



**Updated:**

**3/15/17 @ 3:30pm**

**Updated first page of Draft February Planning Commission Minutes**

**Added Revised Staff Report & Revised Preliminary Plat for Item 2 - Mercato**

**3/9/17 @ 4:00pm**

**Added the following items:**

**Draft February Planning Commission Minutes**

**Communication for Item 1B - Rezoning for Alvamar, 2021 Crossgate**

**Plat for Item 2 - Preliminary Plat for Mercato**

**3/7/17 @ 5:00pm**

**LAWRENCE-DOUGLAS COUNTY METROPOLITAN PLANNING COMMISSION**

**CITY HALL, 6 EAST 6<sup>TH</sup> STREET, CITY COMMISSION MEETING ROOM**

**AGENDA FOR PUBLIC & NON-PUBLIC HEARING ITEMS**

**WEDNESDAY, MARCH 15, 2017 6:30PM - 10:30PM**

#### **GENERAL BUSINESS:**

#### **PLANNING COMMISSION ACTION SUMMARY**

Receive and amend or approve the action summary (minutes) from the Planning Commission meeting of February 22, 2017.

#### **COMMITTEE REPORTS**

Receive reports from any committees that met over the past month.

#### **COMMUNICATIONS**

- a) Receive written communications from the public.
- b) Receive written communications from staff, Planning Commissioners, or other commissioners.
- c) Receive written action of any waiver requests/determinations made by the City Engineer.
- d) Disclosure of ex parte communications.
- e) Declaration of abstentions from specific agenda items by commissioners.

***AGENDA ITEMS MAY BE TAKEN OUT OF ORDER AT THE COMMISSION'S DISCRETION***

#### **REGULAR AGENDA (MARCH 15, 2017) MEETING**

##### **PUBLIC HEARING ITEMS:**

**ITEM NO. 1A      RS7 & PUD TO RM24-PD; 1.418 ACRES; 2021 CROSSGATE/1809 BIRDIE WAY (SLD)**

**Z-17-00009:** Consider a request to rezone approximately 1.418 acres from RS7 (Single-Dwelling Residential) District and PUD (Planned Unit Development) District to RM24-PD (Multi-Dwelling Residential-Planned Development) District, located at 2021 Crossgate Dr. (1809 Birdie Way, Lot 1 Alvamar Inc one Addition) Submitted by Paul Werner Architects for Eagle 1968 LC, property owner of record.

**ITEM NO. 1B            PUD TO RM24-PD; .558 ACRE; 2021 CROSSGATE/1575 BIRDIE WAY (SLD)**

**Z-17-00011:** Consider a request to rezone approximately .558 acre from PUD (Planned Unit Development) District to RM24-PD (Multi-Dwelling Residential-Planned Development) District, located at 2021 Crossgate Dr. (1575 Birdie Way, Lot 2 Alvamar Inc one Addition) Submitted by Paul Werner Architects for Eagle 1968 LC, property owner of record.

**NON-PUBLIC HEARING ITEMS:**

**ITEM NO. 1C            FINAL DEVELOPMENT PLAN FOR ALVAMAR LOT 1; 1809 BIRDIE WAY (SLD)**

**FDP-17-00028:** Consider a revised Final Development Plan for Alvamar Lot 1, located at 1809 Birdie Way for the addition of an 8,200 SF multi-purpose building. Submitted by Paul Werner Architects, for Eagle 1968 LC, property owner of record.

**ITEM NO. 1D            FINAL DEVELOPMENT PLAN FOR ALVAMAR LOT 2; 1575 BIRDIE WAY (SLD)**

**FDP-17-00029:** Consider a revised Final Development Plan for Alvamar Lot 2, located at 1575 Birdie Way for the relocation of the apartment clubhouse and pool area. Submitted by Paul Werner Architects, for Alvamar Apartments LC, property owner of record.

**ITEM NO. 2            PRELIMINARY PLAT FOR MERCATO; 6200 W 6<sup>TH</sup> ST (MKM)**

**PP-17-00010:** Consider a Preliminary Plat for Mercato, an eight-lot commercial subdivision on approximately 121 acres located at 6200 W 6<sup>th</sup> St (northwest corner of W 6<sup>th</sup> Street & George Williams Way). Submitted by Landplan Engineering PA on behalf of Kentucky Place, LC; Tanglewood, LC; JDS Kansas, LC; Scotsdale Properties, LC; Tat Land Holding Company, LC; Sojac Land Company, LC; and Venture Properties, Inc. property owners of record.

**RESUME PUBLIC HEARING:**

**ITEM NO. 3            PRELIMINARY DEVELOPMENT PLAN FOR MT. BLUE ADDITION; 2350 FRANKLIN RD (BJP)**

**PDP-17-00008:** Consider a Preliminary Development Plan for Mt. Blue Addition, Lot 1 and Mt. Blue Addition No. 2, Lot 9 to accommodate a gun range and retail store, located at 2350 Franklin Rd. Submitted by Paul Werner Architects on behalf of Ace Self Storage LLC, property owner of record.

**ITEM NO. 4            TEXT AMENDMENT TO COUNTY ZONING REGULATIONS; LANDFILLS (MKM)**

**TA-16-00510:** Consider a Text Amendment to Chapter 12 of the County Code, *Zoning Regulations for the Unincorporated Territory of Douglas County, Kansas* to add 'Landfills' to the enumerated list of Conditional Uses, provide a definition, and establish standards for the use. *Initiated by County Commission on 11/30/16.*

**ITEM NO. 5            TEXT AMENDMENT TO DEVELOPMENT CODE; COLUMBARIUMS (BJP)**

**TA-16-00388:** Consider a Text Amendment to the City of Lawrence Land Development Code, Articles 4, 5, & 17, regarding *Funeral and Interment Services as defined in Section 20-1729. The requested*



*amendment would allow Columbariums as Accessory Uses to established Religious Assembly Institutions. Submitted by Corpus Christi Catholic Church. Initiated by City Commission on 9/20/16. Deferred by Planning Commission on 1/25/17.*

## MISCELLANEOUS NEW OR OLD BUSINESS

Consideration of any other business to come before the Commission.

### MISC NO. 1 MINOR SUBDIVISION VARIANCE FOR COKELEY ADDITION; SW CORNER OF W 31<sup>ST</sup> ST & OUSDAHL RD (MKM)

Minor Subdivision, MS-17-00071, variance request from the requirement to dedicate additional right-of-way for W 31<sup>st</sup> Street, for Cokeley Addition, a one-lot subdivision on approximately 2.9 acres located in the southwest corner of the intersection of W 31<sup>st</sup> Street and Ousdahl Road. Submitted by Landplan Engineering, PA for Jayhawk Acquisition, LLC, property owner of record.

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## ADJOURN

## CALENDAR

February 2017						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

March 2017						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

April 2017						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## PCCM Meeting:

(Generally 2<sup>nd</sup> Wednesday of each month, 7:30am-9:00am)

Sign up to receive the Planning Commission agenda or weekly Planning Submittals via email:

<http://www.lawrenceks.org/subscriptions>

**2017**  
**LAWRENCE-DOUGLAS COUNTY METROPOLITAN PLANNING COMMISSION**  
**MID-MONTH & REGULAR MEETING DATES**

Mid-Month Meetings, Wednesdays 7:30 – 9:00 AM	Mid-Month Topics		Planning Commission Meetings 6:30 PM, Monday and Wednesday	
Jan 11	CANCELLED		Jan 23	Jan 25
Feb 8	Douglas County Natural Areas Assessment – Kelly Kindscher		--	Feb 22
Mar 8	East Lawrence Rezoning	Dg Co Food System Assessment & Plan	Mar 13	Mar 15
Apr 12			Apr 24	Apr 26
May 10			May 22	May 24
Jun 14	APA Conference recap		Jun 26	Jun 28
Jul 12			Jul 24	Jul 26
Aug 9			Aug 21	Aug 23
Sep 13			Sep 25	Sep 27
Oct 11			Oct 23	Oct 25
Nov 1			Nov 13	Nov 15
Dec 6			Dec 18	Dec 20
PC Orientation – all day (tbd)				
	<b>Suggested topics for future meetings:</b> <i>How City/County Depts interact on planning issues</i> <i>Stormwater Stds Update – Stream Setbacks</i> <i>Overview of different Advisory Groups – potential overlap on planning issues</i> <i>Joint meeting with other Cities’ Planning Commissions</i> <i>Joint meeting with other Cities and Townships – UGA potential revisions</i> <i>New County Zoning Codes</i> <i>Tour City/County Facilities</i> <i>Water Resources</i>		<i>Communication Towers – Stealth Design, # of co-locations, notice area</i> <i>WiFi Connectivity &amp; Infrastructure Planning</i> <i>Oread Overlay Districts &amp; Design Guidelines</i> <i>Comprehensive Plan – Goals &amp; Policies</i> <i>Affordable Housing</i> <i>Retail Market Impacts</i> <i>Case Studies</i>	
Meeting Locations	The Planning Commission meetings are held in the City Commission meeting room on the 1 <sup>st</sup> floor of City Hall, 6 <sup>th</sup> & Massachusetts Streets, unless otherwise noticed.			
Planning & Development Services   Lawrence-Douglas County Planning Division   785-832-3150   <a href="http://www.lawrenceks.org/pds">www.lawrenceks.org/pds</a>				

Revised 1/18/16

## 2017 PLANNING COMMISSION ATTENDANCE

	Jan 25 2017	Feb 22 2017	Mar 15 2017	April 26 2017	May 24 2017	June 28 2017
Britton	Yes	Yes				
Butler	No	Yes				
Carpenter	Yes	Yes				
Culver	Yes	Yes				
Kelly	Yes	Yes				
Sands	Yes	Yes				
Struckhoff	Yes	No				
von Achen	Yes	Yes				
Weaver		Yes				
Willey	No	Yes				

## 2017 MID-MONTH ATTENDANCE

	Jan 11 2017	Feb 8 2017	Mar 8 2017	April 12 2017	May 10 2017	June 14 2017
Britton	-	Yes				
Butler	-	No				
Carpenter	-	Yes				
Culver	-	Yes				
Kelly	-	Yes				
Sands	-	No				
Struckhoff	-	Yes				
von Achen	-	Yes				
Weaver	-	Yes				
Willey	-	Yes				



**PLANNING COMMISSION MEETING**  
**February 22, 2017**  
**Meeting Action Summary**

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February 22, 2017 – 6:30 p.m.

Commissioners present: Britton, Butler, Carpenter, Culver, Kelly, Sands, von Achen, Weaver, Willey

Staff present: McCullough, Stogsdill, Day, Larkin, M. Miller, Pepper, Ewert

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**GENERAL BUSINESS**

**PLANNING COMMISSION ACTION SUMMARY MINUTES**

Receive and amend or approve the action summary (minutes) from the Planning Commission meeting of January 25, 2017.

Motioned by Commissioner Culver, seconded by Commissioner von Achen, to approve the January 25, 2017 Planning Commission action summary minutes.

Unanimously approved 6-0-3, with Commissioners Butler, Weaver, and Willey abstaining.

**COMMITTEE REPORTS**

No reports from any committees that met over the past month.

**EX PARTE / ABSTENTIONS / DEFERRAL REQUEST**

- No ex parte.
- No abstentions.

PC Minutes 2/22/17

**ITEM NO. 1      COUNTY B-1 TO COUNTY R-1; .58 ACRES; 697 E 1725 RD (BJP)**

**Z-17-00022:** Consider a request to rezone approximately 0.58 acres from County B-1 (Neighborhood Business) District to County R-1 (Single-Family Residential) District, located at 697 E 1725 Rd, Baldwin City. Submitted by Vinland Preservation LLC, property owner of record. *Joint meeting with Baldwin Planning Commission.*

**STAFF PRESENTATION**

Ms. Becky Pepper presented the item.

**APPLICANT PRESENTATION**

Mr. Ray Wilbur, 502 E 1600 Rd, said he was a shareholder in the project. He said the sanctuary was used as a workshop and half the building was used as a house.

**PUBLIC HEARING**

No public comment.

**COMMISSION DISCUSSION**

Commissioner Britton asked what the purpose was behind the lot minimum size in the A-1 zoning district.

Ms. Pepper said that was part of the County Zoning Regulations. She said the difference with the A district was more rural in nature. She said the larger lot size was intended to maintain the rural character of the area.

Commissioner Willey inquired if the property was on a septic system.

Ms. Pepper said yes, septic.

**ACTION TAKEN**

Motioned by Commissioner Britton, seconded by Commissioner von Achen, to approve the rezoning request for approximately 0.58 acres from B-1 (Neighborhood Business) District to R-1 (Single-Family Residential) District and forward to the Board of County Commissioners with a recommendation for approval based on the findings of fact found in the body of the staff report

Unanimously approved 9-0.

PC Minutes 2/22/17

**ITEM NO. 2      PRELIMINARY PLAT FOR PAXTON PLACE ADDITION; SE CORNER 31<sup>ST</sup> & MICHIGAN (MKM)**

**PP-16-00544:** Consider a Preliminary Plat for Paxton Place Addition, a two lot residential subdivision, on approximately 49 acres located at the southeast corner of W. 31<sup>st</sup> St and Michigan St. (future address of 1101 W 31<sup>st</sup> St). Submitted by BG Consultants, for Castle Rock LC, property owner of record.

**STAFF PRESENTATION**

Ms. Mary Miller presented the item.

**APPLICANT PRESENTATION**

Mr. David Hamby, BG Consultants, was present for questioning.

**PUBLIC HEARING**

No public comment.

**COMMISSION DISCUSSION**

Commissioner Sands inquired about the concept plan.

Ms. Miller showed the concept plan on the overhead.

Commissioner Sands asked if there were plans for development on lot 2. He also inquired about the acreage of lot 2.

Ms. Miller said development was not currently planned for lot 2. She said the property was approximately a million square feet and approximately 25 acres on each lot.

Commissioner Sands inquired about open space.

Mr. McCullough said the property had development potential but that there was substantial floodplain on the property. He said the property was annexed into the city and two feet of freeboard was added for the floodplain. He said the Code allowed for development in the floodplain if the floodplain regulations were followed. He stated there was a cost associated with developing in the floodplain so many developers choose not to develop in the floodplain. He said the plat showed the lot layout and where the floodplain was located.

**ACTION TAKEN**

Motioned by Commissioner Sands, seconded by Commissioner Culver, to approve the Preliminary Plat of Paxton Place Addition subject to the following conditions:

1. Applicant shall provide a revised preliminary plat with the following changes:
  - a. Show the SLT/K10-TC Overlay District boundary on the plat.
  - b. Show and label the sidewalks on the adjacent roadways. The sidewalk on W 31<sup>st</sup> Street should also be labeled 'proposed'.
  - c. Provide dimensions for the Westar Easement.

Commissioner von Achen said the staff report noted some of the right-of-way was being held by the Kansas Department of Transportation (KDOT). She asked if the visitor center was in the right-of-way.

Ms. Miller said yes, there was an agreement with KDOT.

Unanimously approved 9-0.

DRAFT



PC Minutes 2/22/17

**ITEM NO. 3      PCD TO CS; 1.07 ACRES; 3215 OUSDAHL RD (MKM)**

**Z-16-00545:** Consider a request to rezone approximately 1.07 acres located at 3215 Ousdahl Rd from PCD-[Pine Ridge Plaza] (Planned Commercial Development) District to CS (Commercial Strip) District. Submitted by Paul Werner Architects on behalf of Jayhawk Acquisitions LLC, property owner of record.

**STAFF PRESENTATION**

Ms. Mary Miller presented the item.

**APPLICANT PRESENTATION**

Ms. Joy Rhea, Paul Werner Architects, was present for questioning.

**PUBLIC HEARING**

Mr. Jeff Tucker, 1801 W 31<sup>st</sup> St, wondered if the same owner owned the property to the north. He was curious if the property to the north would be demolished and rebuilt.

**APPLICANT CLOSING COMMENTS**

Ms. Rhea said the applicant did own all the property. She said the existing storage units would remain for now and worked around to make it a continuous development.

**COMMISSION DISCUSSION**

Commissioner Culver asked about the access point to the lots.

Ms. Miller said it was shared access to the north.

Ms. Rhea said there would be access on Ousdahl as well.

Commissioner Britton asked Mr. Tucker if his concerns had been addressed.

Mr. Tucker said the current buildings were dilapidated and vacant. He said people were living in the vacant storage units and doing drugs. He said it was an unsightly property with lots of trash.

Commissioner Kelly inquired about the confusing access and traffic at the intersection on 31<sup>st</sup> Street near the post office.

Ms. Stogsdill said that change occurred when Home Depot and Best Buy were built on the north side and they needed a lighted intersection. She said the post office access changed at that time. She stated the access was shared with the east end of Pine Ridge Plaza and not the best example of coordinated development.

Commissioner Kelly asked if the applicant was thinking of going across the drainage ditch area.

Ms. Rhea said there would be a building along there to shore things up a bit. She stated the long term plan was to eventually tear down the existing buildings and build new buildings to match.

Commissioner Kelly asked staff to explain the site planning stage to the public.

*Complete audio & video from this meeting can be found online:  
<http://www.lawrenceks.org/boards/planning-commission/agendas>*

Mr. McCullough said it was helpful to have input regarding site plans and what the issues are at a particular site. He said they could address some of the concerns through site planning design, with such things as a security gate, lighting, etc.

**ACTION TAKEN**

Motioned by Commissioner Britton, seconded by Commissioner Willey, to approve the rezoning request, Z-16-00545, for approximately 1.07 acres from PCD-[Pine Ridge Plaza] (Planned Commercial Development) District to CS (Commercial Strip) District and forwarding it to the City Commission with a recommendation for approval based on the findings of fact found in the body of the staff report.

Unanimously approved 9-0.

PC Minutes 2/22/17

**ITEM NO. 4 SPECIAL USE PERMIT; BULLWINKLE'S; 1340 TENNESSEE ST (BJP)**

**SUP-16-00547:** Consider a Special Use Permit to allow a building addition for Bullwinkle's, located at 1340 Tennessee Street, to expand onto property in a MU (Mixed Use) zoning district. Submitted by Paul Werner Architects on behalf of Sorrentino Investments LLC, property owner of record.

**STAFF PRESENTATION**

Ms. Becky Pepper presented the item.

**APPLICANT PRESENTATION**

Mr. Paul Werner, Paul Werner Architects, said the site had been cleaned up and the owners had invested a lot of money. He said the house at 1344 Tennessee Street would also be renovated and cleaned up. He agreed with the staff conditions.

**PUBLIC HEARING**

No public comment.

**COMMISSION DISCUSSION**

Commissioner Britton asked what the number of occupants was on a normal night.

Mr. Werner said the maximum occupancy was 269 people. He said there was about a two hour window on Friday and Saturday nights when the bar typically reaches the maximum occupancy. He said he was working with the fire department.

Commissioner Kelly said the two homes and business were owned by the same owner. He wondered what would happen if the ownership was transferred.

Mr. Werner said that was one of the reasons for combining the lots into one property to make it clearer. He said the minor subdivision would make it harder for the property to be pieced off.

Commissioner Sands asked if improved parking was part of the project.

Mr. Werner said there was a parking lot there now and it would be improved and in better shape with this project. He said the parking would be paved once the project was complete. He also stated it was reserved parking that went with the resident homes.

Commissioner Willey asked staff about the standard for setbacks.

Mr. McCullough said in this case it was driven by the building fire code. He said after the lot was combined the buildings could be as close as the design allowed.

Commissioner Willey asked if the homes would be improved with fire retardant materials.

Mr. Werner said the buildings were closest at the bay window area of the house and he was not sure the bay window was salvageable. He said both structures would have fire sprinkles installed.

Commissioner Carpenter said every time he drives by Bullwinkle's there are people out the door and around the corner waiting to get in.

Mr. Werner said on a game days all the bars in the area are crowded.

Commissioner Carpenter said on Thursday and Friday evenings Bullwinkle's was packed.

Mr. Werner said the business was doing well which was why he was here.

Commissioner Carpenter said the patio made the site safer. He asked how maximum occupancy was enforced.

Mr. Werner said the fire department shows up during peak hours and counts the number of people.

Commissioner von Achen said Bullwinkle's was a bar that people walked to instead of driving.

Mr. Werner said that was correct. He said fire retardant materials would be used. He said a 5' setback between structures on one lot and one and two hour fire walls would meet the building and fire codes making it safer than it currently was.

Commissioner Britton inquired about the history of occupancy limit problems.

Mr. McCullough said bars were routinely checked by the fire department. He said through the years bars come in and out of compliance as management changes. He said when architects submit plans they design a certain occupant load. He gave the example of restaurants downtown that were required to install a fire sprinkler if the occupancy was more than 100 people. He said the fire department pays special attention to establishments that could be dangerous if the occupancy is exceeded. He said a new policy included occupancy rates on outdoor patio spaces.

Commissioner Culver asked if increased occupancy was desired in the future by Bullwinkle's if it would require parking requirements.

Mr. McCullough said that was correct.

Commissioner Kelly said enforcement was the best way to deal with occupancy issues.

Commissioner Willey felt the addition of fire sprinklers was a gain to the property.

Commissioner Sands asked how many bedrooms were in the house at 1344 Tennessee Street.

Mr. Werner said both 1344 Tennessee and 314 W. 14<sup>th</sup> would have 7 bedrooms and be congregate living residences.

Commissioner Kelly asked if the house improvements would follow the Oread Design Guidelines.

Mr. McCullough said that was correct.

*Public comment was opened again.*

Mr. Terry Riordan, 1613 Tennessee St, had questions and concerns about this project. He did not feel it was consistent with what was in this area. He stated there had been at least four fires on Tennessee Street. He said there were not any other houses in the neighborhood that were 2' apart. He was concerned about the safety of the patrons at Bullwinkle's lining up outside.

Commissioner von Achen expressed concern about the 2' distance between the buildings and asked how it was allowed in the Oread Guidelines.

Mr. McCullough said the mixed use district was a specific category in the guidelines which allowed that kind of closeness of buildings. He said the MU district called for more intensity and density which was not the typical residential pattern. He said closing up the patio helped with some of the loitering, as well as landscaping in the right-of-way.

Commissioner Kelly said the location of Bullwinkle's was unique and presented some challenges. He felt comfortable that the factors that could be controlled were being controlled.

Commissioner Sands inquired about the difference between a single family residence and congregate living use.

Mr. McCullough said congregate living allowed more than four unrelated people to live there, required one parking space per bedroom, and required a fire sprinkler system.

Commissioner Culver said an addition to the building without increasing the occupancy fit the Special Use Permit and the role of Planning Commission. He felt that combining the lots was beneficial for the property owner by giving them a vested interest in both the business and residences. He also felt that down the road there would be more certainty of what may happen to the properties by them being combined. He said the addition of a sprinkler system would increase the safety of the structures.

### **ACTION TAKEN**

Motioned by Commissioner Culver, seconded by Commissioner Sands, to approve a Special Use Permit, SUP-16-00547, to allow a building addition for Bullwinkle's, located at 1344 Tennessee Street, and forwarding the request to the City Commission with a recommendation of approval, subject to the following conditions:

1. Provision of a site plan performance agreement.
2. Filing of Minor Subdivision with the Douglas County Register of Deeds prior release of building permits for development.
3. Applicant shall provide a revised plan that includes the following notes and changes:
  - a. Add the following note regarding the maximum occupant load for Bullwinkle's:  
"The Design Occupancy of the space (total of interior and both patios) at its maximum configuration shall not exceed 269 people."
  - b. The label in the building footprint for 314 W 14<sup>th</sup> Street indicates that structure contains 7 bedrooms. However, Note 1.2 lists it as a 5 bedroom *Multi-Dwelling Structure*. Update whichever one is in error with the correct information.

Commissioner Britton said he would vote in favor of the motion but hoped the property owner/manager would not exceed the maximum occupancy. He said it would be a nice improvement for the area and not have significant negative impacts on the safety issues that currently exist there.

Unanimously approved 9-0.

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PC Minutes 2/22/17

**ITEM NO. 5      VARIANCE; 1144 E 1200 RD (MKM)**

**CSU-17-00004:** Consider a variance request per Section 20-804 of the Subdivision Regulations to allow a Certificate of Survey on property containing less than 20 acres, located at about 1144 E 1200 Rd. Submitted by Grob Engineering Services LLC on behalf of Brian E & Cheri L Ezell, property owners of record.

**STAFF PRESENTATION**

Ms. Mary Miller presented the item.

**APPLICANT PRESENTATION**

Mr. Dean Grob, Grob Engineering Services, was present for questioning.

**PUBLIC HEARING**

No public comment.

**ACTION TAKEN**

Motioned by Commissioner von Achen, seconded by Commissioner Britton, to approve the variance request to allow a Certificate of Survey, CSU-17-00004, to occur on the subject property with less than the required 20 acres based on the findings of fact found in the body of the staff report and subject to the following condition:

1. The following note shall be added to the Certificate of Survey:
  - a. *"The Planning Commission approved a variance from Section 11-104(b) of the Subdivision Regulations [Section 20-804(b) of the City Code] to allow land division through a Certificate of Survey to occur on a property with approximately 19.5 acres of area rather than the required 20 acres based on the fact that the reduction in land use occurred in, or prior to, 1920 and appears to have occurred in order to accommodate access to the property to the north."*

Commissioner Culver said the condition that lists the background and why this variance was needed was helpful for Planning Commission and for others looking at this property in the future.

Commissioner Britton agreed and commended staff for making that clear and limiting any precedent.

Unanimously approved 9-0.



PC Minutes 2/22/17

**ITEM NO. 6      TEXT AMENDMENT TO DEVELOPMENT CODE; COLUMBARIUMS (BJP)**

**TA-16-00388:** Consider a Text Amendment to the City of Lawrence Land Development Code, Articles 4, 5, & 17, regarding *Funeral and Interment Services as defined in Section 20-1729. The requested amendment would allow Columbariums as Accessory Uses to established Religious Assembly Institutions.* Submitted by Corpus Christi Catholic Church. *Initiated by City Commission on 9/20/16. Deferred by Planning Commission on 1/25/17.*

Item 6 was deferred prior to the meeting.

DRAFT

PC Minutes 2/22/17

**ITEM NO. 7      TEXT AMENDMENT TO COUNTY ZONING REGULATIONS; RADIO,  
TELEVISION, TELECOMMUNICATION, & MICROWAVE TOWERS (MKM)**

**TA-16-00511:** Consider a Text Amendment to Chapter 12 of the County Code, *Zoning Regulations for the Unincorporated Territory of Douglas County, Kansas* to revise Section 12-319-4.31, *Radio, television, telecommunication, and microwave towers*, to bring the standards and definitions into compliance with State law. *Initiated by County Commission on 11/30/16.*

Item 7 was deferred prior to the meeting.

**MISCELLANEOUS NEW OR OLD BUSINESS**

Consideration of any other business to come before the Commission.

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**ADJOURN 8:12pm**

# Planning Commission

## Key Links



City of Lawrence  
Douglas County  
PLANNING & DEVELOPMENT SERVICES



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### Plans & Documents

- [Horizon 2020](#)
- [Sector/Area Plans](#)
- [Transportation 2040](#)
- [2015 Retail Market Study](#)

### Development Regulations

- [Community Design Manual](#)
- [County Zoning Regulations](#)
- [City Land Development Code](#)
- [Subdivision Regulations](#)

### Online Mapping

- [City of Lawrence Interactive GIS Map](#)
- [Douglas County Property Viewer](#)
- [Submittals to the Planning Office](#)

### Planning Commission

- [Bylaws](#)
- [Mid-Months & Special Meetings](#)
- [Minutes](#)
- [Planning Commission Schedule/Deadlines](#)



**PLANNING COMMISSION REPORT**  
**Regular Agenda - Public Hearing Item**

PC Staff Report  
03/15/2017

**ITEM NO. 1A RS7 & PUD TO RM24-PD; 1.418 ACRES; 2021 CROSSGATE (SLD)**

**Z-17-00009:** Consider a request to rezone approximately 1.418 acres from RS7 (Single-Dwelling Residential) District and PUD (Planned Unit Development) District to RM24-PD (Multi-Dwelling Residential-Planned Development) District, located at 2021 Crossgate Dr. (1809 Birdie Way, Lot 1 Alvamar Inc one Addition) Submitted by Paul Werner Architects for Eagle 1968 LC, property owner of record.

**STAFF RECOMMENDATION:** Staff recommends approval of the request to rezone approximately 1.418 acres from RS7 (Single-Dwelling Residential) District and PUD (Planned Unit Development) District to RM24-PD (Multi-Dwelling Residential-Planned Development) District based on the findings presented in the staff report and forwarding it to the City Commission with a recommendation for approval and subject to the following use restrictions:

1. Retail uses, as accessory to the golf course.
2. Office uses, accessory to the direct operation of the golf course and banquet/reception facility (Event Center) or management of accessory uses directly associated with the golf course.
3. Eating and Drinking Establishments, including a night club (to be operated as a banquet/reception facility only), Fast Order Food, Quality Restaurant, and Accessory Bar uses.
4. Transient Accommodations, including a Hotel with not more than twenty-four (24) guest rooms.

**Reason for Request:** *Additional area is being added to platted Lot 1, to accommodate a cart barn that will double as an alternate event location in case of rain to prevent outdoor event cancellations.*

**KEY POINTS**

- Area included in request is part of existing open space/golf course area.
- Area will be replatted to be incorporated into existing Alvamar Inc One, Lot 1.
- The Alvamar PD included a restriction on uses that should be made applicable to the subject property if approved.
- Specific uses and development of the property are subject to approval of a Final Development Plan.

**ASSOCIATED CASES/OTHER ACTION REQUIRED**

- FDP-17-00028; revised Final Development Plan for Lot .1
- Previous related projects
- Z-14-00552; RM24-PD; Ordinances 9154.
  - SUP-15-00389; *Active Recreation Uses* in RM24-PD district.
  - PP-14-00554; Alvamar One Preliminary Plat; application replaced by PDP-15-00247.
  - PDP-15-00247; Approved by the City Commission on Oct. 27, 2015 subject to conditions.
  - PDP-16-00052; Revised Preliminary Development Plan, concurrent with this application.
  - PF-16-00051; Final Plat, administrative review concurrent with this application.
  - Revised final plat to be submitted.

### PLANS AND STUDIES REQUIRED

- *Traffic Study* – Not required for rezoning
- *Downstream Sanitary Sewer Analysis* – Not required for rezoning
- *Drainage Study* – Not required for rezoning
- *Retail Market Study* – Not applicable to residential request

### ATTACHMENTS

- Area map
- Ordinance 9154

### PUBLIC COMMENT RECEIVED PRIOR TO PRINTING

- Area residents calling for clarification of request and development intent.

### Project Summary:

Proposed request is for the expansion of Lot 1 to add another building southwest of the clubhouse for use as a multi-purpose building. The details of the building use are discussed in the related Final Development Plan application (FDP-17-00028).

The use of terms “banquet facilities” and “reception facility” are used in this report to be consistent with the original discussions. These terms were not previously defined in the Development Code prior to a text amendment to define the use “*Event Center*”. An *Event Center* use is included in the ***Community Facilities*** use group and not part of the ***Eating and Drinking Establishment*** use group. Staff has used the same terminology as recently utilized so that the conations are uniform across the entire PD overlay district.

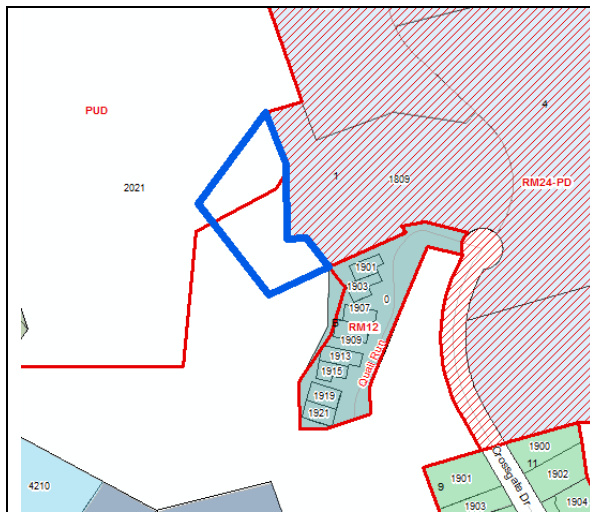


Figure 1: Existing Zoning



Figure 2: Existing Land Use

### 1. CONFORMANCE WITH THE COMPREHENSIVE PLAN

Applicant's Response: *Alvamar has the available room and the desire to expand. Horizon 2020 addresses growth rates in Lawrence and Douglas County and was correct in assuming Lawrence would continue to grow and be a desirable place for existing businesses to expand. (p. 2-6)*

*Business retention and expansion - Nationally and locally, over 80% of new jobs and investment growth in a community come from the expansion of existing businesses.(p.12-2)*

Alvamar golf course is a great amenity to the City and to surrounding residents because of the recreation opportunities and open space it provides. It is important for the golf courses to evolve



into providing services which meet the needs of the new development, management and golfers who will enjoy the course.

*...New parks and recreational facilities should extend and enhance the existing and/or future open space system.(p.9-2) Conserve and protect natural features and functions while accommodating new development that is sensitive to both the recreational needs and the environmental and ecological needs of the community.(p.9-23) Encourage and incorporate open space areas, especially natural areas, into development to increase the overall quality of life for residents of the City.(p.9-24)*

This application is intended to expand the development area of Lot 1, Alvamar PD. By changing the zoning to RM24-PD, the additional area will have a uniform zoning as the the clubhouse area.

The RM24 district allows 24 dwelling units per acre. The area proposed to be rezoned; Lot 1, of the Alvamar PD does not include any residential uses. All land uses approved have been directly related and subordinate to the primary use as a golf course and its related accessory uses such as clubhouse/restaurant/banquet facility (*Event Center*) uses.

Basic residential strategies are listed in Chapter 5 of *Horizon 2020*. They include:

- Infill residential development should be considered prior to annexation of new residential areas.
- A mixture of housing types, styles and economic levels should be encouraged for new residential and infill development.
- Compatible densities and housing types should be encouraged in residential neighborhoods by providing appropriate transition zones between low density residential land uses and more intensive residential development, and between higher density residential uses and nonresidential land uses.

Residential density is variable by lot size, housing type and residential density bonuses that may be considered for a Planned Development. The Alvamar Planned Development includes a high-density residential component located on Lots 2 and 3, north of the area proposed to be rezoned by this application. The proposed request does not alter these residential strategies. In addition to the zoning, development is guided by the approved preliminary and final development plans. At this time there are no residential uses proposed for Lot 1. Lot 1 and Lot 3 represent the activity hub of the golf course.

*Horizon 2020* does not specifically address this area. The plan recommends the preservation of neighborhood character and appearance, Policy 3 Neighborhood Conservation. Included in this set of policies are recommendations to minimize traffic impacts, encroachment of nonresidential uses, and encourage compatible infill development with regard to lot size, housing type, scale and general architectural style of the area. A Planned Development Overlay designation allows for a detailed review of these elements. The proposed change is intended to allow specific nonresidential uses that are accessory to the golf course.

**Staff Finding** – The proposed change represents an expansion of uses that are related to the golf course operation. The central area of the activity associated with Alvamar golf course is located in an otherwise residentially designated area. The proposed request, in staff's opinion, complies with the land use recommendations included in *Horizon 2020*.



## 2. ZONING AND USE OF NEARBY PROPERTY, INCLUDING OVERLAY ZONING

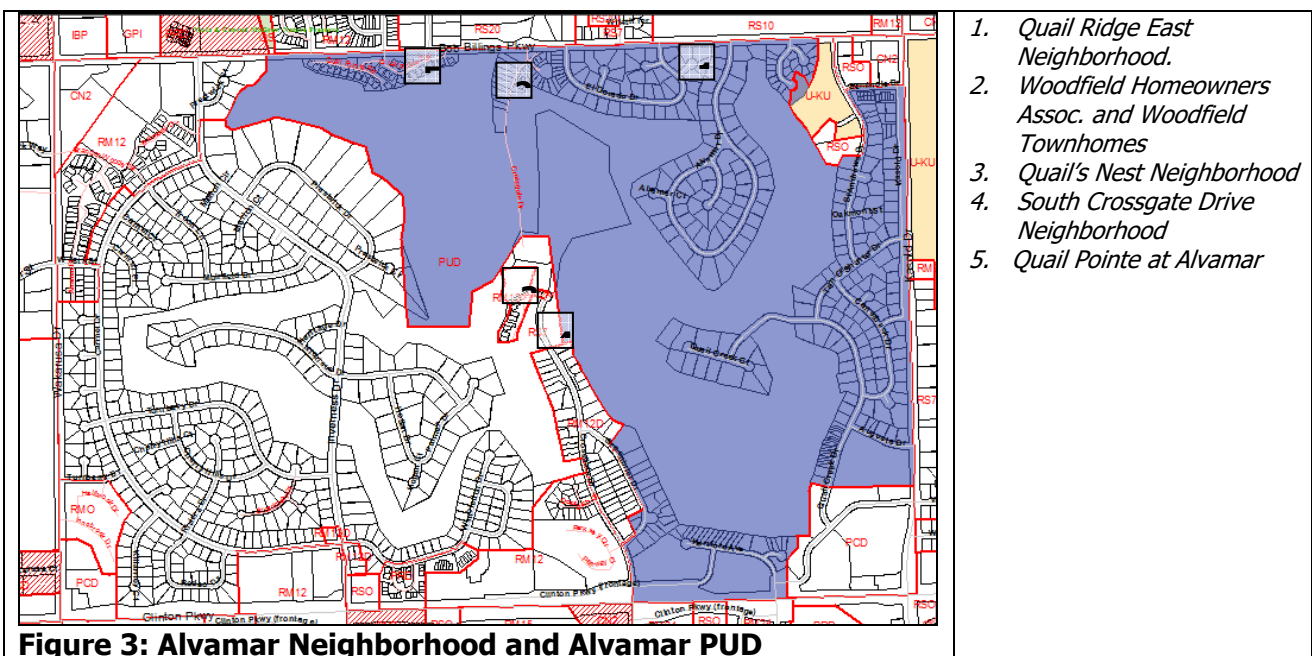
Current Zoning and Land Use: RS7 (Single-Dwelling Residential) District and PUD (Planned Unit Development – Alvamar). Original development golf course area.	
Surrounding Zoning and Land Use:	
To the north:	PUD (Planned Unit Development – Alvamar). Original development golf course area.
To the south:	RS7 (Single-Dwelling Residential) District. Existing golf course
To the west:	RS7 (Single-Dwelling Residential) District and PUD (Planned Unit Development – Alvamar). Original development golf course area.
To the east:	RM24-PD (Multi-Dwelling Residential – Planned Development Overlay) District. Developing clubhouse amenity and support services for Alvamar Golf course.

**Staff Finding –** The existing and surrounding zoning is typical of the golf course development in the surrounding area. Residential subdivisions surround the golf course (open space).

## 3. CHARACTER OF THE NEIGHBORHOOD

Applicant's Response: *The surrounding neighborhoods currently consist of apartments, duplexes, townhomes, a mix of mid to high end single family residences and the golf course. All of these different housing types can be found backing up to the golf course.*

This neighborhood area is described as the Alvamar Neighborhood. The area highlighted in dark blue in the image below is the boundary of the original Alvamar Planned Unit Development. This neighborhood has developed around the Alvamar Golf Course and includes multiple platted subdivisions. It is bounded on the north by Bob Billings Parkway, Clinton Parkway on the south, Kasold Drive on the east and Wakarusa Drive on the west. Through the review and development of this project, several neighborhoods have identified themselves to staff and in communications to the Commissions. This request is located near the Quails Nest Neighborhood (3).



**Figure 3: Alvamar Neighborhood and Alvamar PUD**

The neighborhood includes golf courses with residential uses to the interior with office, religious institutions, and retail uses located along arterial streets and the periphery of the neighborhood. The proposed zoning and development plan expand the amenities associated with the golf course in the central area (Lot 1) of Alvamar.

**Staff Finding** –All approved nonresidential uses are directly associated with the golf course and are accessory to the primary use of the golf course. This request is intended to accommodate a structure associated with the golf course operations (cart storage) as well as provide a multi-purpose building for use during inclement weather. The proposed request does not alter the character of the larger surrounding neighborhood but does potentially allow for activity to occur closer to an existing residential area located immediately south of the clubhouse.

#### **4. PLANS FOR THE AREA OR NEIGHBORHOOD, AS REFLECTED IN ADOPTED AREA AND/OR SECTOR PLANS INCLUDING THE PROPERTY OR ADJOINING PROPERTY**

Only a very small and isolated area is within a registered Neighborhood boundary. There are no adopted plans for this area. The eastern area was part of a Planned Unit Development originally approved in the late 1960's. Various revisions to the plan over time have been made through Zoning, Subdivision Plats, Site Plans and Uses Permitted Upon Review (Special Use Permit). The original development plan confined nonresidential uses that were not accessory to the golf course to the perimeter of the Alvamar Development along the arterial streets.

Office uses were developed on the southwest corner of Kasold Drive and Bob Billings Parkway. Commercial uses were developed on the northwest corner of Kasold Drive and Clinton Parkway. Similar areas for commercial and office development are located on the southeast corner of Wakarusa Drive and Bob Billings Parkway and the northeast corner of Wakarusa Drive and Clinton Parkway

Previously approved Development Plans and related subdivision plats along with their attendant revisions have served as a proxy for neighborhood planning in this area. Residential density is not discussed in this application. The proposed request alters the base zoning district and removes a portion of the dedicated open space (golf course).

**Staff Finding** – There are no adopted area or neighborhood plans for the area included in the proposed zoning and immediately surrounding area. The Alvamar PUD includes only the eastern portion of the area.

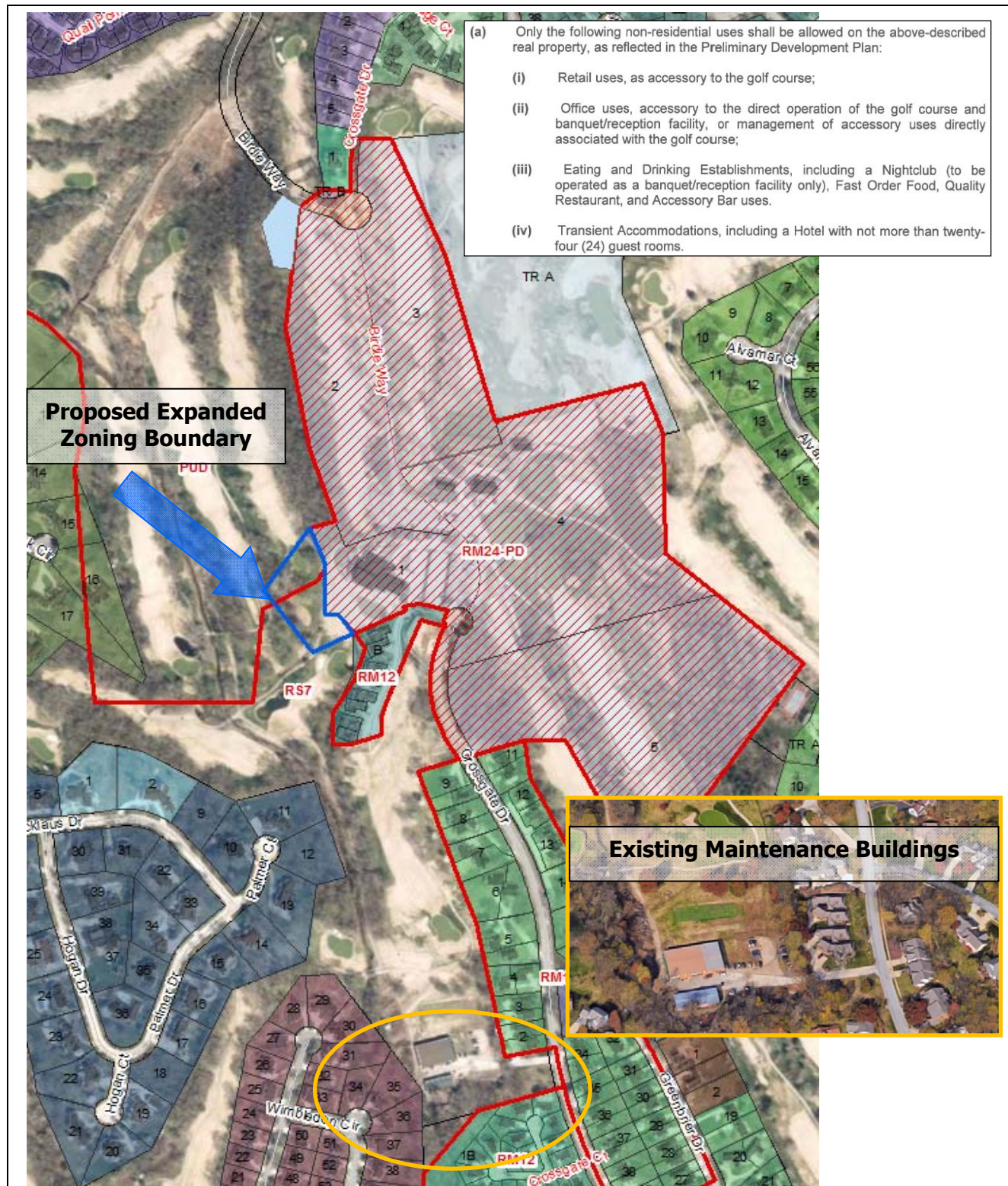
#### **5. SUITABILITY OF SUBJECT PROPERTY FOR THE USES TO WHICH IT HAS BEEN RESTRICTED UNDER THE EXISTING ZONING REGULATIONS**

Applicant's Response: *The property is suitable for the current uses to which it is restricted. However, rezoning and adding the land for the cart barn to Lot 1 will provide a legally conforming location as the development code requires.*

A key consideration in the original application was an assessment of the residential and nonresidential uses. All nonresidential uses were intended to be strictly accessory to the golf course. The applicant's request represents a proposal to create a designated space for the purpose of storage of carts in close proximity of the clubhouse (accessory to the golf course) and to provide a multi-purpose building that can accommodate outdoor activities (event center).



Other accessory structures were constructed at the south end of the golf course without additional site plan review, subdivision approval, or zoning in the early 1980's as maintenance buildings.



The original zoning for the modern Alvamar PD development included specific use restrictions that should be applicable to this expanded area if approved. A copy of the ordinance is attached to this



report. The existing zoning splits the area to be developed. It is not clearly determined that an accessory building could be built on the property in the same manner as the maintenance buildings were constructed in the past. The proposed application, if approved, establishes a suitable base zoning district with the protections of a Planned Development for the expanded development.

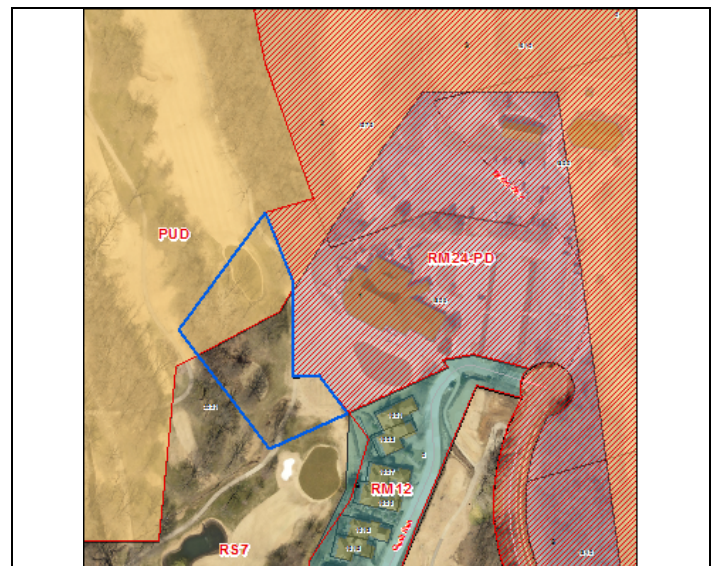
**Staff Finding** – The existing zoning is not suitable for the proposed development. The original Planned Unit Development Zoning does not provide clear authority or administration for changes to the golf course. Approval of the request with the addition of the use restrictions set out in the previous zoning for the Alvarmar PD is more suitable for the property.

## 6. LENGTH OF TIME SUBJECT PROPERTY HAS REMAINED VACANT AS ZONED

Applicant's Response: *The property is vacant and has existed with a golf course and a range of housing types since the early 1980's.*

The land area included in this request includes dual zoning. The north portion is zoned PUD, part of the original Alvarmar Planned Unit Development. The south portion is zoned RS7, This zoning was established in 2006 with the adoption of the Land Development Code. Prior to that the property was zoned RS-2. The north portion of the area was annexed into the City limits in 1973. The south portion of the area was annexed in 1980. This extended the City Limits to Wakarusa Drive. The area was zoned and used for agricultural purposes based on a review of the historic zoning maps and aerial photography. There are no structures (buildings) located on this parcel of land.

**Staff Finding** – The area included in the request is vacant and is used as part of the golf course. The golf course in this area appears to have been established between 1966 and 1976 based on a review of aerial photography.



**Figure 4: Proposed Zoning Area**

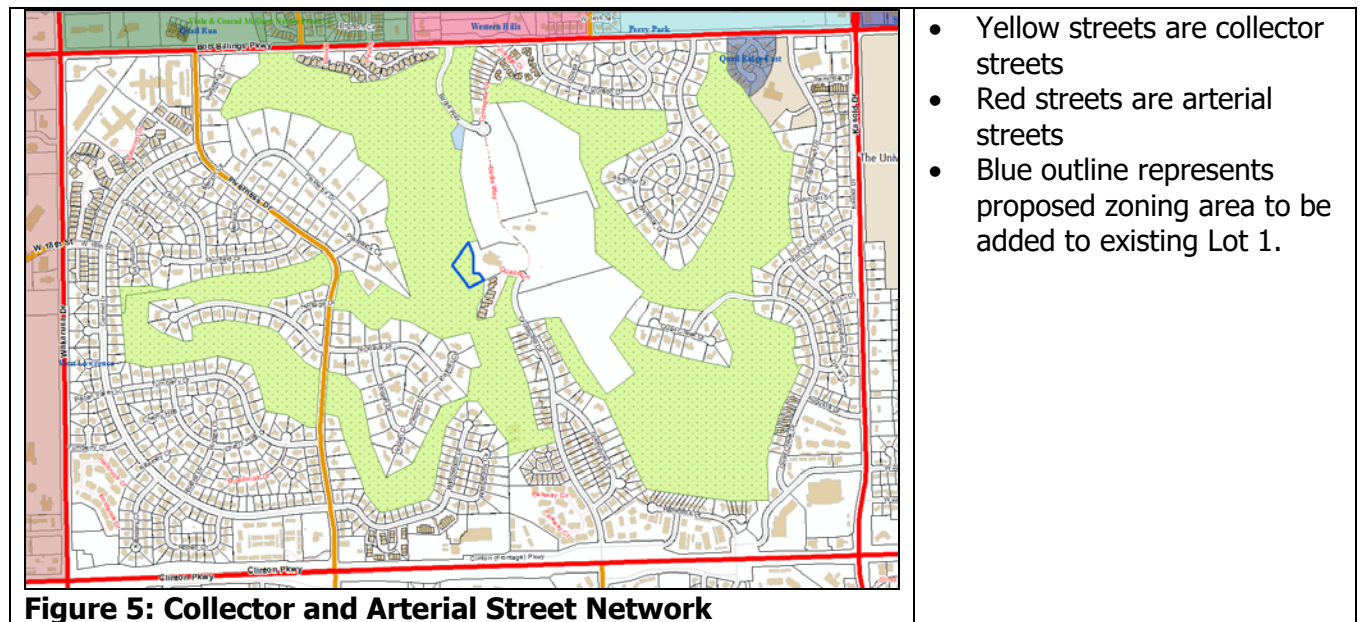
Zoning	North portion	South portion
Annexation	1973	1980
Current	Alvarmar PUD	RS7
2006	RS-1	RS-2
Prior to the 1973 and 1980 annexations the property appears to be A (Agricultural) in the unincorporated area.		

## 7. EXTENT TO WHICH APPROVING THE REZONING WILL DETRIMENTALLY AFFECT NEARBY PROPERTIES

Applicant's Response: *Rezoning for this project is not in principle, necessary because the new cart barn is something that could be built as an accessory building to the golf course operations. However, the development code requires all new buildings must be on a platted lot. Therefore, the land needed for the cart barn will be added to the existing Lot 1, which houses the clubhouse. With the platting of the additional land for Lot 1 comes the need to zone the land to match the current zoning designation of Lot 1. While the cart barn will be primarily used for cart storage it will also serve as an alternate location for events that may be delayed or otherwise cancelled due to rain.*

The basis of the applicant's request is twofold; the addition of zoned land area to accommodate an accessory storage building for golf carts and the use of the building as a multi-purpose building

that extends the activity area to the southwest. The proposed zoning allows limited nonresidential uses directly associated with the golf course. The previously approved development plan relocated the banquet facility (*Event Center*) to Lot 1.



The expanded area will continue to use the developing street network pattern (Birdie Way connection) but does add activity to the southwest near existing residential homes to the south of the clubhouse. Use of the area for the development of a cart storage building should be minimal and is accessory to the golf course operations. The multi-purpose use of the building for other functions may be disruptive to the nearby residents. The use of the building and building details are discussed in the Final Development Plan related staff report.

**Staff Finding** – Approval of the request expands the development area to the southwest, closer to the Quails Nest development. The addition of the PD overlay requires a development plan review. This allows the development changes to be reviewed publicly and will mitigate impacts on the nearby residential uses.

**8. THE GAIN, IF ANY, TO THE PUBLIC HEALTH, SAFETY AND WELFARE DUE TO THE DENIAL OF THE APPLICATION, AS COMPARED TO THE HARDSHIP IMPOSED UPON THE LANDOWNER, IF ANY, AS A RESULT OF DENIAL OF THE APPLICATION**

Applicant's Response: *The gain to the public health, safety and welfare would be the benefit of having the land be developed in accordance with the development code. The hardship imposed upon the landowner should the request be denied is the golf course will not run as efficiently as possible without a standalone designated cart storage area and an alternate rain location for outdoor events would not be provided.*

Evaluation of this criterion includes weighing the benefits to the public versus the benefit of the owners of the subject property. Benefits are measured based on anticipated impacts of the rezoning request on the public health, safety, and welfare.

The current golf course (including all proposed development area) includes 301 acres. This application removes a portion of the "open space" area and combines it with an existing platted lot

as part of the amenities related to the golf course. Golf cart storage is an expected use associated with the operation of a golf course. The proposed zoning change provides a uniform district that will be easier to administer.

The PD overlay element of the zoning allows a detailed review of the specific development impact.

The entire remaining golf course could be rezoned to more accurately reflect the use as open space. This request represents less than one percent of the golf course. Approval of the request facilitates the development of a cart storage building near the clubhouse. Alternatively the same use could be placed on Lot 4 on the east side of Birdie Way if the request were denied. Staff concurs that this may be somewhat inefficient for the golf course operations.

**Staff Finding** –There is no clearly defined public gain to the public health, safety and welfare. There is a convenience factor for users of the golf course to be accommodated with typical amenities associated with such a use such as access to a golf cart.

The multi-use of the building for events is entirely related to the private benefit of the business of the golf course operations. Use of the facility as an event venue must be mitigated through the development plan.

## **9. PROFESSIONAL STAFF RECOMMENDATION**

Staff concurs with the applicant's position that uniform zoning for the development is efficient. The addition of the Planned Development Overlay allows public review of the development that would not necessarily be provided through conventional zoning.

The existing zoning of the golf course is not currently reflective of the passive use activity defined in the Development Code. Open space zoning would be more appropriate and should be considered in the future. Incremental rezoning of the undeveloped area of the golf course should be closely monitored. This request, in staff's opinion meets a test of reasonableness. It is, however, not the only option for providing cart storage for the use within the existing boundaries of the project.

## **CONCLUSION**

Staff supports the proposed rezoning as a Planned Development overlay district. The use restrictions applicable to the larger development should be applied to this area being rezoned.

### **Use Restrictions:**

1. Retail uses, as accessory to the golf course.
2. Office uses, accessory to the direct operation of the golf course and banquet/reception facility (Event Center) or management of accessory uses directly associated with the golf course
3. Eating and Drinking Establishments, including a night club (to be operated as a banquet facility only), Fast Order Food, Quality Restaurant, and Accessory Bar uses.
4. Transient Accommodations, including a Hotel with not more than twenty-four (24) guest rooms.



**ORDINANCE NO. 9154**

**AN ORDINANCE OF THE CITY OF LAWRENCE, KANSAS, REZONING APPROXIMATELY 51.85 ACRES FROM RS7 (SINGLE-DWELLING RESIDENTIAL) DISTRICT, RM12 (MULTI-DWELLING RESIDENTIAL) DISTRICT, AND PUD [ALVAMAR] (PLANNED UNIT DEVELOPMENT) DISTRICT TO RM24-PD OVERLAY (MULTI-DWELLING RESIDENTIAL PLANNED DEVELOPMENT OVERLAY) DISTRICT AND AMENDING THE CITY'S "OFFICIAL ZONING DISTRICT MAP," INCORPORATED BY REFERENCE INTO THE CITY CODE AT CHAPTER 20, ARTICLE 1, SECTION 20-108 OF THE CODE OF THE CITY OF LAWRENCE, KANSAS, 2015 EDITION, AND AMENDMENTS THERETO.**

**BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF LAWRENCE, KANSAS:**

**SECTION 1.** The base zoning district classification for the following legally described real property, situated in the City of Lawrence, Douglas County, Kansas, to-wit:

A TRACT OF LAND LYING IN SECTION 3, TOWNSHIP 13 SOUTH, RANGE 19 EAST OF THE SIXTH PRINCIPAL MERIDIAN, IN THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS, AND BEING DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF LOT 1, WOODFIELD MEADOWS WEST NO. 2, A SUBDIVISION IN THE CITY OF LAWRENCE, AS RECORDED IN PLAT BOOK 15, PAGE 168 IN THE OFFICE OF THE DOUGLAS COUNTY REGISTER OF DEEDS; THENCE ALONG SAID SOUTH LINE OF SAID LOT SOUTH 85° 03' 32" EAST, 98.29 FEET TO THE SOUTHEAST CORNER OF SAID LOT; THENCE ON THE EAST LINE OF SAID LOT ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 1000.00 FEET, AN ARC LENGTH OF 185.24 FEET, AND A 184.97 FOOT CHORD BEARING NORTH 01° 56' 21" EAST TO A POINT IN THE EAST LINE OF SAID LOT; THENCE NORTH 89° 11' 31" EAST, 135.10 FEET; THENCE SOUTH 24° 53' 27" EAST, 454.16 FEET; THENCE SOUTH 16° 45' 48" EAST, 616.36 FEET; THENCE NORTH 76° 01' 44" EAST, 539.43 FEET; THENCE SOUTH 22° 32' 12" EAST, 191.54 FEET; THENCE SOUTH 01° 14' 15" EAST, 427.13 FEET; THENCE SOUTH 51° 34' 27" EAST, 623.57 FEET; THENCE SOUTH 36° 25' 35" WEST, 581.50 FEET; THENCE SOUTH 35° 20' 18" EAST, 442.44 FEET; THENCE SOUTH 54° 39' 42" WEST, 350.00 FEET; THENCE NORTH 35° 20' 18" WEST, 376.06 FEET; THENCE NORTH 28° 58' 17" WEST, 517.99 FEET; THENCE SOUTH 89° 23' 40" WEST, 147.26 FEET TO THE NORTHEAST CORNER OF LOT 11, GOLF CLUB SUBDIVISION AS RECORDED IN BOOK 14, PAGE 84 AT THE DOUGLAS COUNTY REGISTER OF DEEDS; THENCE SOUTHWESTERLY ALONG SAID NORTH LOT LINE SOUTH 73° 57' 17" WEST, 244.62 FEET TO THE NORTHEAST CORNER OF LOT 9, GOLF CLUB SUBDIVISION, THENCE ALONG THE WEST RIGHT OF WAY LINE OF CROSSGATE DRIVE NORTH 30° 36' 24" WEST, 86.73 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 387.95 FEET, AN ARC LENGTH OF 414.78 FEET, AND A 395.30 FOOT CHORD BEARING NORTH 00° 00' 33" WEST; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 50.00 FEET, AN ARC LENGTH OF 61.90 FEET, AND A 58.03 FOOT CHORD BEARING NORTH 11° 07' 51" EAST TO A POINT ON THE SOUTH LINE OF LOT A OF COUNTRY CLUB SUBDIVISION NO. 2 AS RECORDED IN PLAT BOOK 15, PAGE 96 AT THE DOUGLAS COUNTY REGISTER OF DEEDS; THENCE ALONG SAID SOUTH LINE NORTH 75° 16' 58" WEST, 105.85 FEET; THENCE CONTINUING ALONG SAID SOUTH LINE SOUTH 79° 22' 31" WEST, 59.40 FEET; THENCE CONTINUING ALONG SAID SOUTH LINE SOUTH 38° 42' 47" EAST, 17.17 FEET; THENCE CONTINUING ALONG SAID SOUTH LINE SOUTH 65° 35' 35" WEST, 205.19 FEET TO THE SOUTHWESTERNMOST POINT OF SAID LOT A; THENCE ALONG THE WEST LINE OF SAID LOT A NORTH 37° 46'



25" WEST, 89.56 FEET; THENCE SOUTH 85° 54' 28" WEST, 46.89 FEET; THENCE NORTH 00° 58' 54" WEST, 183.74 FEET; THENCE NORTH 22° 19' 35" WEST, 133.54 FEET; THENCE NORTH 73° 21' 10" EAST, 94.02 FEET; THENCE NORTH 19° 27' 37" WEST, 267.53 FEET; THENCE NORTH 11° 54' 15" WEST, 433.96 FEET; THENCE NORTH 06° 35' 09" EAST, 434.97 FEET; THENCE NORTH 51° 01' 46" EAST, 111.81 FEET TO THE POINT OF BEGINNING, CONTAINING 51.85 ACRES, MORE OR LESS.

is hereby changed from RS7 (Single-Dwelling Residential) District, RM12 (Multi-Dwelling Residential) District, and PUD [Alvamar] (Planned Unit Development) District to RM24-PD Overlay (Multi-Dwelling Residential Planned Development Overlay) District, as such district is defined and prescribed in Chapter 20 of the Code of the City of Lawrence, Kansas, 2015 Edition, and amendments thereto.

**SECTION 2.** The rezoning granted in Section 1, *supra*, in addition to being subject to the general conditions established in Chapter 20 of the Code of the City of Lawrence, Kansas, 2015 Edition, as amended, is also subject to the following special conditions:

- (a) Only the following non-residential uses shall be allowed on the above-described real property, as reflected in the Preliminary Development Plan:
  - (i) Retail uses, as accessory to the golf course;
  - (ii) Office uses, accessory to the direct operation of the golf course and banquet/reception facility, or management of accessory uses directly associated with the golf course;
  - (iii) Eating and Drinking Establishments, including a Nightclub (to be operated as a banquet/reception facility only), Fast Order Food, Quality Restaurant, and Accessory Bar uses.
  - (iv) Transient Accommodations, including a Hotel with not more than twenty-four (24) guest rooms.

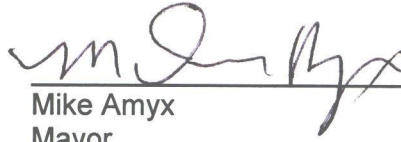
**SECTION 3.** The "Official Zoning District Map," which is adopted and incorporated into the City Code by reference at City of Lawrence, Kan., Code § 20-108 (Jan. 1, 2015), is hereby amended by showing and reflecting thereon the new zoning district classification for the subject property as described in more detail in Section 1, *supra*.

**SECTION 4.** If any section, sentence, clause, or phrase of this ordinance is found to be unconstitutional or is otherwise held invalid by any court of competent jurisdiction, it shall not affect the validity of any remaining parts of this ordinance.

**SECTION 5.** This ordinance shall be in full force and effect from and after its passage and publication as provided by law.

**PASSED** by the Governing Body of the City of Lawrence, Kansas, this 3rd day of November, 2015.

APPROVED:

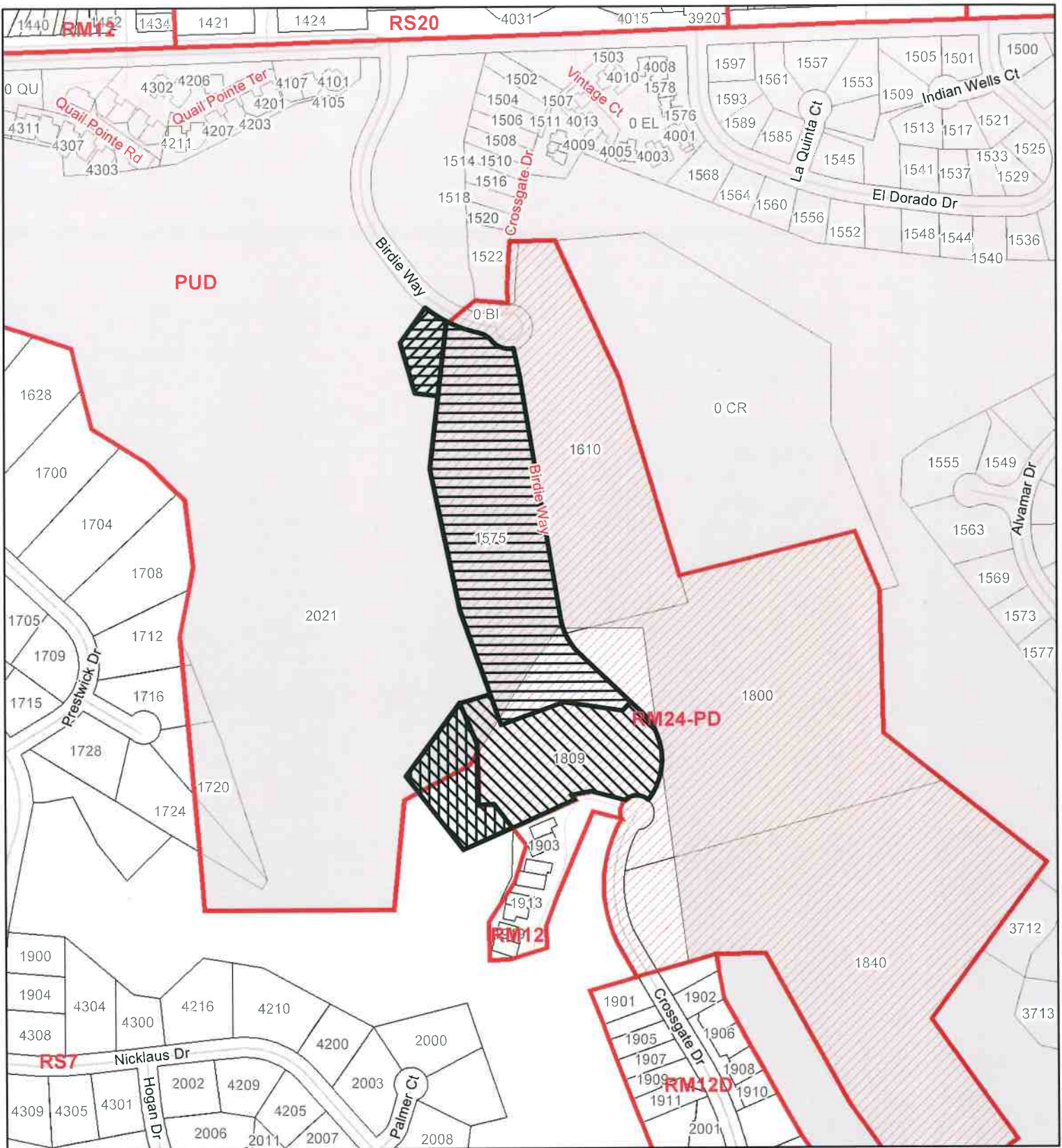
  
Mike Amyx  
Mayor

ATTEST:

  
Brandon McGuire  
Acting City Clerk

APPROVED AS TO FORM:

  
Toni R. Wheeler  
City Attorney



**Z-17-00009: Rezone 1.418 acres from RS7 and PUD [Alvamar] Districts to RM24-PD District**

**Z-17-00011: Rezone 0.558 acres from PUD [Alvamar] District to RM24-PD District**

**FDP-17-00028: Revised Final Development Plan for Alvamar Lot 1**

**FDP-17-00029: Revised Final Development Plan for Alvamar Lot 2**

**Located in Alvamar Golf Course**



Z-17-00009: RS7 & PUD [Alvamar] Districts to RM24-PD District

FDP-17-00028



Z-17-00011: PUD [Alvamar] District to RM24-PD District

FDP-17-00029





**PLANNING COMMISSION REPORT**  
**Regular Agenda - Public Hearing Item**

PC Staff Report  
03/15/2017

**ITEM NO. 1B            PUD TO RM24-PD; .558 ACRE; 2021 CROSSGATE/1575 BIRDIE WAY (SLD)**

**Z-17-00011:** Consider a request to rezone approximately .558 acre from PUD (Planned Unit Development) District to RM24-PD (Multi-Dwelling Residential-Planned Development) District, located at 2021 Crossgate Dr. (1575 Birdie Way, Lot 2 Alvamar Inc one Addition) Submitted by Paul Werner Architects for Eagle 1968 LC, property owner of record.

**STAFF RECOMMENDATION:** Staff recommends approval of the request to rezone approximately .558 acres, from from PUD (Planned Unit Development) District to RM24-PD (Multi-Dwelling Residential-Planned Development) District based on the findings presented in the staff report and forwarding it to the City Commission with a recommendation for approval and subject to the following use restrictions:

1. Retail uses, as accessory to the golf course.
2. Office uses, accessory to the direct operation of the golf course and banquet/reception facility (Event Center) or management of accessory uses directly associated with the golf course.
3. Eating and Drinking Establishments, including a night club (to be operated as a banquet/reception facility only), Fast Order Food, Quality Restaurant, and Accessory Bar uses.
4. Transient Accommodations, including a Hotel with not more than twenty-four (24) guest rooms.

**Reason for Request:** *The office/fitness building was previously shown to occur on Lot 2 between apartment buildings B and C. Once construction began it was recognized it would be a tight spot for such a small building and the site would be better served by moving the office/fitness use to the north end of the site to create a welcoming entrance.*

**KEY POINTS**

- This request adds area to the residential lot to accommodate a relocated office/fitness building. Use was approved as part of the project in another location on the site.
- The request does not alter the density of the phase.
- The request is intended to provide a uniform zoning district for the development.
- Area will be replatted to be incorporated into existing Alvamar Inc one, Lot 2.

**ASSOCIATED CASES/OTHER ACTION REQUIRED**

- FDP-17-00029; revised Final Development Plan for Lot 2.
  - FDP-16-00343; Approved Final Development Plan for Lot 2.
- Previous related projects
- Z-14-00552; RM24-PD; Ordinance 9154.
  - SUP-15-00389; *Active Recreation Uses* in RM24-PD district.
  - PP-14-00554; Alvamar One Preliminary Plat; application replaced by PDP-15-00247.
  - PDP-15-00247; Approved by the City Commission on Oct. 27, 2015 subject to conditions.
  - PDP-16-00052; Revised Preliminary Development Plan.
  - PF-16-00051; Final Plat, administrative review concurrent with this application.
  - Revised final plat to be submitted.

**PLANS AND STUDIES REQUIRED**

- *Traffic Study* – Not required for rezoning.
- *Downstream Sanitary Sewer Analysis* – Not required for rezoning.
- *Drainage Study* – Not required for rezoning.

- *Retail Market Study* – Not applicable to residential request.

## **ATTACHMENTS**

- Area map
- Ordinance 9154

## **PUBLIC COMMENT RECEIVED PRIOR TO PRINTING**

- Area residents calling for clarification of request and development intent.
- Residents located along the north leg of Crossgate Drive have contacted staff regarding status of street construction and ultimate closure of access to Bob Billings Parkway.

## **Project Summary:**

Proposed request is for the expansion of Lot 2 to relocate the office/fitness building to the north end of the site. The project does not change the residential uses of the site or modify the density of the approved development. The details of the building use are discussed in the related Final Development Plan application (FDP-17-00029).

## **1. CONFORMANCE WITH THE COMPREHENSIVE PLAN**

Applicant's Response: *The office/fitness building was previously shown to occur on Lot 2 between apartment buildings B and C. Once construction began it was recognized it would be a tight spot for such a small building. In addition Birdie Way was constructed to connect to Bob Billings Parkway and it was recognized that this small piece of ground on the north end of the apartments would alleviate the tight placement previously shown for the office/fitness area and make a very welcoming hospitable location for this use.*

*Mixed residential types, styles and economic levels currently occur in the existing Alvarado PUD. The relocation of the office/fitness building would continue to enhance the following strategies by placing a small one story building on the north edge of the apartments which blends well with the existing residences to the north and provides an attractive appearance from Bob Billings Parkway.*

*Horizon 2020 supports infill development and redevelopment, encourages the development of neighborhoods in a range of densities and economic levels, proposes the progression of land uses to help achieve a transition in land use and intensity levels to help avoid abrupt changes in density and building type (p.3-1, p.5-1)*

*A range of densities and housing types should be encouraged. The design and development of all new high-density residential development should be carefully controlled to ensure compatibility with surrounding uses, adequate screening and buffering, and attractive appearances from nearby roadways, and a high-quality living environment. (p.5-5)*

The original project was found to be consistent with the comprehensive plan. This request seeks to expand the boundary of the project by ½ acre to allow for the relocation of a specific amenity associated with the residential development. The project does not seek to add additional units to the development. The approval of the request provides a uniform district boundary for the development and spreads the existing development density over a slightly larger area.

