



**City of Lawrence
Douglas County**
PLANNING & DEVELOPMENT SERVICES

Updated:

9/26/16 @ 1:00pm

Added Traffic Impact Study, Parking Lease Modification, and Communications for Items 8A & 8B – Rezoning & Preliminary Development Plan for HERE

9/21/16 @ 5:00pm

Added the following items:

Item 3 - Text Amendment for Telecommunications Facilities

Items 8A & 8B - Rezoning & Preliminary Development Plan for HERE

Draft August 22, 2016 Planning Commission action summary

9/20/16 @ 5:00pm

The following will be added when available:

Item 3 - Text Amendment for Telecommunications Facilities

Items 8A & 8B - Rezoning & Preliminary Development Plan for HERE

Draft August 22, 2016 Planning Commission action summary

**LAWRENCE-DOUGLAS COUNTY METROPOLITAN PLANNING COMMISSION
CITY HALL, 6 EAST 6TH STREET, CITY COMMISSION MEETING ROOM
AGENDA FOR PUBLIC & NON-PUBLIC HEARING ITEMS
SEPTEMBER 26, 2016 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 August 22, 2016.

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.
 - Receive 2016 Multi-Dwelling Inventory Report
- 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 (SEPTEMBER 26, 2016) MEETING

PUBLIC HEARING ITEMS:

ITEM NO. 1 MINOR SUBDIVISION VARIANCE FOR 407 FLORIDA & 1503 W 4TH (MKM)

Variance request for Minor Subdivision, MS-16-00318, of 407 Florida Street and 1503 W 4th Street, per Section 20-813(g) of the Subdivision Regulations to allow the creation of a lot that does not conform to the lot size requirements of the underlying zoning district (Section 20-808(d)(2) of the Subdivision

Regulations). Submitted by BG Consultants for Virginia D. Wingert and Steven G. Ingram, successor trustees, property owners of record.

PUBLIC HEARING ON VARIANCE ONLY:

ITEM NO. 2 PRELIMINARY PLAT FOR ROCKLEDGE ADDITION NO. 3; 2130 BOB BILLINGS PKWY (SLD)

PP-16-00304: Consider a Preliminary Plat for Rockledge Addition No. 3, a three lot residential subdivision located at 2130 Bob Billings Parkway. This subdivision includes a variance from the Subdivision design standards requiring 150' right-of-way on an Arterial street. Submitted by Landplan Engineering, for Wayne A. Simien Jr. and Katherine E. Simien, property owners of record.

RESUME PUBLIC HEARING:

ITEM NO. 3 TEXT AMENDMENT TO DEVELOPMENT CODE; TELECOMMUNICATIONS FACILITIES (BJP)

TA-16-00335: Consider a Text Amendment to the City of Lawrence Land Development Code, Chapter 20, Article 5, Section 20-529 Telecommunications Facilities, and Article 17 to revise standards to align with new federal standards that take effect in October, 2016. *Initiated by City Commission on 8/16/16.*

ITEM NO. 5 CONDITIONAL USE PERMIT; VERIZON WIRELESS COMMUNICATION TOWER; 1287 E 1200 RD (SLD)

CUP-16-00312: Consider a Conditional Use Permit for a new 199' Verizon Wireless communication tower, located north of the Westar Substation at 1287 E 1200 Rd. Submitted by PAMCORP LLC, for Verizon Wireless LLC on behalf of The Kansas District of the Wesleyan Church Inc, property owner of record.

NON-PUBLIC HEARING ITEM:

ITEM NO. 6A ANNEX 55 ACRES; SE CORNER 31ST & MICHIGAN (MKM)

A-16-00305: Consider a request to annex approximately 55 acres located at the SE corner of 31st and Michigan Streets. Submitted by BG Consultants on behalf of Reylan Properties LC, property owner of record. *Initiated by City Commission on 8/16/16.*

RESUME PUBLIC HEARING:

ITEM NO. 6B A TO RM15; 30 ACRES; SE CORNER 31ST & MICHIGAN (MKM)

Z-16-00306: Consider a request to rezone approximately 30 acres from County A (Agricultural) District to RM15 (Multi-Dwelling Residential) District, located at the SE corner of 31st & Michigan Streets. Submitted by BG Consultants on behalf of Reylan Properties LC, property owner of record.

ITEM NO. 6C A TO RM15-FP; 25.13 ACRES; SE CORNER 31ST & MICHIGAN (MKM)

Z-16-00307: Consider a request to rezone approximately 25.13 acres from County A (Agricultural) District to RM15-FP (Multi-Dwelling Residential with Floodplain Management Regulations Overlay) District, located at the SE corner of 31st & Michigan Streets. Submitted by BG Consultants on behalf of Reylan Properties LC, property owner of record.

ITEM NO. 7 COMPREHENSIVE PLAN AMENDMENT TO H2020; OREAD NEIGHBORHOOD PLAN FUTURE LAND USE MAP (JSC)

CPA-16-00309: Consider a Comprehensive Plan Amendment to Chapter 14 of *Horizon 2020* to amend the Oread Neighborhood Plan Future Land Use Map. Submitted by Landplan Engineering PA.

ITEM NO. 8A RM32 & U-KU TO RM32-PD; .918 ACRE; 1029 & 1031 MISSISSIPPI AND 0 ILLINOIS ST (SLD)

Z-16-00310: Consider a request to rezone approximately .918 acres from RM32 (Multi-Dwelling Residential) District and U-KU (University of Kansas) District to RM32-PD (Multi-Dwelling Residential with Planned Development Overlay) District, located at 1029 & 1031 Mississippi St and 0 Illinois St. Submitted by Landplan Engineering PA on behalf of 1029 Mississippi LLC, STADPKG LLC, property owner of record.

ITEM NO. 8B PRELIMINARY DEVELOPMENT PLAN FOR HERE; 1029 & 1031 MISSISSIPPI AND 0 ILLINOIS ST (SLD)

PDP-16-00311: Consider a Preliminary Development Plan for HERE @ Kansas, located at 1029 Mississippi, 1031 Mississippi, and 0 Illinois St. Submitted by Landplan Engineering PA on behalf of 1029 Mississippi LLC, STADPKG LLC, property owner of record.

ITEM NO. 4 TEXT AMENDMENT TO ZONING REGULATIONS; SMALL SCALE INDUSTRIAL USES (MKM)

TA-16-00323: Consider a Text Amendment to Section 20-319-4 Conditional Uses Enumerated of the Zoning Regulations to add small scale industrial uses, with standards, to the list of uses which are permitted when approved as Conditional Uses.

MISCELLANEOUS NEW OR OLD BUSINESS

Consideration of any other business to come before the Commission.

ADJOURN

CALENDAR

August 2016						
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			

September 2016						
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	

October 2016						
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					

PCCM Meeting:

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

Sign up to receive the Planning Commission agenda via email:

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

2016
LAWRENCE-DOUGLAS COUNTY METROPOLITAN PLANNING COMMISSION
MID-MONTH & REGULAR MEETING DATES

Mid-Month Meetings, Wednesdays 7:30 – 9:00 AM <i>**alternate day/time</i>	Mid-Month Topics	Planning Commission Meetings 6:30 PM, Mon & Wed	
Jan 13	Article 9 text amendments - Parking	Jan 25	Jan 27
<i>Feb 18 ** Thursday 6:00 PM meeting</i>	<i>Joint meeting with HRC – Oread Design Guidelines</i>	Feb 22	Feb 24
<i>Mar 9 ** Wednesday 5:30 PM meeting</i>	<i>Joint meeting with Sustainability Advisory Board [Meeting Room C – Lawrence Public Library – 707 Vermont Street]</i>	Mar 21	Mar 23
Apr 13	Retail Market Study	Apr 25	Apr 27
May 11	APA Conference recap & Nonconformities 101	May 23	May 25
Jun 8	<i>Cancelled</i>	Jun 20	Jun 22
Jul 13	Future Growth Factors	Jul 25	Jul 27
Aug 10	Future Growth Factors – <i>discussion continues</i>	Aug 22	Aug 24
<i>Sep 28 **</i>	<i>PC Orientation – all day</i>	Sep 26	Sep 28
Oct 12	<i>TBD</i>	Oct 24	Oct 26
Nov 2	<i>TBD</i>	Nov 14	Nov 16
Nov 30	<i>TBD</i>	Dec 12	Dec 14

Suggested topics for future meetings:

*How City/County Depts interact on planning issues
Stormwater Stds Update – Stream Setbacks
Overview of different Advisory Groups – potential overlap on planning issues
Joint meeting with other Cities’ Planning Commissions
Joint meeting with other Cities and Townships – UGA potential revisions
New County Zoning Codes
Tour City/County Facilities
Water Resources*

*Communication Towers – Stealth Design, # of co-locations, notice area
WiFi Connectivity & Infrastructure Planning
Oread Overlay Districts & Design Guidelines
Comprehensive Plan – Goals & Policies
Affordable Housing
Retail Market Impacts
Case Studies*

Meeting Locations

The Planning Commission meetings are held in the City Commission meeting room on the 1st floor of City Hall, 6th & Massachusetts Streets, unless otherwise noticed.

2016 PLANNING COMMISSION ATTENDANCE

	Jan 25 2016	Feb 22 2016	Mar 21 2016	April 25 2016	May 23 2016	June 20 2016	July 25 2016	Aug 22 2016	Sept 26 2016			
Britton	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Butler	Yes	Yes	Yes	Yes		Yes	Yes	No				
Carpenter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Culver	No	Yes	Yes	Yes	Yes	Yes	Yes	No				
Denney	Yes	Yes										
Harrod						Yes	Yes	No				
Kelly	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Liese	Yes	Yes	No	Yes	Yes							
Sands	Yes	Yes	Yes	Yes	Yes	No	Yes	No				
Struckhoff	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
von Achen	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Willey						Yes	Yes	Yes				

2016 MID-MONTH ATTENDANCE

	Jan 13 2016	Feb 18 2016	Mar 9 2016	April 13 2016	May 11 2016	June 8 2016	July 13 2016	Aug 10 2016	Sept 28 2016 (All Day)	Oct 12 2016	Nov 2 2016	Nov 30 2016
Britton	Yes	Yes	Yes	Yes	Yes	-	No	No				
Butler	No	No	Yes	No	No	-	No	No				
Carpenter	Yes	Yes	Yes	Yes	Yes	-	No	Yes				
Culver	Yes	Yes	Yes	Yes	Yes	-	No	No				
Denney	Yes	Yes										
Harrod						-	No	No				
Kelly	Yes	Yes	Yes	Yes	No	-	Yes	Yes				
Liese	No	No	No	No	Yes							
Sands	No	Yes	No	No	Yes	-	Yes	Yes				
Struckhoff	Yes	No	No	Yes	Yes	-	Yes	Yes				
von Achen	Yes	Yes	Yes	Yes	Yes	-	Yes	Yes				
Willey						-	Yes	Yes				



PLANNING COMMISSION MEETING
August 22, 2016
Meeting Action Summary

August 22, 2016 – 6:30 p.m.

Commissioners present: Britton, Carpenter, Kelly, Struckhoff, von Achen, Willey

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

GENERAL BUSINESS

PLANNING COMMISSION ACTION SUMMARY MINUTES

Receive and amend or approve the action summary minutes from the Planning Commission meeting of July 25, 2016.

Motioned by Commissioner Struckhoff, seconded by Commissioner Britton, to approve the July 25, 2016 Planning Commission action summary minutes.

Unanimously approved 6-0.

COMMITTEE REPORTS

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

Commissioner Britton said the Horizon 2020 Steering Committee met two weeks ago to discuss growth policies.

EX PARTE / ABSTENTIONS / DEFERRAL REQUEST

- Receive written communications from staff, Planning Commissioners, or other commissioners.
- No ex parte.
- No Abstentions.

PC Minutes 8/22/16

ITEM NO. 1 RM12D TO RM12; 4.81 ACRES; STEEPLE CHASE CT & RENAISSANCE DR (SLD)

Z-16-00259: Consider a request to rezone approximately 4.81 acres from RM12D (Multi-Dwelling Residential) District and RM12 (Multi-Dwelling Residential) District to RS7 (Single-Dwelling Residential) District, located at 6304, 6305, 6310, 6311, 6316, & 6317 Steeple Chase Court and 905, 911, 917, 923, 929, & 935 Renaissance Drive. Submitted by Wallace Engineering on behalf of NKR Properties LLC and Langston Heights Development LLC, property owners of record.

STAFF PRESENTATION

Ms. Sandra Day presented the item.

APPLICANT PRESENTATION

Mr. Tim Herndon, Wallace Engineering, agreed with the staff report.

PUBLIC HEARING

No public comment.

COMMISSION DISCUSSION

Commissioner Britton said there may come a point when it's not so easy to downzone to accommodate growth in Lawrence.

ACTION TAKEN

Motioned by Commissioner Britton, seconded by Commissioner Carpenter, to approve the request to rezone, Z-16-00259, approximately 4.81 acres, from RM12D (Multi-Dwelling Residential) District and RM12 (Multi-Dwelling Residential) District to RS7 (Single-Dwelling Residential) District based on the findings presented in the staff report and forwarding it to the City Commission with a recommendation for approval.

Commissioner Kelly said when the development was originally approved it included different levels of housing, including a buffer with multi-family closer to the highway.

Ms. Day said the lots were deep and there was an overlay district for K-10 Highway that was applicable to the project. She said it was originally zoned RM12, then subdivided with the intent to move to duplex development. She said the desirability for single family in the area was strong enough that the location next to the highway was not a deterrent for people.

Commissioner Carpenter agreed with Britton that future development would increase density.

Unanimously approved 6-0.

PC Minutes 8/22/16

ITEM NO. 2A PRELIMINARY PLAT FOR JOHNSTON ADDITION; 706 E 23RD ST (MKM)

PP-16-00261: Consider a Preliminary Plat for Johnston Addition, a one lot commercial subdivision containing approximately 1.5 acres, located at 706 E 23rd St. Submitted by Johnston Investments Company, LLC, for Lawrence Brothers, LLC, property owner of record.

ITEM NO. 2B SPECIAL USE PERMIT; MICROBREWERY; 706 E 23RD ST (MKM)

SUP-16-00262: Consider a Special Use Permit for a *Manufacturing and Production, Limited* use to accommodate a microbrewery, located at 706 E 23rd St. Submitted by Johnston Investments Company, LLC, for Lawrence Brothers, LLC, property owner of record.

STAFF PRESENTATION

Ms. Mary Miller presented items 2A and 2B together.

APPLICANT PRESENTATION

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

PUBLIC HEARING

No public comment.

COMMISSION DISCUSSION

Commissioner von Achen asked if this was the owner's first microbrewery.

Mr. Cory Johnston said yes, it was his first microbrewery. He said he would require his staff to be experienced in their roll.

ACTION TAKEN on Item 2A

Motioned by Commissioner Britton, seconded by Commissioner Carpenter, to approve the Preliminary Plat, PP-16-00261, of Johnston Addition subject to the following conditions:

1. Applicant shall provide a revised preliminary plat with the following changes:
 - a. Addition of the following note: "*With the dedication of additional right-of-way for E 22nd Street the existing building encroaches into the required rear setback; however the structure is not considered a nonconforming structure per Section 20-1503(a) of the Development Code.*"
 - b. Add leader line between portion of open-sided building to be removed and label.

Commissioner Kelly said he was excited about this project and that he liked to see infill.

Unanimously approved 6-0.

ACTION TAKEN on Item 2B

Motioned by Commissioner Britton, seconded by Commissioner Willey, to approve the Special Use Permit, SUP-16-00262, for a *Manufacturing and Production, Limited* use to be located at 706 E 23rd Street and forwarding the item to the City Commission with a recommendation of approval subject to the following conditions:

1. The following items shall be provided prior to the release of the site plan for processing of a building permit:
 - a. Executed site plan performance agreement.
 - b. Erosion control plan for the City Stormwater Engineer's approval.
 - c. Lighting spec sheets to insure building mounted fixtures are the lumen equivalent of lights less than 150 watt incandescent or that full cut-off fixtures are used.
2. Prior to the release of the Special Use Permit site plan, the applicant shall provide a revised drawing with the following changes:
 - a. Application of additional architectural treatment to the main entry to achieve visual prominence.
 - b. Revision of the access drive on E 23rd Street, if necessary, based on KDOT's review of the additional Traffic Information.
 - c. Addition of the following note, " Special Events on the property require approval of a Special Event Permit."
 - d. Addition of recording information (Book and Page Number) for the dedicated shared access easement.
 - e. Addition of the following note: "*The future building addition is shown for information purposes. A site plan will be submitted for approval prior to the construction of this addition.*"

Unanimously approved 6-0.

PC Minutes 8/22/16

ITEM NO. 3 TEXT AMENDMENT TO DEVELOPMENT CODE; PUBLIC NOTICE PROCEDURES

TA-16-00180: Text Amendment to the City of Lawrence Land Development Code, Article 13, regarding Public Notice Procedures.

STAFF PRESENTATION

Ms. Sheila Stogsdill presented the item.

PUBLIC HEARING

Mr. Jon Josserand said the issue of notice was something he was concerned about. He felt the current scenario has failed on a couple of occasions. He felt like the development process should encourage applicants to meet with the neighborhood. He suggested a more formalized requirement for larger projects. He felt more notice should be given to those that occupy the property, not just the property owner.

COMMISSION DISCUSSION

Commissioner Britton asked Randy Larkin, staff attorney, to comment on amending the Development Code to expand the notice range or to give the Planning Director discretion to do courtesy notice. He was worried about additional lawsuits if the Planning Director made the decision to expand the notice for some projects but not for others.

Mr. Randy Larkin, City Attorney, said it would depend on the wording in the Code but that it could be worded in a way that would not create rights to others.

Commissioner von Achen inquired about sign posting.

Ms. Stogsdill said the County Code did not require sign posting. She said typically the City Code required a sign for each street frontage and that depending on the size of the property that additional signs might need to be provided. For example, Bauer Farm would have had a minimum of four signs.

Mr. McCullough said the intent of posting signs was to provide notice to those that might live outside the mailed notice range.

Commissioner Willey felt the current notice practices were quite robust. She said there was information available online as well as through the email subscriptions. She felt that having a little bit of discretion to expand if needed was adequate.

Commissioner Carpenter did not feel adequate notice was being given. He said they see it over and over again where people say they didn't know about an issue. He felt that mailing notice to an expanded area could get more people involved. He felt that protest petitions were made to be impossible so he was okay with keeping it small. He wanted mailed notice to go to the physical address so that tenants would receive notice. He said he had no problem passing that cost on to the applicant.

Commissioner Britton said he did not want to make it harder to file a protest petition.

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

Commissioner Britton felt they should leave the protest petition at 200'.

Commissioner Kelly said he did not mind passing off the increased cost to the developer but did have concerns about passing on that cost to the typical homeowner. He asked staff to respond to Wichita's model of providing more notice with larger projects.

Ms. Stogsdill expressed concern about six Planners advising people about what their process would be. She said if one project gets 200' and another gets 1000' it increases the chances of mistakes.

Commissioner Britton said if the cost was passed on to the developer they would probably see it as a drop in the bucket.

Mr. McCullough said large developers would see it that way but non-profit organizations also submit projects.

Commissioner Britton felt that expanding the notice area was something they ought to do but in a way that wasn't burdensome to staff or applicant. He felt anything over 500' was overkill. He hoped to get a fair cross section of people with interest. He said he would support 300' or 400' but over that might complicate the process. He felt there were some situations that should allow the Planning Director the authority to give extended notice. He said he would support some provision for discretion to provide additional notice if the situation called for it.

Commissioner Willey said she was in favor of allowing discretion for the Planning Director to extend the notification area.

Commissioner Struckhoff felt protest petitions should remain 200'. He was not comfortable expanding the notice area beyond 400'. He felt the Planning Director should be allowed discretion to expand the notice as needed. He also felt the tenants of the address really should be noticed. He was concerned about the cost to applicants for smaller projects.

Commissioner Kelly expressed concern about courtesy notice being sent at staff discretion. He felt anything beyond 500' was too much notice. He was not comfortable giving discretion to staff because it was hard to know when projects could blow up.

Mr. McCullough said it was most helpful to staff to have a consistent process.

Commissioner Britton said his concern with the Wichita approach was that it was not the size of the project, but the impact that mattered.

Commissioner Willey felt keeping it simple and consistent was important. She suggested increasing the mailed notice to 300' and including tenants.

Mr. McCullough said he needed to do some further research about the impacts to staff resources regarding mailed notice to tenants. He said a tenant list would not come from the County Clerk's office.

Commissioner Struckhoff said he was comfortable with a 300'-400' mailed notice area and that he would still like to see tenants notified.

Commissioner Britton said it would be nice if there was an easy way to notify tenants and that there were other avenues that could get to those tenants. He said he would be okay with just expanding the mailed notice to 300'-400'. He felt there was something to be said for the decision to be made by Planning Commission as opposed to putting that on the Planning Director.

Mr. McCullough said if the notice area was expanded it could pull people into the notice area.

Commissioner von Achen felt county development should have posted signs.

Ms. Stogsdill said there would have to be an amendment to the County Zoning Regulations to include it as a requirement.

Commissioner von Achen said the roll of Planning Commission was to protect neighbors from undesirable development so she was in favor of expanding the notification area.

Commissioner Britton said it seemed like county items had brought out the interested parties.

ACTION TAKEN

Motioned by Commissioner Britton, seconded by Commissioner Willey, to direct staff to maintain the protest petition area of 200' and research the impacts of increasing the notice area to 350', applying it uniformly across all application types, and reviewing whether the costs should be passed on to the applicant.

Motion carried 6-0.

Commissioner Britton said a future meeting would include more Planning Commissioners who would have additional perspectives.

MISCELLANEOUS NEW OR OLD BUSINESS

Consideration of any other business to come before the Commission.

ADJOURN 8:32pm

Planning Commission

Key Links



City of Lawrence
Douglas County
PLANNING & DEVELOPMENT SERVICES



Plans & Documents

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

Development Regulations

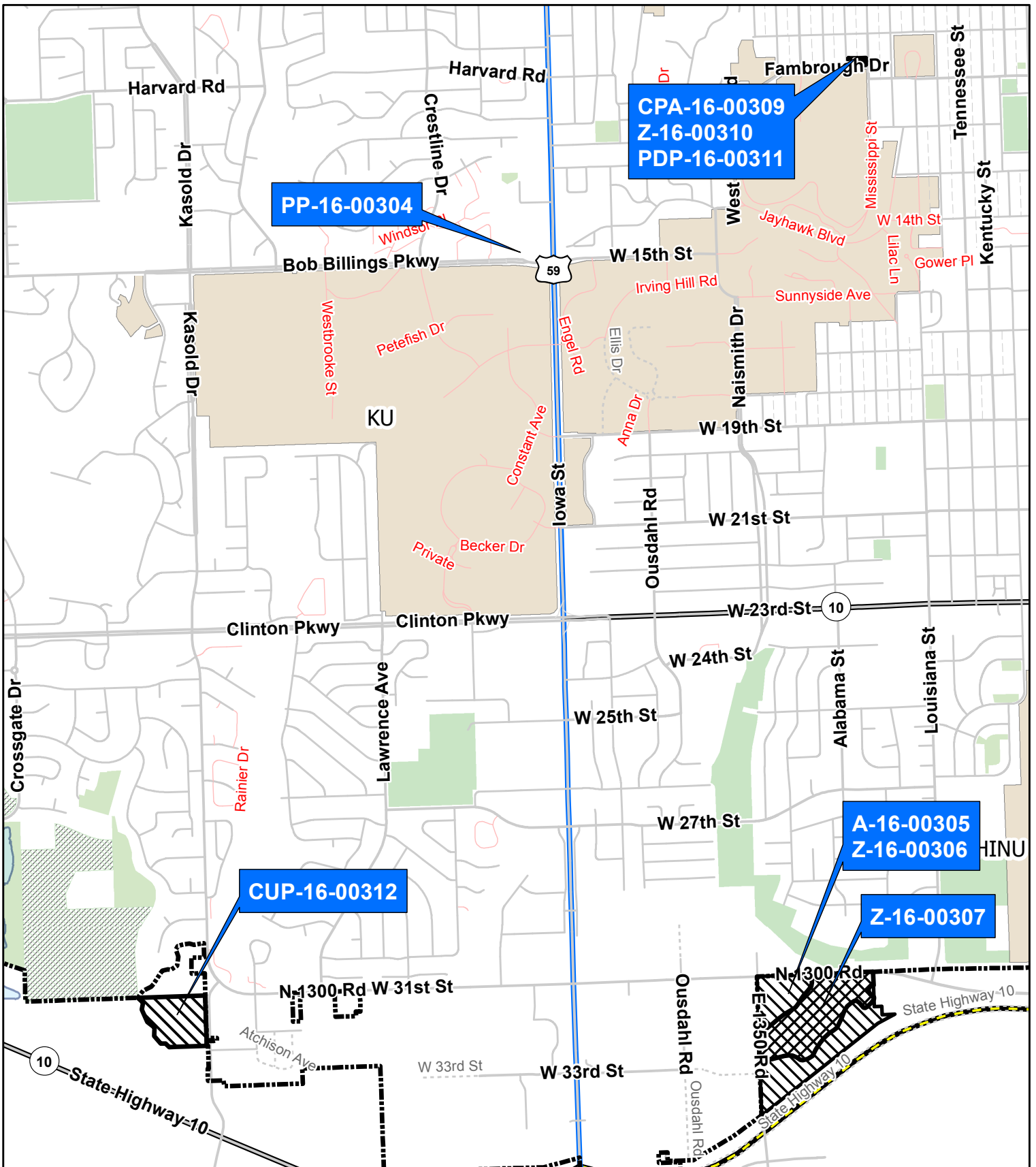
- [Community Design Manual](#)
- [County Zoning Regulations](#)
- [City Land Development Code](#)
- [Subdivision Regulations](#)

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](#)



Lawrence-Douglas County Planning Commission September 2016 Public Hearing Agenda Items





2016 Multi-Dwelling Inventory Report
City of Lawrence, Kansas
Planning & Development Services



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Overview

Since 2000, the City of Lawrence’s population has grown 20.7%, from 80,508 to an [estimated](#) 97,193 people in 2015. As Lawrence has grown, an increase in residential, commercial and industrial development has followed. Over time, various studies have been conducted, including the [Residential Lot Inventory](#) and [Retail Market Report](#) to help provide a snapshot based on the real estate/land use market, specifically reviewing inventory (supply) and annual permits issued (market demand). This report encapsulates a different residential segment, specifically the multi-dwelling/apartment segment.

A “Multi-Dwelling Structure” is defined in the [Land Development Code](#) as, “A Structure that contains three (3) or more Dwelling Units that share common walls or floor/ceilings with one (1) or more units. The land underneath the Structure is not divided into separate Lots. A Multi-Dwelling includes Structures commonly called garden apartments, apartments and condominiums.” (§ 20-1734(5))

Household Living: Multi-Dwelling Structure			
Intensity	Residential Zoning	Non-Residential Zoning	Mixed Use Zoning
Low	RM12	CN2	MU
	RM15	CS	
	RM24	CC	
	RM32	CD*	
	PRD		
High	PUD		

**Downtown Commercial Zoning*

For the purposes of this study, staff isolated undeveloped properties within Lawrence that are within one of the zoning districts that permit multi-dwelling structures, calculated the potential development area, and applied an average number of units permitted within a 10-year average. For reasons noted in this report, the Downtown area has been studied separately but is included in the total potential for multi-dwelling development.

Assumptions

Because properties will be developed with a variety of densities, patterns, and architectural styles, and many of the potential developments covered within this study have not been determined at this time, certain general assumptions have to be made.

As many of the areas zoned for multi-dwelling structures have not been platted or approved under a development plan, staff first assumed a 20% deduction from the land mass to account for required items such as easements, rights-of-way, and other portions of the site that would be constructed to allow for further residential development. Also assumed is the U.S. Census Bureau assumption that of the planned units, 98% of total units are actually completed. This accounts for alterations and deviations that occur between the land approval process and the physical construction of the buildings.

Unit density for projects was based on the 10-year annual average of units permitted. Due to the unique code standards of Downtown Lawrence (uncapped density, taller building heights, and no requirement to supply parking), developments in this area were separated from other multi-dwelling developments.

To account for market and spatial development patterns, staff derived an average dwelling unit per acre calculation for Lawrence, and one specifically for Downtown Lawrence. Based upon the permitted number of units listed by a property’s annual rental license, staff was able to determine Lawrence’s average density is 18 dwelling units per acre for multi-dwelling structures, excluding Downtown Lawrence. An identical calculation for Downtown found 79 dwelling units per acre.

It should also be noted that the development within the CD zoning district, which is uniquely created for Downtown Lawrence, is a finite category with limited potential for expansion. It is natural to assume that the area within the CD zoning is spatially limited in development potential due to the policies and protections that have been adopted to ensure the longevity and character of Massachusetts Street and the surrounding district. The land calculations for this segment of the inventory study are based on updated information from the 2012 [Downtown Redevelopment Issues & Opportunities Report](#), which includes both privately owned lots and the City’s surface parking lots.

However, there are certain economic realities that cannot be accounted for by this study. These include product choice by consumers, market location demand, unique and specific site characteristics, owner desire, and market constriction.

Permitting Trends

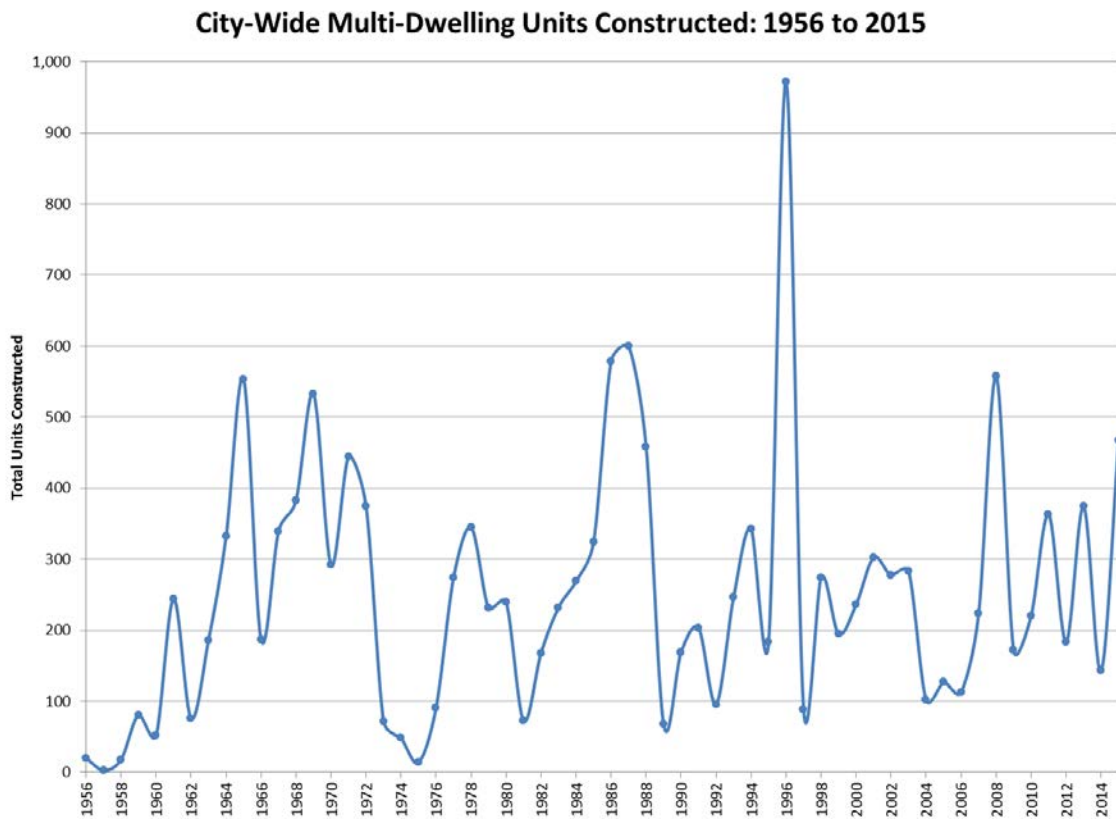
In recent years, Lawrence has seen some oscillations in the building permits for multi-dwelling structures. Within the last 10 years, the construction of these units has been cyclical, with a recent trend to developing units within the Downtown Commercial (CD Zoning) district. Analysis of the overall trend in the number of units annually constructed within the city has increased since 2011.

Due to the unique characteristics of Downtown Lawrence’s CD base zoning district, and other spatial considerations such as available land acreages and height

Year	Multi-Dwelling Zoning Units Permitted	CD Zoning Units Permitted
2005	98	29
2006	113	-
2007	223	-
2008	557	-
2009	172	-
2010	165	55
2011	363	-
2012	184	-
2013	370	4
2014	29	114
2015	412	55
Average	244	23

allowances, this report separates the CD zoning district from the other Multi-Dwelling zoning districts to present a more accurate development estimate for base zoning districts that allow multi-dwelling development in the community.

The districts outside of Downtown which permit multi-dwelling developments are largely similar in their general requirements, conditions, and other factors that would be applicable under both the market and Land Development Code. For that reason, the remaining districts are grouped and calculated at the same density estimate of number of dwelling units per acre.



Multi-Dwelling Zoning

When evaluating such an oscillating trend, using a 10-year average helps mitigate large fluctuations in the number of permitted units. The average number of dwelling units constructed annually since 2005 has been 244 units per year.

CD Zoning

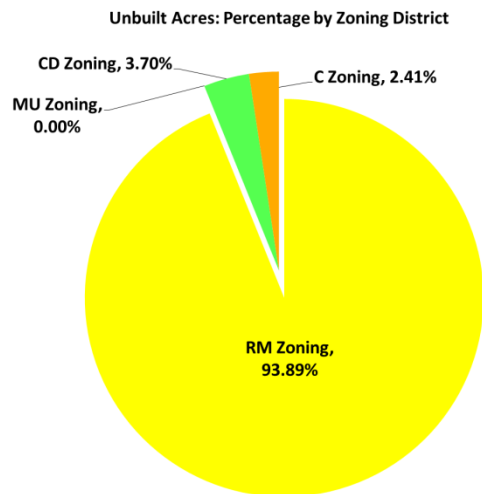
Unlike the other zoning districts in this study which have seen construction activity in every year, the CD district has not seen a consistent construction trend over the last decade. While all the larger-scale, multi-dwelling development has occurred within the last 10 years, there have also been periods of no development. When accounting for the historic trend in the CD districts, the average number of dwelling units constructed annually since 2005 has been 23 units per year.

Supply

As noted previously, unlike the Residential Lot Inventory, multi-dwelling structures do not tend to be subdivided into individual lots for each building. Because of this trait, it can be difficult to anticipate the full development extent that exists for each property as they develop. Therefore, certain spatial and development assumptions are made when striving for an accurate estimate.

To allow for the creation of this estimate, the amount of undeveloped land that is zoned to permit multi-dwelling construction is accounted for in this study. While varying degrees of density are permitted under each base zoning district by the Land Development Code, an average number of units per acre for multi-dwelling developments is used to account for the spatial variations and market preferences seen throughout the city.

Estimated Supply by Zoning Category	
Zoning District	Est. Potential Units
RM Zoning	4,949
MU Zoning	0
Commercial Zoning	127
CD Zoning	856
Total	5,932



When the two distinct markets, Multi-Dwelling and CD Zonings, are combined, there is an estimated potential for 5,932 units to be developed currently within Lawrence city limits.

Multi-Dwelling Zoning

Using data from the City of Lawrence's geographic information system, there is an estimated 287.74 acres of land presently zoned that would permit multi-dwelling structures by right.

Using the average density of units for multi-dwelling structures throughout the 10 base zoning districts (18 dwelling units per acre); this could accommodate an estimated 5,076 units.

CD Zoning

Similarly, there is an estimated 11.06 acres of land, including private land and publically owned surface parking, which are presently undeveloped. Using the average density of units for multi-dwelling structures in this district (79 dwelling units per acre), Downtown could accommodate an estimated 856 units.

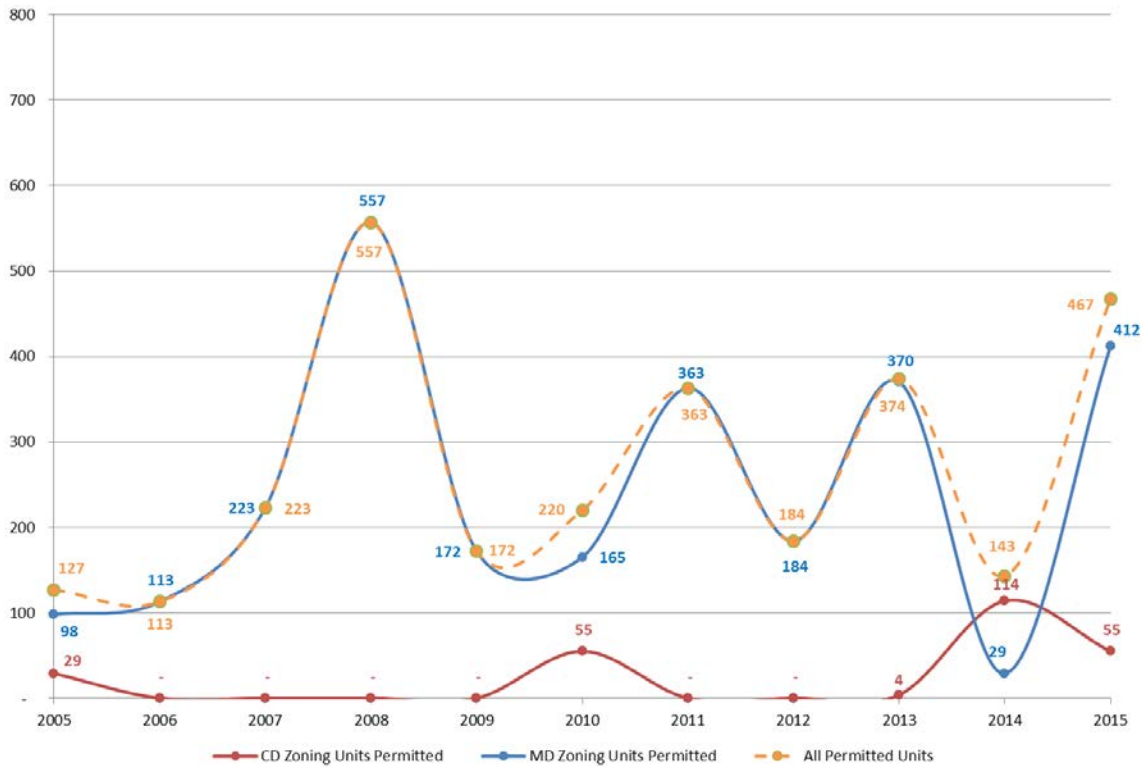
Demand

To measure construction demand, reviewing the average annual number of permits issued over a 10-year period helps provide a measure to annually track this aspect of the market. Similarly to the supply portion, the demand portion is best accounted for in the two separate avenues: CD zoning separately, and then all other multi-dwelling zoning districts combined. Determining the frequency of units constructed annually is a means to show the relative level of demand for this housing product in the community.

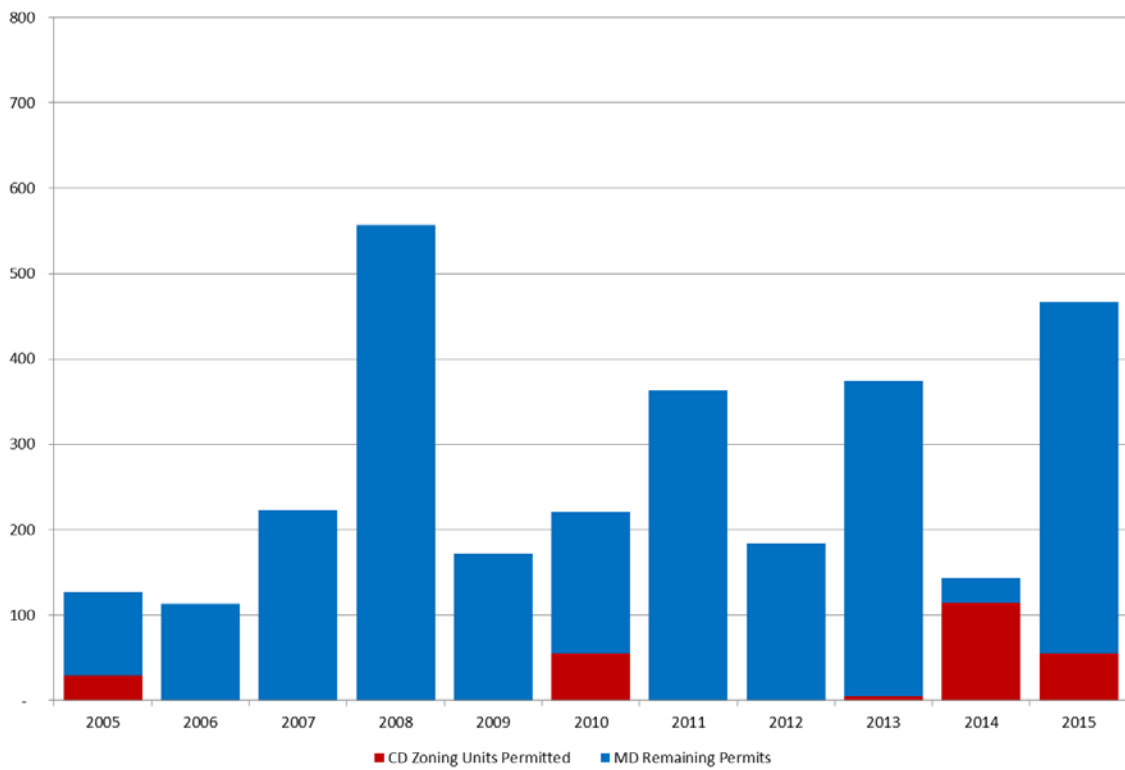
Demand can be estimated by using the number of building permits, and the average number of units constructed per permit, issued annually within each segment of the Lawrence market. Therefore, this study will assume that the density of recently permitted projects provides a realistic construction preference, reflecting both existing market conditions and consumer expectations in density, amenities and parking.

City-wide, there are approximately 18 projects permitted annually, totaling 268 units. However, because the number of units constructed per acre differs greatly between Downtown Lawrence and other locations zoned for multiple dwelling units, these factors again have to be separated to accurately account for the whole market.

Multi-Dwelling Building Permits: Permitted Dwelling Units



Dwelling Units Permitted by Zoning District



Multi-Dwelling Zoning

Using a 10-year average of permits issued throughout Lawrence, except Downtown, there is an average of 18 projects annually, constructing on average 244 units.

CD Zoning

As with multi-dwelling permit measurements, the CD zoning district has a different set of standards compared with the RM Districts. Over the course of the last 10 years, 5 permits have been issued annually containing an average of 23 units per permit.

Estimated Inventory

Accounting for the two unique multi-dwelling development markets in the community requires taking into consideration the annual issuance rate for each district at their unique density rates. Using the 10-year average number of units constructed per acre for each district, there is an estimated 22 years of inventory presently within the Lawrence city limits.

Multi-Dwelling Estimated Inventory				
	RM Zoning	MU Zoning	C Zoning	CD Zoning
Total Acres	1,761.25	7.18	1,257.11	83.72
Undeveloped Acres	350.69	-	8.99	13.82
Spatial Deductions <i>(20%)</i>	280.55	-	7.19	11.06
Average Dwelling Units/Acre		18		79
Potential Unit Capacity	4,949	-	127	856
Total Unit Capacity		5,076		856
Annual Units Permitted		244		23
Supply: Years Remaining		20.79		36.64

The calculation for the estimated potential years remaining are based on a calculation of Land Available minus a 20% spatial deduction to account for various items such as easements, right-of-way dedications, and other site constraints that are present in development. Once this calculation is complete, each amount of land is then multiplied by the average dwelling units per acre that are present within each district in Lawrence. This creates a Potential Unit Capacity for both the Multi-Dwelling Zoning as well as the CD Zoning Districts. Using a 10-year average of number of units permitted, which includes both districts to account for simultaneous construction in both, the number of potential units is divided by the Combined Annual Permit Ratio, which creates the Supply Years Remaining calculation.

Pending Projects

Lawrence has some projects that have received various levels of approval, but have not been completed to occupy yet. Together, these “in-progress” projects total approximately 147.65 acres of land, containing 1,446 additional units.

Pending Summary				
	Projects	Units	Acres	Average Dwelling Units/Acre
Under Construction	4	407	26.07	81.46
<i>RM Zoning</i>	2	238	25.00	9.10
<i>CD Zoning</i>	2	169	1.07	153.82
<i>MU Zoning</i>	-	-	-	-
Approved, Not Constructed	3	1,039	121.58	9.15
<i>RM Zoning</i>	2	889	108.35	8.05
<i>CD Zoning</i>	1	150	13.23	11.34
<i>MU Zoning</i>	-	-	-	-

At present, there are a number of projects that have been permitted and that are presently under construction.

Projects: Under Construction				
Name	Units	Acres	Dwelling Units/Acre	Year Permitted
888 New Hampshire	114	0.67	170.15	2014
Americare	66	10.70	6.17	2014
Pachamama's	55	0.40	137.50	2015
West End	172	14.30	12.03	2016

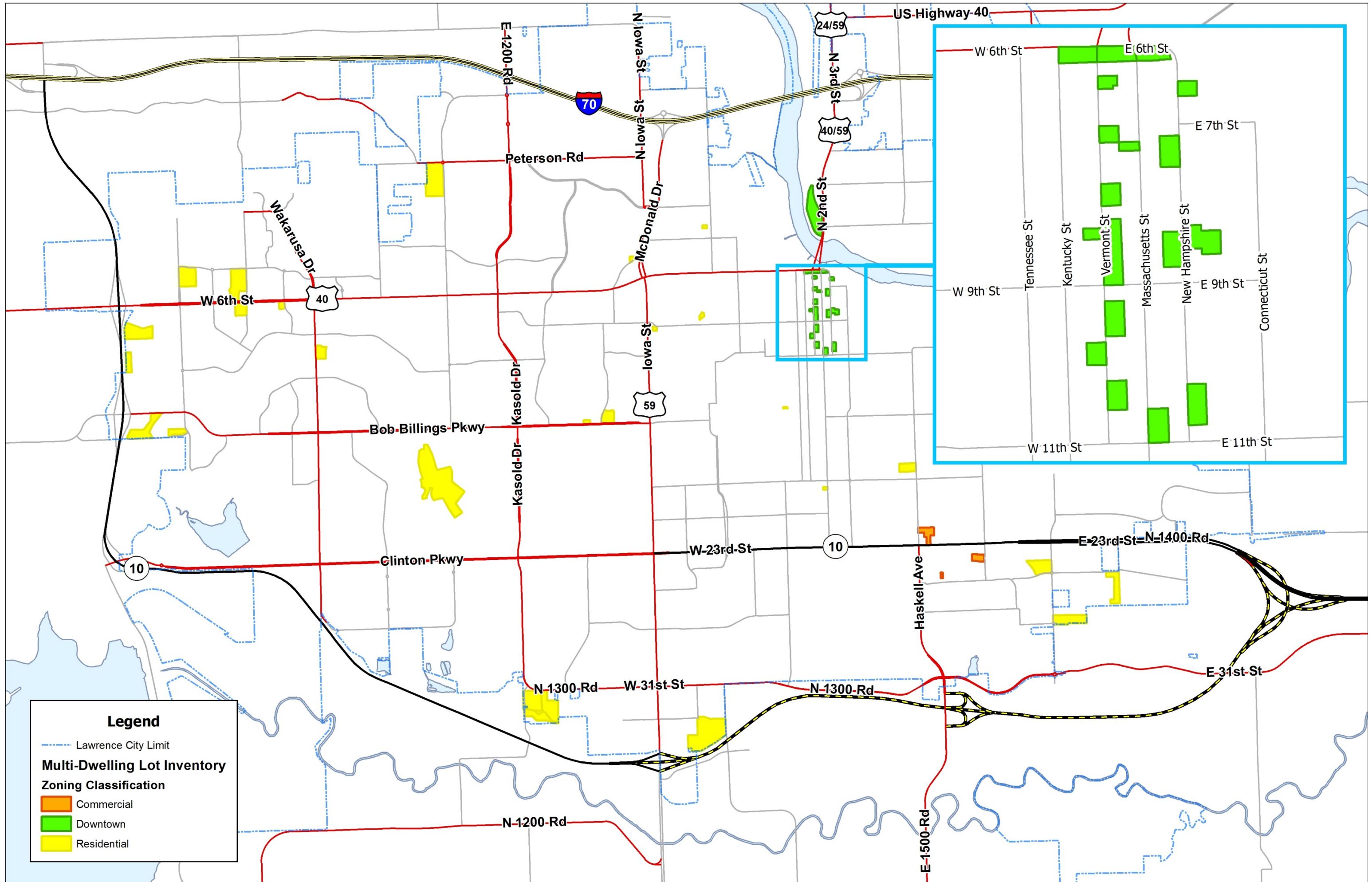
Also, there are other projects that have been proposed and approved at some level, but have not obtained building permits.

Projects: Approved, Not Constructed				
Name	Units	Acres	Dwelling Units/Acre	Year Permitted
Links	597	57.90	10.31	-
Alvamar	292	50.45	5.79	-
North Lawrence	150	13.23	11.34	-

Conclusions

On the supply side, the City of Lawrence contains approximately 298.8 net acres of land with zoning that could accommodate multi-dwelling structures. Based on the two permitting and density trends for Downtown Lawrence and the larger whole of the city, this could accommodate an additional 5,932 dwelling units.

On the demand side, Lawrence’s 10-Year permitting average for Downtown Lawrence is 23 units per permit, and 244 per permit throughout the remainder of the city. Using 2015 data to represent current market conditions, the supply for multi-dwelling zoned land is estimated to last approximately 22.17 years.



Legend

- - - Lawrence City Limit
- Multi-Dwelling Lot Inventory**
- Zoning Classification**
- Commercial
- Downtown
- Residential

Memorandum

City of Lawrence

Planning & Development Services

TO: Planning Commission

FROM: Mary Miller, Planner II

Date: September 13, 2016

RE: Item 1: MINOR SUBDIVISION VARIANCE FOR 407 FLORIDA & 1503 W 4TH (MKM)

Attachments: A—Location Map, B—Aerial of nearby area

Background

A Minor Subdivision, MS-16-00318, a Replat of Lot 7, and Lot 8 of a Plat for the Subdivision of a Portion of Block 31, West Lawrence, was submitted to the Planning Office to reconfigure the property line between two lots: Lot 7 at 1503 W 4th Street and Lot 8 at 407 Florida Street. A portion of the residence on 1503 W 4th Street / Lot 7 was built over the property line. The reconfiguration will move the property line to contain the structure on one lot; therefore, each lot can be sold separately.

The property to the north, 1503 W 4th Street has an access drive on 4th Street but has also historically used the garage and driveway located to the south with an access on Florida. The property to the south, 407 Florida Street, shares a drive with the adjacent property to the south. The reconfiguration would place the garage and drive on the property that uses them, 1503 W 4th Street. Figure 1 shows an aerial photo of the two properties with the current configuration and the proposed reconfiguration. The Minor Subdivision plat is shown in Figure 2.



Figure 1a. Current lot layout.



Figure 1b. Proposed lot lines(approximate).

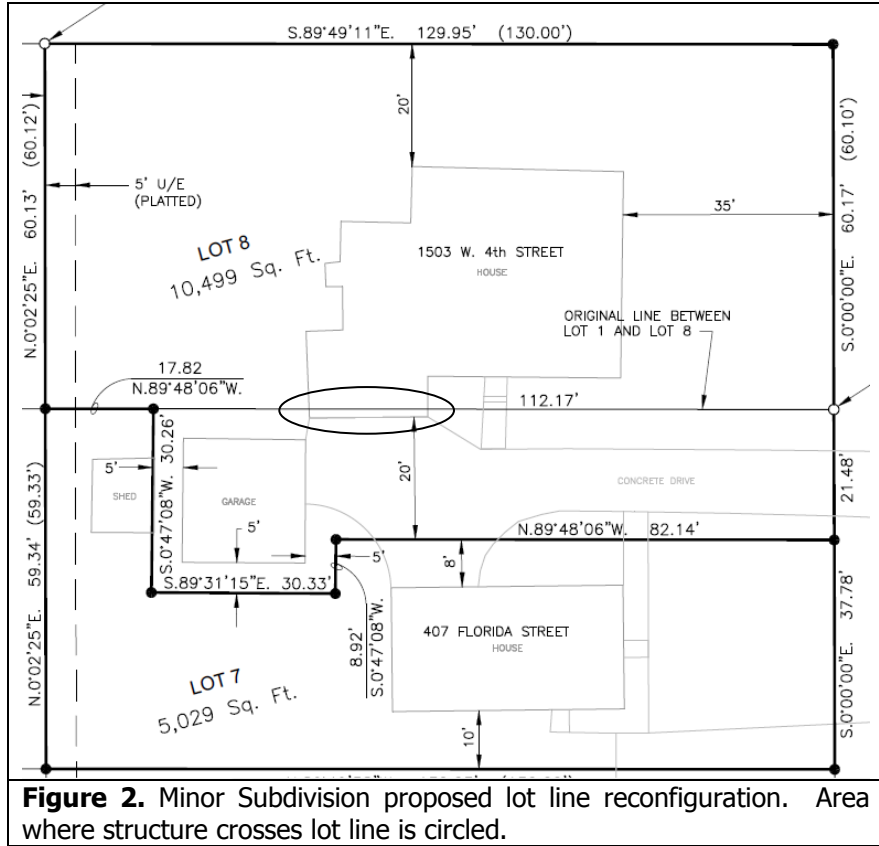


Figure 2. Minor Subdivision proposed lot line reconfiguration. Area where structure crosses lot line is circled.

While reflecting the historical use of the property, this reconfiguration will reduce the lot area and frontage of the lot at 407 Florida Street, proposed Lot 2, below that required in the RM24 Zoning District. The following table reviews the proposed lots with the dimensional standards of the RM24 District. The dimensions which are noncompliant are highlighted.

RM24 Dimensional Standards	Requirement	Lot 1	Lot 2
Minimum Lot Area	6,000 sq ft	10,499 sq ft	5,029 sq ft
Maximum Dwelling Units/Acre	24=1,815 sq ft/du	10,499 sq ft/du	5,029 sq ft/du
Minimum Lot Width / Frontage	50 ft	60.17 ft	37.78 ft
<i>Minimum Setback/ Front</i>	25 ft	35 ft	35 ft
<i>Minimum Setback Side/Exterior</i>	10 ft	20 ft	n/a
<i>Minimum Setback Side/Interior</i>	5 ft	20 ft	8 ft and 10 ft
<i>Minimum Setback /Rear</i>	20 ft	44 ft	56 ft

Variance

A variance has been requested from Section 20-810(a)(2)(i) of the Subdivision Regulations which requires that lots comply with all applicable zoning district regulations. As noted previously, the reconfiguration of the properties to match the historical use of the garage and drive located between the two properties would result in the creation of a lot that does not meet the minimum lot area and minimum lot width/frontage requirements for the RM24 District. Per Section 20-813 of the Subdivision Regulations, The Planning Commission may grant a variance from design standards in the Subdivision Regulations in cases where there is a hardship in carrying out the literal provisions of the regulations. The following is a review of the variance request with the criteria noted in Section 20-813(g):

Criteria 1: Strict application of these regulations will create an unnecessary hardship upon the subdivider.

The variance is requested to allow the lots to be reconfigured so the structure on Lot 7 is located wholly on its own lot and to match the lot lines to the historical use of the properties. The reconfiguration will not alter the development pattern or use of the property, but will create lots which conform to the historical use of the property.

The strict application of the standards would not allow the reconfiguration necessary to allow the structure on Lot 7 to be located wholly on that lot with the required 5 ft side setback. It would be necessary to remove that portion of the structure that extends over the lot line.

The proposed reconfiguration would reduce the lot frontage for Lot 8 to 54.26 which would not comply with the dimensional standards of the RM24 District. Including the driveway and garage in the lot reconfiguration further increases the noncompliance (Lot 8 frontage is reduced to 37.78 ft) but results in two lots that each contain the features associated with them. Given that the properties are developed and the proposed reconfiguration will not alter the land use or development pattern of the area, strict application of these regulations would create an unnecessary hardship on the applicant.

Criteria 2: the proposed variance is in harmony with the intended purpose of these regulations;

Section 20-801(a) of the Subdivision Regulations note the intended purposes of the regulations as:

- 1) Provide for the harmonious and orderly development of land 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;
- 2) Contribute to conditions conducive to health, safety, aesthetics, convenience, prosperity, and efficiency; and
- 3) Provide for the conservation and protection of human and natural resources.

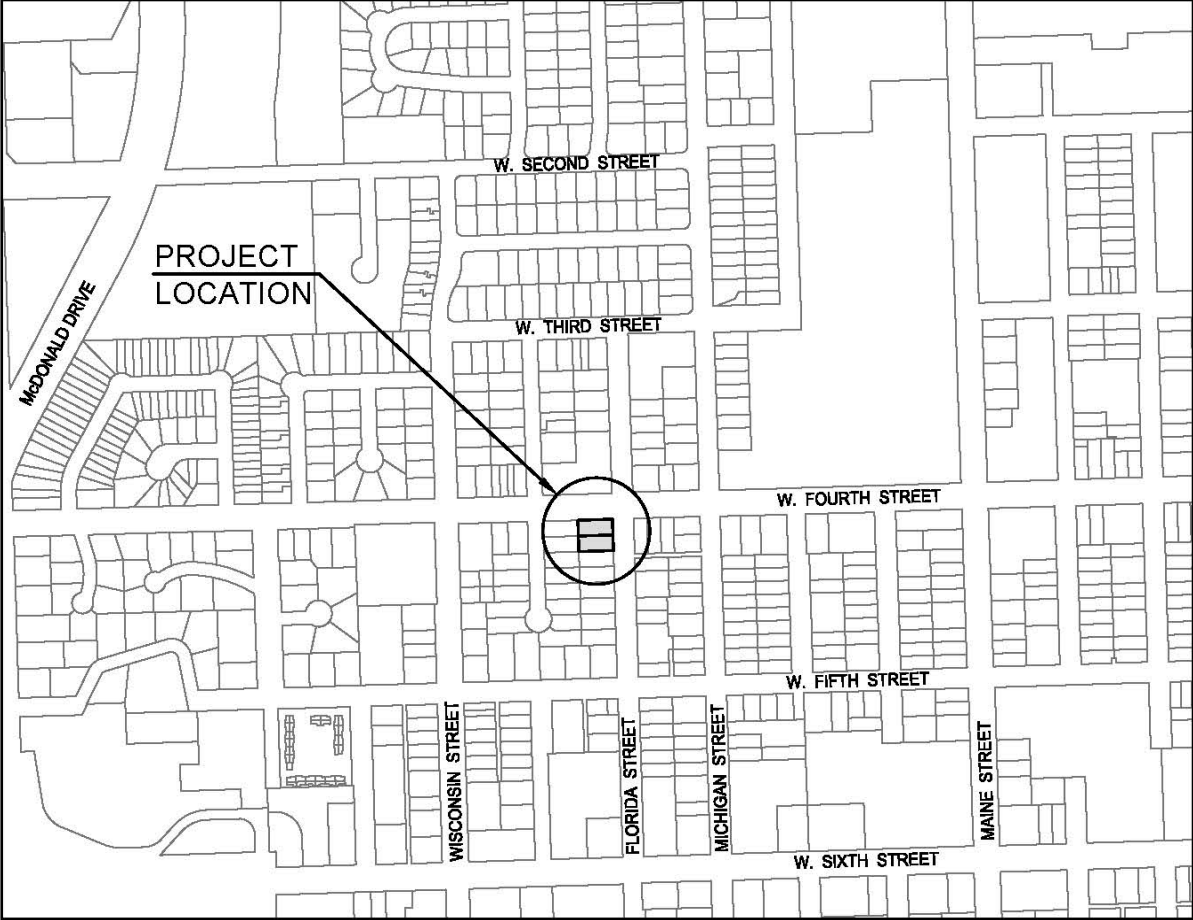
The requested variance will allow a deviation in the lot dimensions in an established area to match the historical use of the property. No changes to the development pattern will occur as a result of this variance. The variance is in harmony with the intended purpose of the Subdivision Regulations.

Criteria 3; The public health, safety and welfare will be protected.

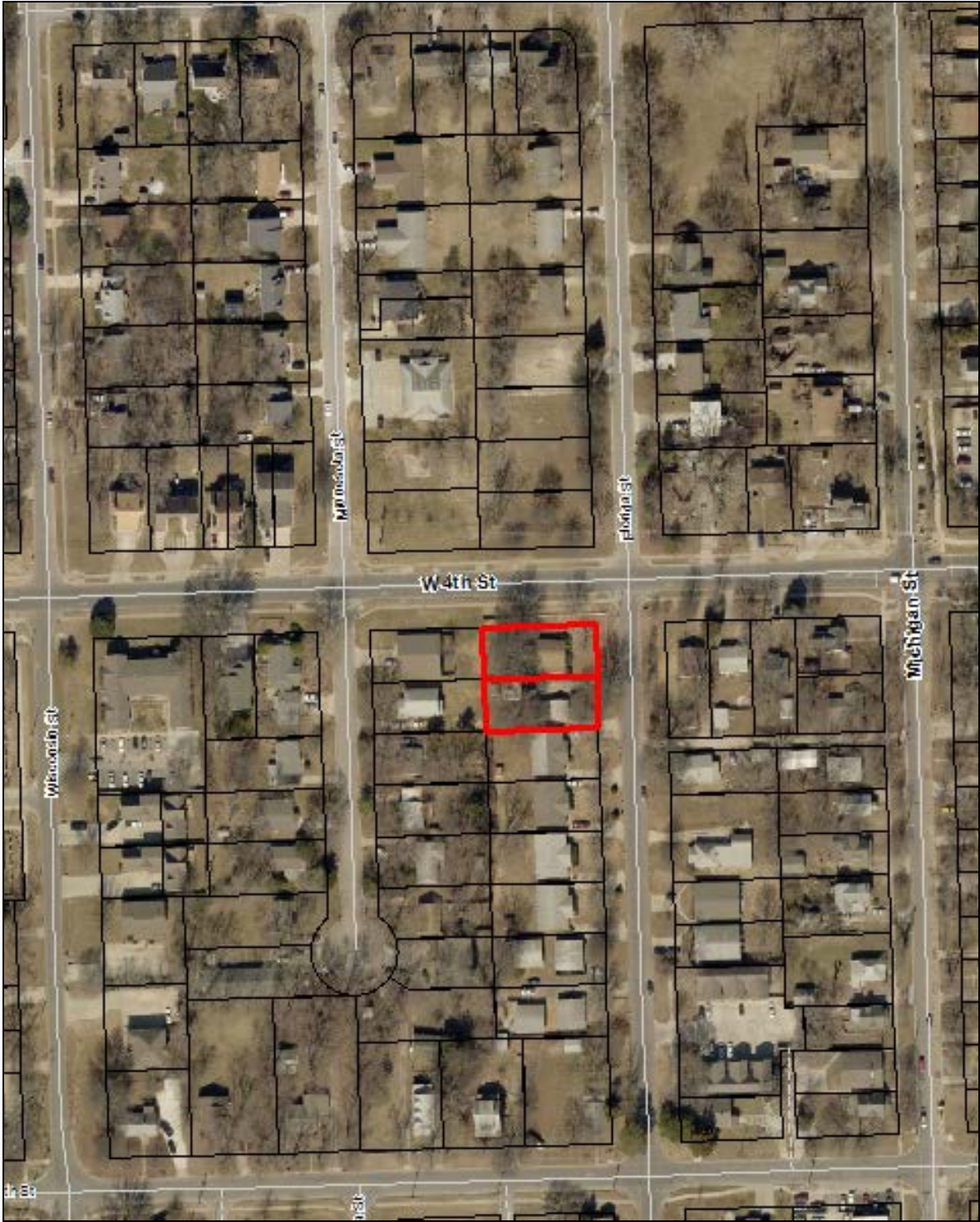
The variance will not result in any change in the development pattern or use of the area and should have no impact on the public health, safety, or welfare.

Staff Recommendation

Staff recommends that the variance requested from Section 20-810(a)(2)(i) of the Subdivision Regulations be approved to allow the creation of a lot that does not comply with the required frontage/width or area requirements of the RM24 Zoning District to accommodate the lot reconfiguration to remove the building encroachment on the adjacent lot and to reflect the historic use of the properties.



LOCATION MAP



Aerial Photo

**PLANNING COMMISSION REPORT
NON PUBLIC HEARING ITEM
Public Hearing on Variance Only**

PC Staff Report
9/26/2016

ITEM NO 2: PRELIMINARY PLAT FOR ROCKLEDGE ADDITION NO. 3 (SLD)

PP-16-00304: Consider a Preliminary Plat for Rockledge Addition No. 3, a three lot residential subdivision located at 2130 Bob Billings Parkway. This subdivision includes a variance from the Subdivision design standards requiring 150' right-of-way on an Arterial Street. Submitted by Landplan Engineering, for Wayne A. Simien Jr. and Katherine E. Simien, property owners of record.

VARIANCE RECOMMENDATION:

Staff recommends approval of the variance to reduce the right-of-way for Bob Billings Parkway from 150' to 100'.

STAFF RECOMMENDATION:

Staff recommends approval of the Preliminary Plat for Rockledge Addition No. 3.

Reason for Request: Proposed residential development of property with shared access/driveway.

KEY POINTS

- Platting required as pre-development step.
- Property was recently platted into a single lot and ROW for Quarry Lane was vacated.
- Access to property is from Bob Billings Parkway, an arterial street.
- Access to the property is currently restricted to a single access point.
- Bob Billings Parkway is an existing principal arterial road platted and developed with 100' of right-of-way prior to the current subdivision regulations which require 150' of right-of-way.
- Applicant is working with City to address specific design/construction concerns for driveway access and utility services.

SUBDIVISION CITATIONS TO CONSIDER

- This application is being reviewed under the Subdivision Regulations for Lawrence and Unincorporated Douglas County, effective Jan 10, 2012.
- Section 20-808(d)(4)) requires the subdivision to meet the design standards for ROW per Section 20-810(e)(5). This property does not currently comply with that design standard. The applicant is seeking a variance per Section 20-813(g) from the Lawrence Douglas County Planning Commission.

ATTACHMENTS

Attachment A: Preliminary Plat
Attachment B: Variance Request - MS-15-00215
Attachment C: Open Space Analysis

ASSOCIATED CASES/OTHER ACTION REQUIRED

Associated Cases

- MS-15-00213; Minor Subdivision to consolidate platted lots and vacate ROW (Quarry Lane) into single lot.
- Vacation of ROW adjacent to Lots 6, 7 and 8 Rockledge Addition (north of MS-15-00213)

- Rockledge Addition, recorded 1953
- A replat of Lot 2 University Lutheran Center, recorded in 1979

Other Action Required:

- Planning Commission approval of variance from required right-of-way dedication.
- Submittal of final plat for administrative approval and recordation.
- City Commission acceptance of dedication of easements on the Final Plat.
- Submittal and approval of public improvement plans and provision of means of assurance of completion shall be submitted prior to the recording of the Final Plat.
- Submittal and approval of building plans prior to release of building permits for development.

PLANS AND STUDIES REQUIRED

- *Downstream Sanitary Sewer Analysis* – The downstream sanitary sewer capacity cover letter dated July 25, 2016 provided by Landplan Engineering has been reviewed and is accepted for this project to satisfy the criteria required for the DSSA as outlined in Administrative Policy 76. The downstream sanitary sewer has adequate capacity for three single family residences.
- *Drainage Study* – A drainage study is not required for this project because construction of any one new single-family or duplex dwelling unit, irrespective of the total area of the site on which the structure is situated. [Stormwater Management Criteria Section 1.6.E.2.e]
- *Traffic Study* – A traffic study is not required for developments with fewer than 11 residential units.

PUBLIC COMMENT

- Betty Lichtwardt regarding proposed preliminary plat and clarification regarding proposed residential buildings.

Site Summary	
Gross Area:	174,020 SF / 3.995 AC
Additional Right-of-Way (acres):	No additional right-of-way proposed
Number of Proposed Lots:	3
Lot 1	105,696 SF
Lot 2	38,434 SF
Lot 3	29,890 SF

GENERAL INFORMATION

Current Zoning and Land Use: RS7 (Single-Dwelling Residential) District; existing undeveloped residential lots.

Surrounding Zoning and Land Use: RS7 (Single-dwelling Residential) and RSO (Single-Dwelling Residential Office) District to the east; existing detached residence and multi-dwelling buildings.

U-KU (University of Kansas) to the south; existing building for Maintenance and Surplus property (HMS building)

PD – [Meadow Brook PUD]; existing mixed residential development including multi-dwelling, detached, and duplex residential uses.

RS7 (Single-Dwelling Residential) District to the north; existing residences and undeveloped land.

STAFF REVIEW

This property is proposed to be platted as a residential subdivision with three lots for detached residential development. The project also includes a single access with a shared driveway to serve all three lots. Public improvement plans are not proposed for this development project.

Zoning and Land Use

The property is zoned RS7 (Single-Dwelling Residential) District. The property has been subdivided for residential development since the late 1950's. The subdivision included right-of-way for a future public street (Quarry Lane) that intersected at the south end with Bob Billings Parkway and intersected Terrace Road at the north end. In 2015, portions of the original subdivision plat were combined and the Quarry Lane right-of-way vacated to create a single lot (MS-15-00213) which is the subject property. Additionally, the property owner to the north sought vacation of right-of-way for Quarry Lane north of this plat.

Streets and Access

Access to lots is intended from a shared driveway that intersects with Bob Billings Parkway and that aligns with an existing median break. Direct access to shared driveways is permitted in specific instances.

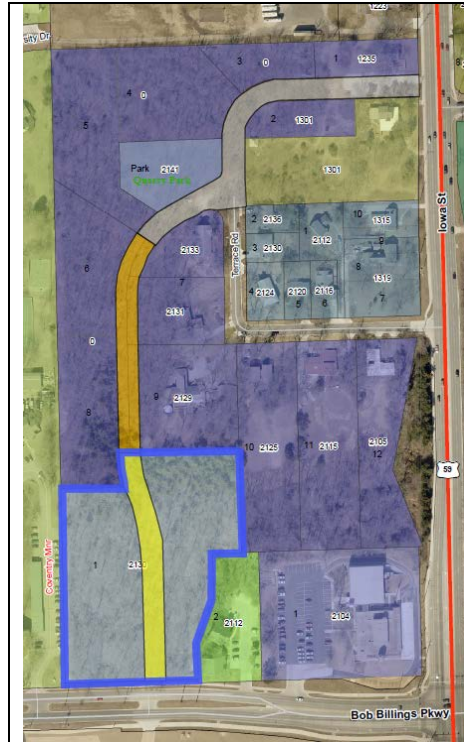


Figure 1: Rockledge Subdivision Area

Blue line represents boundary of preliminary plat.

Vacated ROW with Minor Subdivision

Vacated ROW via Separate Instrument

Subdivision Design standards require the following:

1. All lots shall have frontage on a public street unless Lot Frontage is approved on a private street as part of a Planned Development (20-810 (b)).
2. Residential shared Driveways are permitted when a recorded access easement is provided (20-810 (c)(1)(iii)).

Additional requirements of access

- The access road (driveway) will need to meet the requirement of the 2015 IFC section 503 and appendix D. Local amendment to the IFC provides for a maximum allowable grade of 8%.

A requirement of the subdivision regulations is that lots shall be laid-out and designed to comply with all applicable zoning district regulations. Section 20-915 (e) of the Land Development code states that direct access to arterial streets is not permitted "except for redevelopment or infill situations". Both the City Engineer and the Kansas Department of Transportation have reviewed the proposed access to this site and determined it can be safely accommodated as required by Code.

Appropriate access easements will need to be recorded for this subdivision with the Final Plat.

The proposed width of the driveway is 20' and will extend more than 280' north of Bob Billings Parkway. The applicant has worked with City staff to develop an access plan to accommodate Fire

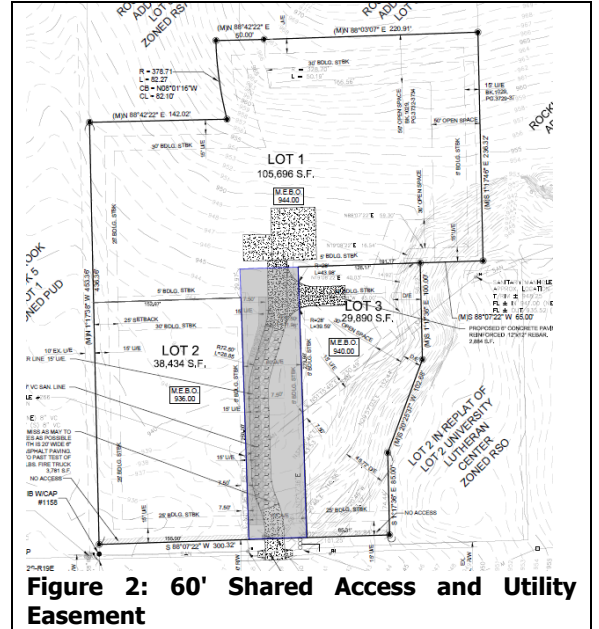
and Solid Waste Service as needed for this residential development. An appropriately constructed access (driveway) will be required prior to the issuance of a building permit for these lots.

Easements and Rights-of-way

EASEMENTS

The property currently includes a utility easement around the perimeter of the property and several other easements that cross the eastern portion of the property at an angle. A portion of this easement is dedicated as a drainage easement. In addition to utility easements, this property is encumbered by a designated open space easement located along the north and east sides of the property. The open space easement is located only on Lots 1 and 3.

The south portion of Lot 1 will include a new dedication for the access easement. The total width of the south leg is 60' and could accommodate a public street if needed in the future. The entire width of the southern portion of Lot 1 is proposed as an access and utility easement. The applicant's representative has stated that the developer's intent is to preserve existing vegetation to the largest extent possible. The Preliminary Plat shows the location of the proposed shared driveway that will serve all three lots.



RIGHTS-OF-WAY

This property abuts Bob Billings Parkway along the south property line. As a principal arterial street, 150' of width is required. This property would be required to meet one half of the required right-of-way or 75'. The property was recently platted through the Minor Subdivision process into a single lot and included the dedication of additional right-of-way making a uniform width from the center line of the street 50' wide. A variance was previously approved, allowing a reduction in the total required right-of-way from 75' to 50'. Since this property is being replatted into three lots the variance must be reapproved with this application.

VARIANCE

A technical variance is required to be reapproved with this preliminary plat. The previous property owner dedicated additional right-of-way with the Minor Subdivision approved in 2015. There have been no changes in the regulations or conditions of the site since that approval. Staff continues to support the variance as previously approved. The staff discussion, applicant request and previously approved Minor Subdivision are attached to this report for reference.

Utilities and Infrastructure

This property is located within the City of Lawrence. Three residential lots are proposed on 3.9 Acres. Sanitary sewer is located along the front of Lot 2, within the right-of-way of Bob Billings Parkway. The line extends north a distance then angles to the northeast across Lots 1 and 3. The location of the sanitary sewer line as well as an existing drainage easement defines the developable area for Lot 3. Lots 1 and 2 have a more flexible opportunity for development since they are less encumbered by the location of utilities and easements.

Water is located along Bob Billings Parkway. This project anticipates the extension of private water lines extended to serve residential lots.

The Storm Sewer is also located along the south side of the property in the public right-of-way. The Preliminary Plat accurately reflects the existing improvements.

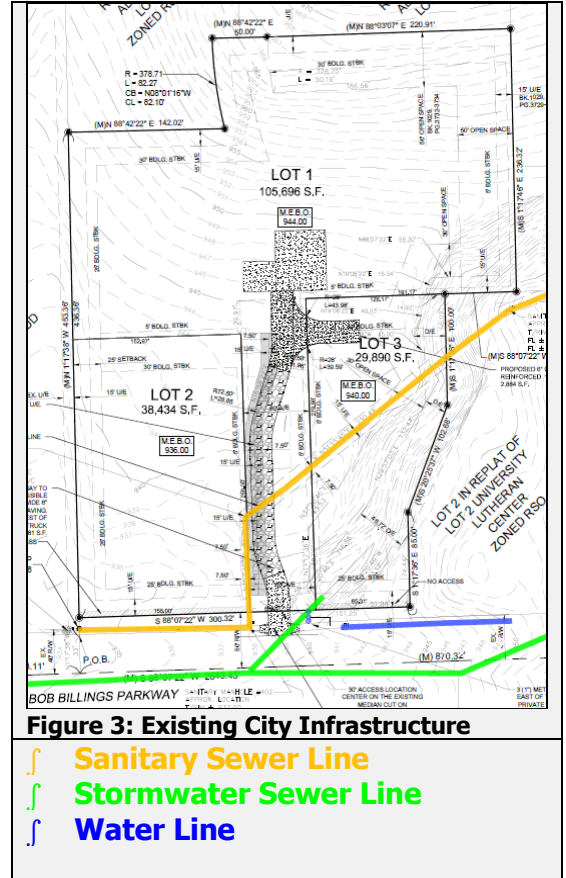
There are no anticipated extensions of public utilities to serve these properties. Public improvements are not proposed or required for this development.

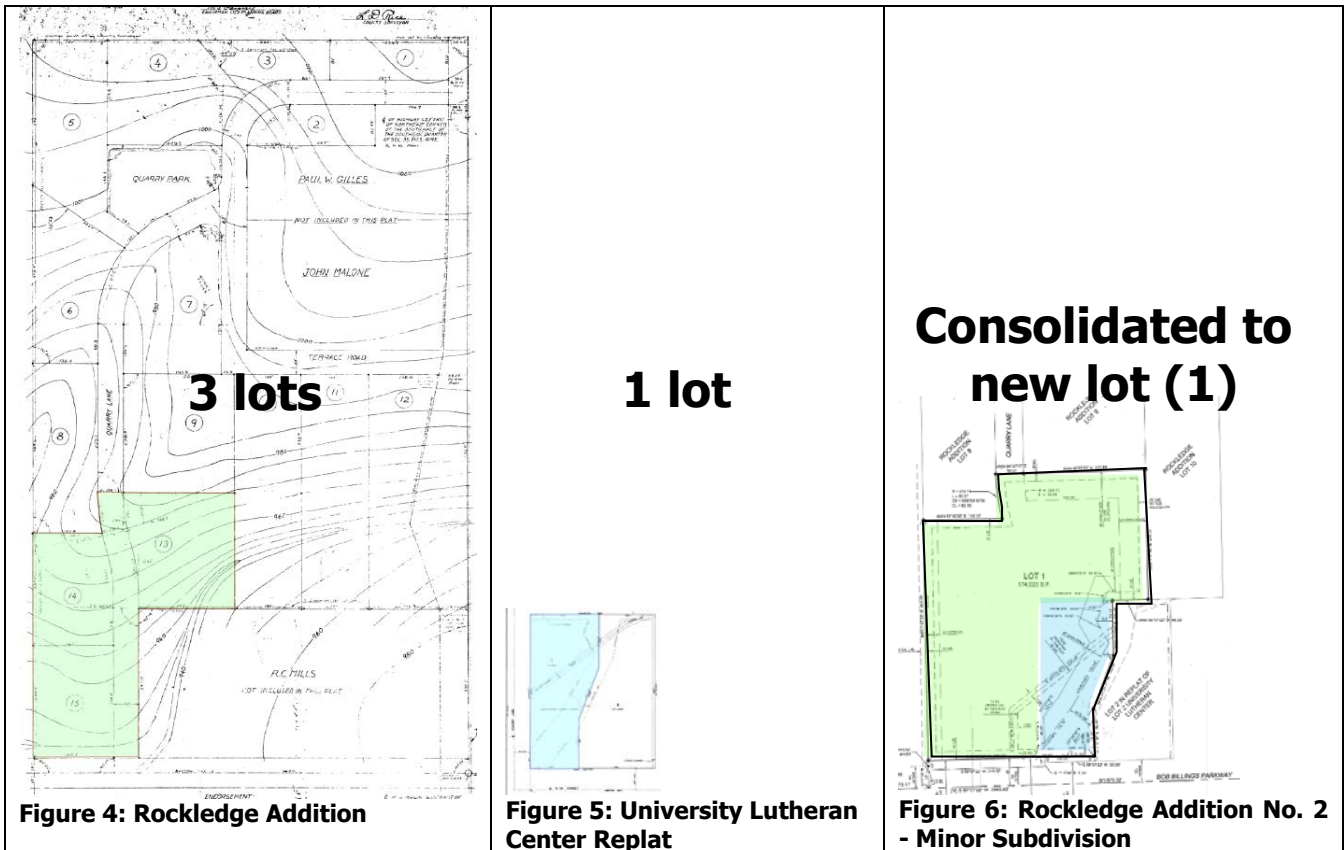
Lots

This Preliminary Plat proposes three lots for residential development. Each lot is adjacent to a public street, Bob Billings Parkway. Lots 2 and 3 are generally regularly shaped. Lot 1 is a “flag lot” with a long stub providing 60’ of frontage along Bob Billings Parkway. Each lot meets the minimum lot area and lot width requirements for the base zoning district.

Lots 1 and 3 are heavily encumbered by a dedicated open space easement. Existing utility easements partially overlap the designated open space easement in Lot 1.

Section 20-1101 (d) requires 20% of the total land area be preserved when sensitive lands exist unless exempt. Each individual lot is not required to meet this standard. Environmentally sensitive lands include properties with more than 500 square feet of stands of mature trees. The requirements to protect land are required for new development but exempt land that was platted with individual lots for single or duplex dwellings. The Rockledge property was originally platted in the 1950s’. The 2015 Minor Subdivision consolidated four platted residential lots into one single residential lot. The intent of this application is to subdivide the consolidated lot into three residential lots. This standard was not intended to be applicable to previously platted subdivisions. However, staff has reviewed the property for compliance with the protection standard as follows.





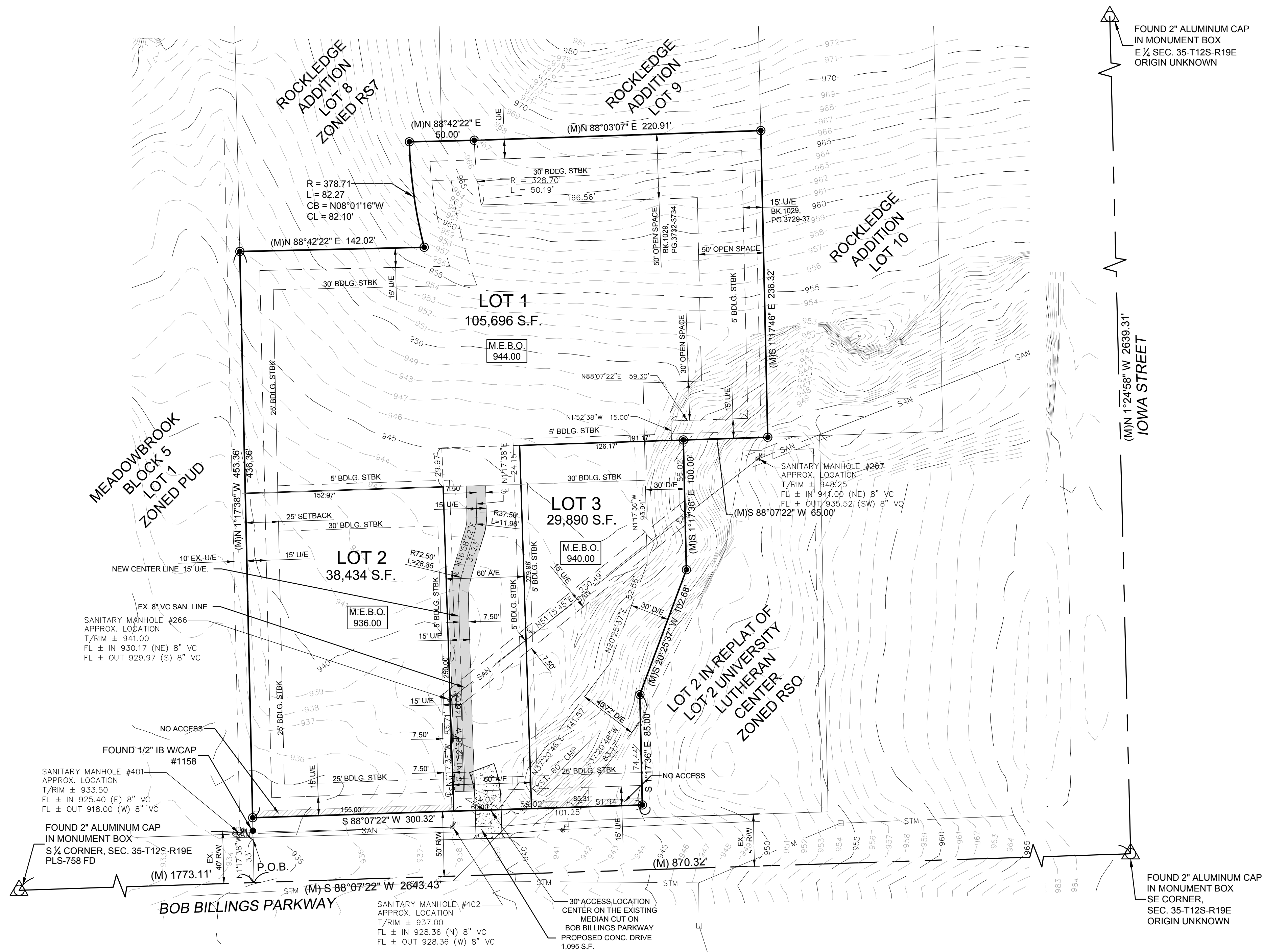
The total area included in the Preliminary Plat is 3.99 acres, 20% of that area is .80 acres or 34,804 SF. The original development of the Rockledge property included a proactive dedication of green space through a separate easement dedication recorded in 2007. This easement was reflected on the recently approved Minor Subdivision and is also included on the proposed Preliminary Plat. The dedicated green space is 50' wide located along the north and west sides of proposed Lot 1. Additional area is dedicated along a portion of the south side of Lot 1 and is 30' wide. This open space dedication extends south into Lot 3 and is 30' wide. It is adjacent to a dedicated drainage easement that encumbers a large portion of Lot 3. The combined open space and drainage easement exceeds the minimum 20% requirement (39,9679.79 SF /23%). Additional preservation of trees is made through the building setbacks. An attachment showing the location of open space and lot summary is attached to this report.

Summary:

Staff noted several changes that are needed on the face of the drawing. These are reflected as conditions of approval and include correctly showing and labeling the existing storm sewer across the south side of the property and minor corrections to spelling and wording of notes on the face of the plan.

Conformance

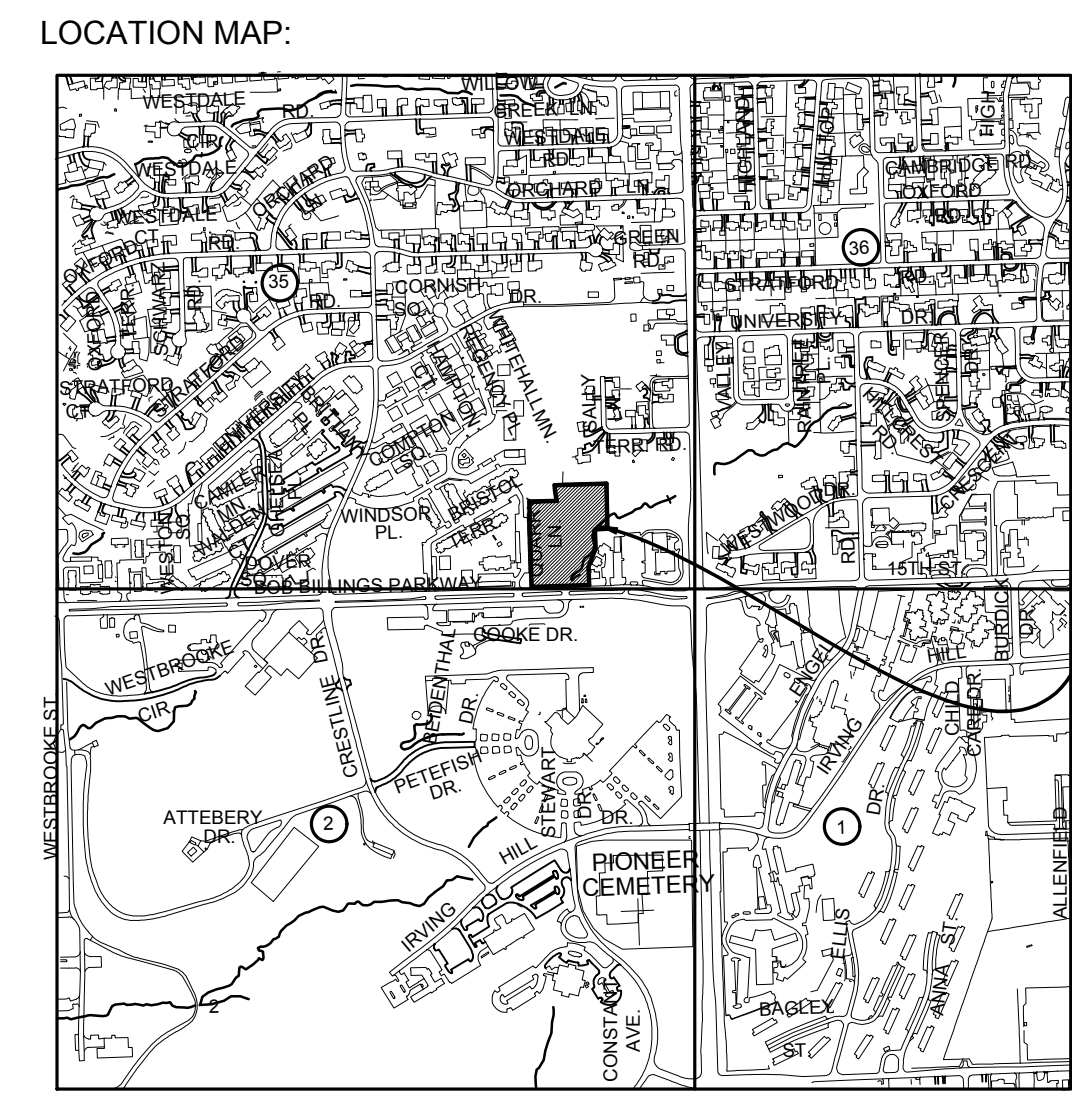
The proposed Preliminary Plat complies with the Comprehensive Plan land use recommendations and the minimum subdivision design standards as discussed in the body of the staff report. Staff recommends the previously approved variance be reapproved with this application and that the Preliminary Plat also be approved.



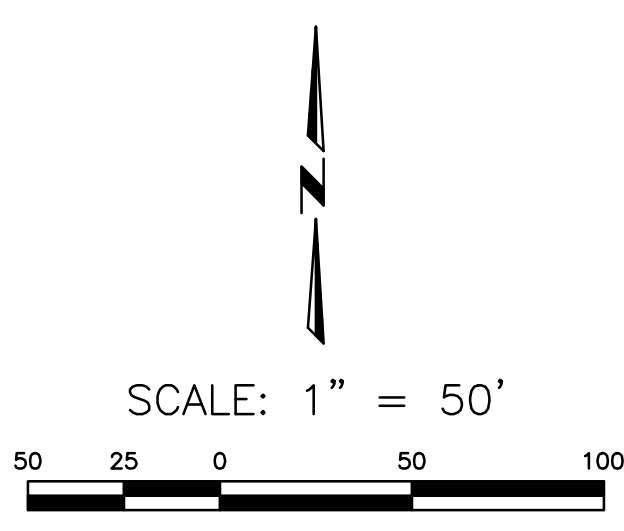
FOUND 2" ALUMINUM CAP
IN MONUMENT BOX
E 1/4 SEC. 35-T12S-R19E
ORIGIN UNKNOWN

(MIN) 1'24'58" W 2639.31'
IOWA STREET

FOUND 2" ALUMINUM CAP
IN MONUMENT BOX
SE CORNER,
SEC. 35-T12S-R19E
ORIGIN UNKNOWN



SE 1/4, SEC. 35-T12S-R19E
CITY OF LAWRENCE
DOUGLAS COUNTY, KANSAS
SCALE: 1"=1000'



Legal Description

ROCKLEDGE ADDITION NO. 2, LOT 1, AN ADDITION TO THE CITY OF LAWRENCE,
DOUGLAS COUNTY, KANSAS

General Notes

- OWNERS: WAYNE A SIMIEN JR & KATHRINE E SIMIEN
5836 ROBISON DR
LAWRENCE, KANSAS 66049
- LAND PLANNER/
CIVIL ENGINEER/
SURVEYOR: LANDPLAN ENGINEERING, P.A.
1310 WAKARUSA DRIVE
LAWRENCE, KANSAS 66049
- EXISTING ZONING: RS7
- EXISTING LAND USE: RESIDENTIAL
- TOPOGRAPHIC INFORMATION OBTAINED FROM CITY OF LAWRENCE.
- NO PORTIONS OF THE LOTS ARE LOCATED WITHIN A DESIGNATED "SPECIAL FLOOD HAZARD AREA" PER FEMA MAP NUMBER 20045C0159D, LAST REVISED AUGUST 5, 2010.
- THE BASIS OF THE BEARINGS FOR THIS PLAT IS KANSAS STATE PLANE NORTH ZONE 1501.
- NO BUILDING PERMITS SHALL BE ISSUED UNTIL ARRANGEMENTS FOR THE INSTALLATION OF WATER MAINS AND/OR CONNECTION CHARGES HAVE BEEN MADE WITH THE CITY OF LAWRENCE DEPARTMENT OF UTILITIES.
- ACCESS TO SANITARY SEWER AND WATER IS AVAILABLE THROUGH THE CITY OF LAWRENCE.
- LANDSCAPING SHALL NOT BE PLACED WITHIN UTILITY EASEMENTS AND NOT WITHIN 8 FEET OF WATER MAIN, OR WITHIN 8 FEET OF THE SANITARY SEWER MAIN.
- ACCESS ROAD WILL NEED TO MEET THE REQUIREMENTS OF 2015 IFC SECTION 503 AND APPENDIX D. LOCAL AMENDMENT TO THE IFC PROVIDES FOR A MAXIMUM ALLOWABLE GRADE OF 8%.
- DRIVE 20' WIDE AND 6" THICK OF RECYCLE ASPHALT PAVING. DRIVE TO PASS TEST OF 88,000 LBS. FIRE TRUCK.

MONUMENTATION:

- △ SECTION CORNER
- SET 1/2" x 24" REBAR W / "PLS 889" CAP
- FOUND IRON BAR AS NOTED
- ⊕ BENCHMARK

LEGEND:

- (M) MEASURED DIMENSION
- R/W RIGHT-OF-WAY
- U/E UTILITY EASEMENT
- D/E DRAINAGE EASEMENT
- A/E ACCESS EASEMENT

Site Summary

GROSS AREA:	174,020 SF / 3.995 AC
RIGHTS-OF-WAY AREA:	0 SF / 0 AC
TOTAL LOTS:	3
NET AREA:	174,020 SF / 3.995 AC
AVG. LOT SIZE:	58,006 SF / 1.332 AC
MINIMUM LOT AREA:	29,890 SF / 0.686 AC
MAXIMUM LOT AREA:	105,698 SF / 2.426 AC

Benchmark

BENCHMARK: CHISELED "+" IN WEST RIM OF MANHOLE
IN SIDEWALK ON NORTH SIDE OF 15TH STREET. 45 +/-
EAST OF EAST ENTRANCE INTO MEADOWBROOK
APARTMENTS. ELEV: 934.66

A Preliminary Plat for
LOTS 1, 2 & 3, ROCKLEDGE NO. 3
Lawrence, Kansas

LANDPLAN ENGINEERING PA
Lawrence, KS • Kansas City, MO • The Woodlands, TX
1310 Wakarusa Drive, Suite 100
Lawrence, Kansas 66049
785.843.7530 (p) | 785.843.2410 (f)
info@landplan-pa.com | www.landplan-pa.com

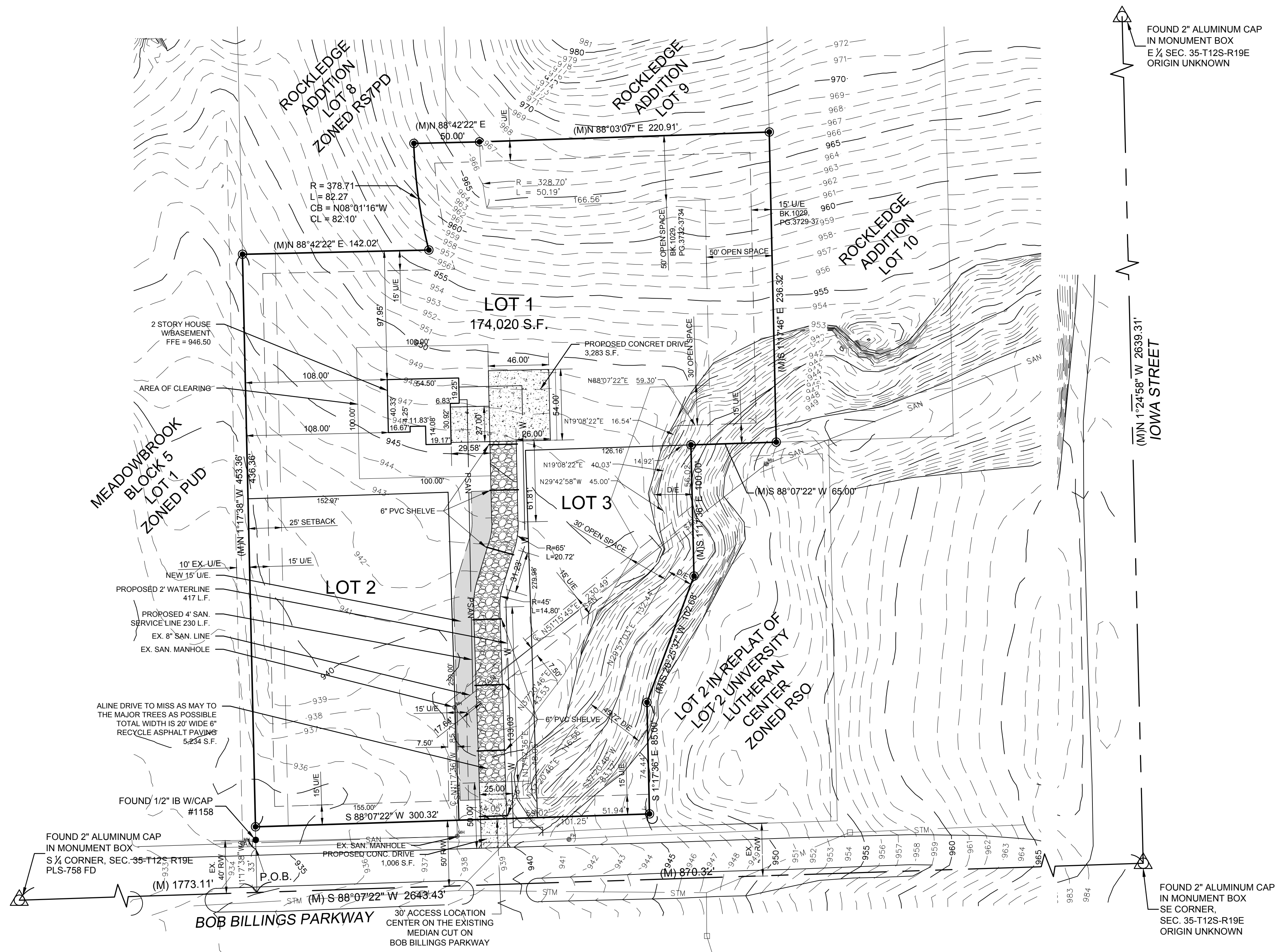
©Landplan Engineering, P.A. 2014. This drawing is copyrighted by Landplan Engineering, P.A. This drawing may not be photocopied, traced, or copied in any manner without the written permission of Landplan Engineering, P.A.

**PRELIMINARY PLAT
LOTS 1, 2 & 3, ROCKLEDGE NO. 3
A SUBDIVISION IN THE CITY OF LAWRENCE,
DOUGLAS COUNTY, KANSAS
IN THE SOUTHEAST QUARTER, OF SECTION 35 T12S-R19E**

REV	DATE	DESCRIPTION
1	09-23-16	NOT COMMENTS
2	09-06-16	FIRE COMMENTS
3	09-12-16	CITY COMMENTS

DATE:	JULY 25, 2016
PROJECT NO.:	20163009
DESIGNED BY:	CLM
DRAWN BY:	MSW
CHECKED BY:	CLM

ISSUE	SHEET NO.
A	1
OF	1 SHEETS



Legal Description

LOT 1, ROCKLEDGE, A MINOR SUBDIVISION / ALL OF LOT 1 IN THE REPLAT OF LOT 2, UNIVERSITY LUTHERAN CENTER, AN ADDITION TO THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS, ALL OF LOTS 13, 14, 15 AND A PORTION OF QUARRY LANE IN ROCKLEDGE ADDITION, AN ADDITION TO THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS

General Notes

- OWNERS: LICHTWARDT ROBERT W TRUSTEE & LICHTWARDT ELIZABETH TRUSTEE
2131 TERRACE RD
LAWRENCE, KANSAS 66049
- LAND PLANNER/ CIVIL ENGINEER/ SURVEYOR: LANDPLAN ENGINEERING, P.A.
1310 WAKARUSA DRIVE
LAWRENCE, KANSAS 66049
- EXISTING ZONING: RS7
- EXISTING LAND USE: RESIDENTIAL
- NO PORTIONS OF THE LOTS ARE LOCATED WITHIN A DESIGNATED "SPECIAL FLOOD HAZARD AREA" PER FEMA MAP NUMBER 20045C0159D, LAST REVISED AUGUST 5, 2010.
- TOPOGRAPHIC INFORMATION OBTAINED FROM CITY OF LAWRENCE.
- ALL SEWER AND THE WATER SERVICE IS TO BE PROVIDED BY THE CITY OF LAWRENCE.

MONUMENTATION:

- SECTION CORNER
- SET 1/2" x 24" REBAR W / "PLS 889" CAP
- FOUND IRON BAR AS NOTED

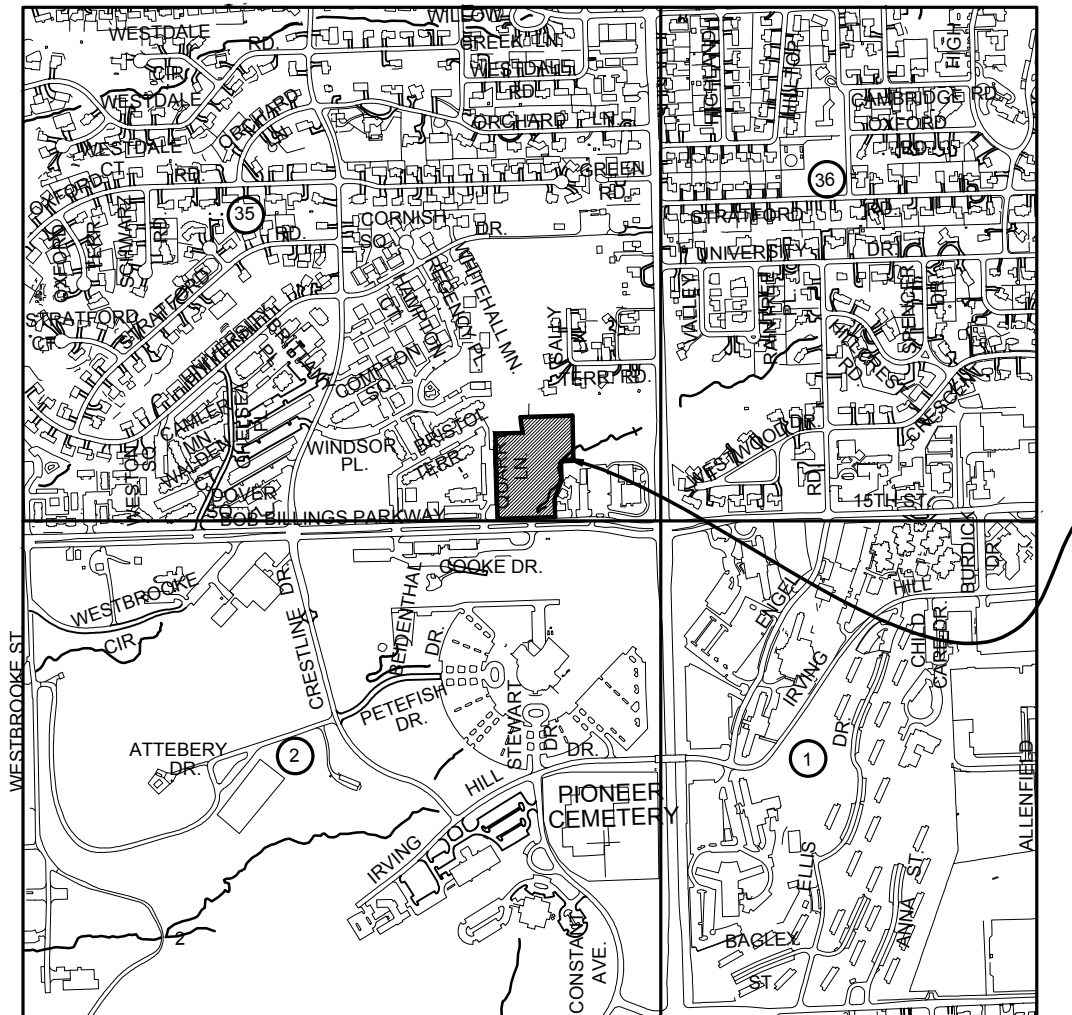
LEGEND:

- (M) MEASURED DIMENSION
- R/W RIGHT-OF-WAY
- UE UTILITY EASEMENT
- D/E DRAINAGE EASEMENT

Site Summary

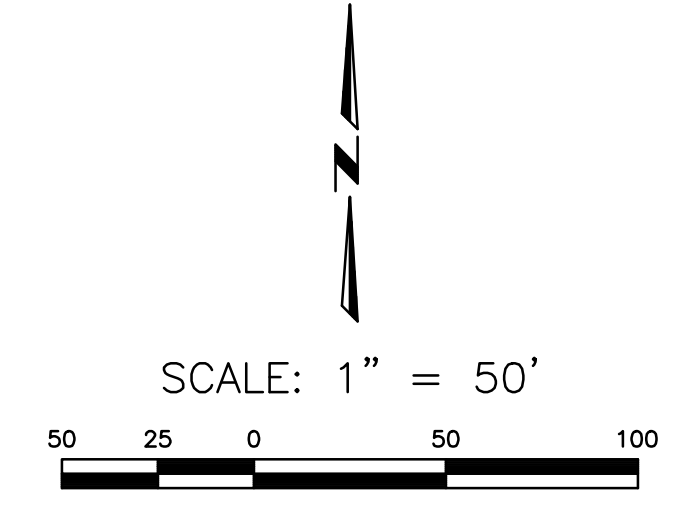
GROSS AREA:	174,020 SF / 3.995 AC
RIGHTS-OF-WAY AREA:	0 SF / 0 AC
NET AREA:	174,020 SF / 3.995 AC
AVG. LOT SIZE:	174,020 SF / 3.995 AC
TOTAL LOTS:	1

LOCATION MAP:



PROJECT LOCATION

SE 1/4, SEC. 35-T12S-R19E
CITY OF LAWRENCE
DOUGLAS COUNTY, KANSAS
SCALE: 1"=1000'



A Site Plan for
LOT 1, ROCKLEDGE NO. 2
Lawrence, Kansas

LANDPLAN ENGINEERING PA
Lawrence, KS • Kansas City, MO • The Woodlands, TX
1310 Wakarusa Drive, Suite 100
Lawrence, Kansas 66049
785.843.7530(p) | 785.843.2410(f)
info@landplan-pa.com | www.landplan-pa.com

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**SITE PLAN
LOT 1, ROCKLEDGE NO. 2
A SUBDIVISION IN THE CITY OF LAWRENCE,
DOUGLAS COUNTY, KANSAS
IN THE SOUTHEAST QUARTER, OF SECTION 35 T12S-R19E**

REV	DATE	DESCRIPTION

DATE:	MAY 25, 2016
PROJECT NO.:	20163009
DESIGNED BY:	CLM
DRAWN BY:	MSW
CHECKED BY:	CLM

ISSUE	SHEET NO.
A	1
OF 1 SHEETS	

Memorandum

City of Lawrence

Planning and Development Services

TO: Planning Commission

FROM: Planning Staff

CC: Scott McCullough, Planning and Development Services Director

Date: June 12, 2015

RE: Miscellaneous Item No. 1: MS-15-00213 – Variance associated with Minor Subdivision for A Replat of Rockledge Addition No. 2, located at 2100 Bob Billings Parkway, Lawrence, KS.

Variance requested: Reduction of Right-Of-Way for a Principle Arterial Street from 150' to 100'.

Attachment A: Minor Subdivision MS-15-00213

Minor Subdivisions are processed administratively but Planning Commission approval is required for variances from the Subdivision Design Standards. The Minor Subdivision (MS-15-00213) is being processed and requires Planning Commission approval of the reduced right-of-way along Bob Billings Parkway, a Principal Arterial Street. A copy of the Minor Subdivision is included with this memo for context; no other action is required by the Planning Commission related to the proposed Minor Subdivision.

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 section lists the criteria that must be met in order for a variance to be approved. The requested variance is evaluated for compliance with the approval criteria below.

VARIANCE: Reduction in the width of right-of-way from 150' to 100' as required for a principal arterial street (Bob Billings Parkway) per Section 20-810 (e)(5).

The standard for the required right-of-way width changed in 2006 from 100' to 150' with the adoption of the Land Development Code. This property is west of the intersection of Iowa Street and Bob Billings Parkway. The property on the south side of Bob Billings Parkway is part of the University of Kansas. The north side of Bob Billings Parkway includes a religious institution, multi-dwelling residential uses, and vacant land.

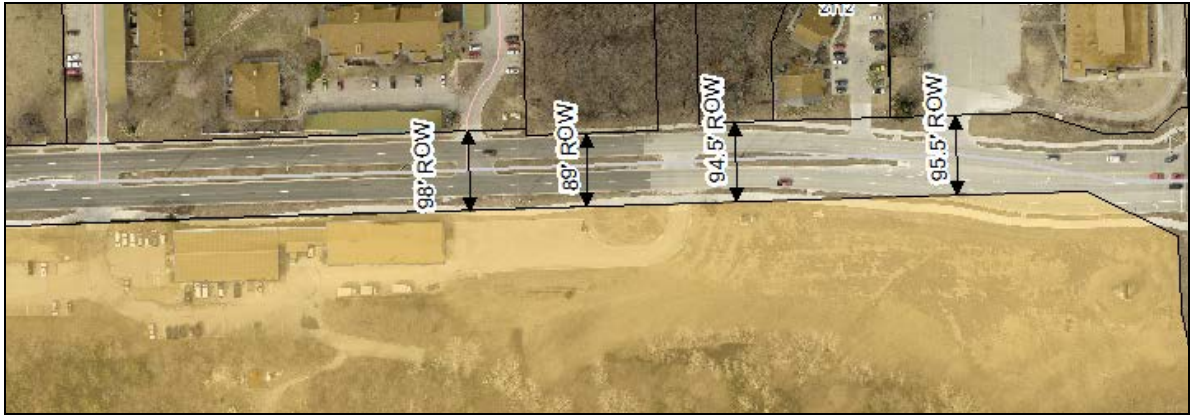
This segment of Bob Billings Parkway is variable in width. The applicant proposes the dedication of additional right-of-way to achieve a total dedication of 50' from the center line of Bob Billings Parkway or one-half of the typical 100' of right-of-way along the majority of the street corridor.

As noted in previous reports, the 150' of required right-of-way is more applicable to new greenfield development rather than existing corridors.

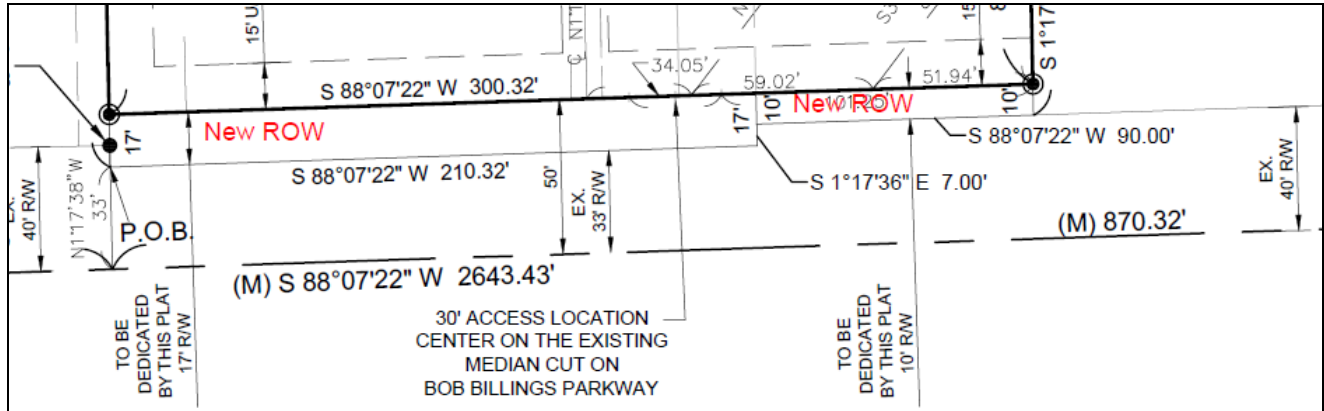
Criteria 1: Strict application of these regulations will create an unnecessary hardship upon the subdivider.

Development along this segment of the Bob Billings Parkway corridor includes both residential and non-residential uses with building and parking lot setbacks based on the existing property line/right-of-way line configuration. The undeveloped land located along the north side of Bob Billings Parkway has been approved for residential development based on the current parcel configuration for detached residential development on individual lots. Original plans for this property included construction of Quarry Lane south to intersect with Bob Billings Parkway. This street segment was never constructed. The purpose of this Minor Subdivision is to consolidate undeveloped lots, vacate a portion of Quarry Lane and create one large residential lot.

This Minor Subdivision includes the dedication of additional right-of-way along the north side of Bob Billings Parkway and the dedication of additional utility easement as well.



This application represents the dedication of 10' to 17' of additional right-of-way along the north side of Bob Billings Parkway consistent with the majority of the corridor to the west.



STAFF FINDING: Strict application of the regulations would limit the owner's ability to develop the property based on an existing development pattern in the immediate area that generally

recognizes a 100' right-of-way width along the corridor. Granting this requested variance from the required right-of-way dedication is not opposed to the purpose and intent of the regulations.

Criteria 2: The proposed variance is in harmony with the intended purpose of these regulations.

This design standard was adopted in 2006 with the Land Development Code. The wider right-of-width accommodates street design with boulevards, multiple lanes and amenities that may or may not exist along developed street segments within the community. A similar variance has been granted for other projects located along developed urban corridors that are designated arterial streets. Some examples include:

1. PP-15-00067 Dream Haven regarding Peterson Road (4/20/15)
2. PP-14-00303 Schwegler Addition regarding Ousdahl Road, a collector street (9/22/15)
3. PP-13-00338 Menards Addition regarding 31st Street (11/8/13 and 10/21/13)
4. PP-13-00352 Burrough's Creek Addition regarding Haskell Avenue (10/21/13)
5. MS-15-00096 Bella Sera at the Preserve (5/18/15)

The proposed request does not alter the development pattern. The intent of the land consolidation is to create one large residential lot without changing the existing access locations. The change in design requirements in 2006 requires the applicant to seek a variance from this standard as part of the subdivision process – Minor Subdivision Approval.

Section 20-810(e)(1) provides general design criteria for streets. Subsection iii states "*Arterial and collector streets shall be laid-out, arranged and designed in accordance with any adopted Major Thoroughfares Map or corridor plan.*" Bob Billings Parkway is identified as a principal arterial street and is an existing street. The immediate intersection of Bob Billings Parkway and Iowa Street has recently been improved. No additional improvements to this intersection are proposed. Existing sidewalks and utilities are located in this area. Granting the requested variance does not impact this design principle.

STAFF FINDING: Granting this requested variance from the required right-of-way is not opposed to the purpose and intent of the regulations.

Criteria 3: The public health, safety, and welfare will be protected.

The Public Works department is currently engaged in a study of the Bob Billings Parkway between Kasold and the South Lawrence Trafficway to assess the corridor and identify improvements as needed. This property is located east of that study area. Intersection improvements have recently been completed at Iowa Street and Bob Billings Parkway. The applicant's dedication of the additional right-of-way along with proposed easements captures the existing improvements, sidewalks, and utilities along this segment of the corridor. No additional improvements are planned for this intersection.

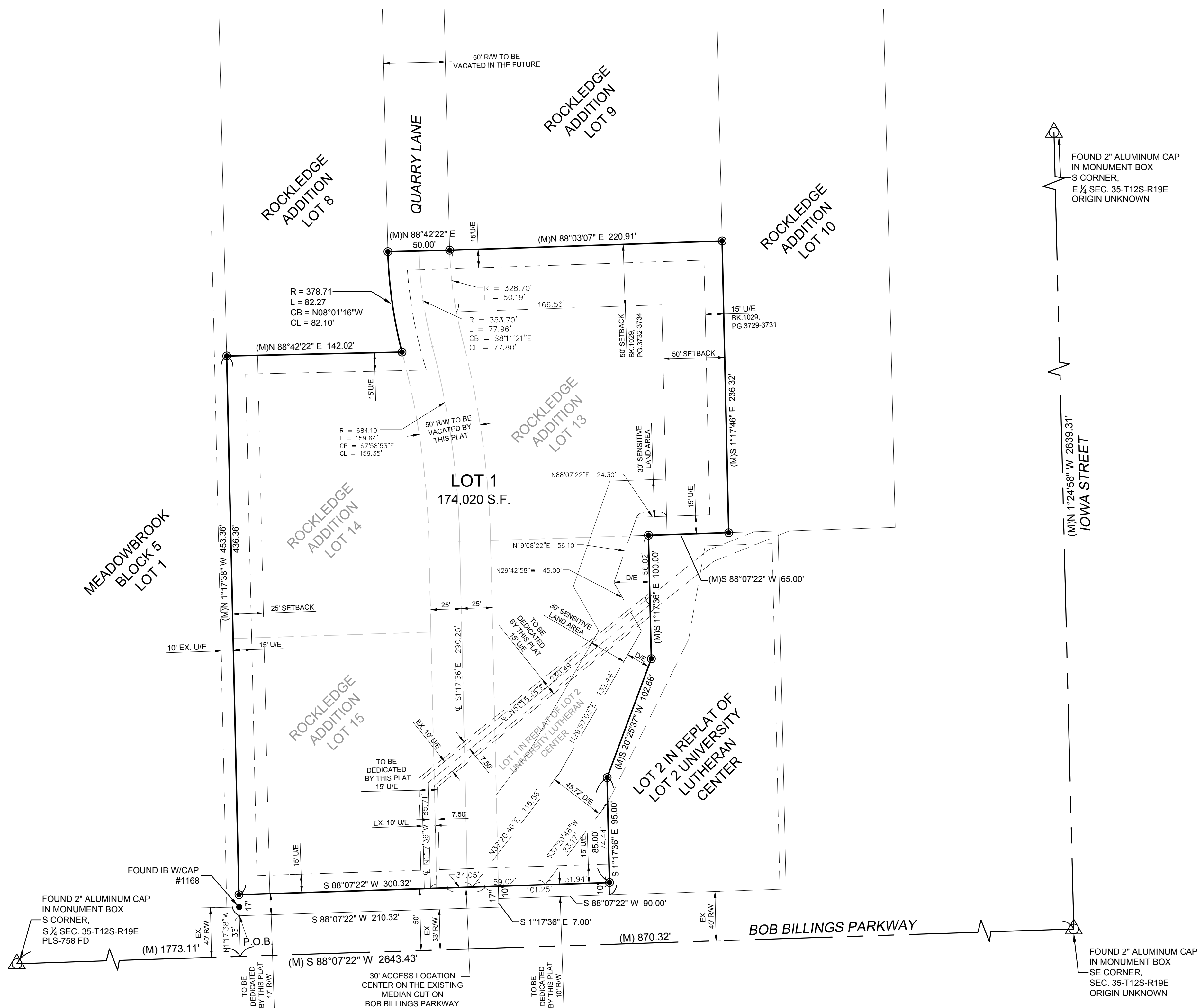
Bob Billings Parkway is a designated "Principal Arterial Street". Its current width includes 100' of public right-of-way. This segment of the street includes center greenspace islands. The current subdivision regulations require principal arterial streets to include 150' of right-of-way. The

majority of the current right-of-way is an existing condition of the site. An additional 10' to 17' of new right-of-way is proposed with the Minor Subdivision.

STAFF FINDING: Granting this requested variance from the required right-of-way will not harm the public health, safety or welfare. These public aspirations will continue to be protected through the planning of corridor improvements.

STAFF RECOMMENDATION

Approve the variance requested for a Minor Subdivision, MS-15-00213, variance request to reduce the right-of-way from Section 20-810(a)(5) for a principal arterial street from 150' to 100' per section 20-813(g) of the Land Development Code for property located at 2100 Bob Billings Parkway.



LEGAL DESCRIPTION:

ALL OF LOT 1 IN THE REPLAT OF LOT 2, UNIVERSITY LUTHERAN CENTER, AN ADDITION TO THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS, ALL OF LOTS 13, 14, 15 AND A PORTION OF QUARRY LANE IN ROCKLEDGE ADDITION, AN ADDITION TO THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF LOT 15 IN SAID ROCKLEDGE ADDITION; THENCE NORTH 01°17'38" WEST, 453.36 FEET ALONG THE WEST LINE OF LOTS 15 AND 14 TO THE SOUTHWEST CORNER OF LOT 8; THENCE NORTH 88°42'22" EAST, 142.02 FEET ALONG THE SOUTH LINE OF LOT 8; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 378.71 FEET, AN ARC LENGTH OF 82.27 FEET, A CHORD LENGTH OF 82.10 FEET AND CHORD BEARING OF NORTH 08°01'16" WEST; THENCE NORTH 88°42'22" EAST, 50.00 FEET ACROSS QUARRY LANE TO THE SOUTHWEST CORNER OF LOT 9 IN SAID ROCKLEDGE ADDITION; THENCE NORTH 88°03'07" EAST, 220.91 FEET TO THE SOUTHWEST CORNER OF LOT 9; THENCE SOUTH 01°17'36" EAST, 236.32 FEET ALONG THE WEST LINE OF LOT 10 IN SAID ROCKLEDGE ADDITION TO THE NORTH LINE OF LOT 2 IN THE REPLAT OF LOT 2, UNIVERSITY LUTHERAN CENTER; THENCE SOUTH 88°07'22" WEST, 65.00 FEET TO THE NORTHWEST CORNER OF THE LOT 2 IN THE REPLAT OF LOT 2 UNIVERSITY LUTHERAN CENTER; THENCE SOUTH 01°17'36" EAST, 100.00 FEET ALONG THE WEST LINE OF SAID LOT 2; THENCE SOUTH 20°25'37" WEST, 102.68 FEET; THENCE SOUTH 01°17'36" EAST, 95.00 FEET TO THE SOUTHWEST CORNER OF SAID LOT 2; THENCE SOUTH 88°07'22" WEST, 90.00 FEET TO THE EAST LINE OF QUARRY LANE; THENCE SOUTH 01°17'36" EAST, 7.00 FEET; THENCE SOUTH 88°07'22" WEST, 210.32 FEET TO THE POINT OF BEGINNING.

GENERAL NOTES:

- NOTE 1. THAT NO PORTION OF THE ABOVE-DESCRIBED TRACT OF LAND SHALL BE BUILT UPON, USED OR OCCUPIED FOR OTHER THAN RESIDENTIAL PURPOSES; THAT THERE SHALL NOT BE ERECTED OR MAINTAINED ON ANY SEPARATELY PLATTED LOT OF ROCKLEDGE ADDITION, AS SUCH LOTS MAY BE SUBDIVIDED OR COMBINED, MORE THAN ONE SINGLE DETACHED DWELLING HOUSE, CONSTRUCTED FOR ONE FAMILY ONLY, EITHER WITH OR WITHOUT A GARAGE. EACH DWELLING SHALL BE ON ITS OWN INDIVIDUAL PLATTED LOT FRONTING ON A PUBLIC STREET; AND THE TERM FAMILY SHALL BE DEFINED AS CONSISTING OF NOT MORE THAN THREE UNRELATED ADULTS. NOTWITHSTANDING THE FOREGOING, A SEPARATE ACCESSORY DWELLING UNIT, WHETHER A PART OF THE PRINCIPAL DWELLING HOUSE OR A PART OF THE GARAGE SHALL BE PERMITTED AS LONG AS (i) SUCH ACCESSORY DWELLING IS NOT A SEPARATE STRUCTURE AND ITS USE IS IN STRICT COMPLIANCE WITH APPLICABLE ORDINANCES OF THE CITY OF LAWRENCE IN EFFECT ON MARCH 1, 2007, AND (ii) EITHER THE PRINCIPAL DWELLING UNIT OR THE ACCESSORY DWELLING UNIT IS OCCUPIED BY ONE OR MORE OF THE PERSONS WHO EITHER ARE THE RECORD OWNERS OF THE LOT OR HAVE AN OWNERSHIP OR BENEFICIAL INTEREST IN THE RECORD OWNER OF THE LOT, AND THE ACCESSORY DWELLING SHALL NOT BE OCCUPIED IN A WAY THAT SHALL ADD MORE THAN ONE ADDITIONAL ADULT RESIDENT TO THE PERMITTED NUMBER OF RESIDENTS THAT CONTRIBUTE TO THE DEFINITION OF A FAMILY.
- NOTE 2. THAT NO PART OF ANY RESIDENCE AND NO BUILDING OR STRUCTURE OTHER THAN A BOUNDARY FENCE OR WALL SHALL BE ERECTED OR MAINTAINED ON ANY LOT SHOWN ON THIS PLAT, AS SUCH LOTS MAY BE SUBDIVIDED OR COMBINED, WITHIN A DISTANCE OF FIVE FEET FROM THE SIDE LOT LINE, THE DISTANCE BEING MEASURED FROM THE GREATEST OVERHANG OR EXTENSION OF SAID STRUCTURE.
- NOTE 3. ANY DWELLING HOUSE OR GARAGE SHALL BE NOT OVER TWO STORIES IN HEIGHT FROM THE BASE LEVEL OF THE MAIN ENTRANCE.
- NOTE 4. NO ZONING OR SUBDIVISION SHALL BE PERMITTED ON THIS PROPERTY OTHER THAN FOR DETACHED SINGLE FAMILY RESIDENTIAL USE AS AN RS DISTRICT UNDER THE ZONING AND SUBDIVISION LAWS IN EFFECT UNDER THE MARCH 1, 2007 LAWS OF THE CITY OF LAWRENCE, KANSAS.

MONUMENTATION:

- △ SECTION CORNER
- SET 1/2" x 24" REBAR W / "PLS 889" CAP
- FOUND IRON BAR AS NOTED

LEGEND:

- (M) MEASURED DIMENSION
- (P) PLATTED DIMENSION
- R/W RIGHT-OF-WAY
- U/E UTILITY EASEMENT
- D/E DRAINAGE EASEMENT

DEDICATION:

BE IT KNOWN TO ALL MEN THAT I (WE), THE UNDERSIGNED OWNER(S) OF THE ABOVE DESCRIBED TRACT OF LAND, HAVE CAUSED FOR THE SAME TO BE SURVEYED AND PLATTED UNDER THE NAME OF "ROCKLEDGE ADDITION NO. 2" AND HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS AND STREETS AS SHOWN AND FULLY DEFINED ON THIS PLAT. ALL STREETS, DRIVES, ROADS, ETC. SHOWN ON THIS PLAT AND NOT HERETOFORE DEDICATED TO PUBLIC USE ARE HEREBY SO DEDICATED. AN EASEMENT IS HEREBY GRANTED TO THE CITY OF LAWRENCE AND PUBLIC UTILITY COMPANIES TO ENTER UPON, CONSTRUCT AND MAINTAIN UTILITIES UPON, OVER, AND UNDER THOSE AREAS OUTLINED ON THIS PLAT AS "DRAINAGE EASEMENT" OR "D/E", "UTILITY EASEMENT" OR "U/E" AND "RIGHTS-OF-WAY" OR "R/W".

ROBERT W. LICHTWARDT AND ELIZABETH T. LICHTWARDT REVOCABLE TRUST, DATED DEC. 3, 1993
 ROBERT W LICHTWARDT, CO-TRUSTEE ELIZABETH T LICHTWARDT, CO-TRUSTEE

ACKNOWLEDGEMENT:

STATE OF KANSAS
 COUNTY OF DOUGLAS

BE IT REMEMBERED THAT ON THIS ____ DAY OF _____, 2015, BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC, IN AND FOR SAID DOUGLAS COUNTY AND KANSAS, CAME ROBERT W LICHTWARDT, CO-TRUSTEE WHO IS (ARE) PERSONALLY KNOWN TO ME TO BE THE SAME PERSON(S) WHO EXECUTED THE FOREGOING INSTRUMENT OF WRITING AND DULY ACKNOWLEDGE 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.

NOTARY PUBLIC MY COMMISSION EXPIRES _____
 STATE OF KANSAS
 COUNTY OF DOUGLAS

BE IT REMEMBERED THAT ON THIS ____ DAY OF _____, 2015, BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC, IN AND FOR SAID DOUGLAS COUNTY AND KANSAS, CAME ELIZABETH T LICHTWARDT, CO-TRUSTEE WHO IS (ARE) PERSONALLY KNOWN TO ME TO BE THE SAME PERSON(S) WHO EXECUTED THE FOREGOING INSTRUMENT OF WRITING AND DULY ACKNOWLEDGE 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.

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, PLANNING & DEVELOPMENT SERVICES

APPROVAL OF AND VACATION OF ACCESS EASEMENT:

JEREMY FARMER DATE _____ DIANE BUCIA DATE _____
 MAYOR CITY CLERK

REVIEWED IN COMPLIANCE WITH K.S.A. 88-2005:
 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 _____, 2015, AND IS DULY RECORDED AT ____ AM/PM, IN PLAT BOOK ____ PAGE ____.

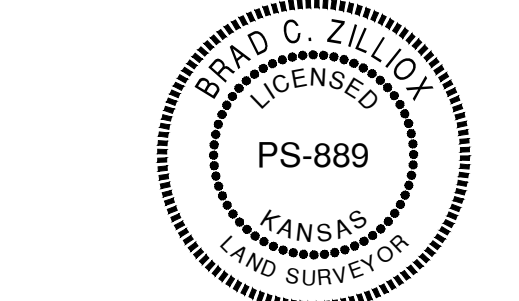
REGISTER OF DEEDS
 KAY PESNELL

NOTES:

- ERROR OF CLOSURE = 1: 3.328,536
- BASIS OF BEARINGS: KANSAS STATE PLANE NORTH ZONE 1501.
- STREET TREES SHALL BE PROVIDED IN ACCORDANCE WITH THE MASTER STREET TREE PLAN FILED WITH THE REGISTER OF DEEDS IN BOOK _____, PAGE _____.
- THE LOTS WILL BE PINNED PRIOR TO THE RECORDATION OF THE FINAL PLAT AT THE REGISTER OF DEEDS OFFICE, PER SECTION 20-811(k).
- FILING THIS PLAT WITH VACATE ALL OF QUARRY LANE WITHIN THE LIMITS OF THIS PLAT.
- FURTHER DIVISION OR CONSOLIDATION OF ANY LOTS CONTAINED IN THIS MINOR SUBDIVISION IS PROHIBITED AND SHALL BE PROCESSED AS A MAJOR SUBDIVISION, UNLESS THE ACTIONS MEET THE EXPLANATION NOTED IN SECTION 20-808(c)(5)(i).

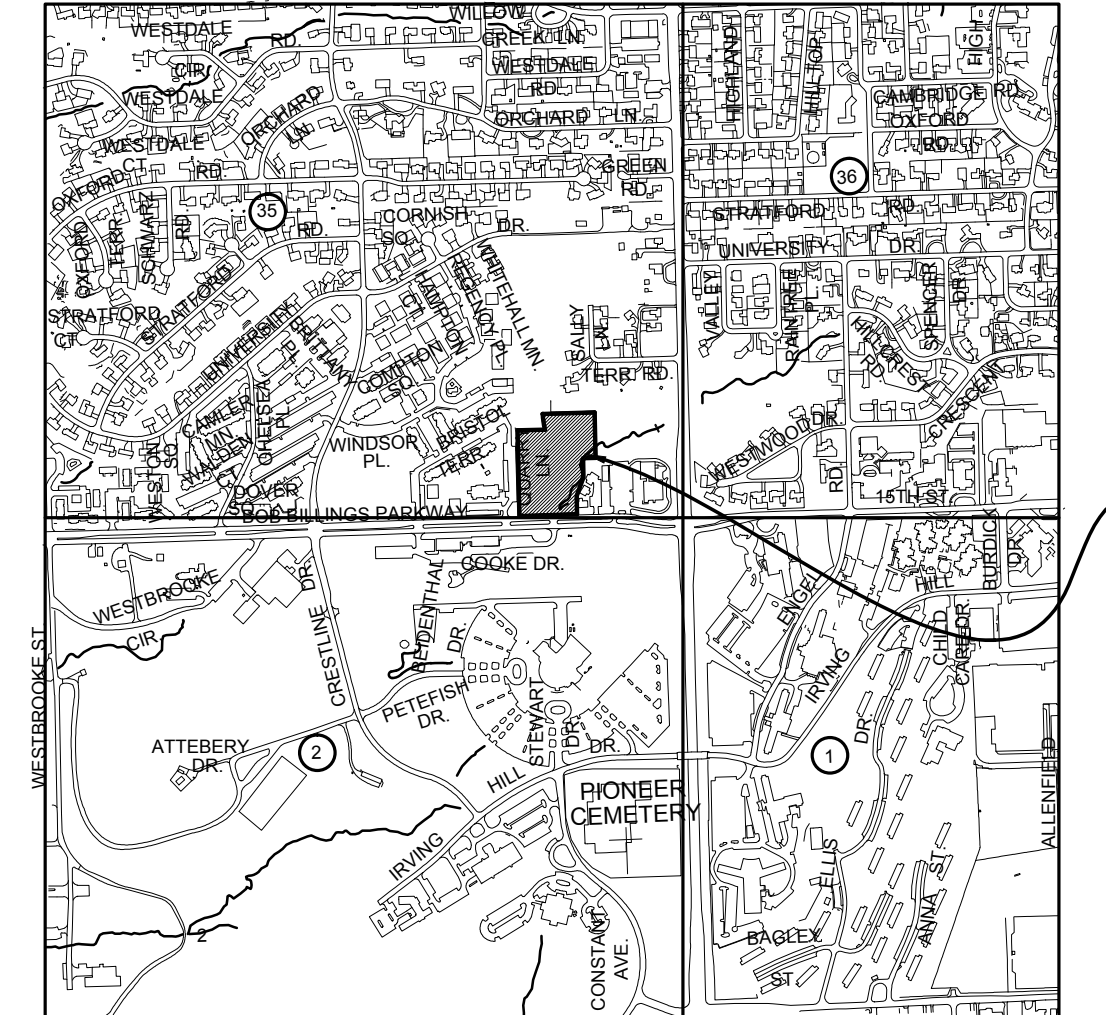
CERTIFICATION:

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 MARCH 15, 2015. 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

LOCATION MAP:



PROJECT LOCATION

ROCKLEDGE ADDITION NO.2

A MINOR SUBDIVISION / ALL OF LOT 1 IN THE REPLAT OF LOT 2, UNIVERSITY LUTHERAN CENTER, AN ADDITION TO THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS, ALL OF LOTS 13, 14, 15 AND A PORTION OF QUARRY LANE IN ROCKLEDGE ADDITION, AN ADDITION TO THE CITY OF LAWRENCE, DOUGLAS COUNTY, KANSAS

SE 1/4, SEC. 35-T25S-R19E

SE 1/4, SEC. 35-T12S-R19E
 CITY OF LAWRENCE
 DOUGLAS COUNTY, KANSAS
 SCALE: 1"=1000'



Civil Engineering
Landscape Architecture
Community Planning
Surveying

1310 WAKARUSA DRIVE | LAWRENCE, KANSAS 66049 | 785.843.7530 (p) | 785.843.2410 (f) | info@landplan-pa.com

May 28, 2015

Sandra Day, AICP
Planner II
City of Lawrence
Planning & Development Services
6 East 6th Street
Lawrence, Kansas 66044

RE: SP-15-00213; Minor Subdivision for 2100 Bob Billings Parkway – Rockledge Addition No. 2

Dear Sandra:

We are requesting a variance from Section 20-810(e)(5) Streets Cross-Sections City of Lawrence Principal Arterial of 150 ROW dedication of 1/2 of the required ROW.

