AGENDA

Planning and Zoning Commission Meeting
Monday, December 6, 2021
Nixa City Hall
7:00 PM

Chairperson	Loren Winter	**Members**	Joe Gallant	Robert Wilson
Vice Chair	Randall Bettis		Derris Butler	Ryan Keating
Secretary	Sarah Bader		Matt Lander	

I. CALL TO ORDER

II. ROLL CALL

III. PLEDGE OF ALLEGIANCE

IV. APPROVAL OF MINUTES

a. Approval of the meeting minutes from the November 1, 2021 Planning and Zoning Commission meeting.

V. APPROVAL OF AGENDA

VI. VISITORS

VII. OLD BUSINESS AND TABLED ITEMS

a. None

VIII. NEW BUSINESS

a. Public Hearing and Recommendation to the City Council Concerning the City of Nixa's 2022-2026 5-year Capital Program. (**EXHIBIT A**)

b. Public Hearing and Recommendation to the City Council Concerning the Preliminary Plat of the Riverton Park Subdivision. (**EXHIBIT B**)

IX. OTHER BUSINESS

a. Planning and Development Activity Update

X. ADJOURNMENT

If you need a special accommodation due to a disability when attending City meetings, please notify the City Clerk's Office at (417) 725-3785 at least three days prior to the meeting date.

P & Z Meeting Minutes
November 1, 2021, 7:00 P.M.

Members Present: Matt Lander, Sarah Bader, Robert Wilson, Randall Bettis, Loren Winter. Members Absent: David Young, Joe Gallant, Ryan Keating, Derris Butler.

The minutes from September 7, 2021, were approved with a motion by Randall Bettis and a second by Sarah Bader. All voted aye.

The agenda was approved with a motion from Randall Bettis and a second from Sarah Bader. All voted aye.

Visitors:

No one was present.

Agenda Items:

Old Business and Tabled Items

None

New Business

a. Amendment to the Boone Property Planned Unit Development by allowing 25 feet front yard setback for lot 16 of the Kelby Creek Ph 6 Subdivision (**Exhibit A**)

Garrett Tyson presented the staff report for the amendment. Mr. Tyson stated that the Boone Property Planned Unit Development (PUD) was approved by the Nixa City Council in 2007 (Ordinance No. 1486). The PUD regulations provide for a variety of building setbacks that are specific to defined areas of the development site. These various setbacks are provided for within the document on Exhibit F "Setback Map". According to Exhibit F, front yard setbacks for residential dwellings vary between 25 and 35 feet.

The subdivision within the Boone Property PUD known as Kelby Creek Subdivision Phase 6 is located within the development site in an area designated by Exhibit F for 35 feet front-yard setbacks.

The applicant owns Lot 16 of the Kelby Creek Subdivision Phase 6 and has applied to amend the Boone Property PUD to allow for a 25 feet setback instead of the required 35 feet setback provided for in the aforementioned Exhibit F

In the case of the Boone Property PUD, the developer proposed varied setbacks that are larger/deeper than what would be required by the City's convention zoning regime in any case. The PUD itself provides no rationale for this increased setback requirement in these specific locations. The City's conventional single-family residential front-yard setback requirement is 25 feet from the property line.

Staff recommends approval.

Public Hearing

Ross Tommingo, 709 N Maplewood Hills Dr, was present. Robert Wilson asked what his reason was for asking for the amendment. Mr. Tommingo stated that his concrete guy told him the setback would be problematic regarding water runoff. It would only affect the garage as it would be at the 25-foot setback. The house itself would be at the 35-foot setback. There is also the issue with the Homeowners Association square foot requirement on all homes, this would allow that requirement to be met.

Sarah Bader asked if this request was just for lot 16, or would it affect all other lots. Mr. Tyson said the request was just for lot 16. Ms. Bader asked how the other property owners were notified. Mr. Tyson stated that anyone within 185 feet would have received a notice in the mail, the property itself would have a sign placed on it, and the notice would also be in the newspaper 2 weeks prior to the meeting.

Discussion

With no further discussion Robert Wilson made a motion to approve the request with a second by Randall Bettis. All voted aye.

b. Minor Subdivision Request, Park Hill Properties. (**EXHIBIT B**)

Scott Godbey presented the staff report for the request. Mr. Godbey stated that Jeff Lurvey of Park Hill Properties LLC has applied for a replat of lots 120 and 121 of Park Hill Place 2nd Addition. The lots in question were created in June of 2006 and have not been built upon. The lots are zone R-1 and conform to current City standards. Mr. Lurvey wishes to remove the lot line between lot 120 and lot 121. By combining the two lots, the new lot will be approximately 16,778 Sq. Ft.

Staff supports approval of the request.

Public Hearing

Jeff Lurvey, 1603 Owen Rd, was present for any questions.

Discussion

With no further discussion Randall Bettis made a motion to approve the request with a second by Matt Lander. All voted aye.

Planners Report

Mr. Tyson gave an update for current single-family building in Nixa.

With no further business, Randall Bettis made a motion to adjourn with a second Sarah Bader. All voted aye.

_____
P&Z Secretary

EXHIBIT A

ISSUE STATEMENT: PUBLIC HEARING AND RECOMMENDATION TO THE NIXA CITY COUNCIL CONCERNING THE 2022-2026 5-YEAR CAPITAL PROGRAM.

DATE: DECEMBER 6, 2021

SUBMITTED BY: JIMMY LILES, CITY ADMINISTRATOR

PRESENTED BY: PLANNING AND DEVELOPMENT DEPARTMENT

Background

The State of Missouri's Zoning Enabling Act (RSMo. Chapter 89) provides for a long-term City Plan for the physical elements of a municipality. This City Plan, also sometimes referred to as a "comprehensive plan", delineates the planned future location and character of various public improvements such as streets, parks, utilities, and other public facilities. The City Plan becomes the legal basis for a variety of regulatory and other policy actions. City's that operating according to the authority provided for in the RSMo. Chapter 89 are required to submit plans for public improvements to the Planning and Zoning Commission for review prior to construction as a measure of accountability to the City Plan. In this way, the statutes provide for a degree of transparency, due process, and deliberate decision-making that is the hallmark of our American style of governance.

Section 8.4 of the Nixa City Charter requires the City Administrator to annually submit a 5-year Capital Program to the City Council for review and approval. The intent of the program is to provide a near-term view of imminent capital investments that will be seen in the current and future years' annual budgets. This capital program includes investments in the physical infrastructure of the City of Nixa and its municipal government such as buildings, roads, utility mains, etc.

Because this 5-year program includes physical infrastructure improvements, it is subject to the requirements of RSMo. Chapter 89 and must be presented to the Planning and Zoning Commission for review and recommendation prior to adoption by the City Council.