**Staff Finding** – This request has the effect of being neutral with regard to the comprehensive plan.

## 2. ZONING AND USE OF NEARBY PROPERTY, INCLUDING OVERLAY ZONING

Current Zoning and Land Use: PUD (Planned Unit Development – Alvamar) original development golf course area.	
Surrounding Zoning and Land Use:	
To the north: To the south: To the west:	PUD (Planned Unit Development – Alvamar) original development golf course area.
To the east:	RM24-PD (Multi-Dwelling Residential – Planned Development Overlay) District. Developing Lot 2, Alvamar Inc One Addition with three multi-story residential buildings.

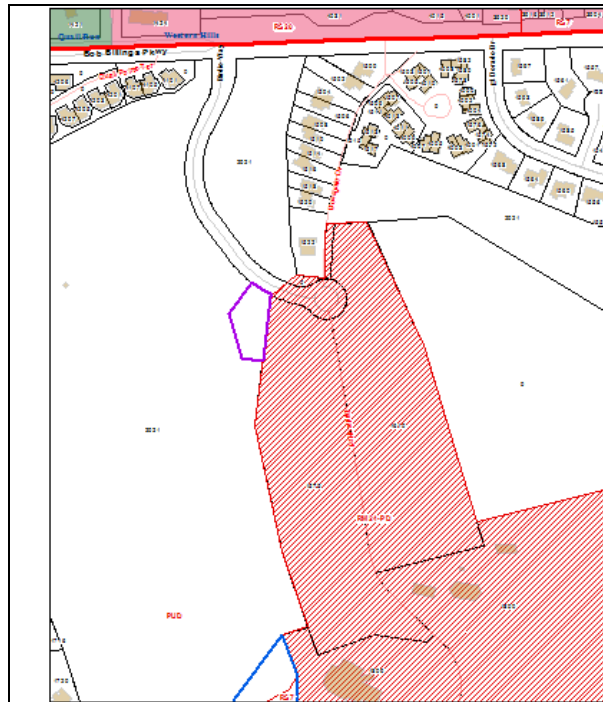


Figure 1: Existing Zoning

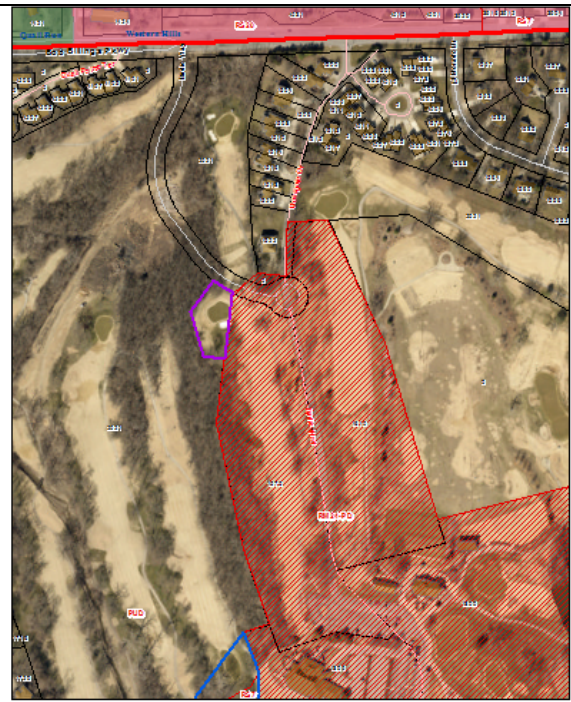


Figure 2: Existing Land Use

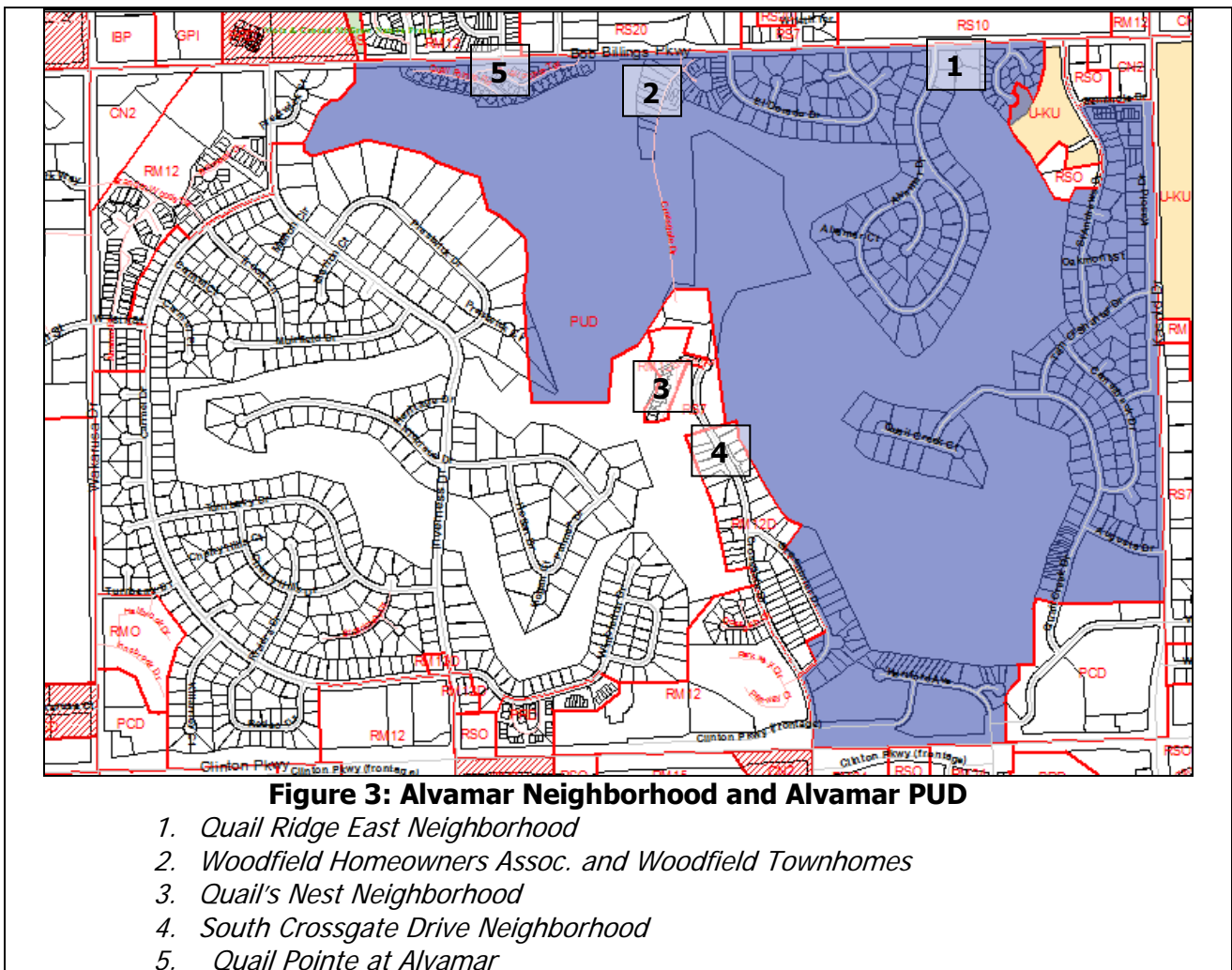
**Staff Finding** – The existing and surrounding zoning is typical of the golf course development. Residential subdivisions surround the golf course (open space).

## 3. CHARACTER OF THE NEIGHBORHOOD

Applicant's Response: *The surrounding neighborhoods currently consist of apartments, duplexes, townhomes, a mix of mid to high end single family residences and the golf course. All of these different housing types can be found backing up to the golf course.*

This neighborhood area is described as the Alvamar Neighborhood. The area highlighted in dark blue in the image below is the boundary of the original Alvamar Planned Unit Development. This neighborhood has developed around the Alvamar Golf Course and includes multiple platted subdivisions. It is bounded on the north by Bob Billings Parkway, Clinton Parkway on the south, Kasold Drive on the east and Wakarusa Drive on the west. Through the review and development of this project several neighborhoods have identified themselves to staff and in in communications to the Commissions. This request is located near the Woodfield Townhomes (2), along the north

leg of Crossgate Drive, and Quail Pointe at Alvamar (5), on the south side of Bob Billings Parkway west of Birdie Way.



The neighborhood includes golf course with residential uses to the interior with office, religious institutions, and retail uses are located along arterial streets and the periphery of the neighborhood. The proposed zoning and development plan expanded area to relocate the amenities associated with the residential uses on Lot 2 of the Alvamar PD.

This request is intended to accommodate a use related to the residential element of the development. The office/fitness use on Lot 2 provides separate open space and recreation uses for the residents.

**Staff Finding** – This request does not alter the character of the developing Alvamar PD neighborhood and does not alter the larger neighborhood character.

#### **4. PLANS FOR THE AREA OR NEIGHBORHOOD, AS REFLECTED IN ADOPTED AREA AND/OR SECTOR PLANS INCLUDING THE PROPERTY OR ADJOINING PROPERTY**

Only a very small and isolated area is located within a registered Neighborhood boundary described above. There are no adopted plans for this area. The eastern area was part of a Planned Unit Development originally approved in the late 1960's. Various revisions to the plan over time



have been made through Zoning, Subdivision Plats, Site Plans and Uses Permitted Upon Review (Special Use Permit). The original development plan confined nonresidential uses that were not *accessory to the golf course* to the perimeter of the Alvamar Development along the arterial streets.

Previously approved Development Plans and related subdivision plats along with their attendant revisions have served as a proxy for neighborhood planning in this area. Residential density is not increased with this application. The proposed request alters the base zoning district and removes a portion of the dedicated open space (golf course).

**Staff Finding** – There are no adopted area or neighborhood plans for the area included in the proposed zoning and immediately surrounding area. The Alvamar PUD includes only the eastern portion of the area.

## **5. SUITABILITY OF SUBJECT PROPERTY FOR THE USES TO WHICH IT HAS BEEN RESTRICTED UNDER THE EXISTING ZONING REGULATIONS**

Applicant's Response: *The property is suitable for the current uses to which it is restricted under the PUD, which is open space. However, removing ½ an acre from the PUD to enhance the entrance to the site and give it a sense of place is very worthwhile.*

The current zoning is PUD (Planned Unit Development) established under the 1966 Zoning Code as an overlay district. There is no development plan that details the golf course. The golf course use has operated as passive recreation use. There are not typically buildings included as part of the golf course, play area. It is a type of open open space defined in the current zoning regulations. Construction of a building requires the property to be platted. The golf course is located on unplatted land.

The applicant is seeking to establish a uniform zoning district to accommodate the relocated building. The existing zoning is not suitable for the proposed use. The property lacks a development plan that establishes development guidance for the golf course.

**Staff Finding** – The existing zoning has been in place since the early 1970's without a specific plan for the golf course. Development of the surrounding area has been through the subdivision plat, site plan and other processes for a majority of the land in the district.

The incorporation of this small area into another lot has no impact on the surrounding area. The current zoning is not reflective of the existing or future use of the property. The proposed zoning is more suitable for the intended development.

## **6. LENGTH OF TIME SUBJECT PROPERTY HAS REMAINED VACANT AS ZONED**

Applicant's Response: *The property has always been vacant and has most recently been used as part of the Alvamar Golf Course.*

The existing zoning is PUD Planned Unit Development. This district was established with the adoption of the Land Development code in 2006. Prior to 2006, the property was zoned RS-1 (Single-Family Residence) District. The PUD designation was an overlay district prior to code changes in the 1980's creating specific PD districts. The property was annexed into the City in 1973 and was included as part of the original Alvamar Golf Course Development. The area included in this request is part of the golf course – open space.



**Staff Finding** – The property is undeveloped and has been part of the golf course established in the early 1970's.

**7. EXTENT TO WHICH APPROVING THE REZONING WILL DETRIMENTALLY AFFECT NEARBY PROPERTIES**

Applicant's Response: *Approving the ½ acre of land to be rezoned RM24-PD will not detrimentally affect nearby properties. This use was already approved on the site and is simply moving to provide a more welcoming entrance to the site.*

The proposed request is only a very small portion of the overall golf course open space and is not immediately adjacent to the developed residential neighborhoods to the west. The PD overlay element of the zoning allows a detailed review of the specific development impact.

**Staff Finding** – Approval of the request expands the development area to the north and west. The addition of the PD overlay requires a development plan review. This allows the development changes to be reviewed publicly and will mitigate impacts on the nearby residential uses.

**8. THE GAIN, IF ANY, TO THE PUBLIC HEALTH, SAFETY AND WELFARE DUE TO THE DENIAL OF THE APPLICATION, AS COMPARED TO THE HARDSHIP IMPOSED UPON THE LANDOWNER, IF ANY, AS A RESULT OF DENIAL OF THE APPLICATION**

Applicant's Response: *The gain to the public health, safety and welfare would be the benefit of allowing this office/fitness building to create a welcoming sense of place for the tenants and users of the site should the application be denied the hardship upon the owner would be the loss of being able to make the site more friendly and welcoming in appearance.*

Evaluation of this criterion includes weighing the benefits to the public versus the benefit of the owners of the subject property. Benefits are measured based on anticipated impacts of the rezoning request on the public health, safety, and welfare.

The current golf course includes 301 acres. This application removes a very small portion of the "open space" area. It will be combined with an existing platted lot as part of the residential amenities for the residents of the development. The proposed zoning change provides a uniform district that will be easier to administer.

The PD overlay element of the zoning allows a detailed review of the specific development impact.

The entire remaining golf course could be rezoned to more accurately reflect the use as open space. This request represents less than one percent of the golf course. There is an esthetic consideration that the relocated office/fitness building for the residential uses provides an entry point to the development. The location is not centrally located for the residents of the development.

**Staff Finding** – There is no clearly defined public gain to the public health, safety and welfare.

**9. PROFESSIONAL STAFF RECOMMENDATION**

The location of the proposed zoning is on the south side of Birdie Way immediately adjacent to Lot 2, the developing residential phase of the Alvamar PD. The area is buffered by the large detention pond to the west. The property included in the request is a logical extension of the development and will not affect the existing established residential subdivisions to the north and west.

Staff recommends the approval of the request with the condition that the use restrictions that were applied to the original development be applicable to this property as well.

Nonresidential uses were restricted to the following:

1. Retail uses, as accessory to the golf course.
2. Office uses, accessory to the direct operation of the golf course and banquet/reception facility (Event Center) or management of accessory uses directly associated with the golf course
3. Eating and Drinking Establishments, including a night club (to be operated as a banquet facility only), Fast Order Food, Quality Restaurant, and Accessory Bar uses.
4. Transient Accommodations, including a Hotel with not more than twenty-four (24) guest rooms.

### **CONCLUSION**

The proposed request is a relatively minor change to the overall development and is intended to be zoned the same base district as the development it will be incorporated into.

**ORDINANCE NO. 9154**

**AN ORDINANCE OF THE CITY OF LAWRENCE, KANSAS, REZONING APPROXIMATELY 51.85 ACRES FROM RS7 (SINGLE-DWELLING RESIDENTIAL) DISTRICT, RM12 (MULTI-DWELLING RESIDENTIAL) DISTRICT, AND PUD [ALVAMAR] (PLANNED UNIT DEVELOPMENT) DISTRICT TO RM24-PD OVERLAY (MULTI-DWELLING RESIDENTIAL PLANNED DEVELOPMENT OVERLAY) DISTRICT AND AMENDING THE CITY'S "OFFICIAL ZONING DISTRICT MAP," INCORPORATED BY REFERENCE INTO THE CITY CODE AT CHAPTER 20, ARTICLE 1, SECTION 20-108 OF THE CODE OF THE CITY OF LAWRENCE, KANSAS, 2015 EDITION, AND AMENDMENTS THERETO.**

**BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF LAWRENCE, KANSAS:**

**SECTION 1.** The base zoning district classification for the following legally described real property, situated in the City of Lawrence, Douglas County, Kansas, to-wit:

A TRACT OF LAND LYING IN SECTION 3, TOWNSHIP 13 SOUTH, RANGE 19 EAST OF THE SIXTH PRINCIPAL MERIDIAN, IN THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS, AND BEING DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF LOT 1, WOODFIELD MEADOWS WEST NO. 2, A SUBDIVISION IN THE CITY OF LAWRENCE, AS RECORDED IN PLAT BOOK 15, PAGE 168 IN THE OFFICE OF THE DOUGLAS COUNTY REGISTER OF DEEDS; THENCE ALONG SAID SOUTH LINE OF SAID LOT SOUTH 85° 03' 32" EAST, 98.29 FEET TO THE SOUTHEAST CORNER OF SAID LOT; THENCE ON THE EAST LINE OF SAID LOT ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 1000.00 FEET, AN ARC LENGTH OF 185.24 FEET, AND A 184.97 FOOT CHORD BEARING NORTH 01° 56' 21" EAST TO A POINT IN THE EAST LINE OF SAID LOT; THENCE NORTH 89° 11' 31" EAST, 135.10 FEET; THENCE SOUTH 24° 53' 27" EAST, 454.16 FEET; THENCE SOUTH 16° 45' 48" EAST, 616.36 FEET; THENCE NORTH 76° 01' 44" EAST, 539.43 FEET; THENCE SOUTH 22° 32' 12" EAST, 191.54 FEET; THENCE SOUTH 01° 14' 15" EAST, 427.13 FEET; THENCE SOUTH 51° 34' 27" EAST, 623.57 FEET; THENCE SOUTH 36° 25' 35" WEST, 581.50 FEET; THENCE SOUTH 35° 20' 18" EAST, 442.44 FEET; THENCE SOUTH 54° 39' 42" WEST, 350.00 FEET; THENCE NORTH 35° 20' 18" WEST, 376.06 FEET; THENCE NORTH 28° 58' 17" WEST, 517.99 FEET; THENCE SOUTH 89° 23' 40" WEST, 147.26 FEET TO THE NORTHEAST CORNER OF LOT 11, GOLF CLUB SUBDIVISION AS RECORDED IN BOOK 14, PAGE 84 AT THE DOUGLAS COUNTY REGISTER OF DEEDS; THENCE SOUTHWESTERLY ALONG SAID NORTH LOT LINE SOUTH 73° 57' 17" WEST, 244.62 FEET TO THE NORTHEAST CORNER OF LOT 9, GOLF CLUB SUBDIVISION, THENCE ALONG THE WEST RIGHT OF WAY LINE OF CROSSGATE DRIVE NORTH 30° 36' 24" WEST, 86.73 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 387.95 FEET, AN ARC LENGTH OF 414.78 FEET, AND A 395.30 FOOT CHORD BEARING NORTH 00° 00' 33" WEST; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 50.00 FEET, AN ARC LENGTH OF 61.90 FEET, AND A 58.03 FOOT CHORD BEARING NORTH 11° 07' 51" EAST TO A POINT ON THE SOUTH LINE OF LOT A OF COUNTRY CLUB SUBDIVISION NO. 2 AS RECORDED IN PLAT BOOK 15, PAGE 96 AT THE DOUGLAS COUNTY REGISTER OF DEEDS; THENCE ALONG SAID SOUTH LINE NORTH 75° 16' 58" WEST, 105.85 FEET; THENCE CONTINUING ALONG SAID SOUTH LINE SOUTH 79° 22' 31" WEST, 59.40 FEET; THENCE CONTINUING ALONG SAID SOUTH LINE SOUTH 38° 42' 47" EAST, 17.17 FEET; THENCE CONTINUING ALONG SAID SOUTH LINE SOUTH 65° 35' 35" WEST, 205.19 FEET TO THE SOUTHWESTERNMOST POINT OF SAID LOT A; THENCE ALONG THE WEST LINE OF SAID LOT A NORTH 37° 46'



25" WEST, 89.56 FEET; THENCE SOUTH 85° 54' 28" WEST, 46.89 FEET; THENCE NORTH 00° 58' 54" WEST, 183.74 FEET; THENCE NORTH 22° 19' 35" WEST, 133.54 FEET; THENCE NORTH 73° 21' 10" EAST, 94.02 FEET; THENCE NORTH 19° 27' 37" WEST, 267.53 FEET; THENCE NORTH 11° 54' 15" WEST, 433.96 FEET; THENCE NORTH 06° 35' 09" EAST, 434.97 FEET; THENCE NORTH 51° 01' 46" EAST, 111.81 FEET TO THE POINT OF BEGINNING, CONTAINING 51.85 ACRES, MORE OR LESS.

is hereby changed from RS7 (Single-Dwelling Residential) District, RM12 (Multi-Dwelling Residential) District, and PUD [Alvamar] (Planned Unit Development) District to RM24-PD Overlay (Multi-Dwelling Residential Planned Development Overlay) District, as such district is defined and prescribed in Chapter 20 of the Code of the City of Lawrence, Kansas, 2015 Edition, and amendments thereto.

**SECTION 2.** The rezoning granted in Section 1, *supra*, in addition to being subject to the general conditions established in Chapter 20 of the Code of the City of Lawrence, Kansas, 2015 Edition, as amended, is also subject to the following special conditions:

- (a) Only the following non-residential uses shall be allowed on the above-described real property, as reflected in the Preliminary Development Plan:
  - (i) Retail uses, as accessory to the golf course;
  - (ii) Office uses, accessory to the direct operation of the golf course and banquet/reception facility, or management of accessory uses directly associated with the golf course;
  - (iii) Eating and Drinking Establishments, including a Nightclub (to be operated as a banquet/reception facility only), Fast Order Food, Quality Restaurant, and Accessory Bar uses.
  - (iv) Transient Accommodations, including a Hotel with not more than twenty-four (24) guest rooms.

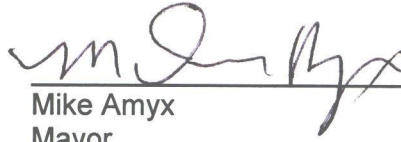
**SECTION 3.** The "Official Zoning District Map," which is adopted and incorporated into the City Code by reference at City of Lawrence, Kan., Code § 20-108 (Jan. 1, 2015), is hereby amended by showing and reflecting thereon the new zoning district classification for the subject property as described in more detail in Section 1, *supra*.

**SECTION 4.** If any section, sentence, clause, or phrase of this ordinance is found to be unconstitutional or is otherwise held invalid by any court of competent jurisdiction, it shall not affect the validity of any remaining parts of this ordinance.

**SECTION 5.** This ordinance shall be in full force and effect from and after its passage and publication as provided by law.

**PASSED** by the Governing Body of the City of Lawrence, Kansas, this 3rd day of November, 2015.

APPROVED:

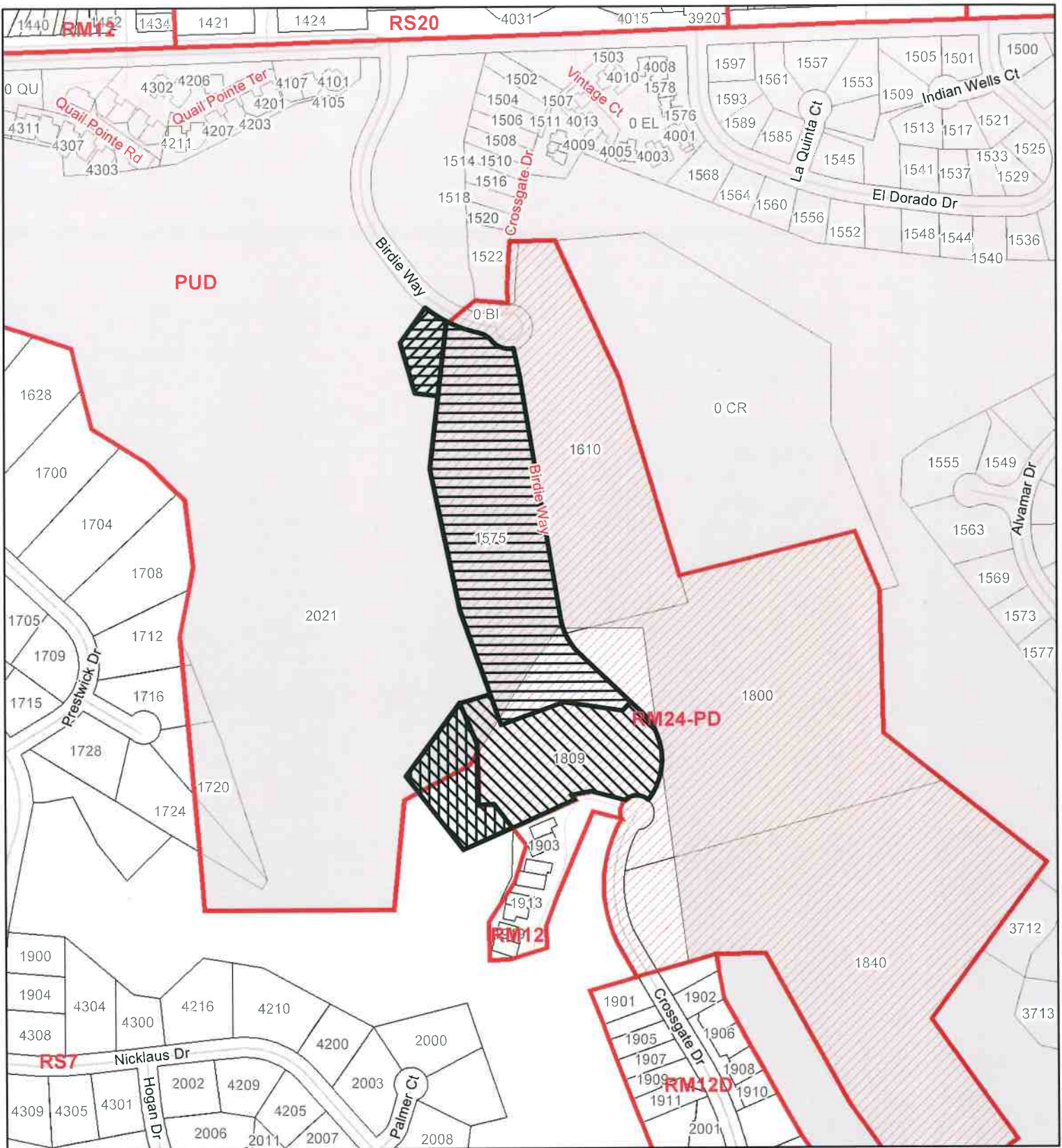
  
Mike Amyx  
Mayor

ATTEST:

  
Brandon McGuire  
Acting City Clerk

APPROVED AS TO FORM:

  
Toni R. Wheeler  
City Attorney



**Z-17-00009: Rezone 1.418 acres from RS7 and PUD [Alvamar] Districts to RM24-PD District**

**Z-17-00011: Rezone 0.558 acres from PUD [Alvamar] District to RM24-PD District**

**FDP-17-00028: Revised Final Development Plan for Alvamar Lot 1**

**FDP-17-00029: Revised Final Development Plan for Alvamar Lot 2**

**Located in Alvamar Golf Course**



Z-17-00009: RS7 & PUD [Alvamar] Districts to RM24-PD District

FDP-17-00028



Z-17-00011: PUD [Alvamar] District to RM24-PD District

FDP-17-00029



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OF COUNSEL  
WILLIAM R. LAWRENCE IV  
\*ALSO ADMITTED IN MISSOURI

March 7, 2017

Members of the Lawrence-Douglas County Metropolitan Planning Commission  
6 East 6<sup>th</sup> Street  
Lawrence, Kansas 66044

RE: Item No. 1B---Alvamar Project Rezoning Request

To Members of the Lawrence-Douglas County Metropolitan Planning Commission:

I submit this letter on behalf of the Woodfield Meadows Condominium Association, Inc. and the Woodfield Meadows West Homes Association. The residents of these two home owners association live in the properties that generally abut Crossgate Drive and Vintage Court just south of Bob Billings Parkway.

We have worked closely with the new owners of Alvamar in regard to their development plans. Thomas Fritzel and his team have been very good to work with and we truly appreciate their responsiveness to our concerns.

Paul Werner has informed us about their request to rezone to approximately .558 acre to RM-24-PD in order to locate a clubhouse for the nearby apartments. We have seen the plans for the clubhouse and have had an opportunity to work with Mr. Werner to alleviate some concerns.

I write to express the associations' support for the rezoning request and to ask for your favorable consideration.

Very truly yours:

FAGAN-EMERT & DAVIS, L.L.C.

A handwritten signature in cursive script that reads "Paul T. Davis".

Paul T. Davis

cc: Mr. Paul Werner



## **PLANNING COMMISSION REPORT Regular Agenda -Public Hearing Item**

PC Staff Report  
3/15/2017

### **ITEM NO. 1C      FINAL DEVELOPMENT PLAN FOR ALVAMAR LOT 1; 1809 BIRDIE WAY (SLD)**

**FDP-17-00028:** Consider a revised Final Development Plan for Alvamar Lot 1, located at 1809 Birdie Way for the addition of an 8,200 SF multi-purpose building. Submitted by Paul Werner Architects, for Eagle 1968 LC, property owner of record.

**STAFF RECOMMENDATION ON PRELIMINARY DEVELOPMENT PLAN:** Planning Staff recommends approval of Alvamar Lot 1 Revised Final Development Plan based upon the findings of fact presented in the body of the staff report and subject to the following conditions:

1. Prior to the recording of the Final Development Plan a Final Plat shall be submitted and approved and recorded with the Register of Deeds Office.
2. Provision of a revised plan that updates the Landscape calculations per the 99 parking spaces shown on the face of the drawing.

**Reason for Request:** *"The final development plan is being submitted because lot area is being added to Lot 1. With the additional lot area a proposed cart barn is shown west of the clubhouse. The cart barn will double as an alternate event location in case of rain to prevent outdoor cancellations."*

### **KEY POINTS**

- This application includes 1.418 acres of land that was not included in the original approval.
  - 39% increase in lot area.
- This application includes a revision to the proposed uses.
  - Chapel use has been removed (2,400 SF).
  - Multi-use building has been added to the site (8,200 SF). The primary use of the building is for cart storage.
- Preliminary Development Plan was approved on May 10, 2016.
- Major changes from an approved preliminary development plan may only be approved after rehearing and reapproval of the plan by the Planning Commission and the Governing Body.

### **FACTORS TO CONSIDER**

- Conformance with the approved Preliminary Development Plan
- Compliance with Development Code.
- Conformance with *Horizon 2020*.
- Conformance with Subdivision Regulations.

### **ATTACHMENTS**

1. Approved Preliminary Development Plan
2. Final Development Plan
3. Building Elevations



## PUBLIC COMMENT

- Residents from surrounding subdivisions have called to request additional information about the project.

<b>ASSOCIATED CASES/OTHER ACTION REQUIRED</b>	
<b>Associated Cases</b>	
<i>Alvamar Planned Development</i>	
<ul style="list-style-type: none"> <li>Z-14-00552; RM24-PD; Ordinance 9154.</li> <li>PDP-16-00052: Approved by the City Commission on May 10, 2016.</li> <li>PF-16-00051: Final Plat of Alvamar Inc One Addition.</li> <li>FDP-16-00342: Lot 4 pool, wellness center and amenities.</li> </ul>	
<b>Lot 1</b>	<b>Lot 2</b>
<ul style="list-style-type: none"> <li><b>Z-17-00009</b>: rezone 1.418 acres from RS7 (Single-Dwelling Residential) District and PUD (Planned Unit Development) District to RM24-PD (Multi-Dwelling Residential) District, 1809 Birdie Way.</li> <li><b>FDP-16-00343</b>: Approved a Final Development Plan for Alvamar Lot 1, Passive Recreation use for Alvamar Golf Course to include an Event Center, clubhouse and chapel as accessory uses to the Golf Course approximately 3.6 acres, located at 1809 Crossgate Drive. This project is replaced by the current by FDP-17-00028.</li> </ul>	<ul style="list-style-type: none"> <li><b>Z-17-00011</b>: rezone .558 acre from PUD (Planned Unit Development) District to RM24-PD (Multi-Dwelling Residential) District, located at 1575 Birdie Way, Lot 2 Alvamar Inc One Addition.</li> <li><b>FDP-17-00029</b>: revised Final Development Plan for Alvamar Lot 2, located at 1575 Birdie Way for the relocation of the apartment clubhouse and pool area.</li> <li><b>FDP-16-00343</b>: Lot 2, Multi-Dwelling Residential. Approved, replaced by FDP-17-00029.</li> </ul>
<b>Other Action Required</b>	
<ul style="list-style-type: none"> <li>Recording of Final Development Plan and Final Plat with the Douglas County Register of Deeds.</li> <li>Building permits must be obtained prior to construction of structures.</li> </ul>	

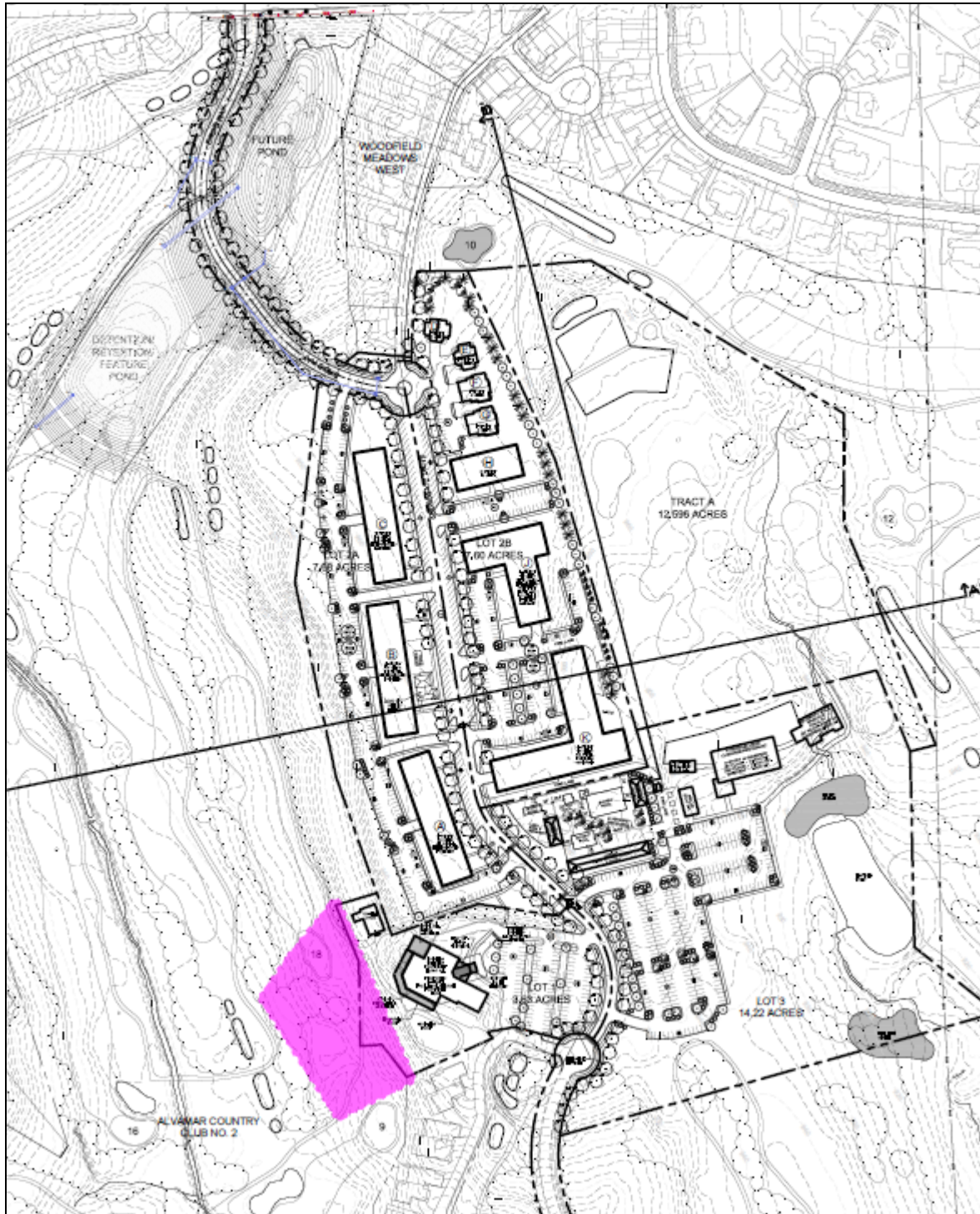
## GENERAL INFORMATION

Refer to Z-17-00009 for existing and surrounding zoning and land use.

## SITE SUMMARY

	<b>Approved PDP</b>	<b>FDP with Proposed Revisions</b>
Land Use:	Passive Recreation and accessory uses to golf course/Event Center	Passive Recreation and accessory uses to golf course/Event Center Multi-use building/cart storage
Land Area (sq ft):	158,111 158,251 (per final plat) 3.633 Acres	220,012 Pending new final plat 5.051 Acres
Building Footprint:	21,721 14,060 SF Existing 19,321 SF Proposed 2,400 SF chapel	29,047 14,668 SF Existing 18,447 SF Proposed 8,200 SF multi-use building
Total Pavement:	133,735	63,273
Total Impervious:	196,743	92,320
Total Pervious Area:	137,589	127,692

The following graphic highlights the location of the proposed change in relationship to the overall Alvamar PD development.



**Figure 1: Alvamar PD and Expanded Area**

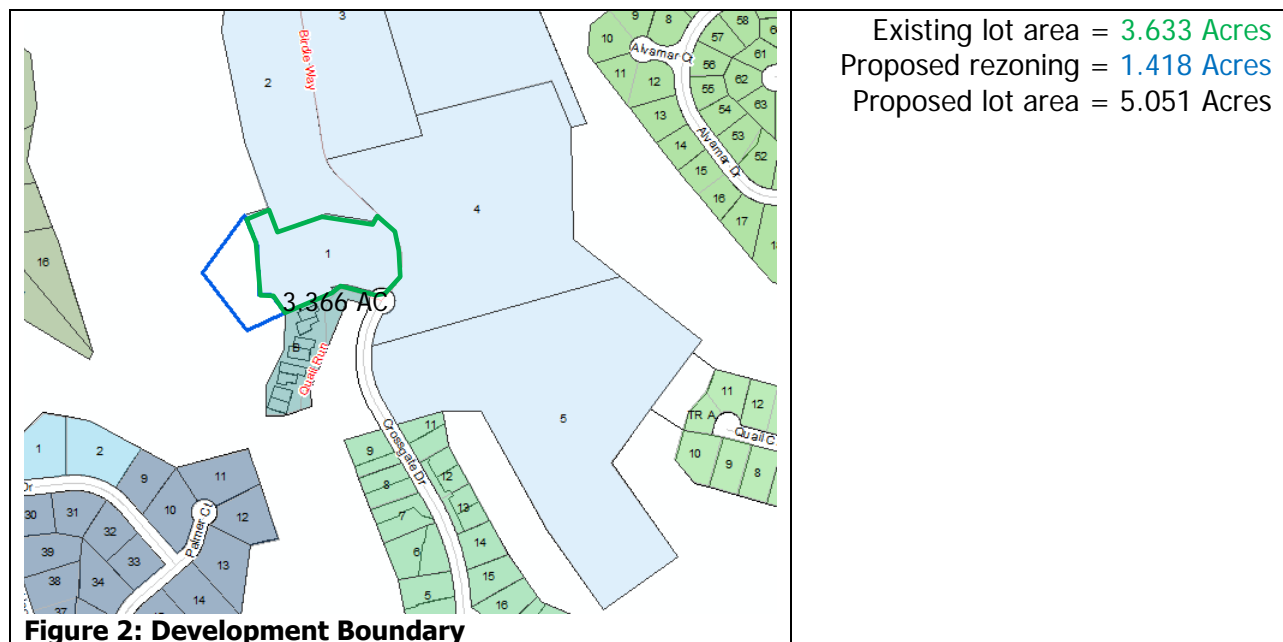
<b>PARKING SUMMARY</b> <ul style="list-style-type: none"> <li>Off-Street Parking For Golf Course Is Shared On Both Lots 1 And 4</li> <li>Off-Street Parking For Non-Residential Uses Provided At 90% Of Required Standard Per Approved Preliminary Development Plan</li> </ul>			
<b>Use</b>	<b>Parking requirement</b>	<b>Parking Required</b>	<b>Parking Provided 99 total spaces on Lot 1</b>
<i>Golf Course (Passive Recreation)</i> <i>University Practice Facility (located on Lot 4)</i>	4 spaces per hole  22 spaces for practice facility	27 holes – 108 spaces  facility – 22 spaces  Total 130 provided at 90% = 117 spaces	Lot 1 – 43 spaces Lot 4 - 74 spaces  No change in parking required or parking distribution for for this use.
<i>Restaurant – accessory to golf course</i>	Separate parking lot required with use relocated from Lot 4 to clubhouse on Lot 1 as part of event center.  Off-street parking for restaurant per PDP = 44 required @ 90% = 41 Parking was proposed to be provided: Lot 1 – 10 spaces Lot 4 – 6 spaces Private street – 25 spaces		Shared parking with Event Center and off-demand hours (evening) when passive recreation/golf course is not active.
Cart storage	Accessory building to golf course not anticipated to generate separate off-street parking.	0 spaces required	See summary for multi-purpose building.
<i>Chapel (Religious Institution)</i>	1 space per 4 seats	100 seats = 25 spaces	Use has been removed from plan.
<i>Banquet Facility (Event Center Large)</i>	1 space per 4 people based on maximum occupancy. Maximum occupancy per PDP = 480 + 9 employees.	129 spaces at 90% = 117 spaces	Lot 1 – 48 spaces Private street – 69 spaces
<i>Multi-purpose building when not used for cart storage. (Event Center, Small and fleet storage)</i>	1 space per 3 people based on maximum occupancy. Maximum occupancy proposed per revised FDP is 207 + 3 employees.	70 spaces at 90% = 63 spaces	Lot 1 – 8 Lot 2 – 3 Lot 4 – 8 Private Street – 45  64 provided.
<b>Total Require Parking</b>	108 golf course -22 spaces facility on Lot 4 -41 spaces restaurant as shared with golf course and other uses -0 spaces cart storage as accessory to golf course -25 spaces chapel use removed from plan 117 spaces event center large – shared use parking within development 63 spaces event center small – shared use parking within development  <b>288 spaces required</b>		
<b>Total Parking Provided</b>	99 spaces provided on Lot 1. 114 spaces provided on Birdie Way (private street parking). 250 spaces provided on Lot 4 (pool, wellness center) as shared parking. 336 spaces provided on Lot 2 (329 spaces reserved exclusively for residential uses and cannot be shared).  <b>470 spaces provided excluding dedicated residential spaces on Lot 2.</b>		

## STAFF ANALYSIS

This application consists of two components. The addition of land area to the phase requires a subdivision review. The addition of the land area as well as changes to the proposed uses of the property requires a review of the Final Development with a requirement for a public hearing.

### Subdivision Review

The majority of this property was platted as part of the Alvarmar Inc One final plat (Lot 1). This request includes additional area to accommodate the proposed multi-use building to be located southwest of the clubhouse. The following image highlights the location of the area to be added to the platted lot.



The proposed request will incorporate area into an existing platted lot with access to a public street (Crossgate Drive). Access to the lot and the overall development is accommodated from a private street (Birdie Way). Concurrent with this application is a request to rezone the additional area to the same zoning district as the balance of the property. The lot currently exceeds the minimum lot area requirements. There are no variances associated with this request as it pertains to subdivision requirements. The Development Plan serves as the Preliminary Plat review of this application. Prior to construction of the new building, a Final Plat will be required to be approved and recorded with the Register of Deeds Office.

### Final Development Plan Review

This application has been evaluated based upon the application requirements per Section 20-1304(e) of the Development Code for the City of Lawrence, requiring consideration of the following items:

The Preliminary Development Plan was approved on May 10, 2016. An application for a Final Development plan may be submitted for an area with an approved Preliminary Development Plan. Plans submitted for Final review must be substantially in compliance with the approved preliminary development plan and may not:

- a. Increase the proposed gross residential density or intensity of use by more than 5%;

- b. Involves a reduction in the area set aside of common open space in general, or recreational open space or natural open space in particular, or the substantial relocation of such areas;
- c. Increase by more than 10% the total floor area proposed for non-residential use;
- d. Increase by more than 5% the total ground area covered by buildings;
- e. Changes a residential use or building type;
- f. Increases the height of buildings by more than 5%;
- g. Represents a new change to the PDP that creates a substantial adverse impact on surrounding land owners; or
- h. Changes a residential building type or a nonresidential structure by more than 10% in size.

This application includes 1.4 acres that was not previously included in the approved Preliminary Development Plan and modifies uses within the phase.

- a. This phase does not include a residential component.
- b. The project includes more land area than included in the original approval. However, the request adds activity to an area that was previously reserved for the golf course activity.
- c. The footprint of the clubhouse building has been reduced by 5% from what was shown on the Preliminary Development Plan. Additionally the plan shows the removal of the 2,400 SF chapel use to be replaced by an 8,200 Sf multi-purpose building (242% increase).
- d. The total area covered by building within this phase increases by approximately 33%.
- e. This phase does not include a residential component.
- f. This project includes a new building not previously included in the development project. The overall height of the building is less than 25'. The maximum district height is 45'.
- g. The proposed changes do not impact any immediate property owner. The proposed change is an encroachment into the area reserved and identified for the golf course.
- h. This phase does not include a residential component.

### **Density Review**

This phase includes only the clubhouse/Event Center. Residential uses are not proposed with this phase of the development.

### **Landscape Review**

Section 20-701(d) states that all of the standards of the Development Code apply to development within a PD District except as expressly authorized by regulations of Section 20-701. The proposed plan shows street trees along Birdie Way consistent with the approved Preliminary Development Plan. This project does not alter the parking lot arrangement or the interior or perimeter landscape plan as approved with the Preliminary Development Plan.

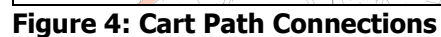
The landscape table provided on the plan is based on 101 off-street parking spaces. However, this lot contains only 99 spaces. The change in the number is reflective of the requirements to provide accessible spaces and access aisles. The plan provides more than the required interior landscape for a parking lot of this size and provides more landscape plants and trees than required. Staff recommends that the landscape calculation included on the face of the plan be updated with the correct number as a condition of approval.

### **Building Height and Use**

The maximum building height of the base district is 45'. The proposed building is a single story building and has an overall gross height of less than 25'. The calculated height of the building is 19'5" as measured per section 20-601 of the Land Development Code.



Access to the building is provided via the cart paths that connect the golf course and amenities throughout the development.

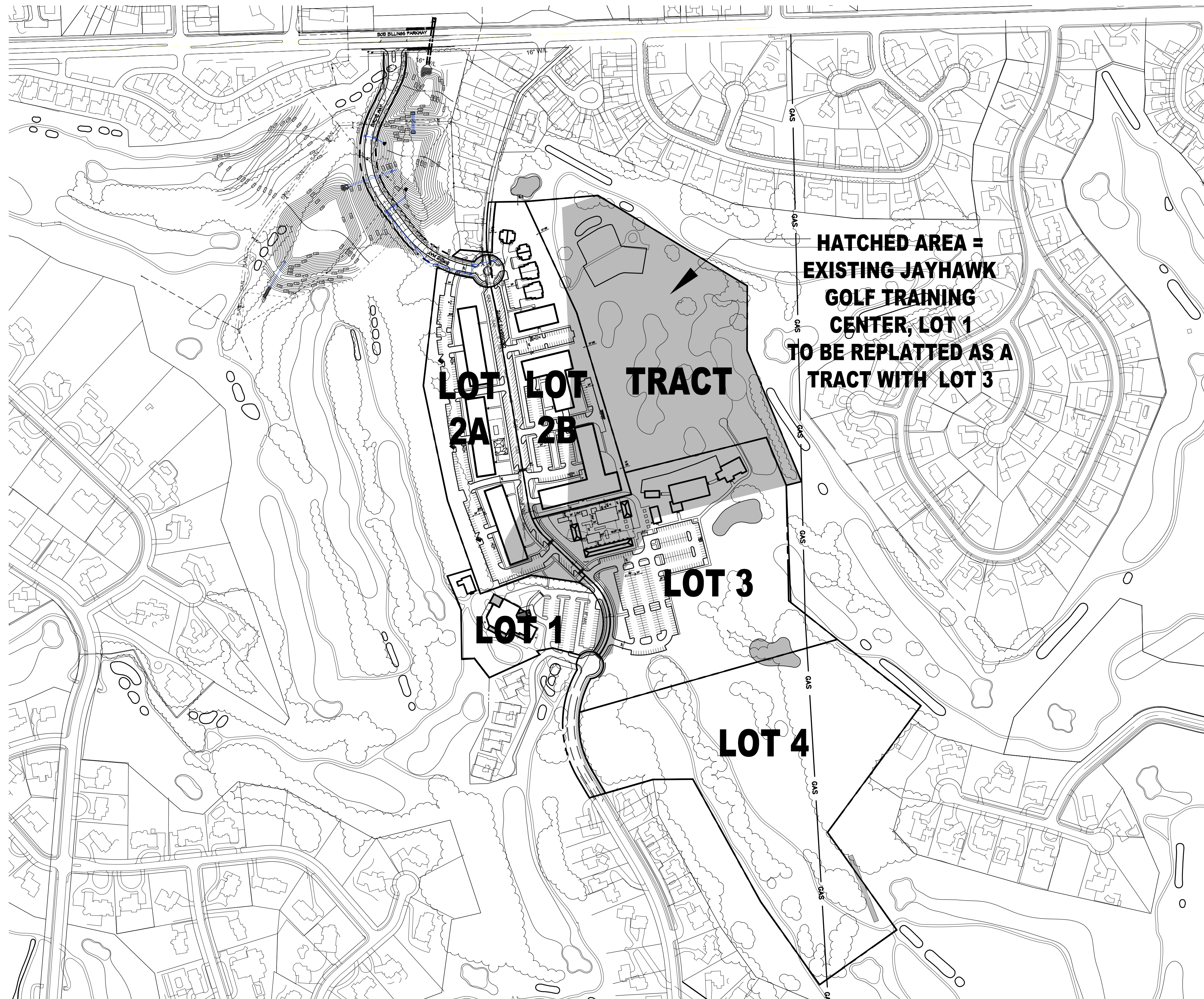


This revised Final Development Plan is consistent with the approved Preliminary Development Plan for the area. This phase does not add any residential density to the development.



# ALVAMAR

## LOT 1, 2A, 2B & 3 PRELIMINARY DEVELOPMENT PLAN LAWRENCE, KANSAS



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### ALVAMAR LOT 1, 2A, 2B & 3 PRELIMINARY DEVELOPMENT PLAN

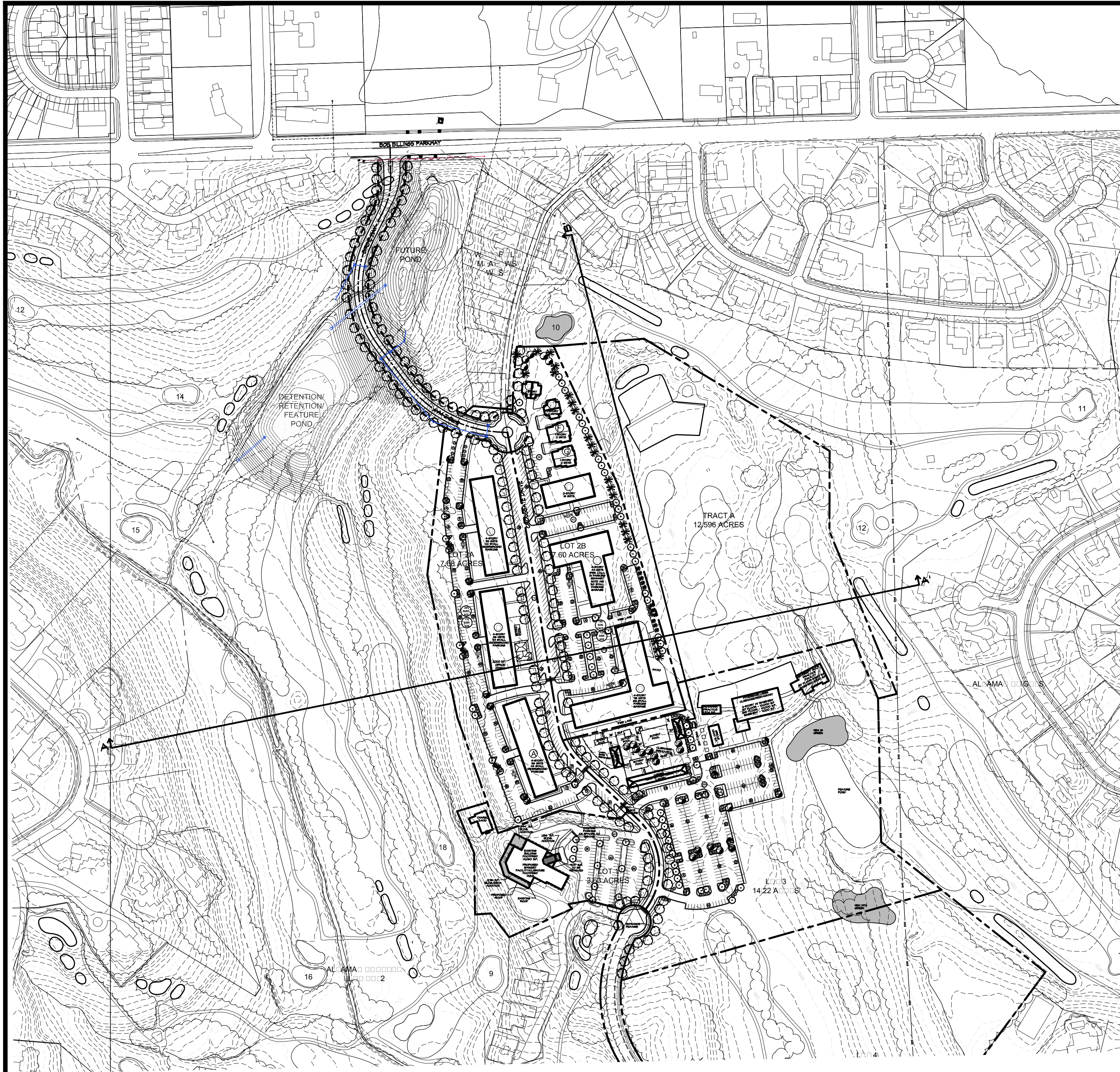
LAWRENCE, KANSAS

PROJECT # 213-560

RELEASE:	DATE:
1.0	2.16.16
1.1	3.01.16
1.2	5.03.16
1.3	5.25.16

COVER





IMPERVIOUS SURFACE SUMMARY:

LOT 1: 3.41 ACRES (148,482 SQ. FT. +/-)

EXISTING SUMMARY:

	SQ. FT.	%
BUILDING FOOTPRINT:	14,060	9%
PAVEMENT AREAS:	61,306	34%
TOTAL IMPERVIOUS:	75,446	48%
TOTAL PERVIOUS:	82,665	52%
PROPERTY AREA:	158,111	100%

POST DEVELOPMENT SUMMARY:

	SQ. FT.	%
BUILDING FOOTPRINT:	21,121	14%
PAVEMENT AREAS:	54,524	37%
TOTAL IMPERVIOUS:	81,245	51%
TOTAL PERVIOUS:	76,866	49%
PROPERTY AREA:	158,111	100%

LOT 2A: 7.40 ACRES (343,962 SQ. FT. +/-)

EXISTING SUMMARY:

	SQ. FT.	%
BUILDING FOOTPRINT:	0	0%
PAVEMENT AREAS:	46,214	14%
TOTAL IMPERVIOUS:	46,214	14%
TOTAL PERVIOUS:	288,118	86%
PROPERTY AREA:	334,332	100%

POST DEVELOPMENT SUMMARY:

	SQ. FT.	%
BUILDING FOOTPRINT:	63,008	19%
PAVEMENT AREAS:	133,139	40%
TOTAL IMPERVIOUS:	146,143	54%
TOTAL PERVIOUS:	187,584	41%
PROPERTY AREA:	334,332	100%

LOT 2B: 7.60 ACRES (331,081 SQ. FT. +/-)

EXISTING SUMMARY:

	SQ. FT.	%
BUILDING FOOTPRINT:	0	0%
PAVEMENT AREAS:	28,653	9%
TOTAL IMPERVIOUS:	28,653	9%
TOTAL PERVIOUS:	302,434	41%
PROPERTY AREA:	331,081	100%

POST DEVELOPMENT SUMMARY:

	SQ. FT.	%
BUILDING FOOTPRINT:	79,411	24%
PAVEMENT AREAS:	114,650	36%
TOTAL IMPERVIOUS:	194,075	60%
TOTAL PERVIOUS:	132,012	40%
PROPERTY AREA:	331,081	100%

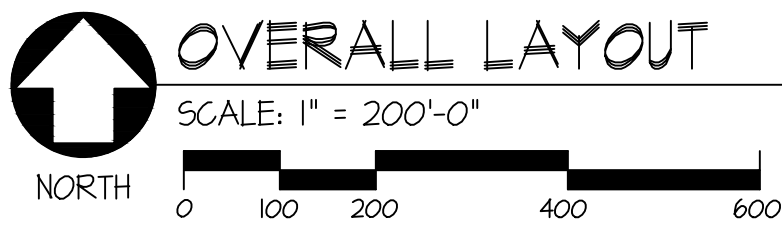
LOT 3: 14.22 ACRES (619,263 SQ. FT. +/-)

EXISTING SUMMARY:

	SQ. FT.	%
BUILDING FOOTPRINT:	1,244	1%
PAVEMENT AREAS:	43,462	7%
TOTAL IMPERVIOUS:	50,761	8%
TOTAL PERVIOUS:	568,502	92%
PROPERTY AREA:	619,263	100%

POST DEVELOPMENT SUMMARY:

	SQ. FT.	%
BUILDING FOOTPRINT:	34,034	5%
PAVEMENT AREAS:	166,361	27%
TOTAL IMPERVIOUS:	200,401	32%
TOTAL PERVIOUS:	418,862	68%
PROPERTY AREA:	619,263	100%



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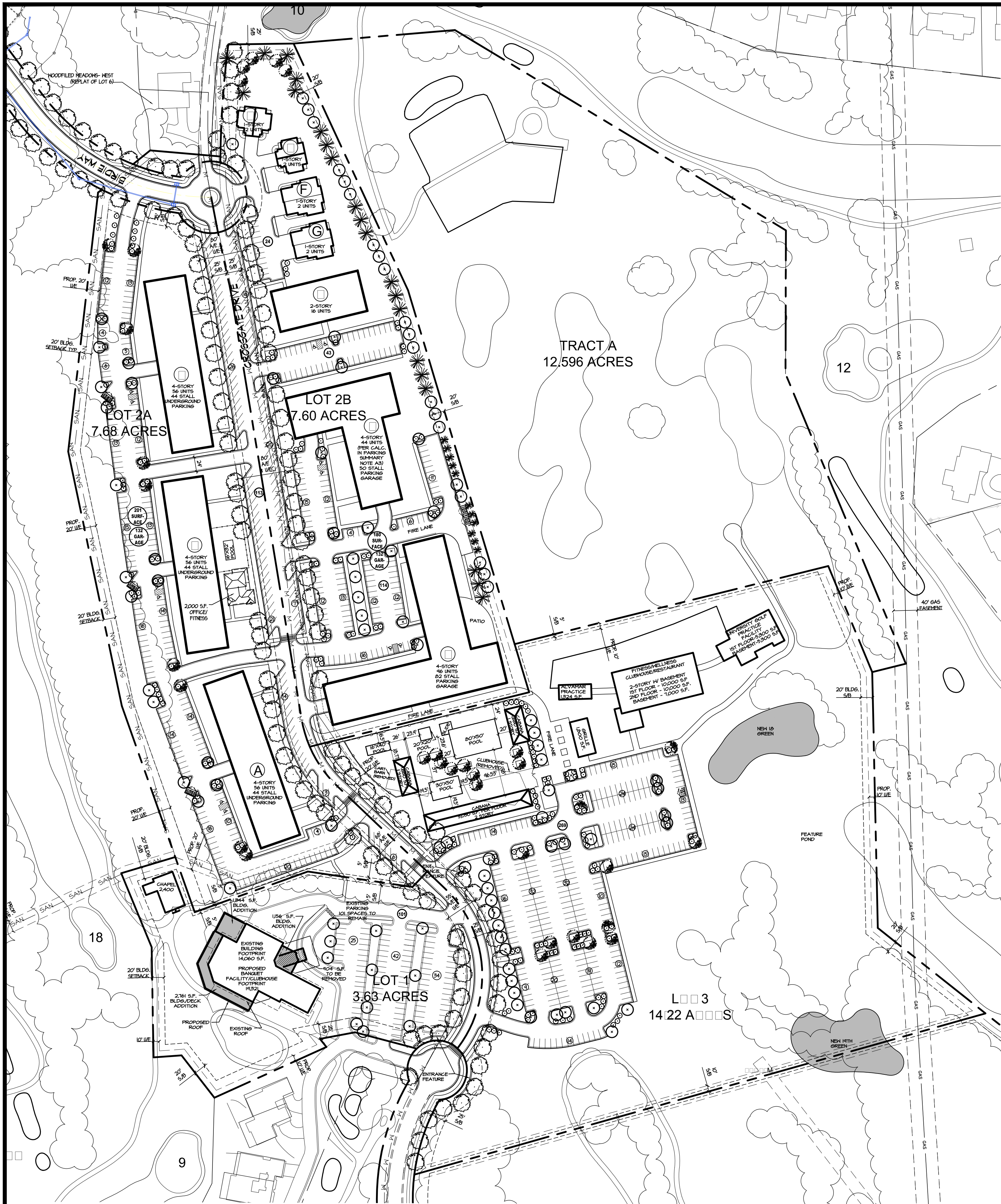
**ALVAMAR LOT 1, 2A, 2B & 3**  
**PRELIMINARY**  
**DEVELOPMENT PLAN**

LAURENCE, KANSAS

PROJECT # 213-560

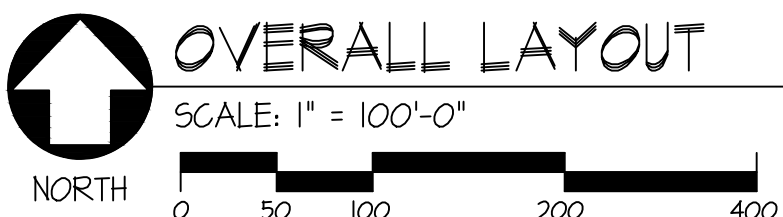
RELEASE:	DATE:
1.0	2.16.16
1.1	3.01.16
1.2	5.03.16
1.3	5.25.16





### ALLOWED NON RESIDENTIAL USES:

- RETAIL USES AS ACCESSORY TO THE GOLF COURSE
- OFFICE USES ACCESSORY TO THE DIRECT OPERATION OF THE GOLF COURSE AND EVENT CENTER OR MANAGEMENT OF ACCESSORY USES DIRECTLY ASSOCIATED WITH THE GOLF COURSE
- EATING AND DRINKING ESTABLISHMENTS TO INCLUDE EVENT CENTER (TO BE OPERATED AS A BANQUET/RECEPTION FACILITY ONLY), FAST ORDER FOOD, QUALITY RESTAURANT, AND ACCESSORY BAR USES.



### LEGAL DESCRIPTION:

PENDING APPROVAL OF FINAL PLAT FOR LOT 1-3 - ALVAMAR INC. ONE ADDITION (DEVELOPMENT PROPOSAL FOR LOT 4 IS NOT INCLUDED AT THIS TIME AND IS SHOWN FOR CONTEXT ONLY)

### GENERAL SITE PLAN NOTES:

- ALL GROUND MOUNTED MECHANICAL UNITS SHALL BE SCREENED IN ACCORDANCE WITH SECTION 20-1006(B).
- ALL REQUIRED ACCESSIBLE SIDEWALK RAMPS PER A.D.A. STANDARDS.
- SITE PLAN HAS BEEN DESIGNED TO COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR BUILDINGS AND FACILITIES, APPENDIX A TO 28CFR PART 36.
- SITE PLAN HAS BEEN DESIGNED TO COMPLY WITH THE MINIMUM PROVISIONS OF THE FINAL FAIR HOUSING ACCESSIBILITY GUIDELINES, 24 CFR, CHAPTER 1, SUBCHAPTER A, APPENDIX II, OF THE FAIR HOUSING ACT OF 1968, AS AMENDED.
- THE CITY OF LAWRENCE WILL NOT BE HELD RESPONSIBLE FOR PAVEMENT DAMAGE CAUSED BY TRASH TRUCKS.
- PLAN FOR CITY APPROVAL ONLY! CONSTRUCTION DOCUMENTS TO BE FURNISHED AT THE REQUEST OF OWNER.
- INFORMATION TAKEN FROM AERIAL PHOTOS, TOPOGRAPHIC SURVEY, AVAILABLE DOCUMENTS, AND ON SITE INVESTIGATIONS.
- ALL TRAFFIC CONTROL SIGNS PLACED ON PRIVATE PROPERTY OPEN TO THE GENERAL PUBLIC SHALL COMPLY WITH THE "MANUAL ON UNIFORMS TRAFFIC CONTROL DEVICES" AND "STANDARD HIGHWAY SIGNS," PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION, WITH RESPECT TO SIZE, SHAPE, COLOR, RETROFLECTIVITY, AND POSITION.
- MAXIMUM BUILDING HEIGHT SHALL BE 45 FEET PER CITY CODE 20-60L, OR RECEIVE A WAIVER FROM PLANNING DIRECTOR OR PLANNING COMMISSION.
- SIGN APPROVAL AND PERMITTING IS NOT PART OF THE SITE PLAN APPROVAL. SEPARATE APPROVAL IS REQUIRED THROUGH PLANNING AND DEVELOPMENT SERVICES.
- NO BUILDING STRUCTURES SHALL BE PLACED WITHIN UTILITY EASEMENTS OR WITHIN 15 FEET OF THE PUBLIC SANITARY SEWER OR PUBLIC WATERLINE. NO OTHER STRUCTURES OR LANDSCAPING SHALL BE PLACED WITHIN UTILITY EASEMENT OR WITHIN 8 FEET OF THE PUBLIC SANITARY SEWER OR PUBLIC WATERLINE.
- THE SWIMMING POOL CONSTRUCTION WILL COMPLY WITH CITY CODE CHAPTER 14, ARTICLE II.
- SLOPE EXTERIOR WALKS A MINIMUM OF 1/4" PER FOOT (BUT NOT GREATER THAN 1:20) SO THAT ALL EXTERIOR DRAINAGE WILL BE AWAY FROM STRUCTURE TO EXTERIOR.
- PROPERTY OWNERS WAIVES RIGHTS TO PROTEST CHANGES TO THIS DEVELOPMENT PLAN.
- APPLICANT SHALL SUBMIT A COMPLETE DRAINAGE STUDY FOR REVIEW AND APPROVAL BY THE CITY STORMWATER ENGINEER CONCURRENT WITH EACH FINAL DEVELOPMENT PLAN APPLICATION FOR ANY LOT OR PHASE OF THE DEVELOPMENT. OCCUPANCY PERMITS FOR PROPOSED BUILDINGS WILL NOT BE ISSUED UNTIL THE REQUIRED PUBLIC DRAINAGE IMPROVEMENTS ARE COMPLETE, FINAL INSPECTED AND ACCEPTED BY THE PUBLIC WORKS DEPARTMENT. ALL CURB INLETS WILL BE CONSTRUCTED PER CITY STORM SEWER STANDARD DETAILS.
- SIDEWALKS SHALL BE REQUIRED ON BOTH SIDES OF ALL PUBLIC AND PRIVATE STREETS.
- PROPERTY OWNER SHALL MAINTAIN COMMON OPEN SPACE ON LOTS 1 - 4.
- FINAL DEVELOPMENT PLANS FOR THIS PROPERTY ARE REQUIRED TO BE PRESENTED TO THE PLANNING COMMISSION FOR APPROVAL FOLLOWING THE NOTICE REQUIREMENTS OF SECTION 20-1301(G).
- PHASING PLAN SHALL BE SUBMITTED WITH THE FIRST FINAL DEVELOPMENT PLAN FOR REMODEL OF THE EXISTING CLUBHOUSE ON LOT 1, CONSTRUCTION OF IMPROVEMENTS PROPOSED ON LOTS 2 AND 3, AND STREET AND UTILITY INSTALLATION.
- SHARED PARKING REVIEW AND FINAL PARKING SPACE REQUIREMENTS WILL OCCUR WITH REVIEW OF EACH FINAL DEVELOPMENT PLAN SUBMISSION.
- THE BANQUET/RECEPTION FACILITY SHALL ONLY BE USED FOR CONVENTIONAL BANQUET/RECEPTION USES. THE NIGHTCLUB USE ASSIGNED TO THIS FACILITY FOR DEVELOPMENT CODE PURPOSES SHALL NOT PROVIDE A RIGHT TO USE THE FACILITY AS A BAR OR NIGHTCLUB OPERATION.
- A REVISED TRAFFIC IMPACT STUDY, STATING PROPOSED USES, SHALL BE REQUIRED WITH THE SUBMISSION OF A FUTURE APPLICATION FOR A PRELIMINARY DEVELOPMENT PLAN FOR LOT 1 AND LOT 4.
- PRIVATE PARKING ALONG THE GOLF COURSE HOLES WILL BE SCREENED FROM ERRANT GOLF BALLS PER STAFF APPROVAL.
- ROUNDABOUTS WILL NEED TO BE DESIGNED APPROPRIATELY WITH PUBLIC IMPROVEMENT PLANS TO SUPPORT TURNING TRUCK TRAFFIC AND PEDESTRIAN CROSSINGS.
- THE FEATURE POND(S) WILL BE PRIVATELY OWNED AND MAINTAINED. THE LAND OWNER IS RESPONSIBLE FOR THE MAINTENANCE OF THE FEATURE POND(S). FAILURE TO MAINTAIN THE FEATURE POND(S) WILL RESULT IN THE LOSS OF THE STORMWATER DETENTION CREDIT. THE FEATURE POND(S) WILL REMAIN FREE OF ANY NATURAL OR NON-NATURAL STRUCTURES OR VEGETATIVE BARRIERS (INCLUDING BUT NOT LIMITED TO TREES, SHRUBBERY, BERMS, FENCES, AND WALLS).
- AN AGREEMENT SHALL BE EXECUTED BY APPLICANT AT THE TIME OF FINAL PLAT RECORDING NOT TO PROTEST THE FORMATION OF A BENEFIT DISTRICT FOR A PERIOD OF 20 YEARS, FOR THE INSTALLATION OF A TRAFFIC SIGNAL AT THE INTERSECTION OF BOB BILLINGS PARKWAY AND BIRDIE WAY, IF ONE IS DETERMINED BY THE CITY ENGINEER TO BE NEEDED IN THE FUTURE.
- PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY FOR RESIDENTIAL STRUCTURES TRAFFIC CALMING DEVICES SHALL BE INSTALLED ON CROSSGATE DRIVE NORTH OF CLINTON PARKWAY.
- THE DEVELOPMENT SHALL ADHERE TO THE CONSTRUCTION AND PHASING PLAN AS APPROVED BY THE CITY COMMISSION.
- PER SECTION 20-1004(B), USE OF ARTIFICIAL TURF, LOCATED ON ANY LOT OR AS PART OF THE GOLF COURSE, SHALL REQUIRE CITY COMMISSION APPROVAL PRIOR TO INSTALLATION.

