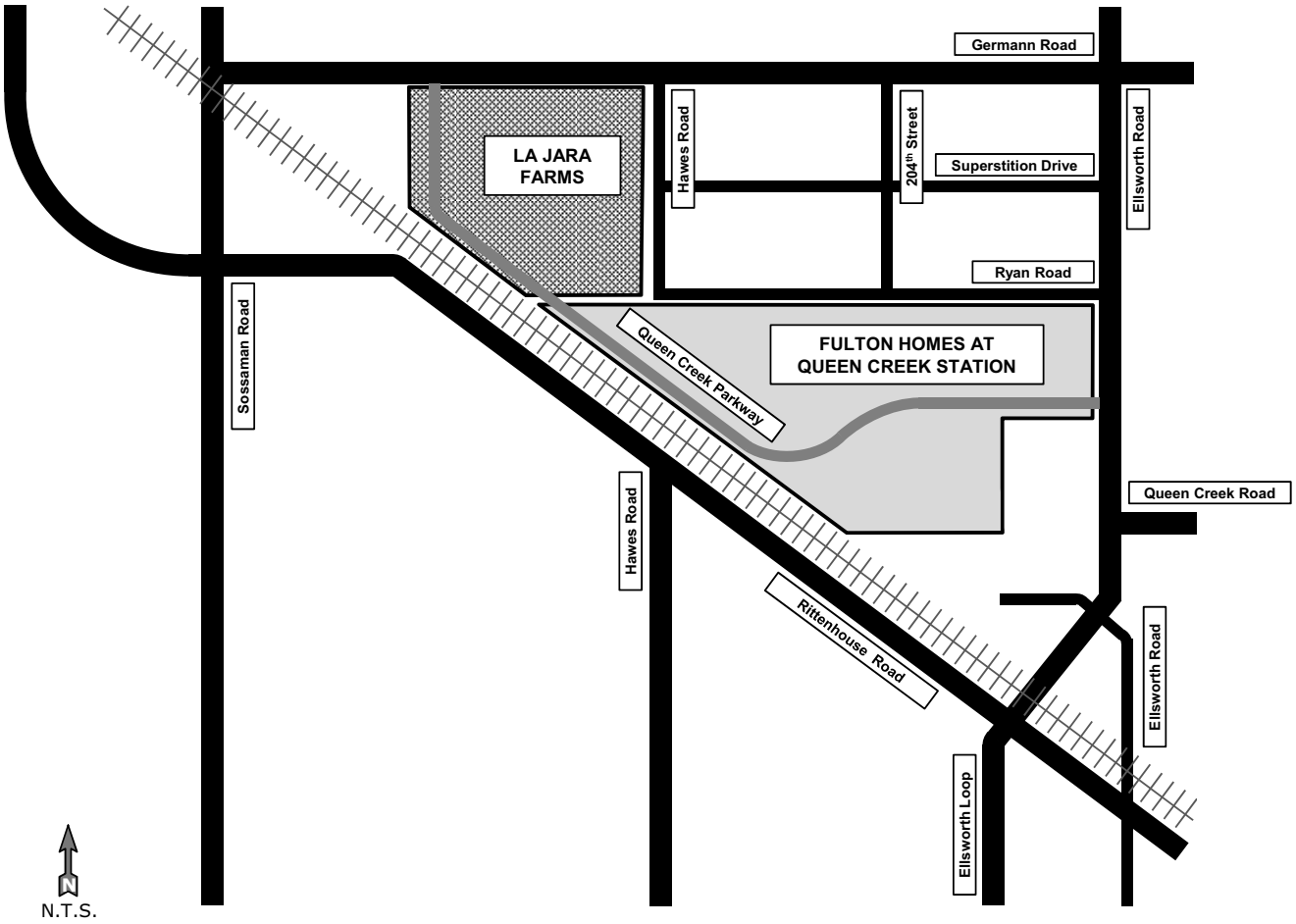
The proposed Amendment will not adversely affect the livability of the area or affect the health or safety of the residents. In fact, the ultimate development will result in greater livability as well as long term health and safety by encouraging new services, retail, and employment opportunities.

4. *That the amendment is consistent with the overall intent of the General Plan.*

As previously discussed, the Amendment is consistent with the overall intent of the General Plan, its vision, goals and policies.

7. CONCLUSION

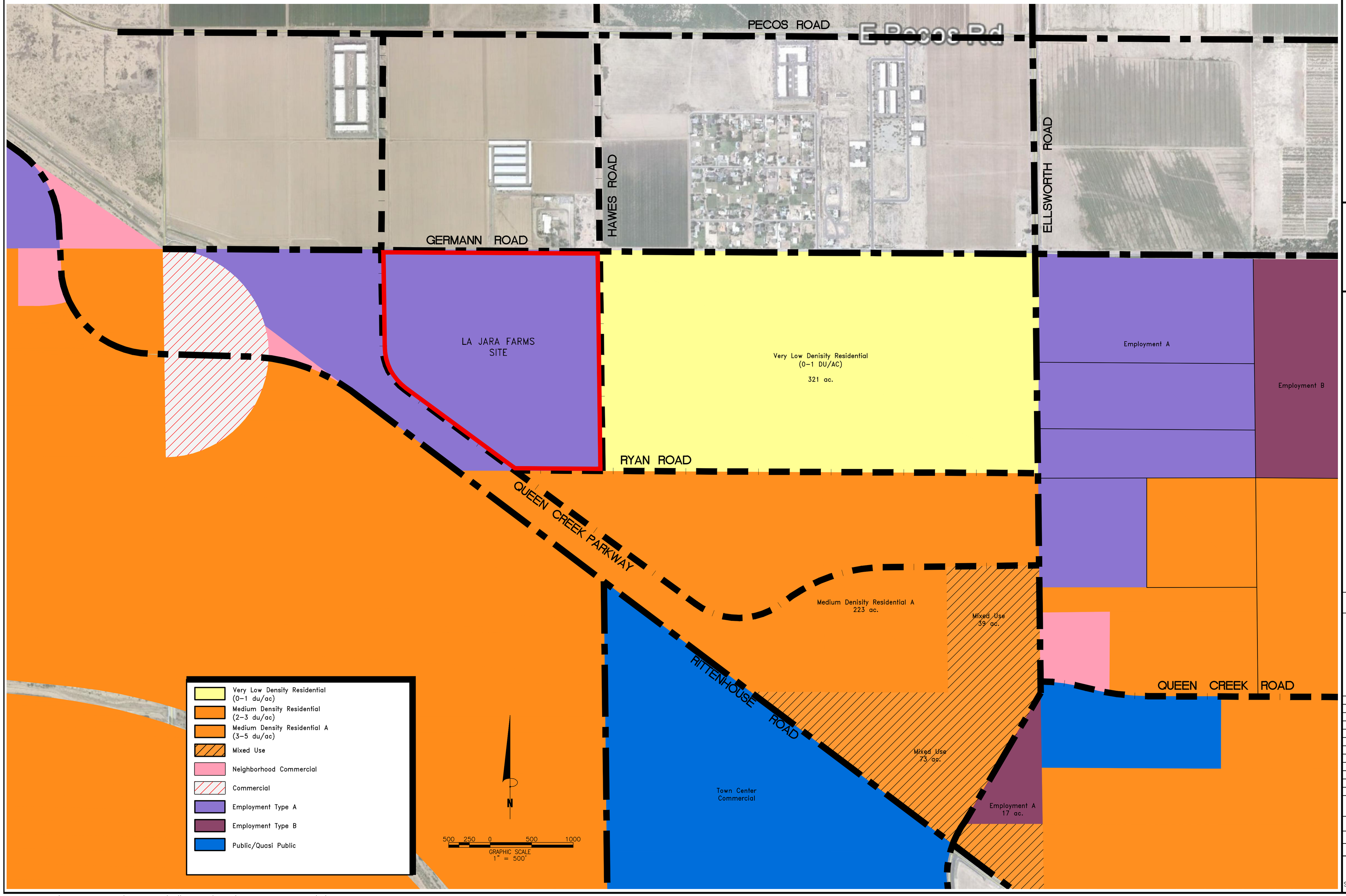
The proposed Major General Plan Amendment for La Jara Farms is consistent and compatible with the vision, goals, and policies of the Queen Creek General Plan and satisfies the findings of fact required by State Law. The Amendment will serve to rectify a land use designation that is no longer viable/appropriate at this location and will provide for long-term economic health and sustainability in this area of the Town. We believe diversity of housing will help assure/encourage a sustainable economic base for the Town, which will encourage an expanded employment base. As VIP Homes develops this property the Town and the community will benefit. As always, we appreciate your time, consideration, and patience in reviewing these requests and we respectfully request your approval.



Vicinity Map

EXHIBIT A

EXISTING GENERAL PLAN (EMPLOYMENT TYPE A)



Bowman CONSULTING

Bowman Consulting Group, Ltd.
3010 S. Priest Drive, Suite 103
Tempe, Arizona 85282

Phone: (480) 629-8830

www.bowmanconsulting.com

EXISTING GENERAL PLAN
LA JARA FARMS
QUEEN CREEK, ARIZONA
MARICOPA COUNTY

PROJECT NUMBER

PLAN STATUS

DATE	DESCRIPTION

DD DESIGN	DD DRAWN	DTP CHKD

SCALE H: 1"=500'
V: none

JOB No. 9774-01-001

DATE : 4/12/13

GP01

SHEET 1 OF 4

CAD FILE NAME: P:\9774 - La Jara Farms\9774-01-001 (ENG)\Engineering\Exhibits\9774-PR-001-GPE.dwg 05/21/2013

EXHIBIT B

PROPOSED GENERAL PLAN (0-1 DU/AC)

PECOS ROAD

E Pecos Rd

HAWES ROAD

ELLSWORTH ROAD

GERMANN ROAD

Commercial
Services
57 ac.

LA JARA FARMS
SITE

Very Low Denisity Residential
(0-1 DU/AC)

321 ac.

Employment A

Employment B

RYAN ROAD

QUEEN CREEK PARKWAY

Medium Denisity Residential A
223 ac.

Mixed Use
39 ac.

Neighborhood
Commercial
17 ac.

RITTENHOUSE ROAD

QUEEN CREEK ROAD

Mixed Use
73 ac.

Town Center
Commercial

Employment A
17 ac.

- Very Low Density Residential (0-1 du/ac)
- Medium Density Residential (2-3 du/ac)
- Medium Density Residential A (3-5 du/ac)
- Mixed Use
- Neighborhood Commercial
- Commercial
- Employment Type A
- Employment Type B
- Public/Quasi Public

N

500 250 0 500 1000

GRAPHIC SCALE
1" = 500'

CAD FILE NAME: P:\9774 - La Jara Farms\9774-01-001 (ENG)\Engineering\Exhibits\9774-PR-001-GPP.dwg 05/21/2013

Bowman CONSULTING

Bowman Consulting Group, Ltd.
3010 S. Priest Drive, Ste 103
Tempe, Arizona 85282

Phone: (480) 629-8830

www.bowmanconsulting.com

PROPOSED GENERAL PLAN
LA JARA FARMS
QUEEN CREEK, ARIZONA
MARICOPA COUNTY

PROJECT NUMBER

PLAN STATUS

DATE	DESCRIPTION

DD DESIGN	DD DRAWN	DTP CHKD

SCALE H: 1"=500'
V: none

JOB No. 9774-01-001

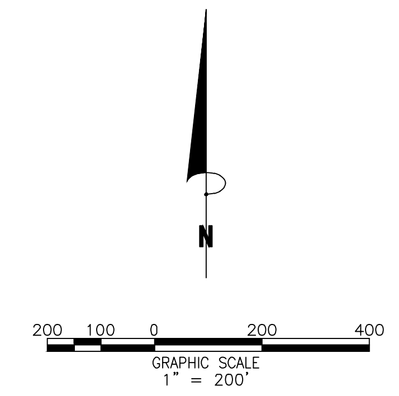
DATE : 4/12/13

GP03

SHEET 3 OF 4

EXHIBIT C

EXISTING ZONING EXHIBIT



R1-8

R1-18

R1-43

Bowman CONSULTING

Bowman Consulting Group, Ltd.
3010 S. Priest Drive, Ste 103
Tempe, Arizona 85282

Phone: (480) 629-8830

www.bowmanconsulting.com

EXISTING ZONING (R1-43)

LA JARA FARMS

QUEEN CREEK, ARIZONA

MARICOPA COUNTY

PROJECT NUMBER

PLAN STATUS

DATE	DESCRIPTION

DD DESIGN	DD DRAWN	DTP CHKD

SCALE H: 1"=200'
V: none

JOB No. 9774-01-001

DATE : 4/12/13

ZN02

SHEET 2 OF 4

EXHIBIT D

CAD FILE NAME: P:\9774 - La Jara Farms\9774-01-001 (ENG)\Engineering\Exhibits\9774-PR-001-GZE.dwg 05/20/2013

PROPOSED ZONING EXHIBIT

N

200 100 0 200 400
GRAPHIC SCALE
1" = 200'

R1-8

R1-18

R1-43

Bowman CONSULTING

Bowman Consulting Group, Ltd.
3010 South Priest Drive Ste 103
Tempe, Arizona 85282

Phone: (480) 629-8830

www.bowmanconsulting.com

PROPOSED GENERAL PLAN

LA JARA FARMS

QUEEN CREEK, ARIZONA

MARICOPA COUNTY

PROJECT NUMBER

PLAN STATUS

DATE	DESCRIPTION

DD DESIGN	DD DRAWN	DTP CHKD

SCALE H: 1"=200'
V: none

JOB No. 9774-01-001

DATE : 4/12/13

GP04

SHEET 4 OF 4

CAD FILE NAME: P:\9774 - La Jara Farms\9774-01-001 (ENG)\Engineering\Exhibits\9774-PR-001-GZP.dwg 04/15/2013

EXHIBIT E

APPENDICES

Appendix 1
(Tab 1)

Legal Description

JUNE 10, 2013
PROJECT # 9774-01-002

LEGAL DESCRIPTION
LA JARA FARMS

A PARCEL OF LAND BEING THE FINAL PLAT OF "LA JARA FARMS" RECORDED IN BOOK 975 OF MAPS, PAGE 17, OFFICIAL RECORDS OF MARICOPA COUNTY, LOCATED WITHIN THE NORTHEAST QUARTER OF SECTION 8, TOWNSHIP 2 SOUTH, RANGE 7 EAST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID "LA JARA FARMS", FROM WHICH THE NORTHEAST CORNER THEREOF, BEARS SOUTH 89°49'32" EAST, A DISTANCE OF 2,630.91 FEET;

THENCE SOUTH 89°49'32" EAST, ALONG THE NORTH LINE OF SAID "LA JARA FARMS" AND THE SOUTH RIGHT OF WAY LINE OF GERMANN ROAD, A DISTANCE OF 2,630.91 FEET TO A POINT ON THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 8 AND THE NORTHEAST CORNER OF SAID "LA JARA FARMS";

THENCE DEPARTING SAID NORTH LINE, SOUTH 00°43'23" EAST, A DISTANCE OF 2,588.44 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 8 AND THE SOUTHEAST CORNER OF SAID "LA JARA FARMS";

THENCE NORTH 89°52'04" WEST, ALONG THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 8 AND THE SOUTH LINE OF SAID "LA JARA FARMS", A DISTANCE OF 1,277.38 FEET, TO THE MOST SOUTHERLY WEST CORNER OF TRACT "C" OF SAID "LA JARA FARMS", FROM WHICH THE CENTER OF SAID SECTION 8, MONUMENTED BY A REBAR WITH CAP RLS #21786, BEARS NORTH 89°52'04" WEST, A DISTANCE OF 1350.52 FEET;

THENCE NORTH 53°37'43" WEST, ALONG THE SOUTHWESTERLY LINE OF SAID TRACT "C" ALSO BEING THE NORTHERLY LINE OF THE CHANNEL EASEMENT RECORDED IN DOCUMENT NO. 1997-0430396, OFFICIAL RECORDS OF MARICOPA COUNTY, A DISTANCE OF 1,694.41 FEET TO THE MOST WESTERLY SOUTH CORNER OF SAID TRACT "C", FROM WHICH SAID CENTER OF SECTION 8 BEARS SOUTH 00°47'20" EAST, A DISTANCE OF 1001.79 FEET;

THENCE NORTH 00°47'20" WEST, ALONG THE WEST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 8 AND THE WEST LINE OF SAID "LA JARA FARMS, A DISTANCE OF 1,588.64 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF GERMANN ROAD SAID POINT BEING THE NORTHWEST CORNER OF SAID "LA JARA FARMS" AND THE **POINT OF BEGINNING.**

SAID PARCEL CONTAINS 6,131,438 SQUARE FEET OR 140.7584 ACRES, MORE OR LESS.

Appendix 2
(Tab 2)

Traffic Impact Study

La Jara Farms
Queen Creek, Arizona

Traffic Impact Analysis

June 2013

Prepared for:
VIP HOMES

For Submittal to:
TOWN OF QUEEN CREEK

EPS Group Project Number: 13-146

Prepared by: Paul E. Basha, P.E., P.T.O.E.
Eric R. Maceyko, P.E., P.T.O.E.
Bryan A. Martin, E.I.T.

Expires:6/30/2014

eps group, Inc.
Engineers, Planners & Surveyors

EPS Group, Inc. • 2045-South Vineyard Avenue, Suite 101 • Mesa, AZ 85210
Tel (480) 503-2250 • Fax (480) 503-2258
paul.basha@epsgroupinc.com
www.epsgroupinc.com

Table of Contents

List of Figures

List of Tables

List of Appendices

Executive Summary

Introduction

VIP Homes is considering a 132-dwelling-unit single-family residential development, named La Jara Farms, located in the Town of Queen Creek, in the southwest corner of Hawes Road and Germann Road. The proposed development also includes a Heritage Charter High School with 600 students.

Results

The proposed La Jara Farms is anticipated to generate the following weekday daily and peak hourly volumes.

Time Period	Day	AM	PM
Single Family	1,342	102	135
School	1,908	646	176
Total	3,250	748	311

The development of La Jara Farms will complete Queen Creek Parkway from Germann Road to Ellsworth Road. Queen Creek Parkway will provide a necessary direct connection from the Fulton Homes residential development to Germann Road. Without the direct connection through La Jara Farms to Germann Road, the exclusive access to the Fulton Homes development would be Ellsworth Road.

Recommendations with La Jara Farms

The extension of Queen Creek Parkway from Fulton Homes at Queen Creek Station through La Jara Farms to intersect with Germann Road is necessary with the development of La Jara Farms. Standard Town of Queen Creek improvements to Germann Road are required. No additional street improvements are necessary for the La Jara Farms development.

Heritage Charter High School should provide at least one ingress-only and one egress-only access to the site.

Heritage Charter High School should provide a minimum of 950 lane-feet of queue storage on school property.

Introduction

VIP Homes is proposing a 132-dwelling-unit, 140-acre single-family residential development, named La Jara Farms, located in the Town of Queen Creek, in the southwest corner of Hawes Road and Germann Road. La Jara Farms also includes Heritage Charter High School, which will open with 600 students. Immediately adjacent and southeast of the proposed residential development is the 671-home, 249-acre residential development; Fulton Homes at Queen Creek Station.

Figure 1 provides a vicinity map of the general area.

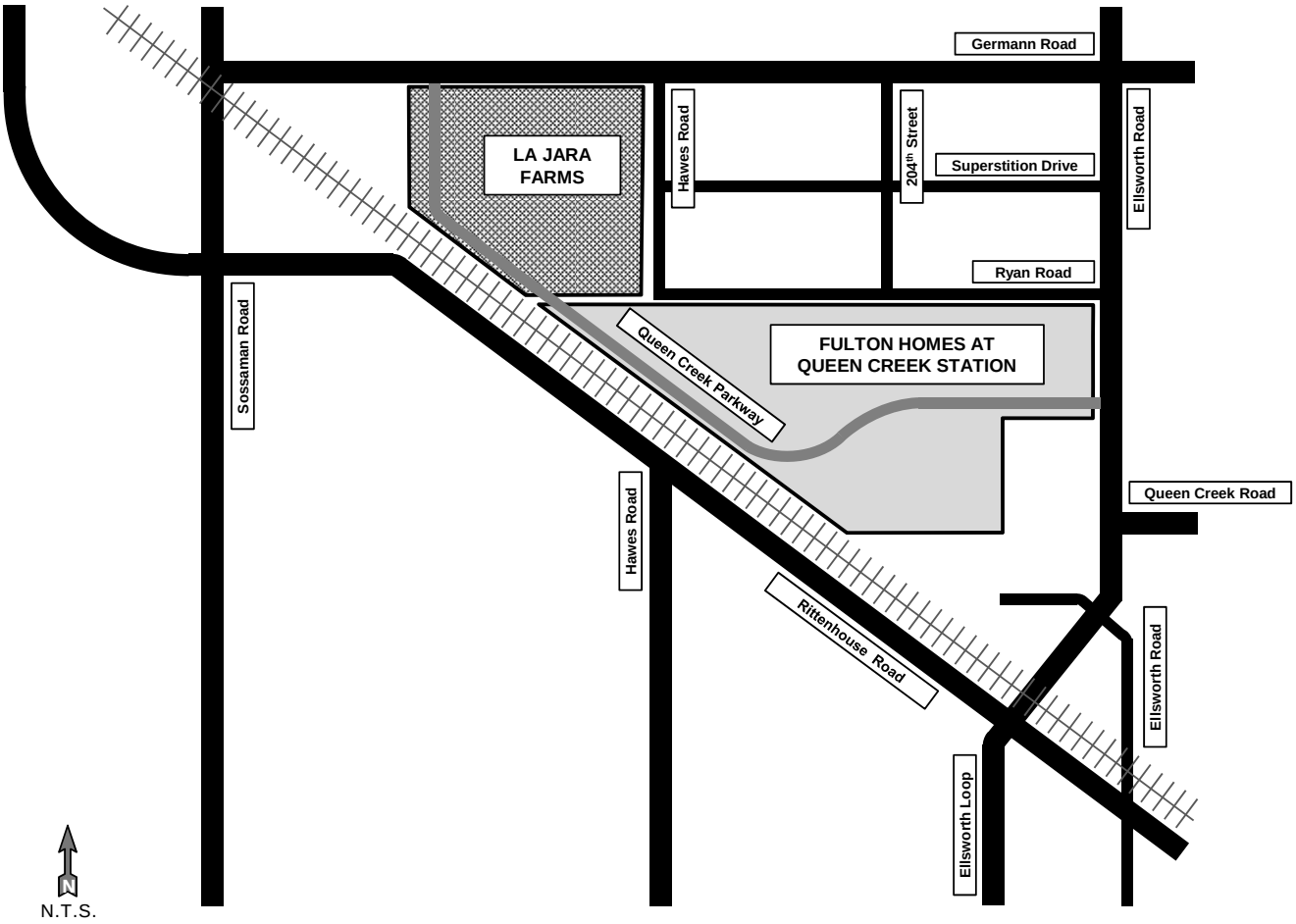


Figure 1: General Vicinity Map

Figure 2 provides a site plan of the proposed La Jara Farms development.

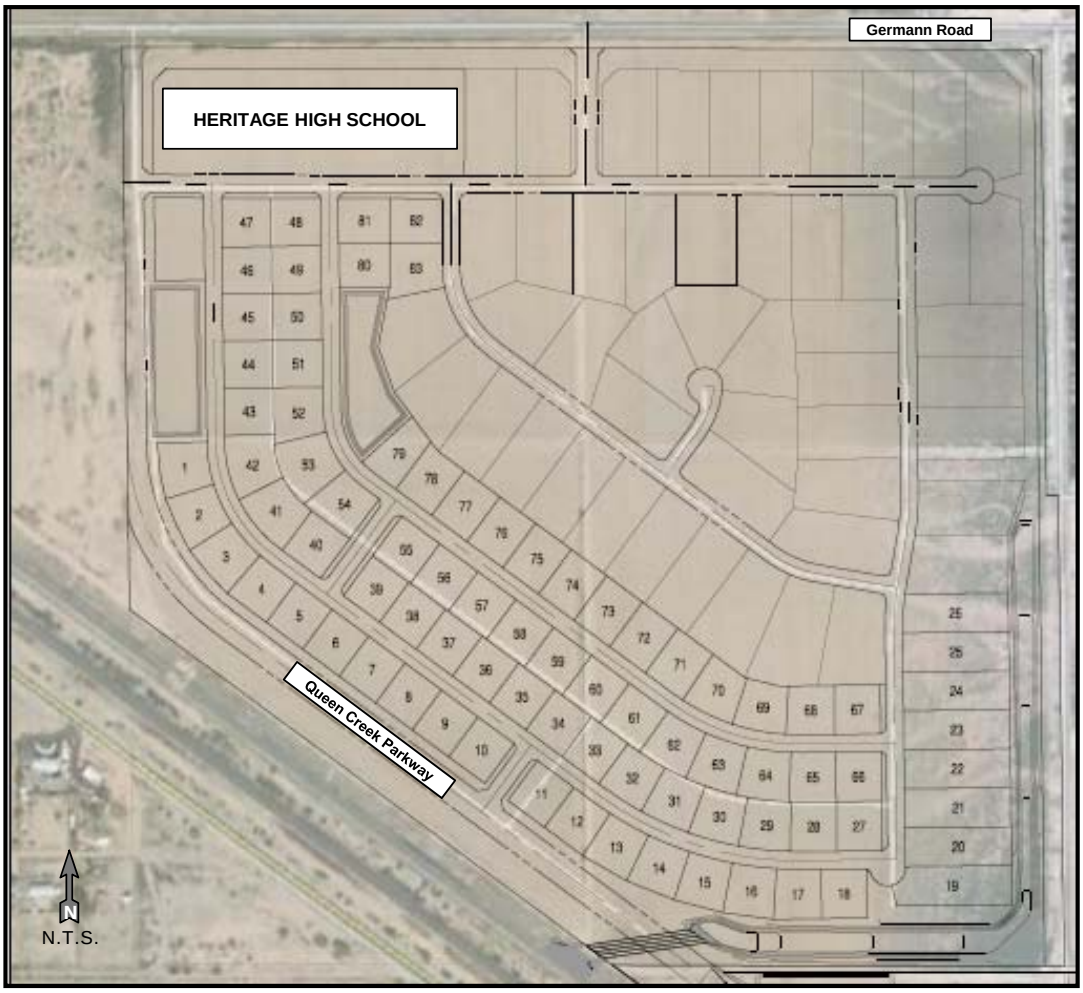


Figure 2: La Jara Farms Site Plan

Scope of Study

There are five (5) purposes for this analysis:

- Report previously prepared ambient 2020 traffic conditions evaluation
- Estimate new traffic generated by proposed development
- Assign and distribute new traffic to surrounding street system
- Determine need for auxiliary lanes at all study intersections
- Evaluate operation of adjacent streets and intersections with new development

Study Intersections

The following existing intersections will be analyzed for existing conditions and with the proposed development:

Ellsworth Road and Germann Road
Ellsworth Road and Queen Creek Parkway
Queen Creek Parkway and Germann Road

Surrounding Land Use and Street System

The land surrounding the proposed development consists primarily of vacant land and low density single-family residential to the north, with a regional commercial center to the south. A Circulation Review and Traffic Impact Analysis was completed for Fulton Homes at Queen Creek Station. Pertinent excerpts of this report are provided as **Appendix A**. The Fulton Homes at Queen Creek Station development and Circulation Review and Traffic Analysis assumed the completion of Queen Creek Parkway from Ellsworth Road to Germann Road. The portion of Queen Creek Parkway from the Fulton Homes development to Germann Road is on La Jara Farms property. The development of La Jara Farms includes the construction of this portion of Queen Creek Parkway.

Figure 3 provides the lane configuration recommended in the proposed Fulton Homes at Queen Creek Station Circulation Review and Traffic Impact Analysis.