The City Administrator, with the assistance of the various city departments, has prepared a 5-year capital program for the years 2022-2026. Of that program, the elements involving physical infrastructure improvements referred to in RSMo. Chapter 89 have been distilled into a map accompanying this exhibit.

Analysis

The purposes of this procedural requirement are to:

1. Enhance transparency
2. Provide for adequate due process
3. Provide for accountability to the City Plan
4. Enhance decision-making through deliberation

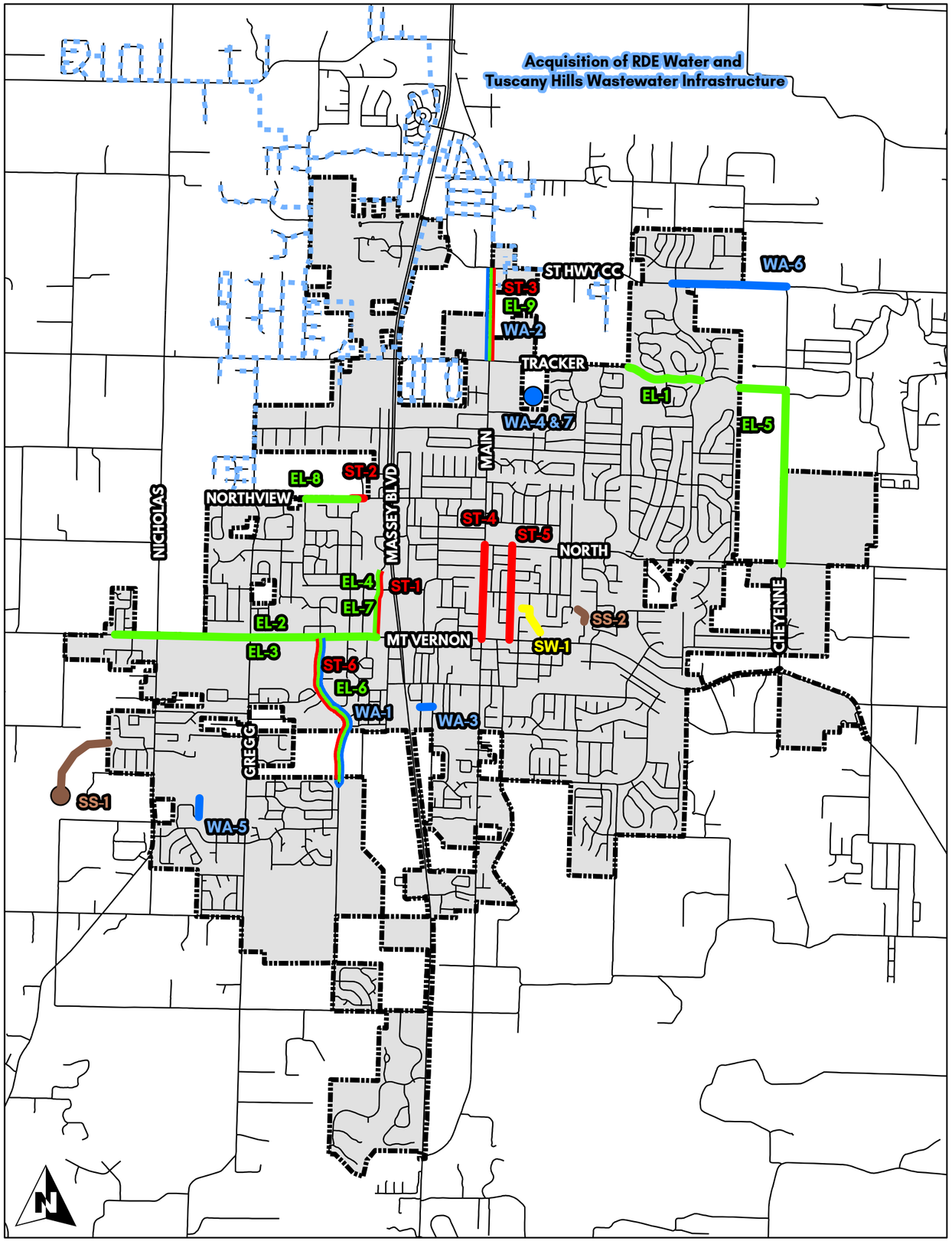
By providing for this review before the Commission, we can contribute substantially to all these purposes. Where we have some difficulty is comparing the 5-year program to a proper long-range City Plan. The City of Nixa (like many municipalities across the state in recent decades) has trended, in practice (though not in policy), away from having a complete and comprehensive plan for delivering public infrastructure. Instead, the "comprehensive plan" has become a document focusing on planning the use of private property more than on the delivery of public facilities. As a result, the 5-year program has become something of a de facto comprehensive plan in and of itself.

Regardless, a 5-year capital program is appropriate and necessary and City staff has prepared such a program that provides for the infrastructure needs of the City over the stated time horizon. The lack of a true City Plan to provide a reference point does not mean that no long-term view was taken. To the contrary, it is evident staff has taken such a view and those views are reflected in the program.

In future years, it is the intent to provide for a proper comprehensive City Plan that can guide the capital program in a more cohesive way and that also provides much firmer authority for the regulatory and financial actions required to implement the program.

Recommendation

Staff recommends the approval of this 5-year capital program.



2022-2026 Capital Improvements Plan (Physical Expansions Only)

STORMWATER IMPROVEMENTS	
SW-1	Stormwater improvements (new storm sewer and channel) between Market and Rice
TRANSPORTATION IMPROVEMENTS	
ST-1	Old Wilderness sidewalk improvements
ST-2	Widening of Northview near intersecton with Old Wilderness (add center turn lane)
ST-3	Widening of Main Street between Tracker and St Hwy CC (add center turn lane)
ST-4	Widening of Main Street between Mt Vernon and North St (add center turn lane)
ST-5	Widening of Missouri Street between Mt Vernon and North St (add center turn lane)
ST-6	Truman Rd extension from Mt Vernon to Norton Rd (Collector status)
ELECTRIC IMPROVEMENTS	
EL-1	Expansion of 3-phase along Tracker between Copper Leaf subdivision and Old Castle Rd
EL-2	New street lighting from Old Wilderness to Carlisle
EL-3	New 477 ACSR from Leeann to Carlisle
EL-4	New street lighting from Wasson Commercial subdivision to Mt Vernon
EL-5	New 750 MCM URD along Tracker from Wicklow to Cheyenne and then south along Cheyenne to North Rd
EL-6	New 4/0 URD for Truman Rd extension with street lighting
EL-7	New street lighting on Old Wilderness from CoxHealth building to Mt Vernon
EL-8	New 4/0 URD and tie line along Northview between Milton and Old Wilderness
EL-9	Extend 3-phase along Main St from Tracker to St Hwy CC
WATER IMPROVEMENTS	
WA-1	8" water main extension along new Truman Rd
WA-2	8" water main extension from Tracker Rd to St Hwy CC
WA-3	8" water main extension between Patricia and Harrison
WA-4	New 1 million gallon water tower on north side of city
WA-5	8" water main extension between Water Tower #5 and Bluegrass Rd
WA-6	10" water main extension along St Hwy CC between Cheyenne Rd and Blue Bird Estat
WA-7	New well near Tracker Rd and Ashley Dr
SANITARY SEWER IMPROVEMENTS	
SS-1	Southwest Regional Lift Station expansion
SS-2	Sanitary sewer main (8" diameter) extension on Eastwood Hills Dr