### LANDSCAPING CALCULATION

	Lot 1	Lot 2A	Lot 2B	Lot 3
Parking Stalls Provided	101	201	180	269
Interior Parking Lot Greenspace Provided (SF)	10,275	8,303	8,989	11,738
Interior Parking Lot Greenspace Required (SF)	4,040	8,040	7,200	10,760
Interior Parking Lot Shrubs Provided	Exst.	56	40	77
Interior Parking Lot Shrubs Required	31	61	54	81
Interior Parking Lot Trees Provided	11	28	18	28
Interior Parking Lot Trees Required	11	21	18	27
Perimeter Parking Lot Frontage (FT)	160	45	306	252
Perimeter Parking Lot Trees Provided	7 (double as street trees)	2	13 (double as street trees)	11
Perimeter Parking Lot Trees Required	7	2	13	11
Crossgate Street Trees Provided	10	31	30	23
Crossgate Street Trees Required	370 L.F. /40=10	1,219 L.F. /40=31	1,188 L.F./40=30	855 L.F./40=22

### SITE SUMMARY:

PROJECT SUMMARY	LOT	CURRENT ZONING	PROPOSED ZONING	CURRENT USE	PROPOSED USE	LAND AREA		PROPOSED UNITS	PROPOSED UNITS PER ACRE
	LOT 1	RS7/RM12	RM24-PD	PASSIVE RECREATION	PASSIVE RECREATION	3.63	158,112		
	LOT 2A	RS7/PUD	RM24-PD	PASSIVE RECREATION	MULTI DWELLING STRUCTURE	7.68	334,332	168	21.89
	LOT 2B	RS7/PUD	RM24-PD	PASSIVE RECREATION	MULTI DWELLING STRUCTURE	7.60	331,084	164	21.58
	LOT 3	RS7/PUD	RM24-PD	PASSIVE RECREATION	VARIED USES - SEE TABLE BELOW	14.22	619,279		
	LOT 4	RS7/PUD	RM24-PD	PASSIVE RECREATION	PASSIVE RECREATION	17.32	754,775		
	TOTAL					50.45	2,197,582	332	43.47

### SHARED PARKING INFORMATION:

PARKING SUMMARY	USE CATEGORY	APART-MENTS	DUPLEX	INDEPEN-DENT/ ASSISTED LIVING	CHAPEL	FITNESS/ WELLNESS AREA	POOL AREA	GOLF COURSE/ CLUBHOUSE	BANQUET FACILITY AREA	RESTAURANT IN CLUBHOUSE (ACCESSORY)	OUTDOOR GRILLE BY POOL (ACCESSORY)	FUTURE OFFICE	TOTAL
		MULTI-DWELLING STRUC-TURE	DUPLEX	INDEPEN-DENT/ ASSISTED LIVING	CAMPUS OR COMMUNITY INSTITUTION [c]	PERSONAL IMPROVE-MENT /ACT-IVE REC. [c]	PARTICIPANT SPORTS & RECREATION, OUTDOOR [c]	PASSIVE RECREATION [c]	QUALITY & ACCESSORY RESTAURANT [c]	FAST ORDER FOOD OR QUALITY RESTAURANT [c]	FAST ORDER FOOD OR QUALITY RESTAURANT [c]	OFFICE [c]	
	PARKING SPACES REQUIRED	1 PER BDRM (500 BEDS) + 1 PER 10 UNITS (280)	1 PER BDRM (12 BEDS)	1 PER INDEPENDENT LIVING UNIT (100) + 0.5 PER ASSISTED LIVING UNIT (0)	1 PER 4 SEATS IN ASSEMBLY SPACE (100 SEATS)	80% @ 1500 20% @ 1000 1 PER 200 S.F. (27,000 S.F.)	1 PER 500 S.F. OF CUSTOMER SERVICE AREA (40,000 S.F.)	4 SPACES PER HOLE (27 HOLES) + 22 FOR UNIVERSITY GOLF PRACTICE FACILITY	1 SPACE PER 4 PERSONS BASED ON MAX OCCU-PANCY OF 480 + 1 PER EMPLOYEE (9)	1 PER 100 SF OF CUSTOMER SERVICE AREA (3,400 S.F.) PLUS 1 PER EMPLOYEE ON LARGEST SHIFT (10)	1 PER 100 SF OF CUSTOMER SERVICE AREA (3,400 S.F.) PLUS 1 PER EMPLOYEE ON LARGEST SHIFT (5)	1 PER 300 S.F.	
		528	12	100	25	60	80	130	129	44	5	54	1177
PARKING PROVIDED	LOT 1							43	48	10			101
	LOT 2A	329 [A]			4								333
	LOT 2B	200 [B]	12 [D]	100 [C]									312
	LOT 3					54	72	74		6	5	58	269
	LOT 4				19				69	25			0
	Crossgate												113
	TOTAL	529	12	100	23 [E]	54 [E]	72 [E]	117 [E]	117 [E]	41 [E]	5	58 [E]	1128

- A LOT 2A: BLDGS - A, B, C = 168 UNITS - 312 BEDS; INTERIOR PARKING = 132, EXTERIOR PARKING 203; TOTAL = 329 SPACES REQUIRED  
B LOT 2B: BLDGS - H, I, K - 1 BED UNITS = 16 SPACES REQUIRED  
C LOT 2B: BLDGS - J, L, M - 1 BED UNITS = 172 BEDS; 162 SPACES REQUIRED  
D LOT 2B: DUPLEX - N, O - 12 DUPLEXES - 100 UNITS - 100 SPACES REQUIRED; DENSITY = (24 STUDIO X .4 = 9.6; 56 - 1 BED UNITS X .4 = 22.4; 20 - 2 BED UNITS X .6 = 12) 100 SPACES REQUIRED  
E OTHER THAN RESIDENTIAL UNITS, PARKING HAS BEEN PROVIDED AT 90% OF THE REQUIRED AMOUNT

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## ALVAMAR LOT 1, 2A, 2B & 3 PRELIMINARY DEVELOPMENT PLAN

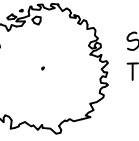


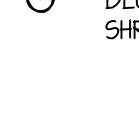
LAWRENCE, KANSAS

PROJECT # 213-560

RELEASE: DATE:  
1.0 2.16.16  
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LANDSCAPING TABLE:

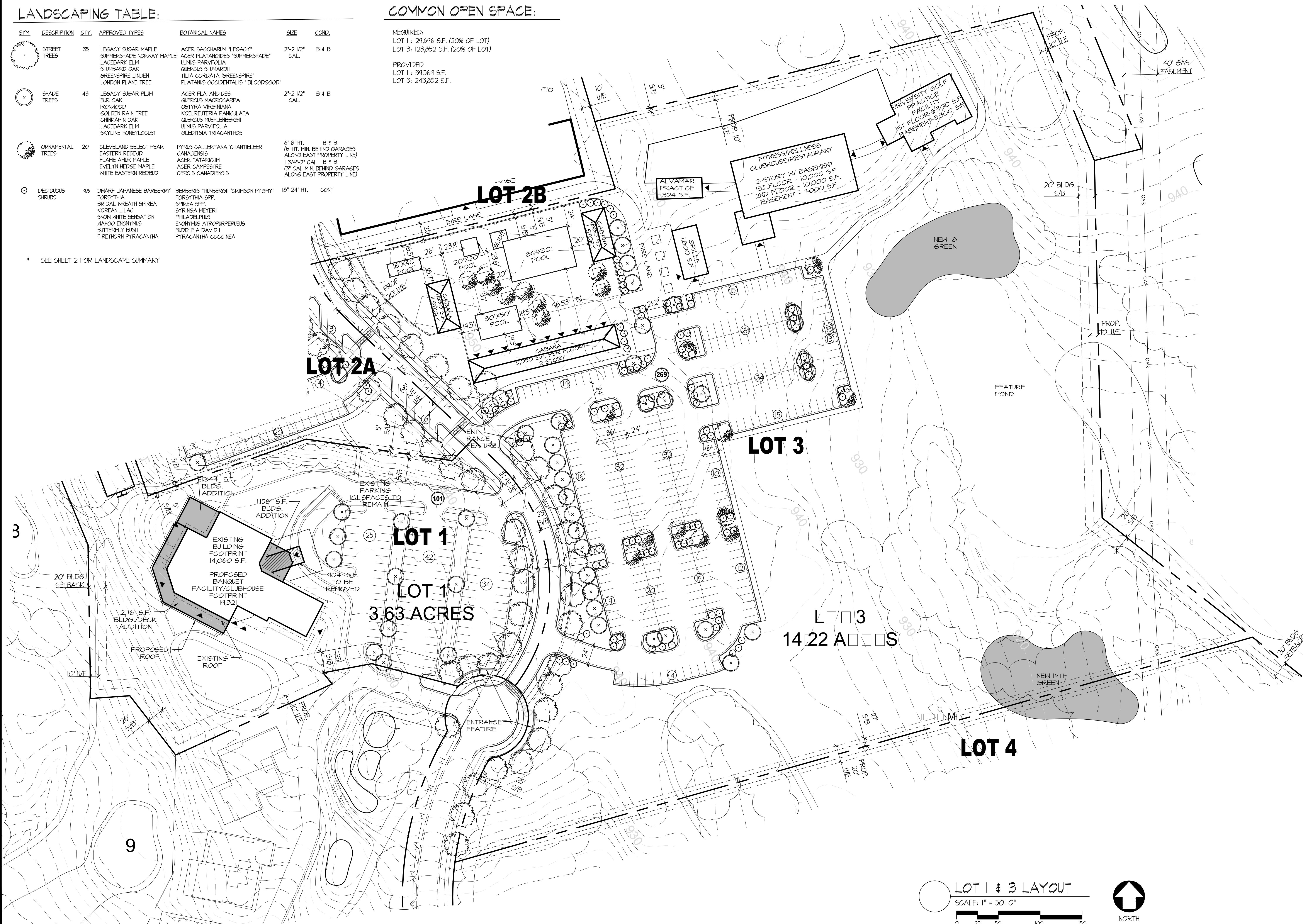
SYM	DESCRIPTION	QTY	APPROVED TYPES	BOTANICAL NAMES	SIZE	COND.
	STREET TREES	35	LEGACY SUGAR MAPLE SUMMERSHADE NORWAY MAPLE LACEBARK ELM SHUMBARD OAK GREENSPIRE LINDEN LONDON PLANE TREE	ACER SACCCHARUM "LEGACY" ACER PLATANOIDES "SUMMERSHADE" ULMUS PARVIFOLIA QUERCUS SHUMARDII TILIA CORDATA "GREENSPIRE" PLATANUS OCCIDENTALIS "BLOODGOOD"	2'-2 1/2" CAL.	B & B
	SHADE TREES	43	LEGACY SUGAR PLUM BUR OAK IRONWOOD GOLDEN RAIN TREE GHINKAPIN OAK LACEBARK ELM SKYLINE HONEYLOCUST	ACER PLATANOIDES QUERCUS MACROCARPA OSTYRA VIRGINIANA KOELREUTERIA PANICULATA QUERCUS MEHLERBERGII ULMUS PARVIFOLIA GLEDITSIA TRIACANTHOS	2'-2 1/2" CAL.	B & B
	ORNAMENTAL TREES	20	CLEVELAND SELECT PEAR EASTERN REDBUD FLAME AMUR MAPLE EVELYN HEDGE MAPLE WHITE EASTERN REDBUD	PYRUS CALLERYANA "CHANTELEER" CANADENSIS ACER TATARICUM ACER CAMPESTRE CERCIS CANADENSIS	6'-8' HT. (8' HT. MIN. BEHIND GARAGES ALONG EAST PROPERTY LINE) 1 3/4"-2" CAL. B & B (3" CAL. MIN. BEHIND GARAGES ALONG EAST PROPERTY LINE)	B & B
	DECIDUOUS SHRUBS	48	DWARF JAPANESE BARBERRY FORSYTHIA BRIDAL WREATH SPIREA KOREAN LILAC SNOW WHITE SENSATION NANO ENONYMUS BUTTERFLY BUSH FIRETHORN PYRACANTHA	BERBERIS THUNBERGII "CRIMSON PYGMY" FORSYTHIA SPP. SPIREA SPP. SYRINGA MEYERI PHILADELPHUS ENONYMUS ATROPURPUREUS BUDLEIA DAVIDII PYRACANTHA COCCINEA	18"-24" HT.	CONT

\* SEE SHEET 2 FOR LANDSCAPE SUMMARY

COMMON OPEN SPACE:

REQUIRED:  
LOT 1 : 29,696 S.F. (20% OF LOT)  
LOT 3 : 123,852 S.F. (20% OF LOT)

PROVIDED:  
LOT 1 : 39,569 S.F.  
LOT 3 : 243,852 S.F.



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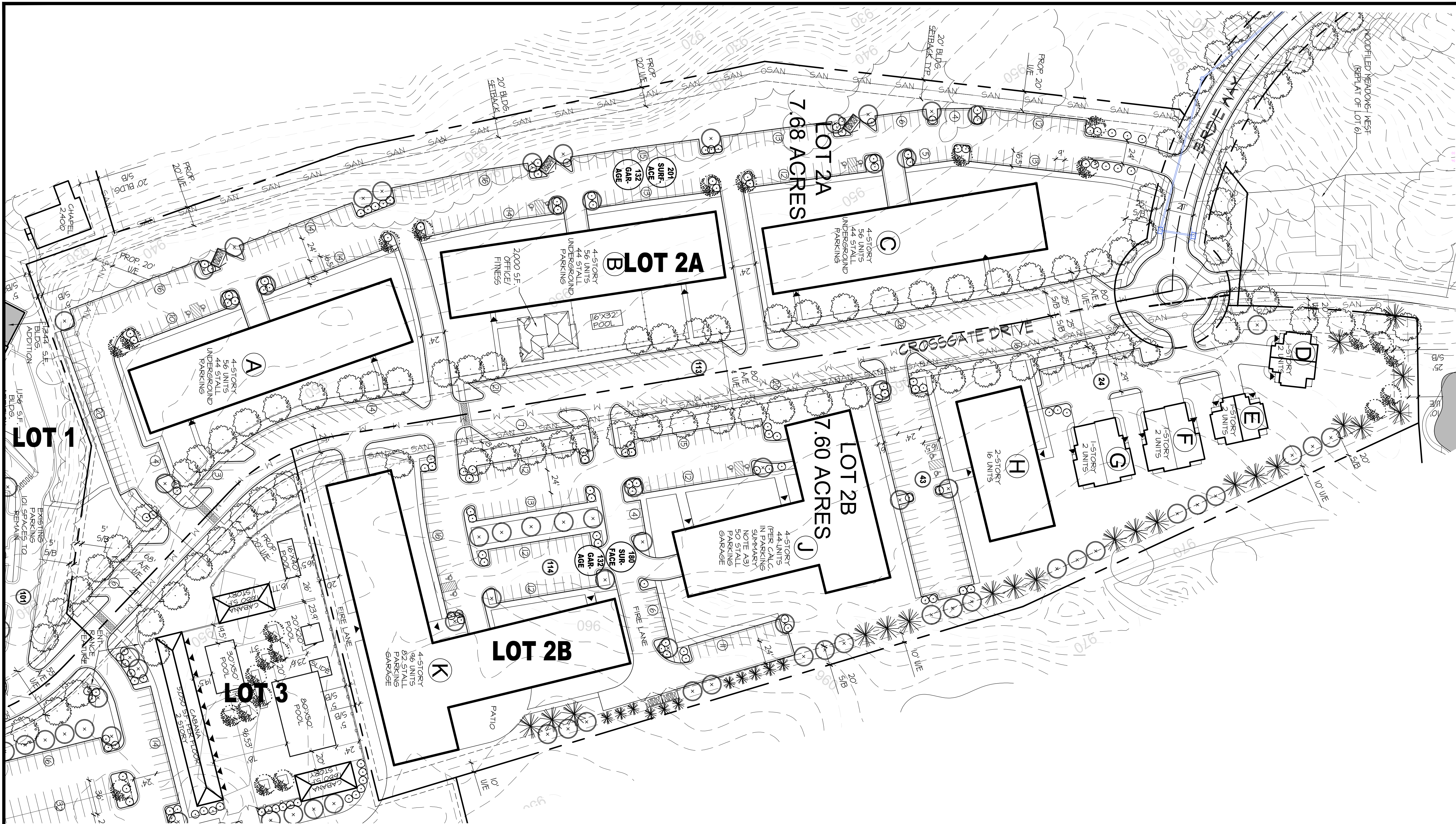
**ALVAMAR LOT 1, 2A, 2B & 3  
PRELIMINARY  
DEVELOPMENT PLAN**

LAURENCE, KANSAS

PROJECT # 213-560

RELEASE:	DATE:
1.0	2.16.16
1.1	3.01.16
1.2	5.03.16
1.3	5.25.16





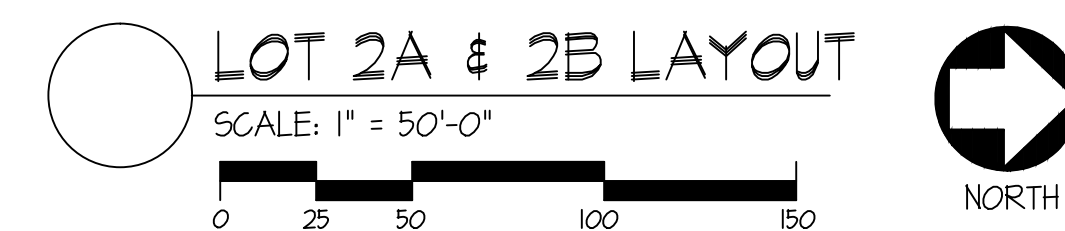
LANDSCAPING TABLE:

SYM.	DESCRIPTION	QTY.	APPROVED TYPES	BOTANICAL NAMES	SIZE	COND.	ORNAMENTAL TREES	14	CLEVELAND SELECT PEAR EASTERN REDBUD FLAME AMUR MAPLE EVELYN HEDGE MAPLE WHITE EASTERN REDBUD	PYRUS CALLERYANA 'CHANTIELEER' CANADENSIS ACER TATARICUM ACER CAMPESTRE CERCIS CANADENSIS	(8' HT. MIN. BEHIND GARAGES ALONG EAST PROPERTY LINE) 1 3/4"-2" GAL. B & B (8' GAL MIN. BEHIND GARAGES ALONG EAST PROPERTY LINE)
	STREET TREES	63	LEGACY SUGAR MAPLE SUMMER SHADE NORWAY MAPLE LACEBARK ELM SHUMBAR OAK GREENSPIRE LINDEN LONDON PLANE TREE	ACER SACCCHARUM 'LEGACY' ACER PLATANOIDES 'SUMMER SHADE' ULMUS PARVIFOLIA QUERCUS SHUMARDII TILIA CORDATA 'GREENSPIRE' PLATANUS OCCIDENTALIS 'BLOODGOOD'	2"-2 1/2" GAL.	B & B					
	SHADE TREES	51	LEGACY SUGAR PLUM BUR OAK IRONWOOD GOLDEN RAIN TREE CHINKAPIN OAK LACEBARK ELM SKYLINE HONEYLOCUST	ACER PLATANOIDES QUERCUS MACROCARPA Ostrya VIRGINIANA KOELREUTERIA PANICULATA QUERCUS MUEHLBERGII ULMUS PARVIFOLIA GLEDITSIA TRIACANTHOS	2"-2 1/2" GAL.	B & B					
	EVERGREEN TREES	27	EASTERN RED CEDAR VANDERWOLF LIMBER PINE WHITE PINE	JUNIPERUS VIRGINIANA PINUS FLEXILIS PINUS STROBUS							
	DECIDUOUS SHRUBS	93	DWARF JAPANESE BARBERRY FORSYTHIA BRIDAL WREATH SPIREA KOREAN LILAC SNOW WHITE SENSATION WAHOO ENONYMUS BUTTERFLY BUSH FIRETHORN PYRACANTHA	BERBERIS THUNBERGII 'CRIMSON PYGMY' FORSYTHIA SPP. SPIREA SPP. SYRINGA MEYERI PHILADELPHUS ENONYMUS ATROPURPUREUS BUDDLEIA DAVIDII PYRACANTHA COCCINEA	18"-24" HT.	CONT					

COMMON OPEN SPACE:

REQUIRED:  
LOT 2A : 68,792 S.F. (20% OF LOT)  
LOT 3: 66,217 S.F. (20% OF LOT)

PROVIDED  
LOT 2A : 14,584 S.F.  
LOT 2B: 11,688 S.F.



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ALVAMAR LOT 1, 2A, 2B & 3  
PRELIMINARY  
DEVELOPMENT PLAN

LAURENCE, KANSAS

PROJECT # 213-560

RELEASE:	DATE:
1.0	2.16.16
1.1	3.01.16
1.2	5.03.16
1.3	5.25.16



SHARED PARKING INFORMATION:

USE CATEGORY	APARTMENTS	DUPLEX	INDEPEN- -DENT/ ASSISTED LIVING	GOLF CART STORAGE/ MULTI-PURPOSE	FITNESS/WELL- -NESS AREA	POOL AREA	GOLF COURSE/ CLUBHOUSE	BANQUET FACILITY AREA	OUTDOOR GRILLE BY POOL (ACCESSORY)			
	MULTI-DWELLING STRUC-TURE	DUPLEX	INDEPEN- -DENT/ ASSISTED LIVING	EVENT CENTER, SMALL FLEET STORAGE	PERSONAL IMPROVE-ME NTACT-IVE REC.	ACTIVE RECREATION	PASSIVE RECREATION	EVENT CENTER, LARGE	FAST ORDER FOOD OR QUALITY RESTAURANT			
	1 PER BDRM (500 BEDS) + 1 PER 10 UNITS (260)	1 PER BDRM (12 BEDS)	1 PER INDEPENDENT LIVING UNIT (100) + 0.5 PER ASSISTED LIVING UNIT (0)	1 SPACE PER 3 PERSONS BASED ON MAX OCCUPANCY OF 207 + 1 PER 1.5 EMPLOYEES (3)	67% @ 1/1500 (19,734 S.F.) 33% @ 1000 (9,920 S.F.) BIKE PARKING - 1 PER 10 AUTO	1 PER 500 S.F. OF CUSTOMER SERVICE AREA, OUTDOOR POOL (40,267 S.F.) INDOOR POOL (4,614 S.F.) BIKE PARKING - 1 PER 10 AUTO	4 SPACES PER HOLE (27 HOLES) + 22 FOR UNIVERSITY GOLF PRACTICE FACILITY BIKE PARKING - 1 PER 10 AUTO SPACES	11 SPACE PER 4 PERSONS BASED ON MAX OCCU- PANCY OF 450 + 1 PER EMPLOYEE (9) BIKE PARKING - 1 PER 10 AUTO SPACES	1 PER 100 SF OF CUSTOMER SERVICE AREA (1,200 S.F.) PLUS 1 PER EMPLOYEE ON LARGEST SHIFT (5) BIKE PARKING - 5			
PARKING PROVIDED	528[A][B][C]			71 BIKE - 5	90	91	130 [H] BIKE - 12	129 BIKE - 12	17	TOTAL USED	EXCESS SPACES	TOTAL PROVIDED
	LOT 1			8 BIKE - 5			43 BIKE - 12	48 BIKE - 12		99	0	99 BIKE - 24
	LOT 2	329 [A]		3				4		336	0	336
	LOT 3 [J]	200 [B][C]	12 [E]	100 [D]						312	0	312
	LOT 4				8	81	82	74	5	250	0	250
	LOT 5 BIRDIE WAY [I]									0		0
	TOTAL	529	12	100	64 [F]	81 [F]	82 [F]	117 [F]	5 [G]	1111	0	1111

A LOT 2A: BLDGS - A, B, C = 168 UNITS - 312 BEDS; INTERIOR PARKING = 146; EXTERIOR PARKING 183; TOTAL = 329 SPACES REQUIRED. PARKING HAS BEEN REQUIRED & PROVIDED ON LOT 2, EXCLUDING PARKING ON BIRDIE WAY  
B LOT 2B: BLDGS - H, I6 - 1 BED UNITS = 18 SPACES REQUIRED. PARKING HAS BEEN REQUIRED & PROVIDED ON LOT 3, EXCLUDING PARKING ON BIRDIE WAY  
C LOT 2B: BLDGS - K, 48 UNITS - 172 BEDS; 182 SPACES REQUIRED. PARKING HAS BEEN REQUIRED & PROVIDED ON LOT 3, EXCLUDING PARKING ON BIRDIE WAY  
D LOT 2B: BLDGS - J, ASSISTED/INDEPENDENT LIVING - 100 UNITS - 100 SPACES REQUIRED. DENSITY = 24 STUDIO X 4 = 96; 36 - 1 BED UNITS X 4 = 224; 20 - 2 BED UNITS X 6 = 120 100 SPACES REQUIRED  
E LOT 2B, DUPLEX D4 E - (4 BEDS); DUPLEX F & G - (8 BEDS) = 1 SPACE PER BEDROOM - 12 SPACES REQUIRED  
F OFF STREET PARKING FOR NON-RESIDENTIAL USES HAS BEEN REDUCED TO 90% OF THE REQUIRED AMOUNT PER THE APPROVED PRELIMINARY DEVELOPMENT PLAN.  
G OFF STREET PARKING REDUCED TO 5 SPACES FOR EMPLOYEE PARKING ONLY. PARKING FOR USE SHARED WITH OTHER USES ON SITE.  
H OFF STREET PARKING FOR GOLF COURSE, PRACTICE FACILITY, SHARED BETWEEN LOT 1 AND LOT 4 AND BIRDIE WAY.  
I PARKING ON BIRDIE WAY - 73 SPACES ON LOT 2 & 41 SPACES ON LOT 3.  
J FINAL DEVELOPMENT PLAN FOR LOT 3 NOT SUBMITTED. PARKING IS ESTIMATED AT THIS TIME.

LEGAL DESCRIPTION:

LOT 1, ALVAMAR INC. ONE ADDITION NO. 2

ALLOWED NON RESIDENTIAL USES:

- RETAIL USES AS ACCESSORY TO THE GOLF COURSE
- OFFICE USES ACCESSORY TO THE DIRECT OPERATION OF THE GOLF COURSE AND EVENT CENTER OR MANAGEMENT OF ACCESSORY USES DIRECTLY ASSOCIATED WITH THE GOLF COURSE
- EATING AND DRINKING ESTABLISHMENTS TO INCLUDE EVENT CENTER (TO BE OPERATED AS A BANQUET/RECEPTION FACILITY ONLY), FAST ORDER FOOD; QUALITY RESTAURANT; AND ACCESSORY BAR USES.

IMPERVIOUS SURFACE SUMMARY:

LOT 1: 5.051 ACRES (220,012 SQ. FT. +/-)

EXISTING SUMMARY:	SQ. FT.	%	POST DEVELOPMENT SUMMARY:	SQ. FT.	%
BUILDING FOOTPRINT:	14,668	7%	BUILDING FOOTPRINT:	29,041	13%
PAVEMENT AREAS:	62,510	28%	PAVEMENT AREAS:	63,213	29%
TOTAL IMPERVIOUS:	77,178	35%	TOTAL IMPERVIOUS:	92,250	42%
TOTAL PERVIOUS:	141,084	65%	TOTAL PERVIOUS:	127,642	58%
PROPERTY AREA:	220,012	100%	PROPERTY AREA:	220,012	100%

GENERAL NOTES:

- ALL GROUND MOUNTED MECHANICAL UNITS SHALL BE SCREENED IN ACCORDANCE WITH SECTION 20-1006(b).
- ALL REQUIRED ACCESSIBLE SIDEWALK RAMP PER A.D.A. STANDARDS.
- SITE PLAN HAS BEEN DESIGNED TO COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR BUILDINGS AND FACILITIES, APPENDIX A TO 28CFR PART 36.
- THE CITY OF LAWRENCE WILL NOT BE HELD RESPONSIBLE FOR PAVEMENT DAMAGE CAUSED BY TRASH TRUCKS.
- PLAN FOR CITY APPROVAL ONLY! CONSTRUCTION DOCUMENTS TO BE FURNISHED AT THE REQUEST OF OWNER.
- INFORMATION TAKEN FROM AERIAL PHOTOS, TOPOGRAPHIC SURVEY, AVAILABLE DOCUMENTS, AND ON SITE INVESTIGATIONS.
- ALL TRAFFIC CONTROL SIGNS PLACED ON PRIVATE PROPERTY OPEN TO THE GENERAL PUBLIC SHALL COMPLY WITH THE "MANUAL ON UNIFORMS TRAFFIC CONTROL DEVICES" AND "STANDARD HIGHWAY SIGNS," PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION, WITH RESPECT TO SIZE, SHAPE, COLOR, RETROREFLECTIVITY, AND POSITION.
- MAXIMUM BUILDING HEIGHT SHALL BE 45 FEET PER CITY CODE 20-601, OR RECEIVE A WAIVER FROM PLANNING COMMISSION.
- SIGN APPROVAL AND PERMITTING IS NOT PART OF THE SITE PLAN APPROVAL. SEPARATE APPROVAL IS REQUIRED THROUGH PLANNING AND DEVELOPMENT SERVICES.
- NO BUILDING STRUCTURES SHALL BE PLACED WITHIN UTILITY EASEMENTS OR WITHIN 15 FEET OF THE PUBLIC SANITARY SEWER OF PUBLIC WATERLINE. NO OTHER STRUCTURES OR LANDSCAPING SHALL BE PLACED WITHIN UTILITY EASEMENT OR WITHIN 8 FEET OF THE PUBLIC SANITARY SEWER OR PUBLIC WATERLINE.
- SLOPE EXTERIOR WALKS A MINIMUM OF 1/4" PER FOOT (BUT NOT GREATER THAN 1:20) SO THAT ALL EXTERIOR DRAINAGE WILL BE AWAY FROM STRUCTURE TO EXTERIOR.
- PROPERTY OWNER WAIVES RIGHTS TO PROTEST CHANGES TO THIS DEVELOPMENT PLAN.
- APPLICANT SHALL SUBMIT A COMPLETE DRAINAGE STUDY FOR REVIEW AND APPROVAL BY THE CITY STORMWATER ENGINEER CONCURRENT WITH EACH FINAL DEVELOPMENT PLAN APPLICATION FOR ANY LOT OR PHASE OF THE DEVELOPMENT. OCCUPANCY PERMITS FOR PROPOSED BUILDINGS WILL NOT BE ISSUED UNTIL THE REQUIRED PUBLIC DRAINAGE IMPROVEMENTS ARE COMPLETE, FINAL, INSPECTED AND ACCEPTED BY THE PUBLIC WORKS DEPARTMENT. ALL CURB INLETS WILL BE CONSTRUCTED PER CITY STORM SEWER STANDARD DETAILS.
- SITE LIGHTING IS NOT BEING ADDED AT THIS TIME. A PHOTOMETRIC PLAN WILL BE PROVIDED IN THE FUTURE, PRIOR TO LIGHT INSTALLATION, IF NEW LIGHTING IS DESIRED.
- PROPERTY OWNER SHALL MAINTAIN COMMON OPEN SPACE
- SHARED PARKING REVIEW AND FINAL PARKING SPACE REQUIREMENTS WILL OCCUR WITH REVIEW OF EACH FINAL DEVELOPMENT PLAN SUBMISSION.
- PER CITY CODE SECTION 9-402, THE PATIO AREA WILL BE MANAGED TO PREVENT STORMWATER POLLUTION. FOOD WASTE, TRASH, CIGARETTES AND OTHER SOLID WASTES WILL BE COLLECTED AND DISPOSED OF PROPERLY. COLLECTION MUST BE FREQUENT ENOUGH TO PREVENT WASTES CARRIED OFF BY WIND OR STORMWATER RUNOFF. PAVEMENT AND FURNISHINGS MUST BE CLEANED FREQUENTLY ENOUGH TO PREVENT CONTAMINATION OF STORMWATER RUNOFF. FLUID WASTE, INCLUDING WASTEWATER FROM PAVEMENT OR FURNITURE CLEANING, WILL BE COLLECTED AND DISCHARGED TO THE SANITARY SEWER SYSTEM
- TYPICAL DIMENSIONS:
  - REGULAR SPACES - 9' X 18' (6.5' + 1.5' OVERHANG AT SIDEWALKS)
  - ADA SPACES - 9' X 16.5' OR 18' (9' AISLE)
- PAVEMENT:
  - APPROACHES: T" - 4000 PSI CONCRETE W/ #5 BARS 12" O.C.B.W.
  - PARKING DRIVES: MIN. 6" ASPHALT ON 4" GRAVEL OR 5" CONCRETE
  - PARKING AREAS: MIN. 5" ASPHALT ON 4" GRAVEL OR 4" CONCRETE
  - CURB & GUTTER: TYPE I CURB AND GUTTER THROUGHOUT SITE UNLESS SPECIFIED DIFFERENTLY.
  - SIDEWALKS: 4" CONCRETE WITH COMPACTED SUBGRADE UNLESS OTHERWISE NOTED

SITE SUMMARY:

PROJECT SUMMARY		CURRENT ZONING	PROPOSED ZONING	CURRENT USE	PROPOSED USE	LAND AREA		PROPOSED UNITS	PROPOSED UNITS PER ACRE
	LOT 1	R57/RM12	RM24-PD	PASSIVE RECREATION	PASSIVE RECREATION & CLUBHOUSE	5.05	220,012		
	TOTAL				EVENT CENTER & FLEET STORAGE	5.05	220,012	0	0.00

LANDSCAPING TABLE:

LANDSCAPING CALCULATION		Lot 1
Parking Stalls Provided		101
Interior Parking Lot Greenspace Provided (SF)		10,275
Interior Parking Lot Greenspace Required (SF)		4,040
Interior Parking Lot Shrubs Provided		Exist.
Interior Parking Lot Shrubs Required		31
Interior Parking Lot Trees Provided		11
Interior Parking Lot Trees Required		11
Perimeter Parking Lot Frontage (FT)		160
Perimeter Parking Lot Trees Provided		7 (double as street trees)
Perimeter Parking Lot Trees Required		7
Birdie Way Street Trees Provided		10
Birdie Way Street Trees Required		370 L.F. /40=10
Common Open Space Provided		46,081
Common Open Space Required (20% of site)		44,002

SYM	DESCRIPTION	QTY.	APPROVED TYPES	BOTANICAL NAMES	SIZE	COND.
(*)	STREET TREES	10	LEGACY SUGAR MAPLE SUMMERSHADE NORWAY MAPLE LACEBARK ELM SHIMBARD OAK GREENSPIRE LINDEN LONDON PLANE TREE	ACER SAGCHARUM "LEGACY" ACER PLATANOIDES "SUMMERSHADE" ULMUS PARVIFOLIA QUERCUS SUMMARDII TILIA CORDATA "GREENSPIRE" PLATANUS OCCIDENTALIS "BL00DGOOD"	2"-2 1/2" CAL.	B & B
(X)	SHADE TREES	11	LEGACY SUGAR PLUM BUR OAK IRONWOOD GOLDEN RAIN TREE CHINKAPIN OAK LACEBARK ELM SKYLINE HONEYLOCUST	ACER PLATANOIDES QUERCUS MACROCARPA OSTYRA VIRGINIANA KOELREUTERIA PANICULATA QUERCUS MUEHLENBERGII ULMUS PARVIFOLIA GLEDTISIA TRIACANTHOS	2"-2 1/2" CAL.	B & B



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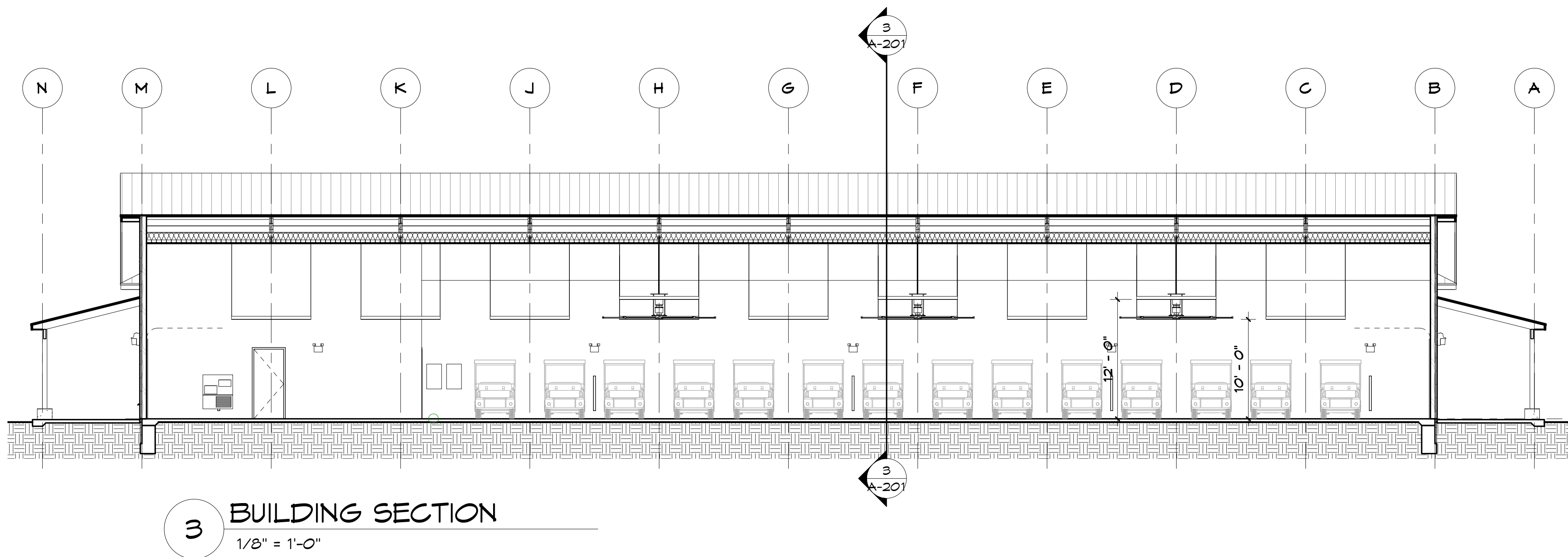
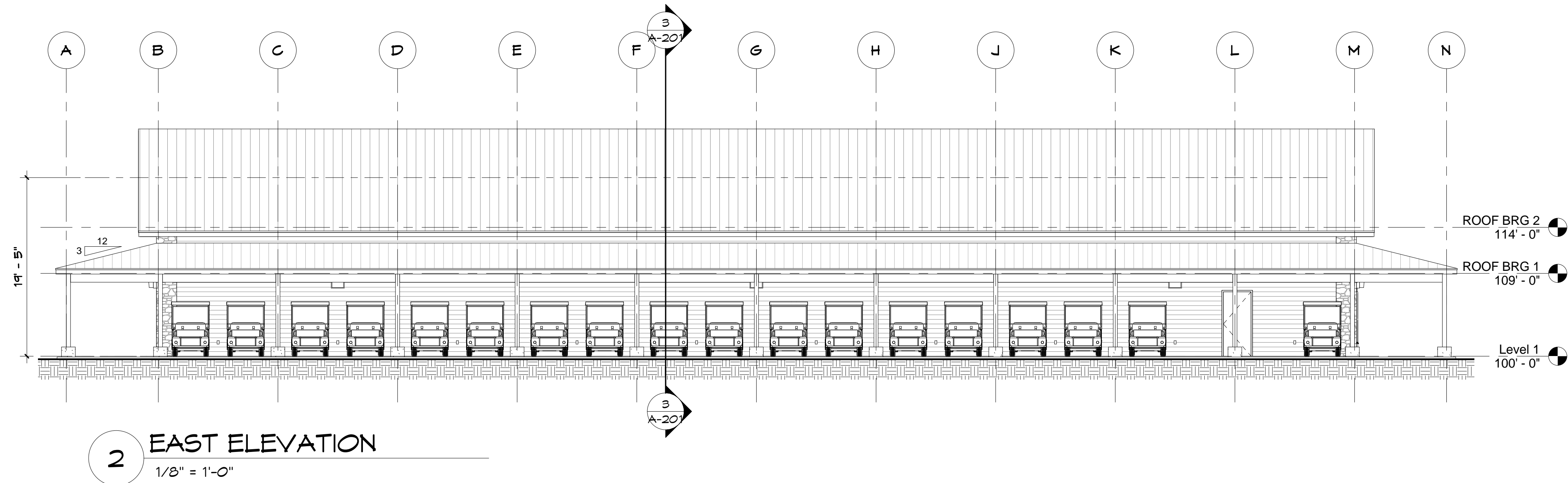
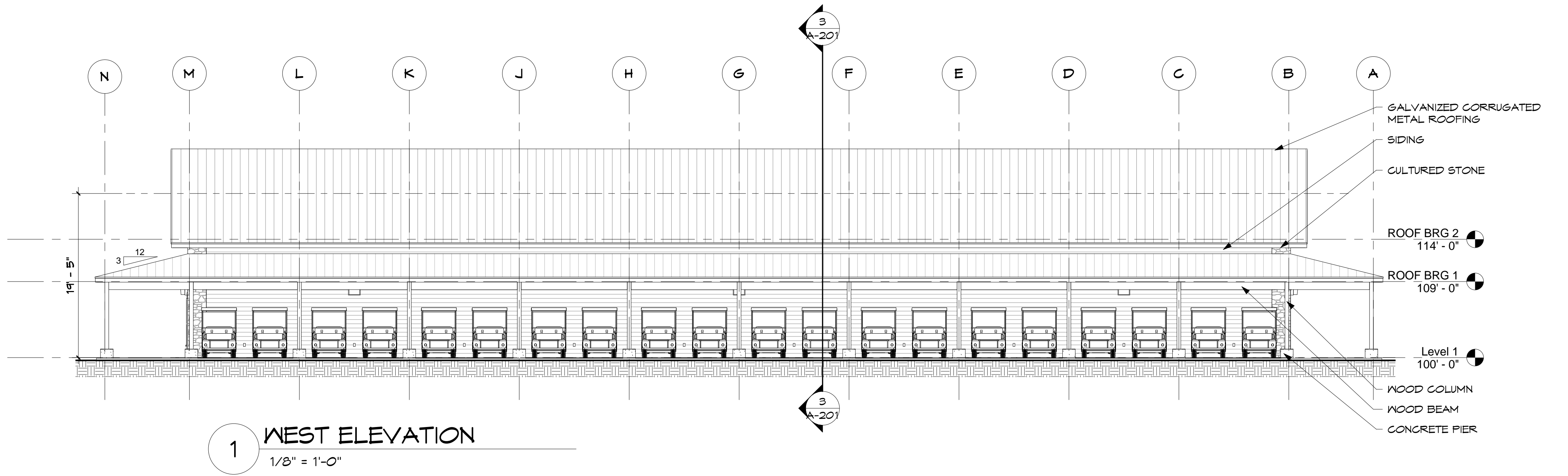
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ALVAMAR  
LOT 1  
FINAL DEVELOPMENT PLAN

PROJECT # 213-560

RELEASE:	DATE:
1.0	8.23.16
1.1	9.20.16
1.2	11.14.16
2.0	1.9.17
2.1	2.16.17





PLANNING DOCUMENT  
NOT FOR CONSTRUCTION

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MULTI-PURPOSE ACCESSORY  
BUILDING/GOLF CART STORAGE

Lawrence, Kansas

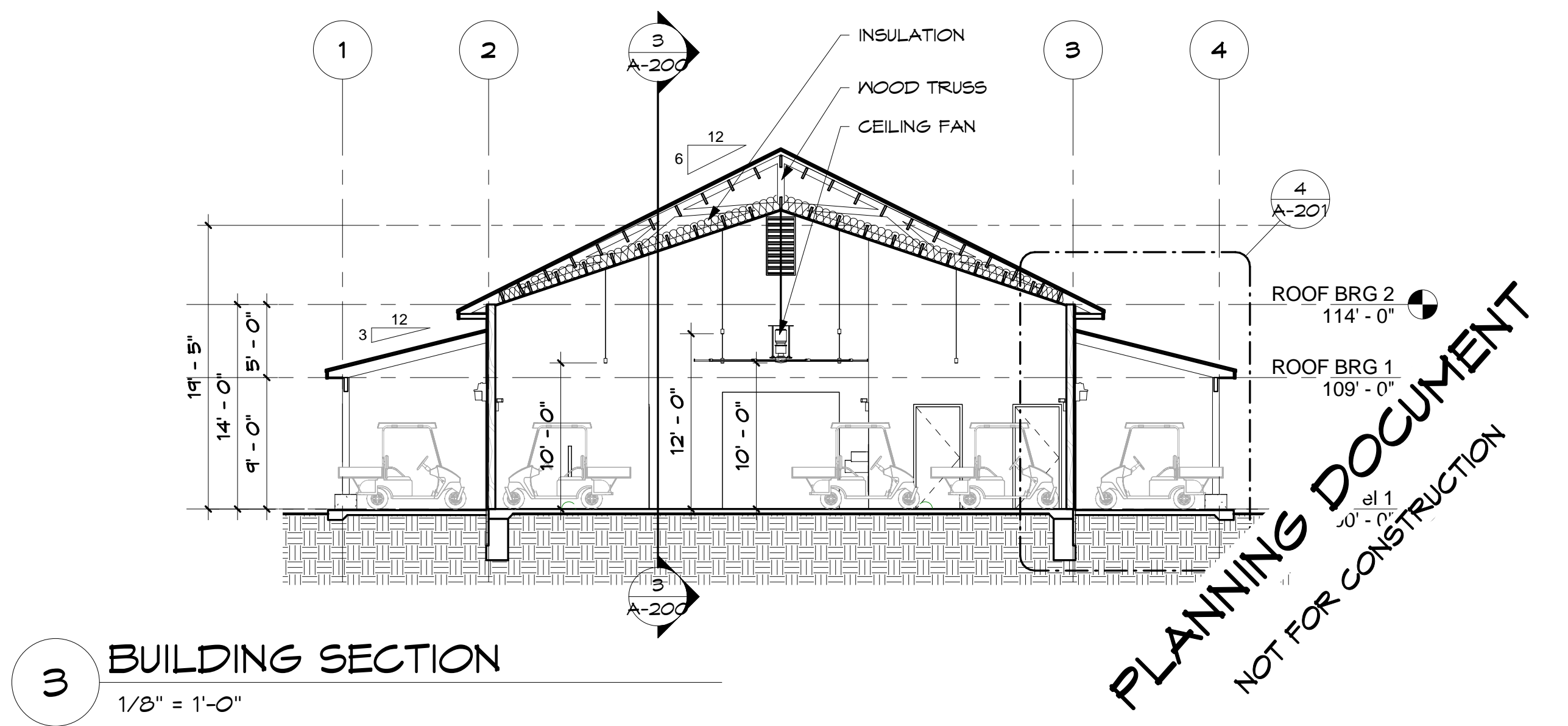
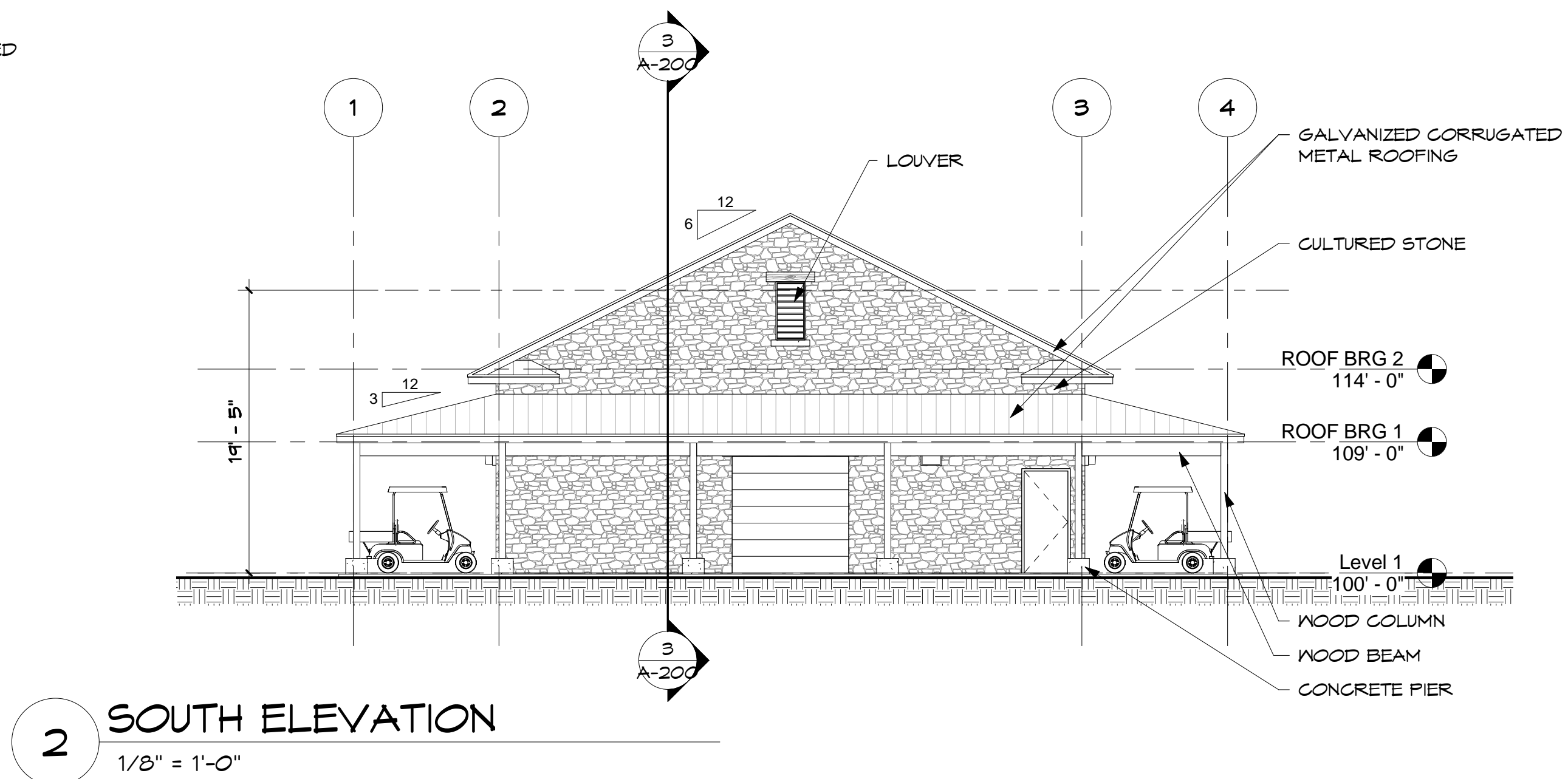
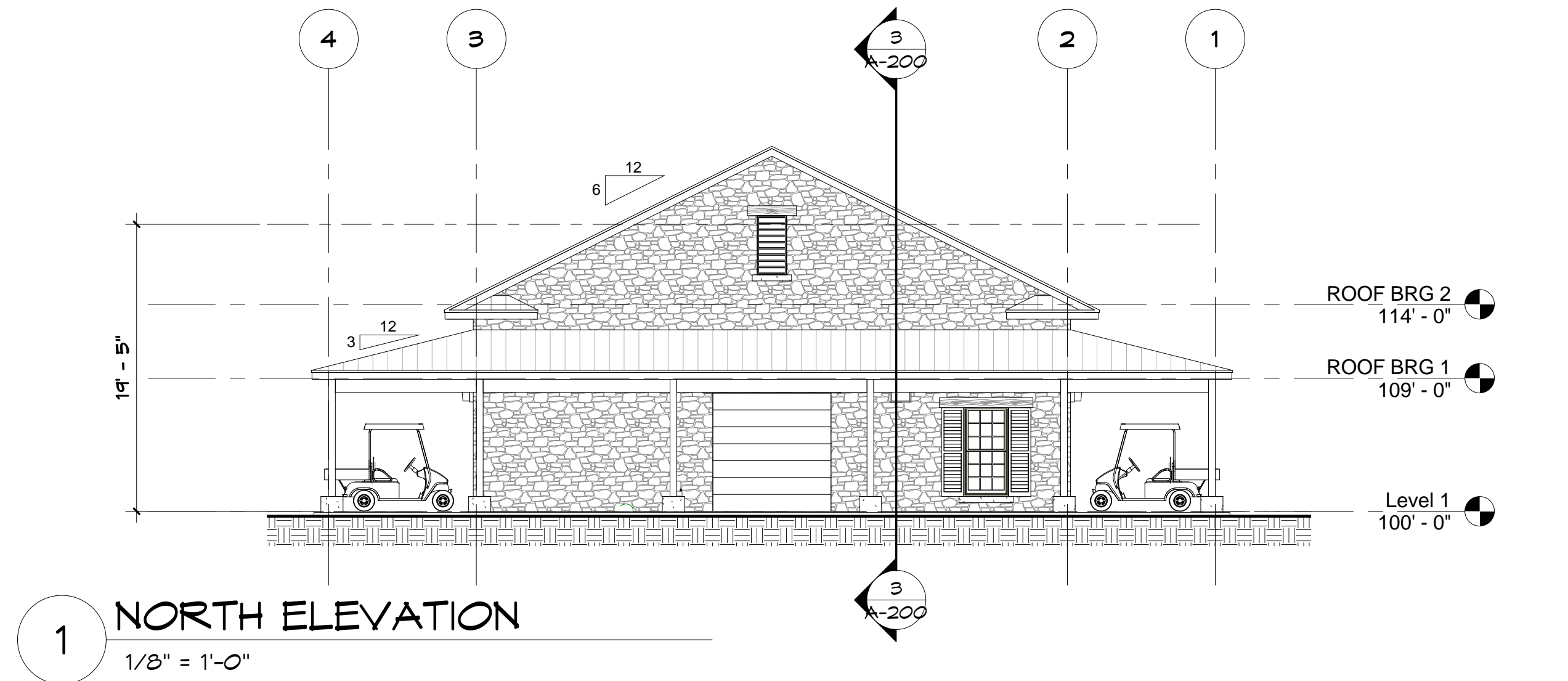
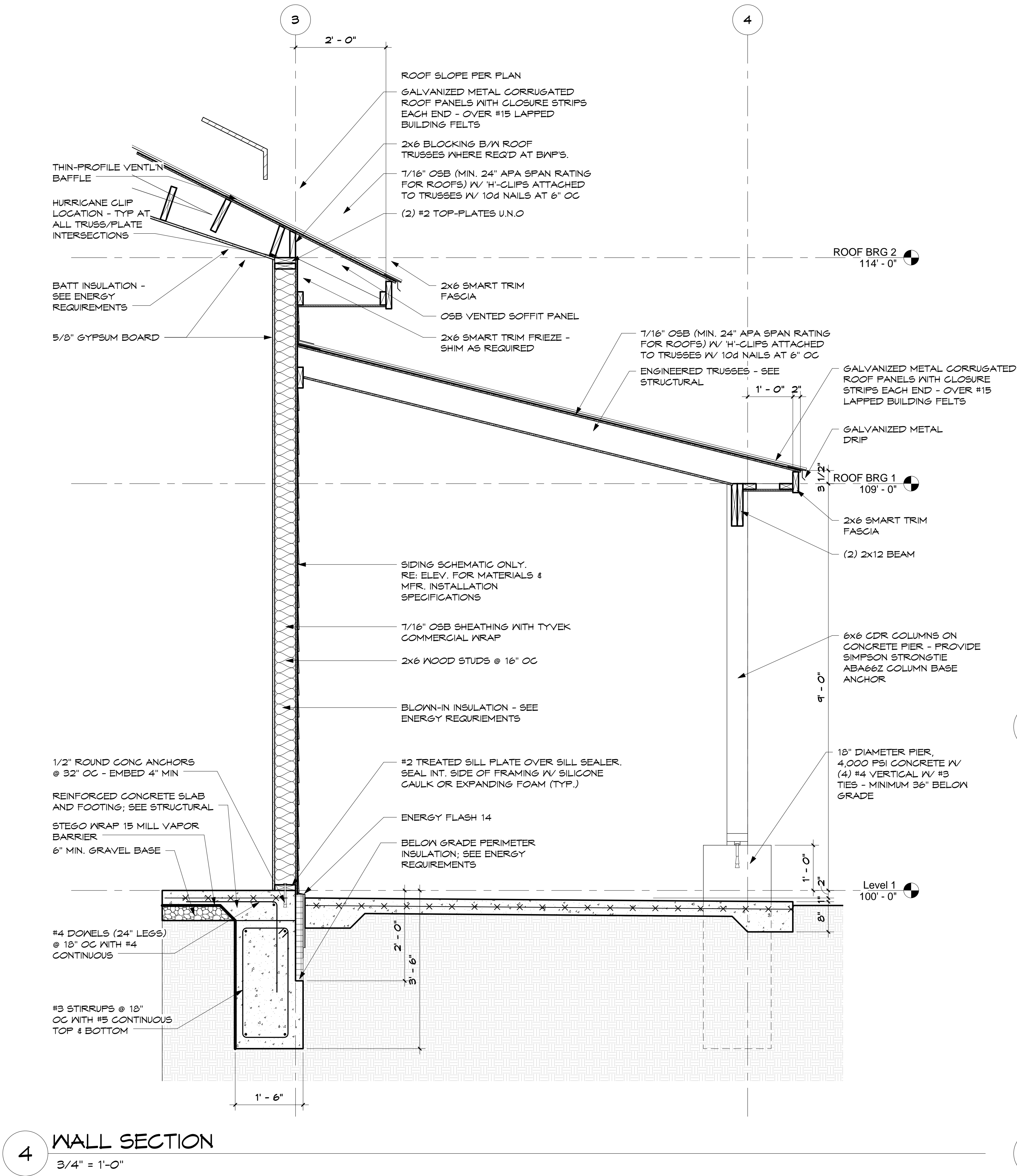
PROJECT# 0606  
Dec 12, 2016

PROGRESS: DATE:  
Scheme 1 2/14/2017

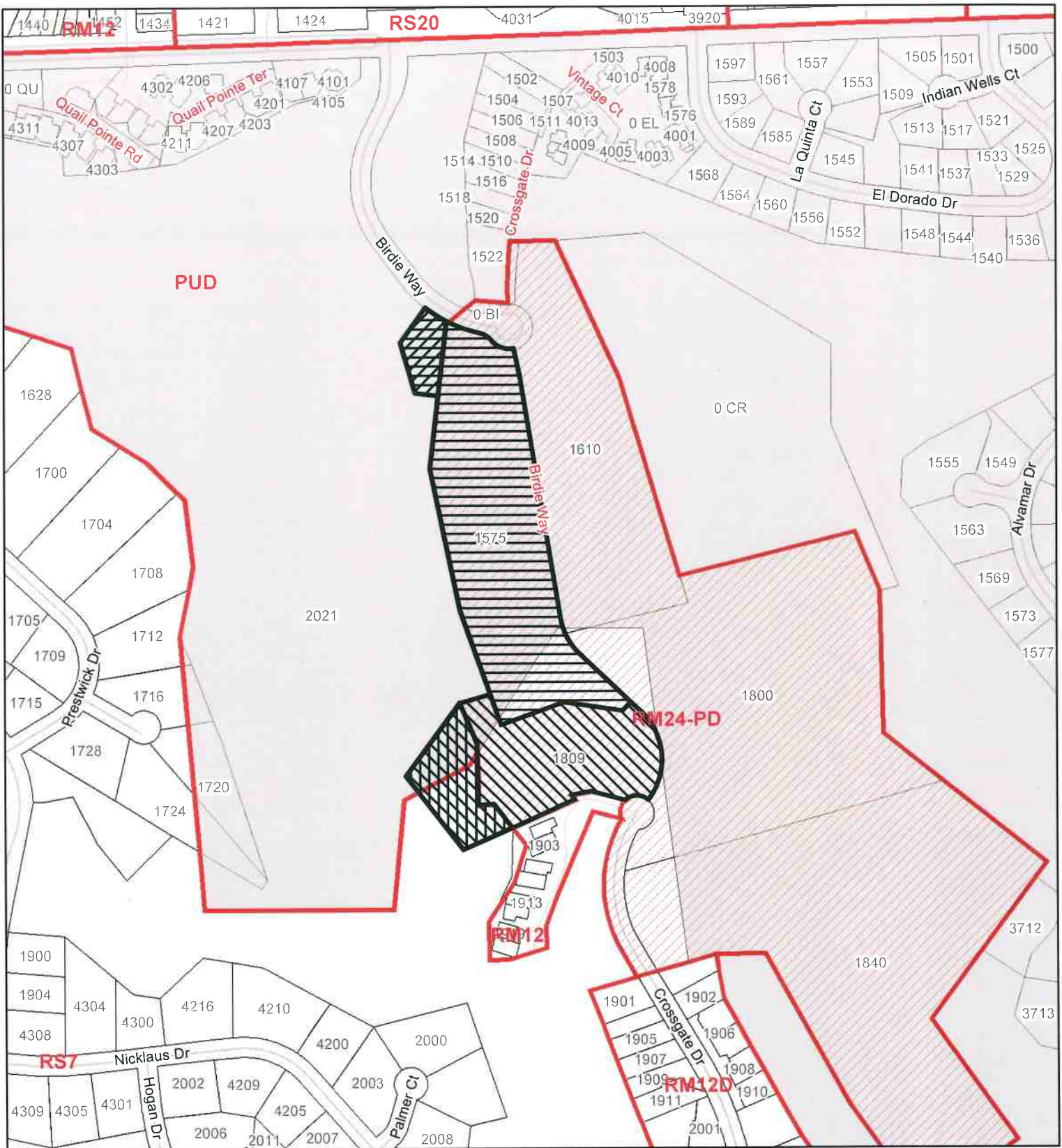
REVISION: DATE:

A-200









**Z-17-00009: Rezone 1.418 acres from RS7 and PUD [Alvamar] Districts to RM24-PD District**

**Z-17-00011: Rezone 0.558 acres from PUD [Alvamar] District to RM24-PD District**

**FDP-17-00028: Revised Final Development Plan for Alvamar Lot 1**

**FDP-17-00029: Revised Final Development Plan for Alvamar Lot 2**

**Located in Alvamar Golf Course**



Z-17-00009: RS7 & PUD [Alvamar] Districts to RM24-PD District

FDP-17-00028



Z-17-00011: PUD [Alvamar] District to RM24-PD District

FDP-17-00029



**PLANNING COMMISSION REPORT**  
**Regular Agenda -Public Hearing Item**

PC Staff Report  
3/15/2017

**ITEM NO. 1D      FINAL DEVELOPMENT PLAN FOR ALVAMAR LOT 2; 1575 BIRDIE WAY (SLD)**

**FDP-17-00029:** Consider a revised Final Development Plan for Alvamar Lot 2, located at 1575 Birdie Way for the relocation of the apartment clubhouse and pool area. Submitted by Paul Werner Architects, for Alvamar Apartments LC, property owner of record.

**STAFF RECOMMENDATION ON PRELIMINARY DEVELOPMENT PLAN:** Planning Staff recommends approval of revised Final Development Plan based upon the findings of fact presented in the body of the staff report and subject to the following conditions:

1. Prior to the recording of the Final Development Plan a Final Plat shall be submitted and approved and recorded with the Register of Deeds Office.
2. Provision of a revised plan that includes a landscape plan for the west property line bufferyard per staff approval.

**Reason for Request:** *The Final Development Plan is being submitted because lot area is being added to Lot 2. With the additional lot area the apartment office/fitness building will move to the north side of the site to provide a welcoming entry for the users of the entire development.*

**KEY POINTS**

- The proposed request is for the relocation of an approved use within the development.
- This request does not alter the density of the residential development.
- The office/fitness and pool area provides common open space required for the residential development separate from the golf course and other amenities located on Lots 1 and 4.

**FACTORS TO CONSIDER**

- Compliance with Development Code.
- Conformance with *Horizon 2020*.
- Conformance with Subdivision Regulations.

**ASSOCIATED CASES/OTHER ACTION REQUIRED**

**Associated Cases**

- Z-17-00011; concurrent rezoning
- FDP-16-00343; Lot 2 Multi-Dwelling Residential.
- Z-14-00552; RM24-PD; Ordinances 9154.
- PDP-15-00052: Approved by City Commission on April 29, 2016.
- PF-16-00051: Final Plat of Alvamar Inc. One Addition.
- FDP-16-00342: Lot 4 pool, wellness center and amenities.
- FDP-16-00372: Lot 1, Clubhouse. Replaced by FDP-17-00009.
- Future Final Plat application required

### Other Action Required

- Recording of Final Development Plan and Final Plat with the Douglas County Register of Deeds.
- Building permits must be obtained prior to construction of structures.

### ATTACHMENTS

1. Project Area Map
2. Approved Final Development Plan
3. Proposed Final Development Plan
4. Open Space Exhibit

### PUBLIC COMMENT

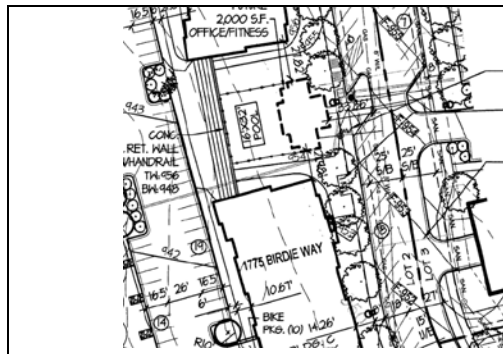
- Area residents calling for clarification of request and development intent.
- Residents located along the north leg of Crossgate Drive have contacted staff regarding status of street construction and ultimate closure of access to Bob Billings Parkway.

GENERAL INFORMATION		
Refer to Z-17-00011 for existing and surrounding zoning and land use.		
SITE SUMMARY		
Final Development Plan	Approved Plan	Revised Plan
Land Use	Multi-Dwelling Residential	Multi-Dwelling Residential
Land Area (sq ft)	7.90 Acres	8.22 Acres
Building Footprint	61,583 SF	61,983 SF
Total Pavement	119,327 SF	123,315 SF
Total Impervious Area	180,910 SF	185,298 SF
Total Pervious Area	152,655 SF	172,573 SF
Residential Units	168	168
Total bedrooms	312	312
Density	21.2 dwelling units per acre	20.4 dwelling units per acre

### Project Summary:

This Final Development Plan amends and replaces the approved Final Development Plan and relocates the office/fitness use to the north side of the development. Building permits have been issued for the multi-dwelling residential buildings (apartments). This project does not modify the residential use with respect to the number of units or bedrooms proposed for this phase.

Additionally, the office/fitness building is approximately 400 SF larger than the approved plan.



**Figure 1: Approved Facility Location**



**Figure 2: Proposed Facility Location**

The attached project area map highlights the location of the proposed change in relationship to the overall Alvarado PD development. Portions of the development have received Final Development Plan approval and vary slightly from the approved Preliminary Development Plan.

### **PARKING: OFF-STREET, ON STREET AND SHARED PARKING**

<b>PARKING SUMMARY</b>			
<b>Use</b>	<b>Req. per Sec. 20-902</b>	<b>Parking Required</b>	<b>Parking Provided</b>
<i>Multi-Dwelling Residential</i>	1 parking space per bedroom + 1 space per 10 units (guest parking)	312 bedrooms + 168 units 312 + 17 spaces = 329 spaces  <b>No change</b>	Building A = 49 garage Building B = 47 garage Building C = 49 garage Lot 2 = 188 surface spaces 333 spaces shown on approved FDP. <b>336 spaces proposed</b>
<i>Pool/clubhouse accessory to residential use</i>	1 space per 500 SF	2,000 SF = 4 spaces for approved FDP  <b>2,400 SF = 5 spaces for proposed FDP</b>	On-street parking 73 surface (shared parking) three additional surface spaces added to revised Final Development Plan.
<b>TOTAL SPACES</b>	<b>333 spaces required per approved FDP</b> <b>334 spaces required per revised FDP</b>		<b>336 spaces Provided +</b> <b>73 shared spaces on-street</b>
Bicycle	1 per 4 parking spaces	83 spaces	84 spaces
ADA Spaces	Req. per Sec. 20-912	Parking areas providing 301-400 total parking spaces require 8 spaces (7 auto spaces and 1 van accessible space)	10 spaces provided 9 auto and 1 van • 4 spaces in Building B • 6 spaces in rear of buildings in surface lot.

This Planned Development uses shared parking predominantly for the non-residential uses within the project boundary. Non-residential uses are located on Lot 1 and Lot 4. The boundary of Lot 2 extends to the center line of the private street (Birdie Way). A condition of approval required the entire residential parking to be provided on Lot 2 and excluded the on-street parking from meeting that requirement. The revised plan does not alter the residential density or off-street parking requirement for the residential uses. The approved Final Development Plan for Lot 2 did include off-street parking (4 spaces) for the pool/clubhouse/office use. The facility was originally located on the west side of Birdie Way between buildings B and C. This allowed for the convenient use of the on-street parking to supplement any parking demand for use.

The office/pool/fitness/clubhouse is a standard use associated with multi-dwelling residential uses. This use provides the required active recreation open space for the exclusive use by residents of the development. This plan revised the surface parking lot to provide three additional spaces.



Within Lot 2 there are three parking areas; they are:

- garage parking, located underground within each building structure,
- surface parking located along the west side of the lot, and
- On-street parking along the west side of Birdie Way, a private street.

On-street parking is part of the shared parking provided for the Alvarado Golf Course and amenities/ accessory uses. Parking stalls along the private street are being reviewed by Public Works as part of the improvements for the development. The plan shows 73 on-street parking spaces in this phase (on Lot 2). As the street is constructed 41 additional spaces will also be provided on the east side of the private street (on Lot 3).

- Residential Parking Required = 329 spaces
- Residential Pool/Clubhouse Parking Required = 5 spaces
- Residential Parking Provided = 336 spaces
- On-street Parking Provided = 73 spaces

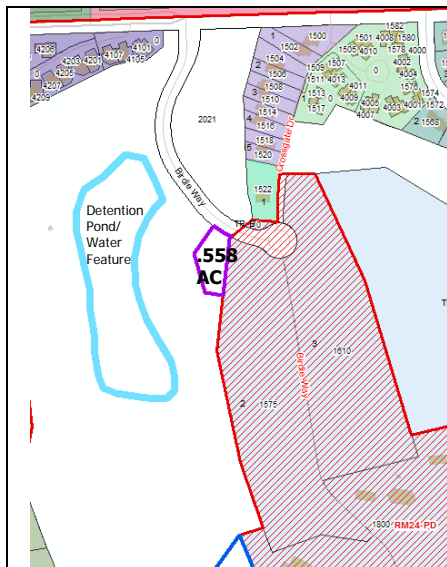
Off-Street parking is met for project. This residential use does not require any on-street parking to meet demand.

## STAFF ANALYSIS

This application consists of two components. The addition of land area to the phase requires a subdivision review. The addition of the land area as well as changes to the proposed uses of the property requires a review of the Final Development with a requirement for a public hearing.

## Subdivision Review

The majority of this property was platted as part of the Alvarado Inc One final plat (Lot 2). This request includes additional area to accommodate the relocated office/fitness building to the north end of the development. The following image highlights the location of the area to be added to the platted lot.



**Figure 3: Development Boundary**

Existing lot area = 7.658 Acres  
Proposed rezoning = .558 Acres  
Proposed lot area = 8.22 Acres

The proposed request will incorporate area into an existing platted lot with access to a public street (Birdie Way). Concurrent with this application is a rezoning to rezone the additional area to the same zoning as the balance of the property. The lot currently exceeds the minimum lot area requirements. There are no variances associated with this request as it pertains to subdivision requirements. The Development Plan serves as the Preliminary Plat review of this application. Prior to construction of the new building, a Final Plat will be required to be approved and recorded with the Register of Deeds Office.

### **Final Development Plan Review**

This application has been evaluated based upon the application requirements per Section 20-1304(e) of the Development Code for the City of Lawrence, requiring consideration of the following items:

The Preliminary Development Plan was approved on May 10, 2016. An application for a Final Development plan was submitted and approved on September 23, 2016. Building Permits were issued for the multi-dwelling residential buildings. Plans submitted for Final review must be substantially in compliance with the approved preliminary development plan and may not:

- a. Increase the proposed gross residential density or intensity of use by more than 5%;
- b. Involves a reduction in the area set aside of common open space in general, or recreational open space or natural open space in particular, or the substantial relocation of such areas;
- c. Increase by more than 10% the total floor area proposed for non-residential use;
- d. Increase by more than 5% the total ground area covered by buildings;
- e. Changes a residential use or building type;
- f. Increases the height of buildings by more than 5%;
- g. Represents a new change to the PDP that creates a substantial adverse impact on surrounding land owners; or
- h. Changes a residential building type or a nonresidential structure by more than 10% in size.

This application includes .5 acres that was not previously included in the approved Preliminary Development Plan and modifies uses within the phase.

- a. This phase is an exclusive residential development with common open space and active recreation space requirements. The request does not propose to modify the existing residential density by increasing units within the phase.
- b. The project includes more land area than included in the original approval. However, the request adds activity to an area that was previously reserved for the golf course activity.
- c. The footprint of the clubhouse building has been increased by 20% from what was shown on the approved Final Development Plan from 2,000 Sf to 2,400 SF.
- d. The total area covered by building within this phase is 17.3%. This coverage is slightly less than the proposed development (18%).
- e. This phase does not include a change residential component by adding any units.
- f. This project includes an approved use but is a revised location. The proposed building is consistent with the approved single story building. The overall height of the building is less than 25'. The maximum district height is 45'.
- g. The proposed changes do not impact any immediate property owner. The proposed change is an encroachment into the area reserved and identified for the golf course.
- h. This phase increases the office/fitness building building size by more than 10%.

### Density Review

As noted, this project does not alter the total number of units permitted for this phase. The addition of ½ acre of land has the effect of slightly reducing the overall density from 21.2 to 20.4 dwelling units per acre because that development is spread over a slightly larger area. The addition of land area does not grant the developer a right to construct more dwelling units either within this phase or transfer unit density to another phase of the development. The total number of units will remain unchanged by this revised Final Development Plan and is also set by the approved building permits issued for the development and are currently under construction.

### Landscape Review

Section 20-701(d) states that all of the standards of the Development Code apply to development within a PD District except as expressly authorized by regulations of Section 20-701. Street trees are provided along Birdie Way and along the private street on the east side of the apartment buildings. No changes to the street tree plan are proposed with this revision.

### Common Open Space

Per Section 20-701(j) of the Development Code, a minimum of 20% of a Planned Development must be set aside as Common Open Space and 50% of the Common Open Space is to be set-aside and developed as Recreational Open Space. This is defined in the Code as *“Common Open Space that is improved and set aside, dedicated, or reserved for recreational facilities such as swimming pools, play equipment for children, ball fields, ball courts, and picnic tables.”*

The proposed Final Development Plan shows 74,584 SF of common open space. Located within Lot 2, large open space areas are located on the north side of Building A, in the area behind Buildings A and B, an area located along the west side of the parking lot that overlooks the golf course and at the south end of the lot. This phase includes a 2,200 SF enclosed area for a pool. The site also has sidewalks through the development that connect to the public street system and to the cart path. A small “parklet” area is located at the south end of the lot on the south side of the drive.