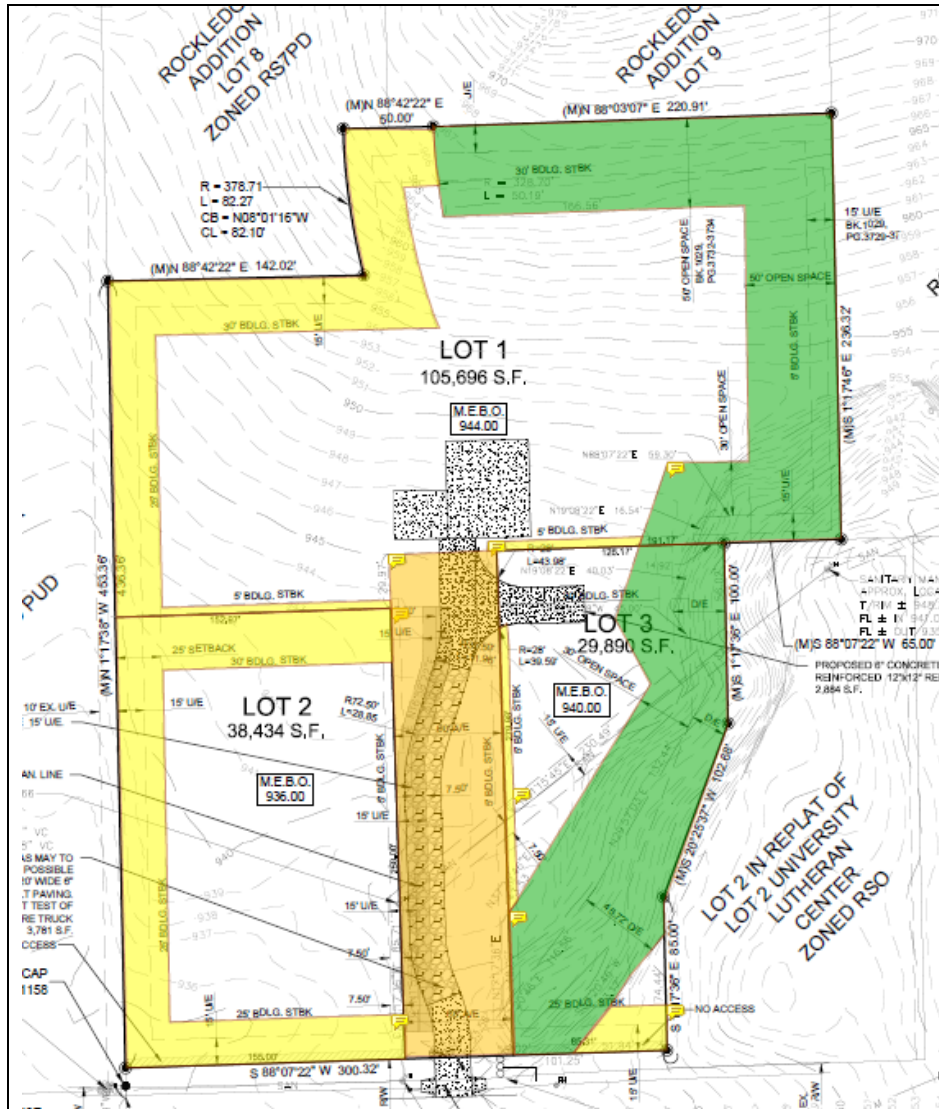
Dedication of ROW 50' center line of street as shown on the Final Plat of Rockledge Addition No. 2 is being requested. This is 25 feet less than the required width. Bob Billing Parkway is totally constructed with a median and sidewalks on both sides. The requested 50 foot ROW with an additional 15 U/E outside that ROW will allow any improvements in the future. This also allows for the existing sidewalk to be included in the ROW that was outside the existing ROW of 33' from centerline.

If you have any questions contact me by phone or email.

Sincerely,

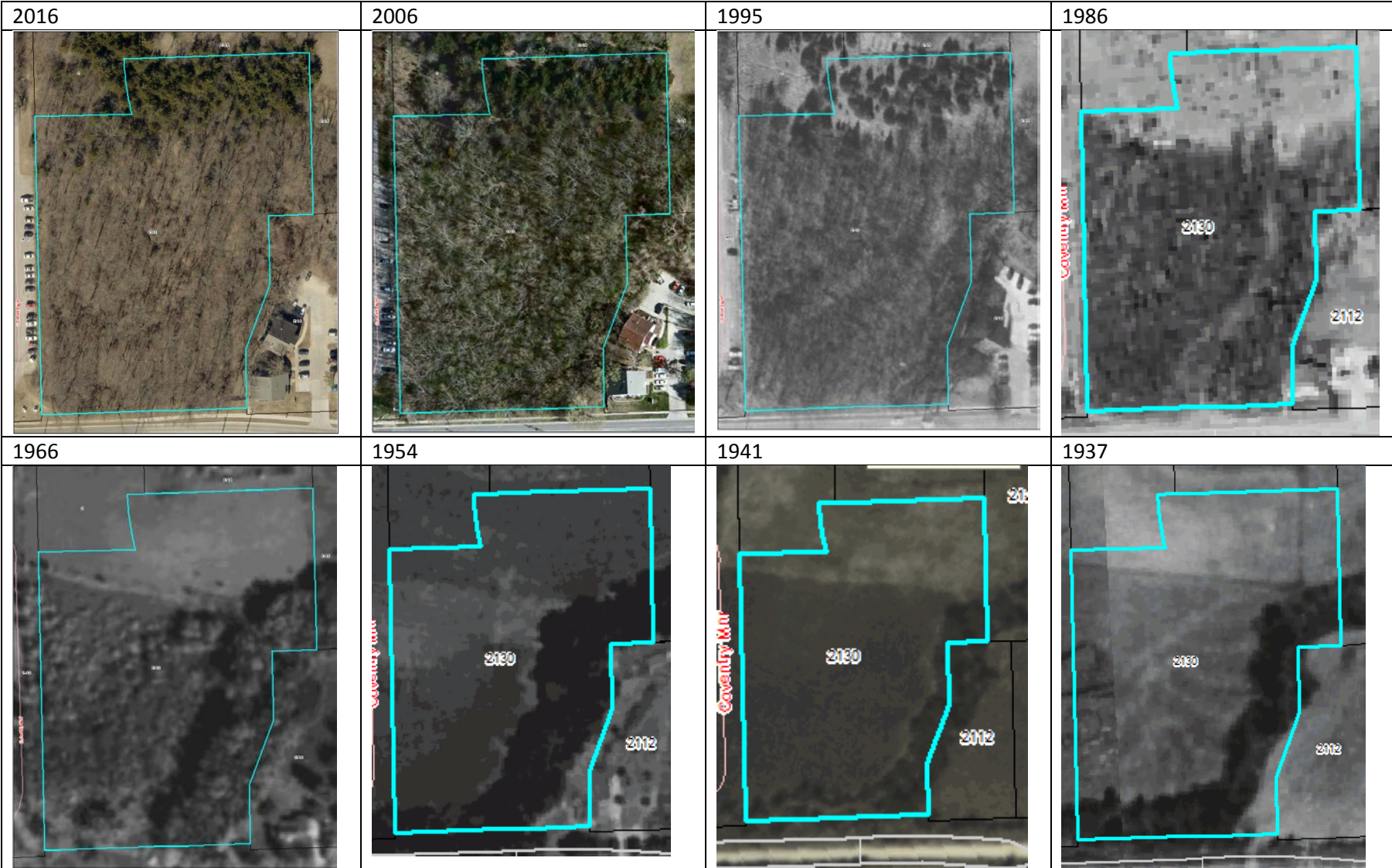
C.L. Maurer, RLA, ASLA
Landplan Engineering, P.A.

Rockledge Addition No. 2 Open Space Analysis



	Access and Utility Easement
	Building Setback/Utility Easement
	Open Space/Drainage Easement

Open Space/Drainage Easement				
Lot	Total area (SF)	AC	20% (SF)	Provided (SF)
Total	174,02	3.99	34,804	39,970
Lot 1	105,696	2.43	21,139	22,526
Lot 2	38,434	.88	7,687	0
Lot 3	29,890	.69	5,978	17,444



PLANNING COMMISSION REPORT
Regular Agenda -- Public Hearing Item

PC Staff Report
09/26/16

**ITEM NO. 3: TEXT AMENDMENT TO LAND DEVELOPMENT CODE;
TELECOMMUNICATIONS FACILITIES (BJP)**

TA-16-00335: Consider a Text Amendment, TA-16-00335, to the City of Lawrence Land Development Code, Chapter 20, Article 4, Article 5, Section 20-529 Telecommunications Facilities, and Article 17 to revise standards to align with new federal standards that take effect in October, 2016. *Initiated by City Commission on 8/16/16.*

RECOMMENDATION: Staff recommends that the Planning Commission forward the proposed amendment, TA-16-00335, amending Articles 4, 5, and 17 of the Lawrence Land Development Code to revise standards to align with the new Federal standards to the City Commission with a recommendation for approval.

Reason for Request: Amendment to code is required in response to changes to the Federal and State legislative requirements regarding wireless communications.

PUBLIC COMMENT RECEIVED PRIOR TO PRINTING

- None received

ATTACHMENTS

Attachment A – Draft Language

OVERVIEW OF PROPOSED AMENDMENT

The following is a summary listing of the proposed changes:

1. Article 4: Use Table
The current terms 'Telecommunications Tower and Antenna' are replaced with the new terminology, Wireless Support Structure and Wireless Facility – Antenna.
2. Article 5: Use Regulations
3. Existing Section 20-529 is deleted and replaced with the new Use Regulations.
4. Article 17: Terminology
5. Existing Section 20-1768 terms are deleted and replaced with the new Wireless Facilities uses that are referenced in Section 20-529.

BACKGROUND

New Federal and State legislative requirements regarding wireless communications will take effect in October, 2016. The changes in the wireless communications regulations include:

- Federal regulations no longer permit municipalities to require proof and justification of need, propagation maps and studies as a determination for location of new wireless communication facilities.
- A waiver process for co-locations and setback requirements is established.

- The separation requirement between wireless facilities is reduced.
- Adds the Federal ‘shot clock’ requirements (specific processing timelines) for review and approval to the City Code.
- The proposed language adds standards for disguised wireless facilities.

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 purpose of this proposed text amendment is to align the City of Lawrence Land Development Code with new Federal and State legislative requirements that take effect in October, 2016. The proposed text amendment will bring City Code into compliance with the new laws.

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 text amendment is consistent with *Horizon 2020* and the stated purpose of this Development Code. The new Federal and State legislation will ensure that residents, businesses, and industry within the City of Lawrence have access to reliable wireless telecommunications networks, while also safeguarding the health, safety, welfare, and aesthetics of the community.

20-529 TELECOMMUNICATIONS FACILITIES

In lieu of other Dimensional and **Density** standards, **Telecommunications Facilities** shall be subject to the following standards.

(1) Applicability of Regulations

In Districts where Telecommunications Towers are allowed as a Special use (S), if there is already a lawful Telecommunications Tower on the site, a **Telecommunication Antenna** may be allowed as an **Accessory Use** if installed on that **Telecommunication Tower**. In Districts where a Telecommunications Tower is allowed as an **Accessory Use (A*)**, a Telecommunications **Antenna** is allowed as an **Accessory Use** affixed to an existing **Telecommunication Tower, Building** or other **Structure**, subject to the criteria set forth in this section and applicable dimensional requirements of this Development Code.

(2) Standards Applicable to Construction of All Telecommunications Facilities

The following standards shall apply to any Telecommunications Tower or Telecommunications **Antenna**:

- (i) No commercial advertising shall be allowed on a Telecommunications Facility, unless such Telecommunications **Antenna** is actually located on an existing, approved sign. Telecommunications Towers may have safety or warning signs in appropriate places;
- (ii) No signals, lights or illumination shall be permitted on a Telecommunications Facility, unless required by the FAA. Should lighting be required by State or Federal law, the lighting shall be placed on the Telecommunications Tower and designed in such a way as to minimize to the fullest extent possible glare onto adjacent residential properties;
- (iii) Light fixtures may be attached if it is part of the design incorporated into the Telecommunications Tower **Structure** to be used for the illumination of athletic fields, **Parking Lots**, Streets or other similar areas. Lighting of the accessory **Buildings** for basic security purposes is permissible but may not result in glare on adjacent properties;
- (iv) The **Height** of a Telecommunications Facility shall conform to the **Height** limitations of an applicable Airspace Control Overlay District as defined in Section 20-302;
- (v) All **Telecommunications Facilities** shall be sited to have the least adverse visual effect as is practical on the environment. Telecommunications Towers shall not be lighted except to assure human safety as required by the Federal Aviation Administration (FAA). Telecommunications Towers shall be a galvanized finish or painted gray or light blue unless other standards are required by the FAA. Where possible, monopole Telecommunications Towers shall be preferable to guyed Telecommunications Towers. Telecommunications Towers shall be designed and sited to avoid, whenever possible, application of FAA lighting and painting requirements. For existing Tower sites, if redevelopment is considered, guyed Telecommunications Towers are the least desirable option and should be avoided where feasible;
- (vi) Subject to the requirements of this Chapter, more than one Telecommunication Facility may be attached to, or placed upon, the same **Structure**.

(3) Maintenance Standards Applicable to All Telecommunications Facilities

The following maintenance and operating standards shall apply to any Telecommunications Tower or Telecommunications **Antenna**:

- (i) ~~Any Telecommunications Facility that is not in use for a period of three full years or more shall be removed by the Owner at the Owner's expense. Failure to remove the Telecommunications Facility pursuant to non-use may result in removal and assessment of cost to the property pursuant to K.S.A. 12-6a17.~~
- (ii) ~~Any Owner of a Telecommunications Tower shall submit a letter to the Planning Director by July 1 of each year listing the current users and types of Telecommunications Antennas located on the Facility.~~
- (iii) ~~A sign shall be posted on every Telecommunications Facility, or on the exterior fence around the Telecommunications Facility, noting the name and telephone number of the Telecommunications Facility Owner and operator.~~
- (iv) ~~The Owner/operator shall at all times employ at least ordinary care and shall install, maintain and use commonly accepted methods and devices for preventing failures and accidents which are likely to cause damage, injuries or nuisances to the public.~~

(4) Inspections

~~All Telecommunications Facilities shall be inspected annually at the Owner's expense and an inspection report shall be filed with the Director of Planning. All Telecommunications Facilities may be inspected at any time by the Codes Enforcement Officer in order to determine compliance with original construction standards. Deviation from the original construction for which a permit is obtained constitutes a violation of this Code.~~

~~Notice of violations will be sent by registered mail to the Telecommunications Facility operator who will have 30 days from the date the notification is issued to make adjustments or repairs. The operator shall notify the Codes Enforcement Officer in writing that the adjustments or repairs have been made, and, as soon as reasonably possible thereafter, another inspection will be made by the Codes Enforcement Officer to assess compliance. The operator shall then be notified of the results of the second inspection. An appeal of the decision of the Codes Enforcement Officer can be made to the Board of Zoning Appeals in accordance with Section 20-1311.~~

(5) Telecommunications Antennas Attached to Existing Structures

~~The following standards shall apply to any proposal to attach a Telecommunications Antenna to an existing Structure:~~

- (i) ~~Any Structure shall be at least 40 feet in Height before a Telecommunications Antenna may be erected upon, or attached to, it;~~
- (ii) ~~Said attachment Structure may not be one designated by the Historic Resources Commission as a historic Structure or be in a designated Historic Resources Overlay District unless the HRC approves such arrangement;~~
- (iii) ~~The addition of a Telecommunications Antenna to an existing Structure shall not cause the Height of said Structure to increase by more than 20% or to the maximum Height allowed in that Zoning District, whichever is less;~~
- (iv) ~~Telecommunications Antennas erected upon, or attached to, existing Structures shall not be subject to standard Setback requirements;~~
- (v) ~~When the arrangement is deemed safe by the Codes Enforcement Officer, all accessory Buildings and other Structures to be located on the same property as a Telecommunications Antenna under this Subsection shall be located on the roof of the Structure whenever possible. If the accessory equipment, Buildings~~

and other ~~Structures~~ are able to be safely located on the roof of the ~~Structure~~, the area of said equipment, accessory ~~Buildings~~ and other ~~Structures~~ shall not occupy more than 25 percent of the total roof area; and

- (vi) ~~The addition of any related equipment or accessory Building to an existing Structure shall not cause the Height of said Structure to increase by more than 20 percent or to the maximum Height allowed in that Zoning District, whichever is less.~~

(6) ~~New Telecommunications Towers and Antennas – Review Fee~~

~~In addition to the Special Use Permit filing fee applicable to all requests for Special Use Permits, an applicant for a Telecommunications Tower and Antenna (other than an Amateur or Receive-Only Antenna less than 75 feet in Height), shall make a deposit with the Planning Director of a fee sufficient to cover the cost of an independent study and shall sign a form authorizing the City to use those funds to hire consulting engineers to review the application and to advise the City on the extent to which the applicant has, or has not, met the Burden of Proof, required by the following sub-section (20-529(7)). The fee shall be set by the City Commission based upon: a list of city-approved consultants; and, the standard industry fee for the study required to make a determination. Upon the conclusion of the review process, any funds remaining unexpended shall be refunded to the applicant, and the applicant shall be provided with an accounting for the funds expended.~~

(7) ~~New Telecommunications Towers – Burden of Proof~~

~~The following standards shall apply to a determination of whether Telecommunications Towers will be permitted. These standards are in addition to those in the next sub-section, Section 20-529(8): No new Telecommunications Tower shall be permitted unless the applicant demonstrates to the reasonable satisfaction of the City that no existing Telecommunications Tower or other Structure can accommodate the applicant's proposed Telecommunications Antenna. Evidence submitted to demonstrate that no existing Telecommunications Tower or Structure can accommodate the applicant's proposed Telecommunications Antenna may consist of any of the following (the claimed "hardship" may not be created by the applicant):~~

- (i) ~~No existing Telecommunications Towers or Structures are located within the geographic area required to meet the applicant's engineering requirements;~~
- (ii) ~~Existing Telecommunications Towers or Structures are not of sufficient Height, and could not be extended to become sufficient in Height, to meet the applicant's engineering requirements;~~
- (iii) ~~Existing Telecommunications Towers or Structures do not have sufficient structural capacity to support the applicant's proposed Telecommunications Antenna and related equipment; and the existing or approved Telecommunications Tower cannot be reinforced, modified or replaced to accommodate planned or equivalent equipment at a reasonable cost;~~
- (iv) ~~The proposed Telecommunications Antenna would cause excessive electromagnetic interference with an existing Telecommunications Antenna on the Telecommunications Tower or Structure, or the Telecommunications Antenna on the existing Telecommunications Tower or Structure would cause interference with the proposed Telecommunications Antenna; and reconfiguration would not resolve the interference problem; or~~
- (v) ~~The applicant demonstrates that there are other limiting factors, not including the provisions of this Article, that render existing Telecommunications Towers or Structures unsuitable for its proposed Telecommunications Antenna.~~

(8) New Telecommunications Facilities – Additional Criteria for Review

In addition to the standards and conditions listed in Sections 20-529(2) and 20-529(9), the City Commission shall consider the following factors in determining whether or not to issue a Special Use Permit:

- (i) ~~Height~~ of proposed Telecommunications Facility;
- (ii) proximity of Telecommunications Facility to residential ~~Structures~~ and residential district boundaries;
- (iii) ~~technical or engineering requirements limiting placement of the Telecommunications Facility in other areas in order to provide coverage;~~
- (iv) ~~nature of uses on adjacent and nearby properties;~~
- (v) ~~surrounding topography, tree coverage and foliage;~~
- (vi) ~~design of the Telecommunications Facility, with particular reference to design characteristics that have the effect of reducing or eliminating visual obtrusiveness and making the proposed Telecommunications Tower or Telecommunications Antenna a stealth or disguised facility;~~
- (vii) ~~availability of suitable existing Telecommunications Towers or other Structures for placement of proposed Telecommunications Antenna; and~~
- (viii) ~~whether the character of the proposed site and the proposed Telecommunications Tower will facilitate maximum utilization of space for placement of Telecommunications Antennas serving multiple users.~~

(9) New Telecommunications Towers – Design Standards

The following standards shall apply to Telecommunications Tower to be used to hold or support one or more Telecommunications ~~Antennas~~, in addition to the standards to be used in determining whether to permit such Telecommunications Tower under Sections 20-529(7) and 20-529(8).

- (i) No free-standing Telecommunications Tower shall exceed 180 feet in ~~Height~~;
- (ii) **Setbacks**
 - a. The Telecommunications Towers shall be ~~Setback~~ from the property line in all directions a distance equal to at least one-half the ~~Height~~ of the Telecommunications Tower if the site is in or adjoins an R ~~Base District~~;
 - b. In any other ~~Base District~~, the Telecommunications Tower shall be ~~Setback~~ from the property line in all directions the distance established by the fall zone of the tower;
- (iii) ~~Telecommunication Towers~~ shall not be located closer than one-half (1/2) mile from another ~~Telecommunication Tower~~, except when the two are located on the same site and the second Telecommunications Tower is approved with a Special Use Permit.
- (iv) All Telecommunications Towers and the base of the ~~Structure~~ shall be designed and built to allow expansion at a later date to accommodate at least three two-way Telecommunications ~~Antennas~~ for every 150 feet of Telecommunications Tower ~~Height~~, or at least one two-way Telecommunications ~~Antenna~~ and one microwave facility for every 150 feet of Telecommunications Tower ~~Height~~. The

~~above requirements may be modified by the [Planning Director](#) to allow for the maximum number of compatible users within the radio frequency emission levels.~~

- ~~(v) With the exception of necessary electric and telephone service and connection lines approved by the City, no part of any Telecommunications Facility, nor any lines, cable, equipment, wires or braces in connection with the Facility, shall at any time extend across or over any part of the right-of-way, [Public Street](#), highway, sidewalk or property line.~~
- ~~(vi) All signal and remote control conductors of low energy between a Telecommunications Tower or Telecommunications [Antenna](#) and a [Structure](#), or between Telecommunications Towers, shall be hidden from plain view and shall be underground whenever possible. If impossible to bury underground, said conductor shall be at least eight feet above the ground at all points.~~
- ~~(vii) All Telecommunications Towers or Telecommunications [Antennas](#) shall conform to the requirements of the Occupational Safety and Health Administration (OSHA).~~
- ~~(viii) Telecommunications Towers shall be of a monopole design.~~
- ~~(ix) The use of guyed or lattice Telecommunications Towers is prohibited.~~
- ~~(x) Every Telecommunications Tower shall be protected from trespass by unauthorized persons to discourage the climbing of the Tower.~~
- ~~(xi) Telecommunications Towers shall be constructed so that if a failure does occur, the Telecommunications Tower will collapse into itself and will not fall onto [Structures](#) near the site.~~
- ~~(xii) Mobile or immobile equipment not used in direct support of a Telecommunications Tower facility shall not be stored or parked on the site, unless repairs to the Telecommunications Tower or Telecommunications [Antenna](#) are being made.~~
- ~~(xiii) No Telecommunications Tower shall have a platform, crow's nest or like [Structure](#) around it, or attached to it, except while under construction or repair.~~
- ~~(xiv) Lighting of the accessory [Buildings](#) for basic security purposes is permissible but may not result in unnecessary glare on adjacent properties.~~
- ~~(xv) All accessory [Buildings](#) or [Structures](#) shall meet all [Building](#) design standards as listed in this Chapter, shall require a [Building](#) Permit issued by the Codes Enforcement Officer and shall conform with the [Height](#) restrictions and Setbacks established for the site's district.~~
- ~~(xvi) All [Buildings](#), [Structures](#) and equipment accessory to a Telecommunications Tower or Telecommunications [Antenna](#) shall be designed to blend in with the surrounding environment through the use of color, camouflage and architecture.~~
- ~~(xvii) If located in or adjoining an R-[Base District](#), the Telecommunications Tower shall be surrounded by a Type 3 [Buffer Yard](#), Section 20-1005.~~
- ~~(xviii) The Telecommunications Tower site may not be situated in a designated Historic Resource Overlay District unless the [Historic Resources Commission](#) approves the location and design.~~

(10) City Commission Action

- (i) A request for the placement, construction, or modification to a Telecommunications ~~Antenna, Telecommunications Tower, or Telecommunications Facility~~ shall be acted upon within a reasonable period of time from the receipt of a complete submittal of an application, site plan and supporting documentation as required in this section.
- (ii) Denial of a request or application to place, construct or modify a Telecommunications ~~Antenna, Telecommunications Tower, or Telecommunications Facility~~ shall be supported by findings based on substantial evidence and shall be provided in written form to the applicant.

(11) Telecommunications Antennas – Site Plan Review

- (i) Telecommunications ~~Antennas~~, wherever located, shall be reviewed as a permitted use through the Site Plan Review provision, Section 20-1305.
- (ii) Telecommunications ~~Antennas~~ to be attached to an existing ~~Structure~~ in any ~~Zoning Districts~~ permitting a Telecommunications ~~Antenna~~ as an ~~Accessory Use~~ shall be reviewed as an amendment to the site plan, through the Site Plan Review provision, Section 20-1305.

(12) Plan and Application

At the time of application for a Special Use or Site Plan Review for a Telecommunications Facility, the applicant shall submit a site plan in sufficient detail, as determined by the ~~Planning Director~~, to evaluate its conformance with applicable standards and guidelines. The development plan shall include:

- (i) written authorization from the ~~Landowner~~ of the proposed Telecommunications Facility site.
- (ii) a site plan drawn to scale showing the property boundaries, Telecommunications Tower, guy wire anchors and other apparatus, existing and proposed ~~Structures~~, proposed transmission ~~Buildings~~ and/or other ~~Accessory Uses~~, ~~Access~~ road(s) location, ~~Access~~ road surface material, ~~Parking Area~~, fences, location and content of warning signs, exterior lighting specifications, a ~~Landscaping~~ plan, land elevation contours, and existing land uses surrounding the site. If any ~~Accessory Structure~~ is proposed, details of the ~~Structure~~, including elevations and proposed use of the ~~Structure~~, shall be included.
- (iii) A signed and sealed report from a qualified professional structural or electrical engineer, licensed to practice in Kansas, that:
- (iv) describes Telecommunications Tower ~~Height~~ and design, including cross section and elevation;
- (v) describes ~~Height~~ for all potential mounting positions for Telecommunications ~~Antennas~~ and minimum separation distances between Telecommunications ~~Antennas~~;
- (vi) describes the Telecommunications Tower's capacity, including number and type of Telecommunications ~~Antennas~~ that can be accommodated; and
- (vii) includes other information necessary to evaluate the request.
- (viii) The site plan/area map included in the application shall also contain a drawing and a description of the lease area for the proposed Telecommunications ~~Antenna~~ including, but not limited to, colors and ~~Screening~~ devices;

- ~~(ix) An affidavit of intent committing the site **Owner**, his successors and assigns and the operator and his successors and assigns to allow the shared use of the Telecommunications Tower and to offer a potential additional user reasonable terms and conditions for co-location. Failure to follow through with this commitment constitutes a violation of this Chapter and may result in the revocation of the permit associated with the site in violation hereof; and~~
- ~~(x) Proof of bonding, as required by Section 20-529(13).~~

~~(13) **Bonding Required**~~

~~(i) **Safety**~~

~~Before a Telecommunications Facility is erected, the operator of the Telecommunications Facility must file with the City Clerk a written indemnification of the City and proof of liability insurance sufficient to respond to claims up to \$1,000,000 in the aggregate which may arise from operation of **Telecommunications Facilities** within the City, both subject to the approval of the Director of Legal Services.~~

~~(ii) **Removal**~~

~~Before a permit is issued, the applicant shall present a bond to the Director of Legal Services in the amount of \$20,000 which shall be available for use by the City for the removal of the Telecommunications Facility should said Telecommunications Tower ever be abandoned. The bond shall contain the following endorsement: "It is hereby understood and agreed that this instrument may not be canceled nor any intention not to renew be exercised until 60 days after receipt by the City, by registered mail, of written notice of such intent."~~

~~(14) **Amateur and **Receive-Only Antennas****~~

~~This Section shall not govern any Telecommunications Facility that is:~~

- ~~(i) less than 75 feet in **Height**;~~
- ~~(ii) located in the **Rear Yard** of a residentially zoned **Parcel**; and~~
- ~~(iii) Owned and operated by a federally licensed amateur radio operator.~~

~~Telecommunications Towers covered under this Paragraph shall not be available for co-location.~~

20-529 TELECOMMUNICATIONS WIRELESS FACILITIES

(1) Purpose

The Governing Body recognizes that facilitating the development of wireless service technology benefits both the residents and the economic development of the City of Lawrence. The purpose of these standards is to ensure that residents, businesses, and industry within the City enjoy reliable access to wireless telecommunications networks, while, at the same time, safeguarding the health, safety, welfare, and aesthetics of the community. Accordingly, these standards are intended to ensure that the location, installation, construction, and modification of Wireless Facilities within the City comply with all Federal and State laws and regulations and are consistent with the City's Land Development Code.

(2) Definitions

The following words, terms, and phrases, when used in this Section, shall, except where the context clearly indicates otherwise, have the following meanings:

(A) Accessory Equipment means any equipment serving or being used in conjunction with Wireless Facilities or Wireless Support Structures, including but not limited to utility or transmission equipment, power supplies, generators, batteries, cables equipment buildings, cabinets and storage sheds, shelters, or similar structures.

(B) Antenna means telecommunications equipment that transmits or receives radio waves necessary for the provision of Wireless Services.

(C) Co-location means the mounting or installation of Wireless Facilities, including Antennas, on a building, structure, Wireless Support Structure, utility pole, or other existing structure for the purposes of transmitting or receiving radio waves for telecommunications purposes.

(D) Disguised Wireless Facility means any Wireless Facility that is integrated as an architectural feature of a structure so that the existence of the Wireless Facility is not readily apparent to the casual observer, or any Wireless Support Structure that is disguised to resemble a tree, flag pole, steeple, clock tower, or other similar building element.

(E) Major Modification means any improvement that results in a substantial change to a Wireless Facility or to a Wireless Support Structure. Major modifications include, but are not limited to increasing the height of the Wireless Support Structure by more than ten feet or ten percent, whichever is greater, expansion of the area of Accessory Equipment, and any similar improvement. Co-location of new Wireless Facilities, including Antennas, on an existing Wireless Support Structure shall not be deemed a Major Modification.

(F) Minor Modification means any improvement that results in some material change to a Wireless Facility or a Wireless Support Structure, but of a level, quantity, or intensity that is less than a Major Modification.

(G) Monopole means a single, free-standing, pole-type structure supporting Wireless Facilities, including Antennas.

(H) Ordinary Maintenance means maintenance to ensure that Wireless Facilities, Wireless Support Structures, and Accessory Equipment are maintained in safe operating condition. Ordinary Maintenance shall include, but not be limited to inspections, modifications of Wireless Facilities and Wireless Support Structures to ensure structural integrity, exchanging Antennas or Accessory Equipment on a like-for-like basis, relocating Antennas already in place, or other similar actions that fall short of being a Minor Modification.

(I) Wireless Facility means any equipment at a fixed location that enables wireless telecommunications between user telecommunications devices and telecommunications networks.

(J) Wireless Service Provider means a provider of Wireless Services.

(K) Wireless Service means “personal wireless services,” “personal wireless service facilities,” and “commercial mobile services” as those terms are defined at 47 U.S.C. § 332(c)(7)(C) and (d), as amended, which are provided to telecommunications devices through the implementation and use of Wireless Facilities.

(L) Wireless Support Structure means any freestanding structure, such as a Monopole, or other self-supporting tower, or other suitable structure designed to support or capable of supporting Wireless Facilities, including Antennas. Wireless Support Structures do not

include telephone poles, electrical utility poles, or any towers used for the distribution or transmission of electrical services.

(3) Approvals Required

(A) Special Use Permit. No new Wireless Facility, no new Wireless Support Structure, no Co-location that results in a Major Modification of an existing Wireless Facility or Wireless Support Structure, and no Major Modification of an existing Wireless Facility or Wireless Support Structure shall be allowed in any zoning district of the City absent the issuance, upon application, of a Special Use Permit in accordance with the procedures established at Section 20-1306 of this Chapter, as amended.

(B) Site Plan Approval. No Co-location that is a Minor Modification of an existing Wireless Facility or Wireless Support Structure and no Minor Modification of an existing Wireless Facility or Wireless Support Structure shall be allowed in any zoning district of the City absent approval, upon application, of a Site Plan in accordance with the procedures established at 20-1305 of this Chapter, as amended.

(4) Terms of Approval; Renewal; Limits

(A) Term. Any Special Use Permit or Site Plan Approval issued hereunder, assuming all conditions of approval are met and maintained, shall be valid for a period of ten years. Any renewal thereof, which shall be subject to administrative approval, shall be for a period of five years. At the time of renewal, the Owner/Applicant shall demonstrate to the Planning Director that the Wireless Facility or Wireless Support Structure remains in compliance with the original conditions of approval.

(B) Limits. Commencing on the date of issuance of any Special Use Permit or Site Plan Approval hereunder, the Owner/Applicant shall have a period of one year in which to commence construction or installation of the Wireless Facility or Wireless Support Structure and shall thereafter diligently pursue construction or installation to its completion. Failure to commence construction or installation within one year of receiving a permit or approval or failure to diligently pursue construction or installation to its completion shall cause the Special Use Permit or Site Plan Approval to lapse and to be deemed null and void.

(5) Application

At the time of application for a Special Use Permit or for Site Plan Review for any Wireless Facility or Wireless Support Structure, the Owner/Applicant shall submit the following:

(A) A completed Application, on a form supplied by the Planning Director, signed by the Owner(s) of the subject property or signed by an Applicant if accompanied by written authorization of the Owner(s) granting to the Applicant the authority to submit the Application in behalf of the Owner.

(B) Elevation drawings showing the height of the proposed Wireless Facility including Antennas (and any lightning rod or lightning arrester), and all Accessory Equipment, including any buildings and structures.

(C) A Site Plan, drawn to scale, including:

(i) the information required by Section 20-1305(f) of the City Code, as amended;

(ii) the location of existing or proposed Wireless Facilities or Wireless Facility Support Structures;

(iii) other existing or proposed structures;

(iv) the location of Accessory Equipment and/or other Accessory Uses;

- (v) the location of access road(s), access road surface materials, and any parking area;
- (vi) the height, location, and construction materials of fences or other barriers;
- (vii) a Landscape Plan, in accordance with Section 20-1001(d) of the City Code, as amended;
- (viii) land elevation contours; and
- (ix) zoning and uses of properties neighboring the subject property.

(D) If the project involves a new Wireless Support Structure, a signed and sealed report from a qualified professional engineer, licensed to practice in the State of Kansas, that includes:

- (i) the height and design of the proposed Wireless Support Structure;
- (ii) the height for all potential mounting positions for Antennas and the minimum separation distances between Antennas;
- (iii) the capacity of the Wireless Support Structure, including the number and types of Antennas that can be accommodated;
- (iv) a statement that the Wireless Support Structure is designed, in accordance with this Section, to collapse upon itself in the event of failure, including the projected fall zone of any such Wireless Support Structure; and
- (v) any other information that may be necessary or requested by the Planning Director to evaluate the Application.

(E) If the project involves a new Wireless Support Structure, the application shall include:

- (i) line-of-sight diagrams or photo simulations showing the proposed Wireless Support Structure against the skyline and viewed from at least three different vantage points within the surrounding area;
- (ii) a statement that the Owner/Applicant considered Co-location, where it considered Co-location, and why Co-location would not meet the Owner/Applicant's needs; and
- (iii) a statement that the proposed Wireless Support Structure will be made available to other Wireless Service Providers for Co-location at commercially reasonable rates, or a statement that the Owner/Applicant is seeking a waiver of the Co-location requirement and why such waiver is being sought.

(F) If the project involves Co-location on an existing structure, a signed and sealed report from a qualified professional engineer, licensed to practice in the State of Kansas, that establishes that the existing building or structure is structurally sound and can safely accommodate the proposed Co-location.

(F) If the project involves a new Wireless Support Structure or a Major Modification of an existing Wireless Support Structure, a fee, not to exceed \$2,000, as established by the Governing Body, which amount shall recapture the City's costs of processing the application.

(G) If the project involves a Co-location or anything else that is not a Major Modification, a fee, not to exceed \$500, as established by the Governing Body, which amount shall recapture the City's costs of processing the application.

(6) General Standards

(A) Co-location:

(i) Wireless Support Structures shall be designed to accommodate at least three Wireless Service Providers. The compound area supporting the Wireless Support Structure likewise shall be of adequate size to accommodate Accessory Equipment for at least three Wireless Service Providers.

(ii) Whenever it is economically and technically feasible, and it is aesthetically appropriate, as determined by the Governing Body, the Planning Commission, or the Planning Director, Disguised Wireless Facilities shall be designed to accommodate the Co-location of other Wireless Service Providers.

(iii) Upon written request of the Owner/Applicant, the Governing Body, the Planning Commission, or the Planning Director may waive the City's Co-location requirements if it is determined, as demonstrated by technical evidence presented by the Owner/ Applicant, that Co-location at the site is non-essential to the public interest, that construction of a shorter Wireless Support Structure with fewer Wireless Facilities, including Antennas, will promote community compatibility or interests, or that Co-location would cause interference with other existing Wireless Facilities.

(B) Building Permits: All new Wireless Support Structures, all Major Modifications of existing Wireless Facilities, and all Accessory Equipment shall not be installed or constructed without the issuance of a Building Permit in accordance with Chapter V, Article 1 of the City Code.

(C) Replacement of Existing Wireless Facilities: The replacement of any existing Wireless Facility or Wireless Support Structure shall require compliance with the terms of this Section and shall require, as may be pertinent, either approval and issuance of a Special Use Permit in accordance with the procedures established at Section 20-1306 of this Chapter, as amended, or approval of a Site Plan in accordance with the procedures established at Section 20-1305 of this Chapter, as amended.

(D) Setbacks:

(i) Non-residential Zoning Districts. Unless otherwise provided herein, Wireless Support Structures shall be set back from all property lines a distance equal to fifty percent of the height of the proposed Wireless Support Structure, as measured from its base to its highest point (excluding the height of any lightning rod or lightning arrester). In addition, where the Wireless Support Structure is located on property zoned for non-residential use that is adjacent to property zoned for residential use, the Wireless Support Structure must be setback from any such residential property line a distance equal to the height of the Wireless Support Structure, as measured from its base to its highest point (excluding the height of any lightning rod or lightning arrester). Setbacks for Accessory Equipment and other structures shall be governed by the underlying zoning district.

(ii) Residential and Mixed-use Zoning Districts. Unless otherwise provided herein, Wireless Support Structures shall be set back from all property lines a distance equal to the height of the Wireless Support Structure, as measured from its base to its highest point (excluding the height of any lightning rod or lightning arrester). Setbacks for Accessory Equipment and other structures shall be governed by the underlying zoning district.

(iii) Waiver. The Planning Commission may recommend and the Governing Body may approve a waiver from these setback requirements if it finds that all of the following conditions are met: **(a)** that the waiver will not adversely affect the

public health, safety, or general welfare of the community; **(b)** that the waiver will not adversely affect the rights of adjacent property owners or residents; **(c)** that strict application of the provisions of this section would constitute unnecessary hardship on the Owner/Applicant; and **(d)** that waiver is appropriate under the circumstances.

(E) Height:

(i) Non-residential Zoning Districts. Unless otherwise provided herein, Wireless Support Structures shall have a maximum height of one hundred fifty feet, measured from the base of the Wireless Support Structure to its highest point (excluding the height of any lightning rod or lightning arrester).

(ii) Residential and Mixed-used Zoning Districts. Unless otherwise provided herein, Wireless Support Structures shall have a maximum height of one hundred twenty feet, measured from the base of the Wireless Support Structure to its highest point (excluding the height of any lightning rod or lightning arrester).

(F) Separation Requirements:

(i) All new Wireless Facilities, except Disguised Wireless Facilities, shall be located a minimum of 1,000 feet from existing Wireless Support Structures. The distance shall be measured from the base of the existing Wireless Support Structure to the base of the proposed Wireless Facility.

(ii) The Planning Commission may recommend and the Governing Body may grant a waiver from the 1,000-foot separation requirement if the Owner/Applicant demonstrates that a waiver will not adversely affect the public health, safety, or general welfare of the community and that strict application of this section would constitute unnecessary hardship.

(7) Design Standards

(A) Access: Paved access shall be provided to all Wireless Facilities, Wireless Support Structures, and Accessory Equipment. The Governing Body, the Planning Commission, or the Planning Director may, upon a finding that it constitutes an unnecessary hardship, waive this requirement. Paved access shall not be required for Co-locations.

(B) Accessory Equipment:

(i) All Accessory Equipment that are buildings, cabinets, storage sheds, and shelters shall be used only to store equipment and other supplies necessary for the operation of the Wireless Facility or Wireless Support Structure. Equipment not used in direct support of such operation shall not be stored on the site.

(ii) All Accessory Equipment that are buildings or structures shall meet all Building design standards, as listed in this Chapter, shall require a Building Permit, and shall conform to Height and Setback restrictions established for the zoning district in which the site is located.

(iii) All Accessory Equipment shall be designed to be compatible with and to blend into its surrounding environment through the use of color, camouflage, screening, landscaping, and architecture.

(iv) Lighting of Accessory Equipment for basic security purposes is permitted. However, such lighting shall be shielded and shall be directed downward. Floodlights are prohibited.

(v) The addition of related equipment to any building or structure that is Accessory Equipment shall not increase the height of said building or structure

(a) more than 20% of the height of the existing building or structure or

(b) more than the maximum height allowed in the zoning district in which the site is located, whichever is less.

(C) Antennas:

(i) No Antenna may be attached to any Wireless Support Structure or Co-located on any other structure, unless the Wireless Support Structure or other structure is at least forty feet in height.

(ii) The addition or Co-location of any Antenna on a Wireless Support Structure or any other structure shall not increase the height of said building or structure

(a) more than 20% or

(b) more than the maximum height allowed in the zoning district in which the site is located, whichever is less.

(iii) Antennas Co-located on existing structures shall not be subject to Setback requirements.

(iv) No Antenna may be Co-located on any structure designated by the City as an historic structure, or on any structure located within an Historic District Overlay District or an Urban Conservation Overlay District unless the Historic Resources Commission first approves the location and the design.

(v) To the extent that it is feasible and the engineer's report demonstrates that the roof is structurally sound and can safely accommodate it, any Accessory Equipment to an Antenna Co-located on an existing structure shall be located on the roof of the existing building or structure. However, said Accessory Equipment shall not occupy more than 25% of the total roof area. Such Accessory Equipment shall be shielded from view from neighboring properties and rights of way.

(D) Cables/Conduit: All cable runs should be through portals and maintained within the Wireless Support Structure. Where cable or conduit is required to be located on the outside of any Wireless Support Structure, the cable or conduit shall be painted or covered by material to match the color of the Wireless Support Structure.

(E) Color: Unless otherwise required by the Federal Communications Commission (FCC), the Federal Aviation Administration (FAA), or the City, Wireless Support Structures, excluding Disguised Wireless Facilities, shall have a galvanized gray or light blue finish.

(F) Disguised Wireless Facilities:

(i) A Disguised Wireless Facility must be enclosed, camouflaged, screened, obscured, or otherwise not apparent to the casual observer. A Disguised

Wireless Facility must be integrated into another structure as an architectural facility or must be designed to resemble an object or structure that does not have the appearance of a monopole or other Wireless Facility.

(ii) The Disguised Wireless Facility must meet the requirements of the underlying zoning district, including, but not limited to height, setback, and use restrictions.

(G) Landscaping: The Wireless Facility shall comply with all landscaping requirements of Article 10 of this Chapter and shall be maintained by the Owner/ Applicant. In cases where the property is not visible from adjacent properties or rights of way or where landscaping is not necessary, appropriate, or feasible, the Governing Body, the Planning Commission, or the Planning Director may waive this requirement.

(H) Lighting and Marking: Wireless Facilities and Wireless Support Structures shall not be lighted or marked unless required by the FCC, the FAA, or the City.

(I) Security and Fencing: Ground-mounted Accessory Equipment and related structures shall be secured and enclosed within fencing not less than six feet in height. Fencing shall be constructed with materials that are designed to be compatible with and to blend in to the surrounding areas. Every Wireless Facility shall be protected from trespass by unauthorized persons to discourage climbing of structures.

(J) Signage: No advertising or other display shall be permitted on any Wireless Facility or Wireless Support Structure, unless such is required by the FCC, the FAA, or the City.

(K) Wireless Support Structures:

(i) All new Wireless Support Structures shall be of monopole design. Guyed and lattice towers are prohibited.

(ii) All new Wireless Support Structures located in districts zoned residential or mixed use, or located within 500 feet of any property or district zoned residential or mixed use, shall be Disguised Wireless Facilities as defined in this Section.

(iii) All Wireless Support Structures shall be designed and constructed such that if a failure does occur, the Wireless Support Structure will collapse on itself and will not collapse on structures at or near the site.

(iv) No Wireless Support Structure shall, except during construction, have a platform, crow's nest, or like structure surrounding it or attached to it.

(v) No Wireless Support Structure may be located in a designated Historic District Overlay District or Urban Conservation Overlay District unless the Historic Resources Commission first approves the location and the design.

(8) Final Decision

(A) Time Limits. Within 150 calendar days of receiving an application for a new Wireless Support Structure or within 90 calendar days of receiving any other application hereunder, the City shall:

(i) review the application in light of the standards of this Section and applicable provisions of the Land Development Code;

(ii) make a final decision to approve or disapprove the application;

(iii) advise the Owner/Applicant by written notice of the City's final decision, which final decision shall be supported by written substantial evidence in the record. Such final decision shall be deemed effective on the date of the written notice.

(B) Commencement of Time. The time limits for final decision shall commence upon the City's acceptance of a complete application. If an application is incomplete, the City shall notify the Owner/Applicant within thirty days of its deficiencies and, in such case, the time limits shall not commence until a complete application has been submitted and accepted by the City. Alternatively, the time limits may commence upon a date agreed upon in writing by the City and the Owner/Applicant.

(C) Effect of Lapse of Time. Unless otherwise agreed upon by the Owner/Applicant and the City, an application shall be deemed approved if (i) the City fails to issue a final decision with the time limits established at subsection 7(A) and (ii) the Owner/Applicant provides to the City written notice that the applicable time limits have lapsed.

(D) Appeal. Any party aggrieved by the City's final decision approving or disapproving an application or any party aggrieved by the Owner/Applicant's written notice that the time limits have lapsed may appeal said result to the District Court of Douglas County, Kansas, in accordance with K.S.A. 60-2101(d), as amended.

(9) Miscellaneous Provisions

(A) Abandonment and Removal. Any Wireless Facility or Wireless Support Structure that is not operated for a period of one year shall be deemed abandoned. The Owner/Applicant shall remove any abandoned Wireless Facility or Wireless Support Structure at his, her, or its expense within 180 days after abandonment. If the structure is not removed within that time frame, then the City may remove the structure and, to the extent allowed by law, assess the costs of removal against the property.

(B) Interference. All Wireless Facilities shall be constructed, installed, operated, and maintained in accordance with all applicable federal, state, and local laws, ordinances, and regulations so as not to interfere or cause interference with existing telecommunications, including but not limited to radios, televisions, computers, and City and/or County emergency broadcast systems.

(C) Nonconforming Wireless Facilities. Wireless Facilities and Wireless Support Structures that were legally permitted on or before the effective date of this Ordinance shall be considered lawful nonconforming structures. Major Modifications and Minor Modifications to nonconforming structures shall be permitted in accordance with the provisions of this Section. Replacement of any nonconforming structure shall be with a structure that complies with the provisions of this Section. If any nonconforming facility or structure is damaged by more than 60% of its fair market value, it shall only be replaced by a conforming facility or structure if it is legal to do so.

(D) Ordinary Maintenance. Ordinary Maintenance, as defined herein, shall be exempt from the permitting and approval requirements of this Section.

(10) Exemptions

(A) The provisions of this Section shall not apply to the following:

(i) Any Wireless Facility, including Amateur and Receive-only Antennas, that are:

(a) less than 75 feet in height;

(b) located in the Rear Yard of a residentially zoned Parcel; and

(c) Owned and operated by a federally licensed amateur radio operator.

(d) Wireless Facilities that are exempt under this Subsection shall not be considered, be deemed available, or be used for Co-location.

(ii) Broadcast Towers; and

(iii) Satellite Dishes.

20-1768 TELECOMMUNICATIONS FACILITIES

The fixed or permanent site, ~~Structures~~, equipment, and appurtenances used to send radio frequency transmissions. Such facilities include, but are not limited to: ~~Antennas~~, poles, towers, cables, wires, conduits, ducts, pedestals, vaults, ~~Buildings~~, electronics and switching equipment.

(1) Telecommunications Antenna

~~A Telecommunications Facility for such services as cellular telephone, personal communication services, enhanced/specialized mobile radio, and commercial paging services, that is attached to a pole, tower, or other Structure including, but not limited to, a Structure that can accommodate the future installation of two or more Antenna systems.~~

(2) Telecommunications Tower

~~A Telecommunications Facility for such services as cellular telephone, personal communication services, enhanced/specialized mobile radio, and commercial paging services, that consists of a new tower, monopole, or other unattached Structure erected to support wireless communication Antennas and connecting appurtenances.~~

20-1768 WIRELESS FACILITIES

Any equipment at a fixed location that enables wireless telecommunications between user telecommunications devices and telecommunications networks. This can include Disguised Wireless Facilities, Monopoles, accessory equipment, antenna and co-location.

(1) **Wireless Facility – Antenna** means telecommunications equipment that transmits or receives radio waves necessary for the provision of Wireless Services.

(i) **Co-location** means the mounting or installation of Wireless Facilities, including Antennas, on a building, structure, Wireless Support Structure, utility pole, or other existing structure for the purposes of transmitting or receiving radio waves for telecommunications purposes.

(2) Wireless Support Structure means any freestanding structure, such as a Monopole, or other self-supporting tower, or other suitable structure designed to support or capable of supporting Wireless Facilities, including Antennas. Wireless Support Structures do not include telephone poles, electrical utility poles, or any towers used for the distribution or transmission of electrical services.

(i) Monopole means a single, free-standing, pole-type structure supporting Wireless Facilities, including Antennas.

(ii) Disguised Wireless Facility means any Wireless Facility that is integrated as an architectural feature of a structure so that the existence of the Wireless Facility is not readily apparent to the casual observer, or any Wireless Support Structure that is disguised to resemble a tree, flag pole, steeple, clock tower, or other similar building element.

(3) Accessory Equipment means any equipment serving or being used in conjunction with Wireless Facilities or Wireless Support Structures, including but not limited to utility or transmission equipment, power supplies, generators, batteries, cables equipment buildings, cabinets and storage sheds, shelters, or similar structures.

PLANNING COMMISSION REPORT
Regular Agenda – Public Hearing Item

PC Staff Report
9/26/2016

ITEM NO. 5 CONDITIONAL USE PERMIT FOR VERIZON WIRELESS; 1287 E 1200 RD (SLD)

CUP-16-00312: Consider a Conditional Use Permit for a new 199' Verizon Wireless communications tower located north of the Westar Substation at 1287 E 1200 Rd. Submitted by PAMCORP LLC for Verizon Wireless LLC on behalf of The Kansas District of the Wesleyan Church Inc, property owner of record.

STAFF RECOMMENDATION: Staff recommends approval of the Conditional Use Permit for a communication tower located at 1287 E 1200 Road and forwarding it to the County Commission with a recommendation of approval based on the findings of fact in the body of the staff report.

Reason for Request:

Verizon Wireless proposes to construct and operate a 190 foot tall self-supporting monopole type communications tower which will be used to provide enhanced wireless voice and data services to its local subscribers. The facility will be unmanned and will be designed to accommodate at least two additional sets of antennas for use by other carriers.

Staff comments: A CUP was previously approved by both the Planning Commission and the County Commission. The approval expired after one year when a building permit was not obtained. The County approval is valid for only 12 months. A corresponding Special Use Permit (within the city limits) is valid for a period of 24 months. The overall tower structure is 190'. Additional height is added by the placement of a 9' lightning rod on top of the tower structure. Typically towers less than 200' are not required to be lit by FAA standards.

ATTACHMENTS

1. Site plan

KEY POINTS

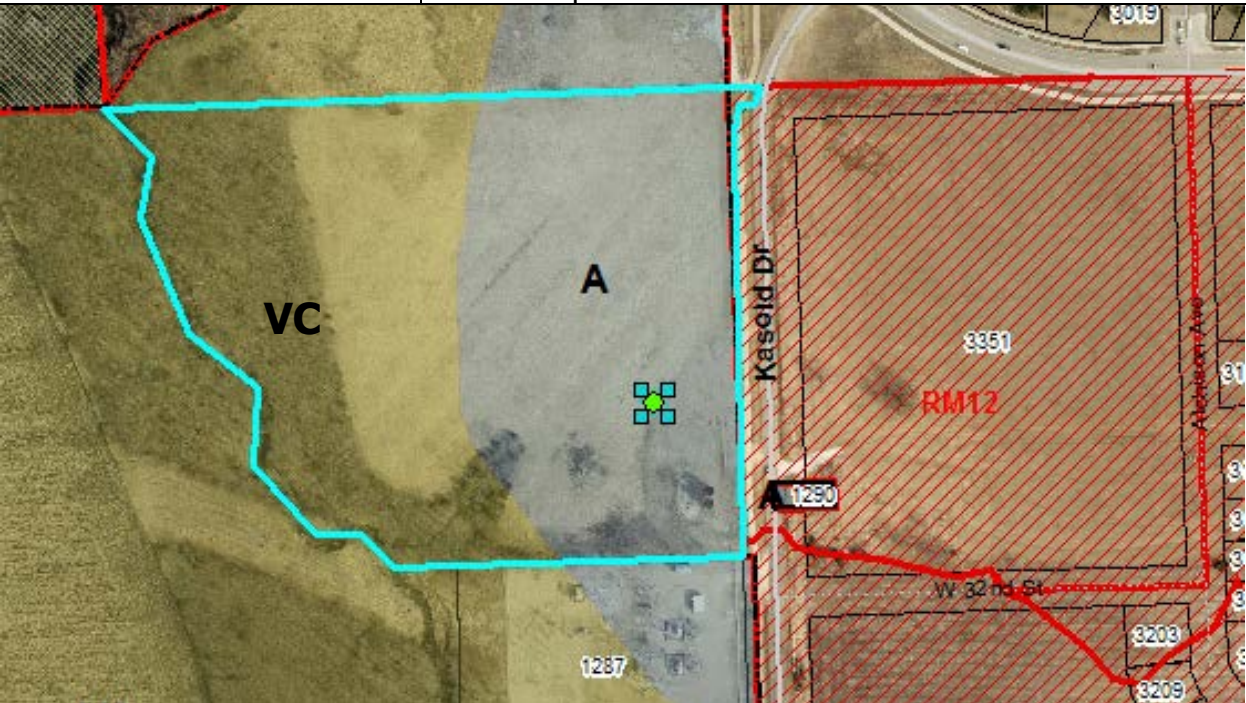
- Application is for a new 190' monopole tower with a 9' lightning rod.
- Ground equipment includes an equipment shelter building and generator to be located within the shelter building.
- Property is encumbered by regulatory floodplain.
- Property is located in the Lawrence Urban Growth Area.
- This application includes a 100' by 100' development area. Initially only a portion of the site will be developed with a tower and equipment. The future pad sites will require expansion of the enclosure.

ASSOCIATED CASES/OTHER ACTION REQUIRED

- CUP-14-00298 approved by the Planning Commission on 11/17/2014. Approved by the County Commission on 2/10/15. Application expired on 2/10/2016.
- Board of County Commissioners' approval of the Conditional Use.
- Submission and approval of a local floodplain development permit to Douglas County.
- Submission and approval of a local building permit to Douglas County.
- Obtain a Conditional Use Permit from Douglas County.
- Obtain a driveway permit from the City of Lawrence.

PUBLIC COMMENT

- No communication has been received.

<p>Site Summary: Subject Property: Proposed Buildings:</p>	<p>14.55 acres 100' x 100' lease area 11' x 25' Pad site for equipment shelter building H frame for equipment 190' monopole with 9' lightning rod Generator located within shelter building Additional pad sites for future carriers</p>
 <p style="text-align: center;">Figure 1: Existing Zoning</p>	

<p>GENERAL INFORMATION</p>	
<p>Current Zoning and Land Use:</p>	<p>A (Agricultural) and VC (Valley Channel) Districts. Existing agricultural field.</p>
<p>Surrounding Zoning and Land Use:</p>	<p>A (Agricultural) and VC (Valley Channel) Districts to the North; existing agricultural field.</p> <p>A (Agricultural) and VC (Valley Channel) Districts to the South; KPL substation.</p> <p>VC (Valley Channel) District to the west. Yankee Tank Creek, riparian area and agricultural field.</p> <p><i>A (Agricultural) and RM12 (Multi-Dwelling Residential) District to the east. Rural Water District #5 pump station and future Religious Institution and Duplex Residential uses.</i></p>

I. ZONING AND USES OF PROPERTY NEARBY

This property includes county zoning to the north, south and west and urban (City of Lawrence) zoning to the east. The property to the east was annexed in 2009 and has been rezoned multiple times to accommodate future development of the site. The immediate property to the east is undeveloped at this time but has been platted for development.

Two properties located in proximity to the subject property are used for utility purposes.

- 1290 E 1200 Road, zoned A (Agricultural) District; RWD #5 (to the east).
- 1287 E 1200 Road, zoned A (Agricultural) and VC (Valley Channel) Districts; Westar substation (to the south).

Staff Finding – The predominate zoning and land use on the west side of E 1200 Road (Kasold Drive) is agricultural. The predominate zoning and land use on the east side of E 1200 Road (Kasold Drive) is currently undeveloped but zoned for future Religious Institution and Duplex Residential uses.

II. CHARACTER OF THE AREA

This property is located on the southwest fringe of the Lawrence city limits. The property is located between W. 31st Street (extended) and the South Lawrence Trafficway (SLT)/K-10. This area has an agricultural character with limited development potential because of extensive floodplain in the area.

The land area east of Kasold Drive is developing with urban residential uses.

The subject property is bounded on the west side by the Yankee Tank Creek. The Westar substation and large overhead transmission lines run parallel to the South Lawrence Trafficway. The Lawrence multi-use path is located along the west side of Kasold Drive and connects W. 31st Street to the path along the north side of K-10 Highway.

The right of way for Kasold Drive/E 1200 Road has been fully annexed into the site along the length of the property and an additional 180' south of W. 32nd Street. The street/road extends south to an intersection with K-10 Highway. KDOT is proceeding with designs to make the intersection a right-in/right-out access to the highway. No other changes are proposed in the immediate area that impact or affect the character of the area.

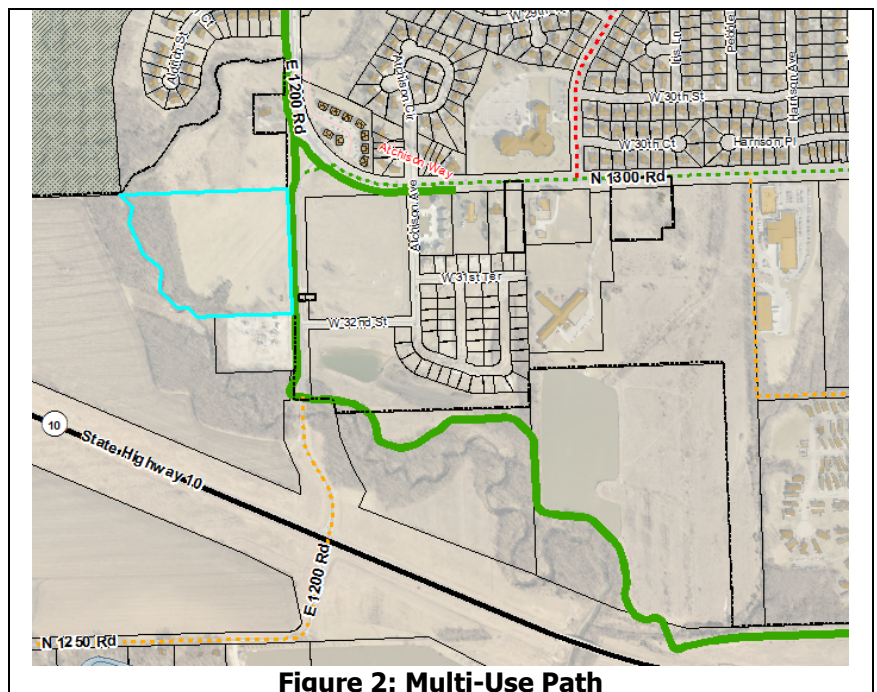


Figure 2: Multi-Use Path

Staff Finding – This property is located in a unique area of Lawrence between the existing city limits and the South Lawrence Trafficway/K-10. The property is bounded by Yankee Tank Creek and includes limited development options because of existing floodplain. Area to the east is developing with residential uses.

III. SUITABILITY OF SUBJECT PROPERTY FOR THE USES TO WHICH IT HAS BEEN RESTRICTED

Applicant's response: "Yes"

This property is currently restricted to uses allowed in the A (Agricultural) and VC (Valley Channel) Districts. These two districts are generally associated with agricultural activities such as farms, truck gardens, nurseries, grazing and similar activities. The A portion of the property allows both residential and non-residential uses. The VC portion of the property is more restrictive regarding land use. The proposed tower will be located on the A zoned portion of the subject property.

The proposed request does not change the base zoning district or alter the allowed uses. Section 12-319.4.31(d) specifically identifies commercial, industrial or agricultural zoning districts as suitable for communication towers.

Staff Finding – The portion of the subject property zoned A (Agricultural) District is a suitable district for the proposed use. The base zoning district is not altered by this request. A communication tower is an allowed use in the A (Agricultural) District subject to a Conditional Use Permit.

IV. LENGTH OF TIME SUBJECT PROPERTY HAS REMAINED VACANT AS ZONED

The property is currently vacant with the exception of two silos located in the southeast corner of the site. The zoning has remained unchanged since 1966. Previously the applicant sought and obtained approval for construction of a communication tower. The approval expired resulting in the applicant seeking new approval for the same project.

Staff Finding – The property is essentially vacant with the exception of two silos as described above. The zoning has remained unchanged since 1966. The previously approved CUP expired.

V. EXTENT TO WHICH REMOVAL OF RESTRICTIONS WILL DETRIMENTALLY AFFECT NEARBY PROPERTY

Applicant's Response: "No"

Section 12-319-1.01 of the County Zoning Regulations recognize that *"....certain uses may be desirable when located in the community, but that these uses may be incompatible with other uses permitted in a district...when found to be in the interest of the public health, safety, morals and general welfare of the community may be permitted, except as otherwise specified in any district from which they are prohibited."*

Communication towers are specifically recommended to be located in commercial, industrial or agricultural zoning districts. The location of the tower is situated so that it has a visual connection to other existing utility uses in the immediate area and to have the least adverse impact on the regulatory floodplain.

Staff Finding – Development potential in the area is limited by the presence of extensive regulatory floodplain. At this time the area to the north and east is undeveloped. Any future development will occur with knowledge of this improvement, if approved.

VI. RELATIVE GAIN TO THE PUBLIC HEALTH, SAFETY AND WELFARE BY THE DESTRUCTION OF THE VALUE OF THE PETITIONER'S PROPERTY AS COMPARED TO THE HARDSHIP IMPOSED UPON THE INDIVIDUAL LANDOWNERS

Approval of the request expands the structural network of towers and structures that are capable of supporting communication equipment. The proposed request facilitates cellular communications and wireless data use within the community. The proposed equipment does not conflict with existing emergency communication equipment.

The majority of the property will remain viable for existing land uses and uses permitted within the A (agricultural) and VC (Valley Channel) Districts.

Staff Finding – The benefit to the public is improved cellular communication and wireless data capacity within the Verizon network. Additionally, the structure provides an opportunity for other carriers to co-locate in the future. If denied, the property can continue to be used for current land uses and those uses allowed per the existing zoning of the property.

VII. CONFORMANCE WITH THE COMPREHENSIVE PLAN

The subject property is located within the Lawrence Urban Growth Area and is immediately adjacent to the City Limits.

Chapter 10; Community Facilities of *Horizon 2020* addresses public utilities. Key strategies (Page 10-10) primarily address municipal utilities such as water and wastewater planning. One strategy states:

- *The visual appearance of utility improvements will be addressed to ensure compatibility with existing and planned land use areas.*

The plan specifically addressed electric and telephone services and encourages this infrastructure to be placed underground in conjunction with new development where feasible. Communication towers support the wireless industry and accommodate the reduction of hardwire infrastructure. However, it should not be interpreted that wireless communication will replace hardwire needs in the community.

The plan recognizes that "telephone and electric utilities have a strong visual presence in the unincorporated Douglas County Landscape." Large transmission lines and easements should be coordinated throughout the community to minimize visual and environmental impacts.

The Comprehensive Plan does not explicitly address communication towers.

Staff Finding – The comprehensive plan does not provide any specific land use recommendations regarding communication towers. A Conditional Use Permit can be used to allow specific non-residential uses subject to approval of a site plan. This tool allows proportional development in harmony with the surrounding area. The proposed request is consistent with the Comprehensive Plan.

STAFF REVIEW

In addition to typical site plan design standards, communication towers must address specific requirements of section 12-319-4.31 of the County Zoning Regulations. As discussed above, the proposed use is located in an appropriate zoning district.

New communication towers require design that shall accommodate at least three two-way antennas for every 150' of tower height or co-location space. The proposed tower includes three co-location spaces in addition to the Verizon equipment space for a total of up to four carriers on this tower. Although, changes in federal law may negate this design criterion. Additional review of the existing County communication tower regulations is needed to align the regulations with the current laws.

Setback

The setback of the communication tower is required, per section 20-319-4.31(d), to be at least equal to the height of the tower to the nearest property line measured from the center of the tower. The east property line is the nearest property line to the proposed improvements. The tower setback may be reduced when documentation from a registered engineer is submitted certifying the "fall zone" of the tower in the event of a failure. Evaluation of the required structural documentation will continue to be reviewed with the submission of a building permit to the County Zoning and Codes Office. The proposed setback is shown to be 118' from the east property line to the center of the tower.

The tower and ground equipment will be located in a 100' by 100' enclosure area located approximately 90' from the east property line. The initial enclosure area will be 50' by 50' to accommodate expansion of the base station as additionally carriers co-locate on the tower.

The proposed equipment shelter is located approximately 100' from the east property line. The site plan shows pad sites within the enclosure to accommodate future carriers located on the north and west sides of the tower. The initial 50' by 50' fenced enclosure would need to be expanded to accommodate future co-location applications.

Lighting

Lighting is not proposed with this application for the communication tower. The tower will need to meet any applicable FAA requirements. Generally, towers less than 200' are not required to be lit. ground equipment will have lighting on front and rear sides of the building. Lighting must be shielded and directed down.

Access, Circulation, and Off Street Parking

Access to this site is from E 1200 Road/Kasold Drive. This segment of E 1200 Road is completely within the city limits. The applicant will be required to seek a driveway permit for access to the tower site from the City of Lawrence. The drive will provide maintenance access to the tower enclosure. This use does not require off-street parking. The design of the site provides adequate vehicular access and turnaround for maintenance activity on the site. The site plan shows a city standard driveway apron to the site.

Landscaping/Buffering

This site will not be irrigated and will not be staffed. The survival of vegetation used for screening is usually unsuccessful especially in a rural application. Per previous discussions with the applicant street trees were recommended for this site. The site plan shows five street trees planted along the west side of the multi-use path.

Other

Prior to construction of the tower the applicant will be required to obtain a Conditional Use Permit, issued by the County Zoning and Codes office as well as applicable building and floodplain development permits.

Recent changes to federal laws allow some future modifications to approved and existing communication towers, base stations, co-location equipment and other features. The full scope of these changes has not been assessed by staff. Changes can include expanding the tower by up to an additional 20' and increasing the base station (enclosure area) by up to 10%.

Conclusion

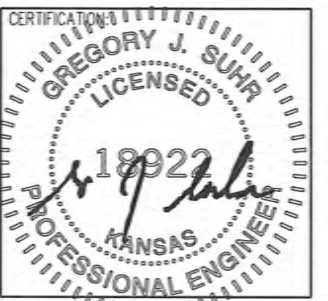
The proposed application meets the required documentation requirements of the County Zoning Regulations. Staff recommends minor changes to the site plan to facilitate the project compatibility with some City design standards since this site is located on the boundary of the existing city limits.



LAWC KASOLD

1293 E 1200 ROAD
LAWRENCE, KS 66047
DOUGLAS COUNTY

LOCATION No.: 273490
PROJECT No.: 20130934157
PROPOSED MONOPOLE TOWER
WITH COMMUNICATIONS EQUIPMENT



RELEASE DATE	DESCRIPTION
05-05-14	CONSTRUCTION DWGS - REV A
07-27-14	CONSTRUCTION DWGS - REV B
08-11-14	CONSTRUCTION DWGS - REV C
01-30-15	CONSTRUCTION DWGS - REV D
02-25-15	CONSTRUCTION DWGS - REV D

APPLICANT
VERIZON WIRELESS
MANAGER-NETWORK REAL ESTATE
PHONE: (913) 244-2800

SITE ACQUISITION
KGI
PHONE: (417) 848-7584

SURVEYOR
HUSKER SURVEYING
PHONE: (402) 423-5202

ARCHITECTURAL AND ENGINEERING FIRM
MAGTECH MIDWEST, INC.
PHONE: (260) 436-2668

POLICE DEPARTMENT
LAWRENCE POLICE DEPARTMENT
4820 BOB BILLINGS PKWY,
LAWRENCE, KS 66049
PHONE: (785) 830-7400

FIRE DEPARTMENT
LAWRENCE FIRE STATION NO. 4
2121 WAKARUSA DR,
LAWRENCE, KS 66047
PHONE: (785) 832-7640

PROPERTY OWNER
KANSAS DISTRICT OF THE
WESLEYAN CHURCH
TOPEKA, KS 66604

KANSAS ONE-CALL SYSTEM
811 OR 1-800-DIG SAFE



THE PROJECT INCLUDES:
INSTALLATION OF PANEL ANTENNA, ASSOCIATED COAX AND OTHER EQUIPMENT ON NEW MONOPOLE TOWER.
INSTALLATION OF A 25'-5-1/2"x11'-6" UNMANNED EQUIPMENT SHELTER WITH GENERATOR ON A CONCRETE FOUNDATION.
NEW ELECTRIC AND TELEPHONE SERVICE TO SITE AND EQUIPMENT SHELTER. NO WATER SUPPLY OR SEWAGE TO/FROM THE SITE.

SITE LAT/LON ELEV.
LATITUDE - 38° 55' 36.52"
LONGITUDE - 95° 16' 46.96"
GRD ELEV. - ±832' AMSL

SITE LAT/LON ELEV.
OVERALL STRUCTURE HT: 199'
STRUCTURE HT: 190'
ANTENNA CL: 190'



SIGNATURE	PRINTED NAME	DATE
LESSOR / LICENSOR: PLEASE CHECK THE APPROPRIATE BOX BELOW		
<input type="checkbox"/> NO CHANGES <input type="checkbox"/> CHANGES NEEDED. SEE COMMENTS ON PLANS		
LESSOR / LICENSOR APPROVAL		

RF ENGINEER:		
OPERATIONS MANAGER:		
CONSTRUCTION ENGINEER:		
CONSTRUCTION MANAGER:		
REAL ESTATE MANAGER:		
APPROVED BY	SIGNATURE	DATE

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- LSE-2 LAND SURVEY
- LSE-3 LAND SURVEY
- C-0 OVERALL SITE PLAN
- C-1 SITE GRADING PLAN
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DRAWN BY: JLM
CHECKED BY: DJH

SITE NAME: _____

LAWC KASOLD CELL SITE

SITE ADDRESS: _____

1293 E 1200 ROAD
LAWRENCE, KS 66047

SHEET TITLE: _____

PROJECT INFORMATION
LOCATION MAPS,
AND DRAWING INDEX

A&E PROJECT NO.: _____

001-1504

SHEET NO.: _____

PARENT PARCEL DESCRIPTION:

A TRACT OF LAND LOCATED IN THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 13 SOUTH, RANGE 19 EAST OF THE 6TH P.M., IN DOUGLAS COUNTY, KANSAS, NOW DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHEAST CORNER OF SAID QUARTER SECTION; THENCE SOUTH 01°47'07" EAST ALONG THE EAST LINE OF SAID QUARTER SECTION, 731.00 FEET; THENCE SOUTH 88°06'41" WEST PARALLEL WITH THE NORTH LINE OF SAID QUARTER SECTION, 596.59 FEET TO THE CENTERLINE OF A CREEK; THENCE ALONG SAID CREEK CENTERLINE FOR THE FOLLOWING COURSES: NORTH 45°41'54" WEST, 76.01 FEET; SOUTH 88°06'39" WEST, 69.21 FEET; NORTH 41°35'07" WEST, 147.26 FEET; NORTH 02°32'56" EAST, 121.88 FEET; NORTH 52°01'21" WEST, 133.21 FEET; THENCE NORTH 23°43'42" WEST, 195.83 FEET; NORTH 10°35'57" EAST, 101.55 FEET; NORTH 45°49'20" WEST, 104.16 FEET TO A POINT ON THE NORTH LINE OF SAID QUARTER SECTION; THENCE LEAVING SAID CREEK CENTERLINE, NORTH 88°06'41" EAST ALONG SAID NORTH LINE, 1029.78 FEET TO THE POINT OF BEGINNING, SUBJECT TO ALL RIGHTS-OF-WAY AND EASEMENTS OF RECORD, AND

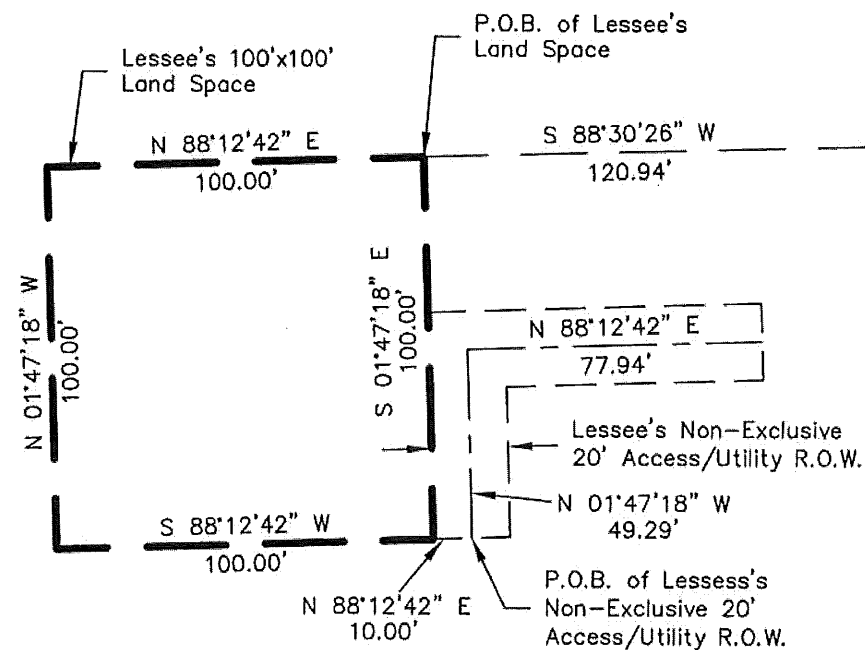
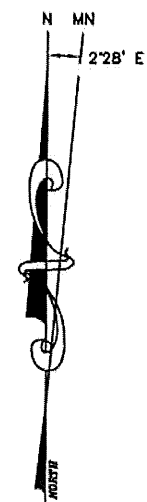
THE WEST HALF OF THE NORTHWEST QUARTER OF SECTION 14, ALL IN TOWNSHIP 13 SOUTH, RANGE 19 EAST OF THE 6TH P.M. IN DOUGLAS COUNTY, KANSAS, LESS TRACTS DESCRIBED AS FOLLOWS:

A. BEGINNING AT A POINT 1111.3 FEET EAST OF THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF SECTION 14, TOWNSHIP 13 SOUTH, RANGE 19 EAST OF THE 6TH P.M.; THENCE SOUTH PARALLEL WITH WEST LINE OF SAID QUARTER SECTION 417.4 FEET; THENCE EAST TO THE EAST LINE OF THE WEST HALF OF THE NORTHWEST QUARTER OF SAID SECTION; THENCE NORTH ON THE EAST LINE OF SAID WEST HALF TO THE NORTH LINE OF SAID QUARTER SECTION; THENCE WEST TO THE POINT OF BEGINNING.

B. BEGINNING AT A POINT 902.6 FEET EAST OF THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF SECTION 14, TOWNSHIP 13 SOUTH, RANGE 19 EAST OF THE 6TH P.M., THENCE SOUTH PARALLEL WITH THE WEST LINE OF SAID QUARTER SECTION 417.4 FEET EAST 208.7 FEET; THENCE NORTH PARALLEL WITH THE WEST LINE OF SAID QUARTER SECTION, 417.4 FEET TO THE WEST LINE OF SAID QUARTER SECTION; THENCE WEST 208.7 FEET TO THE POINT OF BEGINNING.

C. A TRACT OF LAND IN THE NORTHWEST QUARTER OF SECTION 14, TOWNSHIP 13 SOUTH, RANGE 19 EAST OF THE 6TH P.M., IN THE CITY OF LAWRENCE, IN DOUGLAS COUNTY, KANSAS, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID NORTHWEST QUARTER; THENCE SOUTH 01°44'39" EAST 620.00 FEET, COINCIDENT WITH THE WEST LINE OF SAID QUARTER SECTION TO THE POINT OF BEGINNING; THENCE NORTH 88°15'21" EAST 97.00 FEET; THENCE SOUTH 01°44'39" EAST 40.00 FEET; THENCE SOUTH 88°15'21" WEST 97.00 FEET; THENCE NORTH 01°44'39" WEST 40.00 FEET TO THE POINT OF BEGINNING.

D. A TRACT OF LAND IN THE WEST HALF OF THE NORTHWEST QUARTER OF SECTION 14, TOWNSHIP 13 SOUTH, RANGE 19 EAST OF THE 6TH P.M., DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID QUARTER SECTION; FIRST COURSE, THENCE ON AN ASSUMED BEARING OF NORTH 01°47'16" WEST 1408.94 FEET ALONG THE WEST LINE OF SAID QUARTER SECTION; SECOND COURSE, THENCE NORTH 88°12'44" EAST 175.00 FEET; THIRD COURSE, THENCE SOUTH 11°06'59" EAST, 216.27 FEET; FOURTH COURSE, THENCE SOUTH 21°22'55" EAST, 201.00 FEET; FIFTH COURSE, THENCE SOUTH 29°21'25" EAST, 152.14 FEET; SIXTH COURSE, THENCE SOUTH 20°14'54" WEST 103.62 FEET; SEVENTH COURSE, THENCE SOUTH 68°50'09" EAST 1104.50 FEET TO A POINT ON THE EAST LINE, 341.03 FEET NORTH OF THE SOUTHWEST CORNER OF THE WEST HALF OF THE SAID QUARTER SECTION; EIGHTH COURSE, THENCE SOUTH 01°49'33" EAST ALONG SAID EAST LINE TO THE SOUTHWEST CORNER OF THE WEST HALF OF SAID QUARTER SECTION; NINTH COURSE, THENCE SOUTH 88°03'37" WEST, 1326.29 FEET ALONG THE SOUTH LINE OF SAID QUARTER SECTION TO THE POINT OF BEGINNING; FOR CONTROLLED ACCESS HIGHWAY, INCLUDING ANY AND ALL ABUTTER'S RIGHT OF ACCESS TO SAID HIGHWAY APPURTENANT TO SAID PROPERTY, EXCEPT AND RESERVING THE RIGHT OF ACCESS TO THE HIGHWAY OVER AND ACROSS THE FOLLOWING DESCRIBED COURSES: ALL OF THE 'SECOND', 'THIRD', 'FOURTH', 'FIFTH' AND 'SIXTH' COURSES.



LAND SPACE & R.O.W. DETAIL
Scale: 1"=50'

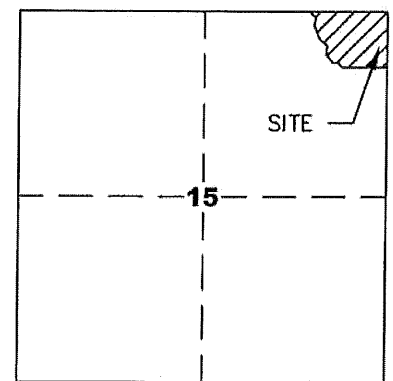
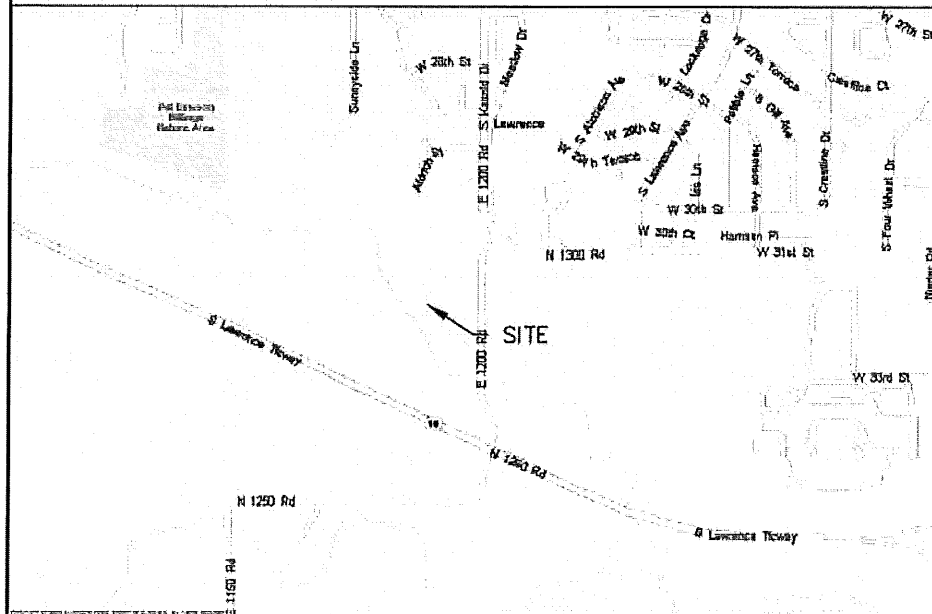
SURVEYORS NOTES

- 1.) Generally located in Kansas State Plane Coordinate System, North Zone (NAD-83).
- 2.) Not a survey of the parent parcel shown, but to be used only for the purposes shown hereon.
- 3.) The Utility locations shown hereon were determined by observed above ground evidence only. The surveyor was provided with above ground markings to determine any subsurface locations, and makes no guarantee that the underground utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated. This surveyor has not physically located the underground utilities.

Zoning Information:
OS-Open Space District

Flood Information:
Property falls within a Zones "AE" (Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. BFEs are shown within these zones.) & "X" (Minimal risk areas outside the 1-percent and .2-percent-annual-chance floodplains. No BFEs or base flood depths are shown within these zones.) as determined by FEMA Flood Rate Map No. 20045C0167D, effective 8/05/10.

VICINITY MAP



**T. 13 S, R. 19 E
PARENT PARCEL
DETAIL**

Surveyor's Certificate

I, Jayme M. Malone, a Professional Registered Land Surveyor under the laws of the State of Kansas, certify the above survey was executed by me, on the date shown. Distances shown are measured in feet and decimals of a foot.

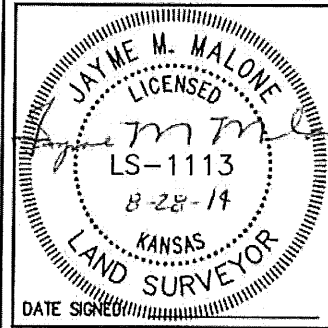
Signed this 28th day of August, 2014
Jayme M. Malone
Jayme M. Malone
LS MO #2736

Prepared for:



Surveyed By: **HS4152**
HUSKER SURVEYING
4535 Normal Blvd. Ste #101
Lincoln, Ne 68505
(402)423-5202
(402)423-5211
www.huskersurveying.com

CHECKED BY:	JMM		
APPROVED BY:	JMM		
#	DATE	DESCRIPTION	INT.
1	1/29/14	80% Prelim	TH
2	2/12/14	Land Space & R.O.W.	TH
3	2/26/14	Add Title	MG
4	3/03/14	Comments	MG
5	6/18/14	Moved Land Space	MG



SITE NAME:
LAWC KASOLD

SITE NUMBER:

SITE ADDRESS:
1293 E 1200 RD
Lawrence, KS 66047

SHEET NAME:
**LAND SPACE &
R.O.W. EXHIBIT**

SHEET NUMBER:
LSE-1

LESSEE'S LAND SPACE DESCRIPTION:

That part of the Northeast Quarter of Section 15, Township 13 South, Range 19 East of the 6th P.M., Douglas County, Kansas and being more particularly described as follows:

Referring to the Northeast corner of said Section 15, a #4 rebar in monument box found; thence southerly, on an assumed bearing, South 01°47'18" East, on the East line of the Northeast Quarter of said Section 15, 422.15 feet; thence westerly South 88°30'26" West, 120.94 feet, to the Point of Beginning for the described Land Space; thence following the perimeter of the described Land Space on the following bearings and distances of the described Land Space: South 01°47'18" East, 100.00 feet; thence South 88°12'42" West, 100.00 feet; thence North 01°47'18" West, 100.00 feet; thence North 88°12'42" East, 100.00 feet, to the Point of Beginning for the described Land Space.

Containing a total calculated area of 10,000 square feet or 0.229 acres, more or less.

LESSEE'S NON-EXCLUSIVE ACCESS/UTILITY RIGHT OF WAY DESCRIPTION:

A Non-Exclusive Access/Utility Right of Way, 20 feet in width, located in that part of the Northeast Quarter of Section 15, Township 13 South, Range 19 East of the 6th P.M., Douglas County, Kansas and the centerline being more particularly described as follows:

Referring to the Northeast corner of said Section 15, a #4 rebar in monument box found; thence southerly, on an assumed bearing, South 01°47'18" East, on the East line of the Northeast Quarter of said Section 15, 422.15 feet; thence westerly South 88°30'26" West, 120.94 feet, to the Northeast corner of the described Land Space; thence following the perimeter of the described Land Space on the following bearings and distances of the described Land Space: South 01°47'18" East, 100.00 feet; thence easterly North 88°12'42" East, 10.00 feet, to the Point of Beginning for the centerline of the described Right of Way; thence northerly North 01°47'18" West, 49.29 feet; thence easterly North 88°12'42" East, 77.94 feet, to a point of intersection on the westerly right-of-way line of E 1200 Road, also being the Point of Termination for the centerline of the described Right of Way.

Containing a total calculated area of 2,545 square feet or 0.058 acres, more or less.

INFORMATIONAL REPORT:

Based on Commitment for Title Insurance with an effective date of January 24, 2014 provided by First American Title Insurance Company, Commitment No. NCS-651243-KCTY, the following are of survey matters:

9. A Grant of Right of Way in favor of The Kansas Power and Light Company, recorded April 12, 1967 in Book 249, Page 562. Does not affect Land Space and Right of Way.
10. An Easement in favor of the City of Lawrence, Kansas, recorded March 8, 1985 in Book 379, Page 182. Does not affect Land Space and Right of Way.
11. An Easement for Right of Way For Highway Purposes in favor of Douglas County, Kansas, recorded June 4, 1990 in Book 445, Page 289. Does not affect Land Space and Right of Way.
12. An Easement for Right of Way For Pedestrian/Bicycle Path Purposes in favor of Douglas County, Kansas, recorded April 11, 1996 in Book 551, Page 1741. Affects Right of Way, and is shown hereon.
13. A Right-Of-Way Easement in favor of Douglas County, RWD No.5, recorded May 11, 2000 in Book 674, Page 1466. Said Easement was partially assigned to the City of Lawrence, Kansas by instrument recorded December 14, 2001 in Book 748, Page 422. Does not affect Land Space and Right of Way.
14. An Easement for Ingress and Egress in favor of Rural Water District No. 5, Douglas County, Kansas, recorded May 22, 2000 in Book 675, Page 1351. Does not affect Land Space and Right of Way.
15. A Right-Of-Way Easement in favor of Douglas County, RWD No. 5, recorded June 6, 2001 in Book 716, Page 167. Said Easement was partially assigned to the City of Lawrence, Kansas by instrument recorded December 14, 2001 in Book 748, Page 422. Does not affect Land Space and Right of Way.
16. An Ordinance of the City of Lawrence, Kansas, annexing property into the city, recorded May 7, 2003 in Book 853, Page 35. Does not affect Land Space and Right of Way.
17. An Ordinance of the City of Lawrence, Kansas, annexing property into the city, recorded December 17, 2009 in Book 1057, Page 482. Does not affect Land Space and Right of Way.
18. An Annexation Agreement between the Kansas District of the Wesleyan Church, Inc. and the City of Lawrence, Kansas, recorded February 8, 2010 in Book 1058, Page 5202. Does not affect Land Space and Right of Way.
19. A Temporary Construction Easement in favor of the City of Lawrence, Kansas, recorded April 22, 2010 in Book 1060, Page 5358. Does not affect Land Space and Right of Way.
20. A Dedication of Right-Of-Way in favor of the City of Lawrence, Kansas, recorded April 22, 2010 in Book 1060, Page 5364. Does not affect Land Space and Right of Way.

Prepared for:

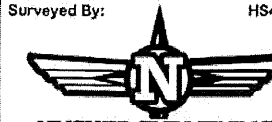
Prepared for:



**MAGTECH
MIDWEST INC.**
AN AFFILIATE OF FORTUNE WIRELESS INC.
1715 MANAYOK WAY, FORT WAYNE, INDIANA 46804
(317) 438-2888 • (317) 438-3422 FAX

Surveyed By:

HS4152



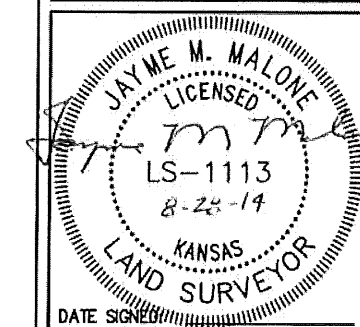
HUSKER SURVEYING

4535 Normal Blvd. Ste #101
Lincoln, Ne 68506
(402)423-5202
(402)423-5211
www.huskersurveying.com

CHECKED BY: JMM

APPROVED BY: JMM

#	DATE	DESCRIPTION	INT.
1	1/29/14	80% Prelim	TH
2	2/12/14	Land Space & R.O.W.	TH
3	2/26/14	Add Title	MG
4	3/03/14	Comments	MG
5	6/18/14	Moved Land Space	MG



SITE NAME:

LAWC KASOLD

SITE NUMBER:

SITE ADDRESS:

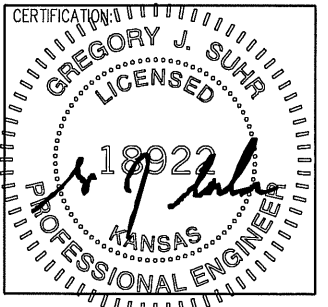
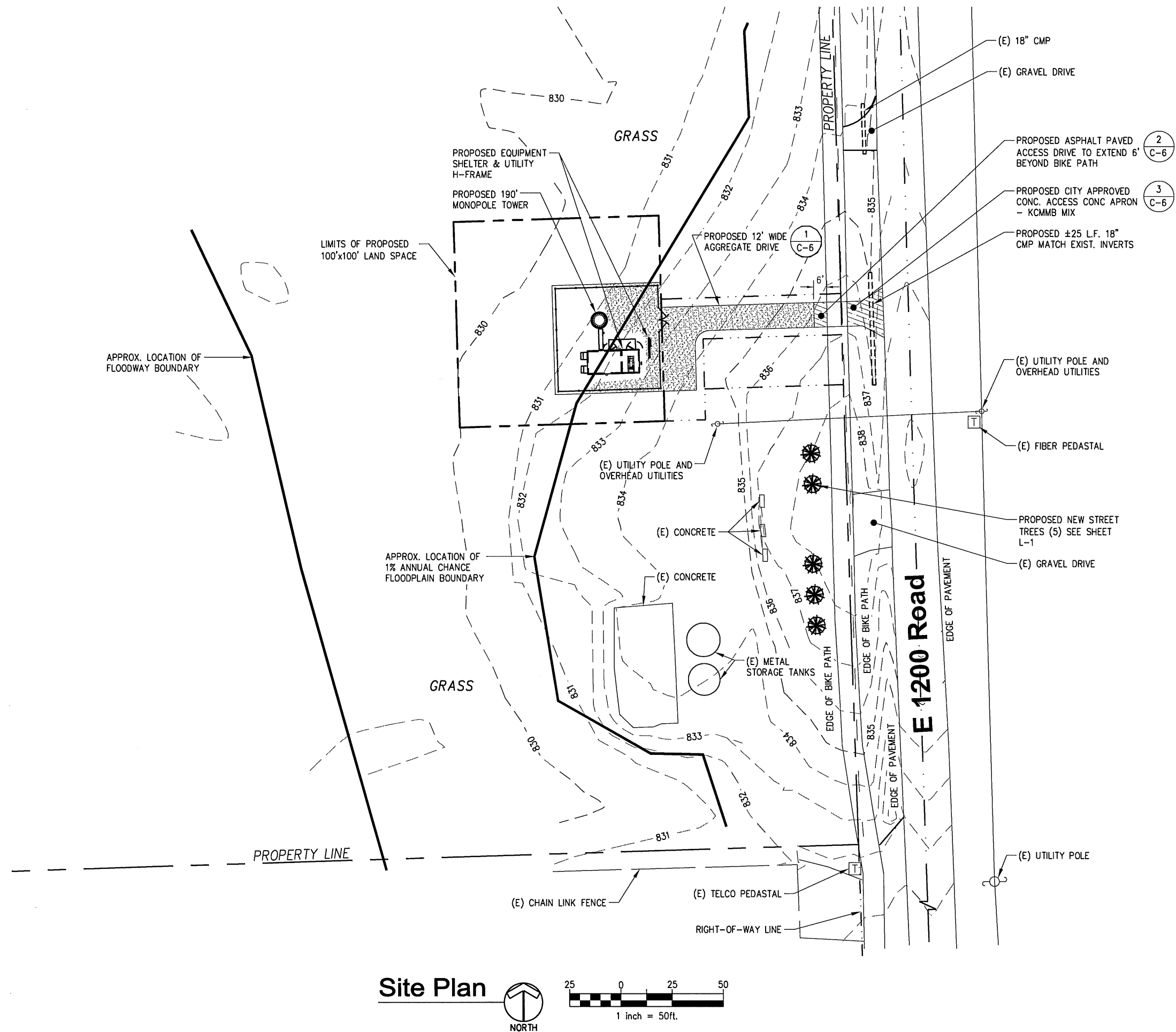
1293 E 1200 RD
Lawrence, KS 66047

SHEET NAME:

LAND SPACE &
R.O.W. EXHIBIT

SHEET NUMBER:

LSE-2



RELEASE DATE	DESCRIPTION
05-05-14	CONSTRUCTION DWGS - REV A
07-27-14	CONSTRUCTION DWGS - REV B
08-11-14	CONSTRUCTION DWGS - REV C
01-30-15	CONSTRUCTION DWGS - REV D
02-25-15	CONSTRUCTION DWGS - REV D

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 DRAWN BY: JLM
 CHECKED BY: DJH

SITE NAME: _____

LAWC KASOLD CELL SITE

SITE ADDRESS: _____

1293 E 1200 ROAD
 LAWRENCE, KS 66047

SHEET TITLE: _____

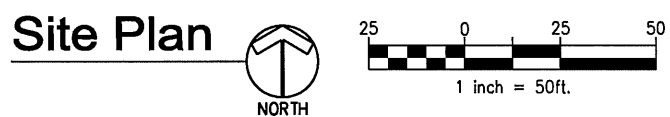
OVERALL SITE PLAN

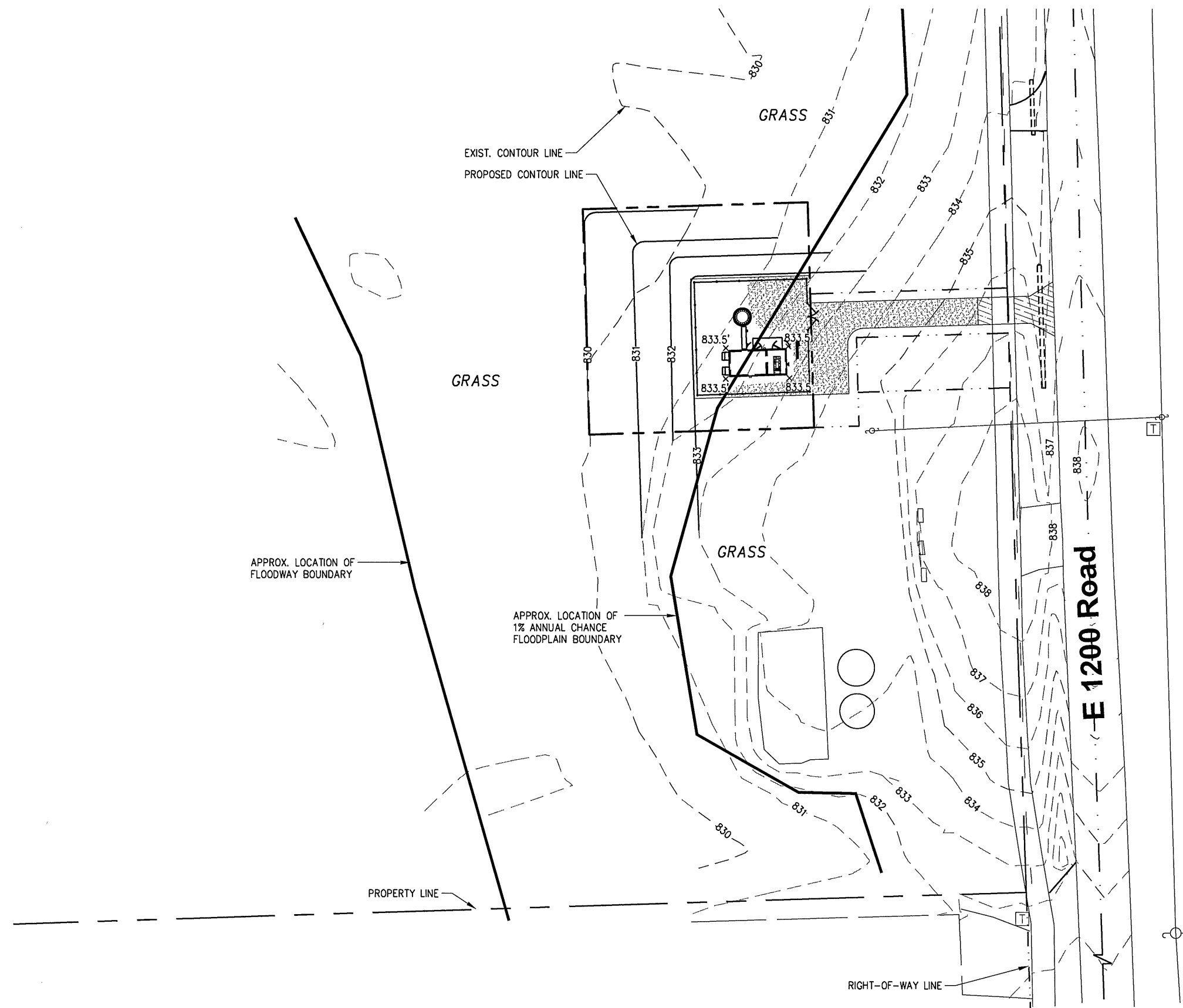
A&E PROJECT NO.: _____

001-1504

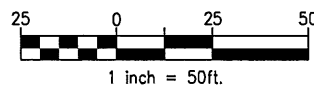
SHEET NO.: _____

C-0





Grading Plan

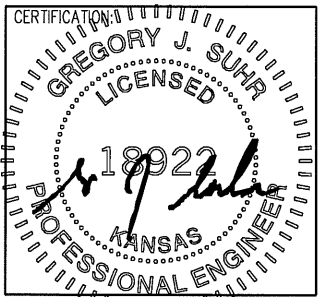


Plan Notes:

BASE FLOOD ELEVATION (B.F.E.) = 831.7'
PER THE CITY OF LAWRENCE

+XXX.X SPOT ELEVATION - SUBGRADE (FINISH GRADE
OF SITE = 0.67' ABOVE SUBGRADE)

- EXISTING CONTOUR
- NEW CONTOUR



RELEASE DATE	DESCRIPTION
05-05-14	CONSTRUCTION DWGS - REV A
07-27-14	CONSTRUCTION DWGS - REV B
08-11-14	CONSTRUCTION DWGS - REV C
01-30-15	CONSTRUCTION DWGS - REV D
02-25-15	CONSTRUCTION DWGS - REV O

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DRAWN BY: JLM
CHECKED BY: DJH

SITE NAME: _____

**LAWC KASOLD
CELL SITE**

SITE ADDRESS: _____

**1293 E 1200 ROAD
LAWRENCE, KS 66047**

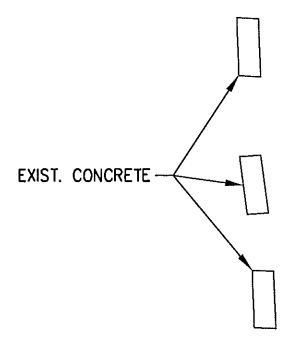
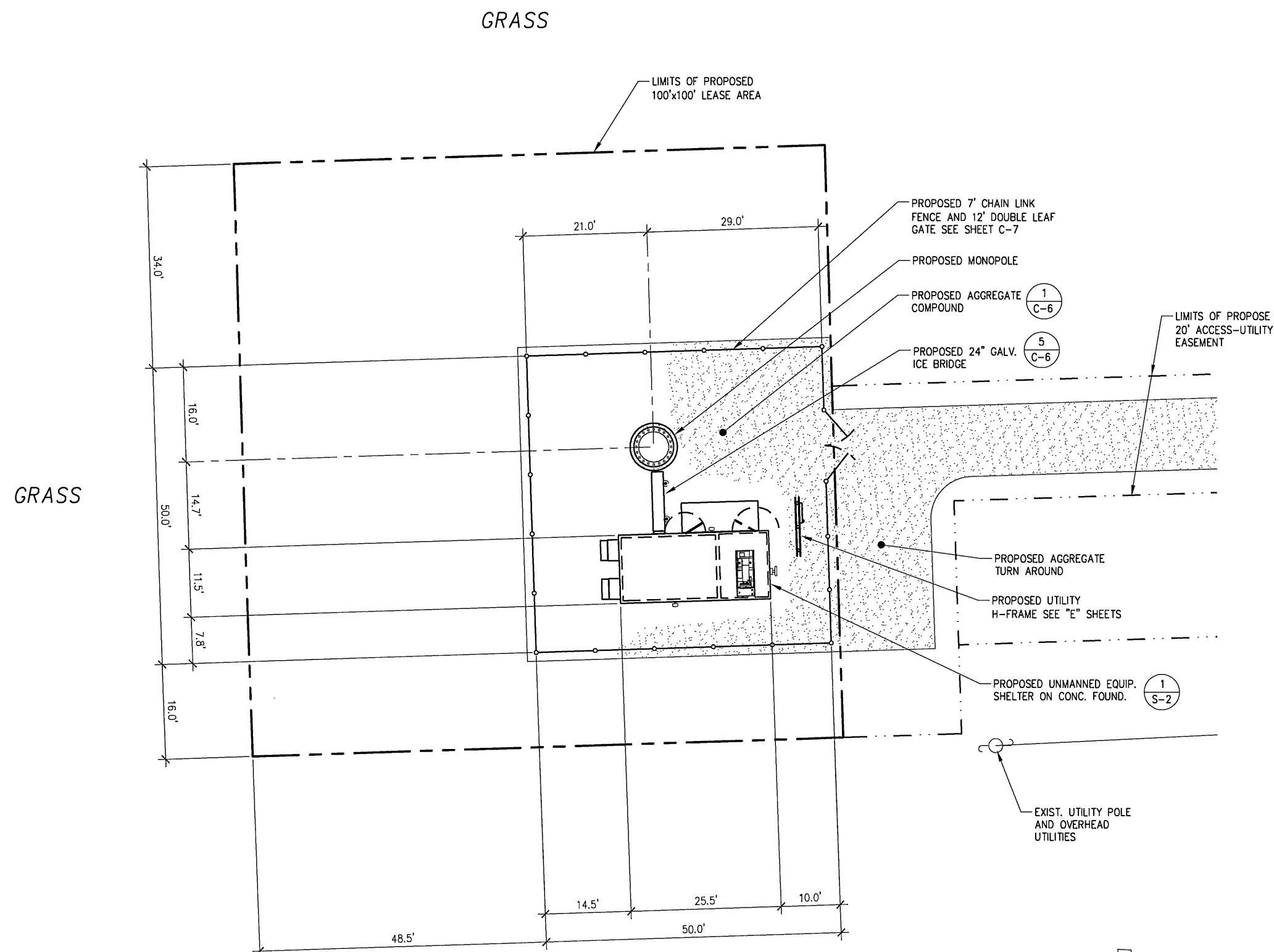
SHEET TITLE: _____

SITE GRADING PLAN

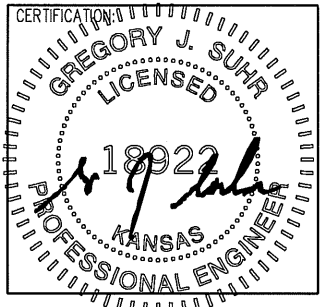
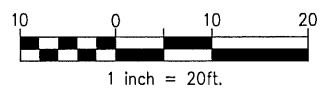
A&E PROJECT NO.: _____

001-1504

SHEET NO.: _____



Enlarged Site Plan



RELEASE DATE	DESCRIPTION
05-05-14	CONSTRUCTION DWGS - REV A
07-27-14	CONSTRUCTION DWGS - REV B
08-11-14	CONSTRUCTION DWGS - REV C
01-30-15	CONSTRUCTION DWGS - REV D
02-25-15	CONSTRUCTION DWGS - REV D

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DRAWN BY: JLM
CHECKED BY: DJH

SITE NAME: _____

**LAWC KASOLD
CELL SITE**

SITE ADDRESS: _____

1293 E 1200 ROAD
LAWRENCE, KS 66047

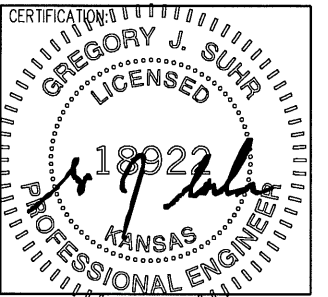
SHEET TITLE: _____

ENLARGED SITE PLAN

A&E PROJECT NO.: _____

001-1504

SHEET NO.: _____



RELEASE DATE	DESCRIPTION
05-05-14	CONSTRUCTION DWGS - REV A
07-27-14	CONSTRUCTION DWGS - REV B
08-11-14	CONSTRUCTION DWGS - REV C
01-30-15	CONSTRUCTION DWGS - REV D
02-25-15	CONSTRUCTION DWGS - REV O

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DRAWN BY: JLM
CHECKED BY: DJH

SITE NAME:

LAWC KASOLD CELL SITE

SITE ADDRESS:

1293 E 1200 ROAD
LAWRENCE, KS 66047

SHEET TITLE:

TOWER ELEVATION, ANTENNA INFORMATION NOTES AND DETAILS

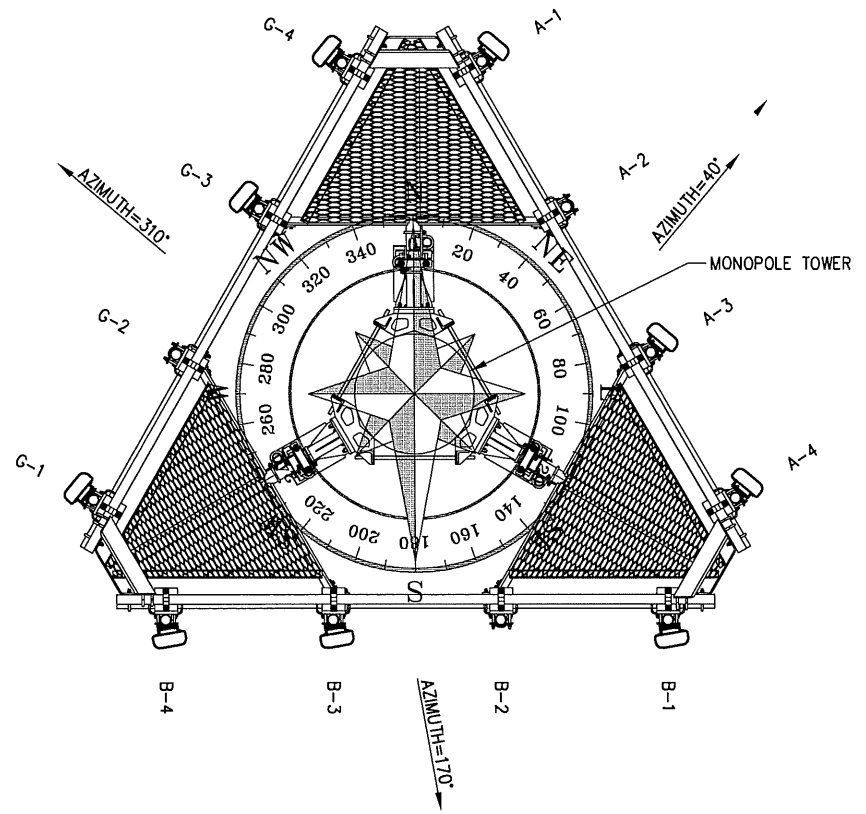
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001-1504

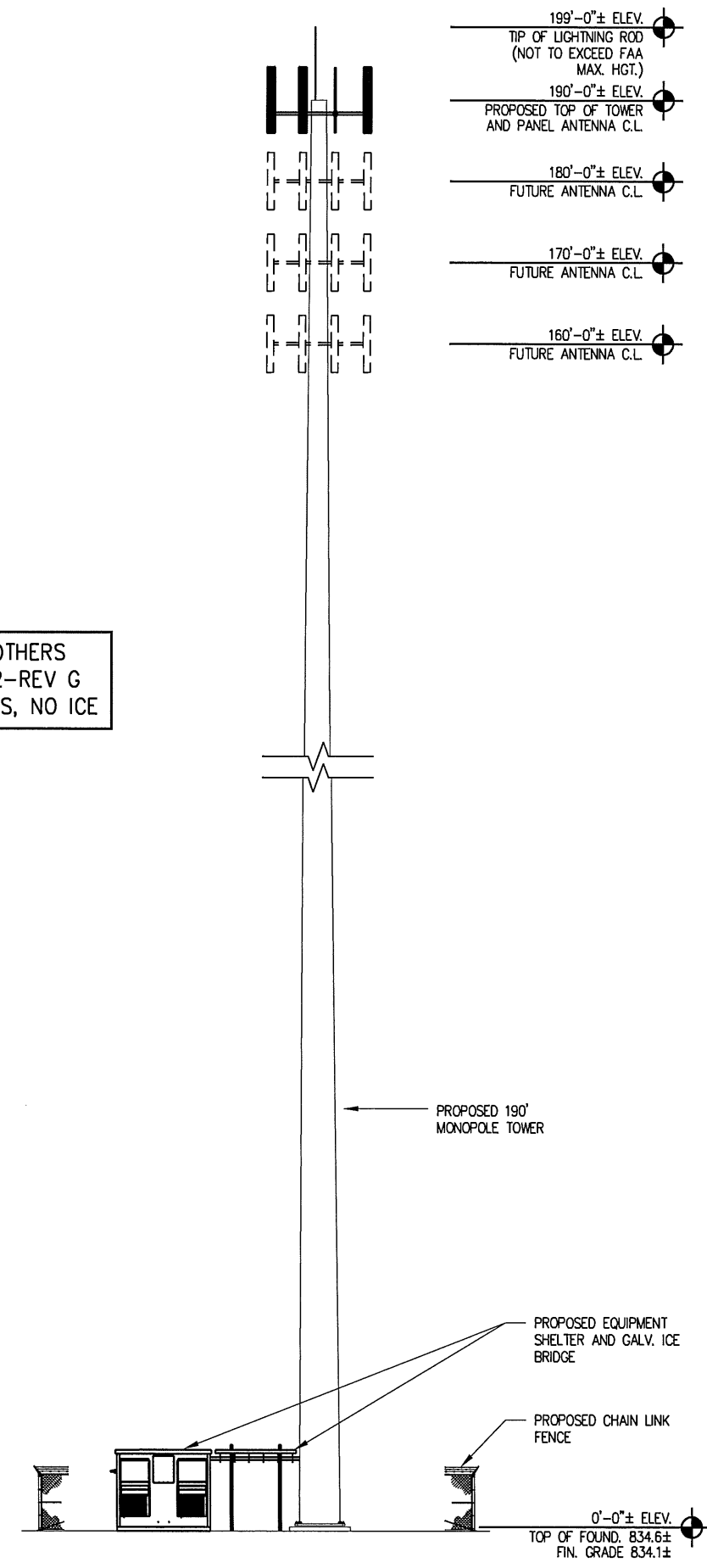
SHEET NO.:

C-3

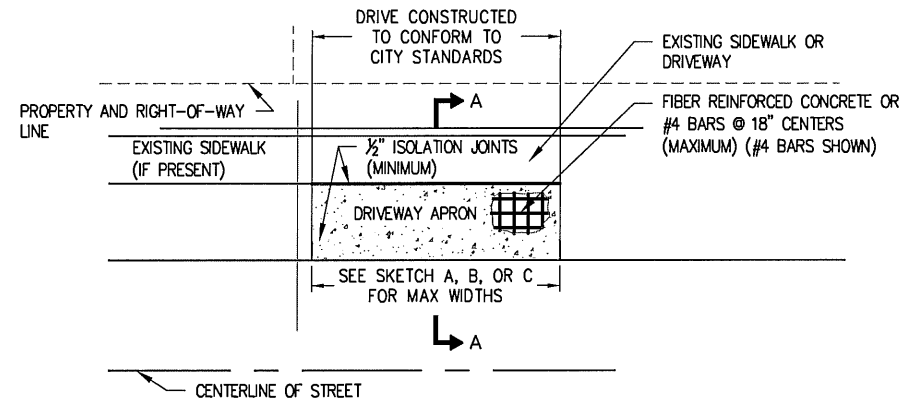
MONOPOLE TO BE DESIGNED BY OTHERS ACCORDING TO ANSI/EIA/TIA-222-REV G STANDARDS: 90 MPH BASIC WINDS, NO ICE



2 Antenna Azimuths
SCALE: 1/4" = 1'-0"

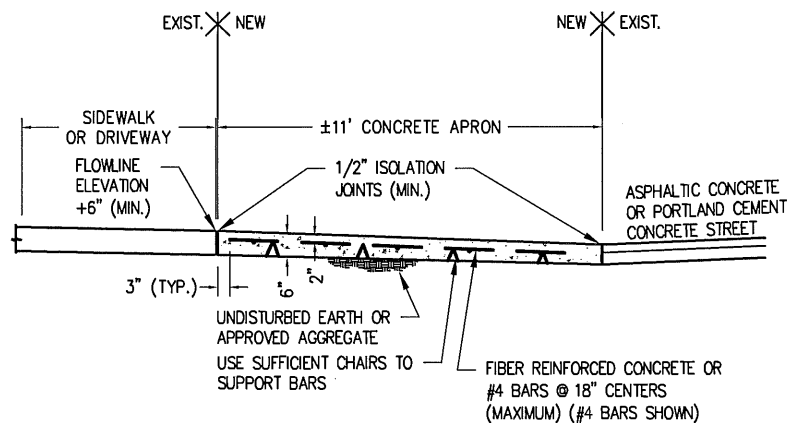


1 Tower Elevation
SCALE: 1" = 20'-0"



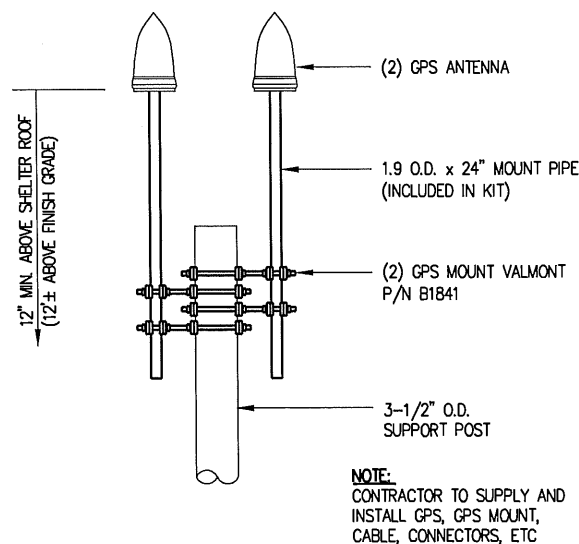
3 Driveway Apron

SCALE: 1" = 20'-0"



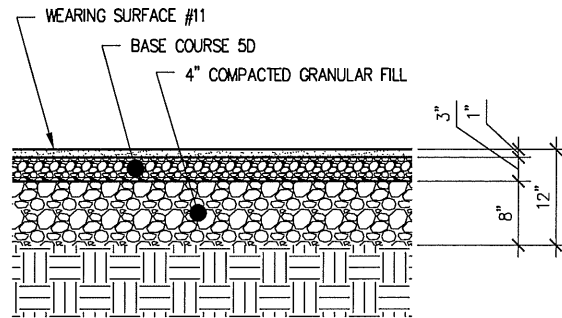
4 Apron Section A-A

SCALE: 1/4" = 1'-0"



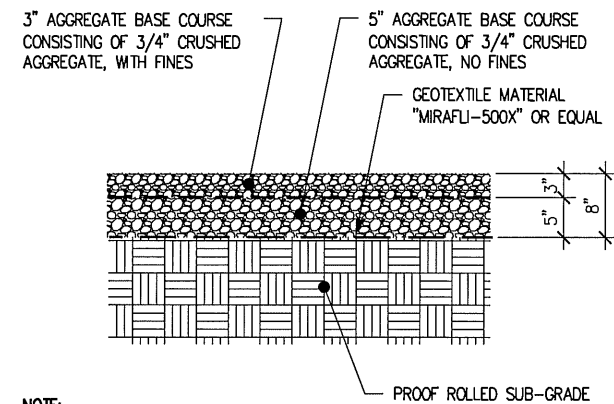
7 GPS Mount Detail

SCALE: 3/4" = 1'-0"



2 Asphalt Drive

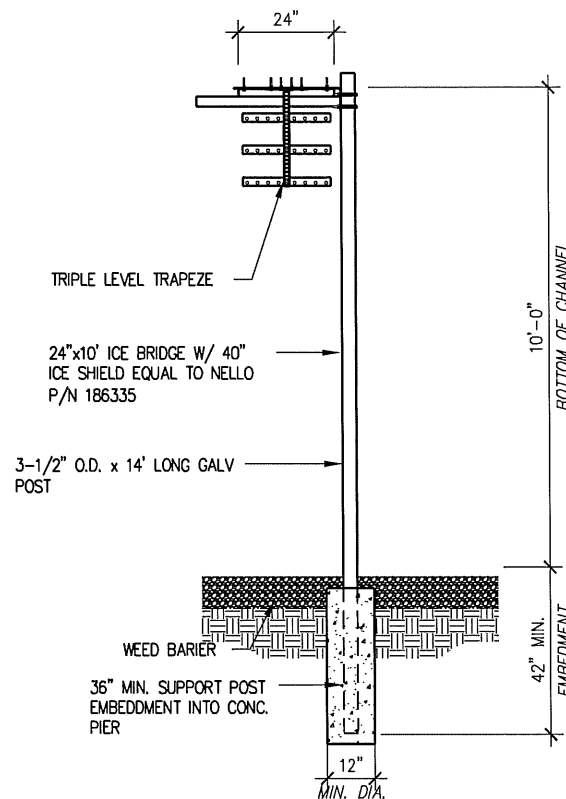
SCALE: 1/2" = 1'-0"



NOTE:
IT IS THE RESPONSIBILITY OF THE G.C. TO
VERIFY THE LIMESTONE IS UNIFORMLY
WHITE IN COLOR AFTER PLACEMENT

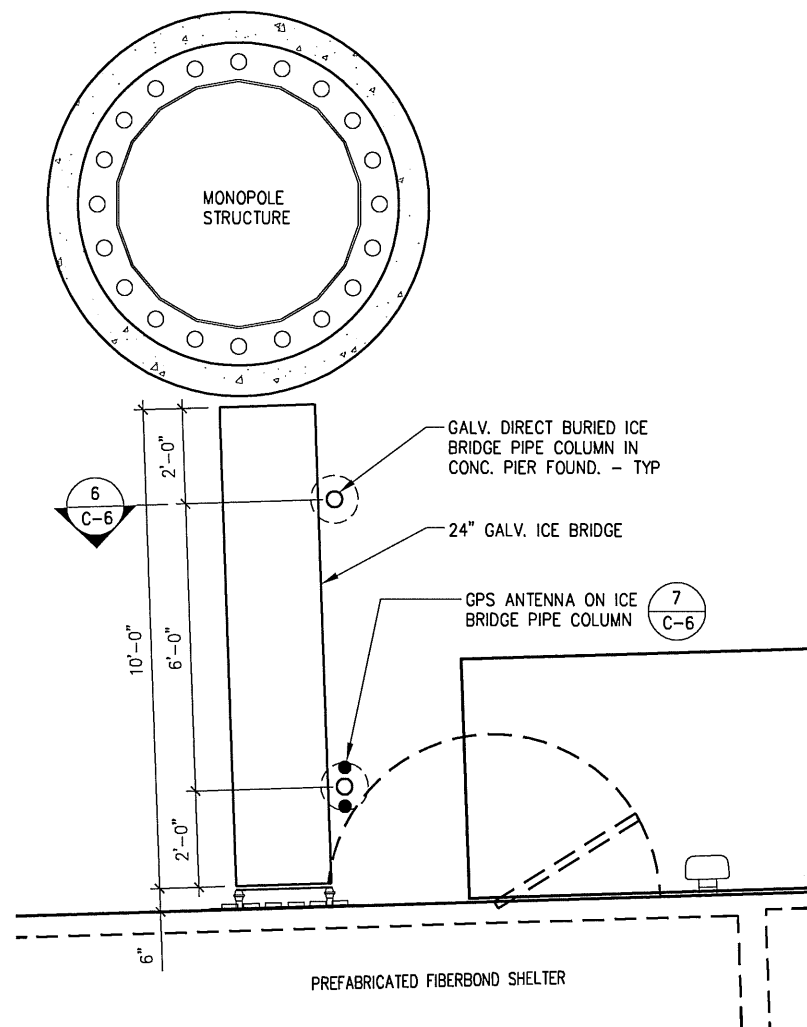
1 Aggregate Base

SCALE: 1/2" = 1'-0"



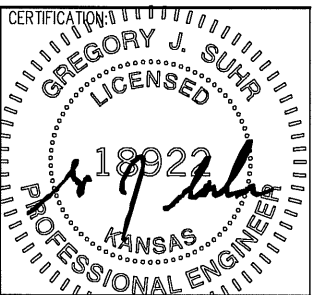
6 Ice Bridge Section

SCALE: 1/4" = 1'-0"



5 Ice Bridge Plan

SCALE: 1/4" = 1'-0"



RELEASE DATE	DESCRIPTION
05-05-14	CONSTRUCTION DWGS - REV A
07-27-14	CONSTRUCTION DWGS - REV B
08-11-14	CONSTRUCTION DWGS - REV C
01-30-15	CONSTRUCTION DWGS - REV D
02-25-15	CONSTRUCTION DWGS - REV 0

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DRAWN BY: JLM
CHECKED BY: DJH

SITE NAME:

LAWC KASOLD CELL SITE

SITE ADDRESS:

1293 E 1200 ROAD
LAWRENCE, KS 66047

SHEET TITLE:

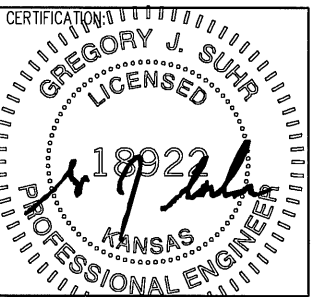
CIVIL DETAILS

A&E PROJECT NO.:

001-1504

SHEET NO.:

C-6



RELEASE DATE	DESCRIPTION
05-05-14	CONSTRUCTION DWGS - REV A
07-27-14	CONSTRUCTION DWGS - REV B
08-11-14	CONSTRUCTION DWGS - REV C
01-30-15	CONSTRUCTION DWGS - REV D
02-25-15	CONSTRUCTION DWGS - REV E

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CHECKED BY: DJH

SITE NAME: _____

**LAWC KASOLD
CELL SITE**

SITE ADDRESS: _____

1293 E 1200 ROAD
LAWRENCE, KS 66047

SHEET TITLE: _____

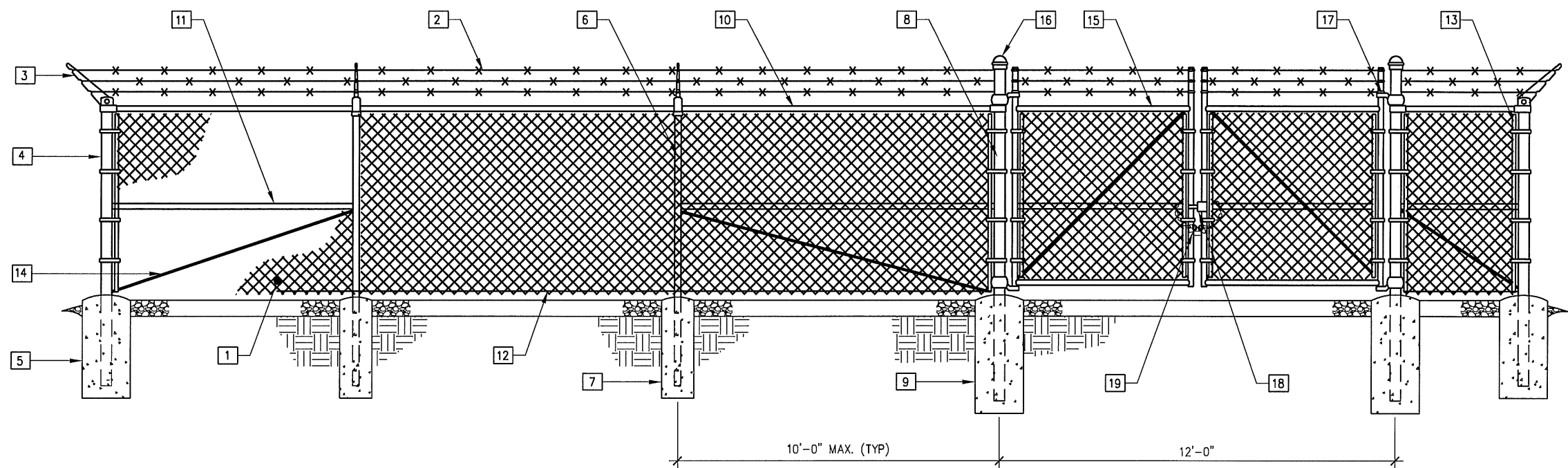
FENCE DETAILS

A&E PROJECT NO.: _____

001-1504

SHEET NO.: _____

C-7



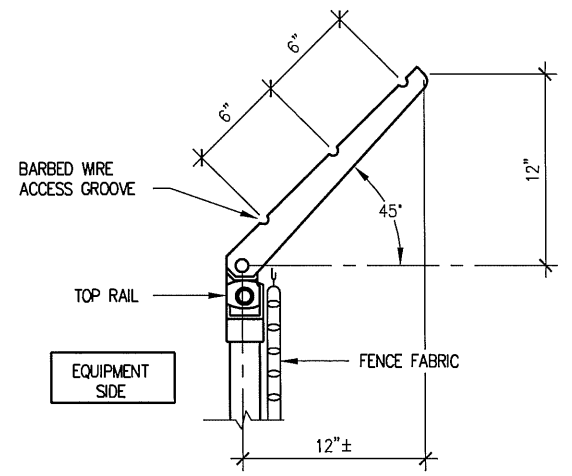
1 Typical Fence Elevation
SCALE: 1/4" = 1'-0"

Keynote Legend

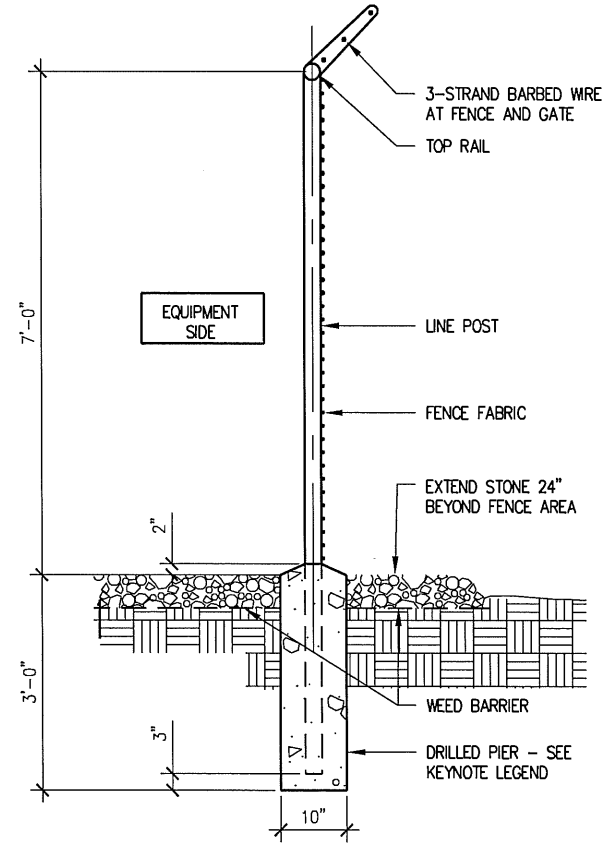
- 1 FABRIC: 9 GAUGE, 2" MESH, ASTM A392 (SEE FENCE SECTION FOR HEIGHT).
- 2 BARBED WIRE: 12 GAUGE WIRE, 4 POINT (3 RUNS), FINISH TO MATCH FABRIC, ASTM A121.
- 3 EXTENSION ARMS: STAMPED STEEL WITH MALLEABLE IRON BASE, FINISH TO MATCH FENCE FRAMEWORK, ASTM F626.
- 4 END AND CORNER POSTS: 3"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 5 CONCRETE FOUNDATION: 36"x12"Ø (3000 PSI)
- 6 LINE POSTS: 2"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 7 CONCRETE FOUNDATION: 36"x10"Ø (3000 PSI)
- 8 GATE POSTS: 4"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 9 CONCRETE FOUNDATION: 48"x12"Ø (3000 PSI)
- 10 TOP RAIL & BRACE RAIL: 1-1/2"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 11 MIDDLE RAILS: 1-1/2"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 12 BOTTOM TENSION WIRE: 0.177"Ø METALLIC-COATED STEEL (GALV.), MARCELLED, ASTM A824
- 13 TENSION BARS: 3/16"x3/4", FULL HEIGHT OF FABRIC, FINISH TO MATCH FENCE FRAMEWORK.
- 14 TENSION ROD: 3/8"Ø WITH ADJ. TIGHTNER, FINISH TO MATCH FENCE FRAMEWORK.
- 15 GATE FRAME: 2"Ø SCH. 40 (GALV.) ASTM F1083
- 16 POST CAPS: PER POST DIAMETER.
- 17 GATE HINGES: NON-LIFT-OFF TYPE, OFFSET TO PERMIT 180 DEGREE SWING.
- 18 DOUBLE GATE LATCH: COMMERCIAL STRONG ARM EQUAL TO: DAC INDUSTRIES 615-C ELEVENTH STREET, GRAND RAPIDS, MI 49504
- 19 LOCK CHAIN: 3/8" SIZE, 36" LONG HOT DIP GALVANIZED ZINC COATED. W/ MARINE-GRADE PROGRAMMABLE FOUR DIGIT PADLOCK (SESAME BRAND OR APPROVED EQUAL)

NOTES:

- 1. REFER TO PROJECT SPECIFICATIONS FOR INFORMATION NOT SHOWN IN THE DRAWING.
- 2. FENCE FABRIC SHALL CONFORM TO CHAIN LINK FENCE MANUFACTURERS INSTITUTE (CLFMI) PRODUCT MANUAL.
- 3. INSTALL FENCE IN COMPLIANCE WITH ASTM F 567.
- 4. INSTALL SWING GATES IN COMPLIANCE WITH ASTM F 900.
- 5. DO NOT BEGIN INSTALLATION AND ERECTION BEFORE FINAL GRADING IS COMPLETED, UNLESS OTHERWISE PERMITTED, INSTALL FENCING ON BOUNDARY LINES INSIDE OF PROPERTY LINE ESTABLISHED BY SURVEY.
- 6. DRILL OR HAND-EXCAVATE (USING POST - HOLE DIGGER) HOLES FOR POSTS TO DIAMETERS AND SPACINGS INDICATED, IN FIRM, UNDISTURBED OR COMPACTED SOIL. IF NOT INDICATED ON DRAWINGS, EXCAVATE HOLES FOR EACH POST TO MINIMUM DIAMETER RECOMMENDED BY FENCE MANUFACTURER, BUT NOT LESS THAN (4) TIMES LARGEST GROSS-SECTION OF POST.
- 7. REMOVE POST HOLE SPOILS FROM SITE. DO NOT SET SPOILS ON AGGREGATE WITHOUT ADEQUATE PROTECTION.
- 8. PROTECT PORTION OF POSTS ABOVE GROUND FROM CONCRETE SPLATTER. PLACE CONCRETE AROUND POSTS AND VIBRATE OR TAMP FOR CONSOLIDATION. CHECK EACH POST FOR VERTICAL AND TOP ALIGNMENT AND HOLD IN POSITION DURING PLACEMENT AND FINISHING OPERATIONS, UNLESS OTHERWISE SHOWN, EXTEND CONCRETE FOOTING 1 INCH ABOVE GRADE AND TROWEL TO A CROWN TO SHED WATER.
- 9. INSTALL BARBED WIRE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 10. APPLY FABRIC TO OUTSIDE OF FRAMEWORK.