Today's Date	Department:	Project Title:	Prepared by:
9/30/2021	Stormwater	Cherry St Stormwater Phase 1	Jeff Roussell

Location:

Is this a carry over? Yes — If yes, what is the Project Number? SW2020-01

How long to complete? 2 years

Category: Infrastructure

Project Description: This project is a continuation from 2021 that will complete phase 1 construction from Rice St. to Market St. consisting of the installation of concrete piping and inlet boxes to alleviate flooding in the area,

Justification and Relation to Strategic Plan/Useful Life: Replacement of current undersized system to improve water quality in the area. Strategic Plan: Reliable Infrastructure

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent	$ 30,371.50		$ 30,371.50
2022	600,000.00		600,000.00
2023	420,000.00	200.00	420,200.00
2024	450,000.00	200.00	450,200.00
2025		200.00	200.00
2026		200.00	200.00
TOTAL	$ 1,500,371.50	$ 800.00	$ 1,501,171.50

Cherry St

Today's Date	Department:	Project Title:	Prepared by:
11/4/2021	Streets	Old Wilderness Sidewalk & Lighting Improvements	Jeff Roussell

Location:

Is this a carry over? Yes — If yes, what is the Project Number? ST2021-01

How long to complete? 1 year

Category: Infrastructure

Project Description: This request is for Phase 2 including construction of a previously designed project outlined below. Phase 1 completed in 2020, included the design and necessary ROW/easement acquisitions

Justification and Relation to Strategic Plan/Useful Life: No existing sidewalks or lighting. This completed project (phases I and II) is to install new Sidewalks including appropriate ADA improvements along the west side of Old Wilderness Rd from Mt. Vernon/SH-14, north to and connect with new sidewalks at the Wasson Commercial Development near Cox Clinic. The project will also include new street lighting along the same section (See Electric CIP with the same project name). This project supports Strategy #1 Action plan #2, Strategic plan objective #1 & #3 to improve pedestrian access to SH14 along the commercial and residential area of Old Wilderness.

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	96,861.00		96,861.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 96,861.00	$ -	$ 96,861.00

Old Wilderness Sidewalk & light

Today's Date	Department:	Project Title:	Prepared by:
9/28/2021	Streets	Truman Blvd	Jeff Roussell

Location:

Is this a carry over? Yes — If yes, what is the Project Number? ST2021-05

How long to complete? 2 years

Category: Infrastructure

Project Description: Carry over for the construction of Truman Blvd.

Justification and Relation to Strategic Plan/Useful Life: This project will provide a much needed new North/South corridor from South Nixa to Hwy 14 and remove a very narrow section of Norton Rd. It will also add pedestrian facilities.
Reliable Infrastucture: Action Plans #1,#3 and #5
Community Safety : Action Plan #6

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	1,758,948.60		1,758,948.60
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 1,758,948.60	$ -	$ 1,758,948.60

Truman Blvd

Today's Date	Department:	Project Title:	Prepared by:
9/28/2021	Streets	Northview expansion	Jeff Roussell

Location:

Is this a carry over? Yes — If yes, what is the Project Number? ST2021-07

How long to complete? 2 years

Category: Infrastructure

Project Description: Expansion of Northview from Fox Terrace west to 200ft West of Old Wilderness.

Justification and Relation to Strategic Plan/Useful Life: This project would alleaveate future congestion caused by the growing Wasson Industrial development. Design is completed in 2021 and Right-of-Way is being aquired.

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	476,751.50		476,751.50
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 476,751.50	$ -	$ 476,751.50

Northview expansion

Today's Date	Department:	Project Title:	Prepared by:
8/23/2021	Streets	Main St, Tracker to CC	Jeff Roussell

Location:

Is this a carry over?	No	If yes, what is the Project Number?	
How long to complete?	2 years		
Category:	Infrastructure		

Project Description:	Improvments on Main St from Tracker Rd north to SH-CC including widening, curb & gutter, pedestrian and bike facilities and, storm water additions.
Justification and Relation to Strategic Plan/Useful Life:	Construction of this project will aid towards reducing congestion. This roadway is under sized for the taffic volume that travels this route daily. Futre development is also expected in this area; this project will aid economic development. This project is eligible for TIP funding through OTO. 20% of the total estimated $2.45 million would be the responsibilty of the city ($460,000). Completion of this project could span across two years into 2023. Strategic Priority: Community Safety, Action Plan #6 Strategic Priority: Reliable Infrastructure,
Funding Source:	Unrestricted Cash Balances

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	2,450,000.00		2,450,000.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 2,450,000.00	$ -	$ 2,450,000.00

Main,Tracker to CC

Today's Date	Department:	Project Title:	Prepared by:
8/23/2021	Streets	Main St, North St to Hwy 14 / Construction	Jeff Roussell

Location:

Is this a carry over? No — If yes, what is the Project Number?

How long to complete? 2 years

Category: Infrastructure

Project Description: This project is for the construction of a three lane roadway with curb & gutter to aleveate traffic congestion, add ADA compliant sidewalks, better crosswalks and upgrade current sub-standard storm water system. Project is eligable for federal funding through OTO. 80% / 20% cost share with cities portion being $580,000.00

Justification and Relation to Strategic Plan/Useful Life: Completion of this project could span across two years into 2025 Strategic Priority; Community Safety, Action Plan #6 Strategic Priority; Reliable Infrastructure, Action Plan #1

Funding Source: Unrestricted Cash Balances

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022			-
2023			-
2024	2,900,000.00		2,900,000.00
2025			-
2026			-
TOTAL	$ 2,900,000.00	$ -	$ 2,900,000.00

Main, North to14 Construction

Today's Date	Department:	Project Title:	Prepared by:
9/20/2021	Streets	Missouri St	Jeff Roussell

Location:

Is this a carry over? No — If yes, what is the Project Number?