In addition to these areas, the lot is immediately adjacent to the golf course. The purpose of the development is to enhance the maintenance and operation of the golf course by densifying development in certain areas. Active recreation is also accommodated within the Alvamar Golf Course that surrounds the Planned Development. The golf course is an integral element of open space for the existing larger Alvamar Neighborhood as well as this specific development.

**Table 1: Open Space Summary**

	Open Space	SF	Percent
Approved: FDP-16-00333  Total Area = 7.90	Common Open Space	Required: 66,713 Provided: 74,584	20% of site 22% of site
	Recreational Open Space	Required: 33,356 Provided: 34,137	50% of required Open Space 51% of required Open Space
Proposed FDP-17-00029  Total Area = 8.22	Common Open Space	Required: 71,575 Provided: 75,950	20% of site 21% of site
	Recreational Open Space	Required: 35,788 Provided: 38,389	50% of required Open Space 51% of required Open Space

The approved location of the pool will remain as open space within the development.

## Buffer Yard

The approved plan identified a buffer yard along the west side of the lot where existing vegetation would be retained to buffer the apartment use from the residential use to the west. During the construction of the detention pond/lake feature and the preparation of the pad sites for the apartments much of this vegetation has been removed. The revised plan shows the cart path located along the west property line of the site.



**Figure 4: Western Bufferyard**

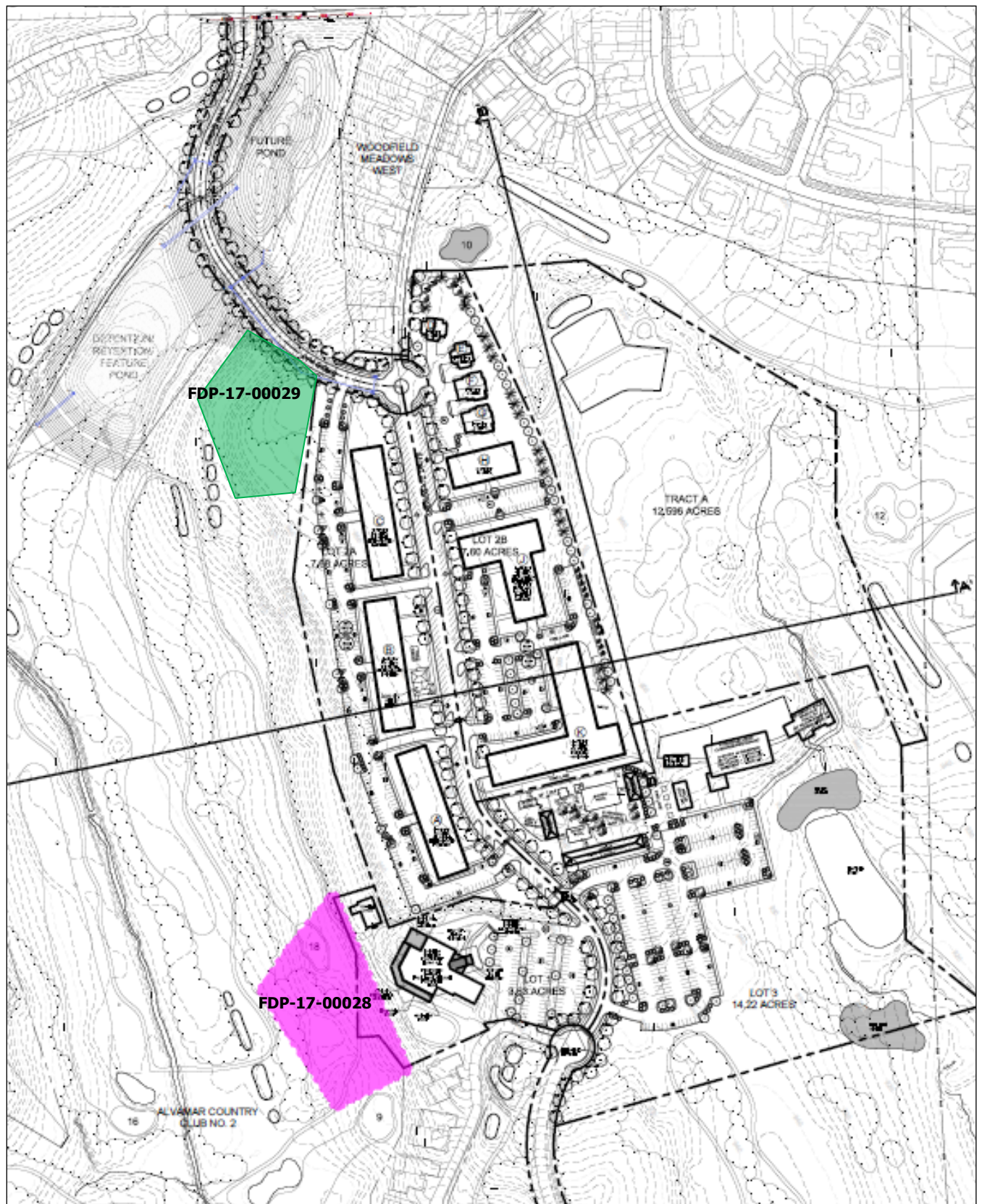
A note on the face of the plan states: *"Trees on the west side of Lot 2 are to remain. If trees are removed or die a fence, wall or berm, per section 20-701 (H) will be provided with a Type 1 Bufferyard per section 20-1005 (D)"*

Staff recommends as a condition of approval the applicant provide a landscape plan for the western property line.

## Staff Review and Conclusion

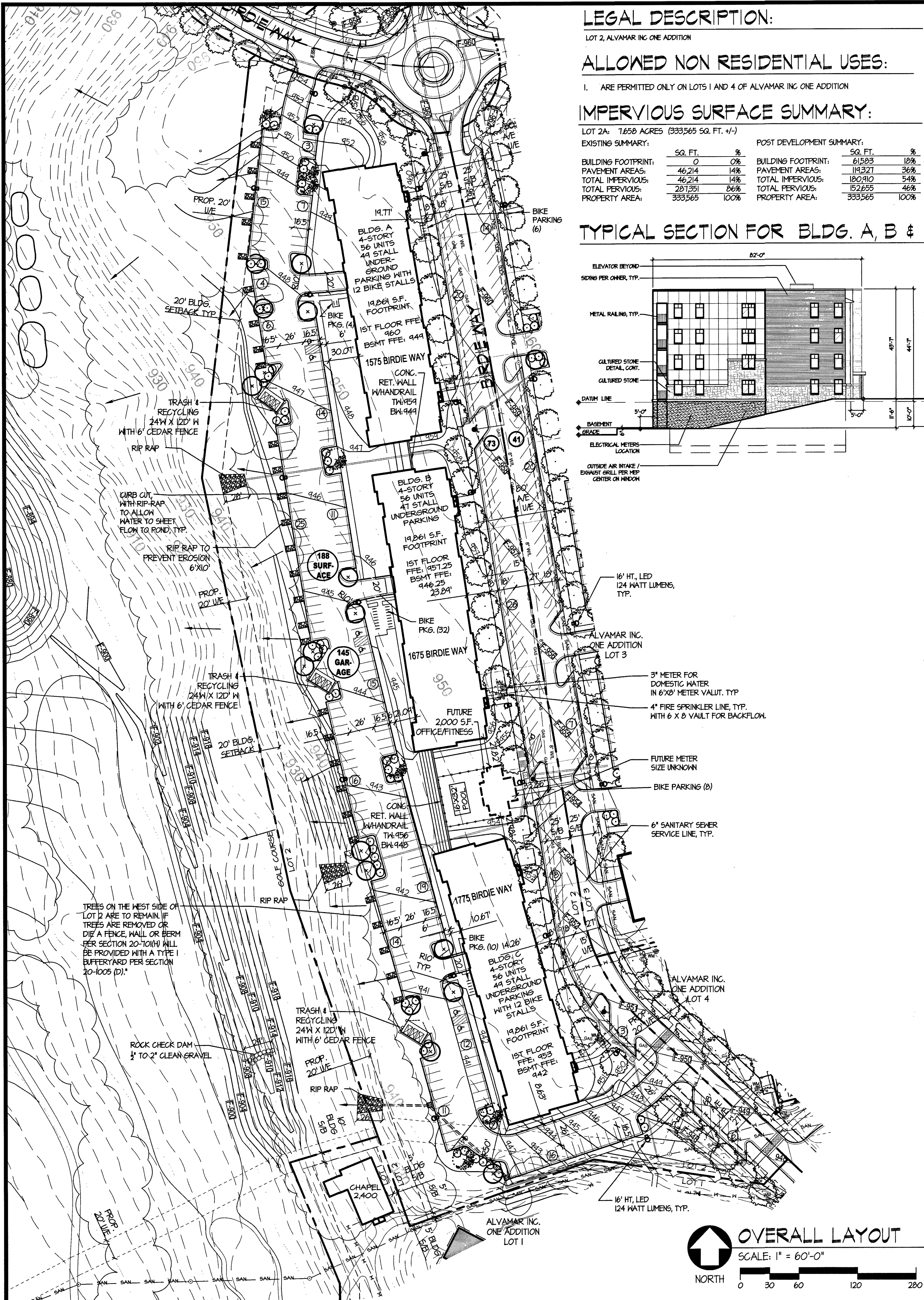
The overall addition of land to this phase of the development is minor compared to the total development project. The relocated facility does provide an opportunity to provide an entry element to the development. The location at the north end of the development provides a better visual aesthetic from the pool deck overlooking the golf course but it is not centrally located within the residential portion of the development.





**Figure 1: Project Area**





## LEGAL DESCRIPTION:

LOT 2, ALVAMAR INC ONE ADDITION

## ALLOWED NON RESIDENTIAL USES:

- ARE PERMITTED ONLY ON LOTS 1 AND 4 OF ALVAMAR INC ONE ADDITION

## IMPERVIOUS SURFACE SUMMARY:

LOT 2A: 1.658 ACRES (333,565 SQ. FT. +/-)

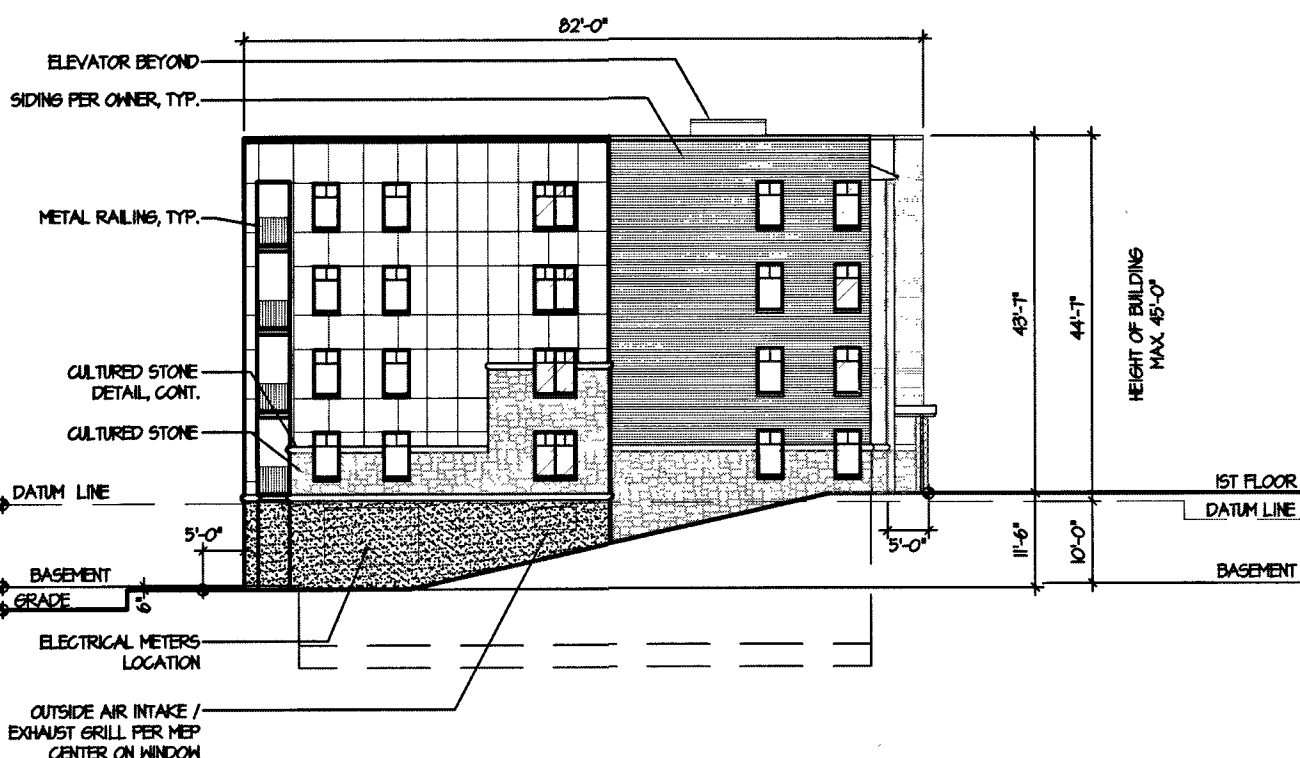
EXISTING SUMMARY:

	SQ. FT.	%
BUILDING FOOTPRINT:	0	0%
PAVEMENT AREAS:	46,214	14%
TOTAL IMPERVIOUS:	46,214	14%
TOTAL PERVIOUS:	287,351	86%
PROPERTY AREA:	333,565	100%

POST DEVELOPMENT SUMMARY:

	SQ. FT.	%
BUILDING FOOTPRINT:	61,593	18%
PAVEMENT AREAS:	115,321	36%
TOTAL IMPERVIOUS:	180,910	54%
TOTAL PERVIOUS:	152,655	46%
PROPERTY AREA:	333,565	100%

## TYPICAL SECTION FOR BLDG. A, B & C








## GENERAL SITE PLAN NOTES:

- ALL GROUND MOUNTED MECHANICAL UNITS SHALL BE SCREENED IN ACCORDANCE WITH SECTION 20-1006(b).
- ALL REQUIRED ACCESSIBLE SIDEWALK RAMPS PER ADA STANDARDS.
- SITE PLAN HAS BEEN DESIGNED TO COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR BUILDINGS AND FACILITIES, APPENDIX A TO 28CFR PART 36.
- THE CITY OF LAWRENCE WILL NOT BE HELD RESPONSIBLE FOR PAVEMENT DAMAGE CAUSED BY TRASH TRUCKS.
- PLAN FOR CITY APPROVAL ONLY CONSTRUCTION DOCUMENTS TO BE FURNISHED AT THE REQUEST OF OWNER.
- INFORMATION TAKEN FROM AERIAL PHOTOS, TOPOGRAPHIC SURVEY, AVAILABLE DOCUMENTS, AND ON SITE INVESTIGATIONS.
- ALL TRAFFIC CONTROL SIGNS PLACED ON PRIVATE PROPERTY OPEN TO THE GENERAL PUBLIC SHALL COMPLY WITH THE 'MANUAL ON UNIFORMS TRAFFIC CONTROL DEVICES' AND 'STANDARD HIGHWAY SIGNS,' PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION, WITH RESPECT TO SIZE, SHAPE, COLOR, RETROREFLECTIVITY, AND POSITION.
- MAXIMUM BUILDING HEIGHT SHALL BE 45 FEET PER CITY CODE 20-601, OR RECEIVE A WAIVER FROM PLANNING COMMISSION.
- SIGN APPROVAL AND PERMITTING IS NOT PART OF THE SITE PLAN APPROVAL. SEPARATE APPROVAL IS REQUIRED THROUGH PLANNING AND DEVELOPMENT SERVICES.
- NO BUILDING STRUCTURES SHALL BE PLACED WITHIN UTILITY EASEMENTS OR WITHIN 5 FEET OF THE PUBLIC SANITARY SEWER OF PUBLIC WATERLINE. NO OTHER STRUCTURES OR LANDSCAPING SHALL BE PLACED WITHIN UTILITY EASEMENT OR WITHIN 5 FEET OF THE PUBLIC SANITARY SEWER OR PUBLIC WATERLINE.
- SLOPE EXTERIOR WALKS A MINIMUM OF 1/4" PER FOOT (BUT NOT GREATER THAN 1:20) SO THAT ALL EXTERIOR DRAINAGE WILL BE AWAY FROM STRUCTURE TO EXTERIOR.
- OWNER WAIVES RIGHT TO PROTEST CHANGES TO THIS DEVELOPMENT PLAN.
- APPLICANT SHALL SUBMIT A COMPLETE DRAINAGE STUDY FOR REVIEW AND APPROVAL BY THE CITY STORMWATER ENGINEER CONCURRENT WITH EACH FINAL DEVELOPMENT PLAN APPLICATION FOR ANY LOT OR PHASE OF THE DEVELOPMENT. OCCUPANCY PERMITS FOR PROPOSED BUILDINGS WILL NOT BE ISSUED UNTIL THE REQUIRED PUBLIC DRAINAGE IMPROVEMENTS ARE COMPLETE, FINAL INSPECTED AND ACCEPTED BY THE PUBLIC WORKS DEPARTMENT.
- PROPERTY OWNER SHALL MAINTAIN COMMON OPEN SPACE.
- SHARED PARKING REVIEW AND FINAL PARKING SPACE REQUIREMENTS WILL OCCUR WITH REVIEW OF EACH FINAL DEVELOPMENT PLAN SUBMISSION.
- ALL CURB INLETS WILL BE CONSTRUCTED PER CITY STORM SEWER STANDARD DETAILS.
- SWIMMING POOL CONSTRUCTION WILL COMPLY WITH CITY CODE CHAPTER 14, ARTICLE II.
- TYPICAL DIMENSIONS: REGULAR SPACES - 9' X 12' (16.5' X 15' OVERHANG AT SIDEWALKS) ADA SPACES - 9' X 16.5' OR 18' (4' AISLE)
- PAVEMENT: APPROACHES: 7" - 4000 PSI CONCRETE W/ #5 BARS 12" O.C.B.W. DRIVES: MIN. 6" ASPHALT ON 4" GRAVEL OR 5" CONCRETE PARKING AREAS: MIN. 5" ASPHALT ON 4" GRAVEL OR 4" CONCRETE CURB & GUTTER: TYPE I CURB AND GUTTER THROUGHOUT SITE UNLESS SPECIFIED DIFFERENTLY.

## LANDSCAPING TABLE:

LANDSCAPING CALCULATION	Lot 2
Parking Stalls Provided	188
Interior Parking Lot Greenspace Provided (5F)	8,603
Interior Parking Lot Greenspace Required (5F)	7,520
Interior Parking Lot Shrubs Provided	57
Interior Parking Lot Shrubs Required	57
Interior Parking Lot Trees Provided	25
Interior Parking Lot Trees Required	19
Perimeter Parking Lot Frontage (FT)	45
Perimeter Parking Lot Trees Provided	2
Perimeter Parking Lot Trees Required	2
Birdie Way Street Trees Provided	37
Birdie Way Street Trees Required	1,435.48/436 =
Common Open Space Provided	74,584
Common Open Space Required (20% of site)	66,713
Recreational Open Space Required (50% of Common Open Space) 5.F.	33,357
Recreational Open Space Provided 5.F.	34,137

ALL GRASS AREAS TO BE SEEDED WITH TURF TYPE SEED MIX FOR ZONE 6.

SYM.	DESCRIPTION	QTY.	APPROVED TYPES	BOTANICAL NAMES	SIZE	COND.
	STREET TREES	32	LEGACY SUGAR MAPLE SUMMERSHADE NORWAY MAPLE LACEBARK ELM SHUMARD OAK GREENSPIRE LINDEN LONDON PLANE TREE	ACER SACCHARUM 'LEGACY' ACER PLATANOIDES 'SUMMERSHADE' ULMUS PARVIFOLIA QUERCUS SHUMARDII TILIA CORDATA 'GREENSPIRE' PLATANUS OCCIDENTALIS 'BLOODGOOD'	2 1/2" CAL.	B & B
	SHADE TREES	18	LEGACY SUGAR PLUM BUR OAK IRONWOOD GOLDEN RAIN TREE CHINKAPIN OAK LACEBARK ELM SKYLINE HONEYLOCUST	ACER PLATANOIDES QUERCUS MACROCARPA OSTYRA VIRGINIANA KOELREUTERIA PANICULATA QUERCUS MUELENBERGII ULMUS PARVIFOLIA GLEDITSIA TRIACANTHOS	2 1/2" CAL.	B & B
	EVERGREEN TREES	0	EASTERN RED CEDAR VANDERWOLF LINDER PINE WHITE PINE	JUNIPERUS VIRGINIANA PINUS FLEXILIS PINUS STROBUS	6' MIN.	B & B
	DECIDUOUS SHRUBS	51	DWARF JAPANESE BARBERRY FORSYTHIA BRIDAL WREATH SPIREA KOREAN LILAC SNOW WHITE SENSATION WAXWOOD ENONYMUS BUTTERFLY BUSH FIRETHORN PYRACANTHA	BERBERIS THUNBERGII 'CRIMSON PYGMY' FORSYTHIA SPP. SPIREA SPP. SYRINGA MEYERI PHILADELPHUS ENONYMUS ATROPURPUREUS BUDLEIA DAVIDII PYRACANTHA COCCINEA	24" HT.	2 GAL.
	ORNAMENTAL TREES	7	CLEVELAND SELECT PEAR EASTERN REDBUD FLAME AMAR MAPLE EVELYN HEDGE MAPLE WHITE EASTERN REDBUD	PYRUS CALLERYANA 'CHANTELIER' CANADENSIS ACER TATARICUM ACER CAMPESTRE CERCIS CANADENSIS	1 3/4" CAL.	B & B

## SITE SUMMARY:

PROJECT SUMMARY	PREVIOUS ZONING	CURRENT ZONING	CURRENT USE	PROPOSED USE	LAND AREA ACRES	SQUARE FEET	PROPOSED UNITS	PROPOSED UNITS PER ACRE
LOT 2	RS7/PUD	RM24-PD	PASSIVE RECREATION	MULTI DWELLING STRUCTURE/ CLUBHOUSE WITH OFFICE (2,000 S.F.) AND POOL	7.66	333,565	168	21.94
TOTAL					7.66	333,565	168	21.94

## SHARED PARKING INFORMATION:

PARKING SUMMARY		APART-MENTS	DUPLEX	INDEPEN- DENT/ ASSISTED LIVING	CHAPEL	FITNESS/WELL- NESS AREA	POOL AREA	GOLF COURSE/ CLUBHOUSE	BANQUET FACILITY AREA	OUTDOOR GRILLE BY POOL (ACCESSORY)				
	USE CATEGORY	MULTI-DWELLIN G STRUC-TURE	DUPLEX	INDEPEN- DENT/ ASSISTED LIVING	CAMPUS OR COMMUNITY INSTITUTION	PERSONAL IMPROVE-MEN- T/ACT-IVE REC.	PARTICIPANT SPORTS & RECREATION, OUTDOOR	PASSIVE RECREATION	QUALITY & ACCESSORY RESTAURANT	FAST ORDER FOOD OR QUALITY RESTAURANT				
	PARKING SPACES REQUIRED	1 PER BDRM (500 BEDS) + 1 PER 10 UNITS (280) 4 83 BIKE STALLS	1 PER BDRM (12 BEDS)	1 PER INDEPENDENT LIVING UNIT (100) + 0.5 PER ASSISTED LIVING UNIT (0)	1 PER 4 SEATS IN ASSEMBLY SPACE (100 SEATS) BIKE PARKING - 1 PER 10 AUTO SPACES	67% @ 1/500 (19,734 S.F.) 33% @ 1/200 (9,928 S.F.)	1 PER 500 S.F. OF CUSTOMER SERVICE AREA (43,685 S.F.)	4 SPACES PER HOLE (27 HOLES) + 22 FOR UNIVERSITY GOLF PRACTICE FACILITY BIKE PARKING - 1/10 AUTO SPACES	1 SPACE PER 4 PERSONS BASED ON MAX OCCU-PANCY OF 480 + 1 PER EMPLOYEE (9) BIKE PARKING - 1 PER 10 AUTO SPACES	1 PER 100 SF OF CUSTOMER SERVICE AREA (1,200 S.F.) PLUS 1 PER EMPLOYEE ON LARGEST SHIFT (5)	EXTRA SPACES FOR FUTURE USES	TOTAL USED	TOTAL PROVIDED	
		528	12	100	25	90	88	130	129	5	1107			
	PARKING PROVIDED					5		43	48			96	3	99
		LOT 1												
		LOT 2	329 [A] 84 BIKE STALLS									329	4	333
		LOT 3	200 [B]	12 [D]	100 [C]							312		312
		LOT 4					81	80	74		5	240	10	250
		LOT 5										0		0
BIRDIE WAY					18				69		87	27	114	
TOTAL	529	12	100	23 [C]	81 [C]	80 [C]	117 [C]	117 [C]	5 [C]	1064	47	1111		

- A LOT 2: BLDGS - A, B, C = 168 UNITS - 312 BEDS; INTERIOR PARKING = 146, EXTERIOR PARKING 183; TOTAL = 329 SPACES REQUIRED  
B LOT 3: BLDGS - H, I, J - 1 BED UNITS = 18 SPACES REQUIRED  
C LOT 3: BLDGS - K, L, M - 12 BEDS; 182 SPACES REQUIRED  
D LOT 3: BLDGS - N, O, P, Q, R, S, T, U, V, W, X, Y, Z - 100 UNITS - 100 SPACES REQUIRED.  
DENSITY = (24 STUDIO X 4 = 96; 56 - 1 BED UNITS X 4 = 224; 20 - 2 BED UNITS X 6 = 12) 100 SPACES REQUIRED  
E LOT 3: DUPLEX D4 E - (4 BEDS); DUPLEX F & G - (8 BEDS) = 1 SPACE PER BEDROOM = 12 SPACES REQUIRED  
OTHER THAN RESIDENTIAL UNITS, PARKING HAS BEEN PROVIDED AT 40% OF THE REQUIRED AMOUNT

SIGNATURES:  
PATRICK KELLY - CHAIR OF PLANNING COMMISSION  
SCOTT MCCULLOUGH - SECRETARY OF PLANNING COMMISSION  
9/27/2016

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# ALVAMAR LOT 2 FINAL DEVELOPMENT PLAN LAWRENCE, KANSAS


PROJECT # 213-560

RELEASE: 1.0 8.4.16  
1.1 9.12.16  
1.2 9.14.16  
1.3 9.20.16



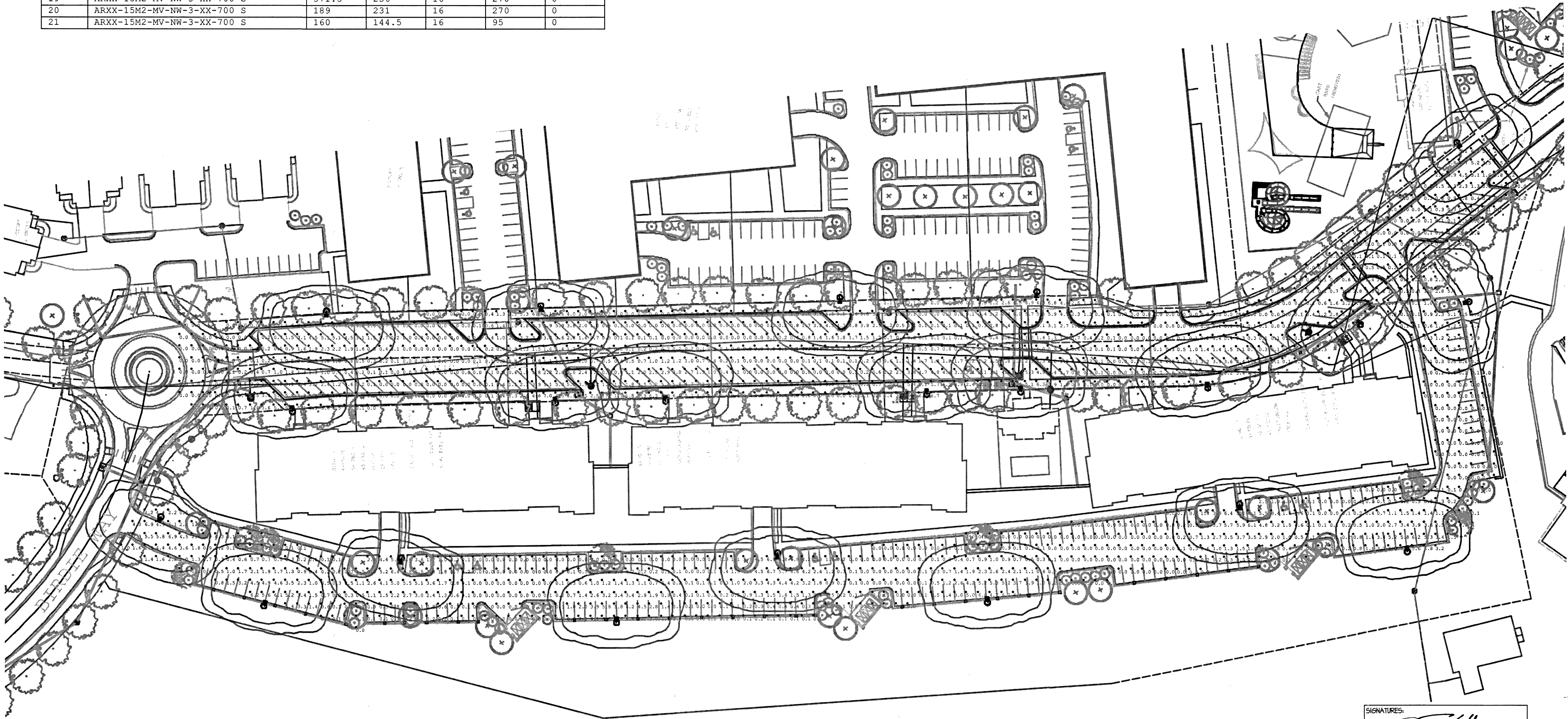




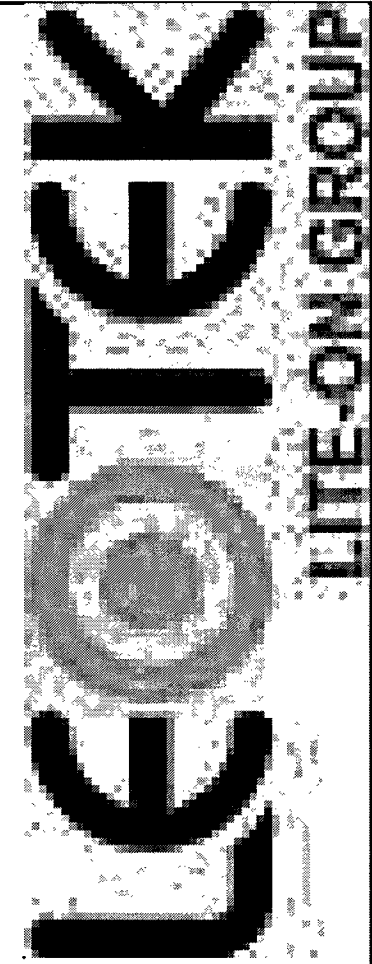
Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Lum. Lumens	LLF	Description	Lum. Watts	Total Watts	BUG Rating
	21	ARXX-15M2-MV-NW-3-XX-700	SINGLE	14955	0.850	ARXX-15M2-MV-NW-3-XX-700 S	124	2604	B2-U0-G2

Numeric Summary					
Label	CalcType	Avg	Max	Min	Max/Min
CalcPts_1	Illuminance	1.21	7.0	0.0	N.A.

Luminaire Location Summary						
LumNo	Label	X	Y	Z	Orient	Tilt
1	ARXX-15M2-MV-NW-3-XX-700 S	48	55	16	246	0
2	ARXX-15M2-MV-NW-3-XX-700 S	136	-21	16	79	0
3	ARXX-15M2-MV-NW-3-XX-700 S	253	20	16	257	0
4	ARXX-15M2-MV-NW-3-XX-700 S	436	-35	16	90	0
5	ARXX-15M2-MV-NW-3-XX-700 S	573.5	24.5	16	270	0
6	ARXX-15M2-MV-NW-3-XX-700 S	752.5	-18	16	93	0
7	ARXX-15M2-MV-NW-3-XX-700 S	967	66.5	16	273	0
8	ARXX-15M2-MV-NW-3-XX-700 S	1110	25.5	16	98	0
9	ARXX-15M2-MV-NW-3-XX-700 S	1163	239.5	16	190	0
10	ARXX-15M2-MV-NW-3-XX-700 S	1152	376	16	311	0
11	ARXX-15M2-MV-NW-3-XX-700 S	1071	220	16	137	0
12	ARXX-15M2-MV-NW-3-XX-700 S	940.5	165	16	103	0
13	ARXX-15M2-MV-NW-3-XX-700 S	794.5	248	16	267	0
14	ARXX-15M2-MV-NW-3-XX-700 S	781	161.5	16	93.5	0
15	ARXX-15M2-MV-NW-3-XX-700 S	701	159	16	96	0
16	ARXX-15M2-MV-NW-3-XX-700 S	626.5	243	16	270	0
17	ARXX-15M2-MV-NW-3-XX-700 S	478	153.5	16	92	0
18	ARXX-15M2-MV-NW-3-XX-700 S	384.5	152	16	95.5	0
19	ARXX-15M2-MV-NW-3-XX-700 S	371.5	236	16	270	0
20	ARXX-15M2-MV-NW-3-XX-700 S	189	231	16	270	0
21	ARXX-15M2-MV-NW-3-XX-700 S	160	144.5	16	95	0



SIGNATURES:  
*Patrick Kelly*  
PATRICK KELLY - CHAIR OF PLANNING COMMISSION  
*Scott McCallister* 9/12/2016  
SCOTT MCCALLISTER - SECRETARY OF PLANNING COMMISSION

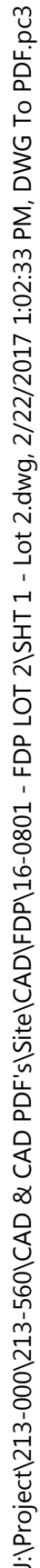


Revisions	
#	Comments

Drawn By:	Checked By:	Date: 2016/9/14	Scale:

Photometric Plan for Alvamar



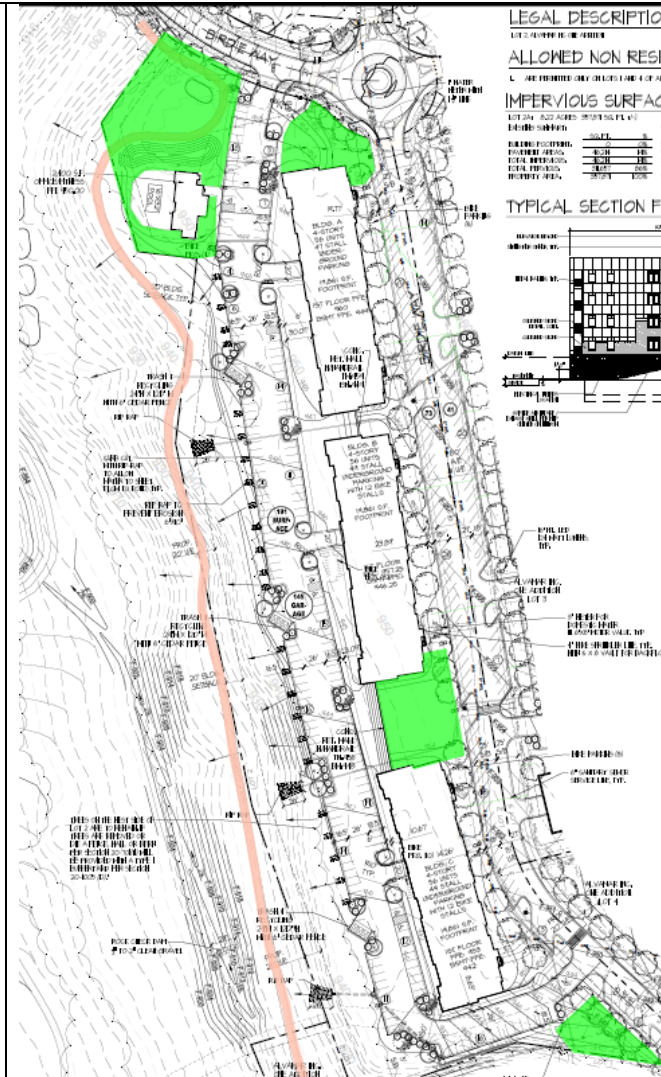






**Figure 1: Common Open Space Areas Lot 2 – Approved FDP**

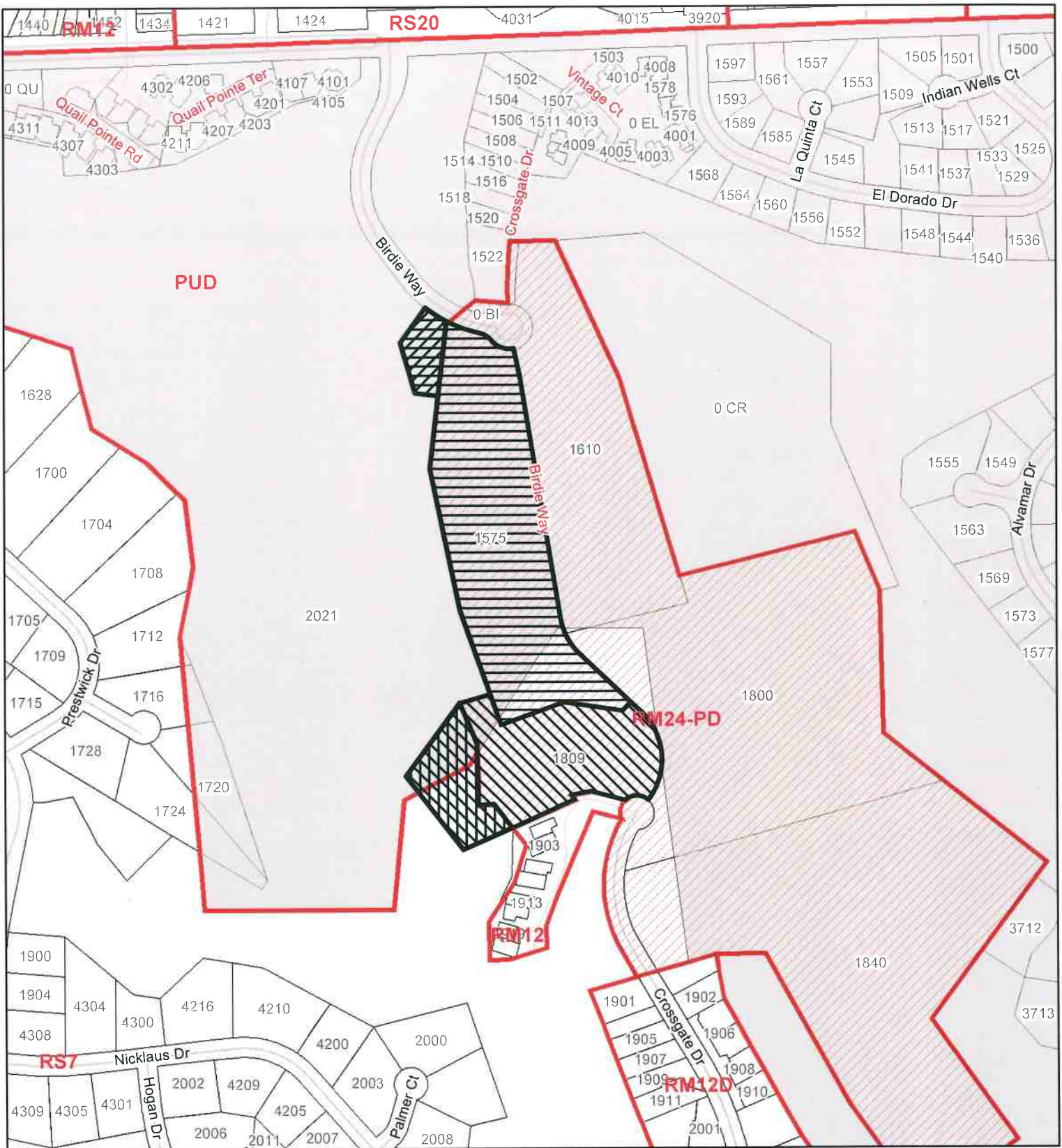
FDP-16-00333  
 Total Area = 7.90  
**Common Open Space**  
 Required: 66,713 (20%)  
 Provided: 74,584 (22%)  
**Recreational Open Space**  
 Required: 33,356 (50%)  
 Provided: 34,137 (51%)



**Figure 2: Common Open Space Area Lot 2 - Proposed FDP**

FDP-17-00029  
**Total Area = 8.22**  
**Common Open Space**  
 Required: 71,575 (20%)  
 Provided: 75,950 (21%)  
**Recreational Open Space**  
 Required: 35,788 (50%)  
 Provided: 38,389 (51%)





**Z-17-00009: Rezone 1.418 acres from RS7 and PUD [Alvamar] Districts to RM24-PD District**

**Z-17-00011: Rezone 0.558 acres from PUD [Alvamar] District to RM24-PD District**

**FDP-17-00028: Revised Final Development Plan for Alvamar Lot 1**

**FDP-17-00029: Revised Final Development Plan for Alvamar Lot 2**

**Located in Alvamar Golf Course**



Z-17-00009: RS7 & PUD [Alvamar] Districts to RM24-PD District

FDP-17-00028



Z-17-00011: PUD [Alvamar] District to RM24-PD District

FDP-17-00029



**PLANNING COMMISSION REPORT**  
**Regular Agenda – Non-Public Hearing Item**

PC Staff Report REVISED  
PP-17-00010

**ITEM NO. 2: PRELIMINARY PLAT FOR MERCATO ADDITION; 6200 W 6<sup>TH</sup> STREET (MKM)**

**PP-17-00010:** Consider a Preliminary Plat for Mercato, an eight-lot commercial subdivision on approximately 121 acres located at 6200 W 6<sup>th</sup> St (northwest corner of W 6<sup>th</sup> Street & George Williams Way). Submitted by Landplan Engineering PA on behalf of Kentucky Place, LC; Tanglewood, LC; JDS Kansas, LC; Scotsdale Properties, LC; Tat Land Holding Company, LC; Sojag Land Company, LC; and Venture Properties, Inc. property owners of record.

**This staff report is being revised following the submittal of the Drainage Study and the Traffic Impact Study on Friday March 3rd and a revised preliminary plat provided on Tuesday March 14<sup>th</sup>. (deleted text is shown as ~~struckthrough~~ and new text is shown in bold.**

**STAFF RECOMMENDATION:**

Staff recommends approval of the Preliminary Plat of Mercato Addition subject to the following conditions:

1. Applicant shall provide a revised preliminary plat with the following changes:
  - a. ~~Show and note the entire length of George Williams Way, except where the access points are proposed, as 'access restricted'.~~
  - b. Revise the note regarding the closing of E 902 access to W 6<sup>th</sup> Street/ Hwy 40 to note that this access shall be removed by the ~~propertyowner~~ **developer, at developer's expense**, with the construction of Mercato Drive Lane and the disturbed area shall be seeded and maintained until vegetation is established.
  - c. Add a note that indicates that the developer shall improve, **at developer's cost**, Renaissance Drive (~~currently E 902 Road~~) to City standards to the north boundary of the property with the construction of Mercato Lane.
  - d. **Revise Note 1 under 'Provision and Financing of Roads, Sewer and Other Public Services' to note that right-of-way shall be provided for external as well as internal streets.**
  - e. Provide dimensions for the proposed drainage easement on Lot 1, Block One.
  - f. Show and label the 100 ft 'no build setback' which is centered on the Southern Star gasline.
  - g. **Remove the proposed 15 ft landscape easement adjacent to the south side of Rock chalk Drive. Show** ~~Show~~ a sidewalk along the south side of Rock Chalk Drive **and along the east side of E 902 Road.** ~~Show sidewalks along both sides of all interior streets, and show~~ **Label the existing sidewalks** ~~these~~ along the adjacent streets as 'existing'.
  - h. ~~Remove the grading changes which are shown within the Southern Star gasline easement through Lot 1, Block Four.~~ **Add a note that grading or other development activity within the Southern Star easement or setback will require Southern Star approval.**

- i. **Show dedication of right-of-way at the intersection of George Williams Way with Overland Drive and with Rock Chalk Drive to accommodate intersection improvements, per the City Engineer approval.**

**Reason for Request:** Subdivision is required prior to development of property.

### KEY POINTS

- The City Utility Engineer noted that the West Hills water service area will not serve elevations over 1060 and recommended the developer take this into consideration when the elevations of the buildings are configured. Additional booster pumping may be necessary to provide adequate water pressure for developments in this area.
- At their January 5, 2010 meeting the City Commission approved Preliminary Plat PP-10-5-09 which included a request for a right-in/right-out access on W 6<sup>th</sup> Street/Hwy 40 subject to the condition that E 902 be relocated through the Mercato development and the developer remove the E 902 access point on W 6<sup>th</sup> Street/ Hwy 40. To facilitate the construction of Renaissance Drive, right-of-way was vacated by KDOT and granted to the property owner, with the excess being granted to the City of Lawrence. The City Staff memo to the City Commission regarding the transfer of the right-of-way for construction of Renaissance Drive is included with this memo as Attachment A. **The quit-claim deed has not been recorded as the Mercato plans did not move forward. Staff has contacted KDOT and is working to finalize the release of the right-of-way for the construction of E 902 Road.**
- The property is currently unplatted. Various Preliminary and Final Plats were submitted and approved for this property from 2005 through 2010. At that time the property was zoned for a variety of uses and contained planned commercial development, commercial, single- and multi-dwelling residential and office zoning districts. When the property was rezoned to the CC600 (Community Commercial) District in 2015, the applicant withdrew the previously approved plats as the lot layout would need to be revised to accommodate the uses permitted under the new zoning designation.
- The property was rezoned to CC600 (Community Commercial) District in 2015 with conditions, per rezoning request Z-14-00458. The rezoning was approved subject to the following conditions:
  - a. The maximum area of commercial/retail uses (as defined in the Comprehensive Plan) that may be located within the CC600 (Community Commercial) District boundary, is, in the aggregate, 360,000 sq ft.
  - b. No more than two (2) commercial buildings exceeding 100,000 gross square feet in size shall be located within the CC600 (Community Commercial) District boundary.

### SUBDIVISION CITATIONS TO CONSIDER

- This application is being reviewed under the Subdivision Regulations for Lawrence and Unincorporated Douglas County, effective Jan 10, 2012.

### ASSOCIATED CASES

- Z-14-00458 rezoning the property from CC400 (Community Commercial), RS7 (Single-Dwelling Residential), RM12D (Multi-Dwelling Residential), RM24 (Multi-Dwelling Residential), PCD-[Mercato] (Planned Commercial Development), and RMO (Multi-Dwelling Residential-Office) Districts to CC600 (Community Commercial) District. Approved by the City Commission on January 27, 2015 with the adoption of Ordinance No. 9070. The rezoning was conditioned with

limitations on the amount of commercial uses permitted in this quadrant of the 6<sup>th</sup> Street/Hwy 40 and K10 intersection and the size of commercial buildings.

- Previously submitted and approved plats and rezonings are listed in Attachment A as background. All the plats have been withdrawn and the zonings have been superseded by the CC600 Zoning.

### OTHER ACTION REQUIRED

- Submittal and administrative approval of Final Plats as development is proposed on the various lots.
- City Commission acceptance of dedication of rights-of-way and easements shown on the Final Plats.
- Submittal and approval of Public Improvement Plans and means of assurance of completion.
- Recording of the Final Plats with the Douglas County Register of Deeds.
- Submittal and administrative approval of Site Plans prior to development.
- Application and issuance of Building Permits prior to development.

### PLANS AND STUDIES REQUIRED

- *Traffic Study* – The traffic study was provided to the Planning Office March 3<sup>rd</sup>. ~~Staff has not had time to complete the review of the report prior to the printing of this staff report. The study will be reviewed and an analysis provided in a follow-up memo prior to the March 15<sup>th</sup> Planning Commission meeting.~~ **The City Engineer received the Traffic Impact Study and made the following comments: Right-of-Way should be dedicated at the intersection of George Williams Way with Overland Drive and with Rock Chalk Drive to accommodate intersection improvements, such as roundabouts. Revisions may be needed to the TIS pending the completion of his review.**
- *Downstream Sanitary Sewer Analysis* – The analysis provided on January 10, 2017 was accepted by the City Utilities Department.
- *Drainage Study* – The Drainage Study was provided to the Planning Office March 3<sup>rd</sup>. ~~Staff has not had time to complete the review of the report prior to the printing of this staff report. The study will be reviewed and an analysis provided in a follow-up memo prior to the March 15<sup>th</sup> Planning Commission meeting.~~ **The City Stormwater Engineer reviewed the Drainage Study and found it to be acceptable.**

### ATTACHMENTS

Attachment A: City Commission memo regarding Renaissance Drive  
Attachment B: Traffic Impact Study

### PUBLIC COMMENT

No public comment was received prior to the printing of this staff report.

### SUBDIVISION SUMMARY

Gross Area: 120.5 acres

Number of Lots: 8

Number of Tracts: 5 (all tracts contain proposed drainage easements)

Minimum Lot Area: 3.21 acres

Maximum Lot Area: 22.28 acres



## GENERAL INFORMATION

Current Zoning and Land Use: CC600 (Community Commercial) District; *Undeveloped*.

Surrounding Zoning and Land Use: To the north: GPI (General Public and Institutional Uses) District; Rock Chalk Park KU Sports Facility and City of Lawrence Sports Pavilion: *Spectator Sports and Entertainment, Participant Sports and Recreation, Active and Passive Recreation and* OS (Open Space) District; *Passive Recreation.*

To the west: CC600 (Community Commercial) District;  
*Undeveloped,*

To the South: UR (Urban Reserve) District; *Detached Dwelling*.

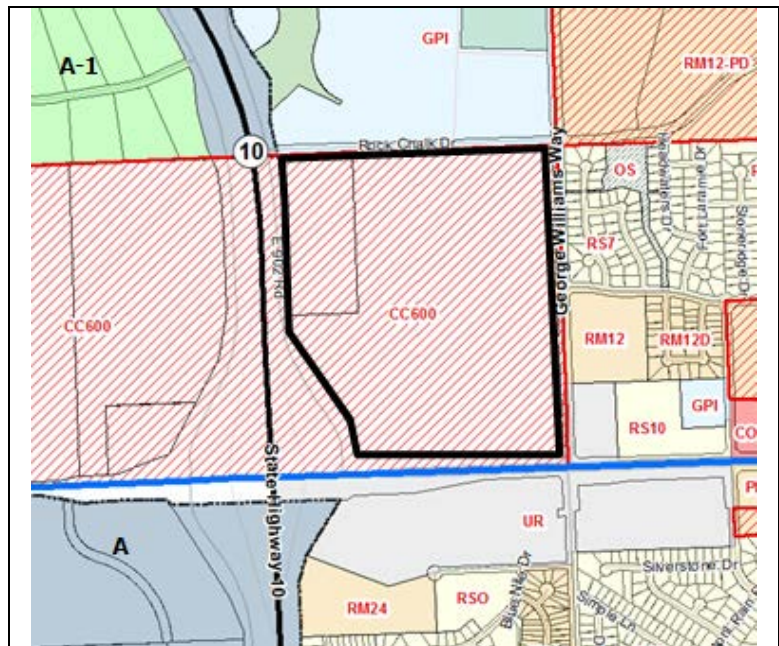
To the east: RS7 (Single-Dwelling Residential) District, platted Oregon Trail Subdivision, currently under development with *Detached Dwellings*; OS-FP (Open Space with Floodplain Management Regulations Overlay) District, park *Passive Recreation*, RM12 (Multi-Dwelling Residential) District, *Undeveloped*; and UR (Urban Reserve) District, *Undeveloped*.

(Figures 1 and 2)

## STAFF REVIEW

The subject property contains approximately 121 acres in the northeast quadrant of the intersection of W 6<sup>th</sup> Street/ Hwy 40 and K10 Highway. This area is in various stages of development. Construction of the Rock Chalk Park and the Sports Pavilion facilities, was recently completed. Oregon Trail Addition, a residential subdivision with a mix of multi-and single-dwelling uses and the Links at Lawrence, a multi-dwelling development are currently under construction to the east and northeast.

The Preliminary Plat proposes the creation of 8 lots and 5 tracts for development. The number of lots increased with a revision to the plat following the publication of the agenda. The lots will be developed with uses that are permitted within the of Commercial Uses. The tracts will management measures.



**Figure 1a.** Zoning in the area. Zoning Districts within the city limits are labeled in red. The hatchmarks designate Conditioned Zoning Districts. County zoning districts are labeled in black. Subject property is outlined.

with uses that are permitted within the CC 600 Zoning District, with the limitation of 360,000 sq ft of Commercial Uses. The tracts will contain Drainage Easements as part of the stormwater management measures.

The property is bounded on the south by W 6<sup>th</sup> Street/ Hwy 40, a Principal Arterial; on the west by State Highway 10 (commonly called K10), a Freeway; on the east by George Williams Way, a Collector Street; and on the north by Rock Chalk Drive, a Local Street. Final Plats will be submitted for lots as development proposals come forward. A hotel development has been proposed for Lot 1, Block One and this is expected to be submitted in the summer of 2017. The phasing schedule indicates that the timing of the other final plats will be determined at a later date. Final Plats will be submitted for these lots as development is proposed.



**Figure 1b.** Land use/Development in the area.

### **Compliance with Zoning Regulations for the CC600 District**

Per Section 20-809(d)(2) of the Development Code, each lot must conform with the minimum lot size and other dimensional requirements in the Zoning District. Lots created in the CC Districts must have a minimum area of 20,000 sq ft and a minimum lot width of 100 ft, per the Dimensional Standards in Section 20-601(b) of the Development Code. The proposed lots exceed these minimum standards for the CC Zoning District.

In addition, 5 tracts ranging from 0.90 acres to 1.59 acres are being created. These tracts will contain drainage easements for stormwater management.

### **Streets and Access**

Street and intersection improvements are based on the Traffic Impact Study (TIS) which is provided by the applicant. ~~As noted earlier, this study was provided on March 3<sup>rd</sup> and staff has not had time to thoroughly review it. When staff has completed the review of the TIS, which is attached with this report, it is possible that there may be new conditions or recommendations for the streets and intersections. More information on the Traffic Impact Study and the stormwater management provisions will be included as an update to this staff report when staff review is complete.~~

**E 902 Road is shown in the Transportation Plan as a Collector Street. E 902 Road should be improved to City standards to the north boundary of the property as a collector street. This will provide increased connectivity to the north and provide alternate routes throughout the site. Typically, developers construct roads that are adjacent to their development when the property develops. As this property will develop in phases, it is important to note the phase which will require the improvement to E 902 Road. The KDOT approval linked the right-in/right-out access on W 6<sup>th</sup> Street to the removal of the E 902 access point and the tying in of E 902 Road to the Mercato property. In staff's opinion, E 902 Rd should be improved to City Collector Street**

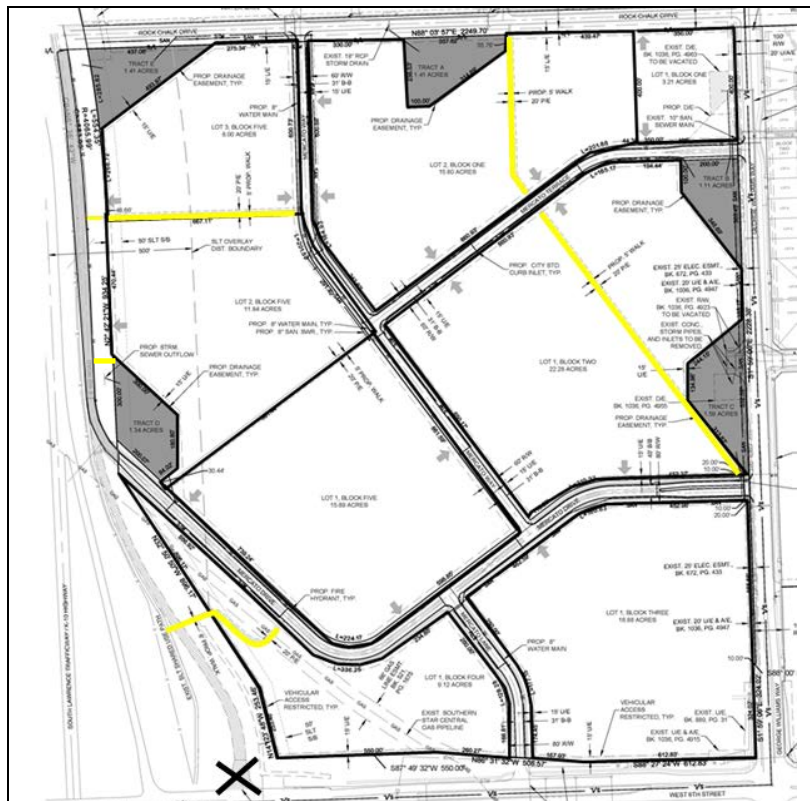


**standards with the construction of any part of Mercato Drive to insure connectivity through the site.**

The plat shows access restrictions along K10 and W 6<sup>th</sup> Street/Hwy 40 (except for the approved right-in/right-out access point). ~~Access is also shown as restricted along George Williams Way for 300 ft north of the intersection with W 6<sup>th</sup> Street/Hwy 40. The City Engineer indicated that George Williams Way should be shown with as 'access restricted' along the entire length, except where the access points are proposed.~~ **Access along George Williams Way is restricted by the access management standards in Article 9 of the Development Code. Any new access points will be reviewed for compliance with the Development Code.**

Mercato Lane will access W 6<sup>th</sup> Street/Hwy 40 in the right in/right-out access point which is located about midway on the southern property line. Mercato Lane will extend to the north to connect with Mercato Drive, which crosses generally east/west across the property to connect George William Way on the east with Renaissance Drive **E 902 Road** on the west. The Mercato Way intersection with Mercato Drive is offset approximately 300 ft east of the Mercato Lane intersection. Mercato Way continues northward from Mercato Drive to connect with Rock Chalk Drive. Mercato Terrace extends westward from a northern access point on George Williams Way into the property to intersect with Mercato Way. The proposed street layout provides connectivity throughout the development and to adjacent roads on the north, west, east and south.

**As noted earlier,** E 902 access on W 6<sup>th</sup> Street/Hwy 40 will be removed and E 902 adjacent to the property will be reconstructed as Renaissance Drive when **any part of** Mercato Drive has been constructed to provide an alternative access. Renaissance Drive **E 902 Road** should be **named and** labeled on the plan and the right-of-way width noted. The plat should also note that **E 902 Road** Renaissance Drive adjacent to the property shall be improved to City standards with the construction of **any part of** Mercato Drive.



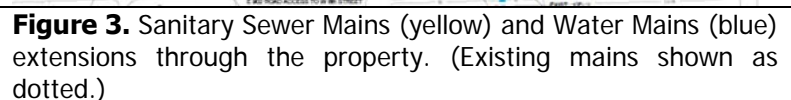
**Figure 2.** Plat showing the street layout. Proposed lots are outlined and tracts are shaded. E 902 access on W 6<sup>th</sup> St/Hwy 40, to be removed with construction of Mercato Drive, is marked with an 'X'. Approximate location of Renaissance Drive (E 902 Rd) is highlighted gray. Pedestrian walkways in pedestrian easements are shown in yellow.

The note regarding E 902 access being 'closed' should be revised to indicate that the E 902 access point shall be 'removed' by the developer with the construction of Mercato Drive and the area shall be seeded and maintained until vegetation has been re-established.

Sidewalks are required on both sides of all streets. With the development of Rock Chalk Park to the north, it was considered that the south side of Rock Chalk Drive may not have a sidewalk. At that time, this area was zoned residentially and the rear of the properties were to abut Rock Chalk Drive. At the time, the screening provided by the tree row on the south side of Rock Chalk Park was seen as a more important element, as it would help mitigate the impact of the sports facility use and activity on the residences to the south. With the change in zoning and plans for the Mercato property, commercial uses are anticipated on the south side of Rock Chalk Drive. The applicant indicated that the vegetated screen would not be needed, as they do not see a need to screen the commercial uses from Rock Chalk Park to the north. If the **existing** tree row is not needed for additional screening, a sidewalk should be installed along Rock Chalk Drive to provide access to the various properties in the development from the crossing points at Mercato Way and the pedestrian easement to the east.

Originally, Overland Drive had been planned to continue into the Mercato Development. The current plan has two access points on George Williams Way; one to the north, and one to the south, of Overland Drive. The right-of-way that had been dedicated for this extension will be vacated with this plat and the plat notes that the existing concrete, stormwater pipes, and inlets are to be removed. In addition, an existing drainage easement on proposed Lot 1, Block One will be vacated with this plat and a triangular shaped drainage easement will be dedicated. Dimensions for this easement should be provided on the plat.

An existing Sanitary Sewer main is located in the northwest corner of the subject property, having been extended as part of the recently completed Rock Chalk Park development. This main will be extended along the south side of Rock Chalk Drive to the east side of





Mercato Way. It will extend about 750 ft south on Mercato Way then cross the street to continue southward approximately 190 ft on the west side of Mercato Way.

Another existing Sanitary Sewer Main is located in the northeast corner of the property, having been extended as part of the Oregon Trail Addition public improvements. This main will be extended about 350 ft west on the north side of Mercato Terrace south of Lot 1, Block One and to the south along the west side of George Williams Way then west on the south side of Mercato Drive just past Mercato Lane. As required by Code, the sanitary sewer mains will be extended to touch each lot. Service lines will be extended to serve the individual lots as they develop. (Figure 3)

Existing water mains are located along the north edge of Rock Chalk Drive, the east side of George Williams Way, and along the north side of W 6<sup>th</sup> Street/Hwy 40 to the proposed location of Mercato Lane. The plat proposes the extension of a water main along the east side of Renaissance Drive (currently E 902 Rd), the north side of Mercato Drive and the west side of Mercato Way to connect back into the watermain on the north side of Rock Chalk Drive. In addition water mains will be extended along the north side of Mercato Terrace and the east side of Mercato Lane. This will provide a looped system throughout the development.

The City Utility Engineer noted that the West Hills water service area will not serve elevations over 1060 and recommended the developer take this into consideration when the elevations of the buildings are configured. Additional booster pumping may be necessary to provide adequate pressure for developments in this area.

Stormwater mains will also be extended throughout the site to serve the detention ponds located within the drainage easements. As noted earlier, the Drainage Study was provided on Friday, March 3<sup>rd</sup>, and staff has not had time to complete the review of it before this report was published. More information on the Drainage Study and the stormwater management provisions will be included as an update to this staff report when staff review is complete.

Public Improvement Plans will be required with the final plats for the extension of these mains.

### **Easements and Rights-of-way**

The plat provides 15 ft wide utility easements around the periphery of each lot with the exception of lots with frontage on George Williams Way. A 20 ft wide utility/ access easement is in place on the west side of George Williams Way. A 25 ft wide electric easement also exists in this area; however, some of this easement is located in the proposed right-of-way.

Drainage Easements are provided in each tract for the detention ponds which will manage stormwater for the site and on Lot 1, Block One. The dimensions for this drainage easement should be noted on the plat.

The plat includes 20 ft pedestrian easements throughout the development to provide pedestrian access through the development and to the sports/recreation facility to the north and to the shared use path to the west. (Figure 2)

A Landscape Easement was dedicated with the plat for Rock Chalk Park as a means to mitigate the impact of the recreational/sports facility on the residential uses then being planned for Mercato. As the proposed uses have been revised, the dense screen of vegetation is not required; however, a landscaped bufferyard is required with the site planning of the project.

The southwestern and southern portion of the property (Lot 1, Block Four) contains a 66 ft wide Southern Star gas line easement which includes a 100 ft building setback centered on the easement. The plat should show the no build area in addition to the easement. Southern Star will need to approve any grading plans in the area of their easement.

Right-of-way (R-O-W) widths required and provided for the adjacent roadways are as noted in the table below. No additional right-of-way for the adjacent roads is required with this plat.

<b>Street</b>	<b>R-O-W required</b>	<b>R-O-W provided (min)</b>
K10, Freeway	150 ft	510 ft (approximately 180 ft on subject property side of centerline)
W 6 <sup>th</sup> Street/Hwy 40, Principal Arterial	150 ft	175 ft (100 ft on subject property side of centerline)
George Williams Way, Collector Street	100 ft	100 ft (50 ft on subject property side of centerline)
Rock Chalk Drive, Local Street	60 ft	80 ft (50 ft on subject property side of centerline )

Right-of-way (R-O-W) widths required and provided for the interior roadways proposed with this plat are noted in the table below.

<b>Street</b>	<b>R-O-W required</b>	<b>R-O-W provided (min)</b>
Mercato Lane, Local Street	60 ft	80 ft
Mercato Drive/Renaissance Drive, Collector Street	80 ft	80 ft
Mercato Terrace, Local Street	60 ft	60 ft
Mercato Way, Local Street	60 ft	60 ft

As noted earlier, additional right-of-way is required at the intersection of Rock Chalk Drive and George Williams Way and Overland Drive.

While not specifically an easement or right-of-way, the plat does show the 50 ft South Lawrence Trafficway building setback as required in Section 20-307(c) of the Development Code. This setback should be relabeled as 'SLT/K10-TC setback'. In addition, the area that is within 500 ft of the centerline of the SLT/K-10 right-of-way is within the boundaries of the SLT/K10 Overlay District and is subject to landscaping and screening requirements in addition to the building setback.

### **Preliminary Plat Conformance**

The preliminary plat is the first step in platting property into lots to allow for development. Final Plats will be submitted for lots as development is proposed. A final plat for Lot 1, Block One is anticipated in the summer of 2017 in preparation for development of a hotel. The Preliminary Plat, as conditioned, is in conformance with the standards and requirements of the Subdivision Regulations and the Development Code.



<b>Application</b>	<b>File No.</b>	<b>Date Approved</b>		<b>Area (app.)</b>
<b>Rezoning</b>	Z-01-10-05	May 9, 2006	A to RS-2 → RS7 (Dev. Code)	25.82 acres
	Z-01-11-05	May 9, 2006	A to RM-D → RM12D (Dev. Code)	7.63 acres
	Z-01-12-05	May 9, 2006	A to RM-2 → RM24 (Dev. Code)	12.77 acres
	Z-03-05-06	May 9, 2006	A to PCD-2 → PCD[Mercato](Dev. Code)	45.31 acres
	Z-03-06-06	May 9, 2006	A to RO-1A → RMO (Dev. Code)	31.12 acres
	Z-10-07-09		Rezoning from UR to CC 400 (following removal of condition to plat prior to publication of ordinance)	
<b>Plats</b>	PP-01-02-06	April 27, 2006	75 single-dwelling lots (RS7); 18 duplex lots (RM12D); 1 multi-dwelling lot (RM24); 6 residence/office lots (RMO); 9 commercial lots (PCD[Mercato])	122.65 acres 25.82 acres 7.63 acres 12.77 acres 31.12 acres 45.31 acres
	PF-06-15-06	April 17, 2007	Mercato Addition First Plat Extension granted to 4/17/12 18 duplex lots (RM12D); 75 single-dwelling lots (RS7); 1 multi-dwelling lot (RM24)	49.665 acres
	PF-03-04-07	May 15, 2007	Mercato Addition 2 <sup>nd</sup> Plat Extension granted to 5/15/12 6 residence/office lots (RMO); 10 commercial lots (PCD[Mercato])	72.657 acres
	PP-10-5-09	December 14, 2009	Revised preliminary plat for approximately 29 acres to revise lot and street layout and include right-in/right-out access on W 6 <sup>th</sup> Street	29 acres
	KDOT released a portion of the right-of-way for K10 to accommodate the applicant's request to rebuild Renaissance Drive and connect it through Mercato to connect with the right-in/right-out access point on W 6 <sup>th</sup> Street/Hwy 40. A copy of the KDOT/applicant agreement is included.			
<b>Development Plans</b>	PDP-08-08-06	April 17, 2007	Mercato Planned Commercial 10 lots	45.31 acres

# Memorandum

## City of Lawrence

### Department of Public Works

**TO:** Chuck Soules, Public Works Director  
**FROM:** Shoeb Uddin, City Engineer  
**CC:** Dave Corliss, Mike Stock, Phil Struble, Jane Eldredge, Keith Browning, Walt Ward  
**Date:** September 07, 2010  
**RE:** Renaissance Drive – Right-of-Way Dedication  
 Mercato Development  
 Northeast Corner of K-10 and US-40 (West 6<sup>th</sup>)

#### Background

The proposed Mercato Development is a mixed-use commercial and residential development located on the northeast corner of K-10 and US-40 (West 6<sup>th</sup> Street) highways. City staff has been working with KDOT engineers and the developer /owner of the Mercato property for the past several months to figure out the details related to the right-of-way dedication for the proposed Renaissance Drive, closure of the existing access onto US-40 (West 6<sup>th</sup>), and construction of a new right-in/right-out access onto West 6<sup>th</sup> Street.

The existing frontage road along the east side of K-10 will be named "Renaissance Drive" as part of the Mercato Development. Currently, the Frontage Road connects to US-40 (West 6<sup>th</sup>) just east of the US-40/K-10 interchange. As part of the Mercato development plan and agreement with KDOT, this access will be closed and traded for a new right-in/right-out access onto West 6<sup>th</sup> Street, approximately 1,000 feet east of the current access. [See Exhibit]

The proposed Renaissance Drive (the existing Frontage Road), currently located within KDOT/K-10 right-of-way, will become a city street as part of the Final Plat of the Mercato Tract, hence requiring the road right-of-way to be dedicated to the City of Lawrence. KDOT has agreed to dedicate the necessary right-of-way and easements (at no cost to the city) to construct the proposed Renaissance Drive as a city street. Attached are the Exhibit and Quit Claim Deed outlining the details of the proposed "Road Right-Of-Way", "Temporary Construction Easement" and "Excess Right of Way".

#### Proposed Right of Way Details

As shown in the Exhibit, there are three parts in this dedication.

1. **Road Right of Way** – shown in "red" in the Exhibit. This is a permanent dedication to the city for the purpose of the construction and maintenance of Renaissance Drive. The proposed right-of-way is adequate to construct the roadway and other ambient features, e.g. sidewalk, landscaping etc.
2. **Temporary Construction Easement** – This is the area directly west of the proposed Mercato street right-of-way, shown in 'blue". This easement is intended to be used during construction of the Renaissance Drive and closing of the existing Frontage Road access onto US-40. This construction easement is temporary and will become void after the construction of Renaissance Drive is complete.

The existing hike/bike path is within this temporary construction easement. Maintenance of the hike/bike path is currently performed by Douglas County Road Department under Transportation Enhancement (TE) grant agreement between the County and KDOT. Based on the conditions of the TE grant agreement, the maintenance responsibility of the hike/bike path will remain with the County for the life span of the h/b path.

3. **Excess Right of Way** – shown in “green” in the Exhibit. This is the small sliver of land between the proposed Renaissance Drive right-of-way and the Mercato property line. KDOT is proposing to dedicate this portion to the city as “Excess Right-of-Way”. The excess right-of-way would belong to the city and could be used for all public purposes. However, according to the terms and conditions of the Quit Claim Deed by KDOT, the city is prohibited from transferring / selling this land to any private entities.

#### **Action Request**

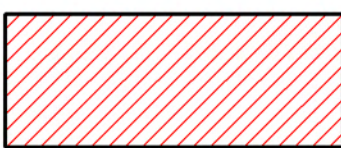
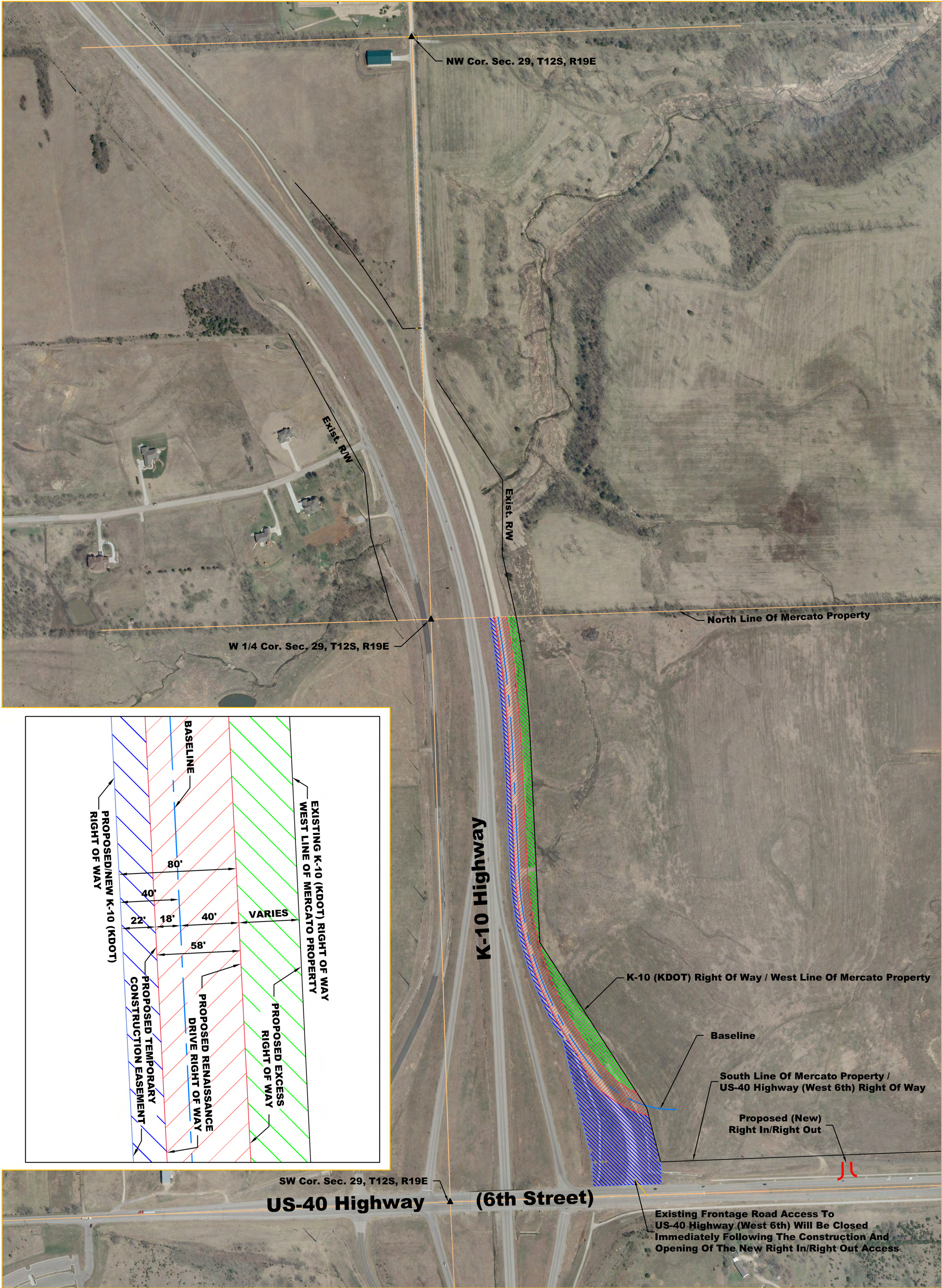
If appropriate, accept the Right-of-Way and Easement dedication from KDOT as outlined in the Quit Claim Deed and in the Exhibit.