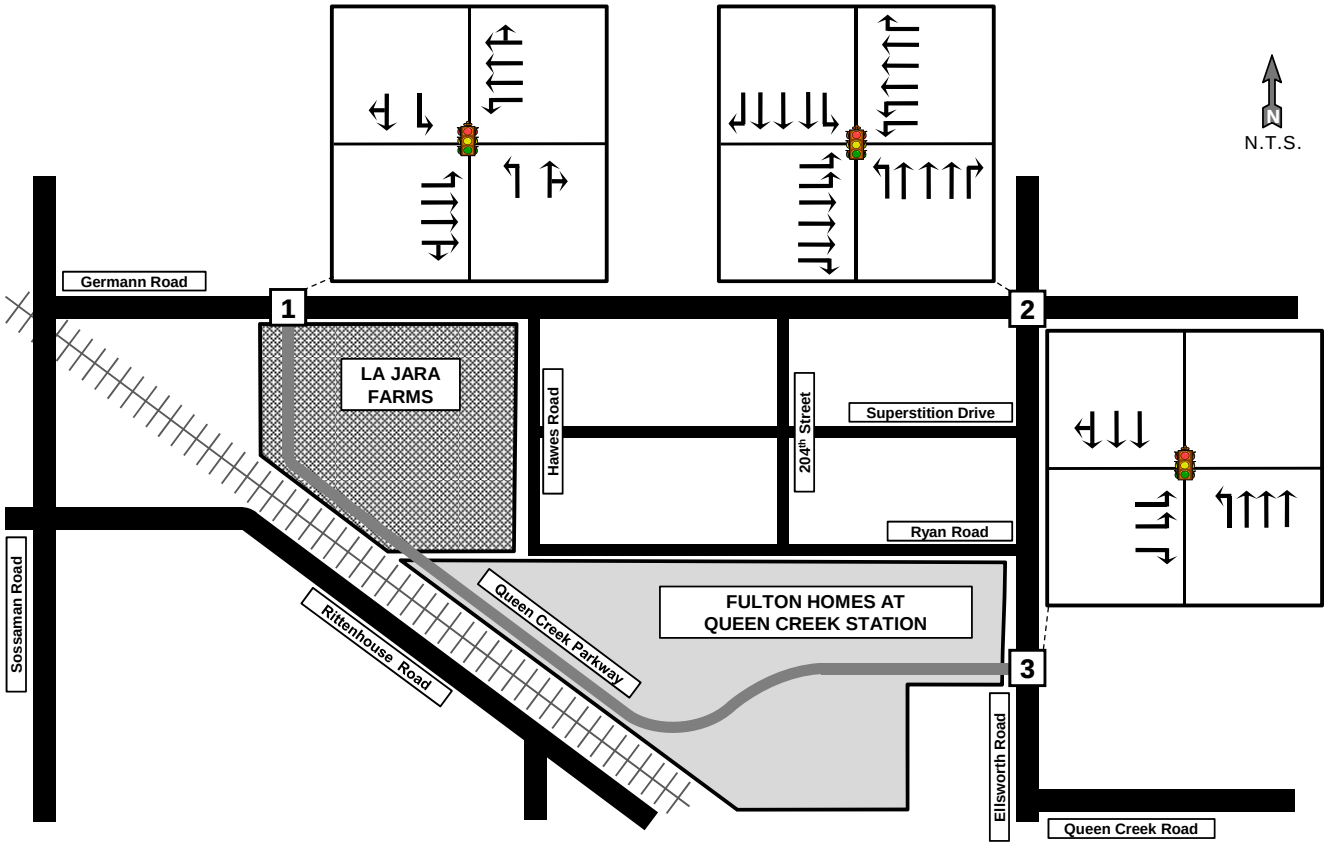


Figure 3: Previously Recommended Lane Configuration and Traffic Control

Level-of-Service Analysis without La Jara Farms

The ability of a transportation system to transmit the transportation demand is characterized as its level-of-service (LOS). Level-of-service is a rating system from “A”, representing the best operation with the least delay, to “F”, representing the worst operation with the greatest delay. Typically, level-of-service “D” is considered the minimum acceptable operation. The appropriate reference for level-of-service operation is the *Highway Capacity Manual*, published by the Transportation Research Board.

This manual considers the average delay per vehicle as the measure to determine the level-of-service for both signalized and unsignalized intersections. For signalized intersections and for multi-way stop intersections, the delay and level-of-service are calculated for the intersection, each approach, and each turning movement. For unsignalized intersections the level-of-service is defined for each minor movement for two-way stop controls, and is not defined for the major street approaches or for the entire intersection. **Table 1** lists the level-of-service criteria for both signalized and unsignalized intersections.

Table 1: Level-of-Service Criteria for Intersections

LEVEL-OF-SERVICE	AVERAGE DELAY (seconds-per-vehicle)	
	UNSIGNALIZED	SIGNALIZED
A	≤ 10	≤ 10
B	> 10 to 15	> 10 to 20
C	> 15 to 25	> 20 to 35
D	> 25 to 35	> 35 to 55
E	> 35 to 50	> 55 to 80
F	> 50	> 80

The level-of-service for the study intersections in 2020 with the Fulton Homes at Queen Creek Station development was provided in the previous study. **Figure 4** and **Figure 5** provide these results for the weekday morning and evening peak hours respectively.

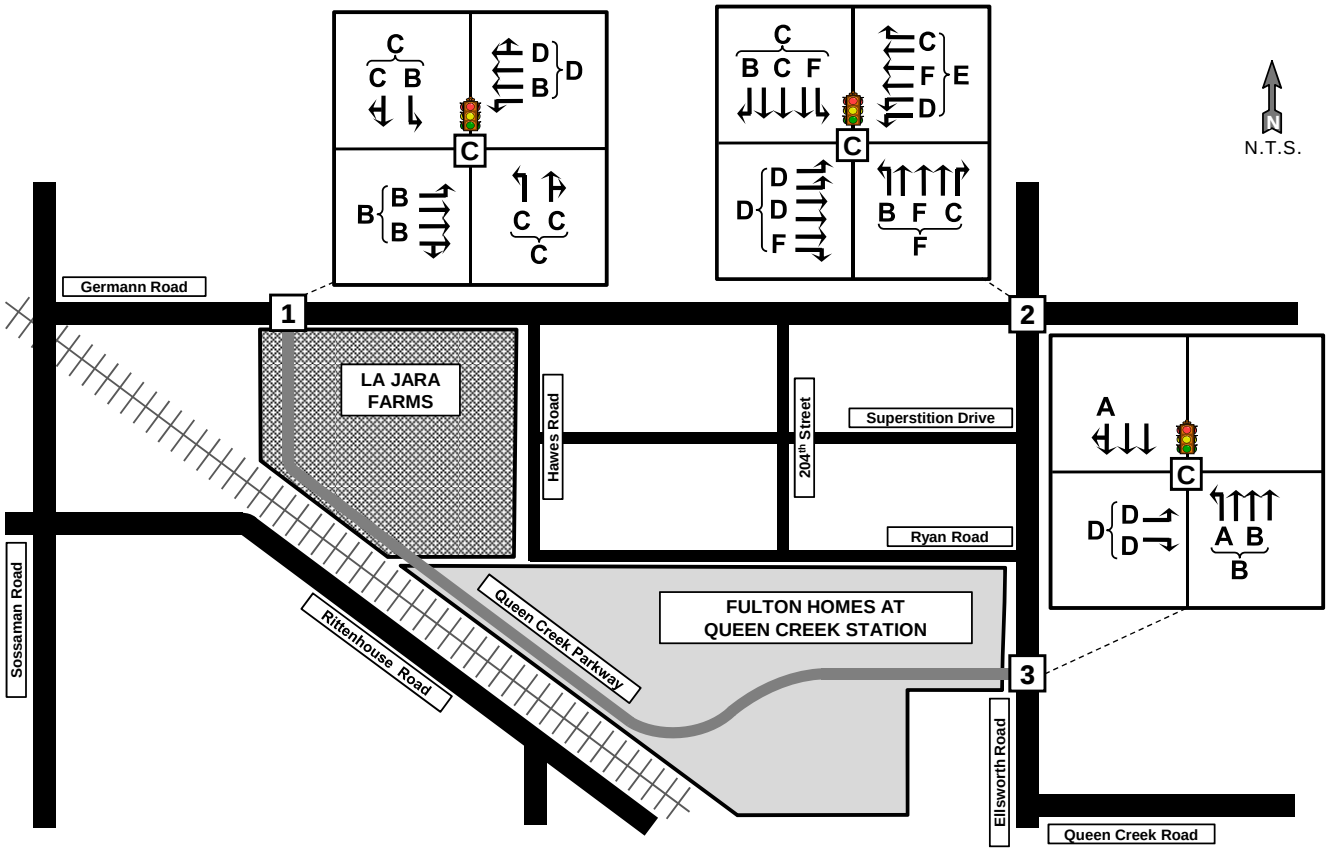


Figure 4: 2020 with Fulton Homes Level-of-Service – AM Peak Hour

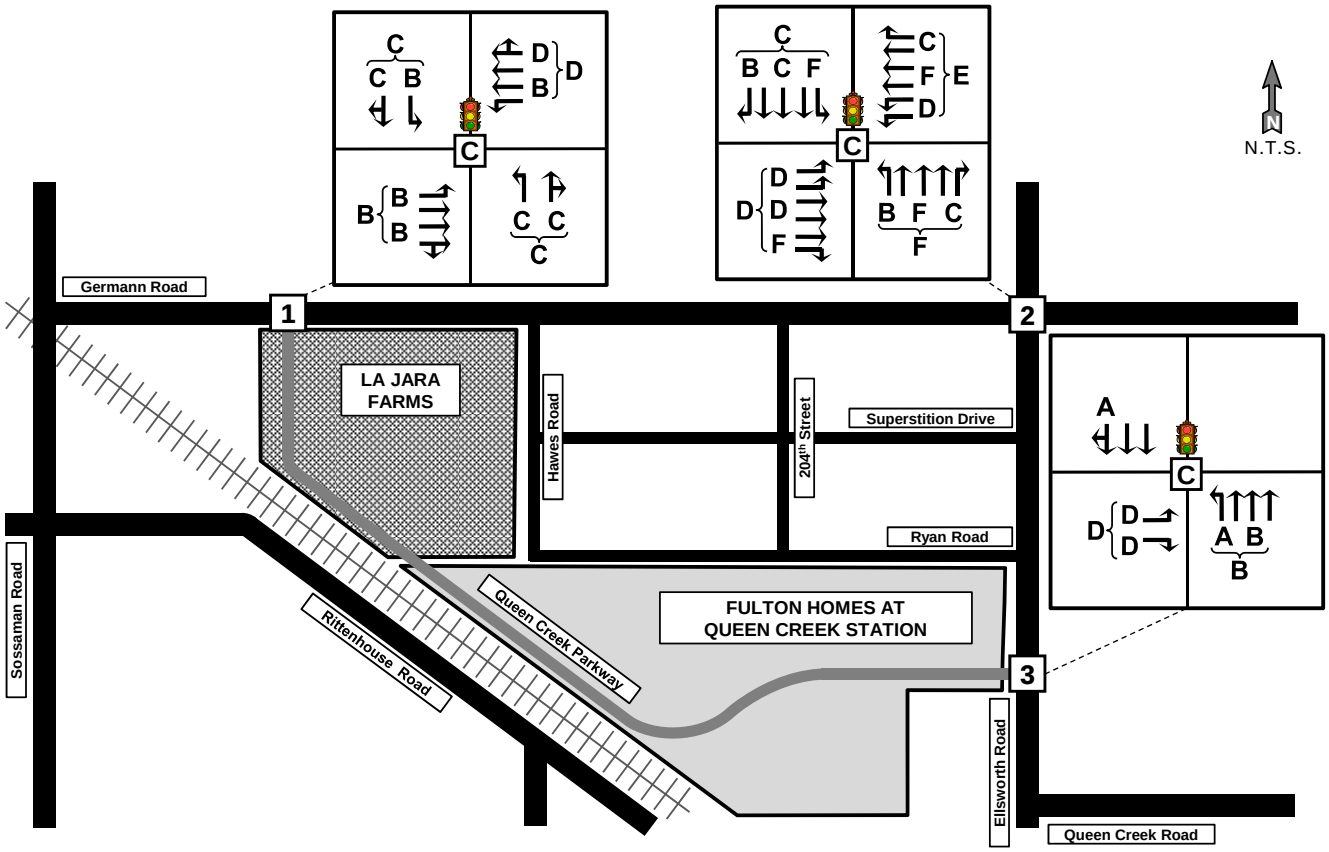


Figure 5: 2020 with Fulton Homes Level-of-Service – PM Peak Hour

Figure 6 provides the anticipated 2020 traffic volumes on Queen Creek Parkway with Fulton Homes at Queen Creek Station, with the proposed La Jara Farms. These traffic volumes are excerpted from the Circulation Review and Traffic Impact Analysis for Fulton Homes at Queen Creek Station data.

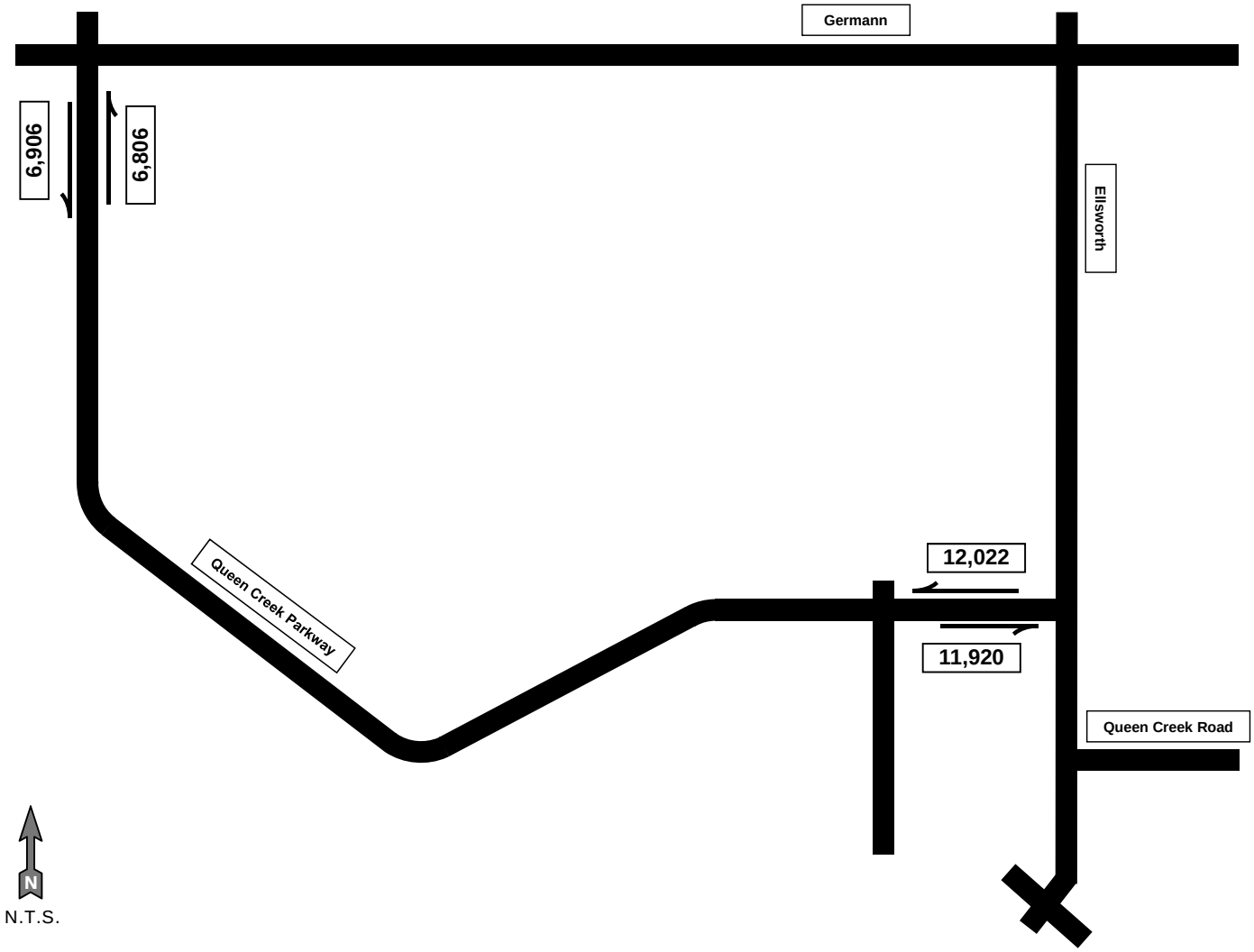


Figure 6: 2020 with Fulton Homes – Queen Creek Parkway Traffic Volumes – Day

Proposed Site – Trip Generation

The estimated trip generation for the residential component of the proposed development was determined through the procedures and data contained within the Institute of Transportation Engineers (ITE) *Trip Generation*, 9th Edition, published in 2012. This document provides traffic volume data from existing developments throughout North America that can be utilized to estimate vehicle trips that might be generated from proposed developments. The traffic data are provided for 172 different categories. The estimated traffic volume is dependent upon independent variables defined by the characteristics and size of each land use category. Data is provided for nine (9) different time periods.

There is considerable data for single-family residential developments. ITE land use code 210 – Single Family Dwelling Units – was utilized for this study. Four independent variables are available for this land use category to predict trips: dwelling unit, persons, vehicles, and acres. All four have excellent statistical attributes and therefore are acceptable for use. The most easily determined independent variable for a typical residential project is either the number of dwelling units or the number of acres. Volumes utilizing both independent variables were calculated for each time period. Also both equations and average rates are provided in *Trip Generation*. Both methods were calculated separately for each time period. The largest volumes considering both independent variables and both calculation methods were utilized as the estimate for the generated traffic for the proposed residential development. **Appendix B.1** provides the complete results of the La Jara Farms residential trip generation.

Unfortunately, *Trip Generation* does not include data for charter schools. It does provide data for public schools and private schools. Data is provided for public schools for three different grade levels – elementary, middle or junior high, and senior. Data is also provided for private schools – for schools of kindergarten through 8th grade and for kindergarten through 12th grade. However, charter schools typically generate more traffic than public schools – primarily because most students are driven in private vehicles, rather than busses.

Therefore, measured trip generation at an existing charter middle and high school is the most appropriate technique to provide a valid estimate of the trip generation for the proposed Heritage Charter High School. A charter school – Rancho Solano Preparatory School – exists on the Salt River Pima-Maricopa Indian Community on Via de Ventura, east of Pima Road. This middle and high school currently has 260 students. Extensive traffic data was obtained at this charter school.

At Rancho Solano, from Friday, 7 September 2012 to Thursday, 13 September 2012, the entering and exiting daily vehicles were counted in fifteen-minute intervals for a total of seven days. **Appendix B.2** provides the complete traffic count data. **Table 2** provides the average trip generation rates from *Trip Generatio*n and **Table 3** provides the trip generation rates for Rancho Solano as determined from the 2012 counts.

Table 2: ITE *Trip Generation* Rates

		DAY	ARRIVAL	DISMISSAL	PM PEAK
Private K to 8 School (534)	STUDENTS	Not available	0.90	0.60	Not available
Private K to 12 School (536)	STUDENTS	2.48	0.81	0.17	0.58
Elementary School (520)	STUDENTS	1.29	0.45	0.28	0.15
Middle School (522)	STUDENTS	1.62	0.54	0.30	0.16
High School (530)	STUDENTS	1.71	0.43	0.29	0.13

Table 3: Rancho Solano Trip Generation Rates

	STUDENTS	DAY	ARRIVAL	DISMISSAL	PM PEAK
Rancho Solano	260	3.18	0.81	0.33	0.20

The Rancho Solano trip generation data was utilized for the proposed Heritage Charter High School. **Appendix B.2** also provides entering and exiting trip generation and trip rates. The Rancho Solano Preparatory School had 260 students at the time of the traffic counts, while the Heritage Charter High School will have 600 students.

Table 4 and **Table 5** respectively provide a summary of the day, peak hour, and peak 15-minute trip generation for the proposed Heritage High School utilizing the existing Rancho Solano trip generation rates.

Table 4: Heritage High School Trip Generation Summary – Day

	DAY	
	ENTERING	EXITING
RATE	1.58	1.60
VOLUME	948	960

Table 5: Heritage High School Trip Generation Summary – Peak Hour and Peak 15-Minutes

	PEAK HOUR		PEAK 15-MINUTES	
ARRIVAL	ENTERING	EXITING	ENTERING	EXITING
RATE	0.63	0.45	0.27	0.22
VOLUME	376	270	162	134
DISMISSAL				
RATE	0.35	0.44	0.10	0.22
VOLUME	208	265	58	134
STREET PEAK				
RATE	0.11	0.18	0.05	0.07
VOLUME	65	111	30	42

Table 6 summarizes the trip generation for the entire La Jara Farms property including both the homes and the school.

Table 6: Total Trip Generation for La Jara Farms

Time Period	**Day**			**AM**			**PM**		
	Entering	**Exiting**	**Total**	**Entering**	**Exiting**	**Total**	**Entering**	**Exiting**	**Total**
Single Family	671	671	1,342	26	76	102	85	50	135
School	948	960	1,908	376	270	646	65	111	176
Total	1,619	1,631	3,250	402	346	748	150	161	311

Trip Distribution

The final determination related to the anticipated traffic generated by the proposed development is the direction the traffic utilizes to enter and exit the area. The site was examined to determine the probable routes for its traffic. Separate trip distribution was provided for the houses and the school for future 2020 conditions. The final site plan for the school is not available at this stage. For the purposes of this analysis, it is assumed there will be one ingress-only access and one egress-only access to serve the school peak arrival and dismissal traffic. The westernmost access is the assumed ingress-only access, and the easternmost access is the assumed egress-only access. **Figure 7** and **Figure 8** present the existing trip distribution for the houses and the school respectively.

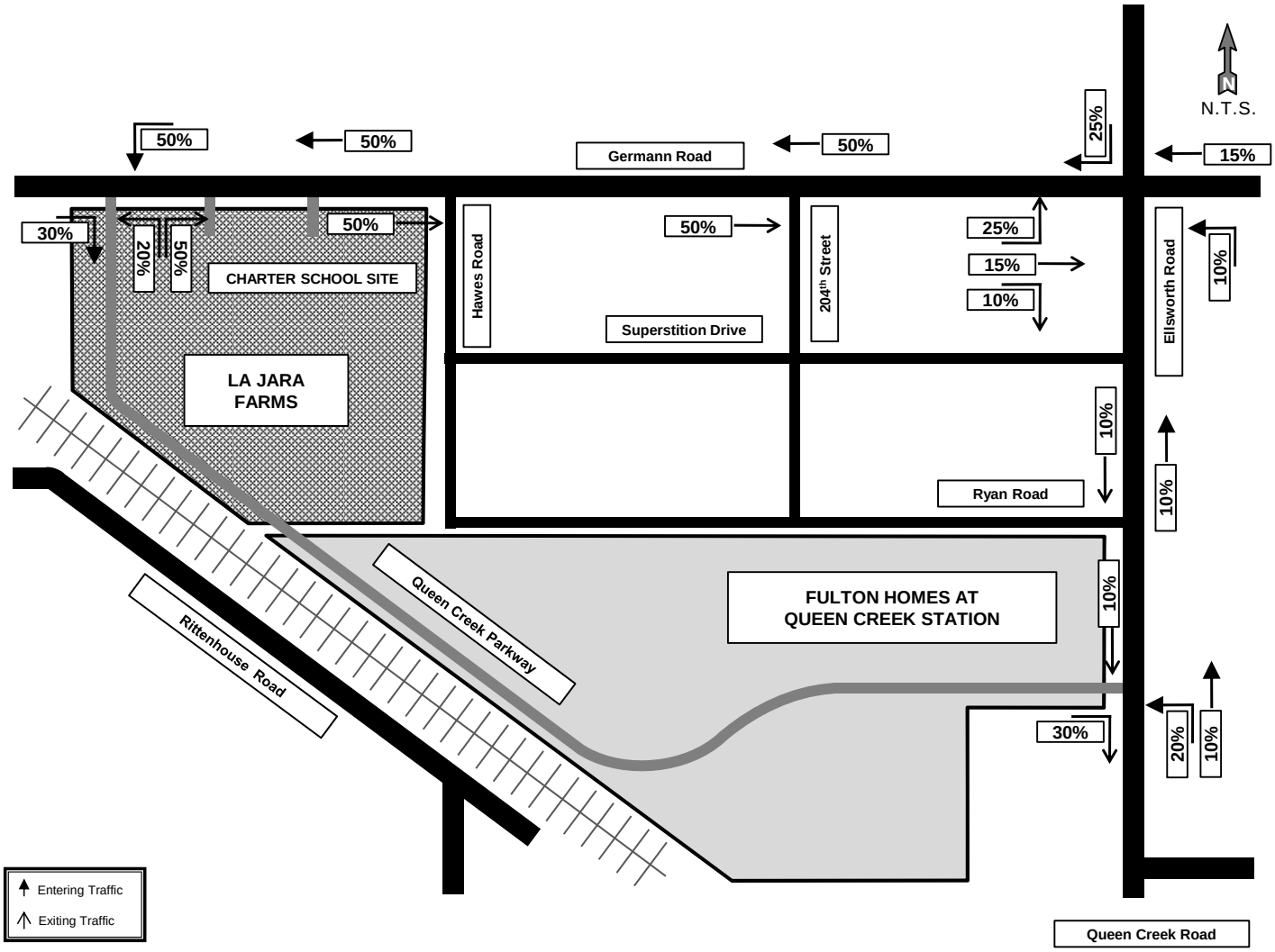


Figure 7: Residential Trip Distribution

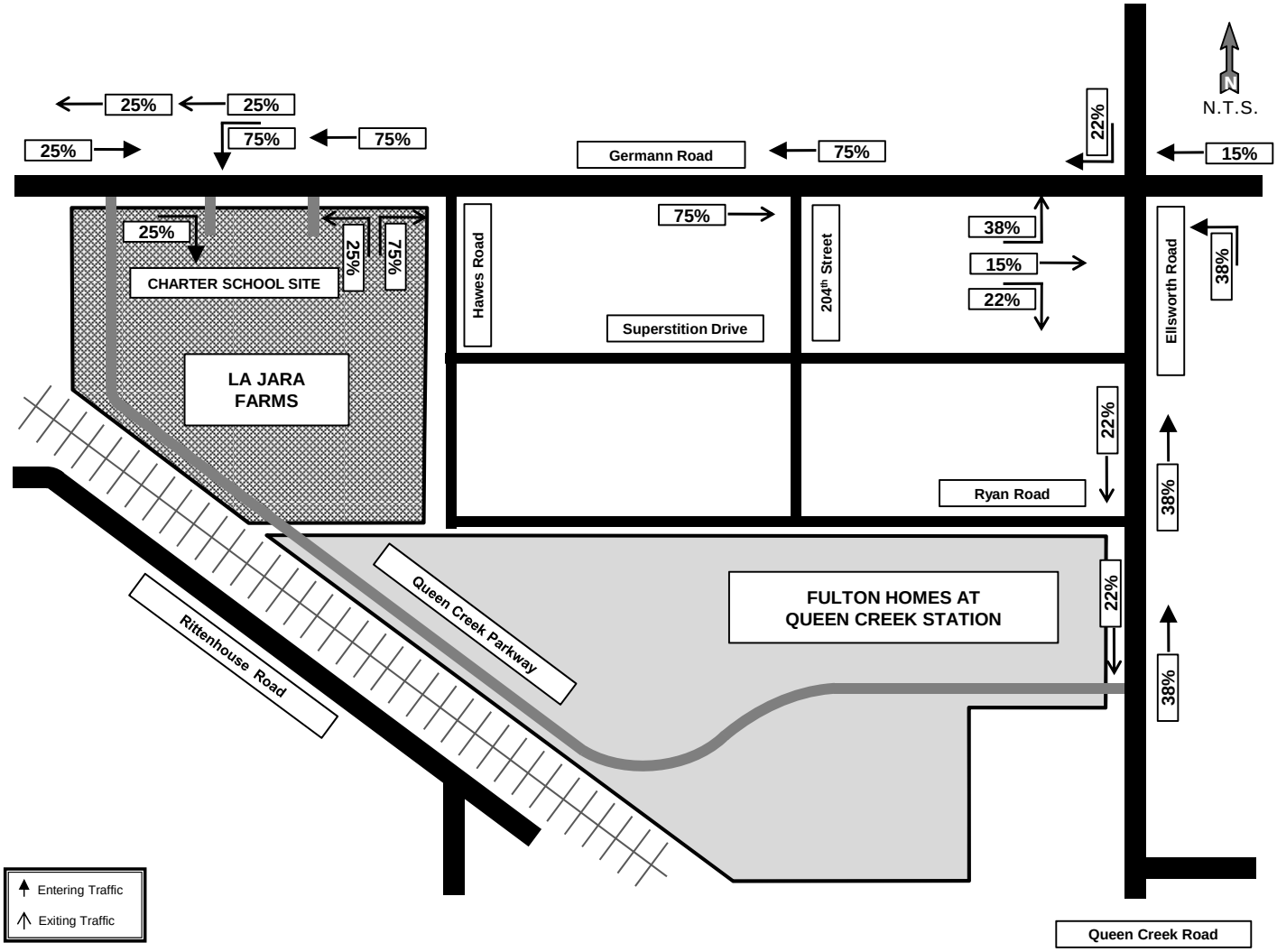


Figure 8: School Trip Distribution

Figure 9 and **Figure 10** provide the residential traffic volumes in the morning and evening peak hours, respectively. **Figure 11** and **Figure 12** provide the school traffic volumes in the morning and evening peak hours, respectively. **Figure 13** and **Figure 14** provide the 2020 with the entire La Jara Farms development traffic volumes in the morning and evening peak hours, respectively.