3 Barbed Wire Detail
SCALE: 1" = 1'-0"



2 Typical Fence Section
SCALE: 3/8" = 1'-0"



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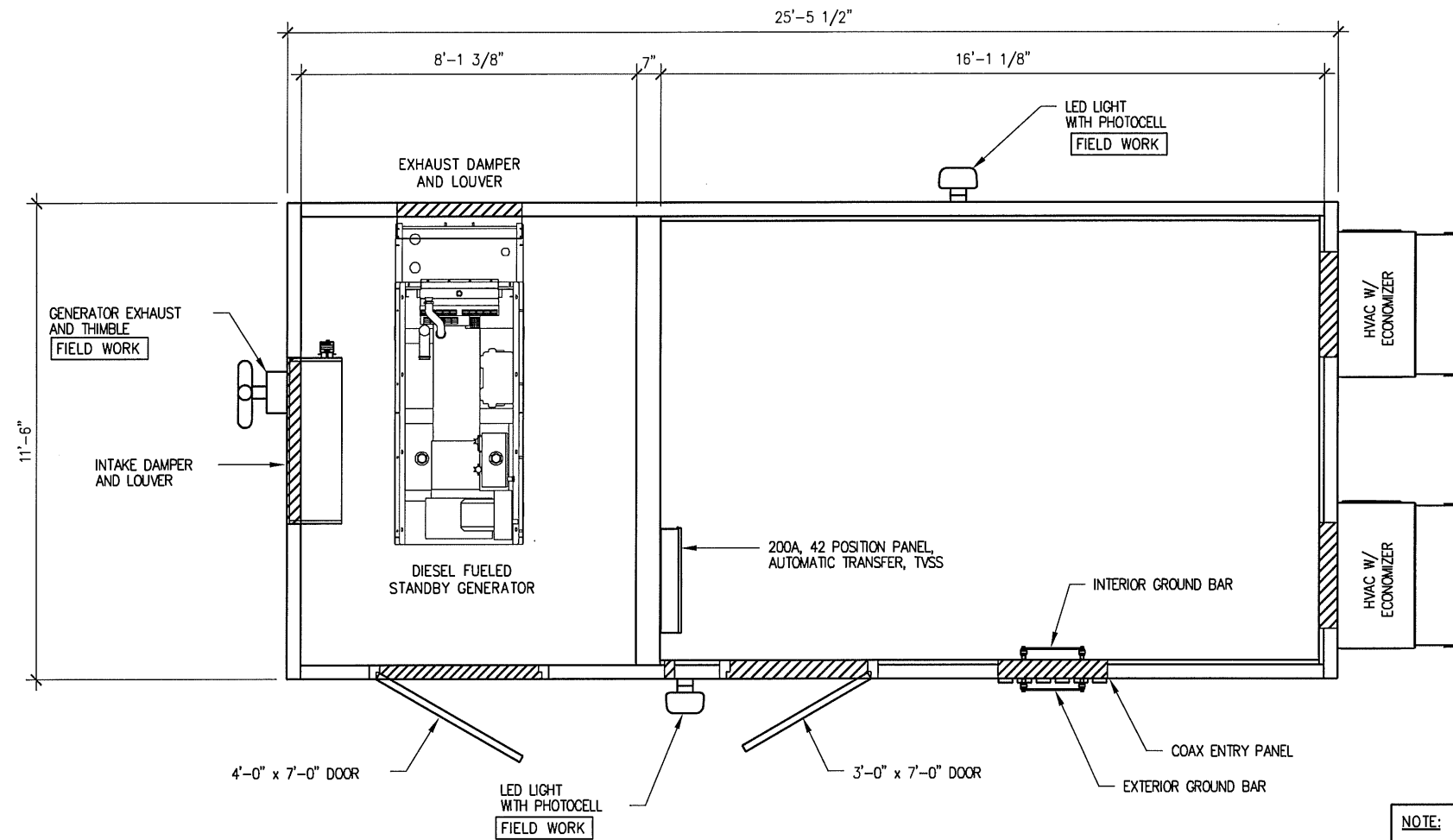
EQUIPMENT SHELTER PLAN

A&E PROJECT NO.:

001-1504

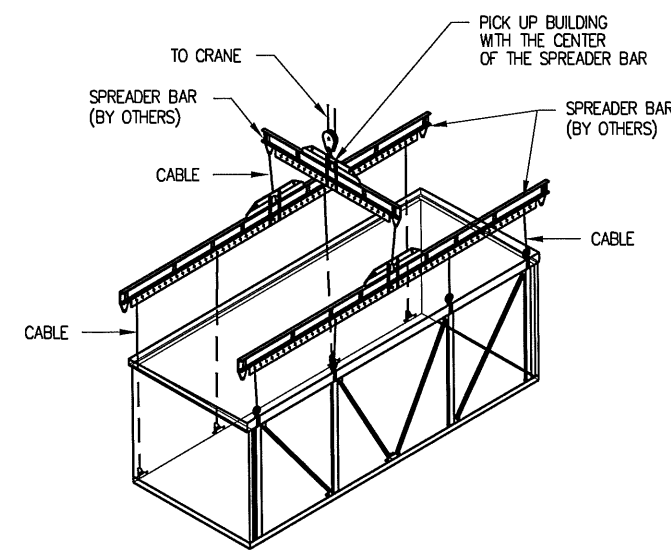
SHEET NO.:

C-8

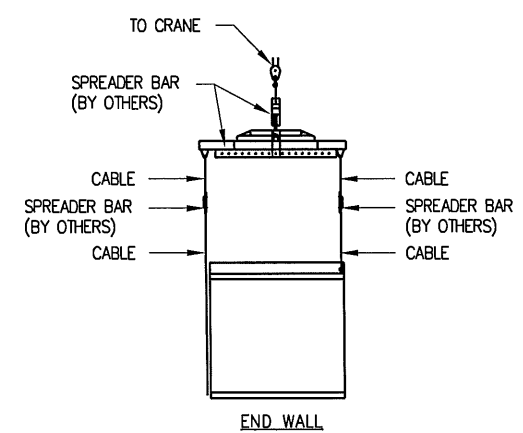


1 Equipment Enclosure Floor Plan
SCALE: 1/4" = 1'-0"

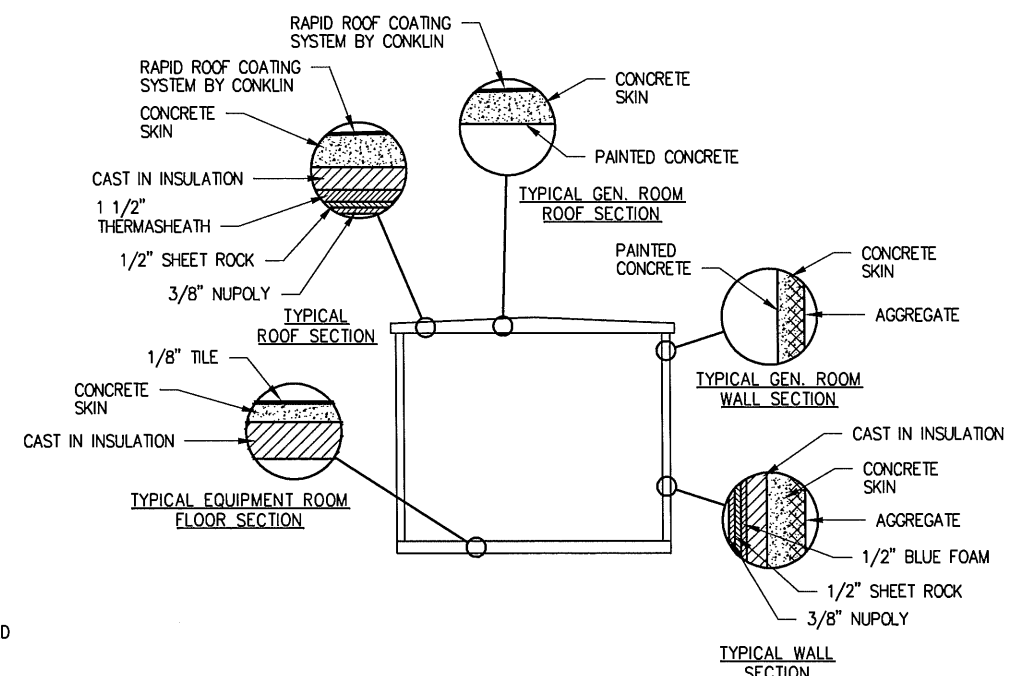
NOTE:
GENERAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL EXTERIOR ATTACHMENTS FOR GENERATOR (MUFFLER, VENT, ETC.), DOOR CANOPIES, AND SECURITY LIGHTS



ALL BUILDINGS MUST BE LIFTED FROM ALL LIFTING POINTS (DOUBLE WIDE)



ALL BUILDINGS MUST BE LIFTED FROM ALL LIFTING POINTS



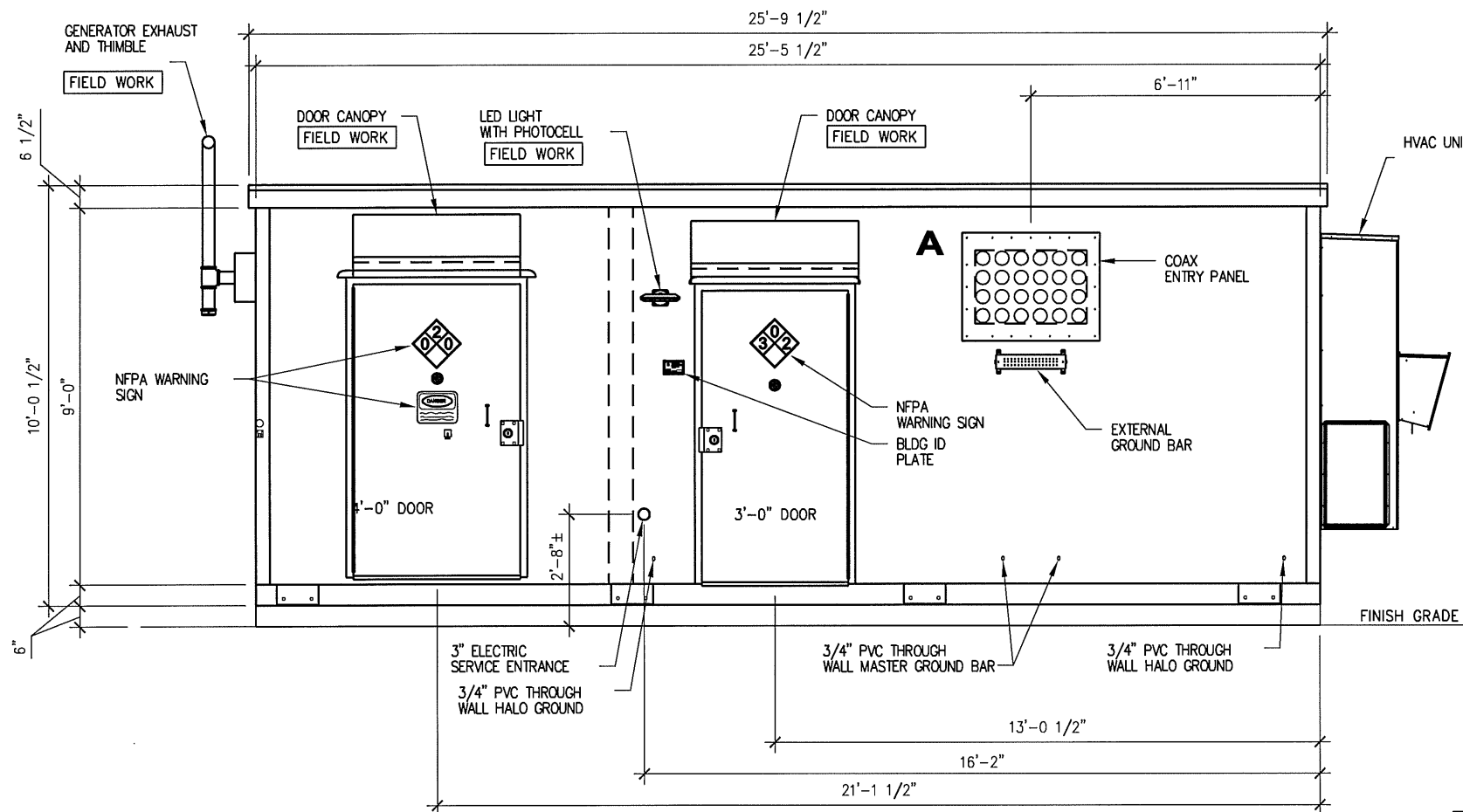
Traverse Section

Equipment Shelter Set Up Procedure

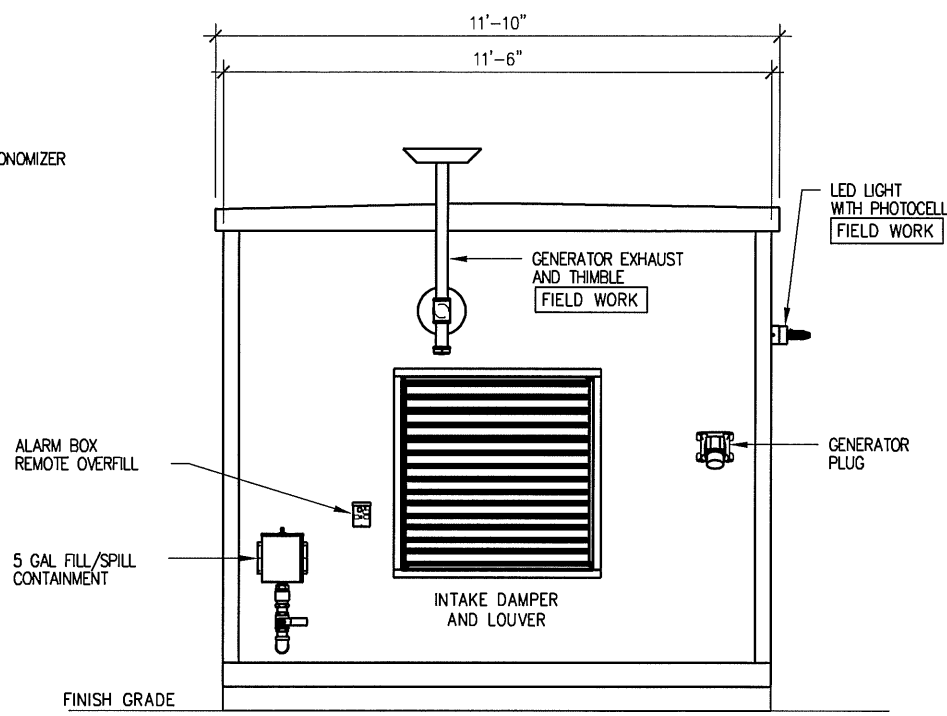
1. INSPECT BUILDING UPON DELIVERY FOR DAMAGE DURING TRANSPORTATION.
2. REMOVE LIFTING BRACKETS FROM SHELTER.
3. ATTACH TIE DOWN BRACKETS TO SHELTER AND FOUNDATION USING ANCHOR BOLTS.
4. INSTALL AND CAULK ALL ACCESSORIES (EXTERIOR LIGHTS, CANOPIES, GENERATOR EXHAUST AND VENT PIPES ETC.)
5. INSPECT ROOF AND ROOF EDGES FOR DAMAGE CAUSED BY OFFLOAD AND REPAIR IF NEEDED.
6. INSTALL BACKER ROD AND CAULK EXTERIOR WALLS AND ROOF.
7. INSTALL FLASHING ON ALL INTERIOR MOD. LINES.
8. MAKE ALL CONDUIT AND CABLE TRAY CROSSOVERS.
9. CLEAN INTERIOR AND COMPLETE ANY TOUCH UP PAINTING AS NEEDED.
10. CHECK DOOR ALARM FOR PROPER OPERATION.
11. CHECK LIGHTING AND AIR CONDITIONING FOR PROPER OPERATION.
12. INSPECT COMPLETE BUILDING COSMETICS.

Offload Notes

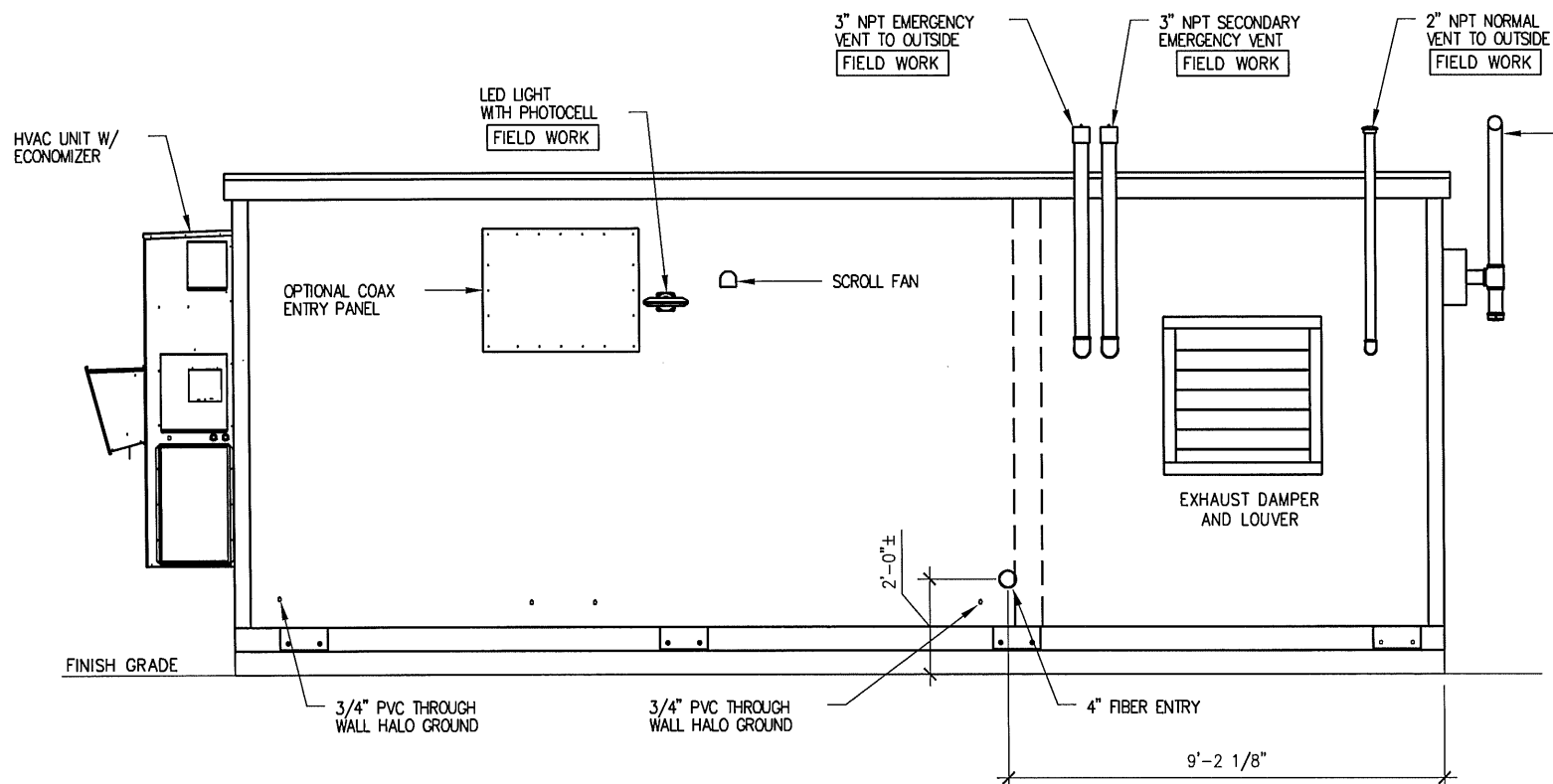
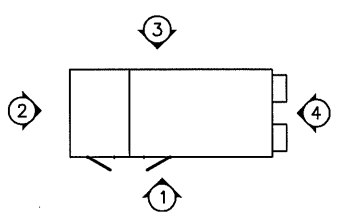
1. BUILDING SHALL BE OFFLOADED LEVEL.
2. ALL CABLES, SHACKLING, SPREADER BARS, ETC. SHALL BE DESIGNED AND SUPPLIED BY OTHERS.
3. ALL LIFTING POINTS SHALL BE USED.
4. 1 1/8" MAXIMUM DIAMETER FOR SHACKLES.
5. REMOVE BRACKET AFTER PLACEMENT OF SHELTER AND INSTALL ANCHOR TIE-DOWN PLATES (SHIPPED LOOSE INSIDE SHELTER) AT EACH LOCATION.
6. OFFLOAD BUILDING WITH CABLES IN VERTICAL POSITION. ANGLED POSITION CABLES ARE NOT ACCEPTABLE.



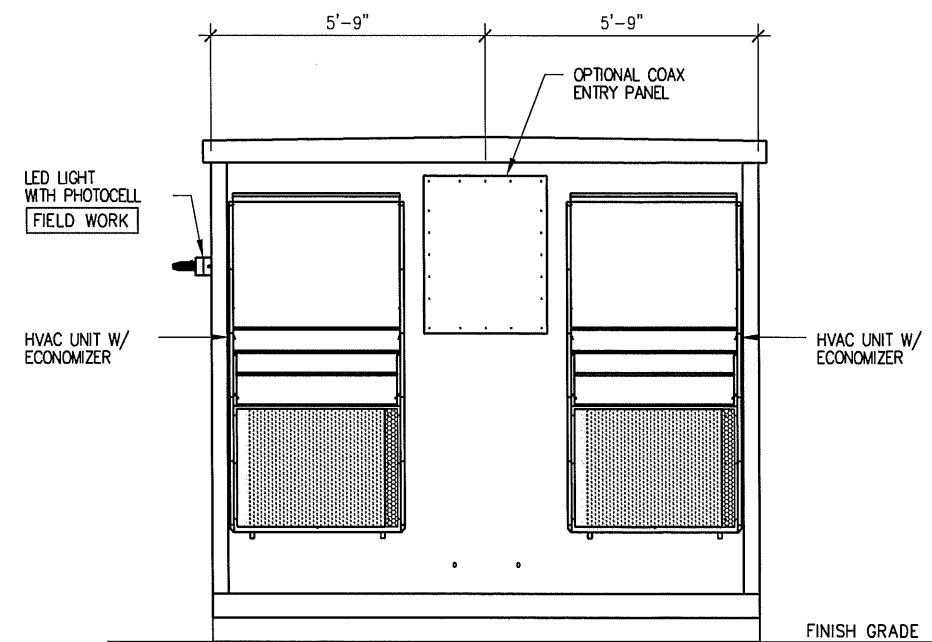
1 Front Wall Elevation
SCALE: 1/4" = 1'-0"



2 End Wall Elevation
SCALE: 1/4" = 1'-0"



3 Rear Wall Elevation
SCALE: 1/4" = 1'-0"



4 End Wall Elevation
SCALE: 1/4" = 1'-0"



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LAWRENCE, KS 66047

SHEET TITLE:

EQUIPMENT SHELTER ELEVATIONS

A&E PROJECT NO.:

001-1504

SHEET NO.:

Landscape Notes

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE PLAN.
- ALL NECESSARY PERMITS AND APPROVALS FROM AGENCIES GOVERNING THIS WORK SHALL BE SECURED BY THE GENERAL CONTRACTOR PRIOR TO BEGINNING ANY WORK.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ROADS, WALKS, AND ADJACENT PROPERTIES CLEAR OF ANY DEBRIS, DIRT, AND CONSTRUCTION EQUIPMENT DURING CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LINE LOCATIONS PRIOR TO BEGINNING ANY WORK. ANY DEVIATIONS FROM THE DESIGN LOCATIONS SHALL BE REPORTED TO THE ARCHITECT/ENGINEER.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND SCHEDULING ALL LANDSCAPE RELATED WORK WITH OTHER CONTRACTORS AND TRADES.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE ARCHITECT/ENGINEER IF ANY DISCREPANCIES IN THE CONSTRUCTION DOCUMENTS ARE FOUND.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR GRADING TO WITHIN 1" OF THE FINAL GRADE IN ALL LAWN AREAS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE FINAL GRADING IN ALL LAWN AREAS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR INSURING POSITIVE DRAINAGE IN ALL PLANTING BEDS.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SEEDING ALL LAWN AREAS INDICATED ON THE LANDSCAPE PLAN WITH THE FOLLOWING SEED MIX AND APPLICATION RATE:

SEED MIX: 60% BLUEGRASS
20% PERENNIAL RYE
20% TALL FESCUE

APPLICATION RATE: 5 LBS. PER 1,000 SQ. FT.

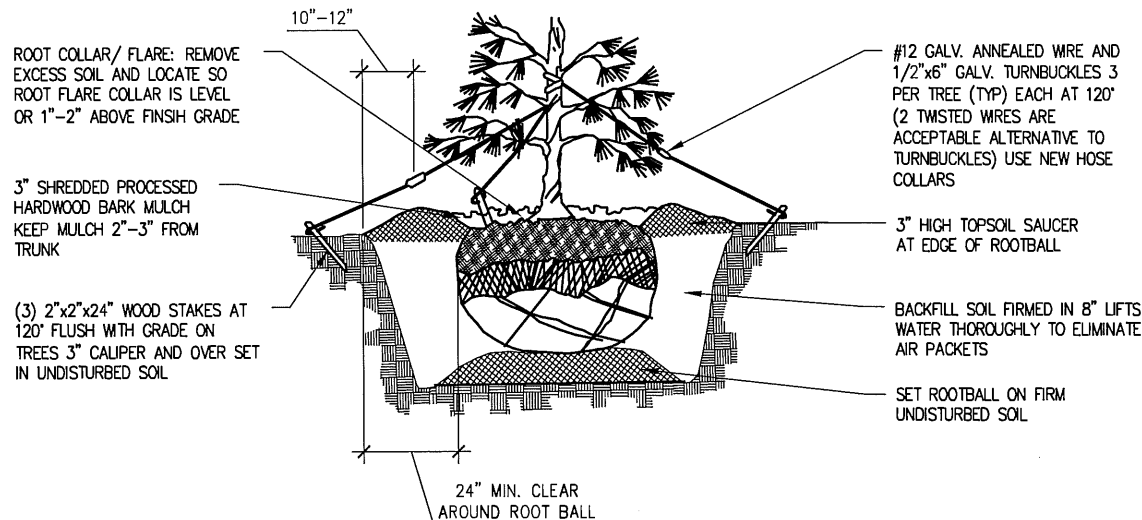
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A PLANTING SOIL BACK FILLMIX IN ALL TREE, EVERGREEN, AND SHRUB PIT BEDS ACCORDING TO THE PLANTING DETAILS. THE GENERAL CONTRACTOR SHALL ALSO PROVIDE 12" OF PLANTING SOIL BACK FILL IN THE PLANTING BEDS. THE PLANTING SOIL BACK FILLMIX SHALL CONSIST OF THE FOLLOWING:

60% APPROVED TOPSOIL
20% COARSE SAND
10% SPHAGNUM PEAT MOSS
10% PROCESSED SHREDDED HARDWOOD MULCH

- HERBICIDE (TRIFLAIN OR EQUIVALENT) SHALL BE APPLIED TO ALL PLANT BEDS PRIOR TO PLANTING FOR NOXIOUS WEEDS.
- ALL PLANTING BEDS SHALL HAVE A MINIMUM OF 3" PROCESSED SHREDDED HARDWOOD MULCH AND A NATURAL SPADE EDGE.
- ALL TREES SHALL BE INSTALLED PER LANDSCAPE PLANTING DETAILS.
- DIMENSIONS FOR HEIGHTS, SPREAD, AND CALIPER OF TREES ON THE PLANS ARE GENERAL GUIDES FOR THE MINIMUM DESIRED SIZE OF EACH PLANT. EACH PLANT SHALL HAVE A UNIFORM AND CONSISTENT SHAPE AS IT PERTAINS TO THE SPECIFICATIONS AND PARTICULAR SPECIES, ANY PLANT MATERIAL WHICH FAILS TO CONFORM TO THE SPECIFICATIONS IS SUBJECT TO REJECTION BY THE ARCHITECT/ENGINEER.
- THE QUANTITIES INDICATED ON THE PLANS ARE PROVIDED FOR THE BENEFIT OF THE GENERAL CONTRACTOR ONLY. IN THE EVENT OF A DISCREPANCY, THE QUANTITIES ON THE PLANS WILL TAKE PRECEDENCE OVER THOSE LISTED IN THE PLAN NOTES. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL QUANTITIES, CALCULATIONS AND THE LIABILITY PERTAINING TO THOSE QUANTITIES AND ANY RELATED CONTRACT DOCUMENTS AND/OR PRICE QUOTATIONS.
- ALL TREES PLANTED IN LAWN AREAS SHALL BE PLANTED IN A BED OF PROCESSED SHREDDED HARDWOOD MULCH 3" IN DEPTH AND 10" TO 12" BEYOND SPREAD OF THE TREE.
- ALL LANDSCAPE PLANTS SHALL BE WARRANTED BY VERIZON WIRELESS AND REPLACED AS REQUIRED BY VERIZON WIRELESS FOR A PERIOD OF ONE (1) YEAR AFTER PLANTING. THEREAFTER THE ONE (1) YEAR PERIOD, IT SHALL BE THE PROPERTY OWNERS RESPONSIBILITY TO REPLACE ANY DEAD PLANTINGS.

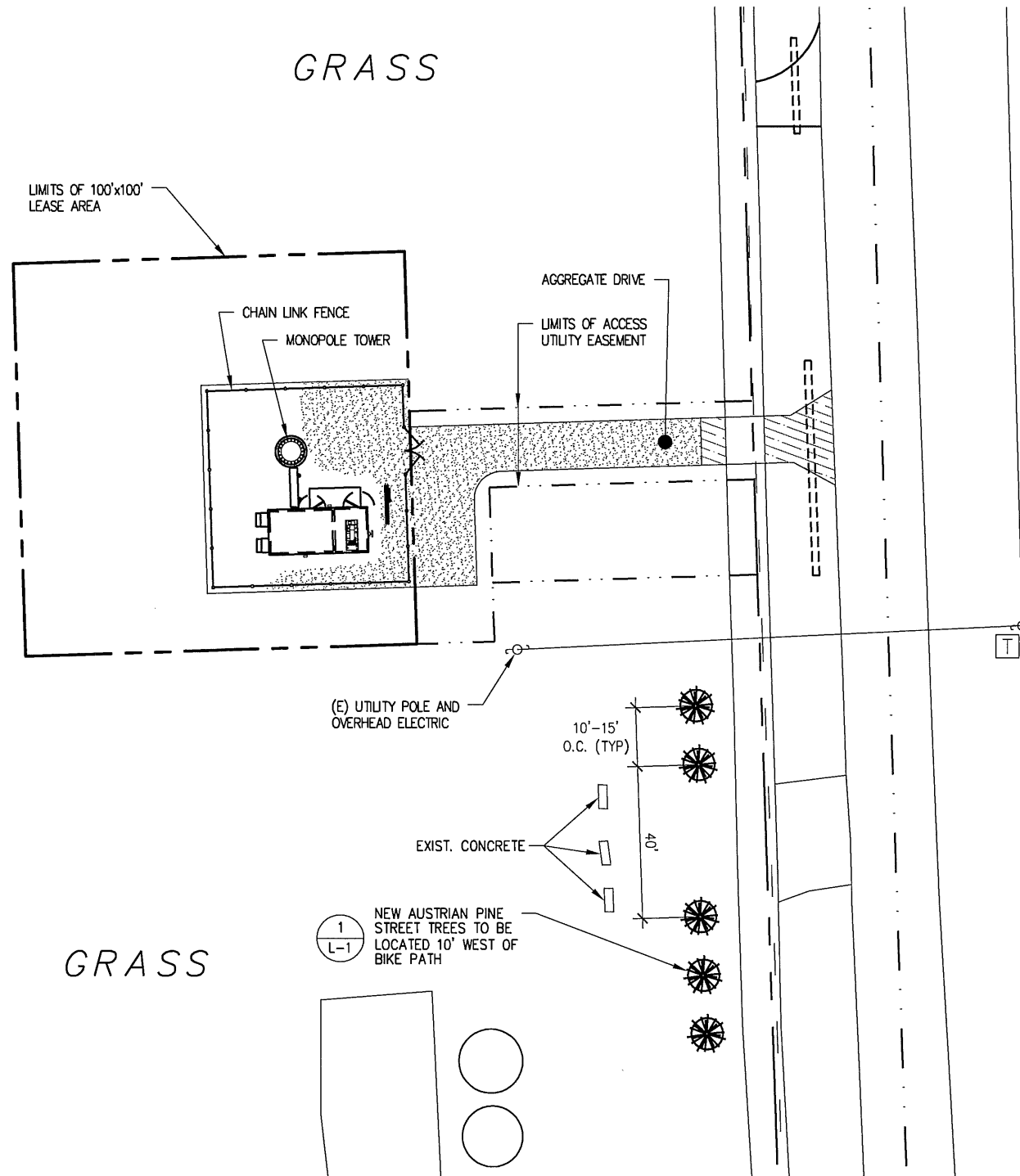
GENERAL NOTES

- TREES/SHRUBS OVER 5' IN HEIGHT SHALL BE GUYED.
CREPE PAPER TREE WRAP TO FIRST BRANCHING
- (DECIDUOUS TREES).
- REMOVE TOP 1/3 OF BURLAP ON ROOT BALL
- PROVIDE PLASTIC OR METAL FLAGS ON GUY WIRES IN OR NEAR SIDEWALKS.

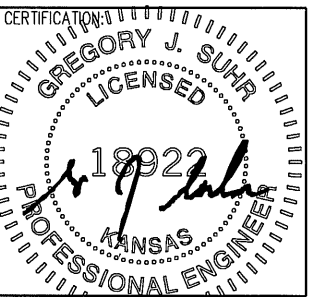
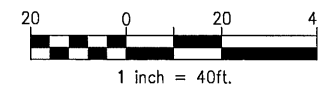


1 Tree Planting Detail

NO SCALE



Landscape Plan



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SHEET TITLE:

LANDSCAPE PLAN

A&E PROJECT NO.:

001-1504

SHEET NO.:

L-1

GENERAL NOTES

- ALL REFERENCED STANDARDS REFERRED TO BE ENFORCED AT THE TIME THESE PLANS AND SPECIFICATIONS ARE ISSUED FOR BID.
- WORK NOT INDICATED ON A PART OF THE DRAWINGS BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES SHALL BE REPEATED AND INCLUDED IN THE PROJECT.
- IN THE CASE OF CONFLICTS BETWEEN THE NOTES, DETAILS AND SPECIFICATIONS, THE MOST RIGID REQUIREMENTS SHALL GOVERN.
- THE CONTRACTOR SHALL NOT MAKE DEVIATIONS FROM THE DESIGN DRAWINGS WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL TAKE ALL THE NECESSARY PRECAUTIONS/MEASURES TO PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITY LINES FROM DAMAGES. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGES THAT MAY OCCUR DURING CONSTRUCTION.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS REQUIRED BY HIM TO PERFORM HIS WORK BEFORE STARTING CONSTRUCTION.
- REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND DIMENSIONS OF CHASES, INSERTS, OPENINGS, SLEEVES, DRIPS, REVEALS, FINISHES, DEPRESSIONS, DOORS, EXPANSION JOINT MATERIAL AND OTHER PROJECT REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTIONS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, CIVIL AND ALL OTHER CONTRACT DRAWINGS RELATED TO OTHER TRADES. THE CONTRACTOR IS RESPONSIBLE TO CHECK AND COORDINATE DIMENSIONS, CLEARANCES, ETC., WITH THE WORK OF OTHER TRADES.
- JOB SAFETY, CONSTRUCTION PROCEDURES AND CONSTRUCTION MEANS AND METHODS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- COMPLETE SHOP DRAWINGS FOR CONSTRUCTION OF ALL APPLICABLE SPECIALTY ITEMS INCLUDING BUT NOT LIMITED TO CURTAINWALL GLAZING SYSTEMS AND LIGHTGAUGE STEEL FRAMING SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF KANSAS AND SHALL BE AVAILABLE AT THE JOB SITE DURING THE TIMES OF INSPECTION.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.

FOUNDATION

- THE ALLOWABLE BEARING PRESSURE USED IN DESIGN OF SHALLOW FOUNDATION IS ASSUMED TO BE 1,500 PSF.
- CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SUBSURFACE AND EXISTING CONDITIONS BEFORE COMMENCING WORK.
- ALL CONCRETE SHALL BE CONTROLLED CONCRETE AND ALL CONCRETING PRACTICES SHALL CONFORM WITH ACI-318-05, "AMERICAN CONCRETE INSTITUTE, BUILDING CODE FOR REINFORCED CONCRETE." CONCRETE DETAILS SHALL BE IN ACCORDANCE WITH ACI-135, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" UNLESS OTHERWISE NOTED ON THE DRAWINGS. CONCRETE TESTS FOR THE PRELIMINARY DESIGN MIX PREPARED BY AN APPROVED LABORATORY MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PLACE NO CONCRETE WITHOUT THE APPROVED DESIGN MIX.
- A RIGID TEMPLATE SHALL BE USED TO INSTALL ALL ANCHOR BOLTS.
- UNLESS OTHERWISE NOTED ON PLAN, ALL CONCRETE SHALL BE NORMAL WEIGHT WITH 28 DAYS COMPRESSIVE STRENGTH AS FOLLOWS:

A. FOOTINGS	3000 PSI
B. CONCRETE SLAB ON GRADE	3000 PSI
- ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60 ($f_y=60,000$ PSI) ALL REINFORCING TO BE WELDED SHALL CONFORM TO ASTM A-706. THE REINFORCING BARS SUPPLIER SHALL PROVIDE THE ENGINEER WITH AN AFFIDAVIT OF THE PRODUCER OF STEEL CERTIFYING THAT THE STEEL MEETS THE REQUIREMENTS OF THE ASTM.
- ALL REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, THE CONTRACTOR SHALL PROVIDE ADDITIONAL BARS OR STIRRUPS NECESSARY TO SUPPORT ALL BARS AS REQUIRED TO COMPLETE HIS WORK.
- UNLESS OTHERWISE NOTED ON STRUCTURAL DRAWINGS, PROVIDE MINIMUM CONCRETE COVER FOR REINFORCING BARS AS FOLLOWS:

CAST AGAINST EARTH	3"
EXPOSED TO EARTH OR WEATHER	
#5 AND SMALLER	1½"
#6 AND LARGER	2"
NOT EXPOSED TO EARTH OR WEATHER	
SLAB AND WALL	
#11 AND SMALLER	¾"
- GROUT SHALL BE NON-METALLIC NO SHRINK WITH A MINIMUM STRENGTH OF 5,000 PSI AT 28 DAYS.

STRUCTURAL STEEL

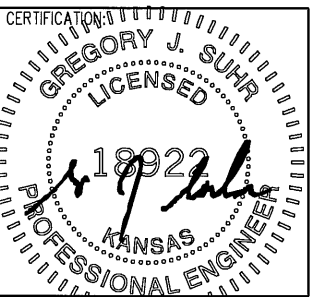
- FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATIONS. STRUCTURAL FABRICATOR SHALL BE AISC CERTIFIED.
- STRUCTURAL STEEL SHALL BE AS SPECIFIED BELOW, UNLESS OTHERWISE NOTED:
 - CHANNELS, ANGLES AND PLATES : ASTM A36 WITH MIN. YIELD STRENGTH OF 36 KSI OR ASTM A572 GRADE 50 WITH MIN. YIELD STRENGTH OF 50 KSI.
- THE FRAME SHALL BE CARRIED UP TRUE AND PLUMB AND TEMPORARY BRACING SHALL BE INTRODUCED WHEREVER NECESSARY TO ACCOUNT FOR ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING EQUIPMENT AND OPERATION OF SAME. SUCH BRACING SHALL BE THE RESPONSIBILITY OF THE STEEL CONTRACTOR AND SHALL BE LEFT IN PLACE AS LONG AS REQUIRED FOR SAFETY.
- ALL BOLTS SHALL CONFORM TO THE FOLLOWING ASTM. DESIGNATION, LATEST EDITION: HIGH STRENGTH BOLTS A325-N, U.O.N.
- ALL BOLTS SHALL BE ¾" DIAMETER MINIMUM UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- ALL SHOP OR FIELD CONNECTIONS SHALL BE HIGH STRENGTH BOLTED OR WELDED. BOLTED CONNECTIONS SHALL BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH RCSC-2000 (SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS). ALL STRUCTURAL WELDED JOINTS SHALL CONFORM TO THE PROVISIONS OF AWS D1.1, STRUCTURAL WELDING CODE BY AMERICAN WELDING SOCIETY.
- PROVISIONS SHALL BE MADE FOR CONNECTIONS OF OTHER TRADES INCLUDING CUTTING AND PUNCHING OF STRUCTURAL MEMBERS, WHERE REQUIRED BY THE DRAWING OR FOR WHICH INFORMATION IS FURNISHED PRIOR TO FABRICATION.
- OVERSIZED OR SLOTTED HOLES SHALL NOT BE USED FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR APPROVED IN WRITING BY THE ENGINEER.
- THE USE OF A CUTTING TORCH IN THE FIELD WILL NOT BE PERMITTED.
- WELDING ELECTRODES SHALL BE CONFORM TO E70XX ELECTRODES, AND SHALL HAVE COMPATIBLE CHARY-V-NOTCH WHEN WELDING TO THE BASE METAL WITH CHARY-V-NOTCH REQUIREMENT.
- PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE DURING TIMES OF INSPECTION.
- ALL STRUCTURAL STEEL NOT RECEIVING SPRAY-ON FIREPROOFING SHALL BE PRIME PAINTED. STRUCTURAL STEEL SHALL RECEIVE ONE COAT OF PAINT, ZINC OR BITUMINOUS COATING OR EQUIVALENT METAL PROTECTION BEFORE ERECTION AS SPECIFIED. PARTS OF STRUCTURAL STEEL LEFT UNPAINTED BECAUSE OF WELDING, OR BOLTING SHALL RECEIVE A FIELD APPLICATION OF METAL PROTECTION.
- STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE.
- DESIGN OF SPECIAL CONNECTIONS BETWEEN STEEL FRAMING COMPONENTS BY OTHER THAN THE PROJECT STRUCTURAL ENGINEER-OF-RECORD SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF KANSAS INCLUDING BUT NOT LIMITED TO BRACE END CONNECTIONS, MOMENT-RESISTING CONNECTIONS, MODIFIED BEAM SEAT CONNECTIONS, AND MEMBER SPLICE CONNECTIONS.
- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
- ALL BOLTS, ANCHORS, AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
- DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.

DESIGN STANDARD

- ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- MANUAL OF STEEL CONSTRUCTION AISC LRFD 3rd EDITION
- MANUAL OF STEEL CONSTRUCTION AISC ASD 9th EDITION
- MANUAL OF CONCRETE PRACTICE ACI 318-05

DESIGN LOADS

TOTAL SHELTER WEIGHT = 76,000 LBS
WIND LOAD = 12.8 PSF (V = 90 MPH)



RELEASE	
DATE	
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08-11-14	CONSTRUCTION DWGS - REV C
01-30-15	CONSTRUCTION DWGS - REV D
02-25-15	CONSTRUCTION DWGS - REV E

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DRAWN BY: JLM
CHECKED BY: DJH

SITE NAME:

**LAWC KASOLD
CELL SITE**

SITE ADDRESS:

1293 E 1200 ROAD
LAWRENCE, KS 66047

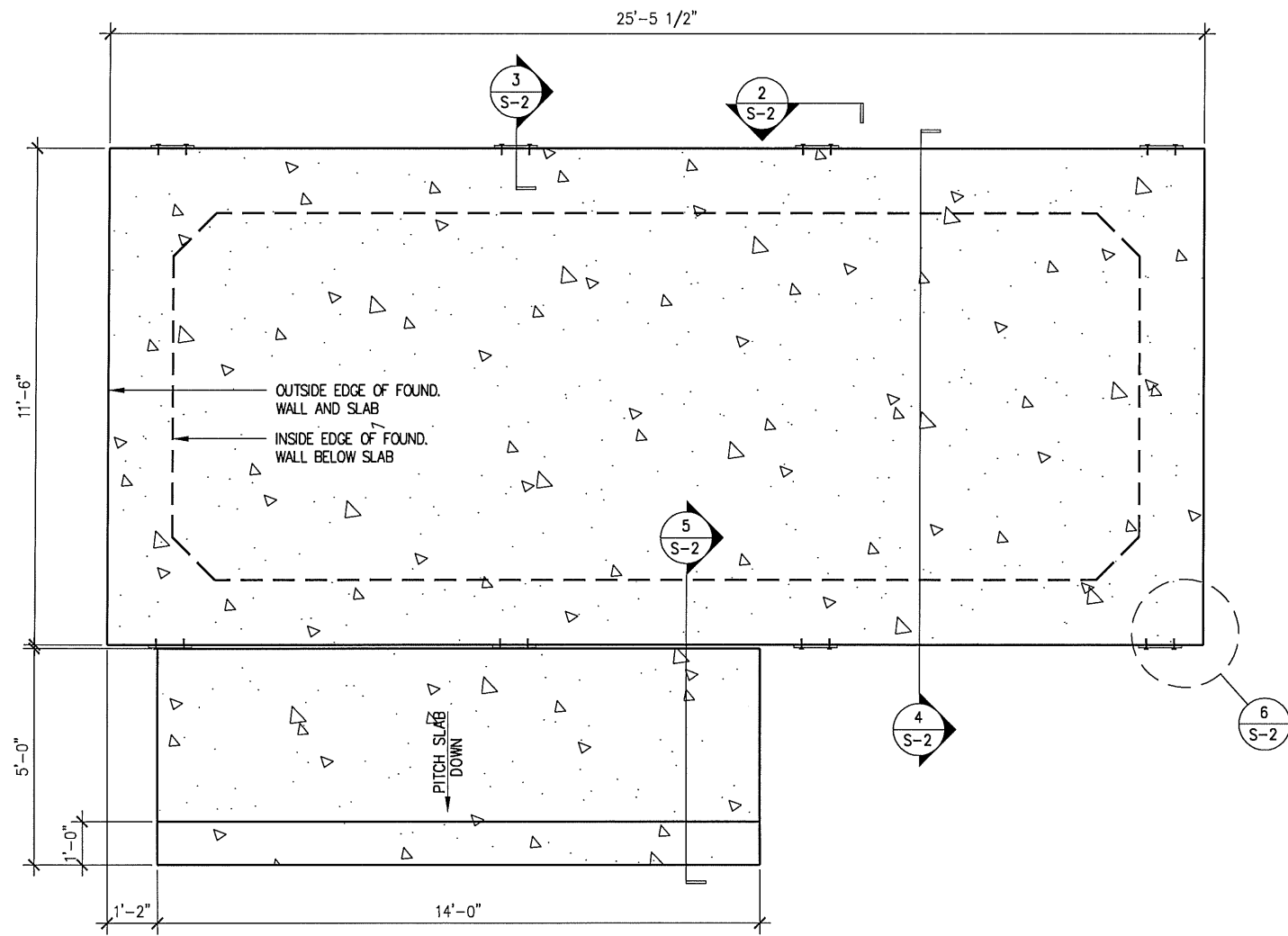
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STRUCTURAL NOTES

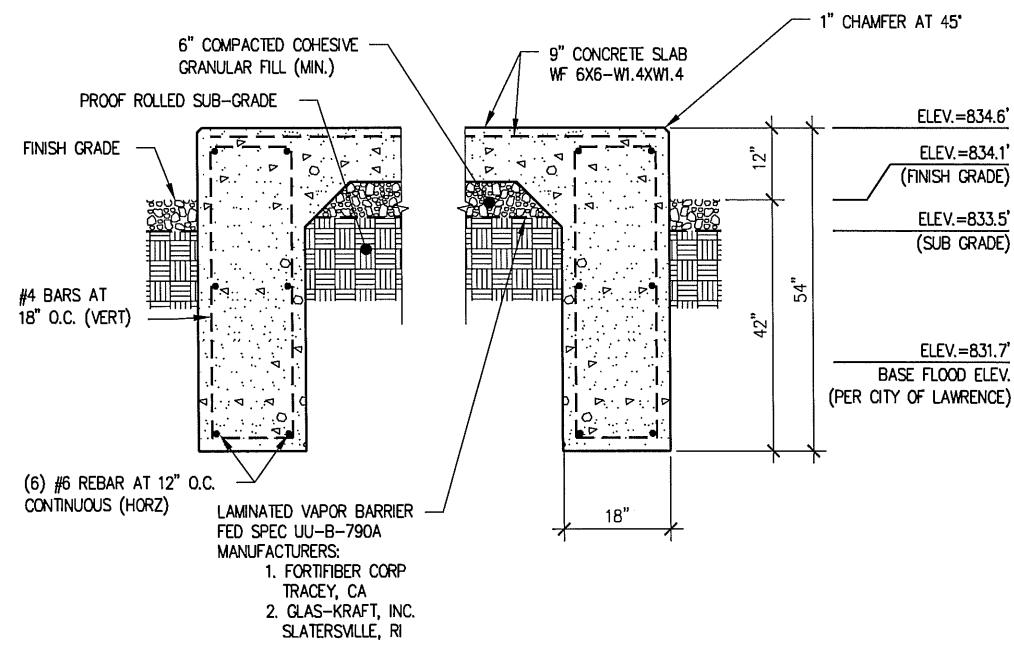
A&E PROJECT NO.:

001-1504

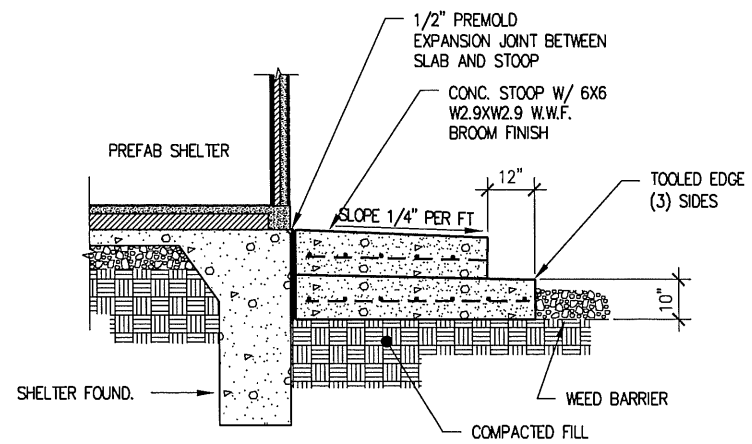
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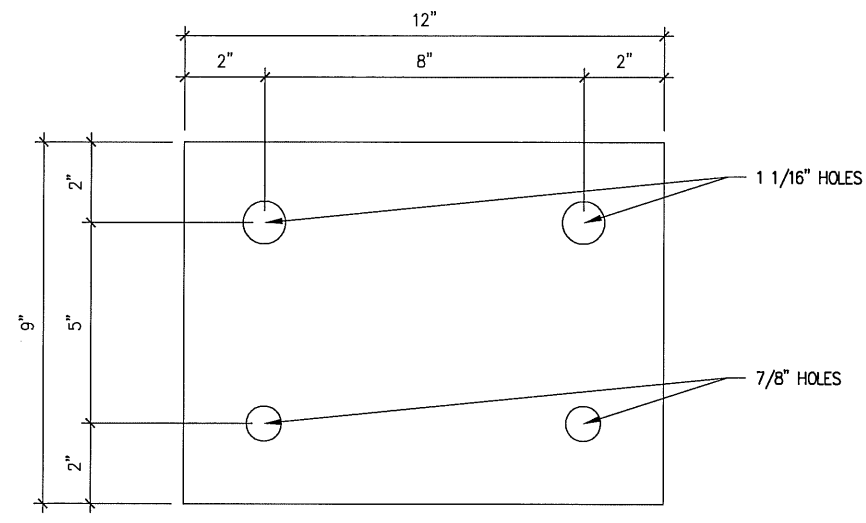
1 Shelter Foundation
SCALE: 1/4" = 1'-0"



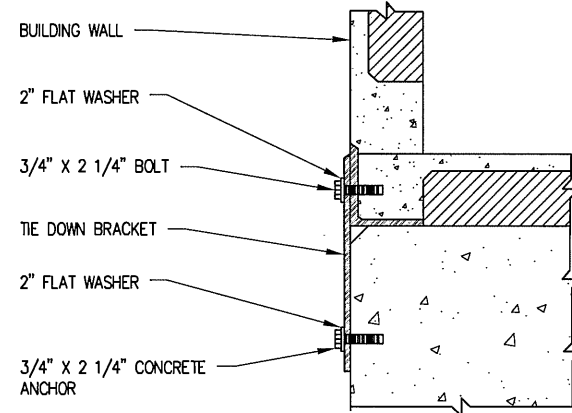
4 Foundation Section
SCALE: 1/4" = 1'-0"



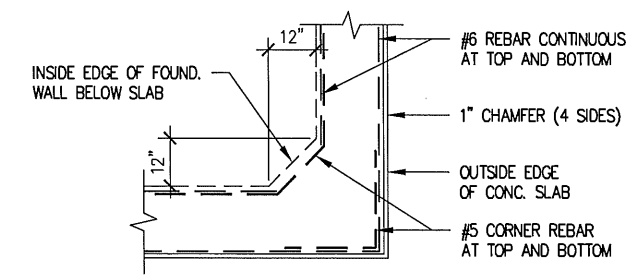
5 Concrete Stoop
SCALE: 1/4" = 1'-0"



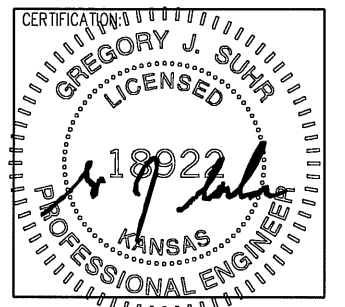
2 Tie Down Detail
SCALE: N.T.S.



3 Tie Down Section
SCALE: 3/4" = 1'-0"



6 Corner Reinforcing
SCALE: 1/4" = 1'-0"



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SITE ADDRESS: _____

1293 E 1200 ROAD LAWRENCE, KS 66047

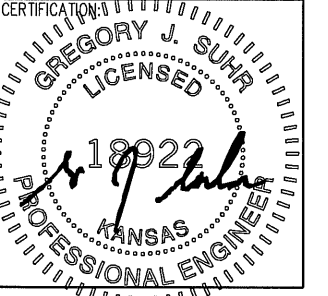
SHEET TITLE: _____

SLAB PLAN AND SECTION

A&E PROJECT NO.: _____

001-1504

SHEET NO.: _____



RELEASE DATE	DESCRIPTION
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SITE NAME:

LAWC KASOLD CELL SITE

SITE ADDRESS:

1293 E 1200 ROAD
LAWRENCE, KS 66607

SHEET TITLE:

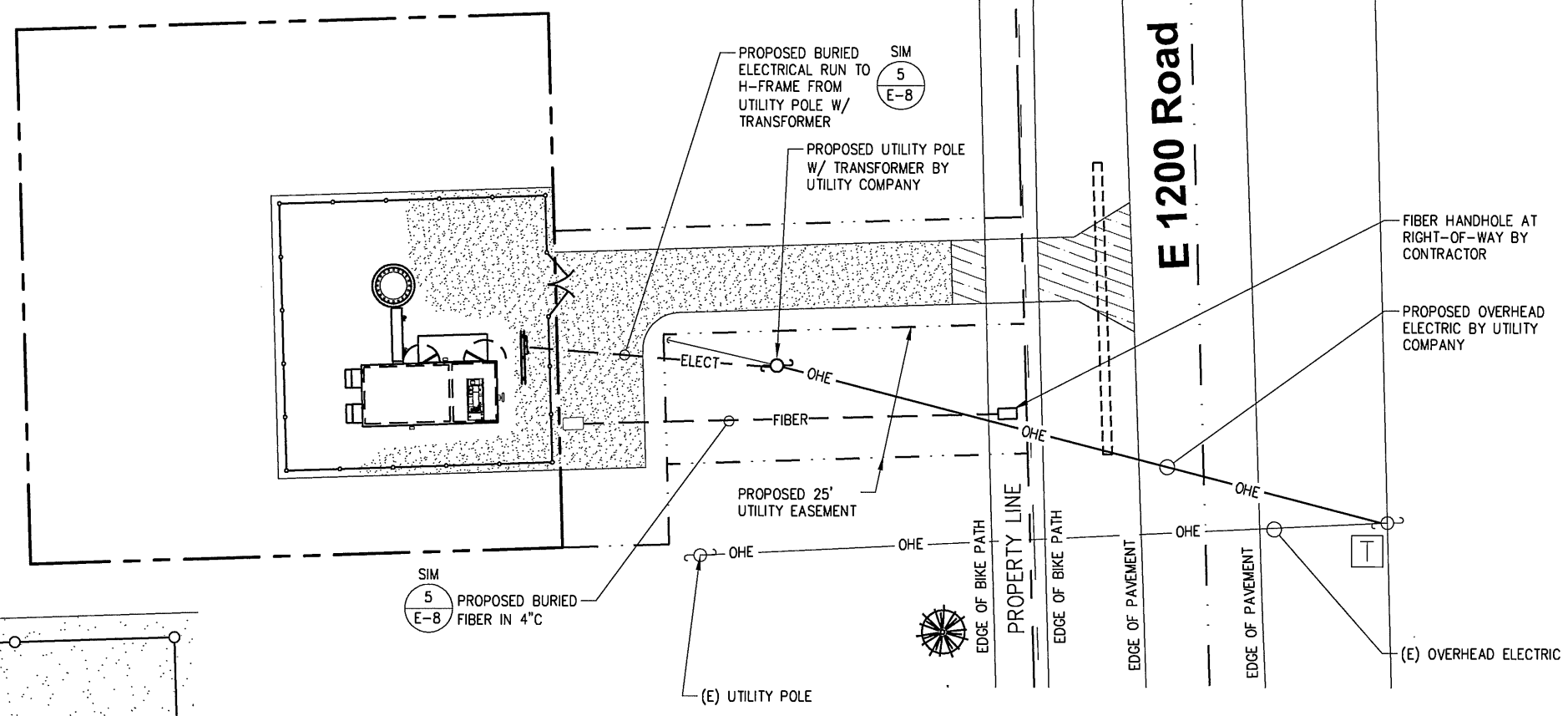
UTILITY SITE PLAN

A&E PROJECT NO.:

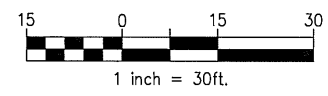
001-1504

SHEET NO.:

E-0

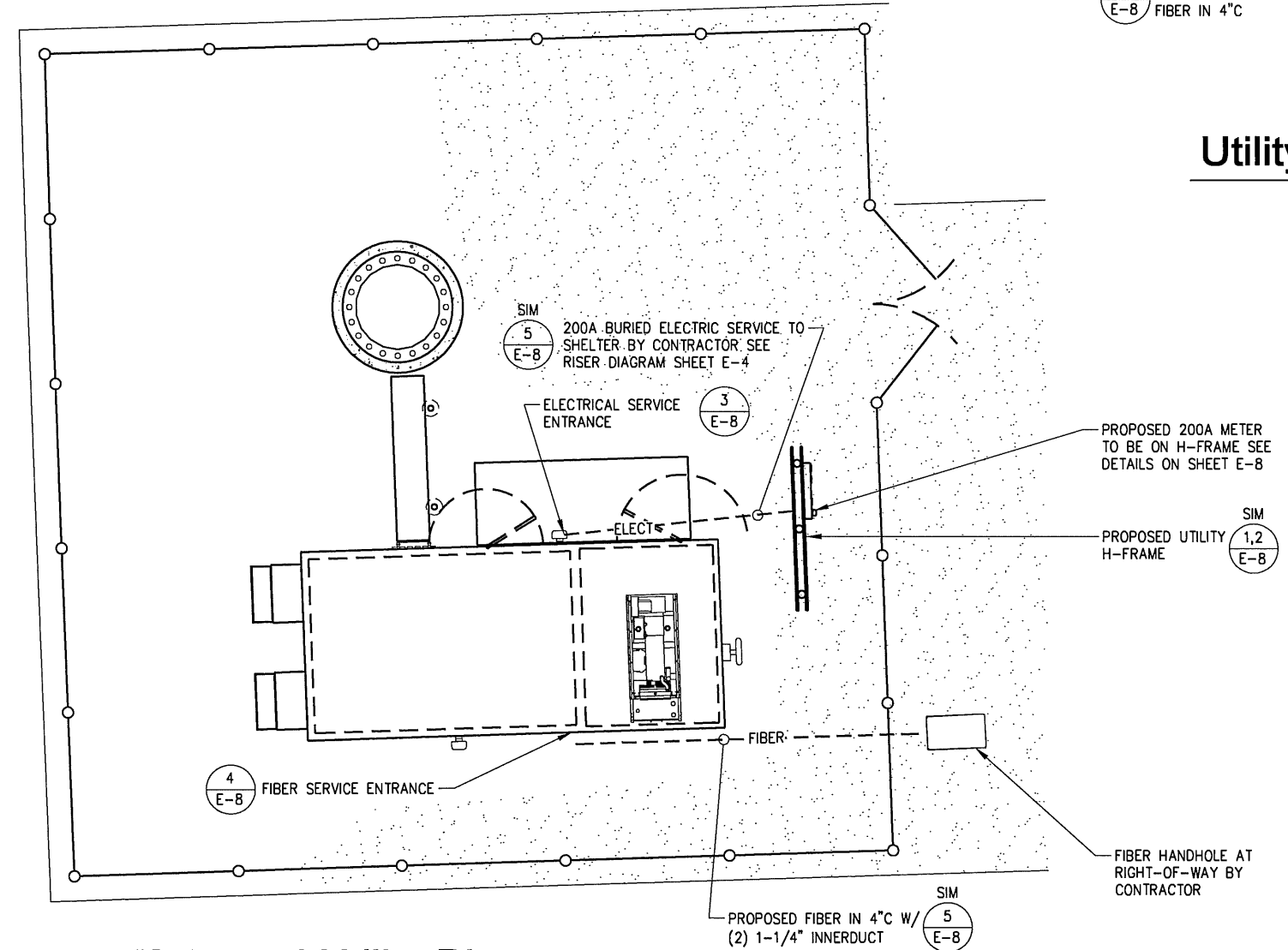


Utility Site Plan

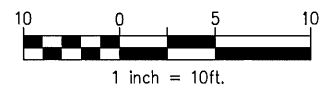


GENERAL NOTES:

1. STUB CONDUIT 6" FROM NEW POLE
2. 4 GANG METER BASE BY VERIZON
3. 2-3" SCH 40 CONDUIT 30" DEEP TO METER BY VERIZON
4. CONDUCTOR TO METER BY POWER CO.



Enlarged Utility Plan



Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Rare-Earth Permanent-Magnet
Leads: quantity, type	12, Reconnectable 4, 110-120/220-240
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current
Peak motor starting kVA:	(35% dip for voltages below)
480 V 4P7BX (12 lead)	180
480 V 4P8X (12 lead)	261
480 V 4P10X (12 lead)	275
240 V 4Q8X (4 lead)	121
240 V 4Q10X (4 lead)	144

Application Data

Engine	Engine Specifications
Manufacturer	John Deere
Engine model	4024HF285B
Engine type	4-Cycle, Turbocharged
Cylinder arrangement	4 Inline
Displacement, L (cu. in.)	2.4 (149)
Bore and stroke, mm (in.)	86 x 105 (3.39 x 4.13)
Compression ratio	18.2:1
Piston speed, m/min. (ft./min.)	375 (1230)
Main bearings: quantity, type	5, Replaceable Insert
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	60 (80)
Cylinder head material	Cast Iron
Crankshaft material	Ductile Iron
Valve material:	
Intake	Chromium-Silicon Steel
Exhaust	Stainless Steel
Governor: type, make/model	JDEC Electronic, Level 18, EUP
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±0.25%
Frequency	Fixed
Air cleaner type, all models	Dry

Exhaust

Exhaust System	Exhaust System
Exhaust manifold type	Dry
Exhaust flow at rated kW, m ³ /min. (cfm)	12.0 (423)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	574 (1066)
Maximum allowable back pressure, kPa (in. Hg)	7.5 (2.2)
Exhaust outlet size at engine hookup, mm (in.)	63.5 (2.5)

G5-359 (50REOZJD) 3/12b

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Vacuum-impregnated windings with fungus-resistant epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.
- Fast-Response™ II brushless alternator with brushless exciter for excellent load response.

Engine Electrical

Engine Electrical System	Engine Electrical System
Battery charging alternator:	
Ground (negative/positive)	Negative
Volts (DC)	12
Ampere rating	70
Starter motor rated voltage (DC)	12
Battery, recommended cold cranking amps (CCA):	
Quantity, CCA rating	One, 640
Battery voltage (DC)	12

Fuel

Fuel System	Fuel System
Fuel supply line, min. ID, mm (in.)	11.0 (0.44)
Fuel return line, min. ID, mm (in.)	6.0 (0.25)
Max. lift, engine-driven fuel pump, m (ft.)	3.0 (10.0)
Max. fuel flow, Lph (gph)	82 (21.7)
Fuel prime pump	Manual
Fuel filter	
Secondary	5 Microns @ 98% Efficiency
Water Separator	Yes
Recommended fuel	#2 Diesel

Lubrication

Lubricating System	Lubricating System
Type	Full Pressure
Oil pan capacity, L (qt.)	7.3 (7.7)
Oil pan capacity with filter, L (qt.)	8.2 (8.7)
Oil filter: quantity, type	1, Cartridge
Oil cooler	Water-Cooled

Application Data

Cooling

Radiator System	Radiator System
Ambient temperature, °C (°F)*	50 (122)
Engine jacket water capacity, L (gal.)	2.6 (0.7)
Radiator system capacity, including engine, L (gal.)	10.6 (2.8)
Engine jacket water flow, Lpm (gpm)	98 (26)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	35.7 (2030)
Heat rejected to air charge cooler at rated kW, dry exhaust, kW (Btu/min.)	10.9 (621)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	597 (23.5)
Fan, kWm (HP)	1.2 (1.6)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H ₂ O)	0.125 (0.5)

* Enclosure reduces ambient temperature capability by 5°C (9°F).

Operation Requirements

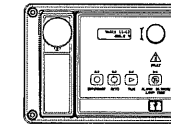
Air Requirements	Air Requirements
Radiator-cooled cooling air, m ³ /min. (scfm)‡	96 (3400)
Combustion air, m ³ /min. (cfm)	4.3 (152)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	14.0 (747)
Alternator, kW (Btu/min.)	7.6 (435)

‡ Air density = 1.20 kg/m³ (0.075 lbm/ft³)

Fuel Consumption

Diesel, Lph (gph) at % load	Standby Rating
100%	16.2 (4.3)
75%	12.1 (3.2)
50%	8.5 (2.2)
25%	5.0 (1.3)
Diesel, Lph (gph) at % load	Prime Rating
100%	13.7 (3.6)
75%	10.8 (2.9)
50%	7.6 (2.0)
25%	4.5 (1.2)

Controllers

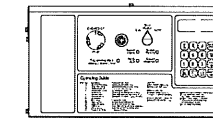


Decision-Maker® 3000 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-100 for additional controller features and accessories.



Decision-Maker® 550 Controller

Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities.

- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-46 for additional controller features and accessories.



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**1293 E 1200 ROAD
LAWRENCE, KS 66047**

SHEET TITLE:

GENERATOR DATA

A&E PROJECT NO.:

001-1504

SHEET NO.:

1 Generator Data

SCALE: N.T.S.



CERTIFICATION:

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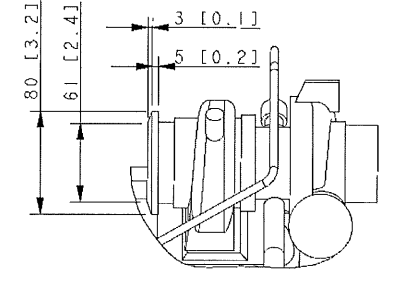
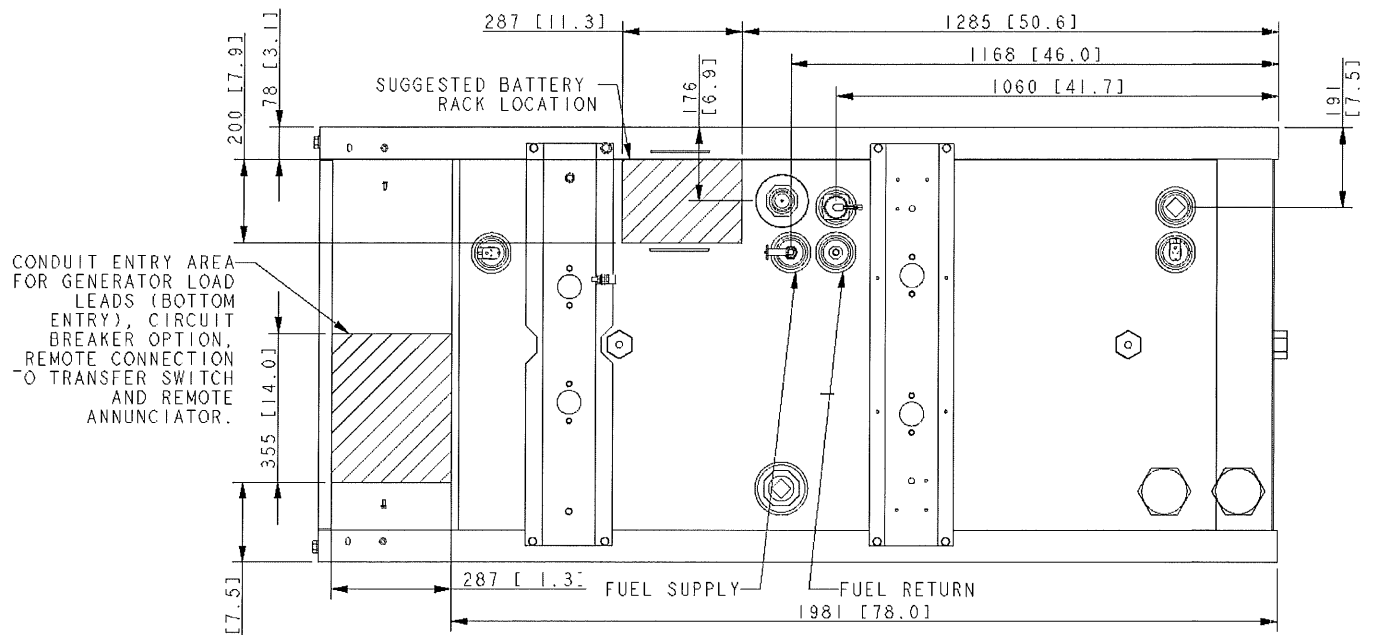
GENERATOR DETAILS

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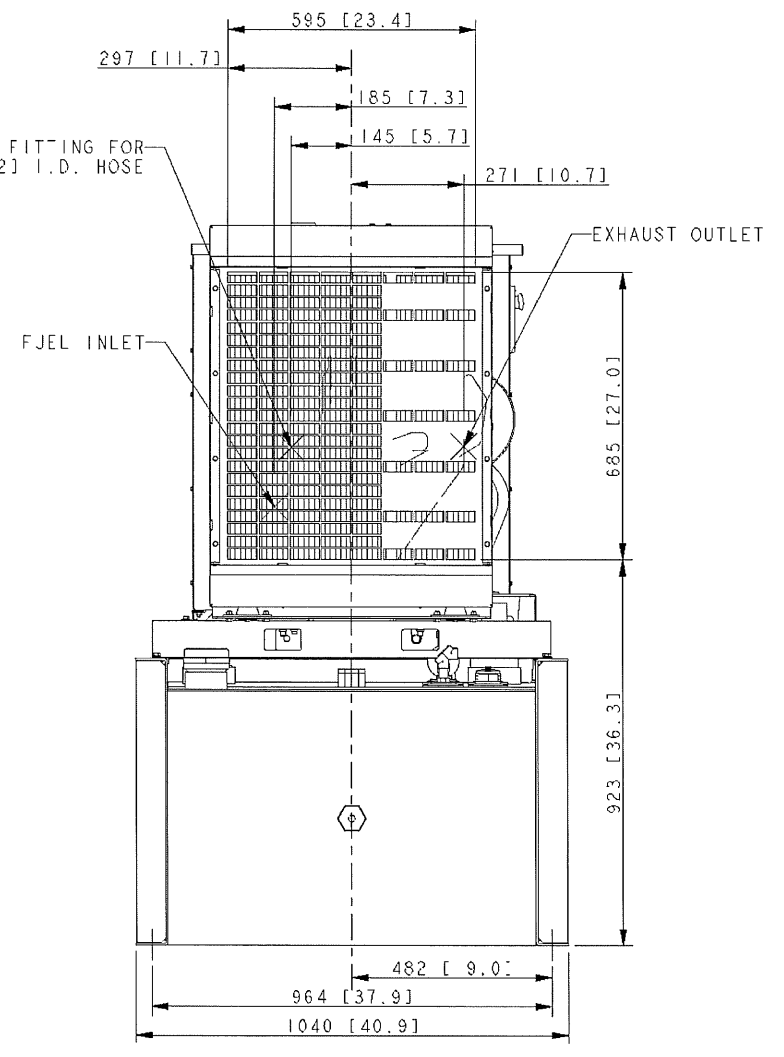
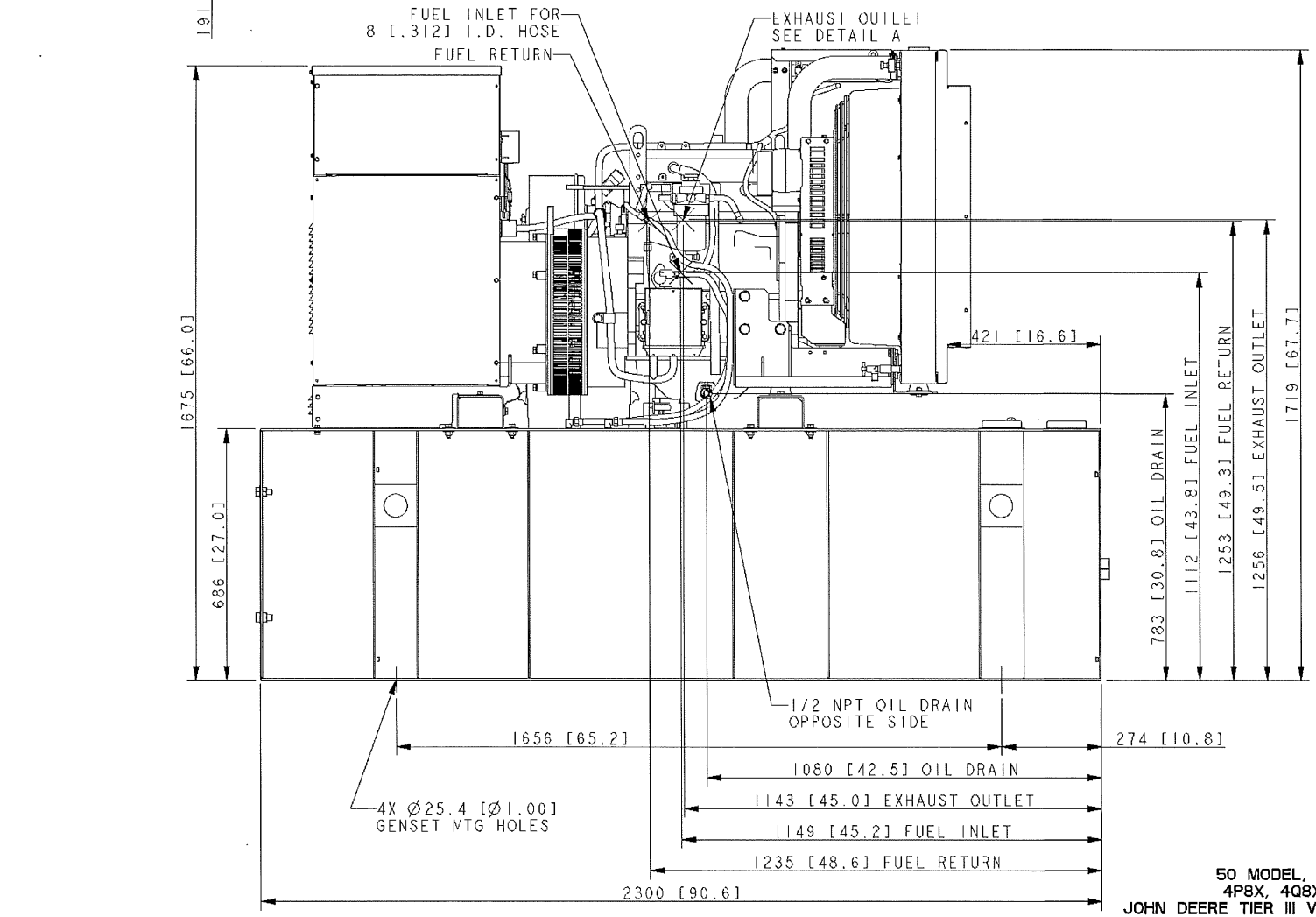
001-1504

SHEET NO.:

E-2



**DETAIL A
ENGINE EXHAUST & OUTLET
SCALE 0.40**



1 Generator Details
SCALE: N.T.S.



CERTIFICATION:
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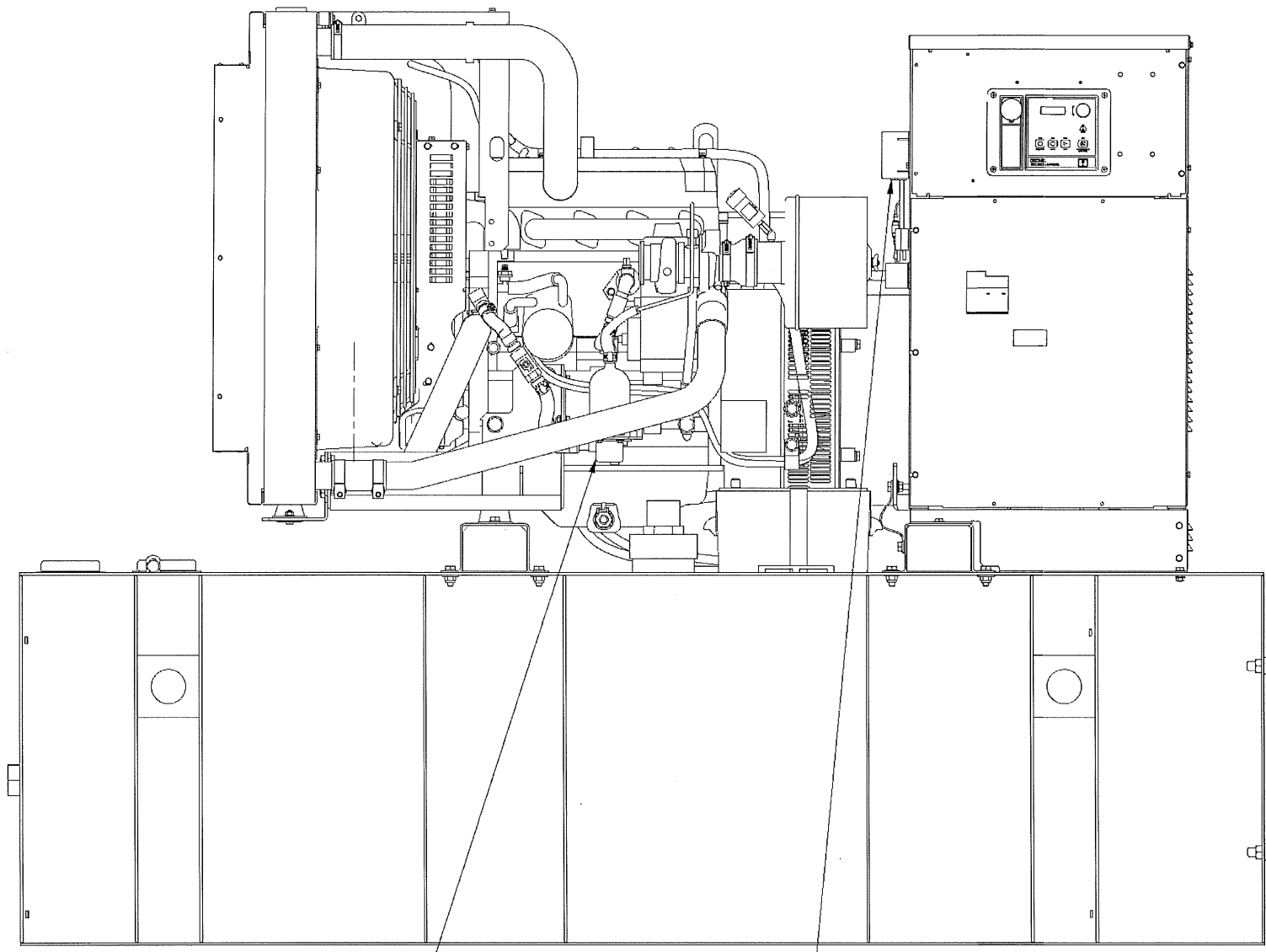
GENERATOR DETAILS

A&E PROJECT NO.:

001-1504

SHEET NO.:

E-3



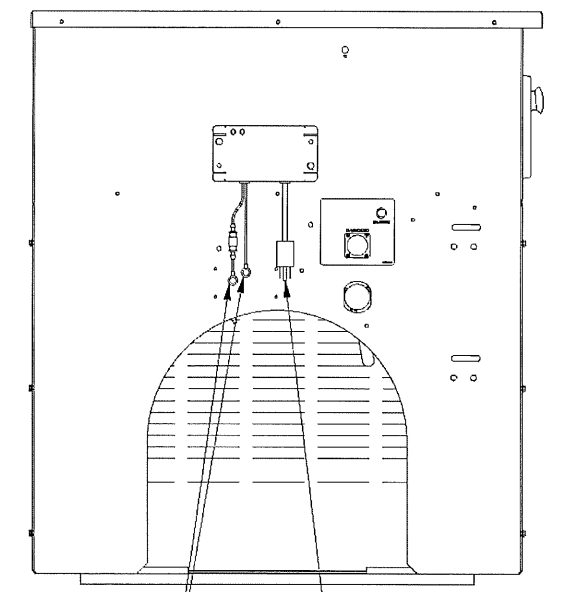
BLOCK HEATER

SEE DETAIL B

BLOCK HEATER
120 AND 240 VOLT

50 MODEL, 60HZ,
4P8X, 4Q8X, 4Q10
JOHN DEERE TIER III VERIZON
210 GAL. TANK

1 Generator Details
SCALE: N.T.S.



CONNECT TO BATTERY

90-135V AC
POWER CORD
LENGTH 1829 [72.0]

**DETAIL B
BATTERY CHARGER**

General Notes

WORK INCLUDES

THESE NOTES AND ACCOMPANYING DRAWINGS COMPLEMENT THE PROVISIONS AND INSTALLATIONS BY THE ELECTRICAL CONTRACTOR, OF ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO INSTALL THE ELECTRICAL WORK COMPLETE IN CONNECTION WITH THIS LESSEE SITE AND SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

1. THE PROVISIONS, INSTALLATION, AND CONNECTION OF A GROUNDING ELECTRODE SYSTEM COMPLETE WITH A BUILDING AND SECONDARY GROUNDING, CELLULAR TELEPHONE COMMUNICATIONS TOWER AND CONNECTIONS TO THE INCOMING ELECTRICAL DISTRIBUTION EQUIPMENT.
2. THE PROVISION AND INSTALLATION OF AN OVERHEAD ELECTRICAL SERVICE OR UNDERGROUND ELECTRICAL SERVICE AND ALL ASSOCIATED WIRE AND CONDUIT AS REQUIRED AND/OR INDICATED ON PLANS.
3. THE PROVISION, INSTALLATION OF CONDUIT AND CONNECTIONS FOR LOCAL TELEPHONE SERVICE.
4. THE FURNISHING AND INSTALLATION OF THE ELECTRICAL SERVICE ENTRANCE CONDUCTORS, CONDUITS, METER SOCKET, AND CONNECTIONS TO THE SERVICE EQUIPMENT WITHIN THE ENCLOSURE.
5. TWO INCH (2") AND THREE INCH (3") DIAMETER PVC CONDUITS SCHEDULE 40.
6. ALL PVC CONDUITS SHOULD BE LEFT WITH NYLON PULL CORD FOR FUTURE USE.
7. EXCAVATION, TRENCHING, AND BACKFILLING FOR CONDUIT(S), CABLE(S), AND EXTERNAL GROUNDING SYSTEM.

CODES, PERMITS, AND FEES

1. ALL REQUIRED PERMITS, LICENSES, INSPECTIONS AND APPROVALS SHALL BE SECURED AND ALL FEES FOR SAME PAID BY CONTRACTOR.
2. THE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES: STATE, LOCAL AND NATIONAL, AND THE DESIGN, PERFORMANCE CHARACTERISTICS AND METHODS OF CONSTRUCTION OF ALL ITEMS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE VARIOUS APPLICABLE STANDARD SPECIFICATIONS OF THE FOLLOWING AUTHORITIES:

N.E.C.	NATIONAL ELECTRIC CODE
A.N.S.I.	AMERICAN NATIONAL STANDARDS INSTITUTE
I.E.E.E.	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS
N.E.M.A.	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
U.L.	UNDERWRITERS LABORATORIES, INC.
N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION

GROUNDING ELECTRODE SYSTEM

1. CONNECTIONS
ALL GROUNDING CONNECTIONS SHALL BE MADE BY THE "CADWELD" PROCESS CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, ETC. ALL CABLE TO GROUND RODS, GROUND RODS SPLICES AND LIGHTNING PROTECTION SYSTEM AS INDICATED. GROUND FOUNDATION ONLY AS INDICATED BY PM. ALL MATERIALS USED (MOLDS, WELDING, METAL, TOOLS, ETC.) SHALL BE BY "CADWELD" PROCESS AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND PROCEDURES. GROUND CONDUCTOR SHALL HAVE A MINIMUM 24" BENDING RADIUS.
2. ALL CADWELD CONNECTIONS ON GALVANIZED SURFACES SHALL BE CLEANED THOROUGHLY AND COLORED TO MATCH SURFACE WITH (2) TWO COATS OF SHERWIN-WILLIAMS GALVITE (WHITE) PAINT B50W3 (OR EQUAL) OR SHERWIN-WILLIAMS SILVERBRITE (ALUMINUM) B59S11 (OR EQUAL).
3. ALL ELECTRICAL & MECHANICAL GROUND CONNECTIONS SHALL HAVE ANTI-OXIDANT COMPOUND APPLIED TO CONNECTION
4. FENCE/GATE:
GROUND FENCE POSTS WITHIN 6 FEET OF ENCLOSURE AND 25 FEET OF TOWER AS INDICATED ON DRAWINGS. GROUND EACH GATE POST AND CORNER POST. GROUND CONNECTIONS TO FENCE POSTS SHALL BE MADE BY THE "CADWELD" PROCESS AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES. ALL OTHER CONNECTIONS FOR THE GROUND GRID SYSTEM SHALL BE MADE BY THE "CADWELD" PROCESS, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES.
5. UTILITY COMPANY COORDINATION:
ELECTRICAL CONTRACTOR SHALL CONFIRM THAT ALL WORK IS IN ACCORDANCE WITH THE RULES OF THE LOCAL UTILITY COMPANY BEFORE SUBMITTING THE BID, THE CONTRACTOR SHALL CHECK WITH THE UTILITY COMPANIES SUPPLYING SERVICE TO THIS PROJECT AND SHALL DETERMINE FROM THEM ALL EQUIPMENT AND CHARGES WHICH THEY WILL REQUIRE AND SHALL INCLUDE THE COST IN THE BID.

6. GROUND TEST:
GROUND TESTS SHALL BE PERFORMED AS REQUIRED BY LESSEE STANDARD PROCEDURES. GROUND GRID RESISTANCE SHALL NOT EXCEED 5 OHMS. CONTRACTOR SHALL SUBMIT THE GROUND RESISTANCE TEST REPORT AS FOLLOWS:
 1. ONE (1) COPY TO OWNER REPRESENTATIVE
 2. ONE (1) COPY TO ENGINEER
 3. ONE (1) COPY TO KEEP INSIDE EQUIPMENT ENCLOSURE

RACEWAYS AND WIRING

1. WIRING OF EVERY KIND MUST BE INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE, OR AS APPROVED BY THE ENGINEER.
2. UNLESS OTHERWISE SPECIFIED, ALL WIRING SHALL BE COPPER (CU) TYPE THWN, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
3. RACEWAYS SHALL BE GALVANIZED STEEL, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, UNLESS OTHERWISE NOTED. ALL RACEWAYS SHALL BE APPROVED FOR THE INSTALLATION.
4. PULL OR JUNCTION BOXES SHALL BE PROVIDED AS REQUIRED TO FACILITATE INSTALLATION OF RACEWAYS AND WIRING. PROVIDE JUNCTION AND PULLBOXES FOR CONDUIT RUNS WITH MORE THAN (360) DEGREES OF BENDS.
5. PROVIDE A COMPLETE RACEWAY AND WIRING INSTALLATION, PERMANENTLY AND EFFECTIVELY GROUNDED IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
6. ELECTRICAL PANEL BOARD SHALL BE FURNISHED AND INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION.
7. ALL STEEL CONDUIT SHALL BE BONDED AT BOTH ENDS WITH GROUNDING BUSHING.

IT IS RECOMMENDED THAT THE ELECTRICAL CONTRACTOR VISIT THE JOB SITE TO REVIEW THE SCOPE OF WORK AND VERIFY ALL EXISTING CONDITIONS PRIOR TO BID SUBMITTAL. ANY DISCREPANCIES OR CONFLICTS SHALL BE REPORTED TO LESSEE BEFORE PROCEEDING WITH THE WORK.

ALL ELECTRICAL WORK SHALL CONFIRM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, LESSEE ELECTRIC STANDARDS AND LOCAL JURISDICTION CODES.

GENERAL NOTES:

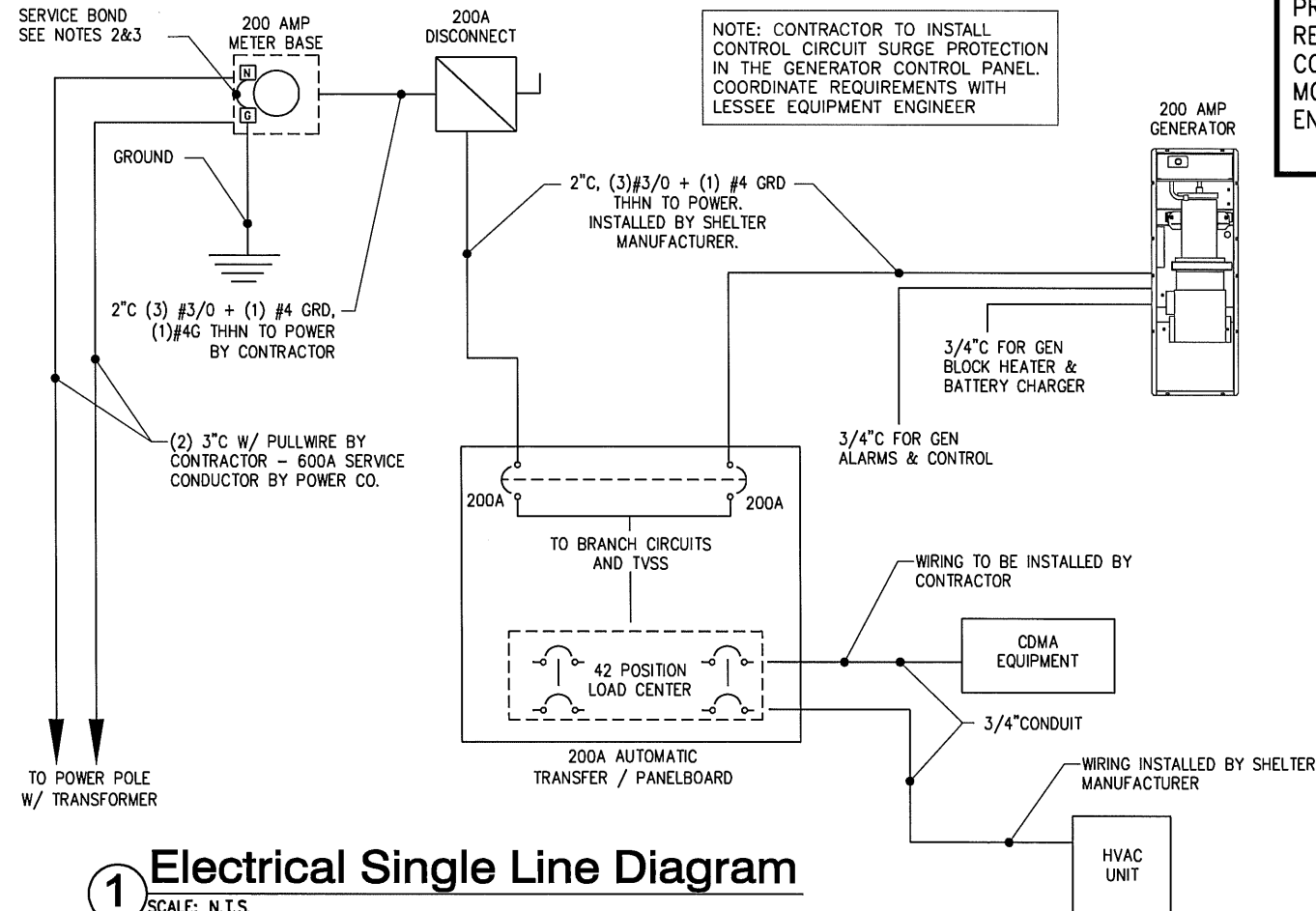
SEE DETAILS AND SCHEDULES ON DRAWINGS AND SPECIFICATIONS FOR MEANING OF ABBREVIATIONS AND ADDITIONAL REQUIREMENTS AND INFORMATION. CHECK ARCHITECTURAL, STRUCTURAL AND OTHER MECHANICAL AND ELECTRICAL DRAWINGS FOR SCALE, SPACE LIMITATIONS, COORDINATION, AND ADDITIONAL INFORMATION, ETC. REPORT ANY DISCREPANCIES, CONFLICTS, ETC. TO ENGINEER BEFORE SUBMITTING BID. ALL EQUIPMENT FURNISHED BY OTHERS (FBO) SHALL BE PROVIDED WITH PROPER MOTOR STARTERS, DISCONNECTS, CONTROLS, ETC. BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND COMPLETELY WIRE ALL ASSOCIATED EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WIRE DIAGRAMS AND AS REQUIRED FOR A COMPLETE OPERATING INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF (FBO) EQUIPMENT PRIOR TO ROUGH-IN OF CONDUIT AND WIRING TO AVOID CONFLICTS.

COORDINATION WITH UTILITY COMPANY

THE ELECTRICAL CONTRACTOR SHALL COORDINATE COMPLETE ELECTRICAL SERVICE WITH LOCAL UTILITY COMPANY FOR A COMPLETE OPERATIONS SYSTEM, INCLUDING TRANSFORMER CONNECTIONS, CONCRETE TRANSFORMER PADS, IF REQUIRED, METER SOCKETS, PRIMARY CABLE RACEWAY REQUIREMENTS, SECONDARY SERVICE, ETC. PRIOR TO SUBMITTING BID TO INCLUDE ALL LABOR AND MATERIALS. THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE BID ANY OPTIONAL OR EXCESS FACILITY CHARGES ASSOCIATED WITH PROVIDING ELECTRICAL SERVICE FROM LOCAL UTILITY COMPANY. VERIFY BEFORE BIDDING TO INCLUDE ALL COSTS.

THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.I.C. RATINGS OF ALL OVERCURRENT PROTECTION DEVICES IN DISTRIBUTION EQUIPMENT AS REQUIRED TO COORDINATE WITH AVAILABLE FAULT CURRENT FROM LOCAL UTILITY COMPANY. ALL GROUNDING RODS PROVIDED BY THE POWER OR TELEPHONE UTILITY COMPANIES MUST BE TIED INTO THE MAIN EXTERNAL GROUND RING.

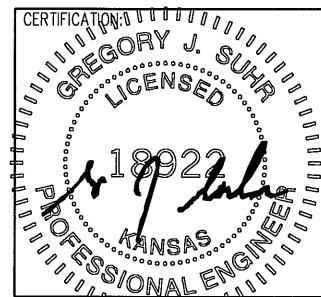
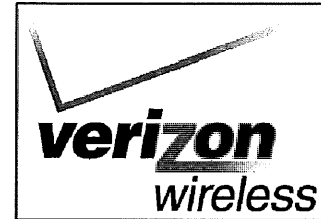
PRIOR TO ELECTRICAL INSPECTION, IF REQUIRED, CONTRACTOR SHALL COORDINATE TRANSFER SWITCH MODIFICATION WITH LESSEE CONSTRUCTION ENGINEER AND SWITCH VENDOR.



1 Electrical Single Line Diagram
SCALE: N.T.S.

GENERAL NOTES:

1. ALL CIRCUIT BREAKERS ARE 10,000 A.I.C. TYPICALLY. A.I.C. RATING MAY CHANGE AS ELECTRICAL SUPPLY DEMANDS CHANGE.
2. SERVICE BOND IS TO BE MADE BY DEVICES (STRAPS, SCREWS, ETC.) SUPPLIED BY EQUIPMENT MANUFACTURER. IF NO SUCH DEVICE IS SUPPLIED, BOND IS TO BE MADE WITH A MINIMUM OF #1/0 AWG FOR 400 AMP SERVICE, #2 AWG FOR 300 AMP SERVICE, #4 AWG GREEN FOR 200 SERVICE, AND #8 AWG GREEN FOR 100 AMP SERVICE.
3. WHEN SERVICE OVERCURRENT DISCONNECT IS FIELD INSTALLED, A TEMPORARY SERVICE BOND WILL BE INSTALLED FOR SAFETY PURPOSE.
4. CONDUCTOR OVERCURRENT PROTECTION DEVICES ARE SELECTED IN ACCORDANCE WITH 2002 NEC (ARTICLE 240-3).
5. CONDUCTOR SIZING IS SELECTED FROM 2002 NEC (ARTICLE 220-10b).
6. #4 AWG GREEN FROM MASTER GROUND BAR TIES TO GROUND IN PANEL BOARD.



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02-25-15	CONSTRUCTION DWGS - REV 0

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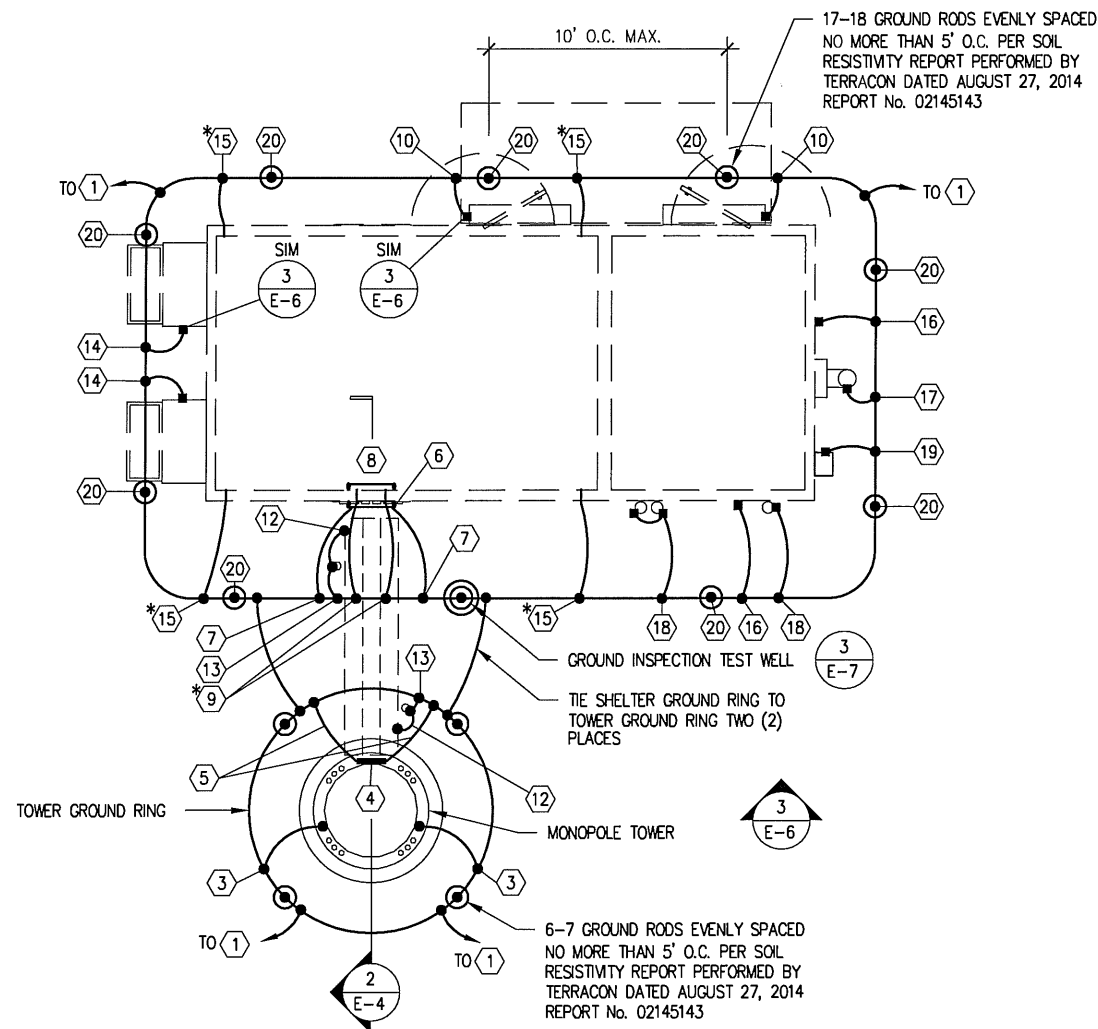
SHEET TITLE:

ELECTRICAL RISER DIAGRAM

A&E PROJECT NO.:

001-1504

SHEET NO.:



* SHELTER PENETRATION: SEAL BOTH SIDES OF PENETRATION WEATHER TIGHT

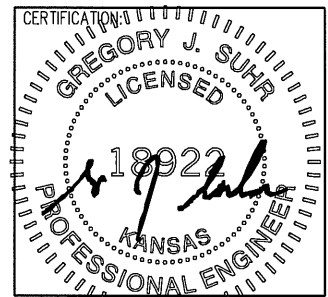
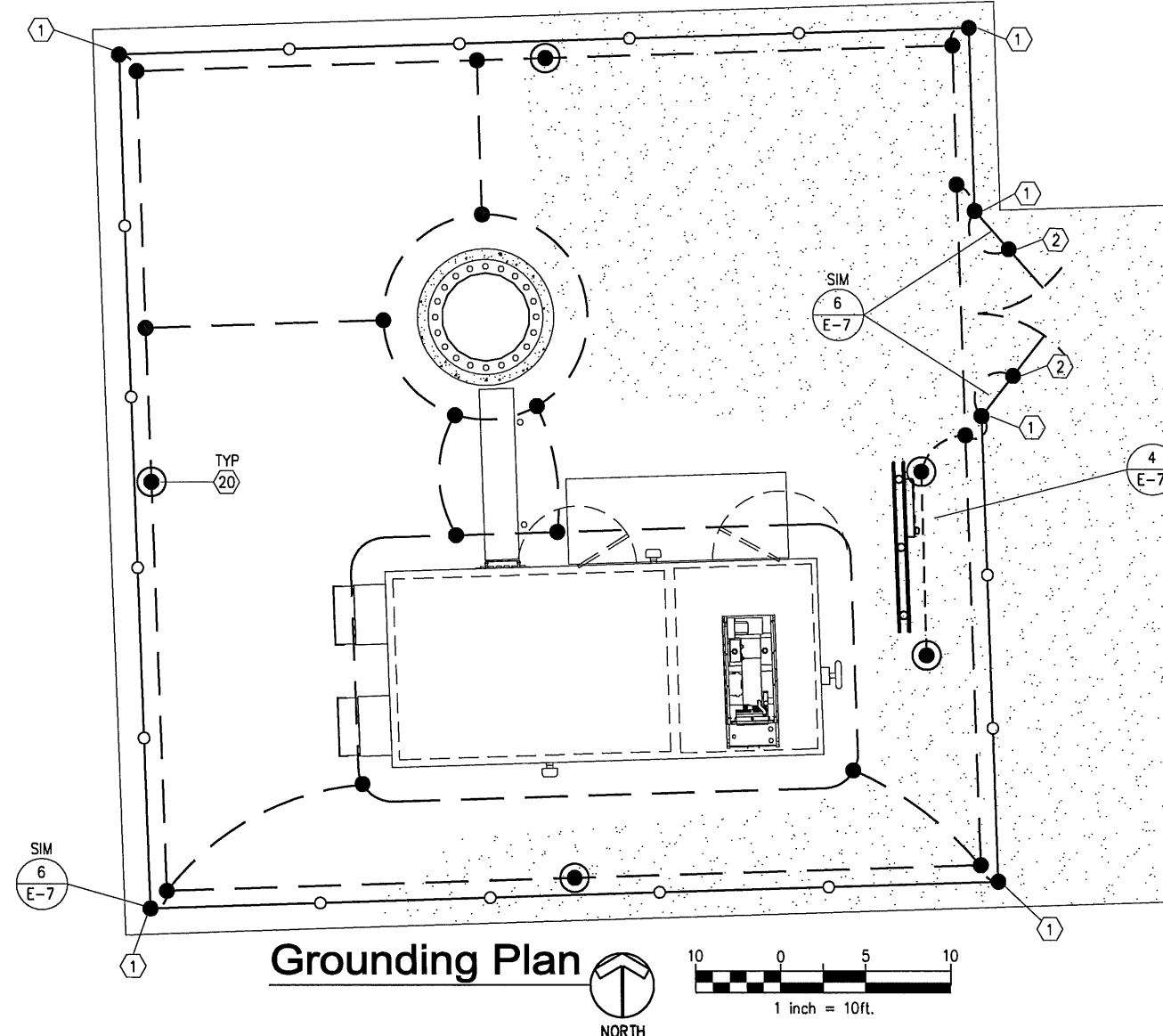
Shelter and Tower Grounding Schematic

1 SCALE: 1/8" = 1'-0"

Legend

- ① FENCE GROUND: E.C. TO FURNISH AND INSTALL #2 AWG BARE SOLID TINNED COPPER GROUND WIRE AT FENCE POST. GROUND WIRE TO BE ROUTED ALONG FENCE POST AND CADWELDED FOUR (4) PLACES, TOP RAIL, TOP AND BOTTOM OF CORNER POST, AND GROUND RING.
- ② GATE GROUND: SIMILAR TO FENCE GROUND (FG); E.C. SHALL ALSO FURNISH AND INSTALL #2 BRAIDED GATE JUMPER WIRE BETWEEN THE GATE FRAME AND THE GATE POST. CONNECTIONS AT GATE FRAME AND GATE POST TO BE CADWELDED.
- ③ TOWER GROUND: E.C. TO FURNISH AND INSTALL TWO (2) #2 AWG BARE SOLID TINNED COPPER GROUND WIRES FROM BASE OF TOWER OR TOWER LEGS TO TOWER GROUND RING. ALL CONNECTIONS TO BE CADWELDED.
- ④ TOWER GROUND BAR: E.C. TO FURNISH AND INSTALL TWO (2) 20"x4"x1/4" TINNED COPPER GROUND BARS ON THE TOWER. ONE TO BE LOCATED AT ANTENNA MOUNT ELEVATION (ATTACHED TO TOWER STEEL), THE OTHER AT THE BASE OF THE TOWER ADJACENT TO THE ICE BRIDGE (ISOLATED FROM TOWER STEEL).
- ⑤ TOWER COAX GROUND: E.C. TO FURNISH AND INSTALL TWO (2) #2 AWG BARE SOLID TINNED COPPER GROUND WIRES FROM TOWER GROUND BAR (TGB) TO GROUND RING. ALL CONNECTIONS TO BE CADWELDED.
- ⑥ EXTERIOR GROUND BAR: SHELTER MANUFACTURER FURNISHED AND INSTALLED 24"x4"x1/4" TINNED COPPER GROUND BAR ON EXTERIOR SIDEWALL OF SHELTER BELOW COAX BUILDING ENTRY.
- ⑦ EXTERIOR GROUND BAR GROUND: E.C. TO FURNISH AND INSTALL TWO (2) #2 AWG BARE SOLID TINNED COPPER GROUND WIRES FROM THE EXTERIOR GROUND BAR (EGB) TO GROUND RING. ALL CONNECTIONS TO BE CADWELDED.
- ⑧ MASTER GROUND BAR: SHELTER MANUFACTURER FURNISHED AND INSTALLED 24"x4"x1/4" TINNED COPPER GROUND BAR ON INTERIOR SIDEWALL OF SHELTER BELOW COAX BUILDING ENTRY.
- ⑨ MASTER GROUND BAR GROUND: E.C. TO EXTEND TWO (2) SHELTER MANUFACTURER FURNISHED AND INSTALLED #2 AWG BARE SOLID TINNED COPPER GROUND WIRES FROM THE MASTER GROUND BAR (MGB) THRU PROVIDED 3/4" PVC OPENINGS TO GROUND RING. ALL CONNECTIONS TO BE CADWELDED, PVC SEAL OPENING WEATHER TIGHT.
- ⑩ DOOR CANOPY GROUND: E.C. TO FURNISH AND INSTALL ONE (1) #2 AWG BARE SOLID TINNED COPPER GROUND WIRE FROM DOOR CANOPY TO SHELTER GROUND RING. CONNECTION AT DOOR CANOPY TO BE MECHANICAL, CONNECTION AT GROUND RING TO BE CADWELDED.
- ⑪ COAX ENTRY GROUND: E.C. TO FURNISH AND INSTALL TWO (2) #2 AWG BARE SOLID TINNED COPPER GROUND JUMPER WIRE FROM COAX ENTRY PANEL TO EXTERIOR GROUND BAR (EGB). ALL CONNECTIONS TO BE CADWELDED.
- ⑫ ICE BRIDGE CHANNEL GROUND: E.C. TO FURNISH AND INSTALL ONE (1) #2 AWG BARE SOLID TINNED COPPER GROUND JUMPER WIRE FROM ICE BRIDGE CHANNEL TO ICE BRIDGE SUPPORT POST. ALL CONNECTIONS TO BE CADWELDED.
- ⑬ ICE BRIDGE SUPPORT GROUND: E.C. TO FURNISH AND INSTALL ONE (1) #2 AWG BARE SOLID TINNED COPPER GROUND WIRE FROM ICE BRIDGE SUPPORT POST TO GROUND RING. ALL CONNECTIONS TO BE CADWELDED.
- ⑭ AIR CONDITIONER GROUND: E.C. TO FURNISH AND INSTALL ONE (1) #2 AWG BARE SOLID TINNED COPPER GROUND WIRE FROM AIR CONDITIONER CABINET TO GROUND RING. CONNECTION AT AIR CONDITIONER CABINET TO BE MECHANICAL, CONNECTION AT GROUND RING TO BE CADWELDED (TYPICAL OF 2).
- ⑮ HALO GROUND: E.C. TO EXTEND FOUR (4) SHELTER MANUFACTURER FURNISHED AND INSTALLED #2 AWG BARE SOLID TINNED COPPER GROUND WIRES THRU PROVIDED 3/4" PVC OPENINGS TO GROUND RING. ALL CONNECTIONS TO BE CADWELDED, PVC SEAL OPENING WEATHER TIGHT.
- ⑯ GENERATOR LOUVER GROUND: E.C. TO FURNISH AND INSTALL ONE (1) #2 AWG BARE SOLID TINNED COPPER GROUND WIRE FROM GENERATOR LOUVER FRAME TO GROUND RING. CONNECTION AT LOUVER FRAME TO BE MECHANICAL, CONNECTION AT GROUND RING TO BE CADWELDED (TYPICAL OF 2).
- ⑰ GENERATOR EXHAUST GROUND: E.C. TO FURNISH AND INSTALL ONE (1) #2 AWG BARE SOLID TINNED COPPER GROUND WIRE FROM GENERATOR EXHAUST PIPE TO GROUND RING. SECURE GROUND WIRE TO EXHAUST PIPE WITH PIPE CLAMP (VERIFY PIPE SIZE) CONNECTION AT GROUND RING TO BE CADWELDED.
- ⑱ DIESEL FUEL VENT GROUND: E.C. TO FURNISH AND INSTALL THREE (3) #2 AWG BARE SOLID TINNED COPPER GROUND WIRE FROM DIESEL FUEL PIPES TO GROUND RING. SECURE GROUND WIRE TO VENT PIPE WITH PIPE CLAMP (VERIFY PIPE SIZE) CONNECTION AT GROUND RING TO BE CADWELDED.
- ⑲ EXTERNAL FUEL FILL GROUND: E.C. TO FURNISH AND INSTALL TWO (2) #2 AWG BARE SOLID TINNED COPPER GROUND WIRES FROM EXTERNAL FUEL FILL BOX TO GROUND RING. ONE GROUND WIRE TO BE MECHANICALLY CONNECTED TO FUEL FILL BOX, ONE GROUND WIRE TO BE MECHANICALLY CONNECTED TO FUEL FILL PIPE. CONNECTION TO GROUND RING TO BE CADWELDED.
- ⑳ 5/8" DIA. x 10' LONG TINNED COPPER CLAD STEEL GROUND ROD DRIVEN VERTICAL TOP OF ROD 30" MIN. BELOW GRADE. SPACING OF GROUND RODS 10' MAX. ALL CONNECTIONS TO BE CADWELDED.

NOTE: ALL GROUND LEADS AT TOWER, ICE BRIDGE SUPPORT POSTS, FENCE POSTS, ETC. TO BE ROUTED IN 1/2" NON-METALLIC PVC FLEX CONDUIT. GROUND LEADS AT SHELTER FROM EXTERNAL GROUND BARS, COAX ENTRY, LOUVERS, PIPES, ETC. TO BE ROUTED IN 1/2" NON-METALLIC PVC RIGID CONDUIT SECURED TO SHELTER WALL WITH AT LEAST ONE (1) NON-METALLIC CONDUIT CLAMP 36" MAX. SPACING. CONDUIT TO BE 4" MAX. FROM APPLIANCE CONNECTION AND EXTEND 18" MIN. BELOW GRADE.



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01-30-15	CONSTRUCTION DWGS - REV D
02-25-15	CONSTRUCTION DWGS - REV O

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SITE ADDRESS:

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LAWRENCE, KS 66047

SHEET TITLE:

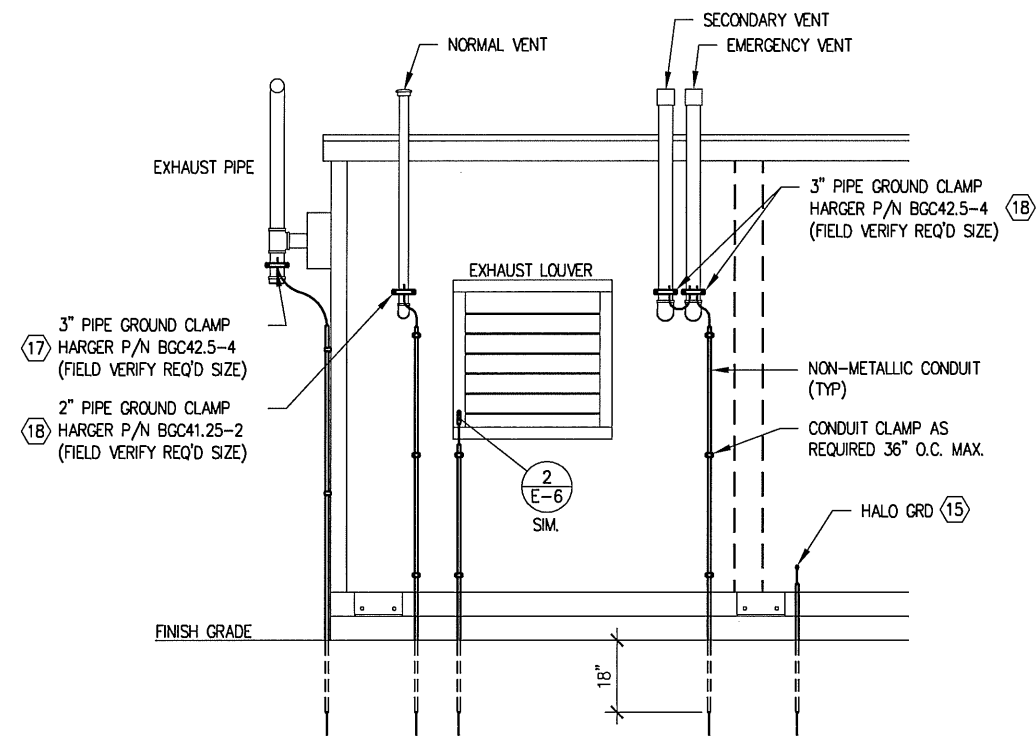
GROUNDING PLAN AND NOTES

A&E PROJECT NO.:

001-1504

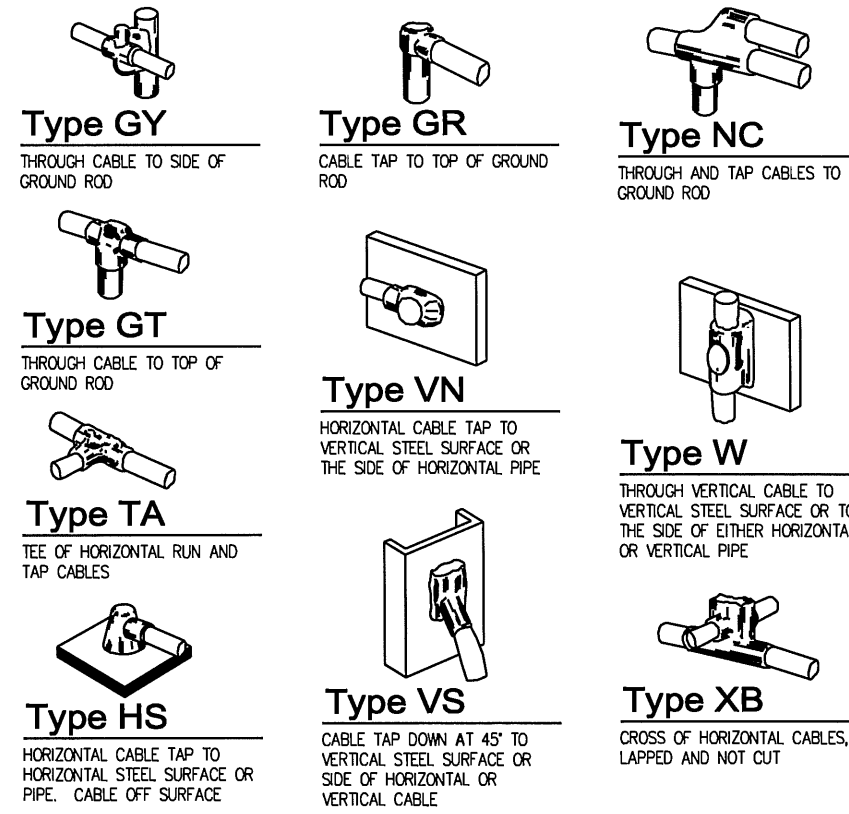
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E-5



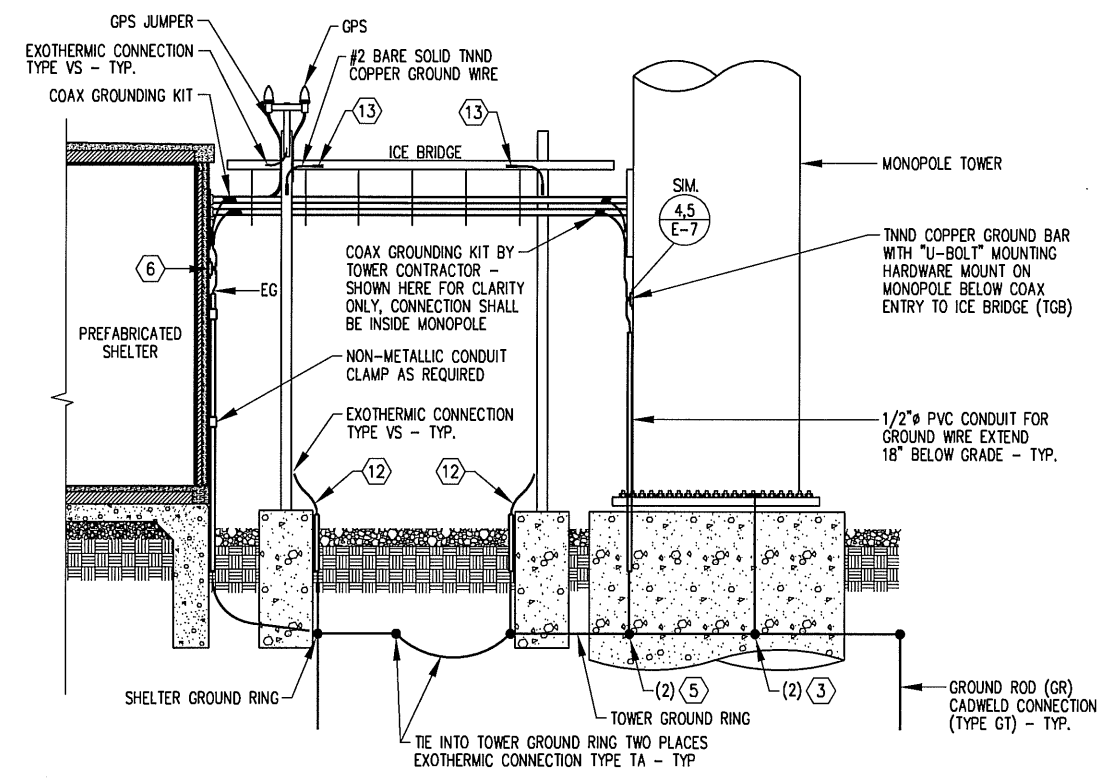
3 Shelter Ground Elevation

SCALE: 1/4" = 1'-0"



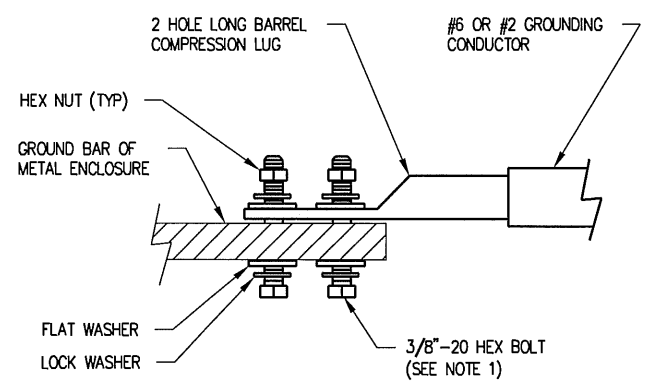
4 Exothermic (Cadweld) Details

NO SCALE



1 Ice Bridge Grounding Schematic

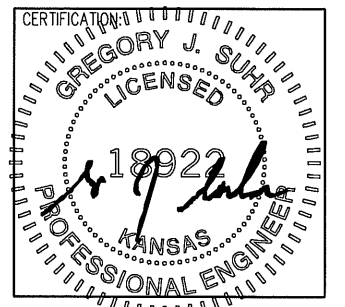
SCALE: 1/4" = 1'-0"



- INSTALLATION NOTES:**
1. SELECT BOLT LENGTH TO PROVIDE A MINIMUM OF TWO EXPOSED THREADS.
 2. BURNISH MOUNTING SURFACE TO REMOVE PAINT IN THE AREA OF THE LUG.
 3. APPLY ANTI-OXIDANT COMPOUND TO MATING SURFACE OF LUG AND WIPE CLEAN EXCESS COMPOUND.

2 Mechanical Ground Connection

NO SCALE



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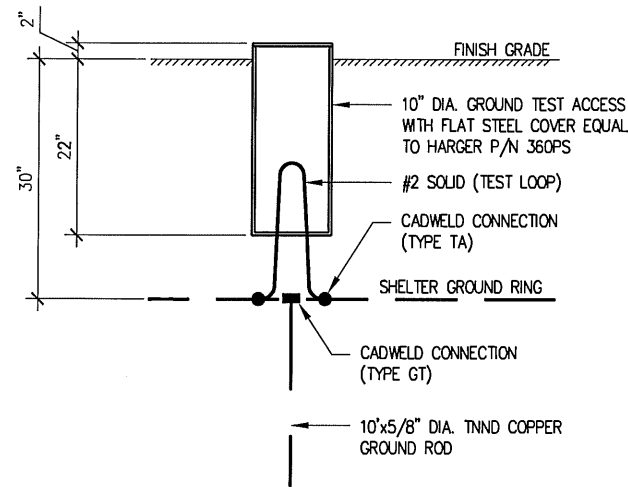
SHEET TITLE: _____

GROUNDING DETAILS

A&E PROJECT NO.: _____

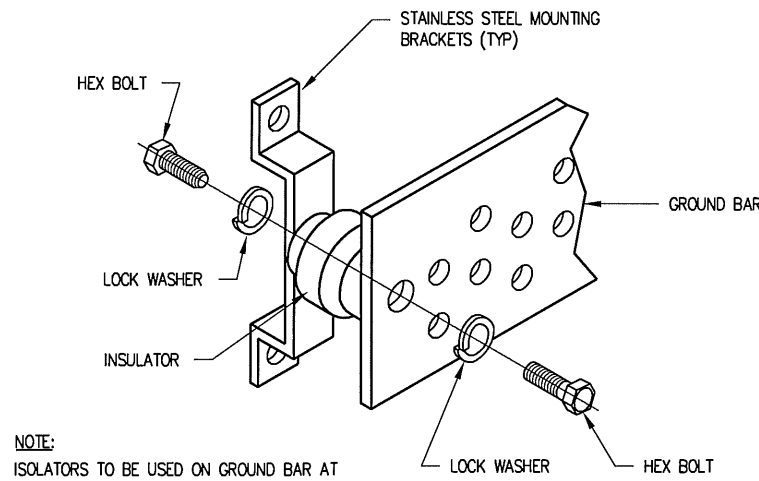
001-1504

SHEET NO.: _____



3 Grounding Inspection Test Well

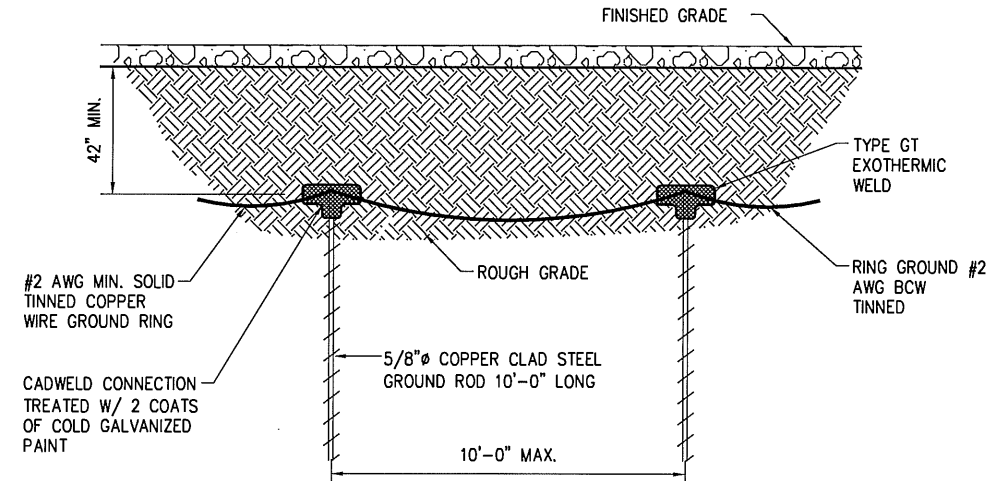
SCALE: 1/2" = 1'-0"



NOTE:
ISOLATORS TO BE USED ON GROUND BAR AT TOWER BASE ADJACENT TO ICE BRIDGE ONLY. GROUND BAR AT ANTENNA ELEVATION TO BE ATTACHED DIRECTLY TO TOWER STEEL.

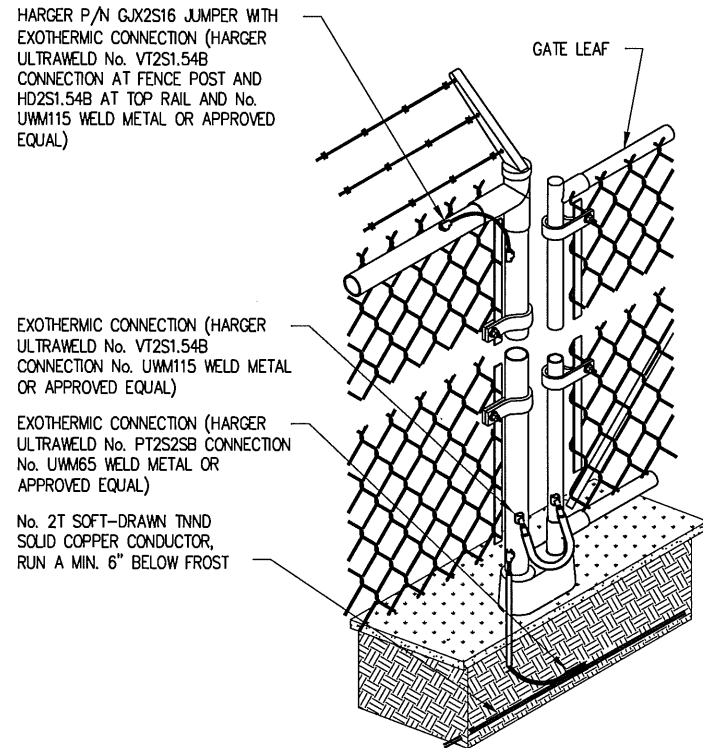
2 Ground Bar Installation

SCALE: 3" = 1'-0"



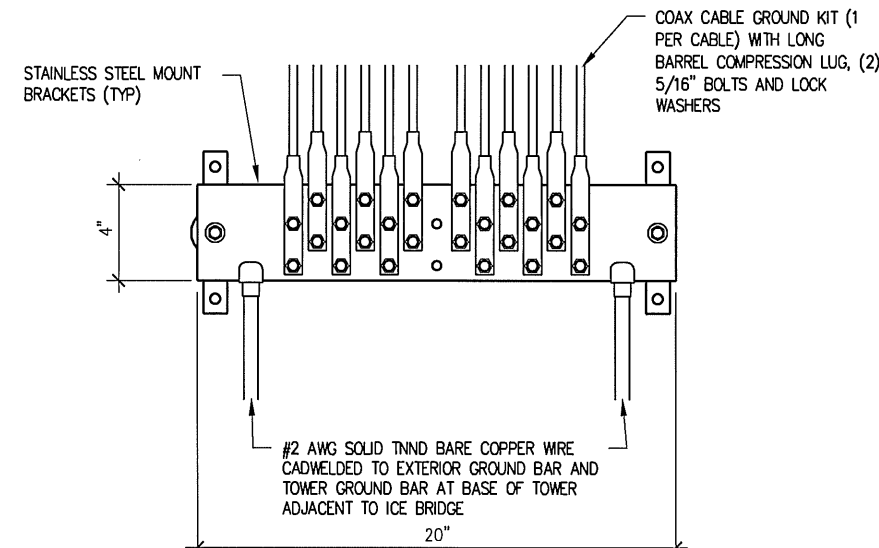
1 Grounding Rod Detail

SCALE: 1/4" = 1'-0"



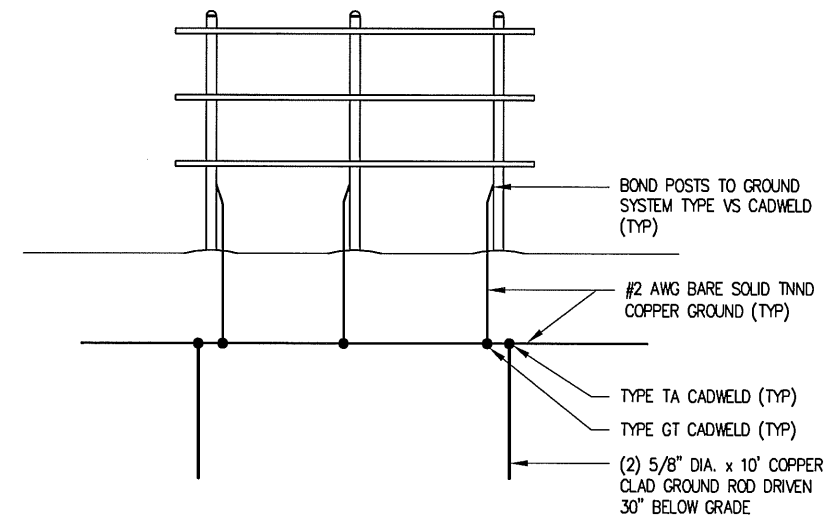
6 Fence and Gate Grounding

NO SCALE



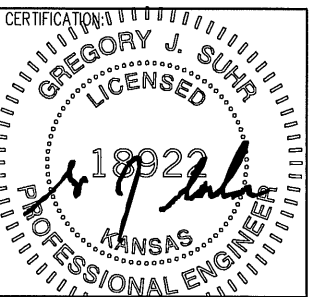
5 Tower Ground Bar (TGB)

SCALE: 1 1/2" = 1'-0"



4 H-Frame Grounding Detail

SCALE: 3/16" = 1'-0"



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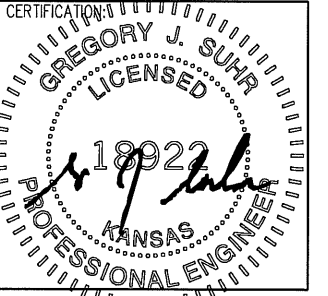
SHEET TITLE:

GROUNDING DETAILS

A&E PROJECT NO.:

001-1504

SHEET NO.:



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DATE	
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**RAISER DIAGRAM AND
H-FRAME DETAILS**

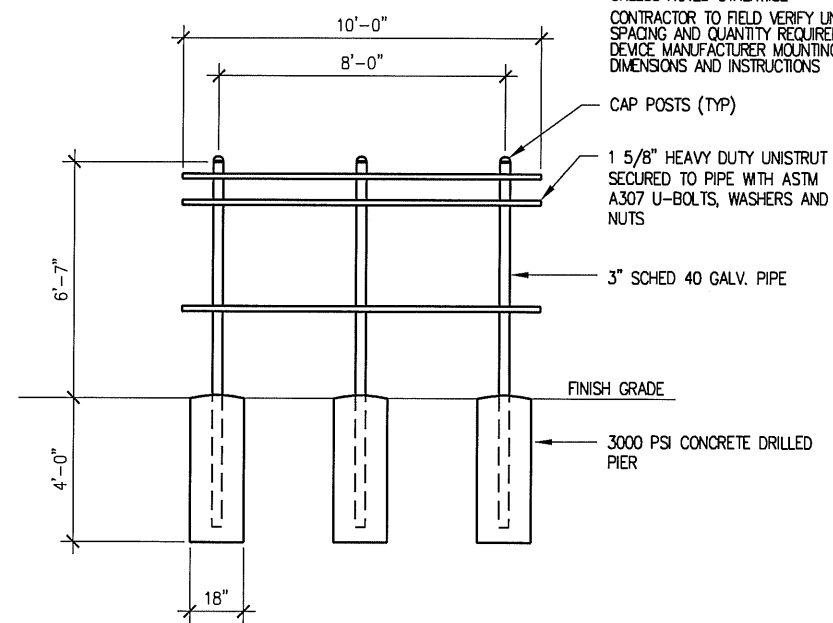
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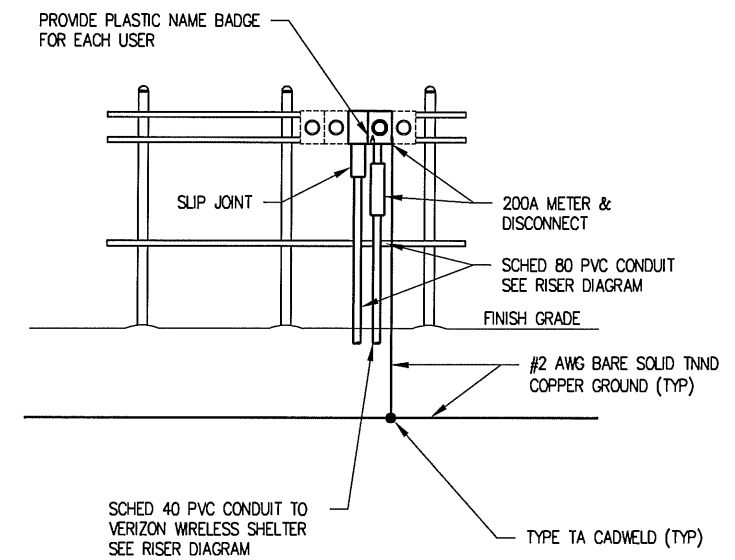
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E-8

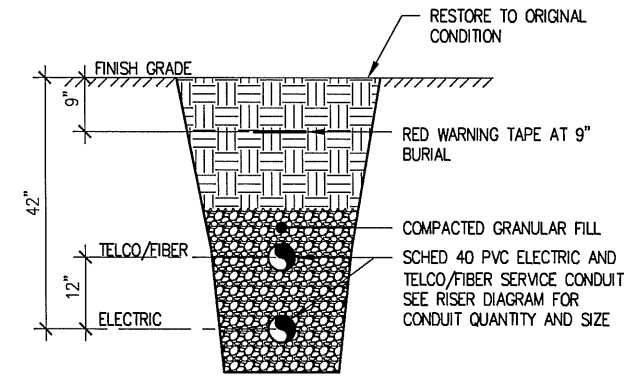
NOTES:
ALL MATERIAL TO BE GALVANIZED UNLESS NOTED OTHERWISE
CONTRACTOR TO FIELD VERIFY UNISTRUT SPACING AND QUANTITY REQUIRED WITH DEVICE MANUFACTURER MOUNTING DIMENSIONS AND INSTRUCTIONS



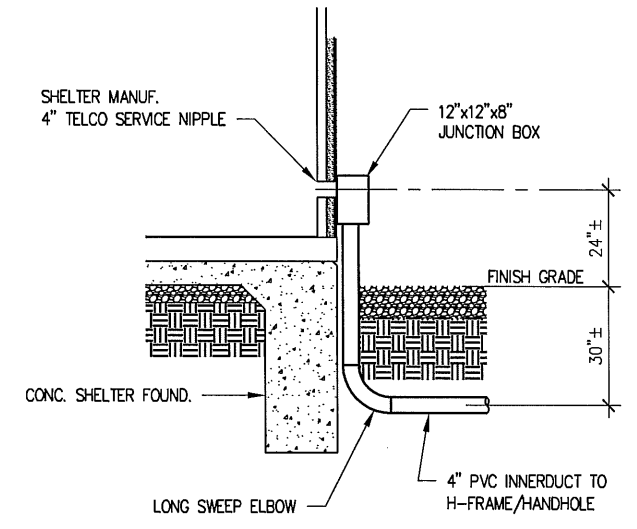
1 Utility H-Frame Unistrut
SCALE: 3/16" = 1'-0"



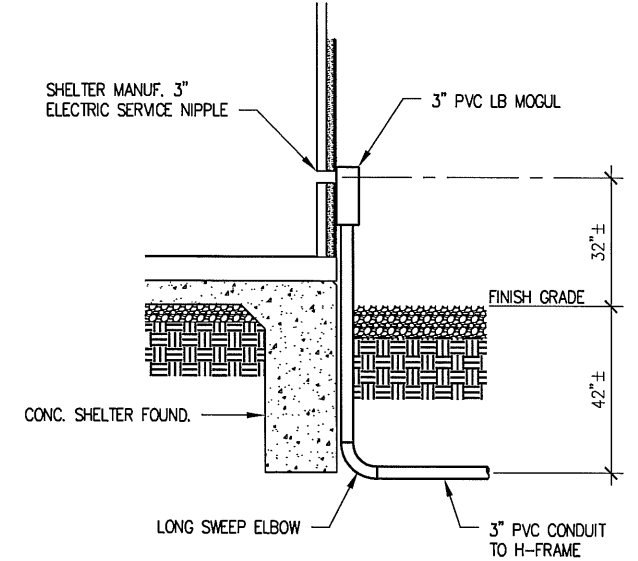
2 Utility H-Frame - Electrical
SCALE: 3/16" = 1'-0"



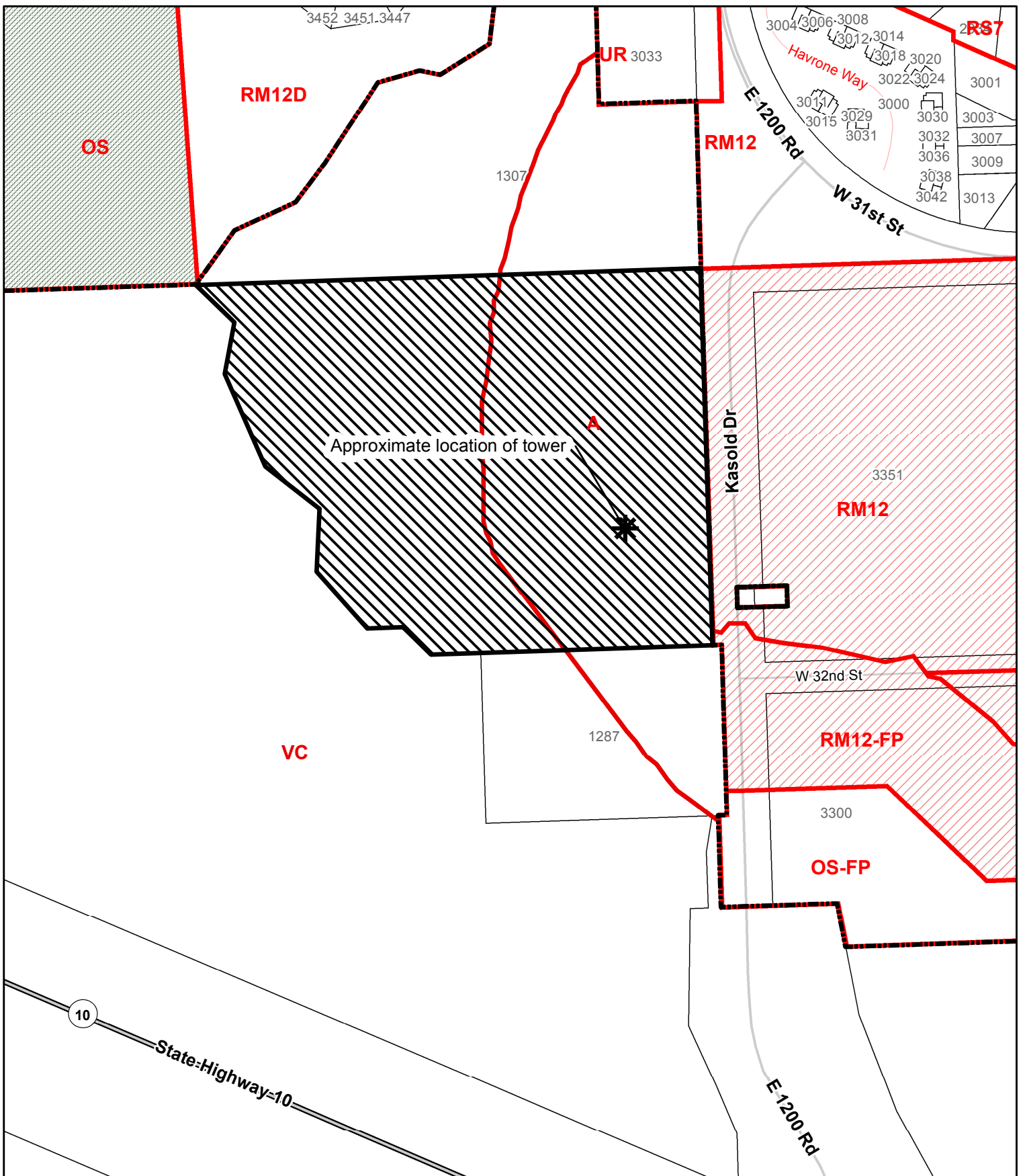
5 Buried Utility
SCALE: 3/8" = 1'-0"



4 Fiber Service Entrance
SCALE: 1/4" = 1'-0"



3 Electric Service Entrance
SCALE: 1/4" = 1'-0"



CUP-16-00312: Conditional Use Permit for a New 190' Communication Tower for Verizon Wireless Located North of Westar Substation at 1287 E 1200 Road



PLANNING COMMISSION REPORT
Regular Agenda – Non Public Hearing Item

PC Staff Report
09/26/2016

ITEM NO. 6A: ANNEX 55 ACRES; SE CORNER 31ST & MICHIGAN (MKM)

A-16-00305: Consider a request to annex approximately 55 acres located at the SE corner of 31st and Michigan Streets. Submitted by BG Consultants on behalf of Reylan Properties LC, property owner of record. *Initiated by City Commission on 8/16/16.*

STAFF RECOMMENDATION:

Staff recommends approval of the requested annexation of approximately 55 acres and forwarding the requested annexation to the City Commission with a recommendation for approval based on the findings in the body of the staff report.