#### **Attachments**

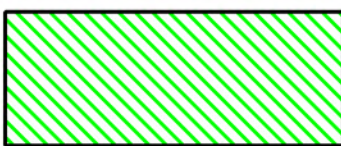
[Exhibit](#)

[Quit Claim Deed](#)





**Dedicated Renaissance Drive Right-of -Way**



**Dedicated Excess Right-of -Way**



**Temporary Easement**



**Section Corner**



0 100 200 300 400

# MERCATO RIGHT OF WAY DEDICATION



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## QUITCLAIM DEED

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THIS DEED, Made this 13th day of August, 2010, by and between The State of Kansas, acting by and through Debra L. Miller, as Secretary of Transportation of the State of Kansas, of the first part, and the City of Lawrence, in the State of Kansas of the second part:

WITNESSETH, That said party of the first part, in consideration of the sum of one dollar and other valuable consideration to it duly paid, has sold, and by these presents does Remise, Release and Quitclaim unto the said parties of the second part, their heirs and assigns, forever, all that tract of land situated in the County of Douglas and the State of Kansas described as follows, to-wit:

(a) A tract of land in the Southwest Quarter of Section 29, Township 12 South, Range 19 East of the 6th P.M., described as follows: COMMENCING at the Southwest corner of said Quarter Section; thence on an assumed bearing of North 88 degrees 04 minutes 24 seconds East, 961.91 feet along the South line of said Quarter Section; thence North 01 degree 55 minutes 36 seconds West, 149.78 feet to the Easterly right of way line of existing K-10 Highway; thence North 14 degrees 23 minutes 48 seconds West, 217.80 feet along said Easterly right of way line to the POINT OF BEGINNING; FIRST COURSE, thence on a curve of 490.00 feet radius to the right, an arc distance of 315.31 feet with a chord which bears North 58 degrees 15 minutes 26 seconds West, 309.89 feet; SECOND COURSE, thence North 27 degrees 30 minutes 35 seconds West, 133.25 feet; THIRD COURSE, thence on a curve of 1567.00 feet radius to the right, an arc distance of 880.68 feet with a chord which bears North 18 degrees 57 minutes 24 seconds West, 869.13 feet; FOURTH COURSE, thence North 02 degrees 51 minutes 22 seconds West, 558.69 feet; FIFTH COURSE, thence on a curve of 4983.00 feet radius to the left, an arc distance of 596.01 feet with a chord which bears North 06 degrees 16 minutes 57 seconds West, 595.65 feet; SIXTH COURSE, thence North 09 degrees 42 minutes 33 seconds West, 14.64 feet to the North line of said Quarter Section; SEVENTH COURSE, thence North 88 degrees 04 minutes 06 seconds East, 57.52 feet along said North line; EIGHTH COURSE, thence on a curve of 5040.00 feet radius to the right, an arc distance of 609.68 feet with a chord which bears South 06 degrees 19 minutes 18 seconds East, 609.31 feet; NINTH COURSE, thence South 02 degrees 51 minutes 22 seconds East, 558.69 feet; TENTH COURSE, thence on a curve of 1510.00 feet radius to the left, an arc distance of 974.24 feet with a chord which bears South 21 degrees 20 minutes 22 seconds East, 957.43 feet; ELEVENTH COURSE, thence on a curve of 410.00 feet radius to the left, an arc distance of 189.41 feet with a chord which bears South 53 degrees 03 minutes 27 seconds East, 187.73 feet; TWELFTH COURSE, thence South 32 degrees 50 minutes 50 seconds East, 79.63 feet; THIRTEENTH COURSE, thence South 14 degrees 23 minutes 48 seconds East, 35.66 feet to the POINT OF BEGINNING. The above described tract contains 3.34 acres, more or less.

The party of the first part hereby retains any and all abutters' rights of access to said highway. The Secretary may install a fence or other device to delineate the above described controlled access highway facility. If such fence or other device is installed, the Secretary assumes no legal or other responsibility for fencing private property.

(b) A TEMPORARY EASEMENT for construction of a road over and upon a tract of land in the Southwest Quarter of Section 29, Township 12 South, Range 19 East of the 6th P.M., described as follows: COMMENCING at the Southwest corner of said Quarter Section; thence on an assumed bearing of North 88 degrees 04 minutes 24 seconds East, 652.95 feet along the South line of said Quarter Section; thence North 01 degree 55 minutes 36 seconds West, 50.00 feet to the POINT OF BEGINNING; FIRST COURSE, thence continuing North 01 degree 55 minutes 36 seconds West, 98.45 feet; SECOND COURSE, thence North 13 degrees 38 minutes 55 seconds West, 578.11 feet; THIRD COURSE, thence on a curve of 1590.00 feet radius to the right, an arc distance of 808.32 feet with a chord which bears North 17 degrees 25 minutes 12 seconds West, 799.64 feet; FOURTH COURSE, thence North 02 degrees 51 minutes 22 seconds West, 558.69 feet; FIFTH COURSE, thence on a curve of 4960.00 feet radius to the left, an arc distance of 593.26 feet with a chord which bears North 06 degrees 16 minutes 57 seconds West, 592.90 feet; SIXTH COURSE, thence North 09 degrees 42 minutes 33 seconds West, 17.78 feet to the North line of said Quarter Section; SEVENTH COURSE, thence North 88 degrees 04 minutes 06 seconds East, 23.21 feet along said North line; EIGHTH COURSE, thence South 09 degrees 42 minutes 33 seconds East, 14.64 feet; NINTH COURSE, thence on a curve of 4983.00 feet radius to the right, an arc distance of 596.01 feet with a chord which bears South 06 degrees 16 minutes 57 seconds East, 595.65 feet; TENTH COURSE, thence South 02 degrees 51 minutes 22 seconds East, 558.69 feet; ELEVENTH COURSE, thence on a curve of 1567.00 feet radius to the left, an arc distance of 880.68 feet with a chord which bears South 18 degrees 57 minutes 24 seconds East, 869.13 feet; TWELFTH COURSE, thence South 27 degrees 30 minutes 35 seconds East, 133.25 feet; THIRTEENTH COURSE, thence on a curve of 490.00 feet radius to the left, an arc distance of 315.31 feet with a chord which bears South 58 degrees 15 minutes 26 seconds East, 309.89 feet to the Easterly right of way line of existing K-10 Highway; FOURTEENTH COURSE, thence South 14 degrees 23 minutes 48 seconds East, 217.80 feet along said Easterly right of way line; FIFTEENTH COURSE, thence South 01 degree 55 minutes 36 seconds East, 99.78 feet; SIXTEENTH COURSE, thence South 88 degrees 04 minutes 24 seconds West, 308.97 feet to the POINT OF BEGINNING. The above described tract contains 4.15 acres, more or less.

RESTRICTIVE COVENANT: Grantees, for their heirs and assigns, do hereby covenant and agree, said covenant to run with the land, that the land conveyed herein shall not be used for billboards, signboards or other outdoor advertising purposes.

The above described land is subject to easement for the right of ingress and egress, reconstruction, and maintenance of all existing utilities and appurtenances thereto, together with the appurtenance and all the estate, title and interest of said party of the first part therein.



TO HAVE AND TO HOLD ALL and singular the above-described premises, together with the appurtenances, unto the said parties of the second part, their heirs and assigns forever.

I, Jerome T. Younger, P.E., Deputy Secretary for Engineering and State Transportation Engineer, pursuant to the authority delegated to me by the Secretary of the Kansas Department of Transportation under K.S.A. 75-5005, hereby certify that I have authority to act on behalf of the Secretary of Transportation when the Secretary is absent or unavailable, and further certify I am signing the foregoing document in accordance with that authority.

The Secretary of the Kansas  
Department of Transportation

BY:

\_\_\_\_\_  
Jerome T. Younger, P.E.  
Deputy Secretary for Engineering and  
State Transportation Engineer

STATE OF KANSAS                    )  
  ) ss:  
COUNTY OF SHAWNEE            )

BE IT REMEMBERED, that on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, that the undersigned, a Notary Public in and for the County and State aforesaid, came Jerome T. Younger, P.E., Deputy Secretary for Engineering and State Transportation Engineer for the State of Kansas, who is personally known to me to be the same person who executed the foregoing instrument of writing and such person acknowledged the execution of the same.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my official seal the day and year last above written.

\_\_\_\_\_  
Notary Public

My Commission Expires:

\_\_\_\_\_

---

## QUITCLAIM DEED

---

THIS DEED, Made this 13th day of August, 2010, by and between The State of Kansas, acting by and through Debra L. Miller, as Secretary of Transportation of the State of Kansas, of the first part, and the City of Lawrence, in the State of Kansas of the second part:

WITNESSETH, That said party of the first part, in consideration of the sum of one dollar and other valuable consideration to it duly paid, has sold, and by these presents does Remise, Release and Quitclaim unto the said parties of the second part, their heirs and assigns, forever, all that tract of land situated in the County of Douglas and the State of Kansas described as follows, to-wit:

A tract of land in the Southwest Quarter of Section 29, Township 12 South, Range 19 East of the 6th P.M., described as follows: COMMENCING at the Southwest corner of said Quarter Section; thence on an assumed bearing of North 88 degrees 04 minutes 24 seconds East, 961.91 feet along the South line of said Quarter Section; thence North 01 degree 55 minutes 36 seconds West, 149.78 feet to the Easterly right of way line of existing K-10 Highway; thence North 14 degrees 23 minutes 48 seconds West, 253.46 feet along said Easterly right of way line; thence North 32 degrees 50 minutes 50 seconds West, 79.63 feet to the POINT OF BEGINNING; FIRST COURSE, thence continuing North 32 degrees 50 minutes 50 seconds West, 816.54 feet along said Easterly right of way line; SECOND COURSE, thence North 02 degrees 42 minutes 21 seconds West, 933.78 feet along said Easterly right of way line; THIRD COURSE, thence on a curve of 4069.72 feet radius to the left, an arc distance of 555.04 feet along said Easterly right of way line with a chord which bears North 06 degrees 36 minutes 47 seconds West, 554.61 feet to the North line of said Quarter Section; FOURTH COURSE, thence South 88 degrees 04 minutes 06 seconds West, 42.55 feet along said North line; FIFTH COURSE, thence on a curve of 5040.00 feet radius to the right, an arc distance of 609.68 feet with a chord which bears South 06 degrees 19 minutes 18 seconds East, 609.31 feet; SIXTH COURSE, thence South 02 degrees 51 minutes 22 seconds East, 558.69 feet; SEVENTH COURSE, thence on a curve of 1510.00 feet radius to the left, an arc distance of 974.24 feet with a chord which bears South 21 degrees 20 minutes 22 seconds East, 957.43 feet; EIGHTH COURSE, thence on a curve of 410.00 feet radius to the left, an arc distance of 189.41 feet with a chord which bears South 53 degrees 03 minutes 27 seconds East, 187.73 feet to the POINT OF BEGINNING. The above described tract contains 2.37 acres, more or less.

The above described land will revert to the grantor if not used for public purposes.

RESTRICTIVE COVENANT: Grantees, for their heirs and assigns, do hereby covenant and agree, said covenant to run with the land, that the land conveyed herein shall not be used for billboards, signboards or other outdoor advertising purposes.

The above described land is subject to easement for the right of ingress and egress, reconstruction, and maintenance of all existing utilities and appurtenances thereto, together with the appurtenance and all the estate, title and interest of said party of the first part therein.

TO HAVE AND TO HOLD ALL and singular the above-described premises, together with the appurtenances, unto the said parties of the second part, their heirs and assigns forever.

I, Jerome T. Younger, P.E., Deputy Secretary for Engineering and State Transportation Engineer, pursuant to the authority delegated to me by the Secretary of the Kansas Department of Transportation under K.S.A. 75-5005, hereby certify that I have authority to act on behalf of the Secretary of Transportation when the Secretary is absent or unavailable, and further certify I am signing the foregoing document in accordance with that authority.

The Secretary of the Kansas  
Department of Transportation

BY:

\_\_\_\_\_  
Jerome T. Younger, P.E.  
Deputy Secretary for Engineering and  
State Transportation Engineer

STATE OF KANSAS                    )  
  ) ss:  
COUNTY OF SHAWNEE            )

BE IT REMEMBERED, that on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, that the undersigned, a Notary Public in and for the County and State aforesaid, came Jerome T. Younger, P.E., Deputy Secretary for Engineering and State Transportation Engineer for the State of Kansas, who is personally known to me to be the same person who executed the foregoing instrument of writing and such person acknowledged the execution of the same.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my official seal the day and year last above written.

\_\_\_\_\_  
Notary Public

My Commission Expires:

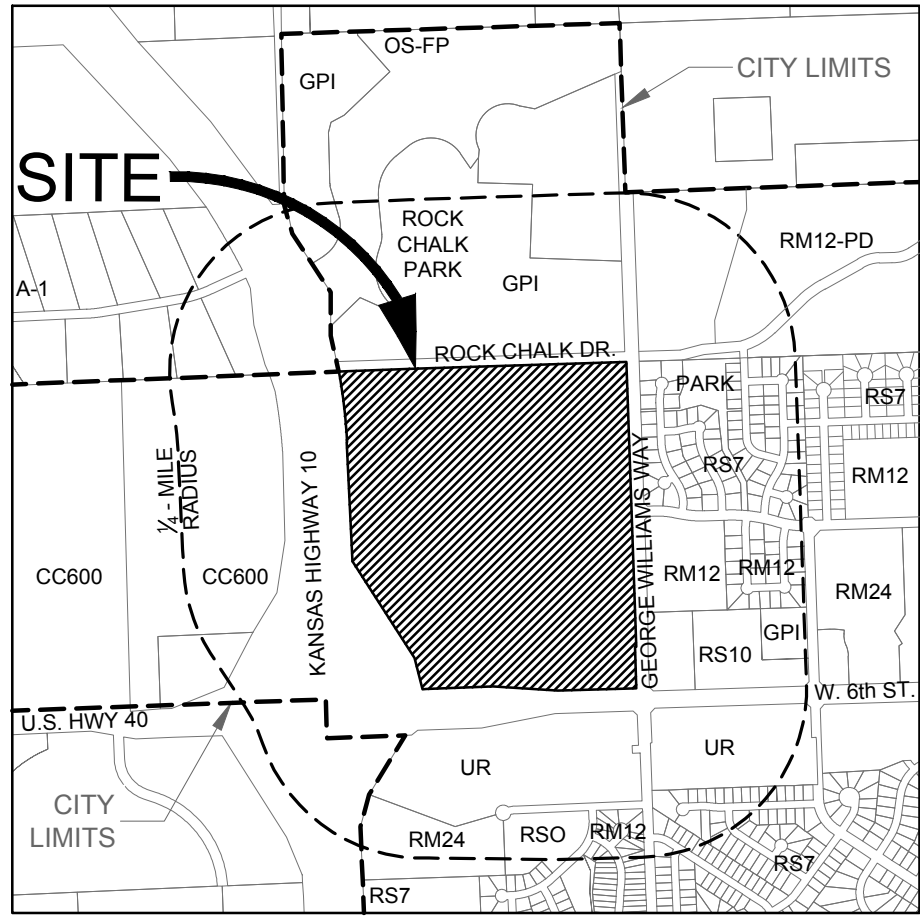
\_\_\_\_\_





LOCATION MAP:

SCALE 1" = 1,500'



LEGAL DESCRIPTION:

A TRACT IN SOUTHWEST QUARTER OF SECTION 29, TOWNSHIP 12 SOUTH, RANGE 19 EAST OF THE 6TH PRINCIPAL MERIDIAN, IN THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS, DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF SAID SOUTHWEST QUARTER; THENCE NORTH 01° 59' 06" WEST, ALONG THE EAST LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 100.47 FEET; THENCE SOUTH 88° 00' 54" WEST, A DISTANCE OF 50.00 FEET TO THE POINT OF BEGINNING, SAID POINT ALSO BEING THE INTERSECTION OF THE NORTH RIGHT-OF-WAY OF WEST 6TH STREET AND THE WEST RIGHT-OF-WAY OF GEORGE WILLIAMS WAY; THENCE SOUTH 88° 27' 24" WEST, ALONG THE NORTH RIGHT-OF-WAY LINE OF WEST 6TH STREET, A DISTANCE OF 612.83 FEET; THENCE NORTH 86° 31' 32" WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, A DISTANCE OF 508.57 FEET; THENCE SOUTH 87° 49' 32" WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, A DISTANCE OF 550.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF THE SOUTH LAWRENCE TRAFFICWAY; THENCE NORTH 14° 23' 48" WEST, ALONG THE EAST RIGHT-OF-WAY LINE OF THE SOUTH LAWRENCE TRAFFICWAY, A DISTANCE OF 253.46 FEET; THENCE NORTH 32° 50' 50" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 896.17 FEET; THENCE NORTH 02° 42' 21" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 934.25 FEET; THENCE ON A CURVE TO THE LEFT WITH A RADIUS OF 4,069.48 FEET, A DELTA ANGLE OF 15° 15' 15", AND A 553.92 FOOT LONG CHORD BEARING NORTH 61° 38' 42" WEST, AN ARC DISTANCE OF 554.35 FEET ALONG SAID EAST RIGHT-OF-WAY LINE TO A POINT ON THE NORTH LINE OF SAID SOUTHWEST QUARTER, SAID LINE ALSO BEING THE SOUTH RIGHT-OF-WAY OF ROCK CHALK DRIVE; THENCE NORTH 88° 03' 57" EAST, ALONG SAID NORTH LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 2,249.70 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF GEORGE WILLIAMS WAY; THENCE SOUTH 01° 59' 06" EAST, ALONG SAID WEST RIGHT-OF-WAY LINE, A DISTANCE OF 2,228.38 FEET; THENCE SOUTH 88° 00' 54" WEST, A DISTANCE OF 10.00 FEET; THENCE SOUTH 01° 59' 08" EAST, ALONG SAID WEST RIGHT-OF-WAY LINE, A DISTANCE OF 324.02 FEET TO POINT OF BEGINNING. CONTAINS 120.507 ACRES, MORE OR LESS.

PROVISION AND FINANCING OF ROADS, SEWER AND OTHER PUBLIC SERVICES:

- THE SUBDIVISION WILL INCLUDE THE DEDICATION OF RIGHTS-OF-WAY ASSOCIATED WITH ALL INTERNAL ROADS SHOWN.
- THE SUBDIVISION WILL PROVIDE CONNECTIONS TO THE CITY OF LAWRENCE WATER SYSTEM VIA EXISTING 12" MAINS LOCATED ON THE NORTH SIDE OF W. 6th STREET, THE EAST SIDE OF GEORGE WILLIAMS WAY AND THE NORTH SIDE OF ROCK CHALK DRIVE.
- THE SUBDIVISION WILL PROVIDE CONNECTIONS TO THE CITY OF LAWRENCE SANITARY SEWER SYSTEM VIA TWO EXISTING MANHOLES: MH-SW291219001 LOCATED ON THE EAST SIDE OF GEORGE WILLIAMS WAY AND MH-SW291219012 LOCATED ON THE SOUTH SIDE OF ROCK CHALK DRIVE.
- PURCHASERS OF THE LOTS IN THE SUBDIVISION MAY OR MAY NOT BE SUBJECT TO SPECIAL ASSESSMENTS OR OTHER COSTS OF STREETS, ROADS, WATER LINES AND TREATMENT, AND/OR WASTEWATER LINES AND TREATMENT.
- THE PROVISION OF IMPROVED ROADS, WATER SERVICE AND/OR WASTEWATER SERVICE MAY OR MAY NOT DEPEND ON A VOTE, PETITION OR OTHER COLLECTIVE ACTION OF PROPERTY OWNERS IN THE SUBDIVISION.

SCALE: 1" = 150'

GENERAL NOTES:

- OWNERS: JDS KANSAS, L.C.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049  
  
KENTUCKY PLACE, L.C.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049  
  
SOJAC LAND CO., L.C.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049  
  
SCOTSDALE PROPERTIES, L.C.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049  
  
TANGLEWOOD, L.C.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049  
  
TAT LAND HOLDING CO., L.C.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049  
  
VENTURE PROPERTIES, INC.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049
- LAND PLANNER  
CIVIL ENGINEER/  
SURVEYOR: LANDPLAN ENGINEERING, P.A.  
1310 WAKARUSA DRIVE, SUITE 100  
LAWRENCE, KANSAS 66049
- TOPOGRAPHIC INFORMATION SHOWN WAS GENERATED USING PUBLICLY-AVAILABLE LIDAR DATA COLLECTED BY THE STATE OF KANSAS IN 2015.
- EXISTING ZONING: CC800
- PROPOSED ZONING: CC800
- EXISTING LAND USE: VACANT
- PROPOSED LAND USE: COMMUNITY COMMERCIAL
- TYPICAL SOIL TYPES: MARTIN SILT CLAY LOAM, 3 TO 7% SLOPES; VINLAND-MARTIN COMPLEX, 7 TO 15% SLOPES; GYMER SILT LOAM, 1 TO 3% SLOPES; OSKA SILTY CLAY LOAM, 3 TO 6% SLOPES; MARTIN-OSKA SILTY CLAY LOAMS, 3 TO 6% SLOPES; SOGN-VINLAND COMPLEX, 3 TO 25% SLOPES; MARTIN SOILS, 3 TO 7% SLOPES, ERODED; SIBLEYVILLE LOAM, 3 TO 7% SLOPES, ERODED; WOODSON SILT LOAM, 1 TO 3% SLOPES; GRAVEL PITS AND QUARRIES; MARTIN SILTY CLAY LOAM, 1 TO 3% SLOPES.
- PROPOSED UTILITY LOCATIONS AND SIZES ARE PRELIMINARY AND WILL BE FINALIZED AT THE TIME OF SITE ENGINEERING. DEVELOPER IS RESPONSIBLE FOR THE COST OF ANY RELOCATION OF EXISTING UTILITIES, IF NECESSARY TO SERVE THE PROPOSED SUBDIVISION.
- ALL NEW TELEPHONE, CABLE TELEVISION AND ELECTRICAL LINES (EXCEPT HIGH VOLTAGE LINES) MUST BE LOCATED UNDERGROUND.
- LANDSCAPING SHALL NOT BE PLACED WITHIN UTILITY EASEMENTS, WITHIN 8 FEET OF ANY WATER MAIN, OR WITHIN 8 FEET OF ANY SANITARY SEWER MAIN.
- THE BASIS OF THE BEARINGS FOR THIS PLAT IS KANSAS STATE PLANE NORTH.
- IF A BASEMENT IS BUILT ON A LOT WHERE A MINIMUM ELEVATION HAS BEEN ESTABLISHED, THE BUILDING DESIGN IS ENCOURAGED TO INCORPORATE A SUMP PUMP.
- NO PERSON MAY CONSTRUCT, MAINTAIN, OR ALLOW ANY NATURAL OR NON-NATURAL STRUCTURES OR VEGETATIVE BARRIERS (INCLUDING BUT NOT LIMITED TO TREES, SHRUBBERY, BERMS, FENCES, AND WALLS) UPON DRAINAGE EASEMENTS THAT THE DIRECTOR OF PUBLIC WORKS FINDS IMPEDES, DETAINS, RETAINS, OR OTHERWISE INTERFERES WITH THE DRAINAGE OF STORMWATER.
- DURING CONSTRUCTION OF MERCATO LANE THE PROPERTY OWNER(S) ARE RESPONSIBLE FOR REMOVAL OF E 902 ROAD AND ALL DISTURBED AREA SHALL BE SEEDED AND MAINTAINED UNTIL VEGETATION IS ESTABLISHED.

PHASING SCHEDULE:

- LOT 1, BLOCK ONE - SUMMER 2017
- REMAINING LOTS AND BLOCKS - TO BE DETERMINED

SITE SUMMARY:

GROSS AREA: 5,249,265 SF / 120.507 AC  
RIGHTS-OF-WAY 462,755 SF / 10.623 AC  
TRACTS: 229,468 SF / 5.267 AC  
NET AREA: 4,557,033 SF / 104.615 AC

TOTAL LOTS: 6  
AVERAGE LOT SIZE: 560,933 SF / 12.877 AC  
MINIMUM LOT AREA: 139,400 SF / 3.200 AC  
MAXIMUM LOT AREA: 962,679 SF / 22.100 AC

BLOCK ONE:  
NET AREA: 889,396 SF / 20.417 AC  
TOTAL LOTS: 2  
AVERAGE LOT SIZE: 444,698 SF / 10.208 AC  
MINIMUM LOT AREA: 139,400 SF / 3.200 AC  
MAXIMUM LOT AREA: 749,996 SF / 17.216 AC

BLOCK TWO:  
NET AREA: 962,679 SF / 22.100 AC  
TOTAL LOTS: 1  
AVERAGE LOT SIZE: 962,679 SF / 22.100 AC  
MINIMUM LOT AREA: 962,679 SF / 22.100 AC  
MAXIMUM LOT AREA: 962,679 SF / 22.100 AC

BLOCK THREE:  
NET AREA: 735,091 SF / 16.875 AC  
TOTAL LOTS: 1  
AVERAGE LOT SIZE: 735,091 SF / 16.875 AC  
MINIMUM LOT AREA: 735,091 SF / 16.875 AC  
MAXIMUM LOT AREA: 735,091 SF / 16.875 AC

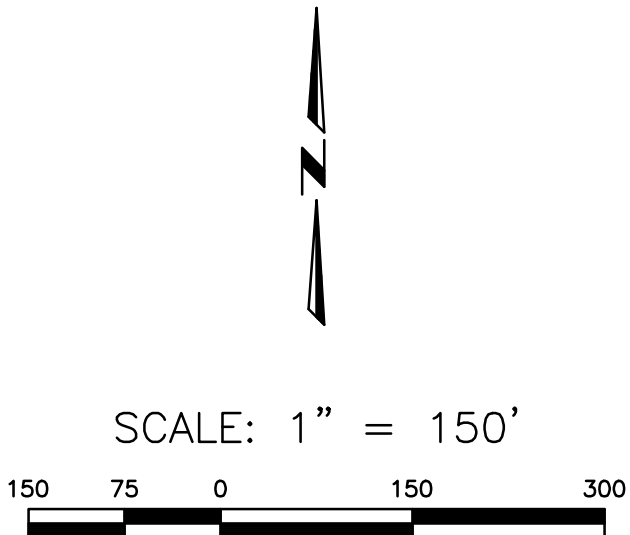
BLOCK FOUR:  
NET AREA: 397,251 SF / 9.120 AC  
TOTAL LOTS: 1  
AVERAGE LOT SIZE: 397,251 SF / 9.120 AC  
MINIMUM LOT AREA: 397,251 SF / 9.120 AC  
MAXIMUM LOT AREA: 397,251 SF / 9.120 AC

BLOCK FIVE:  
NET AREA: 1,572,624 SF / 36.102 AC  
TOTAL LOTS: 3  
AVERAGE LOT SIZE: 524,208 SF / 12.034 AC  
MINIMUM LOT AREA: 353,274 SF / 8.110 AC  
MAXIMUM LOT AREA: 692,161 SF / 15.890 AC

REV	DATE	DESCRIPTION
1	2/22/17	PER DESK COMMENTS
2	3/09/17	PER DESK COMMENTS

DATE:	1/9/17
PROJECT NO.:	20173000
DESIGNED BY:	LPE
DRAWN BY:	LPE
CHECKED BY:	BS





**6200 W. 6th STREET  
LAWRENCE, KANSAS 66049**  
**A PRELIMINARY PLAT FOR MERCATO ADDITION  
EXISTING & PROPOSED TOPOGRAPHY**

REV	DATE	DESCRIPTION
1	2/22/17	PER DEPT. COMMENTS
2	3/09/17	PER DEPT. COMMENTS

DATE: 1/9/17  
PROJECT NO.: 20173000  
DESIGNED BY: LPE  
DRAWN BY: LPE  
CHECKED BY: BS





# Traffic Impact Study for Mercato

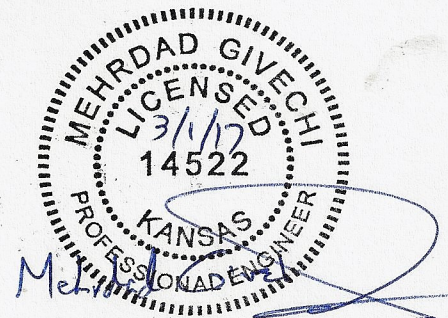
NEC of  
K-10 Highway and W. 6<sup>th</sup> Street (US-40)  
Lawrence, Kansas

Prepared  
for  
Landplan Engineering, P.A.

Prepared  
By



*Serving Communities Through Excellence*  
Missouri | Kansas | Michigan | California



Mehrdad Givechi, P.E., P.T.O.E.

**February 2017**



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## ***Introduction***

### **Proposed Development**

The proposed “Mercato” development site is located on the northeast corner of the interchange of K-10 Highway (South Lawrence Trafficway) and US-40 Highway (W. 6<sup>th</sup> Street) in Lawrence, Kansas (See Location Map, Figure 1 of Appendix I). It encompasses an area of approximately 120 acres approved for CC600 zoning with maximum allowable general retail space of 360,000 gross square feet. The specific uses for the individual parcels (illustrated in the Site Plan, Appendix I) are not known at the time this study was conducted. For the purpose of this analysis, however, the following general uses are assumed:

- 360,000 Gross Square Feet (GSF) of general retail (*ITE Land Use Code 820, Shopping Center*). Assuming a 70% factor, this amounts to 252,000 Gross Leasable Area (GLA);
- 340,000 GSF of Commercial Office (*ITE Land Use Code 710, General Office Building*);
- An 80,000 GSF of a Cinema with potentially 1,000 seats (*ITE Land Use Code 445, Multiplex Movie Theatre*); and
- A few hotels with combined room count of 450 (*ITE Land Use Code 310, Hotel*).

### **Existing and Approved Nearby Developments**

Existing developments in the area include:

- Rock Chalk Park (A sport complex and recreational facility) on the northwest corner of George Williams Way and Rock Chalk Drive with access to both streets.
- Hunters’ Ridge (A multi-family residential development) with access to Stoneridge Drive, Overland Drive and Queens Road.
- St. Margaret Church, located on the northwest quadrant of West 6<sup>th</sup> Street and Stoneridge Drive, with access to Stoneridge Drive.

- A number of existing and approved residential subdivisions along both sides of George Williams Way, starting from a short distance south of West 6<sup>th</sup> Street to the south, with access to both George Williams Way and Stoneridge Drive.

The area along east side of George Williams Way, north of West 6<sup>th</sup> Street is currently under development with a couple of approved projects. They include:

- “*Oregon Trail Addition*” residential development with mix of single-family and multi-family lots north of 6<sup>th</sup> Street, between George Williams Way and Stoneridge Drive, with access to George Williams Way; and
- “*Links at Lawrence*” development with a mix of single-family/multi-family residential, office and retail/commercial located on the northeast corner of George Williams Way and Rock Chalk Drive with access to George Williams Way and Wakarusa Drive Extension.
- “*Kellyn Addition*” residential development with mix of single-family and multi-family lots northwest corner of Overland Drive and Queens Road with access to both streets.

### Access

Access to the development site, as illustrated on the Site Plan (Figure 2 of Appendix I), will be provided at four locations:

- One on W. 6<sup>th</sup> Street at Mercato Lane approximately 880 ft. west of George Williams Way. It is restricted to right-in/right-out and has an existing dedicated westbound right-turn lane with 420 ft. of storage space);
- Two on George Williams Way
  - A full access at Mercato Drive approximately 1,050 ft. north of W. 6<sup>th</sup> Street and 430 ft. south of Overland Drive. Currently, there is a dedicated northbound left-turn lane that is part of an existing 350 ft. long two-way left-turn at this location. George Williams Way is a 4-lane divided roadway on both sides of this access drive; and



- Another full access at Mercato Terrace approximately 750 ft. north of Overland Drive and 480 ft. south of Rock Chalk Drive (future extension of Wakarusa Drive). George Williams Way is a 2-lane roadway on both sides of this access drive;
- One on Rock Chalk Drive approximately 1,550 ft. west of George Williams Way. Rock Chalk Drive is a 2-lane roadway between George Williams Way and E. 902 Road.
- No direct access will be provided to South Lawrence Trafficway (K-10 Highway).

### Study Area

Per discussion with the City staff, the intersections of W. 6<sup>th</sup> Street with George Williams Way (existing signal) and Mercato Lane (existing street stub, Right-In/Right-Out) do not need to be analyzed as part of this study. Geometric and operational improvements for these intersections have already been implemented per recommendations of several previous TIS reports for developments in the study area. For the purpose of this analysis, the City staff has identified the following intersections:

- George Williams Way and Mercato Drive (proposed “T” intersection);
- George Williams Way and Overland Drive (existing stop-controlled “T” intersection);
- George Williams Way and Mercato Terrace (proposed “T” intersection);
- George Williams Way and Rock Chalk Drive (existing “T” intersection);
- Rock Chalk Drive and Mercato Way (proposed 4-way intersection);
- Mercato Way and Mercato Drive (proposed “T” intersection); and
- Mercato Drive and Mercato Lane (proposed “T” intersection).

## Purpose

The purpose of this study is:

1. To evaluate the existing operating conditions of traffic at the intersections in the study area ("Existing" Scenario) and recommend improvements if any needed;
2. To assess the impact of trips generated by this development on the above-mentioned intersections ("Existing + Project" Scenario);
3. To recommend any off-site improvements needed as a result of this development;
4. To assess the impact of other proposed and approved developments in the proximity of this site (as applicable), and recommend off-site improvements needed as a result of the cumulative impact of these developments ("Existing + Project + Approved" Scenario; and
5. Discuss multi-modal aspects in the study area including pedestrian, bicycle and transit.

## ***Data Collection and Summary***

Data collection efforts for this study comprised of field observations and turning movement counts at the intersections in the study area. In addition, pertinent information from several other sources was obtained for analysis purposes. These sources include:

- City of Lawrence Transportation 2040 study.
- Area Transportation Plan, US-40/West 6<sup>th</sup> Street and K-10 Interchange study dated March 2012;
- Traffic Study, The "Links at Lawrence" development, dated June 25, 2014;
- Traffic Study, "Oregon Trail Addition" development, dated July 2006;
- Traffic Impact Study for "Kellyn Addition" development, dated 5/17/13. The following paragraphs summarize the results of these data collection tasks and field observations.

### Manual Traffic Counts

Vehicular turning movement counts were conducted at the intersections under study during morning and afternoon peak-hours of typical weekdays (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) and mid-day peak-hours of typical Saturdays (10:00 a.m. to 1:00 p.m.) in February 2017. The results, as summarized in Appendix IV and illustrated in Figures 3, 4 and 5 of Appendix I, indicate:

- On a typical weekday, morning peak occurs between 7:45 and 8:45 a.m. with:
  - George Williams Way carrying approximately 140 vph north of Overland Drive with directional distribution of approximately 63% - 37% (northbound – southbound); and 200 vph south of Overland Drive with directional distribution of 52% - 48% (northbound – southbound).
  - Overland Drive carrying approximately 150 vph with directional distribution of 57% - 43% (westbound – eastbound).
- On a typical weekday, afternoon peak occurs between 4:45 and 5:45 p.m. with:
  - George Williams Way carrying approximately 470 vph south of Rock Chalk Drive with directional distribution of approximately 63% - 37% (northbound – southbound).
  - Overland Drive carrying approximately 150 vph with directional distribution of 57% - 43% (westbound – eastbound).
- On a typical Saturday, mid-day peak occurs between 11:30 a.m. and 12:30 p.m. with:
  - George Williams Way carrying approximately 450 vph south of Rock Chalk Drive with directional distribution of approximately 43% - 57% (northbound – southbound).
  - Overland Drive carrying approximately 150 vph with directional distribution of 44% - 56% (westbound – eastbound).



### Street Network

Following Table summarizes the functional classification, direction of travel and posted speed limit of the street network in the study area.

Street Network in the Study Area	General Direction of Travel (Speed Limit)	City's T2040 Major Thoroughfares Designation	KDOT's Approved Functional Classification	KDOT's Access Management Plan	KDOT's Design Access Control
K-10 (SLT)	North/South (65 mph)	Freeway	Principal Arterial (Other Freeway/ Expressway)	C	Full
W. 6 <sup>th</sup> Street (US-40)	East/West (45 mph)	Principal Arterial	Principal Arterial (Other)	D	Low Order Partial
George Williams Way	North/South (35 mph)	Collector	-	-	-
Overland Drive	East/West (35 mph)	Collector	-	-	-
Wakarusa Drive	East/West (future)	Collector	-	-	-
Mercato Lane	North/South (future)	Collector	-	-	-
Mercato Drive	East/West (future)	Collector	-	-	-
Rock Chalk Drive	East/West (30 mph)	Local	-	-	-
Mercato Way	North/South (future)	Local	-	-	-
Mercato Terrace	East/West	Local	-	-	-

## ***Evaluation of the Existing Operating Conditions***

### **Volume/Capacity Analysis**

A volume/capacity analysis (using Synchro 7 Software and methodologies outlined in the 2010 Highway Capacity Manual (HCM) published by the Transportation Research Board) was conducted to determine the level-of-service (LOS) for all movements at the intersections under study during both morning and afternoon peak-hours of a typical weekday, and mid-day peak-hour of a typical Saturday.

Level-of-service, as defined in the HCM, describes the quality of traffic operating condition and ranges from “A” to “F”, with LOS “A” representing the best (most desirable with minimum delay) conditions and LOS “F” the worst (severely congested with excessive delays). The following chart outlines the level-of-service criteria for roundabouts, unsignalized and signalized intersections.

<b>Level-Of-Service</b>	<b>Control Delay for Unsignalized Intersections (seconds/vehicle)</b>	<b>Control Delay for Signalized Intersections (seconds/vehicle)</b>	<b>Volume/Capacity Ratio for Roundabouts (aaSIDRA Criteria)</b>
A	0 – 10	0 – 10	< 0.6
B	> 10 – 15	> 10 – 20	0.6 – 0.7
C	> 15 – 25	> 20 – 35	0.7 – 0.8
D	> 25 – 35	> 35 – 55	0.8 – 0.9
E	> 35 – 50	> 55 – 80	0.9 – 1.0
F	> 50	> 80	> 1.0

The results of analysis, as summarized in Appendix II and illustrated in Figure 5 of Appendix I, indicate that during the peak-hours of a typical weekday and Saturday, individual movements at all intersections in the study area operate at LOS “B” or higher with ample reserve capacity.

## ***Trip Generation Analysis***

The trip generation of a proposed land development project is typically estimated using trip generation rates suggested by the Institute of Transportation Engineers, Trip Generation Manual, 9<sup>th</sup> Edition. For the purpose of this analysis, the following assumptions are made. The results are summarized in Table 1 and shown in detail in Appendix III.

### **Assumptions**

- **Method of Trip Estimation –**

In the absence of local trip data, ITE Trip Generation Manual provides two methods for estimating trips – *Weighted Average Rate Method* and *Regression Equation Method*. For this study, both methods are evaluated and the one with statistical significance is selected for each land use. It is to be noted that these trips are unadjusted trips and are subject to discounts as described in the following paragraphs (See Table 1 and Appendix III for details).

- **Adjustment for Internal Trip Capture –**

The proposed project is a mixed-use development consisting of retail, commercial office and logging components with potential *internal trip capture*. These rates are typically estimated using the information published in two sources – ITE Trip Generation Handbook and NCHRP (National Cooperative Highway Research Program) Report 684. For the purpose of this study, the ITE rate of 11% is selected (See Table 1 and Appendix III for details).

- **Adjustment for Pass-By Trips –**

The retail component of the project is likely to attract a portion of its trips from the existing traffic on the adjacent street network. These are *pass-by* trips that are not considered new trips added to the street network, but are considered new trips at driveways to the site. As suggested in the ITE Trip Generation Handbook, average *pass-by* trip rates for a typical shopping center are 34% for an afternoon peak-hour of a typical weekday; and 26% for a mid-day peak-hour of a typical Saturday (See Table 1 and Appendix III for details). For the purpose of this



analysis, no adjustment was made for pass-by trips because the specific land uses for individual parcels and their respective location within the site are unknown at the time this study is conducted.

- **Adjustment for Multi-Modal Use –**

The project site is located in an area with transit service and bike routes. It is anticipated that a portion of the trips generated by the project site will be utilized by these public transportation modes. Currently, there is no information available on multi-modal use in the area, so the study assumes no discounts to the trip numbers.

*Analysis Time Period*

An overview of the existing traffic volumes in the study area and their peak characteristics, in conjunction with estimated trips generated from the proposed development project, indicate that the most critical peak period will likely occur during the *afternoon peak-hour* of a typical weekday. For the purpose of this analysis, at the request of City staff, peak-hour of a typical Saturday is also evaluated.

**Table 1**  
**Summary of Trip Generation Calculation<sup>1,2</sup> (Total Driveway Volumes) for Proposed "Mercato" Development**  
**(Revised February 2017)**

Land Use (ITE CODE)	Size	Typical Weekday							Typical Saturday			
		24-hr, Two-Way Volume (vpd)	AM Peak-Hour (vph)			PM Peak-Hour (vph)			24-hr, Two-Way Volume (vpd)	Peak-Hour (vph)		
			Enter	Exit	Total	Enter	Exit	Total		Enter	Exit	Total
Retail Component												
Shopping Center (820) *	360,000 GSF <sup>3</sup> 252,000 GLA <sup>3</sup>	12,384	170	104	274	534	579	1113	16,540	829	765	1594
Multiplex Movie Theatre (445)	1000 Seats					29	51	80		65	25	90
Hotel (310)	450 Rooms	3,677	141	98	239	138	132	270	3,686	181	143	324
Commercial Office Component												
General Office (710) *	340,000 GSF	3,328	448	61	509	78	381	459	722	79	67	146
<b>Total Unadjusted Trips</b>		19,389	759	263	1,022	779	1,143	1,922	20,948	1,154	1,000	2,154
<b>Internal Capture Trips @ 11% (per ITE)</b>			55	55	110	110	110	220		127	110	237
<b>Trips Adjusted for Internal Capture (Driveway Volume)</b>			704	208	912	669	1,033	1,702		1,027	890	1,917
<b>Pass-By Trips for Retail Component (per ITE)<sup>4</sup></b>						159	182	341		216	199	415
<b>Total Adjusted Trips (Volume Added to Adj. Streets)</b>			704	208	912	510	851	1,361		811	691	1,502

NOTES:

- 1) The trip generation numbers in this table are calculated using the rates suggested in the *"ITE Trip Generation Manual", 9th Edition*.
- 2) The number of trips are determined by both Weighted Average Rate Method and the Regression Equation Method and the method that generates more trips with statistical significance is selected for analysis. ( \* denotes use of Regression Equation)
- 3) GSF denotes Gross Square Foot of building; GLA denotes Gross Leasable Area of building (calculated at 70% of GSF).
- 4) *ITE Handbook* suggests average pass-by trip percentage of 34% for weekday PM Peak-Hour and 26% for Saturday Mid-Day Peak-Hour.
- 5) Blank cells indicate no data available.



### ***Trip Distribution and Assignment Analysis***

To establish trip distribution patterns for this development project, at build-out, the following factors are considered:

- Location and layout of the proposed street network within the site;
- Existing and future street network in the study area;
- Existing and approved developments surrounding/near the site; and
- Existing peak-hour traffic patterns in conjunction with the forecasted future Average Daily Traffic (ADT) for target year 2030 in the study area.

Using the proposed site layout shown in Figure of Appendix I, with the assumptions that the future street network is in place and the study area is fully developed, the following trip distribution patterns are assumed for this project (See Figure 6 of Appendix I for details).

- 60% to/from east
  - 37% via US-40/West 6<sup>th</sup> Street;
  - 10% via Overland Drive;
  - 13% via Wakarusa Drive (future extension of Rock Chalk Drive).
- 35% to/from west via US-40/West 6<sup>th</sup> Street; and
- 5% to/from south via George Williams Way.

Using the above trip distribution patterns, trips generated by this project are assigned to individual movements within the study area as illustrated in Figures 7 and 8 of Appendix I.

## ***Impact Assessment for “Existing + Proposed Mercato” Scenario***

### ***Assumptions***

This analysis is based on the lane configurations depicted on the Site Plan (See Appendix I) and assuming that Wakarusa Drive Extension east of George Williams Way is built as a 2-lane street and open to traffic.

### ***Volume/Capacity Analysis***

The results of a volume/capacity analysis indicate that, with the exception of a few movements listed below, all other movements will likely operate at LOS “C” or higher at build-out.

- At Mercato build-out, westbound left-turn on Overland Drive at George Williams Way will likely approach capacity, during all peak-hours.
- At Mercato build-out, westbound on Wakarusa Drive Extension at George Williams Way will likely approach capacity, during afternoon peak-hour of a typical weekday; and operate at capacity during Saturday peak-hour.
- At Mercato build-out, eastbound left-turn on Mercato Terrace at George Williams Way will likely approach capacity, during Saturday peak-hour.
- At Mercato build-out, eastbound left-turn on Mercato Drive at George Williams Way will likely operate at congested level during all peak-hours.
- At Mercato build-out, northbound left-turn on Mercato Lane at Mercato Drive will likely approach capacity, during Saturday peak-hour.

For details on peak-hour traffic volumes and levels-of-services refer to Figures 9 and 10 of Appendix I and summary in Appendix II.

### ***Dedicated Turn-Lane Analysis***

From capacity stand point, the following geometric improvements are necessary at Mercato build-out to improve LOS at the key intersections:

- A dedicated westbound left-turn lane on Wakarusa Extension at George Williams Way.
- A dedicated northbound left-turn lane on Mercato Lane at Mercato Drive.



From safety stand point, using guidelines for right-turn and left-turn lane treatments at unsignalized intersections and driveways, listed in a number of access management publications, the requirements for provision of a dedicated northbound left-turn lane on George Williams Way at Mercato Terrace are met at Mercato build-out.

### ***Impact Assessment for “Existing + Proposed Mercato + Approved Nearby Developments” Scenario***

#### **Volume/Capacity Analysis**

To assess the cumulative impact of all approved developments (not yet built) in the area, a volume/capacity analysis was conducted, which included projected traffic generated by all subject developments at build-out. Information provided in traffic impact studies for individual subject developments were compiled and their respective traffic added to the street network for analysis (See Appendix V for details). The results indicate that LOS for individual key movements mentioned in the previous case scenario will likely be impacted further as follows (See Figures 11 and 12 of Appendix I for details on peak-hour traffic volumes):

- Westbound left-turn on Overland Drive at George Williams Way will likely operate at congested level during all peak-hours.
- Westbound on Wakarusa Drive Extension at George Williams Way will likely operate at congested level during all peak-hours.
- Eastbound left-turn on Mercato Terrace at George Williams Way will likely operate at capacity during Saturday peak-hour.
- Eastbound left-turn on Mercato Drive at George Williams Way will likely operate at congested level during all peak-hours.
- Northbound left-turn on Mercato Lane at Mercato Drive will likely approach capacity, during Saturday peak-hour.

**Note:** Although the results of the analysis indicate that a few of the movements in the study may likely operate near and/or over capacity, there are several other access drives with ample reserve capacity that provide alternative routes to the site patrons. It

is highly likely that drivers will eventually choose these alternative routes to/from their destinations to avoid congestion and minimize their travel time.

### Traffic Signal Warrant Analysis

The results of a signal warrant analysis indicate that the requirements for the Peak-Hour Vehicular Volume Warrant are not met at any of the intersections under study except for the intersection of George Williams Way and Mercato Drive. It is to be noted, however, that because the predominant movement for the eastbound approach is right-turn movement (~84%) having a dedicated eastbound right-turn lane, installation of a signal is not recommended at this location until such time that traffic in the area is normalized and a comprehensive traffic signal warrant analysis can be conducted to assess the need for a signal.

## **Summary and Recommendations**

### Existing Conditions

Under the existing geometric and operating conditions, there are no operational and safety deficiencies in the study area.

### Impact Assessment for the Proposed Mercato Development

As mentioned earlier in the report, the additional traffic generated by this development, at build-out, will have an impact on the street network in the study area. A few movements at the key intersections will likely operate near and/or over capacity with potential for congestion. The following mitigation measures are recommended at **build-out** and not necessarily resulted from the first few phases of the development.

- Provide a dedicated northbound left-turn lane on George Williams Way at Mercato Terrace. This lane should have a minimum storage length of 125 ft. with a 100 ft. taper.



- Provide a dedicated westbound left-turn lane on Wakarusa Drive Extension at George Williams Way. This lane should have a minimum storage length of 100 ft. with a 100 ft. taper.
- Provide a dedicated northbound left-turn lane on Mercato Lane at Mercato Drive. This lane should have a minimum storage length of 125 ft. with a 100 ft. taper.
- As noted earlier in the report, although the results of the analysis indicate that a few of the movements in the study may likely operate near and/or over capacity, there are several other access drives with ample reserve capacity that provide alternative routes to the site patrons. It is highly likely that drivers will eventually choose these alternative routes to/from their destinations to avoid congestion and minimize their travel time. For this reason, it is recommended that before considering a traffic signal at any locations in the study area, operating conditions of traffic should be monitored at different stages of developments when traffic is normalized to assess the need for a traffic signal.

*Impact Assessment for the Proposed Mercato Development + Approved Nearby Developments*

Additional traffic generated by other approved developments in the study area including “Links at Lawrence”, “Oregon Trail Addition” and “Kellyn Addition” will have additional impact on the key movements mentioned earlier in the report and would necessitates the same recommended mitigation measures mentioned in the previous paragraph.

# **APPENDIX I**

Figures





**Figure 1**  
**Location Map**





A TRACT IN SOUTHWEST QUARTER OF SECTION 29, TOWNSHIP 12 SOUTH, RANGE 19 EAST OF THE 6TH PRINCIPAL MERIDIAN, IN THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS, DESCRIBED AS FOLLOWS:

A TRACT IN SOUTHEAST QUARTER OF SECTION 29, TOWNSHIP 10 SOUTH, RANGE 19 EAST OF THE 6TH PRINCIPAL MERIDIAN, IN THE CITY OF WENTZ, DOUGLAS COUNTY, KANSAS, DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF SAID SOUTHWEST QUARTER; THENCE NORTH 01° 59' 00" WEST; ALONG THE EAST LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 100.47 FEET; THENCE SOUTH 88° 00' 54" WEST, A DISTANCE OF 50.00 FEET TO THE SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER; THENCE NORTH 01° 59' 00" WEST, ALONG THE EAST LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 50.00 FEET TO THE INTERSECTION OF THE NORTH RIGHT-OF-WAY OF WEST 6TH STREET; THENCE NORTH 01° 59' 00" WEST, ALONG THE EAST LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 22.24 FEET, ALONG THE NORTH RIGHT-OF-WAY OF WEST 6TH STREET, A DISTANCE OF 612.83 FEET; THENCE NORTH 88° 01' 32" WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, A DISTANCE OF 560.57 FEET; THENCE SOUTH 01° 59' 00" WEST, ALONG THE EAST LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 50.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF WEST 6TH STREET; THENCE SOUTH 01° 59' 00" WEST, ALONG THE EAST RIGHT-OF-WAY LINE OF THE SOUTH LAWRENCE TRAFFICWAY, A DISTANCE OF 253.48 FEET; THENCE SOUTH 88° 01' 32" WEST, ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 886.17 FEET; THENCE NORTH 02° 42' 21" WEST, ALONG THE EAST RIGHT-OF-WAY LINE OF THE SOUTH LAWRENCE TRAFFICWAY, A DISTANCE OF 100.47 FEET; THENCE ON A CURVE TO THE LEFT WITH A RADIUS OF 4,008.48 FEET, A DELTA ANGLE OF 15° 10' 15", A DISTANCE OF 76.52 FEET TO THE INTERSECTION OF THE EAST RIGHT-OF-WAY LINE OF THE SOUTH LAWRENCE TRAFFICWAY AND THE EAST RIGHT-OF-WAY LINE OF 55.35 FEET ALONG SAID EAST RIGHT-OF-WAY LINE, TO A POINT OF BEGINNING, A DISTANCE OF 100.47 FEET; THENCE ALSO THE NORTH RIGHT-OF-WAY OF WEST 6TH STREET, A DISTANCE OF 50.00 FEET TO THE SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER, A DISTANCE OF 100.47 FEET; THENCE NORTH 01° 59' 00" WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, A DISTANCE OF 2,228.38 FEET; THENCE SOUTH 88° 00' 54" WEST, ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 324.02 FEET TO WEST POINT OF BEGINNING. CONTAINS 120 ACRES, MORE OR LESS.

PROVISION AND FINANCING OF  
ROADS, SEWER AND OTHER  
PUBLIC SERVICES:

1. THE SUBDIVISION WILL INCLUDE THE DEDICATION OF RIGHTS-OF-WAY ASSOCIATED WITH ALL INTERNAL ROADS SHOWN.
2. THE SUBDIVISION WILL PROVIDE CONNECTIONS TO THE CITY OF LAWRENCE WASTEWATER SYSTEM VIA EXISTING 12" MANHOLE LOCATED ON THE NORTH SIDE OF W. 66th STREET, THE EAST SIDE OF GEORGE WILLIAMS WAY AND THE NORTH SIDE OF W. 66th DRIVE.
3. THE SUBDIVISION WILL PROVIDE CONNECTIONS TO THE CITY OF LAWRENCE SANITARY SEWER SYSTEM VIA TWO EXISTING MANHOLES: MH-SW2521(1500') LOCATED ON THE EAST SIDE OF W. 66th WILLIAMS WAY AND MH-SW1991(2000') LOCATED ON THE SOUTH SIDE OF ROCK CHALK DRIVE.
4. PURCHASERS OF THE LOTS IN THE SUBDIVISION MAY OR MAY NOT BE SUBJECT TO SPECIAL ASSESSMENTS OR OTHER FEES FOR STREETS, SIDEWALKS, PARKS, TRAILS, TREATMENT AND/OR WASTEWATER LINES AND TREATMENT.
5. THE PROVISION OF IMPROVED ROADS, WATER SERVICE AND/OR WASTEWATER SERVICE MAY OR MAY NOT DEPEND UPON THE VOTER/PROPERTY OWNER TAKING ANY ACTION OF PROPERTY OWNERS IN THE SUBDIVISION.

- LAWRENCE, KANSAS 66049
- KENTUCKY PLATE, L.C.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049
- SOJAC LAND CO., L.C.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049
- SCOTSDALE PROPERTIES, L.C.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049
- TANGLEWOOD, L.C.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049
- TAT LAND HOLDING CO., L.C.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049
- VENTURE PROPERTIES, INC.  
2601 DOVER SQUARE  
LAWRENCE, KANSAS 66049
2. LAND PLANNER  
CIVIL ENGINEER/  
SURVEYOR: LANDPLAN ENGINEERING, P.A.  
1310 WAKARUSA DRIVE, SUITE 1100  
LAWRENCE, KANSAS 66049
3. TOPOGRAPHIC INFORMATION SHOWN WAS GENERATED  
USING PUBLICLY AVAILABLE LAND DATA COLLECTED BY THE  
STATE OF KANSAS IN 1981.
4. EXISTING ZONING: C0600
5. PROPOSED ZONING: R0600
6. EXISTING LAND USE: VACANT
7. PROPOSED LAND USE: COMMUNITY COMMERCIAL
8. TYPICAL SOIL TYPES: MARTIN SILTY CLAY LOAM, 3 TO 7%  
SLOPES; VINLAND-MARTIN COMPLEX, 7 TO 15% SLOPES;  
OTHER SILT LOAM, 1 TO 3% SLOPES; MARTIN SILTY LOAM,  
3 TO 6% SLOPES; MARTIN-OSKA SILTY CLAY LOAMS, 3 TO 6%  
SLOPES; SOGA-VINLAND COMPLEX, 3 TO 25% SLOPES;  
VINLAND, 3 TO 7% SLOPES; MARTIN SILTY CLAY LOAM, 3 TO 7%  
SLOPES; ERODED: WOODSON SILTY CLAY, 1 TO 3% SLOPES;  
GRAVEL PITTS AND QUARRIES; MARTIN SILTY CLAY LOAM, 1 TO  
3% SLOPES.
9. PROPOSED UTILITY LOCATIONS AND SIZES ARE PRELIMINARY  
AND WILL BE FINALIZED BY THE CIVIL ENGINEERING  
DEVELOPER IS RESPONSIBLE FOR THE COST OF ANY  
REALLOCATION OF EXISTING UTILITIES, IF NECESSARY TO  
SERVE THE PROPOSED DEVELOPMENT.
10. ALL NEW TELEPHONE, CABLE TELEVISION AND ELECTRICAL  
LINES (EXCEPT HIGH VOLTAGE LINES) MUST BE PLACED IN  
UNDERGROUND.
12. LANDSCAPING SHALL NOT BE PLACED WITHIN UTILITY  
EASEMENTS, WITHIN A FEET 10' BUFFER ZONE OR WITHIN  
8 FEET OF ANY SANITARY SEWER MAIN.
13. THE BASIS OF THE BEARING AND DISTANCE LINES AT KANSAS  
STATE PLANE NORTH.
- IF A EASEMENT IS BUILT ON A LOT WHERE A MINIMUM  
EASEMENT HAS BEEN ESTABLISHED, THE BUILDING DESIGN IS  
ENCOURAGED TO INCORPORATE A SUMP PUMP.
14. THE DESIGNER SHALL PROVIDE A DRAINAGE DESIGN TO ANY  
NATURAL OR NON-NATURAL STRUCTURES OR VEGETATIVE  
BARRIERS (INCLUDING BUT NOT LIMITED TO TREES,  
SHRUBS, BERMS, FENCES, AND WALLS) UPON DRAINAGE  
EASEMENTS THAT THE DIRECTOR OF PUBLIC WORKS FINDS  
IMPEDES, DETAINS, RETAINS, OR OTHERWISE INTERFERES  
WITH THE DRAINAGE OF THE ADJACENT PROPERTY.

## 1 LOT 1 BLOCK ONE - SUMMER 2012

2. REMAINING LOTS AND BLOCKS - TO BE DETERMINED

GROSS AREA: 5,249.2

<b>GROSS AREA:</b>	5,249,265 SF / 120.507 AC
<b>RIGHTS-OF-WAY</b>	462,755 SF / 10.623 AC
<b>TRACTS:</b>	299,043 SF / 6.250 AC
<b>NET AREA:</b>	4,422,641 SF / 101.531 AC
<b>TOTAL LOTS:</b>	8
<b>AVERAGE LOT SIZE:</b>	560,933 SF / 12.877 AC
<b>MINIMUM LOT AREA:</b>	348,435 SF / 7.999 AC
<b>MAXIMUM LOT AREA:</b>	970,490 SF / 22.279 AC

NET AREA:  
TOTAL LOTS:

NET AREA: 828,076 SF / 19.010 AC  
TOTAL LOTS: 2  
AVERAGE LOT SIZE: 414,038 SF / 9.505 AC  
MINIMUM LOT AREA: 140,000 SF / 3.214 AC  
MAXIMUM LOT AREA: 688,076 SF / 15.796 AC

NET AREA:  
TOTAL LOTS:

AVERAGE LOT SIZE: 970,486 SF / 22.279 AC  
MINIMUM LOT AREA: 970,486 SF / 22.279 AC  
MAXIMUM LOT AREA: 970,486 SF / 22.279 AC

NET AREA:  
TOTAL LOTS:

AVERAGE LOT SIZE: 735,091 SF / 16.875 AC  
MINIMUM LOT AREA: 735,091 SF / 16.875 AC  
MAXIMUM LOT AREA: 735,091 SF / 16.875 AC

NET AREA:  
TOTAL LOTS:

AVERAGE LOT SIZE:	397,251 SF /	9.120 AC
MINIMUM LOT AREA:	397,251 SF /	9.120 AC
MAXIMUM LOT AREA:	397,251 SF /	9.120 AC

NET AREA:  
TOTAL LOTS:

TOTAL LOTS:	3
AVERAGE LOT SIZE:	518,852 SF / 11.911 AC
MINIMUM LOT AREA:	348,435 SF / 7.999 AC
MAXIMUM LOT AREA:	692,161 SF / 15.890 AC

SCALE: 1" = 150'

A horizontal graphic scale bar with tick marks at 75, 0, and 150 feet. The bar is divided into segments by vertical lines. The segment from 0 to 75 is shaded gray, and the segment from 75 to 150 is white. The numbers 75, 0, and 150 are placed below the bar at their respective positions.[illegible]



FIGURE 3  
MORNING PEAK-HOUR TRAFFIC VOLUMES (EXISTING)

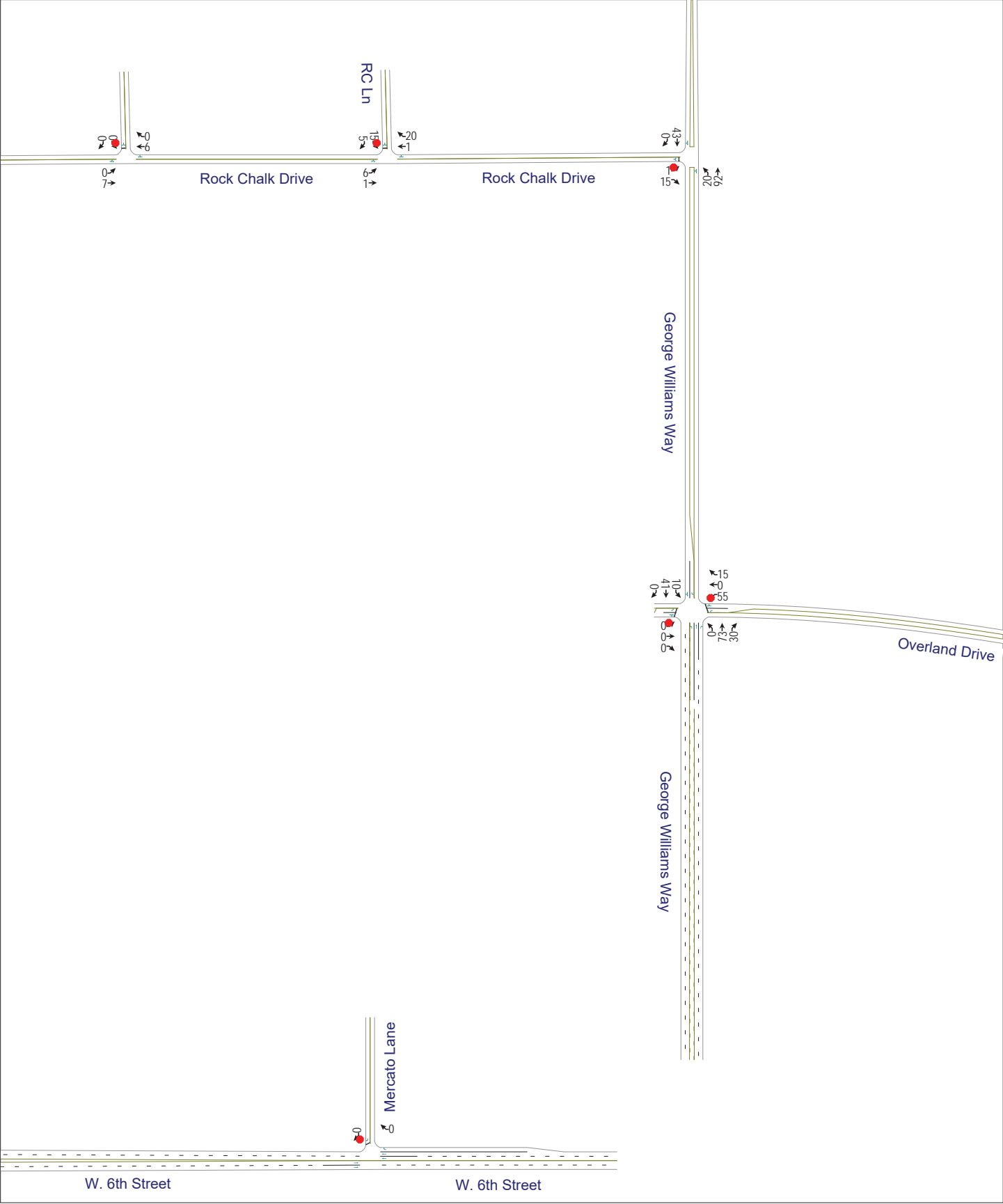


FIGURE 4  
AFTERNOON PEAK-HOUR TRAFFIC VOLUMES (EXISTING)

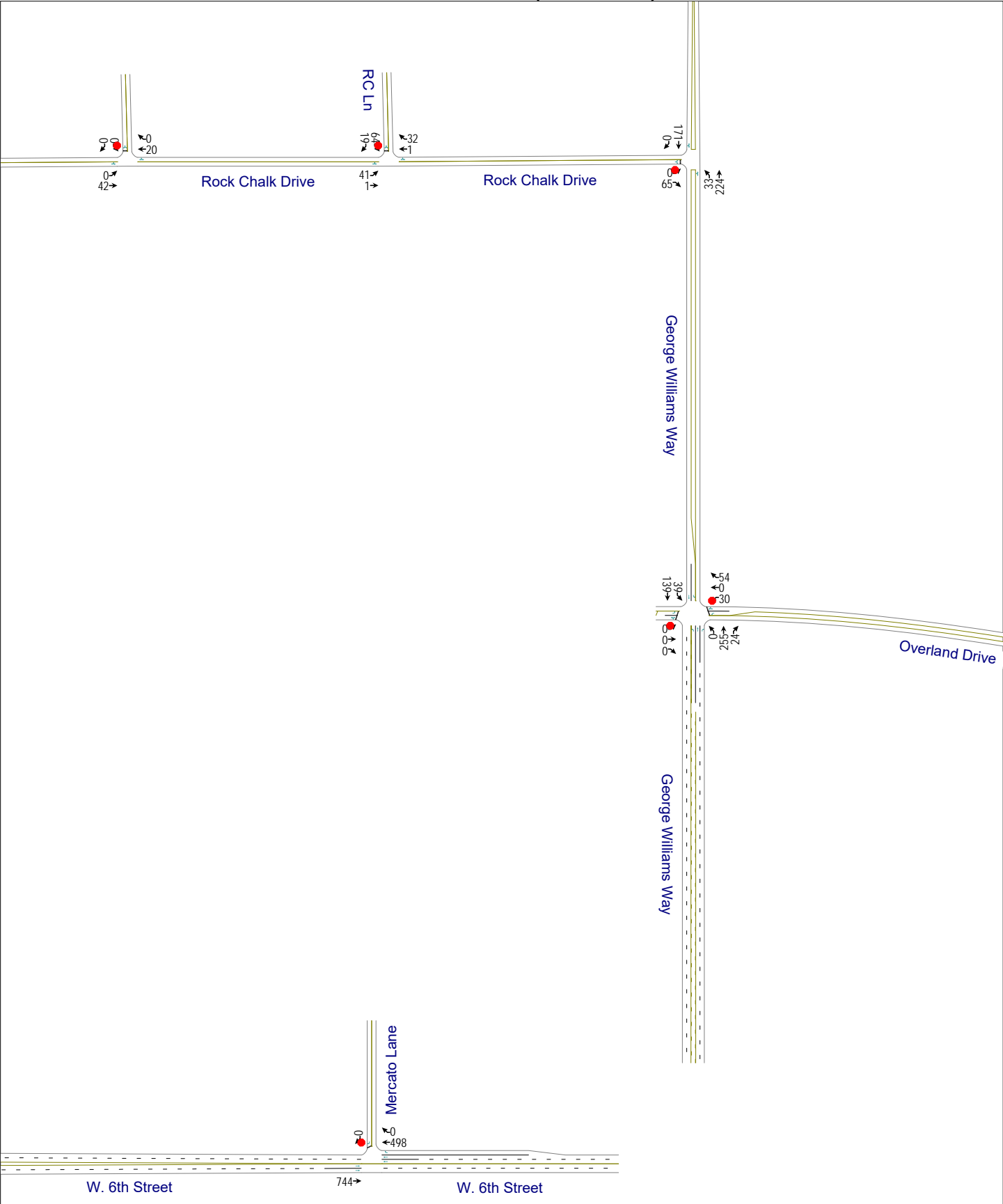
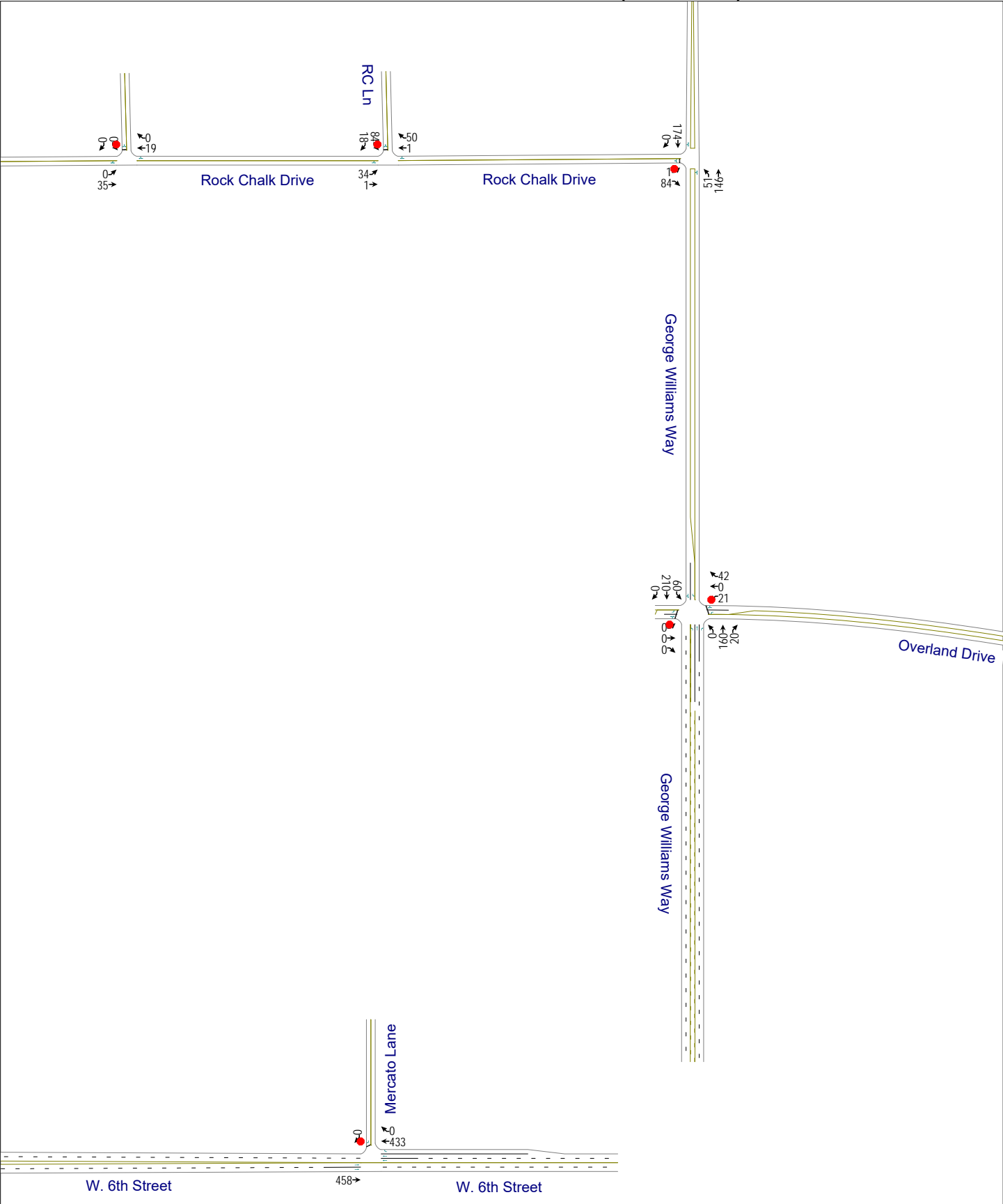