How long to complete? 2 years

Category: Infrastructure

Project Description:
This project would allow for widening, curb and gutter, stormwater improvments and pedestrian faculities along Missouri St.
This project has been designed.
This project is not eligible for STIP funding.

Justification and Relation to Strategic Plan/Useful Life:
Strategic Action Plan - Community Safety #6 and #7

Funding Source: Savings/Reserves

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022			-
2023			-
2024			-
2025			-
2026	3,000,000.00		3,000,000.00
TOTAL	$ 3,000,000.00	$ -	$ 3,000,000.00

Missouri St

Today's Date	Department:	Project Title:	Prepared by:
9/1/2021	Electric	HWY 14 East	Brian Denney

Location: Along HWY 14 from Downtown Substation East to just East of Tiffany

Is this a carry over?	Yes	If yes, what is the Project Number?	E2018-04
How long to complete?	4+years		
Category:	Infrastructure		

Project Description: Relocate approximately 3,500 feet of overhead three phase 477 ACSR and around 400 feet of 1,000 MCM URD. Fron D.T. Sub to Tiffany Highlands.

Justification and Relation to Strategic Plan/Useful Life: MoDot widening of HWY 14. We may complete before end of year? This CIP represents a cost increase from the original due to material increases.

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	540,000.00		540,000.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 540,000.00	$ -	$ 540,000.00

HWY 14 East

Today's Date	Department:	Project Title:	Prepared by:
11/8/2021	Electric	Northeast Feeder #3	Brian Denney

Location: TBD

Is this a carry over? Yes

If yes, what is the Project Number? E2020-02

How long to complete?

Category: Infrastructure

Project Description: Install approximately 2,300 ft. of three phase 750mcm URD wire along Tracker between Copper Leaf subdivision and Old Castle Rd

Justification and Relation to Strategic Plan/Useful Life: This will provide for the increase in capacity for the growing residential load in the area

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent	$ 171,881.00		$ 171,881.00
2022	142,119.00		142,119.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 314,000.00	$ -	$ 314,000.00

Northeast Feeder #3

Today's Date	Department:	Project Title:	Prepared by:
9/21/2021	Electric	West HWY 14 Lighting	Brian Denney

Location: Along West HWY 14 from Old Wilderness to Nicholas

Is this a carry over? Yes — If yes, what is the Project Number? E2020-04

How long to complete? 1 year

Category: Infrastructure

Project Description: Install new street lighting along new MoDot ROW from Old Wilderness to Carlisle.

Justification and Relation to Strategic Plan/Useful Life: Reliable Infrastructure Action plan # 5

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	130,000.00		130,000.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 130,000.00	$ -	$ 130,000.00

West HWY 14 Lighting

Today's Date	Department:	Project Title:	Prepared by:
9/21/2021	Electric	Leeann to Nicholas Tie	Brian Denney

Location: Along West HWY 14 from Leeann to Nicholas

Is this a carry over? Yes — If yes, what is the Project Number? E2021-03

How long to complete? 1 year

Category: Infrastructure

Project Description: Install new 477 ACSR along the new MoDot ROW from Leeann to Nicholas Road. Then go underground with 4/0 URD to Carlisle.

Justification and Relation to Strategic Plan/Useful Life: This project will provide a backfeed to the area and support future residential growth along Nicholas Road North of HWY 14. This modified request is to cover increased cost.

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	305,000.00		305,000.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 305,000.00	$ -	$ 305,000.00

Leeann to Nicholas Tie

Today's Date	Department:	Project Title:	Prepared by:
11/8/2021	Electric	Old Wilderness Sidewalk & Lighting Impr.	Brian Denney

Location: City Wide

Is this a carry over?	Yes	If yes, what is the Project Number?	E2021-06
How long to complete?	1 year		
Category:	Infrastructure		

Project Description: Installation of new street lighting along Old Wilderness from the Wasson Commercial Development south to SH-14 as part of the new sidewalk improvements.

Justification and Relation to Strategic Plan/Useful Life: This CIP is for materials and a small amount of engineering. Installation will be completed by Nixa Electric crews.

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	28,500.00		28,500.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 28,500.00	$ -	$ 28,500.00

Old Wilderness Sidewalk & light

Today's Date	Department:	Project Title:	Prepared by:
9/21/2021	Electric	Tracker to Cheyenne Tie	Brian Denney

Location: East Tracker Road to Cheyenne Road South to North Street

Is this a carry over?	No	If yes, what is the Project Number?	
How long to complete?	1 year		
Category:	Infrastructure		

Project Description: Install approximately 7,000 feet of new 750 MCM URD along Liberty Electric's existing transmission line easement. This circuit line will start at Wicklow lift station on East Tracker and continue East to Cheyenne, then South to North street.

Justification and Relation to Strategic Plan/Useful Life: This project will provide a new feed to the area to support future residential growth around North Street and Cheyenne. This will also create a backfeed in this are for more reliable service.

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	550,000.00		550,000.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 550,000.00	$ -	$ 550,000.00

Tracker to Cheyenne Tie

Today's Date	Department:	Project Title:	Prepared by:
9/22/2021	Electric	South Truman	

Location:

Is this a carry over?

If yes, what is the Project Number?

How long to complete?

Category: Infrastructure

Project Description: Construct a new 4/0 URD along the new Truman Road extension and install New Street Lighting.

Justification and Relation to Strategic Plan/Useful Life: Increase reliability and create backfeed capabilities in the SW part of town; increase safety with street lights.

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	300,000.00		300,000.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 300,000.00	$ -	$ 300,000.00

South Truman

Today's Date	Department:	Project Title:	Prepared by:
9/30/2021	Electric	Old Wilderness Street Lighting	Brian Denney

Location: City Hall

Is this a carry over?	Yes	If yes, what is the Project Number?	E2021-06
How long to complete?	1 year		
Category:	Infrastructure		

Project Description: Install new Street Lights on Old Wilderness from the Cox Medical Building, south to SH-14/Mt.Vernon

Justification and Relation to Strategic Plan/Useful Life: Increase safety and security for the area. Strategic Plan 2020 - Reliable Infrastructure 5C

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	30,000.00		30,000.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 30,000.00	$ -	$ 30,000.00

Old Wilderness Lighting

Today's Date	Department:	Project Title:	Prepared by:
8/15/2021	Finance	North Main Circuit	Brian Denney

Location: Main St., from North of Tracker to SH-CC

Is this a carry over?	No	If yes, what is the Project Number?	
How long to complete?	1 year		
Category:	Vehicles		

Project Description: Extend three phase URD circuit from North of Tracker to SH-CC.