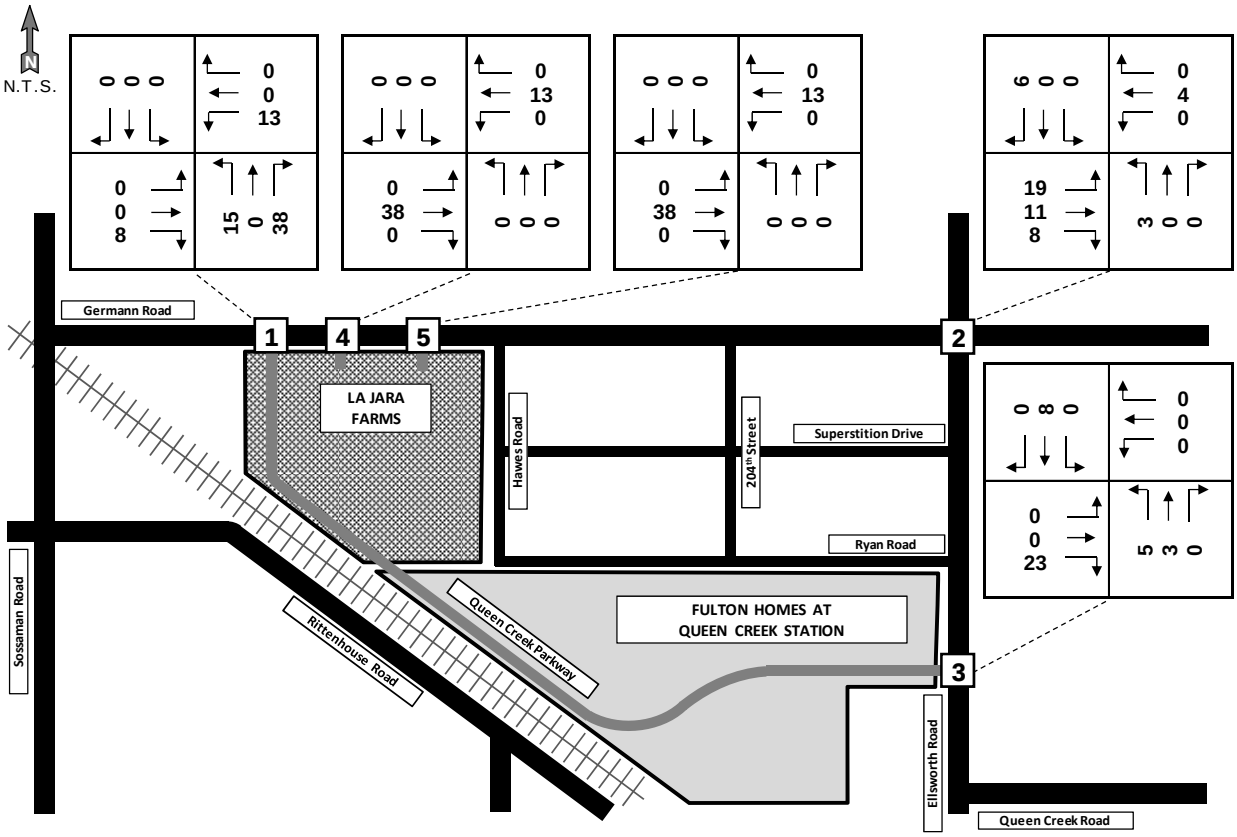


Figure 9: Residential Traffic Volumes – AM Peak Hour

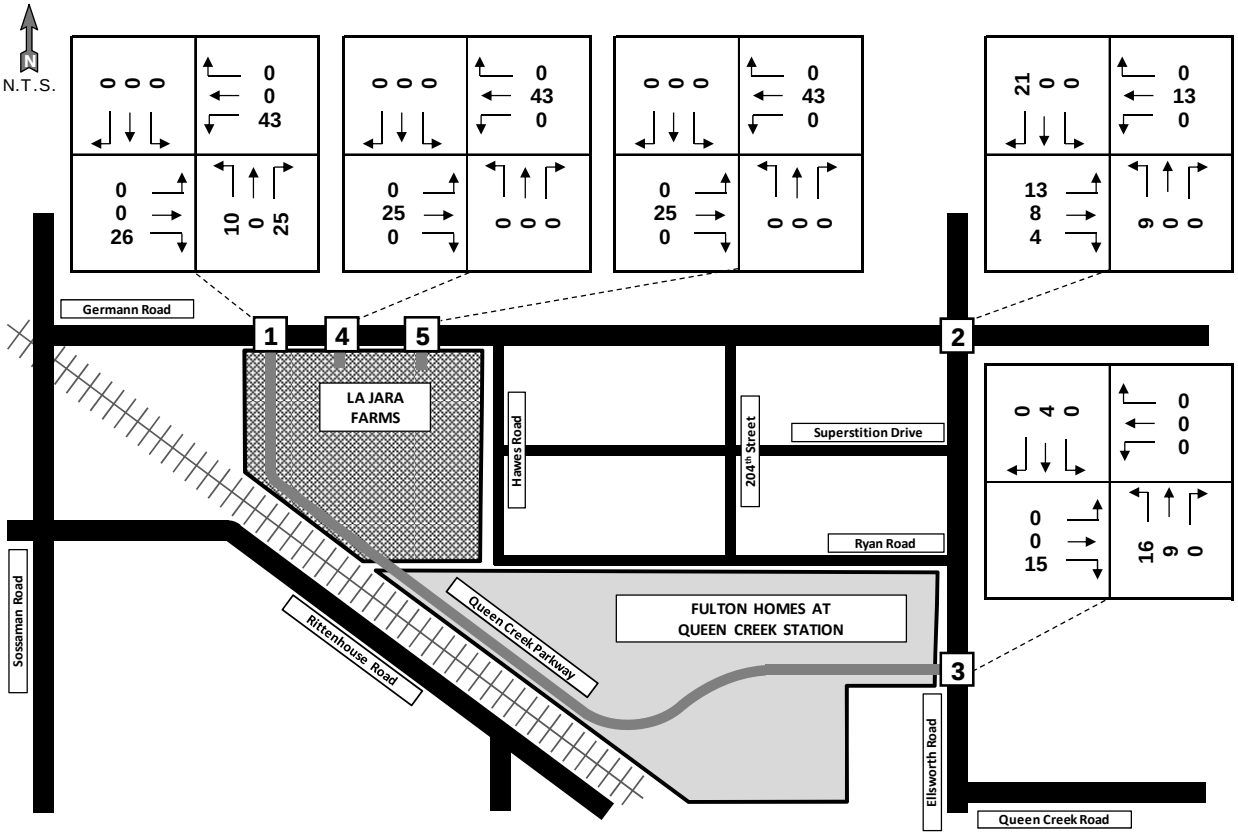


Figure 10: Residential Traffic Volumes – PM Peak Hour

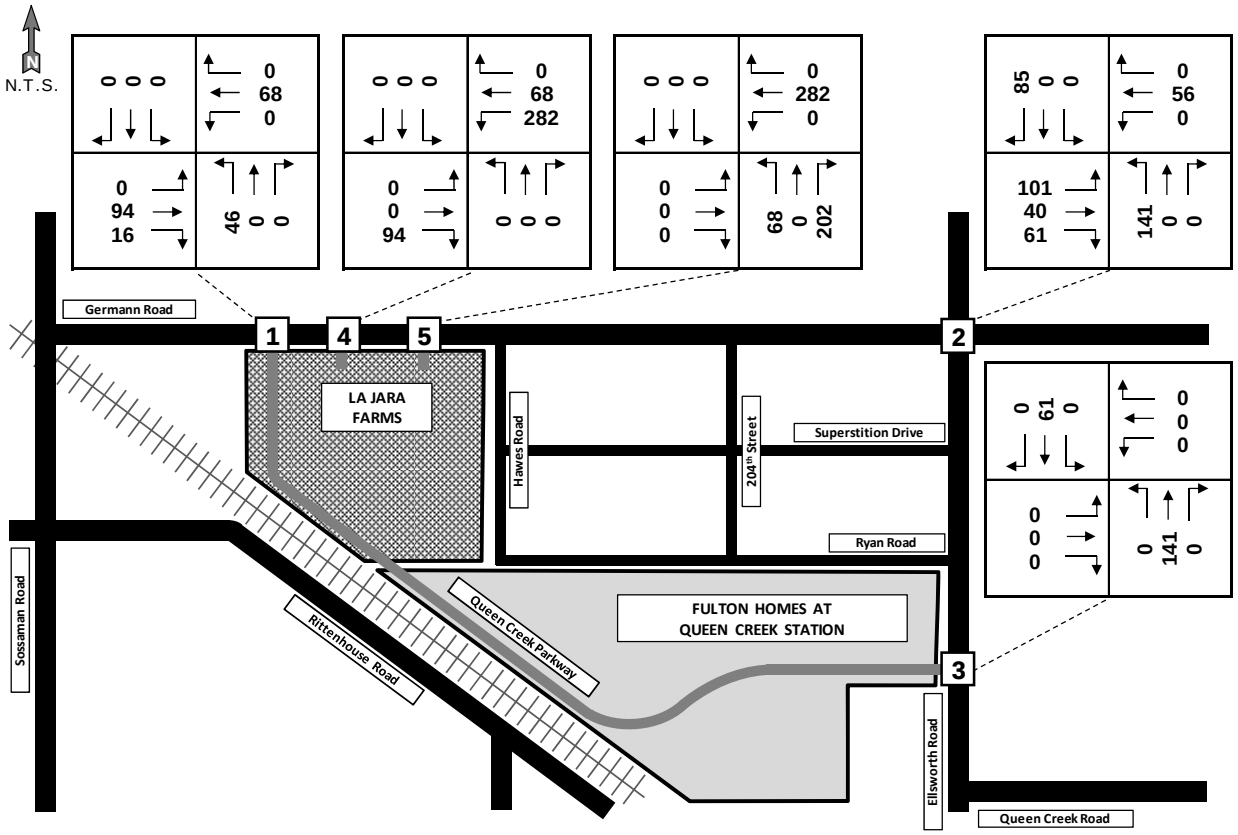


Figure 11: School Traffic Volumes – AM Peak Hour

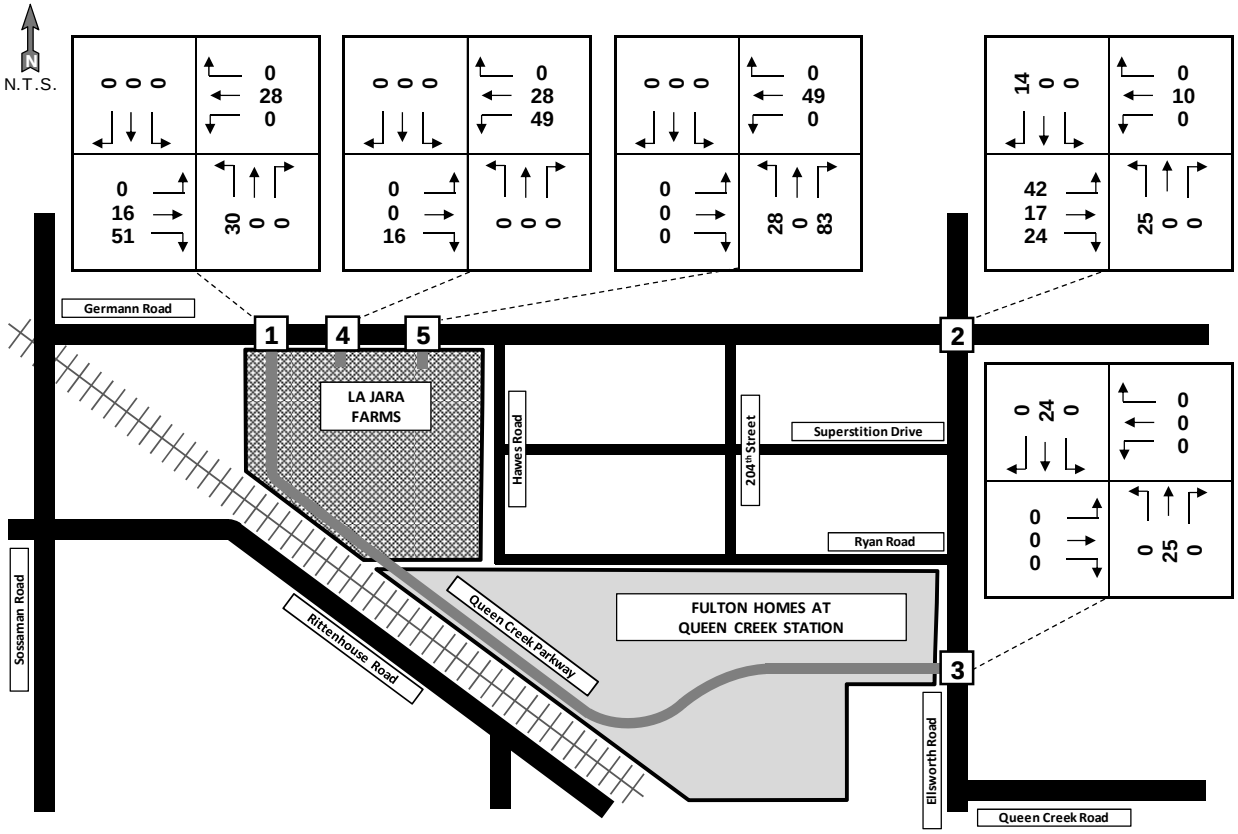


Figure 12: School Traffic Volumes – PM Peak Hour

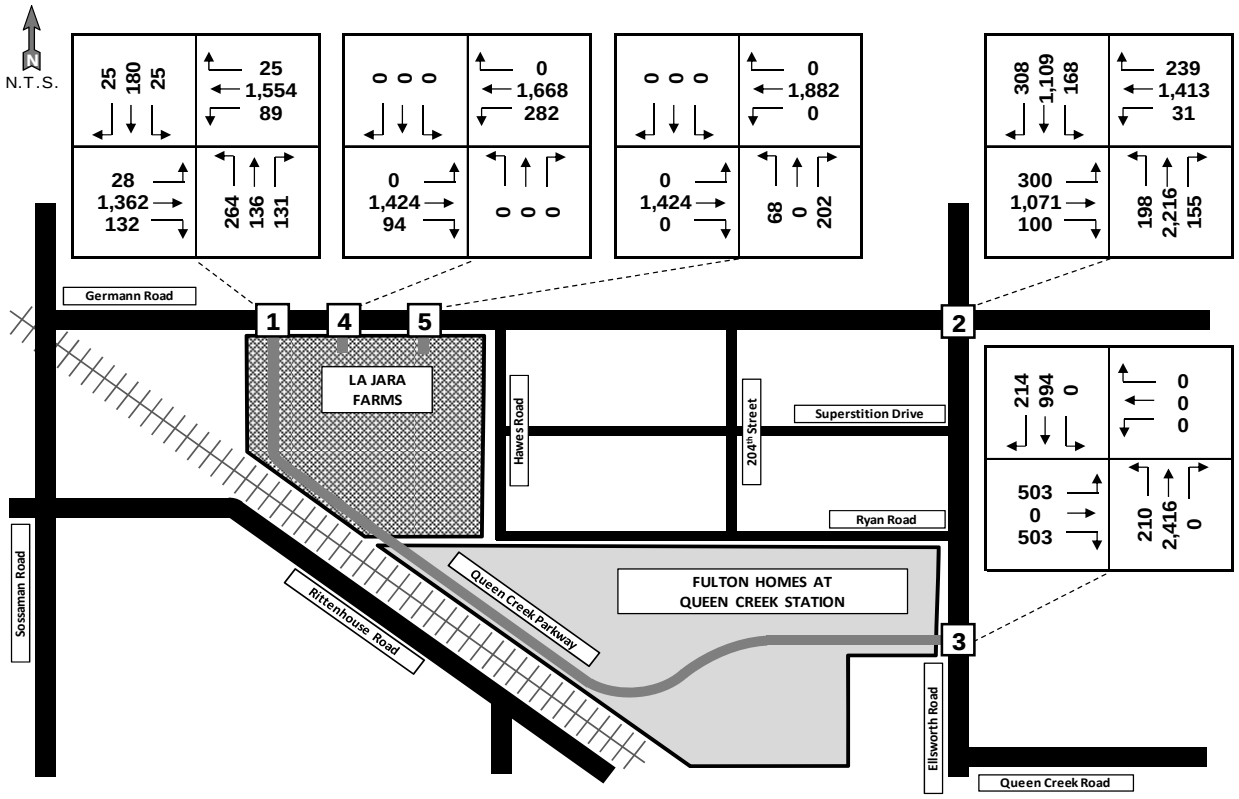


Figure 13: 2020 with La Jara Farms Traffic Volumes – AM Peak Hour

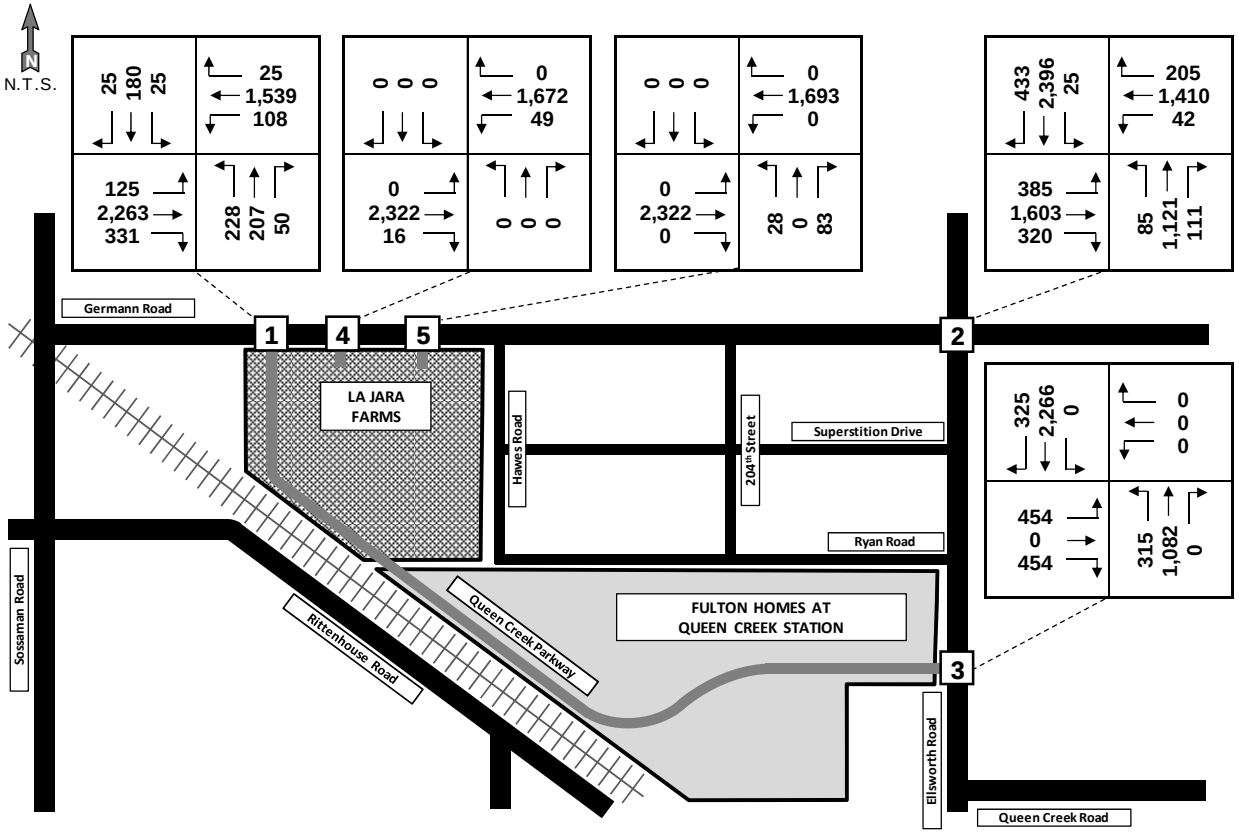


Figure 14: 2020 with La Jara Farms Traffic Volumes – PM Peak Hour

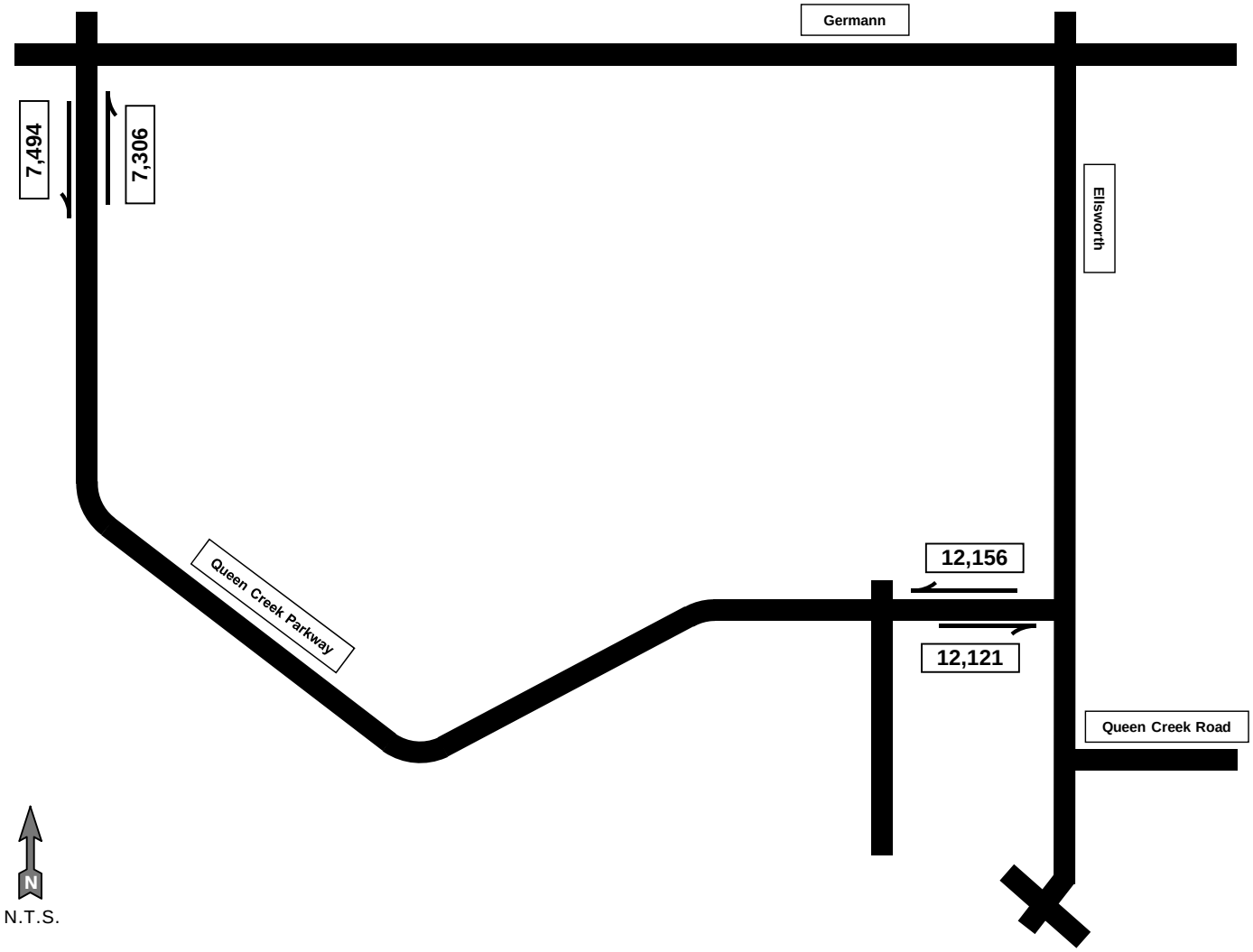


Figure 15: 2020 with La Jara Farms – Queen Creek Parkway Traffic Volumes – Day

Level-of-Service Analysis with La Jara Farms

Level-of-service was also determined for the adjacent intersections with the proposed La Jara Farms development. **Figure 16** provides a graph indicating the level-of-service criteria, and **Table 7** lists the level-of-service criteria for both signalized and unsignalized intersections.

Figure 16: Level-of-Service Criteria for Intersections

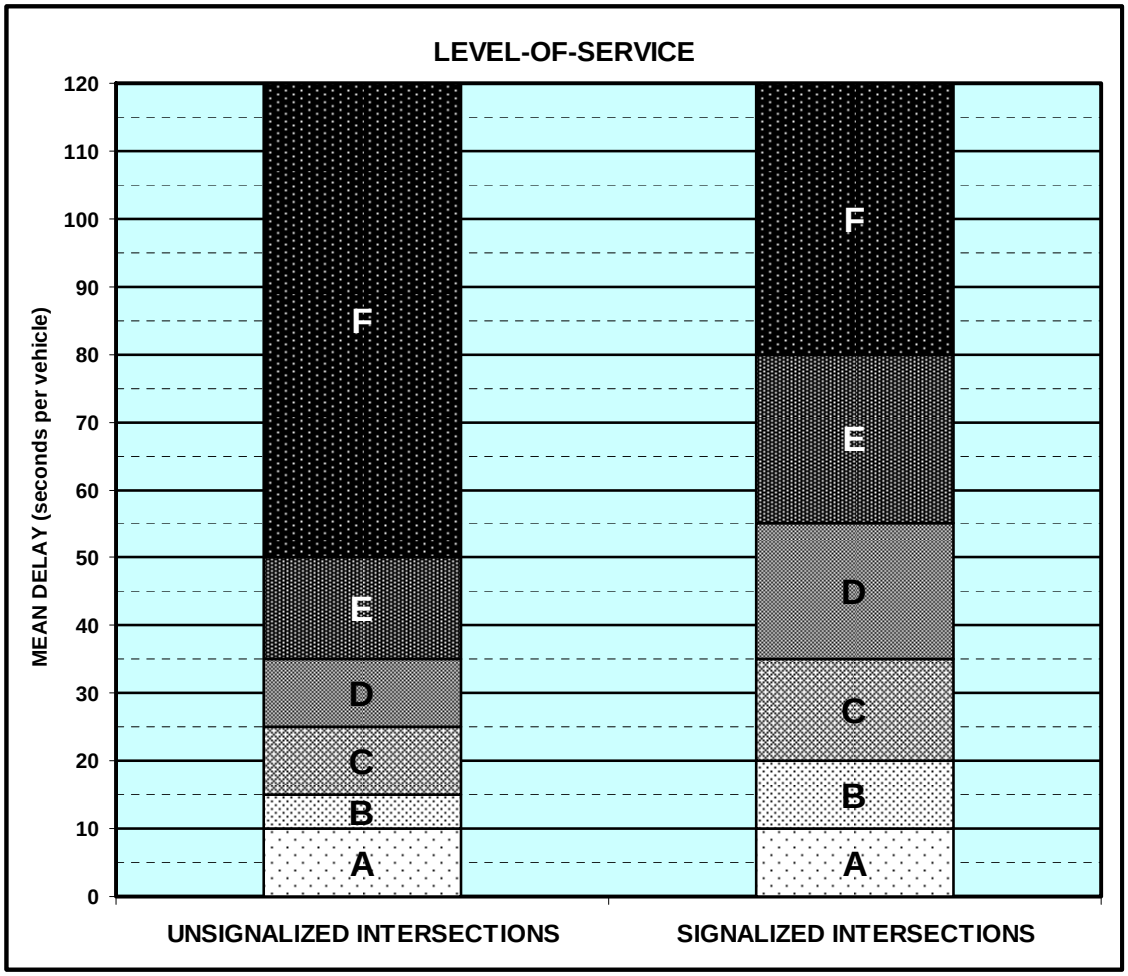


Table 7: Level-of-Service Criteria for Intersections

LEVEL-OF-SERVICE	AVERAGE DELAY (seconds-per-vehicle)	
	UNSIGNALIZED	SIGNALIZED
A	≤ 10	≤ 10
B	> 10 to 15	> 10 to 20
C	> 15 to 25	> 20 to 35
D	> 25 to 35	> 35 to 55
E	> 35 to 50	> 55 to 80
F	> 50	> 80

Appendix C provides the complete input and output for the level-of-service analyses with the proposed La Jara Farms development. **Figure 17** and **Figure 18**, respectively, provide the level-of-service for the morning and evening peak hours with La Jara Farms. There is minimal difference between the arterial / arterial intersection operation without and with La Jara Farms traffic.