Reason for Request

Applicant's response: *"The subject property (the "Property") consists of approximately 55 acres located at the southeast corner of 31st Street and Michigan Street, and is presently zoned "A-Agricultural District" under the Douglas County Code. The Property is vacant and undeveloped, and abuts the City of Lawrence along its northern and western boundaries. The Property currently lies within Service Area 1 of the Lawrence Urban Growth Area, and has access to existing city infrastructure, including a water line along the north property line and sanitary sewer main. The Applicant's proposed project is an approximately 240-unit multi-family residential housing development, and is in complete conformity with the planned future land uses set forth in Horizon 2020 and the Revised Southern Development Plan. The Applicant is requesting annexation of the Property consistent with the City of Lawrence's Annexation policy, which encourages annexation of properties that are located generally in the projected growth areas of Lawrence. The City's established policies and long range planning indicate a need for this annexation to occur, and the community impact of the project includes, but is not limited to, the addition of competitively priced multi-family units at a strategic location, and an increase in the City's municipal budget without a tax-lid election under K.S.A. 79-5a27.*

KEY POINTS

- The subject property is located within Service Area 1 of the Urban Growth Area, an area that has been identified as appropriate for urbanization; therefore, annexation is required prior to development. The property owner has voluntarily consented to and is requesting annexation.
- The property is not within the service area of a Rural Water District.
- The subject property is adjacent to the Lawrence city limits.
- Annexation requests of more than 10 acres require a Planning Commission recommendation.
- This annexation request is accompanied by rezoning requests which are also scheduled for the September Planning Commission meeting.
- Public infrastructure and City services required for the proposed development are available and in place.

COMPREHENSIVE PLAN FACTORS TO CONSIDER

- The annexation request is compliant with the Growth Management policies of the Comprehensive Plan.

ASSOCIATED CASES

- **Z-16-00306**; Rezoning request for approximately 30 acres from the County A (Agriculture) to RM15 (Multi-Dwelling Residential) District.
- **Z-16-00307**; Rezoning request for approximately 25.13 acres from County A (Agricultural) to RM15-FP (Multi-Dwelling Residential with Floodplain Management Regulations Overlay) District.

The associated cases were submitted concurrently with the annexation request and are also being considered at the September Planning Commission meeting.

OTHER ACTION REQUIRED

Other action required for annexation:

- City Commission approval of annexation and adoption/publication of ordinance.

Action required prior to development:

- City Commission approval of rezoning request and adoption/publication of ordinance.
- Platting of the property through the Major Subdivision process.
- Submittal and administrative approval of site plans for development.
- Building permits obtained prior to any development.
- Floodplain Development Permits obtained prior to any development activity on parcels which are encumbered with floodplain.

PUBLIC COMMENT

- * No public comments were received prior to the printing of this staff report.

EXISTING CONDITIONS

Current Zoning and Land Use:

County zoning: A (Agricultural) and F-F (Floodway Fringe Overlay) Districts; *Agriculture*.

[Proposed City Zoning: RM15 (Multi-Dwelling Residential) and RM15-FP (Multi-Dwelling Residential with Floodplain Management Regulations Overlay) Districts.]

Surrounding Zoning and Land Use:

To the north:

CR-FP (Regional Commercial with Floodplain Management Regulations Overlay), OS-FP (Open space with Floodplain Management Regulations Overlay) District. To the north of these districts: RS5-FP (Single-Dwelling Residential with Floodplain Management Regulations Overlay) and RS5 (Single-Dwelling Residential) Districts.

To the west:

RM15 (Multi-Dwelling Residential) and OS (Open Space) Districts; *Multi-Dwelling Structures* and *Undeveloped*.

To the east:

County Zoning: B-2 (General Business), A (Agricultural)

and (Floodway Fringe Overlay) Districts and V-C (Valley Channel) District to the southeast; *Recreation Facility/event center, to the east, Agriculture, and the K10 Highway/South Lawrence Trafficway (SLT)*)

To the south:

County Zoning: A (Agricultural), F-F (Floodway Fringe Overlay) and V-C (Valley Channel) Districts; *Agriculture, K10 Highway/SLT, and Baker Wetland (Figures 1 & 2)*

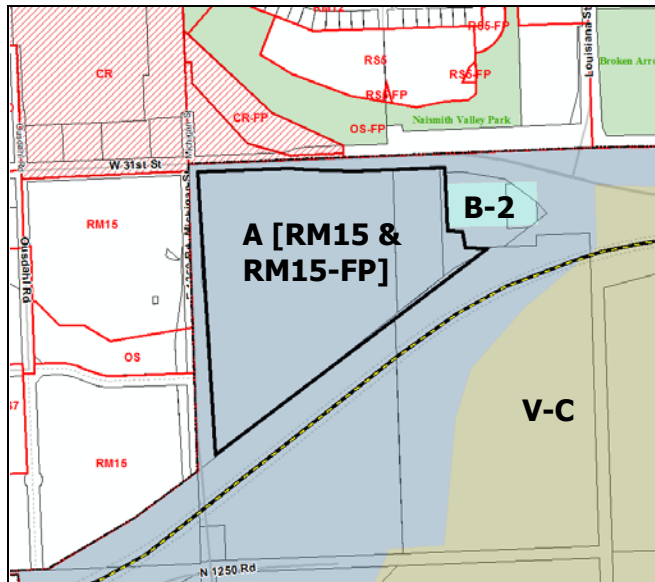


Figure 1a. Base zoning in the area (County zonings shaded and labeled in black. City Zonings labeled in red, Conditional City zoning shown with crosshatch.

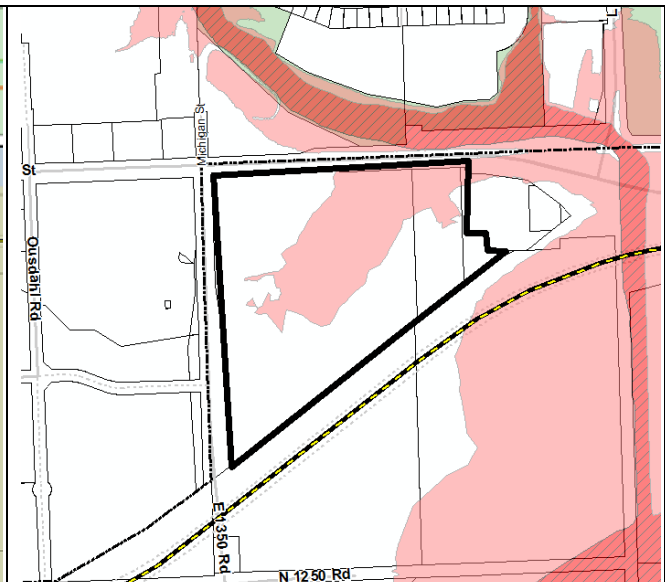


Figure 1b. Floodplain Overlay Zoning Districts in the area. 100 year floodplain in pink and floodway in red. The -FP Districts include additional area and do not match the floodplain maps.

Project Summary

The property owner is requesting annexation of three parcels south of W 31st Street that are owned by Reylan Properties, LC in preparation for residential development. Rezoning requests and a concept of the proposed development were submitted with the annexation request.

Figure 3 contains the concept plan for the subject area following annexation and rezoning to the RM15 and RM15-FP Districts. Apartments will ring the property northwest of the floodplain. No development is proposed within the floodplain.

Access will be taken from Michigan Street. No access will be permitted to 31st Street, with the possible exception of restricted access for fire and emergency vehicles if needed.

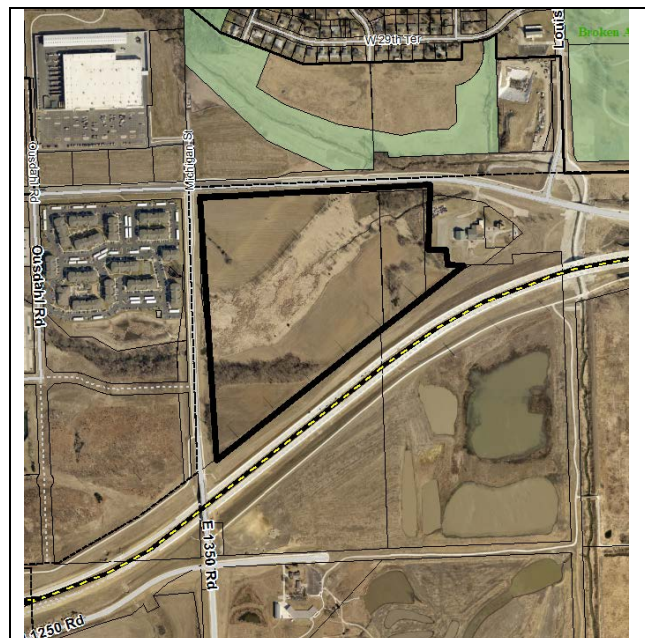


Figure 2. Land use/development in the area.

Annexation Procedure

City policy requires the Lawrence-Douglas County Metropolitan Planning Commission to review all annexation requests in excess of ten acres. The City of Lawrence Administrative Annexation Policy (AP-74) requires that the costs associated with compensation to a Rural Water District be paid pursuant to K.S.A 12-527. The property is not located within the boundaries of a Rural Water District; therefore, compensation is not necessary. The property is located within the certified territory of Westar Energy. The City provided Westar Energy with written notice of the City's intent to annex the subject property, per K.S.A. 66-1, 176.

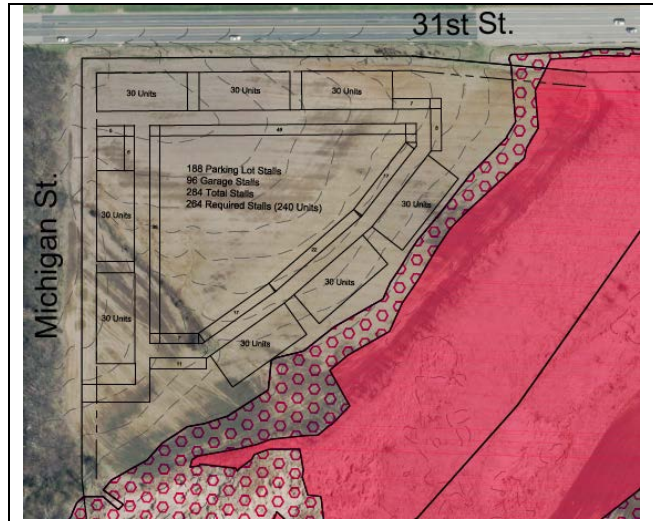


Figure 3. Concept plan for subject area.

Per Code, property which is proposed for development is rezoned to a city zoning designation when annexed. Rezoning requests to the RM15 (Multi-Dwelling Residential) District and the Floodplain Management Overlay District (RS15-FP) for the portion of the property that contains the floodplain and the additional area outlined in Section 20-1201(3)(c) of the Development Code were submitted with the annexation request.

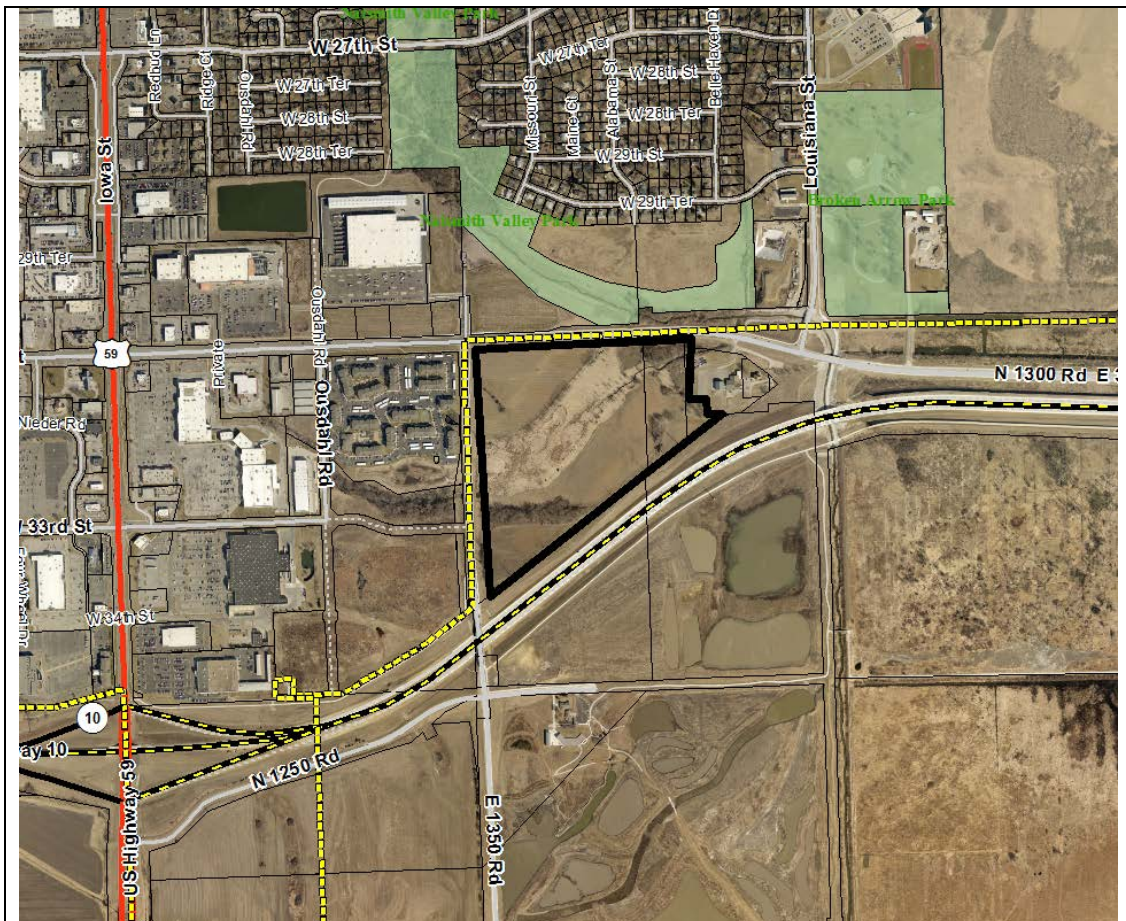


Figure 4. General location of property within annexation request. Subject property outlined. (City limits in yellow.)

General Location

The property requested for annexation bounded on the north by W 31st Street and planned commercial development and open space; on the west by multi-dwelling structures, The Connection apartments, and Michigan Street; on the south by K10 Highway/SLT and the Baker Wetlands; and on the east by County commercial development. (Figure 4) Property to the northwest has recently been developed with Menards, a home improvement store. Four commercial pad sites have yet to be developed south of the Menards building.

A stream and its floodplain bisect the subject property from the northeast to the southwest. Other streams are located throughout the area and the Wakarusa River and its associated floodplain is located to the south. The Baker Wetlands are south of the K10 Highway/SLT. In addition to the Baker Wetlands, other open space in the area includes Naismith Valley Park and Broken Arrow Park.

Infrastructure and Utility Extensions

WATER

There is a 12 in. waterline on the south side of W 31st Street the development can connect the new internal water lines to (Figure 5). The 12 in. water line was installed in 2014 as part of the SLT utilities relocation, as outlined in Resolution No. 5614. The watermain runs from Broken Arrow Park to the Connection apartments, or about 3,520 ft. The project was paid from the Utilities Department Capital Improvement Plan fund. The overall cost was \$364,755 or \$103.62 per foot. Since the water main can serve both sides of 31st street, each side of the street pays half of the cost or \$51.81 per foot. Resolution No. 5614 does not specify a time frame for the collection of the cost of the main; however, nce the water main has

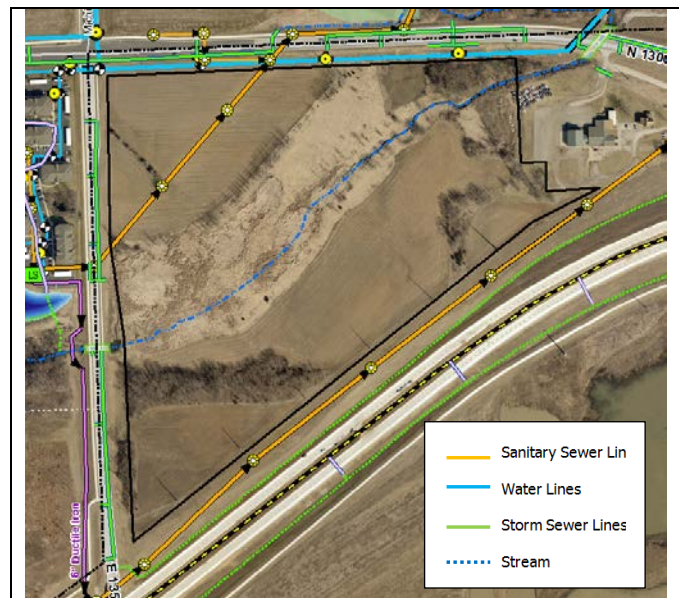


Figure 5. Public infrastructure in the area.

been replaced, a front footage charge would not be applied. For example, if a water main constructed in the 1950's was replaced as a CIP project in 2014 because of age, and a vacant lot that has never had a structure or water service on it applies for a meter, a front footage charge would not be applied because the original water main served its useful life.

The City's Development Policy requires the developer to pay the front footage fee along with other Utility System Development Charges. The developer will install an internal looped waterline system to serve the project.

SANITARY SEWER

The apartment buildings will require new internal sanitary sewer lines that will connect to the 36 in. interceptor running through the northwest corner of the property. (Figure 5) The capacity of the 36 in. line may not currently be sufficient but should be sufficient when the Wakarusa Waste Water Treatment Plant and Pump Station 10 are in service, scheduled for January of 2018. A Downstream Sanitary Sewer Analysis will be required with the preliminary plat of the property to determine the impact of the project on the capacity of the line.

STORM SEWER

Storm sewer lines are in close proximity to the property. On-site detention can be routed into the adjacent storm sewer lines.

STREET IMPROVEMENTS

The subject property will participate in a Benefit District for the installation of a traffic signal at 31st and Michigan. Menards has already agreed to participate in the Benefit District. The development would need to install sidewalk along the frontage adjacent to W 31st Street. Michigan Street was constructed with a sidewalk on the east side and a shared use path on the west side.

Public Right-of-Way: The subject property abuts Michigan Street, a minor arterial street, on the west. A minor arterial street requires a minimum right-of-way width of 100 ft, per Section 20-810(e)(5) of the Subdivision Regulations. The right-of-way for Michigan Street, adjacent to the subject property, varies but is 118 ft at the minimum.

The subject property abuts W 31st Street, a principal arterial, on the north. Per Section 20-810(e)(5) of the Subdivision Regulations, a principal arterial requires 150 ft of right-of-way, 75 ft from the centerline. A total of approximately 124 ft was provided with the Menards development. A variance was approved to allow this amount of right-of-way. The amount of right-of-way required for this project is 75 ft south of the centerline, unless a similar variance is obtained from the Planning Commission during the review of the Preliminary Plat.

TRANSIT

Bus routes and stops are available in the area but there is no route along W 31st Street at this time. The transit system establishes routes based on demand, so it's possible a route could be extended to this area if the demand/ridership warranted it.

BICYCLE AND PEDESTRIAN

The Countywide Bikeway System Plan was completed as part of the Multimodal Planning Studies and was approved by the MPO on March 20, 2014.

The graphic in Figure 6 shows the proposed bike system in the area. Shared Use Paths (dashed green lines) are shown on the north, west, and south border of the subject property. A 10 ft wide shared use path was constructed along the north side of W 31st Street when it was reconstructed and along the west side of Michigan Street when it was constructed as part of the K10 Highway/SLT project. A shared use path was installed along the south side of the K10 Highway/SLT. The shared use path on Michigan connects to the path on the SLT on the south side of the Michigan Street underpass. No additional shared use paths are needed in this area. As mentioned earlier, a sidewalk will need to be installed along the W 31st Street frontage to accommodate pedestrians.

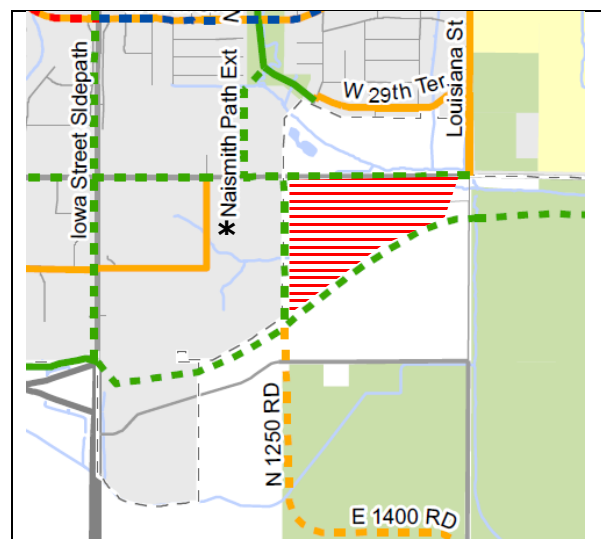


Figure 6. Multimodal Studies Project Map 2: Lawrence Urban Area Existing and Proposed Bikeways. (Subject property shown in red.)

* Naismith Path Ext. installed by Menards with their development.

PUBLIC SAFETY

The Fire Department’s Standard of Cover has identified a target total response time of 6 minutes 30 seconds throughout the city. This would apply to this property as well. The City Fire Code Official indicated that this property is within the four minute travel time for emergency response vehicles from station number 5 at 19th and Iowa.

The following table summarizes the infrastructure that would be required to accommodate the project and notes the responsible party:

	Improvement Required	Financial Responsibility
Water	Front Footage fee \$51.81/linear ft	Developer
	Installation of looped internal service lines and connection to public system	Developer
Sanitary Sewer	Installation of internal service lines and connection to public system	Developer
Street/Sidewalk	Sidewalk along W 31 st Street	Developer
	Signal at Michigan/W 31 st Street intersection	Developer (via Benefit District)
Stormwater	Installation of internal system and connection to public system	Developer

COMPREHENSIVE PLAN

The following section of this report provides language and recommendations from the Comprehensive Plan, followed by staff review in *red*.

“The Plan promotes development in the UGA through an adopted annexation policy which anticipates well-planned development of fringe areas.” (Page 3-1, *Horizon 2020*)

The subject property is located in a fringe area, being adjacent to the City limits on both the west and north sides. The development is well planned in that Michigan Street was installed with the construction of the K10 Highway/SLT, and infrastructure is present in the area to serve the proposed development. The Waste Water Treatment Plant and Pump Station 10 may be needed to provide sanitary sewer capacity for the project. These are not in service at this time; however, the Utilities Department estimates they will be in service by January 2018. The various planning steps for this development: annexation, rezoning, platting, and site planning should place the development very near the anticipated date of service for the wastewater treatment plant and pump station.

Annexation Policy No. 1 listed on page 4-5 of *Horizon 2020* states that Lawrence will actively seek voluntary annexation of land within the UGA as development is proposed. (Page 4-5)

The subject property is located within Service Area 1 of the Lawrence Urban Growth Area.

“The recommended growth management policies do not seek to limit the amount of land for future development. Rather, the Plan directs development to growth areas and suggests that development occur where necessary infrastructure is in place or planned to serve proposed uses, subject to the policies on the Plan.” (4-1, Growth Management, *Horizon 2020*)

Infrastructure, in the form of streets and utilities, are present to serve the development without any extension of the City mains. The property’s location is within the 6 minute response time set by the Fire Department.

The plan recommends that only agricultural development occur in Service Area 1 prior to annexation. Rural residential development and other non-agricultural types of uses within Service Area 1 shall not proceed until the property is annexed into the city; has access to public utilities and services, is platted and zoned to a city zoning category. (Page 4-1, *Horizon 2020*)

The proposed project is compliant with this recommendation. Annexation has been requested, the property has access to public utilities and services, as noted above, rezoning requests have been submitted with the annexation application and the property will be platted prior to site planning.

Map 3-1, Lawrence Urban Growth Area Service Areas & Future Land Use show the subject property in Service Area 1 and recommend higher density residential land uses in this area. (Page 3-3)

Chapter 5, Residential Land Use. "Requests for annexation shall be consistent with approved watershed/sub-basin, sector, neighborhood, nodal, corridor, specific issue/district plans." (Page 5-1, *Horizon 2020*)

The Revised Southern Development Plan is the specific plan for this area. The request is consistent with the approved plan, which is discussed in detail in a later section of this report.

Infill residential development should be considered prior too annexation of new residential areas. (Page 5-1)

'Infill' is defined on Page G-2 of the Comprehensive Plan as: "a process by which vacant land in developed areas is utilized for development." One of the benefits of infill development is the use of existing infrastructure. In this case, the site is located adjacent to a developed area and the infrastructure is in place either on the property or adjacent to it. No extension of the City sanitary sewer or water mains is necessary to serve this property. This project, while not technically 'infill', is very similar to infill development.

The proposed annexation and development is in conformance with the recommendations in the Comprehensive Plan.

COMPLIANCE WITH ADOPTED AREA PLANS

The subject property is located within the boundaries of the *Revised Southern Development Plan*.

As shown in Figure 7, the *Revised Southern Development Plan* recommends Medium-Density Residential as a future land use for the subject property in Map 3-1 Future Land Use Map (Page 21). The plan notes the following as appropriate zoning districts for Medium-Density Residential use: RS5, RS3 (Single-Dwelling Residential) Districts; and RM12, RM12D, RM15, (Multi-Dwelling Residential) Districts. Primary uses which are recommended for medium density residential include duplex, single-family dwellings, attached dwellings, multi-dwelling structures, group home, civic and public uses (Page 18).

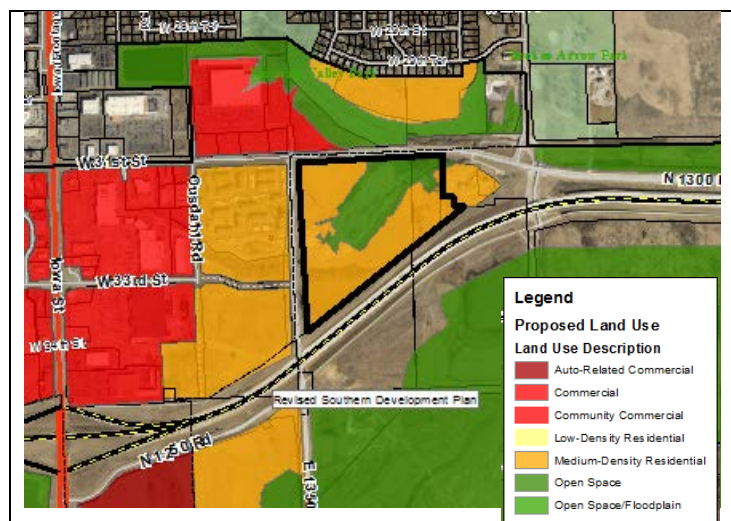


Figure 7. Land use recommendations in Map 3-1, *Revised Southern Development Plan*.

OTHER FACTORS

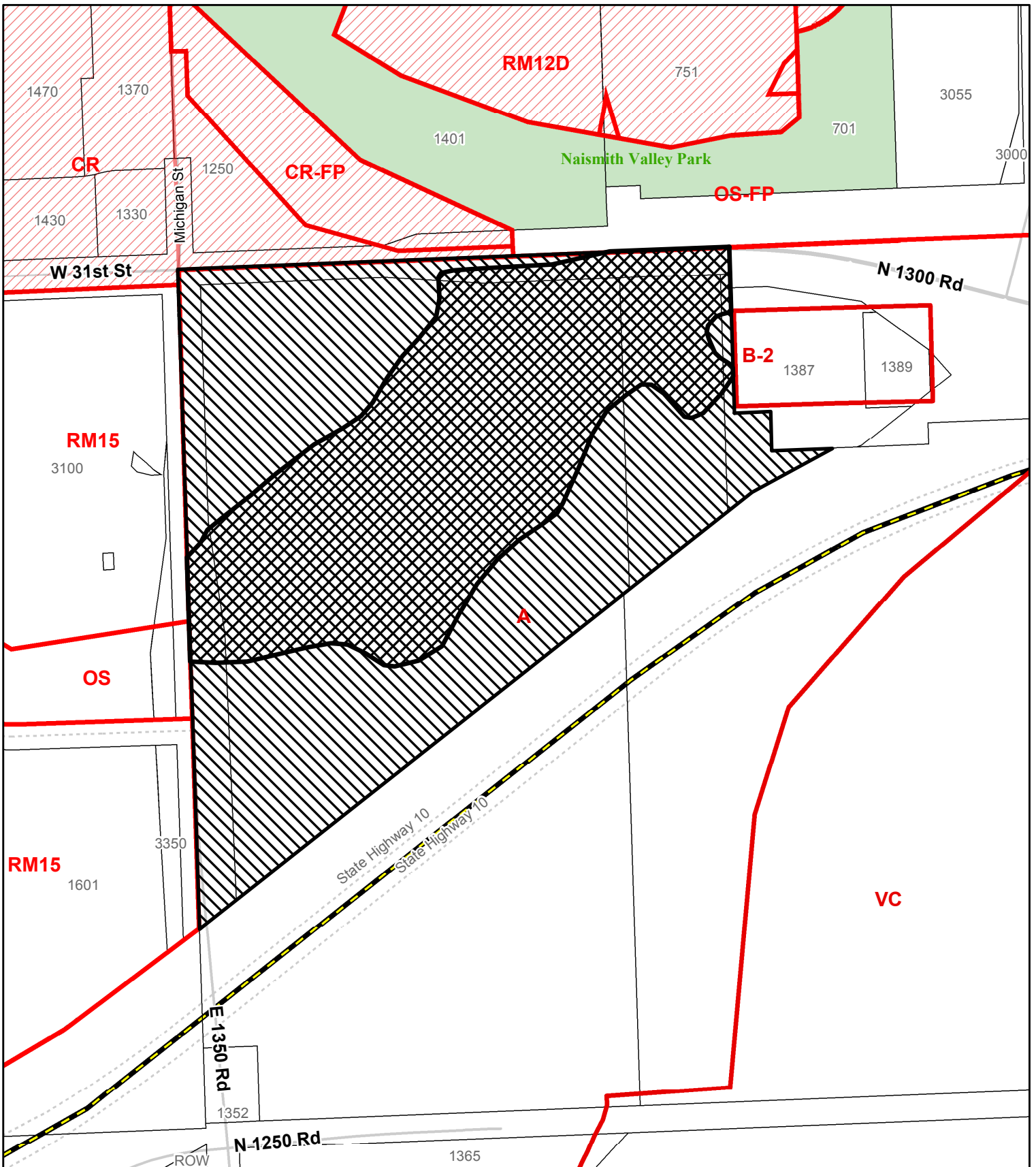
Planning staff prepared a Multi-Dwelling Inventory Report in 2016 to review the amount of land that is currently zoned for multi-dwelling development with the number of building permits issued annually to determine the available inventory and the approximate time span for development.

The study noted that it did not account for certain economic realities such as: product choice by consumers, market location demand, unique and specific site characteristics, owner desire, and market constriction. Various assumptions were necessary as much of the property planned for Multi-Dwelling Residential Development is not platted into individual lots and the areas for recreational facilities, streets, utilities, parking, etc. need to be removed from the potential area for multi-dwelling units. Within these parameters, the study identified an estimated potential for 5,932 multi-dwelling units to be developed within the city limits, with 5,076 of those units located outside of the downtown area. The City notes that, over the past 10 years, there has been an average of 18 projects constructed annually; with an average of 244 multi-dwelling units per year. In the downtown area, 5 permits have been issued annually with an average of 23 units per permit or 115 units annually. In conclusion, the inventory estimates that the property that is currently zoned for multi-dwelling residential development and within the city's corporate boundaries would take approximately 22.17 years to be developed. Planning staff noted that this figure would be reduced to 20.79 years, if the downtown area is excluded.

If approved, the proposed development would extend the inventory by approximately one year to 21.77 years (excluding downtown), or 23.05 years if the downtown area is included. While the comprehensive plan encourages annexations when infrastructure and adjacent proximities are coordinated, Staff believes the conclusions of this study should be factored into the Commission's analysis as well. While this project would expand an already large inventory of potential multi-dwelling uses, the merits of this specific request yield support from staff: its proximity to existing infrastructure, the project's return on infrastructure investments already paid for by utility rate payers, the adjacency to an active area in the city, etc.

CONCLUSION

The proposed annexation is compliant with recommendations of *Horizon 2020*, the *Revised Southern Development Plan*, and the City Annexation Policy. The subject property is located within Service Area 1 of the Lawrence Urban Growth Area and City services are available in the immediate area to serve the property; therefore, annexation is appropriate.



A-16-00305: Annexation of approximately 55 acres
Z-16-00306: Rezone 55 acres from County A District to RM15 District &
Z-16-00307: Rezone 25.13 acres from County A District to RM15-FP District
Located at Southeast Corner of W. 31st Street & Michigan Street



PLANNING COMMISSION REPORT
Regular Agenda – Public Hearing Item

PC Staff Report
09/26/16

ITEM NO. 6B: A TO RM15; 30 ACRES; SE CORNER 31ST & MICHIGAN (MKM)

Z-16-00306: Consider a request to rezone approximately 30 acres from County A (Agricultural) District to RM15 (Multi-Dwelling Residential) District, located at the SE corner of 31st & Michigan Streets. Submitted by BG Consultants on behalf of Reylan Properties LC, property owner of record.

ITEM NO. 6C : A TO RM15-FP; 25.13 ACRES; SE CORNER 31ST & MICHIGAN (MKM)

Z-16-00307: Consider a request to rezone approximately 25.13 acres from County A (Agricultural) District to RM15-FP (Multi-Dwelling Residential with Floodplain Management Regulations Overlay) District, located at the SE corner of 31st & Michigan Streets. Submitted by BG Consultants on behalf of Reylan Properties LC, property owner of record.

STAFF RECOMMENDATIONS:

Z-16-00306: Staff recommends approval of the rezoning request for approximately 30 acres from County A (Agricultural) District to RM15 (Multi-dwelling Residential) 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.

Z-16-00307: Staff recommends approval of the rezoning request for approximately 25.13 acres from County A (Agricultural) District to RM15-FP (Multi-dwelling Residential with Floodplain Management Regulations Overlay) 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.

REASON FOR REQUEST

Applicant's Response:

"The subject property (the "Property") consists of approximately 55 acres located at the Southeast corner of 31st Street and Michigan Street, and is presently zoned "A – Agricultural District" under the Douglas County Code. The Property is vacant and undeveloped, and abuts the City of Lawrence along its northern and western boundaries. The Property currently lies within Service Area 1 of the Lawrence Urban Growth Area, and has access to existing city infrastructure, including a water line along the north property line and sanitary sewer main. The applicant's proposed project is an approximate 240-unit multi-family housing development. The site will have good access to the newly completed South Lawrence Trafficway, and the walking, jogging, and biking routes along 31st Street. The project will not materially affect the floodplain. This application is necessary to enable the development of the Property for uses expressly contemplated by Horizon 2020 and the Revised Southern Development Plan."

KEY POINTS

- The subject property is not developed and has been used for agricultural purposes since the adoption of the County Zoning Regulations in 1966.
- The subject property is located within the boundaries of the *Revised Southern Development Plan*. The proposed zoning is consistent with the recommendations of the plan.
- Infrastructure to accommodate the proposed development is immediately available.
- The FP Overlay District is a Code requirement when annexing property that contains floodplain. Area adjacent to the floodplain that is up to 2 ft above the Base Flood Elevation is included in the FP Overlay District as it is anticipated that the Floodplain area may increase as the watershed is developed. The FP Overlay Zoning is included in this report; but the focus of the review is on the RM15 District as the FP is a Code requirement.

OTHER ACTION REQUIRED

- City Commission approval of rezoning request and adoption/publication of ordinance.
- Platting of the property through the Major Subdivision Process. (Planning Commission approval of Preliminary Plat. Final Plat reviewed administratively and placed on the City Commission agenda for acceptance of dedications.)
- Submittal and approval of a site plan application for any proposed site improvements.
- Submittal of construction plans to Development Services for processing of building permits. Building Permit must be obtained prior to construction activity.
- Floodplain Development Permit obtained prior to development on parcels containing floodplain.

PUBLIC COMMENT

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

Project Summary

The subject property is adjacent to the city limits and is located in the southeast corner of the intersection of W 31st and Michigan Streets. Development proposals have been discussed for this property in the past, but the timing was seen as premature when the configuration of the K10 Highway/South Lawrence Trafficway was undecided and the sanitary sewer line crossing the property was near capacity.

The South Lawrence Trafficway configuration was established and the Trafficway is under construction. Michigan Street south of W 31st Street was constructed as part of the Trafficway project. The K10 Highway/SLT is expected to open in late November of this year. The capacity of the sewer line will be increased when the Wakarusa Wastewater Treatment Plant and Pump Station 10 (at the intersection of Louisiana Street and W 31st Street) are in service. Service is expected to commence in January of 2018. With the completion of the South Lawrence Trafficway and the Wastewater Treatment Plant and pump station, the timing of the project is appropriate.

Multi-Dwelling Residential development, apartments, is being proposed with this project. As seen in the concept plan (Figure 2) the apartment buildings are proposed along the perimeter of the northwest portion of the property that is not encumbered with floodplain. Figure 3 illustrates the area within each rezoning request, the area that is encumbered with the floodplain, and the area that is currently being proposed for development. Additional development may occur south of the floodplain in a future phase.

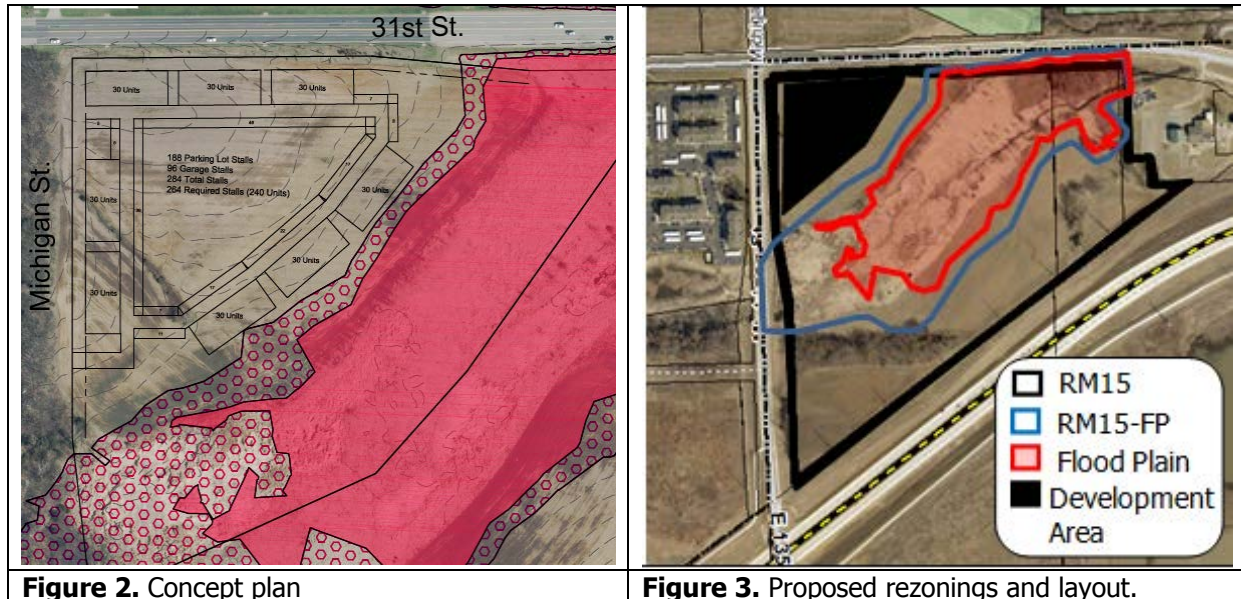


Figure 2. Concept plan

Figure 3. Proposed rezonings and layout.

The rezoning request includes two zoning districts: the RM15 District to accommodate the project and the RM15-FP (Floodplain Management Regulations Overlay) District which is required by Code when annexing properties containing floodplain. The Development Code notes that the Base Flood Elevations and floodplain widths identified by the Flood Insurance Rate Map may increase over time as a result of additional watershed development; therefore, the City has identified the FP Overlay district for property annexed into the city's corporate limits after March 1, 2003 as the area that includes the following:

- All Zone A Floodplain (no Base Flood Elevation identified)
- All Zones AE, and AH Zones and all adjacent areas having an elevation of the Base Flood Elevation plus an additional 2 feet of freeboard, additional height above flood level.
- All zones AO and all adjacent areas having an elevation of the FIS average depth of flooding plus an addition 2 ft of freeboard.
- All stream tributaries having a drainage area of 240 acres or more regardless of the limits of the FIS. (Section 20-1201(c))

The RM15-FP Overlay District has been requested based on these code requirements. This report will focus on the rezoning request to the RM15 District as the –FP Overlay District is a Code requirement based on technical factors such as Base Flood Elevation and drainage areas.

REVIEW & DECISION-MAKING CRITERIA

1. CONFORMANCE WITH THE COMPREHENSIVE PLAN

Applicant's Response:

"The request conforms to the expansion of the Lawrence Urban Growth Area and future land use map of Horizon 2020. Map 3-1 indicates that the subject property is located within Service Area 1 of the Lawrence Urban Growth Area. The Property is adjacent to the existing City limits and can be readily served by City facilities and services. Applicant is seeking to voluntarily annex the Property consistent with Policy 3.1 of Horizon 2020. As guidance for the future development of property located generally south of 31st Street, the Revised Southern Development Plan directs future development of a large portion of the property as "Medium-Density Residential", which includes RM15 zoning district. See map 3-1. The intent of the medium-density residential use is "to allow for a variety of types of residential options for the area", including multi-dwelling structures. See Revised Southern Development Plan, at 18."

Recommendations in *Horizon 2020* are discussed below, with staff comments in red.

Map 3-1, Lawrence Urban Growth Area Service Areas & Future Land Use shows the subject property in Service Area 1 and recommends higher density residential land uses in this area. (Page 3-3, *Horizon 2020*) The land use recommendations for this area were superseded by the recommendations in the *Revised Southern Development Plan*, which will be discussed in Section 4 of this report.

Infill residential development should be considered prior to annexation of new residential areas. (Page 5-1)

'Infill' is defined on Page G-2 of the Comprehensive Plan as: "...a process by which vacant land in developed areas is utilized for development." One of the benefits of infill development is the use of existing infrastructure. In this case, the site is located adjacent to developed properties on the west and east and open space, City parkland and the Baker Wetlands, are located to the north and south. City infrastructure is in place either on the property or adjacent to it. No extension of the City sanitary sewer or water mains is necessary to serve this property. This project, based on its proximity to developed properties, infrastructure, and City services would meet this definition of infill development.

Medium-Density Residential Development is recommended as clustered development at selected locations along major roadways, near high-intensity activity areas, and when adjacent to important natural amenities. This type of land use may be a likely choice for cluster development where density can be transferred from the natural area to the remainder of the property to creatively retain natural features which will enhance the overall development. (Page 5-4, *Horizon 2020*)

The subject property meets this recommendation:

- 1) It is located along major roadways: W 31st Street, a principal arterial, to the north; Michigan Street, a minor arterial, to the west; and K10 Highway/SLT a freeway, to the south;
- 2) It is near a high intensity activity area: the South Iowa Commercial Area including the Menards property on W 31st Street; and
- 3) It is adjacent to important natural amenities: Naismith Valley Park to the north and Baker Wetlands to the south.

- 4) In addition, the residential development will be clustered in the northwest portion of this site to protect the floodplain.

Staff Finding – The proposed rezoning and development of the property is compliant with the recommendations of the Comprehensive Plan.

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

Current Zoning and Land Use: County zoning: A (Agricultural) and F-F (Floodway Fringe Overlay) Districts; *Agriculture*.

Surrounding Zoning and Land Use: To the north:
CR-FP (Regional Commercial with Floodplain Management Regulations Overlay); Undeveloped OS-FP (Open space with Floodplain Management Regulations Overlay) District, City parkland.

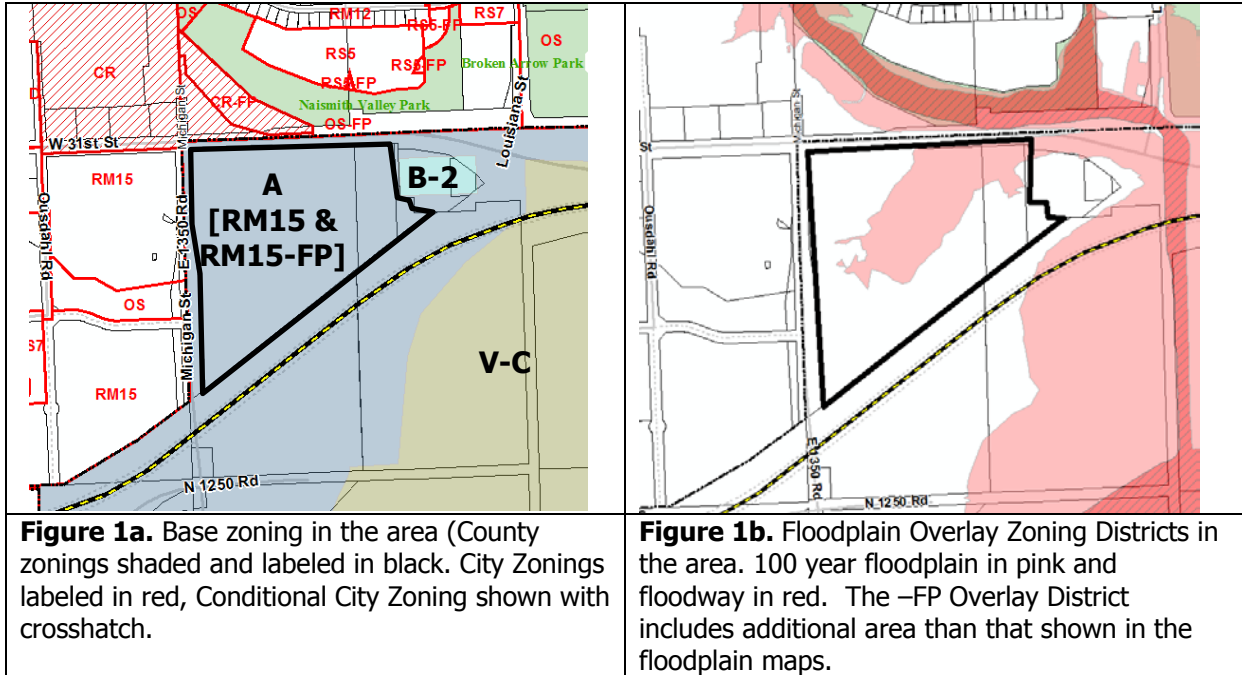
To the north of these districts: RS5-FP (Single-Dwelling Residential with Floodplain Management Regulations Overlay) and RS5 (Single-Dwelling Residential) Districts; properties were rezoned in 2016, but have not yet been developed.

To the west:
RM15 (Multi-Dwelling Residential) and OS (Open Space) Districts; *Multi-Dwelling Structures*, and *Undeveloped*.

To the east:
County Zoning: B-2 (General Business), A (Agricultural) and (Floodway Fringe Overlay) Districts and V-C (Valley Channel) District to the southeast; *Amusement Place*, *Steve's Place*, an event center/reception hall; *Agriculture*, and the K10 Highway/South Lawrence Trafficway (SLT))

To the south:
County Zoning: A (Agricultural), F-F (Floodway Fringe Overlay) and V-C (Valley Channel) Districts; *Agriculture*, the K10 Highway (SLT), and Baker Wetlands ((Figures 1 and 2)

Staff Finding – The area contains a mix of urban and rural zoning districts and land uses. Commercial uses are present along South Iowa and extend to the northwest of the subject property. The adjacent property to the west is zoned RM15 and the northern portion has been developed with apartments. Rezoning requests to allow medium density single-dwelling residential uses have been approved for the property to the north. A rural business district and business are located to the east. The K10 Highway/South Lawrence Trafficway is adjacent to the south boundary of the subject property and agricultural uses and floodplain are located in the rural areas. The proposed rezoning to allow additional multi-dwelling medium density residential development south of W 31st Street is compatible with the zoning and the existing and proposed land uses in the area.



3. CHARACTER OF THE NEIGHBORHOOD

Applicant's Response:

"The Property is adjacent to an RM15 district to the west, CR district to the north (which buffers OS and RM12D located further north), Douglas County B-2 to the east, and Douglas County A to the south, abutting the newly developed South Lawrence Trafficway."

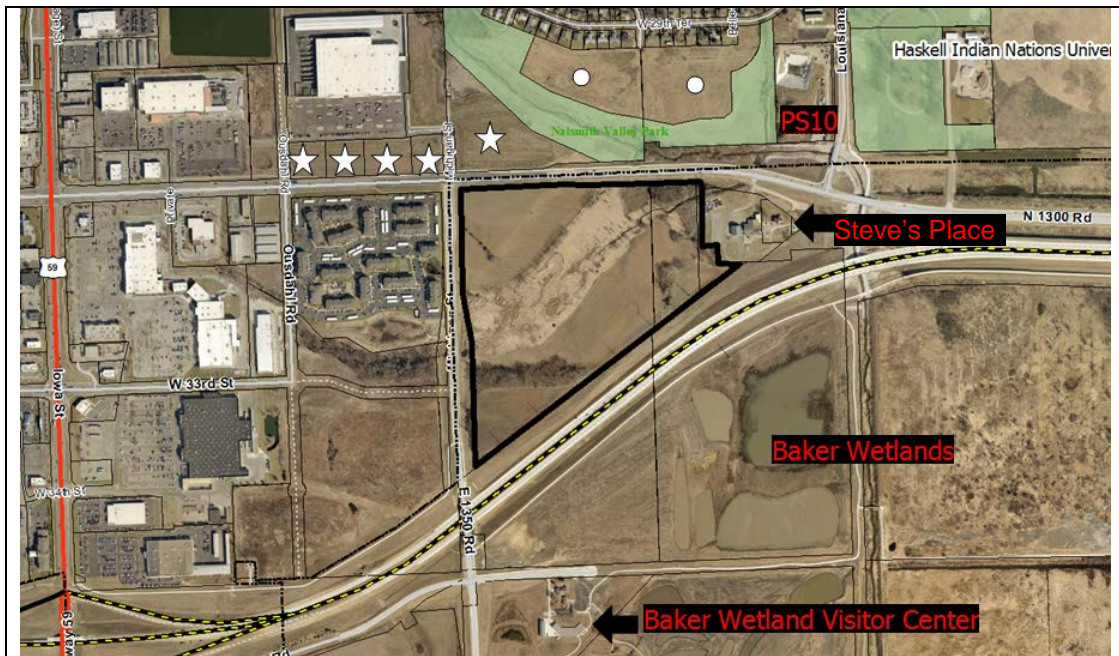


Figure 2. Neighborhood Area. Areas that have been zoned but have not been developed are marked as follows: ☆ marks future commercial uses and ○ marks future medium density single dwelling residential development. Green highlighted areas are City parkland.

The term 'neighborhood' in this case refers to the area surrounding the subject property. For the purpose of this evaluation the neighborhood is bounded generally by Iowa Street on the west, 29th Terrace on the north, Louisiana Street (extended) on the east, and the Baker Wetland Visitor Center on the south.

Commercial uses line South Iowa Street which is a Regional Commercial Center. The commercial uses extend to the northwest of the subject property with the recent rezoning and development of a Menard's home improvement store.

Medium density apartments, The Connection, are located to the west of the subject property. Medium density single-dwelling residences are planned for the property north of W 31st Street and the Naismith Valley Park, with existing medium density duplex development further to the north, lining 29th Terrace. Steve's Place, a rural event center/reception venue, is located to the east of subject property.

Significant open space is present in the area: Naismith Valley Park, a linear park/transportation corridor, and Broken Arrow Park, a joint City/County Park, are located to the north of W 31st Street. The Baker Wetlands are south of the South Lawrence Trafficway and extend to Haskell Avenue to the east. Haskell Indian Nations University is located to the east of Broken Arrow Park. Open space and wetlands are located on the HINU campus along W 31st Street.

The neighborhood includes several higher classification roads: South Iowa Street and W 31st Street are classified in the Major Thoroughfares Map as 'principal arterials'; the South Lawrence Trafficway is classified as a 'freeway' and Michigan Street west of the subject property is classified as a 'minor arterial'.

This area has a mix of high intensity commercial uses, medium density residential uses, and open space and contains a network of higher classification roads.

Staff Finding – This is a mixed use neighborhood with the predominate uses being commercial uses to the west along Iowa Street and extending along W 31st Street; Multi-dwelling residential uses in the form of apartments on W 31st Street and duplexes along 29th Terrace; and open space in the form of city park lands and wetlands. Commercial and medium density residential land uses are planned to the north of the subject property, across W 31st Street. The neighborhood contains a mix of higher classification roads.

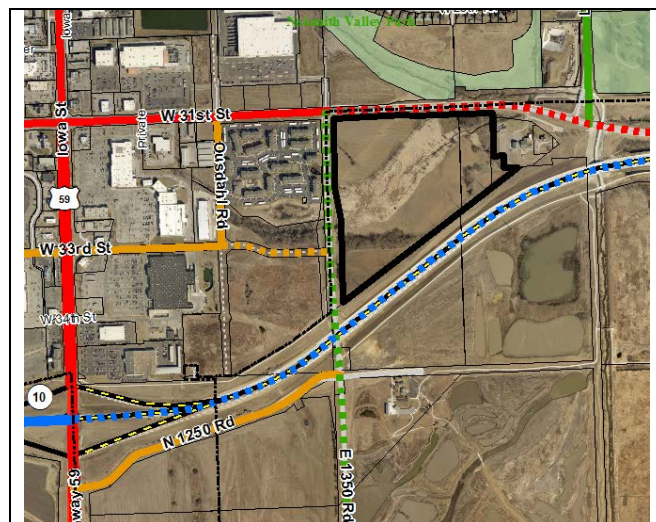


Figure 4. Major thoroughfares in the area: blue-freeway; red-principal arterial; green-minor arterial; and gold-minor collector

The proposed use, a medium density multi-dwelling residential development, will be compatible with the character of the neighborhood and with the planned commercial and residential developments in the area.

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

The property is located within the boundaries of the *Revised Southern Development Plan*. The plan recommends 'Medium Density Residential' as the future land use on the subject property. (Figure 5) The plan notes that Medium Density Residential is intended to accommodate 7 to 15 dwelling units per acre. The RM15 District allows a maximum of 15 dwellings per net acre. The plan recommends a variety of zoning districts and primary uses, which includes the RM15 District and multi-dwelling structures. The proposed rezoning and development is compliant with the recommendations in the *Revised Southern Development Plan*.

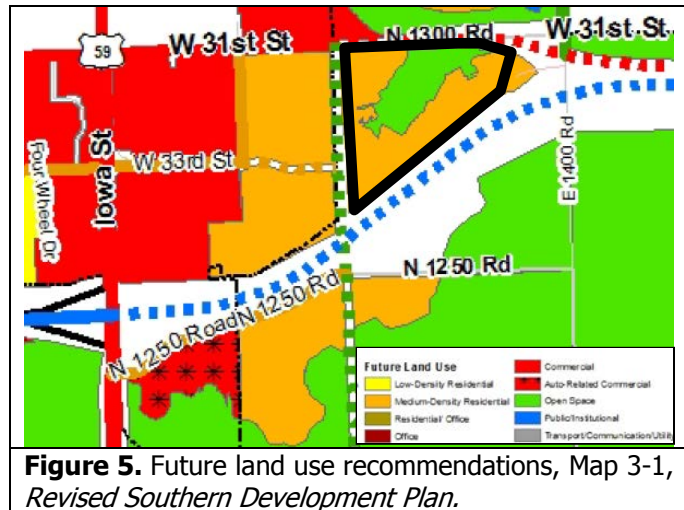


Figure 5. Future land use recommendations, Map 3-1, *Revised Southern Development Plan*.

Staff Finding – The proposed rezoning and development comply with the land use recommendations of the *Revised Southern Development Plan*.

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

Applicant's Response:

"The current Douglas County A zoning restricts the ability of this Property to develop in conformance with the policy goals of Horizon 2020 and the Revised Southern Development Plan. The location of the Property, together with its designation for medium-density development under the Revised Southern Development Plan, makes the Property an ideal site for multi-family. The project will offer competitively priced multi-family units in an area of strategic growth along the new South Lawrence Trafficway."

The property is well suited to many of the uses permitted within the A District; however, due to its location in Service Area 1, the use of the property is limited to *Agriculture*. Development may occur only after annexation into the City. As development is proposed and annexation has been requested, the A District would no longer be suitable for this property. An urban zoning designation must be assigned following annexation.

The property is well suited for the uses which are permitted in the RM15 District as it will have access on a minor arterial street and is relatively level. Infrastructure is available in the area with a waterline located along W 31st Street and a Sanitary Sewer Interceptor crossing the property. The City Utilities Department indicated there may be a capacity issue with this line; this would be determined with a Downstream Sanitary Sewer Analysis at the platting stage. However, the Wakarusa Wastewater Treatment Plant and Pump Station 10 are expected to be completed and in service by January of 2018. These utility improvements will result in additional capacity in the line. Given the various planning processes which are

necessary: platting, site planning, and obtaining building permits, the early part of 2018 is a feasible starting time for this project.

Floodplain present on the property and the surrounding area with an elevation that is 2 ft higher than the Base Flood Elevation will be rezoned to the RM15-FP Overlay District. Development is discouraged in the RM15-FP District and none is proposed at this time. If development is proposed in the future, it would need to comply with the Floodplain Management Regulations.

Staff Finding – Due to its location in Service Area 1, the permitted uses available to the property are limited to Agriculture. Any other development would require annexation into the City. As development is proposed and annexation requested, rezoning to the RM15 and RM15-FP Overlay Districts has been requested. The property is well suited to the uses which are permitted in the RM15 District.

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

Applicant's Response:

"The Property has been vacant at all times."

Staff Finding – There are no records of development on this property. It has been in agricultural use since the adoption of the Zoning Regulations in 1966.

7. EXTENT TO WHICH REMOVAL OF RESTRICTIONS WILL DETRIMENTALLY AFFECT NEARBY PROPERTIES

Applicants Response:

"The rezoning has no detrimental effect on nearby and surrounding properties, because the change in use from agricultural to medium-density multi-family residential is consistent with surrounding residential developments and the objectives of the Revised Southern Development Plan. The location of the Property creates a natural buffer with the newly developed South Lawrence Trafficway, and the proposed project is compatible with the adjacent and nearby multi-family residential developments."

The removal of restrictions that would occur with this rezoning will allow the property to be used for medium density *Multi-Dwelling Structures*. Nearby properties contain the following land uses:

- To the west, across Michigan Street: *Multi-Dwelling Structures*;
- To the north, across W 31st Street: undeveloped commercial land and City parkland, with proposed medium density *Detached Dwellings* further to the north.
- To the east, adjacent property: Rural business, a *Amusement Place* (event center); and
- To the south, across K10 Highway/South Lawrence Trafficway: *Agriculture* and open space, Baker Wetlands.

Potential negative impacts that could be associated with multi-dwelling developments include the possible effect of increased traffic on the nearby road network, noise and activity levels impacting adjacent single dwelling residences, and exterior lighting levels.

- 1) Traffic. The proposed development will take access to Michigan Street, which is classified on the Major Thoroughfares Map as a minor arterial. Michigan Street does not connect to the South Lawrence Trafficway to the south, but does provide access to W 31st Street, a Principal Arterial, to the north. W 31st Street connects to Iowa Street to the west and Haskell Avenue to the east, both Principal Arterials. A traffic impact study will be prepared and submitted with the site plan for the property to evaluate any potential impacts on the nearby road network, including Louisiana Street, and determine if improvements are necessary.
---No negative impacts are anticipated from traffic, given the proximity of the property to arterial streets.
- 2) Activity and Noise. The development would have another apartment development as a neighbor to the west and an event center to the east. Open space and agriculture are located to the south. Commercial land, open space, and W 31st Street right-of-way separate the proposed apartment development from the proposed detached dwelling development to the north.
---Given the nature of the nearby uses, and the separation and buffering provided between the proposed apartments and the detached dwellings to the north the noise and activity associated with an apartment should have no negative impact on nearby properties.
- 3) Exterior Lighting Levels. A photometric plan is required with the site plan submittal. Lighting levels will be evaluated to insure the lighting levels at the property line are compliant with City standards; thereby minimizing off-site glare and light trespass.
---No negative impacts from exterior lighting are expected based on the Code requirements for lighting that will be implemented during the site planning process.

Staff Finding – The removal of the restrictions will allow the property to be developed with *Multi Dwelling Structures* such as apartments. Few negative impacts to nearby properties are expected with this development due to the property's access to the major transportation network, the nature of the adjacent uses, and the Code standards regarding exterior lighting, as well as other Code standards which will be applied during the site planning process.

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

Applicants Response:

"The objectives of Horizon 2020 and the Revised Southern Development Plan encourage development of the Property, given its location within Service Area 1 of the Lawrence Urban Growth Area, its access to the South Lawrence Trafficway, and the readily available access to City infrastructure. The Applicant's consent to annexation and the rezoning the Property from Douglas County A to RM15 would also support the city of Lawrence's Annexation policy by encouraging annexation of properties that are located generally in the projected growth areas of Lawrence. See Policy AP-74. The Property, being located within the Revised Southern Development Plan, already has access to water lines and sanitary sewer lines provided by the city. If approved, the project will increase the tax base, as well as help increase the City's and County's budget without need for an election under recently amended K.S.A. 2015 Supp. 79-5a27. Denial of the application may prejudice the Owner's ability to

make productive use of this property (other than agricultural land) and would directly contradict established policies and plans.”

When determining the benefit to the health, safety, and welfare of the public by the denial of a rezoning request the negative impacts that would be avoided are evaluated. As discussed in Section 7 of this report, few negative impacts are expected with this development. If the application were denied, the property would remain in agricultural use rather than being developed with medium density multi-dwelling residences, as recommended in the approved long range plan. Given that this denial would not prevent any negative impacts, the denial of the rezoning request would provide no benefit to the public health, safety, and welfare.

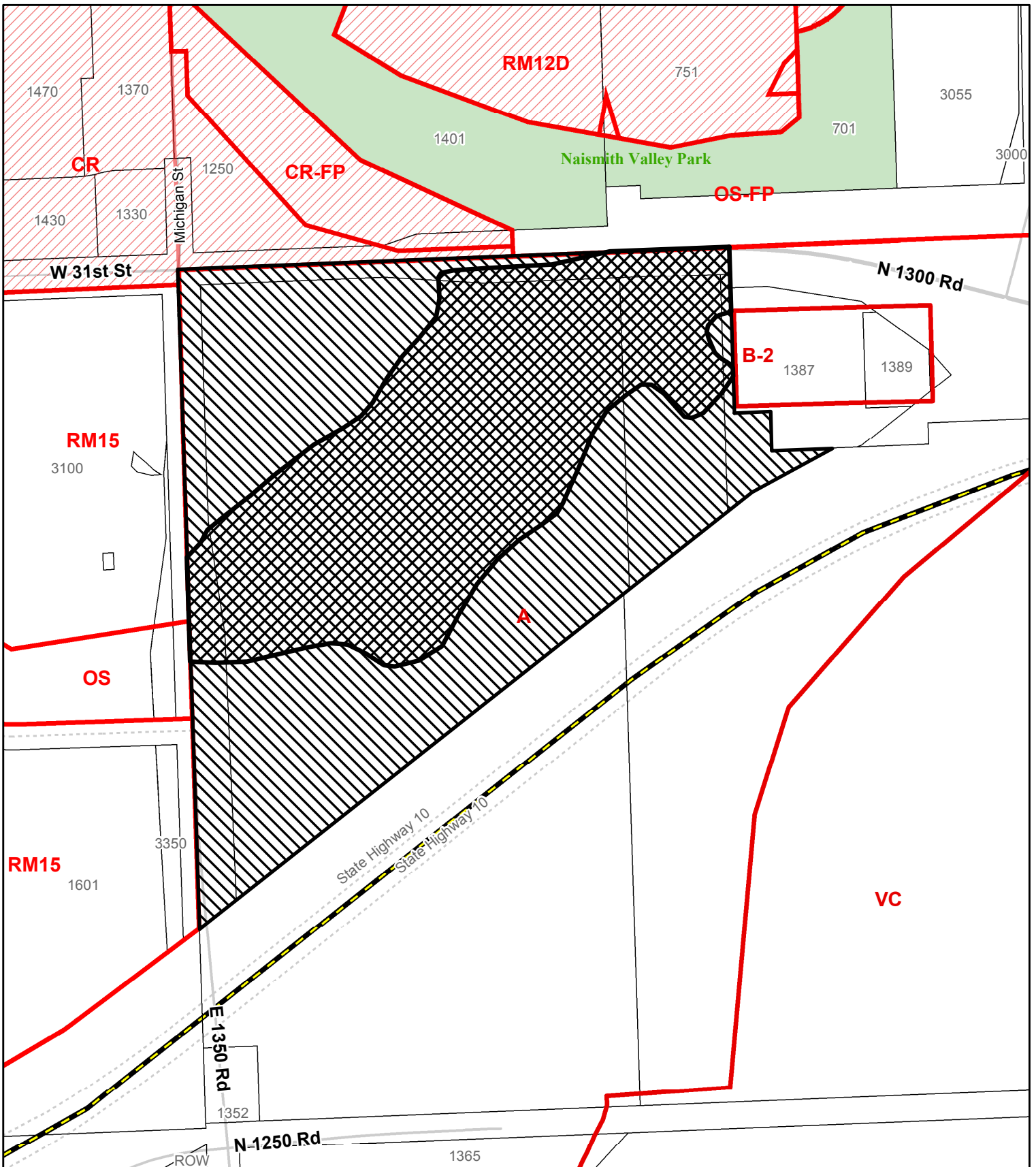
City policies prevent the development of the subject property with any other use than agriculture without annexation and rezoning. It is not possible to develop properties within Service Area 1 with other uses that are allowed in the County zoning district, such as residences, schools, churches etc. Denial of the rezoning request would create a hardship on the applicant by precluding development and limiting the use of the property to *Agriculture*, even though the infrastructure is in place for urban development.

Staff Finding – Denial of the rezoning request would have no public benefit as few negative impacts to the public health, safety, and welfare are expected from the RM15 or RM15-FP zoning or the multi-dwelling development. Denial of the rezoning request would create a hardship for the applicant as the use of the property would continue to be limited to agriculture when city services are available to serve the site.

PROFESSIONAL STAFF RECOMMENDATION

This staff report reviews the proposed rezoning request for its compliance with the Comprehensive Plan, adopted plans for the area, the Golden Factors, and compatibility with surrounding development.

Staff recommends approval of the rezoning request for approximately 30 acres from County A (Agricultural) District to RM15 (Multi-Dwelling Residential) District and recommends approval of the associated rezoning of approximately 25.13 acres to the RM15-FP (Multi-Dwelling Residential and Floodplain Management Regulations Overlay) District for the floodplain and adjacent land that is within 2 ft of the Base Flood Elevation of the 100 year flood and forwarding both rezoning requests to the City Commission with a recommendation for approval based on the findings of fact found in the body of the staff report.



A-16-00305: Annexation of approximately 55 acres
Z-16-00306: Rezone 55 acres from County A District to RM15 District &
Z-16-00307: Rezone 25.13 acres from County A District to RM15-FP District
Located at Southeast Corner of W. 31st Street & Michigan Street



PLANNING COMMISSION REPORT
Regular Agenda – Action Item

PC Staff Report
9/26/16

ITEM NO. 7: COMPREHENSIVE PLAN AMENDMENT TO HORIZON 2020 CHAPTER 14 (JSC)

CPA-16-00309: Consider a Comprehensive Plan Amendment to *Horizon 2020: Chapter 14: Specific Plans (Oread Neighborhood Plan)* to the Future Land Use Map, located at the Northeast Corner of Illinois Street and Fambrough Drive. Submitted by Landplan Engineering, Inc., for STADPKG L.L.C., property owner of record.

STAFF RECOMMENDATION: Staff recommends approval of this Comprehensive Plan Amendment to Horizon 2020: Chapter 14: Specific Plans, and the *Oread Neighborhood Plan* to revise the Future Land Use map from Low-Density Residential to High-Density Residential for the parcel located at the northeast corner of Illinois Street and Fambrough Drive, with the inclusion of narrative into the *Oread Neighborhood Plan* that this particular property shall only serve as parking for the University of Kansas/HERE Kansas project, and recommends forwarding this Comprehensive Plan Amendment to the Lawrence City Commission with a recommendation for approval.

ALTERNATIVE RECOMMENDATIONS: The Planning Commission does have options available when considering this item. The Planning Commission could also:

1. Recommend not approving the requested comprehensive plan amendment, thereby maintaining the existing Low-Density Residential as currently indicated on the *Oread Neighborhood Plan's* Future Land Use map, but support the rezoning request to accommodate the surface parking lot. This conveys the desired building intensity of the site at Low-Density, but resolves an issue for this HERE Kansas project to provide parking for the mixed-use project.
2. Recommend denying the requested Comprehensive Plan Amendment, thereby not supporting the rezoning request to accommodate the proposed surface parking lot.

STAFF RECOMMENDATION: If appropriate, approve and sign Planning Commission Resolution PCR-16-00379.

KEY POINTS

1. Location is currently designated for Low-Density Residential land use. Proposed amendment would change to High-Density Residential land use to accommodate a parking lot, not a multi-dwelling residential building.
2. The parcel is an existing surface parking lot, which would not change use under the associated development applications.
3. The block was identified as currently being a High-Density Residential level within the neighborhood plan.
4. The request would allow for the required parking associated with the application for the HERE Kansas project to be constructed.
5. The request would permit the realignment of 11th Street / Fambrough Drive at Mississippi Street as sought by both the University of Kansas and the City of Lawrence.
6. This application adds the parcel to the current boundary of High-Density Residential.
7. The amendment does not modify the definitions or standards for either Low-Density Residential or High-Density Residential within the neighborhood plan.

SUMMARY

The applicant has requested an amendment to *Horizon 2020*: Chapter 14: Specific Plans, amending the *Oread Neighborhood Plan* by revising the Future Land Use Map at the northeast corner of Illinois Street and Fambrough Drive. The reason for this Comprehensive Plan Amendment is to request changing the current designation from Low-Density Residential land use to High-Density Residential land use to accommodate the development of an off-site surface parking lot for HERE Kansas, which is located at 1111 Indiana Street. The reason for this request is to provide the required amount of parking to accommodate the capacity of the structure after the bankruptcy of the initially specified parking system, allowing for the complete utilization of both the commercial and residential spaces of the building.

The proposed amendment is a request to align the existing *Oread Neighborhood Plan*, which is incorporated into Chapter 14: Specific Plans of *Horizon 2020*, with the rezoning request to RM32-PD to accommodate a parking lot. The Land Development Code establishes the requirement that off-site parking must be located in a base zoning district that is equal to, or greater, in use intensity to be considered for the off-site parking use. This amendment would adjust the Future Land Use map to include this existing surface parking lot into the High-Density Residential, which would permit the rezoning application to move forward.

Items related to this Comprehensive Plan Amendment include:

- **Z-16-00310:** Consider a request to rezone approximately .918 acres from RM32 (Multi-Dwelling Residential) District and U-KU (University of Kansas) District to RM32-PD (Multi-Dwelling Residential with Planned Development Overlay) District, located at 1029 & 1031 Mississippi St and 0 Illinois St. Submitted by Landplan Engineering PA on behalf of 1029 Mississippi LLC, RGAPTS LLC, and KU Endowment Association, property owners of record.

- **PDP-16-00311:** Consider a Preliminary Development Plan for HERE @ Kansas, located at 1029 Mississippi, 1031 Mississippi, and 0 Illinois St. Submitted by Landplan Engineering PA on behalf of 1029 Mississippi LLC, RGAPTS LLC, and KU Endowment Association, property owners of record.

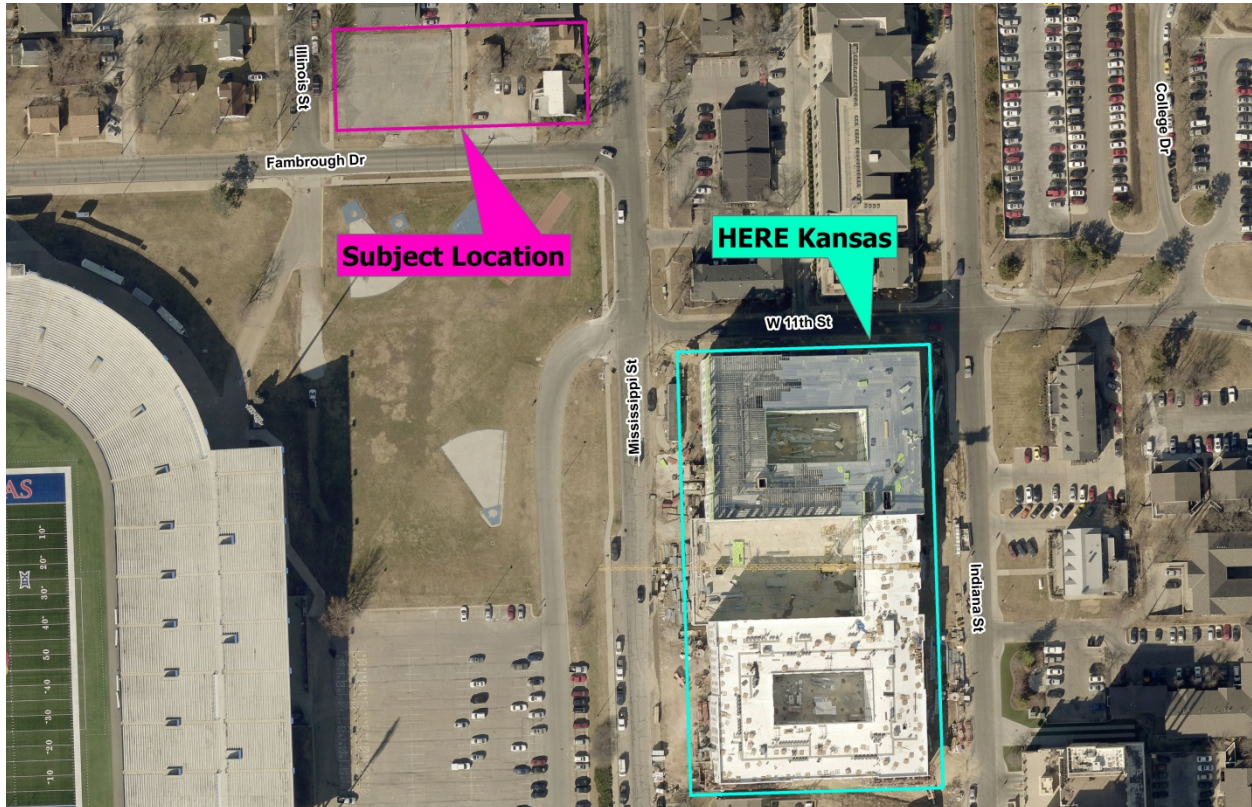


Figure 1: Subject Locations

STAFF REVIEW

The applicant is requesting to revise Map 4-1: Future Land Use to change the northeast corner of Illinois Street and Fambrough Drive from the current Low-Density Residential land use designation to the High-Density Residential land use designation.

Presently, the proposed rezoning would not comply with Section 20-909(d), which states, “shared and off-site parking areas require the same or a more intensive zoning classification than that required for the most intensive of the uses served by the shared or off-site parking area.” For the zoning to be consistent with *Horizon 2020*, a modification to the *Oread Neighborhood Plan* is necessary. The parcel’s current designation as Low-Density Residential permits 6 or fewer dwelling units per acre. To comply with Section 20-909(d) requirements, the property would need to be zoned to RM32, which is listed as a High-Density Residential land use within the neighborhood plan to meet the Land Development Code requirement and to match the existing designation for the other two parcels that are part of this development proposal. This section of the Land Development Code does not require that residential development occur on this site, only that it has the same zoning designation, or greater, to the site that it serves.

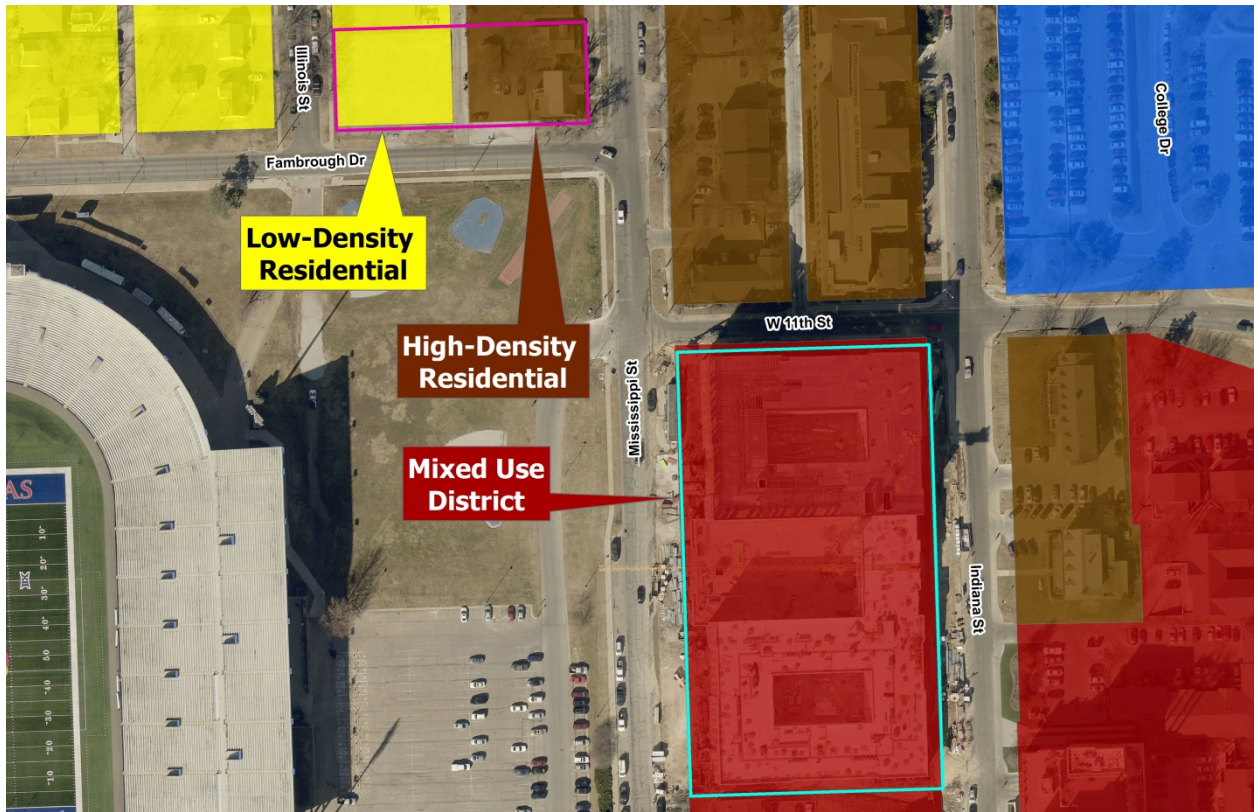


Figure 2: Current Oread Neighborhood Plan Future Land Use Designations

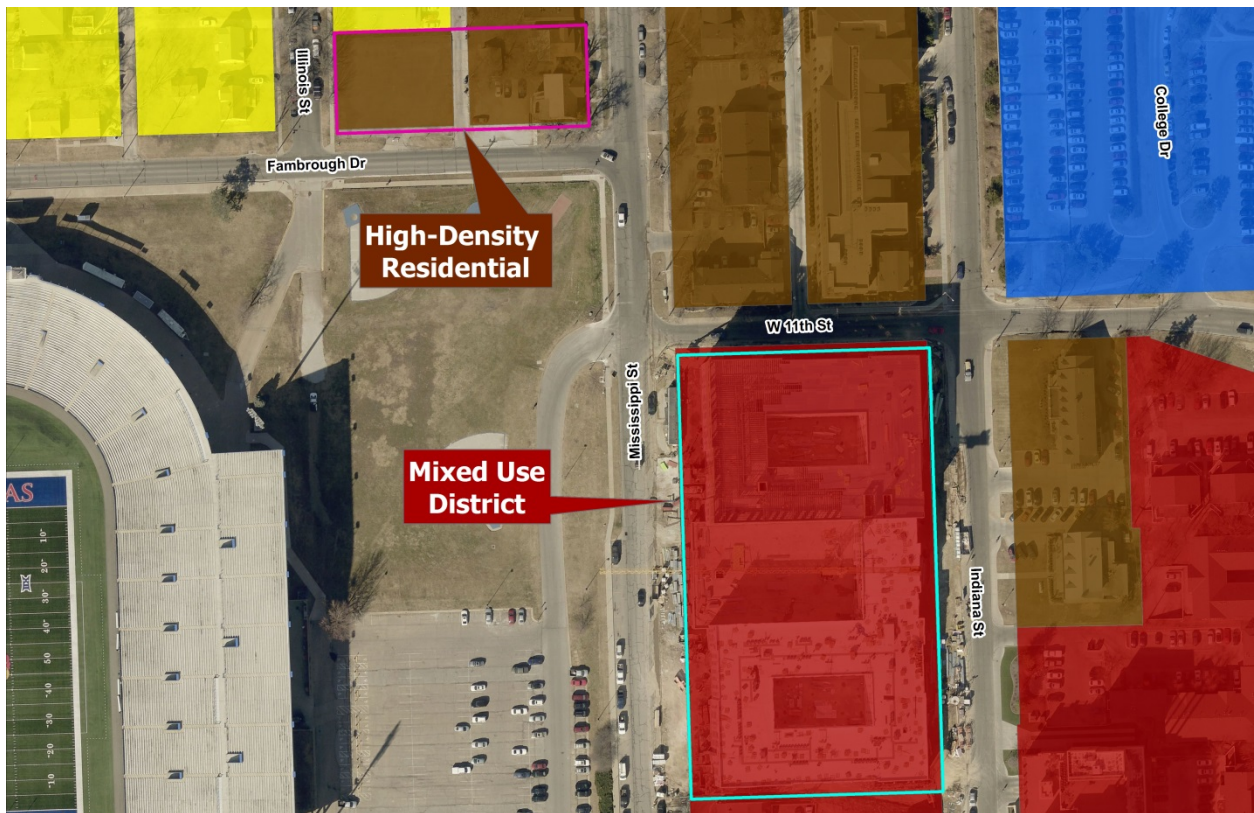


Figure 3: Proposed Future Land Use Amendment

Staff reviewed this amendment based upon the Comprehensive Plan Amendment review criteria listed below, as identified in Chapter 17 (Implementation) of *Horizon 2020*. The applicant's responses are also provided below:

COMPREHENSIVE PLAN AMENDMENT REVIEW

1. Does the proposed amendment result from changed circumstances or unforeseen conditions not understood or addressed at the time the Plan was adopted?

Applicant's response: To be clear, the proposed text amendment results directly from the need to create an offsite off-street parking lot for the HERE @ Kansas mixed-use development. It is a fact that both the Oread Neighborhood Plan and the existing zoning designations already allow the development of a parking lot on the subject site. It is also a fact that half of the subject site already features (and has for decades) an off-site off-street parking lot to serve the occasional needs of the university. However, to redevelop this same property into a code-compliant parking lot which would serve the needs of the nearby HERE @ Kansas project requires this proposed text amendment. Based on Section 20-909(d) of the City of Lawrence Land Development Code, "shared and off-site parking areas require the same or a more intense zoning classification than that required for the most intensive of the uses served by the shared or off-site parking area." Based on the density of the residential uses within the HERE @ Kansas development, which this parking lot is proposed to serve, the off-site parking area must be zoned RM32. The subject site proposed for this parking lot straddles two different future land use districts per the Future Land Use Map of the Oread Neighborhood Plan. The eastern half of the site is located within a future high density residential district and thus is eligible for RM32 zoning. However, the western half of the site (which ironically features a longstanding off-site parking serving KU's Memorial Stadium) is designated for low density residential uses and thus, per the language of Comprehensive Plan, is incompatible with a RM32-zoned off-site parking lot.

Certainly the development of the HERE @ Kansas project was unforeseen at the time the Oread Neighborhood Plan was adopted in 2010. That version of the plan provides for a Mixed Use District at the southeast corner of Mississippi and 11th Streets (which is where the HERE project is located) and then transitions down to High Density Residential and then Low Density Residential to the north and northwest. For the area around the subject site, that plan followed existing land use patterns and did not anticipate the need for future off-site parking.

To be fair, the parking shortfall currently plaguing the HERE project was also unforeseen to its developers when the project applied for its initial entitlements nearly 3 years ago. The developers certainly did not initially plan for their project to include insufficient parking. The project is the victim of a bankruptcy by one of its subcontractors who was retained to provide a robotic parking system. Without that system, the project is left with a garage that can only accommodate 88% of its residential parking requirement. And thus, as the construction of the building wraps up and students prepare to move in, the developers are still seeking a creative solution to provide those last required parking stalls.

The proposed solution, as depicted in the accompanying Preliminary Development Plan, would not be possible without the partnership of the University of Kansas and the KU Endowment

Association (KUEA). Development of this parking lot will happen in concert with the realignment of Fambrough Drive so as to create a new 4-way intersection with 11th and Mississippi Streets. This street realignment is recommended in KU's 2014-2024 Campus Master Plan. KU's latest master plan is more recent than the Oread Neighborhood Plan and thus this street realignment was not contemplated at the time of its adoption in 2010. The partnership between KU, KUEA and the HERE development team will allow both the street realignment and parking lot construction to happen in concert. Both projects provide tangible public benefits to the University and the Oread Neighborhood. However, they cannot happen together at this time without this amendment to the Comprehensive Plan.

Staff's response: The *Oread Neighborhood Plan* was adopted in 2010 and, "outlines future land uses for the planning area to be used as a long-term guide for urban development and redevelopment." (p. 1-1) At the time of the plan's adoption, it was anticipated and expected that some consolidation and redevelopment would be occurring within the High-Density Residential District as illustrated in Map 4-1, "Future Land Use." This map shows the existing layout of the streets and parcels at the time of adoption, and does not reflect the realignment of Fambrough Drive. However, given the recent developments within this district and with the adoption of the [2014-2024 University of Kansas Campus Master Plan](#) (Figure 3-9, p.136) the realignment of Fambrough Drive has been included in campus master planning since at least the 1973.

The exact development and project scope for HERE Kansas could not have been anticipated at the time of the *Oread Neighborhood Plan's* adoption. While the density and location were identified within the plan, the exact design and configuration of the property were items that could not be predicted in 2010. The plan did anticipate high-density development at that location and along Mississippi Street. The plan's vision was to provide some capacity to allow higher density development along the gateways to the University of Kansas.

This higher-density development was planned for along Mississippi Street from W. 10th Street to W. 11th Street/Fambrough Drive. However, the alley between the parcels fronting Mississippi Street and those fronting Illinois Street was the planned boundary between the Low-Density and High-Density Residential that exists on the Future Land Use map as adopted. Additionally, the existing residential density at the time of the plan's adoption found that the eastern side of the 1000 Block of Illinois Street was already at a density that would be considered high density (Map 2-2), which was defined as 16 or more units per acre. (p. 2-3)

While the realignment has been included in plans for many years, the reconstruction of the roadway has not been a funded project for either the University of Kansas or the City of Lawrence. With the recent redevelopment of the HERE Kansas project, this has facilitated the realignment project as part of this development proposal.

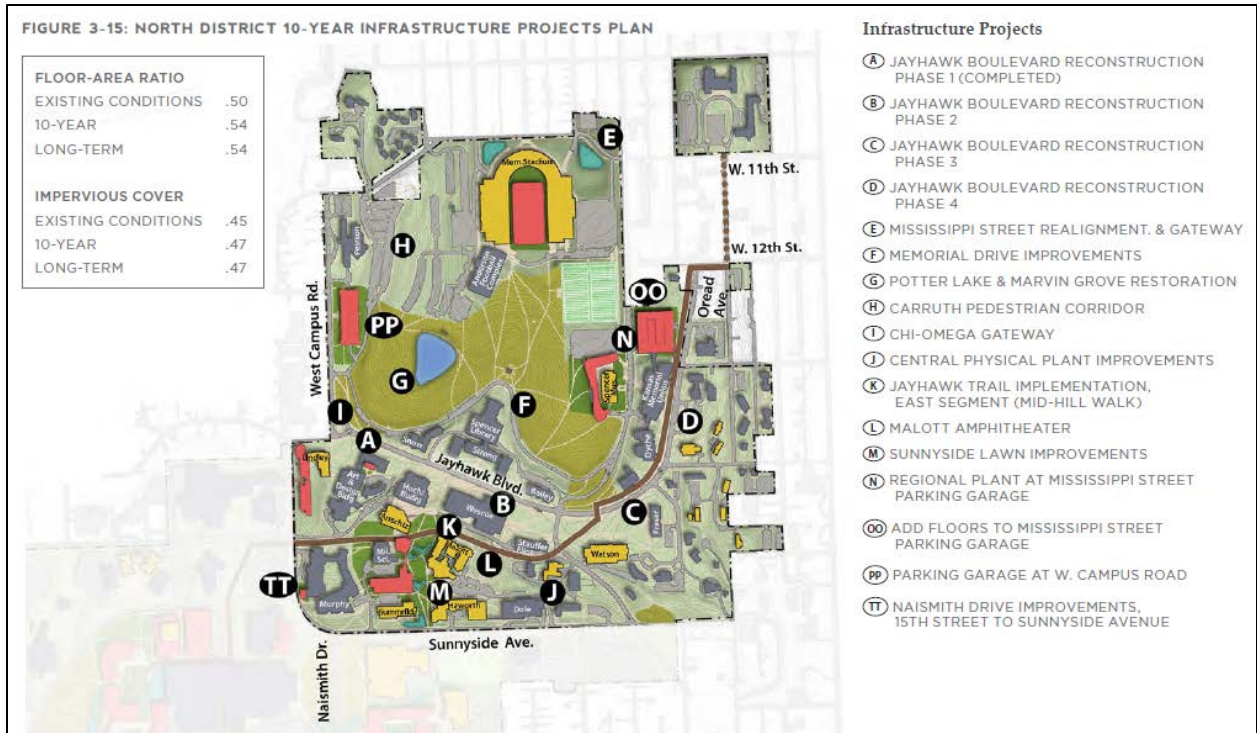


Figure 4: KU North District Master Plan: Infrastructure Projects Plan

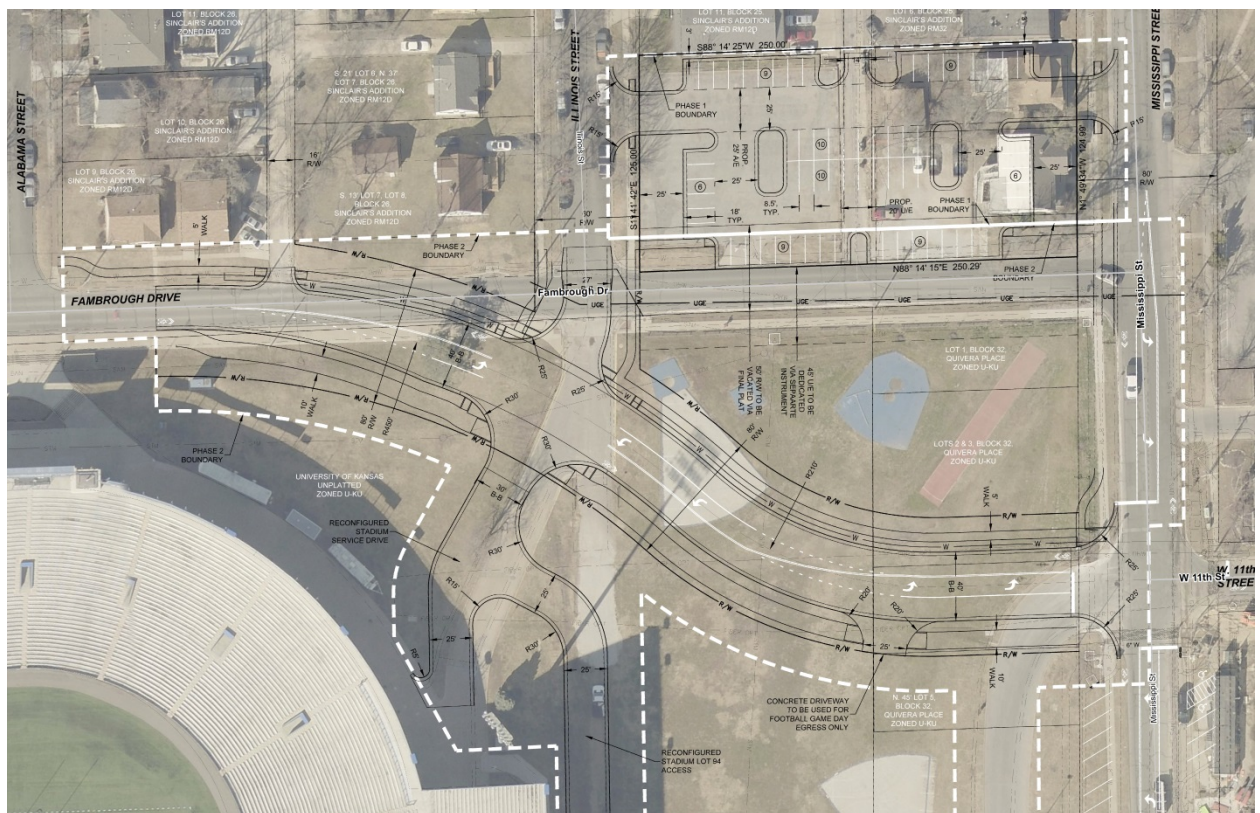


Figure 5: Proposed Realignment for Fambrough Drive

2. Does the proposed amendment advance a clear public purpose?

Applicant's response: The proposed CPA would facilitate the development of additional off-street parking in the Oread Neighborhood as well as the realignment of Fambrough Drive. Parking demand within the Oread Neighborhood has outpaced the supply provided on streets and in alleys for many years. Development of this parking lot would ensure that the HERE project does not further contribute to this problem. The realignment of Fambrough Drive will create a new 4-way intersection with 11th and Mississippi Streets and will reduce traffic congestion in this portion of the neighborhood by eliminating a dog-legged intersection. The improvements will also include new sidewalks and bike lanes where none previously existed. Ample green space will remain north of the new intersection which KU anticipates developing into a gateway feature in the near future.

Staff's response: Amending the designation from the current Low-Density Residential to the proposed High-Density Residential presents opportunities and challenges. One of the challenges is eroding the distinction presently drawn in the Future Land Use map defining a clear separation of the Low-Density Residential from the High-Density Residential that is anticipated along Mississippi Street. However, the anticipation that the existing surface parking lot at the northeast corner of Illinois Street and Fambrough Drive would redevelop into the Low-Density Residential would seem unlikely given its history and long-standing existing condition.

The realignment of Fambrough Drive would advance a distinct public purpose to help solve the misalignment of the streets that has existed since this portion of Lawrence was platted between 1865 and 1909. This would correct a long-standing misalignment of the intersection that has existed since at least 1937.



Figure 6: 1937 Aerial Photograph

3. Is the proposed amendment consistent with the long-range goals and policies of the plan?

Applicant's response: The proposed CPA is consistent with multiple policies laid out in the *Oread Neighborhood Plan*. That plan encourages "creative ideas to deal with parking congestion in the neighborhood that address commuter parking and issues with parking for uses that lack appropriate off-street parking" (Policy 3.1.1.1 (C)). This request is made expressly to facilitate development of new parking infrastructure which would address the needs of the HERE @ Kansas project. The plan also recommends that "streets and sidewalks be maintained and repaired on a regular basis" and that "sidewalk gaps be identified and included in plans to complete them." (Policies 3.1.3.1(A) and (C)). This request will facilitate significant street and sidewalk improvements to Fambrough Drive and Mississippi Street, both of which are collector streets that serve motorists, cyclists and pedestrians, living in or passing through the *Oread Neighborhood*.

Staff's response: As previously noted, the realignment of Fambrough Drive is a public improvement that has been planned for a few decades. The proposed amendment creates the potential for the realignment to be undertaken as part of this proposed development plan.

Staff does not view altering this designation of the parcel's future land use as erosion into the Low-Density Residential portion of the neighborhood plan at this time. The unique, existing use and condition of the lot, and the block's current residential density, show a presence that is consistent with the plan's High-Density defined designation. The request would incrementally increase the existing amount of land designated High-Density Residential on Map 4-1: Future Land Use; however, the proposal is maintaining the present use on this parcel, while providing improvements that would be consistent with the Land Development Code standards and consistent with the policies and goals of the *Oread Neighborhood Plan*.

In some respects, this requested amendment and the proposed development plan are consistent with the *Oread Neighborhood Plan's* policy to find creative solutions to help assist with parking throughout the neighborhood. While the solution is driven by the need to solve a problem for the associated project, this proposal could additionally address some of the infrastructure issues that exist within this area, such as sidewalk maintenance and ADA improvements.

Given the recent projects within the vicinity, the amendment does work with the stated policies and goals of the *Oread Neighborhood Plan*, and does provide some public benefit while providing required elements for the associated development project.

On the balance, the comprehensive plan amendment could allow for the public benefit that realigning Fambrough Drive would provide for the neighborhood and larger area. The details and requirements of which would be outlined in the associated development plans. The change in designation of the subject parcel would result in an agreement with the current and future use of the parcel, while creating an option for the creation of a benefit for the applicant and for the community through the infrastructure improvements associated with the realignment. It is important to note that an amendment to *Horizon 2020* and the *Oread Neighborhood Plan* does not constitute an entitlement in respects to the Land Development Code.

Table 1: Oread Neighborhood Plan Land Use to Zoning Designations

Oread Neighborhood Plan: Residential Land Use				
<i>Intensity</i>	Base Zoning District	Low-Density	Medium Density	High-Density
<i>Low</i>	RS40			
	RS20			
	RS10			
	RS7			
	RS5			
	RS3			
<i>Medium</i>	RSO			
	RM12			
	RM12D			
	RM15			
	RM24			
	RM32			
	RMG			
<i>High</i>	RMO			

4. Does the proposed amendment result from a clear change in public policy?

Applicant's response: Please see the response to question #1. In general, this proposed CPA focuses on finding a creative solution to an unintended parking dilemma facing the HERE @ Kansas project. The solution makes use of a subject site which already features (and has for many years) an off-site parking lot and thus would not dramatically change the land use pattern in this portion of the neighborhood. The new parking lot would be developed in conjunction with the realignment of Fambrough Drive thus providing significant street and sidewalk improvements to this area. While this CPA will certainly benefit the HERE @ Kansas project, it proposes numerous benefits to the University of Kansas as well as residents of the Oread Neighborhood.

Staff's response: There has not been change in public policy. The proposal does not require an amendment to Chapter 5 of *Horizon 2020*, nor does it modify the overall boundary of the existing neighborhood plan. The proposed amendment is a request to align the existing *Oread Neighborhood Plan*, which is incorporated into Chapter 14: Specific Plans of *Horizon 2020*, with the rezoning request to RM32-PD to accommodate a parking lot. The Land Development Code establishes the requirement that off-site parking must be located in a base zoning district that is equal to, or greater, in use intensity to be considered for the off-site parking use. This amendment would adjust the Future Land Use map to include this existing surface parking lot into the High-Density Residential, which would permit the rezoning application to move forward. The proposed amendment aligns the *Oread Neighborhood Plan* with the proposed land use for this location. This proposal would not introduce a new land use at this location.

In addition, the following shall be considered for any map amendments:

5. Will the proposed amendment affect the adequacy of existing or planned facilities and services?

Applicant's response: The proposed CPA would facilitate significant public improvements to streets and sidewalks in this portion of the Oread Neighborhood. The applicant has held multiple meetings with KU and City staff to discuss these matters. An accompanying Preliminary Development Plan depicts these improvements.

Staff's response: Infrastructure in this area is adequate to support this type of development. Further analysis regarding the specifics related to traffic impacts and infrastructure capacity will be addressed in the subsequent rezoning (Z-16-00310), preliminary development plan proposal (PDP-16-00311), and approval of a final development plan.

6. Will the proposed change result in reasonably compatible land use relationships?

Applicant's response: Yes, the proposed CPA will facilitate the development of a surface parking lot which will provide a land use transition buffer between low density residential to the northwest, high density residential to the northeast, mixed use development to the southeast and KU to the southwest. It should also be noted that this CPA results in minimal changes to the existing land use pattern in this area since half of the subject site is already a surface parking lot.

Staff's response: The portion of land that the proposed amendment would revise is presently a surface parking lot that is utilized in this capacity incrementally throughout the year. The other half of the proposed new surface parking lot is currently designated as High-Density Residential within the *Oread Neighborhood Plan*, which is consistent with the corresponding rezoning request. This comprehensive plan amendment, as recommended by staff, would align the *Oread Neighborhood Plan* with the site's existing and proposed future intended use, while precluding high-density building development. It would also provide a buffer from Memorial Stadium and the realigned Fambrough Drive for the present apartment building that would be northerly adjacent to the proposed amendment request.

7. Will the proposed change advance the interests of the citizens of Lawrence and Douglas County as a whole, not solely those having immediate interest in the affected area?

Applicant's response: The proposed CPA will facilitate the realignment of Fambrough Drive to create a new 4-way intersection with 11th and Mississippi Streets, thereby eliminating an existing dog-legged intersection and reducing traffic congestion in this part of the Oread Neighborhood. The street realignment will include significant improvements to pedestrian and bicycle infrastructure and benefit pedestrians and cyclists living within or passing through the

neighborhood. The street realignment will also create a pocket of green space north of the new intersection slated for the development of a gateway feature for the university.

Staff's response: This proposed amendment does not necessarily advance the interests of the citizens of Lawrence and Douglas County as a whole, but neither does it harm them. The principal benefit that would arise as a byproduct of this Comprehensive Plan Amendment is that it would allow for consideration of the other aspects of this development proposal, including the realignment option. While this amendment is necessary to begin the process to move toward this benefit, it would not directly lead to its development.

PROFESSIONAL STAFF RECOMMENDATION

The requested amendment is prompted by Section 20-909(d) of the Land Development Code requiring shared and off-site parking areas to be zoned the same, or a more intensive zoning classification than that required for the most intensive of the uses it serves. The requested RM32-PD zoning designation requested in Z-16-00310 would achieve this Land Development Code requirement, except it would not be consistent with *Oread Neighborhood Plan's* current designation. The associated development plan also addresses parking to help mitigate potential on-street parking issues and a long-standing street misalignment.

Staff recommends approval of this Comprehensive Plan Amendment to Horizon 2020: Chapter 14: Specific Plans, and the *Oread Neighborhood Plan* to revise the Future Land Use map from Low-Density Residential to High-Density Residential for the parcel located at the northeast corner of Illinois Street and Fambrough Drive, with the inclusion of narrative into the *Oread Neighborhood Plan* that this particular property shall only serve as parking for the University of Kansas/HERE Kansas project, and recommends forwarding this Comprehensive Plan Amendment to the Lawrence City Commission with a recommendation for approval.

Alternatively, The Planning Commission does have options available when considering this item. The Planning Commission could also:

1. Recommend not approving the requested comprehensive plan amendment, thereby maintaining the existing Low-Density Residential as currently indicated on the *Oread Neighborhood Plan's* Future Land Use map, but support the rezoning request to accommodate the parking lot. This conveys the desired building intensity of the site at Low-Density, but resolves an issue for this HERE Kansas project to provide parking for the mixed-use project.
2. Recommend denying the requested Comprehensive Plan Amendment, thereby not supporting the rezoning request to accommodate the proposed surface parking lot.



Oread Neighborhood Plan

Lawrence-Douglas County Planning Office

Planning Commission Approved 1/27/10
City Commission Approved 9/21/10

[Amended: <DATE PENDING>](#)

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Section 1: Introduction

1.1 Purpose

The purpose of the *Oread Neighborhood Plan* is to outline specific goals, policies and recommendations for the planning area shown on Map 1-2, while being consistent with the overall adopted comprehensive plan for the community. The scope of the *Oread Neighborhood Plan* comprehensively addresses land use, historic preservation, infrastructure, and neighborhood atmosphere. It establishes a multi-year vision with supportive goals, policies and actions.

The Oread Neighborhood is a place where a diverse array of people live, work, study and celebrate. Existing compatibility with its character, maintaining housing variety and maintaining neighborhood scale commercial areas are important. Supporting a healthy and safe environment is essential for the neighborhood to maintain its sense of community. Creative solutions to address crime, owner occupants, landlords and structural neglect are recommended as part of the implementation of this plan.

The plan outlines future land uses for the planning area to be used as a long-term guide for urban development and redevelopment. This plan does not rezone property upon adoption. Development requests are typically made by the property owners and/or developers that have stake in such property and wish to develop or redevelop.

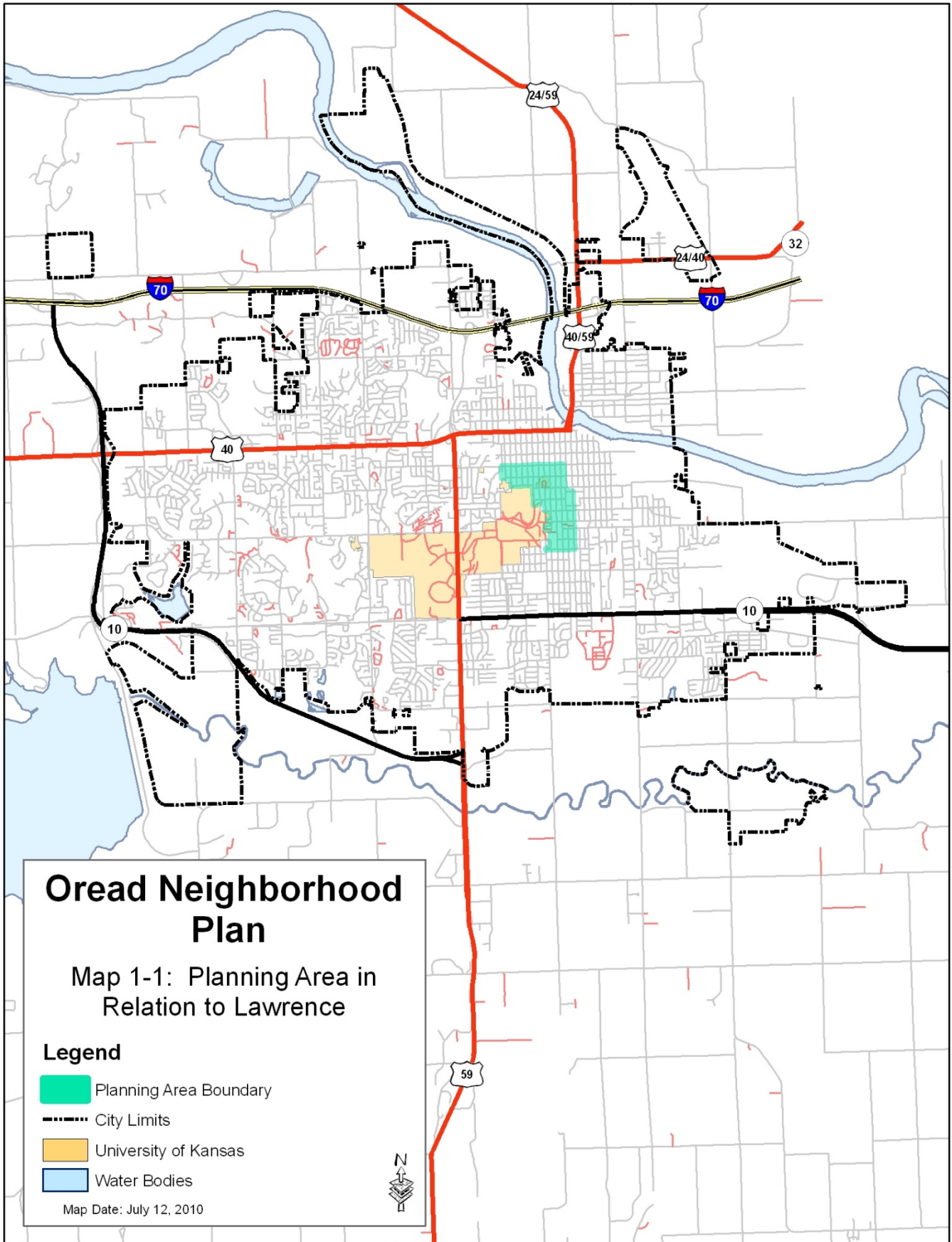
1.2 Description of Planning Area

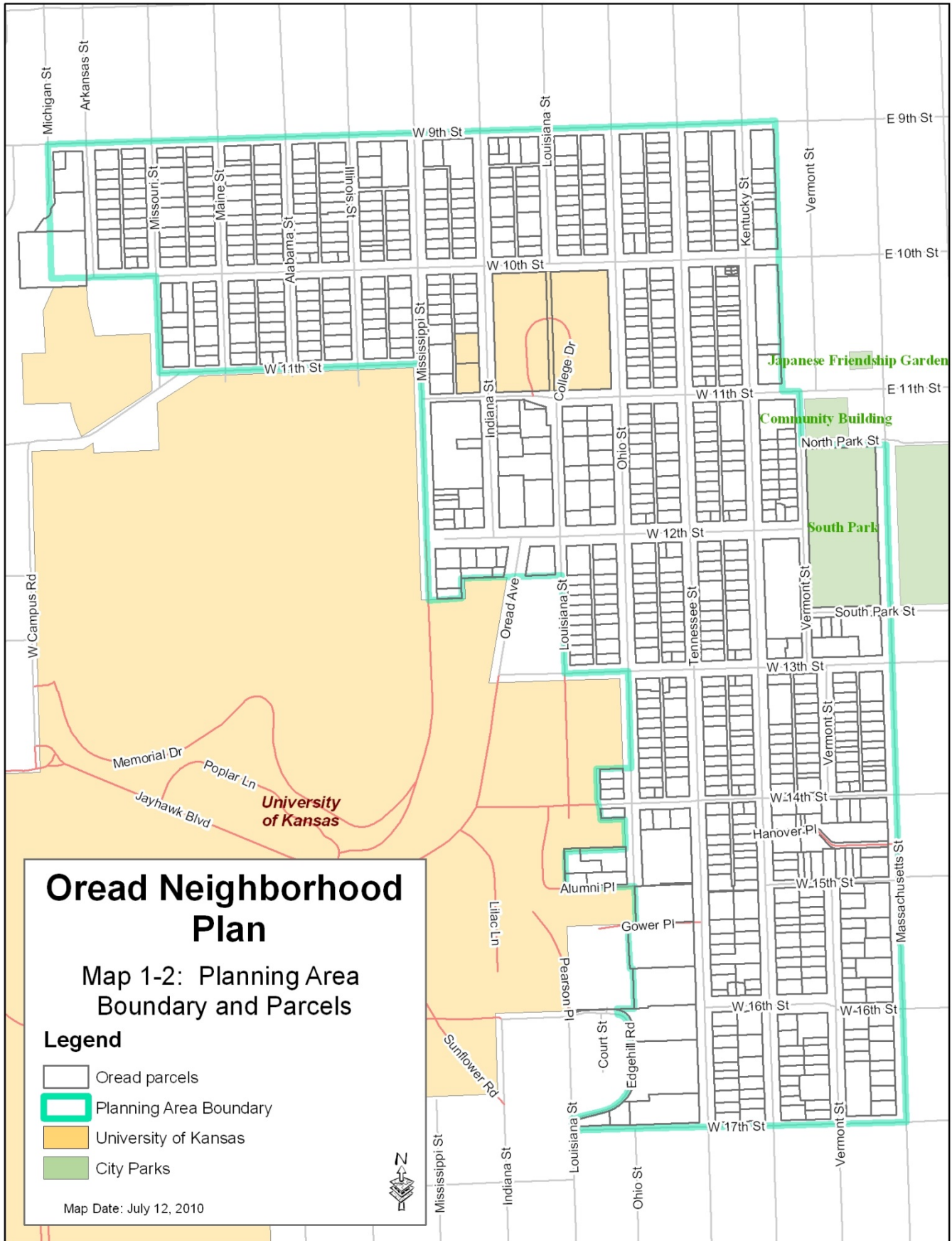
The *Oread Neighborhood Plan* planning area is located in central Lawrence, with the main campus of the University of Kansas on the west and downtown Lawrence on the northeast. The planning area contains approximately 239 acres. The planning area boundaries are shown on Map 1-2.

The neighborhood has historically had a mix of uses with the dominant character as residential in a variety of structure types. The planning area also includes commercial uses along the northern boundary along W. 9th Street between Vermont and Illinois Streets. Over the years, the housing in the neighborhood has become predominately rental in nature and referred to by some as the "student ghetto" because of the increase in crime, large student population, and the neglect of some structures.

North of the planning area is predominantly residential and some commercial uses. East of the planning area is commercial and residential uses. South of the planning area is residential and west of the planning area is the University of Kansas main campus. While the areas described are outside of the planning area boundaries, they influence the land use development patterns within the Oread Neighborhood area.

The planning area contains mostly small ownership parcel sizes as part of the Original Town Plat. The planning area parcel composition is illustrated in Map 1-2.





1.3 Background and History

Lawrence was laid out by A.D. Searle in 1854 on relatively level ground located between the two valleys of the Kansas and Wakarusa Rivers. He used a grid system of eighty feet wide streets, except for three major thoroughfares which were planned to connect blocks reserved for public or quasi-public uses, such as parks and a college. South Park was formed by combining four blocks into one park. Though this plan was revised just one year later, the basic grid pattern of streets, combined with the reservations for parks, schools, and public buildings, remained a significant factor in Lawrence's future development. Also, plans for a college west of the Oread Neighborhood moved forward in 1856 when Amos A. Lawrence donated notes and stocks for the foundation of a proposed "Free State College". A large portion of the planning area was platted in the Original Townsite, Oread Addition, Lane's Addition and Babcock's Addition plats in the early 1860's.



On August 21, 1863, William Quantrill led a large group of men in an attack against Lawrence. The result was the destruction of † the majority of structures in the central portion of the town and the deaths of nearly one hundred fifty people. The George and Annie Bell House at 1008 Ohio Street survived from this earliest settlement period.

After Quantrill's raid, there were several factors which contributed to a residential construction boom in Lawrence. Mail service improved significantly, telegraph service arrived in 1863, and a railroad was secured in 1864. The end of the Civil War not only saw the return of soldiers, but also new settlers were pouring into Lawrence. The city's population rose from 1,645 in 1860 to 8,320 in 1870. The Oread Neighborhood appealed to the upper middle class citizens and they looked to an area of town that had room for large homes to reflect their newly acquired wealth.

In addition to its proximity to downtown, other factors affected the development of the neighborhood. The first permanent public school building in Lawrence was built on the northeast edge of the neighborhood. Central School was constructed in 1865 on the southwest corner of 9th and Kentucky Streets. The western boundary of the neighborhood was completed in 1866 with Governor Robinson's gift of land for the University of Kansas. The first classes were held in the North College Hall in 1866, which was built north of the campus between 10th and 11th Streets and Ohio and Indiana Streets, to make use of an existing foundation. The university and its growth would continue to affect the neighborhood in the coming decades.

The proximity of the university clearly influenced the development patterns of the neighborhood. Many of the residents in the neighborhood between 1874 and 1899 were university students. The first campus dormitory was not built until 1923 so several homes were operated as congregate living. Families with university age students also moved into the neighborhood so that their children could attend KU and live nearby.

The University of Kansas began to take on a greater importance in the local economy after 1900. While the



town was growing at a slow rate, the number of students enrolled at the university was increasing dramatically. This caused a number of commercial properties catering to students to spring up around the campus. This created a concern among the nearby property owners as well as city officials which resulted in the first Lawrence Planning Commission and zoning ordinance to be created for Lawrence in June 1926. The 1926 zoning ordinance allowed for apartments, congregate living, and fraternity and sorority houses in the neighborhood. As a result, a large number of students lived in the area immediately east and northeast of the university. The Oread Neighborhood was therefore increasingly associated with student housing after the turn of the century with many of these structures being private congregate living uses. As in the previous decades, families moved to the neighborhood so their children would be close to campus.

In addition to student residents, the neighborhood remained popular for university professors as well. After the turn of the century important business leaders in Lawrence were moving into the Oread neighborhood and building new residences. Middle class families were also attracted to the area.



The Oread Neighborhood was still attractive for families during the early twentieth century. In addition to electricity, water and sewer, the streets and even some alleys were paved, curbing was introduced, and stone or brick sidewalks were installed. During the 1930's and again in the post-war boom of the 1940's and 1950's, many of the larger homes were converted to apartments and cooperatives or fraternity and sorority houses. Eventually many of the homes began to suffer from lack of maintenance. By the 1970's, however, new residents interested in rehabilitating historic homes began moving back into the neighborhood and in 1977

the Oread Neighborhood Association was created. The neighborhood association has used community Development Block Grant funds to build alley parking, dumpster pads and screening, repair steps, and for other projects. This was used to assist the neighborhood in crime prevention, provide dumpster pads, repair of stairs and various other projects. The growing appreciation for historic buildings resulted in several buildings returning to single-family use and being rehabilitated. The new residents of the Oread Neighborhood worked to establish Lawrence's preservation ordinance and nominated the east side of the 1000 block of Ohio Street and the west side of the 1000 block of Tennessee Street as the first local historic district.

Today the planning area is primarily residential in character with a variety of housing types to accommodate the diversity of people calling the neighborhood home. The area contains commercial areas on the edge along W. 9th and also a few commercial areas mixed into the interior of the neighborhood. Most recently a commercial development is being constructed at the corner of Indiana Street and W. 12th Street. This development contains a mix of residential, commercial and hotel use.

1.5 Policy Framework

Horizon 2020 serves as the overall planning guide and policy document for this plan. In addition to *Horizon 2020*, guiding policy is also obtained in other adopted physical element plans. Together, these plans provide the general “umbrella” policies under which this plan is developed. Listed, these plans are:

- *Horizon 2020*, the Comprehensive Plan for Lawrence and Unincorporated Douglas County. Lawrence-Douglas County Metropolitan Planning Office. 1998 as amended.
- *Transportation 2030*, Lawrence/Douglas County Long Range Transportation Plan. Lawrence/ Douglas County Metropolitan Planning Office and Parsons Brinkerhoff. March 26, 2008.
- *Lawrence-Douglas County Bicycle Plan*, Lawrence/Douglas County Metropolitan Planning Office. May 2004.
- *Oread Neighborhood Plan*, Lawrence-Douglas County Planning Office. March 21, 1979.
- United States Department of the Interiors National Register of Historic Places Registration Form for the Oread Neighborhood Historic District. Three Gables Preservation. August 2007.
- *Lawrence Parks & Recreation Department A Comprehensive Master Plan*. Leon Younger & PROS. 2000.
- *City of Lawrence, Kansas Water Master Plan*. Black & Veatch. December 2003.
- *City of Lawrence, Kansas Wastewater Master Plan*. Black & Veatch. December 2003.
- *2008-2013 Capital Improvement Plan*. City of Lawrence. June 26, 2007.

Section 2 - Existing Conditions

The inventory and analysis of existing conditions in this plan are intended to serve as a resource and background for the recommendations included in Section 3 of this plan.

2.1 Land Use and Density

2.1.1 Existing Land Uses

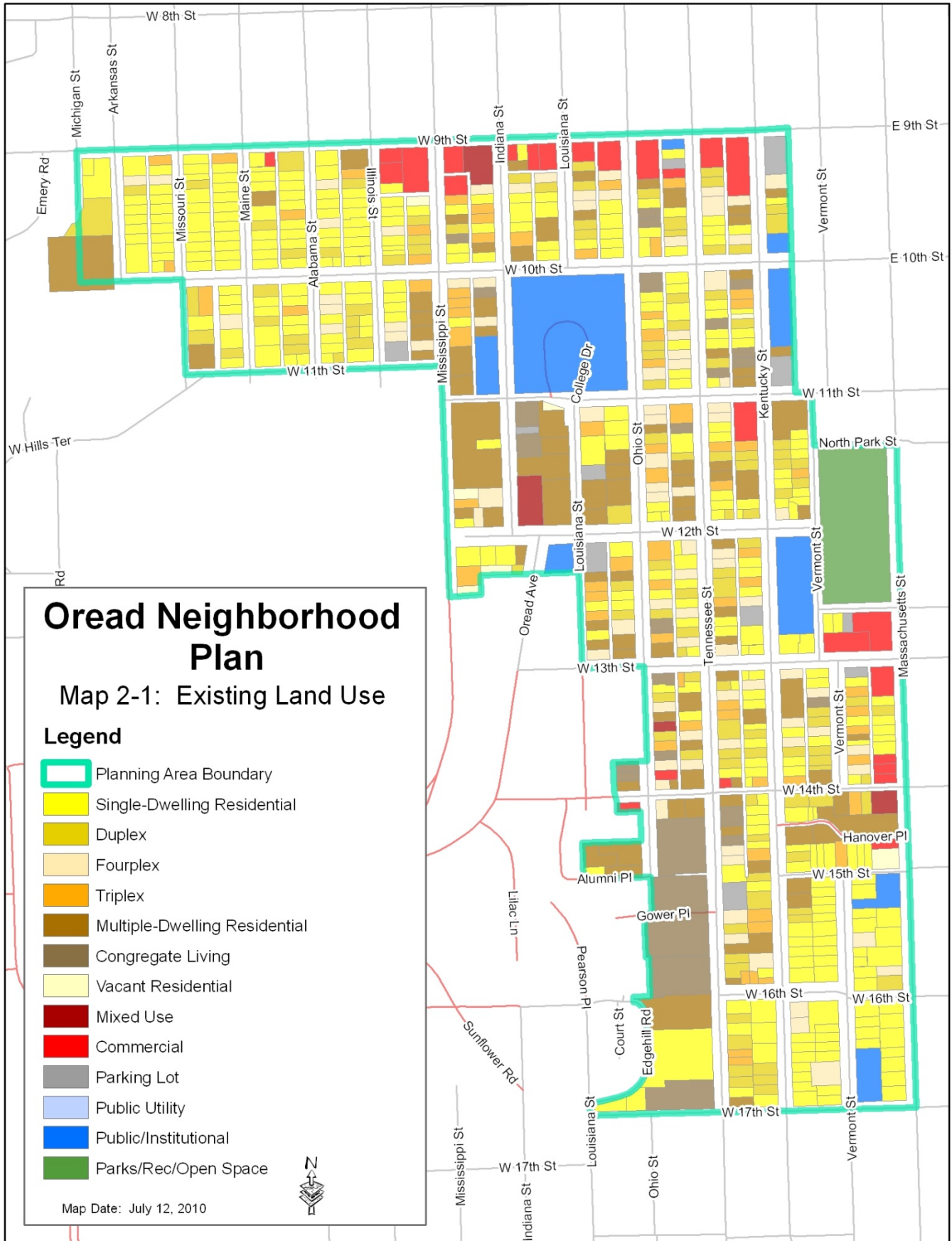


There are currently a variety of land uses within the planning area. The planning area has approximately 161 acres of land dedicated to uses other than public rights-of-way. The source information for the existing land use summary and map are based on the County Appraisers land use code and updated by planning staff. The largest land use within the planning area is the residential land uses which encompass roughly 127 acres or almost 80% of the planning area. Approximately 18% of the planning area is owner occupied housing. Residential land uses are further broken down into single-dwelling, duplex, triplex, fourplex, congregate living and multiple-dwelling

residential land uses. The neighborhood also has commercial within the boundaries along W. 9th Street and other small locations within the planning area. The existing land uses are shown on Map 2-1 and the planning area breakdown is described in Table 2-1.

Table 2-1 Existing Land Use Summary

Land Use	Acres	Percent of Acreage
Single-Dwelling Residential	51.19	32%
Duplex	16.63	10%
Triplex	10.09	6%
Fourplex	12.44	8%
Congregate Living	10.81	7%
Multiple-Dwelling Residential	26.23	16%
Vacant Residential	1.08	1%
Mixed Use	1.90	1%
Commercial	8.06	5%
Parking Lot	2.96	2%
Parks/Rec/Open Space	6.43	4%
Public/Institutional	14.26	9%
Total Acres	162.07	100%



Oread Neighborhood Plan

Map 2-1: Existing Land Use

Legend

- Planning Area Boundary
- Single-Dwelling Residential
- Duplex
- Fourplex
- Triplex
- Multiple-Dwelling Residential
- Congregate Living
- Vacant Residential
- Mixed Use
- Commercial
- Parking Lot
- Public Utility
- Public/Institutional
- Parks/Rec/Open Space

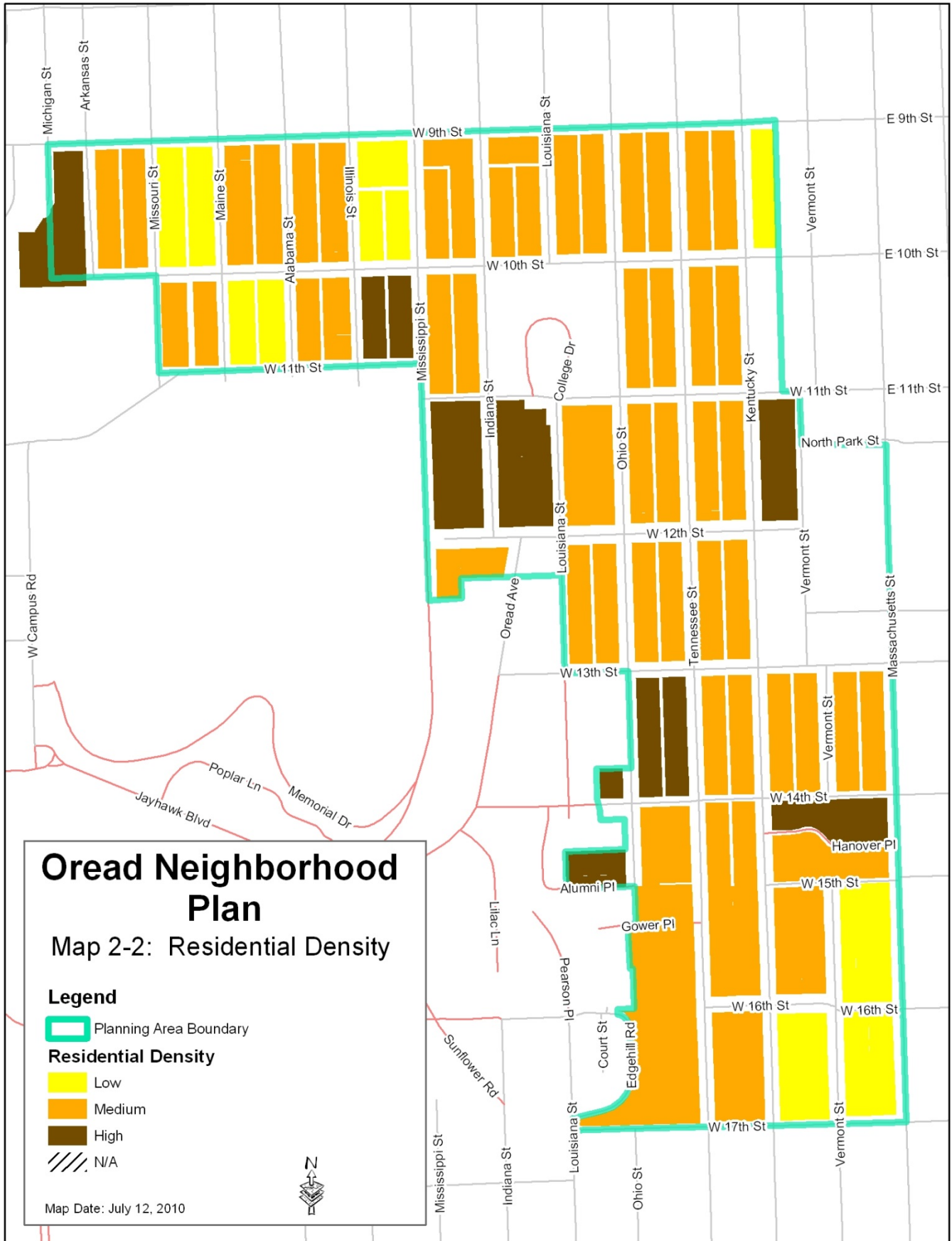
Map Date: July 12, 2010



2.1.2 Existing Residential Density

Densities are calculated on a gross density based on units per acre. Residential densities on a block by block basis for the planning area are shown in Map 2-2. The number of units for each residential structure was derived from Douglas County Appraiser records and the acreage is calculated to the centerline of each blocks' adjoining streets. Only blocks that are primarily residential are included in the calculations and KU residential dormitory uses are not included. Identified congregate living uses were assigned a count of 1 unit per 4 bedrooms and therefore a congregate living with 8 bedrooms received a unit count of 2. A fraternity or sorority use was assigned a count of 1 unit per four occupants.