Justification and Relation to Strategic Plan/Useful Life:

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022			-
2023	300,000.00		300,000.00
2024			-
2025			-
2026			-
TOTAL	$ 300,000.00	$ -	$ 300,000.00

North Main Circuit

Today's Date	Department:	Project Title:	Prepared by:
9/22/2021	Electric	Northview Curcuit Extension	Brian Denney

Location: Along Northview from Old Wilderness to Milton

Is this a carry over?	No	If yes, what is the Project Number?	
How long to complete?	1 year		
Category:	Infrastructure		

Project Description: Construct new 4/0 URD along Northview

Justification and Relation to Strategic Plan/Useful Life: Increase more reliability with tie and backfeed capabilities

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022			-
2023			-
2024			-
2025	250,000.00		250,000.00
2026			-
TOTAL	$ 250,000.00	$ -	$ 250,000.00

Northview Curcuit Extension

Today's Date	Department:	Project Title:	Prepared by:
9/21/2021	Water	Truman Water Line	Travis Cossey

Location:

Is this a carry over? Yes — If yes, what is the Project Number? W2021-05

How long to complete? 2 years

Category: Infrastructure

Project Description: Installation of a water line in conjunction with the Truman Rd. project.

Justification and Relation to Strategic Plan/Useful Life: Installation of the water line is needed to provide infrastructure for future development along with increasing water quality and pressure in the area by providing additional looping of the system.

Funding Source: Unrestricted Cash Balances

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	130,000.00		130,000.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 130,000.00	$ -	$ 130,000.00

Truman Water Line

Today's Date	Department:	Project Title:	Prepared by:
9/22/2021	Water	N. Main, Tracker to Hwy. CC Water Main	Jason Stutesmun

Location:

Is this a carry over?	No	If yes, what is the Project Number?	
How long to complete?	1 year		
Category:	Infrastructure		

Project Description: In conjunction with the N. Main St. to CC TIP, this water main will include 2,200 linear feet of 8 inch water main that will be installed along with the construction of N. Main.

Justification and Relation to Strategic Plan/Useful Life: The provided infrastructure will provide a tie into existing infrastructure in north nixa to increase quality and pressure in this area of town while provide for a future connection to accommodate additional growth in north Nixa.

Funding Source: Unrestricted Cash Balances

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	205,000.00		205,000.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 205,000.00	$ -	$ 205,000.00

N. Main to Hwy. CC Water Main

Today's Date	Department:	Project Title:	Prepared by:
8/24/2021	Water	Pine Hill/ Walnut creek loop line.	Jason Stutesmun

Location: Pine Hill/Walnut Creek

Is this a carry over?	No	If yes, what is the Project Number?	
How long to complete?	1 year		
Category:	Infrastructure		

Project Description: 8 inch water main connection between Walnut Creek Manor and Pine Hill subdivisions.

Justification and Relation to Strategic Plan/Useful Life: This project will replace a loop connection that had to be abandoned due to improper installation by the developer. The loop line is necessary to eliminate several dead ends on this part of the system and increase fire protection and water quality to the two subdivisions.

Funding Source: Current Revenue

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	$90,000		90,000.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 90,000.00	$ -	$ 90,000.00

Walnut Creek Loop

Today's Date	Department:	Project Title:	Prepared by:
9/20/2021	Water	Harrison & Patricia Water Main Loop	Travis Cossey

Location:

Is this a carry over?	No	If yes, what is the Project Number?	
How long to complete?	1 year		
Category:	Infrastructure		

Project Description: Install a main to connect two dead-end mains at Patricia and Harrison Streets

Justification and Relation to Strategic Plan/Useful Life: The existing 4" main is approximately 50 years old. Replacing and looping these two dead end lines will provide better circulation, water quality and fire protection for the area.

Funding Source: Unrestricted Cash Balances

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022			-
2023	150,000.00		150,000.00
2024			-
2025			-
2026			-
TOTAL	$ 150,000.00	$ -	$ 150,000.00

Harrison & Patricia Loop

Today's Date	Department:	Project Title:	Prepared by:
9/21/2021	Water	Bluegrass Rd. Water Main	Travis Cossey

Location:

Is this a carry over? No — If yes, what is the Project Number?

How long to complete? 1 year

Category: Infrastructure

Project Description: Install an 8" PVC Main between Tower #5 and dead end 6" Main on Bluegrass Rd.

Justification and Relation to Strategic Plan/Useful Life: This project was included in the 2013 Water Master Plan to improve flow distribution and improve fire flows.

Funding Source:

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022			-
2023			-
2024	100,000.00		100,000.00
2025			-
2026			-
TOTAL	$ 100,000.00	$ -	$ 100,000.00

Bluegrass Rd. Water Main

Today's Date	Department:	Project Title:	Prepared by:
9/21/2021	Water	North Nixa Loop Line	Jason Stutesmun

Location:

Is this a carry over? No — If yes, what is the Project Number?

How long to complete? 1 year

Category: Infrastructure

Project Description: A 12" water main that will provide a loop of the system connecting Cheyenne Rd. to Blue Bird Estates along Hwy. CC.

Justification and Relation to Strategic Plan/Useful Life: This 12" main will enhance water quallity, pressure, and fire protection in North Nixa. Growth in the area has put a strain on the existing system generating a need for the loop line. The addition of the loop will also aid in assuring we are able to accomodate future growth in Northeast Nixa.

Funding Source:

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022			-
2023			-
2024	1,000,000.00		1,000,000.00
2025			-
2026			-
TOTAL	$ 1,000,000.00	$ -	$ 1,000,000.00

North Nixa Loop Line

Today's Date	Department:	Project Title:	Prepared by:
9/21/2021	Water	Well #14	Travis Cossey

Location:

Is this a carry over? No — If yes, what is the Project Number?

How long to complete? 1 year

Category: Infrastructure

Project Description: Drill Well #14 on the North end of the system at Hwy. AA & Nicholas Rd.

Justification and Relation to Strategic Plan/Useful Life: Necessary to increase volume, circulation, pressure and fire protection on the North end of the system.

Funding Source: Unrestricted Cash Balances

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022			-
2023			-
2024			-
2025			-
2026	$750,000.00		750,000.00
TOTAL	$ 750,000.00	$ -	$ 750,000.00

Well #14

Today's Date	Department:	Project Title:	Prepared by:
9/22/2021	Wastewater Collections	Southwest Regional Lift Station	Travis Cossey

Location: Near Gooch and Shamrock roads

Is this a carry over?	No	If yes, what is the Project Number?	
How long to complete?	2 years		
Category:	Infrastructure		

Project Description: Identified in the Wastewater Masterplan for West & South Nixa in 2018, this project is a regional lift station intended to provide sewer capacity to areas west of Nixa. The improvement will remove the existing Oakmont Heights Lift Station and relocate it to the South & West of the existing station. This will dramatically increase the service area and open up additional lands west of Nixa for future development.