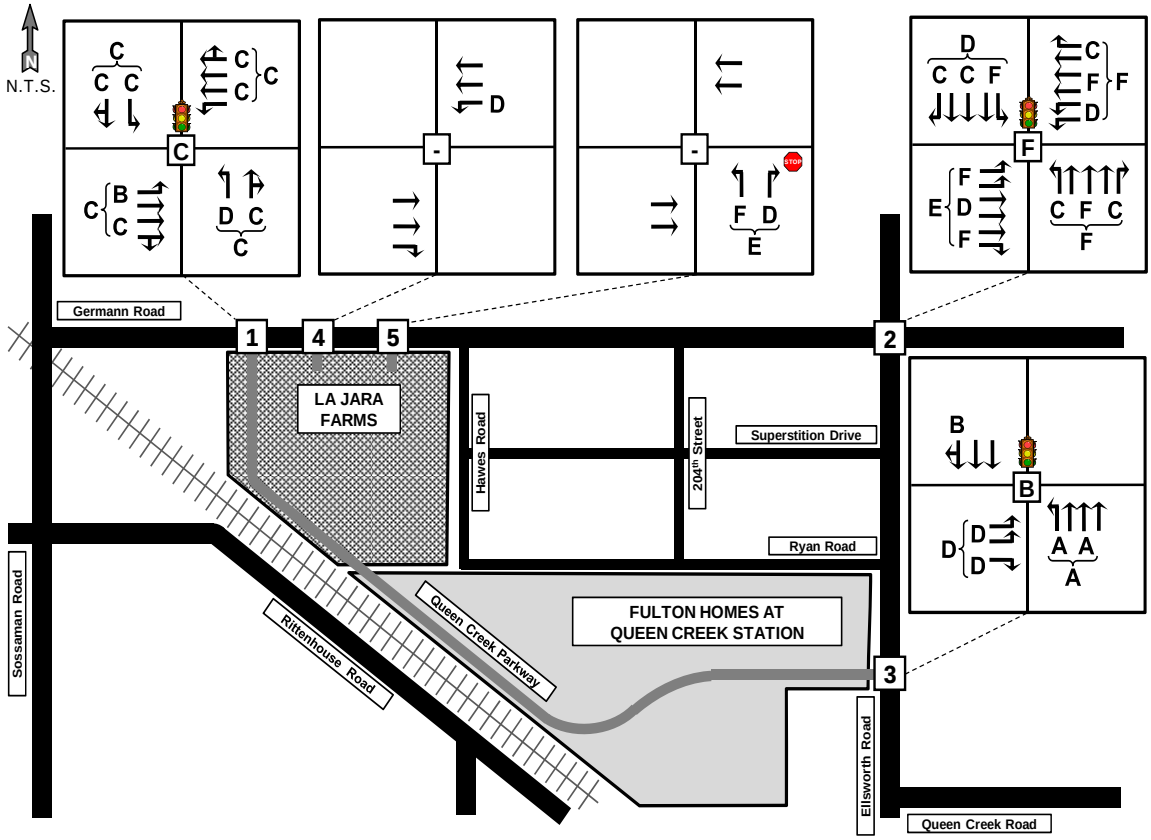


Figure 17: 2020 with La Jara Farms Level-of-Service – AM Peak Hour

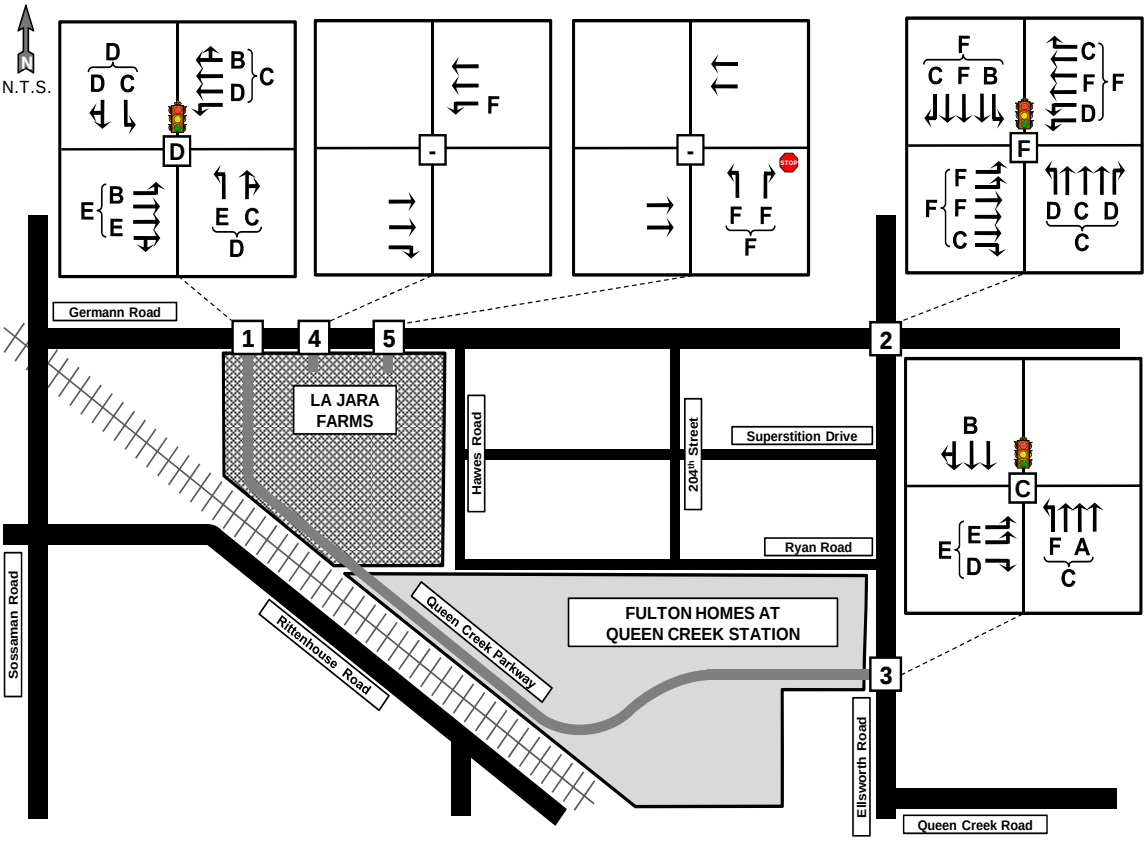


Figure 18: 2020 with La Jara Farms Level-of-Service – PM Peak Hour

These analyses indicate that the level-of-service for the Heritage Charter High School ingress and egress onto Germann Road is "F" during one or more peak hours. As a definitive site plan for the school becomes available, mitigation measures should be evaluated.

The traffic volume at the Heritage Charter High School ingress does warrant a right-turn deceleration lane.

Queue Analysis with Site

The vehicle queues that occur at charter schools during arrival and departure times are critical to analyze and accommodate. The vehicle queues that occurred at the entrance to an existing 479-student Benjamin Franklin Charter School at the intersection of Civic Center Drive and Warner Road in the Town of Gilbert were counted in 5-minute intervals from 6:00 to 9:00 AM and 1:00 to 6:30 PM. **Appendix D** provides the complete traffic count data. These data indicate that the maximum vehicle queue at the existing Benjamin Franklin Charter School was 30 vehicles – occurring at the school dismissal time of 3:00 PM.

The new proposed Heritage Charter High School anticipates 600 students in 2020. As indicated in **Table 8**, the maximum vehicle queue at the proposed school is anticipated to be 38 vehicles. A 6-vehicle queue, assuming 25 feet per vehicle with separation, requires 950 feet of on-site queue storage.

Table 8: Heritage Charter High School Maximum Vehicle Queue

SCHOOL	STUDENTS	MAXIMUM QUEUE	
		ARRIVAL	DISMISSAL
EXISTING BENJAMIN FRANKLIN CHARTER SCHOOL	479	10	30
PROPOSED HERITAGE CHARTER HIGH SCHOOL	**600**	**13**	**38**

Recommendations with La Jara Farms

The extension of Queen Creek Parkway from Fulton Homes at Queen Creek Station through La Jara Farms to intersect with Germann Road is necessary with the development of La Jara Farms. Standard Town of Queen Creek improvements to Germann Road are required. No additional street improvements are necessary for the La Jara Farms development.

Heritage Charter High School should provide at least one ingress-only and one egress-only access to the site.

Heritage Charter High School should provide a minimum of 950 lane-feet of queue storage on school property.

APPENDIX A
FULTON HOMES AT QUEEN CREEK STATION
CIRCULATION REVIEW AND TRAFFIC IMPACT ANALYSIS EXCERPTS

Fulton Homes at Queen Creek Station
Queen Creek, Arizona

Circulation Review and Traffic Impact Analysis

October 2012

Prepared for:
FULTON HOMES

For Submittal to:
TOWN OF QUEEN CREEK

EPS Group Project Number: 12-076

Prepared by: Paul E. Basha, P.E., P.T.O.E.
Eric R. Maceyko, P.E., P.T.O.E.
Bryan A. Martin, E.I.T.

eps group, Inc.
Engineers, Planners & Surveyors

EPS Group, Inc. • 2045-South Vineyard Avenue, Suite 101 • Mesa, AZ 85210
Tel (480) 503-2250 • Fax (480) 503-2258
paul.basha@epsgroupinc.com
www.epsgroupinc.com

Table of Contents

List of Figures

List of Tables

List of Appendices

Executive Summary

Introduction

Fulton Homes is considering a 671-dwelling-unit single-family residential development, named Fulton Homes at Queen Creek Station, located in the Town of Queen Creek, south of Germann Road and west of Ellsworth Road. Immediately adjacent and east of the proposed residential development is an approximately 39-acre property designated as mixed-use. This property is anticipated to include multi-family residential, office, and retail development.

There are five (5) purposes for this report. The first purpose is to determine if Queen Creek Parkway should directly connect the Ellsworth Road / Queen Creek Road intersection to Germann Road. The second purpose is to determine the number of lanes necessary for Queen Creek Parkway. The third purpose is to determine if one development access with Ellsworth Road is sufficient. The fourth purpose is to determine appropriate configurations and traffic control for the immediately adjacent intersections. The fifth purpose is to discover if the proposed development causes future significant impacts on the surrounding road network, and if necessary, develop recommendations to mitigate those impacts.

Results

The *2010 Southeast Mesa Queen Creek Traffic Study* concluded that Queen Creek Parkway between Ellsworth Road and Germann Road would have little impact on regional traffic operations. The traffic forecasts for the surrounding roadway system discovered that conditions without and with the parkway vary little.

The Queen Creek Transportation Plan includes a future diagonal direct connection between the Meridian / Queen Creek intersection and the Signal Butte / Germann intersection. This connection will continue to Pecos Road and Williams Field Road, and eventually to SR-24. This street network provides an efficient and desirable system for traffic southeast of the Ellsworth / Queen Creek intersection to origins and destinations north and west of the Town of Queen Creek. Therefore, only minimal benefit occurs from Queen Creek Parkway aligning with Queen Creek Road at Ellsworth Road. This future street system will minimize future traffic volume increases on Queen Creek Road, east of Ellsworth Road.

In particular, there is minimal increase in traffic on Queen Creek Road, east of Ellsworth Road, with the direct connection of Queen Creek Parkway from Ellsworth Road to Germann Road. The 2010 *Southeast Mesa Queen Creek Traffic Study* indicated that with the direct connection of Queen Creek Parkway, only an additional 600 vehicles-per-day would utilize Queen Creek Road, east of Ellsworth Road. Therefore, at Ellsworth Road, Queen Creek Parkway can be offset from Queen Creek Road.

With an offset intersection of Queen Creek Parkway north of Queen Creek Road, and with the proposed Fulton Homes at Queen Creek Station development and the future development of the adjacent mixed-use property, the daily traffic volumes on Queen Creek Parkway at Germann Road are anticipated to be a maximum conservatively large total of 13,711 vehicles. This volume can be accommodated by one street intersection with Germann Road and one lane per direction. With these same conditions, the daily traffic volumes on Queen Creek Parkway at Ellsworth Road adjacent to the designated mixed-use property are anticipated to be a maximum conservatively large total of 23,942 vehicles. This volume can be accommodated by one street intersection with Ellsworth Road and two lanes per direction.

Queen Creek Parkway located offset from Queen Creek Road could extend east of Ellsworth Road to provide access to the properties east of Ellsworth Road. An internal street network could be planned, designed, and constructed to connect with Queen Creek Road to the south and, if acceptable and desired by the property owners, also connect with Germann Road to the north. The existing Queen Creek Road intersection with Ellsworth Road remains necessary to serve Queen Creek Middle School. The new Ellsworth Road / Queen Creek Parkway intersection would provide access to all residential, commercial, and industrial properties that may develop between Queen Creek Road and Germann Road, and between Ellsworth Road and the Signal Butte Road alignment.

The proposed Fulton Homes at Queen Creek Station development is anticipated to generate the following entering and exiting weekday and Saturday daily and peak hourly traffic volumes.

	Weekday			Saturday		
Time Period	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
Day	3,249	3,249	6,498	3,422	3,422	6,844
AM Peak Hour	139	382	521	-	-	-
PM Peak Hour	432	254	686	348	315	663

The property adjacent to the proposed Fulton Homes development designated as mixed-use is not part of the proposed Fulton Homes at Queen Creek Station development and therefore was not analyzed in detail. This property is anticipated to generate the following total weekday and Saturday daily and peak hourly traffic volumes.

	Weekday			Saturday	
Time Period	**Day**	**AM**	**PM**	**Day**	**Peak**
Multi-Family	972	72	95	1,355	77
Office	1,069	149	163	179	31
Retail	11,337	245	1,079	15,184	1,431
Total	13,378	466	1,337	16,718	1,539

Recommendations without Fulton Homes at Queen Creek Station for Existing 2012

The recommended 2012 lane configuration and traffic control is depicted in **Figure 1**.

The Ellsworth Loop / Rittenhouse intersection westbound approach should provide two through lanes and a shared through and right-turn lane.

The Ellsworth / Germann intersection signal timing – City of Mesa jurisdiction – should be coordinated with the Ellsworth Road traffic signals in the Town of Queen Creek.

Traffic signal timing for all existing signalized intersections in the Town of Queen Creek should be adjusted to conform to current traffic volumes – particularly the very dominant morning northbound traffic and the very dominant evening southbound traffic.

Recommendations without Fulton Homes at Queen Creek Station for 2020

The recommended ambient 2020 lane configuration and traffic control is depicted in **Figure 2**.

Germann Road, Ellsworth Road, and Rittenhouse Road should provide three (3) through lanes per direction in the vicinity of their intersections.

The Ellsworth / Queen Creek Parkway intersection should be signalized.

The Queen Creek Parkway / Germann intersection should be signalized.

The Ellsworth / Germann intersection should provide dual eastbound and westbound left-turn lanes and right-turn lanes for all approaches.

The Ellsworth / Rittenhouse intersection traffic signal cycle length should be optimized.

Recommendations with Fulton Homes at Queen Creek Station for 2012

The recommended 2012 with proposed site lane configuration and traffic control is depicted in **Figure 3**.

The Ellsworth / Queen Creek Parkway intersection should provide a northbound left-turn lane.

Queen Creek Parkway should generally conform to the Town of Queen Creek standard major collector cross-section.

Queen Creek Parkway should provide two (2) through lanes per direction at Ellsworth Road and for the length of the planned mixed-use development.

Queen Creek Parkway should provide one through lane per direction from the planned mixed-use development to the Fulton Homes at Queen Creek Station northwestern property boundary.

Recommendations with Fulton Homes at Queen Creek Station for 2020

The recommended 2020 with site lane configuration and traffic control is depicted in **Figure 4**.

The Ellsworth / Queen Creek Parkway intersection should provide dual westbound left-turn lanes and one right-turn lane, unless and until Queen Creek Parkway is extended east of Ellsworth Road.

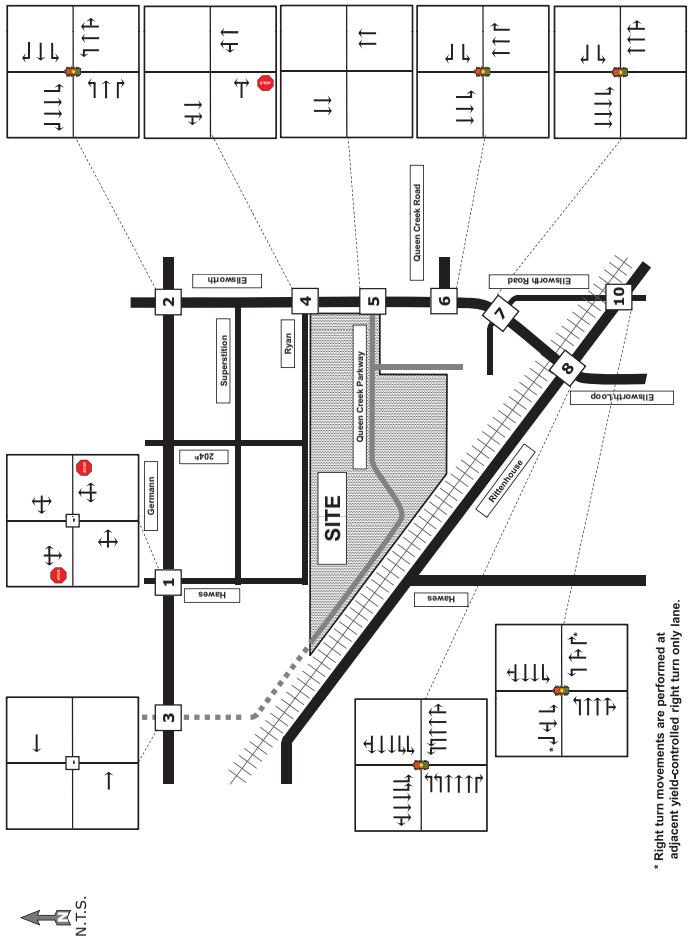


Figure 1: Existing Lane Configuration and Traffic Control

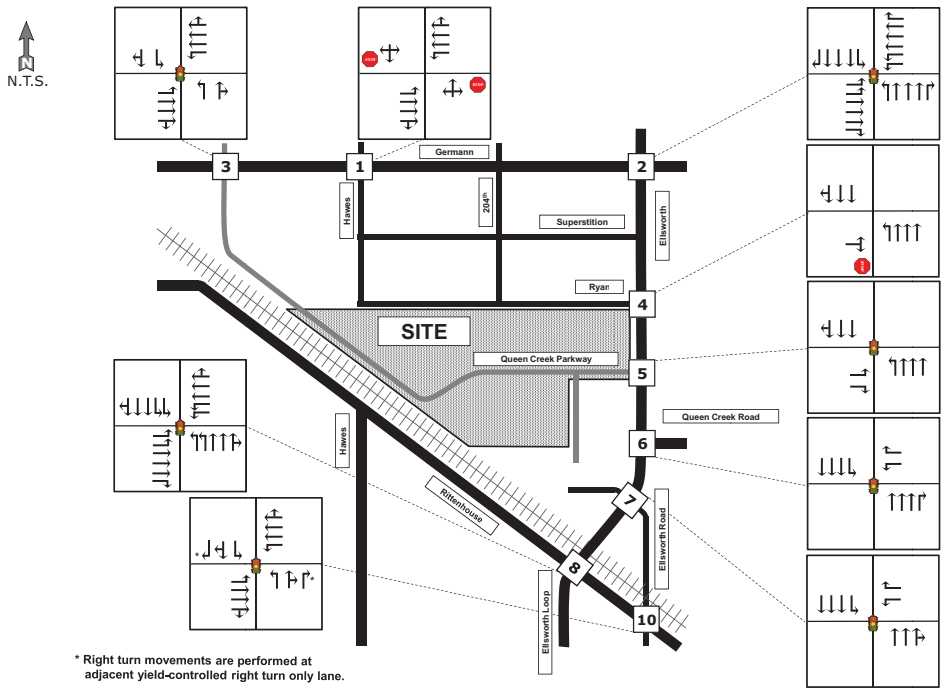


Figure 2: Ambient 2020 Lane Configuration and Traffic Control

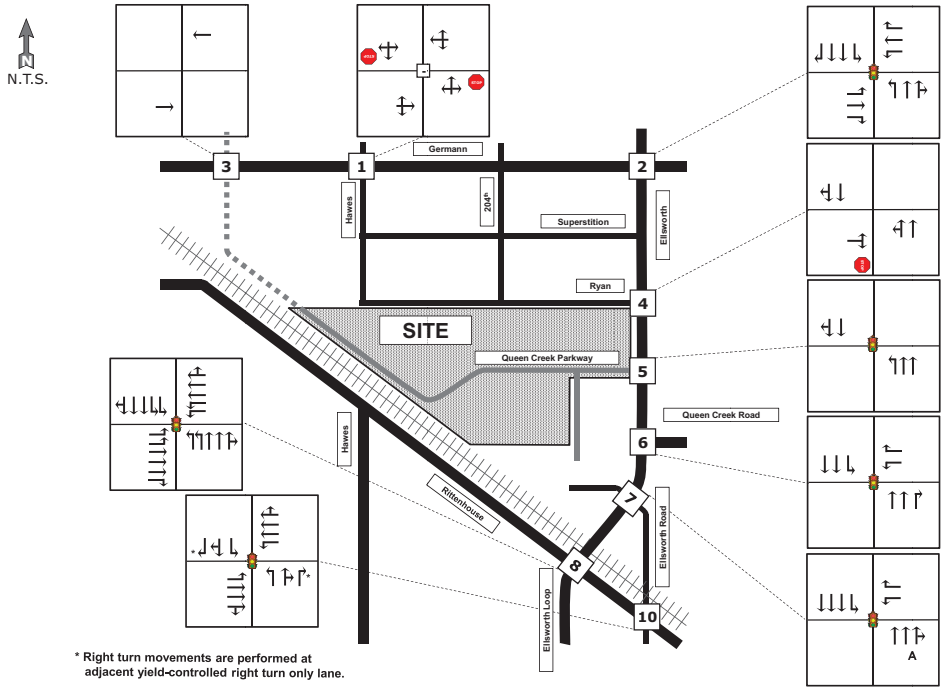


Figure 3: Recommended Existing with Site Lane Configuration and Traffic Control

Introduction

Fulton Homes is considering a 671-dwelling-unit single-family residential development, named Fulton Homes at Queen Creek Station. It is located in the Town of Queen Creek, Arizona; south of Germann Road and west of Ellsworth Road. Immediately adjacent and east of the proposed residential development is an approximately 39-acre property designated as mixed-use. This property is anticipated to include multi-family residential, office, and retail development.

These two properties are located approximately one-half mile south of Germann Road and bounded by Ellsworth Road, Queen Creek Road alignment, and the Union Pacific Railroad.

Figure 5 provides a vicinity map of the general area.

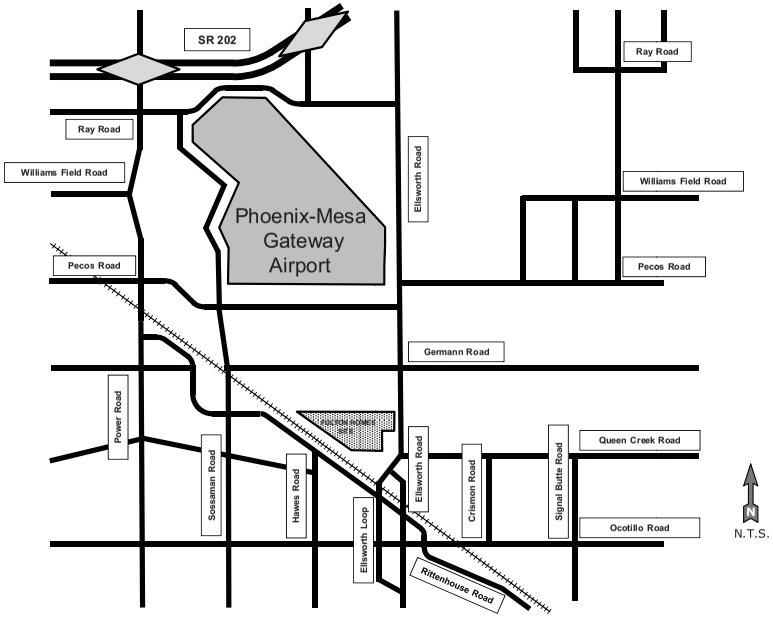


Figure 5: General Vicinity Map

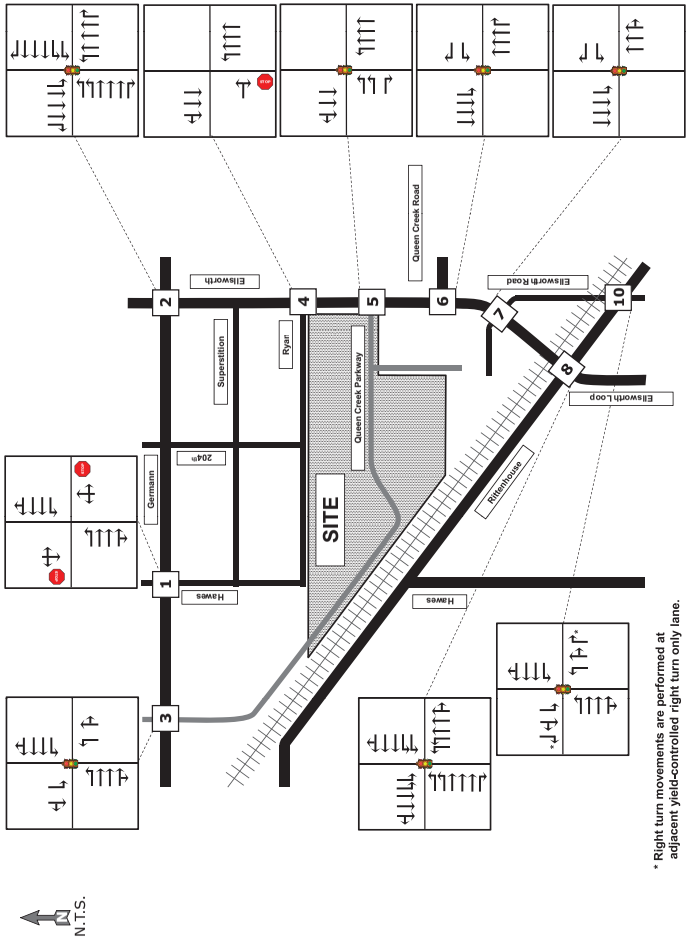


Figure 4: Recommended 2020 with Site Lane Configuration and Traffic Control

* Right turn movements are performed at adjacent yield-controlled right turn only lane.

Figure 6 provides a map of the immediate vicinity of the proposed Fulton Homes at Queen Creek Station.

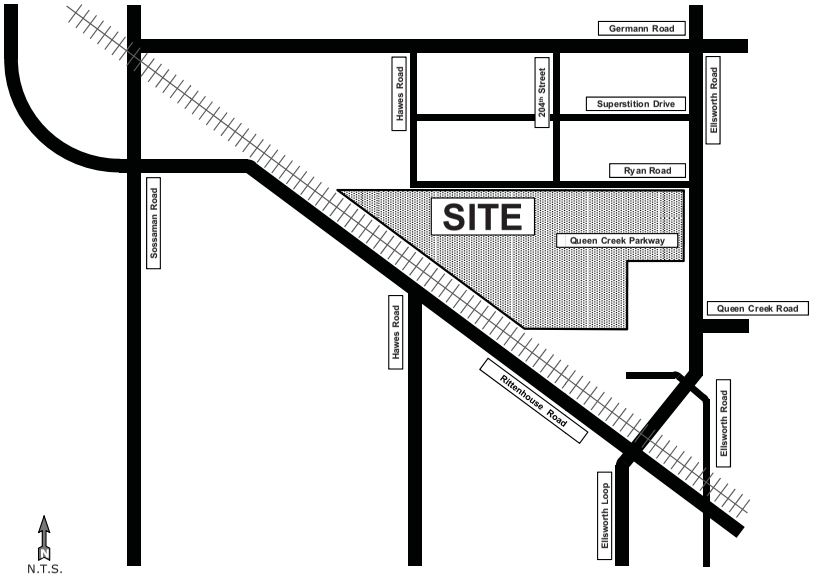


Figure 6: Local Vicinity Map

Scope of Study

There are nine (9) specific purposes for this analysis:

- Determine if Queen Creek Parkway should directly connect the Ellsworth Road / Queen Creek Road intersection to Germann Road
- Determine the Queen Creek Parkway lane number
- Determine the number of development accesses
- Evaluate existing traffic conditions
- Estimate future ambient 2020 traffic volumes
- Evaluate ambient 2020 traffic conditions
- Estimate new traffic generated by proposed residential development
- Assign and distribute new traffic to surrounding street system
- Determine need for modified traffic control and lane configurations at all study intersections

Surrounding Street System – "2010 Southeast Mesa Queen Creek Traffic Study"

The City of Mesa and the Town of Queen Creek jointly contracted with HDR to prepare a transportation plan for the area bounded by Ray Road, Power Road, Ocotillo Road, and Meridian Road. This plan was completed in 2010 and is identified as the *Southeast Mesa Queen Creek Traffic Study*. Pertinent excerpts of this report are provided as **Appendix A**.

The primary purpose of the study was to develop anticipated future traffic volumes in the area bounded by Ray Road, Meridian Road, Ocotillo Road, and Power Road. The Fulton Homes at Queen Creek Station property was directly affected by this study. The study examined the potential circulation benefits of a new roadway named Queen Creek Parkway extending west from Ellsworth Road on the Queen Creek Road alignment, then northwest to intersect with Germann Road. Much of Queen Creek Parkway from Germann Road to Ellsworth Road is located immediately adjacent to the Fulton Homes property – as indicated in **Figure 7**. The portion of Queen Creek Parkway within the site was assumed to be constructed with the development of the property.

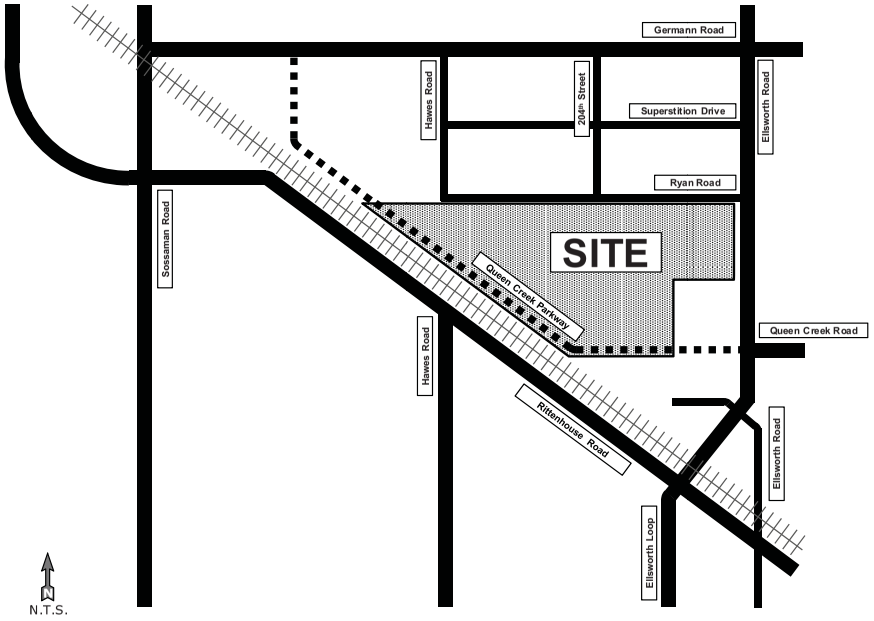


Figure 7: Previous Potential Queen Creek Parkway Alignment

The *2010 Southeast Mesa Queen Creek Traffic Study* included a map of the study area existing streets by lane number. **Figure 8** provides this map.