Each block is given a rating of low-density, medium-density or high-density. Low-density is described as 6 or few units per acre, medium-density as 7-15 units per acre and high-density as 16 or more units per acre. These density designations are defined in *Horizon 2020*, Chapter 5 – Residential Land Use.



2.2 Zoning Patterns

The planning area encompasses approximately 239 acres of land including public rights-of-ways and incorporates a wide range of zoning designations. The majority of the planning area is zoned one of four types of multi-dwelling residential district listed below in Table 2-2. The planning area also includes areas of single-dwelling residential and commercial zonings. See Map 2-3.



Table 2-2 Zoning Classifications

Zoning	District Name	Comprehensive Plan Designation
RS7	Single-Dwelling Residential (7,000 sq. feet per dwelling unit)	Low-Density Residential
RS5	Single-Dwelling Residential (5,000 sq. feet per dwelling unit)	Low- or Medium-Density Residential
RSO	Single-Dwelling Residential-Office (2,500 sq. feet per dwelling unit)	Low- or Medium-Density Residential
RM12/RM12D	Multi-Dwelling Residential (12 dwelling units per acre)	Medium-Density Residential
RM32	Multi-Dwelling Residential (32 dwelling units per acre)	High-Density Residential
RMG	Multi-Dwelling Residential-Greek Housing	High-Density Residential
RMO	Multi-Dwelling Residential-Office (22 dwelling units per acre)	High-Density Residential
CN2	Neighborhood Shopping Center	Neighborhood Commercial Center
CS	Strip Commercial	N/A
PCD	Planned Commercial District	N/A
OS	Open Space	N/A
U-KU	University-Kansas University	N/A
OS	Open Space	N/A

2.3 Historic Resources



The neighborhoods surrounding downtown were among the first to develop in Lawrence. Many of the structures date back to the late 1800's and early 1900's. The city of Lawrence currently has five types of preservation designations possible for historic properties. These designations include an Urban Conservation Overlay District (UCO), Lawrence Register of Historic Places (Local), Register of Historic Kansas Places (State), the National Register of Historic Places (National) and a National Historic Landmark. The Oread Neighborhood has properties listed under all of the different protection types except for the National Historic Landmark

designations and Urban Conservation Overlay District. See Table 2-3. Once a structure is listed on the National Register of Historic Places, it is automatically placed on the Register of Historic Kansas Places.

Properties listed in the Lawrence Register of Historic Places are protected by Chapter 22 of the Code of the City of Lawrence. The City's historic preservation ordinance and the state historic preservation statutes require projects within a certain distance of the listed property be reviewed for possible effects on the listed property. Structures or sites located within 250 feet of a property listed on the Lawrence Register of Historic Places are considered to be within the environs of the listed property and are subject to review under Chapter 22. Structures or sites located within 500 feet of a property listed on the Register of Historic Kansas Places or the National Register of Historic Places are considered to be within the environs of the listed property and subject to state law review. The review of changes to historic properties and their environs is conducted by the Lawrence Historic Resources Commission (HRC). See Map 2-4 and Map 2-5.

The Kansas Historic Preservation Act (KSA-75-2715-75-2726), under the State of Kansas requires the State Historic Preservation Officer (SHPO) be given the opportunity to comment on proposed projects affecting historic properties or districts. Currently, the city of Lawrence has entered into an agreement with the State Historic Preservation Officer for the HRC to conduct reviews required by this statute in Lawrence. This provides for the protection of properties listed on the Register of Historic Kansas Places and the National Register of Historic Places. This statute also provides for the review of projects located in the "environs" (notification boundary identified as 500 feet) of the listed properties.

Only a portion of the planning area has been assessed for the identification of historic resources.

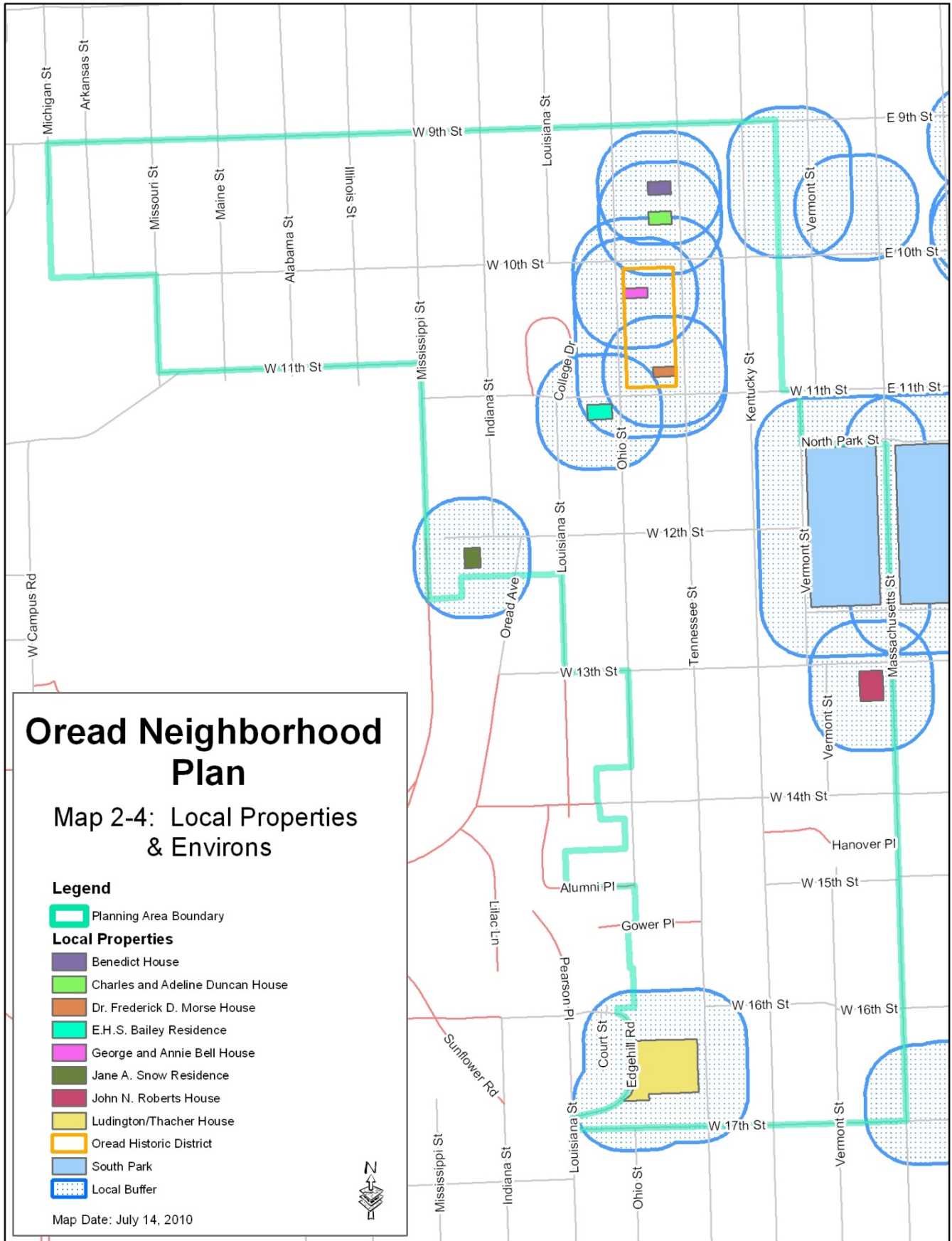
The Oread Neighborhood has other historic elements within the neighborhood. These elements include hitching posts, limestone curbs, stairs, and brick streets. Map 2-6 identifies the locations of the brick streets and specifically, the blocks where the brick is exposed.

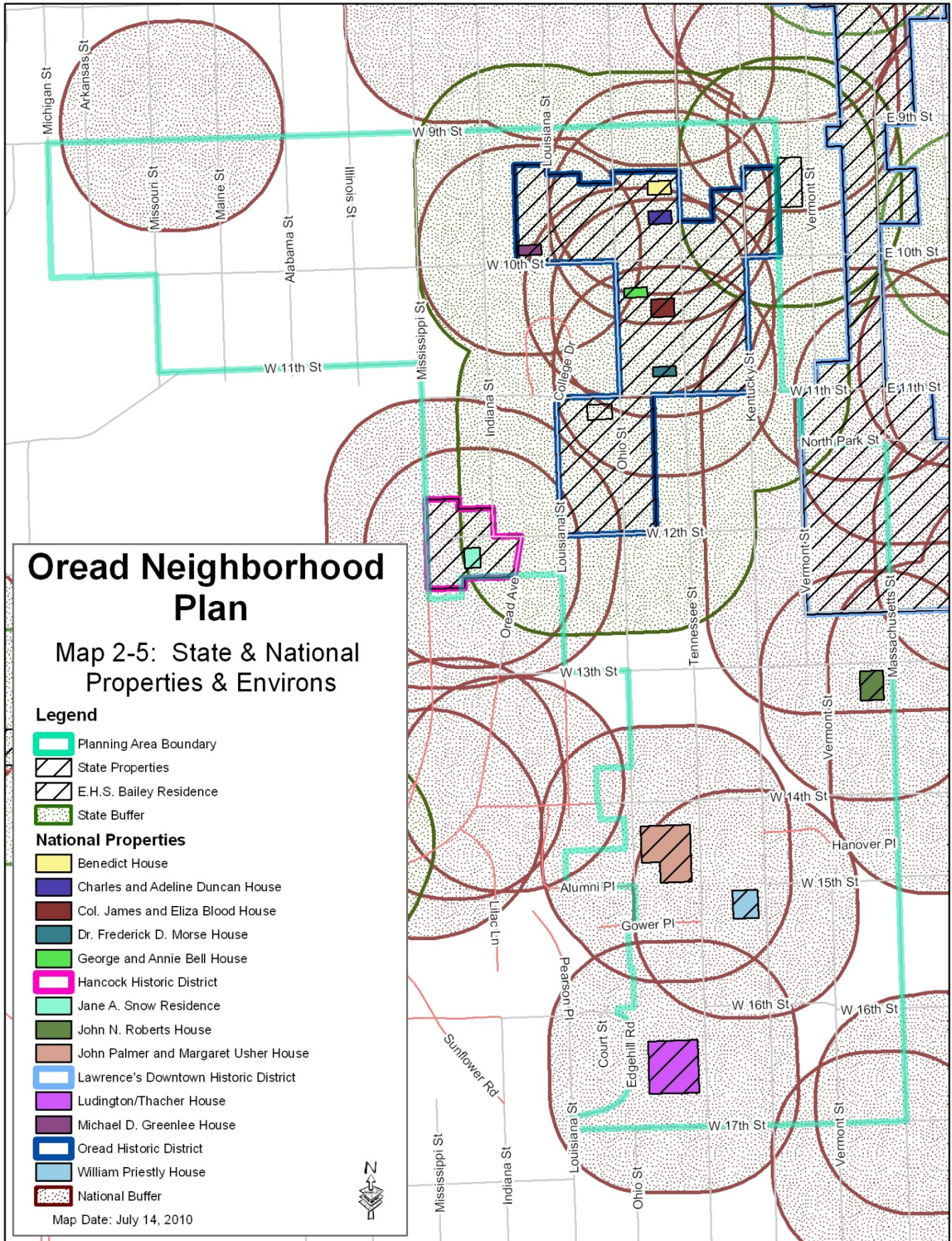
A survey to identify historic resources has been initiated for the area immediately north of the KU football stadium.



Table 2-3 Oread Listed Historic Properties

Name	Location	Listing(s)
Benedict House	923 Tennessee Street	Local, State & National
Charles and Adeline Duncan House	933 Tennessee Street	Local, State & National
Col. James and Eliza Blood House	1015 Tennessee Street	State & National
Dr. Frederick D. Morse House	1041 Tennessee Street	Local, State & National
E.H.S. Bailey Residence	1101 Ohio Street	Local & State
George and Annie Bell House	1008 Ohio Street	Local, State & National
Hancock Historic District		State & National
Jane A. Snow Residence	706 W 12 th Street	Local, State & National
John N. Roberts House	1307 Massachusetts Street	Local, State & National
John Palmer and Margaret Usher House	1425 Tennessee Street	State & National
Lawrence's Downtown Historic District	Massachusetts Street	State & National
Ludington/Thacher House	1613 Tennessee Street	Local, State & National
Michael D. Greenlee House	947 Louisiana Street	State & National
Oread Historic District		Local
Oread Historic District		State & National
South Park	1141 Massachusetts Street	Local
William Priestly House	1505 Kentucky Street	State & National





Oread Neighborhood Plan

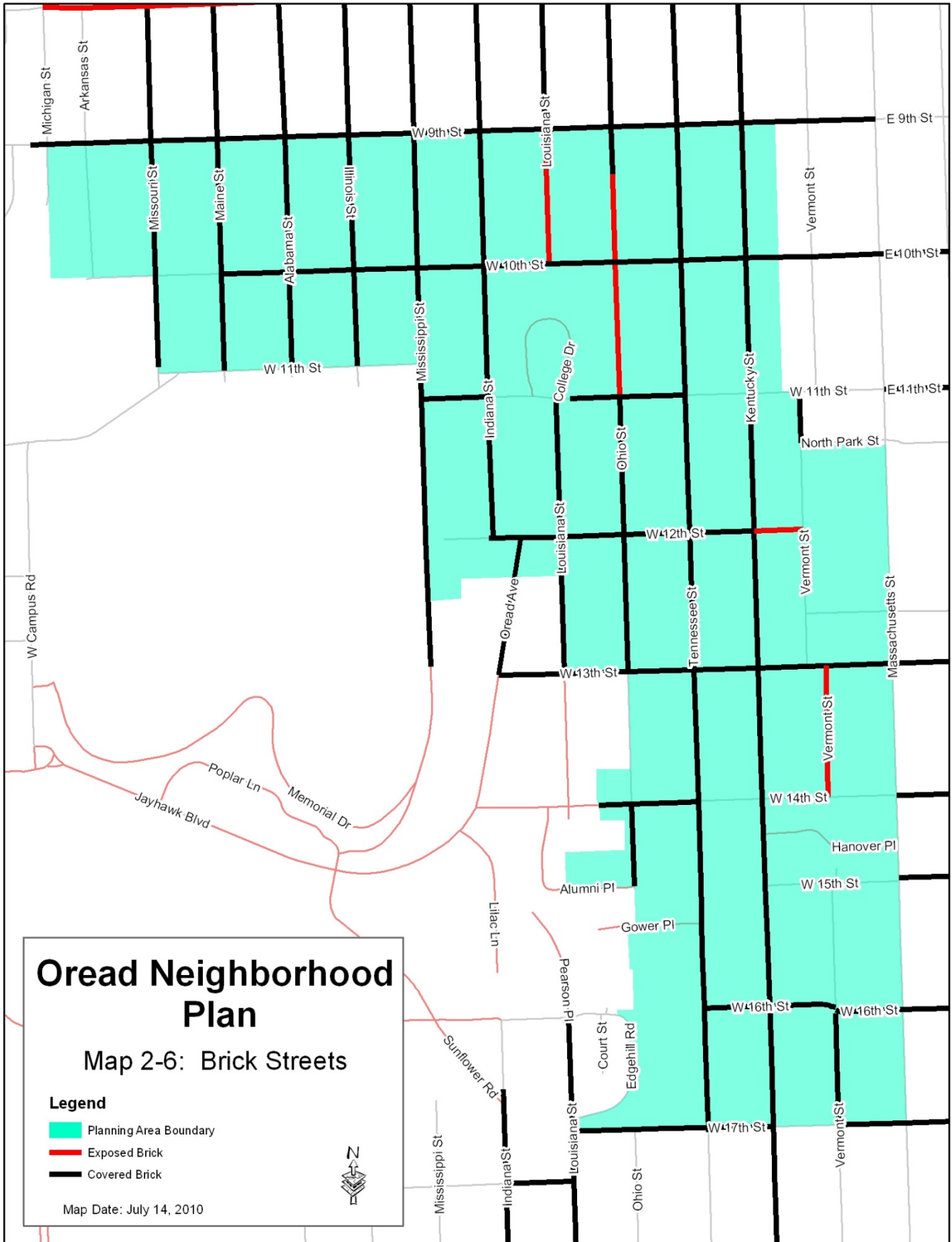
Map 2-5: State & National Properties & Environs

Legend

-  Planning Area Boundary
-  State Properties
-  E.H.S. Bailey Residence
-  State Buffer
- National Properties**
-  Benedict House
-  Charles and Adeline Duncan House
-  Col. James and Eliza Blood House
-  Dr. Frederick D. Morse House
-  George and Annie Bell House
-  Hancock Historic District
-  Jane A. Snow Residence
-  John N. Roberts House
-  John Palmer and Margaret Usher House
-  Lawrence's Downtown Historic District
-  Ludington/Thacher House
-  Michael D. Greenlee House
-  Oread Historic District
-  William Priestly House
-  National Buffer

Map Date: July 14, 2010





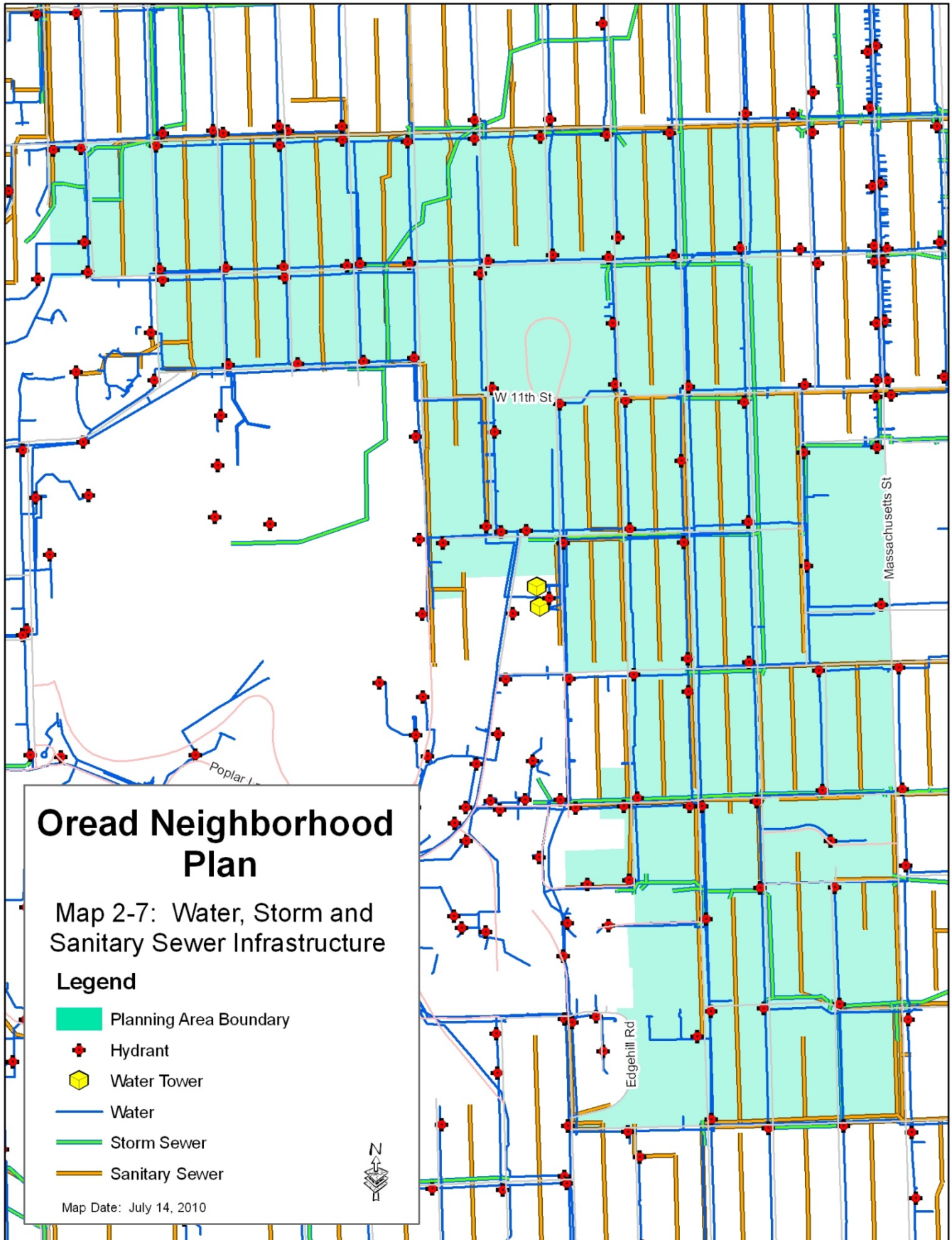
2.5 Infrastructure

2.5.1 Water, Sanitary Sewer and Stormwater Infrastructure

A summary of the existing utilities are shown on Map 2-8. Municipal water is provided to the properties within the planning area. Two water storage towers are located just outside of the planning area on the west side of the 1200 block of Louisiana Street.

Municipal wastewater is provided to the properties within the planning area.

A summary of the existing infrastructure is shown on Map 2-7.



2.5.2 *Trash*

Trash has been an issue in the neighborhood for a long period of time. Discussion is typically related to the use of dumpsters, cans and their locations. Inconsistencies with collection facilities, location of pick-up, and certain behavioral issues of people who live and visit the neighborhood for large events have all contributed to trash issues in the neighborhood.



The type of collection facilities and pick up location depends on many factors. If there is an improved alley in the block, trash pick-up will be made off the alley. The Public Works Solid Waste Division determines the type of collection facility structures will use, whether it is cans or a dumpster. Dumpsters are not necessarily linked to specific addresses. Many of the dumpsters are jointly used by many properties and the Solid Waste Division will place more dumpsters at locations where continuous overflow is noted.

Currently the city Solid Waste Division picks up trash in the majority of the neighborhood twice a week, on Tuesday and Friday, and every day during the move in and move out times of the year at KU. In addition to the traditional trash pick-up, most Fridays the Solid Waste staff will walk certain street and alleys and pick up trash by hand.

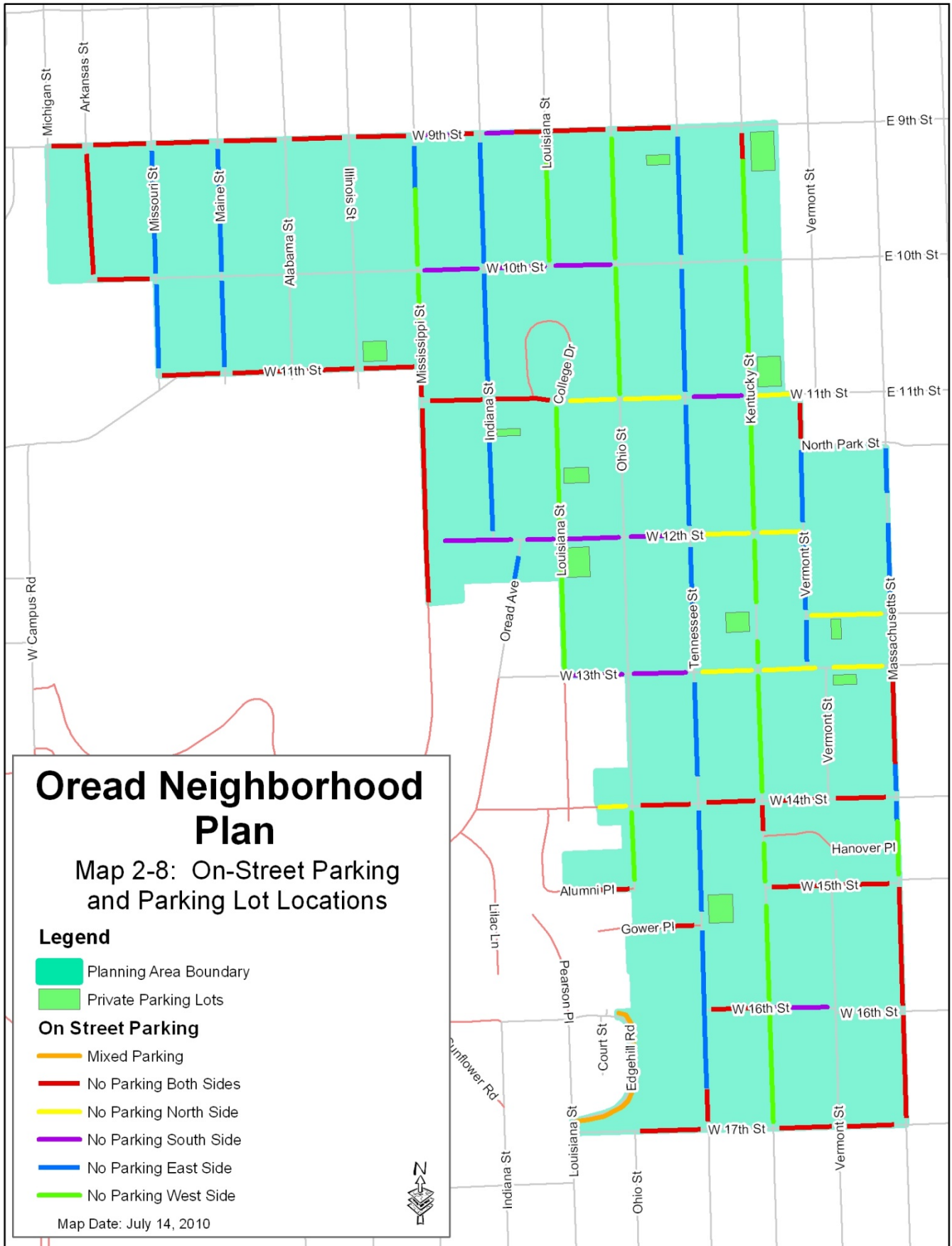
The Environmental Code of the City of Lawrence has recently been updated to improve the trash abatement violations process. This provides a more immediate notice to help accelerate the compliance and allows for a shorter time period for property owners to come into compliance with the violation.

2.5.3 On and Off-Street Parking



On and off-street parking is provided throughout the Oread Neighborhood. Parking space is an issue in the neighborhood. Alleys generally allow for off-street parking, however increasing densities prior to required increases in off-street parking and greater car ownership means many residents must park on the streets. Residents compete for street parking with students commuting to KU or living in the scholarship and residence halls. The KU scholarship halls built in the 1950s had no parking because it was assumed that students living there would not own automobiles; the parking space at Corbin-GSB cannot accommodate the

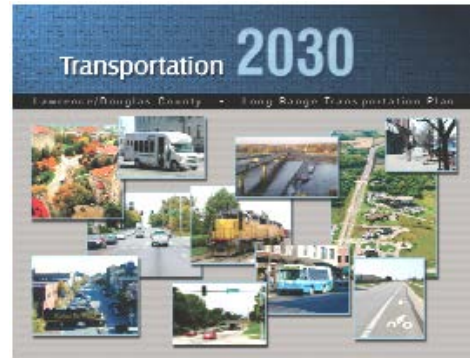
demand. Map 2-8 illustrates locations of both private and public lots and shows on-street parking availability. Streets not shown with a color have parking available on both sides of the street.



2.5.4 Transportation

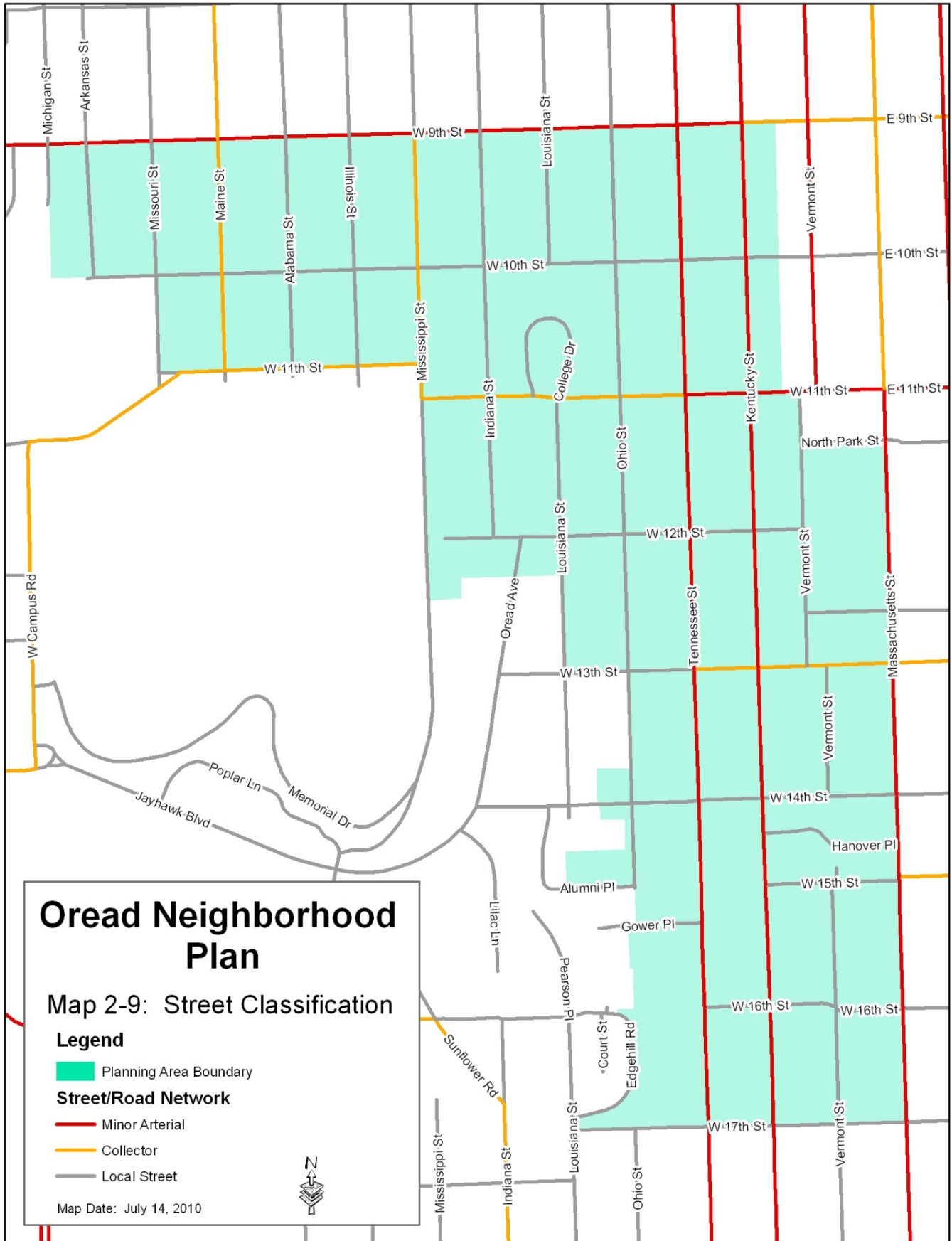
2.5.4.1 Streets

Transportation 2030 (T2030) is the comprehensive, long-range transportation plan for the metropolitan area. T2030 designates streets according to their functional classification or their primary purpose. These functional classifications are shown on Map 2-9. The classification system can be described as a hierarchy from the lowest order, (local streets) that serve to provide direct access to adjacent property, to (collector streets) that carry traffic from local streets, to major thoroughfares (arterial streets) that carry traffic across the entire city. Freeways and expressways are the highest order of streets and are designed with limited access to provide the highest degree of mobility to serve large traffic volumes with long trip lengths.



T2030 shows minor arterial, collector and local streets in the planning area. T2030 is updated at least every 5 years.

The existing street pattern in the planning area is a standard grid pattern with the majority of the blocks having alleys.

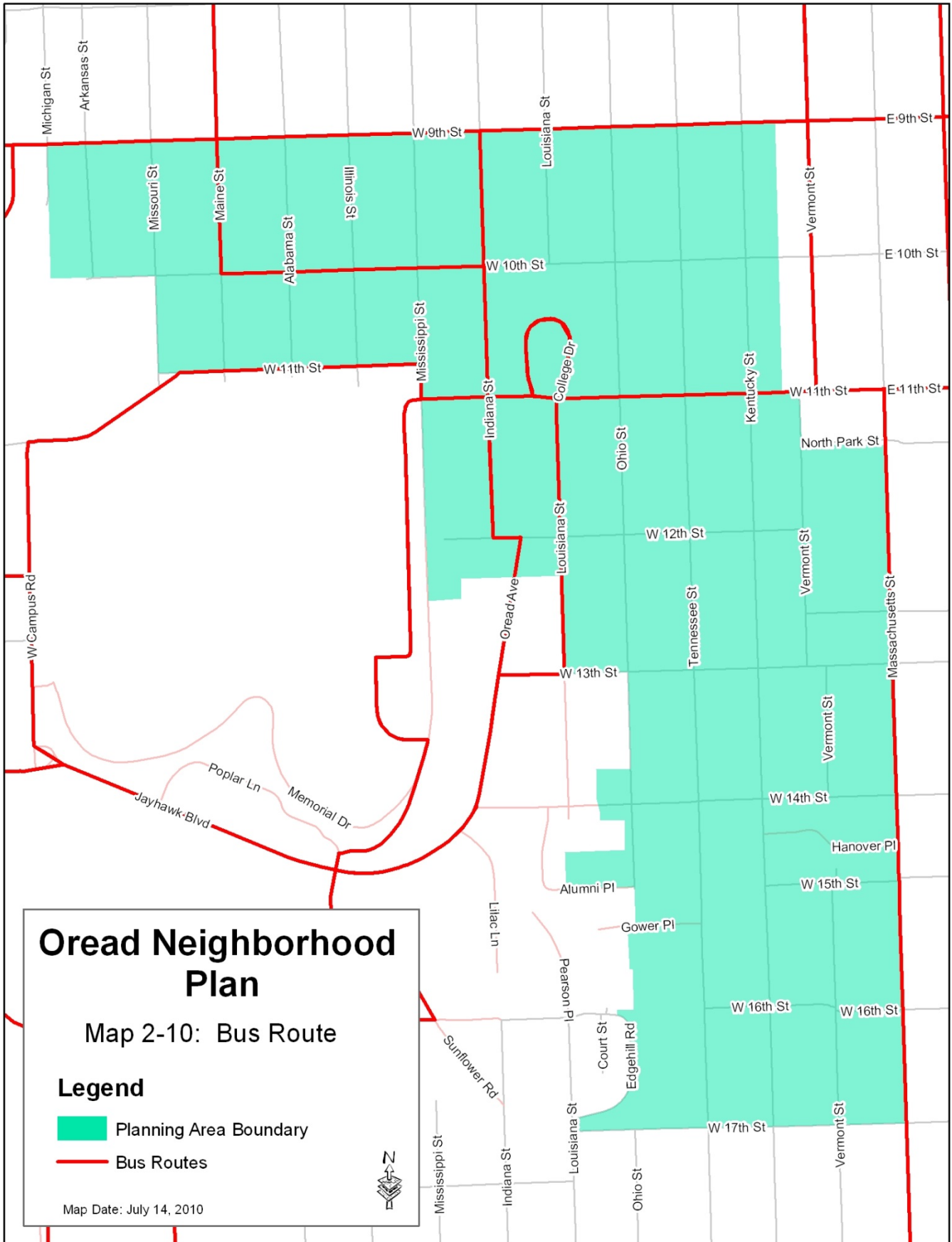


2.5.4.2 Transit



Lawrence and KU have recently completed efforts to have a coordinated public transportation system (The T and KU on Wheels) which operate throughout the city. The coordinated system will better help serve KU and the Lawrence community. A bus system allows people to travel to other areas of the city without relying on a personal automobile.

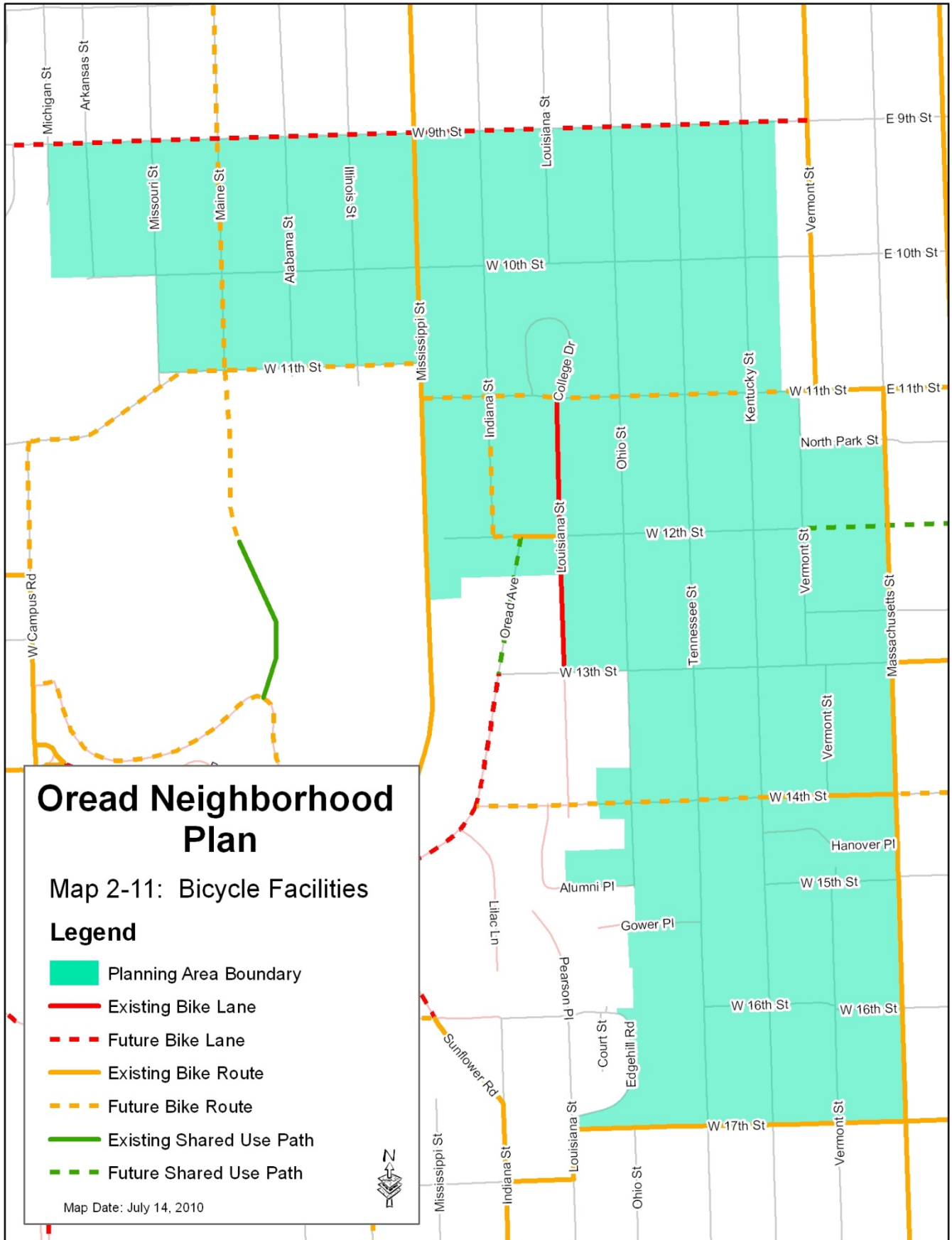
This system has many routes that travel through the northwestern portion of the planning area. The southern area remains largely not served except for the route that runs along Massachusetts Street. The routes are shown on Map 2-10. A transfer point is located at W. 9th Street and Massachusetts Street adjacent to the planning area. This serves as a major hub and center point for the rest of the system.



2.5.4.3 Bicycle Facilities

Lawrence and Douglas County have a joint bicycle plan for the community, the *Lawrence-Douglas County Bicycle Plan* and is currently in the process of being updated. This plan identifies existing and future bicycle routes, lanes, and shared use paths and the map has recently been updated. A bicycle route is a network of streets to enable direct, convenient and safe access for bicyclists. A bicycle lane is a separate space designated with striping, signage or pavement markings for exclusive use by bicycles within a street. A shared use path is a separate path, typically adjacent to and independent of the street and is intended solely for non-motorized travel. These facilities are shown on Map 2-11.





Oread Neighborhood Plan

Map 2-11: Bicycle Facilities

Legend

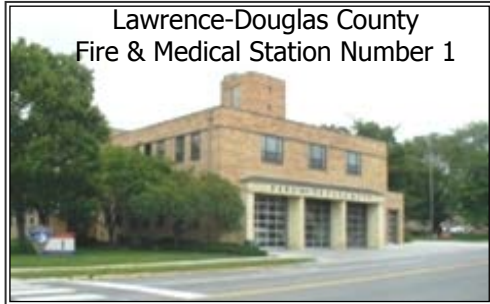
- Planning Area Boundary
- Existing Bike Lane
- Future Bike Lane
- Existing Bike Route
- Future Bike Route
- Existing Shared Use Path
- Future Shared Use Path

Map Date: July 14, 2010



2.6 Public Community Facilities

Community facilities are services provided by government agencies for the benefit of, and use of, the community. The community facilities including public services, schools, fire/medical, law enforcement, developed parks, etc. are shown on Map 2-12.



The planning area is served by Lawrence-Douglas County Fire & Medical Station Number 1, a facility located at 764 Kentucky Street. Law enforcement is provided by the City of Lawrence Police Department which is located in the Law Enforcement Center in downtown Lawrence.

The planning area is located within the Lawrence Public School District (USD 497). The students currently within the planning area attend either Cordley Elementary or Hillcrest Elementary for elementary school (kindergarten through 6th grades); Central Junior High or West Junior High for junior high (7th through 9th grades); and Free State High or Lawrence High for high school (10th through 12th grades). Additionally, St. John's Catholic School is located within the planning area. This private school serves children in preschool through 6th grade.

Kansas University's main campus is located adjacent to the planning area to the west and the university also owns property within the planning area. KU is a public university that also offers services to the community.

South Park is partially located within the planning area and is bisected by Massachusetts Street. South Park includes a recreational center, a playground, butterfly garden and wading pool.





Section 3 – Goals, Policies and Implementation Strategies

The Oread Neighborhood planning area is anticipated to continue in the future to be a neighborhood with a mix of residential housing types as the dominate land uses and various mixed use and commercial areas. Preserving the existing housing stock, increasing homeownership and improving property maintenance will be important for the future.

The goals, policies and implementation strategies for this plan were the result of three public meetings. At these public meetings, attendees were asked to brainstorm, comment and “vote” on items to prioritize.

3.1 Goals, Policies and Implementation Strategies

Goals

Goals are broad statements of ideal future conditions that are desired by the community. Policies are guiding principles that provide direction for decisions to be made regarding the planning area in order to meet the goals. These policies are in addition to the policies in *Horizon 2020* and are only applicable to the property within the *Oread Neighborhood Plan* planning area. The implementation strategies outline action steps that could help meet the goals and policies of the plan.

Policies

The policy statements below are provided to help guide the development and redevelopment of the Oread Neighborhood area. “Should” and “encouraged” statements identify the items that are strongly recommended to be incorporated into development within the planning area. Other statements are items that should be considered for the neighborhood to achieve the stated goals.

Implementation Strategies

The Implementation strategies are actions to help achieve the goals and policies of the plan.

3.1.1 Goal 1 – Land Use

Maintain a variety of housing types to provide a balance in the diversity of people living in the neighborhood while maintaining strong neighborhood scale commercial areas.

3.1.1.1 Land Use Policies

- A. Maintain and stabilize the strongest concentrations of owner-occupied housing and encourage owner occupancy throughout the neighborhood.
- B. Create overlay district(s) to establish appropriate standards for specific areas regarding density, bulk, massing, and scale, building coverage, mix of housing types, and parking requirements.
- C. Explore creative ideas to deal with parking congestion in the neighborhood that address commuter parking and issues with parking for uses that lack appropriate off-street parking.
- D. Maintain the existing commercial areas in their current locations in the planning area and support new mixed and light commercial uses, if they are determined to not be detrimental to existing downtown commercial uses.
- E. New development should respect the historic integrity of the neighborhood.

3.1.1.2 Land Use Implementation Strategies

- A. Encouraging more owner occupants and families to locate in the planning area is an important key to the long-term health of the neighborhood. Families can bring an increased level of stability and contribute to the diversity of the character of the area. (Policy 3.1.1.1.A)
 - 1. Action
Amend the *Land Development Code* to permit by right detached dwellings (single-dwelling use) in multi-dwelling zoning districts (RM) with certain standards.
 - 2. Action
Explore tax incentive programs to support owner occupancy throughout the neighborhood.
- B. There is growing concern about congregate living. Parking, building lot coverage, and number of bedrooms permitted are some of the issues that have been identified. (Policy 3.1.1.1.B and Policy 3.1.1.1.C)
 - 1. Action
Amend the *Land Development Code* to address neighborhood concerns while maintaining congregate living as a feasible option for owners and students.
- C. There are areas of the neighborhood that are zoned more intensely than the historical development pattern and zoning regulations are not always consistent with development expectations. Most platted lots in the area are approximately 5,850 square feet and can not support the maximum density permitted for the zoning district. For example, a 5,850 square foot lot that is zoned RM32 would permit 32 dwelling units per acre by code. Based on the lot size, the property could develop with 4 units. Setbacks, parking, and building height requirements would also have to be taken into consideration when developing the lot.

In addition, increasing the number of dwelling units on the lot and maximizing the structure size by building to setback lines and occupying space that formerly was open have become common place. Oftentimes the mass and scale of the new structure is out of context with the historical pattern of development in the Original Town Site area and surrounding structures. (Policy 3.1.1.1.C and Policy 3.1.1.1.E)

- 1. Action
Create an overlay district(s) that establish standards to regulate bulk and mass of structures, maintain open space on individually platted lots, and regulate parking.
- 2. Action
Create an overlay district(s) that provides greater latitude to certain areas (generally most closely adjacent to KU) to develop more densely by allowing increased building heights, etc.

- D. Parking is a major issue in the planning area. This complicated issue has different facets including commuter parking and appropriate parking for new uses. (Policy 3.1.1.1.C)
 - 1. Action
 - Develop a parking system to help address commuter parking.

3.1.2 Goal 2 - Preservation

Preserve and improve the character of the neighborhood by encouraging the preservation of existing historic structures and features and by supporting infill development that is compatible with the surrounding neighborhood.

3.1.2.1 Preservation Policies

- A. Continue the preservation and protection of historic resources in the neighborhood.
- B. Infill structures should be compatible with the massing, scale, and bulk of the historic structures in the surrounding area.
- C. Historic infrastructure should be preserved and repaired. (eg. stone curbs, hitching posts, steps, brick streets and sidewalks).
- D. Explore educational opportunities to promote and inform citizens of the benefits of protecting historic resources and existing programs to assist in protection.
- E. Support planning efforts that identify and protect the area's historic resources.

3.1.2.2 Preservation Implementation Strategies

- A. A survey to identify existing historic resources within the planning area. (Policy 3.1.2.1.A, Policy 3.1.2.1.C and Policy 3.1.2.1.E)
 - 1. Action
Complete a historic survey for the area north of the football stadium.
 - 2. Action
Complete a historic survey of the remainder of the planning area and encourage the listing of additional historic resources.
 - 3. Action
If historic resources are identified as a product of historic resources surveys, update the *Oread Neighborhood Plan* to reflect the new resources.
- B. Utilization of the Lawrence Register of Historic Places will help with the protection of identified historic resources. (Policy 3.1.2.1.A and Policy 3.1.2.1.E)
 - 1. Action
Consider creating a local ordinance historic district with design guidelines for the Hancock Historic District.
 - 2. Action
Consider creating design guidelines for the Lawrence Register, Oread Historic District.
 - 3. Action
Encourage property owners to list historic structures in the Lawrence Register of Historic Places.

C. An overlay district(s) could help in guiding proper infill development. (Policy 3.1.2.1.B)

1. Action

Consider creating an overlay district(s) to give proper guidance to infill development. The district(s) could address such issues as the mass, scale and bulk of the development as well as imperious and pervious coverage.

D. Brick streets and sidewalks and steps are important elements of the historic infrastructure in the area. Restoring brick streets, whether covered or uncovered, and sidewalks will enhance the historic character of the area. (Policy 3.1.2.1.C)

1. Action

Include the restoration of brick streets in the city's brick streets program and Capital Improvement Plan (CIP).

2. Action

Seek grants that will assist in the restoration of brick streets, sidewalks, stone curbs, steps, and hitching posts.

3.1.3 Goal 3 - Infrastructure

Promote improvements and maintenance of existing infrastructure on a regular basis, and upgrade infrastructure when redevelopment occurs.

3.1.3.1 Infrastructure Policies

- A. Streets and sidewalks should be maintained and repaired on a regular basis.
- B. Increased pedestrian lighting in the neighborhood should be considered as a safety measure for the area.
- C. Sidewalk gaps should be identified and included in plans to complete them.

3.1.3.2 Infrastructure Implementation Strategies

- A. Public Works is responsible for ongoing street maintenance. Property owners are responsible for maintaining sidewalks in front of their property. (Policy 3.1.3.1.A and Policy 3.1.3.1.C)
 - 1. Action
Allocate funds yearly to the Public Works maintenance budget for street repair and replacement.
 - 2. Action
Increase owner compliance of repairing sidewalks or seek alternative programs for city-wide sidewalk repair.
- B. Increased pedestrian activity will help make the area safer. Considerations should be given to providing a well lit path from campus to downtown. New lighting should be scaled appropriately to provide safety while minimizing impacts on adjoining residences and historic character. (Policy 3.1.3.1.B)
 - 1. Action
Seek grants and other funding to help pay for pedestrian lighting for a path from campus to downtown.

3.1.4 Goal 4 – Neighborhood Atmosphere

Promote a healthy and safe living, working, studying, and celebrating environment with a sense of community.

3.4.1 Neighborhood Atmosphere Policies

- A. Strive to maintain property owner compliance with housing/nuisance standards.
- B. Encourage property owners to participate in housing rehabilitation activities.
- C. Encourage landlords to responsibly address problems with tenants.
- D. Neighborhood clean-up should be an ongoing priority for the neighborhood.
- E. Explore alternative trash policies to help keep the area cleaner.
- F. Strive to improve residents' behavior regarding trash, celebrations and day-to-day activities.
- G. Support programs that encourage permanent housing for the homeless.
- H. Explore public safety programs that support safe and friendly celebrations in the area.

3.1.4.2 Neighborhood Atmosphere Implementation Strategies

- A. Property maintenance is one of the issues that can impact the viability of an area. Well maintained structures provide strength and confidence to neighbors that the area is healthy and vibrant. This confidence will help property owners make ongoing decisions to continue to invest in the neighborhood. Continued investment contributes to improved property values.

The city currently inspects rental units in single-dwelling zoning districts for their rental inspection program. Discussions to expand the program have recently been held but not implemented. (Policy 3.1.4.1.A and Policy 3.1.4.1.B)

1. Action

Support the expansion of the rental registration and inspection program to address areas of blight and demolition by neglect in the planning area.

2. Action

Maintain information on Community Block Grant Programs (CDBG) rehabilitation programs in the neighborhood association newsletter.

3. Action

Explore stricter code language for enforcement of blighted properties and support additional enforcement staff for enforcement.

- B. Incentives to encourage the rehabilitation of the existing housing stock in the neighborhood would benefit the planning area. Incentives could provide the extra encouragement for property owners who want to rehabilitate existing structures but lack the resources. (Policy 3.1.4.1.B)

1. Action

Implement the use of programs, such as the Neighborhood Revitalization Program, as an incentive option to encourage rehabilitation. The program is a property tax rebate program used in Kansas communities to reimburse a certain percentage of property taxes for the rehabilitation.
2. Action

Promote and educate owners about tax incentive programs available for historic properties.
- C. Property clean-up is an ongoing responsibility for property owners and tenants. Neighborhood property owners, renters and service groups are potential sources for volunteer labor. (Policy 3.1.4.1.D)
 1. Action

Continue sponsorship of volunteer neighborhood clean-up days.
 2. Action

Identify and employ service groups and student groups that may be willing to help with a volunteer "adopt a block" clean up programs.
 3. Action

Develop a predictable schedule, while taking into consideration the break schedule for KU, for street sweeping and restrict parking accordingly.
- D. Trash pick up is an issue in the area. The city currently picks up trash in the alley where properties have alley access. Concerns were raised for those properties without alley access and the location of trash cans in front yards. Concerns were also raised about dealing with the additional trash during large events in the area (e.g. KU football games). (Policy 3.1.4.1.E)
 1. Action

A trash strategy for the area should be developed regarding storage of trash cans in front yards and include policies for handling trash for large events in the area. Attention should be paid to where trash receptacles are located on properties. Properties without alley access should discreetly store trash receptacles in the side or rear yard.
 2. Action

Review the *Land Development Code* to ensure appropriate dumpster and trash enclosure standards for any multi-family or congregate living structure that includes more than 4 bedrooms.
- E. Inappropriate resident behavior should be addressed so as to not negatively impact the neighborhood. (Policy 3.1.4.1.F)

1. Action
Step-up neighborhood outreach efforts to educate residents about being good neighbors. Good neighbor pamphlets should be routinely distributed.
2. Action
Seek grants that will help pay for additional police officer presence in the area during large events (e.g. KU football games).
3. Action
Continue enforcement of the Disorderly House Nuisance Ordinance.

3.2 Implementation Priority Schedule

The priority of the actions for the plan was identified through an exercise completed at a public meeting. The table below lists the actions in priority order from the highest priority item being first.

Table 3-1 Implementation Schedule

Action	Who	When
Consider creating an overlay district(s) to: <ul style="list-style-type: none"> - provide a greater latitude to certain areas (generally most closely adjacent to KU) to develop more densely by allowing increased building heights, etc. [Land Use 3.1.1.2(C)(2)] - give proper guidance to infill development. The district(s) could address such issues as the mass, scale and bulk of the development as well as imperious and pervious coverage. [Preservation 3.1.2.2(C)(1)] - establish standards to regulate bulk and mass of structures, maintain open space on individually platted lots, and regulate parking. [Land Use 3.1.1.2(C)(1)] 	Oread Neighborhood Association, Planning Commission, Historic Resources Commission, City of Lawrence	2011
Review the <i>Land Development Code</i> : <ul style="list-style-type: none"> - to address neighborhood concerns while maintaining congregate living as a feasible option for owners and students. [Land Use 3.1.1.2(B)(1)] - to ensure appropriate dumpster and trash enclosure standards for any multi-family or congregate living structure that includes more than 4 bedrooms. [Neighborhood Atmosphere 3.1.4.2(D)(2)] - to permit by right detached dwellings (single-dwelling use) in multi-dwelling zoning districts (RM) with certain standards. [Land Use 3.1.1.2(A)(1)] 	Planning Commission, City of Lawrence	2010
Allocate funds yearly to the Public Works maintenance budget for street repair and replacement. [Infrastructure 3.1.3.2(A)(1)]	City of Lawrence	Ongoing
Support the expansion of the rental registration and inspection program to address areas of blight and demolition by neglect in the planning area. [Neighborhood Atmosphere 3.1.4.2(A)(1)]	City of Lawrence	TBD
Explore stricter code language for enforcement of blighted properties and support additional enforcement staff for enforcement. [Neighborhood Atmosphere	City of Lawrence	1-3 years

Action	Who	When
3.1.4.2(A)(3)]		
Seek grants that will assist in the restoration of brick streets, sidewalks, stone curbs, steps, and hitching posts. [Preservation 3.1.2.2(D)(2)]	Oread Neighborhood Association, City of Lawrence	Ongoing
Seek grants and other funding to help pay for pedestrian lighting for a path from campus to downtown. [Infrastructure 3.1.3.2(B)(1)]	Oread Neighborhood Association, City of Lawrence, KU	1-5 years
Implement the use of programs, such as the Neighborhood Revitalization Program, as an incentive option to encourage rehabilitation. The program is a property tax rebate program used in Kansas communities to reimburse a certain percentage of property taxes for the rehabilitation. [Neighborhood Atmosphere 3.1.4.2(B)(1)]	City of Lawrence	1-5 years
Seek grants that will help pay for additional police officer presence in the area during large events (e.g. KU football games). [Neighborhood Atmosphere 3.1.4.2(E)(2)]	City of Lawrence, KU	Ongoing
Maintain information on Community Block Grant Programs (CDBG) rehabilitation programs in the neighborhood association newsletter. [Neighborhood Atmosphere 3.1.4.2(A)(2)]	Oread Neighborhood Association	Ongoing
Complete a historic survey of the remainder of the planning area and encourage the listing of additional historic resources. [Preservation 3.1.2.2(A)(2)]	City of Lawrence, Historic Resources Commission	1-5 years
Develop a parking system to help address commuter parking. [Land Use 3.1.1.2(D)(1)]	City of Lawrence, Oread Neighborhood Association, KU	1-2 yrs
Complete a historic survey for the area north of the football stadium. [Preservation 3.1.2.2(A)(1)]	Planning Commission, City of Lawrence, Historic Resources Commission	Ongoing
If historic resources are identified as a product of historic resources surveys, update the <i>Oread Neighborhood Plan</i> to reflect the new resources. [Preservation 3.1.2.2(A)(3)]	Planning Commission, City of Lawrence, Historic Resources Commission	Ongoing
Include the restoration of brick streets in the city's brick streets program and Capital Improvement Plan (CIP). [Preservation 3.1.2.2(D)(1)]	City of Lawrence	Ongoing

Action	Who	When
Increase owner compliance of repairing sidewalks or seek alternative programs for city-wide sidewalk repair. [Infrastructure 3.1.3.2(A)(2)]	Property owners, City Code Enforcement, City of Lawrence	Ongoing
Continue sponsorship of volunteer neighborhood clean-up days. [Neighborhood Atmosphere 3.1.4.2(C)(1)]	Oread Neighborhood Association	Ongoing
Identify and employ service groups and student groups that may be willing to help with a volunteer "adopt a block" clean up programs. [Neighborhood Atmosphere 3.1.4.2(C)(2)]	Oread Neighborhood Association	Ongoing
Develop a predictable schedule, while taking into consideration the break schedule for KU, for street sweeping and restrict parking accordingly. [Neighborhood Atmosphere 3.1.4.2(C)(3)]	City of Lawrence	Ongoing
A trash strategy for the area should be developed regarding storage of trash cans in front yards and include policies for handling trash for large events in the area. Attention should be paid to where trash receptacles are located on properties. Properties without alley access should discreetly store trash receptacles in the side or rear yard. [Neighborhood Atmosphere 3.1.4.2(D)(1)]	Oread Neighborhood, City of Lawrence	1-2 years
Step-up neighborhood outreach efforts to educate residents about being good neighbors. Good neighbor pamphlets should be routinely distributed. [Neighborhood Atmosphere 3.1.4.2(E)(1)]	Oread Neighborhood Association, City of Lawrence, Development Services, KU	Ongoing
Promote and educate owners about tax incentive programs available for historic properties. [Neighborhood Atmosphere 3.1.4.2(B)(2)]	City of Lawrence, Historic Resources Commission	Ongoing
Continue enforcement of the Disorderly House Nuisance Ordinance. [Neighborhood Atmosphere 3.1.4.2(E)(3)]	City of Lawrence, City of Lawrence Police Department	Ongoing
Consider creating a local ordinance historic district with design guidelines for the Hancock Historic District. [Preservation 3.1.2.2(A)(1)]	City of Lawrence, Historic Resources Commission	1-5 years
Consider creating design guidelines for the Lawrence Register, Oread Historic District. [Preservation 3.1.2.2(A)(2)]	City of Lawrence, Historic Resources Commission	1-5 years
Encourage property owners to list historic structures in the Lawrence Register of Historic Places. [Preservation 3.1.2.2(A)(3)]	City of Lawrence, Historic Resources Commission	Ongoing

Action	Who	When
Consider creating design guidelines for the Lawrence Register, Oread Historic District. [Preservation 3.1.2.2(B)(2)]	City of Lawrence, Historic Resources Commission	1-5 years
Encourage property owners to list historic structures in the Lawrence Register of Historic Places. [Preservation 3.1.2.2(B)(3)]	City of Lawrence, Historic Resources Commission	Ongoing
Explore tax incentive programs to support owner occupancy throughout the neighborhood. [Land Use 3.1.1.2(A)(2)]	City of Lawrence	1-3 years
Maintain and work toward a greater collaboration with KU regarding long-range planning efforts.	City of Lawrence, KU	Ongoing

Section 4 – Future Land Use and Overlay Districts

This section outlines the recommended land uses for the planning area and identifies proposed overlay districts. Land use descriptions and overlay district elements are explained on the subsequent pages. Map 4-1 is an illustration to help visually identify the recommended land uses in the *Oread Neighborhood Plan* planning area and Map 4-2 illustrates the proposed boundaries of the different overlay districts.

4.1 Future Land Use

The land use descriptions are more detailed information regarding the different land use categories. The official definitions, density and dimensional standards, and the permitted uses within each zoning district are outlined in the *Land Development Code* for the City of Lawrence. Map 4-1 and the text descriptions must be used in conjunction with one another in order to obtain the complete recommendation for each particular area.

4.1.1 Low-Density Residential

The intent of the low-density residential use is to allow for detached dwelling residential uses.

Density: 6 or fewer dwelling units per acre

Intensity: Low

Zoning Districts: RS7 (Single-Dwelling Residential), RS5 (Single-Dwelling Residential), RM12D (Multiple-Dwelling Duplex Residential) [Area north of the stadium only]

Primary Uses: Detached dwellings, manufactured home residential-design

4.1.2 Medium-Density Residential

The intent of the medium-density residential use is to allow for a variety of types of residential options for the area.

Density: 7-15 dwelling units per acre

Intensity: Medium

Zoning Districts: RS3 (Single-Dwelling Residential), RS5 (Single-Dwelling Residential), RM12 (Multiple-Dwelling Residential), RM12D (Multi-Dwelling Duplex Residential), RM15 (Multi-Dwelling Residential), PD (Planned Development Overlay)

Primary Uses: Detached dwellings, attached dwellings, cluster dwellings, manufactured home residential-design, zero lot line dwellings, duplex, multi-dwelling structures, congregate living, group home, civic and public uses

4.1.3 High-Density Residential

The intent of the high-density residential use is to allow for compact residential development. [The property at the northeast corner of Illinois Street and Fambrough Drive shall only serve as parking for the University of Kansas/HERE Kansas project. Future building development shall comply with the intensity, design, and uses associated with Low-Density Residential.](#)

Density: 16+ dwelling units per acre

Intensity: High

Zoning Districts: RM15 (Multi-Dwelling Residential), RM24 (Multi-Dwelling Residential), RM32 (Multi-Dwelling Residential), RMG (Multi-Dwelling Residential-Greek Housing), PD (Planned Development Overlay)

Primary Uses: Attached dwellings, zero lot line dwellings, congregate living, multi-dwelling structures, Fraternity or sorority house, group home, civic and public uses

4.1.4 *Residential/Office*

The intent of the residential/office use is to accommodate mixed use development of administrative and professional offices with varying degrees of residential. This may be achieved by the use of work/live units.

Density: 6-22 dwelling units per acre

Intensity: Medium-high

Zoning Districts: RSO (Single-Dwelling Residential-Office), RMO (Multi-Dwelling Residential-Office), MU (Mixed Use), PD (Planned Development Overlay)

Primary Uses: Work/live units, non-ground floor dwellings, attached dwellings, multi-dwelling structures, civic and public uses, office

4.1.5 *Mixed-Use District*

The intent of the mixed-use district use is to accommodate a mix of uses designed to maintain the character of the surrounding neighborhood and achieve integration with adjacent land uses.

Intensity: Medium-High

Zoning Districts: MU (Mixed Use), PD (Planned Development Overlay)

Primary Uses: non-ground floor dwellings, civic and public uses, eating and drinking establishments, general office, retail sales and services, hotels

4.1.6 *Inner-Neighborhood Commercial*

The intent of the inner-neighborhood commercial district is to accommodate small-scale commercial uses intended to serve adjacent residents. *Horizon 2020* identifies the west side of the intersection of W. 14th Street and Massachusetts Street as an Inner-Neighborhood Commercial Center.

Intensity: Medium

Zoning Districts: MU (Mixed Use), CN1 (Inner Neighborhood Commercial District), CN2 (Neighborhood Commercial Center District)

Primary Uses: Work/live units, non-ground floor dwellings, multi-dwelling structures, civic and public uses, office uses, eating and drinking establishments, retail sales and services

4.1.7 *Neighborhood Commercial Center*

The intent of the neighborhood commercial use is to allow for retail and service uses. This designation is located along W. 9th Street at the northern edge of the planning area.

Intensity: Medium-High

Zoning Districts: MU (Mixed Use), CN1 (Inner Neighborhood Commercial District), CN2 (Neighborhood Commercial Center District), CS (Commercial Strip District), PD (Planned Development Overlay)

Primary Uses: non-ground floor dwellings, multi-dwelling structures, civic and public uses, eating and drinking establishments, office uses, eating and drinking establishments, retail sales and services, gas and fuel sales

4.1.8 Public/Institutional

The intent of the public/institutional use is to allow for public, civic, and utility uses.

Intensity: Variable

Zoning Districts: GPI (General Public and Institutional), U-KU (University – Kansas University)

Primary Uses: Cultural center/library, school, utilities, recreational facilities, utility services, college/university

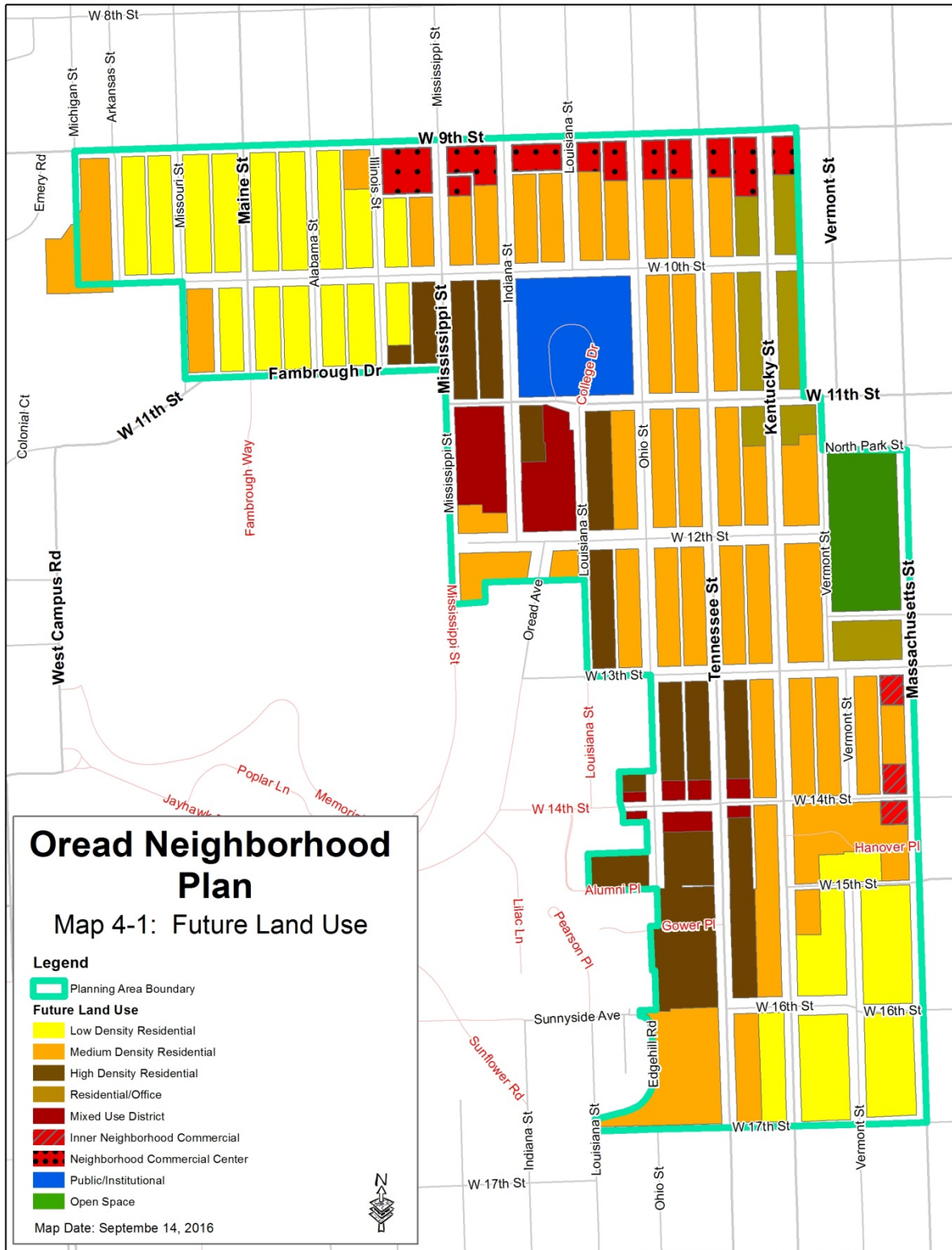
4.1.9 Open Space

The intent of the open space/floodplain use is to provide space for public recreational facilities and natural area preservation.

Intensity: Low

Zoning Districts: GPI (General Public and Institutional District), OS (Open Space),

Primary Uses: cultural center, active recreation, passive recreation, nature preserve, entertainment and spectator sports, participant sports and recreation outdoor, private recreation



4.2 Overlay Districts

The *Oread Neighborhood Plan* recommends the implementation of 5 overlay districts. Overlay districts are zoning overlays that are used in conjunction with the base zoning districts and include design guidelines. The overlay districts are tools for dealing with special situation for accomplishing special zoning goals. This plan recommends 2 different types of overlay districts, the Urban Conservation Overlay District and the Historic District Overlay. The overlay districts are intended to: encourage development that conforms to the size, orientation and setting of existing buildings in a neighborhood or area; reduce the need for zoning variances for development that conforms to the size, orientation and setting of existing buildings in a neighborhood or area; provide building setbacks, lot dimensions and related physical characteristics; foster development that is compatible with the scale and physical character of original buildings in a neighborhood or area through the use of development/design standards and guidelines; and conserve the cultural resources, historic resources and property values within an identified neighborhood or area.

The proposed overlay districts are illustrated on Map 4-2 and the elements listed below. These elements are intended to be addressed for that specific area in the overlay standards.

4.2.1 *Urban Conservation Overlay Districts*

4.2.1.1 District 1 (Low-Density)

District 1 is the area north of the football stadium that is generally identified on the future land use map as low-density and a small amount of medium-density residential.

- A. Minimum lot size for duplex
- B. Minimum required parking number and location
- C. Maximum number of bedrooms permitted in each dwelling unit of a duplex
- D. Maximum lot coverage
- E. Lot size (assembly)
- F. Alley access as opposed to street access
- G. Setbacks

4.2.1.2 District 2 (High-Density)

District 2 is generally the area directly adjacent to KU on the west side of the planning area. This area is mainly identified as high-density and mixed use on the future land use map.

- A. Minimum parking requirements for uses
- B. Massing, scale, bulk, and articulation for new development
- C. Maximum lot coverage
- D. Height and density maximum increase
- E. Larger structures located on corners of certain streets
- F. Lot size (assembly)
- G. Alley access as opposed to street access
- H. Setbacks

4.2.1.3 District 3 (Medium-Density)

District 3 is generally located between District 2 and the eastern side of the planning area. This area is mainly identified as medium density and residential-office on the future land use map.

- A. Limit size of building additions
- B. Maximum lot coverage
- C. Minimum required parking number
- D. Massing, scale, and bulk for new development
- E. Lot size (assembly)
- F. Alley access as opposed to street access
- G. Setbacks

4.2.2 *Historic District Overlay*

4.2.2.1 District 4 (Hancock Historic District)

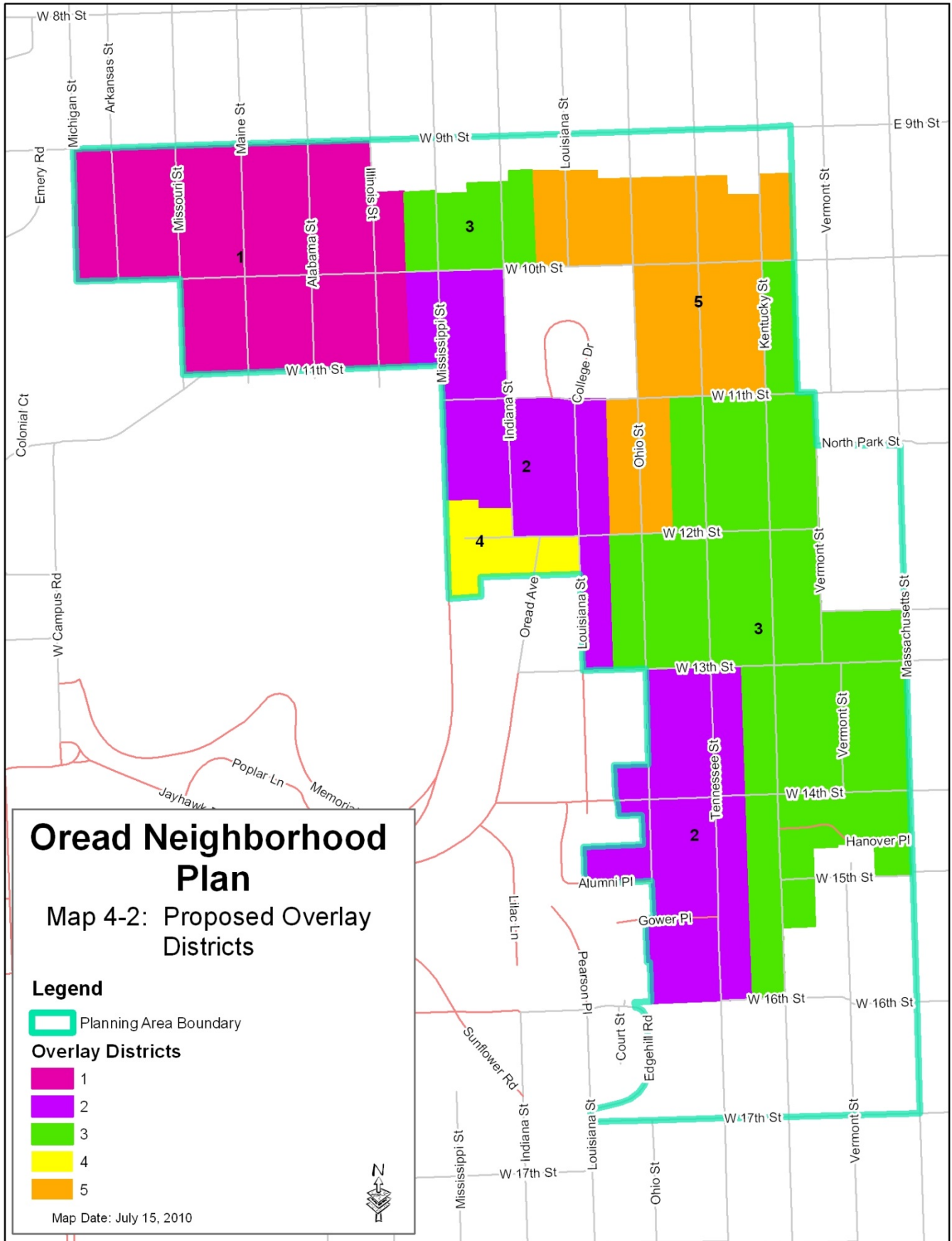
District 4 is generally located at the western side of the planning area at the end of W. 12th Street. The majority of this district is a National Historic District but it is recommended to be listed on the Lawrence Register of Historic Places.

- A. Minimum parking requirements for uses
- B. Massing, scale, bulk, and articulation for new development
- C. Maximum lot coverage
- D. Setbacks
- E. Compatible materials
- F. Lot size (assembly)
- G. Limit size of building additions

4.2.2.2 District 5 (Oread Historic District)

District 5 is generally located on the north and eastern side of the planning area. The majority of this area is a National Historic District but it is recommended to be listed on the Lawrence Register of Historic Places.

- A. Minimum parking requirements for uses
- B. Massing, scale, bulk, and articulation for new development
- C. Maximum lot coverage
- D. Setbacks
- E. Compatible materials
- F. Lot size (assembly)
- G. Limit size of building additions
- H. Alley access as opposed to street access



A RESOLUTION OF THE LAWRENCE-DOUGLAS COUNTY METROPOLITAN PLANNING COMMISSION ADOPTING AND RECOMMENDING ADOPTION OF A PROPOSED AMENDMENT TO *HORIZON 2020*, THE COMPREHENSIVE PLAN FOR THE CITY OF LAWRENCE AND UNINCORPORATED DOUGLAS COUNTY, AMENDING CHAPTER 14 – SPECIFIC PLANS, TO AMEND THE FUTURE LAND USE MAP OF THE *OREAD NEIGHBORHOOD PLAN*.

WHEREAS, the City of Lawrence, Kansas, and Douglas County, Kansas, in order to promote the public health, safety, morals, comfort, and general welfare and to conserve and to protect property values in the City and the County, are authorized by K.S.A. 12-741, *et seq.*, to prepare, adopt, amend, extend, and execute a comprehensive plan;

WHEREAS, the City of Lawrence, Kansas, Douglas County, Kansas, and the Lawrence-Douglas County Metropolitan Planning Commission, in order to coordinate development in accordance with the present and future needs of the City and the County, to conserve the natural resources of the City and the County, to ensure efficient expenditures of public funds in the City and the County, and to promote the health safety, convenience, prosperity, and the general welfare of the residents of the City and the County, have adopted *Horizon 2020*, the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County; and

WHEREAS, on September 26, 2016, after giving lawful notice by publication in the official City and County newspaper, the Lawrence-Douglas County Metropolitan Planning Commission conducted a public hearing regarding a proposed amendment of *Horizon 2020*, the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County, as set forth in Planning Staff Report, CPA-16-00309, amending Chapter 14 – Specific Plans, to amend the Future Land Use Map in *Oread Neighborhood Plan*.

NOW, THEREFORE, BE IT RESOLVED BY THE LAWRENCE-DOUGLAS COUNTY METROPOLITAN PLANNING COMMISSION:

SECTION 1. The above-stated recitals are incorporated herein by reference and shall be as effective as if set forth in full.

SECTION 2. Pursuant to K.S.A. 12-747, the Lawrence-Douglas County Metropolitan Planning Commission hereby adopts and recommends to the governing bodies of the City of Lawrence, Kansas, and Douglas County, Kansas, that they adopt the proposed amendment to *Horizon 2020*, the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County, as set forth in Planning Staff Report, CPA-16-00309, amending Chapter 14 – Specific Plans, to amend the future land use map of the *Oread Neighborhood Plan*.

SECTION 3. The revised and updated Chapter 14 – Specific Plans, affixed hereto as Exhibit 1, shall, upon adoption by governing bodies of the City of Lawrence, Kansas, and Douglas County, Kansas, be incorporated into *Horizon 2020*, the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County.

SECTION 4. This Resolution, together with a certified copy of the proposed amendment to *Horizon 2020*, the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County, and a written summary of the September 26, 2016, public hearing, shall be transmitted to the governing bodies of the City of Lawrence, Kansas, and Douglas County, Kansas, as appropriate.

ADOPTED by the Lawrence-Douglas County Metropolitan Planning Commission this 26th day of September, 2016.

Patrick Kelly, Chair
Lawrence-Douglas County Metropolitan
Planning Commission

Eric Struckhoff, Vice-Chair
Lawrence-Douglas County Metropolitan
Planning Commission

Scott McCullough, Secretary
Lawrence-Douglas County Metropolitan
Planning Commission

PLANNING COMMISSION REPORT
Regular Agenda - Public Hearing Item

PC Staff Report
09/26/2016

ITEM NO. 8A Z-16-00310 RM32 (MULTI-DWELLING RESIDENTIAL) DISTRICT AND U-KU (UNIVERSITY – KANSAS UNIVERISTY) DISTRICT TO RM32-PD (MULTI-DWELLING RESIDENTIAL- PLANNED DEVELOPMENT OVERLAY) DISTRICT; 40,000 SF (SLD)

STAFF RECOMMENDATION: Staff recommends approval of the request to rezone approximately 40,000 SF, from RM32 (Multi-Dwelling Residential) District and U-KU (University – Kansas University) District to RM32-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.

Reason for Request: *The rezoning request facilitates the development of an off-site off-street parking lot to serve the HERE @ Kansas mixed-use development. It is accompanied by a Preliminary Development Plan which also proposes, as part of the same project, the realignment of Fambrough Drive to create a 4-way intersection with 11th and Mississippi Streets.*

KEY POINTS

- Request is intended to create a single parcel with a uniform base zoning district.
- Off-street parking is intended to provide required parking spaces e for the residential portion of the HERE @ Kansas mixed-use development.
- This development project includes the realignment of Fambrough Drive.
- The RM32 district is a comparable zoning district to the MU district with regard to residential development intensity.

ASSOCIATED CASES/OTHER ACTION REQUIRED

- CPA-16-00309; Amendment to Chapter 14 Oread Neighborhood Plan
- PDP-16-00331; Preliminary Development Plan for parking lot
- Future Final Plat
- Future Final Development Plan

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

1. Area Map
2. Surface Parking Lot Map
3. KU Master Plan Map 3-14 with annotations

PUBLIC COMMENT RECEIVED PRIOR TO PRINTING

- No comments were received regarding the zoning

Project Summary:

Proposed request is for the demolition of two multi-dwelling buildings fronting on Mississippi Street and a sub-standard parking lot on the northeast corner of Illinois Street and Fambrough Drive to construct off-street parking for a nearby land use (HERE @ Kansas mixed use structure located at 1101 Indiana Street).

The development located at 1101 Indiana Street is a mixed-use residential and commercial project. The development requires a specific amount of parking to support the approved uses. The MU district allows on-street parking to be counted toward uses in the district. The project was originally approved with an automated underground parking garage. Due to unforeseen issues the parking was changed to valet parking. However, the project was not able to meet all the required demand for parking either on-site or within the district and the developer is seeking to provide additional parking in reasonable proximity to the development. The Development Code allows for off-site parking. Such parking must meet certain design standards including:

- Shall be located within 600 feet from main entrance of the building or uses they are intended to serve.
- Shared or off-site off-street parking areas require the same or a more intensive zoning classification than that required for the most intensive of the uses served by the shared or off-site parking area.
- Section 20-535 prohibits accessory parking in the RS districts.
- Approval of any accessory parking in a different zoning district shall be made subject to the appropriate buffer yard or other screening requirements to limit the impact of the accessory parking on the other zoning district.

The RM32 district has the same development density as the MU district (32 units per acre).

1. CONFORMANCE WITH THE COMPREHENSIVE PLAN

Applicant's Response: *This request conforms to multiple policies listed in the Oread Neighborhood Plan, which is incorporated into Chapter 14 of Horizon 2020. That plan encourages "creative ideas to deal with parking congestion in the neighborhood that address commuter parking and issues with parking for uses that lack appropriate off-street parking (Policy 3.1.1.1 (C)). This request is made expressly to facilitate development of new parking infrastructure which would address the needs of the HERE @ Kansas project. The Oread Neighborhood Plan also recommends that "streets and sidewalks be maintained and repaired on a regular basis" and that "sidewalk gaps be identified and included in plans to complete them." (Policies 3.1.3.1 (A) and (C)). This request will facilitate significant street and sidewalk improvements to Fambrough Drive and Mississippi Street, both of which are collector streets that serve motorists, cyclists and pedestrians, living in or passing through the Oread Neighborhood.*

Key features of the plan include the following recommendations:

- *The plan supports infill development and redevelopment which provides a range of residential, commercial, office, industrial and public uses within these parcels, consistent and compatible with the established land use pattern in surrounding areas.*
- *The Plan encompasses goals and policies which are representative of the community's desires for the future. It recognizes the numerous plans and projects that are either underway or pending and anticipates that the plan will be reviewed when significant land use changes occur within the community.*

The proposed zoning request is located within an established neighborhood district. A Neighborhood plan was adopted for this area. A related Comprehensive Plan amendment is required to address the proposed changes in the area. This review of the proposed rezoning assumes approval of the related Comprehensive Plan Amendment.

The high-density mixed-use development located to the southeast of the proposed rezoning has previously been approved and developed. The proposed request is intended to support the use by providing off-site parking for the residential aspect of the development. Specific design elements recommended in *Horizon 2020* will be implemented through the development plan.

Specific land use recommendations are further discussed in the Oread Neighborhood Plan. The area along Mississippi Street is recommended for high-density residential development. This use requires infrastructure in the form of off-street parking to mitigate impacts to the neighborhood. Approval of the proposed rezoning allows for the accommodation of off-street parking for previously approved high-density residential development, specifically the HERE @ Kansas mixed-use development.

Staff Finding – Assuming approval of the accompanying Comprehensive Plan Amendment, the proposed request is consistent with policies to maintain neighborhood character through a review process that includes a planned development.

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

Current Zoning and Land Use: U-KU (University – Kansas University) District and RM32 (Multi-Dwelling Residential) District. Existing parking lot along Illinois Street and existing multi-dwelling residential uses along Mississippi Street.

Surrounding Zoning and Land Use: RM32 (Multi-Dwelling Residential) District to the east along the east side of Mississippi Street; existing multi-dwelling residential units.



Figure 1: Surrounding Zoning and Land Use

U-KU (University-Kansas University) District to the south. Existing Memorial Stadium, Track and Field facilities and parking on the south side of Fambrough Drive.

RM12D (Multi-Dwelling Residential Duplex) District to the west along the west side of Illinois Street; existing residential uses.

RM12D and RM32 to the north. Existing residential structures.

- 1020 Illinois – Multi-dwelling residential (4 units)
- 1016 Illinois – Multi-dwelling residential (4 units)
- 1027 Mississippi – Multi-dwelling residential (11 units)

Surrounding land uses include detached dwellings, duplex, triplex, and multi-dwelling buildings with 4-24 units north of Fambrough Drive and University related uses on the south side of Fambrough Drive. The Kansas football stadium is located south of the subject property.

Staff Finding – The property is surrounded by a variety of residential uses. Zoning includes both medium and high-density residential districts. The property is bounded on the south by Kansas University.

3. CHARACTER OF THE NEIGHBORHOOD

Applicant’s Response: *The subject property lies on the edges of the Oread Neighborhood and the campus of the University of Kansas. The Oread Neighborhood is one of the city’s oldest neighborhoods and features a mix of residential development. To the north and east of the subject site one finds two and three-story apartment buildings on both sides of Mississippi Street in a RM32 zoning district. To the north and west of the subject site one finds one and two-story detached homes, many of which are broken into multiple apartment units, in an RM12D zoning district. To the south of the subject site, across Fambrough Drive rests the campus of KU and specifically Memorial Stadium, all zoned U-KU. This portion of the Oread Neighborhood is generally home to numerous KU students and is heavily occupied with cars and visitors during KU football games and other large university events held in the stadium.*

This property is located within the Oread Neighborhood. It is also located immediately north of Memorial Stadium. Fambrough Drive (located along the south property line) and Mississippi Street (located along the east property line) are both designated as collector streets. Illinois Street is designated as a local street. This portion of the neighborhood is developed with a mix of residential housing types.

Land uses located along Mississippi Street and to the east are associated with higher intensity residential development. Uses located along Illinois Street and areas to the west are associated with lower density residential development. This portion of the neighborhood includes 50’ x 117’ lots with alleys.

The adopted Neighborhood Plan states that the predominant land use in the overall neighborhood is Single-Dwelling Residential (32%). The next highest land use in the neighborhood is Multi-Dwelling Residential (16%). Parking lots represent a small portion of the total use within the neighborhood at 2%. See page 2-1 Oread Neighborhood Plan.

Table 2-1 Existing Land Use Summary

Land Use	Acres	Percent of Acreage
Single-Dwelling Residential	51.19	32%
Duplex	16.63	10%
Triplex	10.09	6%
Fourplex	12.44	8%
Congregate Living	10.81	7%
Multiple-Dwelling Residential	26.23	16%
Vacant Residential	1.08	1%
Mixed Use	1.90	1%
Commercial	8.06	5%
Parking Lot	2.96	2%
Parks/Rec/Open Space	6.43	4%
Public/Institutional	14.26	9%
Total Acres	162.07	100%

Figure 2: Table from Oread Neighborhood Plan

This request seeks to combine two lots with existing multi-dwelling uses with an existing parking lot to create a larger parking area to support the mixed use development located on the southeast corner of Mississippi Street and 11th Street.

Approval of the rezoning request would allow for the development of a parking lot as proposed in the accompanying Preliminary Development Plan.

In addition to the rezoning, the proposed project includes a public improvement project that realigns Fambrough Drive to create a four-way intersection at 11th Street & Mississippi Street.

The existing Neighborhood includes several surface parking lots. Parking lots are located east of Illinois Street. The following table summarizes the existing parking lots included in the Oread

Neighborhood. The rows highlighted in **Yellow** are proposed to be rezoned to accommodate the HERE @ Kansas mixed use development. Attached to this report is a map showing the location of surface parking lots in the neighborhood.

Table 1: Surface Parking Lots Located in Oread Neighborhood

	Location	Spaces Provided	Area	Project	Parking for:
1	0 Illinois Street		11,699.65	No Record	KU Endowment
2	909 Tennessee	17	5,849.91	SP-5-25-82	Church
3	900 Kentucky	41	22,978.76	SP-8-52-01	Bank
4	1000 Kentucky	48	17,549.98	SP-7-41-11	Church
5	1231 Kentucky	37	11,699.11	No Record	Church
6	100 W. S. Park Drive	8	5,068.79	SP-7-42-93	Law Office/Mortuary
7	1300 Vermont	16	5,842.71	SP-3-12-80	Funeral Home
8	1439 Tennessee	30	17,999.88	No Record	Fraternity
9	1200 Louisiana	13	17,554.57	SP-11-61-93	KU Endowment
10	1115 Louisiana	24	9,402.16	SP-12-97-87	Multi-Dwelling Residential
11	1100 Indiana	11	3,978.02	SP-4-31-96	Sorority
12	1029 Mississippi	5	5,850.05	No Record	Multi-Dwelling
13	1031 Mississippi	7	5,850.05	No Record	Multi-Dwelling
	TOTAL	245			

The existing parking lots, excluding the subject properties, provide 245 spaces within the neighborhood. The parking lots located at 1439 Tennessee, 1115 Louisiana and 1100 Indiana provide parking for existing residential uses in the neighborhood. Based on the summary above staff estimates that the KU Endowment property located along Illinois Street, north of the stadium can support 25 parking spaces.

The impact of this single request for rezoning on the overall neighborhood is minor given that half of the area of the request already serves as a parking lot. Similar requests to rezone property and develop with surface parking lots may have a more deleterious effect on the character of the Neighborhood.

Staff Finding – The character of the Oread Neighborhood is one of mixed uses, but largely dominated by residential use. The Neighborhood is influenced by the location of the University. The *Oread Neighborhood Plan* and related design guidelines are adopted and proposed as a method to protect and enhance the neighborhood character.

This rezoning is unlikely to have a negative impact on the character of the neighborhood. The realignment of Fambrough Drive will impact the area both by way of traffic flow and visually. The realignment provides an opportunity to enhance the entry to the University and provide a safer, more defined transition.

Similar requests for rezoning for the purpose of surface parking lot development should be considered carefully and should not be seen as the ultimate solution to providing off-street parking for redevelopment projects.

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

The Neighborhood Plan was adopted in 2010. Since then, W. 11th Street has been renamed to Fambrough Drive between Missouri and Mississippi Streets along the north side of the stadium. The plan also does not reflect the developed and developing projects of the Varsity House at 1043 Indiana Street (Multi-Dwelling) and HERE @ Kansas at 1101 Indiana Street (mixed use development) located east of the subject property.

The University of Kansas has also adopted a master plan for the University Campus. Attached to this report is a map of the future land use with recent development adjacent to the university highlighted for reference. The University Plan does not expand the boundaries into the Oread Neighborhood but shares a common boundary along Fambrough Drive and Mississippi Street.

Within the neighborhood several areas have been rezoned to accommodate multi-dwelling and mixed use development. These areas are located east of the subject property.

The Plan states that an inventory of property north of stadium is recommended to determine what historic resources remain in the area. There are no listed properties in the immediate area at this time. In addition to historic structures, brick streets and sidewalks, limestone curbs and hitching posts are also elements that contribute to historic character. This application is intended for the development of a parking lot. If approved staff recommends that the property is assessed for historic resources. This issue is further discussed in the proposed Preliminary Development Plan.

The Plan recognizes that demand for parking within the neighborhood is a significant element that impacts the area. In addition to daily use by residents in the area, the proximity of the University and expense of parking permits on University property often pushes vehicles to park on the street creating congestion in the neighborhood. High-density residential development contributes to the need for parking within the neighborhood. Approval of the proposed development project (rezoning and development plan applications) will result in the addition of off-street parking within the neighborhood. This parking will be dedicated to a specific mixed use development to the southeast of the proposed parking lot.

This application is submitted concurrently with a Comprehensive Plan Amendment to adjust the boundary of the high and low density residential land use in the vicinity of the request and includes the subject property. This rezoning review presumes approval of the Comprehensive Plan Amendment (CPA-16-00309).

Staff Finding – If the Comprehensive Plan Amendment is approved this proposed rezoning would be consistent with that change.

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

Applicant's Response: *Under the existing zoning regulations, the east half of this property is restricted to high-density multi-family land uses and the west half to University-related land uses. Certainly, the subject property is well suited for such uses and has for many years featured multi-dwelling apartments on its east half and a parking lot utilized only during large university events on its west half. The proposed zoning change is intended to preserve those same types of land*

uses by facilitating the construction of a new parking lot which will serve the needs of a nearby mixed-use development.

Section 20-909 (d) allows shared and off-site parking when the property has the same or a more intensive zoning classification. The property located at 1029 Mississippi Street, included in the request, is suitably zoned with an appropriately zoned base district (RM32) to allow off-site parking. This property is suitably zoned for high-density residential development consistent with adopted land use plans for the area. The western half of the property, and the property located at 1031 Mississippi Street reflects property that is under the University-related zoning district (U-KU). This district includes both University and Endowment owned properties. The western half of the property is included in the Oread Neighborhood Plan currently designated for low-density residential development. The current U-KU zoning is not suitable to implement land uses as recommended in the Oread Neighborhood Plan.

This request includes an existing parking lot and two multi-dwelling structures. One property is suitably zoned to accommodate the proposed development of a parking lot (1029 Mississippi Street/RM32). The parking lot and the south multi-dwelling residence properties do not have the minimum base zoning district to facilitate off-site parking (0 Illinois Street and 1031 Mississippi Street/U-KU).

In this instance, the proposed parking lot will serve the residential component of the HERE @ Kansas mixed use development which is a *Multi-Dwelling Residential* type. Therefore, an RM zoning district would accommodate the off-site parking request. In the strictest sense, the RM32 zoning district is necessary given that the density of the RM32 matches that of the MU district.

This request includes a Planned Development Overlay that allows for a dynamic and engaged process to evaluate the specific development of a parking lot to accommodate the residential use of the HERE @ Kansas mixed use development. The Neighborhood Plan includes references to Planned Development Overlay districts in *Section 4 Future Land Use and Overlay Districts*. The Plan also proposes the development of specific overlay districts which are in the process of being adopted. In the absence of these more defined overlay districts a Planned Development is an appropriate tool to implement appropriate design standards for specific development. The properties as zoned will be more restricted as Planned Development than conventional zoning.

Staff Finding – Approval of the proposed zoning change facilitates the approved high-density residential development by providing a solution to necessary off-street parking spaces to support the HERE @ Kansas mixed use development. The property, as zoned, is not suitable for planned redevelopment as either a parking lot or for implementation of the Oread Neighborhood Plan for the area.

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

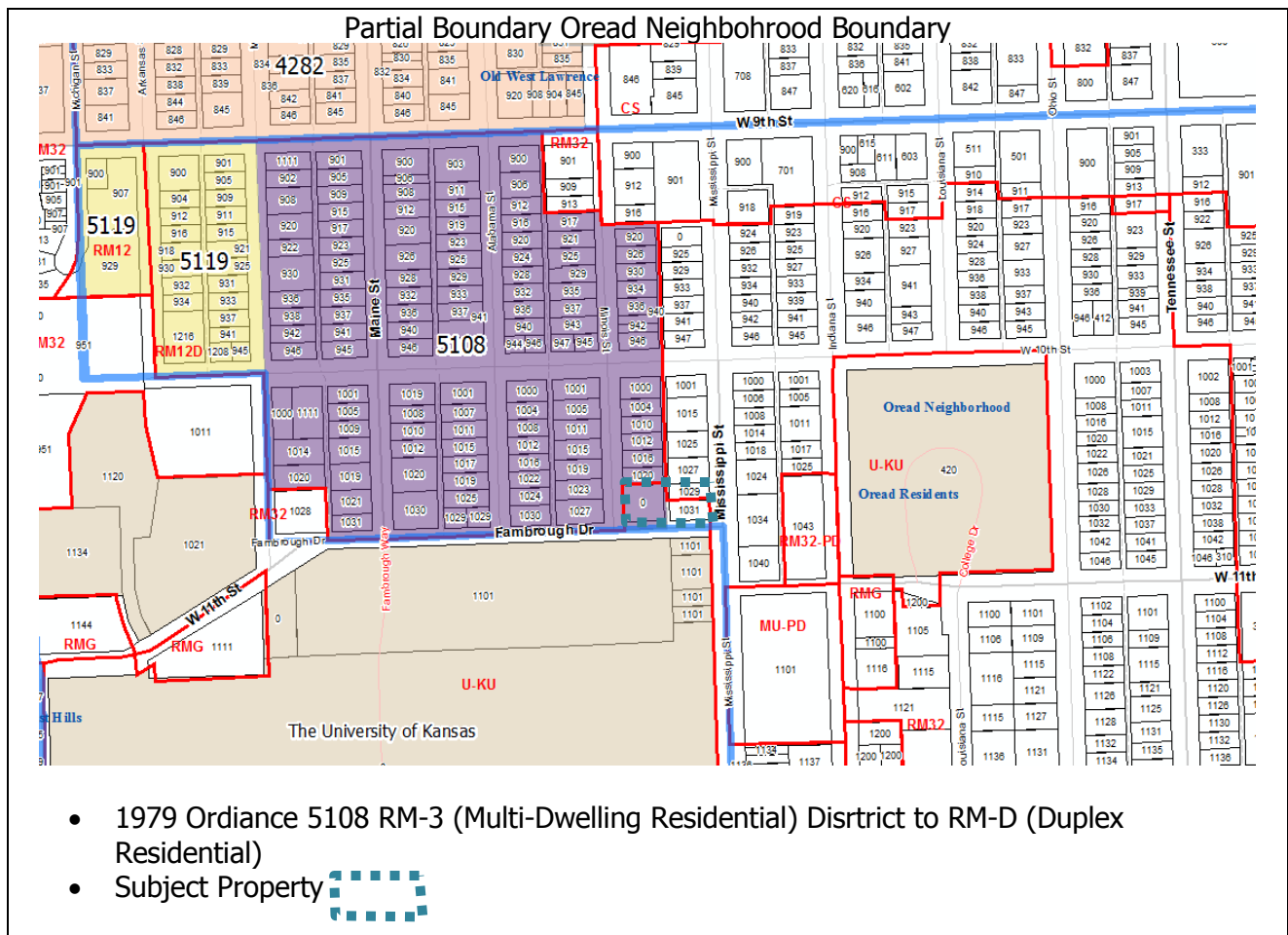
Applicant's Response: *The subject property is not vacant but has featured the same multi-dwelling structures and paved parking lot for many decades and certainly prior to the adoption of the Oread Neighborhood Plan.*

The existing zoning for these properties has been in place since 2006 with the adoption of the Land Development Code. Prior to 2006, the area north of Fambrough Drive was zoned RM-D (Duplex Residential) District and RD (Residence-Dormitory) District. The alley between Illinois and

Mississippi Streets divided the districts with the lower density duplex zoning located west of the alley and the higher density residential zoning located east of the alley.

Specific properties that are part of the main body of the University of Kansas were identified as part of a cooperative agreement between the City of Lawrence and the University of Kansas in 2006. These properties are depicted on the zoning map as U-KU. Through zoned U-KU, the subject site is not under the authority of the cooperative agreement.

The area west of the alley (along Illinois Street) was included in a rezoning application in 1979 (Ordinance No. 5108) that rezoned the property from RM-3 (Multiple-Family Residence) District to the RM-D (Duplex Residential) District. This property is not vacant but has been used for and developed as a sub-standard parking lot that dates around the time of the original stadium. The parking lot is visible in the 1937 aerial photographic database. The buildings located along Mississippi Street were between 1910 and 1930.



Staff Finding – The area has historically been zoned for residential use. The area located along Illinois Street was downzoned from high density residential to duplex residential in 1979. The properties along Mississippi Street have remained zoned for high density residential zoning with the exception of the University-related zoning that was established in 2006 with the adoption of the Land Development Code.

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

Applicant's Response: *This rezoning will not result in any significant detriment to nearby properties. This rezoning request is exclusively intended to facilitate development of an off-street parking lot, a land use which has existed on half of the subject site for decades. This proposed parking lot will complete the parking requirement of the approved HERE @ Kansas development and ensure that its residents are not contributing to the parking problems which trouble the Oread Neighborhood. The proposed Planned Development (PD) overlay ensures that any future proposal to change the land use away from off-street parking comes back in front of neighbors, the Planning Commission and City Commission for public review. The rezoning is also accompanied by a Preliminary Development Plan which proposes the realignment of Fambrough Drive to create a new 4-way intersection with 11th and Mississippi Streets. This street realignment, which is recommended in KU's 2014-2024 Campus Master Plan, will reduce traffic congestion in this portion of the Oread Neighborhood and create green space slated for the development of a future gateway to the University.*

Approval of the request modifies the zoning that would allow for high-density multi-dwelling residential uses. The Planned Development Overlay provides public engagement in the specific development intended for the property. Approval of the project will also facilitate the realignment of Fambrough Drive, a long anticipated but unfunded improvement to the public street network.

University property is the most significantly modified property by this proposed change. These changes are shown on the concurrent application of the Preliminary Development Plan.

Properties to the north, east and west should not be impacted by the proposed change in zoning.

Staff Finding – Detrimental impact is not anticipated to occur to any adjacent property. That is not to say that a significant change will not be made to the area to the south with the realignment of Fambrough Drive. This change will have the impact of modifying the appearance and access to one of the entries to the campus.

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: *Approval of this request will facilitate the construction of a parking lot which will help to ensure that the already existing parking problem in the Oread Neighborhood is not worsened. Approval of the request also facilitates the realignment of Fambrough Drive which will reduce traffic congestion at this critical corner of the neighborhood and KU's campus Denial of the application will force the owners of the HERE @ Kansas development to seek a new more distant, and less practical location for its resident's parking needs. Denial will also forestall KU's attempt to develop a gateway into this portion of their campus and delay the street and utility improvements associated with a realigned Fambrough Drive.*

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 west portion of the property is currently used for off-street parking during specific University events. The property, as a parking lot does not comply with current city design standards for pavement, parking, green space or setback. The existing residential uses along Mississippi Street

are proposed to be demolished to allow for redevelopment of the site as an expanded parking lot built to City standards.

Approval of the request will resolve a known parking shortage for the HERE @ Kansas mixed use development.

The realignment of Fambrough Drive will include a sidewalk on one side of the street and a multi-use path on the other. This is a high pedestrian use area. These improvements are a direct result of the proposed parking lot that requires the relocation of Fambrough Drive to construct the necessary parking for the use.

Staff Finding – The public benefits by the realignment and construction of Fambrough Drive as a Complete Street. The realignment provides an opportunity for the University to implement a part of the Campus Master Plan with development of an enhanced entry. The applicant will benefit from the ability to construct a parking lot that will allow them to fully activate the mixed use development, HERE @ Kansas.

9. PROFESSIONAL STAFF RECOMMENDATION

The existing parking lot, currently owned by the Endowment Association, is used only during KU events. Approval of the request adds to the overall parking inventory in the neighborhood and provides specific code required residential parking for the HERE @ Kansas project.

Staff acknowledges that during KU events the parking lot will be vacated by the HERE @ Kansas tenants and used by the University. These are typically one day events throughout the year. The applicant has been directed to provide a response to the necessary accommodation of required parking during these times. The plan for alternate parking is discussed in the Preliminary Development Plan.

Staff recommends approval of the proposed rezoning.

CONCLUSION

The demolition of structures in order to construct surface parking lots is not a preferred method of resolution to meeting minimum parking requirements. This proposed application is intended to mitigate the parking needs that resulted from unforeseen construction problems that occurred after the HERE @ Kansas mixed use development was well underway.

By considering the proposed zoning change with a Planned Development Overlay specific uses and design considerations may be tailored explicitly to the development.

It should be recognized that the improvements to Fambrough Drive directly benefit both the community and the University.

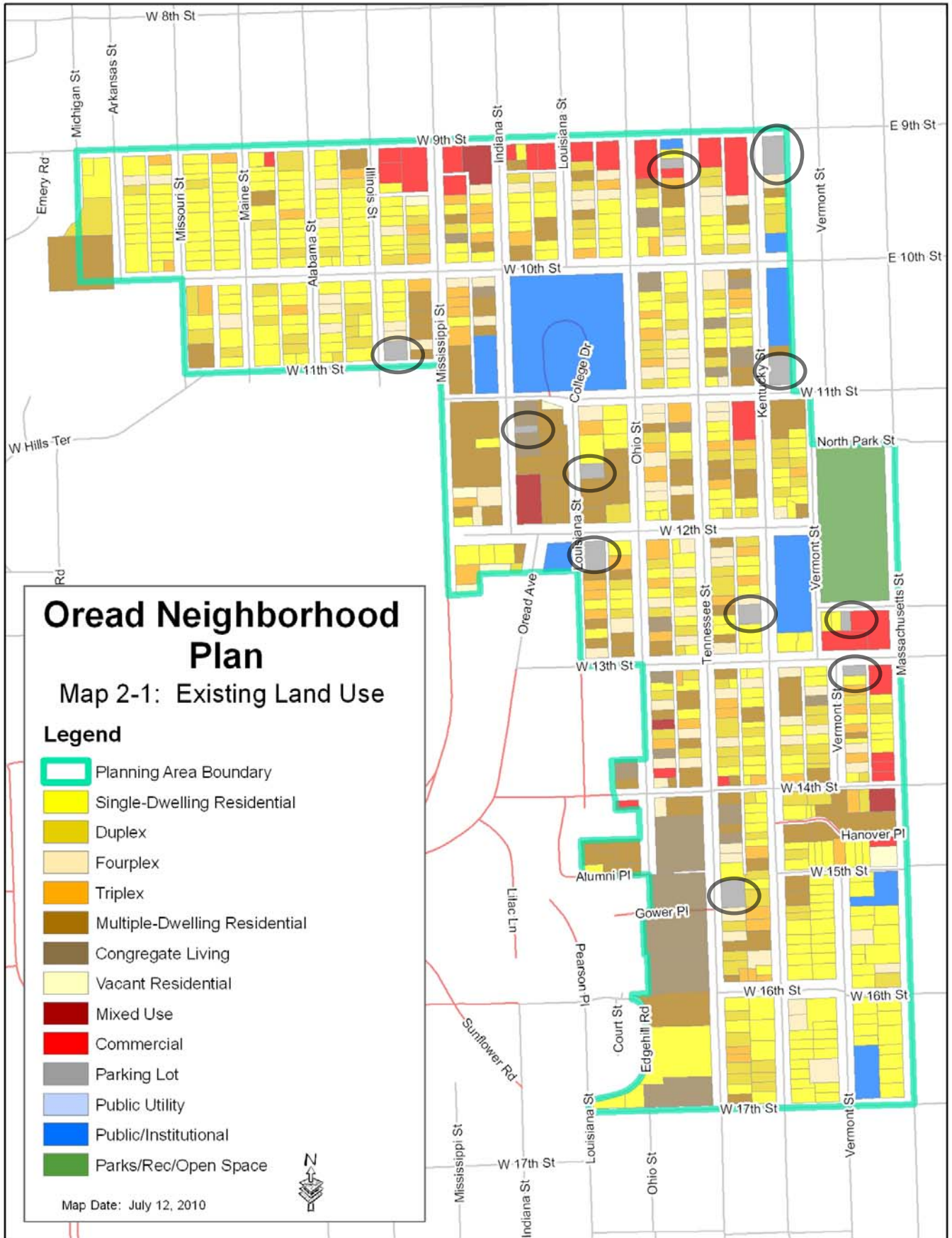
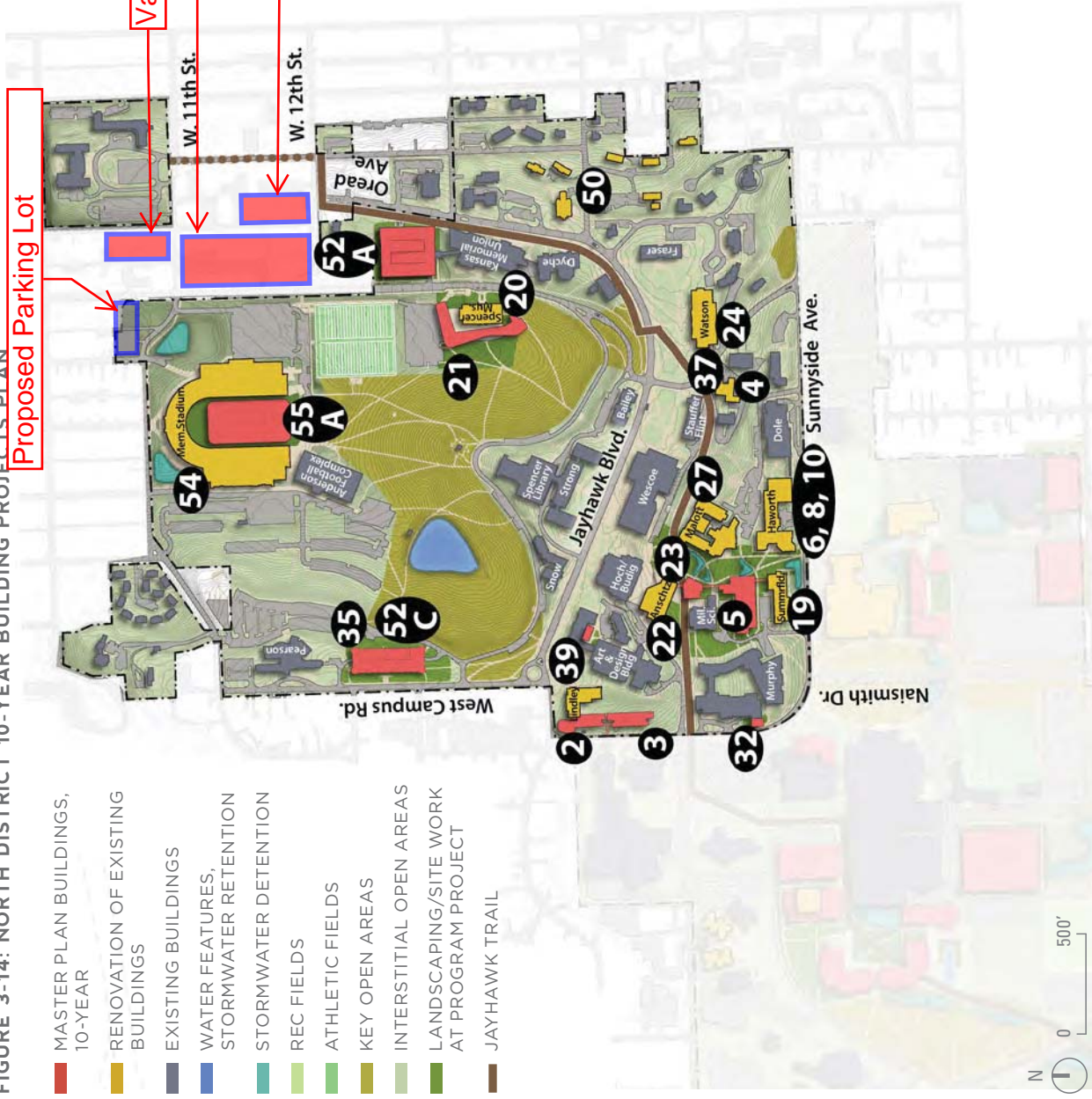


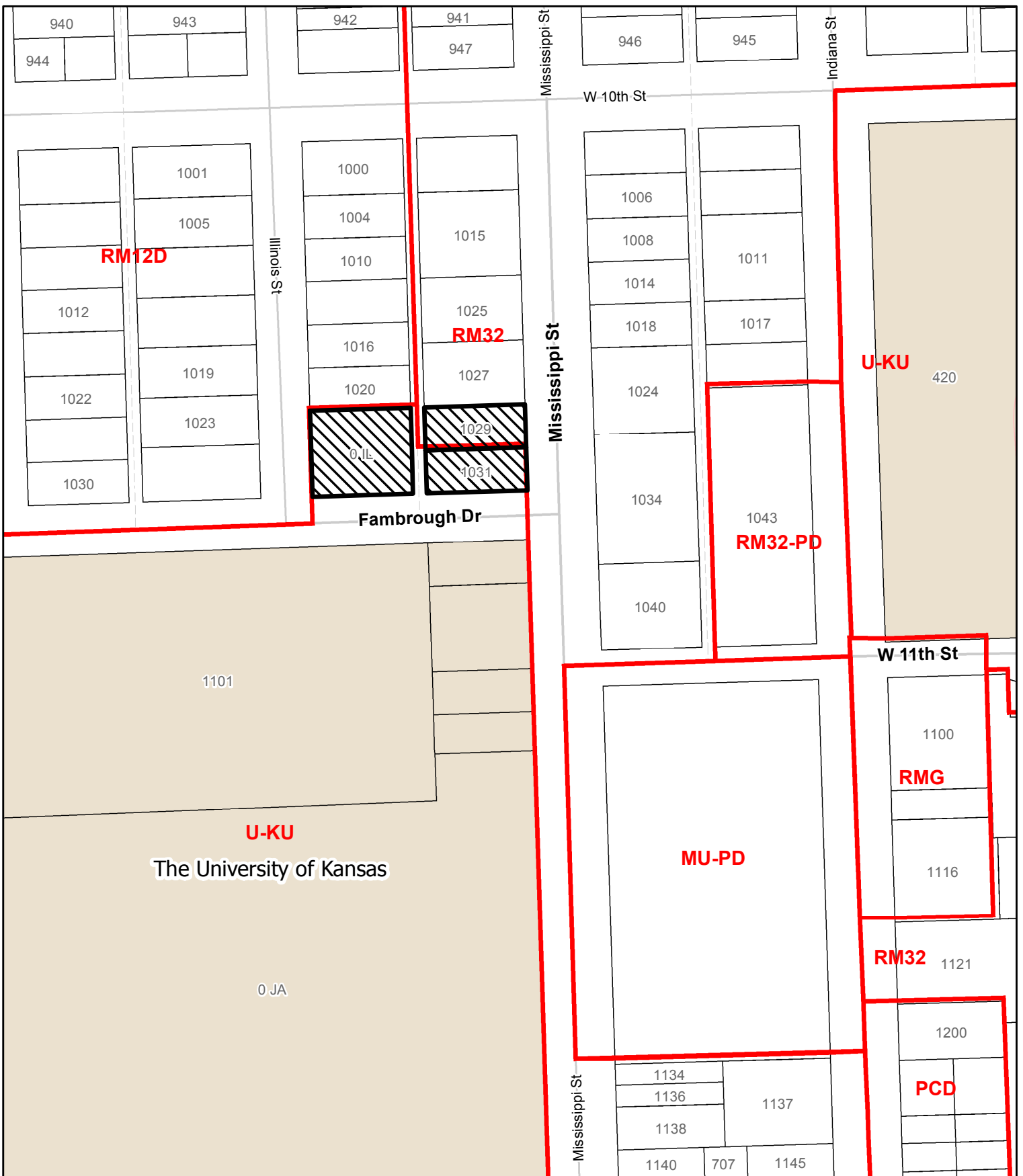
FIGURE 3-14: NORTH DISTRICT 10-YEAR BUILDING PROJECTS PLAN

- MASTER PLAN BUILDINGS, 10-YEAR
- RENOVATION OF EXISTING BUILDINGS
- EXISTING BUILDINGS
- WATER FEATURES, STORMWATER RETENTION
- STORMWATER DETENTION
- REC FIELDS
- ATHLETIC FIELDS
- KEY OPEN AREAS
- INTERSTITIAL OPEN AREAS
- LANDSCAPING/SITE WORK AT PROGRAM PROJECT
- JAYHAWK TRAIL

Building Projects

- ② EARTH, ENERGY & ENVIRONMENT CENTER NORTH
- ③ EARTH, ENERGY & ENVIRONMENT CENTER SOUTH
- ④ CENTRAL PLANT CAPACITY ENCES 1
- Varsity House
- ⑥ ⑧ ⑩ HAWGORTH HALL RENOVATION - 3 PHASES
- HERE @ Kansas - Mixed Use
- ⑳ SPENGER-ART MUSEUM RENOVATION
- The Oread - Mixed Use
- ㉒ ANSCHUTZ LIBRARY CONVERSION
- ㉓ ANSCHUTZ LIBRARY ADDITION
- ㉔ WATSON LIBRARY
- ㉗ MALOTT HALL RENOVATIONS
- ㉚ THEATER SCENE SHOP ADDITION
- ㉛ LINDLEY RENOVATIONS
- ㉝ SCHOLARSHIP HALLS RENOVATION
- ㉞ ㉟ PARKING GARAGE OPTIONS
- ㉜ MEMORIAL STADIUM IMPROVEMENTS
- ㉞ ㉟ INDOOR FOOTBALL PRACTICE FACILITY OPTION





**Z-16-00310: Rezone 0.918 acres from RM32 and U-KU Districts to RM32-PD District and
 PDP-16-00311: Preliminary Development Plan for HERE @ Kansas
 Located at 1029 & 1031 Mississippi St and the Northeast corner of Fambrough Dr & Illinois St**

Lawrence-Douglas County Planning Office
 September 2016



Subject Properties



Dear Sandra Day
Re: HERE parking lot

I am writing in regard to items Z-16-00-310 and PDP-16-00311 which involve the rerouting of Fambrough Dr. between Alabama and Mississippi Streets and formation of a parking lot for the HERE project in the area between the old and proposed new sites of Fambrough Drive.

My wife and I own the apartment building at 1027 Mississippi St. and we are strongly opposed to closing the alley entrance to what is now and what would be Fambrough Drive. To do so would create a great inconvenience for our tenants and many others between 9th and 10th streets who need the alley access to parking. We are also concerned that the parking lot will be a blight to our part of the neighborhood and that, being downhill from the parking lot, we will be subjected to excessive rainwater runoff.

Sincerely,

Charles Simmling
507 Pioneer Rd
Lawrence, KS 66049

Tel. 785-843-6543

FIRST MODIFICATION OF PARKING LOT LEASE

THIS FIRST MODIFICATION OF PARKING LOT LEASE (the "Modification") is made as of _____, 2016, by and between STADPKG, LLC, a Kansas limited liability company ("Landlord"), and Here Lawrence Property Owner, LLC, a Delaware limited liability company ("Tenant").

RECITALS

A. Landlord and Tenant are parties to a certain Parking Lot Lease Agreement dated July __, 2016 (together with all exhibits incorporated therein, the "Original Lease"), which is incorporated herein by this reference.

B. The parties acknowledge that the City (as that and other capitalized terms used but not defined herein are defined in the Original Lease) has requested additional information about where the Tenant's tenants who are then authorized to park on the Property ("Tenant Permittees") will park during those dates and periods of time that the Landlord has the exclusive right to use the Property for the Landlord's Reserved Use.

C. In order to clarify where the Tenant Permittees will park during the Landlord's Reserved Use, Landlord and Tenant desire to modify the Original Lease as set forth in this Modification (the Original Lease as modified in this Modification is referred to as the "Lease").

NOW THEREFORE, for and in consideration of the covenants and agreements of the parties hereto hereinafter set forth, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby modify the Original Lease as follows:

1. Incorporation of Recitals. The Recitals set forth above are incorporated herein by this reference.

2. Relocation of Parking of Tenant Permittees During Landlord's Reserved Use. Tenant acknowledges and agrees that, starting at least ten (10) hours before and ending no sooner than two (2) hours after the periods of time that constitute the Landlord's Reserved Use for a given day, Tenant will provide the Tenant Permittees with paved, off-street locations in which to park the Tenant Permittees' respective motor vehicles as an alternative to the Property (whether one or more, on any given day of Landlord's Reserved Use, the "Alternative Parking Lot") at no cost to the Tenant Permittees. If Tenant will locate the Alternative Parking Lot in the following locations in the following order of priority: (a) some or all within the CA Student Housing Project's internal parking garage to the extent of any unreserved parking spots then available; (b) some or all at another location on the University of Kansas campus, if the University and Tenant are able to agree upon the terms of any such use and the location(s) of any such Alternative Parking Lot on the campus; (c) some or all at another location on property owned or controlled by Landlord such as, but not limited to, the parking adjacent to Landlord's offices on Constant

Avenue, if the Landlord and Tenant are able to agree upon the terms of a License Agreement (as hereinafter defined) for such parking; or (d) any not accommodated by (a), (b) or (c) above at another off street location that is at least ____ feet away from the Property and no more than two (2) miles from the CA Student Housing Project. If during a given period of Landlord's Reserved Use the Alternative Parking Lot so provided is not located within five (5) blocks of the CA Student Housing Project or a City or University of Kansas bus line or shuttle service or other transportation system then in operation, then, during that particular period of Landlord's Reserved Use, Tenant will provide the Tenant Permittees with a reasonable means of transportation at no cost to the Tenant Permittees between the CA Student Housing Project (or a location designated by Tenant that is within one thousand five hundred (1,500) feet of an entrance to the CA Student Housing Project) and the Alternative Parking Lot (when applicable, the "Free Transportation"), which Free Transportation will be available at least once per hour between two (2) hours before and two (2) hours after the beginning and end of the Landlord's Reserved Use on a given day). No later than three (3) business days prior to the date of a given period of Landlord's Reserved Use of the Property, Tenant will start providing Tenant Permittees with reasonable notice of the location of the Alternative Parking Lot for the upcoming date of Landlord's Reserved Use, the availability and means to use Free Transportation (if applicable) and a phone number at which Tenant Permittees can get additional information concerning such Alternative Parking Lot and any applicable Free Transportation prior to and on the date of such Landlord's Reserved Use. Upon request of Landlord, Tenant shall provide Landlord with a copy of such notices for any given period of Landlord's Reserved Use.

3. Costs of Alternate Parking and Free Transportation. Unless Landlord is providing the use of the Alternative Parking Lot pursuant to a License Agreement under Section 5 hereof (in which case the terms of such License Agreement will control), neither Landlord nor Landlord's Indemnified Parties will have any liability for any costs incurred by Tenant in providing the Alternative Parking, any Free Transportation or any notice required to be provided to Tenant Permittees in Section 2.

4. Indemnity Against Claims Arising from the Use of Alternate Parking Lot and Free Transportation. Tenant will hold harmless and defend Landlord from any and all claims, judgments, demands, damages, fines, losses, liabilities, interest, awards, penalties, causes of action, litigation, lawsuits, administrative proceedings, administrative investigations, costs and expenses, including, without limitation, reasonable attorneys' fees, court costs and other reasonable costs of suit, arbitration, dispute resolution or other similar proceedings which are brought by or against Tenant or any Tenant Permittee, whether for personal injuries or property damage, which arise from the intentional actions or negligence of any one or more of Tenant, or the lessor or licensor of any Alternative Parking Lot or the provider of any Free Transportation, or their respective employees, agents, licensees, and invitees in connection with a Tenant Permittee's use of an Alternate Parking Lot or any Free Transportation.

5. Potential Use of Landlord's Alternative Parking During Landlord's Reserved Use. If Tenant requests that Landlord do so at least forty-five (45) days in advance of a period of Landlord's Reserved Use of the Property (which request will specify the number of motor vehicles Tenant wants to park on Landlord's parking lots), Landlord will provide Tenant with a written proposal for Tenant to obtain a license to park the number of Tenant Permittees' motor vehicles specified by Tenant in its request on parking lots then owned or controlled by Landlord

that would qualify as an Alternative Parking Lot, if any. The parties acknowledge that Landlord will charge Tenant a fair market rental rate for the number of parking spaces so leased or licensed to Tenant (with fair market rental rate to be determined using the then typical parking charge being made for parking during such events in the area surrounding such Alternative Parking Lot) and that if Tenant agrees to such proposal, Landlord and Tenant will execute a written lease or license agreement for such parking which contains such other terms and conditions (e.g., relating to trash removal and insurance) as the Landlord and Tenant may agree upon (a “License Agreement”).

6. General. Except as expressly modified herein, the Original Lease remains in full force and effect. This Modification together with the Lease represents the complete understanding between the parties hereto as to the subject matter hereof. This Modification may be amended only by an instrument executed and delivered by each party hereto. No party hereto shall be deemed to have waived the exercise of any right which it holds hereunder unless such waiver is made expressly and in writing (and, without limiting the generality of the foregoing, no delay or omission by any party hereto in exercising any such right shall be deemed a waiver of its future exercise). No such waiver made in any instance involving the exercise of any such right shall be deemed a waiver as to any other such instance, or any other such right. This Modification shall be given effect and construed by application of the law of the State of Kansas, and any action or proceeding arising hereunder shall be brought in the courts of Kansas. Time shall be of the essence of this Modification, except that, whenever the last day for the exercise of any right or the discharge of any obligation hereunder falls on a Saturday, Sunday or statutory holiday, the party having such right or obligation shall have until 5:00 p.m. on the next succeeding day which is not a Saturday, Sunday or statutory holiday to exercise such right or discharge such obligation. The headings of the Sections, subsections, paragraphs and subparagraphs hereof are provided herein for and only for convenience of reference, and shall not be considered in construing their contents. As used herein, all references made (a) in the neuter, masculine or feminine gender shall be deemed to have been made in all such genders, (b) in the singular or plural number shall be deemed to have been made, respectively, in the plural or singular number as well, and (c) to any Section, subsection, paragraph or subparagraph shall be deemed, unless otherwise expressly indicated, to have been made to such Section, subsection, paragraph or subparagraph of this Lease. No determination by any court, governmental or administrative body or agency or otherwise that any provision of this Modification or any amendment hereof is invalid or unenforceable in any instance shall affect the validity or enforceability of (a) any other such provision, or (b) such provision in any circumstance not controlled by such determination. Each such provision shall remain valid and enforceable to the fullest extent allowed by, and shall be construed wherever possible as being consistent with, applicable law. Nothing in this Modification shall be deemed in any way to create between the parties hereto any relationship of partnership, joint venture or association, and the parties hereto hereby disclaim the existence of any such relationship. This Lease shall be binding on and inure to the benefit of the parties hereto and their respective successors and permitted assigns. The parties hereto shall and they hereby do waive trial by jury in any action, proceeding or counterclaim brought by either of the parties hereto against the other on any matters whatsoever arising out of or in any way related to this Lease, the relationship of Landlord and Tenant, Tenant’s use or occupancy of the Property, and/or any claim of injury, loss or damage.

**THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK
– SIGNATURES ON FOLLOWING PAGE.**

IN WITNESS WHEREOF, each party hereto has caused this Modification to be executed on its behalf by its duly authorized representatives, the day and year first above written.

LANDLORD:

STADPKG, LLC, a Kansas limited liability company
By: The Kansas University Endowment Association,
a Kansas not for profit corporation, its sole member

By: _____

Name: _____

Title: _____

TENANT:

Here Lawrence Property Owner, LLC
a Delaware limited liability company

By: _____

Name: _____

Title: an Authorized Signatory

PLANNING COMMISSION REPORT
Regular Agenda -Public Hearing Item

PC Staff Report
9/26/2016

ITEM NO. 8B: PDP-16-00311; HERE @ KANSAS OFF-SITE PARKING PRELIMINARY DEVELOPMENT PLAN (SLD)

PDP-16-00311: Consider a Preliminary Development Plan to accommodate the construction of an *Accessory Parking* lot for HERE @ Kansas, located off site at 1029 Mississippi, 1031 Mississippi, and 0 Illinois St. Submitted by Landplan Engineering PA on behalf of 1029 Mississippi LLC, STADPKG LLC, property owner of record.

STAFF RECOMMENDATION ON PRELIMINARY DEVELOPMENT PLAN: Planning Staff recommends approval of PDP-16-00311 HERE @ Kansas off-site parking Preliminary Development Plan for an *Accessory Parking* lot, including a waiver, for parking spaces that are less than 600' from the main entrance to the building 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 a note restricting the use of the property to an *Accessory Parking Lot* (surface parking lot) only.
2. Provision of a revised plan to include a typical section of screening wall to obstruct the view of the vehicles to be setback plus or minus 5' of the established building plane along Illinois and Mississippi Street.
 - a. The screening wall should include architectural elements as described in the body of this report.
3. Provision of revised plan to show ornamental fencing along the north property line, including a typical section, that provides basic security without blocking out the light for the tenants living in the south facing units.

Reason for Request:

This project proposes to develop upon the subject site a 68-space off-site off-street parking lot to serve the nearby HERE @ Kansas mixed use development. Based on the approved Final development Plan for the HERE project, the parking garage inside the building can only supply enough parking for 88% of the residential units. This proposed parking lot will complete the requirements of the residential component of this building and allow the remainder of the residential units to obtain certificates of occupancy. In conjunction with the parking lot, the project also proposes the realignment of Fambrough Drive to create a new 4-way intersection with 11th and Mississippi Streets. This street realignment, which is proposed in KU's 2014-2024 Campus Master Plan, includes significant improvements to pedestrian and bicycle infrastructure and will reduce traffic congestion in the area by eliminating a dog-legged intersection. The parking lot will be constructed and landscaped in conformance with all applicable sections of the City of Lawrence Land Development Code and the street will be designed to conform to both City of Lawrence and KU technical specifications.

KEY POINTS

- Off-street parking is intended to provide required parking spaces for the residential portion of the HERE @ Kansas mixed use development.
- Off-site parking must be located within 600' of the use. Of which this project complies.

- The project is a phased development.
- The project includes the realignment of Fambrough Drive.

FACTORS TO CONSIDER

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

ASSOCIATED CASES/OTHER ACTION REQUIRED

Associated Cases

- Z-16-00310; RM32 and U-KU to RM32-PD
- CPA-00309 Amendment to Chapter 14 Oread Neighborhood Plan
- Future Final Development Plan
- Future Final Plat
- Public Improvement Plans.

Other Action Required

- City Commission approval of Preliminary Development Plan and requested modifications.
- Submittal and approval of Final Development Plan and Final Plat.
- Recording of Final Development Plan and Final Plat with the Douglas County Register of Deeds.
- Submission and approval of Public Improvement Plan.

PLANS AND STUDIES REQUIRED

- *Traffic Study* – Staff will provide update on traffic study during the meeting.
- *Downstream Sanitary Sewer Analysis* – No new fixtures are being added by this project. Applicant will submit a letter with the Final Development Plan per Utility Department requirements.
- *Drainage Study* – A drainage study is not required for this project because the increase in impervious surface is less than 10 percent. [Stormwater Management Criteria Section 1.6.E.2.c]
- *Retail Market Study* – Not applicable to this application.
- *Commercial Design Standards or Other Standards* – Not applicable to this application.
- *Alternative Compliance* – See discussion below regarding landscape review.

ATTACHMENTS

1. Area Map
2. Preliminary Development Plan
3. Pedestrian Route Map
4. Lease Agreement

PUBLIC COMMENT

- Rick Abershamson – property owner to the north concerned about traffic flow in the area and alley usage for access to multi-dwelling properties “up stream.”

- Michael Flory – property owner to the north concerned about adjacent multi-dwelling residents view of KU from ground floor units if parking lot is fenced with solid fencing. Requested chain link to prevent trespass but maintain visibility.

GENERAL INFORMATION

Current Zoning and Land Use: U-KU (University – Kansas University) District and RM32 (Multi-Dwelling Residential) District. Existing parking lot along Illinois Street and existing multi-dwelling residential uses along Mississippi Street.

Surrounding Zoning and Land Use: RM32 (Multi-Dwelling Residential) District to the east along the east side of Mississippi Street; existing multi-dwelling residential units.

U-KU (University-Kansas University) District to the south. Existing Memorial Stadium, Track and Field facilities and parking on the south side of Fambrough Drive.

RM12D (Multi-Dwelling Residential Duplex) District to the west along the west side of Illinois Street; existing residential uses.

RM12D and RM32 to the north. Existing residential structures.

- ✚ 1020 Illinois – Multi-dwelling residential (4 units)
- ✚ 1016 Illinois – Multi-dwelling residential (4 units)
- ✚ 1027 Mississippi – Multi-dwelling residential (11 units)

SITE SUMMARY		
Project boundary includes University of Kansas property. Site Surface Summary provided for proposed parking lot only.		
	Existing	Proposed (with existing development)
Land Use:	Existing parking lot, multi-dwelling residential buildings Existing right-of-way and University of Kansas athletic field.	Surface parking lot, realigned Fambrough Drive and University of Kansas open space.
Land Area (sq ft):	33,059	33,059
Existing Building Footprint ¹	3,018	0
Total Pavement:	21,426	23,408
Total Impervious Area:	24,444	23,408
Total Pervious Area:	8,615	9,651

¹ Proposed development is for surface parking lot. Existing buildings will be demolished.

Table 1: Project Boundary and Phase Summary

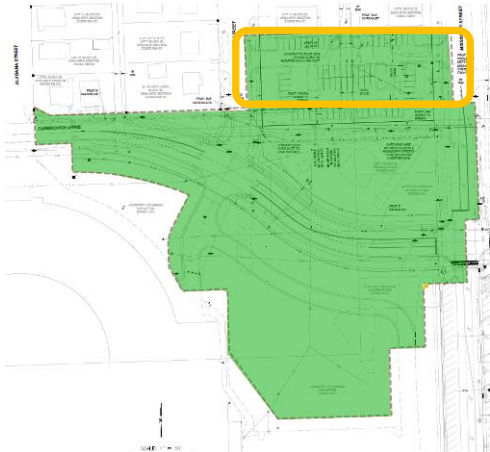
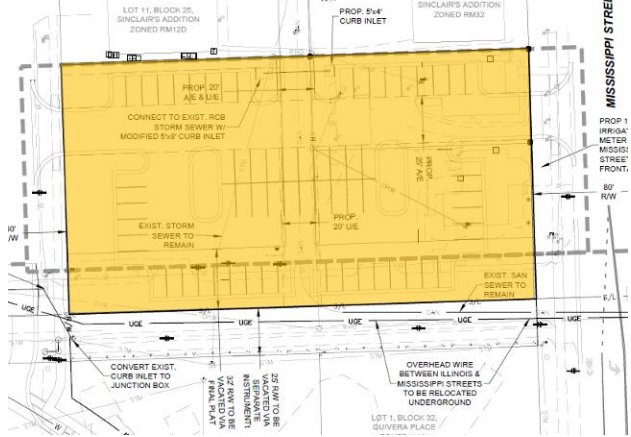
<p><i>Project Boundary – 4.74 Acres</i></p> 	<p><i>Parking Lot Boundary - .76 Acres</i></p> 
<p><i>Phase Summary</i></p> <ol style="list-style-type: none">1. Construction of parking lot with north 50 spaces.2. Construction of parking lot expansion with south 18 spaces and construction of realigned Fambrough Drive. <p>Note: Estimated Completion Mid-August 2017.</p>	

Table 2: Off Street Parking Summary

PARKING SUMMARY – HERE @ KANSAS – RESIDENTIAL USE 1101 INDIANA STREET		
Use	Parking Required	Off-Site Off-Street Parking Proposed
<i>Multi-Dwelling Residential Per FDP-15-00642</i>	1 space per BR + 1 space per 10 units	624 residential spaces 18 guest spaces Residential occupancy limited to 548 bedrooms until additional parking is provided.
		Phase 1: 50 spaces Phase 2: 18 spaces Total spaces provided after construction is 68 spaces.
<i>Total Residential</i>	❖ 577 Spaces Required for residential use	510 spaces in garage 68 spaces in off-site surface lot. 578 spaces
Non-Residential Uses	13,561 SF total area	108 spaces on-street
<i>1. Eating and Drinking Establishments</i>	6,100 SF @ 1 per 100 SF + 1 per employee (20 employees)	
<i>2. Retail</i>	5,700 SF @ 1 per 300 SF	
<i>3. Valet Operations</i>	8 spaces	
<i>Total Non-Residential</i>	✚ 88 spaces	
<i>Total Spaces all uses</i>	685 spaces	686 spaces proposed/provided
<p>✚ Overall Parking Reduction approved for HERE @ Kansas though use of shared parking, application of parking development bonus to reduce the total required spaces from a required 642 spaces for the residential use to 577 spaces for the residential use.</p> <p>✚ Parking for nonresidential uses are estimated based on the approved Final Development Plan. Changes to planned tenants or area allocations may adjust the required parking up or down. Nonresidential parking is primarily accommodated on-street.</p>		

STAFF ANALYSIS

Summary

This Preliminary Development Plan is intended for the development of an off-site, off-street surface parking lot to support the HERE @ Kansas mixed use development located at 1101 Indiana Street with 68 parking spaces. The property will be leased by the HERE @ Kansas project from a KU Endowment LLC. The least term is 50 years. The project is proposed in two phases. A significant feature of this plan is the realignment of Fambrough Drive.