FIGURE 5  
SATURDAY MID-DAY PEAK-HOUR TRAFFIC VOLUMES (EXISTING)



**FIGURE 7**  
**SITE-GENERATED TRIPS FOR MERCATO DEVELOPMENT (PM PEAK-HOUR)**

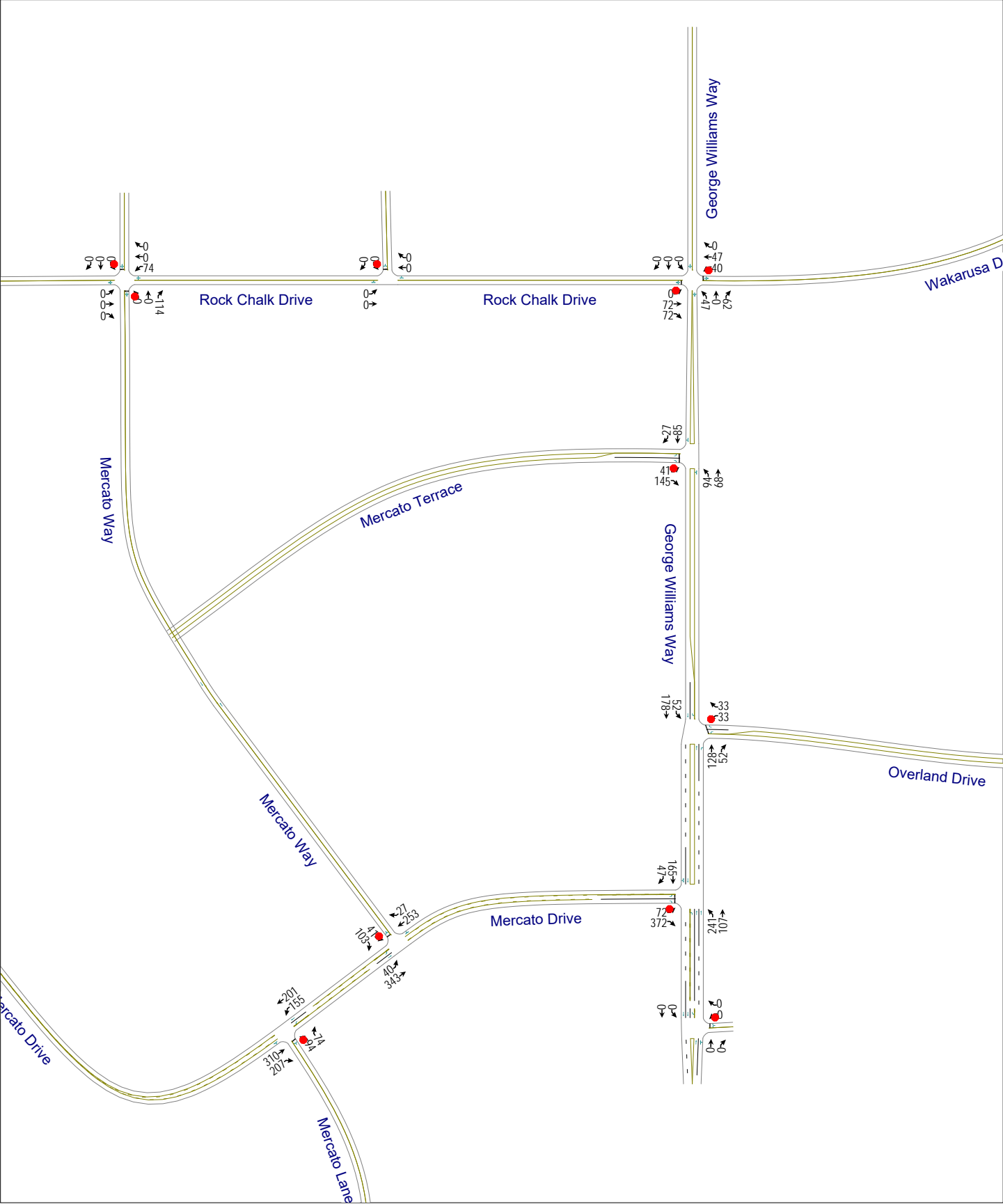
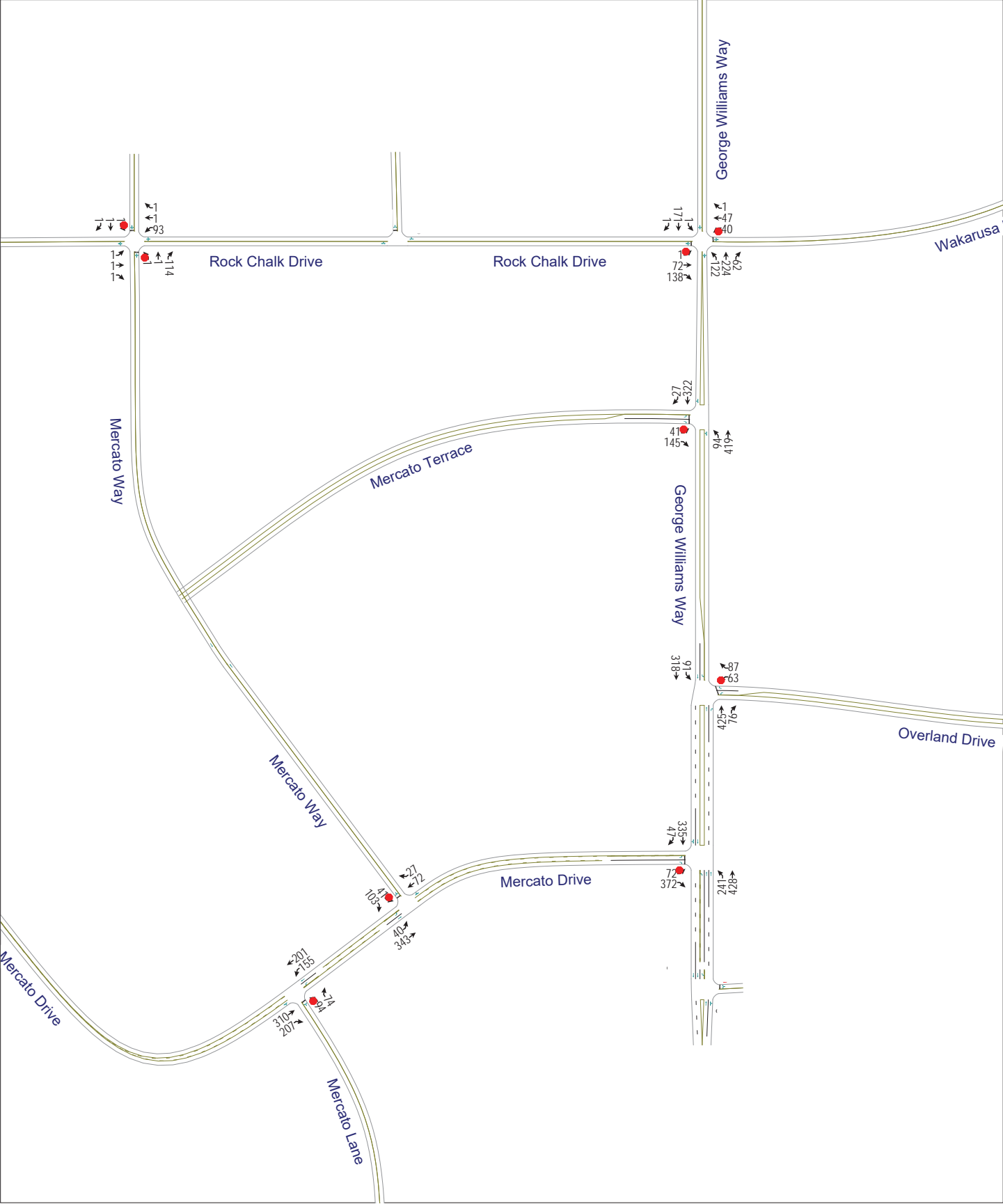




FIGURE 8  
SITE-GENERATED TRIPS FOR MERCATO DEVELOPMENT (SATURDAY PEAK-HOUR)

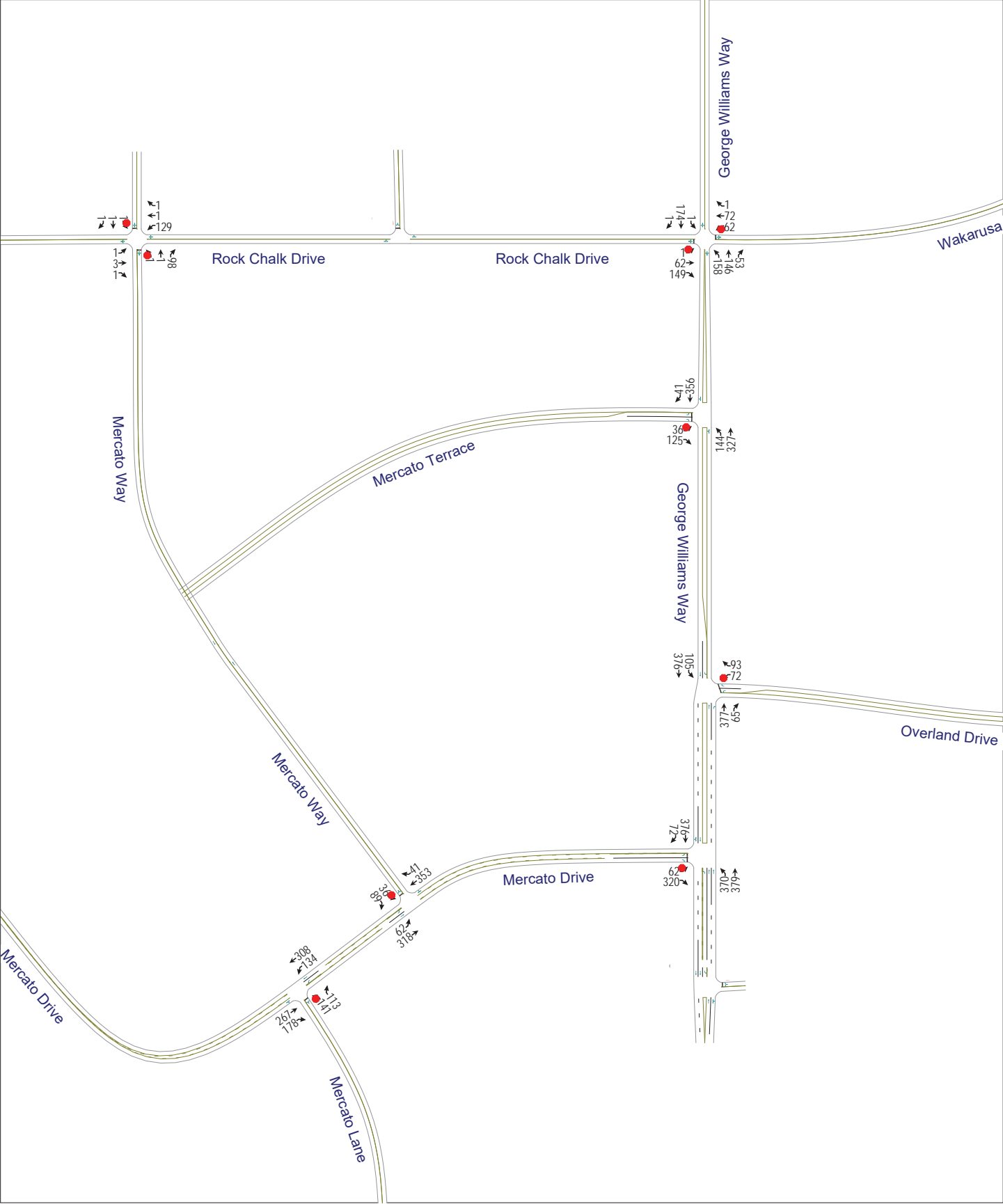


**FIGURE 9**  
**AFTERNOON PEAK-HOUR TRAFFIC VOLUMES (EXISTING + DIVERTED E. 902 RD. + MERCATO)**





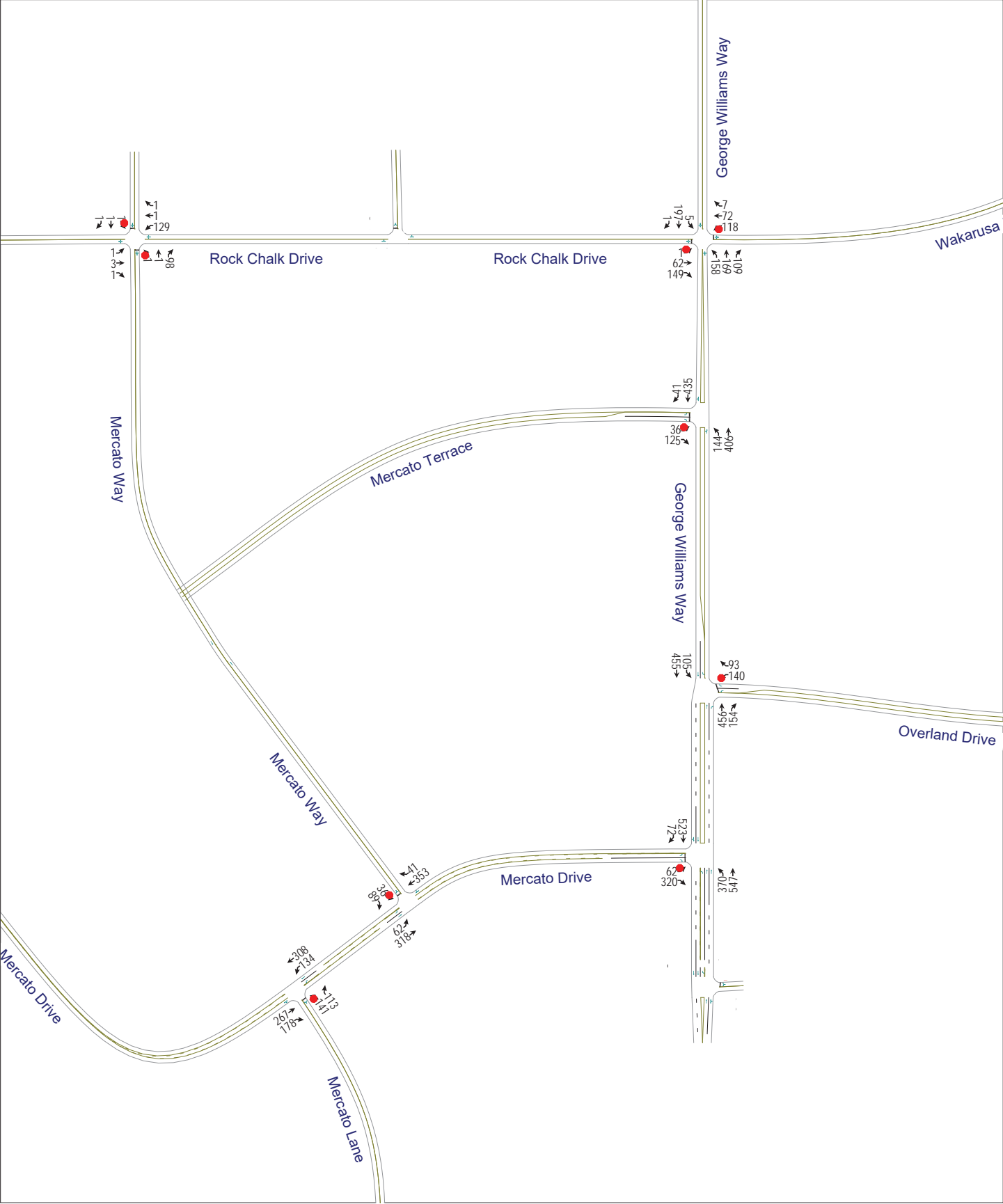
**FIGURE 10**  
**SATURDAY PEAK-HOUR TRAFFIC VOLUMES (EXISTING + DIVERTED E. 902 RD. + MERCATO)**



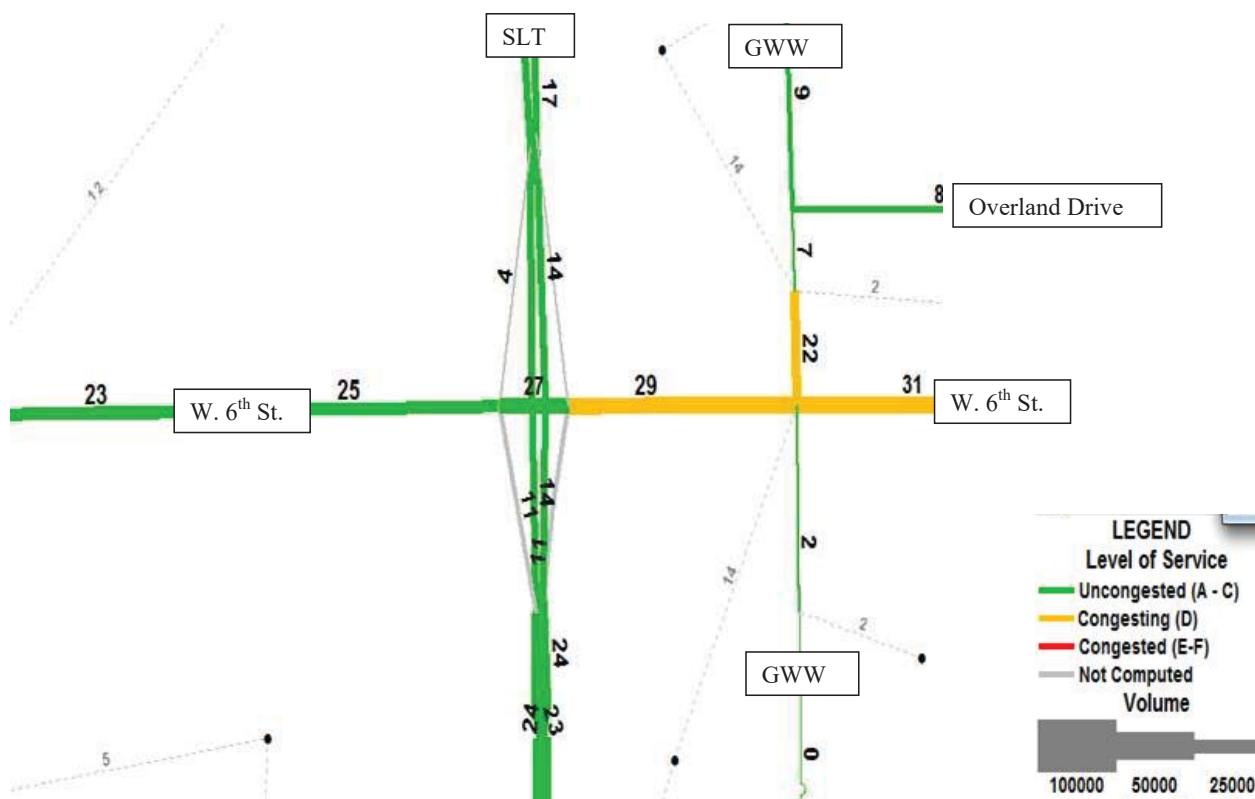
**FIGURE 11**  
**AFTERNOON PEAK-HOUR TRAFFIC VOLUMES (EXISTING + E. 902 RD. + MERCATO + OTHERS)**



**FIGURE 12**  
**SATURDAY PEAK-HOUR TRAFFIC VOLUMES (EXISTING + E. 902 Rd. + MERCATO + OTHERS)**







**FIGURE 13**  
**Forecasted ADT and LOS for Target Year 2030 (x1000 vpd)**  
 (Source: KDOT)

# **APPENDIX II**

Results of Highway Capacity Analysis  
Using  
Synchro 8 Software  
(HCM 2010 Methodology)

**EXISTING  
TRAFFIC CONDITIONS**



Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	55	0	15	0	73	30	10	41	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	210	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	60	0	16	0	79	33	11	45	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	154	145	45	145	145	79	45	0	0	79	0	0
Stage 1	66	66	-	79	79	-	-	-	-	-	-	-
Stage 2	88	79	-	66	66	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	813	746	1025	824	746	981	1563	-	-	1519	-	-
Stage 1	945	840	-	930	829	-	-	-	-	-	-	-
Stage 2	920	829	-	945	840	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	795	741	1025	819	741	981	1563	-	-	1519	-	-
Mov Cap-2 Maneuver	795	741	-	819	741	-	-	-	-	-	-	-
Stage 1	945	834	-	930	829	-	-	-	-	-	-	-
Stage 2	905	829	-	938	834	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.5	0	1.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1563	-	-	-	-	819	981	1519	-	-
HCM Lane V/C Ratio	-	-	-	-	-	0.073	0.017	0.007	-	-
HCM Control Delay (s)	0	-	-	0	0	9.7	8.7	7.4	-	-
HCM Lane LOS	A	-	-	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0.2	0.1	0	-	-

**Intersection**

Int Delay, s/veh 2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	30	0	54	0	255	24	39	139	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	210	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	33	0	59	0	277	26	42	151	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	543	513	151	513	513	277	151	0	0	277	0	0
Stage 1	236	236	-	277	277	-	-	-	-	-	-	-
Stage 2	307	277	-	236	236	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	451	465	895	472	465	762	1430	-	-	1286	-	-
Stage 1	767	710	-	729	681	-	-	-	-	-	-	-
Stage 2	703	681	-	767	710	-	-	-	-	-	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	406	450	895	460	450	762	1430	-	-	1286	-	-
Mov Cap-2 Maneuver	406	450	-	460	450	-	-	-	-	-	-	-
Stage 1	767	687	-	729	681	-	-	-	-	-	-	-
Stage 2	649	681	-	742	687	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	11.3	0	1.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1430	-	-	-	-	460	762	1286	-	-
HCM Lane V/C Ratio	-	-	-	-	-	0.071	0.077	0.033	-	-
HCM Control Delay (s)	0	-	-	0	0	13.4	10.1	7.9	-	-
HCM Lane LOS	A	-	-	A	A	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0.2	0.2	0.1	-	-

Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	21	0	42	0	160	20	60	210	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	210	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	23	0	46	0	174	22	65	228	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	556	533	228	533	533	174	228	0	0	174	0	0
Stage 1	359	359	-	174	174	-	-	-	-	-	-	-
Stage 2	197	174	-	359	359	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	442	453	811	458	453	869	1340	-	-	1403	-	-
Stage 1	659	627	-	828	755	-	-	-	-	-	-	-
Stage 2	805	755	-	659	627	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	404	432	811	442	432	869	1340	-	-	1403	-	-
Mov Cap-2 Maneuver	404	432	-	442	432	-	-	-	-	-	-	-
Stage 1	659	598	-	828	755	-	-	-	-	-	-	-
Stage 2	763	755	-	628	598	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	10.8	0	1.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1340	-	-	-	-	442	869	1403	-	-
HCM Lane V/C Ratio	-	-	-	-	-	0.052	0.053	0.046	-	-
HCM Control Delay (s)	0	-	-	0	0	13.6	9.4	7.7	-	-
HCM Lane LOS	A	-	-	A	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0.2	0.2	0.1	-	-



Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	15	20	92	43	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	16	22	100	47	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	190	47	47 0
Stage 1	47	-	- -
Stage 2	143	-	- -
Critical Hdwy	6.42	6.22	4.12 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.318	2.218 -
Pot Cap-1 Maneuver	799	1022	1560 -
Stage 1	975	-	- -
Stage 2	884	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	787	1022	1560 -
Mov Cap-2 Maneuver	787	-	- -
Stage 1	975	-	- -
Stage 2	871	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	8.7	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1560	-	1003	-	-
HCM Lane V/C Ratio	0.014	-	0.017	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	65	33	224	171	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	71	36	243	186	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	501	186	0
Stage 1	186	-	-
Stage 2	315	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	530	856	1388
Stage 1	846	-	-
Stage 2	740	-	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	514	856	1388
Mov Cap-2 Maneuver	514	-	-
Stage 1	846	-	-
Stage 2	718	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1388	-	856	-	-
HCM Lane V/C Ratio	0.026	-	0.083	-	-
HCM Control Delay (s)	7.7	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection

Int Delay, s/veh 2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	84	51	146	174	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	91	55	159	189	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	459	189	0
Stage 1	189	-	-
Stage 2	270	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	560	853	1385
Stage 1	843	-	-
Stage 2	775	-	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	535	853	1385
Mov Cap-2 Maneuver	535	-	-
Stage 1	843	-	-
Stage 2	741	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1385	-	847	-	-
HCM Lane V/C Ratio	0.04	-	0.109	-	-
HCM Control Delay (s)	7.7	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-



**Intersection**

Int Delay, s/veh 3.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	1	1	6	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	1	1	7	1	1

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	7	4	0
Stage 1	4	-	-
Stage 2	3	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	1014	1080	1612
Stage 1	1019	-	-
Stage 2	1020	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1013	1080	1612
Mov Cap-2 Maneuver	1013	-	-
Stage 1	1019	-	-
Stage 2	1019	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 1024	1612	-
HCM Lane V/C Ratio	-	- 0.006	0.001	-
HCM Control Delay (s)	-	- 8.5	7.2	0
HCM Lane LOS	-	- A	A	A
HCM 95th %tile Q(veh)	-	- 0	0	-

**Intersection**

Int Delay, s/veh 2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	19	1	1	41	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	1	1	45	1	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	26	23	0	0	46	0
Stage 1	23	-	-	-	-	-
Stage 2	3	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	989	1054	-	-	1562	-
Stage 1	1000	-	-	-	-	-
Stage 2	1020	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	988	1054	-	-	1562	-
Mov Cap-2 Maneuver	988	-	-	-	-	-
Stage 1	1000	-	-	-	-	-
Stage 2	1019	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)	-	-	991	1562	-
HCM Lane V/C Ratio	-	-	0.022	0.001	-
HCM Control Delay (s)	-	-	8.7	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

**Intersection**

Int Delay, s/veh 3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	18	1	1	34	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	1	1	37	1	1

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	23	20	0
Stage 1	20	-	-
Stage 2	3	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	993	1058	1572
Stage 1	1003	-	-
Stage 2	1020	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	992	1058	1572
Mov Cap-2 Maneuver	992	-	-
Stage 1	1003	-	-
Stage 2	1019	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	995	1572
HCM Lane V/C Ratio	-	-	0.021	0.001
HCM Control Delay (s)	-	-	8.7	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0



**Intersection**

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	40	743	496	2	1	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	808	539	2	1	21

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	541	0	1031
Stage 1	-	-	540
Stage 2	-	-	491
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	1024	-	229
Stage 1	-	-	548
Stage 2	-	-	581
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1024	-	219
Mov Cap-2 Maneuver	-	-	219
Stage 1	-	-	548
Stage 2	-	-	557

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1024	-	-	-	651
HCM Lane V/C Ratio	0.042	-	-	-	0.033
HCM Control Delay (s)	8.7	-	-	-	10.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

**Intersection**

Int Delay, s/veh 0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	31	455	429	4	3	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	495	466	4	3	17

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	471	0	783
Stage 1	-	-	468
Stage 2	-	-	315
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	1087	-	331
Stage 1	-	-	597
Stage 2	-	-	713
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1087	-	321
Mov Cap-2 Maneuver	-	-	321
Stage 1	-	-	597
Stage 2	-	-	691

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1087	-	-	-	629
HCM Lane V/C Ratio	0.031	-	-	-	0.033
HCM Control Delay (s)	8.4	-	-	-	10.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

**EXISTING +  
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**Intersection**

Int Delay, s/veh 7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	72	372	241	428	335	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	404	262	465	364	51

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1147	208	415
Stage 1	390	-	-
Stage 2	757	-	-
Critical Hdwy	6.84	6.94	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	2.22
Pot Cap-1 Maneuver	192	798	1140
Stage 1	653	-	-
Stage 2	424	-	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	148	798	1140
Mov Cap-2 Maneuver	148	-	-
Stage 1	653	-	-
Stage 2	327	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.5	3.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1140	-	148	798	-	-
HCM Lane V/C Ratio	0.23	-	0.529	0.507	-	-
HCM Control Delay (s)	9.1	-	53.8	14.1	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.9	-	2.6	2.9	-	-

**Intersection**

Int Delay, s/veh 11.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	62	320	370	379	376	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	67	348	402	412	409	78

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1458	243	487 0
Stage 1	448	-	- -
Stage 2	1010	-	- -
Critical Hdwy	6.84	6.94	4.14 -
Critical Hdwy Stg 1	5.84	-	- -
Critical Hdwy Stg 2	5.84	-	- -
Follow-up Hdwy	3.52	3.32	2.22 -
Pot Cap-1 Maneuver	120	758	1072 -
Stage 1	611	-	- -
Stage 2	313	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	75	758	1072 -
Mov Cap-2 Maneuver	75	-	- -
Stage 1	611	-	- -
Stage 2	196	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	39.3	5.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1072	-	75	758	-	-
HCM Lane V/C Ratio	0.375	-	0.899	0.459	-	-
HCM Control Delay (s)	10.4	-	171.3	13.7	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	1.8	-	4.6	2.4	-	-

**Intersection**

Int Delay, s/veh 3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	63	87	425	76	91	318
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	0	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	95	462	83	99	346

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1005	462	0
Stage 1	462	-	-
Stage 2	543	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	268	600	1099
Stage 1	634	-	-
Stage 2	582	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	244	600	1099
Mov Cap-2 Maneuver	244	-	-
Stage 1	634	-	-
Stage 2	530	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.7	0	1.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	244	600	1099	-
HCM Lane V/C Ratio	-	-	0.281	0.158	0.09	-
HCM Control Delay (s)	-	-	25.4	12.1	8.6	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	1.1	0.6	0.3	-



**Intersection**

Int Delay, s/veh 3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	72	93	377	65	105	376
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	0	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	101	410	71	114	409

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1047	410	0
Stage 1	410	-	-
Stage 2	637	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	253	642	1149
Stage 1	670	-	-
Stage 2	527	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	228	642	1149
Mov Cap-2 Maneuver	228	-	-
Stage 1	670	-	-
Stage 2	475	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.2	0	1.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	228	642	1149	-
HCM Lane V/C Ratio	-	-	0.343	0.157	0.099	-
HCM Control Delay (s)	-	-	28.8	11.7	8.5	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	1.5	0.6	0.3	-

**Intersection**

Int Delay, s/veh 3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	41	145	94	419	322	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	175	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	158	102	455	350	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1025	365	379	0	-	0
Stage 1	365	-	-	-	-	-
Stage 2	660	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	260	680	1179	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	514	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	230	680	1179	-	-	-
Mov Cap-2 Maneuver	230	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	454	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.7	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1179	-	230	680	-	-
HCM Lane V/C Ratio	0.087	-	0.194	0.232	-	-
HCM Control Delay (s)	8.3	0	24.4	11.9	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.7	0.9	-	-

**Intersection**

Int Delay, s/veh 3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	36	125	144	327	356	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	175	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	136	157	355	387	45

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1077	409	432 0
Stage 1	409	-	- -
Stage 2	668	-	- -
Critical Hdwy	6.42	6.22	4.12 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.318	2.218 -
Pot Cap-1 Maneuver	242	642	1128 -
Stage 1	671	-	- -
Stage 2	510	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	200	642	1128 -
Mov Cap-2 Maneuver	200	-	- -
Stage 1	671	-	- -
Stage 2	422	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	15.5	2.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1128	-	200	642	-	-
HCM Lane V/C Ratio	0.139	-	0.196	0.212	-	-
HCM Control Delay (s)	8.7	0	27.3	12.1	-	-
HCM Lane LOS	A	A	D	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.7	0.8	-	-



**Intersection**

Int Delay, s/veh 8.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	72	138	40	47	1	122	224	62	1	171	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	78	150	43	51	1	133	243	67	1	186	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	757	765	186	845	731	277	187	0	0	311	0	0
Stage 1	189	189	-	542	542	-	-	-	-	-	-	-
Stage 2	568	576	-	303	189	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	324	333	856	283	349	762	1387	-	-	1249	-	-
Stage 1	813	744	-	525	520	-	-	-	-	-	-	-
Stage 2	508	502	-	706	744	-	-	-	-	-	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	258	294	856	169	308	762	1387	-	-	1249	-	-
Mov Cap-2 Maneuver	258	294	-	169	308	-	-	-	-	-	-	-
Stage 1	718	743	-	464	459	-	-	-	-	-	-	-
Stage 2	398	443	-	520	743	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.5	32.3	2.4	0
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1387	-	-	515	225	1249	-	-
HCM Lane V/C Ratio	0.096	-	-	0.445	0.425	0.001	-	-
HCM Control Delay (s)	7.9	0	-	17.5	32.3	7.9	0	-
HCM Lane LOS	A	A	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	2.3	2	0	-	-

**Intersection**

Int Delay, s/veh 12.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	62	149	62	72	1	158	146	53	1	174	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	67	162	67	78	1	172	159	58	1	189	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	763	752	190	838	723	188	190	0	0	216	0	0
Stage 1	192	192	-	531	531	-	-	-	-	-	-	-
Stage 2	571	560	-	307	192	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	321	339	852	286	352	854	1384	-	-	1354	-	-
Stage 1	810	742	-	532	526	-	-	-	-	-	-	-
Stage 2	506	511	-	703	742	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	230	291	852	170	302	854	1384	-	-	1354	-	-
Mov Cap-2 Maneuver	230	291	-	170	302	-	-	-	-	-	-	-
Stage 1	695	741	-	456	451	-	-	-	-	-	-	-
Stage 2	358	438	-	517	741	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.5	47.6	3.5	0
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1384	-	-	540 223	1354	-	-
HCM Lane V/C Ratio	0.124	-	-	0.427 0.658	0.001	-	-
HCM Control Delay (s)	8	0	-	16.5 47.6	7.7	0	-
HCM Lane LOS	A	A	-	C E	A	A	-
HCM 95th %tile Q(veh)	0.4	-	-	2.1 4.1	0	-	-

**Intersection**

Int Delay, s/veh 8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	1	1	93	1	1	1	1	114	1	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	1	101	1	1	1	1	124	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	2	0	0	209	208	2	270	208	2
Stage 1	-	-	-	-	-	-	4	4	-	204	204	-
Stage 2	-	-	-	-	-	-	205	204	-	66	4	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1620	-	-	1620	-	-	748	689	1082	683	689	1082
Stage 1	-	-	-	-	-	-	1018	892	-	798	733	-
Stage 2	-	-	-	-	-	-	797	733	-	945	892	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1620	-	-	1620	-	-	710	646	1082	575	646	1082
Mov Cap-2 Maneuver	-	-	-	-	-	-	710	646	-	575	646	-
Stage 1	-	-	-	-	-	-	1017	891	-	797	688	-
Stage 2	-	-	-	-	-	-	746	688	-	835	891	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	7.2	8.8	10.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1071	1620	-	-	1620	-	-	712
HCM Lane V/C Ratio	0.118	0.001	-	-	0.062	-	-	0.005
HCM Control Delay (s)	8.8	7.2	0	-	7.4	0	-	10.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.2	-	-	0



**Intersection**

Int Delay, s/veh 7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	3	1	129	1	1	1	1	98	1	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	3	1	140	1	1	1	1	107	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	4	0	0	289	289	4	342	289	2
Stage 1	-	-	-	-	-	-	6	6	-	282	282	-
Stage 2	-	-	-	-	-	-	283	283	-	60	7	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1620	-	-	1618	-	-	663	621	1080	612	621	1082
Stage 1	-	-	-	-	-	-	1016	891	-	725	678	-
Stage 2	-	-	-	-	-	-	724	677	-	951	890	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1620	-	-	1618	-	-	617	566	1080	514	566	1082
Mov Cap-2 Maneuver	-	-	-	-	-	-	617	566	-	514	566	-
Stage 1	-	-	-	-	-	-	1015	890	-	724	619	-
Stage 2	-	-	-	-	-	-	659	618	-	855	889	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	7.3	8.8	10.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1062	1620	-	-	1618	-	-	647
HCM Lane V/C Ratio	0.102	0.001	-	-	0.087	-	-	0.005
HCM Control Delay (s)	8.8	7.2	0	-	7.4	0	-	10.6
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.3	-	-	0

**Intersection**

Int Delay, s/veh 3

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	41	103	40	343	72	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	112	43	373	78	29

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	553	93	108
Stage 1	93	-	-
Stage 2	460	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	494	964	1483
Stage 1	931	-	-
Stage 2	636	-	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	480	964	1483
Mov Cap-2 Maneuver	535	-	-
Stage 1	931	-	-
Stage 2	618	-	-

Approach	SE	NE	SW
HCM Control Delay, s	10.7	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET SELn1	SWT	SWR
Capacity (veh/h)	1483	- 785	-	-
HCM Lane V/C Ratio	0.029	- 0.199	-	-
HCM Control Delay (s)	7.5	- 10.7	-	-
HCM Lane LOS	A	- B	-	-
HCM 95th %tile Q(veh)	0.1	- 0.7	-	-

**Intersection**

Int Delay, s/veh 2.5

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	36	89	62	318	353	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	97	67	346	384	45

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	886	406	428	0	-	0
Stage 1	406	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	315	645	1131	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	296	645	1131	-	-	-
Mov Cap-2 Maneuver	420	-	-	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	585	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	13.5	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1131	-	559	-	-
HCM Lane V/C Ratio	0.06	-	0.243	-	-
HCM Control Delay (s)	8.4	-	13.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.9	-	-



**Intersection**

Int Delay, s/veh 4.5

Movement	NBL	NBR	NET	NER	SWL	SWT
Vol, veh/h	94	74	310	207	155	201
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	102	80	337	225	168	218

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1004	449	0
Stage 1	449	-	-
Stage 2	555	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	268	610	1009
Stage 1	643	-	-
Stage 2	575	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	223	610	1009
Mov Cap-2 Maneuver	349	-	-
Stage 1	643	-	-
Stage 2	479	-	-

Approach	NB	NE	SW
HCM Control Delay, s	19.4	0	4
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	430	1009	-
HCM Lane V/C Ratio	-	-	0.425	0.167	-
HCM Control Delay (s)	-	-	19.4	9.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.1	0.6	-

**Intersection**

Int Delay, s/veh 6.8

Movement	NBL	NBR	NET	NER	SWL	SWT
Vol, veh/h	141	113	267	178	134	308
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	153	123	290	193	146	335

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1013	387	0
Stage 1	387	-	-
Stage 2	626	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	265	661	1079
Stage 1	686	-	-
Stage 2	533	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	229	661	1079
Mov Cap-2 Maneuver	349	-	-
Stage 1	686	-	-
Stage 2	461	-	-

Approach	NB	NE	SW
HCM Control Delay, s	25.8	0	2.7
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	442	1079	-
HCM Lane V/C Ratio	-	-	0.625	0.135	-
HCM Control Delay (s)	-	-	25.8	8.9	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	4.2	0.5	-

**EXISTING +  
MERCATO + OREGAN TRAIL ADDITION + LINKS + KELLYN ADDITION DEVELOPMENTS  
TRAFFIC CONDITIONS**



**Intersection**

Int Delay, s/veh 9.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	72	372	241	669	462	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	404	262	727	502	51

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1416	277	553 0
Stage 1	528	-	- -
Stage 2	888	-	- -
Critical Hdwy	6.84	6.94	4.14 -
Critical Hdwy Stg 1	5.84	-	- -
Critical Hdwy Stg 2	5.84	-	- -
Follow-up Hdwy	3.52	3.32	2.22 -
Pot Cap-1 Maneuver	128	720	1013 -
Stage 1	556	-	- -
Stage 2	362	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	95	720	1013 -
Mov Cap-2 Maneuver	95	-	- -
Stage 1	556	-	- -
Stage 2	268	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	34.4	2.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1013	-	95	720	-	-
HCM Lane V/C Ratio	0.259	-	0.824	0.562	-	-
HCM Control Delay (s)	9.8	-	128.2	16.2	-	-
HCM Lane LOS	A	-	F	C	-	-
HCM 95th %tile Q(veh)	1	-	4.5	3.5	-	-

**Intersection**

Int Delay, s/veh 18.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	62	320	370	547	523	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	67	348	402	595	568	78

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1710	323	647	0	-	0
Stage 1	608	-	-	-	-	-
Stage 2	1102	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	82	673	934	-	-	-
Stage 1	506	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 47	673	934	-	-	-
Mov Cap-2 Maneuver	~ 47	-	-	-	-	-
Stage 1	506	-	-	-	-	-
Stage 2	159	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	81.8	4.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	934	-	47	673	-	-
HCM Lane V/C Ratio	0.431	-	1.434	0.517	-	-
HCM Control Delay (s)	11.7	-	\$ 422	15.9	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	2.2	-	6.5	3	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	122	87	549	196	91	386
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	0	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	133	95	597	213	99	420

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1214	597	0
Stage 1	597	-	-
Stage 2	617	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	201	503	980
Stage 1	550	-	-
Stage 2	538	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	181	503	980
Mov Cap-2 Maneuver	181	-	-
Stage 1	550	-	-
Stage 2	484	-	-

Approach	WB	NB	SB
HCM Control Delay, s	44	0	1.7
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	181	503	980	-
HCM Lane V/C Ratio	-	-	0.733	0.188	0.101	-
HCM Control Delay (s)	-	-	65.6	13.8	9.1	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	4.6	0.7	0.3	-



**Intersection**

Int Delay, s/veh 10.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	140	93	456	154	105	455
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	0	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	152	101	496	167	114	495

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1219	496	0
Stage 1	496	-	-
Stage 2	723	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	199	574	1068
Stage 1	612	-	-
Stage 2	481	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	178	574	1068
Mov Cap-2 Maneuver	178	-	-
Stage 1	612	-	-
Stage 2	430	-	-

Approach	WB	NB	SB
HCM Control Delay, s	57.1	0	1.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	178	574	1068	-
HCM Lane V/C Ratio	-	-	0.855	0.176	0.107	-
HCM Control Delay (s)	-	-	86.6	12.6	8.8	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	6.1	0.6	0.4	-

**Intersection**

Int Delay, s/veh 3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	41	145	94	540	390	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	175	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	158	102	587	424	29

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1230	439	453 0
Stage 1	439	-	- -
Stage 2	791	-	- -
Critical Hdwy	6.42	6.22	4.12 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.318	2.218 -
Pot Cap-1 Maneuver	196	618	1108 -
Stage 1	650	-	- -
Stage 2	447	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	169	618	1108 -
Mov Cap-2 Maneuver	169	-	- -
Stage 1	650	-	- -
Stage 2	386	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	17.4	1.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1108	-	169	618	-	-
HCM Lane V/C Ratio	0.092	-	0.264	0.255	-	-
HCM Control Delay (s)	8.6	0	33.8	12.8	-	-
HCM Lane LOS	A	A	D	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1	1	-	-

**Intersection**

Int Delay, s/veh 3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	36	125	144	406	435	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	175	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	136	157	441	473	45

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1249	495	517 0
Stage 1	495	-	- -
Stage 2	754	-	- -
Critical Hdwy	6.42	6.22	4.12 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.318	2.218 -
Pot Cap-1 Maneuver	191	575	1049 -
Stage 1	613	-	- -
Stage 2	465	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	153	575	1049 -
Mov Cap-2 Maneuver	153	-	- -
Stage 1	613	-	- -
Stage 2	373	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	18.4	2.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1049	-	153	575	-	-
HCM Lane V/C Ratio	0.149	-	0.256	0.236	-	-
HCM Control Delay (s)	9	0	36.4	13.2	-	-
HCM Lane LOS	A	A	E	B	-	-
HCM 95th %tile Q(veh)	0.5	-	1	0.9	-	-



**Intersection**

Int Delay, s/veh 19.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	72	138	88	47	5	122	260	147	3	191	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	78	150	96	51	5	133	283	160	3	208	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	871	923	208	957	843	363	209	0	0	442	0	0
Stage 1	215	215	-	628	628	-	-	-	-	-	-	-
Stage 2	656	708	-	329	215	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	271	270	832	237	300	682	1362	-	-	1118	-	-
Stage 1	787	725	-	471	476	-	-	-	-	-	-	-
Stage 2	454	438	-	684	725	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	205	233	832	130	259	682	1362	-	-	1118	-	-
Mov Cap-2 Maneuver	205	233	-	130	259	-	-	-	-	-	-	-
Stage 1	682	723	-	408	413	-	-	-	-	-	-	-
Stage 2	342	380	-	498	723	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.7	111.5	1.8	0.1
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1362	-	-	440	162	1118	-	-
HCM Lane V/C Ratio	0.097	-	-	0.521	0.939	0.003	-	-
HCM Control Delay (s)	7.9	0	-	21.7	111.5	8.2	0	-
HCM Lane LOS	A	A	-	C	F	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	2.9	7	0	-	-

**Intersection**

Int Delay, s/veh 42.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	62	149	118	72	7	158	169	109	5	197	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	67	162	128	78	8	172	184	118	5	214	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	855	872	215	926	812	243	215	0	0	302	0	0
Stage 1	226	226	-	586	586	-	-	-	-	-	-	-
Stage 2	629	646	-	340	226	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	278	289	825	249	313	796	1355	-	-	1259	-	-
Stage 1	777	717	-	496	497	-	-	-	-	-	-	-
Stage 2	470	467	-	675	717	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	187	243	825	139	263	796	1355	-	-	1259	-	-
Mov Cap-2 Maneuver	187	243	-	139	263	-	-	-	-	-	-	-
Stage 1	657	713	-	419	420	-	-	-	-	-	-	-
Stage 2	320	395	-	489	713	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.2	196.5	2.9	0.2
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1355	-	-	481	174	1259	-	-
HCM Lane V/C Ratio	0.127	-	-	0.479	1.231	0.004	-	-
HCM Control Delay (s)	8	0	-	19.2	196.5	7.9	0	-
HCM Lane LOS	A	A	-	C	F	A	A	-
HCM 95th %tile Q(veh)	0.4	-	-	2.6	11.8	0	-	-

**Intersection**

Int Delay, s/veh 8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	1	1	93	1	1	1	1	114	1	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	1	101	1	1	1	1	124	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	2	0	0	209	208	2	270	208	2
Stage 1	-	-	-	-	-	-	4	4	-	204	204	-
Stage 2	-	-	-	-	-	-	205	204	-	66	4	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1620	-	-	1620	-	-	748	689	1082	683	689	1082
Stage 1	-	-	-	-	-	-	1018	892	-	798	733	-
Stage 2	-	-	-	-	-	-	797	733	-	945	892	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1620	-	-	1620	-	-	710	646	1082	575	646	1082
Mov Cap-2 Maneuver	-	-	-	-	-	-	710	646	-	575	646	-
Stage 1	-	-	-	-	-	-	1017	891	-	797	688	-
Stage 2	-	-	-	-	-	-	746	688	-	835	891	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	7.2	8.8	10.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1071	1620	-	-	1620	-	-	712
HCM Lane V/C Ratio	0.118	0.001	-	-	0.062	-	-	0.005
HCM Control Delay (s)	8.8	7.2	0	-	7.4	0	-	10.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.2	-	-	0



**Intersection**

Int Delay, s/veh 7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	3	1	129	1	1	1	1	98	1	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	3	1	140	1	1	1	1	107	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	4	0	0	289	289	4	342	289	2
Stage 1	-	-	-	-	-	-	6	6	-	282	282	-
Stage 2	-	-	-	-	-	-	283	283	-	60	7	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1620	-	-	1618	-	-	663	621	1080	612	621	1082
Stage 1	-	-	-	-	-	-	1016	891	-	725	678	-
Stage 2	-	-	-	-	-	-	724	677	-	951	890	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1620	-	-	1618	-	-	617	566	1080	514	566	1082
Mov Cap-2 Maneuver	-	-	-	-	-	-	617	566	-	514	566	-
Stage 1	-	-	-	-	-	-	1015	890	-	724	619	-
Stage 2	-	-	-	-	-	-	659	618	-	855	889	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	7.3	8.8	10.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1062	1620	-	-	1618	-	-	647
HCM Lane V/C Ratio	0.102	0.001	-	-	0.087	-	-	0.005
HCM Control Delay (s)	8.8	7.2	0	-	7.4	0	-	10.6
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.3	-	-	0

**Intersection**

Int Delay, s/veh 3

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	41	103	40	343	72	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	112	43	373	78	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	553	93	108	0	-	0
Stage 1	93	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	494	964	1483	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	480	964	1483	-	-	-
Mov Cap-2 Maneuver	535	-	-	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	618	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	10.7	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1483	-	785	-	-
HCM Lane V/C Ratio	0.029	-	0.199	-	-
HCM Control Delay (s)	7.5	-	10.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

**Intersection**

Int Delay, s/veh 2.5

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	36	89	62	318	353	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	97	67	346	384	45

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	886	406	428	0	-	0
Stage 1	406	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	315	645	1131	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	296	645	1131	-	-	-
Mov Cap-2 Maneuver	420	-	-	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	585	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	13.5	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1131	-	559	-	-
HCM Lane V/C Ratio	0.06	-	0.243	-	-
HCM Control Delay (s)	8.4	-	13.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.9	-	-



**Intersection**

Int Delay, s/veh 4.5

Movement	NBL	NBR	NET	NER	SWL	SWT
Vol, veh/h	94	74	310	207	155	201
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	102	80	337	225	168	218

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1004	449	0 0 562 0
Stage 1	449	-	- - - -
Stage 2	555	-	- - - -
Critical Hdwy	6.42	6.22	- - 4.12 -
Critical Hdwy Stg 1	5.42	-	- - - -
Critical Hdwy Stg 2	5.42	-	- - - -
Follow-up Hdwy	3.518	3.318	- - 2.218 -
Pot Cap-1 Maneuver	268	610	- - 1009 -
Stage 1	643	-	- - - -
Stage 2	575	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	223	610	- - 1009 -
Mov Cap-2 Maneuver	349	-	- - - -
Stage 1	643	-	- - - -
Stage 2	479	-	- - - -

Approach	NB	NE	SW
HCM Control Delay, s	19.4	0	4
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	430	1009	-
HCM Lane V/C Ratio	-	-	0.425	0.167	-
HCM Control Delay (s)	-	-	19.4	9.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.1	0.6	-

**Intersection**

Int Delay, s/veh 6.8

Movement	NBL	NBR	NET	NER	SWL	SWT
Vol, veh/h	141	113	267	178	134	308
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	153	123	290	193	146	335

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1013	387	0
Stage 1	387	-	-
Stage 2	626	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	265	661	1079
Stage 1	686	-	-
Stage 2	533	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	229	661	1079
Mov Cap-2 Maneuver	349	-	-
Stage 1	686	-	-
Stage 2	461	-	-

Approach	NB	NE	SW
HCM Control Delay, s	25.8	0	2.7
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	442	1079	-
HCM Lane V/C Ratio	-	-	0.625	0.135	-
HCM Control Delay (s)	-	-	25.8	8.9	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	4.2	0.5	-

# **APPENDIX III**

Results of Trip Generation Analysis  
Using ITE Trip Generation Manual, 9<sup>th</sup> Edition



## Trip Generation Summary - Weighted Average Rate Method

Project: Mercato  
Alternative: Weighted Average Rate Method

Open Date: 2/23/2017  
Analysis Date: 2/23/2017

ITE	Land Use	Average Daily Trips			AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
310	HOTEL 1 450 Rooms	1839	1838	3677	141	98	239	138	132	270
445	THEATERMULTI 1 1000 Seats							29	51	80
710	OFFICEGENERAL 1 340 Gross Floor Area 1000 SF	1875	1875	3750	466	64	530	86	421	507
820	CENTERSHOPPING 1 252 Gross Leasable Area 1000 SF	5380	5380	10760	150	92	242	449	486	935
Unadjusted Volume		9094	9093	18187	757	254	1011	702	1090	1792
Internal Capture Trips		0	0	0	57	57	114	99	99	198
Pass-By Trips		0	0	0	0	0	0	134	151	285
Volume Added to Adjacent Streets		9094	9093	18187	700	197	897	469	840	1309

Total AM Peak Hour Internal Capture = 11 Percent

Total PM Peak Hour Internal Capture = 11 Percent

## Trip Generation Summary - Regression Equation Method

Project: Mercato  
Alternative: Regression Equation Method

Open Date: 2/23/2017  
Analysis Date: 2/23/2017

ITE	Land Use	Average Daily Trips			AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
310	HOTEL 2 450 Rooms	1839	1838	3677	141	98	239	138	132	270
445	THEATERMULTI 2 1000 Seats							29	51	80
710	OFFICEGENERAL 2 340 Gross Floor Area 1000 SF	1664	1664	3328	448	61	509	78	381	459
820	CENTERSHOPPING 2 252 Gross Leasable Area 1000 SF	6192	6192	12384	170	104	274	534	579	1113
Unadjusted Volume		9695	9694	19389	759	263	1022	779	1143	1922
Internal Capture Trips		0	0	0	55	55	110	110	110	220
Pass-By Trips		0	0	0	0	0	0	159	182	341
Volume Added to Adjacent Streets		9695	9694	19389	704	208	912	510	851	1361

Total AM Peak Hour Internal Capture = 11 Percent

Total PM Peak Hour Internal Capture = 11 Percent

Detailed Land Use Data  
For 1000 Seats of THEATERMULTI 1  
( 445 ) Multiplex Movie Theater

Project: Mercato  
Phase: Cinema Component  
Description: NEC of K-10 Hwy and W. 6th Street

Open Date: 2/23/2017  
Analysis Date: 2/23/2017

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday PM Peak Hour of Generator	280	0	0.28				2739	51	49	False		
Weekday PM Peak Hour of Adjacent Street Traffic	80	0	0.08	0.06	0.09		3325	36	64	False		
Saturday Peak Hour of Generator	300	0	0.3	0.14	0.51	0.56	3504	52	48	False	$T = 0.37(X) - 229.36$	0.62
Saturday Midday Peak Hour of Adjacent Street Traffic	90	0	0.09	0.06	0.14	0.3	4099	72	28	False		
Friday PM Peak Hour of Generator	290	0	0.29	0.14	0.39	0.55	3551	59	41	False		
Friday PM Peak Hour of Adjacent Street Traffic	100	0	0.1	0.04	0.21	0.32	3609	60	40	False		



Detailed Land Use Data  
For 450 Rooms of HOTEL 1  
( 310 ) Hotel

Project: Mercato  
Phase: Hotel Component  
Description: NEC of K-10 Hwy and W. 6th Street

Open Date: 2/23/2017  
Analysis Date: 2/23/2017

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday Average Daily Trips	3677	0	8.17	3.47	9.58	3.38	476	50	50	False	$T = 8.95(X) - 373.16$	0.98
Weekday AM Peak Hour of Generator	234	0	0.52	0.16	1.42	0.75	279	54	46	False	$\ln(T) = 0.85 \ln(X) + 0.12$	0.56
Weekday AM Peak Hour of Adjacent Street Traffic	239	0	0.53	0.2	1.03	0.76	204	59	41	False		
Weekday PM Peak Hour of Generator	275	0	0.61	0.2	1.23	0.81	294	58	42	False		
Weekday PM Peak Hour of Adjacent Street Traffic	270	0	0.6	0.21	1.06	0.81	200	51	49	False		
Saturday Average Daily Trips	3686	0	8.19	6.35	9.79	3.13	206	50	50	False	$T = 9.62(X) - 294.56$	0.93
Saturday Peak Hour of Generator	324	0	0.72	0.49	1.23	0.87	194	56	44	False	$T = 0.69(X) + 4.32$	0.8
Sunday Average Daily Trips	2678	0	5.95	4.01	8.48	2.89	206	50	50	False		
Sunday Peak Hour of Generator	252	0	0.56	0.39	0.72	0.75	206	46	54	False	$T = 0.70(X) - 29.89$	0.87

Detailed Land Use Data  
For 252 Gross Leasable Area 1000 SF of CENTERSHOPPING 1  
( 820 ) Shopping Center

Project: Mercato  
Phase: Retail Component  
Description: NEC of K-10 Hwy and W. 6th Street

Open Date: 2/23/2017  
Analysis Date: 2/23/2017

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Christmas Weekday Peak Hour of Adjacent Street T	948	0	3.76	2.16	10.01	2.3	459	50	50	False	$T = 2.76(X) + 457.28$	0.68
Christmas Saturday Peak Hour of Generator	1482	0	5.88	4.33	7.57	2.58	526	51	49	False	$T = 4.90(X) + 515.88$	0.77
Weekday Average Daily Trips	10760	0	42.7	12.5	270.89	21.25	331	50	50	False	$\ln(T) = 0.65 \ln(X) + 5.83$	0.79
Weekday AM Peak Hour of Adjacent Street Traffic	242	0	0.96	0.1	9.05	1.31	310	62	38	False	$\ln(T) = 0.61 \ln(X) + 2.24$	0.56
Weekday PM Peak Hour of Adjacent Street Traffic	935	318	3.71	0.68	29.27	2.74	376	48	52	False	$\ln(T) = 0.67 \ln(X) + 3.31$	0.81
Saturday Average Daily Trips	12592	0	49.97	16.7	227.5	22.62	450	50	50	False	$\ln(T) = 0.63 \ln(X) + 6.23$	0.82
Saturday Peak Hour of Generator	1215	0	4.82	1.46	18.32	3.1	458	52	48	False	$\ln(T) = 0.65 \ln(X) + 3.78$	0.83
Sunday Average Daily Trips	6360	0	25.24	4.15	148.15	17.23	439	50	50	False	$T = 15.63(X) + 4214.46$	0.52
Sunday Peak Hour of Generator	786	0	3.12	0.39	12.4	2.78	369	49	51	False		

Detailed Land Use Data  
For 340 Gross Floor Area 1000 SF of OFFICEGENERAL 1  
( 710 ) General Office Building

Project: Mercato  
Phase: Commercial Office Component  
Description: NEC of K-10 Hwy and W. 6th Street

Open Date: 2/23/2017  
Analysis Date: 2/23/2017

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday Average Daily Trips	3750	0	11.03	3.58	28.8	6.15	197	50	50	False	$\ln(T) = 0.76 \ln(X) + 3.68$	0.81
Weekday AM Peak Hour of Adjacent Street Traffic	530	0	1.56	0.6	5.98	1.4	222	88	12	False	$\ln(T) = 0.80 \ln(X) + 1.57$	0.83
Weekday PM Peak Hour of Adjacent Street Traffic	507	0	1.49	0.49	6.39	1.37	215	17	83	False	$T = 1.12(X) + 78.45$	0.82
Saturday Average Daily Trips	836	0	2.46	0.59	14.67	2.21	75	50	50	False	$T = 2.03(X) + 31.75$	0.64
Saturday Peak Hour of Generator	146	0	0.43	0.16	1.77	0.72	90	54	46	False		
Sunday Average Daily Trips	357	0	1.05	0.19	7.33	1.43	75	50	50	False		
Sunday Peak Hour of Generator	54	0	0.16	0.06	1.37	0.44	90	58	42	False		

Detailed Land Use Data  
For 1000 Seats of THEATERMULTI 2  
( 445 ) Multiplex Movie Theater

Project: Mercato  
Phase: Cinema Component  
Description: NEC of K-10 Hwy and W. 6th Street

Open Date: 2/23/2017  
Analysis Date: 2/23/2017

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday PM Peak Hour of Generator	280	0	0.28				2739	51	49	False		
Weekday PM Peak Hour of Adjacent Street Traffic	80	0	0.08	0.06	0.09		3325	36	64	False		
Saturday Peak Hour of Generator	300	0	0.3	0.14	0.51	0.56	3504	52	48	False	$T = 0.37(X) - 229.36$	0.62
Saturday Midday Peak Hour of Adjacent Street Traffic	90	0	0.09	0.06	0.14	0.3	4099	72	28	False		
Friday PM Peak Hour of Generator	290	0	0.29	0.14	0.39	0.55	3551	59	41	False		
Friday PM Peak Hour of Adjacent Street Traffic	100	0	0.1	0.04	0.21	0.32	3609	60	40	False		



Detailed Land Use Data  
For 450 Rooms of HOTEL 2  
( 310 ) Hotel

Project: Mercato  
Phase: Hotel Component  
Description: NEC of K-10 Hwy and W. 6th Street

Open Date: 2/23/2017  
Analysis Date: 2/23/2017

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday Average Daily Trips	3677	0	8.17	3.47	9.58	3.38	476	50	50	False	$T = 8.95(X) - 373.16$	0.98
Weekday AM Peak Hour of Generator	234	0	0.52	0.16	1.42	0.75	279	54	46	False	$\ln(T) = 0.85 \ln(X) + 0.12$	0.56
Weekday AM Peak Hour of Adjacent Street Traffic	239	0	0.53	0.2	1.03	0.76	204	59	41	False		
Weekday PM Peak Hour of Generator	275	0	0.61	0.2	1.23	0.81	294	58	42	False		
Weekday PM Peak Hour of Adjacent Street Traffic	270	0	0.6	0.21	1.06	0.81	200	51	49	False		
Saturday Average Daily Trips	3686	0	8.19	6.35	9.79	3.13	206	50	50	False	$T = 9.62(X) - 294.56$	0.93
Saturday Peak Hour of Generator	324	0	0.72	0.49	1.23	0.87	194	56	44	False	$T = 0.69(X) + 4.32$	0.8
Sunday Average Daily Trips	2678	0	5.95	4.01	8.48	2.89	206	50	50	False		
Sunday Peak Hour of Generator	252	0	0.56	0.39	0.72	0.75	206	46	54	False	$T = 0.70(X) - 29.89$	0.87

Detailed Land Use Data  
For 252 Gross Leasable Area 1000 SF of CENTERSHOPPING 2  
( 820 ) Shopping Center

Project: Mercato  
Phase: Retail Component  
Description: NEC of K-10 Hwy and W. 6th Street

Open Date: 2/23/2017  
Analysis Date: 2/23/2017

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Christmas Weekday Peak Hour of Adjacent Street T	1153	0	3.76	2.16	10.01	2.3	459	50	50	True	$T = 2.76(X) + 457.28$	0.68
Christmas Saturday Peak Hour of Generator	1751	0	5.88	4.33	7.57	2.58	526	51	49	True	$T = 4.90(X) + 515.88$	0.77
Weekday Average Daily Trips	12384	0	42.7	12.5	270.89	21.25	331	50	50	True	$\ln(T) = 0.65 \ln(X) + 5.83$	0.79
Weekday AM Peak Hour of Adjacent Street Traffic	274	0	0.96	0.1	9.05	1.31	310	62	38	True	$\ln(T) = 0.61 \ln(X) + 2.24$	0.56
Weekday PM Peak Hour of Adjacent Street Traffic	1113	378	3.71	0.68	29.27	2.74	376	48	52	True	$\ln(T) = 0.67 \ln(X) + 3.31$	0.81
Saturday Average Daily Trips	16540	0	49.97	16.7	227.5	22.62	450	50	50	True	$\ln(T) = 0.63 \ln(X) + 6.23$	0.82
Saturday Peak Hour of Generator	1594	0	4.82	1.46	18.32	3.1	458	52	48	True	$\ln(T) = 0.65 \ln(X) + 3.78$	0.83
Sunday Average Daily Trips	8153	0	25.24	4.15	148.15	17.23	439	50	50	True	$T = 15.63(X) + 4214.46$	0.52
Sunday Peak Hour of Generator	786	0	3.12	0.39	12.4	2.78	369	49	51	False		

Detailed Land Use Data  
For 340 Gross Floor Area 1000 SF of OFFICEGENERAL 2  
( 710 ) General Office Building

Project: Mercato  
Phase: Commercial Office Component  
Description: NEC of K-10 Hwy and W. 6th Street

Open Date: 2/23/2017  
Analysis Date: 2/23/2017

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday Average Daily Trips	3328	0	11.03	3.58	28.8	6.15	197	50	50	True	$\ln(T) = 0.76 \ln(X) + 3.68$	0.81
Weekday AM Peak Hour of Adjacent Street Traffic	509	0	1.56	0.6	5.98	1.4	222	88	12	True	$\ln(T) = 0.80 \ln(X) + 1.57$	0.83
Weekday PM Peak Hour of Adjacent Street Traffic	459	0	1.49	0.49	6.39	1.37	215	17	83	True	$T = 1.12(X) + 78.45$	0.82
Saturday Average Daily Trips	722	0	2.46	0.59	14.67	2.21	75	50	50	True	$T = 2.03(X) + 31.75$	0.64
Saturday Peak Hour of Generator	146	0	0.43	0.16	1.77	0.72	90	54	46	False		
Sunday Average Daily Trips	357	0	1.05	0.19	7.33	1.43	75	50	50	False		
Sunday Peak Hour of Generator	54	0	0.16	0.06	1.37	0.44	90	58	42	False		

Source: Institute of Transportation Engineers, Trip Generation Manual 9th Edition, 2012

TRIP GENERATION 2013, TRAFFICWARE, LLC

## Trip Generation Summary - Weighted Average Rate Method

Project: LINKS  
Alternative: Weighted Average Rate Method

Open Date: 2/25/2017  
Analysis Date: 2/25/2017

ITE	Land Use	Average Daily Trips			AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
220	APT 1	2993	2992	5985	92	367	459	363	195	558
	900 Dwelling Units									
Unadjusted Volume		0	0	0	0	0	0	0	0	0
Internal Capture Trips		0	0	0	0	0	0	0	0	0
Pass-By Trips		0	0	0	0	0	0	0	0	0
Volume Added to Adjacent Streets		0	0	0	0	0	0	0	0	0

Total AM Peak Hour Internal Capture = 0 Percent

Total PM Peak Hour Internal Capture = 0 Percent



## Trip Generation Summary - Regression Equation Method

Project: LINKS  
Alternative: Regression Equation Method

Open Date: 2/25/2017  
Analysis Date: 2/25/2017

ITE	Land Use	Average Daily Trips			AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
220	APT 2	2789	2789	5578	89	356	445	333	180	513
	900 Dwelling Units									
Unadjusted Volume		0	0	0	0	0	0	0	0	0
Internal Capture Trips		0	0	0	0	0	0	0	0	0
Pass-By Trips		0	0	0	0	0	0	0	0	0
Volume Added to Adjacent Streets		0	0	0	0	0	0	0	0	0

Total AM Peak Hour Internal Capture = 0 Percent

Total PM Peak Hour Internal Capture = 0 Percent

Detailed Land Use Data  
For 900 Dwelling Units of APT 1  
( 220 ) Apartment

Project: LINKS  
Phase: Build-Out  
Description: NEC of GWW & Wakarusa

Open Date: 2/25/2017  
Analysis Date: 2/25/2017

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday Average Daily Trips	5985	0	6.65	1.27	12.5	3.07	210	50	50	False	$T = 6.06(X) + 123.56$	0.87
Weekday AM Peak Hour of Generator	495	0	0.55	0.1	1.08	0.76	230	29	71	False	$T = 0.54(X) + 2.45$	0.82
Weekday AM Peak Hour of Adjacent Street Traffic	459	0	0.51	0.1	1.02	0.73	235	20	80	False	$T = 0.49(X) + 3.73$	0.83
Weekday PM Peak Hour of Generator	603	0	0.67	0.1	1.64	0.85	229	61	39	False	$T = 0.60(X) + 14.91$	0.8
Weekday PM Peak Hour of Adjacent Street Traffic	558	0	0.62	0.1	1.64	0.82	233	65	35	False	$T = 0.55(X) + 17.65$	0.77
Saturday Average Daily Trips	5751	0	6.39	2.84	8.4	2.99	175	50	50	False	$T = 7.85(X) - 256.19$	0.85
Saturday Peak Hour of Generator	468	0	0.52	0.26	1.05	0.74	178	50	50	False	$T = 0.41(X) + 19.23$	0.56
Sunday Average Daily Trips	5274	0	5.86	3.21	7.53	2.73	182	50	50	False	$T = 6.42(X) - 101.12$	0.82
Sunday Peak Hour of Generator	459	0	0.51	0.26	1.43	0.75	186	50	50	False		

Detailed Land Use Data  
For 900 Dwelling Units of APT 2  
( 220 ) Apartment

Project: LINKS  
Phase: Build-Out  
Description: NEC of GWW & Wakarusa

Open Date: 2/25/2017  
Analysis Date: 2/25/2017

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday Average Daily Trips	5578	0	6.65	1.27	12.5	3.07	210	50	50	True	$T = 6.06(X) + 123.56$	0.87
Weekday AM Peak Hour of Generator	488	0	0.55	0.1	1.08	0.76	230	29	71	True	$T = 0.54(X) + 2.45$	0.82
Weekday AM Peak Hour of Adjacent Street Traffic	445	0	0.51	0.1	1.02	0.73	235	20	80	True	$T = 0.49(X) + 3.73$	0.83
Weekday PM Peak Hour of Generator	555	0	0.67	0.1	1.64	0.85	229	61	39	True	$T = 0.60(X) + 14.91$	0.8
Weekday PM Peak Hour of Adjacent Street Traffic	513	0	0.62	0.1	1.64	0.82	233	65	35	True	$T = 0.55(X) + 17.65$	0.77
Saturday Average Daily Trips	6809	0	6.39	2.84	8.4	2.99	175	50	50	True	$T = 7.85(X) - 256.19$	0.85
Saturday Peak Hour of Generator	388	0	0.52	0.26	1.05	0.74	178	50	50	True	$T = 0.41(X) + 19.23$	0.56
Sunday Average Daily Trips	5677	0	5.86	3.21	7.53	2.73	182	50	50	True	$T = 6.42(X) - 101.12$	0.82
Sunday Peak Hour of Generator	459	0	0.51	0.26	1.43	0.75	186	50	50	False		

# **APPENDIX IV**

## Summary of Peak-Hour Traffic Counts



# Summary of Vehicular Turning Movement Counts

George Williams Way & Overland Drive  
Morning Peak-Hours  
Sunny, Mild

File Name : GWW&OD-eam  
Site Code : 1  
Start Date : 2/10/2017  
Page No : 1

Groups Printed- Unshifted

	George Williams Way From North					Overland Drive From East					George Williams Way From South					From West					
Start Time	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Int. Total
07:45 AM	0	6	1	0	7	2	0	28	0	30	8	7	0	0	15	0	0	0	0	0	52
Total	0	6	1	0	7	2	0	28	0	30	8	7	0	0	15	0	0	0	0	0	52
08:00 AM	0	12	2	0	14	3	0	10	0	13	12	21	0	0	33	0	0	0	0	0	60
08:15 AM	0	13	3	0	16	3	0	7	0	10	1	22	0	0	23	0	0	0	0	0	49
08:30 AM	0	10	4	0	14	7	0	10	0	17	9	23	0	0	32	0	0	0	0	0	63
08:45 AM	0	6	4	0	10	3	0	8	0	11	3	33	0	0	36	0	0	0	0	0	57
Total	0	41	13	0	54	16	0	35	0	51	25	99	0	0	124	0	0	0	0	0	229
Grand Total	0	47	14	0	61	18	0	63	0	81	33	106	0	0	139	0	0	0	0	0	281
Apprch %	0	77	23	0		22.2	0	77.8	0		23.7	76.3	0	0		0	0	0	0	0	
Total %	0	16.7	5	0	21.7	6.4	0	22.4	0	28.8	11.7	37.7	0	0	49.5	0	0	0	0	0	

# Summary of Vehicular Turning Movement Counts

George Williams Way & Overland Drive  
Morning Peak-Hours  
Sunny, Mild

File Name : GWW&OD-eam  
Site Code : 1  
Start Date : 2/10/2017  
Page No : 2

	George Williams Way From North					Overland Drive From East					George Williams Way From South					From West					
Start Time	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	6	1	0	7	2	0	28	0	30	8	7	0	0	15	0	0	0	0	0	52
08:00 AM	0	12	2	0	14	3	0	10	0	13	12	21	0	0	33	0	0	0	0	0	60
08:15 AM	0	13	3	0	16	3	0	7	0	10	1	22	0	0	23	0	0	0	0	0	49
08:30 AM	0	10	4	0	14	7	0	10	0	17	9	23	0	0	32	0	0	0	0	0	63
Total Volume	0	41	10	0	51	15	0	55	0	70	30	73	0	0	103	0	0	0	0	0	224
% App. Total	0	80.4	19.6	0		21.4	0	78.6	0		29.1	70.9	0	0		0	0	0	0		
PHF	.000	.788	.625	.000	.797	.536	.000	.491	.000	.583	.625	.793	.000	.000	.780	.000	.000	.000	.000	.000	.889