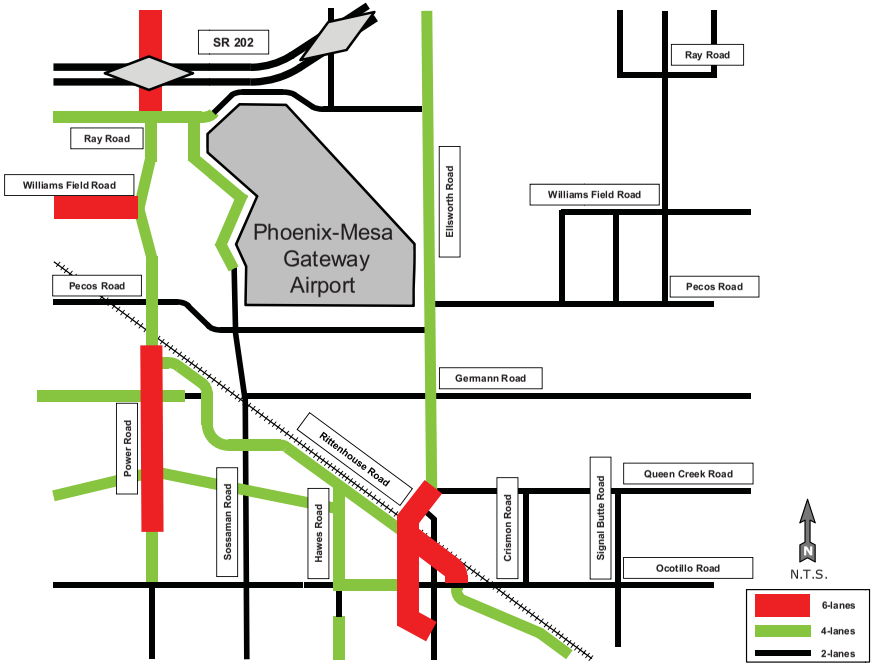


Figure 8: 2010 Report Existing Street Lane Number

Figure 9 provides the planned street lane number for the study area for 2020 as indicated in the *2010 Southeast Mesa Queen Creek Traffic Study*. As indicated, this street network includes State Route 24 extending from State Route 202 to Ellsworth Road by 2020 and eventually to Signal Butte Road. Also indicated in the 2010 Study is the Queen Creek Transportation Plan for Signal Butte Road to connect diagonally and directly to Meridian Road between Germann Road and Queen Creek Road.

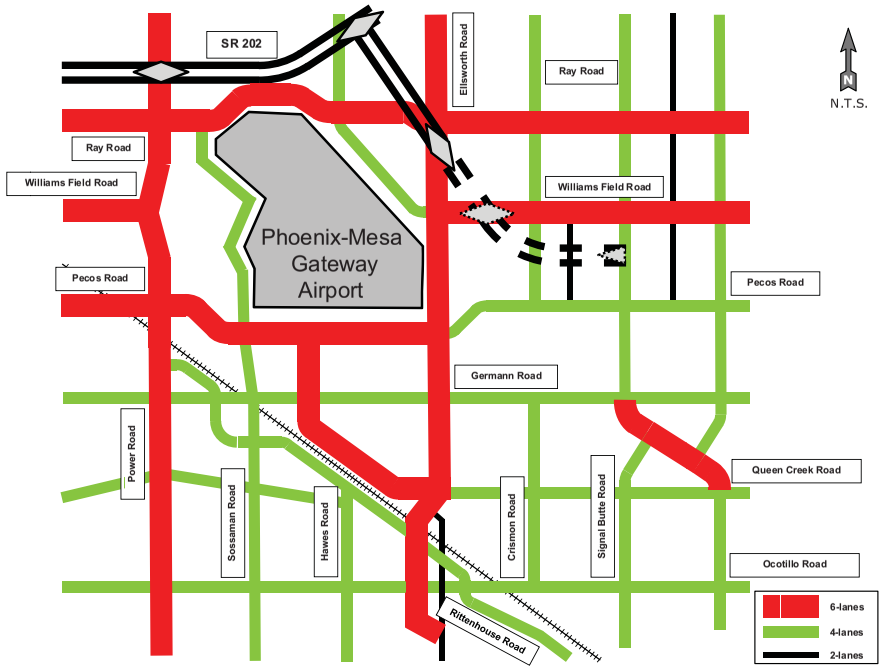


Figure 9: 2010 Report Planned 2020 Street Lane Number

The 2010 study compared the traffic volumes without and with Queen Creek Parkway between Pecos Road and Ellsworth Road. **Figure 10** provides the anticipated 2018 traffic volumes without Queen Creek Parkway, while **Figure 11** provides the anticipated 2018 traffic volume with Queen Creek Parkway. On page 34 of this *2010 Southeast Mesa Queen Creek Traffic Study* report, Queen Creek Parkway was recommended to be six lanes. It is inconsistent that Queen Creek Road, east of Ellsworth Road, is depicted as four lanes with 40,100 vehicles-per-day, while Queen Creek Parkway, west of Ellsworth Road, is depicted as six lanes with 22,500 vehicles-per-day. It is inconsistent that a street with larger traffic volumes would require fewer travel lanes. This discrepancy should be corrected.

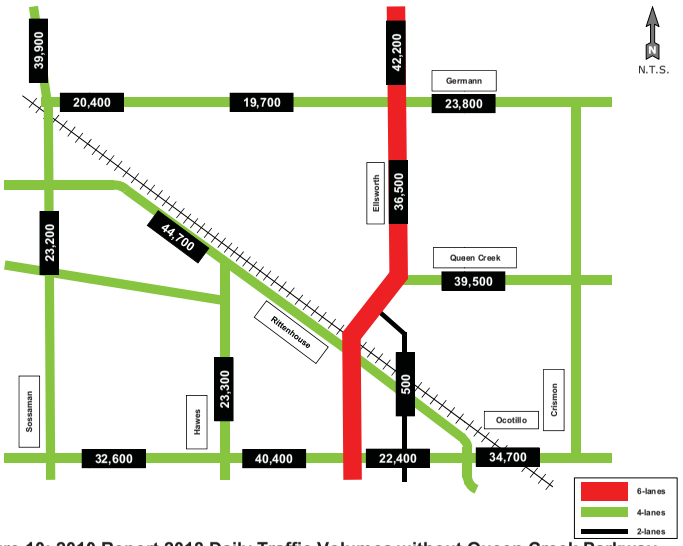


Figure 10: 2010 Report 2018 Daily Traffic Volumes without Queen Creek Parkway

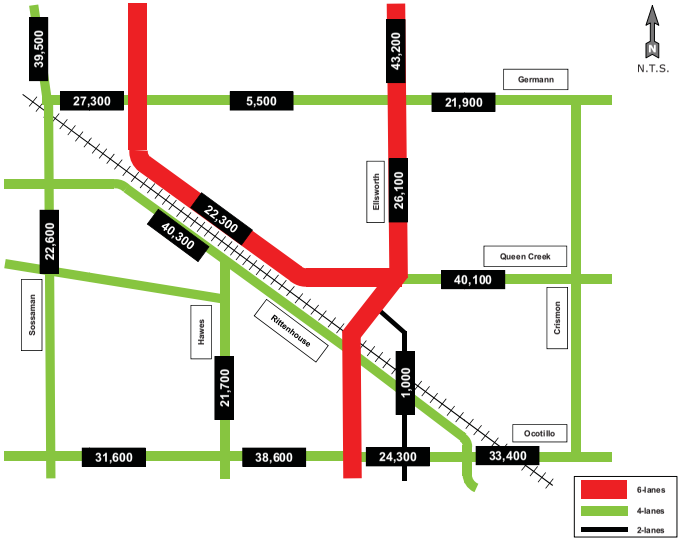


Figure 11: 2010 Report 2018 Daily Traffic Volumes with Queen Creek Parkway

Figure 12 presents the traffic volume difference on adjacent streets without and with a direct connection of Queen Creek Parkway from the Ellsworth / Queen Creek intersection to Germann Road. This figure implies that Queen Creek Parkway diverts traffic from Ellsworth Road, south of Germann Road; Germann Road, west of Ellsworth Road; and Rittenhouse Road, west of Ellsworth Road. However, the provision of Queen Creek Parkway from Ellsworth Road to Germann Road does not divert traffic from Ellsworth Road, north of Germann Road; from Germann Road, east of Ellsworth Road; or from Queen Creek Road, east of Ellsworth Road.

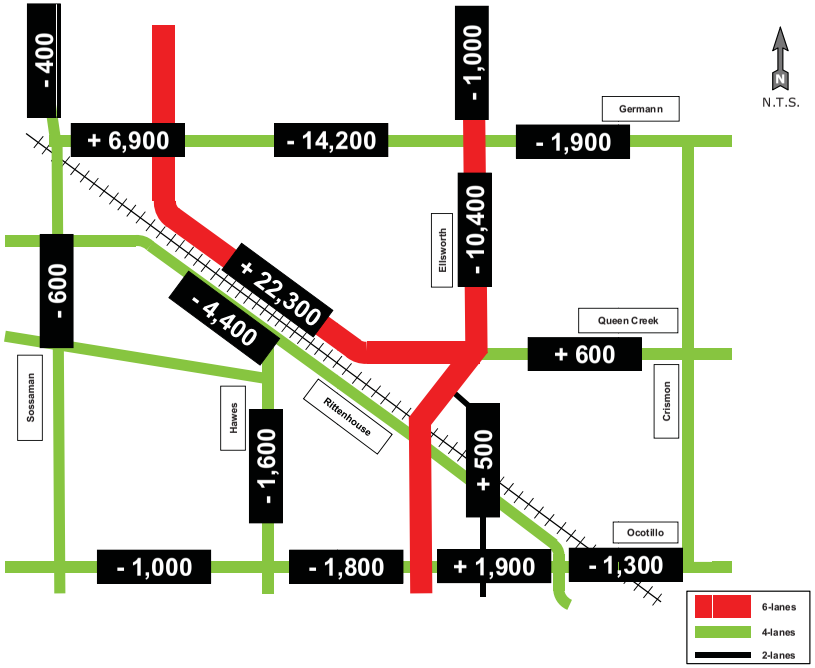


Figure 12: 2010 Report 2018 Daily Traffic Volumes Difference without and with Queen Creek Parkway

These data indicate only a marginal increase in traffic on Queen Creek Road, east of Ellsworth Road, with the addition of Queen Creek Parkway. Therefore, if Queen Creek Parkway intersected with Ellsworth Road at Queen Creek Road, there would be minimal through traffic on Queen Creek Parkway from east of Ellsworth Road to west of Ellsworth Road. These data indicate that both Ellsworth Road, north of Germann Road; and Germann Road, east of Ellsworth Road, would decrease minimally with Queen Creek Parkway – revealing that a direct connection of Queen Creek Parkway from Ellsworth Road to Germann Road does not substantially reduce traffic volumes on adjacent arterials beyond the localized area.

Figure 13 and **Figure 14** provide "screenline" information. Screenlines sum traffic volumes on several parallel streets at a specific location. Both diagrams present the volume summation of all east-west streets immediately west of Ellsworth Road and the volume summation of all north-south streets immediately south of Germann Road. The **Figure 13** volumes are without Queen Creek Parkway, while the **Figure 14** volumes are with Queen Creek Parkway.

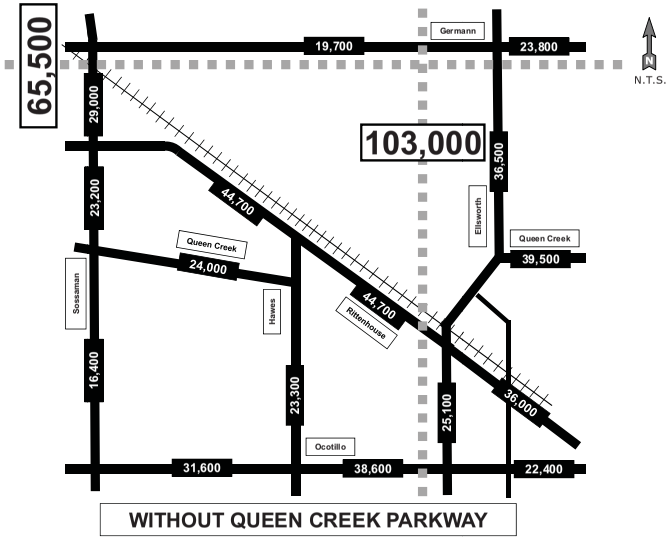


Figure 13: 2010 Report 2018 Screenline Daily Traffic Volumes without Queen Creek Parkway

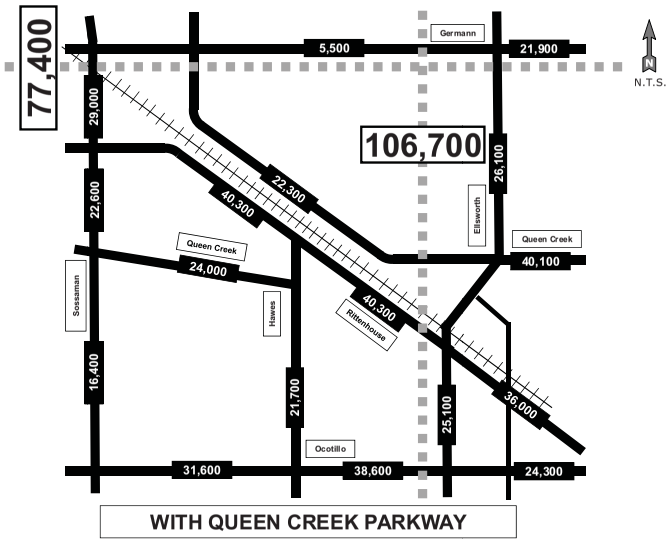


Figure 14: 2010 Report 2018 Screenline Daily Traffic Volumes with Queen Creek Parkway

Without Queen Creek Parkway, the three (3) east-west street traffic volumes sum to 103,000 vehicles-per-day. With Queen Creek Parkway, the four (4) east-west street traffic volumes sum to 106,700 vehicles-per-day. The additional 3,700 vehicles-per-day do not justify Queen Creek Parkway – the fourth east-west street. Without Queen Creek Parkway, the two (2) north-south street traffic volumes sum to 65,500 vehicles-per-day. With Queen Creek Parkway, the three (3) north-south streets sum to 77,400 vehicles-per-day. The additional 11,900 vehicles-per-day justify Queen Creek Parkway – the third north-south street.

The primary reason that low traffic volumes will travel between Queen Creek Road and Queen Creek Parkway across Ellsworth Road is the arterial street system included in the Queen Creek Transportation Plan as depicted in **Figure 9**. This circulation plan directs traffic from southeast of the Ellsworth / Queen Creek intersection to Signal Butte Road, Pecos Road, Williams Field Road, and eventually SR-24. Most of these street segments have not yet been constructed. However, these streets will be constructed as adjacent development occurs – therefore the streets will become present as the traffic volumes increase. This future street system will minimize future traffic volume increases on Queen Creek Road, east of Ellsworth Road.

Considering all of these traffic volume changes with the provision of Queen Creek Parkway directly connecting the Ellsworth / Queen Creek intersection to Germann Road, reveals that Queen Creek Parkway would provide traffic diversion for only some of the adjacent street segments in the immediate vicinity, and provide negligible traffic diversion for non-adjacent street segments. As stated in the *2010 Southeast Mesa Queen Creek Traffic Study* on page 37,

> "The 2020 traffic analysis presented in the previous section shows that the proposed Queen Creek Parkway will have little impact on regional traffic operations. Except for localized impacts to Germann Road, traffic forecasts for Sossaman Road and the rest of the system vary little between conditions with and without the parkway."

A direct connection of Queen Creek Parkway between Ellsworth Road and Germann Road is not warranted based on traffic volumes. However, there is a potential need for a third north-south street between Ellsworth Road and Sossaman Road. Therefore, it is appropriate to continue planning for Queen Creek Parkway to become a north-south street, west of Ellsworth Road. Recognizing that Queen Creek Road increases only minimally with an aligned Queen Creek Parkway, Queen Creek Parkway could either align or be offset from Queen Creek Road at Ellsworth Road. Most importantly, the predicted traffic volume for Queen Parkway should be adjusted from the 22,300 vehicles-per-day indicated in the 2010 Southeast Mesa Queen Creek study.

The predicted traffic volume on Queen Creek Parkway should be the difference between the screenline volume without and with the parkway direct connection. The screenline traffic volume difference with Queen Creek Parkway was 11,900 vehicles-per-day at Germann Road and 3,700 vehicles-per-day at Ellsworth Road. This large discrepancy will not occur. The through traffic volume on Queen Creek Parkway will be consistent for its entire length between Ellsworth Road and Germann Road. It is conservative to assume that Queen Creek Parkway would have the larger of these two volumes for its entire length from Germann Road to Ellsworth Road. **Figure 15** provides the adjusted 2018 directional traffic volumes for Queen Creek Parkway at its intersection with Germann Road and at its intersection with Ellsworth Road.

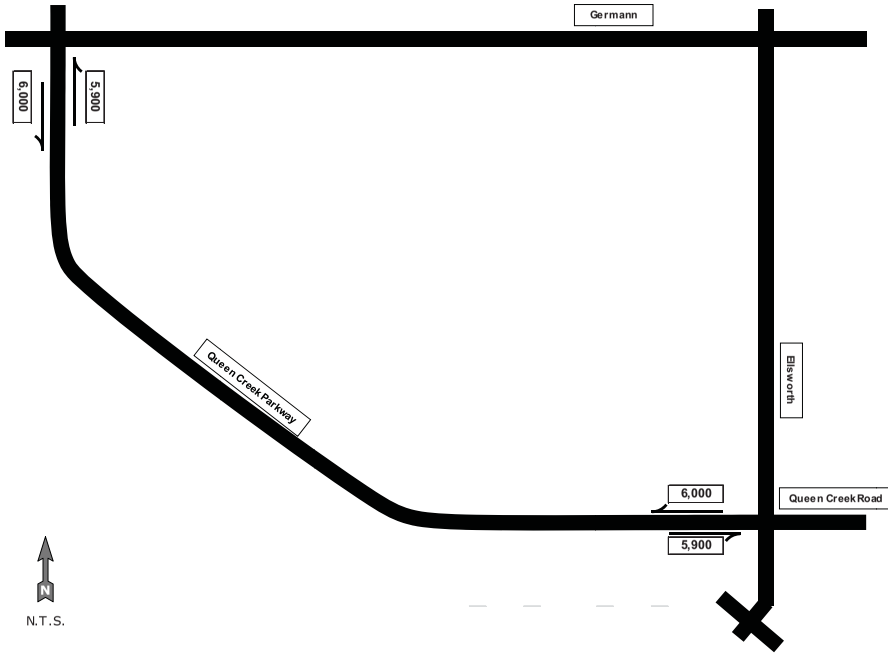


Figure 15: 2018 Daily Traffic Volumes with Queen Creek Parkway aligned with Queen Creek Road

With the offset between Queen Creek Parkway and Queen Creek Road, the daily traffic volumes would be reduced. The amount of reduction can be predicted only with a more detailed analysis. The traffic volume reduction would vary with the resulting traffic volume at 70% to 90% of the aligned street traffic volume. A conservative assumption is that the re-aligned Queen Creek Parkway would have 90% of the traffic volume of the aligned Queen Creek Parkway. Recognizing that with Queen Creek Parkway, Ellsworth Road is predicted to have 26,100 vehicles-per-day south of German Road and 43,100 vehicles-per-day north of Germann Road, Ellsworth Road could accommodate an additional 1,190 vehicles-per-day (10% of 11,900). **Figure 16** indicates the anticipated directional traffic volumes on Queen Creek Parkway with the offset alignment.

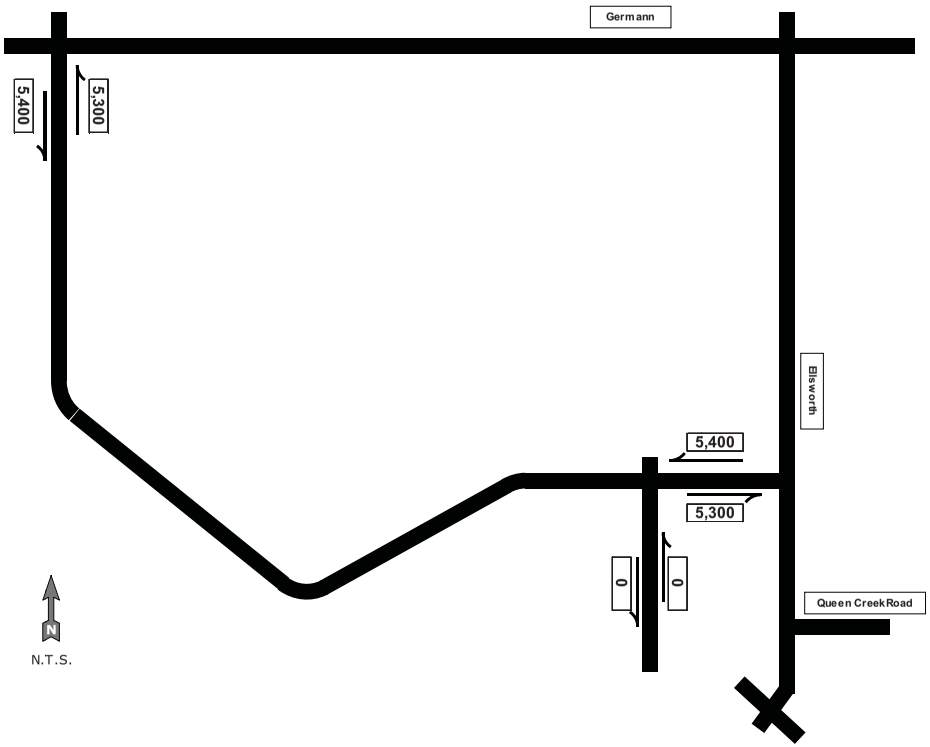


Figure 16: 2018 Daily Traffic Volumes with Queen Creek Parkway offset from Queen Creek Road

APPENDIX B
TRIP GENERATION

APPENDIX B.1
RESIDENTIAL

PROJECT	LA JARA FARMS			
PARCEL	RESIDENTIAL			
ITE LAND USE CATEGORY AND CODE	SINGLE FAMILY - 210			
INDEPENDENT VARIABLE	DWELLING UNITS			
SIZE	132			
		TRIPS		
		ENTERING	EXITING	TOTAL
***WEEKDAY* DAILY**		50%	50%	
NUMBER OF STUDIES	351			
AVERAGE SIZE	197			
MINIMUM RATE	4.31	285	284	569
AVERAGE RATE	9.57	632	631	1,263
MAXIMUM RATE	21.85	1,442	1,442	2,884
STANDARD DEVIATION	3.69			
EQUATION: LN (T) = 0.92 * LN(X) + 2.71	R^2 = 0.89	671	671	1,342
LARGEST OF AVERAGE OR EQUATION		**671**	**671**	**1,342**
AM PEAK HOUR ADJACENT STREET		25%	75%	
NUMBER OF STUDIES	286			
AVERAGE SIZE	194			
MINIMUM RATE	0.30	10	30	40
AVERAGE RATE	0.75	25	74	99
MAXIMUM RATE	2.27	75	225	300
STANDARD DEVIATION	2.41			
EQUATION: T = 0.70 * (X) + 9.74	R^2 = 0.90	26	76	102
LARGEST OF AVERAGE OR EQUATION		**26**	**76**	**102**
AM PEAK HOUR GENERATOR		26%	74%	
NUMBER OF STUDIES	341			
AVERAGE SIZE	181			
MINIMUM RATE	0.33	11	33	44
AVERAGE RATE	0.77	27	75	102
MAXIMUM RATE	2.27	78	222	300
STANDARD DEVIATION	0.91			
EQUATION: T = 0.70 * (X) + 12.37	R^2 = 0.89	27	78	105
LARGEST OF AVERAGE OR EQUATION		**27**	**78**	**105**
PM PEAK HOUR ADJACENT STREET		63%	37%	
NUMBER OF STUDIES	314			
AVERAGE SIZE	208			
MINIMUM RATE	0.42	35	20	55
AVERAGE RATE	1.01	84	49	133
MAXIMUM RATE	2.98	248	145	393
STANDARD DEVIATION	1.05			
EQUATION: LN (T) = 0.90 * LN(X) + 0.51	R^2 = 0.91	85	50	135
LARGEST OF AVERAGE OR EQUATION		**85**	**50**	**135**
PM PEAK HOUR GENERATOR		64%	36%	
NUMBER OF STUDIES	360			
AVERAGE SIZE	174			
MINIMUM RATE	0.42	35	20	55
AVERAGE RATE	1.02	86	49	135
MAXIMUM RATE	2.98	252	141	393
STANDARD DEVIATION	1.05			
EQUATION: LN (T) = 0.88 * LN(X) + 0.62	R^2 = 0.91	88	49	137
LARGEST OF AVERAGE OR EQUATION		**88**	**49**	**137**

PROJECT	LA JARA FARMS			
PARCEL	RESIDENTIAL			
ITE LAND USE CATEGORY AND CODE	SINGLE FAMILY - 210			
INDEPENDENT VARIABLE	DWELLING UNITS			
SIZE	132			
		TRIPS		
	RATE	ENTERING	EXITING	SUM
***SATURDAY* DAILY**		50%	50%	
NUMBER OF STUDIES	74			
AVERAGE SIZE	213			
MINIMUM RATE	5.32	351	351	702
AVERAGE RATE	10.08	666	665	1,331
MAXIMUM RATE	15.25	1,007	1,006	2,013
STANDARD DEVIATION	3.68			
EQUATION: LN (T) = 0.95 * LN(X) + 2.59	R^2 = 0.91	689	689	1,378
LARGEST OF AVERAGE OR EQUATION		**689**	**689**	**1,378**
PEAK HOUR GENERATOR		50%	50%	
NUMBER OF STUDIES	53			
AVERAGE SIZE	217			
MINIMUM RATE	0.50	33	33	66
AVERAGE RATE	0.93	62	61	123
MAXIMUM RATE	1.75	116	115	231
STANDARD DEVIATION	0.99			
EQUATION: T = 0.89 * (X) + 9.56	R^2 = 0.91	64	63	127
LARGEST OF AVERAGE OR EQUATION		**64**	**63**	**127**
***SUNDAY* DAILY**		50%	50%	
NUMBER OF STUDIES	70			
AVERAGE SIZE	216			
MINIMUM RATE	4.74	313	313	626
AVERAGE RATE	8.77	579	579	1,158
MAXIMUM RATE	12.31	813	812	1,625
STANDARD DEVIATION	3.33			
EQUATION: T = 8.84 * (X) - 13.31	R^2 = 0.94	577	577	1,154
LARGEST OF AVERAGE OR EQUATION		**579**	**579**	**1,158**
PEAK HOUR GENERATOR		53%	47%	
NUMBER OF STUDIES	52			
AVERAGE SIZE	215			
MINIMUM RATE	0.55	39	34	73
AVERAGE RATE	0.86	60	54	114
MAXIMUM RATE	1.48	103	92	195
STANDARD DEVIATION	0.95			
EQUATION: LN (T) = 0.91 * LN(X) + 0.35	R^2 = 0.87	64	57	121
LARGEST OF AVERAGE OR EQUATION		**64**	**57**	**121**

APPENDIX B.2
HERITAGE CHARTER HIGH SCHOOL

	DAILY TRAFFIC	
DAY	ENTERING	EXITING
MONDAY	387	384
TUESDAY	374	370
WEDNESDAY	392	391
THURSDAY	376	377
FRIDAY	411	416
MAXIMUM	**411**	**416**
RATE	**1.58**	**1.60**

	DAY	
ARRIVAL	ENTERING	EXITING
RATE	1.58	1.60
VOLUME	948	960

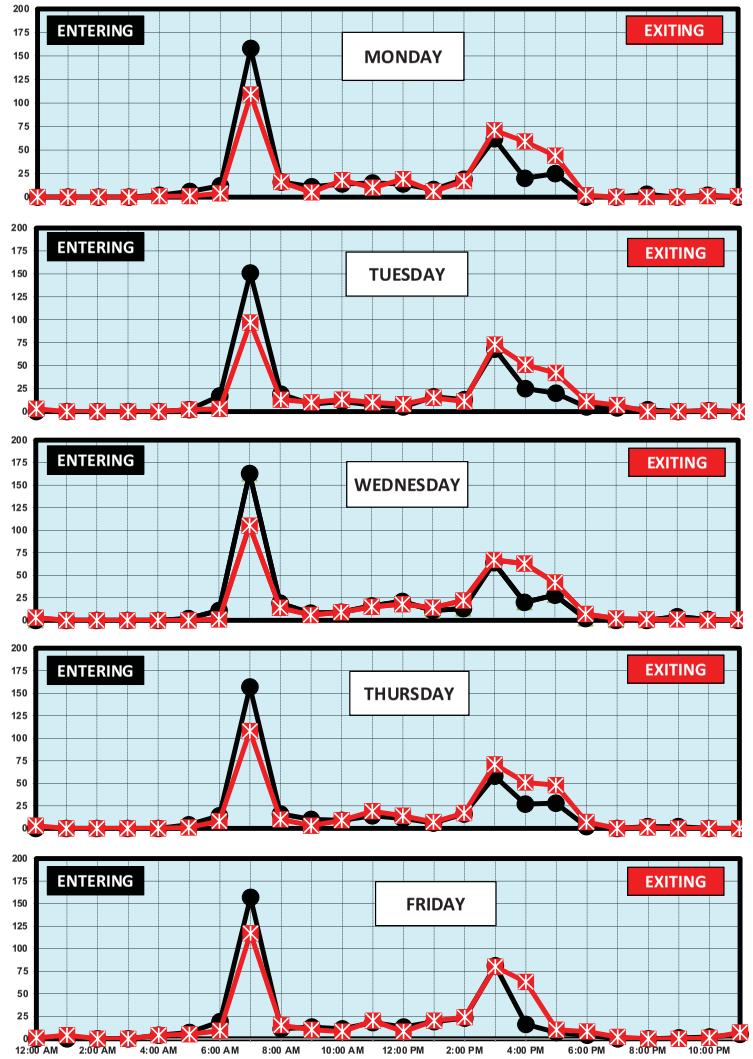
	HOURLY TRAFFIC					
	ARRIVAL		DISMISSAL		STREET PEAK	
DAY	ENTERING	EXITING	ENTERING	EXITING	ENTERING	EXITING
MONDAY	158	109	70	104	25	44
TUESDAY	151	97	70	91	20	42
WEDNESDAY	163	105	73	104	28	42
THURSDAY	157	108	66	98	28	48
FRIDAY	157	117	90	115	7	10
MAXIMUM	**163**	**117**	**90**	**115**	**28**	**48**
RATE	**0.63**	**0.45**	**0.35**	**0.44**	**0.11**	**0.18**