Justification and Relation to Strategic Plan/Useful Life: Due to its age, existing hydraulic loading and potential for additional hydraulic loading in the relatively near future, it is recommended that the existing Oakmont Heights Lift Station be taken out of service and replaced with a new lift station constructed further to the west to increase capacity and open up additional lands for development.

Funding Source: Other

	Estimated Project Cost:	Maintenance Costs:	TOTAL
Previously Spent			$ -
2022	2,600,000.00		2,600,000.00
2023			-
2024			-
2025			-
2026			-
TOTAL	$ 2,600,000.00	$ -	$ 2,600,000.00

SW Regional LIft Station

EXHIBIT B

ISSUE STATEMENT: PUBLIC HEARING AND RECOMMENDATION TO THE CITY COUNCIL CONCERNING A PRELIMINARY PLAT FOR THE RIVERTON PARK SUBDIVISION LOCATED EAST OF CHEYENNE ROAD AND NORTH OF NORTH STREET

DATE: DECEMBER 6, 2021

SUBMITTED BY: JACKS PLACE, LLC

PRESENTED BY: PLANNING AND DEVELOPMENT DEPARTMENT

Background

The Riverton Park subdivision is a R-1 single-family residential subdivision. The subject property was annexed into the Nixa City Limits in 2006 and the existing zoning arrangement was established at that time. Also in 2006, a preliminary plat was approved for the residential portion of the property, known as Stinerock Hill. The property is undeveloped. Property owner, Steve Eoff is currently extending public utilities to the site of Riverton Park to satisfy an agreement between him and the new property owners before finalizing the sale of the property. Shaffer & Hines has submitted a preliminary plat, on behalf of the new owners, illustrating the proposed arrangement of the lots and the public infrastructure required to serve them.

Preliminary plats are a means to provide subdivision developers with an initial approval concerning compliance of the planned arrangement with the City's zoning, subdivision, and other pertinent regulations prior to engaging the more expensive actions of detailed engineering and construction.

Analysis

The Riverton Park subdivision proposes to create 232 buildable single-family residential lots that are all planned to be served by public streets, municipal water, municipal sanitary sewer, and municipal electric services. Additionally, the subdivision will create 4 common area lots that will be owned and maintained by an association of property owners within the subdivision. Off-site transportation improvements will be made based off the recommended improvements from a traffic impact study performed by CJW and dated July 24, 2019. The required improvement is an eastbound left turn lane on North Street at the entrance to Riverton Park. The speed limit will also be reduced on North Street from 45 MPH to 35 MPH to improve sight distance safety at the entrance to Riverton Park.

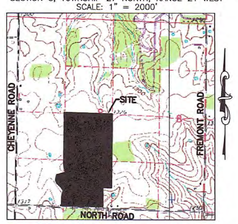
Recommendation

Staff has reviewed the preliminary plat and has determined the document to be in substantial conformance with the applicable regulations of the Nixa City Code concerning major subdivisions within the R-1 zoning districts.


N GREER AVE
INTERLOCHEN DR
PASATIEMPO DR
HIGH POINTE ELEMENTARY
SUMMIT INTERMEDIATE
Riverton Park
N JERICO ST
E NORTH ST
NORTH RD
HAZEN LN
N CHEYENNE RD
COMBS RD
E LAKOTA DR
N GREAT PLAINS ST
PERRY PL
BRIAR RIDGE CT
E DAISY FALLS DR
E MT VERNON ST
S TIMBER PL
W JACKSON RD

LOCATION MAP:

SECTION 8, TOWNSHIP 27 NORTH, RANGE 21 WEST
SCALE: 1" = 2000'



BEARINGS ARE BASED ON GRID NORTH, 1983 MISSOURI COORDINATE SYSTEM, CENTRAL ZONE. COORDINATES WERE ESTABLISHED FROM MISSOURI GEOGRAPHIC REFERENCE SYSTEM CONTROL MONUMENT: CH-22. GRID FACTOR: 0.9999372 DATE OF ADJUSTMENT: DECEMBER, 2004

GRAPHIC SCALE

100' 0' 100' 200'

(IN FEET)
SCALE: 1" = 100'