# Summary of Vehicular Turning Movement Counts

George Williams Way & Overland Drive  
Afternoon Peak-Hours  
Sunny, Mild

File Name : GWW&OD-epm  
Site Code : 1  
Start Date : 2/9/2017  
Page No : 1

Groups Printed- Unshifted

Start Time	George Williams Way From North					Overland Drive From East					George Williams Way From South					From West					Int. Total
	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	
04:00 PM	1	12	6	0	19	9	0	4	0	13	1	28	0	0	29	0	0	0	0	0	61
04:15 PM	0	20	5	0	25	9	0	6	0	15	8	31	0	0	39	0	0	0	0	0	79
04:30 PM	0	21	1	0	22	7	0	3	0	10	3	25	0	0	28	0	0	0	0	0	60
04:45 PM	0	23	8	0	31	17	0	7	0	24	7	47	0	0	54	0	0	0	0	0	109
Total	1	76	20	0	97	42	0	20	0	62	19	131	0	0	150	0	0	0	0	0	309
05:00 PM	0	25	8	0	33	11	0	11	0	22	4	62	0	0	66	0	0	0	0	0	121
05:15 PM	0	40	5	0	45	18	0	9	0	27	10	94	0	0	104	0	0	0	0	0	176
05:30 PM	0	51	18	0	69	8	0	3	0	11	3	52	0	0	55	0	0	0	0	0	135
05:45 PM	0	30	8	0	38	9	0	6	0	15	4	46	0	0	50	0	0	0	0	0	103
Total	0	146	39	0	185	46	0	29	0	75	21	254	0	0	275	0	0	0	0	0	535
Grand Total	1	222	59	0	282	88	0	49	0	137	40	385	0	0	425	0	0	0	0	0	844
Apprch %	0.4	78.7	20.9	0		64.2	0	35.8	0		9.4	90.6	0	0		0	0	0	0		
Total %	0.1	26.3	7	0	33.4	10.4	0	5.8	0	16.2	4.7	45.6	0	0	50.4	0	0	0	0	0	

# Summary of Vehicular Turning Movement Counts

George Williams Way & Overland Drive  
Afternoon Peak-Hours  
Sunny, Mild

File Name : GWW&OD-epm  
Site Code : 1  
Start Date : 2/9/2017  
Page No : 2

	George Williams Way From North					Overland Drive From East					George Williams Way From South					From West					
Start Time	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	23	8	0	31	17	0	7	0	24	7	47	0	0	54	0	0	0	0	0	109
05:00 PM	0	25	8	0	33	11	0	11	0	22	4	62	0	0	66	0	0	0	0	0	121
05:15 PM	0	40	5	0	45	18	0	9	0	27	10	94	0	0	104	0	0	0	0	0	176
05:30 PM	0	51	18	0	69	8	0	3	0	11	3	52	0	0	55	0	0	0	0	0	135
Total Volume	0	139	39	0	178	54	0	30	0	84	24	255	0	0	279	0	0	0	0	0	541
% App. Total	0	78.1	21.9	0		64.3	0	35.7	0		8.6	91.4	0	0		0	0	0	0		
PHF	.000	.681	.542	.000	.645	.750	.000	.682	.000	.778	.600	.678	.000	.000	.671	.000	.000	.000	.000	.000	.768



# Summary of Vehicular Turning Movement Counts

George Williams Way & Rock Chalk Drive  
Morning Peak-Hours  
Sunny, Mild

File Name : GWW&RCD-eam  
Site Code : 2  
Start Date : 2/14/2017  
Page No : 1

Groups Printed- Unshifted

Start Time	George Williams Way From North					From East					George Williams Way From South					Rock Chalk Drive From West					Int. Total
	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	
07:00 AM	0	7	0	0	7	1	0	0	0	1	0	18	1	0	19	5	0	0	0	5	32
07:15 AM	0	4	0	0	4	0	0	0	0	0	0	13	3	0	16	3	0	0	0	3	23
07:30 AM	0	8	0	0	8	0	0	0	0	0	0	12	4	0	16	2	0	0	0	2	26
07:45 AM	0	7	0	0	7	0	0	0	0	0	0	14	2	0	16	3	0	0	0	3	26
Total	0	26	0	0	26	1	0	0	0	1	0	57	10	0	67	13	0	0	0	13	107
08:00 AM	0	10	0	0	10	0	0	0	0	0	0	21	1	0	22	4	0	0	0	4	36
08:15 AM	0	6	0	0	6	0	0	0	0	0	0	13	3	0	16	4	0	0	0	4	26
08:30 AM	0	13	0	0	13	0	0	0	0	0	0	26	2	0	28	6	0	0	0	6	47
08:45 AM	0	14	0	0	14	0	0	0	0	0	0	32	14	0	46	1	0	0	0	1	61
Total	0	43	0	0	43	0	0	0	0	0	0	92	20	0	112	15	0	0	0	15	170
Grand Total	0	69	0	0	69	1	0	0	0	1	0	149	30	0	179	28	0	0	0	28	277
Apprch %	0	100	0	0		100	0	0	0		0	83.2	16.8	0		100	0	0	0		
Total %	0	24.9	0	0	24.9	0.4	0	0	0	0.4	0	53.8	10.8	0	64.6	10.1	0	0	0	10.1	

# Summary of Vehicular Turning Movement Counts

George Williams Way & Rock Chalk Drive  
Morning Peak-Hours  
Sunny, Mild

File Name : GWW&RCD-eam  
Site Code : 2  
Start Date : 2/14/2017  
Page No : 2

	George Williams Way From North					From East					George Williams Way From South					Rock Chalk Drive From West					
Start Time	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	10	0	0	10	0	0	0	0	0	0	21	1	0	22	4	0	0	0	4	36
08:15 AM	0	6	0	0	6	0	0	0	0	0	0	13	3	0	16	4	0	0	0	4	26
08:30 AM	0	13	0	0	13	0	0	0	0	0	0	26	2	0	28		0	0	0		47
08:45 AM	0	14	0	0	14	0	0	0	0	0	0	32	14	0	46	1	0	0	0	1	61
Total Volume	0	43	0	0	43	0	0	0	0	0	0	92	20	0	112	15	0	0	0	15	170
% App. Total	0	100	0	0		0	0	0	0		0	82.1	17.9	0		100	0	0	0		
PHF	.000	.768	.000	.000	.768	.000	.000	.000	.000	.000	.000	.719	.357	.000	.609	.625	.000	.000	.000	.625	.697

# Summary of Vehicular Turning Movement Counts

George Williams Way & Rock Chalk Drive  
Afternoon Peak-Hours  
Sunny, Mild

File Name : GWW&RCD-epm  
Site Code : 2  
Start Date : 2/14/2017  
Page No : 1

Groups Printed- Unshifted

Start Time	George Williams Way From North					From East					George Williams Way From South					Rock Chalk Drive From West					Int. Total
	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	
04:00 PM	0	6	0	0	6	0	0	0	0	0	0	23	7	0	30	4	0	0	0	4	40
04:15 PM	0	12	0	0	12	0	0	0	0	0	0	43	3	0	46	8	0	0	0	8	66
04:30 PM	0	19	0	0	19	0	0	0	0	0	0	24	4	0	28	10	0	0	0	10	57
04:45 PM	0	12	0	0	12	0	0	0	0	0	0	39	17	0	56	10	0	0	0	10	78
Total	0	49	0	0	49	0	0	0	0	0	0	129	31	0	160	32	0	0	0	32	241
05:00 PM	0	46	0	0	46	0	0	0	0	0	0	56	11	0	67	20	0	0	0	20	133
05:15 PM	0	42	0	0	42	0	0	0	0	0	0	71	12	0	83	11	0	0	0	11	136
05:30 PM	0	49	0	0	49	0	0	0	0	0	0	51	4	0	55	23	0	0	0	23	127
05:45 PM	0	34	0	0	34	0	0	0	0	0	0	46	6	0	52	11	0	0	0	11	97
Total	0	171	0	0	171	0	0	0	0	0	0	224	33	0	257	65	0	0	0	65	493
Grand Total	0	220	0	0	220	0	0	0	0	0	0	353	64	0	417	97	0	0	0	97	734
Apprch %	0	100	0	0		0	0	0	0		0	84.7	15.3	0		100	0	0	0		
Total %	0	30	0	0	30	0	0	0	0	0	0	48.1	8.7	0	56.8	13.2	0	0	0	13.2	

# Summary of Vehicular Turning Movement Counts

George Williams Way & Rock Chalk Drive  
Afternoon Peak-Hours  
Sunny, Mild

File Name : GWW&RCD-epm  
Site Code : 2  
Start Date : 2/14/2017  
Page No : 2

	George Williams Way From North					From East					George Williams Way From South					Rock Chalk Drive From West					
Start Time	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	46	0	0	46	0	0	0	0	0	0	56	11	0	67	20	0	0	0	20	133
05:15 PM	0	42	0	0	42	0	0	0	0	0	0	71	12	0	83	11	0	0	0	11	136
05:30 PM	0	49	0	0	49	0	0	0	0	0	0	51	4	0	55	23	0	0	0	23	127
05:45 PM	0	34	0	0	34	0	0	0	0	0	0	46	6	0	52	11	0	0	0	11	97
Total Volume	0	171	0	0	171	0	0	0	0	0	0	224	33	0	257	65	0	0	0	65	493
% App. Total	0	100	0	0		0	0	0	0		0	87.2	12.8	0		100	0	0	0		
PHF	.000	.872	.000	.000	.872	.000	.000	.000	.000	.000	.000	.789	.688	.000	.774	.707	.000	.000	.000	.707	.906



# Summary of Vehicular Turning Movement Counts

George Williams Way & Rock Chalk Drive  
Saturday Peak-Hours  
Sunny, Mild

File Name : GWW&RCD-esat  
Site Code : 2  
Start Date : 2/11/2017  
Page No : 1

Groups Printed- Unshifted

Start Time	George Williams Way From North					From East					George Williams Way From South					Rock Chalk Drive From West					Int. Total
	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	
10:00 AM	0	37	0	0	37	0	0	0	0	0	0	30	14	0	44	16	0	0	0	16	97
10:15 AM	0	18	0	0	18	0	0	0	0	0	0	30	8	0	38	8	0	0	0	8	64
10:30 AM	0	29	0	0	29	0	0	0	0	0	0	54	6	0	60	13	0	0	0	13	102
10:45 AM	0	32	0	0	32	0	0	0	0	0	0	51	11	0	62	15	0	1	0	16	110
Total	0	116	0	0	116	0	0	0	0	0	0	165	39	0	204	52	0	1	0	53	373
11:00 AM	0	46	0	0	46	0	0	0	0	0	0	35	10	0	45	15	0	0	0	15	106
11:15 AM	0	23	0	0	23	0	0	0	0	0	0	28	6	0	34	8	0	0	0	8	65
11:30 AM	0	19	0	0	19	0	0	0	0	0	0	48	11	0	59	14	0	1	0	15	93
11:45 AM	0	78	0	0	78	0	0	0	0	0	0	49	17	0	66	30	0	0	0	30	174
Total	0	166	0	0	166	0	0	0	0	0	0	160	44	0	204	67	0	1	0	68	438
12:00 PM	0	43	0	0	43	0	0	0	0	0	0	31	8	0	39	20	0	0	0	20	102
12:15 PM	0	34	0	0	34	0	0	0	0	0	0	18	15	0	33	20	0	0	0	20	87
12:30 PM	0	24	0	0	24	0	0	0	0	0	0	30	9	0	39	15	0	0	0	15	78
12:45 PM	0	79	0	0	79	0	0	0	0	0	0	37	10	0	47	18	0	0	0	18	144
Total	0	180	0	0	180	0	0	0	0	0	0	116	42	0	158	73	0	0	0	73	411
Grand Total	0	462	0	0	462	0	0	0	0	0	0	441	125	0	566	192	0	2	0	194	1222
Apprch %	0	100	0	0		0	0	0	0		0	77.9	22.1	0		99	0	1	0		
Total %	0	37.8	0	0	37.8	0	0	0	0	0	0	36.1	10.2	0	46.3	15.7	0	0.2	0	15.9	

# Summary of Vehicular Turning Movement Counts

George Williams Way & Rock Chalk Drive  
Saturday Peak-Hours  
Sunny, Mild

File Name : GWW&RCD-esat  
Site Code : 2  
Start Date : 2/11/2017  
Page No : 2

	George Williams Way From North					From East					George Williams Way From South					Rock Chalk Drive From West					
Start Time	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	0	19	0	0	19	0	0	0	0	0	0	48	11	0	59	14	0	1	0	15	93
11:45 AM	0	78	0	0	78	0	0	0	0	0	0	49	17	0	66	30	0	0	0	30	174
12:00 PM	0	43	0	0	43	0	0	0	0	0	0	31	8	0	39	20	0	0	0	20	102
12:15 PM	0	34	0	0	34	0	0	0	0	0	0	18	15	0	33	20	0	0	0	20	87
Total Volume	0	174	0	0	174	0	0	0	0	0	0	146	51	0	197	84	0	1	0	85	456
% App. Total	0	100	0	0		0	0	0	0		0	74.1	25.9	0		98.8	0	1.2	0		
PHF	.000	.558	.000	.000	.558	.000	.000	.000	.000	.000	.000	.745	.750	.000	.746	.700	.000	.250	.000	.708	.655

# Summary of Vehicular Turning Movement Counts

W. 6th Street & E. 902 Road  
Morning Peak-Hours  
Sunny, Mild

File Name : 6&902-eam  
Site Code : 3  
Start Date : 2/15/2017  
Page No : 1

Groups Printed- Unshifted

Start Time	E. 902 Road From North					W. 6th Street From East					From South					W. 6th Street From West					Int. Total
	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	
07:00 AM	6	0	0	0	6	1	149	0	0	150	0	0	0	0	0	0	51	2	0	53	209
07:15 AM	0	0	0	0	0	0	205	0	0	205	0	0	0	0	0	0	82	1	0	83	288
07:30 AM	4	0	0	0	4	0	190	0	0	190	0	0	0	0	0	0	93	0	0	93	287
07:45 AM	2	0	0	0	2	1	149	0	0	150	0	0	0	0	0	0	120	4	0	124	276
Total	12	0	0	0	12	2	693	0	0	695	0	0	0	0	0	0	346	7	0	353	1060
08:00 AM	3	0	0	0	3	0	141	0	0	141	0	0	0	0	0	0	72	3	0	75	219
08:15 AM	0	0	0	0	0	1	116	0	0	117	0	0	0	0	0	0	99	4	0	103	220
08:30 AM	1	0	0	0	1	0	109	0	0	109	0	0	0	0	0	0	77	6	0	83	193
08:45 AM	3	0	2	0	5	1	105	0	0	106	0	0	0	0	0	0	89	6	0	95	206
Total	7	0	2	0	9	2	471	0	0	473	0	0	0	0	0	0	337	19	0	356	838
Grand Total	19	0	2	0	21	4	1164	0	0	1168	0	0	0	0	0	0	683	26	0	709	1898
Apprch %	90.5	0	9.5	0		0.3	99.7	0	0		0	0	0	0		0	96.3	3.7	0		
Total %	1	0	0.1	0	1.1	0.2	61.3	0	0	61.5	0	0	0	0	0	0	36	1.4	0	37.4	

# Summary of Vehicular Turning Movement Counts

W. 6th Street & E. 902 Road  
Morning Peak-Hours  
Sunny, Mild

File Name : 6&902-eam  
Site Code : 3  
Start Date : 2/15/2017  
Page No : 2

	E. 902 Road From North					W. 6th Street From East					From South					W. 6th Street From West					
Start Time	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	0	0	0	0	205	0	0	205	0	0	0	0	0	0	82	1	0	83	288
07:30 AM	4	0	0	0	4	0	190	0	0	190	0	0	0	0	0	0	93	0	0	93	287
07:45 AM	2	0	0	0	2	1	149	0	0	150	0	0	0	0	0	0	120	4	0	124	276
08:00 AM	3	0	0	0	3	0	141	0	0	141	0	0	0	0	0	0	72	3	0	75	219
Total Volume	9	0	0	0	9	1	685	0	0	686	0	0	0	0	0	0	367	8	0	375	1070
% App. Total	100	0	0	0		0.1	99.9	0	0		0	0	0	0		0	97.9	2.1	0		
PHF	.563	.000	.000	.000	.563	.250	.835	.000	.000	.837	.000	.000	.000	.000	.000	.000	.765	.500	.000	.756	.929



# Summary of Vehicular Turning Movement Counts

W. 6th Street & E. 902 Road  
Afternoon Peak-Hours  
Sunny, Mild

File Name : 6&902-epm  
Site Code : 3  
Start Date : 2/15/2017  
Page No : 1

Groups Printed- Unshifted

Start Time	E. 902 Road From North					W. 6th Street From East					From South					W. 6th Street From West					Int. Total
	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	
04:00 PM	4	0	0	0	4	0	113	0	0	113	0	0	0	0	0	0	118	4	0	122	239
04:15 PM	3	0	1	0	4	0	127	0	0	127	0	0	0	0	0	0	132	2	0	134	265
04:30 PM	3	0	0	0	3	1	107	0	0	108	0	0	0	0	0	0	122	2	0	124	235
04:45 PM	3	0	0	0	3	0	128	0	0	128	0	0	0	0	0	0	179	8	0	187	318
Total	13	0	1	0	14	1	475	0	0	476	0	0	0	0	0	0	551	16	0	567	1057
05:00 PM	3	0	0	0	3	1	128	0	0	129	0	0	0	0	0	0	145	9	0	154	286
05:15 PM	6	0	0	0	6	0	123	0	0	123	0	0	0	0	0	0	208	17	0	225	354
05:30 PM	7	0	1	0	8	1	117	0	0	118	0	0	0	0	0	0	211	6	0	217	343
05:45 PM	1	0	0	0	1	0	95	0	0	95	0	0	0	0	0	0	152	3	0	155	251
Total	17	0	1	0	18	2	463	0	0	465	0	0	0	0	0	0	716	35	0	751	1234
Grand Total	30	0	2	0	32	3	938	0	0	941	0	0	0	0	0	0	1267	51	0	1318	2291
Apprch %	93.8	0	6.2	0		0.3	99.7	0	0		0	0	0	0		0	96.1	3.9	0		
Total %	1.3	0	0.1	0	1.4	0.1	40.9	0	0	41.1	0	0	0	0	0	0	55.3	2.2	0	57.5	

# Summary of Vehicular Turning Movement Counts

W. 6th Street & E. 902 Road  
Afternoon Peak-Hours  
Sunny, Mild

File Name : 6&902-epm  
Site Code : 3  
Start Date : 2/15/2017  
Page No : 2

	E. 902 Road From North					W. 6th Street From East					From South					W. 6th Street From West					
Start Time	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
<b>04:45 PM</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<sup>128</sup>	0	0	128	0	0	0	0	0	0	179	8	0	187	318
05:00 PM	3	0	0	0	3	<sup>1</sup>	128	0	0	<sup>129</sup>	0	0	0	0	0	0	145	9	0	154	286
05:15 PM	6	0	0	0	6	0	123	0	0	123	0	0	0	0	0	0	208	<sup>17</sup>	0	225	354
<b>05:30 PM</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>1</b>	117	0	0	118	0	0	0	0	0	0	<b>211</b>	<b>6</b>	<b>0</b>	<b>217</b>	<b>343</b>
Total Volume	19	0	1	0	20	2	496	0	0	498	0	0	0	0	0	0	743	40	0	783	1301
% App. Total	95	0	5	0		0.4	99.6	0	0		0	0	0	0		0	94.9	5.1	0		
PHF	.679	.000	.250	.000	.625	.500	.969	.000	.000	.965	.000	.000	.000	.000	.000	.000	.880	.588	.000	.870	.919

# Summary of Vehicular Turning Movement Counts

W. 6th Street and E. 902 Road  
 Satutday Peak-Hours  
 Sunny, Cold

File Name : 6&902-esat  
 Site Code : 3  
 Start Date : 2/25/2017  
 Page No : 1

Groups Printed- Unshifted

Start Time	E. 902 Road From North					W. 6th Street From East					From South					W. 6th Street From West					Int. Total
	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	
10:00 AM	5	0	0	0	5	2	89	0	0	91	0	0	0	0	0	0	93	6	0	99	195
10:15 AM	9	0	1	0	10	1	91	0	0	92	0	0	0	0	0	0	94	9	0	103	205
10:30 AM	2	0	1	0	3	3	91	0	0	94	0	0	0	0	0	0	106	8	0	114	211
10:45 AM	3	0	0	0	3	0	90	0	0	90	0	0	0	0	0	0	113	3	0	116	209
Total	19	0	2	0	21	6	361	0	0	367	0	0	0	0	0	0	406	26	0	432	820
11:00 AM	4	0	1	0	5	0	105	0	0	105	0	0	0	0	0	0	103	9	0	112	222
11:15 AM	3	0	3	0	6	1	77	0	0	78	0	0	0	0	0	0	109	10	0	119	203
11:30 AM	3	0	0	0	3	0	106	0	0	106	0	0	0	0	0	0	109	4	0	113	222
11:45 AM	5	0	0	0	5	2	93	0	0	95	0	0	0	0	0	0	111	12	0	123	223
Total	15	0	4	0	19	3	381	0	0	384	0	0	0	0	0	0	432	35	0	467	870
12:00 PM	4	0	0	0	4	0	118	0	0	118	0	0	0	0	0	0	81	8	0	89	211
12:15 PM	2	0	0	0	2	1	114	0	0	115	0	0	0	0	0	0	125	3	0	128	245
12:30 PM	1	0	1	0	2	0	93	0	0	93	0	0	0	0	0	0	135	11	0	146	241
12:45 PM	9	0	2	0	11	3	104	0	0	107	0	0	0	0	0	0	114	9	0	123	241
Total	16	0	3	0	19	4	429	0	0	433	0	0	0	0	0	0	455	31	0	486	938
Grand Total	50	0	9	0	59	13	1171	0	0	1184	0	0	0	0	0	0	1293	92	0	1385	2628
Apprch %	84.7	0	15.3	0		1.1	98.9	0	0		0	0	0	0		0	93.4	6.6	0		
Total %	1.9	0	0.3	0	2.2	0.5	44.6	0	0	45.1	0	0	0	0		0	49.2	3.5	0	52.7	

# Summary of Vehicular Turning Movement Counts

W. 6th Street and E. 902 Road  
 Satutday Peak-Hours  
 Sunny, Cold

File Name : 6&902-esat  
 Site Code : 3  
 Start Date : 2/25/2017  
 Page No : 2

	E. 902 Road From North					W. 6th Street From East					From South					W. 6th Street From West					
Start Time	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	4	0	0	0	4	0	118	0	0	118	0	0	0	0	0	0	81	8	0	89	211
12:15 PM	2	0	0	0	2	1	114	0	0	115	0	0	0	0	0	0	125	3	0	128	245
12:30 PM	1	0	1	0	2	0	93	0	0	93	0	0	0	0	0	0	135	11	0	146	241
12:45 PM	9	0	2	0	11	3	104	0	0	107	0	0	0	0	0	0	114	9	0	123	241
Total Volume	16	0	3	0	19	4	429	0	0	433	0	0	0	0	0	0	455	31	0	486	938
% App. Total	84.2	0	15.8	0		0.9	99.1	0	0		0	0	0	0		0	93.6	6.4	0		
PHF	.444	.000	.375	.000	.432	.333	.909	.000	.000	.917	.000	.000	.000	.000	.000	.000	.843	.705	.000	.832	.957



# **APPENDIX V**

Excerpts from TIS Reports  
Prepared for Nearby Approved (not built)  
Developments  
(Oregon Trail Addition and Links)

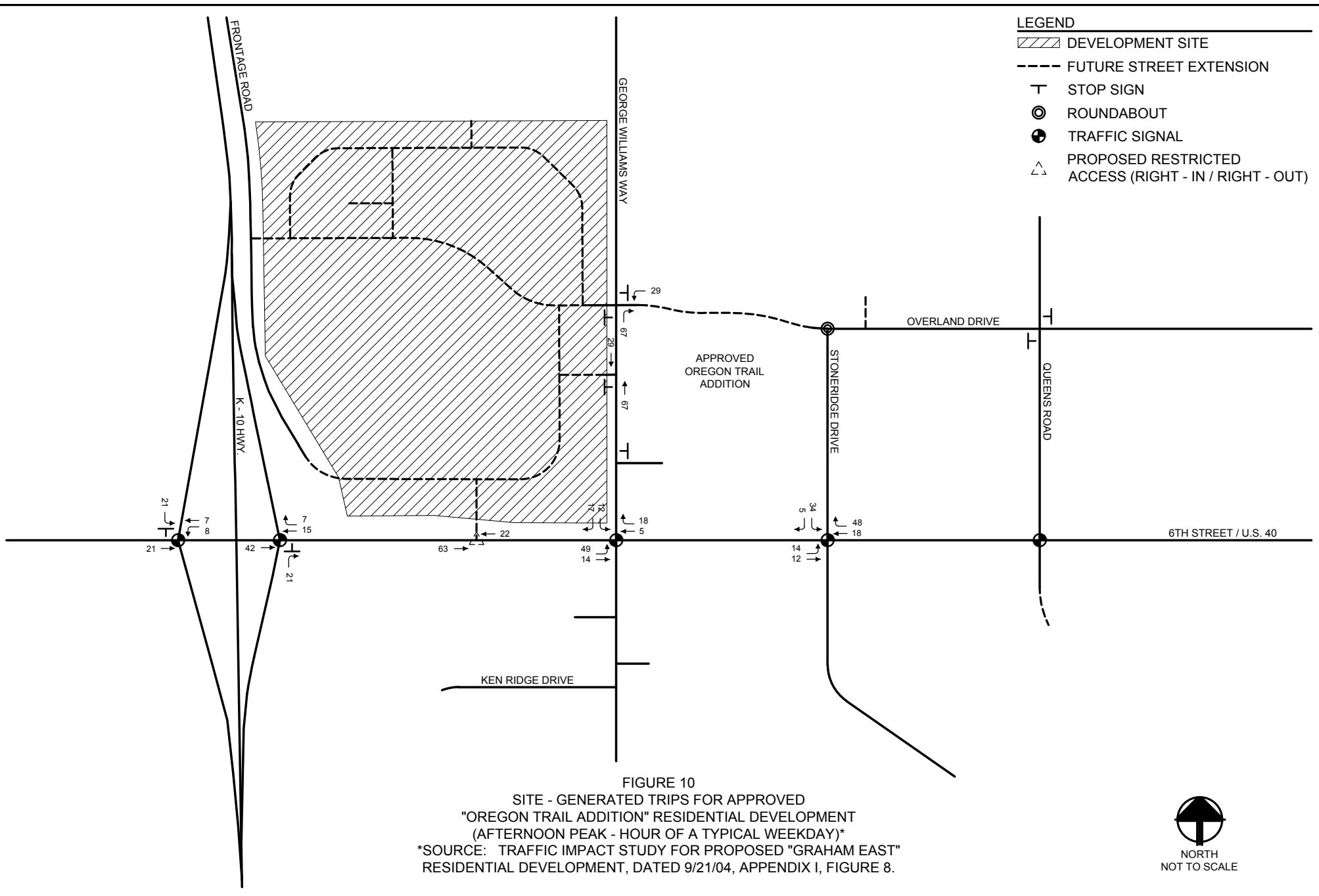
**Table 1 (rev.)**  
**Summary of Trip Generation Calculation (Driveway Volumes) for Proposed Development**

Oregon Trail

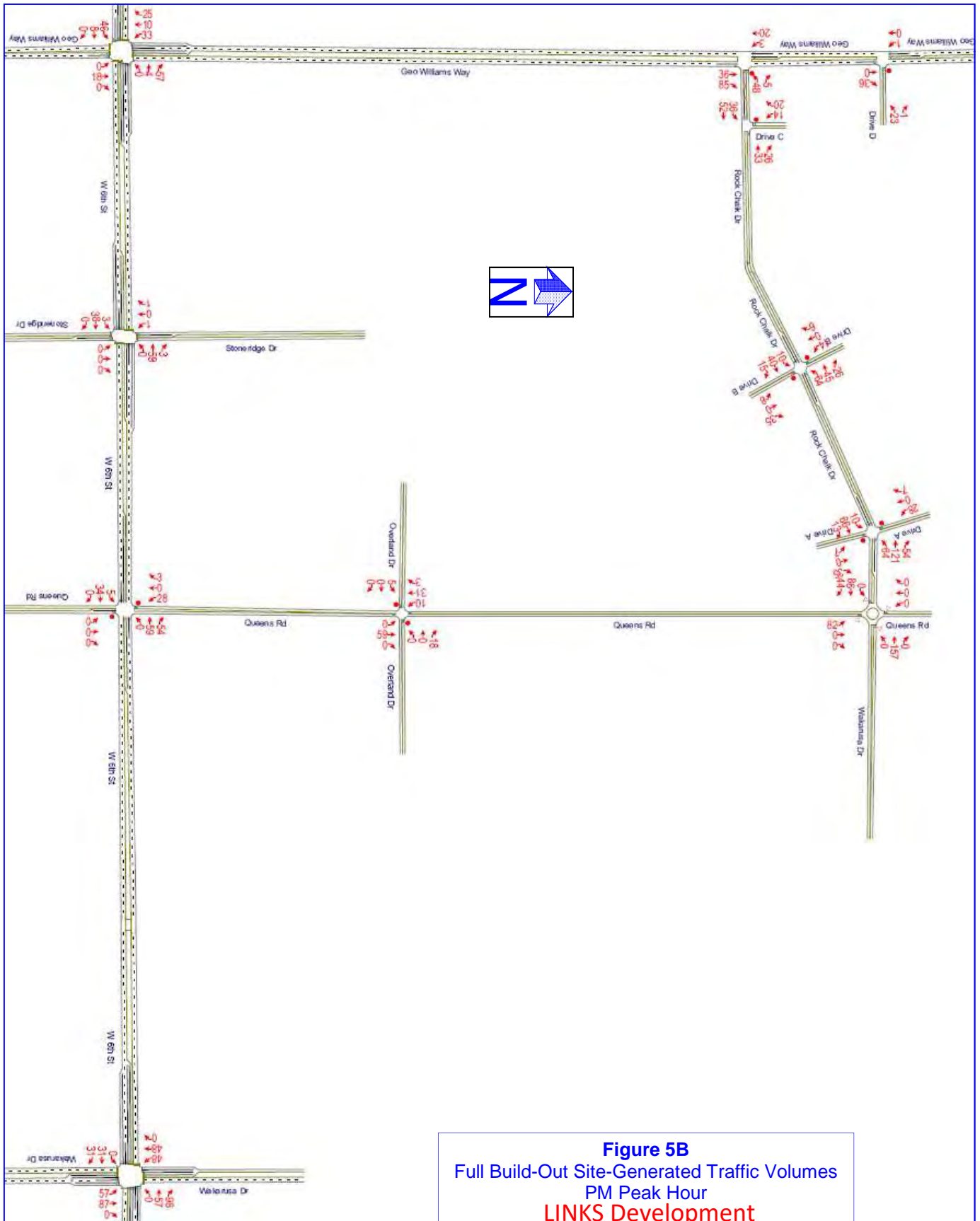
Land Use (ITE CODE)	Size (units)	Typical Weekday							Typical Saturday			
		24-hr, Two-Way Volume (vpd)	AM Peak-Hour (vph)			PM Peak-Hour (vph)			24-hr, Two-Way Volume (vpd)	Peak-Hour (vph)		
			Enter	Exit	Total	Enter	Exit	Total		Enter	Exit	Total
Single Family Dwelling (Detached, 210)*	50	550	11	33	44	36	21	57	549	30	25	55
Duplex (Owned Residential Townhomes, 230)*	146	885	12	58	70	55	27	82	956	46	39	85
RM-1 (Rental Apartments, 220)*	126	908	13	52	65	57	30	87	733	36	30	66
Entire Development		2,343	36	143	179	148	78	226	2,238	76 +	64 +	140 +

NOTES:

- 1) The trip generation numbers in this table are calculated using the rates suggested in the "ITE Trip Generation Manual", 7th Edition.
- 2) The number of trips are determined by both Weighted Average Rate Method and the Regression Equation Method and the method that generates more trips with statistical significance is selected for analysis.
- 3) \* denotes Regression Equation Method.
- 4) Blank cells indicate no data available.



# Traffic Study





**Table 1.**  
**Summary of Trip Generation Calculations (Driveway Volumes) for Proposed "Kellyn Addition" Development**

Land Use (ITE Code)	Size (units)	Typical Weekday							Typical Saturday			
		24-hr, 2-Way Volume (vpd)	AM Peak-Hour (vph)			PM Peak-Hour (vph)			24-hr, 2-Way Volume (vpd)	Peak-Hour (vph)		
			Enter	Exit	Total	Enter	Exit	Total		Enter	Exit	Total
<b>RS-5 Portion of the site</b> - Single-Family Housing (210) *	86	914	17	53	70	58	34	92	882	46	39	85
<b>RM-12 Portion of the site</b> - Apartments (220) *	172	1,166	18	70	88	73	39	112	1094	48	42	90
<b>Entire Development</b>		<b>2,080</b>	<b>35</b>	<b>123</b>	<b>158</b>	<b>131</b>	<b>73</b>	<b>204</b>	<b>1,976</b>	<b>&gt; 46</b>	<b>&gt; 39</b>	<b>175</b>








NOTE:

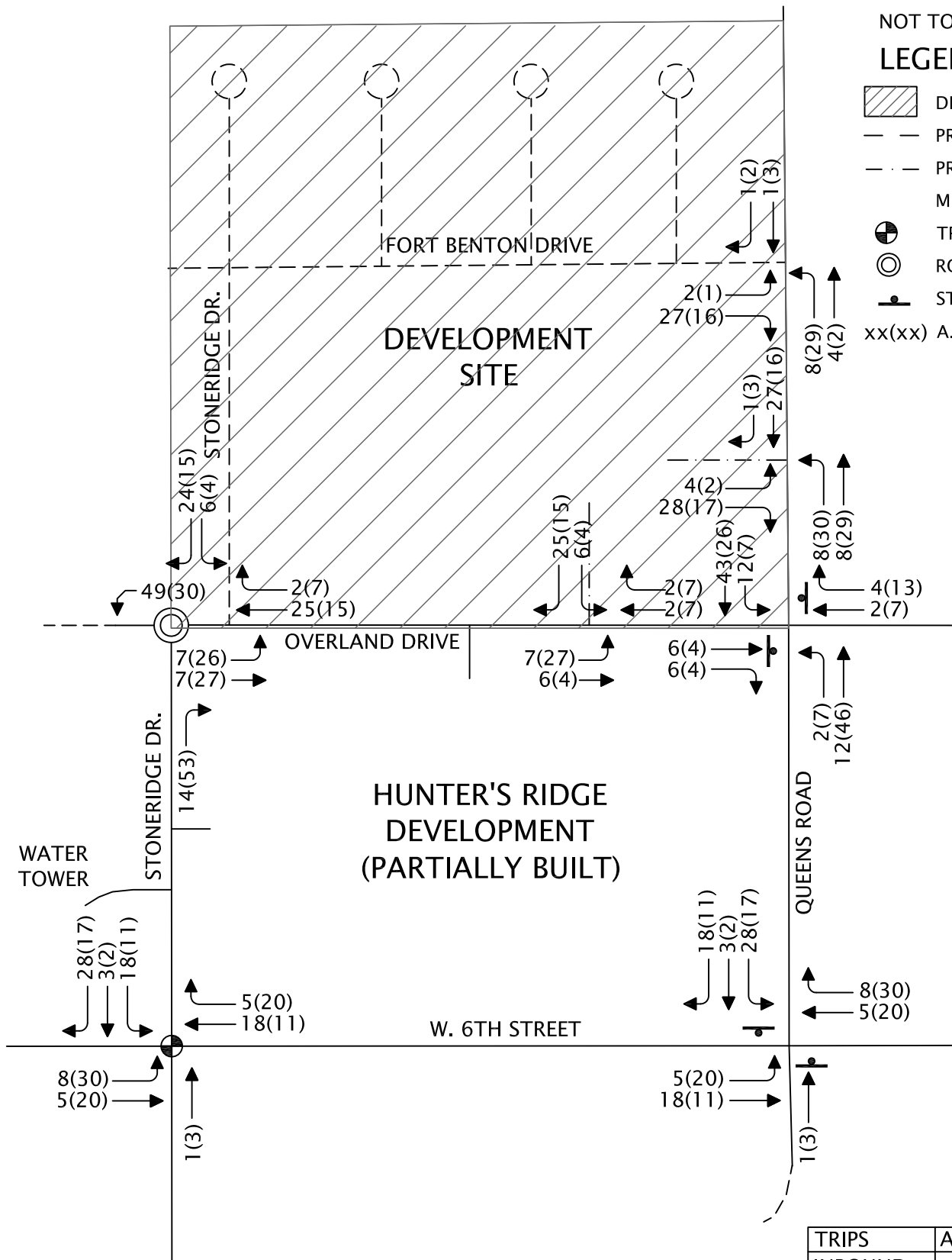
- 1- The trip generation numbers in this table are calculated using the rates suggested in the "ITE Trip Generation Manual", 9th Edition. The number of trips are determined by both the Weighted Average Rate Method and the Regression Equation Method, with the one generating most trips with statistical significance, selected for analysis.
- 2- \* denotes Regression Equation Method's results.
- 3- Blank cells indicate no data available.



NOT TO SCALE

## LEGEND

-  DEVELOPMENT SITE
-  PROPOSED FUTURE STREETS
-  PROPOSED ACCESS TO MULTIFAMILY SITE
-  TRAFFIC SIGNAL
-  ROUNDABOUT
-  STOP SIGN
-  xx(xx) A.M.(P.M.)



**Figure 7**

SITE GENERATED TRIPS FOR  
PROPOSED "KELLYN ADDITION" DEVELOPMENT  
(PEAK-HOURS OF A TYPICAL WEEKDAY)

TRIPS	A.M. PEAK	P.M. PEAK
INBOUND	35	131
OUTBOUND	123	73
TOTAL 2-WAY	158	204

**PLANNING COMMISSION REPORT**  
**Regular Agenda -Public Hearing Item**

PC Staff Report  
03/15/2017

**ITEM NO. 3                      PRELIMINARY DEVELOPMENT PLAN FOR MT. BLUE ADDITION;  
2350 FRANKLIN RD (BJP)**

**PDP-17-00008:** Consider a Preliminary Development Plan for Mt. Blue Addition, Lot 1 and Mt. Blue Addition No. 2, Lot 9 to accommodate a gun range and retail store, located at 2350 Franklin Rd. Submitted by Paul Werner Architects on behalf of Ace Self Storage LLC, property owner of record.

**STAFF RECOMMENDATION ON WAIVER:** Planning Staff recommends approval of the waiver from the front setback to permit the proposed off-street parking for Lot 9 to be located 15 ft of the north property line.

**STAFF RECOMMENDATION ON PRELIMINARY DEVELOPMENT PLAN:** Planning Staff recommends approval of the Revised Preliminary Development Plan for Mt. Blue Addition based upon the findings of fact presented in the body of the staff report and subject to the following conditions:

1. Provision of a revised plan that includes the following notes and changes:
  - a. Update Note 2.11 with the following note; "One March 15, 2017, the Planning Commission approved a waiver from the front setback requirements in Section 20-1008.5(F)(1) of the 1966 Zoning Regulation to allow the parking area to be setback 15 feet from Thomas Court right-of-way."
2. Submittal of a revised stormwater drainage study with approval by the City Stormwater Engineer.

**Reason for Request:** The proposed revision to the Preliminary Development Plan (PDP) accommodates a gun range and retail store at 2350 Franklin Road (Lot 9). The previously approved PDP planned for mini storage, retail, and an office on Lot 1; however, no uses were identified for the subject property. The requested revision updates the PDP with the proposed development of Lot 9.

**KEY POINTS**

- The property was included in the previous Preliminary Development Plans for the Mt. Blue Addition PID, with the original PDP being approved by the City Commission in 1997. As the development began prior to the adoption of the 2006 Development Code it is being processed under the requirements of the pre-2006 Code.
- The subject property included in this PDP revision includes 2400 Franklin Road and 2350 Franklin Road.
- The subject property was previously platted as Lot 1 (2400 Franklin Road) and Lot 2 (2350 Franklin Road) of A Final Plat of Mt. Blue Addition. In 2000, A Final Plat of Mt. Blue Addition No. 2 was approved, at which point Lot 2 became Lot 9.

**FACTORS TO CONSIDER**

- Compliance with the 1966 Zoning Code for Planned Developments.

- Conformance with *Horizon 2020*.

### ASSOCIATED CASES/OTHER ACTION REQUIRED

#### Associated Cases

- No active cases

#### Other Action Required

- City Commission approval of Preliminary Development Plan.
- Submittal of a Final Development Plan for Planning Commission approval.
- Recording of Final Development Plan with the Douglas County Register of Deeds.
- Submission and approval of building permits prior to construction.

### ATTACHMENTS

Attachment A: Proposed Preliminary Development Plan

Attachment B: Traffic Impact Study

### PUBLIC COMMENT RECEIVED PRIOR TO PRINTING

1. None

### GENERAL INFORMATION

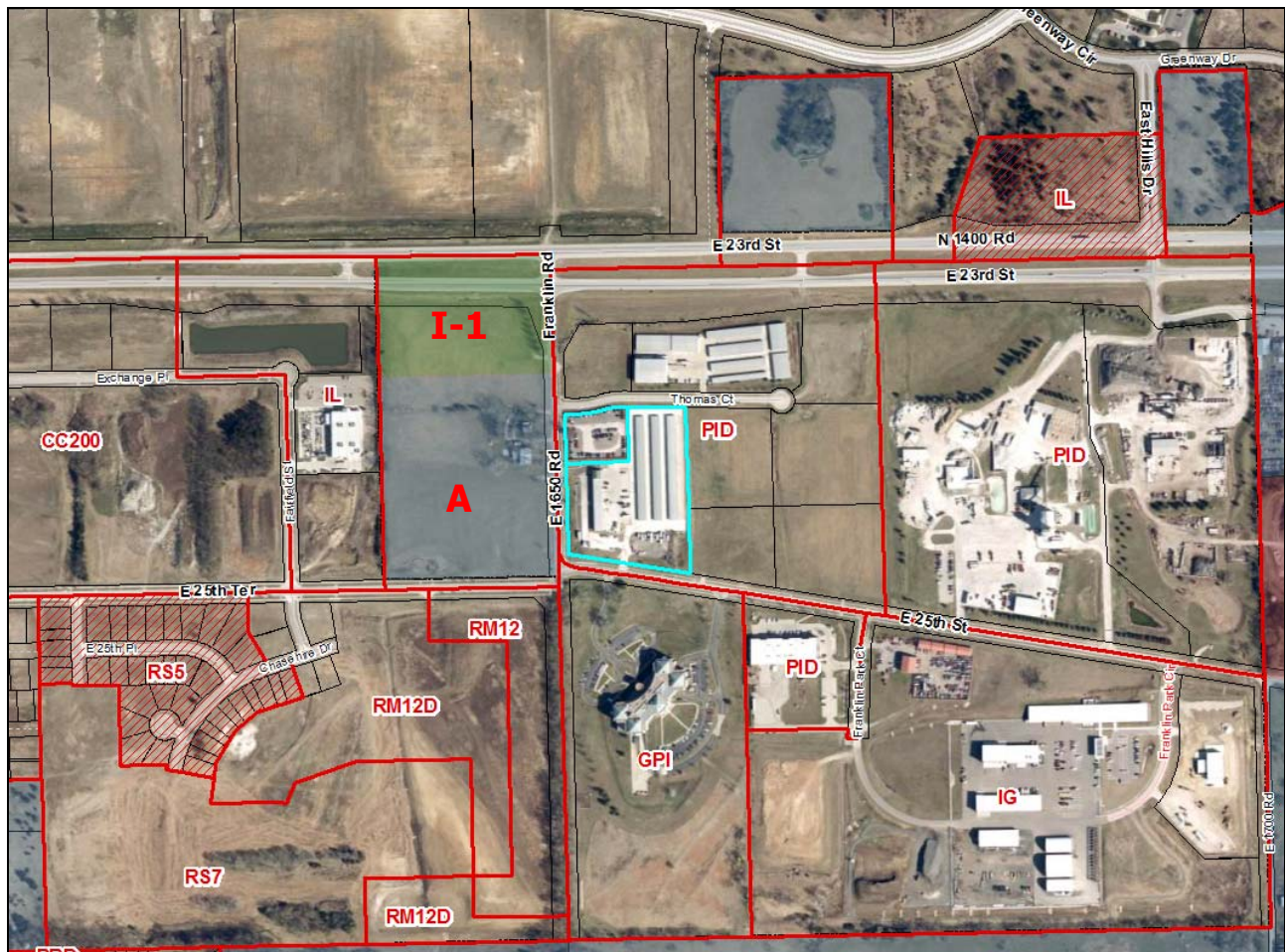
Current Zoning and Land Use:	PID (Planned Industrial Development) District; Lot 9 – vacant; Lot 1 – mini storage, office/retail.
Surrounding Zoning and Land Use:	<p>To the north and east: PID (Planned Industrial Development) District; <i>Wholesale, Storage, and Distribution, Light</i>, and vacant land.</p> <p>To the south: GPI (General Public and Industrial Use) District; Douglas County Jail</p> <p>To the west: A (Agricultural) and I-1 (Limited Industrial) Districts; rural residence.</p>

### SITE SUMMARY

Lot 1	Existing	Proposed	Change
Land Use:	Mini Storage, Office/Retail	Mini Storage, Office/Retail	
Land Area:	229,125 sq ft	229,125 sq ft	0
Total Building:	44,172 sq ft	44,172 sq ft	0
Total Pavement:	127,890 sq ft	127,890 sq ft	0
Total Impervious Area : % Impervious	172,062 sq ft 75%	172,062 sq ft 75%	0
Total Pervious Area: % Pervious	57,063 sq ft 25%	57,063 sq ft 25%	0



Lot 9	Existing	Proposed	Change
Land Use:	Vacant	Use Group 13 – Similar Use/Indoor Gun Range and Retail Sales (Participant Sports & Recreation, Indoor)	
Land Area:	47,160 sq ft	47,160 sq ft	0
Total Building:	409 sq ft	12,375 sq ft	11,966 sq ft
Total Pavement:	2,899 sq ft	12,551 sq ft	9,652 sq ft
Total Impervious Area : % Impervious	3,308 sq ft 7%	24,929 sq ft 53%	20,235 sq ft 46%
Total Pervious Area: % Pervious	43,852 sq ft 93%	22,231 sq ft 47%	-21,621 -46%



**Figure 1.** Surrounding zoning and land use. The subject property is outlined in blue.

Lot	Use	Vehicle Requirement	Vehicle Required	Vehicle Provided
Lot 1	Mini Storage	1 space/150 storage units + 3 adjacent to leasing office	271 units/150= 2+ 3 = 5	
	Office	1/300 sq ft floor area	5,985 sq ft/300 = 20	
	Retail	1/200 sq ft floor area	3,000 sq ft/200 = 15	
	<b>Total Required for Lot 1</b>		<b>40</b>	
	ADA (76-100 spaces = 3 auto & 1 van )			6
	Bicycle			2

Lot	Use	Vehicle Requirement	Vehicle Required	Vehicle Provided
Lot 9	Indoor Gun Range	1/500 sq ft floor area*	12,375 sq ft/ 500 = 25	25
	ADA (1-25 spaces = 1 van)			1
	Bicycle			5

\*Parking group 15 is being used for the Indoor Gun Range associated with Lot 9. Staff determined this parking group was appropriate due to its alignment with the current Development Code. The parking requirements in Parking Group 15 are the same requirements that would apply to the gun range if it were being developed under the current Development Code (An indoor gun range would be classified as a *Participant Sports & Recreation, Indoor* use under the current code, which requires parking be calculated at 1 space per 500 square feet of customer/activity area).

### STAFF ANALYSIS

The subject property contains approximately 6.3 acres and is located at the northeast corner of E 25<sup>th</sup> Street and Franklin Road. The subject property includes 2400 Franklin Road (Lot 1) and 2350 Franklin Road (Lot 9). The property has been part of the Mt. Blue PID since its inception. The original plan was approved under the 1966 Zoning Code; as such the development is being processed under the requirements of the pre-2006 Code, with the exception of landscaping requirements associated with Lot 9. To facilitate efficiency, staff determined that the landscaping standards in the current Development Code, Article 10, should be used for landscaping requirements.

The original plan showed Lot 1 to be developed with mini storage, office, and retail; however, the plan did not include development for Lot 9. The proposed PDP revision accommodates the development of Lot 9 with a gun range and retail store. The original Mt. Blue Preliminary Plan permitted uses in Use Group 13—Automotive Services; Retail Sales; Other. An indoor gun range is not specifically listed under Use Group 13; however, the Planning Director determined that an indoor gun range was a similar use to other recreational type uses permitted in that use group. Recreational examples permitted in Use Group 13 include 'Skating Rink, Commercial', and 'Baseball Park, Commercial'. Given this, a determination was made by the Planning Director that an indoor gun range would be a permitted use under the 'Similar Use' category of the use group.

The City Engineer determined that access to Franklin Road (an arterial street) should be removed, and access provided to Lot 9 from Thomas Court. The revised PDP proposes a new access drive from Thomas Court, as well as extending the drive aisle for Lot 9 south to share access to Franklin Road with Lot 1. The trash storage area for Lot 1 will be relocated to accommodate this access improvement. There are no other changes proposed with Lot 1.

### **PRELIMINARY DEVELOPMENT PLAN REVIEW**

The proposed Preliminary Development Plan for Mt. Blue Addition has been evaluated based upon findings of fact and conclusions per Article 10 of the 1966 Zoning Code for the City of Lawrence, requiring consideration of the following nine items:

#### ***1) In what respects the plan is or is not in general conformity with the provisions of the Comprehensive Plan of the City.***

Recommendations from *Horizon 2020* related to this development are listed below with staff discussion following in red.

#### Industrial and Employment-Related Land Use Goals and Policies (page 7-11)

- Goal 1: Development in Established Industrial and Employment-Related Areas  
"Encourage the retention, redevelopment and expansion of established industrial and employment-related areas."  
The proposed PDP revision accommodates development of an undeveloped parcel located at 2350 Franklin Road. This lot has not been developed since the approval of the original PDP in 1997. The proposed project will encourage the retention of an established industrial area. An undeveloped parcel will be developed with a use compatible with the industrially zoned area, and the property retains its industrial zoning.
- Policy 1.2: Ensure Compatibility of Development  
"Encourage best management practices for site planning and design that include, but are not limited to, building placement and orientation, vehicular and pedestrian circulation patterns, open space, landscaping, lighting, stormwater management, and interfacing with adjacent neighborhoods and development, and appropriate accommodation of the design to the site's natural features."  
Planned Industrial Development (PID) Districts encourage industrial development in a planned manner. The proposed development is reviewed for consistency with the development standards for a PID, as required by Sections 20-1008.5 of the previous applicable zoning code. Included in this standard are provisions for open space, dimensional requirements (such as lot width, building setbacks, and building height), and off-street parking requirements. Further review is provided to verify compliance with building and site design, and compatibility with the surrounding area.
- "Encourage building design techniques that include, but are not limited to, the consideration of façade and exterior wall articulation, materials and colors, rooflines, entryways, signage, and energy and resource conservation."  
The development proposed on Lot 9 will be reviewed for compliance with the Industrial Design Guidelines found in the Community Design Manual. The building form, roof type and exterior materials will be reviewed for compatible architectural context with the surrounding developments and the community as a whole.

**Staff Finding** – The proposed development complies with the general industrial land use provisions found in *Horizon 2020*.

**2) In what respects the plan is or is not consistent with the Statement of Objectives of Planned Unit Development. [The statement of objectives of planned unit developments per Section 20-1002 of the 1966 Zoning Ordinance]**

- (1) To promote and permit flexibility that will encourage innovative and imaginative approaches in residential, commercial, and industrial development which will result in a more efficient, aesthetic, desirable and economic use of land while maintaining density and intensity of use consistent with the adopted comprehensive plan for the city;*
- (2) To promote development within the city that can be conveniently, efficiently and economically served by existing municipal utilities and services or by their logical extension;*
- (3) To promote design flexibility including placement of buildings, and use of open space, pedestrian and vehicular circulation facilities to and through the site, and off-street parking areas in a manner that will best utilize potential on-site characteristics such as, topography, geology, geography, size or proximity.*
- (4) To provide for the preservation of historic or natural features where they are shown to be in the public's interest including but not limited to such features as: drainageways, floodplains, existing topography or rock outcroppings, unique areas of vegetation, historic landmarks or structures*

**Staff Finding** – As mentioned, previously approved PDPs did not provide a proposed use for the development of Lot 9. The proposed revisions provide more detail to the PDP by updating Lot 9 with development information. The changes proposed with this revision request are consistent with the Statement of Objectives of Planned Unit Development.

**3) The nature and extent of the common open space in the Planned Unit Development, the reliability of the proposals for maintenance and conservation of the common open space, and the adequacy or inadequacy of the amount and function of the common open space in terms of the densities and dwelling types proposed in the plan.**

**Staff Finding** – The common open space for the revised portion of the PDP will be provided through the landscaping along the street frontages and within parking lot area. Dwelling units are not proposed in this development.

**4) Whether the plan does or does not make adequate provisions for public services, provide adequate control over vehicular traffic, and further the amenities of light and air, recreation and visual enjoyment.**

Adequate public utilities are available to serve the proposed development. Access to the site will be taken from Thomas Court. Secondary access will be available through the developed parking lot on Lot 1. Parking is located on the north and west sides of the building, and landscaping is proposed to screen the parking area.

**Staff Finding** – Adequate provisions for public services, vehicular traffic, light, air, and visual enjoyment have been provided.

**5) Whether the plan will or will not have a substantial adverse effect on adjacent property and the development or conservation of the neighborhood area.**

Changes are not proposed to the existing development on Lot 1, which contains mini-storage, office, and retail uses, with the exception of the associated improvements for the shared access



through the existing parking lot. The discussion provided below pertains to Lot 9, which proposes the development of an indoor gun range.

The Traffic Impact study, dated December 30, 2016, indicated that the projected volumes of traffic generated by the proposed development will be 31 vehicles per hour (vph) during the AM peak hour and 24 vph at the PM peak hour. The projected traffic volumes indicate that the proposed development will not create a noticeable change in the existing traffic volumes in the area.

The proposed development is a 12,375 square foot one-story building. The development will occur in an area previously planned for industrial uses, and is compatible with the existing development in the area. The building form, roof type and exterior materials will be reviewed for compliance with the Industrial Design Guidelines as part of the Final Development Plan review process. The review will verify that the development is compatible with the established surrounding area.

**Staff Finding** – The development should not have a measureable or adverse impact on the development or conservation of the neighborhood area.

***6) In what respects the plan is or is not in conformance with the development standards and criteria of this article.***

The applicant is requesting a waiver from the front setback for parking along Thomas Court. The proposed revisions show the parking area for Lot 9 setback 15' from Thomas Court right-of-way. The pre-2006 code did not provide setback requirements for parking areas. In this situation, the front setback requirement of 30' would be applicable under the pre-2006 code because Lot 9 is a corner lot. Staff recommends approval of the front setback waiver because it aligns with the standards of the current Development Code. If the property were being designed under the existing Development Code, Section 20-908(c) would be applicable and would require that the parking area be setback 15' from the street right-of-way. The waiver request to reduce the front setback from 30' to 15' will result in a development that is consistent with current development patterns.

Section 20-1008.5(F) of the pre-2006 code permits the Planning Commission to approve a lesser setback.

**Staff Finding** – As conditioned and with the approval of the recommended front setback waiver, this Preliminary Development Plan is in conformance with the provisions of the 1966 Zoning Regulations.

***7) In what respects the plan is or is not in compliance with the requirements for application for tentative approval of the Planned Unit Development. [This finding refers to Section 20-1005 (1966 Zoning Code) of the Zoning Ordinance.]***

**Staff Finding** – The proposed development plan is consistent with the statement of objectives for planned unit developments and *Horizon 2020*. With the approval of the recommended front setback variance, the proposed revisions meet the minimum requirements and development standards.

***8) The sufficiency of the terms and conditions proposed to protect the interest of the public and the residents of the Planned Unit Development in the case of a plan that proposes development over a period of years.***

**Staff Finding** – A phased development has not been proposed. Development exists on Lot 1 as shown on the PDP. This revision to the PDP accommodates development of Lot 9.

***9) Stormwater detention calculations and storage of excess stormwater drainage as per City Policy.***

The applicant is working with the City Stormwater Engineer on requirements for stormwater management for this development. A condition of approval for this PDP is that a stormwater drainage study is approved by the City Stormwater Engineer.

**Staff Review and Conclusion**

The revised Preliminary Development Plan, with the waiver requested and as conditioned, is compliant with the Development Code and will result in a development that is compatible with the land uses in the area.



NORTH



## GUN RANGE DEVELOPMENT

Proposed Building Development and Parking

2350 Franklin Road

Lawrence, Kansas 66046

CFS Project No. 165294

### *7 Step Traffic Impact Analysis*

December 30, 2016

Prepared for:

Paul Werner Architects

123 W. 8th Street

Lawrence, Kansas 66044

785-832-0804



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Prepared by:

Cook, Flatt & Strobel Engineers, P.A.

2121 Moodie Road || Lawrence, Kansas 66046

785.856.9600



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*Appendix I - Exhibit Map*

# Introduction

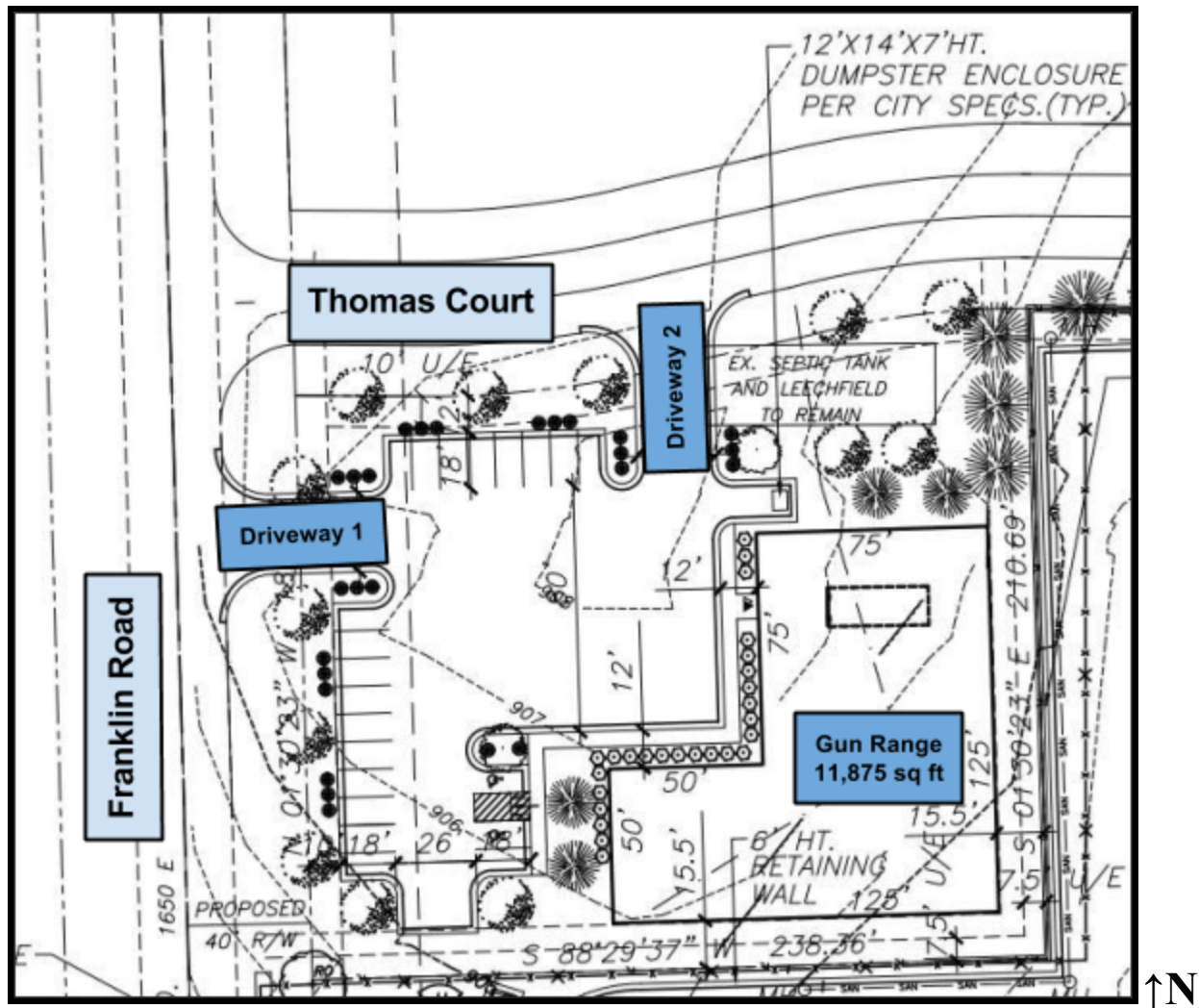
This 7 Step Traffic Impact Analysis for the proposed building and parking lot improvements for the Gun Range development in Lawrence, Kansas, has been prepared in accordance with the City of Lawrence's Traffic Impact Study Guidelines: Ordinance 7650 (Code Chapter 16, Article 29/Chapter 20, Article 9). The proposed 1.08 acre site will improve the existing vacant lot by adding a 11,875 sq ft indoor shooting range. Within the building, 4,000 sq ft will be used for a specialty retail area. The surrounding storage facility and commercial offices to the north and south as well as the 15 acre farm to the west will remain unaltered. The parking for the proposed development will include 21 spaces surrounded by curb and gutter including 2 accessible spaces and 2 bike parking spaces. The current access driveway on Franklin Road, 50 ft south of Thomas Court, will remain in use and a new access driveway is proposed off of Thomas Court located 140 ft east of Franklin Road. Analysis of the projected volumes of traffic to be generated by this proposed development are as follows: the AM peak hour yields approximately 31 vehicles per hour (vph) while the PM peak hour yields approximately 24 vph. Since the maximum volume is less than 100 vph for the peak hours, this 7 Step Analysis satisfies the City of Lawrence's Development Code and a more detailed Traffic Impact Study will not be required to be performed. The analysis of the proposed development does not indicate that there would be any appreciable change in traffic volumes as a result of this project.



Current Aerial View of Site, Lawrence, Kansas

## STEP 1: Specific Development Plan and Land Uses

The proposed development plan for this site includes the construction of a 11,875 sq ft shooting range building at 2350 Franklin Road, Lawrence, Kansas 66046. The parking surface will be improved to include 19 typical spaces, 2 accessible spaces, and 2 bicycle spaces. The site will include new curb, new landscaping, ease of maneuverability for large trucks, dumpster enclosure, and ADA accessibility. Below is an image of the proposed site layout. Abutting the property to the south is a storage and office facility which is being redeveloped separately as part of the Mt. Blue PID, Phases I and II. Across Thomas Court to the north is a moving and storage facility. Across Franklin Road to the west is an unincorporated agricultural farm.



Proposed Site Layout

## **STEP 2: Land Uses Shown in Horizon 2020 for the Proposed Development**

As shown in the Horizon 2020, The Comprehensive Plan for Lawrence and Unincorporated Douglas County Amendment 12/13/16, the land use for the site is Industrial, specifically Office Research Industrial/Warehouse/Distribution. The site is currently a vacant lot. The proposed land use is Commercial. The Gun Range development is within the incorporated city limits. The flood map for the selected area is number 20045C0179E, effective on 09/02/2015, did not show the site within the 500 year flood zone.

## **STEP 3: Functional Classification of the Public Streets Bordering the Site**

As shown in the Transportation 2040 developed by the Metropolitan Transportation Plan of Lawrence and Douglas County, the functional classification of the surrounding streets are as follows:

- E 23rd Street/N 1400 Road/K-10 - Principal Arterial
  - Speed limit of 55 mph to the west of Franklin Road and 65mph to the east of Franklin Road
  - Average daily volume was 31,100 vehicles in 2012
- E 25th Street/N 1360 Road - Major Collector
  - Speed limit of 35 mph
- E 25th Terrace - Major Collector
  - Speed limit of 35 mph
- Franklin Road - Local Road
  - Speed limit of 35 mph
- Thomas Court - Local Road
  - Speed limit of 30 mph

There are no known programmed improvements or future planned improvements for any of the roadways listed above in the region directly surrounding the Gun Range development site.



## **STEP 4: Allowable Access to the Development**

Most traffic headed to the site will most likely come via E 23rd Street/N 1400 Road/K-10 since the land to the south of the site is largely undeveloped. 25th Terrace/N 1360 Road is designated as a bike route which provides accessibility to the site, and bicycle parking is proposed at the site to encourage ridership. The City of Lawrence Bus Route 1, Downtown to East Lawrence, includes Franklin Road and already provides access to the site.

## **STEP 5: Current Public Street Characteristics Adjacent to the Site**

The two roadways adjacent to the site are Franklin Road and Thomas Court. Franklin Road is a two-lane local roadway with a 35 mph speed limit. It is 26 ft wide between the edges of pavement and has a curb and gutter system, sidewalks on both sides of the street, and “No Parking” signs along both sides of the street. It connects E 23rd Street/N 1400 Road/K-10 to E 25th Street/N 1360 Road and extends to E 25th Terrace. Thomas Court is a two-lane local roadway with a 30 mph speed limit that connects to Franklin Road but ends in a Cul-de-Sac. It is 24 ft wide between the edges of pavement and has a curb and gutter system and a sidewalk on the northern side of the street. The intersection of Franklin Road & Thomas Court is 420 ft away from the nearest arterial which is E 23rd Street/N 1400 Road/K-10 and there are no sight obstructions for sight distance issues at the intersection.

## **STEP 6: Proposed Access Compared with AASHTO Criteria**

There are two access driveways for the proposed development. The current access driveway on Franklin Road, 50 ft south of Thomas Court, will remain in use and a new access driveway is proposed off of Thomas Court will be 140 ft east of Franklin Road. The proposed access points to the site meets AASHTO criteria and the City of Lawrence Access Management Guidelines. The 140 ft distance between the proposed access point and the intersection of Franklin Road & Thomas Court exceeds the 50 ft minimum requirement. The driveways will both have an throat distance of 50 ft which also meets the requirements of Access Management Guidelines. The

access points will not require a left-turn or right-turn auxiliary lane due to the low volume of generated traffic. There are no sight obstructions or sight distance issues at the driveway intersections. A shared parking lot connection to the businesses to the south is not feasible due to the 6 ft high retaining wall between the properties.

## **STEP 7: Estimate of Trips Generated by Existing and Proposed Development**

The existing site has a 409 sq ft building and is vacant, therefore the existing traffic is negligible. For evaluating traffic impacts from new land developments, transportation engineers typically utilize the Trip Generation Manual (9th Edition) published by the Institute of Transportation Engineers (ITE). The 9th Edition is the most current manual and covers a diverse assortment of commercial, residential, industrial and specialty types of land developments. Since ITE data for a shooting range is unavailable, a substitute ITE category and ITE code was used. It was assumed that the 432 (Golf Driving Range) would be a good comparison since there are similar lanes in which a person performs a solo activity. The Gun Range development will provide 10 shooting lanes. Also, the 4,000 sq ft retail area within the building was categorized as ITE Code 826 (Specialty Retail Center). The 10 lanes and 4 thousand sq ft (ksf) of retail was then multiplied by their ITE Average Trip Generation Rates to determine the increased traffic volumes. Volumes were calculated as follows for the daily total and the AM and PM Peak Hours on a typical weekday:

**ITE Trip Generation Manual (9th Edition) Generation Rates and Directional Distributions**

		<b>Average Trip Generation Rate</b>	<b>Total Traffic</b>	<b>Traffic Entering</b>	<b>Traffic Exiting</b>
<b>ITE Land Use 432 (Golf Driving Range)</b>	<b>Weekday Total</b>	13.65 vpd/unit	137		
	<b>AM Peak Hour</b>	0.40 vpd/unit	4	2	2
	<b>PM Peak Hour</b>	1.25 vpd/unit	13	6	7
<b>ITE Land Use 826 (Specialty Retail Center)</b>	<b>Weekday Total</b>	44.32 vpd/unit	177		
	<b>AM Peak Hour</b>	6.84 vpd/unit	27	13	14
	<b>PM Peak Hour</b>	2.71 vpd/unit	11	5	6

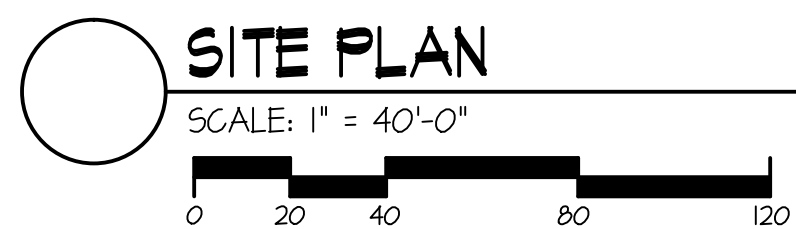
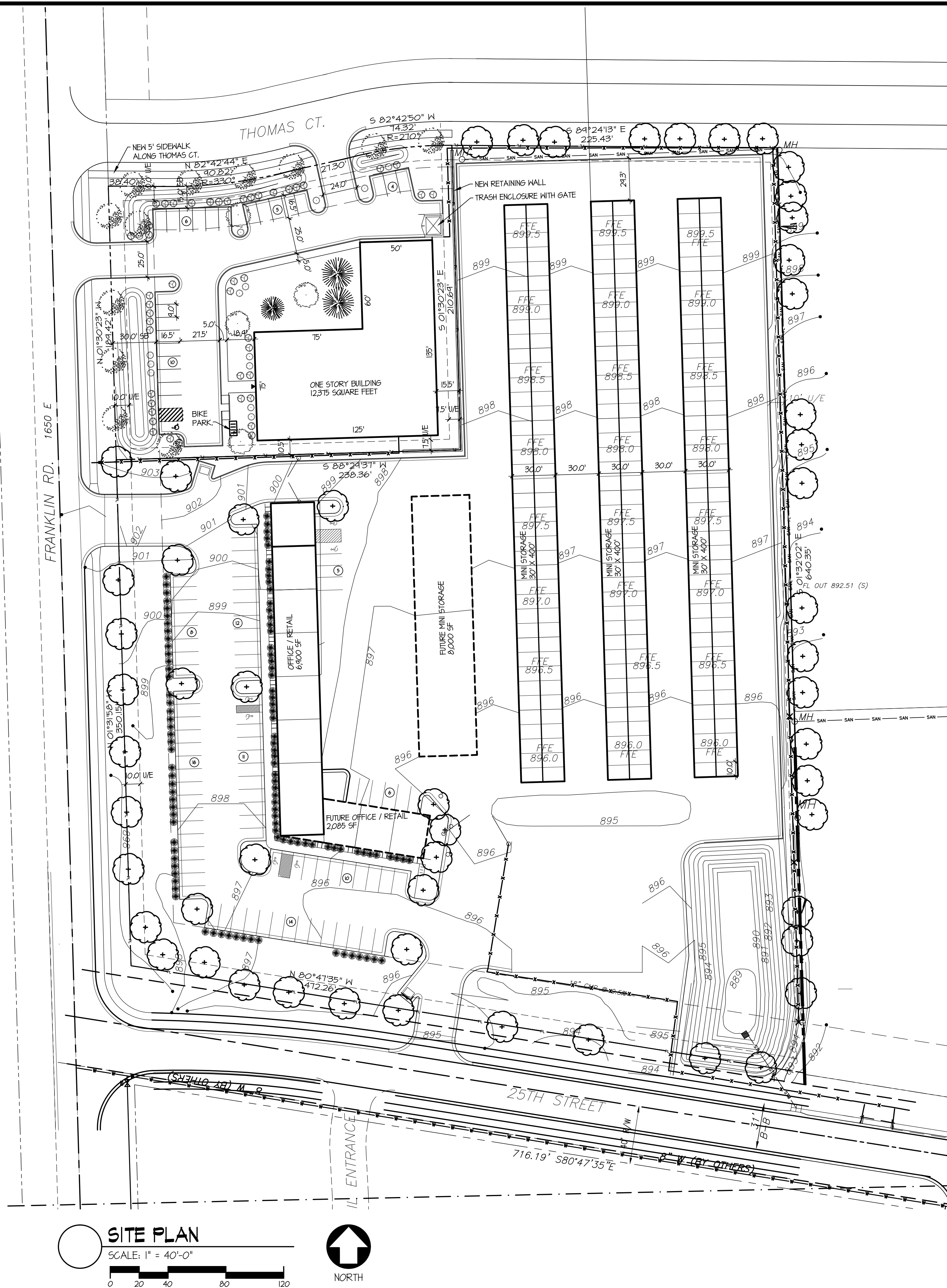
These volumes are very low and will not significantly change the traffic patterns of the local street network. By-pass traffic will not be generated by these land use categories.

## Summary

Analysis of the projected volumes of traffic to be generated by this proposed development are as follows: the AM peak hour yields approximately 31 vehicles per hour (vph) while the PM peak hour yields approximately 24 vph. As the maximum volume is less than 100 vph, this 7 Step Analysis satisfies the City of Lawrence's Development Code and a more detailed Traffic Impact Study will not be required to be performed. The analysis of the proposed development does not indicate that there would be any appreciable change in traffic volumes as a result of this project.