	PEAK HOUR		PEAK 15-MINUTES	
ARRIVAL	ENTERING	EXITING	ENTERING	EXITING
RATE	0.63	0.45	0.27	0.22
VOLUME	376	270	162	134
DISMISSAL				
RATE	0.35	0.44	0.10	0.22
VOLUME	208	265	58	134
STREET PEAK				
RATE	0.11	0.18	0.05	0.07
VOLUME	65	111	30	42

	15-MINUTE TRAFFIC					
	ARRIVAL		DISMISSAL		STREET PEAK	
DAY	ENTERING	EXITING	ENTERING	EXITING	ENTERING	EXITING
MONDAY	60	39	20	43	13	17
TUESDAY	50	44	21	47	7	8
WEDNESDAY	53	50	20	46	9	16
THURSDAY	54	41	16	53	7	18
FRIDAY	70	53	25	58	2	4
MAXIMUM	**70**	**53**	**25**	**58**	**13**	**18**
RATE	**0.27**	**0.20**	**0.10**	**0.22**	**0.05**	**0.07**

RANCHO SOLANO PRIVATE SCHOOL
RANCHO SOLANO ACCESS and VIA DE VENTURA
FRIDAY 09/7/2012 to THURSDAY 09/13/2012

DIRECTIONAL HOURLY VOLUME (vehicles)



APPENDIX C
LEVEL-OF-SERVICE IN 2020 WITH LA JARA FARMS

2020 with Site Weekday Peak AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	1362	132	89	1554	25	264	136	131	25	180	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.93		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5018		1770	5073		1770	1726		1770	1829	
Flt Permitted	0.18	1.00		0.16	1.00		0.35	1.00		0.58	1.00	
Satd. Flow (perm)	334	5018		300	5073		647	1726		1085	1829	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	1480	143	97	1689	27	287	148	142	27	196	27
RTOR Reduction (vph)	0	18	0	0	2	0	0	61	0	0	9	0
Lane Group Flow (vph)	30	1605	0	97	1714	0	287	229	0	27	214	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	23.9	22.3		28.9	24.8		21.6	21.6		11.6	11.6	
Effective Green, g (s)	23.9	22.3		28.9	24.8		21.6	21.6		11.6	11.6	
Actuated g/C Ratio	0.40	0.37		0.48	0.41		0.36	0.36		0.19	0.19	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	171	1865		244	2096		345	621		209	353	
v/s Ratio Prot	0.00	0.32		c0.03	c0.34		c0.08	0.13			0.12	
v/s Ratio Perm	0.07			0.16			c0.22			0.02		
v/c Ratio	0.18	0.86		0.40	0.82		0.83	0.37		0.13	0.61	
Uniform Delay, d1	12.4	17.4		11.2	15.6		16.4	14.2		20.0	22.1	
Progression Factor	1.00	1.00		1.74	1.99		1.46	1.51		1.00	1.00	
Incremental Delay, d2	0.5	5.5		0.6	2.2		14.9	0.4		0.3	2.9	
Delay (s)	12.9	22.9		20.2	33.3		38.8	21.8		20.3	25.1	
Level of Service	B	C		C	C		D	C		C	C	
Approach Delay (s)		22.7			32.6			30.3			24.5	
Approach LOS		C			C			C			C	

Intersection Summary				
HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.89			
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	73.1%	ICU Level of Service	D	
Analysis Period (min)	15			
c Critical Lane Group				

2020 with Site Weekday Peak PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	125	2263	331	108	1539	25	228	207	50	25	180	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4988		1770	5073		1770	1809		1770	1829	
Flt Permitted	0.09	1.00		0.09	1.00		0.30	1.00		0.59	1.00	
Satd. Flow (perm)	159	4988		173	5073		550	1809		1096	1829	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	2460	360	117	1673	27	248	225	54	27	196	27
RTOR Reduction (vph)	0	22	0	0	2	0	0	10	0	0	6	0
Lane Group Flow (vph)	136	2799	0	117	1698	0	248	269	0	27	217	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	55.0	47.0		47.0	43.0		27.0	27.0		16.0	16.0	
Effective Green, g (s)	55.0	47.0		47.0	43.0		27.0	27.0		16.0	16.0	
Actuated g/C Ratio	0.61	0.52		0.52	0.48		0.30	0.30		0.18	0.18	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	240	2604		161	2423		259	542		194	325	
v/s Ratio Prot	c0.05	c0.56		0.03	0.33		c0.07	0.15			0.12	
v/s Ratio Perm	0.30			0.35			c0.21			0.02		
v/c Ratio	0.57	1.07		0.73	0.70		0.96	0.50		0.14	0.67	
Uniform Delay, d1	13.1	21.5		20.0	18.5		29.6	25.9		31.2	34.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.1	41.6		15.0	0.9		43.8	3.2		1.5	10.4	
Delay (s)	16.2	63.1		35.1	19.4		73.4	29.1		32.7	45.0	
Level of Service	B	E		D	B		E	C		C	D	
Approach Delay (s)		61.0			20.4			50.0			43.6	
Approach LOS		E			C			D			D	

Intersection Summary				
HCM 2000 Control Delay	45.9	HCM 2000 Level of Service	D	
HCM 2000 Volume to Capacity ratio	1.06			
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	94.0%	ICU Level of Service	F	
Analysis Period (min)	15			
c Critical Lane Group				

2020 with Site Weekday Peak AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	300	1071	100	31	1413	239	198	2216	155	168	1109	308
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5	6.5	4.0	6.5	4.0	4.0	6.5	4.0	4.0	6.5	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	1770	5085	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.12	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	221	5085	1583	171	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	1164	109	34	1536	260	215	2409	168	183	1205	335
RTOR Reduction (vph)	0	0	77	0	0	70	0	0	37	0	0	57
Lane Group Flow (vph)	326	1164	32	34	1536	190	215	2409	131	183	1205	278
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	1	6		5	2	7	3	8	5	7	4	1
Permitted Phases			6			2	8		8	4		4
Actuated Green, G (s)	11.0	35.5	35.5	8.0	32.5	40.5	59.3	47.5	55.5	51.7	43.7	54.7
Effective Green, g (s)	11.0	35.5	35.5	8.0	32.5	40.5	59.3	47.5	55.5	51.7	43.7	54.7
Actuated g/C Ratio	0.09	0.30	0.30	0.07	0.27	0.34	0.49	0.40	0.46	0.43	0.36	0.46
Clearance Time (s)	4.0	6.5	6.5	4.0	6.5	4.0	4.0	6.5	4.0	4.0	6.5	4.0
Vehicle Extension (s)	1.0	2.0	2.0	1.0	2.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0
Lane Grp Cap (vph)	314	1504	468	228	1377	534	261	2012	732	180	1851	721
v/s Ratio Prot	c0.09	c0.23		0.01	c0.30	0.02	c0.08	c0.47	0.01	c0.07	0.24	0.04
v/s Ratio Perm			0.02			0.10	0.33		0.07	0.37		0.14
v/c Ratio	1.04	0.77	0.07	0.15	1.12	0.36	0.82	1.20	0.18	1.02	0.65	0.39
Uniform Delay, d1	54.5	38.6	30.4	52.8	43.8	29.9	21.7	36.2	18.9	30.4	31.8	21.6
Progression Factor	0.88	1.16	3.46	1.00	1.00	1.00	0.95	1.16	1.65	1.00	1.00	1.00
Incremental Delay, d2	56.3	1.9	0.0	0.1	62.5	0.1	13.9	92.7	0.0	71.5	1.8	0.1
Delay (s)	104.4	46.5	105.1	52.9	106.2	30.1	34.5	134.8	31.2	101.9	33.6	21.7
Level of Service	F	D	F	D	F	C	C	F	C	F	C	C
Approach Delay (s)		62.3			94.4			120.8			38.5	
Approach LOS		E			F			F			D	

Intersection Summary				
HCM 2000 Control Delay	85.1	HCM 2000 Level of Service	F	
HCM 2000 Volume to Capacity ratio	1.13			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	21.0	
Intersection Capacity Utilization	105.5%	ICU Level of Service	G	
Analysis Period (min)	15			
c Critical Lane Group				

2020 with Site Weekday Peak PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	385	1603	320	42	1410	205	85	1121	111	25	2396	433
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5	4.0	4.0	6.5	4.0	4.0	6.5	4.0	4.0	6.5	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	1770	5085	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.08	1.00	1.00	0.14	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	157	5085	1583	258	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	418	1742	348	46	1533	223	92	1218	121	27	2604	471
RTOR Reduction (vph)	0	0	43	0	0	46	0	0	65	0	0	35
Lane Group Flow (vph)	418	1742	305	46	1533	177	92	1218	56	27	2604	436
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	1	6	3	5	2	7	3	8	5	7	4	1
Permitted Phases			6			2	8		8	4		4
Actuated Green, G (s)	12.0	35.5	43.5	8.0	31.5	39.5	55.5	47.5	55.5	55.5	47.5	59.5
Effective Green, g (s)	12.0	35.5	43.5	8.0	31.5	39.5	55.5	47.5	55.5	55.5	47.5	59.5
Actuated g/C Ratio	0.10	0.30	0.36	0.07	0.26	0.33	0.46	0.40	0.46	0.46	0.40	0.50
Clearance Time (s)	4.0	6.5	4.0	4.0	6.5	4.0	4.0	6.5	4.0	4.0	6.5	4.0
Vehicle Extension (s)	1.0	2.0	1.0	1.0	2.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0
Lane Grp Cap (vph)	343	1504	573	228	1334	521	180	2012	732	220	2012	784
v/s Ratio Prot	c0.12	c0.34	c0.04	0.01	0.30	0.02	0.03	0.24	0.01	0.01	c0.51	0.06
v/s Ratio Perm			0.16			0.09	0.20		0.03	0.05		0.22
v/c Ratio	1.22	1.16	0.53	0.20	1.15	0.34	0.51	0.61	0.08	0.12	1.29	0.56
Uniform Delay, d1	54.0	42.2	30.2	53.0	44.2	30.4	26.6	28.8	18.0	19.0	36.2	21.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.43	1.09	2.31	1.00	1.00	1.00
Incremental Delay, d2	122.0	79.1	0.5	0.2	76.3	0.1	0.9	1.2	0.0	0.1	136.2	0.5
Delay (s)	176.0	121.3	30.7	53.1	120.5	30.6	38.9	32.5	41.6	19.0	172.5	21.5
Level of Service	F	F	C	D	F	C	D	C	D	B	F	C
Approach Delay (s)		117.9			107.7			33.7			148.2	
Approach LOS		F			F			C			F	

Intersection Summary				
HCM 2000 Control Delay	112.8	HCM 2000 Level of Service	F	
HCM 2000 Volume to Capacity ratio	1.20			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	21.0	
Intersection Capacity Utilization	108.7%	ICU Level of Service	G	
Analysis Period (min)	15			
c Critical Lane Group				

2020 with Site Weekday Peak AM

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	503	503	210	2416	994	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	1.00	1.00	0.91	0.91	
Frt	1.00	0.85	1.00	1.00	0.97	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	3433	1583	1770	5085	4950	
Flt Permitted	0.95	1.00	0.13	1.00	1.00	
Satd. Flow (perm)	3433	1583	239	5085	4950	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	547	547	228	2626	1080	233
RTOR Reduction (vph)	0	12	0	0	23	0
Lane Group Flow (vph)	547	535	228	2626	1290	0
Turn Type	NA	pm+ov	pm+pt	NA	NA	
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Actuated Green, G (s)	24.1	48.8	87.9	87.9	59.2	
Effective Green, g (s)	24.1	48.8	87.9	87.9	59.2	
Actuated g/C Ratio	0.20	0.41	0.73	0.73	0.49	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	689	696	490	3724	2442	
v/s Ratio Prot	0.16	c0.16	0.10	c0.52	0.26	
v/s Ratio Perm		0.18	0.24			
v/c Ratio	0.79	0.77	0.47	0.71	0.53	
Uniform Delay, d1	45.6	30.7	10.3	8.9	20.8	
Progression Factor	0.97	1.02	0.75	0.83	0.60	
Incremental Delay, d2	6.2	5.0	0.4	0.7	0.7	
Delay (s)	50.3	36.4	8.1	8.1	13.1	
Level of Service	D	D	A	A	B	
Approach Delay (s)	43.3			8.1	13.1	
Approach LOS	D			A	B	

Intersection Summary				
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.78			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	67.7%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

2020 with Site Weekday Peak PM

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	454	454	315	1082	2266	325
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	1.00	1.00	0.91	0.91	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	3433	1583	1770	5085	4990	
Flt Permitted	0.95	1.00	0.05	1.00	1.00	
Satd. Flow (perm)	3433	1583	101	5085	4990	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	493	493	342	1176	2463	353
RTOR Reduction (vph)	0	2	0	0	16	0
Lane Group Flow (vph)	493	491	342	1176	2800	0
Turn Type	NA	pm+ov	pm+pt	NA	NA	
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Actuated Green, G (s)	18.0	38.4	94.0	94.0	69.6	
Effective Green, g (s)	18.0	38.4	94.0	94.0	69.6	
Actuated g/C Ratio	0.15	0.32	0.78	0.78	0.58	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	514	559	362	3983	2894	
v/s Ratio Prot	c0.14	c0.15	0.16	0.23	0.56	
v/s Ratio Perm		0.16	c0.58			
v/c Ratio	0.96	0.88	0.94	0.30	0.97	
Uniform Delay, d1	50.6	38.6	42.1	3.7	24.1	
Progression Factor	1.00	1.00	1.54	0.20	0.40	
Incremental Delay, d2	29.2	14.5	31.6	0.2	1.5	
Delay (s)	79.8	53.1	96.7	0.9	11.1	
Level of Service	E	D	F	A	B	
Approach Delay (s)	66.5			22.5	11.1	
Approach LOS	E			C	B	

Intersection Summary				
HCM 2000 Control Delay	24.6	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.97			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	91.4%	ICU Level of Service	F	
Analysis Period (min)	15			
c Critical Lane Group				

2020 with Site Weekday Peak AM

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1424	94	282	1668	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1548	102	307	1813	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	977					
pX, platoon unblocked			0.66		0.66	0.66
vC, conflicting volume			1650		3067	774
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			955		3102	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			35		100	100
cM capacity (veh/h)			472		2	716

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3
Volume Total	774	774	102	307	907	907
Volume Left	0	0	0	307	0	0
Volume Right	0	0	102	0	0	0
cSH	1700	1700	1700	472	1700	1700
Volume to Capacity	0.46	0.46	0.06	0.65	0.53	0.53
Queue Length 95th (ft)	0	0	0	114	0	0
Control Delay (s)	0.0	0.0	0.0	25.6	0.0	0.0
Lane LOS				D		
Approach Delay (s)	0.0			3.7		
Approach LOS						

Intersection Summary				
Average Delay	2.1			
Intersection Capacity Utilization	62.5%	ICU Level of Service	B	
Analysis Period (min)	15			

2020 with Site Weekday Peak PM

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	2322	16	49	1672	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2524	17	53	1817	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	897					
pX, platoon unblocked			0.46		0.46	0.46
vC, conflicting volume			2541		3539	1262
vC1, stage 1 conf vol					2524	
vC2, stage 2 conf vol					1015	
vCu, unblocked vol			2013		4160	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			59		100	100
cM capacity (veh/h)			130		41	504

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3
Volume Total	1262	1262	17	53	909	909
Volume Left	0	0	0	53	0	0
Volume Right	0	0	17	0	0	0
cSH	1700	1700	1700	130	1700	1700
Volume to Capacity	0.74	0.74	0.01	0.41	0.53	0.53
Queue Length 95th (ft)	0	0	0	44	0	0
Control Delay (s)	0.0	0.0	0.0	50.7	0.0	0.0
Lane LOS				F		
Approach Delay (s)	0.0			1.4		
Approach LOS						

Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	76.0%	ICU Level of Service	D	
Analysis Period (min)	15			

2020 with Site Weekday Peak AM

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1424	0	0	1882	68	202
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1548	0	0	2046	74	220
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1548		2571	774
vC1, stage 1 conf vol					1548	
vC2, stage 2 conf vol					1023	
vCu, unblocked vol			1548		2571	774
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		47	36
cM capacity (veh/h)			424		138	341

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	774	774	1023	1023	74	220
Volume Left	0	0	0	0	74	0
Volume Right	0	0	0	0	0	220
cSH	1700	1700	1700	1700	138	341
Volume to Capacity	0.46	0.46	0.60	0.60	0.53	0.64
Queue Length 95th (ft)	0	0	0	0	65	106
Control Delay (s)	0.0	0.0	0.0	0.0	57.4	32.7
Lane LOS					F	D
Approach Delay (s)	0.0		0.0		39.0	
Approach LOS					E	

Intersection Summary				
Average Delay	2.9			
Intersection Capacity Utilization	62.5%	ICU Level of Service		B
Analysis Period (min)	15			

2020 with Site Weekday Peak PM

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	2322	0	0	1693	28	83
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2524	0	0	1840	30	90
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			2524		3444	1262
vC1, stage 1 conf vol					2524	
vC2, stage 2 conf vol					920	
vCu, unblocked vol			2524		3444	1262
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		31	44
cM capacity (veh/h)			176		44	161

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	1262	1262	920	920	30	90
Volume Left	0	0	0	0	30	0
Volume Right	0	0	0	0	0	90
cSH	1700	1700	1700	1700	44	161
Volume to Capacity	0.74	0.74	0.54	0.54	0.69	0.56
Queue Length 95th (ft)	0	0	0	0	65	72
Control Delay (s)	0.0	0.0	0.0	0.0	188.8	52.6
Lane LOS					F	F
Approach Delay (s)	0.0		0.0		86.9	
Approach LOS					F	

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	76.0%	ICU Level of Service		D
Analysis Period (min)	15			

APPENDIX D
EXISTING BENJAMIN FRANKLIN CHARTER SCHOOL TRAFFIC QUEUE COUNT DATA

EXISTING BENJAMIN FRANKLIN SCHOOL
EXISTING K THROUGH 6 SCHOOL ON WARNER ROAD, EAST OF GILBERT ROAD
EXISTING FIVE-HOUR ACCESS COUNTS

BEGIN	ENTRANCE						EXIT						SUM ENTERING AND EXITING		
	RIGHT	THRU	LEFT	TOTAL (MINUTES)			RIGHT	THRU	LEFT	TOTAL (MINUTES)			TOTAL (MINUTES)		
TIME	TURN		TURN	5	15	60	TURN		TURN	5	15	60	5	15	60
7:00 AM	1	0	1	2	3	123	0	0	0	0	0	83	2	3	206
7:05 AM	0	0	0	0	3	152	0	0	0	0	1	99	0	4	251
7:10 AM	0	0	1	1	11	175	0	0	0	0	3	129	1	14	304
7:15 AM	1	0	1	2	19	199	1	0	0	1	7	147	3	26	346
7:20 AM	5	0	3	8	30	223	1	0	1	2	15	171	10	45	394
7:25 AM	4	0	5	9	37	241	3	0	1	4	22	192	13	59	433
7:30 AM	8	0	5	13	45	**245**	5	0	4	9	28	209	22	73	454
7:35 AM	4	0	11	15	52	241	6	0	3	9	34	**218**	24	86	**459**
7:40 AM	12	0	5	17	54	230	7	0	3	10	42	214	27	96	444
7:45 AM	10	1	9	20	56	215	10	0	5	15	48	205	35	104	420
7:50 AM	14	1	2	17	67	195	7	1	9	17	49	194	34	116	389
7:55 AM	7	1	11	19	73	180	14	0	2	16	62	177	35	135	357
8:00 AM	**23**	0	**8**	**31**	**79**	162	9	1	6	16	64	161	47	143	323
8:05 AM	15	0	**8**	23	74		**11**	**2**	**17**	**30**	**73**		**53**	**147**	0
8:10 AM	17	2	6	25	77		9	**2**	7	18	66		43	143	0
8:15 AM	22	0	4	26	65		12	0	13	25	69		51	134	0
8:20 AM	13	2	11	26	48		**11**	1	11	23	62		49	110	0
8:25 AM	7	0	6	13	26		8	**2**	11	21	44		34	70	0
8:30 AM	4	0	5	9	15		5	1	12	18	24		27	39	0
8:35 AM	3	0	1	4	6		2	0	3	5	10		9	16	
8:40 AM	2	0	0	2	4		0	0	1	1	5		3	9	
8:45 AM	0	0	0	0	3		2	0	2	4	4		4	7	
8:50 AM	1	0	1	2			0	0	0	0			2		
8:55 AM	0	0	1	1			0	0	0	0			1		
AM PEAK	**23**	**0**	**8**	**31**	**79**	**245**	**11**	**2**	**17**	**30**	**73**	**218**	**53**	**147**	**459**

EXISTING BENJAMIN FRANKLIN SCHOOL
EXISTING K THROUGH 6 SCHOOL ON WARNER ROAD, EAST OF GILBERT ROAD
EXISTING FIVE-HOUR ACCESS COUNTS

BEGIN	ENTRANCE						EXIT						SUM ENTERING AND EXITING		
	RIGHT	THRU	LEFT	TOTAL (MINUTES)			RIGHT	THRU	LEFT	TOTAL (MINUTES)			TOTAL (MINUTES)		
TIME	TURN		TURN	5	15	60	TURN		TURN	5	15	60	5	15	60
2:00 PM	0	**0**	0	0	7	88	1	0	3	4	5	13	4	12	101
2:05 PM	0	**0**	2	2	13	115	0	0	0	0	2	50	2	15	165
2:10 PM	3	**0**	2	5	16	137	1	0	0	1	3	99	6	19	236
2:15 PM	4	**0**	2	6	17	148	0	0	1	1	3	133	7	20	281
2:20 PM	3	**0**	2	5	19	167	0	0	1	1	3	157	6	22	324
2:25 PM	3	**0**	3	6	22	**175**	0	0	1	1	2	166	7	24	341
2:30 PM	5	**0**	3	8	28	174	0	0	1	1	1	173	9	29	347
2:35 PM	6	**0**	2	8	33	172	0	0	0	0	1	178	8	34	350
2:40 PM	7	1	4	12	36	168	0	0	0	0	3	186	12	39	354
2:45 PM	10	**0**	3	13	36	164	1	0	0	1	4	190	14	40	354
2:50 PM	6	**0**	5	11	50	157	0	0	2	2	44	191	13	94	348
2:55 PM	10	**0**	2	12	63	153	0	0	1	1	91	208	13	154	**361**
3:00 PM	**19**	**0**	**8**	**27**	**67**	146	**23**	**2**	16	41	**125**	**215**	68	**192**	**361**
3:05 PM	16	**0**	**8**	24	65	121	**23**	**2**	**24**	**49**	109	184	**73**	174	305
3:10 PM	7	**0**	9	16	54	97	11	3	21	35	70	139	51	124	236
3:15 PM	13	**0**	12	25	43	81	12	0	13	25	43	104	50	86	185
3:20 PM	7	2	4	13	24	57	6	1	3	10	24	79	23	48	136
3:25 PM	2	**0**	3	5	15	45	4	0	4	8	22	71	13	37	116
3:30 PM	2	**0**	4	6	18	40	3	0	3	6	18	63	12	36	103
3:35 PM	2	**0**	2	4	18	34	4	0	4	8	14	60	12	32	94
3:40 PM	4	**0**	4	8	21	30	1	0	3	4	25	53	12	46	83
3:45 PM	3	**0**	3	6	18	22	1	0	1	2	29	50	8	47	72
3:50 PM	4	**0**	3	7	14	16	4	1	14	19	37	48	26	51	64
3:55 PM	1	**0**	4	5	7	9	4	0	4	8	22	29	13	29	38
4:00 PM	0	**0**	2	**2**	**2**	**4**	3	0	7	**10**	**14**	**21**	**12**	**16**	**25**
4:05 PM	0	**0**	0	0	1		0	1	3	4	4		4	5	0
4:10 PM	0	**0**	0	0	**2**		0	0	0	0	2		0	4	0
4:15 PM	0	**0**	1	1	**2**		0	0	0	0	2		1	4	0
4:20 PM	1	**0**	0	1	1		1	0	1	2	5		3	6	0
4:25 PM	0	**0**	0	0	0		0	0	0	0	4		0	4	0
4:30 PM	0	**0**	0	0	0		2	0	1	3	5		3	5	0
4:35 PM	0	**0**	0	0	0		1	0	0	1	2		1	2	
4:40 PM	0	**0**	0	0	0		1	0	0	1	1		1	1	
4:45 PM	0	**0**	0	0	0		0	0	0	0	0		0	0	
4:50 PM	0	**0**	0	0			0	0	0	0			0		
4:55 PM	0	**0**	0	0			0	0	0	0			0		
MD PEAK	**19**	**0**	**8**	**27**	**67**	**175**	**23**	**2**	**24**	**49**	**125**	**215**	**73**	**192**	**361**
PM PEAK	**0**	**0**	**2**	**2**	**2**	**4**	**3**	**0**	**7**	**10**	**14**	**21**	**12**	**16**	**25**

EXISTING BENJAMIN FRANKLIN SCHOOL
GILBERT ROAD, EAST OF WARNER ROAD
EXISTING VEHICLE QUEUE
AT STUDENT DOOR

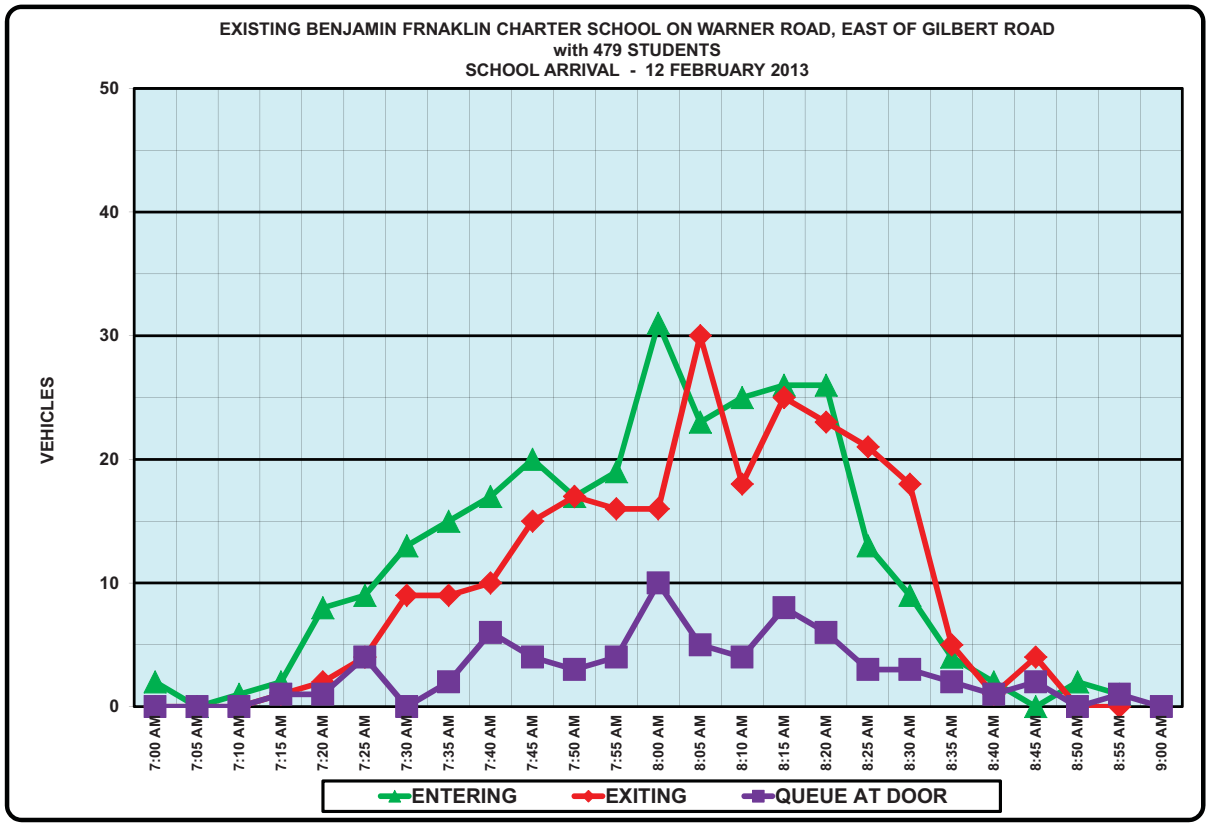
BEGIN TIME	ENTRANCE
7:00 AM	0
7:05 AM	0
7:10 AM	0
7:15 AM	1
7:20 AM	1
7:25 AM	4
7:30 AM	0
7:35 AM	2
7:40 AM	6
7:45 AM	4
7:50 AM	3
7:55 AM	4
8:00 AM	**10**
8:05 AM	5
8:10 AM	4
8:15 AM	8
8:20 AM	6
8:25 AM	3
8:30 AM	3
8:35 AM	2
8:40 AM	1
8:45 AM	2
8:50 AM	0
8:55 AM	1
9:00 AM	0
MAXIMUM	**10**