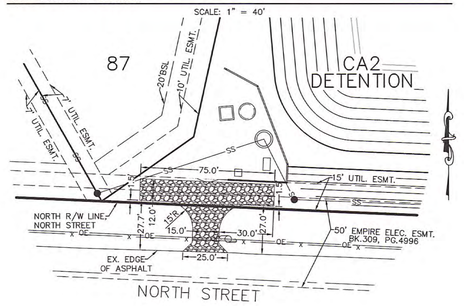
PRELIMINARY PLAT

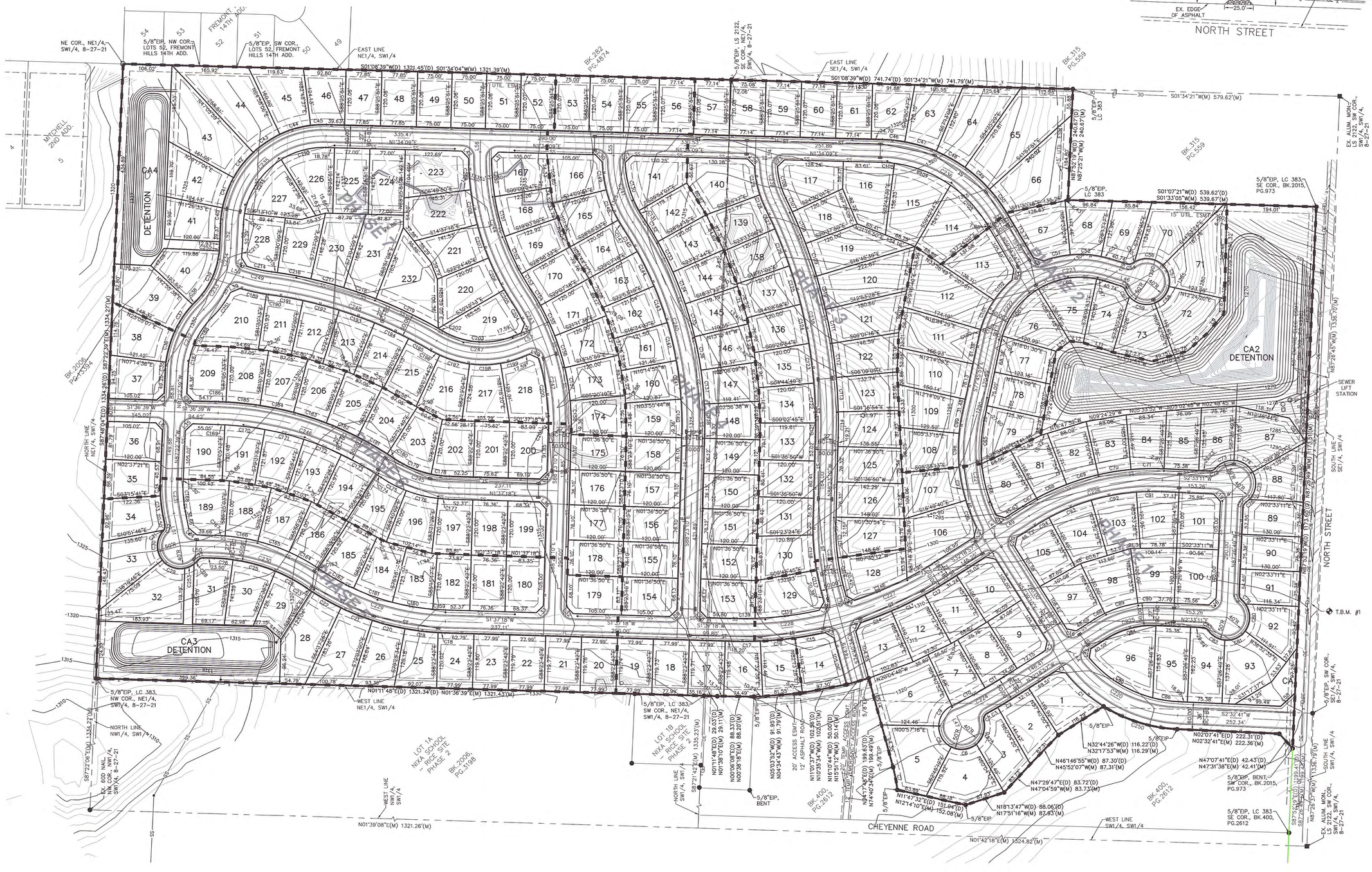
RIVERTON PARK

A SUBDIVISION IN THE CITY OF NIXA, CHRISTIAN COUNTY, MISSOURI

OWNER: JACK'S PLACE, LLC
DEVELOPER: RIVERTON PARK, LLC

LIFT STATION DETAIL:





RIVERTON PARK
A SUBDIVISION IN THE CITY OF NIXA, CHRISTIAN COUNTY, MISSOURI
OWNER: JACK'S PLACE, LLC
DEVELOPERS: RIVERTON PARK, LLC

STATE OF MISSOURI
CLAYTON M. HINES
NUMBER E-29799
REGISTERED PROFESSIONAL ENGINEER
J. CLAYTON M. HINES E-29799

SHAFFER & HINES, INC.
CERTIFICATE OF AUTHORITY
LICENSE NO. E-1665-D

SHAFFER & HINES
CONSULTING ENGINEERS - PROFESSIONAL LAND SURVEYORS
DBE CERTIFIED COMPANY
P.O. Box 493, Nixa, Missouri 65714
Tel: (417) 725-4663 Fax: (417) 725-5230
Email: ch@shafferhines.com

PRELIMINARY PLAT

DESIGN BY:	JCMH
DRAWN BY:	RBW
CHECKED BY:	JCMH
DATE:	URBAN
SCALE:	1" = 100'