Subdivision Review

The Preliminary Development Plan acts as the Preliminary Plat for the *Accessory Parking* lot site. The larger project includes both platted and unplatted land. Additionally, property is owned by both the University of Kansas as well as the KU Endowment Association. Portions of the KU property are not platted and may not be replatted as part of this project. The parking lot, owned by the Endowment Association, however, will be the subject of a future Final Plat.



Figure 1: Existing Platted and Unplatted Land

Proposed parking lot is outlined in blue. University of Kansas property is unplatted except for the southwest corner of Fambrough Drive and Mississippi Street.

This project includes the vacation of existing right-of-way and easements as well as the dedication of new right-of-way for the realigned Fambrough Drive as shown on the Preliminary Development Plan and the dedication of new access and utility easements. In some instances utilities that cross University property (not Endowment Property) will be managed by separate agreements with the University rather than by dedication of a specific easement. This is a common practice for public utilities that cross University property. Necessary agreements with the University for the Required Infrastructure will continue to be reviewed by staff and University representatives as this project progresses.

The alley, located between Mississippi and Illinois Streets, is proposed to be partially vacated. However, the alley will still be used by the public and private property owners to the north. Full access of the alley from both the north and south is required. The proposed project includes an access easement through the new parking lot to accommodate continued alley access.

The existing Fambrough Drive right-of-way will be vacated with half of the right-of-way given back to the north property owner (Endowment Association) and the south half given back to the University of Kansas (south property owner). The realigned Fambrough Drive will be a public street with University property located on both the north and south sides of the property.

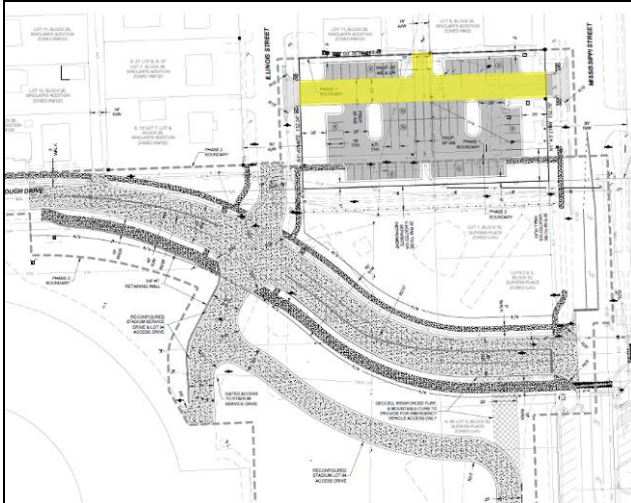


Figure 2: New Access Easement/Alley Access

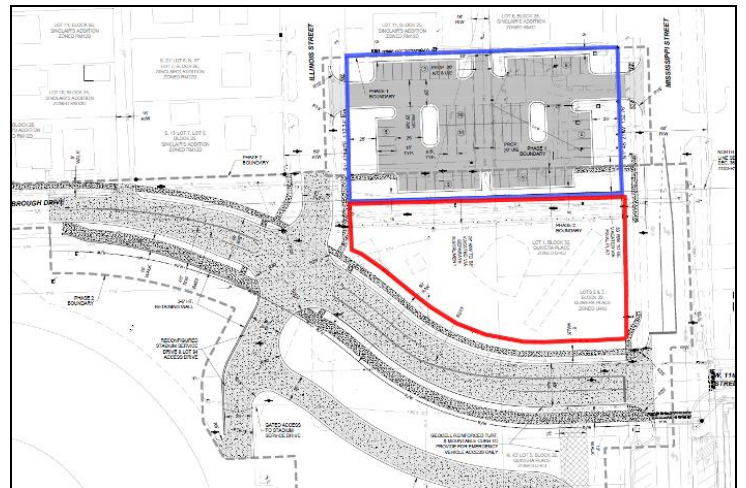


Figure 3: Preliminary Plat Lot 1 & Lot 2 option

New access driveways to the University parking lot next to the stadium will also be constructed with this project. The University is considering participating in the subdivision process that may or may not create a platted lot on the north side of the realigned Fambrough Drive. They are not required to participate in the subdivision of their property. The following graphic highlights the general lot/parcel configuration that will result at the conclusion of this development process, if approved.

The proposed lot (parking lot) meets the minimum subdivision design standards for lot area, width and frontage.

New right-of-way will be dedicated for Fambrough Drive with the Final Plat for this project.

Preliminary Development Plan Review

The proposed Preliminary Development Plan for a surface parking lot has been evaluated based upon findings of fact and conclusions per Section 20-1304(d)(9) of the Development Code for the City of Lawrence, requiring consideration of the following nine items:

1) *The Preliminary Development Plan's consistency with the Comprehensive Plan of the City.*

This property is proposed to be rezoned for high-density residential development to provide a suitable base zoning designation as required for off-site parking. Specific land use recommendations are discussed in the Oread Neighborhood Plan. This application assumes approval of the accompanying Comprehensive Plan Amendment and limits the use of the property to a parking lot.

Staff Finding – The proposed development complies with the pending changes to the accompanying Comprehensive Plan Amendment.

2) *Preliminary Development Plan's consistency with the Planned Development Standards of Section 20-701 including the statement of purpose.*

Applicant's Response: *"The proposed parking lot complies with all parking, loading, access landscaping, screening and general development standards applicable to the RM32 base district. The intent behind this application for a Planned Development overlay is not to receive variances*

or waivers from onerous standards, but instead to provide the public with an opportunity to thoroughly review the development plan as well as assurance that future land uses will be restricted to off-site parking (and not more high-density residential) unless otherwise approved by the City commission.

The purpose statement includes the following (staff comments follow in *italics*):

- a) **Ensure development that is consistent with the comprehensive plan.**
As discussed previously, the development is consistent with the corresponding Comprehensive Plan Amendment to the Oread Neighborhood Plan.

- b) **Ensure that development can be conveniently, efficiently and economically served by existing and planned utilities and services.**
This property is currently developed with two multi-dwelling structures and a surface parking lot. The existing multi-dwelling residential uses will be demolished (reducing the number of dwelling units in the immediate area by 10 dwelling units and corresponding parking for those units. The current surface parking lot is only used during KU events. This project will create additional off-street parking for the approved and built HERE @ Kansas mixed use development specifically for the residential component.

A significant feature of this plan is the realignment of Fambrough Drive. This street will be a "complete street" with all appropriate infrastructure elements. The new parking lot does not require any sanitary sewer or water services. Appropriate easements will be dedicated to ensure continued public services in the area are efficiently provided and accessible.

- c) **Allow design flexibility which results in greater public benefits than could be achieved using conventional zoning district regulations.**
Conventional zoning could accommodate the proposed project. However, given the sensitive nature of the neighborhood and the intent to limit the encroachment of high-density development beyond specific boundaries within the Oread Neighborhood the Planned Development was identified as a more robust tool to both design and ensure that an off-site parking lot, required for an existing approved development, cannot be subverted to an incompatible use in the future.

- d) **Preserve environmental and historic resources.**
There are no designated historical or environmental resources on this property.

- e) **Promote attractive and functional residential, nonresidential, and mixed-use developments that are compatible with the character of the surrounding area.**
This proposal is for a surface parking lot. The implementation of appropriate screening, sidewalk connections and landscaping as well as parking lot setbacks are recommended to ensure a compatible character with the surrounding area.

Finding – The proposed Preliminary Development Plan is consistent with the Statement of Purpose of Planned Development. This is a unique application within the neighborhood to address a particular off-street residential parking demand. Restricting the development to a specific use requires any potential (future) development to seek new approvals through a public process.

3) The nature and extent of the common open space in the Planned Development.

Section 20-701(j) notes that 20% of the site must be located within common open space. The nature of the open space provided in this application is in the form of landscape islands and parking lot setback areas. The proposed development complies with the minimum required interior landscape standards and parking lot setback standards including alternative compliance. No additional open space is required for this use.

Staff Finding – This plan provides the required open space through interior parking lot landscape islands and parking lot setback areas and alternative compliance techniques. These areas are appropriate in nature and extent for a surface parking lot use.

4) The reliability of the proposals for maintenance and conservation of the common open space.

The property, parking lot and all landscape areas will be maintained by the property owner or their designee. The project does not create a separate parcel for open space that will be shared among residents or multiple property owners (such as a home owners association) that requires a maintenance agreement.

The Final Development Plan, when approved, will be sufficient for City staff to administer and enforce applicable city codes regarding maintenance and upkeep of the property. Any separate agreements for property maintenance are between the KU Endowment Association and the HERE @ Kansas representative. The City is not party to those maintenance agreements. The City will maintain the public street as is typical for all public streets.

Staff Finding –The property owner will own and maintain the common open space. No additional agreements are required to execute related to this Planned Development process.

5) 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.

A minimum of 20% of common open space shall be provided for a Planned Development. Within that space 50% shall be developed as "Recreational Open Space." This application is unique in that the only use of the property is for surface vehicular parking. The site includes 9,651 SF (29%) of open space within the property.

Open space provided within the parking lot accounts for required interior green space as well as required setback areas. The site is not designed for nor appropriate for "recreational open space" in the conventional sense.

Common open space and recreational open space for the residential use associated with this application is located in and around the building located at 1101 Indiana Street known as HERE @ Kansas.

Staff Finding – This property includes 29% of the area as open space. The use of the common open space for recreational activity is not applicable. There is no residential development proposed for this property. This standard is provided within the HERE @ Kansas mixed use development. The site includes an appropriate amount of open space required for off-street parking lots.

6) Whether the Preliminary Development Plan makes adequate provisions for public services, provides adequate control over vehicular traffic, and furthers the amenities of light and air, recreation and visual enjoyment.

Access to the existing properties included in the development is from Fambrough Drive and the adjacent alley. The revised plan alters the traffic circulation in the area by removing the access from Fambrough and creating a through driveway access between Illinois and Mississippi Streets. The alley will remain open and will “T” into the parking lot rather than at Fambrough Drive when the improvements are complete.

The project does not include any buildings that will obstruct light, air, recreation and visual enjoyment. Screening of the parking lot has the potential to change or block some views of the properties to the north.

The realigned Fambrough Drive will be constructed with sidewalks on both sides. The south sidewalk, adjacent to the University property, will be constructed as a 10’ multi-use path. The sidewalks will be a significant improvement for the area.

Staff’s review of this project has focused on the existing and revised delivery of municipal services such as sanitary sewer, water, storm sewer infrastructure and Fire and Sanitation vehicle access in the area. These services will be maintained at the current levels and can be adequately provided when all improvements are completed.

Necessary agreements with the university and/or utility easements are required for existing public infrastructure. Some necessary repairs to existing sanitary sewer lines are needed and will need to be coordinated with city staff. The applicant has been advised of this development activity.

Staff Finding – The Preliminary Development Plan’s provisions for Fire/Medical access as well as solid waste services have been adequately addressed. The provisions for public services will continue to be reviewed as part of the Final Development Plan as well as related construction documents.

7) Whether the plan will measurably and adversely impact development or conservation of the neighborhood area by:

a) doubling or more the traffic generated by the neighborhood;

- This project will not result in a traffic generation. The proposed parking lot will provide off-street parking for residents of the HERE @ Kansas mixed use development.
- The traffic pattern in the area will be altered by the realigned Fambrough Drive.
- The intent of the project is to provide off-street parking for a specific residential use located in the neighborhood.

b) proposing housing types, building heights or building massings that are incompatible with the established neighborhood pattern; or

There are no buildings associated with the proposed parking. However, appropriate screening of the parking lot is required. By providing a screening wall along the Illinois and Mississippi Street sides of the property and by providing structure between the public and

private realms north of Fambrough Drive the neighborhood pattern and character are both preserved and enhanced.

c) increasing the residential density 34% or more above the density of adjacent residential properties.

There is no residential density added to this property. Approval of the project allows the HERE @ Kansas development to activate built but unoccupied residential units. This density was previously approved through a separate Development Plan. This project proposes to remove 10 existing dwelling units on site.

Staff Finding—The proposed plan will result in noticeable changes to the neighborhood primarily through the realignment of Fambrough Drive. This realignment will create and modify parcels of land around the area east of the stadium and north of the realigned Fambrough Drive. The project includes the removal of 10 existing dwelling units and activates the remaining unoccupied 30 units/ 76 bedrooms in the HERE @ Kansas mixed-use structure.

8) Whether potential adverse impacts have been mitigated to the maximum practical extent.

This project is unique in providing surface parking for a residential development but is not immediately adjacent to the property. The project includes demolition of existing residential structures to create the necessary space for the minimum required parking. The proposed project includes improvements to University of Kansas property and the construction of a public street (realigned Fambrough Drive).

The purpose of rezoning the property with a Planned Development Overlay designation was to provide a more engaged public review process. Without the PD Overlay designation a conventionally zoned property (RM32) would only require an administrative site plan review. Property rezoned to a PD District must be accompanied by a Preliminary Development Plan application.

Key concerns that have been identified by nearby property owners are

- Lighting
- Screening and Fencing
- Traffic

Lighting: A photometric plan will be required with the Final Development Plan. Lighting fixtures must meet minimum City standards and will be required to be shielded. Lighting will apply to the parking lot and not the public street. The realigned Fambrough Drive would be outfitted with typical street lighting located at intersections. There are no plans for pedestrian scale lighting at this time.

Screening and Fencing: The property owner of 1020 Illinois Street, to the north, has indicated that the existing apartments have a “view” of the University across the existing surface parking lot. The building is a two story structure with windows on the south side. It is that property owners desire to maintain visibility of the University.

First floor windows are located just above the grade. Screening of vehicle car lights is appropriate on the north side of the *Accessory Parking* lot, but conflict with the desire of 1020 Illinois owner to not block views. Screening could include low shrubs. Fencing, to establish the

boundary between the *Accessory Parking* lot and the multi-dwelling residences to the north, could include open fencing such as aluminum, wrought iron or similar fencing materials found in the surrounding area. Chain link fencing is not recommended.



Figure 4: View of existing residential uses to north.



Figure 5: View of University from residential property.

The space between the *Accessory Parking* lot and the adjacent residence is narrow (5' wide). This limits the options to provide a buffer between the uses.

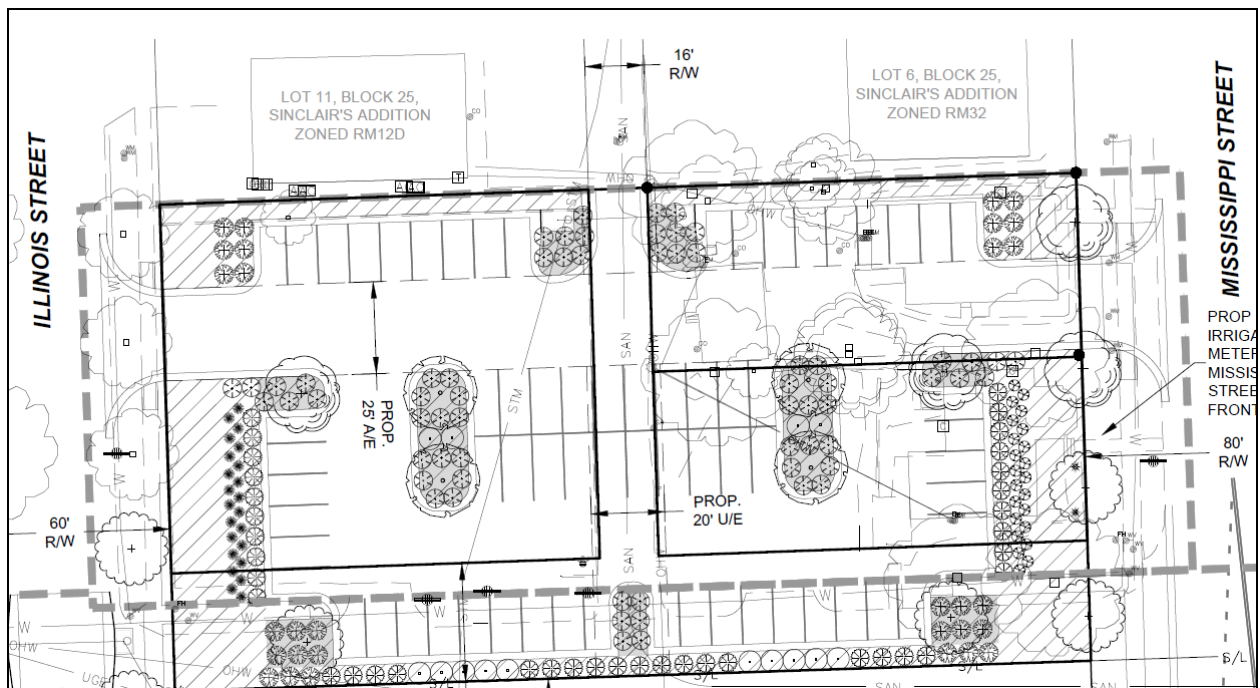


Figure 6: Landscape plan showing north side of parking lot

It should be noted that if the property were developed the view of the university would be blocked by a structure. As a surface *Accessory Parking* lot this view is retained to some degree.

A portion of the property (surface parking lot serving HERE @ Kansas) is in essence private property. A new green space will be created between the parking lot and the realigned Fambrough Drive that will be public space (University of Kansas).

The design of the parking lot includes a parking setback from Illinois and Mississippi Street of 25'. This design retains the residential character of the block faces by providing a "yard" to minimize the impact of the use on the area and conform to the established neighborhood pattern.

The existing parking lot, at the corner of Illinois Street and Fambrough Drive, does not include any setback or interior green space. The lot is a blank within the block face along Fambrough Drive. The addition of a screening wall along Illinois Street would aid in mitigating the impacts to the neighborhood.

- Fencing and screening details are discussed in more detail later in this report.

Traffic: The existing Fambrough Drive between Maine Street to the west and Mississippi Street on the east is 50' wide. The street is also designated as a collector street. Typically, collector streets are 80' wide. The realigned Fambrough Drive will be constructed to current collector street design standards. The total proposed right-of-way width is 80'. The plan also proposes center turn lanes to accommodate traffic flow in the area. The applicant is revising the Traffic Study. Staff will provide an update at the Planning Commission meeting or before on the study and an indication if any additional street changes or geometric improvements are identified.

A property owner to the north of the project contacted staff regarding traffic concerns as it pertains to residents who use the alley between Illinois and Mississippi Streets. The proposed parking lot is designed to retain the alley function with the alley intersecting the parking lot rather than Fambrough Drive. Any gating of the parking lot would result in reduced efficiency of the alley with the only access at W. 10th Street. This design would be problematic for municipal services such as fire and sanitation services. The public access easement being provided would prohibit gating these ways within the parking lot. A related concern expressed, is that residents will perceive the parking lot access as "private" and thus not use the south access to the alley having the same result of crowded use of the W. 10th Street access. Appropriate public education by both the City and the property owners will be required to manage any driver behavior in the immediate area. The access easement, through the parking lot, and access to the alley is intended to accommodate regular daily travel and access to properties along the alley.

Staff Finding – Possible adverse impacts of exterior lighting will be addressed with a photometric plan to insure there is no spillover light. Currently there is no specific design modifications to the street network that are needed in addition to what is proposed to realign Fambrough Drive. Other mitigations for the surrounding area can be addressed through design applications of screening walls, fencing and landscaping.

9) 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.

This project is intended as a single use – *Accessory Parking* – as a surface parking lot. The nature of the project includes the construction of a realigned/relocated Fambrough Drive. The project includes two phases. The construction of the public street as well as the southern-most parking spaces must be coordinated with University schedules.

General Note No. 20 addresses the timing of the proposed improvements. Phase 1 is intended to be completed between December 2016 and February 2017. Phase 2 including the realignment of Fambrough Drive, cannot begin prior to May 15, 2017 and must be concluded by mid-August.

Staff Finding- A phased development has been proposed. The timing is to be coordinated with the University and with City staff regarding public improvements.

DESIGN REVIEW

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. Additional review of the landscape plan will be included in the Final Development Plan. This section summarizes the three main landscape concerns outlined in Section 20-1001 of the Land Development Code.

1. Street Trees.

This project includes the creation of a new through lot between Illinois and Mississippi Streets. Street trees are applicable along both street frontages. The proposed plan shows the required street trees along both streets.



Figure 7: Illinois Street

Along Illinois Street there are three existing trees in the right-of-way between the curb and the sidewalk. This project will require the middle tree be removed to make way for the access driveway.

There are no street trees located along this segment of Mississippi Street. This project will extend the green infrastructure in this area by adding street trees.



Figure 8: Mississippi Street

This project also includes the realignment of Fambrough Drive. Street trees would be located on University property on both sides of the street. The University is undecided at this time if they will plat their property that results from this project on the north side of Fambrough Drive. A master street tree plan will not be applicable to unplatted University property. Staff recommends that street trees be added in the future, concurrent with any development or improvement of University property.

The Plan complies with this design criterion for the proposed parking lot but does not show street trees along Fambrough Drive. Street trees along Fambrough Drive would be addressed with the streets' public improvement plans.

2. Parking Lot Landscaping.

The proposed parking lot includes 68 spaces and requires 2,720 Sf of interior landscape. The Plan as proposed includes 2,183 Sf. This proposed project does not meet the design standard and is short 537 SF.

As an alternative application the plan proposes one additional tree and 55 shrubs in excess of the required amount. The landscape islands as proposed provide end caps to parking rows and provide structure to the parking lot design.

Landscape Summary	Required	Provided
Interior Parking Lot Landscape Area	2,720 Sf	2,183 Sf
Shade trees	7	8
Shrubs	21	76

Table 3: Landscape Summary

The plan could be revised to increase the interior landscape area at the cost of three parking spaces. This plan would be contrary to the purpose of the proposed development to provide adequate off-street parking for the residential use portion of the HERE @ Kansas development.

The plan as proposed does not meet the minimum required landscape area but provides a reasonable alternative that is permissible by Code per section 20-1007 of the Land Development Code.

Perimeter parking lot screening is applicable to that portion of the development where parking abuts public right-of-way. This application requires the parking lot to be setback 25 since it is in a residential district. Non-residential districts allow parking lots to be 15’ setback from right-of-way. The plan shows a continuous row of shrubs that will screen the parking lot spaces. Additionally, street trees are provided.

The Plan as proposed complies with this design requirements.

Buffer yards are required between dissimilar zoning districts. An example would be where an RM district abuts an RS district a *Type 1 Buffer Yard* is required. This property abuts RM zoning to the north, east and west. A buffer is not required between RM and RM districts. The property to the south is a special purpose district. The Development Code does not proscribe a buffer yard for areas that abut University zoned property.

A buffer yard is not required for this project.

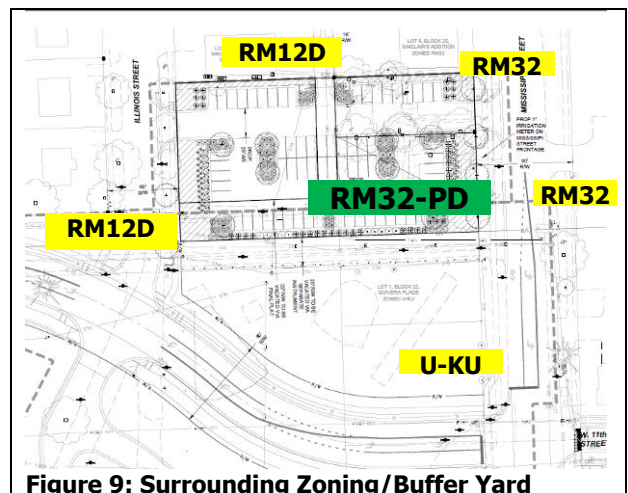


Figure 9: Surrounding Zoning/Buffer Yard

Screening and Fencing

The current streetscape along Mississippi Street and Illinois Street is a constant and defined space with buildings and structures along both sides of each street and minimal vacant parcel. This proposal will remove the two existing structures at the northwest corner of Mississippi Street and Fambrough Drive creating a large gap at a significant gateway apex for both the neighborhood and the University of Kansas. The neighborhood has a consistent pattern of

clearly defined spaces that include a structure (typically a house), a green space/yard, sidewalk street trees and a planter, and finally the street.

The inclusion of a screening wall to obscure the parking from the public rights-of-way provides and reinforces the positive urban form and architectural features of the district and would minimize the visual impact of a surface parking lot at this gateway intersection. Landscaping can also provide an effective natural contrast to the form and materials included into the wall. Other aspects that should be designed into a surface parking lot screening wall include safety of the users, variation in heights and massing, architectural elements (i.e. columns, pilasters, trellises, faux fenestration, etc.), articulation towards the street to provide breaks and recesses, and be comprised of a design and architectural materials that complements the surrounding buildings and their architectural styles.

Ensuring that any screening wall has an active façade along the street will provide a clear and constant delineation between the public/pedestrian realm and the vehicular traffic realm. This in turn will create a more inviting space for pedestrians. Similar screening has been done in other locations around Lawrence utilizing varying degrees of materials, landscaping, and designs. In these similar locations, surface parking lots have been designed to mitigate the negative impact that large paved surfaces have on the quality of the visual environment for residents as well as for people driving within the neighborhood.

Fencing along the north property line is recommended and was discussed in section 8 of the staff report.

Facility Use

Per an agreement with the landlord (Endowment Association) the use of the parking lot by HERE @ Kansas residents is prohibited during specific events during the school year. These reserved dates include all KU home football games and 3 additional events per calendar year. During these designated dates residents must remove their vehicles. The applicant and the Endowment Association are finalizing an agreement that would allow these spaces to be made-up in another parking lot, on campus, controlled by the Endowment Association for temporary parking.

The applicant will present their plan to address the loss of use of the parking lot during said times at the Planning Commission meeting, but staff understands that HERE @ Kansas anticipates that some available parking may be provided in the garage located at 1101 Indiana Street. Use of any unclaimed spaces in the garage would be a first preference for vehicles relocated from the proposed surface lot. Any remaining vehicles needing to be relocated during the KU events will be provided an opportunity to park at another lot within 2 miles of the HERE @ Kansas mixed use development. The need for relocated parking is temporary and limited to known special University events such as home football games and graduation.

Location of Off-Site Off-Street Parking

Off-site parking (all spaces) must be located within 600' from the entrance of the building or uses and measured along the shortest, practical walking route. The distance from the residential entrance on Mississippi Street (HERE @ Kansas) is estimated to be approximately 520' as measured along the public sidewalk. The Mississippi Street residential entrance is the same entrance accessible from the garage.

Some, but not all parking spaces within the parking lot meet the design standard. Staff estimates, using GIS, that approximately 20 spaces of the 68 total spaces meet the required 600'. Attached to this report is a map showing the pedestrian routes.

20-909 (c) All shared or off-site off-street parking spaces shall be located no further than 600 feet from the main entrance of the Buildings or uses they are intended to serve, measured along the shortest legal, practical walking route. This distance limitation may be waived as part of the Site Plan Review process if sufficient assurances are offered that adequate van or shuttle service will be operated between the shared or off-site lot and the principal use or uses.

For site plans, Section 20-1305(B)(3)(V) grants authority to the Planning Director to waive full compliance with the Development Code and the Community Design Manual for an entire site if good cause is shown by the applicant. The intent of the Code must be met and sound site planning principles must also be met. Staff has employed this section for development plans since they are in essence a site plan.

The purpose of shared and off-street parking is to “encourage efficient use of land and resources by allowing users to share off-street parking facilities” and to “locate off-street parking facilities on a different site than the uses served by the parking².”

The parking lot could be shifted closer to Mississippi Street by reducing the greenspace/front yard area along Mississippi Street. This would place more parking spaces within the 600 foot standard, but would negatively impact the aesthetics of Mississippi Street. Early versions of the plan showed a 0' parking lot setback along Mississippi Street and a 6' setback along Illinois Street. This option is not desirable for preserving the neighborhood character.

In this instance the parking lot will presumably will be used for longer-term parking and not day-to-day parking. This is an area where students walk long distances to class, to shopping, and recreation activities. Approving spaces at a maximum of 800 feet is reasonable in this environment.

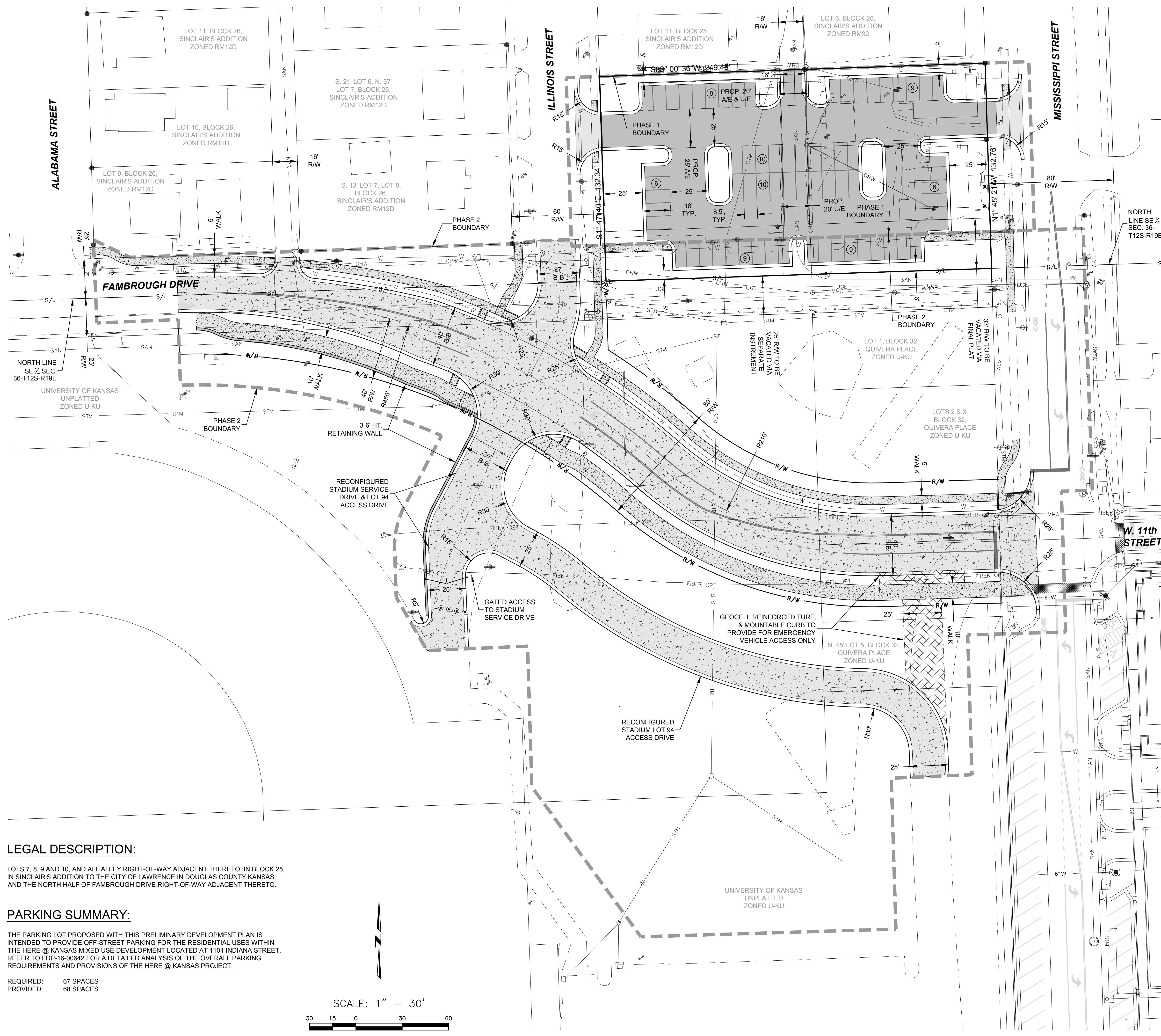
Staff Review and Conclusion

The proposed Preliminary Development Plan conforms to design standards as discussed in the body of the staff report with reasonable waivers for landscape and parking lot distance applied. The proposed Plan provides required off-street residential parking to the neighborhood.

Staff will provide an update on the traffic study at the Planning Commission meeting. This project has been submitted for review to the University of Kansas Office of Design and Construction Management. The applicant has addressed many of the original comments identified by the University for this project. Staff will provide an update on the status of the University review. The University will be engaged in further review of the project through the Final Development Plan and Final Plat processes as well as the future review of Public Improvement Plans for the realignment of Fambrough Drive.

² Section 20-909 (a) Purpose.

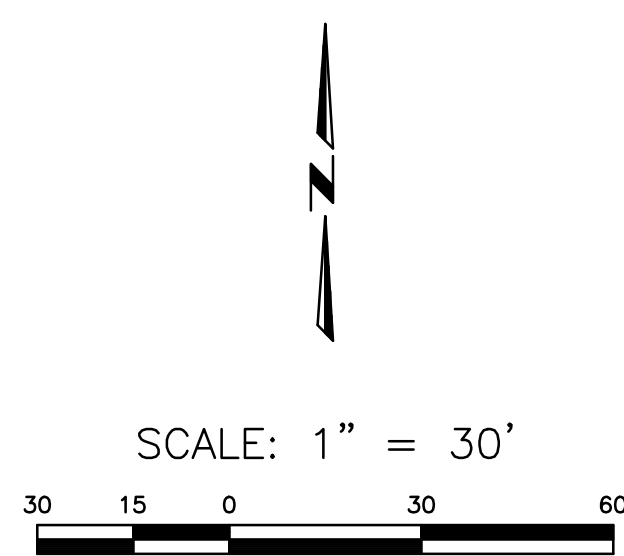
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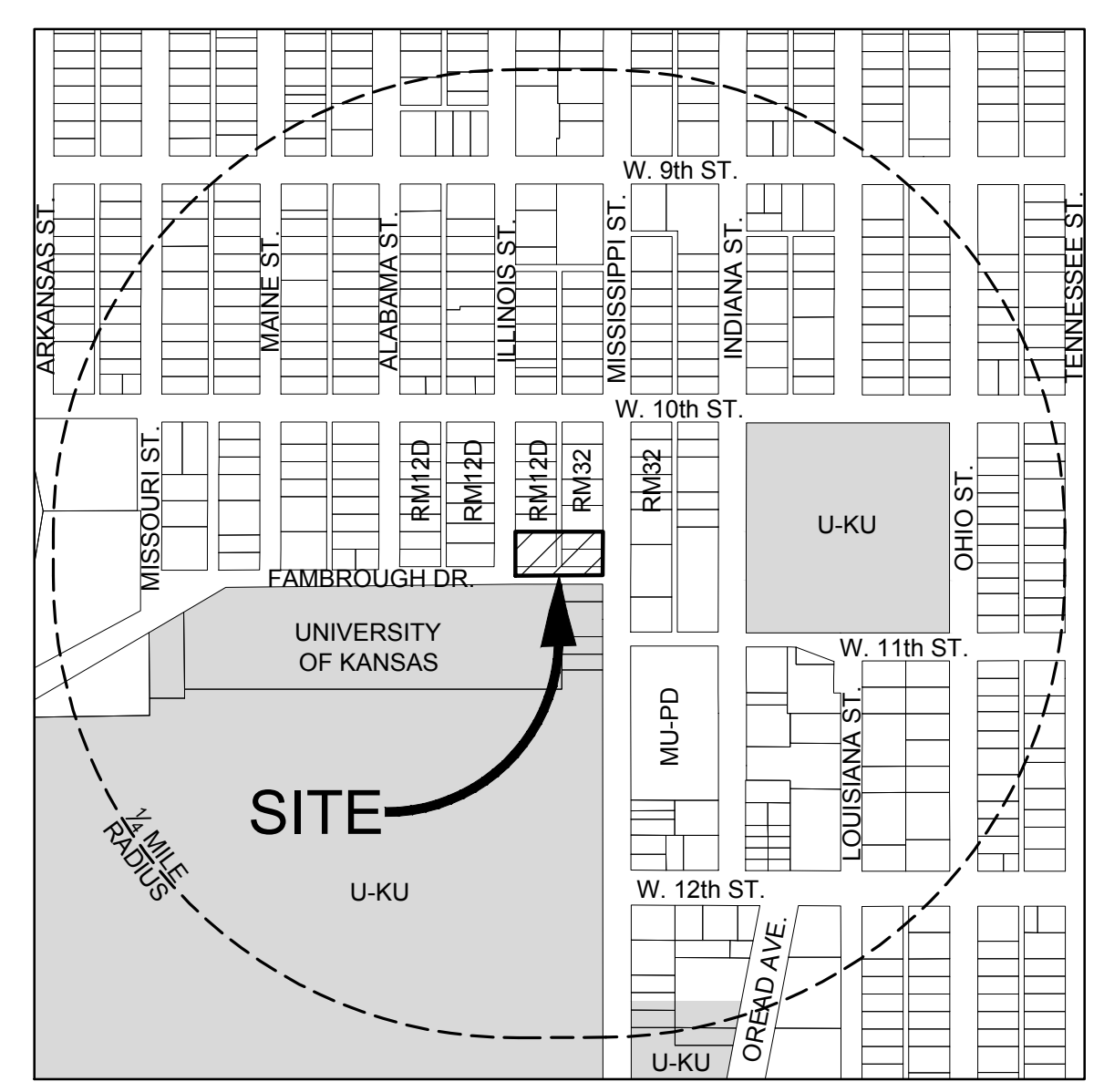
LEGAL DESCRIPTION:
 LOTS 7, 8, 9 AND 10, AND ALL ALLEY RIGHT-OF-WAY ADJACENT THERETO, IN BLOCK 25, IN SINCLAIR'S ADDITION TO THE CITY OF LAWRENCE IN DOUGLAS COUNTY KANSAS AND THE NORTH HALF OF FAMBROUGH DRIVE RIGHT-OF-WAY ADJACENT THERETO.

PARKING SUMMARY:
 THE PARKING LOT PROPOSED WITH THIS PRELIMINARY DEVELOPMENT PLAN IS INTENDED TO PROVIDE OFF-STREET PARKING FOR THE RESIDENTIAL USES WITHIN THE HERE @ KANSAS MIXED USE DEVELOPMENT LOCATED AT 1101 INDIANA STREET. REFER TO FDP-16-00642 FOR A DETAILED ANALYSIS OF THE OVERALL PARKING REQUIREMENTS AND PROVISIONS OF THE HERE @ KANSAS PROJECT.

REQUIRED: 67 SPACES
 PROVIDED: 68 SPACES



LOCATION MAP:



GENERAL NOTES:

- OWNERS: 1029 MISSISSIPPI, LLC
130 EAST RANDOLPH STREET, SUITE 2100
CHICAGO, ILLINOIS 60601

STADPKG, LLC
10851 MASTIN BOULEVARD, SUITE 1000
OVERLAND PARK, KANSAS 66210
- LAND PLANNER/ CIVIL ENGINEER/ SURVEYOR: LANDPLAN ENGINEERING, P.A.
1310 WAKARUSA DRIVE
LAWRENCE, KANSAS 66049
- TOPOGRAPHIC INFORMATION SHOWN WAS OBTAINED FROM A FIELD SURVEY PERFORMED BY LANDPLAN ENGINEERING, P.A., AUGUST, 2016.
- EXISTING ZONING: RM12D, RM32
- PROPOSED ZONING: RM32-PD
- EXISTING LAND USE: VACANT
- PROPOSED LAND USE: ACCESSORY PARKING
- NO PORTIONS OF THE SUBJECT PROPERTY LIE WITHIN A DESIGNATED "SPECIAL FLOOD HAZARD AREA" AS DEFINED BY FLOOD INSURANCE RATE MAP (FIRM); PANEL NO. 152, MAP NUMBER 200450152E, DOUGLAS COUNTY, KANSAS, BEARING AN EFFECTIVE DATE OF SEPTEMBER 2, 2016.
- THIS SITE HAS BEEN DESIGNED TO COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR BUILDINGS AND FACILITIES, APPENDIX A TO 28 CFR PART 36.
- ALL CONCRETE CURB AND GUTTER SHALL BE INSTALLED AS "TYPE CG-1" PER CITY OF LAWRENCE DETAILS AND SPECIFICATIONS.
- ALL CURB INLETS SHALL BE INSTALLED PER CITY OF LAWRENCE DETAILS AND SPECIFICATIONS.
- THE CONCRETE COMMERCIAL DRIVEWAY APRON SHALL BE INSTALLED PER CITY OF LAWRENCE DETAILS AND SPECIFICATIONS.
- ALL INTERNAL SIDEWALKS AND ACCESS RAMPS SHALL BE INSTALLED PER CITY OF LAWRENCE DETAILS AND SPECIFICATIONS.
- ALL OFF-STREET PARKING AREAS AND DRIVEWAYS SHALL BE SURFACED WITH A MINIMUM OF 5 INCHES OF FULL DEPTH ASPHALT IN ACCORDANCE WITH SECTION 20-913(e)(1)(iv) OF THE CITY CODE.
- THE CITY OF LAWRENCE SHALL NOT BE HELD RESPONSIBLE FOR PAVEMENT DAMAGE ON PRIVATE STREETS CAUSED DUE TO THE WEIGHT OF SOLID WASTE MANAGEMENT VEHICLES.
- TREES SHALL BE PLANTED NO CLOSER THAN 8 FEET FROM EXISTING UTILITY LINES, WHERE PRACTICAL AND APPROVED BY THE PLANNING DIRECTOR, IN ACCORDANCE WITH SECTION 20-811(g)(2)(ii)(d) OF THE CITY CODE.
- UNLESS OTHERWISE NOTED, ALL AREAS NOT DESIGNATED AS PAVEMENT OR BUILDING WILL BE SEEDED, SODDED OR LANDSCAPED WITH PLANT MATERIALS. ALL AREAS DEPICTED AS PLANTED WITH TREES OR SHRUBS SHALL BE TREATED WITH A 3" LAYER OF SHREDDED HARDWOOD MULCH. REFER TO SHEET 4 FOR THE LANDSCAPE PLAN.
- THE LANDOWNER WILL PROVIDE FOR THE MAINTENANCE OF COMMON OPEN SPACE, RECREATION FACILITIES, NON-ENCROACHABLE AREAS, PRIVATE STREETS AND ANY OTHER AREA WITHIN THE PROPOSED DEVELOPMENT THAT IS TO BE RETAINED PRIMARILY FOR THE EXCLUSIVE USE AND BENEFIT OF THE RESIDENTS, LESSEES, AND OWNER OF THE PLANNED DEVELOPMENT.
- NO VARIANCES, MODIFICATIONS, REDUCTIONS AND WAIVERS ARE BEING REQUESTED AS PART OF THE PLAN APPROVAL.
- THE APPLICANT INTENDS TO FILE FOR FINAL DEVELOPMENT PLAN APPROVAL IMMEDIATELY FOLLOWING CITY COMMISSION APPROVAL OF THE PRELIMINARY DEVELOPMENT PLAN. THE APPLICANT INTENDS TO CONSTRUCT THIS DEVELOPMENT IN TWO PHASES. WORK SHOWN AS PART OF PHASE 1 IS TO BE COMPLETED BETWEEN DECEMBER, 2016 AND FEBRUARY, 2017. WORK SHOWN AS PART OF PHASE 2 IS TO BE COMPLETED BETWEEN MAY AND AUGUST, 2017. PHASE 2 WORK CANNOT BEGIN PRIOR TO MONDAY, MAY 15, 2017 AND MUST CONCLUDE PRIOR TO KU RESIDENCE HALL MOVE-IN IN MID-AUGUST.
- CONTINUOUS ACCESS TO KU LOT 94 MUST BE PROVIDED DURING ALL PHASES OF CONSTRUCTION. DURING THE REALIGNMENT OF FAMBROUGH DRIVE, CONTRACTORS WILL FIRST INSTALL THE WESTERN LEG OF FAMBROUGH DRIVE, FROM ALABAMA THROUGH ILLINOIS STREETS AND THEN INSTALL THE NEW LOT 94 ACCESS DRIVE. ONCE THE NEW CONNECTION IS COMPLETE, CONTRACTORS WILL REMOVE THE EXISTING MISSISSIPPI STREET ENTRANCE TO LOT 94 AND INSTALL THE EAST LEG OF FAMBROUGH DRIVE BETWEEN ILLINOIS AND MISSISSIPPI STREETS.
- AS DEPICTED ON SHEET 4 OF THIS PRELIMINARY DEVELOPMENT PLAN, THIS SITE HAS ACCESS TO PUBLIC AND PRIVATE UTILITIES, INCLUDING BUT NOT LIMITED TO WASTE WATER, DOMESTIC WATER, STORM WATER, GAS AND ELECTRICITY.
- ALL UTILITIES SERVING THE PROPERTIES AT 1029 AND 1031 MISSISSIPPI STREET, INCLUDING BUT NOT LIMITED TO DOMESTIC WATER, SANITARY SEWER, NATURAL GAS, ELECTRICITY, TELEPHONE AND CABLE, MUST BE DISCONNECTED AND/OR ABANDONED IN ACCORDANCE WITH ALL APPROPRIATE REGULATIONS PRIOR TO THEIR DEMOLITION.
- THE LANDOWNER HEREBY DEDICATES TO THE CITY OF LAWRENCE THE RIGHT TO REGULATE ANY CONSTRUCTION WITHIN THE AREAS DESIGNATED AS "COMMON OPEN SPACE" AND "RECREATIONAL OPEN SPACE" AND TO PROHIBIT ANY CONSTRUCTION WITHIN SAID AREAS AND SPACES INCONSISTENT WITH THE APPROVED USE OR ENJOYMENT OF RESIDENTS, LESSEES, AND OWNERS OF THE PLANNED DEVELOPMENT.

LANDPLAN ENGINEERING P.A.
 Lawrence, KS • Kansas City, MO • The Woodlands, TX
 1310 Wakarusa Drive, Suite 100
 Lawrence, Kansas 66049
 785.843.7530 (p) | 785.843.2410 (f)
 info@landplan-pa.com | www.landplan-pa.com

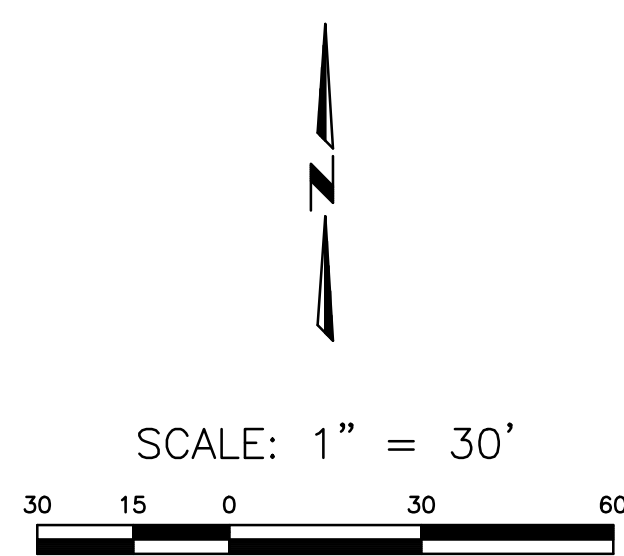
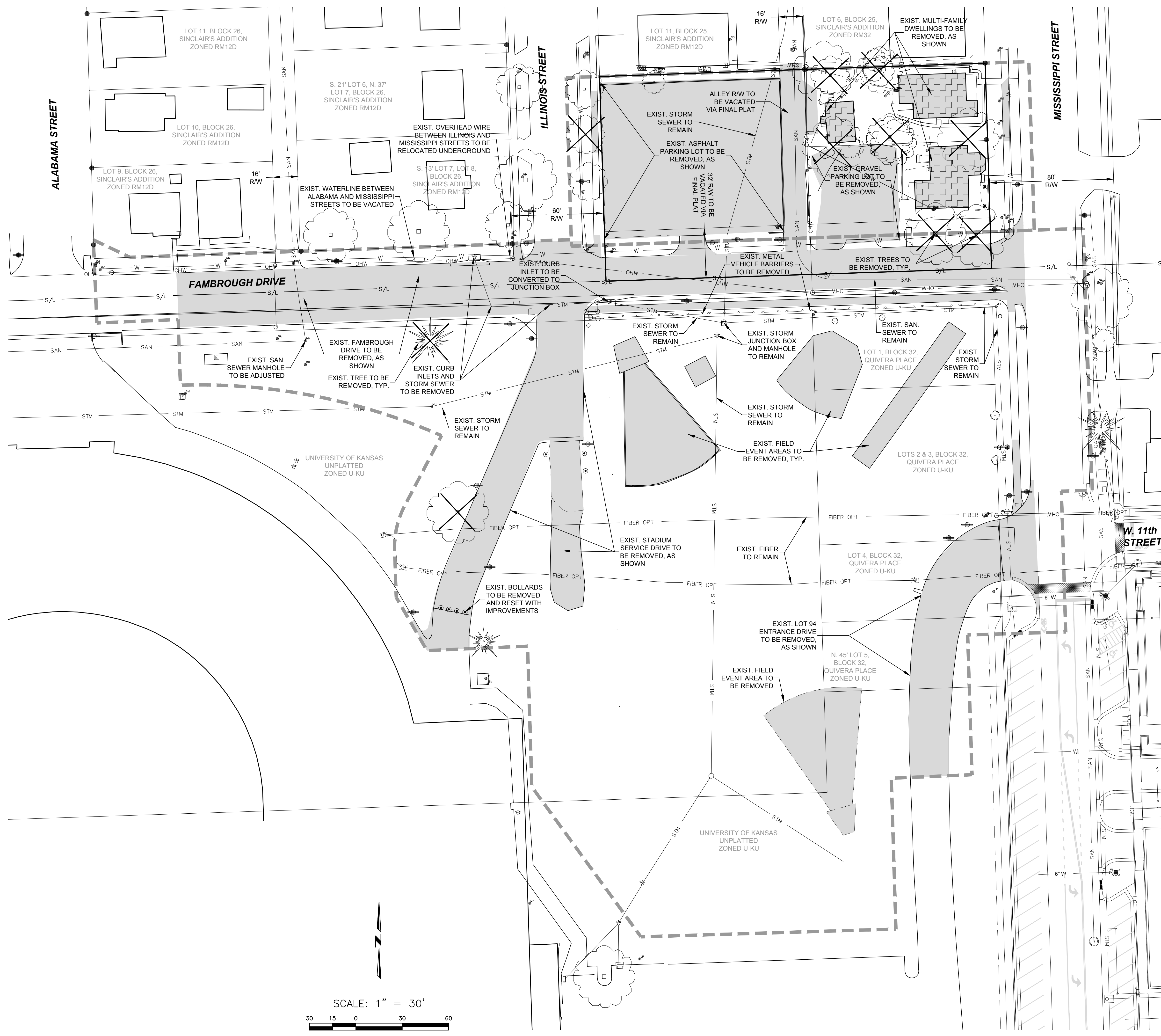
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**1029 MISSISSIPPI STREET
 LAWRENCE, KANSAS 66044
 HERE @ KANSAS OFF-SITE PARKING
 PRELIMINARY DEVELOPMENT PLAN
 LAYOUT PLAN**

REV#	DATE	DESCRIPTION
1	9/13/16	ISSUE FOR COMMENTS

DATE:	7/25/16
PROJECT NO.:	20163016
DESIGNED BY:	LPE
DRAWN BY:	BS
CHECKED BY:	CMS

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 1310 Wakarusa Drive, Suite 100
 Lawrence, Kansas 66049
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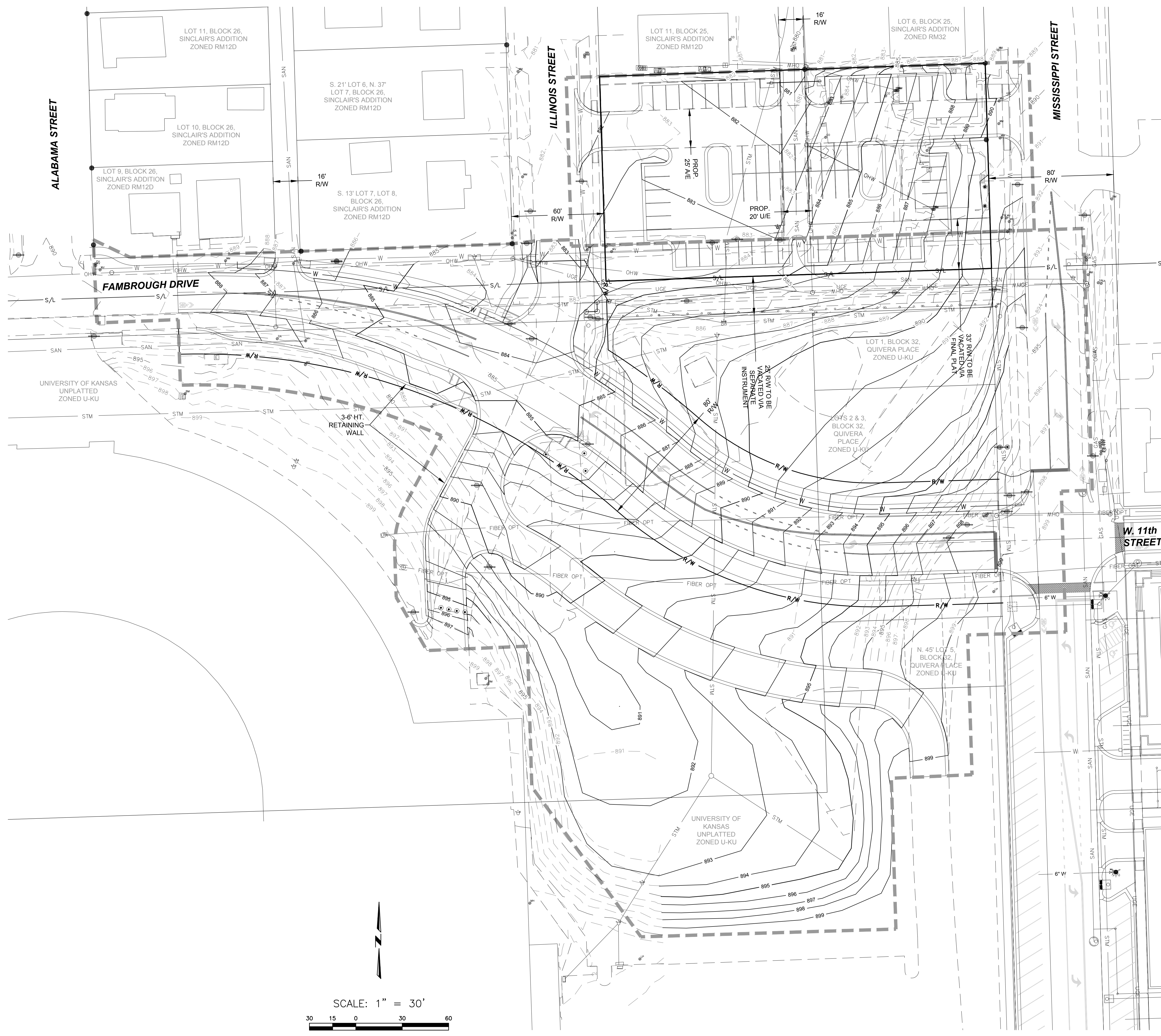
**1029 MISSISSIPPI STREET
 LAWRENCE, KANSAS 66044
 HERE @ KANSAS OFF-SITE PARKING
 PRELIMINARY DEVELOPMENT PLAN
 DEMOLITION PLAN**

REV	DATE	DESCRIPTION
1	9/13/16	ISSUE & ALL COMMENTS

DATE:	7/25/16
PROJECT NO.:	20163016
DESIGNED BY:	LPE
DRAWN BY:	BS
CHECKED BY:	CMS

ISSUE	SHEET NO.
	2

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SITE SURFACE SUMMARY:

EXIST. CONDITIONS	AREA (SF)	PROP. CONDITIONS	AREA (SF)
TOTAL BUILDING	3,018 (9%)	TOTAL BUILDING	0 (0%)
TOTAL PAVEMENT	21,426 (65%)	TOTAL PAVEMENT	23,408 (71%)
TOTAL IMPERVIOUS	24,444 (74%)	TOTAL IMPERVIOUS	23,408 (71%)
TOTAL PERVIOUS	8,615 (26%)	TOTAL PERVIOUS	9,651 (29%)
TOTAL PROPERTY	33,059 (100%)	TOTAL PROPERTY	33,059 (100%)

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 Lawrence, KS • Kansas City, MO • The Woodlands, TX
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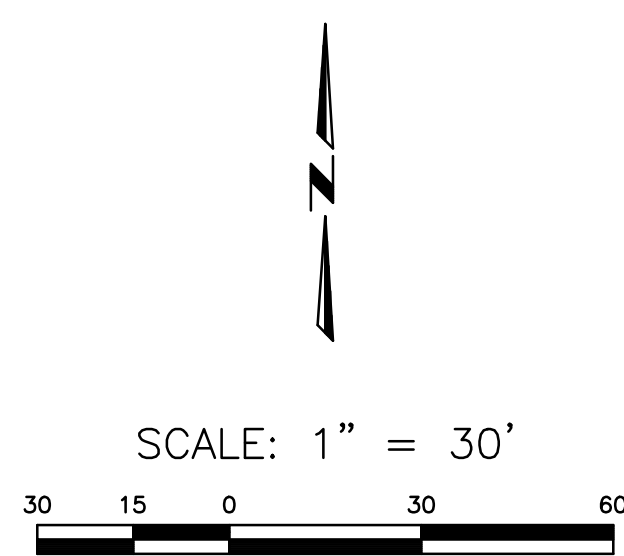
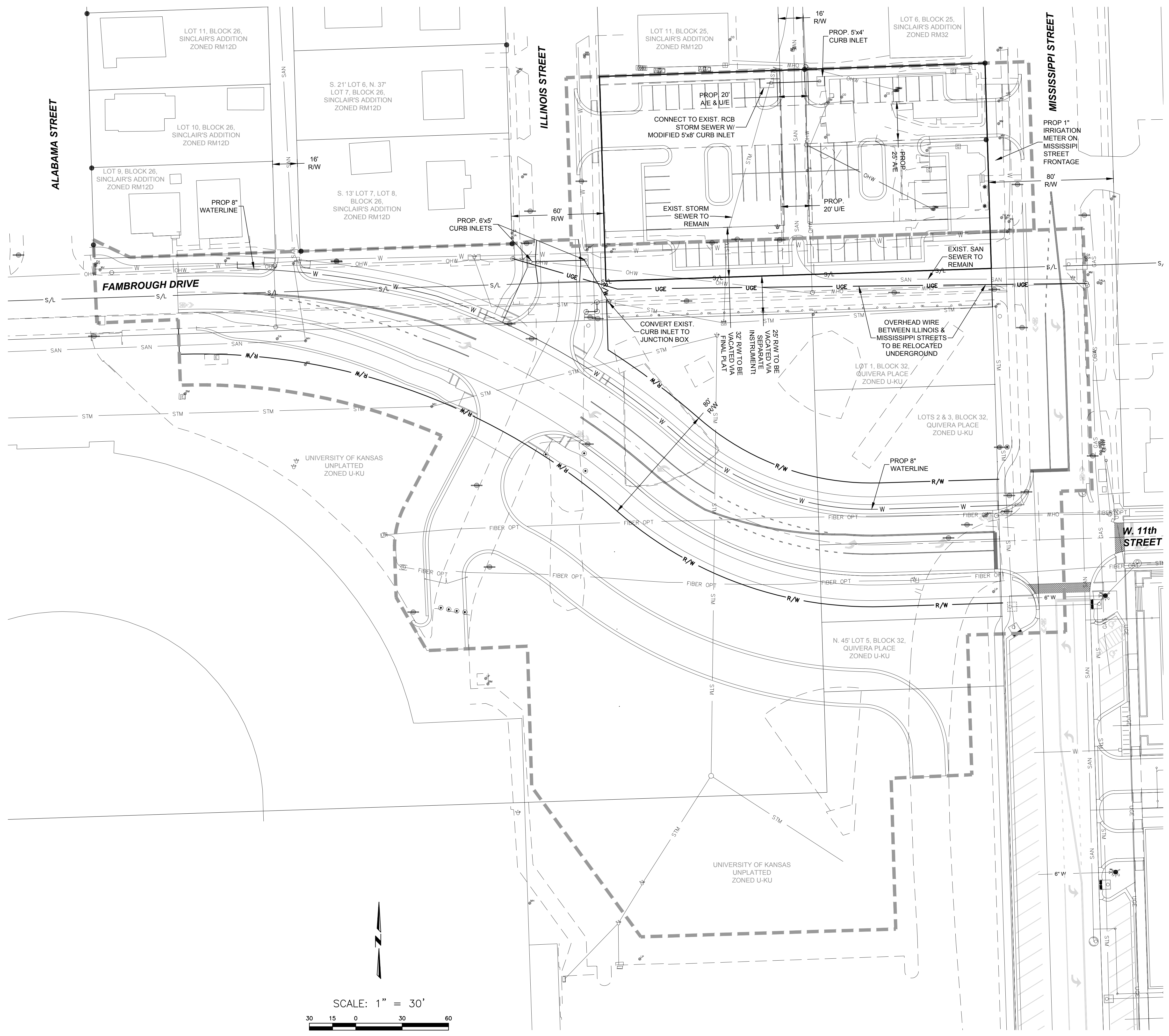
**1029 MISSISSIPPI STREET
 LAWRENCE, KANSAS 66044
 HERE @ KANSAS OFF-SITE PARKING
 PRELIMINARY DEVELOPMENT PLAN
 GRADING PLAN**

REV	DATE	DESCRIPTION
1	9/13/16	ISSUE FOR COMMENTS

DATE:	7/25/16
PROJECT NO.:	20163016
DESIGNED BY:	LPE
DRAWN BY:	BS
CHECKED BY:	CMS

ISSUE SHEET NO. **3**
 OF 5 SHEETS

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 Lawrence, Kansas 66049
 785.843.7530 (p) | 785.843.2410 (f)
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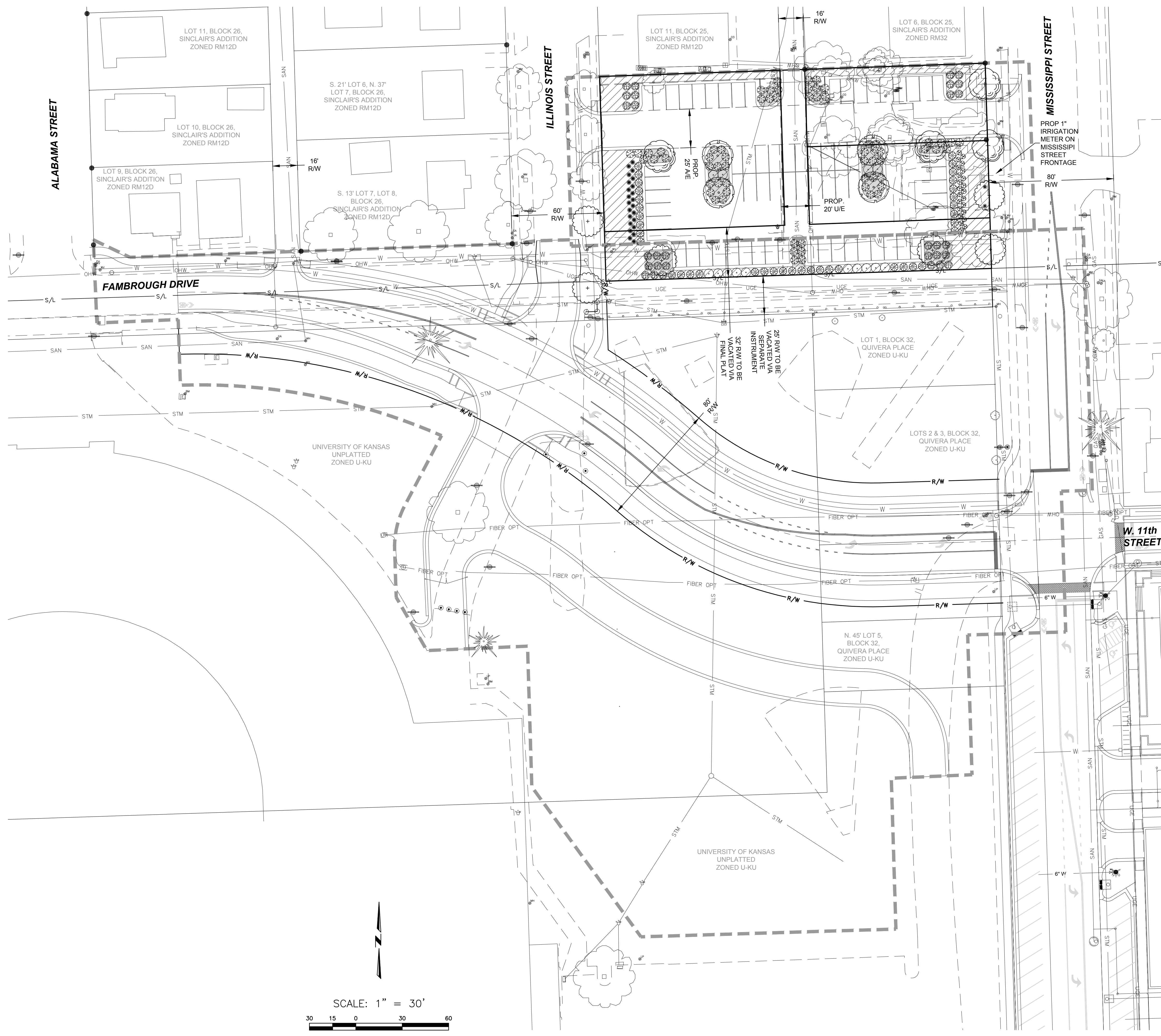
**1029 MISSISSIPPI STREET
 LAWRENCE, KANSAS 66044
 HERE @ KANSAS OFF-STREET PARKING
 PRELIMINARY DEVELOPMENT PLAN
 UTILITY PLAN**

REV	DATE	DESCRIPTION
1	9/13/2016	UTL & ALL COMMENTS

DATE:	7/25/16
PROJECT NO.:	20163016
DESIGNED BY:	LPE
DRAWN BY:	BS
CHECKED BY:	CMS

ISSUE	SHEET NO.
	4
	OF 5 SHEETS

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PLANT SCHEDULE:

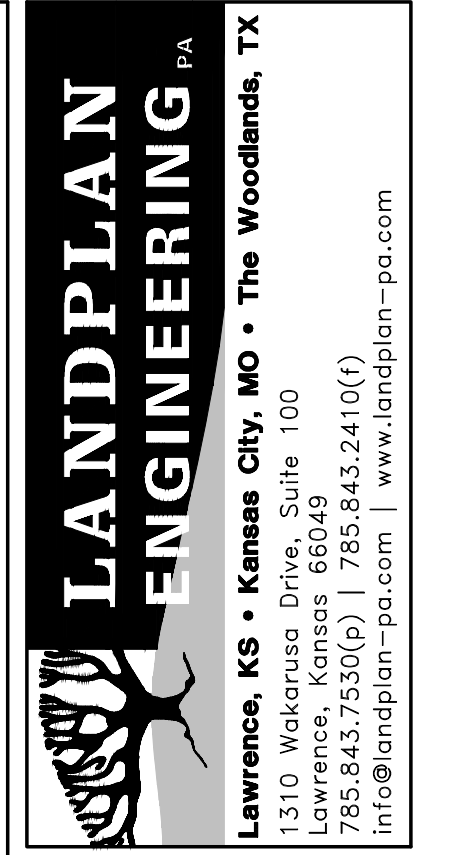
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PROPOSED TREES				
	4	CERCIS CANDENSIS var. TEXENSIS 'OKLAHOMA' REDBIRD	2.5" CAL.	B&B
	6	PLATANUS x ACERIFOLIA 'EXCLAMATION' 'EXCLAMATION' LONDON PLANE TREE	2.5" CAL.	B&B
	6	QUERCUS SHUMARDII SHUMARD OAK	2.5" CAL.	B&B
PROPOSED SHRUBS				
	23	HEMEROCALLIS x 'STELLA D'ORO' 'STELLA D'ORO' DAYLILY	1 GAL.	CONT.
	38	JUNIPERUS 'PFITZERIANA COMPACTA' COMPACT PFITZER JUNIPER	24" HT.	CONT.
	14	PHYSOCARPUS OPULIFOLIUS 'DIABLO' 'DIABLO NINEBARK	24" HT.	CONT.
	63	RHUS AROMATICA 'GRO LOW' 'GRO LOW' FRAGRANT SUMAC	3 GAL.	CONT.
	23	SPOROBOLUS HETEROLEPIS PRAIRIE DROPSEED	1 GAL.	CONT.
	30	TAXUS x MEDIA 'DENSIFORMIS' DENSIFORMIS YEW	24" HT.	CONT.

OPEN SPACE SUMMARY:

COMMON OPEN SPACE	RECREATIONAL OPEN SPACE
REQUIRED: 20% OF THE TOTAL AREA OF THE PD 0.20 x 31,250 SF 6,250 SF	REQUIRED: 50% OF THE COMMON OPEN SPACE 0.50 x 6,250 SF 3,125 SF
PROVIDED: 9,651 SF	PROVIDED: 9,651 SF

LANDSCAPE SUMMARY:

STREET TREES	INTERIOR PARKING LOT LANDSCAPING	PARKING LOT PERIMETER LANDSCAPING
REQUIRED: 1 TREE / 40 FEET OF R.O.W. FRONTAGE 125 FEET OF MISSISSIPPI STREET R.O.W. / 40 = 4 125 FEET OF ILLINOIS STREET R.O.W. / 40 = 4	REQUIRED: 40 SF LANDSCAPING AREA / PARKING SPACE 40 SF x 68 PARKING SPACES = 2,720 SF LANDSCAPING AREA 1 SHADE TREE & 3 SHRUBS / 10 PARKING SPACES 1 SHADE TREE & 3 SHRUBS x (68 PARKING SPACES / 10) = 7 & 21	REQUIRED: CONTINUOUS ROW OF EVERGREEN SHRUBS
PROVIDED: 8 TREES	PROVIDED: 7 TREES & 21 SHRUBS 2,183 SF LANDSCAPING AREA 8 TREES & 76 SHRUBS	PROVIDED: 44 EVERGREEN SHRUBS



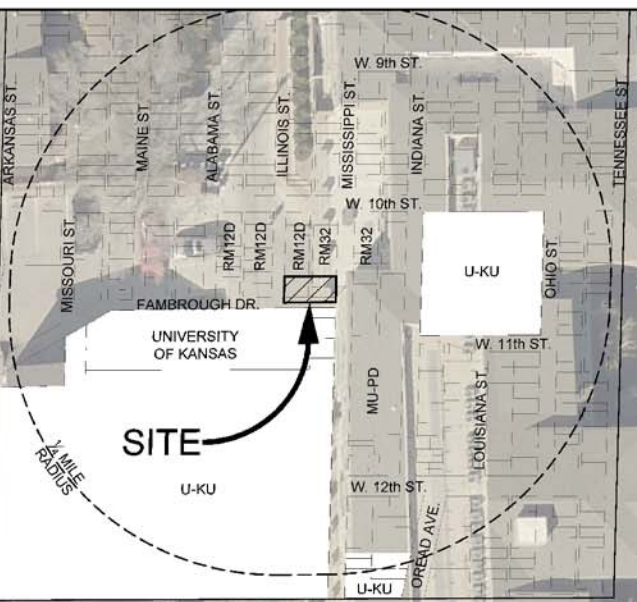
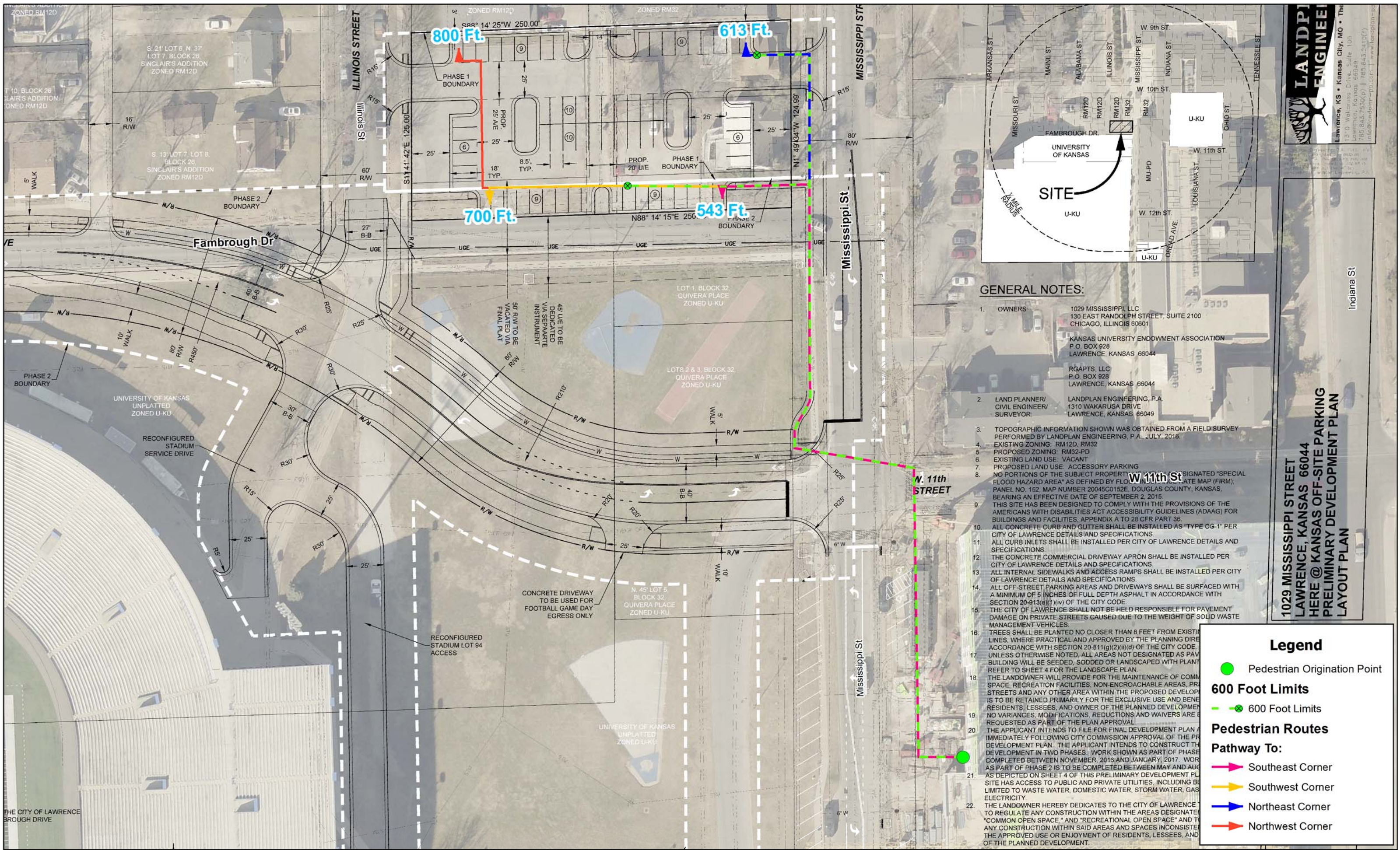
Lawrence, KS • Kansas City, MO • The Woodlands, TX
1310 Wakarusa Drive, Suite 100
Lawrence, Kansas 66049
785.843.7530 (p) | 785.843.2410 (f)
info@landplan-pa.com | www.landplan-pa.com

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1029 MISSISSIPPI STREET
LAWRENCE, KANSAS 66044
HERE @ KANSAS OFF-SITE PARKING
PRELIMINARY DEVELOPMENT PLAN
LANDSCAPE PLAN

REV.	DATE	DESCRIPTION
1	9/13/16	ISSUE FOR COMMENTS

DATE:	7/25/16
PROJECT NO.:	20163016
DESIGNED BY:	LPE
DRAWN BY:	BS
CHECKED BY:	CMS



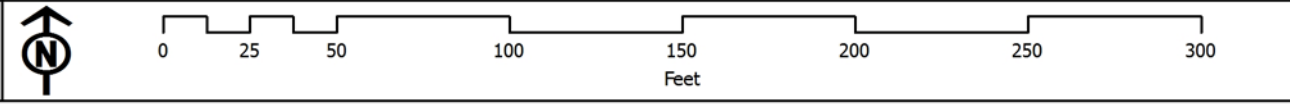
GENERAL NOTES:

- OWNERS: 1029 MISSISSIPPI, LLC
130 EAST RANDOLPH STREET, SUITE 2100
CHICAGO, ILLINOIS 60601
- LAND PLANNER/
CIVIL ENGINEER/
SURVEYOR: LANDPLAN ENGINEERING, P.A.
1310 WAKARUSA DRIVE
LAWRENCE, KANSAS 66049
- TOPOGRAPHIC INFORMATION SHOWN WAS OBTAINED FROM A FIELD SURVEY PERFORMED BY LANDPLAN ENGINEERING, P.A., JULY, 2016.
- EXISTING ZONING: RM12D, RM32
- PROPOSED ZONING: RM32-PD
- EXISTING LAND USE: VACANT
- PROPOSED LAND USE: ACCESSORY PARKING
- NO PORTIONS OF THE SUBJECT PROPERTY ARE DESIGNATED "SPECIAL FLOOD HAZARD AREA" AS DEFINED BY FLOOD HAZARD MAP (FIRM), PANEL NO. 152, MAP NUMBER 20045C0152E, DOUGLAS COUNTY, KANSAS, BEARING AN EFFECTIVE DATE OF SEPTEMBER 2, 2015.
- THIS SITE HAS BEEN DESIGNED TO COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR BUILDINGS AND FACILITIES, APPENDIX A TO 28 CFR PART 36.
- ALL CONCRETE CURB AND GUTTER SHALL BE INSTALLED AS "TYPE CG-1" PER CITY OF LAWRENCE DETAILS AND SPECIFICATIONS.
- ALL CURB INLETS SHALL BE INSTALLED PER CITY OF LAWRENCE DETAILS AND SPECIFICATIONS.
- THE CONCRETE COMMERCIAL DRIVEWAY APRON SHALL BE INSTALLED PER CITY OF LAWRENCE DETAILS AND SPECIFICATIONS.
- ALL INTERNAL SIDEWALKS AND ACCESS RAMPS SHALL BE INSTALLED PER CITY OF LAWRENCE DETAILS AND SPECIFICATIONS.
- ALL OFF-STREET PARKING AREAS AND DRIVEWAYS SHALL BE SURFACED WITH A MINIMUM OF 5 INCHES OF FULL DEPTH ASPHALT IN ACCORDANCE WITH SECTION 20-913(a)(1)(v) OF THE CITY CODE.
- THE CITY OF LAWRENCE SHALL NOT BE HELD RESPONSIBLE FOR PAVEMENT DAMAGE ON PRIVATE STREETS CAUSED DUE TO THE WEIGHT OF SOLID WASTE MANAGEMENT VEHICLES.
- TREES SHALL BE PLANTED NO CLOSER THAN 8 FEET FROM EXISTING LINES, WHERE PRACTICAL AND APPROVED BY THE PLANNING DIRECTOR IN ACCORDANCE WITH SECTION 20-811(g)(2)(i)(d) OF THE CITY CODE.
- UNLESS OTHERWISE NOTED, ALL AREAS NOT DESIGNATED AS PAVED BUILDING WILL BE SEEDED, SODDED OR LANDSCAPED WITH PLANTS REFER TO SHEET 4 FOR THE LANDSCAPE PLAN.
- THE LANDOWNER WILL PROVIDE FOR THE MAINTENANCE OF COMMON SPACE, RECREATION FACILITIES, NON-ENCROACHABLE AREAS, PRIVATE STREETS AND ANY OTHER AREA WITHIN THE PROPOSED DEVELOPMENT IS TO BE RETAINED PRIMARILY FOR THE EXCLUSIVE USE AND BENEFIT OF RESIDENTS, LESSEES, AND OWNER OF THE PLANNED DEVELOPMENT. NO VARIANCES, MODIFICATIONS, REDUCTIONS AND WAIVERS ARE REQUESTED AS PART OF THE PLAN APPROVAL.
- THE APPLICANT INTENDS TO FILE FOR FINAL DEVELOPMENT PLAN APPROVAL IMMEDIATELY FOLLOWING CITY COMMISSION APPROVAL OF THE PRELIMINARY DEVELOPMENT PLAN. THE APPLICANT INTENDS TO CONSTRUCT THE DEVELOPMENT IN TWO PHASES: WORK SHOWN AS PART OF PHASE 1 TO BE COMPLETED BETWEEN NOVEMBER, 2016 AND JANUARY, 2017. WORK AS PART OF PHASE 2 IS TO BE COMPLETED BETWEEN MAY AND AUGUST, 2017.
- AS DEPICTED ON SHEET 4 OF THIS PRELIMINARY DEVELOPMENT PLAN, THE SITE HAS ACCESS TO PUBLIC AND PRIVATE UTILITIES, INCLUDING BUT NOT LIMITED TO WASTE WATER, DOMESTIC WATER, STORM WATER, GAS AND ELECTRICITY.
- THE LANDOWNER HEREBY DEDICATES TO THE CITY OF LAWRENCE TO REGULATE ANY CONSTRUCTION WITHIN THE AREAS DESIGNATED "COMMON OPEN SPACE," AND "RECREATIONAL OPEN SPACE" AND TO ANY CONSTRUCTION WITHIN SAID AREAS AND SPACES INCONSISTENT WITH THE APPROVED USE OR ENJOYMENT OF RESIDENTS, LESSEES, AND OWNER OF THE PLANNED DEVELOPMENT.

Legend

- Pedestrian Origination Point
- 600 Foot Limits**
- 600 Foot Limits
- Pedestrian Routes**
- Pathway To:**
- ➔ Southeast Corner
- ➔ Southwest Corner
- ➔ Northeast Corner
- ➔ Northwest Corner

1029 MISSISSIPPI STREET
 LAWRENCE, KANSAS 66044
 HERE @ KANSAS OFF-SITE PARKING
 PRELIMINARY DEVELOPMENT PLAN
 LAYOUT PLAN



DISCLAIMER NOTICE
 The map is provided "as is" without warranty or any representation of accuracy, timeliness or completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the requester. The City of Lawrence makes no warranties, express or implied, as to the use of the map. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts the limitations of the map, including the fact that the map is dynamic and is in a constant state of maintenance, correction and update.

LANDPLAN ENGINEERING
 Lawrence, KS • Kansas City, MO • The
 1310 Wakarusa Drive, Suite 100
 Lawrence, Kansas 66044
 785.843.7530 (p) | 785.843.2410 (f)
 info@landplan-engineering.com | www.landplan-engineering.com

PARKING LOT LEASE

between

STADPKG, LLC, as Landlord

and

HERE LAWRENCE PROPERTY OWNER, LLC, as Tenant

Dated as of August 12, 2016

PARKING LOT LEASE

THIS PARKING LOT LEASE (together with Exhibits and Schedules hereto, which are incorporated herein by this reference, this “**Lease**”) is made as of August 2016 (“**Effective Date**”), by and between STADPKG, LLC, a Kansas limited liability company (“**Landlord**”), and Here Lawrence Property Owner, LLC, a Delaware limited liability company (“**Tenant**”).

RECITALS

A. As of the Effective Date, Landlord is the owner in fee simple title of the properties commonly known as 1031 Mississippi Street and 0 Illinois Street, each located in the City of Lawrence, Kansas (the “**City**”), as more particularly described in Exhibit A-1 attached hereto (the “**STADPKG Parcels**”).

B. Reference is also made to the following additional parcels: (i) the real property commonly known as 1029 Mississippi Street, Lawrence, Kansas (“**1029 Parcel**”), which parcel has been acquired by Tenant or its affiliate and will be conveyed to Landlord in accordance with the terms of this Lease, (ii) the Alley Vacation Area (defined below), and (iii) Vacated Fambrough Drive Area (defined below).

C. The STADPKG Parcels initially will constitute the “**Land**” provided that:

1. When fee simple title to the 1029 Parcel is conveyed by Tenant or its affiliate to Landlord in accordance with this Lease, the 1029 Parcel will be added to the definition of Land;
2. If and when during the Term the City has vacated the Alley Vacation Area, fee simple title thereto has reverted to Landlord free of any rights of the City or third parties (other than utility easements) and Landlord and Tenant have agreed in writing upon the legal description thereof, the Alley Vacation Area will be added to the definition of Land; and
3. If and when during the Term the City has vacated the public street in the Vacated Fambrough Drive Area following completion of the Fambrough Drive Relocation, fee simple title to the Vacated Fambrough Drive Area has reverted to Landlord free of any rights of the City or third parties (other than utility easements) and Landlord and Tenant have agreed in writing upon the legal description thereof, the Vacated Fambrough Drive Area will be added to the definition of the Land;

and the Land (as the same is defined from time to time during the Term) together with the Improvements (as hereinafter defined), as the same may exist from time to time on the Land during the Term, constitute the “**Property**,” provided further that within thirty (30) days of the written request of Landlord or Tenant to the other at any time during the Term after any or all of the 1029 Parcel, the Alley Vacation Area or the Vacated Fambrough Drive Area have become part of the Land, the Landlord and Tenant will execute a recordable memorandum, in a form

reasonably satisfactory to both of them, which refers to this Lease and states that the definition of the Land subject thereto has been so modified.

D. By this Parking Lot Lease, Landlord desires to lease and demise to Tenant the Property, and Tenant desires to lease the Property from Landlord.

NOW THEREFORE, for and in consideration of the covenants and agreements of the parties hereto, as are hereinafter set forth, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by each party hereto, Landlord hereby leases and demises the Property to Tenant and Tenant hereby leases the Property from Landlord;

TO HAVE AND TO HOLD the Property unto Tenant, its successors and permitted assigns, for and during the Term set forth herein,

ON THE TERMS AND SUBJECT TO THE CONDITIONS which are hereinafter set forth:

Section 1. DEFINITIONS.

1.1. Specific. As used herein, the following terms have the following meanings:

“**1029 Parcel**” has the meaning given to it in Recital B.

“**1029 Permitted Title Matters**” has the meaning given it in Section 2.9.

“**Alley Vacation Area**” means the portion of the alley adjacent to the STADPKG Parcels, the general location of which is depicted in Schedule 1(a) attached hereto. At Tenant’s expense within sixty (60) days before or after the City’s vacation of such alley, a surveyor approved by to Landlord (such approval not to be unreasonably withheld, conditioned or delayed) will perform a survey to determine the legal description of the Alley Vacation Area and the Landlord and Tenant will confirm in writing that such is the agreed upon legal description thereof.

“**Bankruptcy**” shall be deemed, for any person, to have occurred either:

(a) if and when such person (i) applies for or consents to the appointment of a receiver, trustee or liquidator of such person or of all or a substantial part of its assets, (ii) files a voluntary petition in bankruptcy or admits in writing its inability to pay its debts as they come due, (iii) makes an assignment for the benefit of its creditors, (iv) files a petition or an answer seeking a reorganization or an arrangement with its creditors or seeks to take advantage of any insolvency law, or (v) files an answer admitting the material allegations of a petition filed against such person in any bankruptcy, reorganization or insolvency proceeding; or

(b) if (i) an order, judgment or decree is entered by any court of competent jurisdiction adjudicating such person a bankrupt or an insolvent, approving a petition

seeking such a reorganization, or appointing a receiver, trustee or liquidator of such person or of all or a substantial part of its assets, or (ii) there otherwise commences with respect to such person or any of its assets any proceeding under any bankruptcy, reorganization, arrangement, insolvency, readjustment, receivership or similar law, and if such order, judgment, decree or proceeding continues unstayed for any period of one hundred twenty (120) consecutive days after the expiration of any stay thereof.

“CA Student Housing Project” means that certain student housing project being constructed, developed, owned and operated by Tenant at the property commonly known as 1111 Indiana Street, Lawrence, Kansas.

“City” means the City of Lawrence, Kansas.

“Commencement Date” means the Effective Date.

“Effective Date” has the meaning given it in the introductory paragraph.

“Environmental Laws” shall mean any and all Federal, State or local laws, pertaining to health, safety, or the environment now or at any time hereafter in effect and any judicial or administrative interpretation thereof (including, but not limited to, any judicial or administrative order, consent decree or judgment relating to the environment or hazardous substances (as such term is defined in any such law), or exposure to hazardous substances) including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, the Superfund Amendments and Reorganization Act of 1986, as amended, the Resource, Conservation and Recovery Act of 1976, as amended, the Clean Air Act, as amended, the Federal Water Pollution Control Act, as amended, the Oil Pollution Act of 1990, as amended, the Safe Drinking Water Act, as amended, the Hazardous Materials Transportation Act, as amended, the Toxic Substances Control Act, as amended, the federal Clean Water Act of 1977, all regulations and laws adopted by the Occupational Safety and Health Administration, and any other environmental or health conservation or protection laws.

“Event of Default” has the meaning given it in Section 13.1 hereof.

“Fambrough Drive Relocation” means the work required to relocate a portion of Fambrough Drive, Lawrence, Kansas as depicted in Schedule 1(b) attached hereto.

“Fee Estate” means Landlord’s fee simple interest in all of the Land and the appurtenances included with the Land.

“Force Majeure” means any: (a) strike, lock-out or other labor troubles, (b) governmental restrictions or limitations, (c) failure or shortage of materials, electrical power, gas, water, fuel oil, or other utility or service, (d) riot, war, insurrection or other national or local emergency, (e) accident, flood, fire or other casualty, (f) adverse weather condition, (g) other act of God, or (h) other cause similar or dissimilar to any of the foregoing and beyond the reasonable control of the person in question.

“Hazardous Substances” means any flammables, explosives, radioactive materials, hazardous wastes or materials, toxic wastes or materials, asbestos, PCB’s, petroleum

products or derivatives and include, without limitation, those substances and materials subject to regulation under any applicable Environmental Law.

“Improvements” means all improvements, fixtures and personal property, all off-street parking areas on the Land required or permitted to be constructed thereon under this Lease as part of a Phase or otherwise approved in writing by Landlord and all replacements, additions and alterations thereto required or permitted by this Lease or in writing by Landlord.

“IRC Code” has the meaning given it in Section 2.3.

“KU” has the meaning given it in Section 2.2.2.

“KU Endowment Association” has the meaning given it in Section 2.8.2.

“Land” has the meaning given it in Recital C.

“Land Records” means the land records of the County of Douglas, Kansas.

“Landlord” has the meaning given it in the introductory paragraph.

“Landlord’s Indemnified Parties” has the meaning given it in Section 2.6.

“Landlord’s Reserved Use” has the meaning given it in Section 2.4.

“Lease” means this Parking Lot Lease, including amendments thereto and extensions thereof, if any.

“Lease Year” means (a) the period commencing on the Commencement Date and terminating on the first (1st) anniversary of the last day of the calendar month containing the Commencement Date, and (b) each successive period of twelve (12) calendar months thereafter during the Term.

“Leasehold Estate” means the leasehold estate in the Property held by Tenant under this Lease.

“Leasehold Mortgage” has the meaning given it in Section 10.1 hereof.

“Leasehold Mortgagee” has the meaning given it in Section 10.1 hereof.

“Legal Approvals” has the meaning given it in Section 2.8.

“Legal Requirements” means, any applicable laws, ordinances, notices, orders, rules, regulations and requirements of applicable federal, state and municipal governments, public or quasi-public authorities and all departments, commissions, bureaus boards and officers thereof with jurisdiction over the subject matter in question.

“Matter” has the meaning given it in Section 2.7.

“Mortgage” means any mortgage, deed of trust, assignment of leases or rents, collateral assignment or security interest at any time encumbering any or all of the Property, and any other security interest therein existing at any time under any other form of security instrument or arrangement used from time to time in the locality of the Property (including but not limited to any such other form of security arrangement arising under any mortgage, deed of trust, sale-and-leaseback documents, lease-and-leaseback documents, security deed or conditional deed, or any financing statement, security agreement or other documentation used pursuant to the Uniform Commercial Code or any successor or similar statute), provided that such mortgage, deed of trust or other form of security instrument, and an instrument evidencing any such other form of security arrangement, whether or not recorded or filed among the Land Records or in such other place as is, under applicable law, required for such instrument to give constructive notice of the matters set forth therein.

“Mortgagee” means the Person owed the obligations or indebtedness secured by a Mortgage.

“Operating Expenses” has the meaning given it in Section 5.1.1.

“Parking Lot Spaces” means all of the parking lot spaces constructed by Tenant from time to time as part of the Project.

“Partial Taking” has the meaning given it in Section 9.3.

“Person” means a natural person(s), a trustee, a corporation, a partnership, a limited liability company and any other form of legal entity.

“Phase I Project” means (a) the completion of the design and construction of the Parking Lot Spaces and related improvements on the 0 Parcel in compliance with this Lease, Legal Requirements and construction plans therefor hereafter prepared by Tenant and approved in writing by Landlord (provided that Landlord will not unreasonably withhold, delay or condition consent to construction plans which are consistent with those depicted on Schedule 1(a) attached hereto), (b) the addition of the 1029 Parcel to the definition of the Land, the demolition after July 31, 2016 of existing improvements upon the 1029 Parcel and 1031 Parcel, the disposal of the debris, including, without limitation, Hazardous Substances that are required to be removed to satisfy Legal Requirements for use of the underlying real property for classrooms or housing, from the demolitions of such improvements on the 1029 Parcel and 1031 Parcel and the design and construction of the Parking Lot Spaces and related improvements on the 1029 Parcel and the 1031 Parcel which expands the parking lot constructed on the 0 Parcel in compliance with this Lease, Legal Requirements and construction plans therefor hereafter prepared by Tenant and approved in writing by Landlord (provided that Landlord will not unreasonably withhold, delay or condition consent to construction plans which are consistent with those depicted on Schedule 1(a) attached hereto), and (c) the addition of the Alley Vacation Parcel to the definition of the Land, the demolition of existing improvements upon the Alley Vacation Parcel, the disposal of the debris, including, without limitation, Hazardous Substances that are required to be removed to satisfy Legal Requirements for use of the underlying real property for classrooms or housing, from the demolitions of such improvements on the Alley Vacation Parcel, the acquisition of variances to setback or building lines from the City and other

governmental authorities to permit construction of Parking Lot Spaces and associated improvements thereon and the design and construction of the Parking Lot Spaces and related improvements on the Land which expands the parking lot constructed on the 0 Parcel, the 1029 Parcel and the 1031 Parcel in compliance with this Lease, Legal Requirements and construction plans therefor hereafter prepared by Tenant and approved in writing by Landlord (provided that Landlord will not unreasonably withhold, delay or condition consent to construction plans which are consistent with those depicted on Schedule 1(a) attached hereto), so that such Parking Lot Spaces on the Phase I Project may be used in compliance with this Lease by Tenant after such completion and during the remainder of the Term as parking for Tenant's tenants, employees, agents and invitees living or working at the CA Student Housing Project.

"Phase II Project" means the addition of the Vacated Fambrough Drive Area to the definition of the Land, the completion of the Fambrough Drive Relocation (including without limitation the demolition of existing improvements upon the Vacated Fambrough Drive Area, the disposal of the debris, including, without limitation, Hazardous Substances that are required to be removed to satisfy Legal Requirements for use of the underlying real property for classrooms or housing, from the demolitions of such improvements on the Vacated Fambrough Drive Area and the design and construction of a new Fambrough Drive, with such demolition, disposal and construction work to be performed by contractors engaged by the City), and the acquisition of variances to setback or building lines from the City and other governmental authorities to permit construction of Parking Lot Spaces on the Vacated Fambrough Drive Area and associated improvements, including without limitation sidewalks, on the Land as depicted on Schedule 1(b) and the design and construction of the Parking Lot Spaces and related improvements on the Vacated Fambrough Drive Area which expands the parking lot constructed in the Phase I Project, all in compliance with this Lease, Legal Requirements and construction plans therefor hereafter prepared by Tenant and approved in writing by Landlord (provided that Landlord will not unreasonably withhold, delay or condition consent to construction plans which are consistent with those depicted on Schedule 1(b) attached hereto), so that such Parking Lot Spaces on the Phase II Project may be used in compliance with this Lease by Tenant after such completion and during the remainder of the Term as parking for Tenant's tenants, employees, agents and invitees living or working at the CA Student Housing Project.

"Phase" or **"Phases"** means, as applicable and individually or collectively as the context requires, the Phase I Project and/or Phase II Project.

"Phase I Completion" has the meaning given it in Section 2.2.2.

"Phase II Completion" has the meaning given it in Section 2.2.2.

"Project" the construction of the Improvements provided for in the various Phases.

"Property" has the meaning given it in Recital C.

"Purpose" has the meaning given it in Section 7.3.2.

"Restoration Criteria" has the meaning given it in Section 9.3.

“**STADPKG Parcels**” has the meaning given it on Exhibit A-1 attached hereto.

“**Taking**” has the meaning given it in Section 9.1.

“**Tenant**” has the meaning given it in the introductory paragraph.

“**Tenant Confidential Information**” has the meaning given it in Section 7.3.2.

“**Tenant Default**” has the meaning given it in Section 11.1.

“**Tenant’s Indemnified Parties**” has the meaning given it in Section 2.5.

“**Term**” has the meaning given it in Section 2.2.2 hereof.

“**Termination Date**” has the meaning given it in Section 2.2.2 hereof.

“**Total Taking**” has the meaning given it in Section 9.2.

“**Vacated Fambrough Drive Area**” means the approximately North one half (1/2) portion of the existing Fambrough Drive, Lawrence, Kansas, the general location of which is depicted as “Vacated Fambrough Drive Area” on Schedule 1(b) attached hereto which becomes property of the Landlord upon vacation thereof. At Tenant’s expense, within sixty (60) days before or after the City’s vacation of existing Fambrough Drive, a surveyor approved by to Landlord (such approval not to be unreasonably withheld, conditioned or delayed) will perform a survey to determine the legal description of the Vacated Fambrough Drive Area and the Landlord and Tenant will confirm in writing that such is the agreed upon legal description thereof.

1.2. General. Any other term to which meaning is expressly given in this Lease shall have such meaning.

Section 2. LEASE; TERM; CONSTRUCTION OF PROJECT.

2.1. Lease. Landlord agrees to lease the Property to Tenant, and Tenant agrees to lease the Property from Landlord during the Term, on the terms and conditions set forth in this Lease.

2.2. Length of Term.

2.2.1. Possession Date. On the Effective Date Tenant shall receive possession of the Land (as then defined) in its As-Is condition, subject to the residential tenants in the improvements on the 1031 Parcel which expire July 31, 2016 and Landlord’s Reserved Use (as defined in Section 2.4). As additional parcels of real property are added to the definition of Land from time to time Tenant shall receive possession of such portion of the Land being added in its then As-Is condition, subject to Landlord’s Reserved Use.

2.2.2. Original Term. This Lease shall be for a term (“**Term**”) commencing on the Effective Date (the “**Commencement Date**”), and (b) terminating on the

fiftieth (50th) anniversary of the Commencement Date (the “**Termination Date**,” except that if the date of such termination is hereafter advanced to an earlier date or postponed pursuant to any other provision of this Lease, or by express, written agreement of the parties hereto, or by operation of law, the date to which it is advanced or postponed shall thereafter be the “**Termination Date**” for all purposes of this Lease). Notwithstanding anything in this Section 2.2.2 to the contrary, the Tenant may elect, in its sole discretion and even if an Event of Default has occurred and is ongoing, to terminate this Lease with sixty (60) days’ written notice to the Landlord at any time; provided that if any Leasehold Mortgagee has a Leasehold Mortgage in effect, such Leasehold Mortgagee must consent in writing before Tenant may exercise its rights pursuant to this sentence and such Leasehold Mortgagee must release any Leasehold Mortgage or Mortgage placed on any of the Property pursuant to a commercially reasonable release; provided further, that Tenant will be obligated to pay to Landlord any then unpaid portion of the Base Rent and any then accrued but unpaid Additional Rent or other out of pocket costs incurred by Landlord prior to such Termination Date. Notwithstanding anything to the contrary in this Lease, unless the Tenant has caused the 1029 Parcel and the Alley Vacation Area to be added to the Land and completed construction of all of the Phase I Project in accordance with this Lease (such events being the “**Phase I Completion**”) by the end of the forty eighth (48th) calendar month to commence after the Effective Date, then Landlord can give written notice to Tenant to terminate the Lease at any time thereafter and, unless the Phase I Completion has occurred within one hundred eighty (180) days after the date upon which the such notice to terminate was given to Tenant, the Term of the Lease will terminate as of the end of such one hundred eightieth (180th) day and Tenant will have no further rights in any of the Property. Notwithstanding anything to the contrary in this Lease, unless the Tenant has caused the Fambrough Drive Relocation Work and the Phase II Project to be completed in accordance with this Lease (such event being the “**Phase II Completion**”) by the end of the sixtieth (60th) calendar month to commence after the Effective Date, then Landlord can give written notice to Tenant to terminate the Lease at any time thereafter and, unless the Phase II Completion has occurred within one hundred eighty (180) days after the date upon which the such notice to terminate was given the Term of the Lease will end as of the end of such one hundred eightieth (180th) day; provided that if the Tenant has diligently pursued all applications necessary for, and is prepared financially to complete, Phase II, but either the City of Lawrence, Kansas or the University of Kansas (“**KU**”) has prevented Tenant from completing Phase II by such one hundred eightieth day (180th) day, then Tenant can elect, by written notice to Landlord on or before such one hundred eightieth (180th) day, to: (i) delete the Vacated Fambrough Drive Area from the real property that is subject to this Lease or that can ever be added to the Land, and (ii) terminate Tenant’s obligations to pursue and complete the Phase II Project as of the end of such one hundred eightieth (180th) day. No early termination of the Lease will release Tenant from its obligations to surrender the Property in accordance with Section 2.2.3 and perform the obligations which have accrued under the Lease as of the Termination Date or which are to survive the Termination Date under the terms of this Lease.

2.2.3. Surrender. Upon the Termination Date or the sooner termination of the Lease as to any of the Land, Tenant shall, at its expense, vacate the Land, Improvements and Property and deliver to Landlord possession of the portion(s) of the Land, Improvements and Property as to which the Lease has been terminated, free and clear of any liens, encumbrances, Mortgages or other interests of any kind of any Person other than Landlord, Landlord’s lenders, licensees, grantees or the holders of easements, Landlord’s Mortgages, or use rights related to

Landlord's Reserved Use granted or approved in writing by Landlord, free and clear of any Hazardous Substances in violation of Legal Requirements, free and clear of any personal property or improvements except the Improvements required to be constructed under any Phase or otherwise approved by Landlord in writing, with any such Improvements being in compliance with Legal Requirements and in the condition they would have been in as if Tenant had constructed and maintained the same in the condition required under this Lease, ordinary wear and tear excepted.

2.3. Title to and Alterations of Improvements. Notwithstanding any provision in this Lease to the contrary, at all times during the Term of this Lease, the Improvements and all alterations and additions shall be owned by Landlord and Landlord alone shall be entitled to all of the tax attributes of ownership, including, without limitation, the right to claim depreciation or cost recovery deductions pursuant to the Internal Revenue Code of the United States of America, as amended (the "**IRC Code**") and the right to amortize capital costs and to claim any other federal or state tax benefits attributable to the Improvements.

2.4. Landlord's Use of Parking Lot. During the Term and after such Parking Spaces have been constructed, Landlord shall have the exclusive right to use all of the Parking Lot Spaces from 8:00 a.m. until 11:59 p.m. on the dates of all KU home football games and, at Landlord's discretion, three (3) additional events per calendar year any portion of which occurs during the Term for parking cars and other motor vehicles of persons designated by Landlord or its employees, agents or licensees and for other game and event related activities ("**Landlord's Reserved Use**"); provided that, Landlord shall give notice to the Tenant of any such additional event not less than sixty (60) days in advance of such event and Landlord's game or other event related activities may not be of the kind or nature reasonably likely to damage or destroy the Parking Lot Spaces. Tenant, solely at the cost of Persons other than Landlord, shall cause the Property to be free of any cars or other motor vehicles by 8:00 a.m. on such dates and Landlord, solely at the cost of Persons other than Tenant, shall cause the Property to be free of any cars or other motor vehicles by 11:59 p.m. on such dates. To the extent that Landlord fails to comply with its obligations pursuant to the preceding sentence and does not remove such vehicles within twenty four (24) hours after Landlord's receipt of written notice that such vehicles have not been removed on or before the expiration of each Landlord's Reserved Use date and Tenant incurs reasonable, actual out of pocket costs to remove same, Tenant shall be permitted to set off such amounts paid by it against any unpaid rental amounts payable pursuant to this Lease.

2.5. Indemnity by Landlord. Landlord hereby agrees to defend, indemnify, protect and hold harmless Tenant and its member(s), and their respective employees and agents, and Tenant's Leasehold Mortgagee's (the "**Tenant Indemnified Parties**") from and against any and all claims, judgments, demands, damages, fines, losses, liabilities, interest, awards, penalties, causes of action, litigation, lawsuits, administrative proceedings, administrative investigations, costs and expenses, including, without limitation, reasonable attorneys' fees, court costs and other reasonable costs of suit, arbitration, dispute resolution or other similar proceedings against the Property, Tenant and/or any Leasehold Mortgagee arising from the intentional actions or negligence of any one or more of Landlord or its employees, agents, licensees and invitees during the Landlord's Reserved Use which causes any material damage to the Improvements or the injury or death of any individuals thereon. Landlord's

liability pursuant to this Section shall be limited to recovery against the insurance policies provided by it pursuant this Agreement.

2.6. Indemnity by Tenant. Tenant hereby agrees to defend, indemnify, protect and hold harmless Landlord and its member(s), and their respective trustees, employees and agents (the “**Landlord Indemnified Parties**”) from and against any and all claims, judgments, demands, damages, fines, losses, liabilities, interest, awards, penalties, causes of action, litigation, lawsuits, administrative proceedings, administrative investigations, costs and expenses, including, without limitation, reasonable attorneys’ fees, court costs and other reasonable costs of suit, arbitration, dispute resolution or other similar proceedings against the Property or any of the Landlord Indemnified Parties arising from the intentional actions or negligence of any one or more of Tenant or its employees, agents, licensees, and invitees during the Term which causes any material damage to the Improvements or the injury or death of any individuals thereon. Tenant’s liability pursuant to this Section shall be limited to recovery against the insurance policies provided by it pursuant this Agreement.

2.7. Procedure for Indemnity. If any Person entitled to indemnity under either Section 2.5 or 2.6 receives written notice of any action, proceeding or other event that will or may result in a right to indemnity under either Section 2.5 or 2.6 as the case may be (each a “**Matter**”), the Landlord Indemnified Party or Tenant, as the case may be, shall immediately give the Tenant or the Landlord, respectively, written notice thereof. Failure to give such notice, however, shall not relieve party having the obligation to provide such indemnity under this Lease. The party obligated to provide the indemnity under Section 2.5 or 2.6 as the case may be, may direct the defense of, and compromise or defend, at its own expense and using such indemnifying party’s own counsel, such counsel to be reasonably approved by the party entitled to such indemnity (and the party entitled to indemnity shall not, without the consent of the indemnifying party, not to be unreasonably withheld conditioned or delayed, settle or compromise such Matter); provided, further, however, that, the indemnifying party may not so compromise or defend any such Matter that involves the potential imposition of criminal or civil liability on Person entitled to indemnity or a conflict of interest between party entitled to indemnity and any other person to such dispute, claim, litigation or settlement. In any event, the Tenant, Landlord and their respective counsel shall cooperate in the compromise of, or defense against, any such asserted liability. The indemnifying party and the Person entitled to indemnity may participate in the defense of such asserted liability, but such participation by the party entitled to indemnity shall be at its own cost and expense, unless the indemnifying party has not provided an adequate defense against such Matter, as determined by the Person entitled to indemnity, in its reasonable discretion, in which case, such participation shall be at the indemnifying party’s sole cost and expense.

2.8. Construction of Project.

2.8.1. Legal Approvals. As of the Effective Date, it is understood and agreed that none of the Phases have been approved in accordance with any applicable Legal Requirements and that Tenant shall not have a right or obligation to complete a particular Phase pursuant to this Lease until Tenant has obtained all necessary approvals under Legal Requirements (“**Legal Approvals**”) and Landlord’s written consent to the plans for the design and/or construction of the Improvements provided for in such Phase. Tenant agrees to use

commercially reasonable efforts to obtain all necessary approvals for the design and construction of the various Phases outlined herein, as such Phases may be modified or amended in accordance with this Lease. Tenant may not obtain or agree to any Legal Approvals except those which are approved by Landlord in writing; provided that, Landlord will not unreasonably withhold, condition or delay consents to Legal Approvals consistent with the Phases and Improvements expressly permitted under this Lease and the parties understand that no Legal Approvals can be binding upon Landlord, the Land, or the Improvements after the Termination Date. Prior to commencing construction or demolition as part of any Phase, Tenant shall give Landlord copies of the Legal Approvals (including without limitation any plans and specifications incorporated therein) related to such Phase. After completion of demolition and disposal of debris as part of any Phase, Tenant shall provide Landlord with copies of permits and receipts related to the handling and disposal of any Hazardous Substances required to be removed to satisfy Legal Requirements for use of the underlying real property for classrooms or housing and, on or prior to the completion of such work, a Phase One report indicating there is no Hazardous Substances on any of the Land which exists except in compliance with all Legal Requirements in order for the underlying real property to be used for classrooms or housing.

2.8.2. Landlord Cooperation. Landlord agrees, and agrees to cause its affiliate The Kansas University Endowment Association (“**KU Endowment Association**”), to reasonably cooperate during the Term with Tenant with its seeking and obtaining approvals of the demolition and construction of improvements provided for in the respective Phases that are required under Legal Requirements and Legal Approvals. Landlord will not unreasonably withhold, delay or condition Landlord’s approval of any construction plans for the Improvements required or permitted under a given Phase (and any documentation related to the relocation of public right of ways provided for in plans approved in writing by Landlord) so long as they comply and are consistent with Schedule 1(a) in the case of Phase I and Schedule 1(b) in the case of Phase II; provided that, in its sole discretion, Landlord may, excluding the Parking Spaces reflected in such schedules, withhold consent to any improvement or addition or modification thereto which is not provided for in the respective schedule; provided further that, Landlord will have no obligation to consent to any Legal Approvals that would be binding upon Landlord, the Land or the Improvements after the Termination Date. During the Term, Landlord will reasonably cooperate (and, while KU Endowment Association owns or controls Landlord, will cause KU Endowment Association to cooperate) with the Tenant in causing the City to vacate the Alley Vacation Area and the Vacated Fambrough Drive Area as required for the completion of the Phases which involve such areas and the relocation of the public right of way contemplated in such Phases and provided for in plans approved in writing by Landlord and consistent with the attached Schedules; provided that, neither Landlord nor KU Endowment Association will be obligated to incur any costs or assume any obligations in doing so or to agree to anything that would be binding upon Landlord, KU Endowment Association, their respective successors or assigns, the Land or the Improvements after the Termination Date.

2.8.3. Landlord Approval of Contractors; Scope of Work. Landlord shall have the right to approve in writing, with any such approval not to be unreasonably withheld, conditioned or delayed, the contractors and subcontractors performing the work for any Phases selected by Tenant (with it being acceptable for Landlord to disapprove of contractors or subcontractors that KU Endowment Association or its affiliates have in good faith had problems with in the past, are not reasonably creditworthy for the scope of work such parties are

performing, or to the extent any such parties are not carrying insurance reasonably required by Landlord). Landlord reserves the right to condition approval upon receipt of proof that the contractors and subcontractors carry workers compensation insurance that complies with Kansas law and comprehensive general liability insurance that is from insurers licensed to issue insurance in Kansas, has a face amount comparable to the policies Landlord requires its own contractors to carry and names Landlord, KU Endowment Association, and the officers, managers, trustees, employees and agents of each as additional insureds. To the extent Tenant requests any approvals pursuant to this Subsection 2.8.3, Landlord shall review and approve in writing any such changes within five (5) business days of a request by Tenant or shall provide reasonable specificity regarding any disapprovals within such time period. Landlord agrees that it shall reasonably cooperate with Tenant's efforts to construct the parking lot and perform the other work contemplated with respect to the entire Project. Landlord will not unreasonably withhold, condition or delay consent to the use of any contractors and subcontractors required by the City in connection with the performance of Phase II.

2.9 Conveyance of 1029 Parcel. Tenant represents that Tenant or its affiliate has obtained right, title and interest in the 1029 Parcel. Landlord acknowledges that prior to the date hereof, Tenant has provided Landlord with a title commitment and a Phase One environmental report on the 1029 Parcel and within thirty (30) days of the execution hereof Landlord will either provide written approval of or a list of any written objections to the title reflected in such title commitment and the environmental conditions reflected in such Phase One report (the title and conditions reflected in such commitment and Phase One Report to which no objection is made being the "1029 Permitted Title Matters"). Tenant may utilize commercially reasonable efforts to resolve any such objections within a commercially reasonable time but in any event must do so before conveying the same to Landlord or commencing construction of the Parking Spaces on the 1029 Parcel. Unless the Termination Date has sooner occurred, after the demolition of existing improvements and removal of Hazardous Substances has occurred but prior to commencing the construction included in the Phase I Project, Tenant shall convey fee simple title to the 1029 Parcel to Landlord by means of recording a special warranty deed to Landlord in the form attached hereto as Exhibit D, a Phase One (or an update of a prior one) indicating the 1029 Parcel has no Hazardous Substances on it except any that may be present with 1029 Parcel is used for classroom or housing purposes in compliance with Legal Requirements that is no more than thirty (30) days old and an ALTA owner's policy, with an insurance amount of [REDACTED] issued in accordance with such title commitment indicating that Landlord has acquired fee simple title to the 1029 Parcel, subject only to the 1029 Permitted Title Matters. Upon the conveyance of the 1029 Parcel to Landlord, Tenant shall have no right to terminate the Lease until completion of the Phase I Project.

Section 3. RENT.

3.1. Base Rent. On or before the soonest of commencement of construction of any Parking Spaces provided for in Phase I, demolition of any existing improvements on the 1029 Parcel or the 1031 Parcel or February 1, 2017, Tenant will pay Landlord, without demand, deduction or set-off, at such place as Landlord shall from time to time direct by written notice to Tenant, an installment of Base Rent equal to: (a) the appraised value of the STADPKG Parcels [REDACTED] and (b) the out of pocket expenses incurred by Landlord (and if requested to participate in any proceedings pursuant hereto, KU Endowment Association) heretofore and

hereafter, in connection with the negotiation and performance of this Lease, the design, construction or financing of the Improvements, less any portion of such sum which is reimbursed to Landlord from a third party (collectively, the "Base Rent"); provided that, if the Termination Date occurs before the date upon which Tenant commences any construction or demolition work provided for in Phase I, Tenant will only be required to pay to Tenant the portion of the Base Rent provided for in (b) above and shall, within thirty (30) days of the Termination Date, receive a reimbursement of any Base Rent paid pursuant to this Lease, and a reconveyance of the 1029 Parcel by means of recording a commercially reasonable special warranty deed to Tenant or its designee and an ALTA owner's policy, with an insurance amount selected by Tenant and with such policy being paid for by Tenant, issued in accordance with such title commitment indicating that Tenant or such designee has acquired fee simple title to the 1029 Parcel, subject only to the 1029 Permitted Title Matters and any other matters caused by the acts or omissions of Tenant or its affiliates; provided that, the reimbursement amounts hereunder shall be reduced by both the reasonable forgone rental amounts suffered by Landlord for KU student year 2016/2017 due to Landlord not leasing its residential units located on the 1031 Parcel and any actual out of pocket expenses that Tenant is responsible for hereunder.

3.2. Net Lease. Landlord and Tenant intend that except as otherwise expressly provided herein (i) the Base Rent shall be net to Landlord, so that Tenant's payments to Landlord shall yield to Landlord the net Base Rent set forth herein, together with the Additional Rent (as herein defined) during the Lease Term, (ii) Tenant shall pay all costs, expenses and obligations which accrue or become due during the Term of this Lease, of every kind relating to the Property, relating to the design, zoning, permitting construction, operation, maintenance, repair and reconstruction of any Improvements on any of the Land, or relating to fees, costs, expenses, fines, penalties and obligations attributable to the use of the Property during the Term or to the failure of Tenant to fulfill its obligations hereunder, and (iii) Tenant shall pay all actual out of pocket expenses of Landlord related to this Lease, including, without, limitation, costs related to the negotiation of this Lease.

3.3. Additional Rent. By the anniversary of the Commencement Date in each calendar year during any portion of the Term and within sixty (60) days after the Termination Date, Tenant shall pay to Landlord as Additional Rent the out of pocket expenses incurred by Landlord or KU Endowment Association in their performance of this Lease (other than the costs Landlord is liable for related to Landlord's Reserved Use in Section 2.4) or in curing at Landlord's option any defaults by Tenant hereunder, in the design, zoning, permitting construction, operation, maintenance, repair and reconstruction of any Improvements on any of the Land or in curing any default of Tenant's obligations hereunder, less any portion of such sum which was previously reimbursed to Landlord by Tenant or a third party; provided that, at least thirty (30) days prior to such anniversary date and no later than thirty (30) days after such Termination Date Landlord will notify Tenant in writing of such amounts accrued but not reimbursed since the last portion of Additional Rent was paid.

3.4. Personal Property Taxes. Tenant shall pay and provide to Landlord proof of payment thereof at least ten (10) days before the same would be delinquent or, at Landlord's election, shall pay to Landlord as Additional Rent within ten (10) days of request therefor, all taxes, special assessments, excise taxes, payments in lieu of taxes and other governmental impositions of every kind and nature whatsoever, levied, assessed, or imposed upon or against

any personal property and trade fixtures on the Land, Improvements or Property for any period of time, any portion of which occurs after the Effective Date and on or before the date of Tenant's vacation of the Property in accordance with the provisions of this Lease at the end of the Term, whether the same are assessed or due prior to, during or after such period.

3.5. Real Estate Taxes. Tenant shall pay and provide to Landlord proof of payment thereof at least ten (10) days before the same would be delinquent or, at Landlord's election, shall pay to Landlord as Additional Rent within ten (10) days of request therefore, all taxes, special assessments, excise taxes, payments in lieu of taxes and other governmental impositions of every kind and nature whatsoever, levied, assessed, or imposed upon or against the Land, and all fixtures and improvements on the Land for any period of time, any portion of which occurs after the Effective Date and on or before the date of Tenant's vacation of the Land in accordance with the provisions of this Lease at the end of the Term, whether the same are assessed or due prior to, during or after such period.

3.6. Partial Year Taxes. Tax and assessment payments for any partial years shall be prorated except that Tenant will pay, or cause parties other than Landlord and KU Endowment Association to pay, taxes and assessments on the 1029 Parcel for the year in which the Effective Date occurs.

3.7. Property Tax Appeals. Tenant, at its expense, may attempt to obtain a lowering of the assessed valuation of the Property for any year for the purpose of reducing taxes thereon or an elimination of such taxes in their entirety. In such event, upon Tenant's request, Landlord shall use its reasonable efforts to cooperate with Tenant in such endeavor, at Tenant's expense.

Section 4. USE OF PROPERTY.

4.1. Nature of Use. During the Term Tenant may only use the Land and Improvements constituting the Property for the completion of the Phases permitted thereon, the maintenance of the Improvements permitted under this Lease thereon and, in compliance with the provisions of this Lease and Legal Requirements, as a parking lot for the parking of cars and other motor vehicles of Tenant's tenants, employees, agents, licensees, subtenants, and invitees living or working at the CA Student Housing Project; provided that, no Person will be given a sublease or license to park in any of the Parking Lot Spaces which exceeds the shorter of the balance of the Term or one (1) year.

4.2. Compliance with Legal Requirements and Environmental Laws. During the Term, Tenant, at Tenant's expense, shall cause the Property, including all Improvements, to be maintained and operated in compliance with all Legal Requirements. During the Term, Tenant, at Tenant's expense, in its use of the Land and Improvements or the demolition, disposal and construction, repair, maintenance, reconstruction and replacement of improvements on the Land, shall not: (a) except with respect to removal or disposals to be performed in accordance with Legal Requirements as part of the Phases necessary to use the real property for housing or classrooms or otherwise under this Lease, cause or permit the escape, disposal or release of any Hazardous Substances brought onto or removed from the Property by Tenant or its agents or contractors, or (b) allow the storage or use of such Hazardous Substances in any manner not

permitted by Legal Requirements for the storage and use of such substances or materials on real property used for housing or classrooms or otherwise not permitted in this Lease. If any lender or governmental agency reasonably requires testing to ascertain whether or not there has been any release of Hazardous Substances on the Property for which Tenant is responsible hereunder while this Lease is in effect, then the costs thereof shall be paid by Tenant if such requirement applies to the Property.

4.3. Representations, Warranties and Covenants of Landlord. As an inducement to Tenant to enter into and proceed under this Lease, Landlord warrants and represents to Tenant as follows, which warranties, representations and covenants are true and correct as of the date of this Lease:

(a) Landlord has the right, power and authority to enter into this Lease, to lease the STADPKG Parcels to Tenant and to perform all of Landlord's obligations in accordance with the terms, provisions and conditions contained in this Lease and by the Commencement Date no other party will have any rights to or in connection with the STADPKG Parcels except for residential leases of apartments in the existing improvements on the 1031 Parcel which expire on July 31, 2016 and any agreements, licenses or leases that relate to the Landlord's Reserved Use; provided that, it is understood and agreed that Landlord may enter into non-exclusive utility easements with respect to the STADPKG Parcels so long as such easements do not materially and adversely affect the Tenant's ability to use such STADPKG Parcels as a parking lot in accordance with this Lease and does not reduce the amount of available parking spaces for the CA Student Housing Project and it is further understood and agreed that Landlord will not be in default of this Lease if an entity with condemnation powers condemns any other type of easement or title to any portion of the Property; provided further that any costs incurred by Landlord in a condemnation proceeding necessitated because Tenant would not consent to a grant of easement or fee title by Landlord in lieu of a condemnation shall be Additional Rent owed by Tenant to Landlord;

(b) there is no litigation proceeding, or other action pending or, to the best knowledge and belief of Landlord, threatened, affecting the STADPKG Parcels or Landlord's estate therein;

(c) Landlord has received no written notice, and Monte Soukup, the Senior Vice President for Property of the sole member of the Landlord ("**Senior Vice President for Property**"), has no actual knowledge, that there is any pending or threatened condemnation, building or zoning code violation relating to all or any part of the STADPKG Parcels;

(d) Landlord has received no written notice, and the Senior Vice President for Property has no actual knowledge, that any party holding an easement affecting the STADPKG Parcels or any part thereof intends to expand the exercise of any such easement beyond the scope of the present exercise thereof (as by replacing or expanding existing facilities, conduits (including underground or overhead wires, cables or pipes) or systems for sewers, water, electric, gas, cable and other utilities);

(e) the entry by Landlord into this Lease with Tenant and the performance of all of the terms, provisions and conditions contained herein will not, or with the

giving of notice or the passage of time, or both, would not, violate or cause a breach or default under any other agreement relating to the STADPKG Parcels to which Landlord is a party or by which it is bound other than the residential leases in the improvements on the 1031 Parcel which expire July 31, 2016;

(f) except for the residential leases in the improvements on the 1031 Parcel which expire July 31, 2016, the STADPKG Parcels are unoccupied and vacant, and there is no tenant, lessee or other occupant of the STADPKG Parcels having any right or claim to possession or use of the STADPKG Parcels; and possession of the STADPKG Parcels is hereby delivered, effective as of the Commencement Date, free of the rights or claims of any tenants, occupants or other parties in possession of, or claiming any right to possession or use of the STADPKG Parcels;

(g) there are no unpaid special assessments of which Landlord has received notice for sewer, sidewalk, water, paving, gas, electrical or utility improvements or other capital expenditures, matured or unmatured, affecting the STADPKG Parcels;

(h) there are no outstanding notices of, nor, to Landlord's knowledge, any violations of any applicable Legal Requirements affecting any portion of the STADPKG Parcels;

(i) except for the residential leases in the improvements on the 1031 Parcel which expire July 31, 2016 or any agreements, licenses or leases that can be satisfied as part of the Landlord's Reserved Use, Landlord is not obligated under any contract, lease or agreement, oral or written, with respect to the ownership, use, operation or maintenance of the STADPKG Parcels that will interfere with Tenant's use of the Land permitted hereunder; and

(j) Landlord covenants and agrees that, so long as no Tenant Default has occurred and is continuing, Landlord shall not, directly or indirectly, take actions like the filing of bankruptcy or other similar actions in an effort to void, in whole or in part, Landlord's obligations and liabilities and Tenant's rights under this Lease and any assignment or conveyance of the Land or rights under this Lease by Landlord during the Term will be subject to Landlord's obligations hereunder.

Section 5. OPERATING EXPENSES.

5.1. Operating Expenses.

5.1.1. Tenant's Obligation. Excluding costs that Landlord is to pay in connection with the exercise of Landlord's Reserved Use under Section 2.4, Tenant will pay (or cause to be paid) directly to the providers of such services all costs and expenses attributable to or incurred in connection with the development, construction, completion, marketing, leasing and occupancy of the Land, Property and the Improvements (collectively, "**Operating Expenses**") including without limitation (a) all water, sewer and trash disposal services; and (b) all rehabilitation, maintenance, repair, replacement and rebuilding of the Improvements including, without limitation, (i) all landscaping, maintenance, repair and striping of all parking areas; (ii) all insurance premiums relating directly to the Property and the Improvements (including, without limitation, Landlord's actual out of pocket incremental expenses for

obtaining a commercially reasonable general liability insurance policy with a reasonably reputable insurer and amount of insurance); and (iii) the cost and expenses of all capital improvements or repairs required by any governmental or quasi-governmental authority having jurisdiction over the Property or the Improvements.

5.1.2. Permits and Licenses. Tenant shall procure, or cause to be procured, at Tenant's sole expense, any and all necessary permits, licenses, entitlements, or other authorizations required by any governmental authority for Tenant's use of the Property permitted under this Lease, including, without limitation those for demolition, disposal of debris, construction and operation of improvements permitted hereunder; provided that, upon Tenant's request Landlord will cooperate (and will cause KU Endowment Association to cooperate), at Tenant's sole expense, with Tenant in obtaining such permits, licenses, easements and other authorizations required. Tenant shall procure, or cause to be procured, at Tenant's sole expense, all permits, licenses, easements and other governmental authorizations that are necessary or helpful for electric, water, sewer, drainage, access and such other public or private utilities or facilities reasonably necessary or desirable for Tenant's use of the Property permitted herein; provided that upon Tenant's request Landlord will cooperate, at Tenant's sole expense, with Tenant in obtaining such permits, licenses, easements and other governmental authorizations; provided further, that the location of all such utility facilities must be approved in writing by Landlord, not to be unreasonably withheld, conditioned or delayed.

5.1.3. Landlord's Cooperation. If requested by Tenant, Landlord agrees to use Landlord's reasonable efforts (and in connection with seeking the initial Legal Approvals and thereafter while KU Endowment Association is the sole owner of or controls Landlord, Landlord shall cause KU Endowment Association to make reasonable efforts), at Tenant's expense, to assist Tenant to obtain waiver, reduction or deferral, as applicable, of all fees and other charges otherwise payable in connection with obtaining any permits, licenses, easements and other authorizations required by any governmental authority with respect to any construction or other work to be performed on the Property in connection with the Improvements permitted hereunder; provided that, Tenant must pay any amounts so deferred on or before the Termination Date.

Section 6. INSURANCE

6.1. Insurance to be maintained by Tenant. Tenant shall maintain, at its expense, throughout the Term from insurers licensed to issue such policies in Kansas that are reasonably acceptable to Landlord, a casualty insurance policy for the replacement value of the Improvements and a commercial general liability insurance policy with a limit of at least [REDACTED] per occurrence, [REDACTED] aggregate with at least a [REDACTED] umbrella which names Landlord, KU Endowment Association, and their respective members, trustees, officers, employees and agents as additional insureds thereunder. Tenant shall provide Landlord with a certificate of insurance evidencing the insurance required hereunder. Tenant shall cause its contractors and subcontractors to maintain insurance required under Section 2.8.3.

6.2. Insurance to be maintained by Landlord. Landlord shall maintain throughout the Term from insurers licensed to issue such policies in Kansas a commercial general liability insurance policy with a limit of at least [REDACTED] per occurrence,

██████████ aggregate with a ██████████ umbrella which names Tenant and the most recent holder of a Leasehold Mortgagee permitted hereunder of which Landlord has received written notice as an additional insured thereunder. Tenant shall pay to Landlord as Additional Rent the incremental increase in cost of any policy that covers the Property and any other property, as reasonably determined by Landlord.

6.3. Insurance Policies. All insurance policies required under this Section 6 will expressly provide that such policies will not be canceled or altered without thirty (30) days' prior written notice to any additional insureds.

6.4. Primacy of Insurance Policies. As between the policies of insurance maintained by Landlord and Tenant with respect to the Property, the policies of insurance required to be maintained by Tenant pursuant to Section 6.1 shall provide primary coverage during the Term except that during the Landlord's Reserved Use the insurance required to be maintained by Landlord under Section 6.2 shall provide primary coverage.

6.5. Waiver of Subrogation. Tenant and Landlord each hereby release and relieve the other (and Landlord's sole member) and waive their entire right of recovery against the other (and Landlord's sole member), for direct or consequential loss or damage arising out of or incident to the perils covered by property insurance carried by such party, whether due to the negligence of Landlord or Tenant or their agents, employees, contractors or invitees. If necessary, all property insurance policies required under this Lease shall be endorsed to so provide.

Section 7. ALTERATIONS AND MAINTENANCE; ESTOPPEL CERTIFICATES; ASSIGNMENTS AND SUBLETTING.

7.1. Alterations and Maintenance. During the Term, at Tenant's sole expense, Tenant shall maintain and, to the extent necessary repair or reconstruct, the Improvements in accordance with Legal Requirements and the plans approved therefor by Landlord, so that at all times the same are usable as a parking lot in compliance with all Legal Requirements and are in good condition, ordinary wear and tear and casualty excepted.

7.2. Estoppel Certificates. Landlord and Tenant agree that at any time and from time to time upon not less than twenty (20) business days' prior written notice by the other party, or upon request from the investor member, a permitted assignee, lender or other interested party, Landlord or Tenant will execute, acknowledge and deliver to the other party and such other Persons requested by such other Person (including any Leasehold Mortgagees) a statement in writing certifying and agreeing (which statement may be part of, without limitation, any Landlord Acknowledgment (defined below)): (a) that this Lease is unmodified (or if modified, stating such modifications) and in full force and effect; (b) the date through which the Rents have been paid; (c) that, to the knowledge of the certified (if such be the case), there is no default, set-off, defense or other claim against Landlord or Tenant, as applicable, other than those, if any, so specified under the provisions of this Lease; and (d) any other information requested and agreed to as part of Landlord Acknowledgment; provided that, neither party will be obligated to execute more than three (3) estoppel certificates in a twelve (12) month period. It is intended that any such statement may be relied upon by any such Persons.

7.3. Assignment and Subletting.

7.3.1. By Landlord. Landlord shall not voluntarily transfer, sell, assign, convey or otherwise encumber all or any portion of its interest in the Property or this Lease, except in a transaction that is subject to the terms of the Lease; provided that, Landlord may mortgage Landlord's interest in the Property so long as any such mortgage shall be subject and subordinate to this Lease and the applicable lender provides Tenant with a commercially reasonable subordination, non-disturbance and attornment agreement.

7.3.2. By Tenant. Except as permitted under Section 4.1 or with Leasehold Mortgages permitted by Section 10, Tenant may not license, transfer, sell, assign or sublet all or any portion of its interest in any portion of the Property and this Lease without the prior written consent of the Landlord which may be granted or withheld in its sole discretion; provided that, during the Term at a time that a Tenant Default has not occurred and is continuing, Landlord will not have consent rights under this Section 7.3.2 with respect to: (i) subleases or licenses of Parking Spaces which have a term of less than the lesser of one (1) year or the remainder of the Term and which either: (A) relate to a Parking Lot Space within the Phase I area and do not commence until Phase I has been completed in accordance with this Lease and the Legal Approvals, or (B) relate to a Parking Lot Space within the Phase II area and do not commence until Phase II has been completed in accordance with this Lease and the Legal Approvals (collectively, "**Resident Parking Agreements**"), (ii) the granting of a Leasehold Mortgage to a Leasehold Mortgagee which complies and has been approved in accordance with Section 10, or (iii) a sale or transfer of Tenant's interests in the Lease to a New Qualified Owner (defined below) after Phase I has been completed in accordance with this Lease and the Legal Approvals. For purposes of this Agreement, a "**New Qualified Owner**" shall be an owner that, after simultaneously acquiring fee simple title to the CA Student Housing Project and Tenant's interests under this Lease, has at least [REDACTED] in Net Worth (defined below). "**Net Worth**" shall mean the net worth of the Tenant calculated using Generally Accepted Accounting Practices, consistently applied. No license, transfer, sale, assignment or sublease shall release the Tenant as of the Effective Date from any obligations or indebtedness of Tenant hereunder in connection with Phase I or, unless the Vacated Fambrough Drive Area already has been deleted from the real property that is subject to this Lease or that can ever be added to the Land in accordance with Section 2.2.2 prior to such license, transfer, sale, assignment or sublease, the obligations or indebtedness of Tenant hereunder with respect to Phase II. Excluding Resident Parking Agreements which shall require no notice to Landlord, at least twenty (20) days prior to any other transfer, sale, assignment or sublease of Tenant's rights in this Lease, Tenant shall give Landlord written notice of the name, address and reasonable evidence of the Net Worth of each Person to which Tenant intends to transfer, sell, assign or sublease all or any portion of its interests in any portion of the Property pursuant to this Lease; provided that, such transfer, sale or assignment shall not occur if: (i) within such twenty (20) days Landlord notifies Tenant that Landlord reasonably disputes that the proposed transferee or assignee is a New Qualified Owner and Landlord therefore declines to consent thereto, or (ii) the Phases have not been completed in accordance with this Lease and the Legal Approvals and a commercially reasonable certificate and acknowledgment from the Tenant has not been provided to Landlord evidencing that Tenant agrees that it remains liable under this Lease until such Phases are completed or, in the case of Phase II, is no longer applicable under this Lease by virtue of Section 2.2.2. Any information provided to Landlord pursuant to this Section 7.3.2 for purposes of either proving the Net Worth

of a potential New Qualified Owner or regarding the possibility of a sale or transfer of Tenant's interests in the Lease and/or CA Student Housing Project to another party shall be collectively referred to herein as the "**Tenant Confidential Information**"; provided that, Tenant Confidential Information does not include any information which:

- (a) is or becomes generally known or available to the public through no act or failure to act by the Landlord or its officers, board members, or employees;
- (b) is or becomes known to the Landlord from a third party in rightful possession thereof and owing no obligation of confidentiality to the Tenant; or
- (c) was in the possession of the Landlord or any of its officers, board members, or employees prior to the time of disclosure on a non-confidential basis.

The Landlord agrees that, after the date of receipt of any Tenant Confidential Information, except as Landlord may be required to use or disclose the same by law, by an order of a court or agency of competent jurisdiction, in a proceeding to enforce this Lease, or in connection with the filing or audit of tax returns of Landlord or KU Endowment, it will:

- (a) not use, or authorize the use of, such Tenant Confidential Information for any purpose other than for the purpose of considering if the proposed transferee is a New Qualified Owner (the "**Purpose**");
- (b) hold such Tenant Confidential Information in strict confidence and protect such Tenant Confidential Information with the same degree of care normally used to protect its own similar Tenant Confidential Information (but no less than a reasonable degree of care);
- (c) not disclose such Tenant Confidential Information to any person other than its member and those of its and its member's officers, executive committee or board members, owners, agents, advisors, consultants or affiliates who (i) reasonably need to know such Tenant Confidential Information to effectuate the Purpose, and (ii) are advised of the confidential and proprietary nature of such Tenant Confidential Information and are bound by contractual, legal or professional confidentiality obligations prohibiting the further use and disclosure of such Tenant Confidential Information; and
- (d) not copy or reproduce all or any part of such Tenant Confidential Information in any medium, except as may be strictly necessary to effectuate the Purpose.