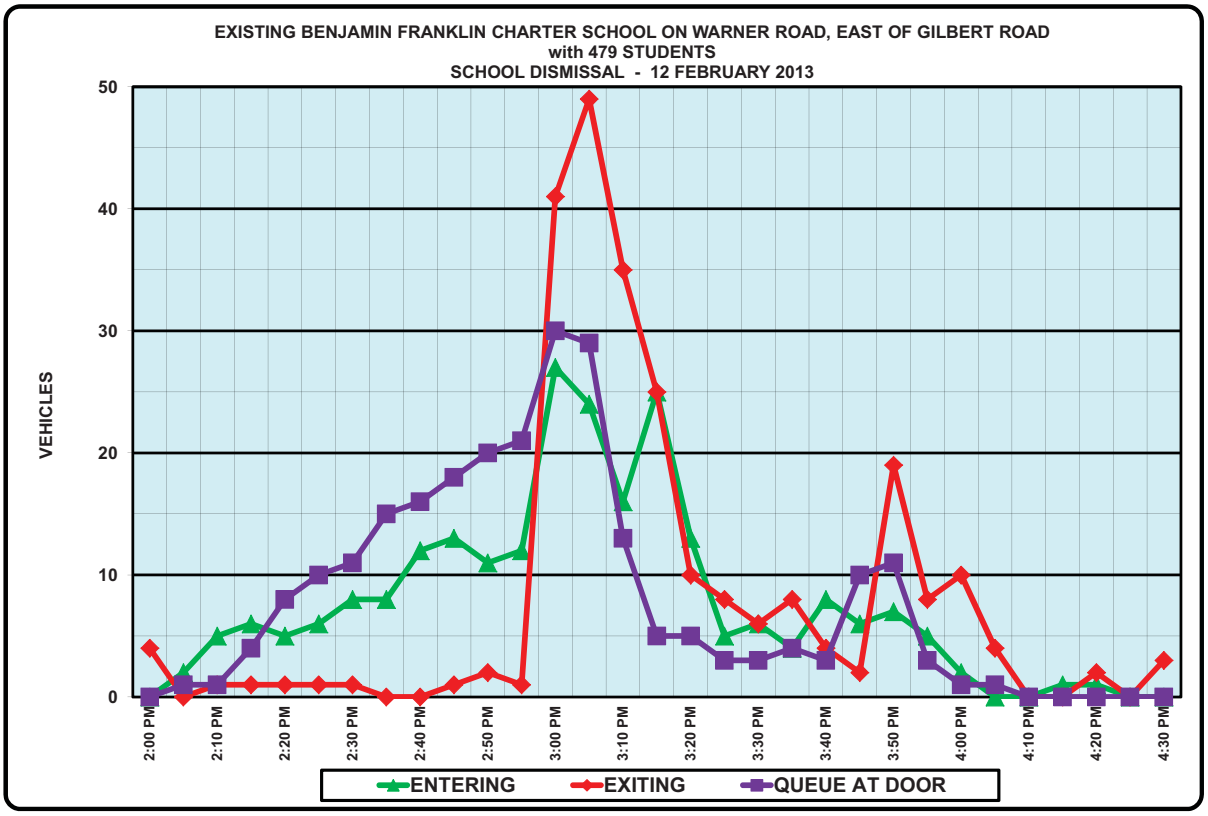
EXISTING BENJAMIN FRANKLIN SCHOOL
GILBERT ROAD, EAST OF WARNER ROAD
EXISTING VEHICLE QUEUE
AT STUDENT DOOR

BEGIN TIME	ENTRANCE
1:00 PM	1
1:05 PM	1
1:10 PM	0
1:15 PM	0
1:20 PM	0
1:25 PM	0
1:30 PM	0
1:35 PM	0
1:40 PM	0
1:45 PM	0
1:50 PM	2
1:55 PM	0
2:00 PM	0
2:05 PM	1
2:10 PM	1
2:15 PM	4
2:20 PM	8
2:25 PM	10
2:30 PM	11
2:35 PM	15
2:40 PM	16
2:45 PM	18
2:50 PM	20
2:55 PM	21

EXISTING BENJAMIN FRANKLIN SCHOOL
GILBERT ROAD, EAST OF WARNER ROAD
EXISTING VEHICLE QUEUE
AT STUDENT DOOR

BEGIN TIME	ENTRANCE
3:00 PM	**30**
3:05 PM	29
3:10 PM	13
3:15 PM	5
3:20 PM	5
3:25 PM	3
3:30 PM	3
3:35 PM	4
3:40 PM	3
3:45 PM	10
3:50 PM	11
3:55 PM	3
4:00 PM	1
4:05 PM	1
4:10 PM	0
4:15 PM	0
4:20 PM	0
4:25 PM	0
4:30 PM	0
MAXIMUM	**30**




EXISTING BENJAMIN FRANKLIN CHARTER SCHOOL ON WARNER ROAD, EAST OF GILBERT ROAD
with 479 STUDENTS
SCHOOL DISMISSAL - 12 FEBRUARY 2013
VEHICLES
50
40
30
20
10
0
2:00 PM
2:10 PM
2:20 PM
2:30 PM
2:40 PM
2:50 PM
3:00 PM
3:10 PM
3:20 PM
3:30 PM
3:40 PM
3:50 PM
4:00 PM
4:10 PM
4:20 PM
4:30 PM
ENTERING
EXITING
QUEUE AT DOOR

Appendix 3
(Tab 3)

Economic and Fiscal Impact Analysis

APPLIED ECONOMICS

FISCAL IMPACTS OF THE PROPOSED GENERAL PLAN AMENDMENT FOR LA JARA FARMS

PREPARED FOR:

VIP HOMES
3048 E. BASELINE ROAD, SUITE 102
MESA, AZ 85204

MAY 2013

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This analysis demonstrates the potential socioeconomic and fiscal impacts of the proposed General Plan Amendment for La Jara Farms on the Town of Queen Creek. This 140 acre property is located at the southwest corner of Germann Road and Hawes Road. The proposal for the La Jara Farms property involves changing the land use from Very Low Density Residential (Current Scenario), to a mix of Very Low Density and Low Density Residential with a 9 acre school site (Proposed Scenario). The current General Plan land use for this property is Employment Type A. However, since the site is already zoned for R1-43 and platted with some lots under construction, this analysis does not consider the fiscal impacts of Employment Type A uses.

The impact calculation for the current and proposed land uses for La Jara Farms reveals that at build out the current very low density land use would have an annual net impact (revenues less expenditures) of about ($8,200), with expenditures exceeding revenues by 3.5 percent.[1] This can be compared to an annual net impact under the proposed low density land use of ($25,000), with expenditures exceeding revenues by about 8.0 percent. Impact results include the General Fund, Transportation and Emergency Services Funds. In both cases, the magnitude of the impacts is very small in comparison to the Town's overall budget and given the level of precision of the fiscal impact model, these are close to neutral impacts.

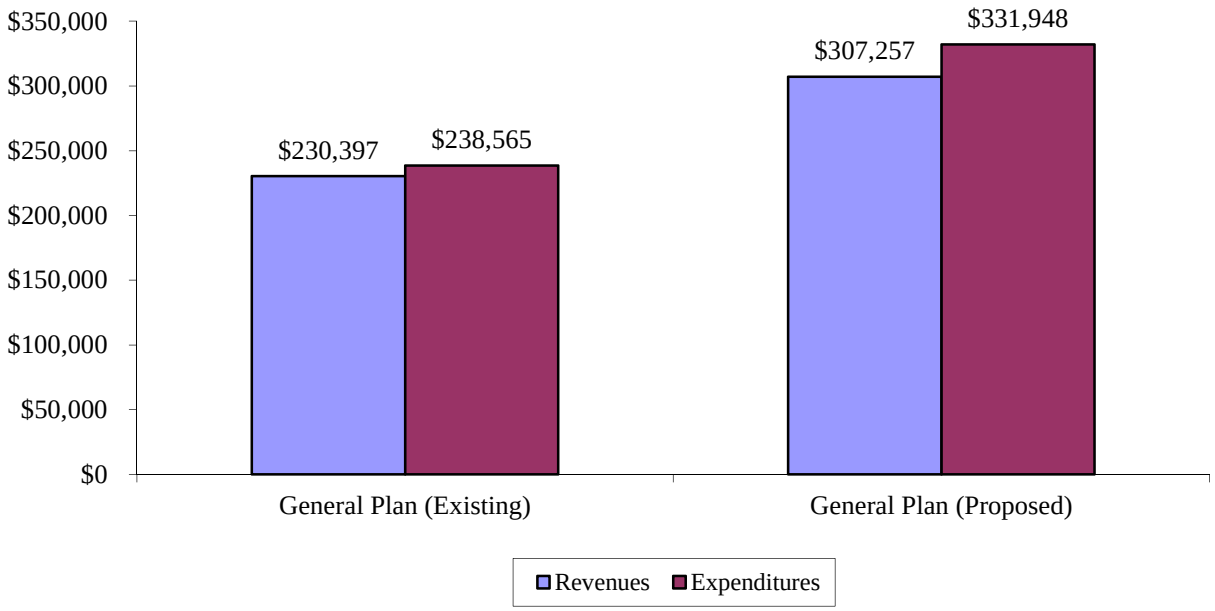
It is typical given the local tax structure in Arizona that residential land uses in isolation do not create positive net fiscal impacts. However, under both the current and proposed uses the small negative annual impact is more than offset by the retail demand created by households. Average income for these households would be about $96,000 for the proposed alternative and $102,000 for the current alternative, given the expected housing prices. Based on typical consumer expenditure patterns for purchases made within a local trade area, the households in this development would generate about $43,000 in annual sales tax revenues from local purchases under the current scenario, and $55,000 under the proposed scenario.[2] These sales tax revenues are not included in the impacts shown here since the land use based model used for this analysis attributes all retail sales to commercial development, but they help to balance the cost of providing municipal services to residents.

Finally, the project would generate close to $2.0 million in total impact fees under the proposed scenario versus only $1.3 million under the current scenario. While impact fee funds are not included in this analysis, these one-time revenues, they would provide funding for infrastructure that could not only benefit this property but could also encourage development on surrounding commercial properties.

[1] Annual net impact reflects post-Census state shared revenues that are adjusted for new residential population.

[2] Based on the Consumer Expenditure Survey, households in the $80,000 to $100,000 income range spend about 20 percent of their pre-tax income on items that could be purchased within the local trade area.

FIGURE 1
Annual Net Impact of Proposed La Jara Farms Ammendment



1.0 INTRODUCTION

This analysis demonstrates the potential socioeconomic and fiscal impacts of the proposed land use changes for the La Jara Farms property on the Town of Queen Creek, Arizona. The property includes a total of 140 gross acres at the southwest corner of Germann Road and Hawes Road. The proposed General Plan amendment would change the land use designation for the property from Employment Type A (Current Scenario), to Low Density Residential (Proposed Scenario). However, the property is currently zoned and platted for R1-43 residential and there are units currently under construction. Therefore, Employment Type A uses are no longer an option for this site and are not included in this fiscal impact analysis.

The information and observations contained in this report are based on our present knowledge of the components of development, and of the current physical, socioeconomic and fiscal conditions of the affected areas. Projections made in this report are based on hypothetical assumptions and current public finance policies. However, even if the assumptions outlined in this report were to occur, there will usually be differences between the projections and the actual results because events and circumstances frequently do not occur as expected. This analysis is based on the best available information and is intended to aid VIP Homes and the Town of Queen Creek in making decisions relative to the proposed development. All dollar estimates should be interpreted as order of magnitude estimates only. In no way will Applied Economics be held responsible or have any liability or be subject to damages as a result of this analysis. This report may be used only for the purposes that it was intended.

1.1 General Approach

This analysis is primarily designed to assess the operation and maintenance impacts of the proposed La Jara Farms General Plan amendment on the Town of Queen Creek. The impact assessment includes revenues and expenditures associated with the proposed development. It does not include construction costs for new infrastructure, but does include relevant maintenance costs to the Town. The analysis assumes 1.54 new street miles of local level streets for the current density and 2.11 new miles under the proposed amendment.[3] Water and wastewater services will be provided through Town enterprise funds, and are not included in this analysis. It is assumed that the impact on Town enterprise funds would be neutral.

The basic approach for the analysis is to determine the level and character of development (measured in housing units, population, assessed value, road miles, etc.), and then to model the revenues and expenditures likely to be associated with that development. The results show build out impacts only and thus do not include any assumptions regarding the potential absorption rates for homes under the current and proposed scenarios.

Queen Creek's current and historical budgets were reviewed to identify revenue and expenditure line items that would likely be impacted by the proposed development. Once identified, each line item was analyzed to identify a socioeconomic factor that could be used to predict a corresponding impact for these developments. For example, road miles are a good indicator of the cost of street maintenance. Therefore, by knowing the estimated number of new road miles in the development, we could project the cost of street maintenance. Other general government type expenditures can be modeled based on the rate per resident or per employee, or both. More detailed assumptions are described in Section 2.3.

1.2 Report Organization

The balance of this report is divided into two sections. Section 2.0 details the methodology and assumptions used in calculating the development characteristics, and the fiscal assumptions used to develop the impact model.

[3] Street miles for both scenarios only include only half of 196th Street, which also serves the parcel to the west.

Section 3.0 presents the results of the fiscal impact calculations for the La Jara Farms property. Detailed tables on the fiscal impact assumptions and results are included in Section 3.

2.0 METHODOLOGY

This chapter describes the methodology and assumptions used in developing the fiscal impact model and the development characteristics.

2.1 Development Characteristics

In order to analyze the fiscal impacts of development, it was necessary to characterize the development in terms of housing units, population, employment and assessed value, based on assumptions about the level of development at build out. The proposed development plan will include 60 acres of R1-43, consistent with the current zoning on the property, plus 71 acres of R1-18 residential and a 9 acre school site. The placement of R1-18 residential will be on the southwestern portion of the property along Rittenhouse Road, leaving the currently platted R1-43 along the eastern side of the property as a buffer to the rural residential properties immediately to the east. The school site would be on the northwest corner of the property, adjacent to commercial uses and away from the rural residential development.

The following sections briefly describe the approach used to estimate the major characteristics of the development.

Residential Density. Under the current scenario, the entire 140 acres would develop as very low density residential with 97 lots, as platted, resulting in a density of 0.73 units per acre. Under the proposed scenario, 60 acres would be retained as very low density with 48 lots. There would be an additional 71 acres of low density residential with 84 lots. The overall density under the proposed scenario is 0.99 units per acre.

Population. The analysis assumes 3.7 persons per unit under both scenarios, based on data from the 2010 Census and the type of residential development that is likely on this property. It also assumes an occupancy rate of 97 percent. Under the current scenario, La Jara Farms could result in about 350 new residents, whereas under the proposed scenario there could be approximately 470 new residents.

Housing Value. The average value for very low density units is assumed to be around $500,000, based on current market conditions in Queen Creek. These very low density units would average approximately 4,250 square feet. The low density units in the proposed scenario would average approximately 3,500 square feet at a price of $450,000. Figure 2 details the development assumptions.

FIGURE 2
DEVELOPMENT ASSUMPTIONS
LA JARA FARMS

Land Use	Units per Gross Acre	Total Housing Units	Square Feet per Unit	Occupancy	Population per Unit	Total Population	Average Value	New Street Miles
Current Land Use								1.54
Very Low Density	0.73	97	4,250	97%	3.7	348	$500,000	
Proposed Land Use								2.11
Very Low Density	0.84	48	4,250	97%	3.7	172	$500,000	
Low Density	1.22	84	3,500	97%	3.7	301	$450,000	
	FAR		Total Sq Ft		Sq Ft per Emp	Employment		
High School	0.17	na	59,242	100%	1,900	31	na	

Source: VIP Homes; Applied Economics.

Retail Sales. Neither the current or proposed land use would include any sales tax generating uses. There would be additional sales tax in both scenarios from construction activity; however this non-recurring revenue is not included in the build out impacts. The build out impacts are intended to represent the annual level of recurring impacts once the development is complete.

Nonresidential Square Footage. The proposed scenario includes a 9 acre private high school site that could accommodate approximately 600 students. The high school, which is not anticipated to include athletic fields, would be approximately 59,000 square feet.

Employment. Based on typical class sizes at the high school level plus administrative staff, it is assumed that the high school could support approximately 31 jobs.

2.2 Fiscal Assumptions

The fiscal model used to assess the impacts of La Jara Farms was based on the current budget for the Town of Queen Creek. Revenue and expenditure line items were identified from the Queen Creek budget that captured the operation and maintenance aspects of the Town. The past ten years of budget information for Queen Creek were analyzed to determine patterns and trends in revenues and expenditures for the General Fund, Transportation Fund and the Emergency Services Fund.

The basis for the expenditure impacts varies as the development grows. Analysis of early impacts are based on the development as an extension of existing Town of Queen Creek operations, while the impacts in later years incorporate service standards for somewhat larger communities. This is necessary since budget characteristics vary by city size, and Queen Creek is projected to grow significantly over the next 20 years. Expenditure rates for Goodyear (population 69,000), Surprise (population 119,500) and Gilbert (population 219,700) were included in the analysis. The expenditure rates used in the model were gradually adjusted to simulate increasing economies of scale as the service population increases, implying that existing residential development could have a decreasing negative impact over time as the city grows and both the average and marginal cost of services decline due to economies of scale.

In terms of the approach for modeling revenues and expenditures in the model, many are driven by population, or by “service population”, which includes both population and employment. This is because many of the services

provided by the Town, as well as the various types of revenues that the Town depends on, are proportional to the number of people living and working in the Town. In some cases, population is weighted more heavily if services are provided primarily, but not exclusively, to residents.

Major revenue line items that are not driven by population or employment include sales taxes, which are a function of taxable sales; property tax, which is a function of current assessed value and new construction; and building revenues and planning fees, which are a function of annual construction activity. Interest income is a function of the general fund balance in the previous year. On the expenditure side, street maintenance expenditures are tied to the number of new road miles in the development. Community development expenditures are based partially on annual construction value and partially on service population. Parks and recreation expenditures are based partially on the number of park and open space acres and partially on population. Information technology and human resources expenditures are based on the number of Town of Queen Creek FTE employees.

The following sections provide a brief description of the assumptions used to model revenues and expenditures.

Sales and franchise taxes. Local taxes include sales tax and utility franchise taxes. Sales taxes are based on 2.25 percent of retail sales and taxable construction. Of the total, 0.25 percent of the sales tax is allocated to the emergency services fund, which is combined with the general fund in this model. Construction sales tax in the Town of Queen Creek is 4.25 percent, with 2 percent going to the Drainage and Transportation capital fund (which is not included in this analysis) and the remainder going to the general fund. Franchise taxes are paid by utility providers based on gross sales and are modeled on a per service population basis.

Property Tax. Primary property tax revenues are based on housing cost times the current tax rate of 1.95 percent. Housing costs are adjusted by 85 percent as a proxy for the typical difference between sales prices and assessed value. Assessed value, and hence property tax revenues, lag construction by one year.

Licenses and Permits. Business licenses are modeled on a per employee basis and would apply to the private school. Building permits and other planning and engineering fees related to new construction are based on the value of new construction in each year. As a result, these revenues only occur in years when there is new construction.

Intergovernmental Revenues. These revenues include state shared income and sales tax, auto lieu tax and transportation funds (HURF). State shared income, sales taxes and auto lieu tax currently make up about 27 percent of total general fund revenues in Queen Creek. These revenues are distributed to cities and towns based on population. However, state shared income and sales taxes are only distributed based on Census population that is adjusted in the year following a Census. The model is currently set up so that state shared income and sales tax are adjusted in 2021. State law designates that state shared income and sales tax distribution formulas will be adjusted after every decennial census. This analysis uses per capita rates adjusted for the 2010 Census and applies them to the population in each of the development scenarios. The timing of residential development under each scenario, relative to the adjustment years for shared revenues could have a significant effect on the long term fiscal impact of development. The remaining types of intergovernmental revenues, auto lieu taxes and HURFs, are modeled on a per capita basis using current and future population.

Charges for Services. Recreation user fees and town hall facility rentals are modeled on a per capita basis since these services are used primarily by residents.

Other Revenues. Fines are based on service population, with a double weighting on population. Interest is a function of the previous year ending balance. If the ending balance is negative there would be no interest in the subsequent year. Miscellaneous revenues are based on service population. Department support is based on FTE

Town staff.

General Government Expenditures. The cost of providing general government services including Town Manager, Management Services and Work Force & Technology are modeled on a per person or per service population basis. Recreation services are modeled on a per capita basis and decreases slightly over the projection period based on trends in the comparative cities.

Economic Development. Economic development is based on the number of new employees and does not apply to this development. Communication and marketing is modeled on a per capita basis.

Development Services. The cost of building safety and engineering are based on the level of new construction activity, while planning is based on service population to reflect long range activities. Fleet and facilities maintenance costs are based on city FTE's. Street maintenance costs are modeled on a per street mile basis as are HURF expenditures. Parks and grounds maintenance expenditures are based on the number of new public park acres within the development, which in this case is zero.

Police. Police protection in the Town of Queen Creek is provided by the Maricopa County Sheriff's Office (MCSO) which is less costly than police service in the comparable cities in the analysis. Part of the cost of the MCSO contract is allocated to the general fund and part is allocated to the emergency services fund. Police protection costs are based on service population with population weighted at 90 percent and employment weighted at 10 percent based on the ratio of call volumes reported by TischlerBise.

Fire. Fire protection in Queen Creek is provided through a full service department and funded through the Emergency Services Fund. Rates are based on historical actual costs on a per service population basis with population weighted at 75 percent and employment weighted at 25 percent. Per service population rates decrease slightly over time to a level that reflects economies of scale for providing fire service in the comparable cities.

Public Works Maintenance. Public works costs are a function of service population. Facilities maintenance costs are based on city FTE's, but have been found to vary among the comparative cities. Parks and grounds maintenance costs, which are based on the number of park acres, were found to decrease slightly as population increases due to economies of scale. Street maintenance costs per lane mile were found to increase slightly with the size of the community, given the increased number of signaled intersections and more complex street maintenance procedures. HURF fund expenses are held constant on a per lane mile basis.

Every effort has been made to account for revenues and expenditures relating to on-going operations and maintenance activities consistently. Results are based on the current socioeconomic structure of the Town, and current budget conditions, but interface accordingly and by proportionate measure due to population increases. The results of the model are order-of-magnitude estimates, and are intended only as a general guide as to how different types of development could impact the Town.

3.0 IMPACT RESULTS

This chapter describes the comparative fiscal impacts of the current land use for La Jara Farms versus the proposed General Plan amendment on the Town of Queen Creek's operating budget.

3.1 Impact Results for Proposed Land Use Scenario

The proposed land use scenario, which includes 84 low density and 48 very low density single family units plus a school, would generate a small negative annual impact of about ($25,000) per year by 2021 when state shared revenues are adjusted to account for all of the new residents (Figure 3). Under this scenario annual revenues are about 8.0 percent less than expenditures. Given the level of precision of the fiscal impact model, this is essentially a neutral impact.

Primary revenues at build out include property tax and state shared revenues. State shared revenues are distributed on the basis of population and are adjusted in the year following the Census. During the construction period, not shown here, there are also non-recurring construction sales tax revenues that create a positive net impact during those years.

On the expenditure side fire, police, nondepartmental, information technology and recreational programs will be the predominant costs on an on-going basis. During the construction period, there are increased expenditures in the building safety and engineering departments that are offset by permit fees and construction sales tax. These non-recurring construction related expenditures are not included here.

Due to the larger number of housing units under the proposed scenario, both revenues and expenditures are proportionally greater. There is also nonresidential development with the high school, although it only generates a limited number of employees and the additional impacts are relatively small.

In addition to the operating revenues described above, the proposed development would generate approximately $2.0 million in impact fees during the construction period, compared to $1.3 million under the current land use. These impact fees would provide additional funding for infrastructure such as sewer lines and streets beyond what was anticipated under the current general plan land use given that residential development tends to generate higher impact fees than industrial on a per acre basis. This infrastructure will not only serve the residential development in La Jara Farms, but may also make future development more feasible in the commercial areas to the northwest of the property.

3.2 Impact Results for Current General Plan Designation

The current platted land use for the La Jara Farms property is very low density residential. The 97 housing units under this scenario would result in an annual impact of ($8,200) per year at build out, with expenditures exceeding revenues by about 3.5 percent.

The primary revenues would be similar to the proposed scenario including property taxes and state shared revenues. Fire, police and nondepartmental expenditures would be the predominant expenditures on an on-going basis. The primary difference between the two scenarios is the average assessed value per person which is higher under the current land use and thus results in a slightly less negative impact. However, the increased number of residents in the proposed scenario and the increased sales tax potential more than offsets the small difference in property tax revenues.

Average household incomes would be about $102,000 for the current land use and $96,000 for the proposed land use however, there would be more total households under the proposed land use. Based on typical consumer expenditure patterns for purchases made within a local trade area, the households in this development could generate about $43,000 in annual sales tax revenues from local purchases under the current land use scenario versus $55,000 under the proposed scenario.

3.3 Summary

Over the long term, both the current and proposed land uses would generate a minimal negative net impact to the Town. However, the increase in local retail demand, and corresponding taxable sales are greater under the proposed scenario and generate more than enough additional revenues to offset the small negative net impact. Since this property will not develop under the current General Plan land use of Employment Type A, the difference between the current very low density plat and the proposed mix of very low and low density is not significant in fiscal terms.

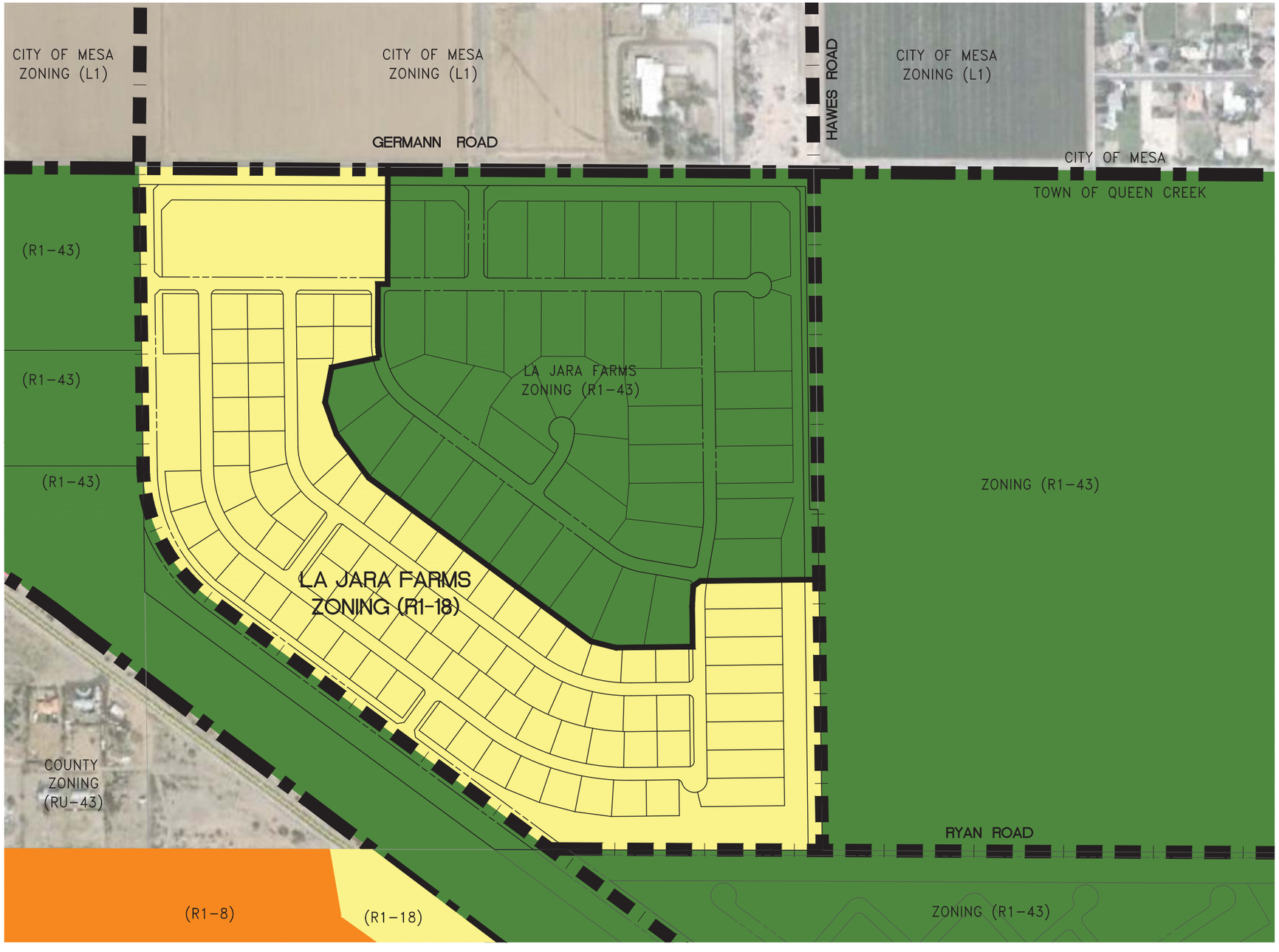
It is important for Queen Creek to balance the mix of land uses in its General Plan in order to maintain long term fiscal sustainability. Although residential uses are not going generate positive fiscal impacts on their own, they generate demand for local retail. The proposed mix of residential densities for La Jara Farms will enable the property to develop somewhat more quickly, generating additional property tax revenues and retail demand in Queen Creek.