## *Appendix I - Exhibit Map*





## ORIGINAL CONDITIONS OF APPROVAL FOR P.I.D. ZONING

- USES WILL BE RESTRICTED AS PART OF THE APPROVAL OF THE PRELIMINARY DEVELOPMENT PLAN BASED ON THE VISUAL AND ENVIRONMENTAL IMPACT ON THE K-10 CORRIDOR AND ADJOINING PROPERTIES;
- MINIMUM 20% OPEN SPACE (EXCLUSIVE OF PARKING AREAS)
- BUILDING SETBACK STANDARDS:
  - COMMERCIAL DEVELOPMENT, 50 FEET FROM K-10 RIGHT-OF-WAY
  - INDUSTRIAL DEVELOPMENT, 100 FEET FROM K-10 RIGHT-OF-WAY
- LOADING DOCKS MECHANICAL EQUIPMENT, SOLAR PANELS, WASTE STORAGE, AND PRODUCT STORAGE AREAS SHALL NOT BE LOCATED ON THE SIDE OF THE BUILDING FACING K-10, AND IF LOCATED ON A SIDE OF BUILDING FACING K-10, WILL BE ENTIRELY SCREENED FROM VIEW WITH WALLS THAT ARE CONSISTANT WITH THE ARCHITECTURE OR EVERGREEN VEGETATION.
- REVERSE FRONTAGE ROADS ARE RECOMMENDED (WHICH LOCATES THE FRONTAGE ROAD TO THE REAR OF PROPERTIES); SPECIFICS SHALL BE ADDRESSED AT THE DEVELOPMENT PLAN STAGE.
- BLANK WALLS (WITHOUT DOORS, WINDOWS) SHALL NOT FACE K-10; OR SEE #4.
- PAINTED ADVERTISING ON STRUCTURES IS NOT PERMITTED.
- SIGNS ON BUILDINGS IS LIMITED TO COMPANY NAME OR LOGO AND ADDRESS.
- MASONRY (BRICK, STONE, STUCCO) IS REQUIRED FOR DETAILING; IN STRUCTURES LOCATED WITHIN VIEW OF K-10 R.O.W.
- FREE STANDING POLE MOUNTED SIGNS ARE NOT PERMITTED ON PROPERTIES ADJUTING K-10.
- NO SIGNS ON TOP OF BUILDINGS.
- MAXIMUM OF ONE SIGN FACING K-10.
- TREES WITH 12" CALIPER AND ABOVE SHALL BE REPLACED. REPLACEMENT REQUIRED 1 TREE FOR EVERY 12" OR LARGER REMOVED.
- PLANTING: (CURRENT LANDSCAPE ORDINANCE SUPERCEDES THIS CONDITION)
  - SHADE TREES, 2-1/2"-3" CALIPER.
  - ORNAMENTAL TREES, 1-3/4"-2" CALIPER.
  - EVERGREEN TREES, MINIMUM 8' HEIGHT.
- LIGHTING SHALL BE NON GLARE, CUT OFF FIXTURES WITH METAL HALIDE BULBS OR OTHER ENERGY EFFICIENT LIGHTS. STANDARDS AND FIXTURES IN PARKING LOTS SHALL BE A MAXIMUM OF 20 FT. IN HEIGHT, 0.8 FOOT CANDLES, LIGHT SOURCES SHOULD NOT BE VISIBLE FROM K-10. (CURRENT LIGHTING ORDINANCE SUPERCEDES THIS CONDITION)
- PARKING; INTERIOR LANDSCAPE ISLANDS SHALL EQUAL A MINIMUM OF 0.8% OF THE TOTAL PARKING AREA. ISLANDS WILL BE LANDSCAPED WITH SHADE TREES, ORNAMENTAL TREES AND SHRUBS AT APPROPRIATE LOCATIONS (ENTRIES AND PARKING LOT ISLANDS); (CURRENT LANDSCAPE ORDINANCE SUPERCEDES THIS CONDITION)
- PARKING LOT ISLANDS SHALL BE A MINIMUM OF 10 FT. WIDTH.
- BUFFER VIEWS OF PARKING ENTIRELY FROM K-10 AND ADJACENT UNRELATED USES, 42" MINIMUM HEIGHT BERMING AND VEGETATION.

IN ADDITION, THE FOLLOWING USES HAVE BEEN PROHIBITED:

USE GROUP 13. BEER SALES FOR CONSUMPTION ON THE PREMISES; EATING ESTABLISHMENT, ENCLOSED, WITH DANCING OR ENTERTAINMENT; EATING ESTABLISHMENT, PROVIDING ONLY DRIVE-UP SERVICE OR NO SEATING FACILITIES; FOOD CONVENIENCE STORE INCLUDING GASOLINE SALES; OR HOTEL.

PROHIBITED STORAGE MATERIALS AND USES

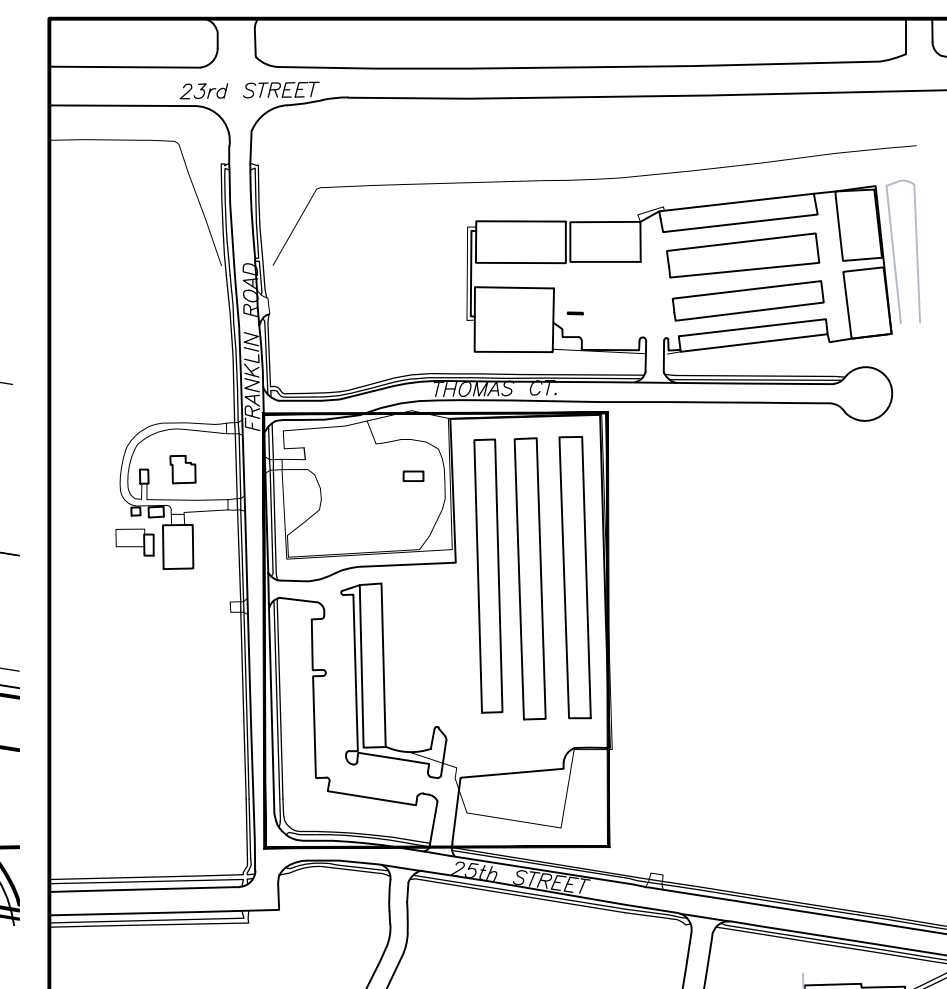
THE FOLLOWING ARE PROHIBITED STORAGE MATERIALS AND USES, THESE ITEMS SHALL BE INCLUDED AS PART OF ANY LEASE AGREEMENT TO RENT STORAGE UNITS.

- AUCTIONS, EXCEPT THOSE REQUIRED BY STATE LAW TO DISPOSE OF LIEN HELD PROPERTY;
- COMMERCIAL, WHOLESALER OR RETAIL SALES, OR MISCELLANEOUS OR GARAGE SALES;
- THE SERVICING, REPAIR OR FABRICATION OF MOTOR VEHICLES, BOATS, TRAILERS, LAWN MOWERS, APPLIANCES, OR OTHER SIMILAR EQUIPMENT;
- THE OPERATION OF POWER TOOLS, SPRAY PAINTING EQUIPMENT, TABLE SAWS, LATHES, COMPRESSORS, WELDING EQUIPMENT, KILNS, OR OTHER SIMILAR EQUIPMENT.
- THE ESTABLISHMENT OF A TRANSFER AND STORAGE BUSINESS; AND
- ANY USE THAT IS NOXIOUS OR OFFENSIVE BECAUSE OF ODORS, DUST, NOISE, FUMES, OR VIBRATIONS.

(H) OFF-STREET PARKING.

- OFF-STREET PARKING SHALL BE PROVIDED FOR INDUSTRIAL BUILDINGS IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN USE GROUP 1 - COMMUNITY FACILITIES-PUBLIC UTILITIES; USE GROUP 8 - TEMPORARY USES; USE GROUP 14 - PROFESSIONAL OFFICES; USE GROUP 10 - OFF STREET PARKING; USE GROUP 13 - AUTOMOTIVE SERVICES AND RETAIL SALES; USE GROUP 14 - RETAIL-WHOLESALER SALES AND SERVICES; USE GROUP 11 - MANUFACTURING-LOW NOISANCE; USE GROUP 12 - RESEARCH AND TESTING; USE GROUP 14 - INDUSTRIAL-MEDIUM NOISANCE; USE GROUP 20 - INDUSTRIAL-HIGH NOISANCE.

- PARKING SHALL NOT BE ALLOWED WITHIN ANY AREA OF THE PERIPHERY SETBACKS OR THE FRONT YARD SETBACKS.



## LOCATION MAP

SCALE: 1" = 100'

## LEGAL DESCRIPTION:

MT BLUE ADDITION, LOT 1 AND MT. BLUE ADDITION NO. 2, LOT 9 IN THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS.

## PROJECT SUMMARY:

- |                     |  |
|---------------------|--|
| 1.1 CURRENT ZONING: | LOT 1: PID<br>LOT 9: PID   |
| 1.2 CURRENT USE:    | LOT 1: USE GROUPS 12, 13, 14, 17 (MINI STORAGE, OFFICE, RETAIL)<br>LOT 9: VACANT       |
| 1.3 PROPOSED USE:   | LOT 1: USE GROUPS 12, 13, 14, 17 (MINI STORAGE, OFFICE, RETAIL)<br>LOT 9: USE GROUP 13 |
| 1.4 LAND AREA:      | LOT 1: 5.265 ACRES (228,125 SQ. FT. +/-)<br>LOT 9: 1.083 ACRES (47,160 SQ. FT. +/-)    |

## GENERAL NOTES:

- ALL GROUND MOUNTED MECHANICAL UNITS SHALL BE SCREENED IN ACCORDANCE WITH SECTION 20-14A04.
- ALL ACCESSIBLE SIDEWALK RAMP BY A.D.A. STANDARDS.
- SITE PLAN HAS BEEN DESIGNED TO COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR BUILDINGS AND FACILITIES, APPENDIX A TO 28CFR PART 36.
- THE CITY OF LAWRENCE WILL NOT BE HELD RESPONSIBLE FOR DAMAGE CAUSED BY TRASH TRUCKS.
- NO PROPOSED PARKING LOT LIGHTS AT THIS TIME. PARKING LOT LIGHTS MAY BE INSTALLED IN FUTURE PER CITY CODE.
- PLAN FOR CITY APPROVAL ONLY CONSTRUCTION DOCUMENTS TO BE FURNISHED AT THE REQUEST OF OWNER.
- INFORMATION TAKEN FROM AERIAL PHOTOS, AVAILABLE DOCUMENTS AND ON SITE INVESTIGATIONS.
- ALL TRAFFIC CONTROL SIGNS PLACED ON PRIVATE PROPERTY OPEN TO THE GENERAL PUBLIC SHALL COMPLY WITH THE "MANUAL ON UNIFORMS TRAFFIC CONTROL DEVICES" AND "STANDARD HIGHWAY SIGNS," PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION, WITH RESPECT TO SIZE, SHAPE, COLOR, RETROFLECTIVITY, AND POSITION.
- ENTIRE COMPLEX TO BE CONSTRUCTED AT ONE TIME (A SINGLE PHASE). OCCUPANCY PERMITS TO BE ISSUED PER BUILDING WHEN NECESSARY IMPROVEMENTS HAVE BEEN COMPLETED FOR EACH STRUCTURE.
- SIGN APPROVAL AND PERMITTING IS NOT PART OF THE SITE PLAN APPROVAL. SEPARATE APPROVAL IS REQUIRED THROUGH NEIGHBORHOOD RESOURCES.
- APPLICANT REQUESTS TO REDUCE THE PARKING SETBACK ALONG THOMAS CT. TO 15'0"
- THIS PROJECT IS DESIGNED, DEVELOPED AND REVIEWED UNDER THE OLD CODE.

## PARKING INFORMATION:

- |   |   |   |
|---|---|---|
| 3.1 PARKING REQUIRED:   | LOT 1   | LOT 9   |
| MINI STORAGE: 1 SPACE FOR EVERY 150 STORAGE UNITS AND A MINIMUM OF 3 ADJACENT TO LEASING OFFICE | 271 UNITS / 150 = 2 + 3 = 5 SPACES  | PARKING GROUP 15: 1 SPACE FOR EVERY 500 SF OF FLOOR AREA<br>12,315 SF / 500 = 25 SPACES |
| OFFICE: 1 PER 300 SF OF FLOOR AREA  | 5,825 SF / 300 = 20 SPACES  |   |
| RETAIL: 1 PER 200 SF OF FLOOR AREA  | 3,000 SF / 200 = 15 SPACES  |   |
|   | TYPE: REGULAR ACCESSIBLE  | REQUIRED: 24<br>PROVIDED: 24  |
|   | BICYCLE   | REQUIRED: 5<br>PROVIDED: 5  |
| 3.2 TYPICAL DIMENSIONS:   | 1' SPACES - 9' X 18' (OR 16.5' + 1.5' OVERHANG)<br>SIDEWALKS SHALL BE 4' CONCRETE - 5' OR 6.5' WIDE DEPENDING UPON THE LOCATION.<br>1' SPACES - 8' X 20' (5' OR 6' AISLE)       |   |
| 3.3 PAVEMENT:   | APPROACHES: 7" - 4000 PSI CONCRETE #4 15 BARS 12" O.C.B.M.<br>DRIVES: MIN. 8" ASPHALT ON 4" GRAVEL OR 5" CONCRETE<br>PARKING AREAS: MIN. 5" ASPHALT ON 4" GRAVEL OR 4" CONCRETE |   |
| 3.4 24" CURB & GUTTER AT ENTRANCE.  |   |   |

## LANDSCAPING NOTES:

- | SYM.               | DESCRIPTION  | QTY. | APPROVED TYPES   | BOTANICAL NAMES   | SIZE           | COND. |
|--------------------|--|------|--|---|----------------|-------|
| (+)                | LOT 1 TREES  | 55   |  |   |                |       |
| (*)                | LOT 1 SHRUBS   | 109  |  |   |                |       |
| LOT 9 LANDSCAPING: |  |      |  |   |                |       |
| (+)                | SHADE TREES  | 12   | SAN TOOTH OAK<br>NORWAY MAPLE<br>THORNLESS HONEY LOCUST  | QUERCUS ACUTISSIMA<br>ACER PLATANOIDES 'NORWEGIAN SUNSET'<br>GLEDTISIA TRIACANTHOS VAR. INERMIS   | 2"-2 1/2" CAL. | B & B |
| (*)                | EVERGREEN TREES  | 3    | WHITE PINE<br>BLUE SPRUCE  | PINUS STROBUS<br>PICEA PARVENSIS  | 6'-8' HT.      | B & B |
| (+)                | ORNAMENTAL TREES   | 4    | CLEVELAND SELECT PEAR<br>KOUSA DOGWOOD<br>CORAL BURST CRABAPPLE<br>EASTERN REDBUD                        | PYRUS CALLERYANA 'CHANTELIERE'<br>CORNUS KOUSA<br>MALUS 'CORALBURST'<br>CERCIS CANADENSIS   | 1 1/2"-2" CAL. | B & B |
| (+)                | DECIDUOUS SHRUBS   | 14   | DWARF JAPANESE BARBERRY<br>LEATHERLEAF VIBURNUM<br>BEAUTY BUSH<br>DWARF KOREAN LILAC                     | BERBERIS THUNBERGII 'CRIMSON PYGMY'<br>VIBURNUM RHYTHIDOPHYLLUM<br>KOLKATITZIA AMABILIS<br>SYRINGA MEYERI 'PALIBIN'   | 18"-24" HT.    | CONT  |
| (+)                | EVERGREEN SHRUBS   | 42   | CARMEL CREEPER<br>CREEPING ROSEMARY<br>BLUE PFITZER JUNIPER<br>BAR HARBOR JUNIPER CREEPER<br>ENGLISH YEW | CAENOTHUS GRISSEUS HORIZONTALIS<br>ROSEMARY 'PROSTRATUS'<br>JUNIPERUS CHINENSIS 'PFITZERIANA GLAUCOA'<br>JUNIPERUS HORIZONTALIS 'BAR HARBOR'<br>TAXUS BACCATA | 24"-36" HT.    | CONT  |
| 4.1                | THERE MUST BE A MIN. OF (2) SPECIES USED IN EACH CATEGORY.   |      |  |   |                |       |
| 4.2                | ALL TURF AREAS TO BE SEEDED WITH K-31 PESCUE   |      |  |   |                |       |
| 4.3                | INTERIOR PARKING LANDSCAPING:<br>4056 X 25 SPACES = 10,000 SF<br>1 SHADE TREE PER 10 SPACES = 3 TREES<br>3 SHRUBS PER 10 SPACES = 8 SHRUBS |      |  |   |                |       |
|                    | PERIMETER LOT LANDSCAPING:<br>12715 LF ON FRANKLIN / 25 = 5 TREES<br>12715 LF ON THOMAS CT / 25 = 6 TREES<br>PERIMETER BERM PROVIDED       |      |  |   |                |       |
|                    | STREET TREES:<br>184.42 LF ON FRANKLIN / 40 = 5 TREES<br>230.84 LF ON THOMAS CT / 40 = 6 TREES   |      |  |   |                |       |

## IMPERVIOUS SURFACE SUMMARY:

- |   |                      |                      |              |
|---|----------------------|----------------------|--------------|
| LOT 9: 1.083 ACRES (46,111 SQ. FT. +/-) | EXISTING CONDITIONS: | PROPOSED CONDITIONS: |              |
| LAND AREA                               | SQ. FT. AC.          | LAND AREA            | SQ. FT. AC.  |
| BUILDING FOOTPRINT:                     | 404 0.004            | BUILDING FOOTPRINT:  | 12,315 0.284 |
| PAVEMENT AREAS:                         | 2,981 0.067          | PAVEMENT AREAS:      | 15,310 0.353 |
| TOTAL IMPERVIOUS:                       | 4,424 0.101          | TOTAL IMPERVIOUS:    | 21,745 0.507 |
| TOTAL PERVIOUS:                         | 41,223 0.951         | TOTAL PERVIOUS:      | 19,415 0.446 |

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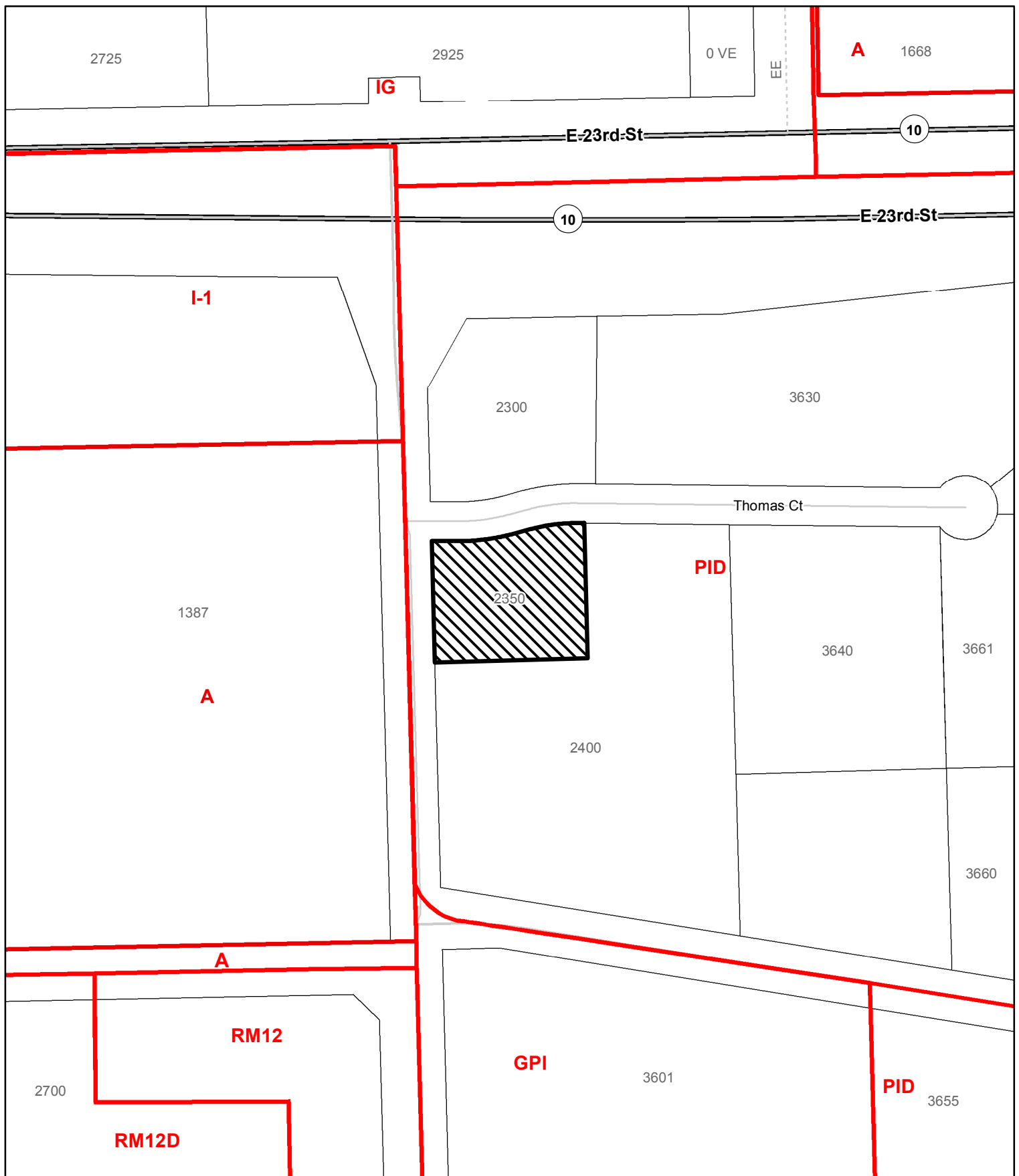
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**PDP FOR MT. BLUE ADDITION  
LOT 1 AND MT BLUE  
ADDITION NO. 2 LOT 9**  
LAWRENCE, KANSAS

PROJECT # 216-740  
DECEMBER 2016

RELEASE: 1.0 DATE: 01.09.2017





**PDP-17-00008: Preliminary Development Plan for a Gun Range and Retail Store  
in Mt. Blue PID Located at 2350 Franklin Road**



**PLANNING COMMISSION REPORT**  
**Regular Agenda -- Public Hearing Item**

PC Staff Report  
03/15/2017

**ITEM NO. 4      TEXT AMENDMENT TO COUNTY ZONING REGULATIONS; LANDFILL (MKM)**

**TA-16-00510:** Consider a Text Amendment to Chapter 12 of the County Code, *Zoning Regulations for the Unincorporated Territory of Douglas County, Kansas* to add 'Landfills' to the enumerated list of Conditional Uses, provide a definition, and establish standards for the use. *Initiated by County Commission on 11/30/16.*

**RECOMMENDATION:** Staff recommends approval of the proposed amendment, TA-16-00510, to revise Section 12-319-4 in the Zoning Regulations to add the use 'Landfills' with standards for the use and that the Planning Commission forward a recommendation for approval to the Board of County Commissioners.

**Reason for Request:** The *Zoning Regulations for the Unincorporated Territory of Douglas County, Kansas* allow a *Sanitary Landfill* when approved with a Conditional Use Permit. The regulations do not discuss other types of landfills and do not provide a definition of a 'Sanitary Landfill'. It has been the practice to require Conditional Use Permits for other types of landfills which could have similar impacts as a Sanitary Landfill: such as Construction and Debris or Clean Rubble landfills; however, as this language is not specified in the Regulations, implementation of this requirement has not been consistent.

To provide clarity and ensure consistency, this text amendment adds the general category of 'Landfill' to the list of uses which require approval of a CUP, provides clear definitions, and establishes standards. 'Sanitary Landfill' is included within the 'Landfill' use.

**RELEVANT GOLDEN FACTOR:**

- Conformance with the comprehensive plan.

**ATTACHMENTS**

- Attachment A – Draft language

**OVERVIEW OF PROPOSED AMENDMENT**

The amendment revises the wording in Section 12-319-4.12 of the *Zoning Regulations of the Unincorporated Territory of Douglas County* which currently reads 'Sanitary Landfill'. The revision is intended to clearly identify the various types of landfills that require a Conditional Use Permit. The amendment provides a general definition of a 'Landfill' use and specifically defines various types of landfills. The amendment also clarifies that a Conditional Use Permit is required for any landfill which does not meet the listed exception, including landfills which are not specifically defined in the regulations. In addition, general standards have been added to the language, to assist applicants and staff in developing and evaluating applications and plans.

The amendment specifically defines the following types of landfills: Solid Waste, Sanitary, Construction and Demolition, and Clean Rubble. The amendment notes that a landfill is

exempt from the requirement to obtain approval of a Conditional Use Permit if the waste materials are produced on site (not hauled to the site) and a KDHE permit is not required. For instance, if a stone barn is demolished on a property and the stone (clean rubble) is buried in a landfill on site this would not require a Conditional Use Permit as the waste was produced on site and a KDHE permit was not required.

In addition to clarifying when a Conditional Use Permit is required for a landfill, the amendment provides general standards, which:

- Notes that a KDHE permit shall be obtained for any landfills that require a permit;
- Limits the landfill to the disposal of waste included in the definition of that type of landfill;
- Outlines the required application materials and plans;
- Establishes minimum setbacks;
- Contains a provision for road improvements by the landfill operator if any roads associated with the landfill are inadequate for the anticipated truck traffic;
- Notes that screening may be required, depending on the location;
- Requires that a Stormwater Pollution Prevention Plan (if more than 1 acre is to be disturbed) is provided;
- Requires a reclamation plan; and
- Notes that the CUPs will have definite time frames with a renewal process.

### **CRITERIA FOR REVIEW AND DECISION-MAKING**

Section 12-324 of the Zoning Regulations provides the process for proposed text amendments but does not include criteria for review and decision-making. The text amendment was reviewed with the following criteria which are similar to those in the City of Lawrence Development Code:

#### **1) Whether the proposed text amendment corrects an error or inconsistency in the Zoning Regulations or meets the challenge of a changing condition**

The Zoning Regulations currently list 'Sanitary Landfills' as a use which requires a Conditional Use Permit but does not define the term or list any standards for the use. The Zoning Regulations were adopted in 1966 and staff found no record of a text amendment adding the 'Sanitary Landfill' use to the regulations, so it's likely the use was included with the original Regulations. It is possible that the general definition of a 'sanitary landfill' has changed since 1966. As a result of the limited information in the Zoning Regulations, it is not clear which types of landfills require approval with a CUP.

As noted above, the proposed text amendment corrects an inconsistency or error in the Zoning Regulations by establishing regulations on various types of landfills, which could have a similar impact on the public health, safety, and welfare as the currently listed 'Sanitary Landfill'. It also provides a clear explanation of when a landfill use is exempt from the requirement to obtain a Conditional Use Permit. In addition to the definitions and clarification of applicability, the amendment provides a set of general standards. This will benefit the public by providing guidance for the preparation of the application and plans will assist staff in the review of the project.

## **2) Whether the proposed text amendment is consistent with the Comprehensive Plan and the stated purpose of the Zoning Regulations**

The general goal of the Comprehensive Plan is to provide

*"...for the optimum in public health, safety, convenience, general social and physical environment and individual opportunities for all the residents of the community, regardless of racial, ethnic, social, or economic origin. It is the goal of the planning process to achieve a maximum of individual freedom, but public welfare must prevail." (Introduction, page 3, Horizon 2020)*

The clarification of the Landfill use and establishment of standards are consistent with this goal as it clarifies that all Landfill uses, unless specifically exempted, require approval with a Conditional Use Permit. The Conditional Use Permit provides a process to evaluate, and possibly mitigate, the impact of the proposed landfill on the public health, safety, convenience, general social and physical environment.



## DRAFT LANGUAGE PERTAINING TO LANDFILLS

Current Language:

**12-319-4.12** Sanitary Landfill.

Proposed Language:

**12-319-4.12** Landfill. A landfill is generally defined as a place to dispose of refuse and other waste material by burying it and covering it over with soil, especially as a method of filling in or extending usable land. The term 'landfill' encompasses many types of landfills such as Sanitary, Industrial, Solid Waste, Construction and Demolition Waste, and Clean Rubble. Definitions for several types of landfills are provided in this section.

- a. All landfills require approval of a Conditional Use Permit with the exception of landfills that meet the following criteria:
  - 1) The waste materials being disposed were produced on site (i.e. were not hauled to the site); and
  - 2) The waste materials consist only of Clean Rubble, as defined in subsection c of this section.
- b. The following general standards shall apply to all landfills which require CUP approval:
  - 1) For all landfills that require a KDHE permit, the applicant shall hold a valid, state-issued permit at all times such landfill is in operation.
  - 2) The landfill operation shall be limited to the disposal of waste included in the definition of that type of landfill in the K.S.A. 65-3424.
  - 3) The applicant shall submit complete plans for the design and operation of the landfill, providing detail as to such matters as noise and dust control, stormwater drainage and detention or retention, hours of operation, truck route, interior roads, fire suppression, security, lighting, screening, and reclamation.
    - a) Setbacks for any excavation associated with the landfill shall be established at a rate of 1 ft for each ft of depth excavated, in accordance with K.S.A. 49-501 and shall be a minimum of 100 ft from any road right-of-way and 30 ft from all other property lines. Setbacks must be maintained free of any activity, either surface or subsurface.
    - b) If the County determines that any road associated with the use is inadequate for the expected quantities of traffic, especially with respect to heavy truck traffic, the applicant shall be required to improve and maintain the road(s) to a standard acceptable to the County. An Improvement and Maintenance Agreement between the applicant and the County shall be required to assure that the road(s) used by the operation will be appropriately improved and maintained.

- c) Landfill operations may require screening, depending on the location. All landfill operations shall be screened as required by the Board of County Commissioners.
    - d) If more than 1 acre of land is to be disturbed, a Storm Water Pollution Prevention Plan (SWP3) must be submitted to KDHE and approved prior to commencement of the landfill. A copy of the approved SWP3 must be provided to the Planning Office prior to final approval of the CUP to insure the CUP complies with the provisions of the SWP3.
    - e) At a minimum, the reclamation plan shall show the finished grade of the property, note the amount of top soil to be placed over the landfill, the type of vegetation to be installed (seed mix, etc.), and the proposed use following reclamation.
  - 4) Landfills shall not be located within a special hazard flood area except that:
    - a) Clean Rubble Landfills may be used to fill in ponds, borrow pits, or other depressions in the special hazard flood area. Grading (fill or excavation), dredging, and any development must comply with Douglas County Floodplain Management Regulations.
  - 5) If approved, the CUP shall be limited to a specific timeframe. If the landfill activity is not completed within this timeframe, the applicant may request in writing that the CUP be placed on the County Commission agenda for consideration of renewal. The request for renewal should be made prior to the expiration date and public notification of the meeting shall be provided by staff.
- c.** The following type of landfills require approval of a CUP, unless exempted in subsection a of this section:
- 1) Solid Waste Landfill: a disposal area for materials defined by K.S.A. 65-3402 as solid waste. The Solid Waste Landfill category includes, but is not limited to, Sanitary Landfills which refers to a specific method of disposing of solid wastes on land without creating nuisances or hazards to the public health or safety or the environment at a permitted solid waste disposal area that meets the standards specified in K.A.R. 28-29-23.
    - a) Solid Waste is defined in K.S.A. 65-3402(a) as nonhazardous waste that includes garbage refuse, waste tires as defined by K.S.A. 65-3424, and other discarded materials including, but not limited to, solid, semisolid, sludges, liquid and contained gaseous waste materials resulting from industrial, commercial, agricultural, and domestic activities. 'Solid Waste' does not include hazardous wastes as defined by subsection (f) of K.S.A. 65-3430.
  - 2) Construction and Demolition Landfill is a permitted solid waste disposal area used exclusively for the disposal on land of construction and demolition wastes.

This term shall not include a site that is used exclusively for the disposal of clean rubble.

- a) Construction and Demolition waste is defined in K.S.A. 65-3402(u) as solid waste resulting from the construction, remodeling, repair and demolition of structures, roads, sidewalks and utilities (including, but not limited to, bricks, concrete, and other masonry materials, roofing materials, soil, rock, wood, wood products, wall or floor coverings, plaster, drywall, plumbing fixtures, electrical wiring, electrical components containing no hazardous materials, non-asbestos insulation and construction related packaging.
  - b) The term 'Construction and demolition waste' shall not include waste material containing friable asbestos, garbage, appliances from which ozone depleting chlorofluorocarbons have not been removed in accordance with the provisions of the federal clean air act, electrical equipment containing hazardous materials, tires, drums and containers –even though such wastes resulted from construction and demolition activities, or clean rubble except that clean rubble that is mixed with other construction and demolition waste during demolition or transportation shall be considered to be construction and demolition waste.
- 3) Clean Rubble Landfill is a landfill used solely for the disposal of materials defined by KDHE as 'clean rubble'.
- a) Clean Rubble is defined as the following types of construction and demolition waste: concrete and concrete products including reinforcing steel, asphalt pavement, brick, rock and uncontaminated soil as defined in rules and regulations adopted by the secretary of Health and Environment.
- 4) Other: Any type of landfill not specifically defined above.

**PLANNING COMMISSION REPORT**  
**Regular Agenda -- Public Hearing Item**

PC Staff Report  
03/15/2017

**ITEM NO. 5: TEXT AMENDMENT FOR CREATING A "COLUMBARIUM" USE (BJP)**

**TA-16-00388:** Consider a Text Amendment to the City of Lawrence Land Development Code, Articles 4, 5, & 17, regarding *Funeral and Interment Services* as defined in Section 20-1729. The requested amendment would allow *Columbariums* as Accessory Uses to established *Religious Assembly Institutions*. Submitted by Corpus Christi Catholic Church. *Initiated by City Commission on 9/20/16.*

Revised language highlighted in **Bold Blue**.

**RECOMMENDATION:** Staff recommends that the Planning Commission forward a recommendation for approval of the proposed amendment, TA-16-00388, to establish a use group for Columbariums amending Sections 20-402, 20-403, 20-505, and 20-1729 and that the Planning Commission forward a recommendation for approval to the City Commission.

**Reason for Request:** To create a specific use group category for Columbariums to allow the use as an accessory to established *Religious Assembly Institutions*.

**RELEVANT GOLDEN FACTOR:**

- Conformance with the comprehensive plan.

**PUBLIC COMMENT RECEIVED PRIOR TO PRINTING**

- None received prior to publication.

**ATTACHMENTS**

Attachment A – Initiation Memo  
Attachment B – K.S.A. 65-1732

**OVERVIEW OF PROPOSED AMENDMENT**

The Corpus Christi Catholic Church submitted a text amendment to the Land Development Code to the Planning Office. The request was to allow columbariums as an accessory use to established *Religious Assembly Institution* uses. A columbarium is a room or building in which funeral urns are stored.

The associated land use in the Land Development Code is *Funeral and Interment Services*. The Code defines this use through examples of activities, which include cemeteries, cremating, interring and undertaking. In the Code, interring includes columbariums and mausoleums.

<i>Funeral and Interment Services</i>			
<b>ACTIVE</b>		<b>PASSIVE</b>	
<b>Activity</b>	<b>Typical Uses</b>	<b>Activity</b>	<b>Typical Uses</b>
<b>Cremation</b>	<b>Crematoriums</b>	<b>Cemeteries</b>	<b>Cemeteries</b>
<b>Undertaking</b>	<b>Funeral Homes and Mortuaries</b>	<b>Interring</b>	<b>Columbariums and Mausoleums</b>

**Table 1. Land use activities associated with the *Funeral and Interment Services* use.**



Through the review of the request, staff determined that the *Funeral and Interment Services* use contained a combination of active and passive land uses (**Table 1**). The active uses include cremation and undertaking. The passive uses are defined as cemeteries and interring. Staff recognized that combining the active and passive uses in this manner did not provide an opportunity to utilize the passive land uses that may be more appropriate in a larger variety of zoning districts. The active land uses may not be an appropriate uses in most residential zoning districts, however, it may be reasonable to permit the passive land use as an accessory use to established *Religious Assembly Institution* uses. Given this, staff determined that the text amendment should include all of the passive land uses defined in the *Funeral and Interment Services* use. Along with columbariums, cemeteries and mausoleums are also included in this text amendment.

### **COLUMBARIUMS**

**At the November 16, 2016 Planning Commission, the Planning Commission directed staff to research the disposition of columbariums in the event a Religious Institution dissolved. The research showed that this situation is a civil matter and is not determined by the City or State. Religious Institutions with columbariums typically establish a policy regarding the outcome of that use. For example, a columbarium may be constructed in a manner that would allow it to be moved to a new foundation if the Religious Institution relocated. If the Religious Institution were to cease to exist, the remains would be placed with a person legally entitled to authorize the cremation and final disposal. If the remains are not claimed, the disposition of the remains would be at the discretion of the church board.**

**Staff did not find Kansas state statutes that regulated the outcome of columbariums. The most applicable statute provides regulation of embalmers, funeral directors, and funeral establishment regarding the disposal of remains (K.S.A. 65-1732. Disposal of unclaimed cremated remains; veteran's unclaimed cremated remains; rules and regulations.)**

### **CEMETERIES**

**Further changes are proposed with this text amendment to correct an inconsistency associated with the *Cemetery* use and to add conditions for that use. The Land Development Code categorizes the *Cemetery* use within the *Funeral and Interment* use. However, while cemeteries are included as part of the *Funeral and Interment* use, they are listed as separate uses in Article 4, Use Tables. Further, the information provided for these two uses do not align. The *Cemetery* use is permitted in many zoning districts that do not permit the *Funeral and Interment* use. The proposed text amendment fixes this inconsistency by removing the *Cemetery* use from the Use Table. It is not necessary to have a separate line for the *Cemetery* use because the use is included as part of the *Funeral and Interment* uses.**

**With the Planning Commissions' direction to research the disposition of columbariums, staff also researched the disposition of cemeteries. Kansas statutes provide regulation regarding the maintenance of cemeteries and the selling of land. An outline of the applicable regulations is provided below:**

- K.S.A. 12-1419b states that a City may accept as a gift any cemetery owned by a religious institution.**
- Chapter 17, Article 13 of the 2012 Kansas Statue provides regulations for Cemetery Corporations. A Cemetery Corporation is defined as "any individual or entity required to maintain permanent maintenance funds".**
- K.S.A 17-1328 states that Cemetery Corporations with less than 20 graves may sell**

**the land, "provided that sufficient grounds shall be retained for the proper care of the remaining graves."**

The proposed text amendment adds a condition to the cemetery use regarding management. The purpose of the condition is to provide protection to the City regarding potential acquisition of cemeteries. The City does not intend to assume the responsibility for maintenance of any potential cemeteries created in the future. The condition establishes that newly created cemeteries must be managed by a Cemetery Corporation and/or maintain permanent maintenance funds.

## Proposed Article Changes

Changes to the text are shown on the following pages and noted in red. Additions are underlined and deleted text is ~~struckthrough~~.

**Amend Section 20-402:**

[illegible]

**Amend Section 20-403:**

Key: A = Accessory P = Permitted S = Special Use * = Standard Applies - = Use not allowed		Base Zoning Districts															Use-Specific Standards (Sec. 20-)
		CN1	CN2	MU	CO	CD	CC	CR	CS	IBP	IL	IM	IG	OS	GPI	H	
Community Facilities	Active Funeral and Interment	-	P*	-	P*	P*	P*	P*	P*	P*	P*	-	-	A*	-	-	505
	Passive Funeral and Interment	A*	A*	A*	A*	A*	A*	A*	A*	::	A*	::	::	P*/A*	A*	::	505
	Cemetery	P*	P*	::	P*	::	P*	P*	P*	P*	P*	::	::	P*	P*	::	505
Religious Assembly	Campus or Community Institution	P*	P*	P*	P*	P*	P*	P*	P*	-	P*	-	-	-	-	A*	522
	Neighborhood Institution	P*	P*	P*	P*	P*	P*	P*	P*	-	P*	-	-	-	-	-	522

**Amend Section 20-505:**

**20-505 FUNERAL AND INTERMENT**

Active Funeral and Interment:

Funeral and Interment Services that are subject to this standard shall have direct Access to an Arterial Street, with ingress and egress so designed as to minimize traffic congestion.

~~(1) Cemeteries and Interment services shall provide a wall or fence at least 6 feet in Height along all Lot Lines.~~

(1) Structures used for ~~Interment and~~ Cremation services, ~~such as mausoleums, columbariums, and crematories,~~ when located in an OS District may not be located within 50 feet of any R District.

~~(2) Funeral and Interment facilities, such as funeral homes and mortuaries, are only permitted in the OS District when accessory to a Cemetery use.~~

Passive Funeral and Interment:

(1) **Cemeteries and Passive Interment improvements are permitted in residential districts when accessory to a permitted Religious Institution following site plan approval.**

(2) ~~Cemeteries and~~ **Passive Interment improvements services** shall include **provide** a wall or fence at least ~~6~~ **4** feet in Height along ~~all Lot Lines~~ **the perimeter of the cemetery use.**

~~(3) Funeral and Interment facilities, such as funeral homes and mortuaries, are only permitted in the OS District when accessory to a Cemetery use.~~

(4) **Cemeteries shall be managed by a Cemetery Corporation in accordance with K.S.A 17-1301**

*et seq.*, as amended.

- (5) **Cemeteries created after the effective date (date) shall be accompanied by a management and disposition plan.**

### **Amend Section 20-1701**

Term	Definition
Cemetery Corporation	Any individual or entity required to maintain permanent maintenance funds under the provisions of K.S.A 17-1312f.

### **Amend Section 20-1729**

#### **20-1729 FUNERAL AND INTERMENT SERVICES**

Provision of services involving the care, preparation or disposition of the dead. The following are funeral and interment services use types:

##### Active Funeral and Interment:

###### **~~(1) Cemeteries~~**

~~Land used for burial of the dead.~~

###### **(1) Cremating**

Crematory services involving the purification and reduction of the bodies by fire. Typical uses include ~~crematories and~~ crematoriums.

###### **~~(3) Interring~~**

~~Interring services involving the keeping of human bodies other than in cemeteries. Typical uses include columbariums and mausoleums.~~

###### **(2) Undertaking**

Undertaking services such as preparing the dead for burial and arranging and managing funerals. Typical uses include funeral homes and mortuaries.

##### Passive Funeral and Interment Services:

###### **(1) Cemeteries**

Land used for burial of the dead.

###### **(2) Interring**

Interring services involving the keeping of human bodies **or ashes** other than in cemeteries. Typical uses include columbariums and mausoleums.

### **CRITERIA FOR REVIEW AND DECISION-MAKING**

Section 20-1302(f) provides review and decision-making criteria on proposed text amendments. It states



that review bodies shall consider at least the following factors:

**1) Whether the proposed text amendment corrects an error or inconsistency in the Development Code or meets the challenge of a changing condition; and**

The proposed text amendment corrects an inconsistency in the Development Code. As currently defined, the *Funeral and Interment Services* use contains a mix of passive and active land uses. These land uses are permitted only in two residential districts [RSO (Single-Dwelling Residential – Office) and RMO (Multi-Dwelling Residential – Office) Districts]. However, historically many churches were located in residential districts and had small parish cemeteries on their grounds. Therefore, it may be appropriate to permit the passive land uses as an accessory to the *Religious Assembly* use.

**The proposed text amendment also corrects an inconsistency related to the *Cemetery* use. Article 4, Use Tables, provides information for the *Funeral and Interment* use, as well as the *Cemetery* use. The information provided, however, does not align. In Section 20-402, the *Cemetery* use is shown to be permitted in all of the residential zoning districts except for the RMG (Multi-Dwelling Residential – Greek Housing) District. However, the *Funeral and Interment* use is only permitted in the RSO (Single-Dwelling Residential – Office) and RMO (Multi-Dwelling Residential – Office) Districts. In Section 20-403, the *Cemetery* use is permitted in the CN1 (Inner Neighborhood Commercial), OS (Open Space), and GPI (General Public and Institutional Use) Districts; however, the *Funeral and Interment* use is not permitted in these districts. Conversely, the *Funeral and Interment* use is permitted in the CD (Downtown Commercial) District, while the *Cemetery* use is not permitted that in that district.**

**The proposed text amendment corrects the inconsistency by removing the *Cemetery* use in the Use Table. The proposed text amendment categorizes the *Cemetery* use under the *Passive Funeral and Interment* use. Given these new land use categories, it is not necessary to have a separate *Cemetery* use in the Use Table.**

**2) Whether the proposed text amendment is consistent with the Comprehensive Plan and the stated purpose of this Development Code (Sec. 20-104).**

The proposed amendment separates the land uses associated with the *Funeral and Interment Services* into active and passive uses. This separation expands the zoning districts in which the passive uses would be permitted as an accessory use to *Religious Assembly* uses.

The Comprehensive Plan recommends “Consideration of good site planning and design principles that minimize unnecessary impacts to surrounding neighborhoods and promote compatible land use activities are encouraged.” The compatibility of land uses and the impacts to the neighborhood will be reviewed through the site plan process. As such, cemetery, columbarium, and mausoleum uses will be subject to the dimensional standards and landscaping requirements applicable to the zoning district.



## CITY COMMISSION AGENDA ITEM

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**Department:** Planning & Development Services **Commission Meeting Date:** 09/20/2016

**Staff Contact:** Becky Pepper, Planner II

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**Recommendations/Options/Action Requested:**

Initiate a Text Amendment, TA-16-00388, to the City of Lawrence Land Development Code, Articles 4, 5, & 17, regarding *Funeral and Interment Services* as defined in Section 20-1729.

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A request for initiation of a text amendment to the Land Development Code has been submitted to the Planning Office by Corpus Christi Catholic Church. The intent of the request is to allow columbariums as Accessory Uses to established *Religious Assembly Institutions*.

*Religious Assembly Institutions* are permitted in all of the residential districts (depending on the size of the institution); however, *Funeral and Interment Services* are allowed only in limited residential districts (RSO and RMO – Residential/Office Districts). The types of *Funeral and Interment Services* as defined in the Code include cemeteries, cremating, interring (columbariums and mausoleums), and undertaking. This list includes both active services and passive land uses and does not provide an opportunity to recognize the differences in the types of land use activities.

**Executive Summary:**

The Code recognizes that *Religious Assembly* uses could have a variety of accessory uses located on their property as part of the institution's mission. Historically, many churches had small parish cemeteries on the church grounds. In staff opinion, it may be reasonable to permit cemeteries, columbariums, and mausoleums as accessory uses with provisions to dimensional standards such as size and setbacks.

Specific sections of the Land Development Code anticipated to be modified through this text amendment include:

- Article 4 Use Tables
- Article 5 Use Regulations
- Article 17 Terminology

The City Commission is not taking action to amend the Land Development Code with the initiation. If initiated, the request will be scheduled for a future Planning Commission hearing and their recommendation will be forwarded to the City Commission for a final decision.

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**Strategic Goal Area:** n/a

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**Fiscal Impact (Amount/Source):** The item is not included in the budget or CIP because it is related to a request to amend the text of the Land Development Code.

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**Attachments:** n/a

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**65-1732. Disposal of unclaimed cremated remains; veteran's unclaimed cremated remains; rules and regulations.**

(a) A funeral establishment, branch establishment or crematory which has possession of the cremated remains of a dead human body may dispose of the cremated remains, if:

- (1) Such cremated remains have not been claimed for at least 90 days from the time of cremation;
- (2) the funeral establishment, branch establishment or crematory has sent a notice by certified mail, return receipt requested, to the last known address of the authorizing agent as defined under K.S.A. 65-1760, and amendments thereto. Such notice shall state that such remains will be disposed of in accordance with the provisions of this section unless claimed within 30 days of the date such notice is sent; and
- (3) the funeral establishment, branch establishment or crematory has not received any claim on the cremated remains for at least 30 days from the date that such notice was sent.

(b) Such disposal under subsection (a) shall include burial by placing the remains in a church or cemetery plot, scatter garden, pond, or columbarium; relinquishing possession of the cremated remains of veterans to the director of the Kansas commission of veterans affairs office, or the director's designee, or a national cemetery in accordance with the provisions of subsection (c); or otherwise disposing of the remains as provided by rule and regulation of the board of mortuary arts. Disposition may include the commingling of the cremated remains with other cremated remains and thus the cremated remains would not be recoverable.

(c) (1) A funeral establishment, branch establishment or crematory which has held in its possession cremated remains for more than 90 days from the date of cremation and has provided notice pursuant to subsection (a) and the cremated remains remain unclaimed may, in accordance with the provisions of this section, determine if such cremated remains are those of a veteran, and if so, may dispose of such remains as provided in this section.

(2) Notwithstanding any law or rules and regulations to the contrary, nothing in this section shall prevent a funeral establishment, branch establishment or crematory from sharing information with the United States department of veterans affairs or the Kansas commission on veterans affairs office for the purpose of determining whether the cremated remains are those of a veteran. A funeral establishment, branch establishment, crematory, funeral director, assistant funeral director or crematory operator shall be discharged from any legal obligations or liability with regard to the releasing or sharing of information with such entities.

(3) Should a funeral establishment, branch establishment or crematory ascertain the cremated remains in its possession are those of a veteran and they are unclaimed cremated remains to be disposed of pursuant to provisions of subsection (a), the funeral establishment, branch establishment or crematory may relinquish possession of the cremated remains to the director of the Kansas commission on veterans affairs office, or the director's designee, or a national cemetery for disposition. Disposition shall be by placement of cremated remains in a tomb, mausoleum, crypt, niche in a columbarium or burial in a cemetery but shall not include the scattering of cremated remains.

(d) Nothing in this section shall require a funeral establishment, branch establishment or crematory to determine or seek others to determine that an individual's cremated remains are those of a veteran if the funeral establishment, branch establishment or crematory was informed by the person in control of the disposition that: (1) Such individual was not a veteran; or (2) such individual did not desire any funeral or burial-related services or ceremonies recognizing service as a veteran.

(e) The funeral establishment, branch establishment, crematory, funeral director, assistant funeral director or crematory operator, upon disposing of cremated remains in accordance with the provisions of this section, shall be held harmless for any costs or damages, except if there is gross negligence or willful misconduct, and shall be discharged from any legal obligation or liability concerning the cremated remains.

**History:** L. 1988, ch. 227, § 1; L. 2001, ch. 183, § 12; L. 2012, ch. 86, § 1; L. 2014, ch. 83, § 5; July 1.

# Memorandum

## City of Lawrence

### Planning and Development Services

**TO: Planning Commission**

**FROM: Mary Miller, Planner**

**Date: March 6, 2017**

**RE: Miscellaneous Item No. 1:** MS-17-00071 – Variance associated with Minor Subdivision for Cokeley Addition, a Minor Subdivision/Replat of Lots 1 and 3, Colt Subdivision and Lot 1A of a Lot Split of Lot 1, Pine Ridge Plaza Addition.

Variance requested: Reduction of required 150 ft of right-of-way for West 31<sup>st</sup> Street, a Principle Arterial Street, to allow subdivision to occur with existing 50 ft of right-of-way on subject property side of centerline rather than the required 75 ft.

**Attachment A:** Minor Subdivision MS-17-007-071

Minor Subdivisions are processed administratively; however, Planning Commission approval is required for variances from the Subdivision Design Standards. The Minor Subdivision (MS-17-00071) is under review but is included with this memo for context with the variance request. No other Planning Commission action related to the proposed Minor Subdivision is required.

The Subdivision Regulations state that an applicant may request a variance from the Design Standards in the Regulations in accordance with the variance procedures outlined in Section 20-813(g). This memo provides background information on the variance request and evaluates the request for compliance with the approval criteria.

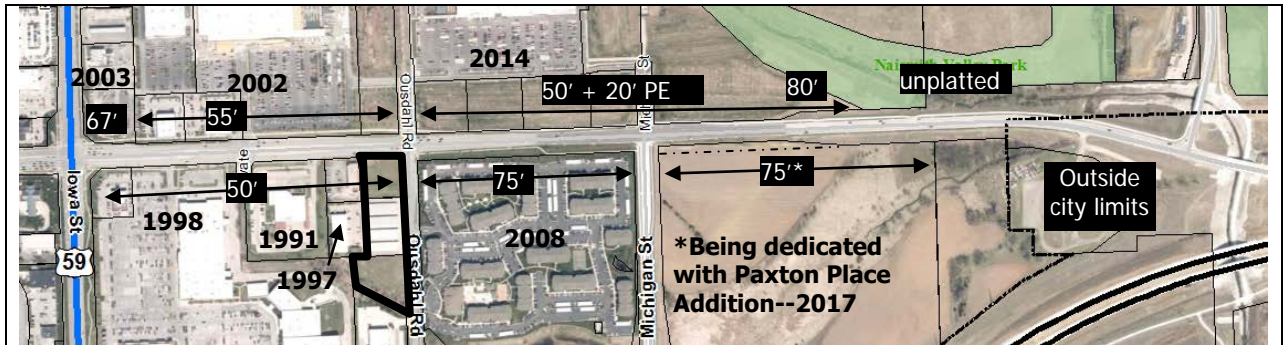
**VARIANCE:** Reduction in the required width of right-of-way of 150 ft for a Principal Arterial Street (W 31<sup>st</sup> Street) per Section 20-810(e)(5) of the Subdivision Regulations to allow subdivision of the property with the existing 50 ft of right-of-way on the subject property side of the centerline.

#### BACKGROUND:

The right-of-way width for W 31<sup>st</sup> Street varies in this area. Prior to the adoption of the Subdivision Regulations at the end of 2006, 100 ft of right-of-way was required for a Principal Arterial Street. Right-of-way provided for W 31<sup>st</sup> Street before 2006 ranged from 105 to 117 ft. Since the adoption of the Subdivision Regulations, additional right-of-way has been required and provided as properties have developed or redeveloped. Property to the east of Ousdahl has been replatted since the adoption of the Subdivision Regulations and 75 ft of right-of-way has been provided south of the centerline. A variance was approved by the Planning Commission at



their November, 2013 meeting to allow the dedication of 50 ft of right-of-way and 20 ft of Pedestrian Access Easement on the north side of W 31<sup>st</sup> Street in lieu of the full 75 ft east of Ousdahl Road based on the determination that the 70 ft provided with this arrangement of right-of-way and easement would be adequate for future improvements to W 31<sup>st</sup> Street.



**Figure 1.** Width of right-of-way provided on each side of centerline, with recording year of final plat. The right-of-way width is uniform through the areas marked with arrows. Subject property is outlined.

The City Engineer indicated that an additional 25 ft of right-of-way, for a total of 75 ft south of W 31<sup>st</sup> Street centerline, should be dedicated with the Minor Subdivision for Cokeley Addition to provide space for existing infrastructure: traffic signal box, hydrant, and sidewalk and to accommodate possible future public improvements: right turn lane, fiber installation or waterline replacement.

**Criteria 1:** Strict application of these regulations will create an unnecessary hardship upon the subdivider.

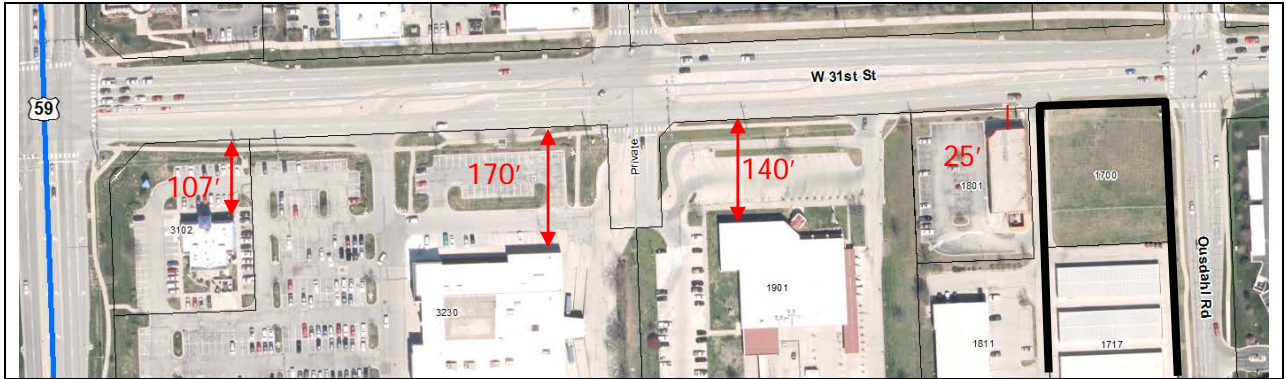
Applicant's response:

*"The existing width of right-of-way for W 31<sup>st</sup> Street at this location is 100 feet. This 100-foot right-of-way width is generally consistent for the entire half-mile of W 31<sup>st</sup> Street between Iowa Street and Michigan Street. Strict application of this section of the Subdivision Regulations would limit the property owner's ability to develop the subject property in a manner consistent with its neighbors."*

Figure 1 shows that the right-of-way for W 31<sup>st</sup> Street at this location is 115 ft, with 50 ft of right-of-way being provided on the south side of the centerline. As the applicant noted, the additional 25 ft of right-of-way coupled with the required minimum 25 ft building setback from the property line, will result in the building being located further to the south than the building on the adjacent property to the west. The development pattern along the south side of W 31<sup>st</sup> Street between Iowa and Michigan Streets is shown in Figure 2. Most of the buildings are setback over 100 ft from the north property line; however, the adjacent property to the west is built to the 25 ft setback line.

The development pattern in this area has buildings set back from W 31<sup>st</sup> Street. The dedication of additional right-of-way would require the development on the subject property to be set back further from the property line than the adjacent property to the west, but it would be closer than other buildings in this area. While the loss of developable area may be a hardship, it is not 'unnecessary' as the City Engineer noted that the right-of-way is needed to incorporate existing infrastructure and to accommodate possible future public improvements such as a right turn lane, fiber installation or waterline replacement. With the dedication of the additional 25 ft of

right-of-way, equal right-of-way width would be provided on both the east and west sides of the W 31<sup>st</sup> Street/Ousdahl Road intersection, which would facilitate intersection improvements.



**Figure 2.** Approximate distance between building and right-of-way/property line. Subject property outlined.

**STAFF FINDING:** Strict application of the regulations would require the property owner to dedicate an additional 25 ft of right-of-way along W 31<sup>st</sup> Street. The proposed storage buildings would have a minimum 25 ft setback from the new property line. While this would not match the development pattern of the adjacent property to the west, it would be compatible with the pattern of the remainder of this area, as shown in Figure 2. The dedication of additional right-of-way would accommodate the existing infrastructure as well as future improvements and provide a consistent right-of-way width on the east and west sides of the W 31<sup>st</sup> Street and Ousdahl Road intersection.

The strict application of the regulations will require the developer to alter their plans, but the hardship is not unnecessary as the additional right-of-way being provided has been determined by the City Engineer to be necessary to accommodate street improvements in this area.

**Criteria 2:** The proposed variance is in harmony with the intended purpose of these regulations.

Applicant's Response:

*"The subject property is located adjacent to a portion of W 31st Street which has seen significant street and sidewalk improvements in the last 15 years. The current rights-of-way adequately accommodate all improvements. It is unlikely that this street will be significantly widened in the future. Additionally, the property owner is proposing to dedicate an additional 15 feet of utility easement in this location to accommodate any future street or utility improvements."*

Per Section 20-801(a) of the Subdivision Regulations the purpose of the regulations is to ensure that the division of land will serve the public interest and general welfare. The regulations are intended to: *"Provide for the harmonious and orderly development of land within the City by making provisions for adequate open space, continuity of the transportation network, recreation areas, drainage, utilities and related easements, light and air, and other public needs."*

As the City Engineer indicated the additional right-of-way is needed to accommodate the existing infrastructure as well as future improvements to the W 31<sup>st</sup> Street and Ousdahl Road intersection, approving the variance to reduce the right-of-way width would not be in harmony with the intent and purpose of the Subdivision Regulations.

Figure 1 illustrates that additional right-of-way width for W 31<sup>st</sup> Street has been obtained as properties have been platted. The older plats provided 50 ft of right-of-way; however, additional right-of-way has been required and provided consistently since the adoption of the 2006 Subdivision Regulations.

**STAFF FINDING:** Granting the variance from the required right-of-way width is not in harmony with the purpose and intent of the regulations as it would not make provisions for public needs. The additional right-of-way required would result in right-of-way width that could accommodate existing infrastructure and allow for future intersection improvements and would be in keeping with other plats approved after the adoption of the 2006 Subdivision Regulations.

**Criteria 3:** The public health, safety, and welfare will be protected.

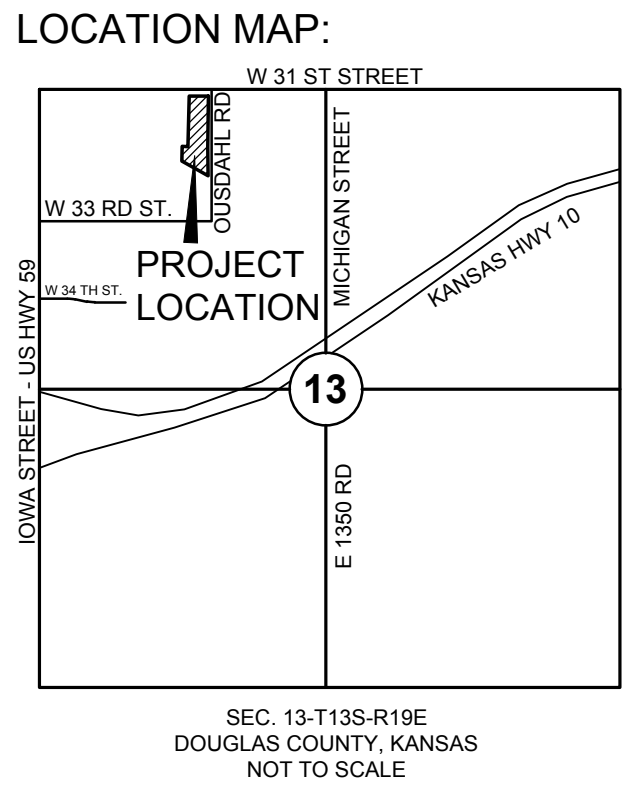
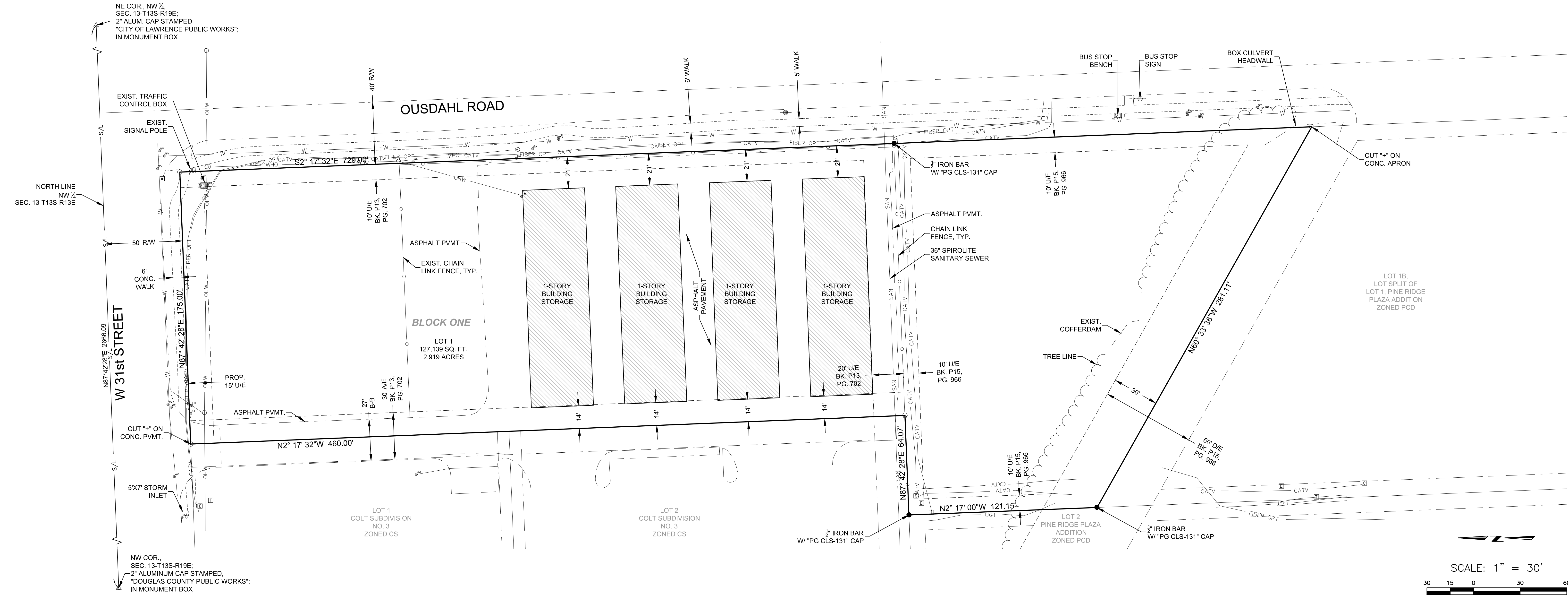
Applicant's response:

*"Maintaining the existing W 31st Street right-of-way will not jeopardize the public health, safety or welfare. Increasing its width would not serve to improve them. This stretch of roadway functions adequately and there is no plan for future improvements which would require additional right-of-way."*

**STAFF FINDING:** Adequate right-of-way width allows for intersection improvements such as signalization, turn lanes, and other features which, when needed, will enhance the safety of the area. The variance would result in a right-of-way width that may not be adequate for these improvements which could impact the public safety.

### **STAFF RECOMMENDATION**

As the variance request does not meet the approval criteria listed in Section 20-813(g) of the Subdivision Regulations, staff recommends the denial of the variance requested for Minor Subdivision, MS-17-00071, to reduce the right-of-way width required in Section 20-810(a)(5) for W 31<sup>st</sup> Street, a Principal Arterial Street, from 150 ft to allow the right-of-way width south of the centerline to remain at 50 ft rather than the 75 ft required to provide half of the required right-of-way.



<b>LEGEND:</b>	
	BENCHMARK
	ELECTRICAL BOX
	ELECTRICAL METER
	FIRE HYDRANT
	GUY ANCHOR
	MANHOLE
	SANITARY MANHOLE
	SIGN
	SIGNAL POLE
	STORM MANHOLE
	TELEPHONE BOX
	CABLE TV BOX
	UTILITY POLE
	UTILITY DROP
	WATER VALVE

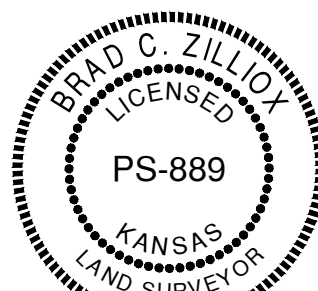
<b>MONUMENTATION:</b>	
	MONUMENT FOUND AS NOTED
	SET 1/2" x 24" IRON BAR W / "PS 889" CAP, UNLESS OTHERWISE NOTED

	CATV	CABLE TV LINE
	CHAIN LINK FENCE	UNDERGROUND TELEPHONE
	UGT	UNDERGROUND ELECTRIC
	UGE	OVERHEAD WIRE
	OHW	WATER LINE
	W	SANITARY SEWER LINE
	SAN	PROPERTY LINE
	FIBER OPT	FIBER OPTIC LINE
	S/L	SECTION LINE
	EASEMENT	

- NOTES:**
- THE BASIS OF BEARINGS FOR THIS PLAT IS KANSAS STATE PLANE NORTH.
  - FURTHER DIVISION OR CONSOLIDATION OF ANY LOTS CONTAINED IN THIS MINOR SUBDIVISION/REPLAT IS PROHIBITED, AND SHALL BE PROCESSED AS A MAJOR SUBDIVISION, UNLESS THE ACTION MEETS THE EXPLANATIONS NOTED IN SECTION 20-808(c)(5)(i).
  - STREET TREES SHALL BE PROVIDED IN ACCORDANCE WITH THE MASTER STREET TREE PLAN FILED WITH THE REGISTER OF DEEDS IN BOOK \_\_\_\_\_, PAGE \_\_\_\_\_. IF STREET TREES DIE, THE PROPERTY OWNER IS RESPONSIBLE FOR REPLANTING TREES WITHIN ONE YEAR. NO TREES ON THE RIGHT-OF-WAY CAN BE REMOVED WITHOUT THE PERMISSION OF THE CITY OF LAWRENCE PARKS DEPARTMENT. TREES WITHIN THE RIGHT-OF-WAY REQUIRE TREE ROOT PROTECTION WITHIN A 10' RADIUS OF THE TREE TRUNK.
  - NO PORTION OF THIS LOT IS LOCATED WITHIN A DESIGNATED "SPECIAL FLOOD HAZARD AREA" AS DEFINED BY FLOOD INSURANCE RATE MAP (FIRM); PANEL NO. 167, MAP No. 20045C0167D, DOUGLAS COUNTY, KANSAS, BEARING AN EFFECTIVE DATE OF SEPTEMBER 2, 2015.

**CERTIFICATION:**

I HEREBY CERTIFY THAT THE PLATTED AREA AND THE LOCATION MAP SHOWN HEREON ARE THE RESULTS OF A FIELD SURVEY PERFORMED UNDER MY DIRECT SUPERVISION IN THE MONTH OF FEBRUARY, 2017. THIS SURVEY CONFORMS TO THE KANSAS MINIMUM STANDARDS FOR BOUNDARY SURVEYS.



BRAD C. ZILLOX, P.S. #889  
1310 WAKARUSA DRIVE, SUITE 100  
LAWRENCE, KS 66049  
(785) 843-7530

PLAT PREPARED FEBRUARY, 2017

**LEGAL DESCRIPTION:**

LOTS 1 AND 3, COLT SUBDIVISION No. 2 AND LOT 1A OF A LOT SPLIT OF LOT 1, PINE RIDGE PLAZA ADDITION, IN THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS.

**DEDICATION:**

BE IT KNOWN TO ALL MEN THAT WE, THE UNDERSIGNED OWNER OF THE ABOVE DESCRIBED TRACT OF LAND, HAS HAD CAUSE FOR THE SAME TO BE SURVEYED AND PLATTED AS A MINOR SUBDIVISION UNDER THE NAME OF COKELEY ADDITION AND HAS CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS AND STREETS AS SHOWN AND FULLY DEFINED ON THIS PLAT.

WILLIAM D. COKELEY \_\_\_\_\_ DATE \_\_\_\_\_  
MEMBER, JAYHAWK ACQUISITIONS, LLC

**ACKNOWLEDGEMENT:**

STATE OF KANSAS  
COUNTY OF DOUGLAS

BE IT REMEMBERED THAT ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2017, BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC, IN AND FOR SAID COUNTY AND STATE, CAME WILLIAM D. COKELEY, A MEMBER OF JAYHAWK ACQUISITIONS, LLC, WHO IS PERSONALLY KNOWN TO ME TO BE THE SAME PERSON WHO EXECUTED THE FOREGOING INSTRUMENT OF WRITING AND DULY ACKNOWLEDGES THE EXECUTION OF THE SAME.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY SEAL ON THE DAY AND YEAR LAST WRITTEN ABOVE.

LINDA D. BASTYR \_\_\_\_\_  
NOTARY PUBLIC

MY COMMISSION EXPIRES \_\_\_\_\_



**ENDORSEMENTS:**

APPROVED AS A MINOR SUBDIVISION UNDER THE SUBDIVISION REGULATIONS OF THE CITY OF LAWRENCE AND THE UNINCORPORATED AREA OF DOUGLAS COUNTY

SCOTT McCULLOUGH \_\_\_\_\_ DATE \_\_\_\_\_  
DIRECTOR OF PLANNING & DEVELOPMENT SERVICES

REVIEWED IN COMPLIANCE WITH K.S.A. 58-2005:

MICHAEL D. KELLY, P.S. #869 \_\_\_\_\_ DATE \_\_\_\_\_  
DOUGLAS COUNTY SURVEYOR

**FILING RECORD:**

STATE OF KANSAS  
COUNTY OF DOUGLAS

THIS IS TO CERTIFY THAT THIS INSTRUMENT WAS FILED FOR RECORD IN THE OFFICE OF THE DOUGLAS COUNTY REGISTER OF DEEDS ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2017, AND IS DULY RECORDED AT \_\_\_\_\_ AM/PM, IN PLAT BOOK \_\_\_\_\_, PAGE \_\_\_\_\_

KAY PESNELL \_\_\_\_\_  
REGISTER OF DEEDS

# COKELEY ADDITION

A MINOR SUBDIVISION/REPLAT OF LOTS 1 AND 3, COLT SUBDIVISION AND LOT 1A OF A LOT SPLIT OF LOT 1, PINE RIDGE PLAZA ADDITION IN THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS

NW 1/4, SEC. 13-T13S-R19E