Section 8. FIRE AND OTHER CASUALTIES. Tenant shall give prompt notice to Landlord after the occurrence of any fire, earthquake, act of God or other casualty to or in connection with the Property, the Improvements or any portion thereof (hereinafter sometimes referred to as a "**Casualty**") and Tenant shall repair or restore the Improvements within one hundred eighty (180) days after the date upon which the Casualty occurred to as good or better condition as existed prior to the Casualty.

Section 9. CONDEMNATION.

9.1. Notice of Taking. Forthwith upon receipt by either Landlord or Tenant of notice of the institution of any proceedings for the taking or condemnation of all or a portion of the Property or Improvements by the government of the United States, State of Kansas, City of Lawrence, or any other governmental authority, or any corporation under the right of eminent domain (a "**Taking**"), the party receiving such notice shall promptly give notice thereof to the other, and each party may also appear in such proceeding to make a claim on their respective behalf and be represented by counsel, who may be counsel for the party receiving such notice.

9.2. Total Taking. In the event of a permanent Taking of the fee title to all of the Land (a "**Total Taking**"), this Lease shall thereupon terminate as of the effective date of such Total Taking except that any Base Rent, Additional Rent or other amounts payable or obligations owed by the Tenant to the Landlord as of the date of said Total Taking shall be paid or otherwise carried out in full. In the event of a Total Taking, the parties will each seek and retain their own respective compensation from the condemning authority.

9.3. Partial Taking; Procedures and Criteria for Course of Action. In the event of a permanent Taking of all or less than all of the Property (a "**Partial Taking**"), if Tenant reasonably determines that the continued use and occupancy of the remainder of the Property by the Tenant is or can reasonably be made to be economically viable, structurally sound, and otherwise feasible based upon the amount of eminent domain proceeds available for the purpose of paying for such restoration (the "**Restoration Criteria**"), then, upon receipt of the consent of the Leasehold Mortgagees, the entire compensation award attributable to the loss of or damage to the Improvements shall be applied to restoration of the Property and the Property shall be restored pursuant to Section 9.4; provided that any portion of the compensation award attributable to the taking of fee title to or an easement on any of the Land will be paid to Landlord. If the Tenant decides that the Restoration Criteria are not met or the Leasehold Mortgagees do not agree to allow the compensation award attributable to the loss of or damage to the Improvements to be used for restoration, then Landlord will be entitled to the compensation awarded for the Improvements and Landlord may terminate the Lease by giving a notice to the Tenant of its election to do so within sixty (60) days after such Partial Taking and the Term shall end sixty (60) days after the giving of such notice except that Tenant will still owe the Landlord any Rent or other indebtedness or obligations which accrued prior to such termination.

9.4. Restoration. If a decision is made pursuant to Section 9.3 to restore the remainder of the Property following receipt of a compensation award for the Improvements, the Tenant shall promptly proceed, at its expense, to commence and complete the restoration pursuant to the provisions of Section 9, using the compensation award for the Improvements for such restoration, with any excess remaining after the completion of the restoration being payable to Tenant and Landlord in equal shares. If Tenant has decided pursuant to Section 9.3 to restore the remainder of the Property, and if the cost of the restoration shall exceed the amount of the compensation awarded for the Improvements, the deficiency shall be paid by Tenant.

9.5. No Waiver; No Change in Rents. No provisions in this Lease limit the rights of either the Landlord or Tenant to seek compensation from a condemning authority as

provided by statute, common law, or the United States Constitution. Unless hereafter agreed Landlord will not have any obligation to refund any portion of the Base Rent or Additional Rent previously paid or result in any adjustment in the Additional Rent over the remainder of the Term.

Section 10. LEASEHOLD FINANCING

10.1 From time to time, so long as a Tenant Default (defined below) has not occurred and is continuing under this Lease and there is then no event or condition which, with the passage of time, the giving of notice or both would constitute or give Landlord the option to declare a Tenant Default, Tenant may grant a Leasehold Mortgage on Tenant's leasehold estate created under this Lease solely to secure indebtedness incurred by Tenant that consists of only part or all of Tenant or its affiliate's costs related to the acquisition of any portion of the Land, costs of construction and demolition provided for in the Phases, and costs of operating, maintaining, repairing or replacing any of the Improvements expressly permitted hereunder or in writing by Landlord (together with sums advanced by the Leasehold Mortgagee (defined below) for Leasehold Mortgagee to cure a Tenant Default under this Lease or otherwise to repair or maintain such permitted Improvements as provided in the applicable Leasehold Mortgage (defined below), collectively, the "**Permitted Indebtedness**") by (i) executing one or more Mortgages on Tenant's leasehold interests created hereunder which comply with the provisions of this Section 10.1, (each a "**Leasehold Mortgage**"); and (ii) delivering to Landlord an acknowledgment in a form reasonably required by Landlord (each a "**Lender Acknowledgment**") that complies with the provisions of Section 10.2 and is executed by the holder of the Leasehold Mortgage which is unrelated to Tenant (a "**Leasehold Mortgagee**") and Tenant. If Tenant grants or suffers any Mortgage or any other mechanics, materialmen's or other lien, security interest, collateral assignment or encumbrance of any type whatsoever (other than for real property taxes not yet due) on the leasehold estate created in this Lease, the Land, any improvement thereon or any subleases or licenses permitted hereunder other than a Leasehold Mortgage as defined in this Article 10 or if any Leasehold Mortgage secures indebtedness or obligations in addition to the Permitted Indebtedness, then, in either case, at the option of Landlord, the same will be a Tenant Default under this Lease. Notwithstanding anything else to the contrary in this Section 10.1, a Leasehold Mortgage may also encumber the CA Student Housing Project and the lien of such Leasehold Mortgage on the CA Student Housing Property or any lease or other interest therein may secure indebtedness or obligations in addition to the Permitted Indebtedness so long as in accordance with Section 10.3 the Landlord approves in writing the form of the Leasehold Mortgage prior to the recording thereof to ensure that as to the lien of the Leasehold Mortgage on the leasehold created by this Lease the amount secured is no greater than the Permitted Indebtedness, which approval will not be unreasonably withheld, delayed or conditioned. The Leasehold Mortgage may contain a cross-default with Mortgages on property other than the leasehold created hereunder, the CA Student Housing Property or any lease or other interest therein, but may not also encumber such other property. The Leasehold Mortgage may provide that the holder of the Leasehold Mortgage may foreclose the same against the leasehold created hereby and against the CA Student Housing Property simultaneously pursuant to the same legal proceeding.

10.2 The Lender Acknowledgment will provide that:

10.2.1 While the Leasehold Mortgage remains unsatisfied the Leasehold Mortgagee, simultaneously with sending the same to Tenant, will give Landlord a copy of each notice of default or of a right to cure that the Leasehold Mortgagee sends to the Tenant which relates to the Leasehold Mortgage or any other related loan documents;

10.2.2 During the Term while a Leasehold Mortgage of which Landlord has written notice remains unsatisfied, the Landlord, simultaneously with sending the same to Tenant, will give Leasehold Mortgagee a copy of each notice sent by Landlord which either (a) declares a Tenant Default or (b) commences a right to cure period under Section 11.1(b) and shall permit the Leasehold Mortgagee to cure any default within the period provided in Section 11.1(b); provided that, if Landlord fails to give such notice of Tenant Default or right to cure, then the Leasehold Mortgagee shall have the right to cure such Tenant Default or to complete such cure by the later of: (1) the thirtieth (30th) day after the later date Landlord does give Leasehold Mortgagee such a notice, and (2) the outside date by which Tenant has to cure the applicable Tenant Default;

10.2.3 Within thirty (30) days after the deadline for the Tenant to cure any default by Tenant under the Leasehold Mortgage and any related loan documents (or within (5) business days after Landlord's receipt of written notice regarding the failure of Tenant to pay amounts due and owing under the Leasehold Mortgage or any related loan documents), Landlord may, but need not, cure any default by Tenant under the Leasehold Mortgage and any related loan documents; provided that, any amounts which Landlord pays or incurs to effect any such cure shall immediately be due and payable by Tenant to Landlord as Additional Rent; and further provided that, Landlord's ability to cure Tenant's defaults pursuant to this Section shall not prevent Leasehold Mortgagee from, at its option, enforcing any rights or remedies available to it under the Leasehold Mortgage or any other related loan documents during Landlord's optional cure period while such Tenant default remains uncured;

10.2.4 The Leasehold Mortgage and the rights, title and interests of Leasehold Mortgagee and its successors and assigns, whether through foreclosure or assignment in lieu of foreclosure or otherwise, in the Tenant's leasehold created hereunder are, and upon any foreclosure of the Leasehold Mortgage or assignment of the leasehold in lieu of foreclosure will not exceed the rights of Tenant under this Lease so that any successor in interest to the rights, title and interests of the Tenant will have no fewer obligations than the Tenant does under this Lease and will be liable for performing any unperformed obligations of the Tenant, whether they occur before or after any such foreclosure or assignment in lieu thereof.

10.2.5 Any other commercially reasonable representations, warranties or covenants related to the Leasehold Mortgage requested by the applicable Leasehold Mortgagee and reasonably acceptable to Landlord; provided that, Landlord may withhold, for any or no reason, Landlord's consent to any requested representation, warranty or covenant that is inconsistent with the provisions of this Lease or any other written agreement hereafter made by Landlord and Tenant or which does, or in the future could, impose obligations or liabilities upon, or lessen the rights of, the Landlord.

10.3 Each time that Tenant enters into a Leasehold Mortgage or amends an existing Leasehold Mortgage or the loan documents, or portions thereof, reasonably related to the Leasehold Mortgage, at least five (5) business days prior to executing and, as applicable, recording the same, Tenant shall provide Landlord a copy of each such document and all amendments or modifications thereof and an address to which notices are to be sent to such Leasehold Mortgagee, during which five (5) business day period Landlord may approve in writing the form of the Leasehold Mortgage or provide written objections as to why the form presented does not comply with Section 10.1; provided that, Tenant will not enter into or record a Leasehold Mortgage that Landlord has given such objections to until such objections have been resolved.

10.4 So long as any Leasehold Mortgage is in existence, unless all Leasehold Mortgagees shall otherwise expressly consent in writing, the fee title to the Land and the leasehold estate of Tenant therein created by this Lease shall not merge but shall remain separate and distinct, notwithstanding the acquisition of said fee title and said leasehold estate by Landlord, by Tenant or by a third party, by purchase or otherwise.

10.5 Tenant shall cause any Mortgage, mechanics lien, materialmen's lien, security interest, collateral assignment or other lien or encumbrance (other than for real property taxes not yet due) which does not constitute a Leasehold Mortgage permitted hereunder to be released by the sooner of ten (10) days after Landlord's written demand therefor or the sooner date by which the holder thereof may exercise any rights to enforce the same against the leasehold created hereunder, the Land, the improvements thereon or any of the Property.

Section 11. DEFAULT.

11.1. **Tenant Default.** If any one or more of the following events shall have occurred and has not been remedied as hereinafter provided (each a "**Tenant Default**");

(a) Tenant's failure to pay any installment of Base Rent or Additional Rent on or within ten (10) days after the date the same is due and payable under the provisions of this Lease (or if no time for payment is otherwise specified in this Lease, then by twenty (20) days after written demand therefor from Landlord to Tenant);

(b) Tenant's failure to perform any of the other covenants, conditions and agreements herein contained on Tenant's part to be kept or performed within thirty (30) days after Landlord's written notice to Tenant specifying in the nature of such failure; or

(c) Tenant becoming the subject of a voluntary or involuntary bankruptcy, insolvency or other similar proceeding which is not dismissed within ninety (90) days of being instituted or the making by Tenant of an assignment for the benefit of creditors of substantially all of its assets;

then Landlord may give to Tenant a notice that Landlord has declared Tenant to be in default under this Lease; provided that if Landlord gives notice of a failure to perform a covenant, condition or agreement herein contained which cannot reasonably be cured within such thirty (30) day period, then the cure period shall be extended so long as Tenant, after receiving notice, commences to cure same within the thirty (30) day period and proceeds to cure the default as

soon as reasonably possible; provided that such extension will not exceed one hundred eighty (180) days.

11.2. **Landlord Remedies.** After giving Tenant a notice that Landlord has declared Tenant to have committed a Tenant Default under this Lease or if Tenant fails to cure a breach of a covenant, condition or agreement in the time frame therefor in Section 11.1(b) or to dismiss a proceeding in the time frame specified in Section 11.1(c), Landlord may do any one or more of the following:

- (a) sue Tenant for damages caused by such default;
- (b) seek specific performance of Tenant's obligations under this Lease;
- (c) enter the Land, Improvements and Property and cure Tenant's default in which case the costs incurred by Landlord in curing such default will become Additional Rent that is immediately due upon demand by Landlord; or
- (d) terminate this Lease upon a date specified in any subsequent notice given to Tenant and to any then Leasehold Mortgagee holding a Leasehold Mortgage of which Landlord has written notice; provided that if there is then a Leasehold Mortgage of which Landlord has written notice such termination of the Lease cannot be effective sooner than the date upon which the Leasehold Mortgagee's right to cure under Section 10.2.2 has expired.

Upon any termination of the Lease by Landlord due to a Tenant Default, in addition to and without prejudice to any other rights and remedies the Landlord may have, the Landlord may re-enter the Land, Improvements and Property, recover possession thereof and dispossess any or all occupants of the Land, Improvements and Property and/or exercise any other rights or remedies which Landlord has under applicable law.

11.3. **Survival of Certain Tenant Obligations.** Notwithstanding any termination of the Lease due to a Tenant Default, Tenant's obligations accrued hereunder, including without limitation to pay Base Rent or Additional Rent and to indemnify the Landlord for events or conditions which occur or exist as of the date of Tenant's vacation of the Property will survive and remain binding upon the Tenant.

11.4. **Landlord Default.** If Landlord fails to perform any of the covenants, conditions and agreements herein contained on Landlord's part to be kept or performed within forty-five (45) days after Tenant's written notice to Landlord specifying in the nature of such failure; then Tenant may give to Landlord a notice that Tenant has declared Landlord to be in default under this Lease; provided that if Tenant gives notice of a failure to perform a covenant, condition or agreement herein contained which cannot reasonably be cured within such forty-five (45) day period, then the cure period shall be extended so long as Landlord, after receiving notice, commences to cure same within the forty-five (45) day period and proceeds to cure the default as soon as reasonably possible; provided that such extension will not exceed one hundred eighty (180) days. If Landlord fails to timely cure a default by Landlord under this Lease, then Tenant's sole remedy will be to sue Landlord for actual (but not consequential) damages caused by such default or to seek specific performance of such cure.

Section 12. NOTICES. Any notice required or permitted to be given under this Agreement shall be in writing and shall be deemed to be an adequate and sufficient notice if given in writing and delivery is made either by (i) personal delivery, in which case the notice shall be deemed received the date of such personal delivery or refusal of receipt, or (ii) nationally recognized overnight air courier service, next day delivery, prepaid, in which case the notice shall be deemed to have been received one (1) business day following delivery to such nationally recognized overnight air courier service or refusal of receipt. All notices required or permitted to be given under this Lease shall be deemed given in accordance with the foregoing paragraph of this Section 12, and addressed as set forth in Exhibit B. Any party may change its address by timely notice to the other party.

Section 13. GENERAL.

13.1. Effectiveness. This Lease shall become effective on and only on its execution and delivery by each party hereto.

13.2. Recordation. Tenant agrees not to record this Lease, but each party hereto agrees to execute a Memorandum of Lease in the form attached hereto as Exhibit C and Landlord hereby consents to Tenant recording said Memorandum, and such Memorandum shall be amended and updated upon the request of any party when any additional Land becomes subject to the terms and conditions of this Lease.

13.3. Complete Understanding. This Lease represents the complete understanding between the parties hereto as to the subject matter hereof.

13.4. Amendment. This Lease may be amended only by an instrument executed and delivered by each party hereto.

13.5. Waiver. No party hereto shall be deemed to have waived the exercise of any right which it holds hereunder unless such waiver is made expressly and in writing (and, without limiting the generality of the foregoing, no delay or omission by any party hereto in exercising any such right shall be deemed a waiver of its future exercise). No such waiver made in any instance involving the exercise of any such right shall be deemed a waiver as to any other such instance, or any other such right.

13.6. Applicable law. This Lease shall be given effect and construed by application of the law of the State of Kansas, and any action or proceeding arising hereunder shall be brought in the courts of Kansas.

13.7. Time of essence. Time shall be of the essence of this Lease, except that, whenever the last day for the exercise of any right or the discharge of any obligation hereunder falls on a Saturday, Sunday or statutory holiday, the party having such right or obligation shall have until 5:00 p.m. on the next succeeding day which is not a Saturday, Sunday or statutory holiday to exercise such right or discharge such obligation.

13.8. Headings. The headings of the Sections, subsections, paragraphs and subparagraphs hereof are provided herein for and only for convenience of reference, and shall not be considered in construing their contents.

13.9. Construction. As used herein, all references made (a) in the neuter, masculine or feminine gender shall be deemed to have been made in all such genders, (b) in the singular or plural number shall be deemed to have been made, respectively, in the plural or singular number as well, and (c) to any Section, subsection, paragraph or subparagraph shall be deemed, unless otherwise expressly indicated, to have been made to such Section, subsection, paragraph or subparagraph of this Lease.

13.10. Exhibits. Each writing or plat referred to herein as being attached hereto as an exhibit or otherwise designated herein as an exhibit hereto is hereby incorporated herein and made a part hereof.

13.11. Severability. No determination by any court, governmental or administrative body or agency or otherwise that any provision of this Lease or any amendment hereof is invalid or unenforceable in any instance shall affect the validity or enforceability of (a) any other such provision, or (b) such provision in any circumstance not controlled by such determination. Each such provision shall remain valid and enforceable to the fullest extent allowed by, and shall be construed wherever possible as being consistent with, applicable law.

13.12. Disclaimer of Partnership Status. Nothing in this Lease shall be deemed in any way to create between the parties hereto any relationship of partnership, joint venture or association, and the parties hereto hereby disclaim the existence of any such relationship.

13.13. Commissions. Each party hereto hereby represents and warrants to the other that, in connection with the leasing of the Property hereunder, the party so representing and warranting has not dealt with any real estate broker, agent or finder, and there is no commission, charge or other compensation due on account thereof. Each party hereto shall defend, indemnify and hold harmless the other against and from any liability, claim of liability or expense arising out of any inaccuracy in such party's representation.

13.14. Benefit and burden. This Lease shall be binding on and inure to the benefit of the parties hereto and their respective successors and permitted assigns.

13.15. Waiver of Jury Trial. The parties hereto shall and they hereby do waive trial by jury in any action, proceeding or counterclaim brought by either of the parties hereto against the other on any matters whatsoever arising out of or in any way related to this Lease, the relationship of Landlord and Tenant, Tenant's use or occupancy of the Property, and/or any claim of injury, loss or damage.

13.16. Confidential Lease Terms. This Lease and its terms shall remain confidential and shall only be disclosed to: (i) the City, (ii) KU, (iii) Landlord, KU Endowment, Tenant and their respective members, officers, trustees, employees, agents, representatives, consultants, investors, lenders, attorneys, financial partners and investors, and (iv) other similar parties. Notwithstanding the foregoing, Landlord and KU Endowment may disclose the Lease and its terms to the extent required by law, by an order of a court or agency of competent

jurisdiction, as either Landlord or KU Endowment deems necessary in order to enforce this Lease or in connection with the filing or audit of tax returns of Landlord or KU Endowment.

**THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK
– SIGNATURES ON FOLLOWING PAGE.**

IN WITNESS WHEREOF, each party hereto has caused this Lease to be executed on its behalf by its duly authorized representatives, the day and year first above written.

LANDLORD:

STADPKG, LLC, a Kansas limited liability company
By: The Kansas University Endowment Association,
a Kansas not for profit corporation, its sole member

By:

Name: DALE SEUFERLING

Title: PRESIDENT

TENANT:

Here Lawrence Property Owner, LLC
a Delaware limited liability company

By:

Name: THOMAS M. SCOTT

Title: an Authorized Signatory

EXHIBIT A

Legal Description of Land

TRACT 1:

Lots 9 and 10 in Block 25, SINCLAIR'S ADDITION, City of Lawrence, Douglas County, Kansas.

TRACT 2:

Lot 8, Block 25, in SINCLAIR'S ADDITION, an addition to the City of Lawrence, in Douglas County, Kansas, as shown by the recorded plat thereof.

TRACT 3:

The legal description to be revised by Landlord and Tenant to include the areas reflected in Schedule 1(a) or 1(b), as and when applicable, including, without limitation the 1029 Parcel.

EXHIBIT B

Notice Addresses

Landlord:

STADPKG, LLC
c/o The Kansas University Endowment Association
1891 Constant Avenue
Lawrence, KS 66047-3743

Tenant:

c/o CA Student Living Holdings, LLC
1 Prudential Plaza
130 East Randolph Street
Suite 2100
Chicago, IL 60601
Attn: Thomas M. Scott
tscott@ca-ventures.com

And

Polsinelli PC
161 North Clark Street, Suite 4900
Chicago, Illinois 60601
Attn: Eric Greenfield & Patrick Elder
egreenfield@polsinelli.com & pelder@polsinelli.com

EXHIBIT C

MEMORANDUM OF LEASE

Recorded at the Request of and
after Recording Return to:

Polsinelli PC
Attn: Eric Greenfield
161 N. Clark Street, Suite 4200
Chicago, IL 60601

Site Address: _____
Tax Parcel ID# _____
Legal Description Attached as Exhibit A

MEMORANDUM OF LEASE

This MEMORANDUM OF LEASE (this "**Memorandum**") is made as of _____, 2016, by and between STADPKG, LLC, a Kansas limited liability company ("**Landlord**"), and Here Lawrence Property Owner, LLC ("**Tenant**"), as a memorandum of an unrecorded Lease dated _____, 2016 (the "**Lease**"), between Lessor and Lessee concerning the real property commonly known as: _____, and legally described on **Exhibit A** attached hereto (the "**Leased Property**"). Capitalized terms not defined herein are defined in the Lease.

1. Lease: Landlord leases to Tenant and Tenant leases from Landlord all of Lessor's right, title and interest in the Leased Property upon the terms, covenants and conditions set forth in the Lease, which provisions are incorporated into this Memorandum by reference.

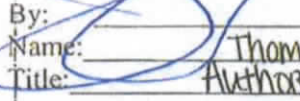
2. Term: The Original Term of the Lease commenced on the Commencement Date of _____, 2016 and expires on the Expiration Date of _____, 2066, unless earlier terminated or extended in accordance with the provisions of the Lease.

3. Interpretation: This Memorandum is not a complete summary of the Lease. Provisions in this Memorandum shall not be used in interpreting the Lease provisions. In the event of conflict between the Memorandum and the unrecorded Lease, the unrecorded Lease shall control.

SIGNATURES AND ACKNOWLEDGEMENTS ON FOLLOWING PAGES.

TENANT:

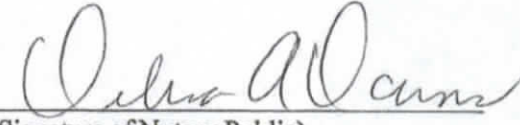
Here Lawrence Property Owner, LLC,
a Delaware limited liability company

By: 
Name: Thomas M. Scott
Title: Authorized Signatory

STATE OF Illinois)
COUNTY OF Cook) ss.

I certify that I know or have satisfactory evidence that Thomas M. Scott, is the person who appeared before me, and he/she acknowledged that he/she signed this instrument, on oath stated that he/she were authorized to execute the instrument and acknowledged that he is the managing member of Here Lawrence Property Owner, LLC, a Delaware limited liability company, to be the free and voluntary act of such party for the uses and purposes mentioned in this instrument.

DATED: 8/2/2016


(Signature of Notary Public)

Debra A. Downs
(Printed Name of Notary Public)



My Appointment expires 1/22/2020

LANDLORD:

STADPKG, LLC, a Kansas limited liability company
By: The Kansas University Endowment Association,
a Kansas not for profit corporation, its sole member

By: [Signature]
Name: DALE SEAFERLING
Title: PRESIDENT

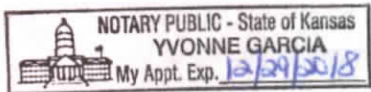
STATE OF KANSAS)
) ss.
COUNTY OF Douglas)

I certify that I know or have satisfactory evidence that Dale Seferling, in his/her capacity stated below is the person who appeared before me, and he/she acknowledged that he/she signed this instrument, on oath stated that he/she were authorized to execute the instrument and acknowledged it as the President, of The Kansas University Endowment Association, a Kansas not for profit corporation in its capacity as the sole member of STADPKG, LLC, a Kansas limited liability company, to be the free and voluntary act of such party for the uses and purposes mentioned in this instrument.

DATED: August 3, 2016.

[Signature]
(Signature of Notary Public)

Yvonne Garcia
(Printed Name of Notary Public)



My Appointment expires December 29, 2018

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

EXHIBIT D

FORM OF SPECIAL WARRANTY DEED

SPECIAL WARRANTY DEED

THIS INDENTURE is made on the ___ day of _____, 2016, by and between _____ (“Grantor”), and **STADPKG, LLC**, a Kansas limited liability company with a mailing address of 1891 Constant Avenue Lawrence, KS 66047-3743 (“Grantee”).

WITNESSETH: That Grantor, in consideration of the sum of Ten Dollars and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, does by these presents, Sell and Convey unto said Grantee, its successors and assigns, the parcel of real estate which is situated in Douglas County, Kansas, and more fully described on Exhibit A which is attached hereto and incorporated herein by this reference.

ALL SUBJECT to easements, restrictions, reservations, covenants and rights of way of record, zoning laws, taxes for the year 2017 and subsequent years, any matter that would be disclosed by an accurate survey of the foregoing and any encumbrances created by Grantee.

TO HAVE AND TO HOLD THE SAME, together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, forever. And said Grantor, for itself and its respective successors and assigns, does hereby covenant, promise and agree to and with said Grantee, that the Grantor will warrant and forever defend said interest unto the said Grantee, against said Grantor and its successors and assigns, and all and every person or persons whomsoever lawfully claiming or to claim the same by, through or under the Grantor, except for those matters aforesaid.

IN WITNESS WHEREOF, the Grantor has hereunto set forth its respective hand, the day and year first above written.

_____,
a _____

By: _____

STATE OF _____)

_____)

COUNTY OF _____)

This instrument was acknowledged before me on _____, 2016, by _____ as the _____ of _____, a _____, who is personally known to me to be such officer, and who acknowledged that the execution of the foregoing was the free act and deed of said _____.

(SEAL)

_____, Notary Public

My Appointment Expires: _____

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

Schedule 1(a)

**Depiction of Phase I Project Relating to 0 Parcel, 1029 Parcel,
1031 Parcel and Alley Vacation Parcel**

See Attached.

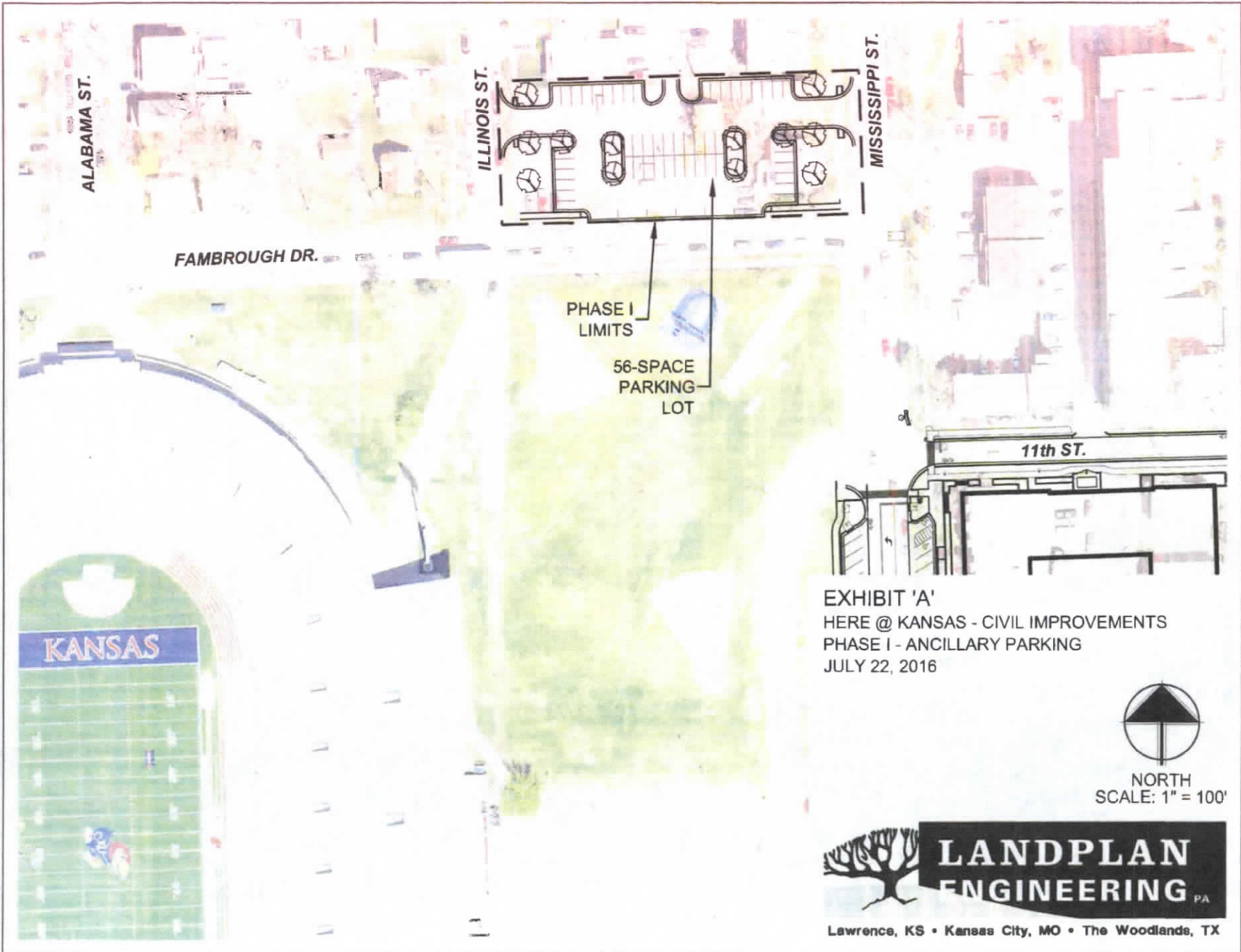



EXHIBIT 'A'
 HERE @ KANSAS - CIVIL IMPROVEMENTS
 PHASE I - ANCILLARY PARKING
 JULY 22, 2016

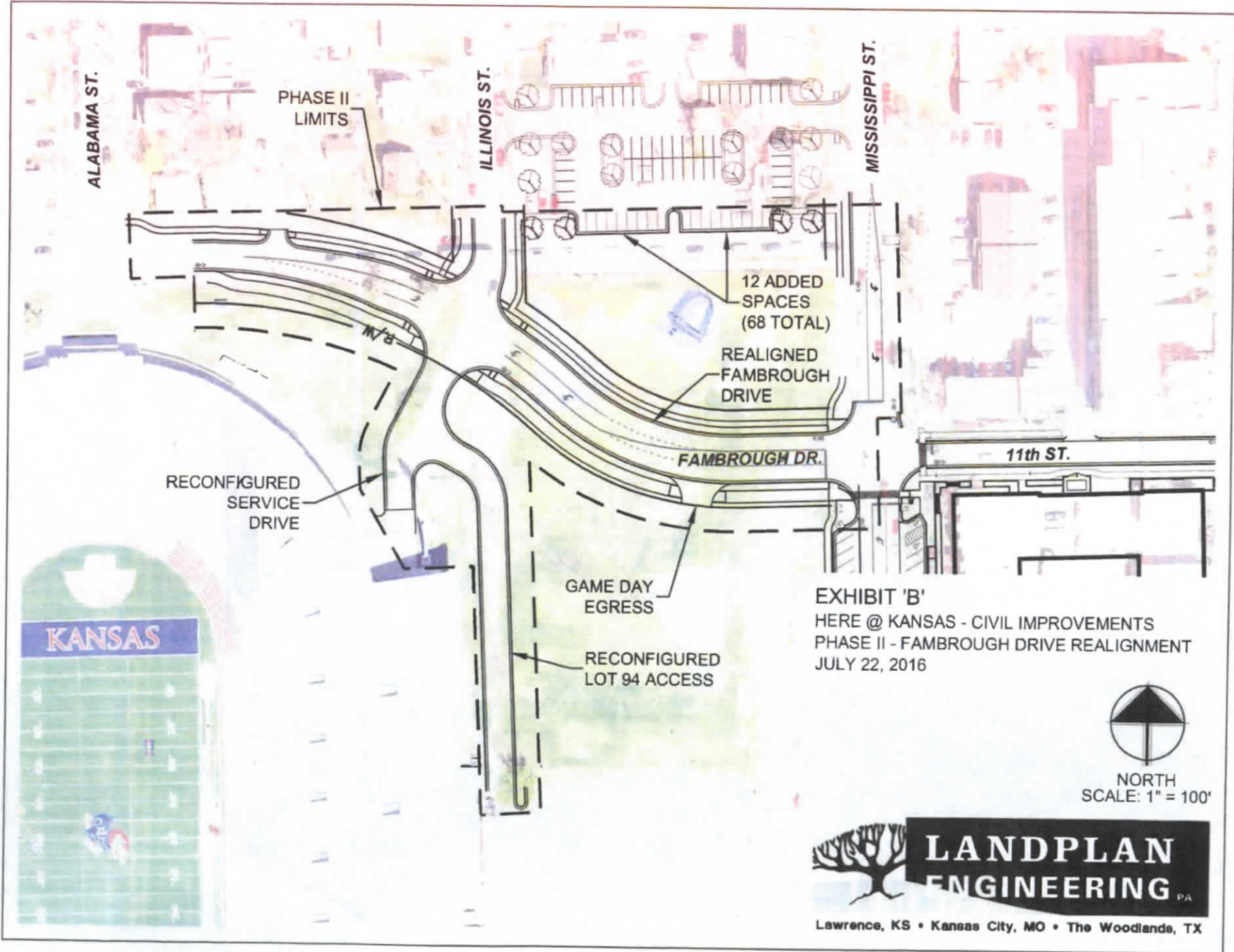

 NORTH
 SCALE: 1" = 100'


LANDPLAN
ENGINEERING PA
 Lawrence, KS • Kansas City, MO • The Woodlands, TX

Schedule 1(b)

Depiction of Phase II Project

See Attached.





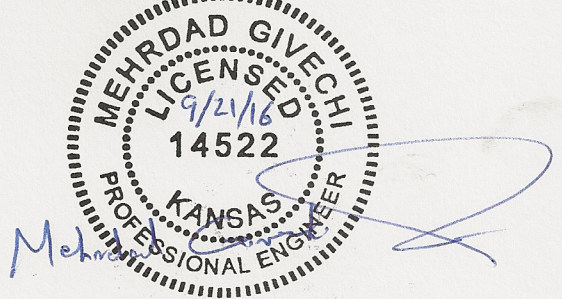
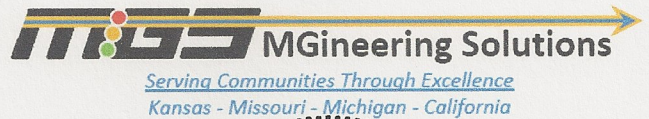
Revised Traffic Impact Study

Here @ Kansas A Mixed-Use Redevelopment

SWC of Indiana Street and 11th Street
Lawrence, Kansas

Prepared for
Landplan Engineering, P.A.

Prepared
By



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

September 2016

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Introduction

Background

On 12/15/2013, a Traffic Impact Study (TIS) was completed for the proposed HERE @ Kansas mixed-use development to be located on the southwest corner of the intersection of Indiana Street and 11th Street in Lawrence, Kansas. Since then, a number of changes to the development project have instigated the need for a revised traffic impact study. The purpose of this report is to document the changes from the original plan and reassess the impact of these changes on the surrounding street network in the study area.

Proposed Changes to the Project

The proposed changes consist of:

- An increase in the number of dwelling units from 172 to 237 units;
- An increase in the number of bedrooms from 592 to 624 bedrooms;
- A reduction in the general retail space from 11,000 to 7,676 sq. ft.;
- An addition of a restaurant with an area of 5,882 sq. ft.;
- A reduction in the number of parking stalls in the garage from 592 to 510 stalls with egress and ingress from Mississippi Street only. As a result of this reduction, additional parking spaces will be provided near the site on the northwest corner of the intersection of Fambrough Drive and Mississippi Street. The two existing apartments on this parcel of land will be razed and the land will be converted to a surface parking lot having 68 parking stalls. Access to this surface lot will be provided at two locations – one on Mississippi Street and one on Illinois Street. Moreover, there will be 108 on-street angled parking spaces along Indiana and Mississippi Streets (57 on Mississippi and 51 on Indiana Street);
- A number of geometric improvements will be made to improve safety and operational efficiency of traffic in the study area. They include (See Figure 13 of Appendix I for a concept layout):
 - Realignment of Fambrough Drive to the south in order to line up with 11th Street creating a 4-legged intersection at Mississippi Street. The new lane configurations will consist of:

- A dedicated left-turn lane and a shared through and right-turn lane for north and south approaches (Mississippi Street);
- A dedicated right-turn lane and a shared through and left-turn lane for west approach (realigned Fambrough Drive); and
- One shared lane for east approach (11th Street).

This intersection will be controlled by STOP signs on all approaches (See justification in the Traffic Signal Warrant Analysis section of this report).

- Slight relocation of the intersection of Fambrough Drive and Illinois Street to the west and creating a 4-legged intersection with the south leg providing access to KU's Lot 94. Doing so, will eliminate the direct access to Lot 94 from Mississippi Street. The lane configurations for this intersection will consist of:

- A dedicated left-turn lane and a shared through and right-turn lane for east and west approaches (Realigned Fambrough Drive); and
- One shared lane for north and south approaches (Illinois Street/Access to KU's Lot 94)

This intersection will be controlled by STOP signs on Illinois Street and access to KU's Lot 94.

Site Description

The proposed redevelopment site is located on the southwest corner of the intersection of 11th Street and Indiana Street, in proximity to the main campus of the University of Kansas in Lawrence, Kansas. It is bounded by Indiana Street to the east, 11th Street to the north, Mississippi Street to the west and residential development to the south (See Location Map, Figure 1 of Appendix 1).

Pre-Development Land Use

At the time this report was prepared, the construction of the HERE @ Kansas development was far along and near completion. Under the pre-development conditions, the project site was occupied by the "Berkeley Flats" apartment complex comprising of 10 individual buildings with a total of 102 dwelling units. In addition, there was a single family dwelling unit nested in the middle of the site with frontage on Indiana

Street. Due to steep topography along the west side of Indiana Street, access to this single family dwelling was provided in the back via “Berkeley Flats” parking lot.

The area around and near the site is fully developed with predominate use as residential and student housings with the Oread Hotel a half block to the south and the university football stadium across the street to the west.

Proposed “HERE @ Kansas” Development

Under the proposed development plan, the entire “Berkeley Flats” complex including the existing single family dwelling unit was razed and replaced by a mid-rise building as a mixed-use development (See Site Plan, Figure 2 of Appendix I). As mentioned earlier, the proposed development project will consist of 237 dwelling units of student apartments consisting of 624 bedrooms, a 5,882 sq. ft. restaurant, and approximately 7,676 sq. ft. of general retail space.

Parking

The project will have a total of 686 parking spaces. The garage will provide for 510 spaces. Additional 108 on-street angled parking spaces will be provided on Mississippi and Indiana Streets (57 and 51 stalls respectively). A surface lot will also be constructed on the northwest corner of the existing intersection of Mississippi Street and Fambrough Drive to provide for 68 additional parking spaces.

Access

Under the proposed development plan, access to the site will be as follows:

- No access on 11th Street;
- Access to the garage will be provided on Mississippi Street at two points with ingress to the south (approximately 383 ft. from 11th Street) and egress to the north (approximately 200 ft. from 11th Street); and
- Access to the surface lot between Mississippi and Illinois Streets will be provided at two locations – one on Mississippi Street and one on Illinois Street.

Zoning

The Oread Neighborhood Plan, which is incorporated into the Horizon 2020 Future Land Use Plan, calls for this site to be mixed-use with a district two (2) high density overlay. The zoning for the HERE @ Kansas site was changed from RM32 to MU-PD in 2014. The zoning for the proposed off-site parking lot must match the intensity of the use which it serves. Currently the east half of the parking lot site is zoned RM32 and the west half RM12D. Based on the residential density of the HERE @ Kansas development, the zoning for the parking lot must change from RM32 and RM12D to RM32-PD.

Purpose

The purpose of this study is to:

1. Evaluate the existing operating conditions of traffic at the following intersections per city staff consensus:
 - Mississippi Street and 11th Street
 - Mississippi Street and Realigned Fambrough Drive
 - Mississippi Street and Driveways to the site
 - Mississippi Street and 9th Street (signalized)
 - 11th Street and Indiana Street
 - 11th Street and Tennessee Street (signalized)
 - 11th Street and Kentucky Street (signalized)
2. Identify existing operational and/or safety deficiency(s), if any, at the above-mentioned intersections and recommend mitigation measures as needed.
3. Assess impact of the proposed development on the subject intersections.
4. Recommend on-site and off-site improvements, as the result of this development.
5. Evaluate future operating conditions of traffic for target year 2030.

Data Collection and Summary

Data collection efforts for this study included:

- Field observations and measurements to collect pertinent information such as lane configurations, posted speed limits, traffic control devices, and etc.
- Compilation of the existing vehicular turning movement counts at the subject intersections. For the signalized intersections, most recent counts were obtained from City's Public Works Department records. For the remaining intersections, where no counts were available, turning movement counts were conducted during both morning and afternoon peak hours of typical weekdays in November 2013 while university classes were in session.

It is to be noted that all traffic counts used for this analysis represent data prior to start of any construction activities for this project (which started in January 2015) in order to represent typical traffic patterns in the study area.

The following paragraphs summarize the results of data collection and field observations.

Roadway Network Geometry & Operational Characteristics

In the vicinity of the redevelopment site (See Figure 2 of Appendix I for summary):

- Mississippi Street runs north/south along the west side of the project site with one through lane and one parking lane in each direction, curb/gutter sections and no posted speed limit (Per state law, however, the speed limit is 30 mph whenever not posted). North of 11th Street, Mississippi Street is designated as a "Collector" on the *City's T2040 Thoroughfare Map*, whereas south of 11th Street, it is a "Local" Street.
- 11th Street runs east/west along the north side of the project site with one lane in each direction, curb/gutter sections, no on-street parking and no posted speed limit. According to the *City's T2040 Thoroughfare Map*, 11th Street is designated as a "Collector".
- Indiana Street runs north/south along the east side of the project site with one through lane in each direction, on street parking lane along the west side,

curb/gutter sections and no posted speed limit. It is designated as a “Local” Street on the *City’s T2040 Thoroughfare Map*.

- Fambrough Drive runs east/west about half a block north of the project site with one lane in each direction, no on-street parking and no posted speed limit. It is designated as a “Collector” Street on the *City’s T2040 Thoroughfare Map*.
- 9th Street runs east/west two blocks north of the project site with two lanes in each direction, no on-street parking, and posted speed limit of 30 mph. It is designated as a “Minor Arterial” on the *City’s T2040 Thoroughfare Map*.
- Tennessee Street runs north/south three blocks east of the project site with posted speed limit of 30 mph. It is a one-way street in the southbound direction with two travel lanes and on-street parking along the west side. It is designated as a “Collector” on the *City’s T2040 Thoroughfare Map*.
- Kentucky Street runs north/south four blocks east of the project site with posted speed limit of 30 mph. It is a one-way street in the northbound direction with two travel lanes and on-street parking along the east side. It is designated as a “Collector” on the *City’s T2040 Thoroughfare Map*.
- The intersections of 11th Street with Mississippi Street and Indiana Street are both “all-way-stop-controlled” intersections with one lane on each approach.
- The intersection of Mississippi and Fambrough Drive is a “T” intersection controlled by a stop sign on Fambrough Drive with one lane on each approach.
- The intersection of 9th Street and Mississippi Street is a pre-timed (uncoordinated) signalized intersection operating under “protected/permissive” left-turn phase for eastbound/westbound movements and “permissive only” left-phase for northbound/southbound movements. The lane configurations for this intersection are shown in Figure 3 of Appendix I.
- The intersection of 11th Street and Tennessee Street is a pre-timed (time-base coordinated) signalized intersection operating under “protected/permissive” left-turn phase for westbound movement and “permissive only” left-turn phase for southbound movement. The lane configurations for this intersection are shown in Figure 3 of Appendix I.

- The intersection of 11th Street and Kentucky Street is a pre-timed (time-base coordinated) signalized intersection operating under “permissive only” left-turn phase for eastbound and northbound directions. The lane configurations for this intersection are shown in Figure 3 of Appendix I.

Manual Traffic Counts

For the purpose of this analysis, the most recent vehicular turning movement counts were obtained from the City’s Public Works Department records. These counts were conducted at the signalized intersections a couple of years prior to start of any construction activities for this project. For the unsignalized intersections where no data was available from the city, vehicular turning movement counts were conducted during both morning and afternoon peak-hours (7:00 – 9:00 and 4:00 – 6:00) of typical weekdays in November and early December 2013 when the university classes were in session. The results, as summarized in Appendix IV and illustrated in Figures 4 and 5 of Appendix I, indicate that the peak characteristics of traffic along the street network within the study area are as follows:

- On a typical weekday, the morning peak occurs between 7:30 and 8:30 with
 - Mississippi Street carrying peak-hour volumes of approximately 240 vph south of 11th Street; 420 vph between 11th Street and Fambrough Drive; and 300 vph north of Fambrough Drive. The directional distribution of traffic on this facility is generally 80% - 20% (southbound – northbound) except between 11th Street and Fambrough Drive, which is approximately 62% - 38% (southbound – northbound).
 - 11th Street carrying peak-hour volumes of approximately 325 vph between Mississippi Street and Indiana Street; 180 vph west of Tennessee Street; 345 vph between Tennessee Street and Kentucky Street; and 515 vph east of Kentucky Street. The directional distribution of traffic on this facility is generally 55% - 45% (westbound – eastbound)
 - Fambrough Drive carrying peak-hour volumes of approximately 500 vph west of Mississippi Street with directional distribution of 65% - 35% (westbound – eastbound).

- On a typical weekday, the afternoon peak occurs sometime between 4:30 and 5:45 with
 - Mississippi Street carrying peak-hour volumes of approximately 425 vph south of 11th Street; 740 vph between 11th Street and Fambrough Drive; and 500 vph north of Fambrough Drive. The directional distribution of traffic on this facility is generally 30% - 70% (southbound – northbound) except between 11th Street and Fambrough Drive, which is approximately 40% - 60% (southbound – northbound).
 - 11th Street carrying peak-hour volumes of approximately 510 vph between Mississippi Street and Indiana Street; 350 vph west of Tennessee Street; 500 vph between Tennessee Street and Kentucky Street; and 775 vph east of Kentucky Street. The directional distribution of traffic on this facility is generally 50% - 50% (westbound – eastbound)
 - Fambrough Drive carrying peak-hour volumes of approximately 500 vph west of Mississippi Street with directional distribution of 50% - 50% (westbound –eastbound).
- The intersection of 11th Street and Mississippi Street carries approximately 545 vph and 860 vph during the morning and afternoon peak-hours, respectively.
- The intersection of 11th Street and Indiana Street carries approximately 460 vph and 765 vph during the morning and afternoon peak-hours, respectively.
- The intersection of Fambrough Drive and Mississippi Street carries approximately 510 vph and 865 vph during the morning and afternoon peak-hours, respectively.

Transit Services

The street network surrounding the project site is served by KU on Wheels - the transit system of the University of Kansas, a division of KU Parking & Transit. Currently, there are seven bus routes with designated stops on 11th Street, Indiana Street, Mississippi Street and Fambrough Drive with variable schedules throughout the day - routes 11, 29, 30, 36, 38, 42 and 43.

Evaluation of the Existing/Pre-Development Operating Conditions

Volume/Capacity Analysis

A volume/capacity analysis (using Synchro 8 Software and methodologies outlined in the 2010 Highway Capacity Manual (HCM) published by TRB) 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.

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, LOS “E” the capacity of the facility 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.

Level-Of-Service	Control Delay for Unsignalized Intersections (seconds/vehicle)	Control Delay for Signalized Intersections (seconds/vehicle)	Volume/Capacity Ratio for Roundabouts (aaSIDRA Criteria)
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 6 of Appendix I, indicate that during the peak-hours of a typical weekday all movements at all subject intersections operate at LOS “B” and higher except for the eastbound movement on Fambrough Drive that operates at LOS “C” during the afternoon peak-hour under the existing alignment. With the proposed realignment and geometric improvements, the LOS for the eastbound movement at Fambrough Drive and Mississippi Street will improve to “B” and higher.

Intersection Sight Distance

Field observations indicate that none of the intersections within the study area experience sight distance restrictions because all on-street parking spaces are set back from the intersections and outside the departure sight triangles.

Revised 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, 9th Edition. A review of the individual land use components of the proposed “HERE @ Kansas” mixed-use development indicates that all of the uses are listed in the ITE Trip Generation Manual as summarized below:

Project Component	ITE Land-Use Code	Independent Variable
Apartments	220	No. of Units
or	or	or
Mid-Rise Apartments	221	No. of Persons (Bedrooms)
High-Turnover, Sit-Down Restaurant	932	Gross Floor Area
Specialty Retail Shops	826	Gross Floor Area

For the purpose of this analysis, the following steps are taken to estimate trips that are added to the street network as “new trips” (otherwise known as external trips).

- Step 1: Trips generated by the individual components are estimated separately and results combined to represent anticipated “gross total trips” for the project site. Using above-mentioned ITE land use codes and their independent variables, both “Average Rate Method” and “Regression Equation Method” were evaluated and the method that generated most trips with statistical significance was selected for analysis.
- Step 2: Because the retail component of the project is relatively small in size, the “pass-by” trips for this component are assumed to be zero.

- Step 3: The project site is located within walking distance of the university's main campus and also located on several transit bus routes. Therefore, the "unadjusted total trips" estimated in step 1 above are a combination of vehicular, bus, pedestrian, and bike trips. To estimate the actual vehicular trips, these numbers should be reduced using a discount factor for the area. In addition, these trips should be further discounted to account for some internal trips between different land uses within the project site. In the absence of such discount factors, a value of 10% is viewed as reasonable.
- Step 4: The project site was occupied by an apartment complex (a.k.a. Berkeley Flats) whose trips in/out of the site are eliminated as a result of this project. This results in further reduction in the number of trips on the network (See Figure 9 of Appendix I for details).

The results of the trip generation analysis, as summarized in Table 1 and shown in detail in Appendix III, indicate that on a typical weekday, the external trips (net added new trips) for this project will likely be as follows:

- On average, 214 new trip-ends (110 inbound and 104 outbound) during the morning peak-hour of a typical weekday;
- On average, 292 new trip-ends (150 inbound and 141 outbound) during the afternoon peak-hour of a typical weekday; and
- On average, 3,000 new trip-ends during 24-hour period of a typical weekday.

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 "HERE @ Kansas" mixed-use development, 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, however, both morning and afternoon peak-hours are selected as the analysis time periods.

Table 1
Summary of Trip Generation Calculations ^{a, b} for the Proposed "HERE @ Kansas" Mixed-Use Development
(Southwest Corner of 11th Street and Indiana Street, Lawrence, KS)

Scenario	Land Use (ITE CODE)	Size	Typical Weekday						
			24-hr, 2-Way Volume (vpd)	AM Peak-Hour (vph)			PM Peak-Hour (vph)		
				Enter	Exit	Total	Enter	Exit	Total
1	Apartments (220) *	237 units	1,560	24	96	120	96	52	148
	General Retail Shops (826)	7,676 GSF	488				9	12	21
	High Turnover Restaurant (932)	5,882 GSF	748	35	29	64	35	23	58
	Total (Scenario 1)		2,796	59	125	184	140	87	227
2	Apartments (220) *	624 bedrooms	2,101	87	86	173	123	122	245
	General Retail Shops (826)	7,676 GSF	488				9	12	21
	High Turnover Restaurant (932)	5,882 GSF	748	35	29	64	35	23	58
	Total (Scenario 2)		3,337	122	115	237	167	157	324
3	Mid-Rise Apartments (223) *	237 units	920	22	49	71	53	39	92
	General Retail Shops (826)	7,676 GSF	488				9	12	21
	High Turnover Restaurant (932)	5,882 GSF	748	35	29	64	35	23	58
	Total (Scenario 3)		2,156	57	78	135	97	74	171
4	Mid-Rise Apartments (223)	624 bedrooms							
	General Retail Shops (826)	7,676 GSF	488				9	12	21
	High Turnover Restaurant (932)	5,882 GSF	748	35	29	64	35	23	58
	Total (Scenario 4)		1,236	35	29	64	44	35	79
Gross Total Trips (Worse Case Scenario 2)			3,337	122	115	237	167	157	324
Internal Trips @ 10% (due to nearby amenities: transit and walkability to KU C)			-334	-12	-12	-24	-17	-16	-32
External Trips (added new trips)			3,003	110	104	214	150	141	292

NOTES:

- a) The trip generation numbers in this table are calculated using the rates suggested in the "ITE Trip Generation Manual", 9th Edition.
 - b) 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)
- Blank cells indicate no data available.

Revised Trip Distribution and Assignment Analysis

For the purpose of this study, it is assumed that the trip distribution patterns for the development site will follow the existing traffic patterns as illustrated in Figure 7 of Appendix I and summarized below:

During Morning Peak-Hour of a Typical Weekday

- 59% from north / 57% to north on Mississippi Street;
- 20% from east / 27% to east on 11th Street;
- 11% from west / 6% to west on Fambrough Drive; and
- 10% from south / 10% to south on Mississippi Street.

During Afternoon Peak-Hour of a Typical Weekday

- 46% from north / 51% north on Mississippi Street;
- 15% from east / 15% to east on 11th Street;
- 9% from west / 4% to west on Fambrough Drive; and
- 30% from south / 30% from south on Mississippi Street.

Using the above trip distribution patterns, trips generated by the proposed development site are assigned to individual movements within the study area as illustrated in Figure 8 of Appendix I.

Revised Impact Assessment for the Proposed Development

Volume/Capacity Analysis

An evaluation of the “Existing – Berkeley Flats + Proposed HERE @ Kansas Mixed-Use development” traffic conditions indicates that, with the proposed Fambrough realignment and geometric improvements, all movements at subject intersections will likely operate at LOS “C” and higher during both peak-hours of a typical weekday (See Figures 10 and 11 of Appendix I and summary in Appendix II for details).

Traffic Signal Warrant Analysis

A signal warrant analysis, using methodology outlined in the MUTCD 2009 Edition (with Revisions 1 & 2), was conducted to determine the need for installation of a traffic signal at the intersection of Mississippi Street and realigned Fambrough Drive with the proposed lane configurations illustrated in Figure 13 of Appendix I. For this analysis, only the Peak-Hour Vehicular Volume (Warrant #3) can be evaluated because the only trip data available for the project site are for the peak-hours of a typical weekday. Other warrants such as 4-hour vehicular volumes, 8-hour vehicular volumes, pedestrian volumes, crash history can only be evaluated in the future when the project is fully constructed and occupied; and traffic in the study area is normalized.

The results of the analysis for this study, as summarized in Appendix V, indicate that traffic volume requirements for the Peak-Hour Volume Warrant (Warrant #3) are not met for either of the peak-hours of a typical weekday.

Impact Assessment for Target Year 2030

Figure 12 of Appendix I illustrates the forecasted Average Daily Traffic (ADT) in the study area for target year 2030. It also highlights LOS for target year 2030. This information is provided by KDOT Planning Bureau based on their Transportation Demand Model. According to this information

- Mississippi Street, south of 11th Street, will likely carry volumes of approximately 2,000 vpd experiencing no congestion with LOS “C” or higher;
- Mississippi Street, north of 11th Street, will likely carry volumes of approximately 8,000 vpd experiencing no congestion with LOS “C” or higher;
- 11th Street, east of Mississippi Street, will likely carry volumes in the range of 6,000 vpd to 7,000 vpd experiencing no congestion with LOS “C” or higher; and
- Fambroufg Drive, west of Mississippi Street, will likely carry volumes in the range of 6,000 vpd to 7,000 vpd experiencing no congestion with LOS “C” or higher.

Summary and Recommendations

Existing Conditions (See Figures 3 - 6 of Appendix I)

- Under the existing geometric and operating conditions, all movements at all intersections in the study area operate at LOS “B” and higher with ample “reserve” capacity except for the eastbound movement on Fambrough Drive at its intersection with Mississippi Street that operates at LOS “C” with limited “reserve” capacity. Realignment of Fambrough Drive with the proposed lane configurations improves the LOS for this movement to “B”.
- The section of Mississippi Street between 11th Street and Fambrough Drive experiences some congestion with heavy left-turn movements in the northbound direction during both morning and afternoon peak-hours of a typical weekday (approximately 79% and 41%, respectively). Realignment of Fambrough Drive to create a 4-legged intersection at Mississippi and 11th Street will eliminate the offset and alleviates the congestion. (See Figure 13 of Appendix I for details).

Existing + Proposed HERE @ Kansas Development (See Figures 7 – 13 of Appendix I)

The results of this impact analysis indicate that the proposed “HERE @ Kansas” mixed-use development will have nominal impact on the capacity of the roadway network in the study area causing slight increase in the delay values but no reduction in LOS for any of the movements, except for some of the movements at the intersection of Mississippi Street and realigned Fambrough Drive that will likely operate at LOS “C” – still an acceptable LOS with some reserve capacity. To achieve this, an ALL-WAY STOP control with the following lane configurations at this intersection is recommended:

- North approach and south approach (on Mississippi Street) will each have a dedicated left-turn lane with 100 ft. storage length; and a shared through and right-turn lane;
- West approach (on realigned Fambrough Drive) will have a dedicated right-turn lane with 150 ft. storage length and a shared through and left-turn lane;
- East approach will remain as one lane approach; and

The results also indicate that, with only peak-hour volume information at hand, the requirements for consideration of a traffic signal at this location are not met. A comprehensive traffic signal warrant analysis, to examine other signal warrants, can only be conducted in the future when the project is fully constructed and occupied; and traffic in the study area is normalized.

Furthermore, the requirements for provision of a dedicated southbound left-turn lane on Mississippi Street at the entrance to the proposed development garage are met. Therefore, as an added measure of operational efficiency and safety, provision of this lane with minimum storage length of 100 ft. is recommended.

Other recommended improvements include provision of the following dedicated turn lanes at the intersection of Illinois Street and realigned Fambrough Drive:

- A dedicated westbound left-turn lane with 75 ft. storage to accommodate 1 bus and one passenger car; and
- A dedicated eastbound left-turn lane with 50 ft. storage to accommodate two passenger cars. This serves as a safety measure to keep the eastbound left-turners away from the eastbound through traffic coming around the horizontal curve on Fambrough Drive.

APPENDIX I

Figures

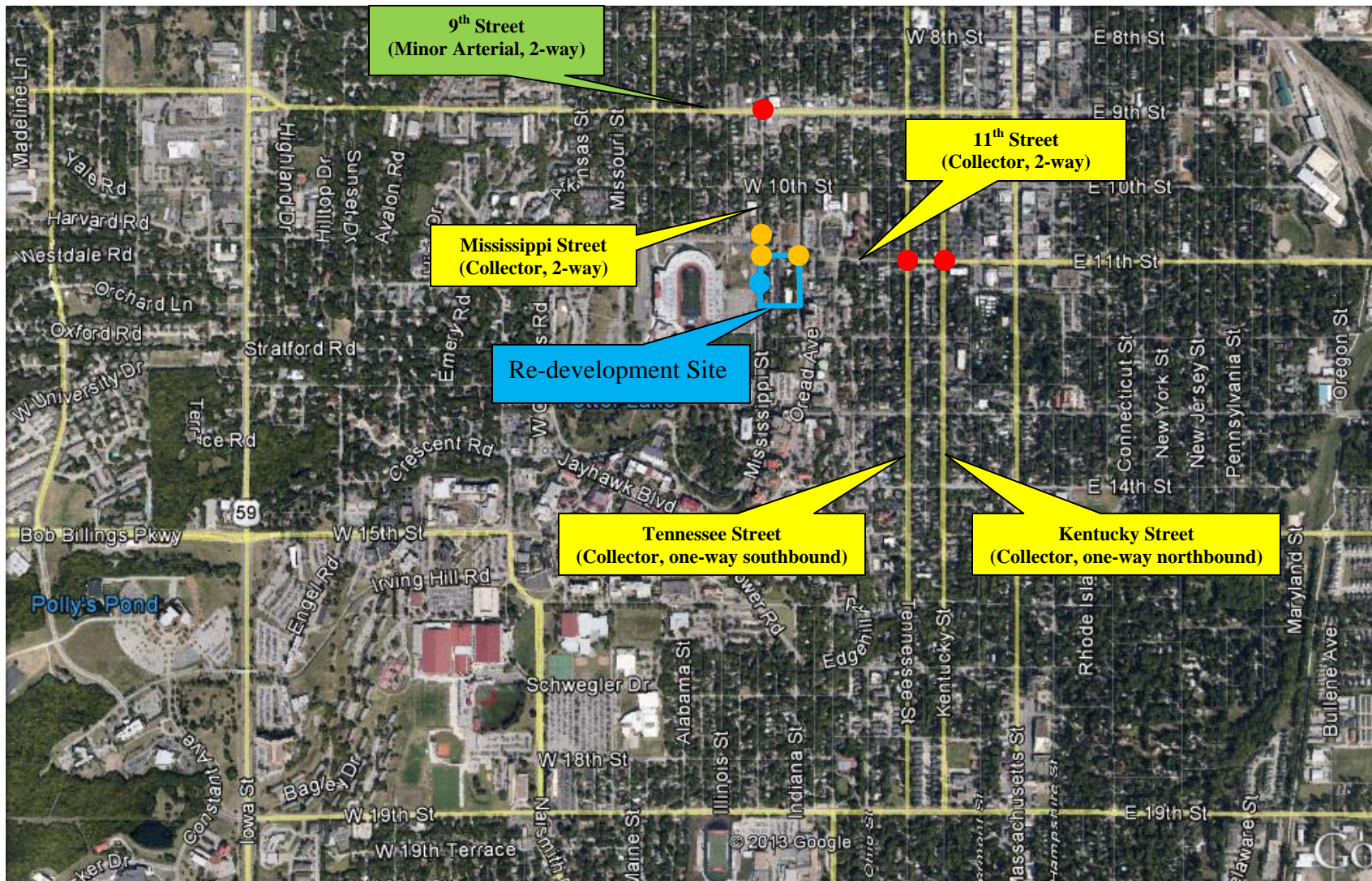


Figure 1
Location Map & Study Area

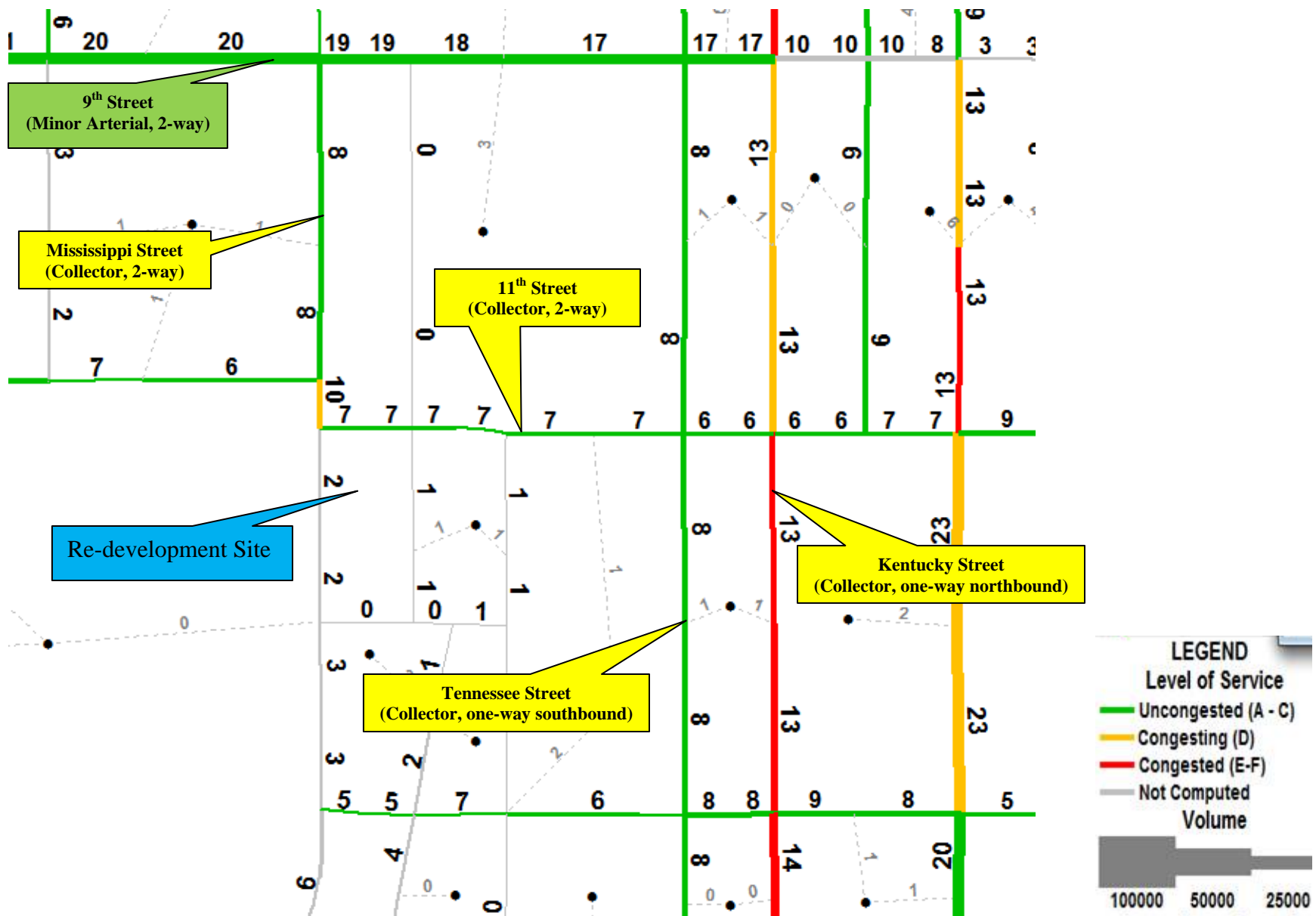
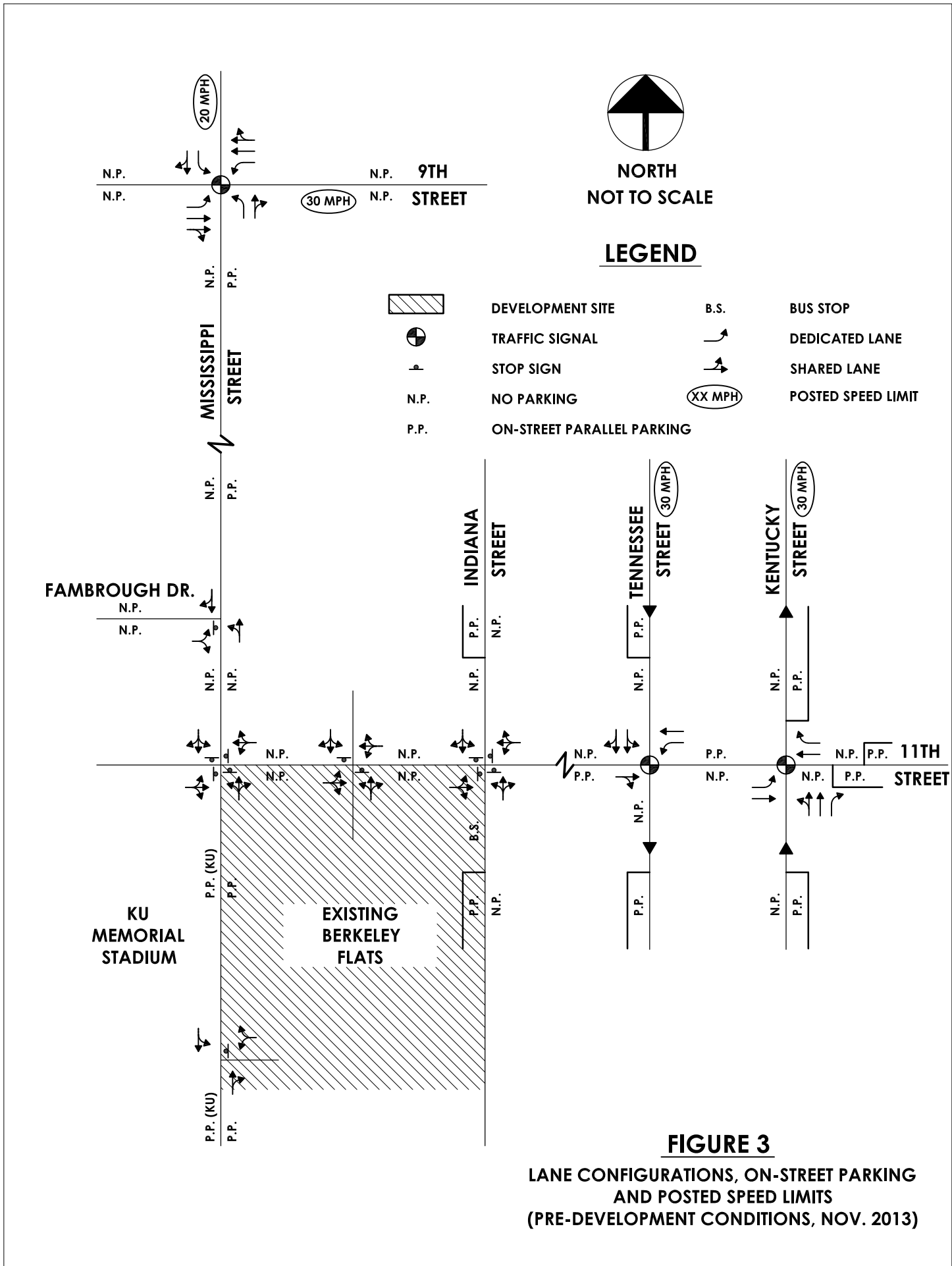
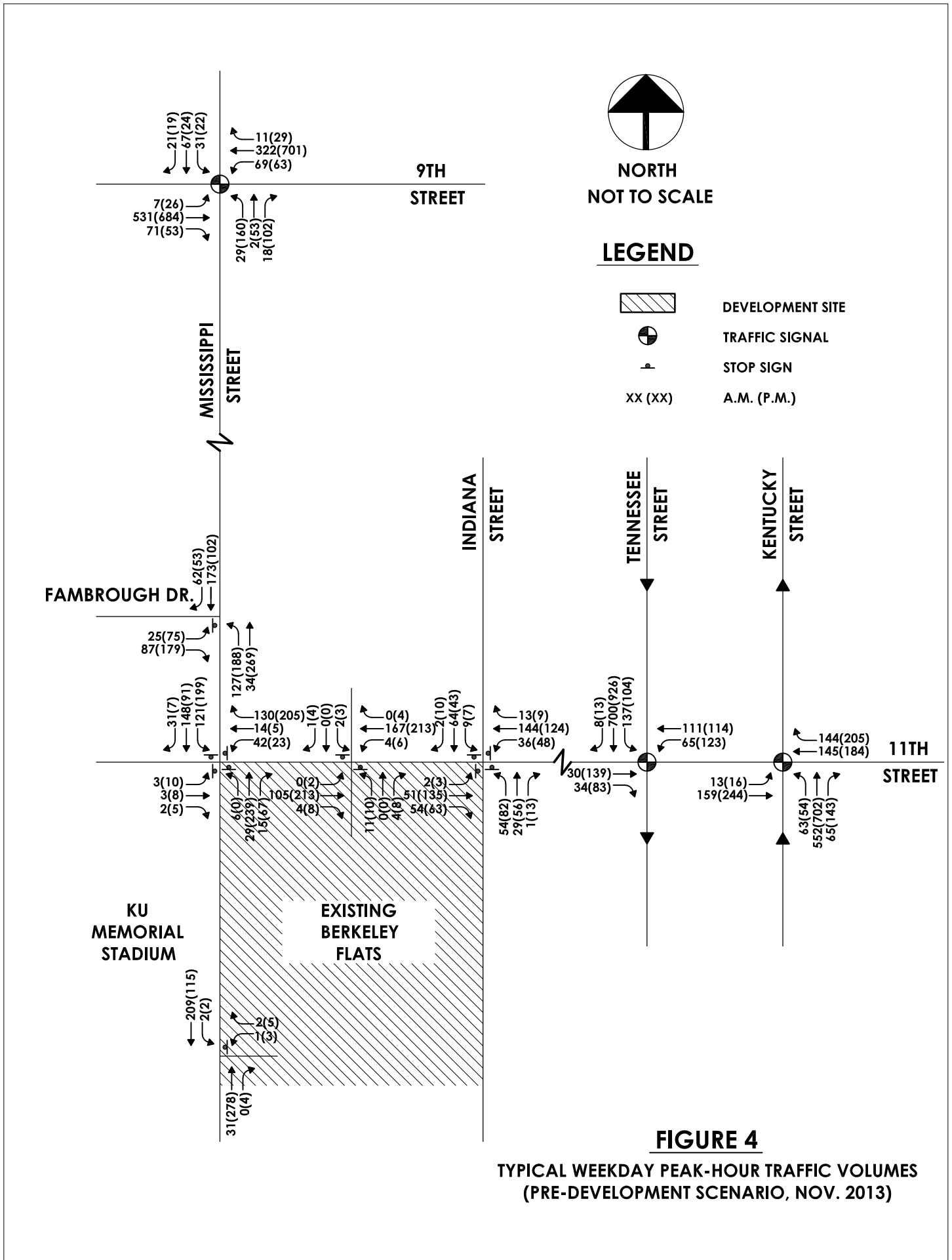
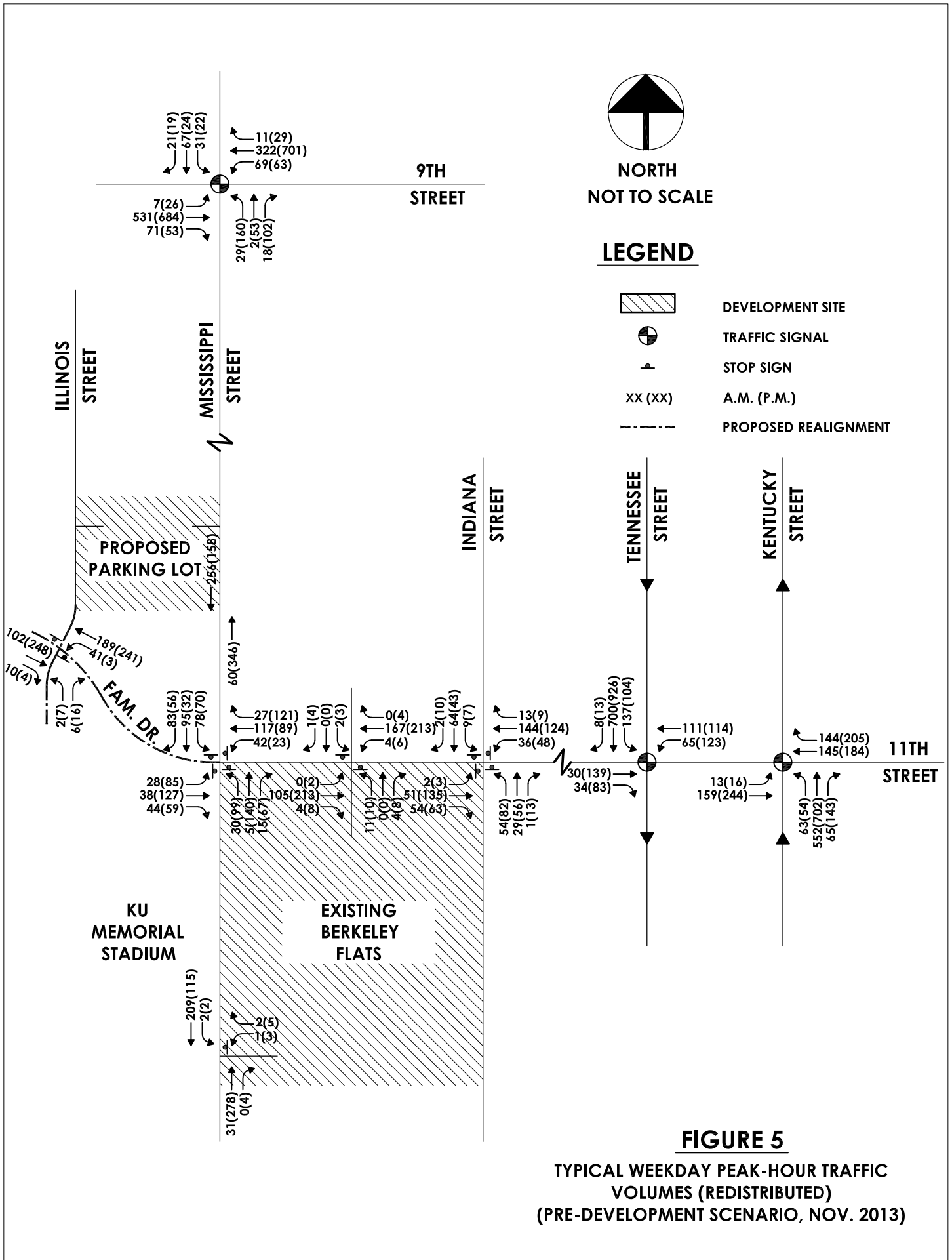
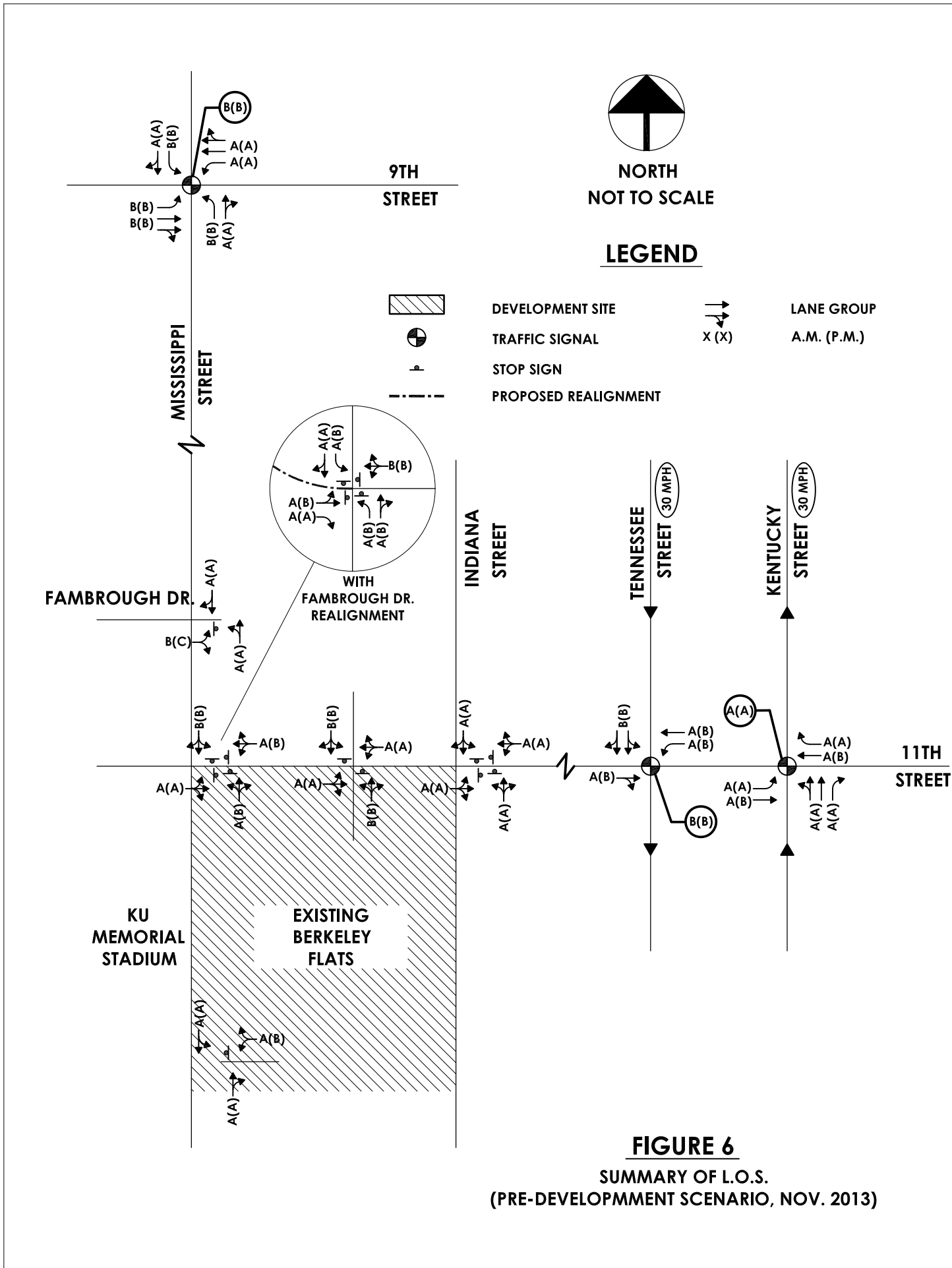


Figure 12
 Forecasted Average Daily Volumes for Target Year 2030 (x1000, vpd)









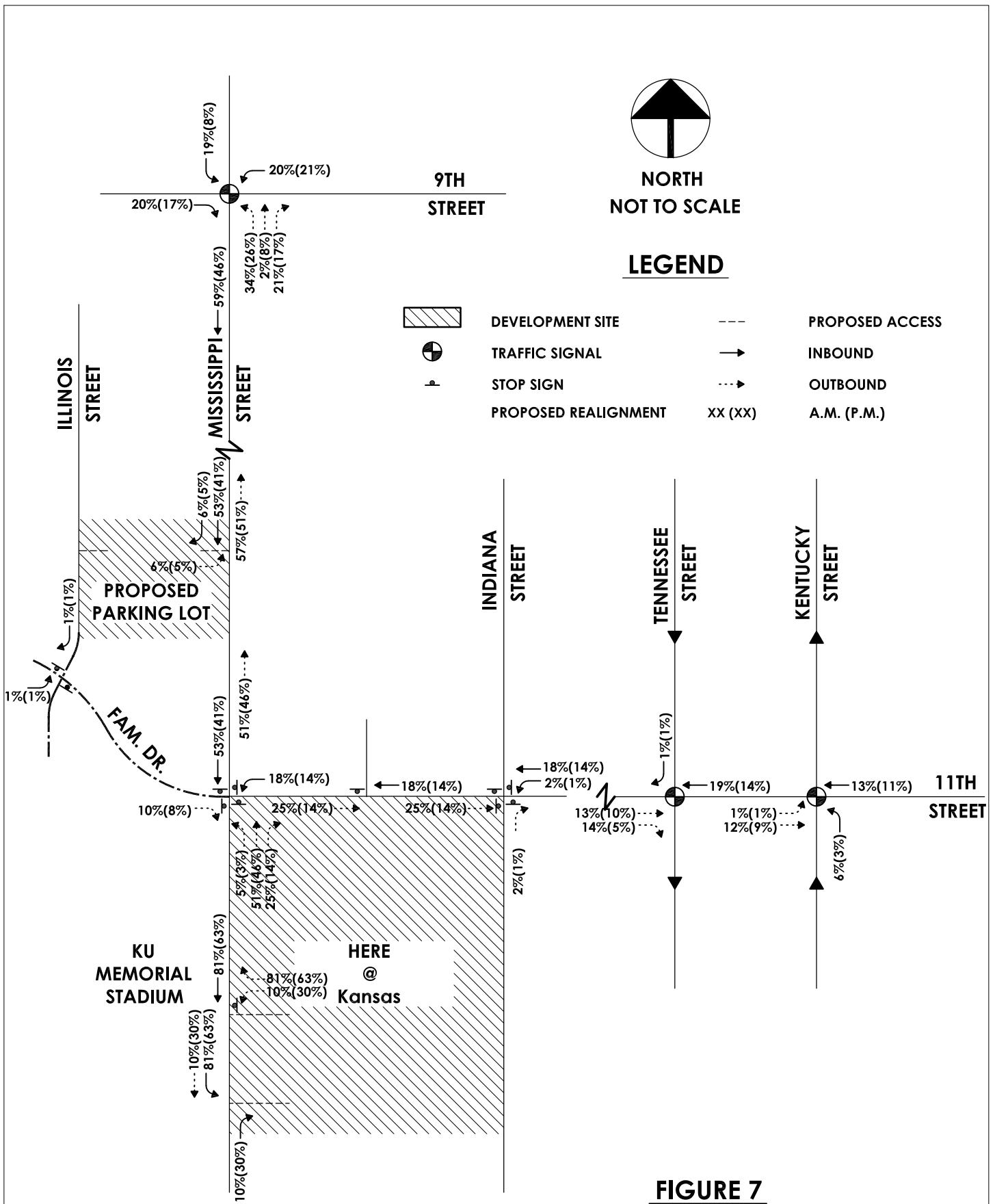


FIGURE 7
TRIP DISTRIBUTION PATTERNS FOR THE PROPOSED DEVELOPMENT
(PEAK-HOURS OF A TYPICAL WEEKDAY)

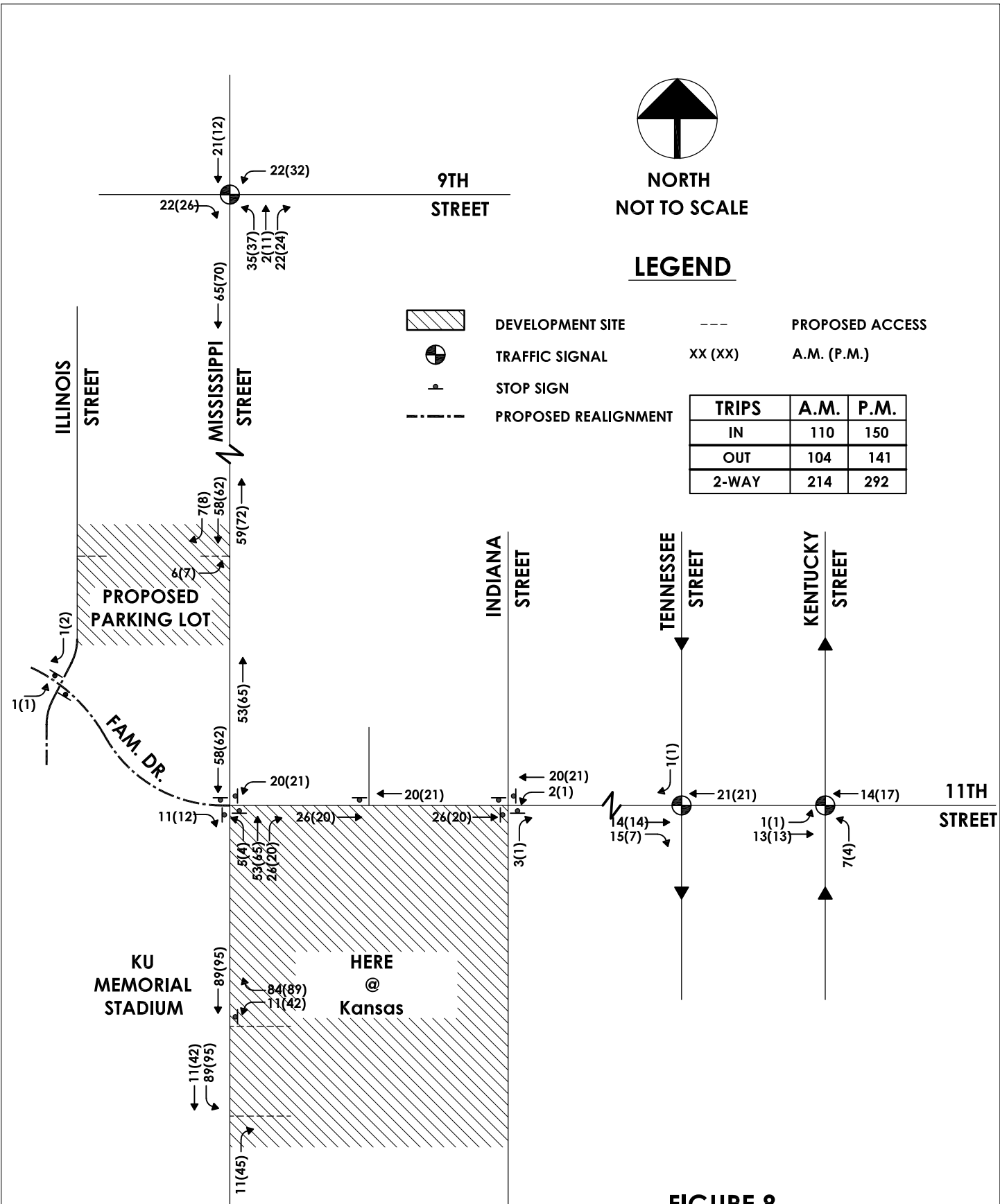
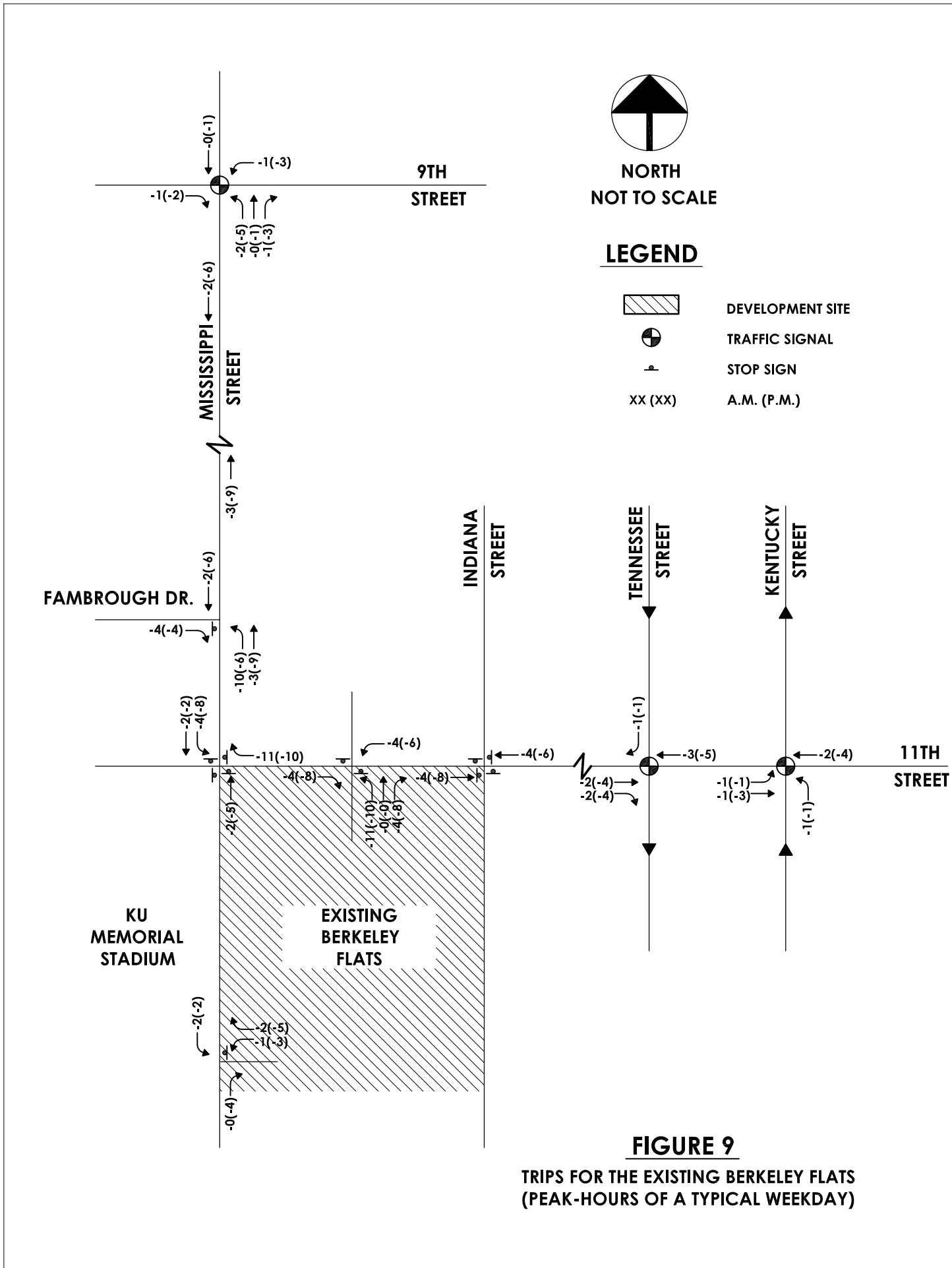
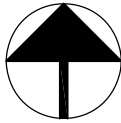
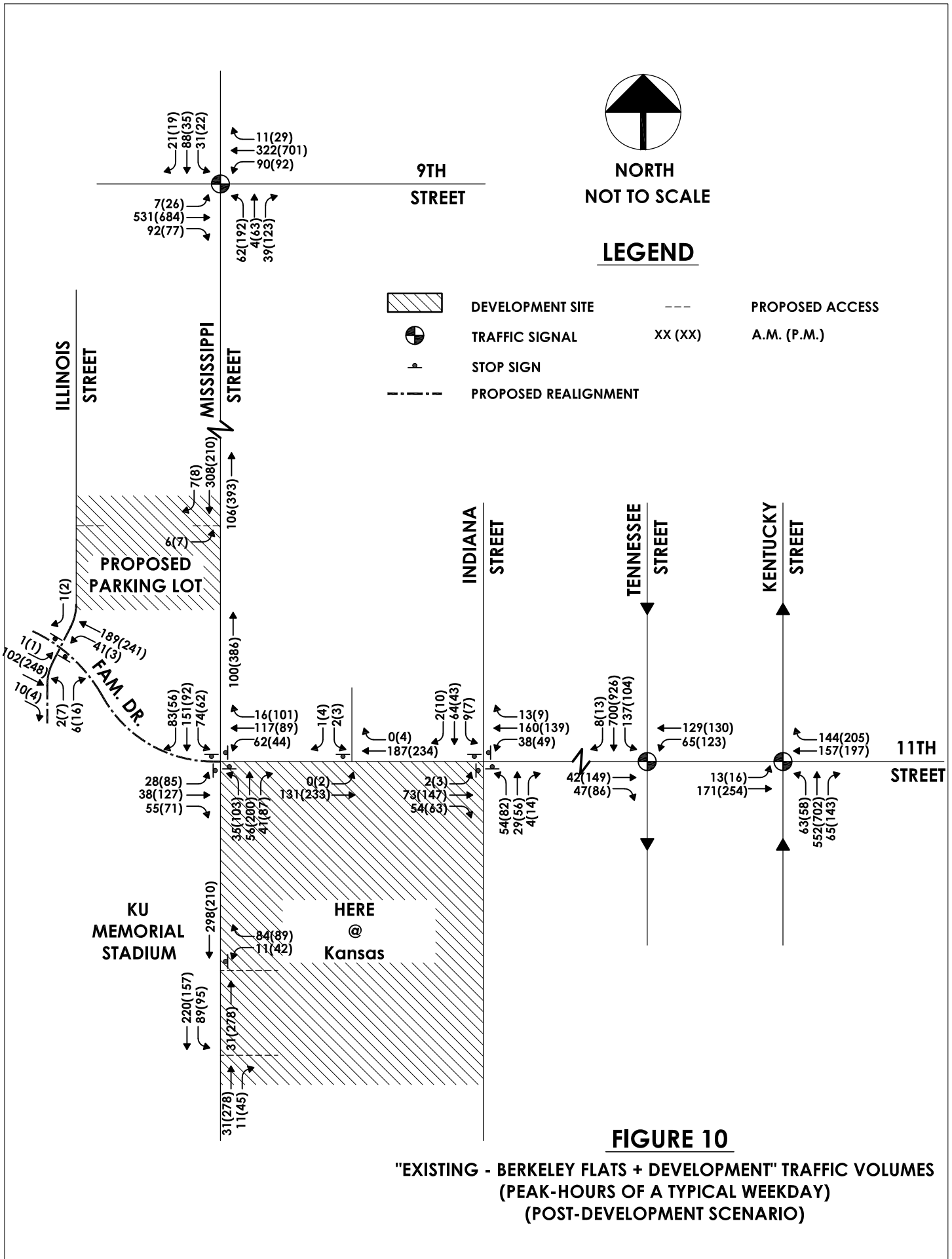


FIGURE 8
SITE-GENERATED TRIPS FOR THE PROPOSED DEVELOPMENT
(PEAK-HOURS OF A TYPICAL WEEKDAY)





NORTH
NOT TO SCALE

LEGEND



DEVELOPMENT SITE



TRAFFIC SIGNAL



STOP SIGN



PROPOSED REALIGNMENT



PROPOSED ACCESS

XX (XX)

A.M. (P.M.)

ILLINOIS STREET

MISSISSIPPI STREET

9TH STREET

INDIANA STREET

TENNESSEE STREET

KENTUCKY STREET

11TH STREET

KU MEMORIAL STADIUM

HERE @ Kansas

PROPOSED PARKING LOT

FAM. DR.

21(19)
88(35)
31(22)

11(29)
322(701)
90(92)

7(26)
531(684)
92(77)

62(192)
4(63)
39(123)

1(2)
1(1)
102(248)
10(4)

189(241)
41(3)

2(7)
6(16)

7(8)
308(210)

6(7)
106(393)

100(386)

83(56)
151(92)
74(62)

16(101)
117(89)
62(44)

1(4)
2(3)

2(10)
64(43)

0(4)
187(234)

2(3)
73(147)
54(63)

35(103)
56(200)
41(87)

0(2)
131(233)

84(89)
11(42)

220(157)
89(95)

31(278)
11(45)

298(210)

1(4)
2(3)

2(10)
64(43)

0(4)
187(234)

2(3)
73(147)
54(63)

35(103)
56(200)
41(87)

0(2)
131(233)

84(89)
11(42)

220(157)
89(95)

31(278)
11(45)

298(210)

13(9)
160(139)
38(49)

54(82)
29(56)
4(14)

42(149)
47(86)

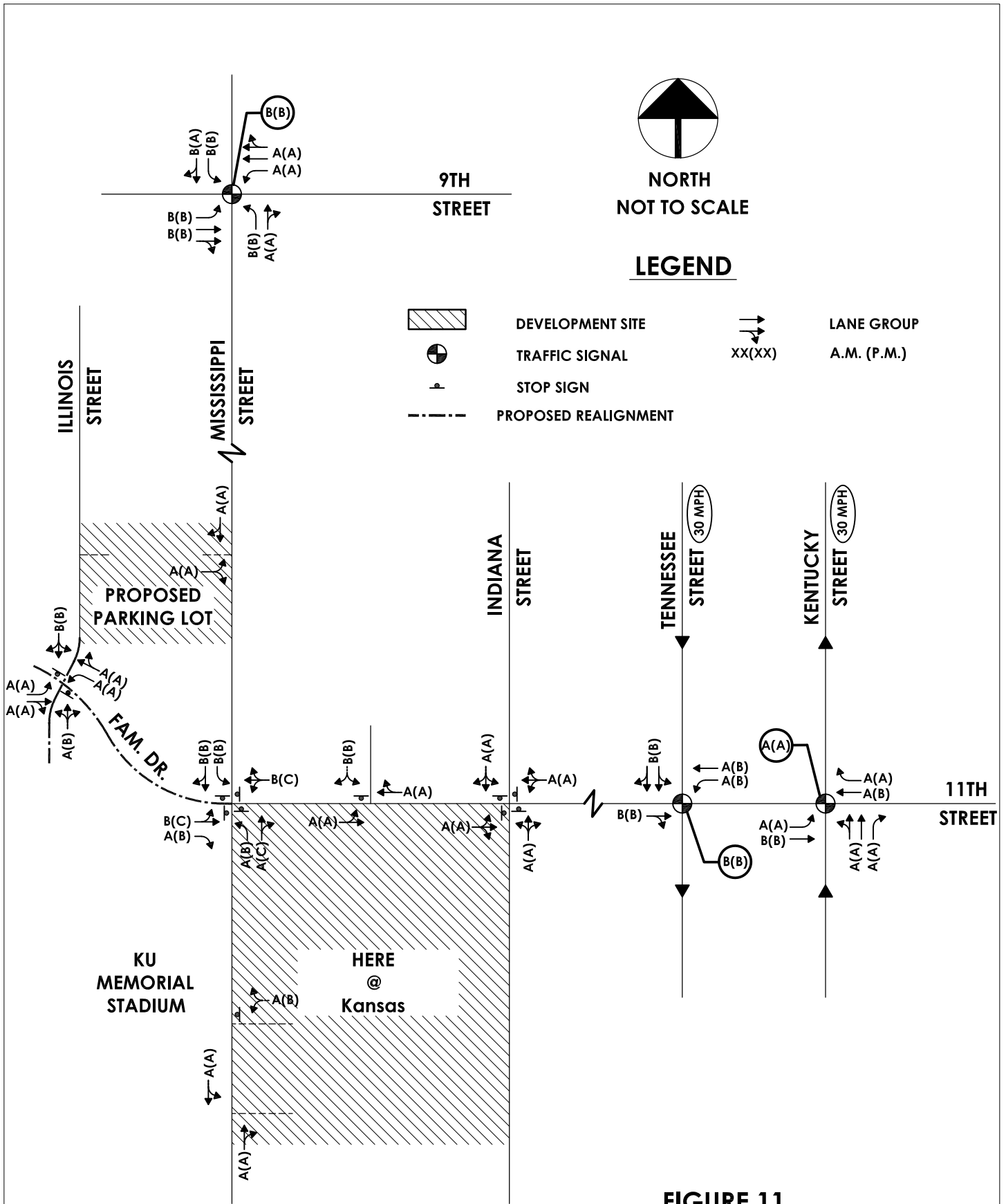
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13(16)
171(254)

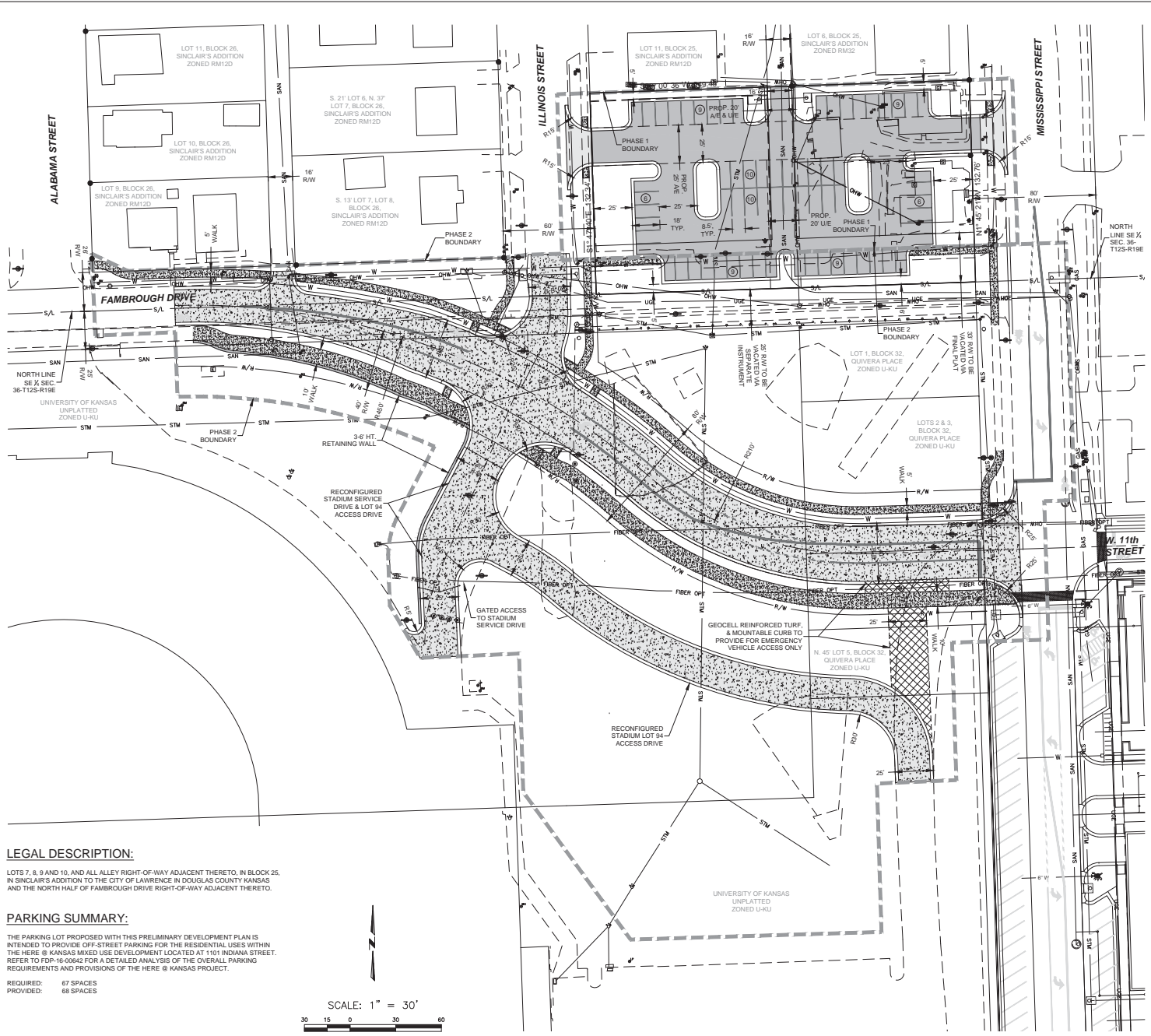
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552(702)
65(143)

144(205)
157(197)



**SUMMARY OF L.O.S. FOR "EXISTING - BERKELEY
 FLATS + DEVELOPMENT" TRAFFIC VOLUMES
 (PEAK-HOURS OF A TYPICAL WEEKDAY)
 (POST-DEVELOPMENT SCENARIO)**

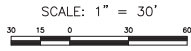
FILE NAME: v:\2016\2016\1630160-ppp-1630160-ppp-LAYO.dwg LAST SAVED BY: Brian Sturm SAVED DATE: 9/13/2016 7:56 AM PLOTTED: 9/13/2016 7:57 AM



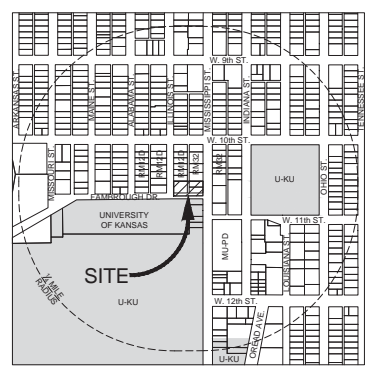
LEGAL DESCRIPTION:
 LOTS 7, 8, 9 AND 10, AND ALL ALLEY RIGHT-OF-WAY ADJACENT THERETO, IN BLOCK 25, IN SINCLAIR'S ADDITION TO THE CITY OF LAWRENCE IN DOUGLAS COUNTY KANSAS AND THE NORTH HALF OF FAMBROUGH DRIVE RIGHT-OF-WAY ADJACENT THERETO.

PARKING SUMMARY:
 THE PARKING LOT PROPOSED WITH THIS PRELIMINARY DEVELOPMENT PLAN IS INTENDED TO PROVIDE OFF-STREET PARKING FOR THE RESIDENTIAL USES WITHIN THE HERE @ KANSAS MIXED USE DEVELOPMENT LOCATED AT 1101 INDIANA STREET. REFER TO F20-1600042 FOR A DETAILED ANALYSIS OF THE OVERALL PARKING REQUIREMENTS AND PROVISIONS OF THE HERE @ KANSAS PROJECT.

REQUIRED: 67 SPACES
 PROVIDED: 68 SPACES



LOCATION MAP:



GENERAL NOTES:

- OWNERS: 1029 MISSISSIPPI, LLC
1301 EAST RANDOLPH STREET, SUITE 2100
CHICAGO, ILLINOIS 60601
- LAND PLANNER/ CIVIL ENGINEER/ SURVEYOR: LANDPLAN ENGINEERING, P.A.
1310 WAKARUSA DRIVE
LAWRENCE, KANSAS 66049
- TOPOGRAPHIC INFORMATION SHOWN WAS OBTAINED FROM A FIELD SURVEY PERFORMED BY LANDPLAN ENGINEERING, P.A., AUGUST, 2016.
- EXISTING ZONING: RM12D, RM2
- PROPOSED ZONING: RM32-PD
- EXISTING LAND USE: VACANT
- PROPOSED LAND USE: ACCESSORY PARKING
- NO PORTIONS OF THE SUBJECT PROPERTY LIE WITHIN A DESIGNATED "SPECIAL FLOOD HAZARD AREA" AS DEFINED BY FLOOD INSURANCE RATE MAP (FIRM)-PANEL NO. 152, MAP NUMBER 20460102E, DOUGLAS COUNTY, KANSAS, BEARING AN EFFECTIVE DATE OF SEPTEMBER 22, 2015.
- THIS SITE HAS BEEN DESIGNED TO COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR BUILDINGS AND FACILITIES, APPENDIX A TO 28 CFR PART 36.
- ALL CONCRETE CURB AND GUTTER SHALL BE INSTALLED AS TYPE CG-1 PER CITY OF LAWRENCE DETAILS AND SPECIFICATIONS.
- ALL CURB INLETS SHALL BE INSTALLED PER CITY OF LAWRENCE DETAILS AND SPECIFICATIONS.
- THE CONCRETE COMMERCIAL DRIVEWAY APRON SHALL BE INSTALLED PER CITY OF LAWRENCE DETAILS AND SPECIFICATIONS.
- ALL INTERNAL SIDEWALKS AND ACCESS RAMPS SHALL BE INSTALLED PER CITY OF LAWRENCE DETAILS AND SPECIFICATIONS.
- ALL OFF-STREET PARKING AREAS AND DRIVEWAYS SHALL BE SURFACED WITH A MINIMUM OF 5 INCHES OF FULL DEPTH ASPHALT IN ACCORDANCE WITH SECTION 20-913(a)(1)(iv) OF THE CITY CODE.
- THE CITY OF LAWRENCE SHALL NOT BE HELD RESPONSIBLE FOR PAVEMENT DAMAGE ON PRIVATE STREETS CAUSED DUE TO THE WEIGHT OF SOLID WASTE MANAGEMENT VEHICLES.
- TREES SHALL BE PLANTED NO CLOSER THAN 8 FEET FROM EXISTING UTILITY LINES, WHERE PRACTICAL AND APPROVED BY THE PLANNING DIRECTOR, IN ACCORDANCE WITH SECTION 20-911(g)(2)(ii) OF THE CITY CODE.
- UNLESS OTHERWISE NOTED, ALL AREAS NOT DESIGNATED AS PAVEMENT OR BUILDING WILL BE SEEDED, SOODED OR LANDSCAPED WITH PLANT MATERIALS. ALL AREAS DEPICTED AS PLANTED WITH TREES OR SHRUBS SHALL BE TREATED WITH A 3" LAYER OF SHREDED HARDWOOD MULCH, REFER TO SHEET 4 FOR THE LANDSCAPE PLAN.
- THE LANDOWNER WILL PROVIDE FOR THE MAINTENANCE OF COMMON OPEN SPACE, RECREATION FACILITIES, NON-ENCROACHABLE AREAS, PRIVATE STREETS AND ANY OTHER AREA WITHIN THE PROPOSED DEVELOPMENT THAT IS TO BE RETAINED PRIMARILY FOR THE EXCLUSIVE USE AND BENEFIT OF THE RESIDENTS, LESSEES, AND OWNER OF THE PLANNED DEVELOPMENT.
- NO VARIANCES, MODIFICATIONS, REDUCTIONS AND WAIVERS ARE BEING REQUESTED AS PART OF THE PLAN APPROVAL.
- THE APPLICANT INTENDS TO FILE FOR FINAL DEVELOPMENT PLAN APPROVAL IMMEDIATELY FOLLOWING CITY COMMISSION APPROVAL OF THE PRELIMINARY DEVELOPMENT PLAN. THE APPLICANT INTENDS TO CONSTRUCT THIS DEVELOPMENT IN TWO PHASES. WORK SHOWN AS PART OF PHASE 1 IS TO BE COMPLETED BETWEEN DECEMBER, 2016 AND FEBRUARY, 2017. WORK SHOWN AS PART OF PHASE 2 IS TO BE COMPLETED BETWEEN MAY AND AUGUST, 2017. PHASE 2 WORK CANNOT BEGIN PRIOR TO MONDAY, MAY 15, 2017 AND MUST CONCLUDE PRIOR TO KU RESIDENCE HALL MOVE-IN IN MID-AUGUST.
- CONTINUOUS ACCESS TO KU LOT 94 MUST BE PROVIDED DURING ALL PHASES OF CONSTRUCTION. DURING THE REALIGNMENT OF FAMBROUGH DRIVE, CONTRACTORS WILL FIRST INSTALL THE WESTERN LEG OF FAMBROUGH FROM ALABAMA THROUGH ILLINOIS STREETS AND THEN INSTALL THE NEW LOT 94 ACCESS DRIVE. ONCE THIS NEW CONNECTION IS COMPLETE, CONTRACTORS WILL REMOVE THE EXISTING MISSISSIPPI STREET ENTRANCE TO LOT 94 AND INSTALL THE EAST LEG OF FAMBROUGH DRIVE BETWEEN ILLINOIS AND MISSISSIPPI STREETS.
- AS DEPICTED ON SHEET 4 OF THIS PRELIMINARY DEVELOPMENT PLAN, THIS SITE HAS ACCESS TO PUBLIC AND PRIVATE UTILITIES, INCLUDING BUT NOT LIMITED TO WASTE WATER, DOMESTIC WATER, STORM WATER, GAS AND ELECTRICITY.
- ALL UTILITIES SERVING THE PROPERTIES AT 1029 AND 1031 MISSISSIPPI STREET, INCLUDING BUT NOT LIMITED TO DOMESTIC WATER, SANITARY SEWER, NATURAL GAS, ELECTRICITY, TELEPHONE AND CABLE, MUST BE DISCONNECTED AND/OR ABANDONED IN ACCORDANCE WITH ALL APPROPRIATE REGULATIONS PRIOR TO THEIR DEMOLITION.
- THE LANDOWNER HEREBY DEDICATES TO THE CITY OF LAWRENCE THE RIGHT TO REGULATE OR CONSTRUCTION WITHIN THE AREAS DESIGNATED AS "COMMON OPEN SPACE" AND "RECREATIONAL OPEN SPACE" AND TO PROHIBIT ANY CONSTRUCTION WITHIN SAID AREAS AND SPACES INCONSISTENT WITH THE APPROVED USE OR ENJOYMENT OF RESIDENTS, LESSEES, AND OWNERS OF THE PLANNED DEVELOPMENT.

LANDPLAN ENGINEERING

1029 MISSISSIPPI STREET
 LAWRENCE, KANSAS 66044
 HERE @ KANSAS OFF-SITE PARKING
 PRELIMINARY DEVELOPMENT PLAN
 LAYOUT PLAN

REV	DATE	DESCRIPTION

DATE: 7/25/16
 PROJECT NO.: 2016016
 DESIGNED BY: LFE
 DRAWN BY: BS
 CHECKED BY: CMS

ISSUE SHEET NO.
 1
 OF 5 SHEETS

Figure 13 - Proposed geometric improvements and surface parking lot layout

APPENDIX II

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

PRE-DEVELOPMENT SCENARIO: 2011 – 2013 TRAFFIC VOLUMES

Intersection

Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	51	54	36	144	13	54	29	1	9	64	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	55	59	39	157	14	59	32	1	10	70	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	9.1	8.6	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	64%	2%	19%	12%
Vol Thru, %	35%	48%	75%	85%
Vol Right, %	1%	50%	7%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	84	107	193	75
LT Vol	29	51	144	64
Through Vol	1	54	13	2
RT Vol	54	2	36	9
Lane Flow Rate	91	116	210	82
Geometry Grp	1	1	1	1
Degree of Util (X)	0.124	0.139	0.261	0.109
Departure Headway (Hd)	4.894	4.299	4.484	4.795
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	731	834	801	747
Service Time	2.929	2.328	2.51	2.83
HCM Lane V/C Ratio	0.124	0.139	0.262	0.11
HCM Control Delay	8.6	8	9.1	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.5	1	0.4

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	135	63	48	124	9	82	56	13	7	43	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	147	68	52	135	10	89	61	14	8	47	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	9.6	9.6	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	54%	1%	27%	12%
Vol Thru, %	37%	67%	69%	72%
Vol Right, %	9%	31%	5%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	151	201	181	60
LT Vol	56	135	124	43
Through Vol	13	63	9	10
RT Vol	82	3	48	7
Lane Flow Rate	164	218	197	65
Geometry Grp	1	1	1	1
Degree of Util (X)	0.23	0.277	0.262	0.092
Departure Headway (Hd)	5.04	4.57	4.793	5.052
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	707	782	746	704
Service Time	3.103	2.624	2.849	3.125
HCM Lane V/C Ratio	0.232	0.279	0.264	0.092
HCM Control Delay	9.6	9.4	9.6	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	1.1	1	0.3

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh	9.8											
Intersection LOS	A											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	3	2	42	14	130	6	29	15	121	148	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	3	2	46	15	141	7	32	16	132	161	34
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	9	8	10.6
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	38%	23%	40%
Vol Thru, %	58%	38%	8%	49%
Vol Right, %	30%	25%	70%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	8	186	300
LT Vol	29	3	14	148
Through Vol	15	2	130	31
RT Vol	6	3	42	121
Lane Flow Rate	54	9	202	326
Geometry Grp	1	1	1	1
Degree of Util (X)	0.07	0.012	0.25	0.408
Departure Headway (Hd)	4.634	4.997	4.456	4.5
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	771	714	805	799
Service Time	2.676	3.043	2.487	2.531
HCM Lane V/C Ratio	0.07	0.013	0.251	0.408
HCM Control Delay	8	8.1	9	10.6
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.2	0	1	2

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	8	5	23	5	205	1	239	67	199	91	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	9	5	25	5	223	1	260	73	216	99	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	11.1	12.4	13
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	43%	10%	67%
Vol Thru, %	78%	35%	2%	31%
Vol Right, %	22%	22%	88%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	307	23	233	297
LT Vol	239	8	5	91
Through Vol	67	5	205	7
RT Vol	1	10	23	199
Lane Flow Rate	334	25	253	323
Geometry Grp	1	1	1	1
Degree of Util (X)	0.467	0.042	0.361	0.474
Departure Headway (Hd)	5.036	6.053	5.133	5.282
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	714	590	699	681
Service Time	3.067	4.107	3.171	3.313
HCM Lane V/C Ratio	0.468	0.042	0.362	0.474
HCM Control Delay	12.4	9.4	11.1	13
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	2.5	0.1	1.6	2.6

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	25	87	127	34	173	62
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	27	95	138	37	188	67

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	535	222	255	0	-	0
Stage 1	222	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	506	818	1310	-	-	-
Stage 1	815	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	451	818	1310	-	-	-
Mov Capacity-2 Maneuver	451	-	-	-	-	-
Stage 1	815	-	-	-	-	-
Stage 2	661	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	6.4	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1310	-	692	-	-
HCM Lane V/C Ratio	0.105	-	0.176	-	-
HCM Control Delay (s)	8.072	0	11.3	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.353	-	0.635	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 7.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	75	179	188	269	102	53
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	82	195	204	292	111	58

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	841	140	168	0	-	0
Stage 1	140	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	335	908	1410	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	492	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	277	908	1410	-	-	-
Mov Capacity-2 Maneuver	277	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	407	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.3	3.3	0
HCM LOS	C		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1410	-	543	-	-
HCM Lane V/C Ratio	0.145	-	0.508	-	-
HCM Control Delay (s)	7.985	0	18.3	-	-
HCM Lane LOS	A	A	C		
HCM 95th %tile Q(veh)	0.507	-	2.858	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection												
Intersection Delay, s/veh	9.9											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	28	38	44	0	42	117	27	0	30	5	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	30	41	48	0	46	127	29	0	33	5	16
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.8	11	8.9
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	42%	0%	23%	100%	0%
Vol Thru, %	0%	25%	58%	0%	63%	0%	53%
Vol Right, %	0%	75%	0%	100%	15%	0%	47%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	20	66	44	186	78	178
LT Vol	30	0	28	0	42	78	0
Through Vol	0	5	38	0	117	0	95
RT Vol	0	15	0	44	27	0	83
Lane Flow Rate	33	22	72	48	202	85	193
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.056	0.031	0.116	0.065	0.308	0.14	0.276
Departure Headway (Hd)	6.23	5.193	5.836	4.917	5.483	5.962	5.129
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	570	682	610	722	651	599	697
Service Time	4.021	2.983	3.615	2.694	3.55	3.728	2.894
HCM Lane V/C Ratio	0.058	0.032	0.118	0.066	0.31	0.142	0.277
HCM Control Delay	9.4	8.2	9.4	8	11	9.7	9.9
HCM Lane LOS	A	A	A	A	B	A	A
HCM 95th-tile Q	0.2	0.1	0.4	0.2	1.3	0.5	1.1

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	78	95	83
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	85	103	90
Number of Lanes	0	1	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.8
HCM LOS	A

Lane

Intersection												
Intersection Delay, s/veh	11.9											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	85	127	59	0	23	89	121	0	99	40	67
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	92	138	64	0	25	97	132	0	108	43	73
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	12.4	13.2	10.9
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	40%	0%	10%	100%	0%
Vol Thru, %	0%	37%	60%	0%	38%	0%	36%
Vol Right, %	0%	63%	0%	100%	52%	0%	64%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	99	107	212	59	233	70	88
LT Vol	99	0	85	0	23	70	0
Through Vol	0	40	127	0	89	0	32
RT Vol	0	67	0	59	121	0	56
Lane Flow Rate	108	116	230	64	253	76	96
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.208	0.194	0.405	0.097	0.418	0.149	0.162
Departure Headway (Hd)	6.962	6.006	6.331	5.418	5.937	7.057	6.093
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	514	595	567	659	605	507	586
Service Time	4.722	3.766	4.084	3.172	3.992	4.821	3.857
HCM Lane V/C Ratio	0.21	0.195	0.406	0.097	0.418	0.15	0.164
HCM Control Delay	11.6	10.2	13.4	8.8	13.2	11.1	10
HCM Lane LOS	B	B	B	A	B	B	A
HCM 95th-tile Q	0.8	0.7	2	0.3	2.1	0.5	0.6

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	70	32	56
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	76	35	61
Number of Lanes	0	1	1	0

Approach

SB

Opposing Approach

NB

Opposing Lanes

2

Conflicting Approach Left

WB

Conflicting Lanes Left

1

Conflicting Approach Right

EB

Conflicting Lanes Right

2

HCM Control Delay

10.5

HCM LOS

B

Lane

Intersection

Intersection Delay, s/veh 0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	105	4	4	167	1	11	1	4	2	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	114	4	4	182	1	12	1	4	2	1	1

Major/Minor

	Major1	Major2	Minor1	Minor2
Conflicting Flow All	183	0	0	118
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Follow-up Headway	2.218	-	-	2.218
Pot Capacity-1 Maneuver	1392	-	-	1470
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %	-	-	-	-
Mov Capacity-1 Maneuver	1392	-	-	1470
Mov Capacity-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach

	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	10.4	10.4
HCM LOS			B	B

Minor Lane / Major Mvmt

	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	690	1392	-	-	1470	-	-	669
HCM Lane V/C Ratio	0.025	0.001	-	-	0.003	-	-	0.006
HCM Control Delay (s)	10.4	7.588	0	-	7.456	0	-	10.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.077	0.002	-	-	0.009	-	-	0.02

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	213	8	6	213	4	10	1	8	3	1	4
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	2	232	9	7	232	4	11	1	9	3	1	4

Major/Minor

	Major1	Major2	Minor1	Minor2
Conflicting Flow All	236	0	0	240
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Follow-up Headway	2.218	-	-	2.218
Pot Capacity-1 Maneuver	1331	-	-	1327
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %	-	-	-	-
Mov Capacity-1 Maneuver	1331	-	-	1327
Mov Capacity-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach

	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	11.4	11.1
HCM LOS			B	B

Minor Lane / Major Mvmt

	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	580	1331	-	-	1327	-	-	599
HCM Lane V/C Ratio	0.036	0.002	-	-	0.005	-	-	0.015
HCM Control Delay (s)	11.4	7.709	0	-	7.726	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.111	0.005	-	-	0.015	-	-	0.044

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	2	31	1	2	209
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	2	34	1	2	227

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	266	34	0
Stage 1	34	-	-
Stage 2	232	-	-
Follow-up Headway	3.518	3.318	-
Pot Capacity-1 Maneuver	723	1039	-
Stage 1	988	-	-
Stage 2	807	-	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	722	1039	-
Mov Capacity-2 Maneuver	722	-	-
Stage 1	988	-	-
Stage 2	806	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.1
HCM LOS	A		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	906	1576	-
HCM Lane V/C Ratio	-	-	0.004	0.001	-
HCM Control Delay (s)	-	-	9	7.287	0
HCM Lane LOS			A	A	A
HCM 95th %tile Q(veh)	-	-	0.011	0.004	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	3	5	278	4	2	115
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	3	5	302	4	2	125

Major/Minor

	Minor1		Major1		Major2	
Conflicting Flow All	433	304	0	0	307	0
Stage 1	304	-	-	-	-	-
Stage 2	129	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	580	736	-	-	1254	-
Stage 1	748	-	-	-	-	-
Stage 2	897	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	579	736	-	-	1254	-
Mov Capacity-2 Maneuver	579	-	-	-	-	-
Stage 1	748	-	-	-	-	-
Stage 2	895	-	-	-	-	-

Approach

	WB	NB	SB
HCM Control Delay, s	10.5	0	0.1
HCM LOS	B		

Minor Lane / Major Mvmt

	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	668	1254	-
HCM Lane V/C Ratio	-	-	0.013	0.002	-
HCM Control Delay (s)	-	-	10.5	7.876	0
HCM Lane LOS			B	A	A
HCM 95th %tile Q(veh)	-	-	0.04	0.005	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	531	71	69	322	11	29	2	18	31	67	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	105		0	90		0	90		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.995			0.864				0.964
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3476	0	1770	3522	0	1770	1448	0	1770	1796	0
Flt Permitted	0.536			0.240			0.695			0.743		
Satd. Flow (perm)	998	3476	0	447	3522	0	1295	1448	0	1384	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			9			20				23
Link Speed (mph)		30			30			30				20
Link Distance (ft)		674			457			985				305
Travel Time (s)		15.3			10.4			22.4				10.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)								0				
Adj. Flow (vph)	8	577	77	75	350	12	32	2	20	34	73	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	654	0	75	362	0	32	22	0	34	96	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2				6
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.0	22.0		9.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0		9.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	40.0%	40.0%		16.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-3.0		-2.0	-3.0		-3.0	-3.0		-3.0	-3.0	
Total Lost Time (s)	4.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Act Effect Green (s)	18.0	19.0		28.0	28.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.33	0.35		0.51	0.51		0.38	0.38		0.38	0.38	
v/c Ratio	0.02	0.54		0.20	0.20		0.06	0.04		0.06	0.14	
Control Delay	13.0	15.7		8.3	7.6		11.3	6.0		11.3	9.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.0	15.7		8.3	7.6		11.3	6.0		11.3	9.6	
LOS	B	B		A	A		B	A		B	A	
Approach Delay		15.7			7.7			9.2				10.0
Approach LOS		B			A			A				B
Queue Length 50th (ft)	2	83		11	30		6	0		7	15	
Queue Length 95th (ft)	9	126		28	49		20	11		21	39	
Internal Link Dist (ft)		594			377			905				225
Turn Bay Length (ft)	125			105			90			90		
Base Capacity (vph)	326	1219		371	1797		494	565		528	699	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	

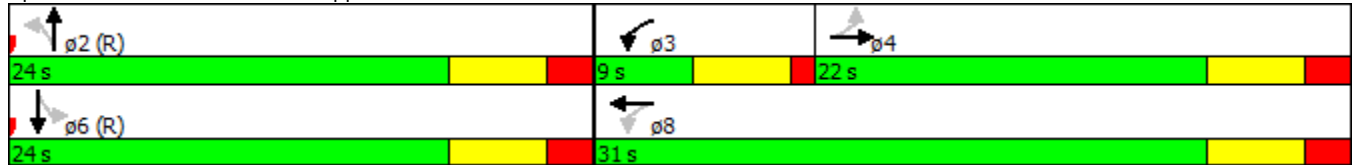


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.02	0.54		0.20	0.20		0.06	0.04		0.06	0.14	

Intersection Summary

Area Type:	Other
Cycle Length:	55
Actuated Cycle Length:	55
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.54
Intersection Signal Delay:	12.1
Intersection LOS:	B
Intersection Capacity Utilization	39.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 11: Mississippi Street & 9th Street/ 9th Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	684	53	63	701	29	160	53	102	22	24	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	105		0	90		0	90		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.994			0.901			0.933	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3500	0	1770	3518	0	1770	1511	0	1770	1738	0
Flt Permitted	0.351			0.190			0.726			0.634		
Satd. Flow (perm)	654	3500	0	354	3518	0	1352	1511	0	1181	1738	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			11			111				21
Link Speed (mph)		30			30			30				20
Link Distance (ft)		674			457			985				305
Travel Time (s)		15.3			10.4			22.4				10.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)								0				
Adj. Flow (vph)	28	743	58	68	762	32	174	58	111	24	26	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	801	0	68	794	0	174	169	0	24	47	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2				6
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.0	22.0		9.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0		9.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	40.0%	40.0%		16.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-3.0		-2.0	-3.0		-3.0	-3.0		-3.0	-3.0	
Total Lost Time (s)	4.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Act Effect Green (s)	18.0	19.0		28.0	28.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.33	0.35		0.51	0.51		0.38	0.38		0.38	0.38	
v/c Ratio	0.13	0.66		0.20	0.44		0.34	0.26		0.05	0.07	
Control Delay	15.0	18.0		8.4	9.4		14.4	6.1		11.3	7.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.0	18.0		8.4	9.4		14.4	6.1		11.3	7.7	
LOS	B	B		A	A		B	A		B	A	
Approach Delay		17.9			9.3			10.3			8.9	
Approach LOS		B			A			B			A	
Queue Length 50th (ft)	6	111		10	77		39	12		5	5	
Queue Length 95th (ft)	22	163		26	113		80	44		17	21	
Internal Link Dist (ft)		594			377			905			225	
Turn Bay Length (ft)	125			105			90			90		
Base Capacity (vph)	214	1219		334	1796		516	645		450	676	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	

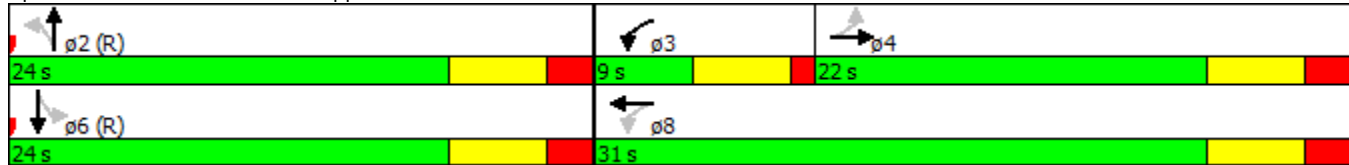


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	0.66		0.20	0.44		0.34	0.26		0.05	0.07	

Intersection Summary

Area Type: Other
 Cycle Length: 55
 Actuated Cycle Length: 55
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 55
 Control Type: Pretimed
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 12.9
 Intersection LOS: B
 Intersection Capacity Utilization 49.8%
 ICU Level of Service A
 Analysis Period (min) 15


















Splits and Phases: 11: Mississippi Street & 9th Street/ 9th Street



11th & Tennessee

Existing Conditions

Morning Peak-Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	30	34	65	111	0	0	0	0	137	700	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.929										0.999
Flt Protected				0.950								0.992
Satd. Flow (prot)	0	1557	0	1770	1676	0	0	0	0	0	3332	0
Flt Permitted				0.590								0.992
Satd. Flow (perm)	0	1557	0	1099	1676	0	0	0	0	0	3332	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37										2
Link Speed (mph)		30			30			30				30
Link Distance (ft)		369			340			654				936
Travel Time (s)		8.4			7.7			14.9				21.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)		0			0							0
Adj. Flow (vph)	0	33	37	71	121	0	0	0	0	149	761	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	70	0	71	121	0	0	0	0	0	919	0
Turn Type		NA		pm+pt	NA					Perm		NA
Protected Phases		2		1	6							4
Permitted Phases				6						4		
Minimum Split (s)		21.0		8.5	21.0					21.0	21.0	
Total Split (s)		21.0		8.6	29.6					25.4	25.4	
Total Split (%)		38.2%		15.6%	53.8%					46.2%	46.2%	
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)		1.0		0.5	1.0					1.0	1.0	
Lost Time Adjust (s)		-2.0		-1.0	-2.0							-2.0
Total Lost Time (s)		3.0		3.5	3.0							3.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Act Effect Green (s)		18.0		26.1	26.6							22.4
Actuated g/C Ratio		0.33		0.47	0.48							0.41
v/c Ratio		0.13		0.12	0.15							0.68
Control Delay		8.5		8.5	8.6							16.4
Queue Delay		0.0		0.0	0.0							0.0
Total Delay		8.5		8.5	8.6							16.4
LOS		A		A	A							B
Approach Delay		8.5			8.6							16.4
Approach LOS		A			A							B
Queue Length 50th (ft)		7		12	20							123
Queue Length 95th (ft)		30		29	44							179
Internal Link Dist (ft)		289			260			574				856
Turn Bay Length (ft)				100								
Base Capacity (vph)		534		583	810							1358
Starvation Cap Reductn		0		0	0							0

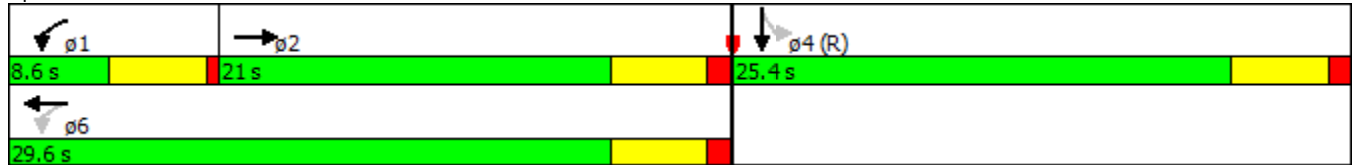


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.13		0.12	0.15						0.68	

Intersection Summary

Area Type:	Other
Cycle Length:	55
Actuated Cycle Length:	55
Offset:	21.4 (39%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	14.7
Intersection LOS:	B
Intersection Capacity Utilization	40.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 8: 11th Street & Tennessee Street