FIGURE 3
ANNUAL FISCAL IMPACT ON GENERAL FUND, TRANSPORTATION, EMERGENCY SERVICES
TOWN OF QUEEN CREEK

Revenues/Expenditures	Proposed GP	Current GP
REVENUES	**$307,257**	**$230,397**
Local Taxes		
Sales Tax	$0	$0
Utility Franchises	$4,297	$2,797
Property Tax	$123,133	$96,179
Licenses and Permits		
Business Licenses	$362	$0
Building Revenues	$0	$0
Planning, Engineering & Fire Fees	$0	$0
Intergovernmental Revenues		
State Sales Tax	$42,957	$31,634
Urban Sharing	$51,974	$38,275
Auto Lieu Tax	$17,199	$12,666
Highway Users Revenue	$29,500	$21,724
Charges for Services		
Recreation User Fees	$5,300	$3,903
Town Hall Facility Rentals	$2,836	$2,089
Interest Income	$0	$0
Miscellaneous Revenues	$2,098	$1,450
Department Support	$27,601	$19,679
EXPENDITURES	**$331,948**	**$238,565**
Mayor and Town Council		
Mayor and Council	$606	$446
Town Manager		
Legal Services	$7,130	$5,084
Town Manager	$11,062	$7,887
Town Clerk	$2,763	$1,970
Management Services		
Mgmt Services/Controller	$11,555	$8,239
Recreation Programs	$15,219	$11,208
Workforce & Technology		
Human Resources	$7,088	$5,053
Information Technology	$20,123	$14,347
Economic Development		
Economic Development	$0	$0
Communication/Marketing	$8,338	$6,140
Development Services		
Planning	$3,772	$2,689
Building Safety	$1,588	$1,098
Engineering	$0	$0
Development Services Admin	$1,118	$790
Fleet Maintenance and Traffic	$12,175	$8,680
Facilities Maintenance	$8,068	$5,752
Parks & Grounds Maintenance	$0	$0
Streets Maintenance	$6,917	$5,036
HURF Expenditures	$5,881	$4,281
Emergency Services		
Police	$68,138	$49,815
Fire	$102,202	$73,650
Nondepartmental		
Non-Departmental	$38,205	$26,400
ANNUAL NET IMPACT	($24,691)	($8,168)
as percent of revenue	-8.0%	-3.5%

Source: Applied Economics, 2013.

PROPOSED ZONING EXHIBIT



N

200 100 0 200 400
GRAPHIC SCALE
1" = 200'

R1-8

R1-18

R1-43

Bowman CONSULTING

Bowman Consulting Group, Ltd.
3010 South Priest Drive Ste 103
Tempe, Arizona 85282
Phone: (480) 629-8830
www.bowmanconsulting.com

PROPOSED GENERAL PLAN
LA JARA FARMS
QUEEN CREEK, ARIZONA
MARICOPA COUNTY

PROJECT NUMBER

PLAN STATUS

DATE	DESCRIPTION	
DD DESIGN	DD DRAWN	DTP CHKD
SCALE	H: 1"=200' V: none	
JOB No. 9774-01-001		
DATE : 4/12/13		

GP04

SHEET 4 OF 4

CAD FILE NAME: P:\9774 - La Jara Farms\9774-01-001 (ENG)\Engineering\Exhibits\9774-PR-001-GZP.dwg 04/15/2013

EXHIBIT E

EXECUTIVE SUMMARY

This analysis demonstrates the potential socioeconomic and fiscal impacts of the proposed General Plan Amendment for La Jara Farms on the Town of Queen Creek. This 140 acre property is located at the southwest corner of Germann Road and Hawes Road. The proposal for the La Jara Farms property involves changing the land use from Very Low Density Residential (Current Scenario), to a mix of Very Low Density and Low Density Residential with a 9 acre school site (Proposed Scenario). The current General Plan land use for this property is Employment Type A. However, since the site is already zoned for R1-43 and platted with some lots under construction, this analysis does not consider the fiscal impacts of Employment Type A uses.

The impact calculation for the current and proposed land uses for La Jara Farms reveals that at build out the current very low density land use would have an annual net impact (revenues less expenditures) of about ($8,200), with expenditures exceeding revenues by 3.5 percent.[1] This can be compared to an annual net impact under the proposed low density land use of ($25,000), with expenditures exceeding revenues by about 8.0 percent. Impact results include the General Fund, Transportation and Emergency Services Funds. In both cases, the magnitude of the impacts is very small in comparison to the Town's overall budget and given the level of precision of the fiscal impact model, these are close to neutral impacts.

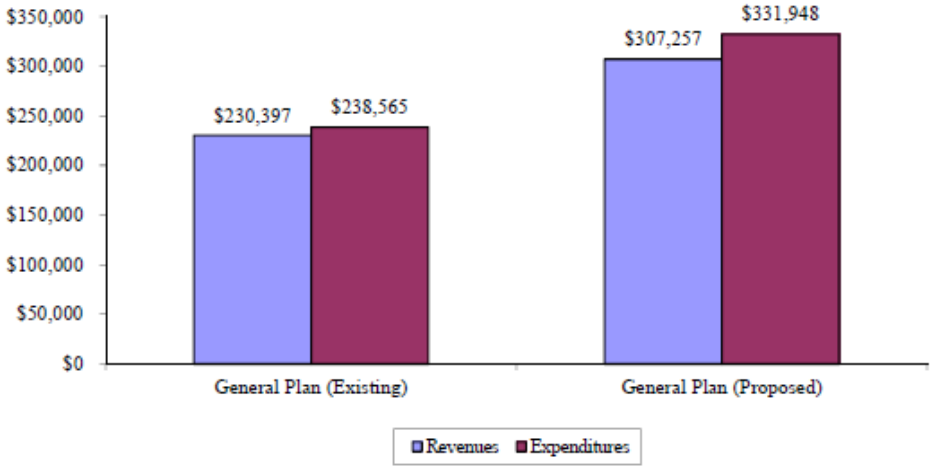
It is typical given the local tax structure in Arizona that residential land uses in isolation do not create positive net fiscal impacts. However, under both the current and proposed uses the small negative annual impact is more than offset by the retail demand created by households. Average income for these households would be about $96,000 for the proposed alternative and $102,000 for the current alternative, given the expected housing prices. Based on typical consumer expenditure patterns for purchases made within a local trade area, the households in this development would generate about $43,000 in annual sales tax revenues from local purchases under the current scenario, and $55,000 under the proposed scenario.[2] These sales tax revenues are not included in the impacts shown here since the land use based model used for this analysis attributes all retail sales to commercial development, but they help to balance the cost of providing municipal services to residents.

Finally, the project would generate close to $2.0 million in total impact fees under the proposed scenario versus only $1.3 million under the current scenario. While impact fee funds are not included in this analysis, these one-time revenues, they would provide funding for infrastructure that could not only benefit this property but could also encourage development on surrounding commercial properties.

[1] Annual net impact reflects post-Census state shared revenues that are adjusted for new residential population.

[2] Based on the Consumer Expenditure Survey, households in the $80,000 to $100,000 income range spend about 20 percent of their pre-tax income on items that could be purchased within the local trade area.

FIGURE 1
Annual Net Impact of Proposed La Jara Farms Ammendment



Executive Summary

Introduction

VIP Homes is considering a 132-dwelling-unit single-family residential development, named La Jara Farms, located in the Town of Queen Creek, in the southwest corner of Hawes Road and Germann Road. The proposed development also includes a Heritage Charter High School with 600 students.

Results

The proposed La Jara Farms is anticipated to generate the following weekday daily and peak hourly volumes.

Time Period	Day	AM	PM
Single Family	1,342	102	135
School	1,908	646	176
Total	3,250	748	311

The development of La Jara Farms will complete Queen Creek Parkway from Germann Road to Ellsworth Road. Queen Creek Parkway will provide a necessary direct connection from the Fulton Homes residential development to Germann Road. Without the direct connection through La Jara Farms to Germann Road, the exclusive access to the Fulton Homes development would be Ellsworth Road.

Recommendations with La Jara Farms

The extension of Queen Creek Parkway from Fulton Homes at Queen Creek Station through La Jara Farms to intersect with Germann Road is necessary with the development of La Jara Farms. Standard Town of Queen Creek improvements to Germann Road are required. No additional street improvements are necessary for the La Jara Farms development.

Heritage Charter High School should provide at least one ingress-only and one egress-only access to the site.

Heritage Charter High School should provide a minimum of 950 lane-feet of queue storage on school property.

Bowman
CONSULTING

MAJOR GPA NEIGHBORHOOD MEETING MINUTES

DATE:	9/10/2013
PROJECT NAME:	La Jara Farms
PROJECT NUMBER:	9774-01-001
LOCATION:	Town of Queen Creek Public Library
ATTENDEES	Troy Peterson, Bowman; Hannah Van Nimwegen, Bowman; Lindsay Shube, Withey Morris; Dennis Newcombe, Beus Gilbert; William Fish, neighbor

The Major General Plan Amendment Neighborhood Meeting was held on the 10th of September, 2013 in the Town of Queen Creek's public library. Only one neighbor attended the neighborhood meeting, William Fish. Mr. Fish lives in lot 16 of Ellsworth Mini Farms. He stated that he was supportive of General Plan Amendment, as he would rather see a residential use go onto the site than employment type uses. He also stated that he understands why an arena would not work with the subdivision due to the extra burden it would impose on future homeowners and their representing HOA. However, he was receptive to the possibility of continuing and improving the Queen Creek trail system along the property's border.

Discussion Items	Response
The difference between what the General Plan currently designates the land, and what the amendment is changing the designation to.	The Queen creek General Plan currently has the area planned for Employment Type A. The amendment would change the subject site to low-density residential, 0-1 du/ac.
The potential rezone with the GPA	The rezone will run separately from the GPA. Currently nothing has been filed regarding the rezone, however another neighborhood meeting will be held to discuss it. Another notification will be sent out with a date, location, and time for another meeting specific to the rezone.
Is the arena still going to be a part of the plan? There is currently an arena on the other side of Hawes road, and another would be a bonus to the community.	As of right now, we are exploring all options. However, we are still working with the property owner and engineer and moving lots around. We are also exploring the possibility of extending the current trail system for equestrian/multi-use.
The previous landowner and developer promised an arena for our support of the project.	This is only the General Plan Amendment, any future rezoning case on Phase 2 will re-evaluate the arena. Moreover, we are exploring all options for a community space, trail, etc.

Discussion Items	Response
Where is the entrance to the subdivision going to be?	The main entrances will be located off of Queen Parkway, to the southwest of the subdivision, and off of Germann Road, to the north. There will not be any direct access into the subdivision from Hawes Road.
Wasn't Germann Road going to be widened to 6 lanes?	As far as our knowledge, no action has been taken to begin widening the road.

2013 GENERAL PLAN AMENDMENT OPEN HOUSE PUBLIC COMMENTS

Below are the highlights from the comments received at the Open Houses held on August 28 and September 25, 2013 to discuss the Major General Plan Amendments proposed for 2013.

+Positive comments

- Negative comments

***Mentioned multiple times**

The majority of the comments received were regarding Sonoqui Creek Village (GP13-030). Included is a table reflecting the main categories of concern to the residents. Generally they do not support the project, and are concerned with decreased property values, increased traffic flow, increased noise levels, and losing scenic views.

GP13-025, La Jara Farms:

+ Proposed GPA housing density is very low density.
- Properties are close the airport & has a potential to take away from Queen Creek's tax revenues
+ The existing General Plan is balanced

GP13-026, Estates at Queen Creek Station.

+ Proposed GPA housing density is very low density.
- Properties are close the airport & has a potential to take away from Queen Creek's tax revenues
+ Proposed GPA density is too high when changing employment to housing
+ Resident's neighborhood is not directly impacted by this project, just the Town
+ Existing GP does have balance and clusters
- Increased density to residential
+/- Placement of employment & commercial areas vs. residential was well thought out & should be honored over time

GP13-027, Meridian Crossings

NO COMMENTS RECEIVED

GP13-028, Barney Farms:

- Proposed density to too high** (lot sizes, street widths, set-backs, and drive way lengths)
- Impact property/home values
- Close the airport & flight path

- Existing Plan is good overall, maintains property values
- Proximity of proposed new residential to CMC Steel could be an issue

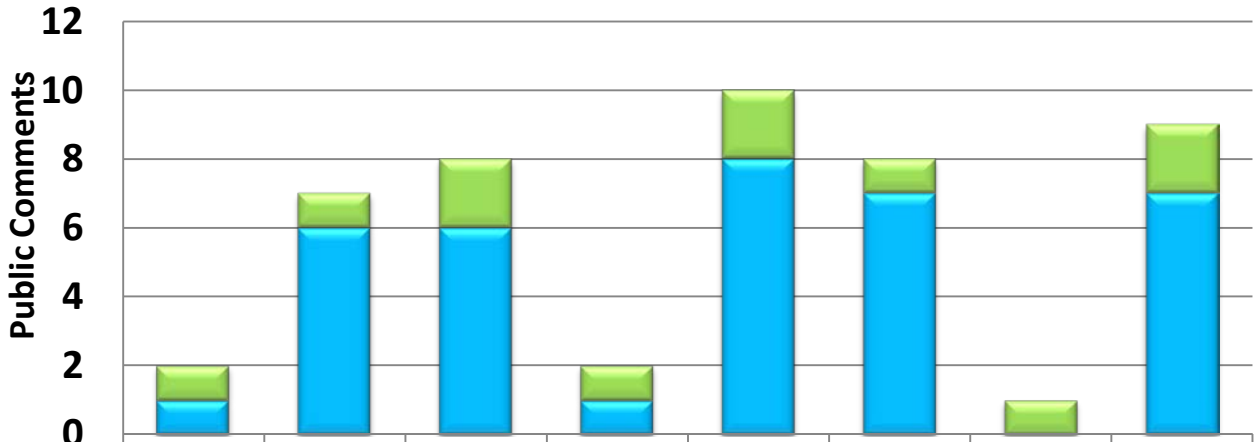
GP13-029, The Vineyards

NO COMMENTS RECEIVED

GP13-030, Sonoqui Creek Village

- Multiple residents expressed that they are not in favor******
+ Supports land development as approved in the previous housing plan
- Decrease property/home values*********
- Increased traffic flow*********
- Increased noise levels*
- Concerned about safety for families*
- Concerned about local wildlife
- Opposed to (2) story homes****
- Concerned with losing scenic views*****
- Concerned Town's sense of a "Rural Community" will be lost* **
- Lot sizes*
- Track homes being integrated into custom lots
+ Existing GP has low density** transitions to higher density, and accommodates friendly equestrian areas
+ Economic Development
+ Existing GPA matches the surrounding area, it's more cohesive
- Proposed GPA density is too high* **
- Increased density to residential is too high**
+/- Placement of employment & commercial areas vs. residential was well thought out & should be honored over time
- Attorneys representing this project suggest that there is no market for larger custom home lots
- Comments/concerns are not being heard or addressed
- Too much residential, not enough commercial
- Need to generate revenue for the Town

Public Comments Received Regarding Sonoqui Creek Village GP13-030



	Proposed General Plan Likes	Proposed General Plan Dislikes	Specific Case Concerns Provided	Neighborhood Impact (Positive)	Neighborhood Impact (Negative)	Existing General Plan (LIKES)	Existing General Plan (DISLIKES)	General Comments Provided
2nd Open House	1	1	2	1	2	1	1	2
1st Open House	1	6	6	1	8	7		7

PHOENIX-MESA GATEWAY AIRPORT
5835 SOUTH SOSSAMAN ROAD
MESA, ARIZONA 85212-6014

PHONE (480) 988 7600
FAX (480) 988 2315

May 6, 2013

Mr. Wayne Balmer
Case Planner
Town of Queen Creek
Planning Department
22350 S. Ellsworth Road
Queen Creek, Arizona 85142-9311

Re: **Case #/Name: P/A 13-0005 & P/A 13-0006 La Jara Farms Amendments**
Project Site/Location: SWC Germann and Hawes Roads

Dear Mr. Balmer:

Thank you for this opportunity to review Case # /Name P/A 13-0005 & P/A 13-0006 La Jara Farms Amendments concerning the VIP Homes residential and charter school development project to be located at the southwest corner of Germann and Hawes Roads.

As you are aware, this project site lies within the Town of Queen Creek Williams Gateway Airport (now Phoenix-Mesa Gateway Airport) Overlay District. More specifically, it lies within "Overflight Area 3," as defined by our 2000 Federal Aviation Administration Regulation (FAR) Part 150 Noise Compatibility Study which was adopted by the Town of Queen Creek and incorporated into the Town's Zoning Ordinance on August 18, 2004 via Ordinance No. 292-04.

While the FAA Study and the Town's Zoning Ordinance do not specifically prohibit school and residential construction with Overflight Area 3, the Ordinance's Article 4.15 C.3 does require compliance with certain stipulations as a condition of application approval; those stipulations are listed below. We strongly urge that all be adopted as part of any motion for approval.

1. Final plats shall note the potential for objectionable aircraft noise. Specifically, the plat shall note the following: *"This property, due to its proximity to the Phoenix-Mesa Gateway Airport, is likely to experience aircraft overflights which could generate noise levels which may be of concern to some individuals. The mix of aircraft consists of cargo, commercial, charter, corporate, general aviation and military aircraft."*

2. Sales offices pertaining to new single family residential development shall provide notice to prospective buyers that the project is located within the Phoenix-Mesa Gateway Airport Overflight Area. Such notice shall consist of a sign, at least 2-feet by 3-feet, installed at the entrance to the sales office or leasing office serving the residential portion of the project. The sign shall be installed prior to commencement of sales and shall not be removed until the sales office is permanently closed. The sign shall state the following in letters at least one (1) inch in height: *"This subdivision, due to its proximity to Phoenix-Mesa Gateway Airport, is likely to experience aircraft overflights that could generate noise levels which may be of concern to some individuals. The mix of aircraft consists of cargo, commercial, charter, corporate, general aviation and military aircraft. For*

additional information, contact the Arizona Department of Real Estate at (602) 468-1414 or the Phoenix-Mesa Gateway Airport Community Relations Office at (480) 988-7637."

3. Public reports filed with the Arizona Department of Real Estate shall disclose the location of the Airport and potential aircraft overflights, and include the following statement in the public report: *"This property, due to its proximity to the Phoenix-Mesa Gateway Airport, is likely to experience aircraft overflights that could generate noise levels which may be of concern to some individuals."*

4. The construction, alteration, moving and substantial repair of any occupied building or structure in the new project shall achieve an exterior-to-interior Noise Level Reduction (NLR) of 25 decibels (dB) or an exterior-to-interior NLR that results in an interior noise level of 45 DNL or less. The developer shall submit a signed and sealed letter from a registered architect or engineer certifying that construction materials, methods and design employed to achieve the required noise reduction. A copy of the certification shall be submitted with the application for a building permit.

5. The owners of the new project, including mortgagees, other lien holders and easement holders shall execute an avigation easement prior to or concurrently with the recordation of any final plat or approval of a final site plan for the new project. The easement shall be in a form approved by the Queen Creek Director of Planning. NOTE: To assist in this effort, a sample avigation easement is provided for possible consideration and use.

I also would like to add a special concern regarding the proposed charter school location, one that will be closer to the Airport and attendant aircraft activity than any other project component. This location makes it highly likely that school activities, especially those taking place outside, could experience occasional disruptions due to aircraft noise. It would, therefore, be prudent to advise the developer of such and, at the very least, encourage or require use of suitable sound attenuation construction measures to mitigate any potential adverse, noise-related effects.

I again thank you for the opportunity to review this request. If you have any questions, please contact Craig Herget at (480) 988-7649.

Sincerely,

JMorris

Jane L. Morris, A.A.E.
Executive Director

Attachment: Exhibit A (Declaration of Avigation Easement and Waiver)

cc: Patrick Oakley, Community Relations Coordinator
Brian Sexton, Public Information Officer
File

DECLARATION OF AVIGATION EASEMENT AND WAIVER

This DECLARATION OF AVIGATION EASEMENT AND WAIVER, made the _____ day of _____ , 20____, (hereinafter referred to as the "Declaration") by _____ (hereinafter referred to as "Declarant").

WITNESSETH:

WHEREAS, Declarant represents that it is the sole record owner in fee simple of certain real property (hereinafter referred to as the "Property") located in Maricopa County, Arizona which is more particularly described in Exhibit "A" attached hereto, subject only to the mortgage(s) held by the lender(s) subscribing hereto; and

WHEREAS, Declarant plans to develop the Property in compliance with the _____ _____ (hereinafter referred to as the Development Plan"), and

WHEREAS, the Property is located in the proximity of Phoenix-Mesa Gateway Airport (which, as it now exists or may hereafter be enlarged and/or developed, is hereinafter referred to as "the Airport"); and

WHEREAS, the Property is now and in the future will be subject to noise emanating from aircraft operating at or departing from or arriving at the Airport.

NOW THEREFORE, for good and sufficient considerations, the receipt and adequacy of which Declarant hereby acknowledges, Declarant hereby covenants and declares that all of the Property shall be held, sold, used and conveyed subject to the following avigation easement, covenants and waiver, which shall run with the property and be binding on all occupants thereof and on all parties having any right, title or interest in the Property or any part thereof, their heirs, successors and assigns, grantees, invitees and tenants.

DECLARANT HEREBY DECLARES, ESTABLISHES, GRANTS AND CONVEYS to Phoenix-Mesa Gateway Airport and all persons lawfully using the Airport, the right to operate aircraft in, and the right to cause in the airspace above or near the Property such noise as may be inherent in the operation of aircraft, now known or hereafter used, while landing on, taking off from, or operating at the Airport, as long as such operations are in compliance with applicable federal, state and local regulations concerning operation of aircraft and use of the Airport.

Declarant covenants and agrees that it, its successors, assignees, invitees, and tenants, shall not assert, initiate, join in or prosecute any claim, administrative proceeding, lawsuit, demand, grievance or other cause of action, and hereby expressly waives for itself, its successors, assigns, invitees, and tenants, any claim, administrative proceeding, lawsuit, demand, grievance or other cause of action it or they may now have, or that may arise in the future against Phoenix-Mesa Gateway Airport, the commercial air carriers now or hereafter operating at Phoenix-Mesa Gateway Airport, the (hereinafter are collectively referred to as the "Benefited Parties"), for any inverse condemnation, nuisance or other action of any nature whatsoever arising out of, or related to noise produced by aircraft operating on, within or over the Airport, or within airspace above or near the Property including without limitation noise produced by aircraft approaching the Airport for landing or departing from the Airport. This waiver shall not be construed, however, to bar Declarant or any successor, assign, grantee, invitee or tenant of Declarant from any claims against any person or entity for personal injury or property damage caused by or resulting from the negligent operation of an aircraft or resulting from use of the airspace above the Property in a manner violative of applicable federal, state or local laws or regulations.

Nothing contained herein shall be construed to restrict Declarant from building any structure on the Property which complies with all applicable laws of the governmental agencies having jurisdiction regarding said construction, so long as any such structure does not, because of its height or function, restrict or impede usage of the Airport by aircraft lending or taking off in the same manner as if the structure were not in existence.

This Declaration shall bind Declarant, its successors, assigns, invitees and tenants, and their respective successors and assigns, and all persons from time to time occupying or using the Property or any portion thereof. The acceptance by any person or entity of any right of use, deed, lease, mortgage or conveyance of any interest in or privilege pertaining to the Property whatsoever shall constitute acknowledgment of the terms of this Declaration and agreement to be bound by all terms hereof.

This Declaration shall be a covenant running with the land described in Exhibit A, and shall run to the benefit of the above described Benefited Parties, their successors and assigns.

ATTEST

_____

Secretary

DECLARANT

_____

_____

By: _____

_____

_____

STATE OF ARIZONA)
)ss.
County of Maricopa)

PERSONALLY appeared before me, the undersigned authority _____ well known to me to be the _____ of _____, _____ and they acknowledged before me that that they executed the foregoing instrument on behalf of _____ as its true act and deed, and that they were duly authorized so to do.

WITNESS my hand and official seal, this ____ day of _____, 20_____.

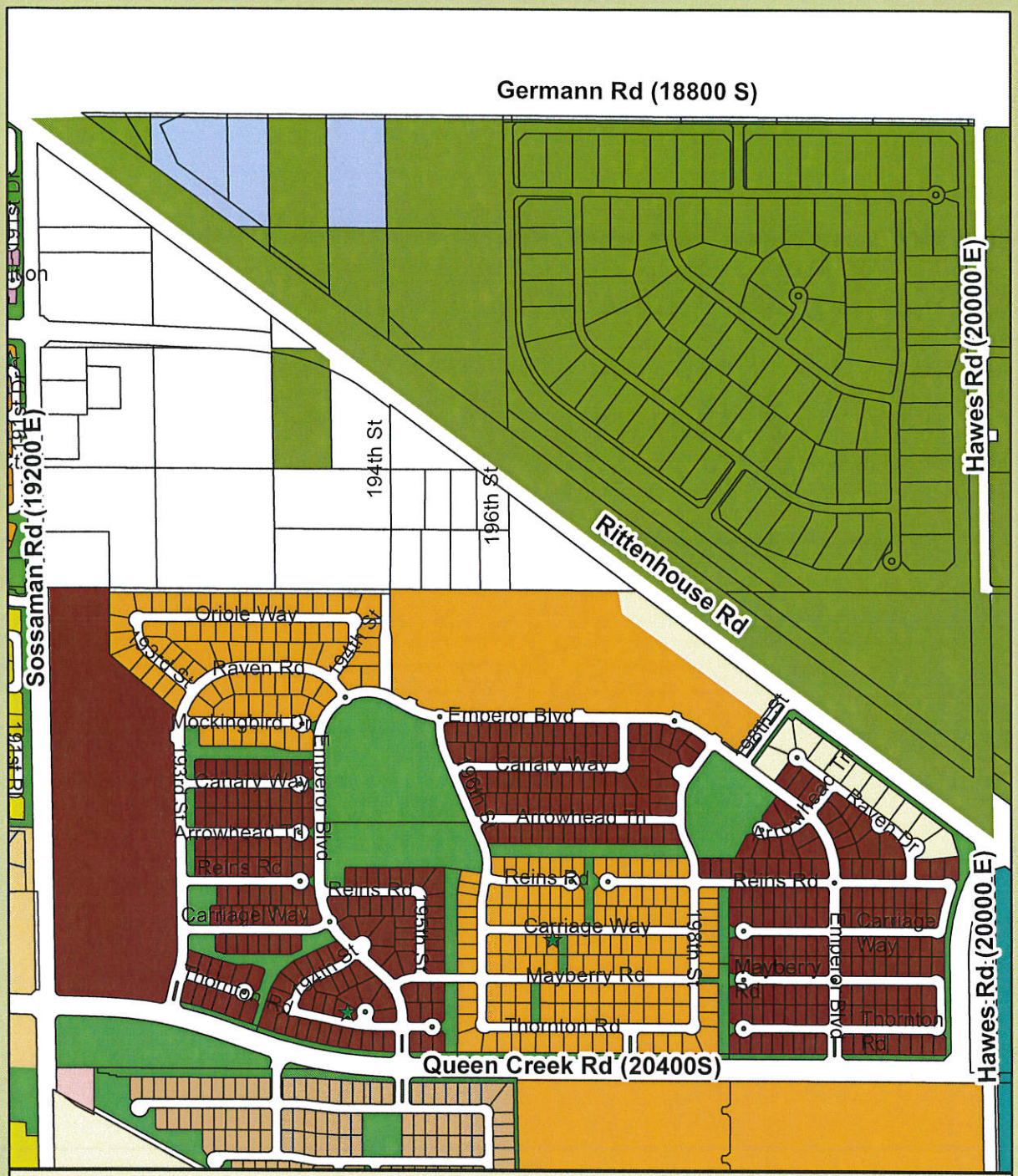
(NOTARY SEAL)

_____

Notary Public

My Commission Expires:

_____



All information is believed to be accurate on the date of publication, but is not guaranteed.

Publish Date: 9/9/09

Queen Creek Zoning Map Book

B-3

Created by Dave Williams, Senior Planner 480-358-3089

TOWN OF QUEEN CREEK ARIZONA