11th & Tennessee

Existing Conditions

Afternoon Peak-Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↖						↖↗	
Volume (vph)	0	139	83	123	114	0	0	0	0	104	926	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.950										0.998
Flt Protected				0.950								0.995
Satd. Flow (prot)	0	1593	0	1770	1676	0	0	0	0	0	3339	0
Flt Permitted				0.401								0.995
Satd. Flow (perm)	0	1593	0	747	1676	0	0	0	0	0	3339	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51										3
Link Speed (mph)		30			30			30				30
Link Distance (ft)		369			340			654				936
Travel Time (s)		8.4			7.7			14.9				21.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)		0			0							0
Adj. Flow (vph)	0	151	90	134	124	0	0	0	0	113	1007	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	241	0	134	124	0	0	0	0	0	1134	0
Turn Type		NA		pm+pt	NA					Perm		NA
Protected Phases		2		1	6							4
Permitted Phases				6						4		
Minimum Split (s)		21.0		8.5	21.0					21.0	21.0	
Total Split (s)		21.0		9.0	30.0					30.0	30.0	
Total Split (%)		35.0%		15.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)		1.0		0.5	1.0					1.0	1.0	
Lost Time Adjust (s)		-2.0		-1.0	-2.0							-2.0
Total Lost Time (s)		3.0		3.5	3.0							3.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Act Effect Green (s)		18.0		26.5	27.0							27.0
Actuated g/C Ratio		0.30		0.44	0.45							0.45
v/c Ratio		0.47		0.32	0.16							0.75
Control Delay		16.9		12.4	10.6							17.7
Queue Delay		0.0		0.0	0.0							0.0
Total Delay		16.9		12.4	10.6							17.7
LOS		B		B	B							B
Approach Delay		16.9			11.5							17.7
Approach LOS		B			B							B
Queue Length 50th (ft)		54		28	25							168
Queue Length 95th (ft)		112		57	52							239
Internal Link Dist (ft)		289			260			574				856
Turn Bay Length (ft)				100								
Base Capacity (vph)		513		423	754							1504
Starvation Cap Reductn		0		0	0							0

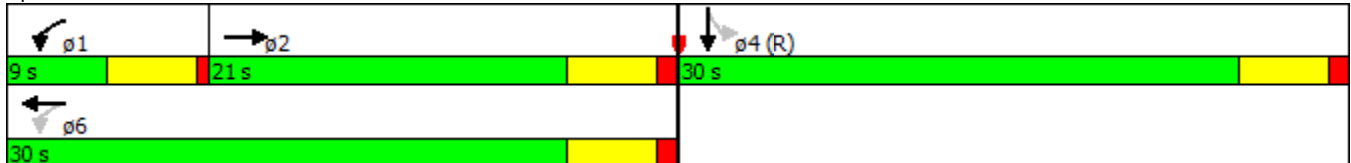


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.47		0.32	0.16						0.75	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	16.6
Intersection LOS:	B
Intersection Capacity Utilization	58.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 8: 11th Street & Tennessee Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	159	0	0	145	144	63	552	65	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		65	0		100	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950							0.995				
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	3522	1583	0	0	0
Flt Permitted	0.657							0.995				
Satd. Flow (perm)	1224	1863	0	0	1863	1583	0	3522	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						157			71			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		340			277			660				920
Travel Time (s)		7.7			6.3			15.0				20.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	173	0	0	158	157	68	600	71	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	173	0	0	158	157	0	668	71	0	0	0
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		2			6			8				
Permitted Phases	2					6	8		8			
Minimum Split (s)	21.0	21.0			21.0	21.0	21.0	21.0	21.0			
Total Split (s)	21.0	21.0			21.0	21.0	24.0	24.0	24.0			
Total Split (%)	46.7%	46.7%			46.7%	46.7%	53.3%	53.3%	53.3%			
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0		-2.0	-2.0			
Total Lost Time (s)	3.0	3.0			3.0	3.0		3.0	3.0			
Lead/Lag												
Lead-Lag Optimize?												
Act Effect Green (s)	18.0	18.0			18.0	18.0		21.0	21.0			
Actuated g/C Ratio	0.40	0.40			0.40	0.40		0.47	0.47			
v/c Ratio	0.03	0.23			0.21	0.22		0.41	0.09			
Control Delay	8.5	10.0			9.8	3.0		8.9	2.7			
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0			
Total Delay	8.5	10.0			9.8	3.0		8.9	2.7			
LOS	A	A			A	A		A	A			
Approach Delay		9.9			6.4			8.3				
Approach LOS		A			A			A				
Queue Length 50th (ft)	2	28			25	0		54	0			
Queue Length 95th (ft)	10	59			54	24		84	14			
Internal Link Dist (ft)		260			197			580			840	
Turn Bay Length (ft)	100					65			100			
Base Capacity (vph)	489	745			745	727		1643	776			
Starvation Cap Reductn	0	0			0	0		0	0			
Spillback Cap Reductn	0	0			0	0		0	0			

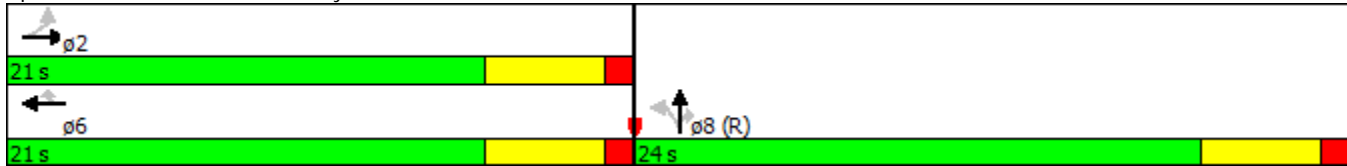


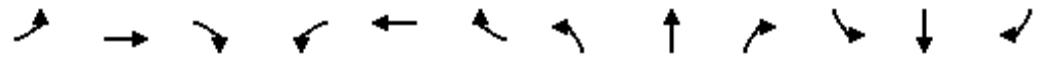
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0			0	0		0	0			
Reduced v/c Ratio	0.03	0.23			0.21	0.22		0.41	0.09			

Intersection Summary

Area Type:	Other
Cycle Length:	45
Actuated Cycle Length:	45
Offset:	0 (0%), Referenced to phase 8:NBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.41
Intersection Signal Delay:	8.0
Intersection LOS:	A
Intersection Capacity Utilization	40.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 19: Kentucky Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	244	0	0	184	205	54	702	143	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		65	0		100	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Fr _t						0.850			0.850			
Fl _t Protected	0.950							0.996				
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	3525	1583	0	0	0
Fl _t Permitted	0.619							0.996				
Satd. Flow (perm)	1153	1863	0	0	1863	1583	0	3525	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						126			155			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		340			277			660				920
Travel Time (s)		7.7			6.3			15.0				20.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	265	0	0	200	223	59	763	155	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	265	0	0	200	223	0	822	155	0	0	0
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		2			6			8				
Permitted Phases	2					6	8		8			
Minimum Split (s)	21.0	21.0			21.0	21.0	21.0	21.0	21.0			
Total Split (s)	21.0	21.0			21.0	21.0	24.0	24.0	24.0			
Total Split (%)	46.7%	46.7%			46.7%	46.7%	53.3%	53.3%	53.3%			
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0		-2.0	-2.0			
Total Lost Time (s)	3.0	3.0			3.0	3.0		3.0	3.0			
Lead/Lag												
Lead-Lag Optimize?												
Act Effect Green (s)	18.0	18.0			18.0	18.0		21.0	21.0			
Actuated g/C Ratio	0.40	0.40			0.40	0.40		0.47	0.47			
v/c Ratio	0.04	0.36			0.27	0.31		0.50	0.19			
Control Delay	8.6	11.2			10.3	5.9		9.7	2.3			
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0			
Total Delay	8.6	11.2			10.3	5.9		9.7	2.3			
LOS	A	B			B	A		A	A			
Approach Delay		11.0			8.0			8.5				
Approach LOS		B			A			A				
Queue Length 50th (ft)	3	45			33	15		70	0			
Queue Length 95th (ft)	11	88			67	48		107	21			
Internal Link Dist (ft)		260			197			580			840	
Turn Bay Length (ft)	100					65			100			
Base Capacity (vph)	461	745			745	708		1645	821			
Starvation Cap Reductn	0	0			0	0		0	0			
Spillback Cap Reductn	0	0			0	0		0	0			

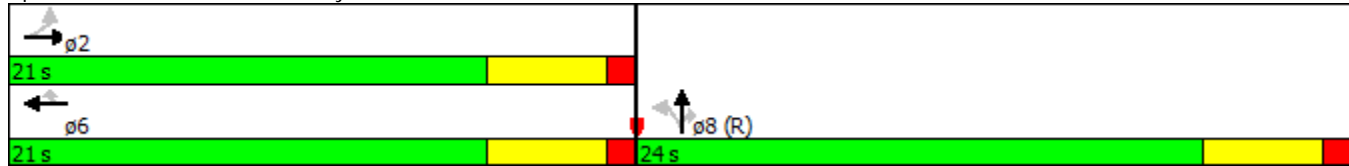


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0			0	0		0	0			
Reduced v/c Ratio	0.04	0.36			0.27	0.31		0.50	0.19			

Intersection Summary

Area Type:	Other
Cycle Length:	45
Actuated Cycle Length:	45
Offset:	0 (0%), Referenced to phase 8:NBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	8.8
Intersection LOS:	A
Intersection Capacity Utilization	58.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 19: Kentucky Street



**POST-DEVELOPMENT SCENARIO:
“EXISTING – BERKELEY FLATS + HERE@KANSAS” TRAFFIC VOLUMES**

Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	73	54	0	38	160	13	0	54	29	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	79	59	0	41	174	14	0	59	32	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach

	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.3	9.4	8.8
HCM LOS	A	A	A

Lane

	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	62%	2%	18%	12%
Vol Thru, %	33%	57%	76%	85%
Vol Right, %	5%	42%	6%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	87	129	211	75
LT Vol	54	2	38	9
Through Vol	29	73	160	64
RT Vol	4	54	13	2
Lane Flow Rate	95	140	229	82
Geometry Grp	1	1	1	1
Degree of Util (X)	0.131	0.171	0.288	0.111
Departure Headway (Hd)	4.973	4.386	4.526	4.904
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	719	816	794	729
Service Time	3.017	2.423	2.56	2.95
HCM Lane V/C Ratio	0.132	0.172	0.288	0.112
HCM Control Delay	8.8	8.3	9.4	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.6	1.2	0.4

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	9	64	2
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	10	70	2
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.6
HCM LOS	A

Lane

Intersection

Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	147	63	0	49	139	9	0	82	56	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	160	68	0	53	151	10	0	89	61	15
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.6	9.8	9.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	54%	1%	25%	12%
Vol Thru, %	37%	69%	71%	72%
Vol Right, %	9%	30%	5%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	152	213	197	60
LT Vol	82	3	49	7
Through Vol	56	147	139	43
RT Vol	14	63	9	10
Lane Flow Rate	165	232	214	65
Geometry Grp	1	1	1	1
Degree of Util (X)	0.235	0.297	0.287	0.093
Departure Headway (Hd)	5.11	4.611	4.818	5.133
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	697	773	741	691
Service Time	3.182	2.672	2.881	3.217
HCM Lane V/C Ratio	0.237	0.3	0.289	0.094
HCM Control Delay	9.8	9.6	9.8	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	1.2	1.2	0.3

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	43	10
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	8	47	11
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach NB

Opposing Lanes 1

Conflicting Approach Left WB

Conflicting Lanes Left 1

Conflicting Approach Right EB

Conflicting Lanes Right 1

HCM Control Delay 8.8

HCM LOS A

Lane

Intersection

Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	28	38	55	0	62	117	16	0	35	56	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	30	41	60	0	67	127	17	0	38	61	45
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9.5	12.4	9.7
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	42%	0%	32%	100%	0%
Vol Thru, %	0%	58%	58%	0%	60%	0%	65%
Vol Right, %	0%	42%	0%	100%	8%	0%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	97	66	55	195	74	234
LT Vol	35	0	28	0	62	74	0
Through Vol	0	56	38	0	117	0	151
RT Vol	0	41	0	55	16	0	83
Lane Flow Rate	38	105	72	60	212	80	254
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.069	0.169	0.128	0.091	0.357	0.141	0.392
Departure Headway (Hd)	6.568	5.76	6.416	5.492	6.066	6.301	5.543
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	546	623	559	652	593	570	651
Service Time	4.304	3.496	4.155	3.231	4.1	4.029	3.272
HCM Lane V/C Ratio	0.07	0.169	0.129	0.092	0.358	0.14	0.39
HCM Control Delay	9.8	9.7	10.1	8.8	12.4	10.1	11.8
HCM Lane LOS	A	A	B	A	B	B	B
HCM 95th-tile Q	0.2	0.6	0.4	0.3	1.6	0.5	1.9

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	74	151	83
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	80	164	90
Number of Lanes	0	1	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	11.4
HCM LOS	B

Lane

Intersection												
Intersection Delay, s/veh	15.7											
Intersection LOS	C											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	85	127	71	0	44	89	101	0	103	200	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	92	138	77	0	48	97	110	0	112	217	95
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0
Approach	EB				WB				NB			
Opposing Approach	WB				EB				SB			
Opposing Lanes	1				2				2			
Conflicting Approach Left	SB				NB				EB			
Conflicting Lanes Left	2				2				2			
Conflicting Approach Right	NB				SB				WB			
Conflicting Lanes Right	2				2				1			
HCM Control Delay	15				17				17			
HCM LOS	B				C				C			
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2					
Vol Left, %	100%	0%	40%	0%	19%	100%	0%					
Vol Thru, %	0%	70%	60%	0%	38%	0%	62%					
Vol Right, %	0%	30%	0%	100%	43%	0%	38%					
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop					
Traffic Vol by Lane	103	287	212	71	234	62	148					
LT Vol	103	0	85	0	44	62	0					
Through Vol	0	200	127	0	89	0	92					
RT Vol	0	87	0	71	101	0	56					
Lane Flow Rate	112	312	230	77	254	67	161					
Geometry Grp	7	7	7	7	6	7	7					
Degree of Util (X)	0.233	0.585	0.473	0.139	0.5	0.147	0.316					
Departure Headway (Hd)	7.48	6.751	7.396	6.475	7.077	7.867	7.081					
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Cap	480	533	486	553	509	456	507					
Service Time	5.226	4.497	5.144	4.223	5.126	5.623	4.836					
HCM Lane V/C Ratio	0.233	0.585	0.473	0.139	0.499	0.147	0.318					
HCM Control Delay	12.5	18.6	16.6	10.3	17	12	13.1					
HCM Lane LOS	B	C	C	B	C	B	B					
HCM 95th-tile Q	0.9	3.7	2.5	0.5	2.8	0.5	1.3					

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	62	92	56
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	67	100	61
Number of Lanes	0	1	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	12.8
HCM LOS	B

Lane

Intersection

Int Delay, s/veh 2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	11	84	31	0	0	298
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	12	91	34	0	0	324

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	358	34	0
Stage 1	34	-	-
Stage 2	324	-	-
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	640	1039	1578
Stage 1	988	-	-
Stage 2	733	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	640	1039	1578
Mov Cap-2 Maneuver	640	-	-
Stage 1	988	-	-
Stage 2	733	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	969	1578	-
HCM Lane V/C Ratio	-	-	0.107	-	-
HCM Control Delay (s)	-	-	9.2	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection

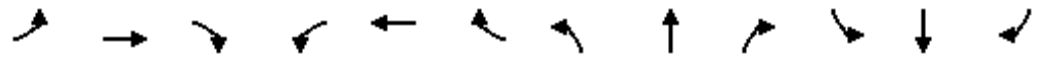
Int Delay, s/veh 2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	42	89	278	0	0	210
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	46	97	302	0	0	228

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	530	302	0
Stage 1	302	-	-
Stage 2	228	-	-
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	510	738	1259
Stage 1	750	-	-
Stage 2	810	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	510	738	1259
Mov Cap-2 Maneuver	510	-	-
Stage 1	750	-	-
Stage 2	810	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	645	1259	-
HCM Lane V/C Ratio	-	-	0.221	-	-
HCM Control Delay (s)	-	-	12.2	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	531	92	90	322	11	62	4	39	31	88	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	105		0	90		0	90		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.995			0.863				0.971
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3461	0	1770	3522	0	1770	1447	0	1770	1809	0
Flt Permitted	0.536			0.227			0.681			0.727		
Satd. Flow (perm)	998	3461	0	423	3522	0	1269	1447	0	1354	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			9			42				23
Link Speed (mph)		30			30			30				20
Link Distance (ft)		674			457			985				305
Travel Time (s)		15.3			10.4			22.4				10.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)								0				
Adj. Flow (vph)	8	577	100	98	350	12	67	4	42	34	96	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	677	0	98	362	0	67	46	0	34	119	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2				6
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.0	22.0		9.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0		9.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	40.0%	40.0%		16.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-3.0		-2.0	-3.0		-3.0	-3.0		-3.0	-3.0	
Total Lost Time (s)	4.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Act Effect Green (s)	18.0	19.0		28.0	28.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.33	0.35		0.51	0.51		0.38	0.38		0.38	0.38	
v/c Ratio	0.02	0.55		0.27	0.20		0.14	0.08		0.07	0.17	
Control Delay	13.0	15.8		9.1	7.6		12.1	5.0		11.3	10.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.0	15.8		9.1	7.6		12.1	5.0		11.3	10.1	
LOS	B	B		A	A		B	A		B	B	
Approach Delay		15.7			7.9			9.2			10.4	
Approach LOS		B			A			A			B	
Queue Length 50th (ft)	2	86		15	30		14	1		7	20	
Queue Length 95th (ft)	9	130		34	49		35	16		21	47	
Internal Link Dist (ft)		594			377			905			225	
Turn Bay Length (ft)	125			105			90			90		
Base Capacity (vph)	326	1221		362	1797		484	578		516	704	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	

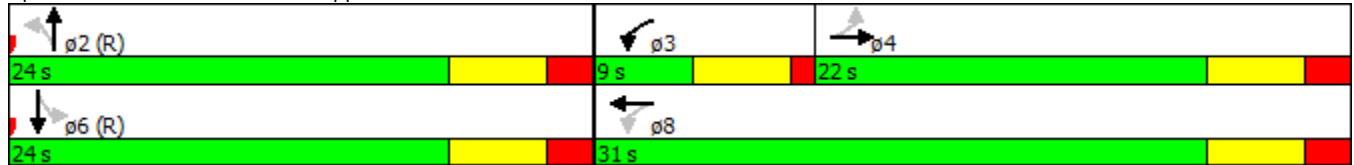


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.02	0.55		0.27	0.20		0.14	0.08		0.07	0.17	

Intersection Summary

Area Type: Other
 Cycle Length: 55
 Actuated Cycle Length: 55
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 55
 Control Type: Pretimed
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 12.1
 Intersection LOS: B
 Intersection Capacity Utilization 42.7%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 11: Mississippi Street & 9th Street/ 9th Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	684	77	92	701	29	192	63	123	22	35	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	105		0	90		0	90		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.994			0.900				0.947
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3486	0	1770	3518	0	1770	1509	0	1770	1764	0
Flt Permitted	0.351			0.190			0.719			0.592		
Satd. Flow (perm)	654	3486	0	354	3518	0	1339	1509	0	1103	1764	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			11			134				21
Link Speed (mph)		30			30			30				20
Link Distance (ft)		674			457			985				305
Travel Time (s)		15.3			10.4			22.4				10.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)								0				
Adj. Flow (vph)	28	743	84	100	762	32	209	68	134	24	38	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	827	0	100	794	0	209	202	0	24	59	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2				6
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.0	22.0		9.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0		9.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	40.0%	40.0%		16.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-3.0		-2.0	-3.0		-3.0	-3.0		-3.0	-3.0	
Total Lost Time (s)	4.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Act Effect Green (s)	18.0	19.0		28.0	28.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.33	0.35		0.51	0.51		0.38	0.38		0.38	0.38	
v/c Ratio	0.13	0.68		0.30	0.44		0.41	0.31		0.06	0.09	
Control Delay	15.0	18.3		9.5	9.4		15.5	6.1		11.3	8.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.0	18.3		9.5	9.4		15.5	6.1		11.3	8.4	
LOS	B	B		A	A		B	A		B	A	
Approach Delay		18.2			9.4			10.9				9.2
Approach LOS		B			A			B				A
Queue Length 50th (ft)	6	114		15	77		48	14		5	8	
Queue Length 95th (ft)	22	168		35	113		96	50		17	26	
Internal Link Dist (ft)		594			377			905				225
Turn Bay Length (ft)	125			105			90			90		
Base Capacity (vph)	214	1219		334	1796		511	659		421	686	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	

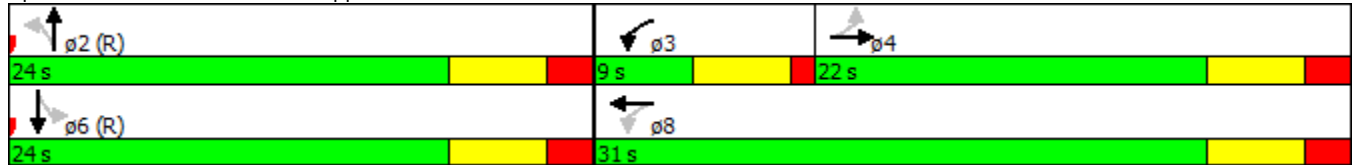


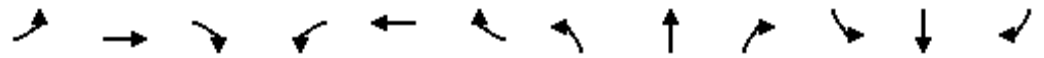
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	0.68		0.30	0.44		0.41	0.31		0.06	0.09	

Intersection Summary

Area Type:	Other
Cycle Length:	55
Actuated Cycle Length:	55
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	13.0
Intersection LOS:	B
Intersection Capacity Utilization	54.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 11: Mississippi Street & 9th Street/ 9th Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↗						↖↗	
Volume (vph)	0	42	47	65	129	0	0	0	0	137	700	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.929										0.999
Flt Protected				0.950								0.992
Satd. Flow (prot)	0	1557	0	1770	1676	0	0	0	0	0	3332	0
Flt Permitted				0.576								0.992
Satd. Flow (perm)	0	1557	0	1073	1676	0	0	0	0	0	3332	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51										2
Link Speed (mph)		30			30			30				30
Link Distance (ft)		369			340			654				936
Travel Time (s)		8.4			7.7			14.9				21.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)		0			0							0
Adj. Flow (vph)	0	46	51	71	140	0	0	0	0	149	761	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	97	0	71	140	0	0	0	0	0	919	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6							4
Permitted Phases				6						4		
Minimum Split (s)		21.0		8.5	21.0					21.0	21.0	
Total Split (s)		21.0		8.6	29.6					25.4	25.4	
Total Split (%)		38.2%		15.6%	53.8%					46.2%	46.2%	
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)		1.0		0.5	1.0					1.0	1.0	
Lost Time Adjust (s)		-2.0		-1.0	-2.0						-2.0	
Total Lost Time (s)		3.0		3.5	3.0						3.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Act Effect Green (s)		18.0		26.1	26.6						22.4	
Actuated g/C Ratio		0.33		0.47	0.48						0.41	
v/c Ratio		0.18		0.12	0.17						0.68	
Control Delay		8.6		8.6	8.7						16.4	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		8.6		8.6	8.7						16.4	
LOS		A		A	A						B	
Approach Delay		8.6			8.7						16.4	
Approach LOS		A			A						B	
Queue Length 50th (ft)		10		12	24						123	
Queue Length 95th (ft)		37		29	49						179	
Internal Link Dist (ft)		289			260			574			856	
Turn Bay Length (ft)				100								
Base Capacity (vph)		543		573	810						1358	
Starvation Cap Reductn		0		0	0						0	

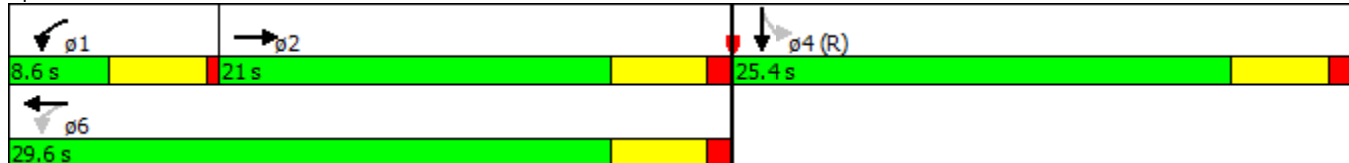


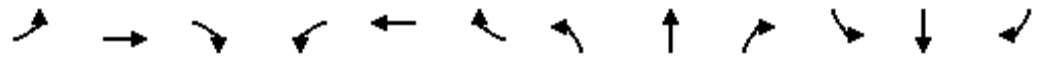
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.18		0.12	0.17						0.68	

Intersection Summary

Area Type:	Other
Cycle Length:	55
Actuated Cycle Length:	55
Offset:	21.4 (39%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	14.5
Intersection LOS:	B
Intersection Capacity Utilization	42.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 8: 11th Street & Tennessee Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕						↕↕	
Volume (vph)	0	149	86	123	130	0	0	0	0	104	926	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.951										0.998
Flt Protected				0.950								0.995
Satd. Flow (prot)	0	1594	0	1770	1676	0	0	0	0	0	3339	0
Flt Permitted				0.383								0.995
Satd. Flow (perm)	0	1594	0	713	1676	0	0	0	0	0	3339	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		49										3
Link Speed (mph)		30			30			30				30
Link Distance (ft)		369			340			654				936
Travel Time (s)		8.4			7.7			14.9				21.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)		0			0							0
Adj. Flow (vph)	0	162	93	134	141	0	0	0	0	113	1007	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	255	0	134	141	0	0	0	0	0	1134	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6							4
Permitted Phases				6						4		
Minimum Split (s)		21.0		8.5	21.0					21.0	21.0	
Total Split (s)		21.0		9.0	30.0					30.0	30.0	
Total Split (%)		35.0%		15.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)		1.0		0.5	1.0					1.0	1.0	
Lost Time Adjust (s)		-2.0		-1.0	-2.0						-2.0	
Total Lost Time (s)		3.0		3.5	3.0						3.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Act Effect Green (s)		18.0		26.5	27.0						27.0	
Actuated g/C Ratio		0.30		0.44	0.45						0.45	
v/c Ratio		0.50		0.33	0.19						0.75	
Control Delay		17.8		12.5	10.8						17.7	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		17.8		12.5	10.8						17.7	
LOS		B		B	B						B	
Approach Delay		17.8			11.6						17.7	
Approach LOS		B			B						B	
Queue Length 50th (ft)		59		28	29						168	
Queue Length 95th (ft)		120		57	59						239	
Internal Link Dist (ft)		289			260			574			856	
Turn Bay Length (ft)				100								
Base Capacity (vph)		512		411	754						1504	
Starvation Cap Reductn		0		0	0						0	

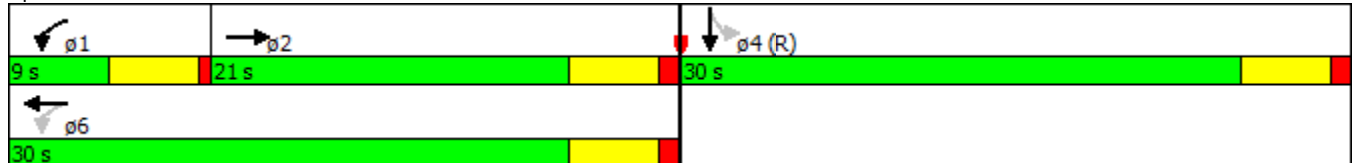


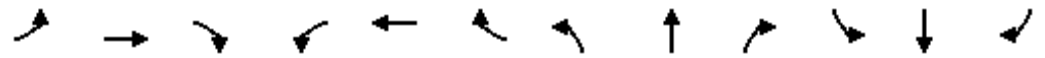
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.50		0.33	0.19						0.75	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	16.7
Intersection LOS:	B
Intersection Capacity Utilization	58.9%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 8: 11th Street & Tennessee Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	171	0	0	157	144	63	552	65	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		65	0		100	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Fr _t						0.850			0.850			
Fl _t Protected	0.950							0.995				
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	3522	1583	0	0	0
Fl _t Permitted	0.649							0.995				
Satd. Flow (perm)	1209	1863	0	0	1863	1583	0	3522	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						157			71			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		340			277			660				920
Travel Time (s)		7.7			6.3			15.0				20.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	186	0	0	171	157	68	600	71	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	186	0	0	171	157	0	668	71	0	0	0
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		2			6			8				
Permitted Phases	2					6	8		8			
Minimum Split (s)	21.0	21.0			21.0	21.0	21.0	21.0	21.0			
Total Split (s)	21.0	21.0			21.0	21.0	24.0	24.0	24.0			
Total Split (%)	46.7%	46.7%			46.7%	46.7%	53.3%	53.3%	53.3%			
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0		-2.0	-2.0			
Total Lost Time (s)	3.0	3.0			3.0	3.0		3.0	3.0			
Lead/Lag												
Lead-Lag Optimize?												
Act Effect Green (s)	18.0	18.0			18.0	18.0		21.0	21.0			
Actuated g/C Ratio	0.40	0.40			0.40	0.40		0.47	0.47			
v/c Ratio	0.03	0.25			0.23	0.22		0.41	0.09			
Control Delay	8.5	10.1			10.0	3.0		8.9	2.7			
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0			
Total Delay	8.5	10.1			10.0	3.0		8.9	2.7			
LOS	A	B			A	A		A	A			
Approach Delay		10.0			6.6			8.3				
Approach LOS		B			A			A				
Queue Length 50th (ft)	2	30			28	0		54	0			
Queue Length 95th (ft)	10	63			58	24		84	14			
Internal Link Dist (ft)		260			197			580			840	
Turn Bay Length (ft)	100					65			100			
Base Capacity (vph)	483	745			745	727		1643	776			
Starvation Cap Reductn	0	0			0	0		0	0			
Spillback Cap Reductn	0	0			0	0		0	0			

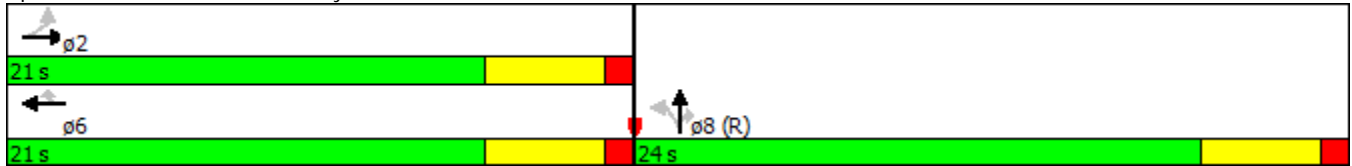


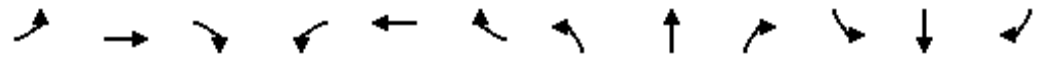
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0			0	0		0	0			
Reduced v/c Ratio	0.03	0.25			0.23	0.22		0.41	0.09			

Intersection Summary

Area Type:	Other
Cycle Length:	45
Actuated Cycle Length:	45
Offset:	0 (0%), Referenced to phase 8:NBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.41
Intersection Signal Delay:	8.1
Intersection LOS:	A
Intersection Capacity Utilization	42.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 19: Kentucky Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	254	0	0	197	205	58	702	143	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		65	0		100	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Fr _t						0.850			0.850			
Fl _t Protected	0.950							0.996				
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	3525	1583	0	0	0
Fl _t Permitted	0.602							0.996				
Satd. Flow (perm)	1121	1863	0	0	1863	1583	0	3525	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						126			155			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		340			277			660				920
Travel Time (s)		7.7			6.3			15.0				20.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	276	0	0	214	223	63	763	155	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	276	0	0	214	223	0	826	155	0	0	0
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		2			6			8				
Permitted Phases	2					6	8		8			
Minimum Split (s)	21.0	21.0			21.0	21.0	21.0	21.0	21.0			
Total Split (s)	21.0	21.0			21.0	21.0	24.0	24.0	24.0			
Total Split (%)	46.7%	46.7%			46.7%	46.7%	53.3%	53.3%	53.3%			
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0		-2.0	-2.0			
Total Lost Time (s)	3.0	3.0			3.0	3.0		3.0	3.0			
Lead/Lag												
Lead-Lag Optimize?												
Act Effect Green (s)	18.0	18.0			18.0	18.0		21.0	21.0			
Actuated g/C Ratio	0.40	0.40			0.40	0.40		0.47	0.47			
v/c Ratio	0.04	0.37			0.29	0.31		0.50	0.19			
Control Delay	8.6	11.4			10.5	5.9		9.7	2.3			
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0			
Total Delay	8.6	11.4			10.5	5.9		9.7	2.3			
LOS	A	B			B	A		A	A			
Approach Delay		11.2			8.1			8.5				
Approach LOS		B			A			A				
Queue Length 50th (ft)	3	47			35	15		71	0			
Queue Length 95th (ft)	11	91			71	48		108	21			
Internal Link Dist (ft)		260			197			580			840	
Turn Bay Length (ft)	100					65			100			
Base Capacity (vph)	448	745			745	708		1645	821			
Starvation Cap Reductn	0	0			0	0		0	0			
Spillback Cap Reductn	0	0			0	0		0	0			

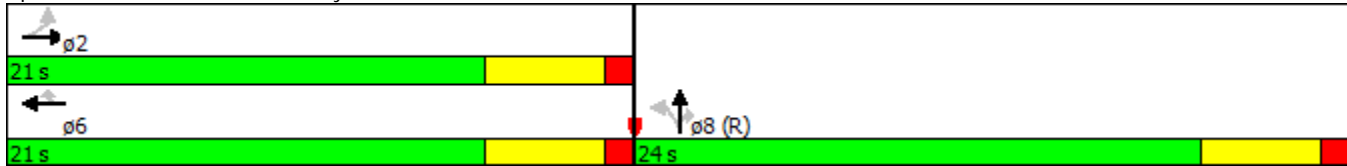


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0			0	0		0	0			
Reduced v/c Ratio	0.04	0.37			0.29	0.31		0.50	0.19			

Intersection Summary

Area Type:	Other
Cycle Length:	45
Actuated Cycle Length:	45
Offset:	0 (0%), Referenced to phase 8:NBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	8.9
Intersection LOS:	A
Intersection Capacity Utilization	58.9%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 19: Kentucky Street



Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	102	10	41	189	1	2	1	6	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	50	-	-	75	-	-	-	-	-	-	-	-
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	111	11	45	205	1	2	1	7	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	207	0	0	122	0	0	414	414	116	417	419	206
Stage 1	-	-	-	-	-	-	118	118	-	295	295	-
Stage 2	-	-	-	-	-	-	296	296	-	122	124	-
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	1364	-	-	1465	-	-	549	529	936	546	525	835
Stage 1	-	-	-	-	-	-	887	798	-	713	669	-
Stage 2	-	-	-	-	-	-	712	668	-	882	793	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1364	-	-	1465	-	-	534	512	936	528	509	835
Mov Cap-2 Maneuver	-	-	-	-	-	-	534	512	-	528	509	-
Stage 1	-	-	-	-	-	-	886	797	-	712	648	-
Stage 2	-	-	-	-	-	-	688	647	-	874	792	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.3	9.9	11.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	743	1364	-	-	1465	-	-	593
HCM Lane V/C Ratio	0.013	0.001	-	-	0.03	-	-	0.005
HCM Control Delay (s)	9.9	7.6	-	-	7.5	-	-	11.1
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0.1	-	-	0

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	248	4	3	241	1	7	1	16	1	1	2
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	50	-	-	75	-	-	-	-	-	-	-	-
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	270	4	3	262	1	8	1	17	1	1	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	263	0	0	274	0	0	545	544	272	552	545	263
Stage 1	-	-	-	-	-	-	274	274	-	269	269	-
Stage 2	-	-	-	-	-	-	271	270	-	283	276	-
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	1301	-	-	1289	-	-	449	446	767	444	446	776
Stage 1	-	-	-	-	-	-	732	683	-	737	687	-
Stage 2	-	-	-	-	-	-	735	686	-	724	682	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1301	-	-	1289	-	-	446	445	767	432	445	776
Mov Cap-2 Maneuver	-	-	-	-	-	-	446	445	-	432	445	-
Stage 1	-	-	-	-	-	-	731	682	-	736	685	-
Stage 2	-	-	-	-	-	-	730	684	-	706	681	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	11.1	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	619	1301	-	-	1289	-	-	560
HCM Lane V/C Ratio	0.042	0.001	-	-	0.003	-	-	0.008
HCM Control Delay (s)	11.1	7.8	-	-	7.8	-	-	11.5
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

APPENDIX III

Results of Trip Generation Analysis
Using ITE Trip Generation Manual, 9th Edition

Trip Generation Summary - Apartments - Dwelling Units

Project: HERE@KANSAS
 Alternative: Alternative 1 - Weighted Average Rate Method

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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	788	788	1576	24	97	121	96	51	147
	237 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 - Apartments - Bedrooms

Project: HERE@KANSAS
 Alternative: Alternative 1 - Weighted Average Rate Method

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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 2 624 Persons	1033	1032	2065	88	87	175	125	125	250
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 - Mid Rise Apartments - Dwelling Units

Project: HERE@KANSAS
 Alternative: Alternative 1 - Weighted Average Rate Method

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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
223	MRAPT 1				22	49	71	53	39	92
	237 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 - Restaurant

Project: HERE@KANSAS
 Alternative: Alternative 1 - Weighted Average Rate Method

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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
932	RESTAURANTHT 1	374	374	748	35	29	64	35	23	58
	5.88 Gross Floor Area 1000 SF									
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	15	10	25
Volume Added to Adjacent Streets		0	0	0	0	0	0	-15	-10	-25

Total AM Peak Hour Internal Capture = 0 Percent

Total PM Peak Hour Internal Capture = 0 Percent

Trip Generation Summary - Retail

Project: HERE@KANSAS
 Alternative: Alternative 1 - Weighted Average Rate Method

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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
826	CENTERSPECIALTY 1	170	170	340				9	12	21
	7.68 Gross Leasable Area 1000 SF									
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 - Apartments - Dwelling Units

Project: HERE@KANSAS
 Alternative: Alternative 2 - Regression Equation Method

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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 3	780	780	1560	24	96	120	96	52	148
	237 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 - Apartments - Bedrooms

Project: HERE@KANSAS
 Alternative: Alternative 2 - Regression Equation Method

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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 4 624 Persons	1051	1050	2101	87	86	173	123	122	245
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 - Mid Rise Apartments - Dwelling Units

Project: HERE@KANSAS
 Alternative: Alternative 2 - Regression Equation Method

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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
223	MRAPT 2				26	58	84	60	43	103
	237 Dwelling Units									

Unadjusted Volume	0	0	0	0	0	0	0	0	0	0
Internal Capture Trips	0	0	0	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0
Volume Added to Adjacent Streets	0	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 - Restaurant

Project: HERE@KANSAS
 Alternative: Alternative 2 - Regression Equation Method

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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
932	RESTAURANTHT 2 5.88 Gross Floor Area 1000 SF	374	374	748	35	29	64	35	23	58
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	15	10	25
Volume Added to Adjacent Streets		0	0	0	0	0	0	-15	-10	-25

Total AM Peak Hour Internal Capture = 0 Percent

Total PM Peak Hour Internal Capture = 0 Percent

Trip Generation Summary - Retail

Project: HERE@KANSAS
 Alternative: Alternative 2 - Regression Equation Method

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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
826	CENTERSPECIALTY 2	183	183	366				18	22	40
	7.68 Gross Leasable Area 1000 SF									
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 237 Dwelling Units of APT 1
(220) Apartment

Project: HERE@KANSAS
Phase: Apartments - Dwelling Units
Description: SWC of 11th Street & Indiana Street

Open Date: 9/16/2016
Analysis Date: 9/16/2016

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	1576	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	130	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	121	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	159	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	147	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	1514	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	123	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	1389	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	121	0	0.51	0.26	1.43	0.75	186	50	50	False		

Source: Institute of Transportation Engineers, Trip Generation Manual 9th Edition, 2012

TRIP GENERATION 2013, TRAFFICWARE, LLC

Detailed Land Use Data
For 624 Persons of APT 2
(220) Apartment

Project: HERE@KANSAS
Phase: Apartments - Bedrooms
Description: SWC of 11th Street & Indiana Street

Open Date: 9/16/2016
Analysis Date: 9/16/2016

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	2065	0	3.31	1.16	5.85	1.99	397	50	50	False	$T = 3.47(X) - 64.48$	0.9
Weekday AM Peak Hour of Generator	187	0	0.3	0.1	0.55	0.56	408	48	52	False	$T = 0.28(X) + 8.45$	0.66
Weekday AM Peak Hour of Adjacent Street Traffic	175	0	0.28	0.1	0.52	0.54	427	50	50	False	$T = 0.26(X) + 10.99$	0.67
Weekday PM Peak Hour of Generator	250	0	0.4	0.19	0.77	0.64	402	59	41	False	$T = 0.40(X) - 1.67$	0.78
Weekday PM Peak Hour of Adjacent Street Traffic	250	0	0.4	0.2	0.77	0.65	412	50	50	False	$T = 0.39(X) + 2.03$	0.77
Saturday Average Daily Trips	2022	0	3.24	1.03	5.11	2.16	338	50	50	False	$T = 3.30(X) - 21.03$	0.56
Saturday Peak Hour of Generator	162	0	0.26	0.15	0.55	0.52	338	50	50	False		
Sunday Average Daily Trips	1909	0	3.06	1.79	5.04	1.93	359	50	50	False	$T = 3.21(X) - 54.93$	0.69
Sunday Peak Hour of Generator	162	0	0.26	0.16	0.45	0.51	359	50	50	False	$\ln(T) = 0.77 \ln(X) - 0.04$	0.52

Source: Institute of Transportation Engineers, Trip Generation Manual 9th Edition, 2012

TRIP GENERATION 2013, TRAFFICWARE, LLC

Detailed Land Use Data
 For 237 Dwelling Units of MRAPT 1
 (223) Mid-Rise Apartment

Project: HERE@KANSAS
 Phase: Mid Rise Apartments - Dwelling Units
 Description: SWC of 11th Street & Indiana Street

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday AM Peak Hour of Generator	83	0	0.35	0.19	0.47	0.6	120	29	71	False	$T = 0.46(X) - 14.01$	0.91
Weekday AM Peak Hour of Adjacent Street Traffic	71	0	0.3	0.06	0.46	0.56	120	31	69	False	$T = 0.41(X) - 13.06$	0.83
Weekday PM Peak Hour of Generator	104	0	0.44	0.19	0.6	0.67	120	59	41	False	$T = 0.53(X) - 11.27$	0.9
Weekday PM Peak Hour of Adjacent Street Traffic	92	0	0.39	0.15	0.54	0.63	120	58	42	False	$T = 0.48(X) - 11.07$	0.89

Detailed Land Use Data
 For 5.88 Gross Floor Area 1000 SF of RESTAURANTHT 1
 (932) High-Turnover (Sit-Down) Restaurant

Project: HERE@KANSAS
 Phase: Restaurant
 Description: SWC of 11th Street & Indiana Street

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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	748	0	127.15	73.51	246	41.77	7	50	50	False		
Weekday AM Peak Hour of Generator	78	0	13.33	3	54.09	9.44	7	53	47	False		
Weekday AM Peak Hour of Adjacent Street Traffic	64	0	10.81	2.32	25.6	6.59	6	55	45	False		
Weekday PM Peak Hour of Generator	109	0	18.49	5.6	69.2	13.32	5	54	46	False		
Weekday PM Peak Hour of Adjacent Street Traffic	58	25	9.85	0.92	62	8.54	6	60	40	False		
Saturday Average Daily Trips	931	0	158.37	144.6	172.71		5	50	50	False		
Saturday Peak Hour of Generator	83	0	14.07	4.44	50.4	12.19	4	53	47	False		
Sunday Average Daily Trips	775	0	131.84	119.38	143.8		5	50	50	False		
Sunday Peak Hour of Generator	109	0	18.46	9.79	43.2	13.74	4	55	45	False		

Detailed Land Use Data
 For 7.68 Gross Leasable Area 1000 SF of CENTERSPECIALTY 1
 (826) Specialty Retail Center

Project: HERE@KANSAS
 Phase: Retail
 Description: SWC of 11th Street & Indiana Street

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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	340	0	44.32	21.3	64.21	15.52	25	50	50	False	$T = 42.78(X) + 37.66$	0.69
Weekday AM Peak Hour of Generator	53	0	6.84	5.33	14.08	3.55	60	48	52	False	$T = 4.91(X) + 115.59$	0.9
Weekday PM Peak Hour of Generator	39	0	5.02	4.59	6.18	2.31	75	56	44	False		
Weekday PM Peak Hour of Adjacent Street Traffic	21	0	2.71	2.03	5.16	1.83	69	44	56	False	$T = 2.40(X) + 21.48$	0.98
Saturday Average Daily Trips	323	0	42.04	22.57	54.47	13.97	28	50	50	False		
Sunday Average Daily Trips	157	0	20.43	6.96	32.82	10.27	28	50	50	False		

Detailed Land Use Data
For 237 Dwelling Units of APT 3
(220) Apartment

Project: HERE@KANSAS
Phase: Apartments - Dwelling Units
Description: SWC of 11th Street & Indiana Street

Open Date: 9/16/2016
Analysis Date: 9/16/2016

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	1560	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	130	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	120	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	157	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	148	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	1604	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	116	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	1420	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	121	0	0.51	0.26	1.43	0.75	186	50	50	False		

Source: Institute of Transportation Engineers, Trip Generation Manual 9th Edition, 2012

TRIP GENERATION 2013, TRAFFICWARE, LLC

Detailed Land Use Data
For 624 Persons of APT 4
(220) Apartment

Project: HERE@KANSAS
Phase: Apartments - Bedrooms
Description: SWC of 11th Street & Indiana Street

Open Date: 9/16/2016
Analysis Date: 9/16/2016

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	2101	0	3.31	1.16	5.85	1.99	397	50	50	True	$T = 3.47(X) - 64.48$	0.9
Weekday AM Peak Hour of Generator	183	0	0.3	0.1	0.55	0.56	408	48	52	True	$T = 0.28(X) + 8.45$	0.66
Weekday AM Peak Hour of Adjacent Street Traffic	173	0	0.28	0.1	0.52	0.54	427	50	50	True	$T = 0.26(X) + 10.99$	0.67
Weekday PM Peak Hour of Generator	248	0	0.4	0.19	0.77	0.64	402	59	41	True	$T = 0.40(X) - 1.67$	0.78
Weekday PM Peak Hour of Adjacent Street Traffic	245	0	0.4	0.2	0.77	0.65	412	50	50	True	$T = 0.39(X) + 2.03$	0.77
Saturday Average Daily Trips	2038	0	3.24	1.03	5.11	2.16	338	50	50	True	$T = 3.30(X) - 21.03$	0.56
Saturday Peak Hour of Generator	162	0	0.26	0.15	0.55	0.52	338	50	50	False		
Sunday Average Daily Trips	1948	0	3.06	1.79	5.04	1.93	359	50	50	True	$T = 3.21(X) - 54.93$	0.69
Sunday Peak Hour of Generator	136	0	0.26	0.16	0.45	0.51	359	50	50	True	$\ln(T) = 0.77 \ln(X) - 0.04$	0.52

Source: Institute of Transportation Engineers, Trip Generation Manual 9th Edition, 2012

TRIP GENERATION 2013, TRAFFICWARE, LLC

Detailed Land Use Data
 For 237 Dwelling Units of MRAPT 2
 (223) Mid-Rise Apartment

Project: HERE@KANSAS
 Phase: Mid Rise Apartments - Dwelling Units
 Description: SWC of 11th Street & Indiana Street

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday AM Peak Hour of Generator	95	0	0.35	0.19	0.47	0.6	120	29	71	True	$T = 0.46(X) - 14.01$	0.91
Weekday AM Peak Hour of Adjacent Street Traffic	84	0	0.3	0.06	0.46	0.56	120	31	69	True	$T = 0.41(X) - 13.06$	0.83
Weekday PM Peak Hour of Generator	114	0	0.44	0.19	0.6	0.67	120	59	41	True	$T = 0.53(X) - 11.27$	0.9
Weekday PM Peak Hour of Adjacent Street Traffic	103	0	0.39	0.15	0.54	0.63	120	58	42	True	$T = 0.48(X) - 11.07$	0.89

Source: Institute of Transportation Engineers, Trip Generation Manual 9th Edition, 2012

TRIP GENERATION 2013, TRAFFICWARE, LLC

Detailed Land Use Data
 For 5.88 Gross Floor Area 1000 SF of RESTAURANTHT 2
 (932) High-Turnover (Sit-Down) Restaurant

Project: HERE@KANSAS
 Phase: Restaurant
 Description: SWC of 11th Street & Indiana Street

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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	748	0	127.15	73.51	246	41.77	7	50	50	False		
Weekday AM Peak Hour of Generator	78	0	13.33	3	54.09	9.44	7	53	47	False		
Weekday AM Peak Hour of Adjacent Street Traffic	64	0	10.81	2.32	25.6	6.59	6	55	45	False		
Weekday PM Peak Hour of Generator	109	0	18.49	5.6	69.2	13.32	5	54	46	False		
Weekday PM Peak Hour of Adjacent Street Traffic	58	25	9.85	0.92	62	8.54	6	60	40	False		
Saturday Average Daily Trips	931	0	158.37	144.6	172.71		5	50	50	False		
Saturday Peak Hour of Generator	83	0	14.07	4.44	50.4	12.19	4	53	47	False		
Sunday Average Daily Trips	775	0	131.84	119.38	143.8		5	50	50	False		
Sunday Peak Hour of Generator	109	0	18.46	9.79	43.2	13.74	4	55	45	False		

Detailed Land Use Data
 For 7.68 Gross Leasable Area 1000 SF of CENTERSPECIALTY 2
 (826) Specialty Retail Center

Project: HERE@KANSAS
 Phase: Retail
 Description: SWC of 11th Street & Indiana Street

Open Date: 9/16/2016
 Analysis Date: 9/16/2016

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	366	0	44.32	21.3	64.21	15.52	25	50	50	True	$T = 42.78(X) + 37.66$	0.69
Weekday AM Peak Hour of Generator	153	0	6.84	5.33	14.08	3.55	60	48	52	True	$T = 4.91(X) + 115.59$	0.9
Weekday PM Peak Hour of Generator	39	0	5.02	4.59	6.18	2.31	75	56	44	False		
Weekday PM Peak Hour of Adjacent Street Traffic	40	0	2.71	2.03	5.16	1.83	69	44	56	True	$T = 2.40(X) + 21.48$	0.98
Saturday Average Daily Trips	323	0	42.04	22.57	54.47	13.97	28	50	50	False		
Sunday Average Daily Trips	157	0	20.43	6.96	32.82	10.27	28	50	50	False		

APPENDIX IV

Summary of Peak-Hour Traffic Counts

Summary of Turning Movement Counts (All Vehicles)

11th Street and Indiana Street
Morning Peak-Hours
Sunny. Mild

File Name : Ind&11-eam
Site Code : 1
Start Date : 11/14/2013
Page No : 1

Groups Printed- Unshifted

Start Time	Indiana Street From North					11th Street From East					Indiana Street From South					11th 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	0	9	0	0	9	0	8	2	0	10	0	4	5	0	9	6	5	1	0	12	40
07:15 AM	1	9	0	0	10	0	17	2	0	19	0	4	6	0	10	6	5	0	0	11	50
07:30 AM	0	9	2	0	11	5	34	10	0	49	0	8	14	0	22	16	12	1	0	29	111
07:45 AM	1	20	1	0	22	2	47	6	0	55	0	7	20	0	27	14	12	1	0	27	131
Total	2	47	3	0	52	7	106	20	0	133	0	23	45	0	68	42	34	3	0	79	332
08:00 AM	0	16	4	0	20	3	39	7	0	49	1	7	12	0	20	14	18	0	0	32	121
08:15 AM	1	19	2	0	22	3	24	13	0	40	0	7	8	0	15	10	9	0	0	19	96
08:30 AM	5	12	0	0	17	1	21	10	0	32	0	3	11	0	14	12	9	1	0	22	85
08:45 AM	1	12	0	0	13	1	25	8	0	34	0	5	21	0	26	5	13	1	0	19	92
Total	7	59	6	0	72	8	109	38	0	155	1	22	52	0	75	41	49	2	0	92	394
Grand Total	9	106	9	0	124	15	215	58	0	288	1	45	97	0	143	83	83	5	0	171	726
Apprch %	7.3	85.5	7.3	0		5.2	74.7	20.1	0		0.7	31.5	67.8	0		48.5	48.5	2.9	0		
Total %	1.2	14.6	1.2	0	17.1	2.1	29.6	8	0	39.7	0.1	6.2	13.4	0	19.7	11.4	11.4	0.7	0	23.6	

Summary of Turning Movement Counts (All Vehicles)

11th Street and Indiana Street
Morning Peak-Hours
Sunny. Mild

File Name : Ind&11-eam
Site Code : 1
Start Date : 11/14/2013
Page No : 2

Start Time	Indiana Street From North					11th Street From East					Indiana Street From South					11th 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	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	9	2	0	11	5	34	10	0	49	0	8	14	0	22	16	12	1	0	29	111
07:45 AM	1	20	1	0	22	2	47	6	0	55	0	7	20	0	27	14	12	1	0	27	131
08:00 AM	0	16	4	0	20	3	39	7	0	49	1	7	12	0	20	14	18	0	0	32	121
08:15 AM	1	19	2	0	22	3	24	13	0	40	0	7	8	0	15	10	9	0	0	19	96
Total Volume	2	64	9	0	75	13	144	36	0	193	1	29	54	0	84	54	51	2	0	107	459
% App. Total	2.7	85.3	12	0		6.7	74.6	18.7	0		1.2	34.5	64.3	0		50.5	47.7	1.9	0		
PHF	.500	.800	.563	.000	.852	.650	.766	.692	.000	.877	.250	.906	.675	.000	.778	.844	.708	.500	.000	.836	.876

Summary of Turning Movement Counts (All Vehicles)

Indiana Street and 11th Street
Afternoon Peak-Hours
Sunny, Mild

File Name : Ind&11-epm
Site Code : 1
Start Date : 11/13/2013
Page No : 1

Groups Printed- Unshifted

Start Time	Indiana Street From North					11th Street From East					Indiana Street From South					11th 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	0	5	2	0	7	4	22	10	0	36	2	14	24	0	40	28	31	3	0	62	145
04:15 PM	1	2	5	0	8	2	16	4	0	22	0	15	21	0	36	12	29	3	0	44	110
04:30 PM	3	3	6	0	12	5	21	7	0	33	3	14	24	0	41	9	47	1	0	57	143
04:45 PM	3	16	5	0	24	8	18	11	0	37	3	6	18	0	27	15	23	0	0	38	126
Total	7	26	18	0	51	19	77	32	0	128	8	49	87	0	144	64	130	7	0	201	524
05:00 PM	2	14	2	0	18	3	40	15	0	58	3	15	31	0	49	17	45	2	0	64	189
05:15 PM	3	9	4	0	16	1	26	10	0	37	3	16	16	0	35	10	36	0	0	46	134
05:30 PM	4	8	0	0	12	2	28	9	0	39	2	16	14	0	32	11	27	0	0	38	121
05:45 PM	1	12	1	0	14	3	30	14	0	47	5	9	21	0	35	25	27	1	0	53	149
Total	10	43	7	0	60	9	124	48	0	181	13	56	82	0	151	63	135	3	0	201	593
Grand Total	17	69	25	0	111	28	201	80	0	309	21	105	169	0	295	127	265	10	0	402	1117
Apprch %	15.3	62.2	22.5	0		9.1	65	25.9	0		7.1	35.6	57.3	0		31.6	65.9	2.5	0		
Total %	1.5	6.2	2.2	0	9.9	2.5	18	7.2	0	27.7	1.9	9.4	15.1	0	26.4	11.4	23.7	0.9	0	36	

Summary of Turning Movement Counts (All Vehicles)

Indiana Street and 11th Street
Afternoon Peak-Hours
Sunny, Mild

File Name : Ind&11-epm
Site Code : 1
Start Date : 11/13/2013
Page No : 2

Start Time	Indiana Street From North					11th Street From East					Indiana Street From South					11th 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	
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	2	14	2	0	18	3	40	15	0	58	3	15	31	0	49	17	45	2	0	64	189
05:15 PM	3	9	4	0	16	1	26	10	0	37	3	16	16	0	35	10	36	0	0	46	134
05:30 PM	4	8	0	0	12	2	28	9	0	39	2	16	14	0	32	11	27	0	0	38	121
05:45 PM	1	12	1	0	14	3	30	14	0	47	5	9	21	0	35	25	27	1	0	53	149
Total Volume	10	43	7	0	60	9	124	48	0	181	13	56	82	0	151	63	135	3	0	201	593
% App. Total	16.7	71.7	11.7	0		5	68.5	26.5	0		8.6	37.1	54.3	0		31.3	67.2	1.5	0		
PHF	.625	.768	.438	.000	.833	.750	.775	.800	.000	.780	.650	.875	.661	.000	.770	.630	.750	.375	.000	.785	.784

Summary of Turning Movement Counts (All Vehicles)

11th Street & Mississippi Street
Morning Peak-Hours
Sunny, Mild

File Name : Miss&11-eam-raw
Site Code : 2
Start Date : 11/15/2013
Page No : 1

Groups Printed- Unshifted

Start Time	Mississippi Street From North					11th Street From East					Mississippi Street From South					KU Parking Lot Access 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	1	17	3	0	21	5	0	2	0	7	2	10	0	0	12	0	0	0	0	0	40
07:15 AM	1	31	12	0	44	10	1	7	0	18	2	2	0	0	4	0	0	2	0	2	68
07:30 AM	3	32	12	0	47	12	0	9	0	21	2	6	0	0	8	1	0	0	0	1	77
07:45 AM	1	49	18	0	68	39	0	6	0	45	0	7	4	0	11	1	0	2	0	3	127
Total	6	129	45	0	180	66	1	24	0	91	6	25	4	0	35	2	0	4	0	6	312
08:00 AM	2	54	24	0	80	25	0	14	0	39	2	3	2	0	7	1	1	1	0	3	129
08:15 AM	4	27	27	0	58	37	1	7	0	45	2	4	2	0	8	0	1	0	0	1	112
08:30 AM	13	33	29	0	75	33	8	9	0	50	5	8	1	0	14	1	1	1	0	3	142
08:45 AM	12	34	41	0	87	35	5	12	0	52	6	14	1	0	21	0	0	1	0	1	161
Total	31	148	121	0	300	130	14	42	0	186	15	29	6	0	50	2	3	3	0	8	544
Grand Total	37	277	166	0	480	196	15	66	0	277	21	54	10	0	85	4	3	7	0	14	856
Apprch %	7.7	57.7	34.6	0		70.8	5.4	23.8	0		24.7	63.5	11.8	0		28.6	21.4	50	0		
Total %	4.3	32.4	19.4	0	56.1	22.9	1.8	7.7	0	32.4	2.5	6.3	1.2	0	9.9	0.5	0.4	0.8	0	1.6	

Summary of Turning Movement Counts (All Vehicles)

11th Street & Mississippi Street
Morning Peak-Hours
Sunny, Mild

File Name : Miss&11-eam-raw
Site Code : 2
Start Date : 11/15/2013
Page No : 2

Start Time	Mississippi Street From North					11th Street From East					Mississippi Street From South					KU Parking Lot Access From West					Int. Total
	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. 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	2	54	24	0	80	25	0	14	0	39	2	3	2	0	7	1	1	1	0	3	129
08:15 AM	4	27	27	0	58	37	1	7	0	45	2	4	2	0	8	0	1	0	0	1	112
08:30 AM	13	33	29	0	75	33	8	9	0	50	5	8	1	0	14	1	1	1	0	3	142
08:45 AM	12	34	41	0	87	35	5	12	0	52	6	14	1	0	21	0	0	1	0	1	161
Total Volume	31	148	121	0	300	130	14	42	0	186	15	29	6	0	50	2	3	3	0	8	544
% App. Total	10.3	49.3	40.3	0		69.9	7.5	22.6	0		30	58	12	0		25	37.5	37.5	0		
PHF	.596	.685	.738	.000	.862	.878	.438	.750	.000	.894	.625	.518	.750	.000	.595	.500	.750	.750	.000	.667	.845

Summary of Turning Movement Counts (All Vehicles)

11th Street and Mississippi Street
Afternoon Peak-Hours
Sunny, Mild

File Name : Miss&11-epm
Site Code : 2
Start Date : 11/14/2013
Page No : 1

Groups Printed- Unshifted

Start Time	Mississippi Street From North					11th Street From East					Mississippi Street From South					Ku Parking Lot Access 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	15	60	0	76	62	0	4	0	66	13	32	1	0	46	1	0	5	0	6	194
04:15 PM	3	19	42	0	64	45	1	3	0	49	11	28	0	0	39	0	3	7	0	10	162
04:30 PM	3	18	46	0	67	54	3	6	0	63	18	32	0	0	50	1	2	1	0	4	184
04:45 PM	1	19	60	0	80	49	0	4	0	53	17	43	0	0	60	3	1	4	0	8	201
Total	8	71	208	0	287	210	4	17	0	231	59	135	1	0	195	5	6	17	0	28	741
05:00 PM	2	30	43	0	75	58	1	8	0	67	18	98	0	0	116	0	2	2	0	4	262
05:15 PM	1	24	50	0	75	44	1	5	0	50	14	66	0	0	80	1	3	3	0	7	212
05:30 PM	0	16	42	0	58	34	1	10	0	45	2	45	3	0	50	1	2	3	0	6	159
05:45 PM	1	16	43	0	60	34	1	13	0	48	12	32	0	0	44	0	3	4	0	7	159
Total	4	86	178	0	268	170	4	36	0	210	46	241	3	0	290	2	10	12	0	24	792
Grand Total	12	157	386	0	555	380	8	53	0	441	105	376	4	0	485	7	16	29	0	52	1533
Apprch %	2.2	28.3	69.5	0		86.2	1.8	12	0		21.6	77.5	0.8	0		13.5	30.8	55.8	0		
Total %	0.8	10.2	25.2	0	36.2	24.8	0.5	3.5	0	28.8	6.8	24.5	0.3	0	31.6	0.5	1	1.9	0	3.4	

Summary of Turning Movement Counts (All Vehicles)

11th Street and Mississippi Street
Afternoon Peak-Hours
Sunny, Mild

File Name : Miss&11-epm
Site Code : 2
Start Date : 11/14/2013
Page No : 2

Start Time	Mississippi Street From North					11th Street From East					Mississippi Street From South					Ku Parking Lot Access From West					Int. Total
	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	3	18	46	0	67	54	3	6	0	63	18	32	0	0	50	1	2	1	0	4	184
04:45 PM	1	19	60	0	80	49	0	4	0	53	17	43	0	0	60	3	1	4	0	8	201
05:00 PM	2	30	43	0	75	58	1	8	0	67	18	98	0	0	116	0	2	2	0	4	262
05:15 PM	1	24	50	0	75	44	1	5	0	50	14	66	0	0	80	1	3	3	0	7	212
Total Volume	7	91	199	0	297	205	5	23	0	233	67	239	0	0	306	5	8	10	0	23	859
% App. Total	2.4	30.6	67	0		88	2.1	9.9	0		21.9	78.1	0	0		21.7	34.8	43.5	0		
PHF	.583	.758	.829	.000	.928	.884	.417	.719	.000	.869	.931	.610	.000	.000	.659	.417	.667	.625	.000	.719	.820

Summary of Turning Movement Counts (All Vehicles)

Mississippi Street & Fambrough Drive
Morning Peak-Hours
Sunny, Mild

File Name : Miss&Famb-eam
Site Code : 3
Start Date : 11/19/2013
Page No : 1

Groups Printed- Unshifted

Start Time	Mississippi Street From North					From East					Mississippi Street From South					Fambrough Drive From West					Int. Total
	Right	Thru	Left		App. Total					App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	
07:00 AM	6	23	0	0	29	0	0	0	0	0	0	14	8	0	22	7	0	2	0	9	60
07:15 AM	7	20	0	0	27	0	0	0	0	0	0	9	15	0	24	20	0	4	0	24	75
07:30 AM	13	40	0	0	53	0	0	0	0	0	0	12	20	0	32	15	0	5	0	20	105
07:45 AM	27	53	0	0	80	0	0	0	0	0	0	13	44	0	57	26	0	7	0	33	170
Total	53	136	0	0	189	0	0	0	0	0	0	48	87	0	135	68	0	18	0	86	410
08:00 AM	10	51	0	0	61	0	0	0	0	0	0	4	34	0	38	28	0	6	0	34	133
08:15 AM	12	29	0	0	41	0	0	0	0	0	0	5	29	0	34	18	0	7	0	25	100
08:30 AM	10	37	0	0	47	0	0	0	0	0	0	4	22	0	26	16	0	5	0	21	94
08:45 AM	12	39	0	0	51	0	0	0	0	0	0	11	37	0	48	28	0	2	0	30	129
Total	44	156	0	0	200	0	0	0	0	0	0	24	122	0	146	90	0	20	0	110	456
Grand Total	97	292	0	0	389	0	0	0	0	0	0	72	209	0	281	158	0	38	0	196	866
Apprch %	24.9	75.1	0	0		0	0	0	0	0	0	25.6	74.4	0		80.6	0	19.4	0		
Total %	11.2	33.7	0	0	44.9	0	0	0	0	0	0	8.3	24.1	0	32.4	18.2	0	4.4	0	22.6	

Summary of Turning Movement Counts (All Vehicles)

Mississippi Street & Fambrough Drive
Morning Peak-Hours
Sunny, Mild

File Name : Miss&Famb-eam
Site Code : 3
Start Date : 11/19/2013
Page No : 2

Start Time	Mississippi Street From North					From East					Mississippi Street From South					Fambrough Drive From West					Int. Total
	Right	Thru	Left		App. Total					App. Total	Right	Thru	Left		App. Total	Right	Thru	Left		App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	13	40	0	0	53	0	0	0	0	0	0	12	20	0	32	15	0	5	0	20	105
07:45 AM	²⁷	⁵³	⁰	⁰	⁸⁰	0	0	0	0	0	0	¹³	44	0	57	26	0	7	0	33	170
08:00 AM	10	51	0	0	61	0	0	0	0	0	0	4	34	0	38	28	0	6	0	34	133
08:15 AM	12	29	0	0	41	0	0	0	0	0	0	5	29	0	34	18	0	7	0	25	100
Total Volume	62	173	0	0	235	0	0	0	0	0	0	34	127	0	161	87	0	25	0	112	508
% App. Total	26.4	73.6	0	0		0	0	0	0		0	21.1	78.9	0		77.7	0	22.3	0		
PHF	.574	.816	.000	.000	.734	.000	.000	.000	.000	.000	.000	.654	.722	.000	.706	.777	.000	.893	.000	.824	.747

Summary of Turning Movement Counts (All Vehicles)

Mississippi Street & Fambrough Drive
 Afternoon Peak-Hours
 Sunny, Mild

File Name : Miss&Famb-epm
 Site Code : 3
 Start Date : 11/19/2013
 Page No : 1

Groups Printed- Unshifted

Start Time	Mississippi Street From North					From East					Mississippi Street From South					Fambrough 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	12	14	0	0	26	0	0	0	0	0	0	34	58	0	92	51	0	19	0	70	188
04:15 PM	12	16	0	0	28	0	0	0	0	0	0	28	50	0	78	53	0	12	0	65	171
04:30 PM	15	16	0	0	31	0	0	0	0	0	0	39	32	0	71	40	0	22	0	62	164
04:45 PM	13	25	0	0	38	0	0	0	0	0	0	40	53	0	93	49	0	14	0	63	194
Total	52	71	0	0	123	0	0	0	0	0	0	141	193	0	334	193	0	67	0	260	717
05:00 PM	18	21	0	0	39	0	0	0	0	0	0	102	50	0	152	50	1	23	0	74	265
05:15 PM	13	27	0	0	40	0	0	0	0	0	0	75	54	0	129	51	0	22	0	73	242
05:30 PM	9	29	0	0	38	0	0	0	0	0	0	52	31	0	83	29	0	16	0	45	166
05:45 PM	20	34	0	0	54	0	0	0	0	0	0	29	31	0	60	35	0	8	0	43	157
Total	60	111	0	0	171	0	0	0	0	0	0	258	166	0	424	165	1	69	0	235	830
Grand Total	112	182	0	0	294	0	0	0	0	0	0	399	359	0	758	358	1	136	0	495	1547
Apprch %	38.1	61.9	0	0		0	0	0	0	0	0	52.6	47.4	0		72.3	0.2	27.5	0		
Total %	7.2	11.8	0	0	19	0	0	0	0	0	0	25.8	23.2	0	49	23.1	0.1	8.8	0	32	

Summary of Turning Movement Counts (All Vehicles)

Mississippi Street & Fambrough Drive
 Afternoon Peak-Hours
 Sunny, Mild

File Name : Miss&Famb-epm
 Site Code : 3
 Start Date : 11/19/2013
 Page No : 2

Start Time	Mississippi Street From North					From East					Mississippi Street From South					Fambrough 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	
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	13	25	0	0	38	0	0	0	0	0	0	40	53	0	93	49	0	14	0	63	194
05:00 PM	18	21	0	0	39	0	0	0	0	0	0	102	50	0	152	50	1	23	0	74	265
05:15 PM	13	27	0	0	40	0	0	0	0	0	0	75	54	0	129	51	0	22	0	73	242
05:30 PM	9	29	0	0	38	0	0	0	0	0	0	52	31	0	83	29	0	16	0	45	166
Total Volume	53	102	0	0	155	0	0	0	0	0	0	269	188	0	457	179	1	75	0	255	867
% App. Total	34.2	65.8	0	0		0	0	0	0		0	58.9	41.1	0		70.2	0.4	29.4	0		
PHF	.736	.879	.000	.000	.969	.000	.000	.000	.000	.000	.000	.659	.870	.000	.752	.877	.250	.815	.000	.861	.818

Summary of Turning Movement Counts (All Vehicles)

11th Street & Private Drives
Morning Peak-Hours
Overcast, Cold

File Name : 11&Pdrive-eam
Site Code : 4
Start Date : 11/20/2013
Page No : 1

Groups Printed- Unshifted

Start Time	11th Street From North					11th Street From East					Private Drive From South					11th 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	0	0	0	0	0	2	12	0	0	14	0	0	0	0	0	1	16	2	0	19	33
07:15 AM	0	0	0	0	0	0	29	0	0	29	0	0	0	0	0	0	19	0	0	19	48
07:30 AM	1	0	0	0	1	0	37	1	0	38	1	0	2	0	3	0	8	0	0	8	50
07:45 AM	0	0	0	0	0	0	47	0	0	47	0	0	0	0	0	1	23	0	0	24	71
Total	1	0	0	0	1	2	125	1	0	128	1	0	2	0	3	2	66	2	0	70	202
08:00 AM	1	0	0	0	1	0	38	0	0	38	3	0	2	0	5	2	19	0	0	21	65
08:15 AM	0	0	0	0	0	0	36	1	0	37	0	0	4	0	4	0	18	0	0	18	59
08:30 AM	0	0	1	0	1	0	44	1	0	45	1	0	1	0	2	0	23	0	0	23	71
08:45 AM	0	0	1	0	1	0	49	2	0	51	0	0	4	0	4	2	45	0	0	47	103
Total	1	0	2	0	3	0	167	4	0	171	4	0	11	0	15	4	105	0	0	109	298
Grand Total	2	0	2	0	4	2	292	5	0	299	5	0	13	0	18	6	171	2	0	179	500
Apprch %	50	0	50	0		0.7	97.7	1.7	0		27.8	0	72.2	0		3.4	95.5	1.1	0		
Total %	0.4	0	0.4	0	0.8	0.4	58.4	1	0	59.8	1	0	2.6	0	3.6	1.2	34.2	0.4	0	35.8	

Summary of Turning Movement Counts (All Vehicles)

11th Street & Private Drives
Morning Peak-Hours
Overcast, Cold

File Name : 11&Pdrive-eam
Site Code : 4
Start Date : 11/20/2013
Page No : 2

Start Time	11th Street From North					11th Street From East					Private Drive From South					11th 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	
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	1	0	0	0	1	0	38	0	0	38	3	0	2	0	5	2	19	0	0	21	65
08:15 AM	0	0	0	0	0	0	36	1	0	37	0	0	4	0	4	0	18	0	0	18	59
08:30 AM	0	0	1	0	1	0	44	1	0	45	1	0	1	0	2	0	23	0	0	23	71
08:45 AM	0	0	1	0	1	0	49	2	0	51	0	0	4	0	4	2	45	0	0	47	103
Total Volume	1	0	2	0	3	0	167	4	0	171	4	0	11	0	15	4	105	0	0	109	298
% App. Total	33.3	0	66.7	0		0	97.7	2.3	0		26.7	0	73.3	0		3.7	96.3	0	0		
PHF	.250	.000	.500	.000	.750	.000	.852	.500	.000	.838	.333	.000	.688	.000	.750	.500	.583	.000	.000	.580	.723

Summary of Turning Movement Counts (All Vehicles)

11th Street & Private Drives
Afternoon Peak-Hours
Overcast, Cold

File Name : 11&Pdrive-epm
Site Code : 4
Start Date : 11/20/2013
Page No : 1

Groups Printed- Unshifted

Start Time	Private Drive From North					11th Street From East					Private Drive From South					11th 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	1	0	0	0	1	1	43	0	0	44	1	0	4	0	5	0	43	0	0	43	93
04:15 PM	1	0	0	0	1	0	53	2	0	55	0	0	1	0	1	1	50	0	0	51	108
04:30 PM	2	0	4	0	6	0	36	2	0	38	1	0	2	0	3	1	50	0	0	51	98
04:45 PM	1	0	1	0	2	0	64	1	0	65	0	0	2	0	2	1	53	1	0	55	124
Total	5	0	5	0	10	1	196	5	0	202	2	0	9	0	11	3	196	1	0	200	423
05:00 PM	0	0	1	0	1	0	59	1	0	60	5	0	3	0	8	3	63	0	0	66	135
05:15 PM	3	0	0	0	3	1	39	3	0	43	1	0	1	0	2	0	57	0	0	57	105
05:30 PM	0	0	1	0	1	3	51	1	0	55	2	0	4	0	6	4	40	1	0	45	107
05:45 PM	1	0	2	0	3	2	39	1	0	42	1	1	1	0	3	3	43	2	0	48	96
Total	4	0	4	0	8	6	188	6	0	200	9	1	9	0	19	10	203	3	0	216	443
Grand Total	9	0	9	0	18	7	384	11	0	402	11	1	18	0	30	13	399	4	0	416	866
Apprch %	50	0	50	0		1.7	95.5	2.7	0		36.7	3.3	60	0		3.1	95.9	1	0		
Total %	1	0	1	0	2.1	0.8	44.3	1.3	0	46.4	1.3	0.1	2.1	0	3.5	1.5	46.1	0.5	0	48	

Summary of Turning Movement Counts (All Vehicles)

11th Street & Private Drives
Afternoon Peak-Hours
Overcast, Cold

File Name : 11&Pdrive-epm
Site Code : 4
Start Date : 11/20/2013
Page No : 2

Start Time	Private Drive From North					11th Street From East					Private Drive From South					11th 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	
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	1	0	1	0	2	0	64	1	0	65	0	0	2	0	2	1	53	1	0	55	124
05:00 PM	0	0	1	0	1	0	59	1	0	60	5	0	3	0	8	3	63	0	0	66	135
05:15 PM	3	0	0	0	3	1	39	3	0	43	1	0	1	0	2	0	57	0	0	57	105
05:30 PM	0	0	1	0	1	3	51	1	0	55	2	0	4	0	6	4	40	1	0	45	107
Total Volume	4	0	3	0	7	4	213	6	0	223	8	0	10	0	18	8	213	2	0	223	471
% App. Total	57.1	0	42.9	0		1.8	95.5	2.7	0		44.4	0	55.6	0		3.6	95.5	0.9	0		
PHF	.333	.000	.750	.000	.583	.333	.832	.500	.000	.858	.400	.000	.625	.000	.563	.500	.845	.500	.000	.845	.872

Summary of Turning Movement Counts (All Vehicles)

Mississippi Street & Private Drive
Morning Peak-Hours
Overcast, Mild

File Name : Miss&PDrive-eam
Site Code : 5
Start Date : 12/3/2013
Page No : 1

Groups Printed- Unshifted

Start Time	Mississippi Street From North					Private Drive From East					Mississippi Street From South					From West					Int. Total
	Thru	Left		App. Total		Right	Left		App. Total	Right	Thru		App. Total				App. Total				
07:00 AM	0	17	0	0	17	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	33
07:15 AM	0	27	0	0	27	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	29
07:30 AM	0	43	0	0	43	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	52
07:45 AM	0	57	0	0	57	0	0	1	0	1	0	11	0	0	11	0	0	0	0	0	69
Total	0	144	0	0	144	0	0	1	0	1	2	36	0	0	38	0	0	0	0	0	183
08:00 AM	0	61	1	0	62	1	0	0	0	1	0	7	0	0	7	0	0	0	0	0	70
08:15 AM	0	48	1	0	49	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	54
08:30 AM	0	35	3	0	38	1	0	0	0	1	0	9	0	0	9	0	0	0	0	0	48
08:45 AM	0	30	0	0	30	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	37
Total	0	174	5	0	179	3	0	0	0	3	0	27	0	0	27	0	0	0	0	0	209
Grand Total	0	318	5	0	323	3	0	1	0	4	2	63	0	0	65	0	0	0	0	0	392
Apprch %	0	98.5	1.5	0		75	0	25	0		3.1	96.9	0	0		0	0	0	0		
Total %	0	81.1	1.3	0	82.4	0.8	0	0.3	0	1	0.5	16.1	0	0	16.6	0	0	0	0	0	

Summary of Turning Movement Counts (All Vehicles)

Mississippi Street & Private Drive
Afternoon Peak-Hours
Sunny, Mild

File Name : Miss&PDrive-epm
Site Code : 5
Start Date : 12/2/2013
Page No : 1

Groups Printed- Unshifted

Start Time	Mississippi Street From North					Private Drive From East					Mississippi Street From South					From West					Int. Total
		Thru	Left		App. Total	Right		Left		App. Total	Right	Thru			App. Total					App. Total	
04:00 PM	0	15	0	0	15	4	0	0	0	4	2	41	0	0	43	0	0	0	0	0	62
04:15 PM	0	14	1	0	15	2	0	2	0	4	0	38	0	0	38	0	0	0	0	0	57
04:30 PM	0	16	0	0	16	0	0	1	0	1	1	38	0	0	39	0	0	0	0	0	56
04:45 PM	0	22	0	0	22	2	0	1	0	3	1	41	0	0	42	0	0	0	0	0	67
Total	0	67	1	0	68	8	0	4	0	12	4	158	0	0	162	0	0	0	0	0	242
05:00 PM	0	26	1	0	27	1	0	1	0	2	0	117	0	0	117	0	0	0	0	0	146
05:15 PM	0	32	1	0	33	0	0	1	0	1	2	76	0	0	78	0	0	0	0	0	112
05:30 PM	0	35	0	0	35	2	0	0	0	2	1	44	0	0	45	0	0	0	0	0	82
05:45 PM	0	25	0	0	25	0	0	0	0	0	1	26	0	0	27	0	0	0	0	0	52
Total	0	118	2	0	120	3	0	2	0	5	4	263	0	0	267	0	0	0	0	0	392
Grand Total	0	185	3	0	188	11	0	6	0	17	8	421	0	0	429	0	0	0	0	0	634
Apprch %	0	98.4	1.6	0		64.7	0	35.3	0		1.9	98.1	0	0		0	0	0	0	0	
Total %	0	29.2	0.5	0	29.7	1.7	0	0.9	0	2.7	1.3	66.4	0	0	67.7	0	0	0	0	0	

File Name: C:\PetraPro\9th&Mississippi\AM\9th&MississippiAM.ppd

Start Date: 5/12/2011

Start Time: 7:00:00 AM

Site Code: 00000000

Comment 1: Default Comments

Comment 2: Change These in The Preferences Window

Comment 3: Select File/Preference in the Main Scree

Comment 4: Then Click the Comments Tab

Start Time	MISSISSIPPI South Bound				9 West Bound				MISSISSIPPI North Bound				9 East Bound				Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00	2	4	3	0	1	35	3	0	5	6	4	0	9	46	0	0	118
07:15	2	7	4	0	1	54	10	0	4	3	5	0	16	85	0	0	191
07:30	9	18	9	0	2	72	14	0	4	0	8	0	18	111	0	0	265
07:45	4	22	8	0	2	78	19	0	2	1	8	0	20	191	2	0	357
08:00	4	18	8	0	4	81	21	0	3	1	8	0	21	119	2	0	290
08:15	4	9	6	0	3	91	15	0	9	0	5	0	12	110	3	0	267
08:30	2	6	4	0	4	62	10	0	3	1	9	0	16	133	1	0	251
08:45	5	12	6	0	7	75	8	0	3	2	6	0	9	129	1	0	263
Total	32	96	48	0	24	548	100	0	33	14	53	0	121	924	9	0	2002

07:30	9	18	9	0	2	72	14	0	4	0	8	0	18	111	0	0	265
07:45	4	22	8	0	2	78	19	0	2	1	8	0	20	191	2	0	357
08:00	4	18	8	0	4	81	21	0	3	1	8	0	21	119	2	0	290
08:15	4	9	6	0	3	91	15	0	9	0	5	0	12	110	3	0	267
Total	21	67	31	0	11	322	69	0	18	2	29	0	71	531	7	0	1179

Source: City of Lawrence, Public Works Department

File Name: C:\PetraPro\9th&Mississippi\PM\9th&MississippiPM.ppd

Start Date: 5/12/2011

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: Default Comments

Comment 2: Change These in The Preferences Window

Comment 3: Select File/Preference in the Main Scree

Comment 4: Then Click the Comments Tab

Start Time	MISSISSIPPI South Bound				9 West Bound				MISSISSIPPI North Bound				9 East Bound				Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
16:00	10	8	7	0	5	158	13	0	24	15	38	0	12	158	5	0	453
16:15	2	6	6	0	7	135	14	0	21	14	24	0	11	152	6	0	398
16:30	5	2	7	0	7	154	15	0	23	8	33	0	9	169	8	0	440
16:45	6	6	3	0	6	164	12	0	29	10	30	0	12	158	5	0	441
17:00	5	8	7	0	8	207	23	0	20	22	57	0	10	196	8	0	571
17:15	3	8	5	0	8	176	13	0	30	13	40	0	22	161	5	0	484
17:30	2	6	3	0	5	145	18	0	18	17	34	0	21	163	7	0	439
17:45	3	15	7	0	6	135	9	0	14	9	15	0	25	163	2	0	403
Total	36	59	45	0	52	1274	117	0	179	108	271	0	122	1320	46	0	3629

16:30	5	2	7	0	7	154	15	0	23	8	33	0	9	169	8	0	440
16:45	6	6	3	0	6	164	12	0	29	10	30	0	12	158	5	0	441
17:00	5	8	7	0	8	207	23	0	20	22	57	0	10	196	8	0	571
17:15	3	8	5	0	8	176	13	0	30	13	40	0	22	161	5	0	484
Total	19	24	22	0	29	701	63	0	102	53	160	0	53	684	26	0	1936

Soucre: City of Lawrence, Public Works Department

File Name: C:\Lohman\2013\2013 Petra Pro\11th & Tennessee\AM\11th & TennesseeAM.ppd

Start Date: 11/12/2013

Start Time: 7:00:00 AM

Site Code: 36

Start Time	TENNESSEE South Bound				11TH West Bound				TENNESSEE North Bound				11TH East Bound				Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00	4	102	13	0	0	12	3	0	0	0	0	0	1	2	0	0	137
07:15	1	139	21	0	0	23	4	0	0	0	0	0	0	4	0	0	192
07:30	1	178	26	0	0	19	10	0	0	0	0	0	5	6	0	0	245
07:45	4	197	49	0	0	35	21	0	0	0	0	0	9	16	0	0	331
08:00	3	199	34	0	0	34	18	0	0	0	0	0	12	2	0	0	302
08:15	0	126	28	0	0	23	16	0	0	0	0	0	8	6	0	0	207
08:30	2	139	27	0	0	31	5	0	0	0	0	0	13	7	0	0	224
08:45	1	127	29	0	0	18	20	0	0	0	0	0	8	14	0	0	217
Total	16	1207	227	0	0	195	97	0	0	0	0	0	56	57	0	0	1855

Start Time	TENNESSEE South Bound				11TH West Bound				TENNESSEE North Bound				11TH East Bound				Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:30	1	178	26	0	0	19	10	0	0	0	0	0	5	6	0	0	245
07:45	4	197	49	0	0	35	21	0	0	0	0	0	9	16	0	0	331
08:00	3	199	34	0	0	34	18	0	0	0	0	0	12	2	0	0	302
08:15	0	126	28	0	0	23	16	0	0	0	0	0	8	6	0	0	207
Total	8	700	137	0	0	111	65	0	0	0	0	0	34	30	0	0	1085

Source: City of Lawrence, Public Works Department

File Name: C:\Lohman\2013\2013 Petra Pro\11th & Tennessee\PM\11th & TennesseePM.ppd

Start Date: 11/12/2013

Start Time: 4:00:00 PM

Site Code: 36

Start Time	TENNESSEE South Bound				11TH West Bound				TENNESSEE North Bound				11TH East Bound				Total	
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
16:00	4	206	25	0	0	23	25	0	0	0	0	0	0	20	26	0	0	329
16:15	2	175	21	0	0	35	29	0	0	0	0	0	17	20	0	0	299	
16:30	2	203	21	0	0	32	30	0	0	0	0	0	22	30	0	0	340	
16:45	5	225	17	0	0	27	28	0	0	0	0	0	17	32	0	0	351	
17:00	3	284	41	0	0	33	35	0	0	0	0	0	24	42	0	0	462	
17:15	3	214	25	0	0	22	30	0	0	0	0	0	20	35	0	0	349	
17:30	4	194	26	0	0	24	31	0	0	0	0	0	10	26	0	0	315	
17:45	9	175	20	0	0	23	23	0	0	0	0	0	19	24	0	0	293	
Total	32	1676	196	0	0	219	231	0	0	0	0	0	149	235	0	0	2738	

Start Time	TENNESSEE South Bound				11TH West Bound				TENNESSEE North Bound				11TH East Bound				Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
16:30	2	203	21	0	0	32	30	0	0	0	0	0	22	30	0	0	340
16:45	5	225	17	0	0	27	28	0	0	0	0	0	17	32	0	0	351
17:00	3	284	41	0	0	33	35	0	0	0	0	0	24	42	0	0	462
17:15	3	214	25	0	0	22	30	0	0	0	0	0	20	35	0	0	349
Total	13	926	104	0	0	114	123	0	0	0	0	0	83	139	0	0	1502

Source: City of Lawrence, Public Works Department

File Name: C:\Lohman\2013\2013 Petra Pro\11th & Kentucky\AM\11th & KentuckyAM.ppd

Start Date: 11/14/2013

Start Time: 7:00:00 AM

Site Code: 34

Start Time	KENTUCKY South Bound				11TH West Bound				KENTUCKY North Bound				11TH East Bound				Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00	0	0	0	0	32	7	0	0	13	87	2	0	0	19	1	0	161
07:15	0	0	0	0	26	11	0	0	5	99	6	0	0	18	0	0	165
07:30	0	0	0	0	33	36	0	0	4	118	12	0	0	33	0	0	236
07:45	0	0	0	0	55	37	0	0	10	156	22	0	0	67	6	0	353
08:00	0	0	0	0	33	51	0	0	27	169	15	0	0	31	5	0	331
08:15	0	0	0	0	23	21	0	0	24	109	14	0	0	28	2	0	221
08:30	0	0	0	0	30	21	0	0	17	105	5	0	0	39	2	0	219
08:45	0	0	0	0	48	29	0	0	11	128	17	0	0	40	7	0	280
Total	0	0	0	0	280	213	0	0	111	971	93	0	0	275	23	0	1966

Start Time	KENTUCKY South Bound				11TH West Bound				KENTUCKY North Bound				11TH East Bound				Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:30	0	0	0	0	33	36	0	0	4	118	12	0	0	33	0	0	236
07:45	0	0	0	0	55	37	0	0	10	156	22	0	0	67	6	0	353
08:00	0	0	0	0	33	51	0	0	27	169	15	0	0	31	5	0	331
08:15	0	0	0	0	23	21	0	0	24	109	14	0	0	28	2	0	221
Total	0	0	0	0	144	145	0	0	65	552	63	0	0	159	13	0	1141

Source: City of Lawrence, Public Works Department

File Name: C:\Lohman\2013\2013 Petra Pro\11th & Kentucky\PM\11th & KentuckyPM.ppd

Start Date: 11/14/2013

Start Time: 4:00:00 PM

Site Code: 34

Start Time	KENTUCKY South Bound				11TH West Bound				KENTUCKY North Bound				11TH East Bound				Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
16:00	0	0	0	0	35	46	0	0	30	169	19	0	0	39	8	0	346
16:15	0	0	0	0	43	51	0	0	27	171	9	0	0	48	7	0	356
16:30	0	0	0	0	44	43	0	0	18	162	19	0	0	37	2	0	325
16:45	0	0	0	0	31	39	0	0	23	176	9	0	0	55	8	0	341
17:00	0	0	0	0	77	50	0	0	39	193	17	0	0	52	5	0	433
17:15	0	0	0	0	54	48	0	0	36	173	20	0	0	64	2	0	397
17:30	0	0	0	0	31	40	0	0	31	155	9	0	0	66	6	0	338
17:45	0	0	0	0	43	46	0	0	37	181	8	0	0	62	3	0	380
Total	0	0	0	0	358	363	0	0	241	1380	110	0	0	423	41	0	2916

Start Time	KENTUCKY South Bound				11TH West Bound				KENTUCKY North Bound				11TH East Bound				Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
17:00	0	0	0	0	77	50	0	0	39	193	17	0	0	52	5	0	433
17:15	0	0	0	0	54	48	0	0	36	173	20	0	0	64	2	0	397
17:30	0	0	0	0	31	40	0	0	31	155	9	0	0	66	6	0	338
17:45	0	0	0	0	43	46	0	0	37	181	8	0	0	62	3	0	380
Total	0	0	0	0	205	184	0	0	143	702	54	0	0	244	16	0	1548

Source: City of Lawrence, Public Works Department

Signal Location	Last Updated 5/12/16	Count PM Date	Begin Peak	Peak Volume	South Bound		
					Right	Thru	Left
9 th St.	Mississippi St.	04-Nov-15	17:00	1978	23	44	40
11 th St.	Kentucky St.	23-Oct-14	17:00	1462	0	0	0
11 th St.	Tennessee St.	28-Oct-14	16:30	1453	20	872	113

Signal Location	Last Updated 5/12/16	Count AM Date	Begin Peak	Peak Volume	South Bound		
					Right	Thru	Left
9 th St.	Mississippi St.	04-Nov-15	7:45	1379	16	64	41
11 th St.	Kentucky St.	23-Oct-14	7:30	1022	0	0	0
11 th St.	Tennessee St.	28-Oct-14	7:30	1128	20	714	148

Source: City of Lawrence, Public Works Department

West Bound			North Bound			East Bound		
Right	Thru	Left	Right	Thru	Left	Right	Thru	Left
50	713	74	98	52	142	55	665	22
199	205	0	107	680	48	0	204	19
0	106	129	0	0	0	91	122	0

West Bound			North Bound			East Bound		
Right	Thru	Left	Right	Thru	Left	Right	Thru	Left
22	367	62	26	14	23	76	660	8
147	117	0	48	487	54	0	158	11
0	130	46	0	0	0	31	39	0

Source: City of Lawrence, Public Works Department

APPENDIX V

Traffic Signal Warrant Analysis

Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	HERE @ KANSAS Development
Project/File #	Realigned Fambrough Dr. & Mississippi St.
Scenario	Pre-Development Traffic Volumes (AM Peak, 2013)

Intersection Information			
Major Street (N/S Road)	Mississippi St.	Minor Street (E/W Road)	Realigned Fambrough/11th St.
Analyzed with	2 or more approach lanes	Analyzed with	1 Approach Lane
Total Approach Volume	306 vehicles	Total Approach Volume	296 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	0 percent applied	Right turn reduction of	0 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

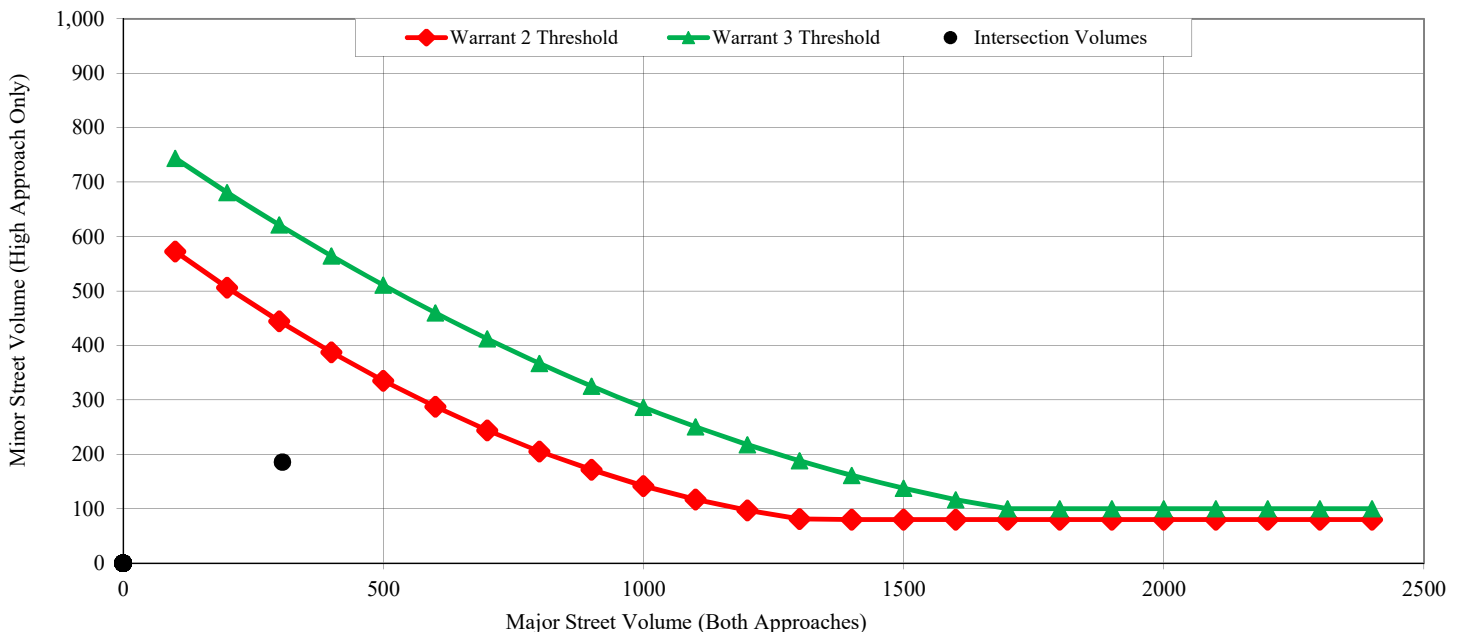
Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	0 hours	0 hours	0 (Cond. A) & 0 (Cond. B)
Criteria - Major Street (veh/hr)	600	900	480 (Cond. A) & 720 (Cond. B)
Criteria - Minor Street (veh/hr)	150	75	120 (Cond. A) & 60 (Cond. B)

* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	0 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Not Satisfied
Required values reached for	602 total, 186 minor, 3.1 delay	0 hours
Criteria - Total Approach Volume (veh in one hour)	800	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	100	
Criteria - Minor Street High Side Delay (veh-hrs)	4	

Figure 4C-1 (Warrant 2) & Figure 4C-3 (Warrant 3)



Spack Academy is part of the Spack Enterprise family of companies

Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	HERE @ KANSAS Development
Project/File #	Realigned Fambrough Dr. & Mississippi St.
Scenario	Pre-Development Traffic Volumes (PM Peak, 2013)

Intersection Information			
Major Street (N/S Road)	Mississippi St.	Minor Street (E/W Road)	Realigned Fambrough/11th St.
Analyzed with	2 or more approach lanes	Analyzed with	2 or more approach lanes
Total Approach Volume	464 vehicles	Total Approach Volume	504 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	0 percent applied	Right turn reduction of	0 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

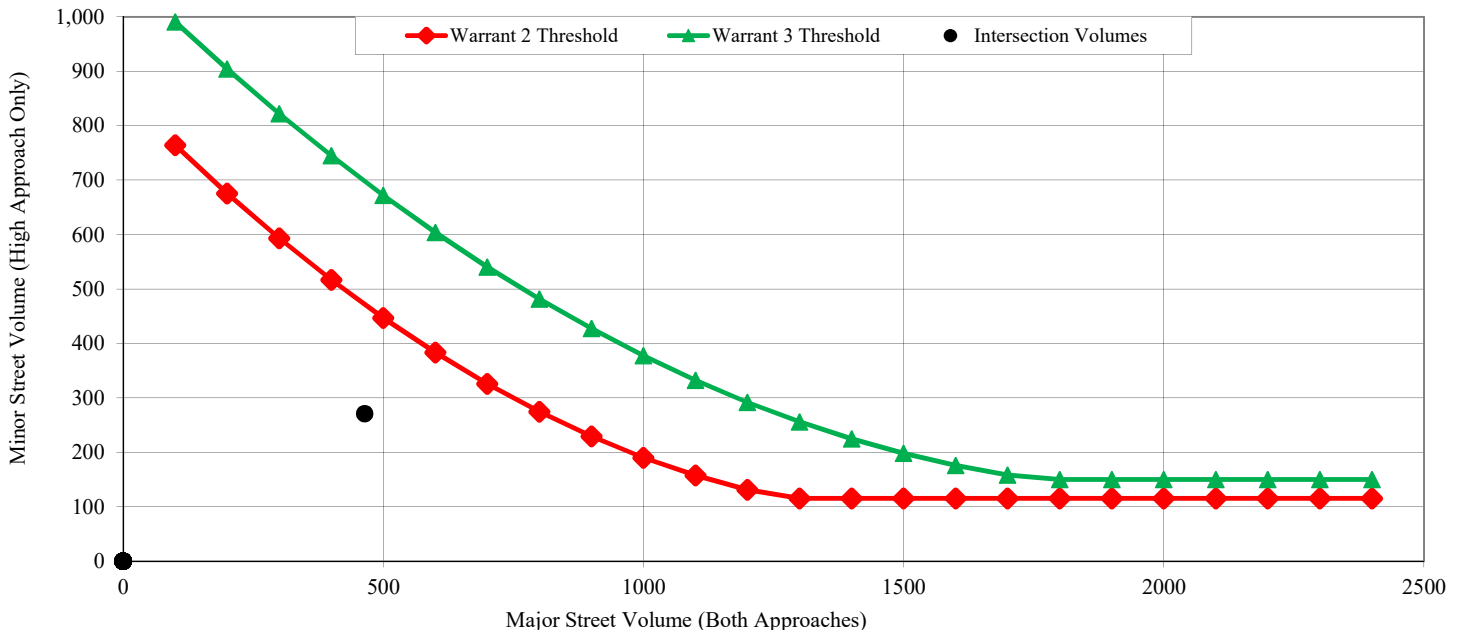
Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	0 hours	0 hours	0 (Cond. A) & 0 (Cond. B)
Criteria - Major Street (veh/hr)	600	900	480 (Cond. A) & 720 (Cond. B)
Criteria - Minor Street (veh/hr)	200	100	160 (Cond. A) & 80 (Cond. B)

* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	0 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Not Satisfied
Required values reached for	968 total, 271 minor, 4.5 delay	0 hours
Criteria - Total Approach Volume (veh in one hour)	800	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	150	
Criteria - Minor Street High Side Delay (veh-hrs)	5	

Figure 4C-1 (Warrant 2) & Figure 4C-3 (Warrant 3)



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Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	HERE @ KANSAS Development
Project/File #	Realigned Fambrough Dr. & Mississippi St.
Scenario	Post-Development Traffic Volumes (AM Peak, Future)

Intersection Information			
Major Street (N/S Road)	Mississippi St.	Minor Street (E/W Road)	Realigned Fambrough/11th St.
Analyzed with	2 or more approach lanes	Analyzed with	1 Approach Lane
Total Approach Volume	440 vehicles	Total Approach Volume	316 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	0 percent applied	Right turn reduction of	0 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

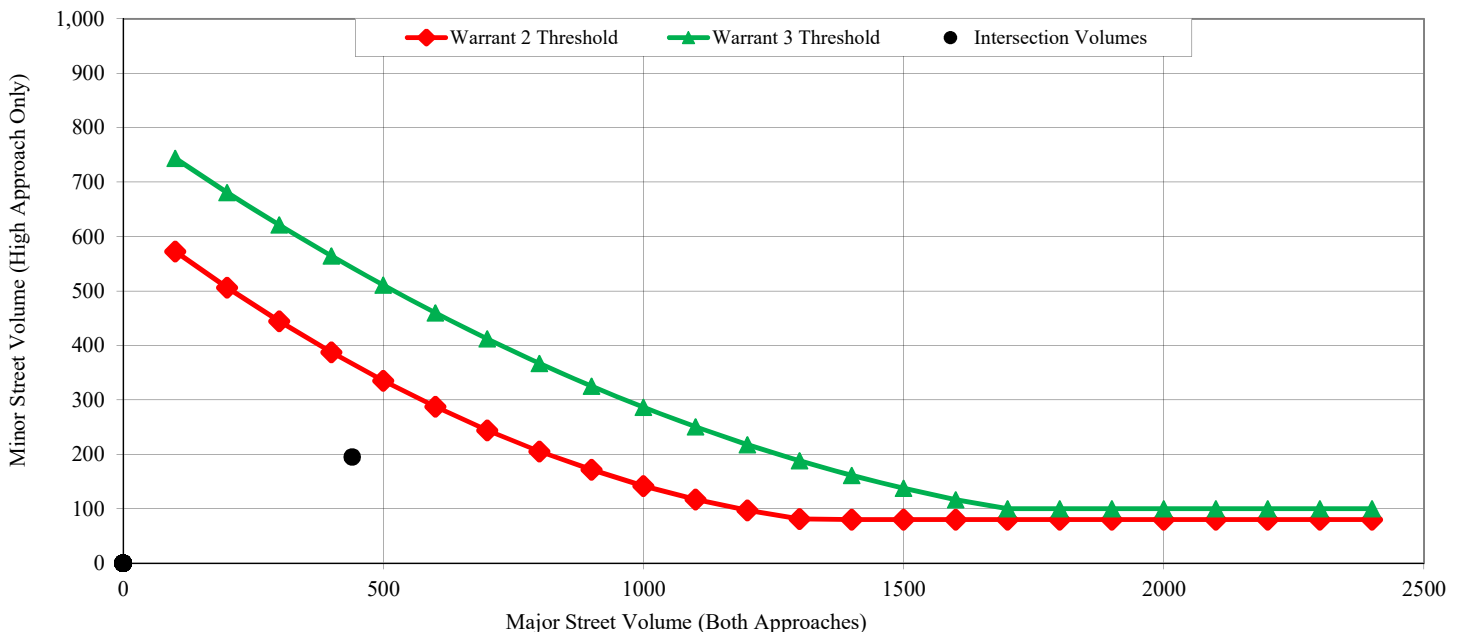
Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	0 hours	0 hours	0 (Cond. A) & 0 (Cond. B)
Criteria - Major Street (veh/hr)	600	900	480 (Cond. A) & 720 (Cond. B)
Criteria - Minor Street (veh/hr)	150	75	120 (Cond. A) & 60 (Cond. B)

* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	0 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Not Satisfied
Required values reached for	756 total, 195 minor, 3.3 delay	0 hours
Criteria - Total Approach Volume (veh in one hour)	800	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	100	
Criteria - Minor Street High Side Delay (veh-hrs)	4	

Figure 4C-1 (Warrant 2) & Figure 4C-3 (Warrant 3)



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Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	HERE @ KANSAS Development
Project/File #	Realigned Fambrough Dr. & Mississippi St.
Scenario	Post-Development Traffic Volumes (PM Peak, Future)

Intersection Information			
Major Street (N/S Road)	Mississippi St.	Minor Street (E/W Road)	Realigned Fambrough/11th St.
Analyzed with	2 or more approach lanes	Analyzed with	2 or more approach lanes
Total Approach Volume	600 vehicles	Total Approach Volume	517 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	0 percent applied	Right turn reduction of	0 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

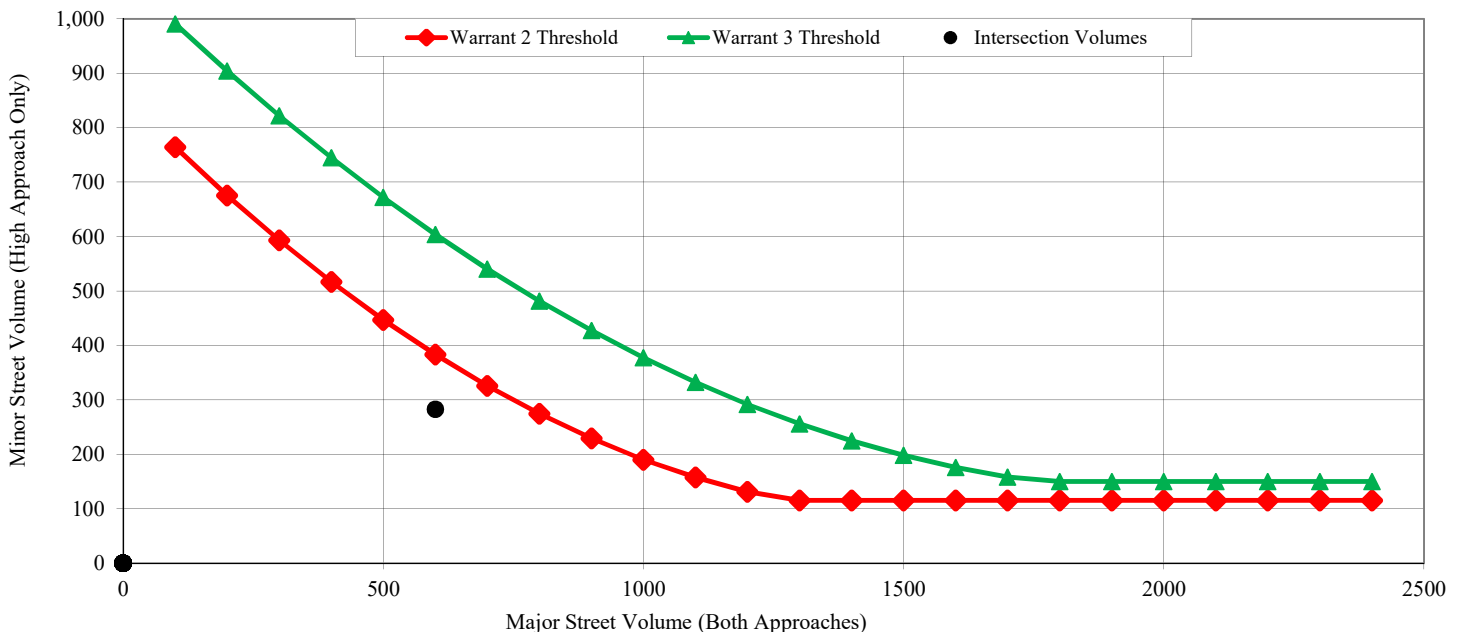
Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	1 hour	0 hours	1 (Cond. A) & 0 (Cond. B)
Criteria - Major Street (veh/hr)	600	900	480 (Cond. A) & 720 (Cond. B)
Criteria - Minor Street (veh/hr)	200	100	160 (Cond. A) & 80 (Cond. B)

* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

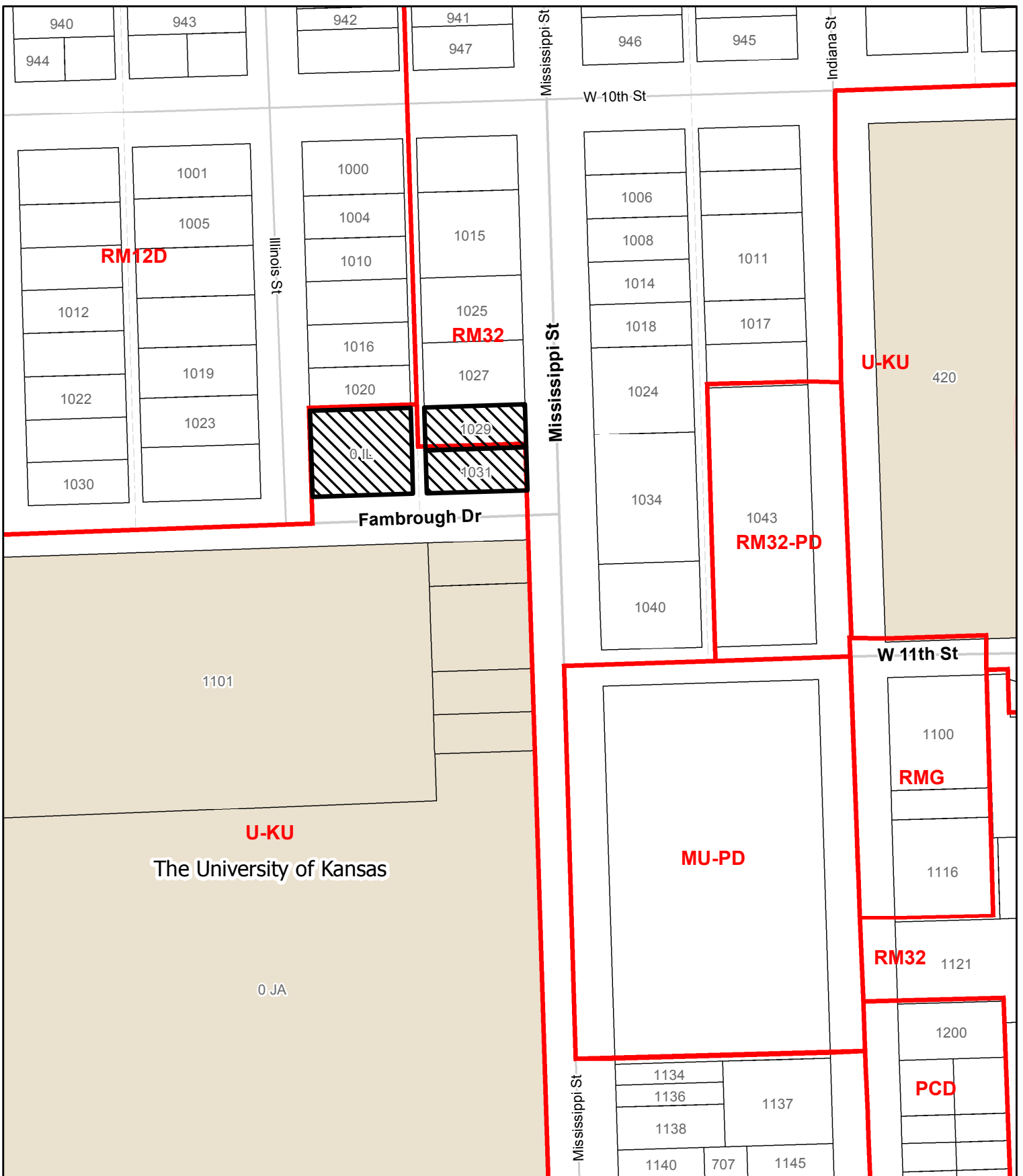
Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	0 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Not Satisfied
Required values reached for	1027 total, 283 minor, 4.7 delay	0 hours
Criteria - Total Approach Volume (veh in one hour)	800	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	150	
Criteria - Minor Street High Side Delay (veh-hrs)	5	

Figure 4C-1 (Warrant 2) & Figure 4C-3 (Warrant 3)



Spack Academy is part of the Spack Enterprise family of companies



**Z-16-00310: Rezone 0.918 acres from RM32 and U-KU Districts to RM32-PD District and
 PDP-16-00311: Preliminary Development Plan for HERE @ Kansas
 Located at 1029 & 1031 Mississippi St and the Northeast corner of Fambrough Dr & Illinois St**

Lawrence-Douglas County Planning Office
 September 2016



Subject Properties



Dear Sandra Day
Re: HERE parking lot

I am writing in regard to items Z-16-00-310 and PDP-16-00311 which involve the rerouting of Fambrough Dr. between Alabama and Mississippi Streets and formation of a parking lot for the HERE project in the area between the old and proposed new sites of Fambrough Drive.

My wife and I own the apartment building at 1027 Mississippi St. and we are strongly opposed to closing the alley entrance to what is now and what would be Fambrough Drive. To do so would create a great inconvenience for our tenants and many others between 9th and 10th streets who need the alley access to parking. We are also concerned that the parking lot will be a blight to our part of the neighborhood and that, being downhill from the parking lot, we will be subjected to excessive rainwater runoff.

Sincerely,

Charles Simmling
507 Pioneer Rd
Lawrence, KS 66049

Tel. 785-843-6543

FIRST MODIFICATION OF PARKING LOT LEASE

THIS FIRST MODIFICATION OF PARKING LOT LEASE (the "Modification") is made as of _____, 2016, by and between STADPKG, LLC, a Kansas limited liability company ("Landlord"), and Here Lawrence Property Owner, LLC, a Delaware limited liability company ("Tenant").

RECITALS

A. Landlord and Tenant are parties to a certain Parking Lot Lease Agreement dated July ___, 2016 (together with all exhibits incorporated therein, the "Original Lease"), which is incorporated herein by this reference.

B. The parties acknowledge that the City (as that and other capitalized terms used but not defined herein are defined in the Original Lease) has requested additional information about where the Tenant's tenants who are then authorized to park on the Property ("Tenant Permittees") will park during those dates and periods of time that the Landlord has the exclusive right to use the Property for the Landlord's Reserved Use.

C. In order to clarify where the Tenant Permittees will park during the Landlord's Reserved Use, Landlord and Tenant desire to modify the Original Lease as set forth in this Modification (the Original Lease as modified in this Modification is referred to as the "Lease").

NOW THEREFORE, for and in consideration of the covenants and agreements of the parties hereto hereinafter set forth, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby modify the Original Lease as follows:

1. Incorporation of Recitals. The Recitals set forth above are incorporated herein by this reference.

2. Relocation of Parking of Tenant Permittees During Landlord's Reserved Use. Tenant acknowledges and agrees that, starting at least ten (10) hours before and ending no sooner than two (2) hours after the periods of time that constitute the Landlord's Reserved Use for a given day, Tenant will provide the Tenant Permittees with paved, off-street locations in which to park the Tenant Permittees' respective motor vehicles as an alternative to the Property (whether one or more, on any given day of Landlord's Reserved Use, the "Alternative Parking Lot") at no cost to the Tenant Permittees. If Tenant will locate the Alternative Parking Lot in the following locations in the following order of priority: (a) some or all within the CA Student Housing Project's internal parking garage to the extent of any unreserved parking spots then available; (b) some or all at another location on the University of Kansas campus, if the University and Tenant are able to agree upon the terms of any such use and the location(s) of any such Alternative Parking Lot on the campus; (c) some or all at another location on property owned or controlled by Landlord such as, but not limited to, the parking adjacent to Landlord's offices on Constant

Avenue, if the Landlord and Tenant are able to agree upon the terms of a License Agreement (as hereinafter defined) for such parking; or (d) any not accommodated by (a), (b) or (c) above at another off street location that is at least ____ feet away from the Property and no more than two (2) miles from the CA Student Housing Project. If during a given period of Landlord's Reserved Use the Alternative Parking Lot so provided is not located within five (5) blocks of the CA Student Housing Project or a City or University of Kansas bus line or shuttle service or other transportation system then in operation, then, during that particular period of Landlord's Reserved Use, Tenant will provide the Tenant Permittees with a reasonable means of transportation at no cost to the Tenant Permittees between the CA Student Housing Project (or a location designated by Tenant that is within one thousand five hundred (1,500) feet of an entrance to the CA Student Housing Project) and the Alternative Parking Lot (when applicable, the "Free Transportation"), which Free Transportation will be available at least once per hour between two (2) hours before and two (2) hours after the beginning and end of the Landlord's Reserved Use on a given day). No later than three (3) business days prior to the date of a given period of Landlord's Reserved Use of the Property, Tenant will start providing Tenant Permittees with reasonable notice of the location of the Alternative Parking Lot for the upcoming date of Landlord's Reserved Use, the availability and means to use Free Transportation (if applicable) and a phone number at which Tenant Permittees can get additional information concerning such Alternative Parking Lot and any applicable Free Transportation prior to and on the date of such Landlord's Reserved Use. Upon request of Landlord, Tenant shall provide Landlord with a copy of such notices for any given period of Landlord's Reserved Use.

3. Costs of Alternate Parking and Free Transportation. Unless Landlord is providing the use of the Alternative Parking Lot pursuant to a License Agreement under Section 5 hereof (in which case the terms of such License Agreement will control), neither Landlord nor Landlord's Indemnified Parties will have any liability for any costs incurred by Tenant in providing the Alternative Parking, any Free Transportation or any notice required to be provided to Tenant Permittees in Section 2.

4. Indemnity Against Claims Arising from the Use of Alternate Parking Lot and Free Transportation. Tenant will hold harmless and defend Landlord from any and all claims, judgments, demands, damages, fines, losses, liabilities, interest, awards, penalties, causes of action, litigation, lawsuits, administrative proceedings, administrative investigations, costs and expenses, including, without limitation, reasonable attorneys' fees, court costs and other reasonable costs of suit, arbitration, dispute resolution or other similar proceedings which are brought by or against Tenant or any Tenant Permittee, whether for personal injuries or property damage, which arise from the intentional actions or negligence of any one or more of Tenant, or the lessor or licensor of any Alternative Parking Lot or the provider of any Free Transportation, or their respective employees, agents, licensees, and invitees in connection with a Tenant Permittee's use of an Alternate Parking Lot or any Free Transportation.

5. Potential Use of Landlord's Alternative Parking During Landlord's Reserved Use. If Tenant requests that Landlord do so at least forty-five (45) days in advance of a period of Landlord's Reserved Use of the Property (which request will specify the number of motor vehicles Tenant wants to park on Landlord's parking lots), Landlord will provide Tenant with a written proposal for Tenant to obtain a license to park the number of Tenant Permittees' motor vehicles specified by Tenant in its request on parking lots then owned or controlled by Landlord

that would qualify as an Alternative Parking Lot, if any. The parties acknowledge that Landlord will charge Tenant a fair market rental rate for the number of parking spaces so leased or licensed to Tenant (with fair market rental rate to be determined using the then typical parking charge being made for parking during such events in the area surrounding such Alternative Parking Lot) and that if Tenant agrees to such proposal, Landlord and Tenant will execute a written lease or license agreement for such parking which contains such other terms and conditions (e.g., relating to trash removal and insurance) as the Landlord and Tenant may agree upon (a “License Agreement”).

6. General. Except as expressly modified herein, the Original Lease remains in full force and effect. This Modification together with the Lease represents the complete understanding between the parties hereto as to the subject matter hereof. This Modification may be amended only by an instrument executed and delivered by each party hereto. No party hereto shall be deemed to have waived the exercise of any right which it holds hereunder unless such waiver is made expressly and in writing (and, without limiting the generality of the foregoing, no delay or omission by any party hereto in exercising any such right shall be deemed a waiver of its future exercise). No such waiver made in any instance involving the exercise of any such right shall be deemed a waiver as to any other such instance, or any other such right. This Modification shall be given effect and construed by application of the law of the State of Kansas, and any action or proceeding arising hereunder shall be brought in the courts of Kansas. Time shall be of the essence of this Modification, except that, whenever the last day for the exercise of any right or the discharge of any obligation hereunder falls on a Saturday, Sunday or statutory holiday, the party having such right or obligation shall have until 5:00 p.m. on the next succeeding day which is not a Saturday, Sunday or statutory holiday to exercise such right or discharge such obligation. The headings of the Sections, subsections, paragraphs and subparagraphs hereof are provided herein for and only for convenience of reference, and shall not be considered in construing their contents. As used herein, all references made (a) in the neuter, masculine or feminine gender shall be deemed to have been made in all such genders, (b) in the singular or plural number shall be deemed to have been made, respectively, in the plural or singular number as well, and (c) to any Section, subsection, paragraph or subparagraph shall be deemed, unless otherwise expressly indicated, to have been made to such Section, subsection, paragraph or subparagraph of this Lease. No determination by any court, governmental or administrative body or agency or otherwise that any provision of this Modification or any amendment hereof is invalid or unenforceable in any instance shall affect the validity or enforceability of (a) any other such provision, or (b) such provision in any circumstance not controlled by such determination. Each such provision shall remain valid and enforceable to the fullest extent allowed by, and shall be construed wherever possible as being consistent with, applicable law. Nothing in this Modification shall be deemed in any way to create between the parties hereto any relationship of partnership, joint venture or association, and the parties hereto hereby disclaim the existence of any such relationship. This Lease shall be binding on and inure to the benefit of the parties hereto and their respective successors and permitted assigns. The parties hereto shall and they hereby do waive trial by jury in any action, proceeding or counterclaim brought by either of the parties hereto against the other on any matters whatsoever arising out of or in any way related to this Lease, the relationship of Landlord and Tenant, Tenant’s use or occupancy of the Property, and/or any claim of injury, loss or damage.

**THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK
– SIGNATURES ON FOLLOWING PAGE.**

IN WITNESS WHEREOF, each party hereto has caused this Modification to be executed on its behalf by its duly authorized representatives, the day and year first above written.

LANDLORD:

STADPKG, LLC, a Kansas limited liability company
By: The Kansas University Endowment Association,
a Kansas not for profit corporation, its sole member

By: _____

Name: _____

Title: _____

TENANT:

Here Lawrence Property Owner, LLC
a Delaware limited liability company

By: _____

Name: _____

Title: an Authorized Signatory

PLANNING COMMISSION REPORT
Regular Agenda -- Public Hearing Item

PC Staff Report
09/26/2016

ITEM NO. 4 TEXT AMENDMENT TO ZONING REGULATIONS; SMALL SCALE INDUSTRIAL USES (MKM)

TA-16-00323: Consider a Text Amendment to Section 20-319-4 Conditional Uses Enumerated of the Zoning Regulations to add small scale industrial uses, with standards, to the list of uses which are permitted when approved as Conditional Uses. *Initiated by County Commission on 8/24/2016.*

RECOMMENDATION: Staff recommends approval of the proposed amendment, TA-16-00323, to revise Section 12-319-4 in the Zoning Regulations to add Small Scale Industrial uses to the list of Conditional Uses and to establish standards for the use and that the Planning Commission forward a recommendation for approval to the Board of County Commissioners.

Reason for Request: Currently, small scale industrial uses are permitted in the Agricultural Zoning District as Home Occupations with an administrative approval process. Industrial uses which exceed the size or employee limit of the Home Occupation, or are not located on the same property as the business owner's residence, require rezoning to an Industrial Zoning District. This amendment would provide a transitional approval process, the Conditional Use Permit, for small scale industrial uses on properties that generally meet the criteria for approval of industrial zoning but may not be well suited to the range of uses which would be allowed with the I-1 (Limited Industrial) Zoning designation.

RELEVANT GOLDEN FACTOR:

- Conformance with the comprehensive plan.

ATTACHMENTS

- Attachment A – Draft language

OVERVIEW OF PROPOSED AMENDMENT

The amendment adds *Small Scale Industrial* uses to the list of uses which are allowed when approved as a Conditional Use. Planning and the Zoning and Codes Office have received several inquiries into the approval process for a small industrial use and have responded that it would be necessary to rezone the property to an Industrial or Business District.

In many cases, the property would be suitable for rezoning; however, the rezoning would permit not only the requested use but a range of uses. The-is amendment would allow small scale industrial uses in locations where they are appropriate without the range of other uses which would be permitted with the industrial zoning. Table 1 illustrates the range of uses which would be permitted on a property if rezoned to the IL District to accommodate a small scale industrial use.

In some instances, a Home Occupation grows to the point where it no longer meets the criteria for a Home Occupation, but it remains small enough that it would be compatible with the

surrounding land uses. In others, a project is proposed which would be low impact and could be appropriate on a property; while some of the other uses permitted in the industrial zoning district could have a negative impact on nearby properties.

One option is to use conditional zoning, where all uses but the proposed use are removed from the district. Conditional zoning is often used when a site is suitable for rezoning to a district, but some uses in the district are seen as problematic – based primarily on traffic generation, site characteristics, and potential negative impacts on surrounding land uses. Developing a Small Scale Industrial Conditional Use will allow the use in those locations where it would be appropriate, without allowing the other uses permitted in the I-1 District that may not be suitable for that area. This amendment would also provide an opportunity for existing small businesses to grow in their current location.

The CUP process has the same review and approval process as a rezoning request.

- Public hearing at a Planning Commission meeting. If the property is within 3 miles of an incorporated City, a public hearing at a Joint Planning Commission is held.
- Protest petition. If a valid protest petition is submitted, a super-majority (unanimous) vote of the Board of County Commissioners is required to approve the request.
- Consideration and action by the Board of County Commissioners.

The CUP has the following advantages over rezoning:

- Conditions to minimize any negative impacts may be developed and applied to each use, based on the specific use proposed and the site characteristics as well as the character of the area.
- The permitted use is limited to the specific use listed in the CUP.
- An approval time frame may be established. Prior to expiration, the business owner may request an extension. The extension request would be evaluated to see if it remains compatible with the character of the area as it has developed. The CUP could be approved if found to be compatible, it could be approved with revised conditions, or the extension request could be denied.
- There is an amendment and revocation process for Conditional Uses. If the use is found to be in violation of the conditions, it is possible to amend or revoke the Conditional Use.

The additional safeguards established with Conditional Uses and the ability to tailor and condition the permitted use would be preferable, in some cases, to rezoning the property to the Limited Industrial District.

Table 1. Permitted Uses in the I-1 (Limited Industrial) District
1) Laboratories, research, experimental, or testing.
2) Offices or office buildings.
3) Wholesale merchandising or storage warehouses with floor area devoted to warehousing and handling of merchandise
4) <i>Compounding of cosmetics, toiletries, drugs, and pharmaceutical products.</i>

5) <i>Photographic processing or blueprinting.</i>
6) <i>Printing and publishing.</i>
7) Manufacture or assembly of medical and dental equipment drafting, optical and musical instruments, watches, clocks, toys, games, and electrical or electronic apparatus.
8) Manufacture or assembly of boats, bolts, nuts, screws, and rivets, ornamental iron products, firearms, electrical appliances, tools, dies, machinery, and hardware products, sheet metal products, and vitreous enameled metal products.
9) Manufacture of food products, including beverage blending or bottling, bakery products, candy manufacture, dairy products and ice cream, fruit and vegetable processing, and canning, packing and processing of meat and poultry products, but not distilling of beverages, slaughtering of poultry or animals, or processing of bulk storage of grain or feeds for animals or poultry.
10) Manufacture of rugs, mattresses, pillows, quilts, millinery, hosiery, clothing and fabrics, and printing and finishing of textiles and fibers into fabric goods.
11) Manufacture of boxes, crates, furniture, baskets, veneer, and other wood products of a similar nature.
12) Moving picture production.
13) Light manufacturing uses similar to those listed above, which do not create any more danger to health and safety in surrounding areas and which do not create any more offensive noise, vibration, smoke, dust, lint, odors, heat, or glare that that which is generally associated with light industrial uses of the type specifically permitted.
14) Bank, drive-in or otherwise.
15) Restaurant, not drive-in
16) Filling station, if located in a district of 20 acres or more.
17) Hotel, motel, or motor lodge, if located in a district of 20 acres or more.
18) Hotel, motel, or motor lodge, if located in a district of 20 acres or more.
19) Dwellings for watchmen and caretakers employed on the premises.
20) Accessory farm dwellings on a farm of 10 acres or more
21) Railroad siding
22) Animal hospital or clinic.

TABLE LEGEND:

- Some uses permitted in the I-1 District are permitted in the A (Agricultural) District. These uses are highlighted in the table, and are not included in the list of uses which would be permitted with a CUP.
- Only industrial uses are being considered with this amendment. Non-industrial uses are shown as ~~struckthrough~~.
- Uses included in this text amendment as small scale industrial conditional uses are shown in **bold**.

The following industrial uses permitted in the I-1 District are not included in the Small Scale Industrial Conditional Uses: *Compounding of Cosmetics, Toiletries, Drugs, and Pharmaceutical Products, Photographic Processing or Blueprinting and Printing and Publishing.* In staff's opinion, these uses would be included in the category of uses which are similar to those listed uses, provided they do not create any more danger to health and safety in surrounding areas and which do not create any more offensive noise, vibration, smoke, dust, lint, odors, heat, or glare that that which is generally associated with light industrial uses of the type specifically permitted. These businesses would be evaluated on a case-by-case basis for hazardous impacts.

I-1 DEVELOPMENT

Per the information on file in Planning's GIS maps, there are 10 parcels that are currently zoned I-1. Of these, 6 are undeveloped and most of these have impediments to development such as the lack of road frontage. One developed parcel has a use that isn't permitted in the district, but that may predate the Zoning Regulations. The parcels that are developed with uses that are permitted in the I-1 District include the Hull Iron Works in Pleasant Grove and McFarlane Aviation near Vinland. McFarlane Aviation is a good example of a use that would require the IL Zoning as it isn't small scale and is industrial in nature. The Hull Iron Works shop would have been a good candidate for a CUP as the use is small scale, the property has a rural rather than industrial appearance, and there is no exterior storage. (Figures 1 and 2)

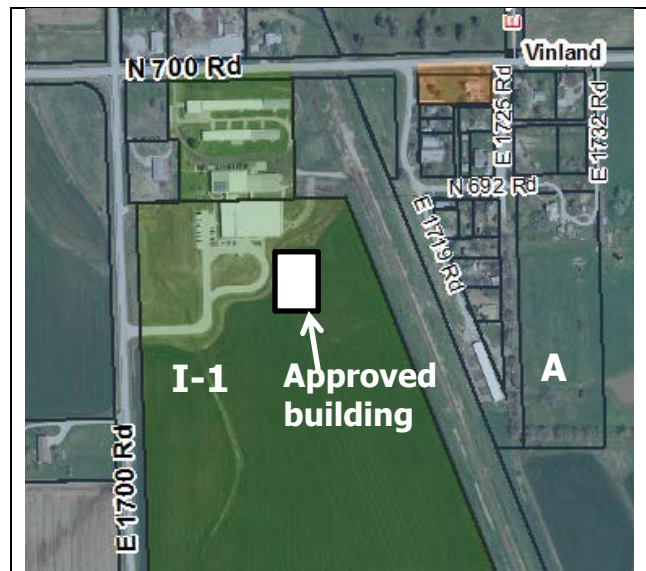


Figure 1. McFarlane Aviation located in the I-1 Zoning District. 24,000 sq ft building; has site plan approval for 48,000 total.



Figure 2. Hull Iron Works located in the I-1 Zoning District. Residence and iron shop. 2,080 sq ft shop building.

CONFORMANCE WITH THE COMPREHENSIVE PLAN

Horizon 2020 recommends that an industrial site should substantially meet the following general criteria:

- Have feasible access to Federal and State transportation networks
- Be of adequate parcel size, generally over forty acres
- Lie primarily outside of the regulatory floodplain
- Have minimal average slopes (Page 7-4 to 7-5)

It further recommends that the following specific criteria should be met:

- preserve environmentally sensitive areas, including vegetative cover and wildlife habitat, to act as buffers and site amenities;
- Encourage natural stormwater management, including locations that permit direct discharge to the floodplain;
- Have available and adequate utilities, infrastructure and services (i.e. police and fire protection) for the proposed use;
- Be compatible with existing and future zoning/land use patterns, including the use of appropriate buffers between land uses;
- Be annexed before development if adjacent to municipal boundaries.

These criteria should be applied to the Small Scale Industrial Use as it is intended as a transitional step between Home Occupation type businesses and businesses that are large enough to require rezoning.

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 and error or inconsistency in the Zoning Regulations or meets the challenge of a changing condition

The proposed text amendment is in response to a changing condition as small businesses are becoming more prevalent. Many rezoning applications have met with opposition based on the wide range of uses that would be permitted in the proposed zoning district. Neighbors have indicated that they would not oppose the project, if they could be sure the use that is being proposed is the use that would be developed and that would be on the property in the future.

2) Whether the proposed text amendment is consistent with the Comprehensive Plan and the stated purpose of the Zoning Regulations

The proposed amendment is consistent with the Comprehensive Plan and the purpose of the Zoning Regulations in that it includes standards and processes to insure the compatibility with nearby land uses. A Conditional Use Permit provides that assurance in that the permit is linked to the specific use. A change in the use would require submittal of an amended Conditional Use Permit application and a public hearing before the Planning Commission and approval by the Board of County Commissioners. The CUP process provides additional assurances to nearby

landowners through conditions that may be applied to the use to insure the use is compatible with nearby uses. In addition, the Zoning Regulations provides for the amendment or revocation of a Conditional Use Permit if there is non-compliance with the conditions. It is also possible to place an expiration date on a CUP so that an extension request must be made. This allows the use to be re-evaluated to determine if it remains compatible with the character of the area and the nearby land uses, as the area develops.

SECTION 1: NEW LANGUAGE PERTAINING TO SMALL SCALE INDUSTRIAL USES

12-319.4.36 Small Scale Industrial Uses

A small scale industrial use is an industrial use that is permitted in the I-1 (Limited Industrial) District that is of such a scale as to be compatible with nearby land uses, while maintaining the rural character of the area. Small Scale Industrial Uses which would be permitted as Conditional Uses include:

- a.** Establishments primarily engaged in on-site production or assembly of goods by hand manufacturing involving the use of hand tools and small-scale equipment. Typical uses include:
 - 1) On-site production of goods by hand or artistic endeavor;
 - 2) Placement of digital or analog information on a physical or electronic medium;
 - 3) Light manufacturing, predominately from previously prepared materials, of finished products or parts, provided the noise, light, smell, or vibration does not extend beyond the site;
 - 4) Research of an industrial or biotechnical nature;
 - 5) Moving picture production such as movies, videos, and television; and
 - 6) Similar small scale industrial uses which do not create any more danger to health and safety in surrounding areas and which do not create any more offensive noise, vibration, smoke, dust, lint, odors, heat, or glare that that which is generally associated with light industrial uses of the type specifically permitted.

- b.** Standards to maintain consistency with the Comprehensive Plan recommendations for Industrial uses and to insure compatibility with nearby land uses and the character of the area are listed below:
 - 1) Small Scale Industrial uses are permitted as Conditional Uses only on properties that are zoned A (Agricultural) or V-C (Valley Channel).
 - 2) The proposed use shall be located primarily outside of the regulatory floodplain.
 - 3) Vegetative cover and wildlife habitat on the site shall be preserved, along with other environmentally sensitive areas to act as buffers and site amenities.
 - 4) The site shall have adequate utilities, infrastructure and services for the proposed use.
 - 5) The total square footage of all buildings used in the operation and storage shall not exceed 10,000 sq. ft. unless a larger area is approved by the Board of County Commissioners.
 - 6) The establishment may employ up to 15 full-time equivalent non-resident employees, as defined in Section 12-303-1.65.

- 7) All business activity shall be conducted within the structure with no outdoor storage of materials or product.
- 8) Parking spaces for all employees and loading areas must be provided on the site. No loading activity or parking is to occur on the adjacent roadway.
- 9) The use does not require Federal air quality discharge permits.
- 10) The use shall not generate offensive off-site external effects (such as noise, glare, vibrations, etc.).
- 11) The site shall be located on a full maintenance public road.
 - i. Traffic information shall be provided, as requested by the County Engineer, to insure the suitability of the adjacent roads to handle the anticipated traffic to be generated by the use.
 - ii. Improvements to the access point to meet current standards, or roadway improvements needed due to traffic generated by the use, or spacing of access drives, all as identified by the County Engineer, shall be required as part of the Conditional Use.
 - iii. The property must, at a minimum, meet the Access Management Standards for residential properties.
- 12) Exterior lighting associated with the use shall be limited. The Conditional Use site plan shall show the location of proposed exterior lighting with the height noted. Lighting spec sheets shall be provided with the plans to illustrate the means taken to eliminate glare. Full cut-off fixtures shall be provided; however, low level lighting (less than 2,600 lumens or 150 watt incandescent bulb) does not require full cut-off fixtures.
- 13) New structures for the use should be of a type that is common to the rural area, rather than industrial, to maintain the rural character of the area.
- 14) No shift work/24 hour a day businesses shall be permitted. Business shall operate with defined working hours.