REVISIONS

11-03-21	CITY COMMENTS

JOB NO. 200029

SHEET 1 OF 2

PRELIMINARY PLAT

RIVERTON PARK

A SUBDIVISION IN THE CITY OF NIXA, CHRISTIAN COUNTY, MISSOURI

OWNER: JACK'S PLACE, LLC
DEVELOPER: RIVERTON PARK, LLC

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA	CHORD BEARING
C1	330.00'	109.85'	55.44'	109.34'	19°04'20"	N41°31'33"E
C2	1105.00'	46.25'	23.13'	46.25'	2°23'53"	N31°07'00"W
C3	1105.00'	25.86'	12.93'	25.86'	1°20'27"	N29°14'50"W
C4	15.00'	19.64'	11.52'	18.27'	75°02'03"	N66°05'38"W
C5	50.00'	55.67'	31.12'	52.84'	63°47'41"	N71°42'49"W
C6	50.00'	58.51'	33.12'	55.23'	67°02'40"	N06°17'39"W
C7	325.00'	50.38'	25.24'	50.33'	8°52'55"	S79°19'56"W
C8	50.00'	55.61'	31.08'	52.79'	63°43'35"	N59°05'29"E
C9	50.00'	55.61'	31.08'	52.79'	63°43'35"	S57°10'56"E
C10	1055.00'	81.96'	41.00'	81.94'	4°27'05"	S27°32'40"E
C11	1055.00'	46.87'	23.44'	46.87'	2°32'44"	S31°02'35"E
C12	815.00'	50.22'	25.12'	50.21'	3°31'51"	N30°33'01"W
C13	815.00'	80.54'	40.30'	80.50'	5°39'42"	N25°57'15"W
C14	815.00'	71.62'	35.83'	71.60'	5°02'06"	N20°36'21"W
C15	815.00'	66.68'	33.36'	66.66'	4°41'17"	N10°07'10"W
C16	815.00'	75.67'	37.86'	75.64'	5°19'10"	N05°06'57"W
C17	815.00'	58.01'	29.02'	57.99'	4°04'41"	N00°25'02"W
C18	565.00'	15.20'	7.60'	15.20'	1°32'29"	N02°23'33"E
C19	565.00'	72.59'	36.34'	72.54'	7°21'39"	N06°50'36"E
C20	565.00'	73.23'	36.67'	73.18'	7°25'34"	N14°14'13"E
C21	565.00'	73.23'	36.67'	73.18'	7°25'34"	N21°39'47"E
C22	565.00'	73.23'	36.67'	73.18'	7°25'34"	N29°05'21"E
C23	565.00'	13.40'	6.70'	13.40'	1°21'34"	N33°28'55"E
C24	375.00'	76.61'	38.44'	76.47'	11°42'17"	N28°18'33"E
C25	375.00'	95.59'	48.05'	95.33'	14°36'17"	N15°09'16"E
C26	375.00'	40.85'	20.44'	40.83'	6°14'29"	N04°43'53"E
C27	15.00'	13.62'	7.32'	13.16'	52°01'12"	N24°23'57"W
C28	50.00'	12.03'	6.05'	12.00'	13°47'21"	N43°30'53"W
C29	50.00'	54.72'	30.46'	52.03'	62°42'02"	N20°19'14"E
C30	50.00'	69.37'	41.57'	63.94'	79°29'12"	S88°35'09"E
C31	15.00'	1.68'	0.84'	1.68'	6°24'45"	S52°02'56"E
C32	15.00'	11.94'	6.31'	11.63'	45°36'27"	S78°03'32"E
C33	325.00'	43.12'	21.59'	43.09'	7°36'05"	N82°56'17"E
C34	325.00'	33.38'	16.70'	33.36'	5°53'02"	N89°40'50"E
C35	225.00'	18.15'	9.08'	18.14'	4°37'15"	S85°04'01"E
C36	225.00'	70.06'	35.32'	69.78'	17°50'31"	S73°50'09"E
C37	225.00'	70.07'	35.32'	69.78'	17°50'31"	S55°59'38"E
C38	225.00'	9.38'	4.69'	9.38'	2°23'18"	S45°52'43"E
C39	175.00'	123.32'	64.35'	120.79'	40°22'37"	S64°52'23"E
C40	225.00'	34.64'	17.35'	34.60'	8°49'12"	S82°58'03"E
C41	225.00'	70.06'	35.32'	69.78'	17°50'31"	S69°38'11"E
C42	225.00'	69.96'	35.26'	69.68'	17°48'55"	S51°48'28"E
C43	225.00'	70.17'	35.37'	69.89'	17°52'07"	S33°57'58"E
C44	225.00'	70.06'	35.32'	69.78'	17°50'31"	S16°06'39"E
C45	225.00'	34.40'	17.23'	34.36'	8°45'33"	S02°48'37"E
C46	325.00'	48.69'	24.39'	48.65'	8°35'04"	S05°51'41"W
C47	325.00'	71.63'	35.96'	71.48'	12°37'39"	S16°28'02"W
C48	325.00'	71.63'	35.96'	71.48'	12°37'39"	S29°05'41"W
C49	325.00'	71.63'	35.96'	71.48'	12°37'39"	S41°43'20"W
C50	325.00'	63.55'	31.88'	63.45'	11°12'14"	S53°38'16"W
C51	225.00'	59.49'	29.92'	59.32'	15°09'01"	S12°59'07"E
C52	225.00'	67.50'	34.01'	67.25'	17°11'19"	S03°11'04"W
C53	225.00'	18.50'	9.26'	18.50'	4°42'42"	S14°08'04"W
C54	15.00'	13.62'	7.32'	13.16'	52°01'12"	S09°31'11"E
C55	50.00'	2.94'	1.47'	2.94'	3°21'56"	S33°50'49"E
C56	50.00'	67.43'	39.97'	62.44'	77°16'27"	S06°28'22"W
C57	50.00'	50.00'	27.32'	47.94'	57°17'45"	S73°45'28"W
C58	50.00'	50.00'	27.32'	47.94'	57°17'45"	N48°56'47"W
C59	50.00'	60.44'	34.53'	56.83'	69°15'35"	N14°19'53"E
C60	50.00'	17.06'	8.61'	16.98'	19°32'57"	N58°44'09"E
C61	15.00'	13.62'	7.32'	13.16'	52°01'12"	N42°30'01"E
C62	175.00'	131.25'	68.88'	128.20'	42°58'19"	N09°31'02"W
C63	175.00'	131.25'	68.88'	128.20'	42°58'19"	N52°29'21"W
C64	175.00'	11.57'	5.79'	11.57'	3°47'21"	N75°52'11"W
C65	325.00'	98.79'	49.78'	98.41'	17°25'01"	N86°28'22"W
C66	325.00'	115.93'	58.59'	115.31'	20°26'14"	S74°36'01"W
C67	525.00'	34.47'	17.24'	34.46'	3°45'41"	S30°26'06"E
C68	525.00'	71.95'	36.03'	71.90'	7°51'10"	S24°37'41"E
C69	525.00'	71.95'	36.03'	71.90'	7°51'10"	S16°46'31"E
C70	525.00'	71.95'	36.03'	71.90'	7°51'10"	S08°55'22"E
C71	525.00'	69.17'	34.64'	69.12'	7°32'57"	S01°13'18"E
C72	15.00'	13.62'	7.32'	13.16'	52°01'12"	S23°27'26"E
C73	50.00'	45.86'	24.68'	44.26'	52°32'46"	S23°11'39"E
C74	50.00'	50.10'	27.38'	48.03'	57°24'39"	S31°47'04"W
C75	50.00'	64.57'	37.67'	60.17'	73°59'26"	N82°30'54"W
C76	50.00'	8.81'	4.42'	8.80'	10°05'34"	N40°28'24"W
C77	15.00'	13.62'	7.32'	13.16'	52°01'12"	N61°26'13"W
C78	15.00'	13.62'	7.32'	13.16'	52°01'12"	S66°32'34"W
C79	50.00'	12.66'	6.36'	12.62'	14°30'07"	S47°47'02"W
C80	50.00'	62.69'	36.22'	58.67'	71°50'30"	N89°02'40"W

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA	CHORD BEARING
C81	50.00'	51.09'	28.03'	48.89'	58°32'31"	N23°51'09"W
C82	50.00'	42.90'	22.87'	41.59'	49°09'17"	N29°59'45"E
C83	15.00'	13.62'	7.32'	13.16'	52°01'12"	N28°33'47"E
C84	185.00'	112.59'	58.10'	110.86'	34°52'07"	N14°52'53"W
C85	270.00'	165.11'	85.23'	162.55'	35°02'18"	S32°04'08"W
C86	270.00'	56.81'	28.51'	56.70'	12°03'17"	S08°31'20"W
C87	175.00'	13.81'	6.91'	13.81'	4°31'18"	N14°13'46"E
C88	235.00'	26.05'	13.04'	26.03'	6°21'01"	S29°08'26"E
C89	235.00'	75.52'	38.09'	75.20'	18°24'48"	S16°45'31"E
C90	235.00'	41.45'	20.78'	41.39'	10°06'18"	N02°29'58"W
C91	475.00'	55.23'	27.65'	55.20'	6°39'44"	N00°46'42"W
C92	475.00'	99.61'	49.99'	99.43'	12°00'57"	N10°07'02"W
C93	475.00'	99.61'	49.99'	99.43'	12°00'57"	N22°07'59"W
C94	475.00'	34.61'	17.31'	34.60'	4°10'29"	N30°13'42"W
C95	765.00'	63.65'	31.84'	63.63'	4°46'01"	S29°55'56"E
C96	375.00'	63.38'	31.77'	63.31'	9°41'03"	N68°19'48"E
C97	375.00'	73.25'	36.74'	73.13'	11°11'28"	N78°46'03"E
C98	375.00'	73.25'	36.74'	73.13'	11°11'28"	N89°57'31"E
C99	375.00'	43.73'	21.89'	43.71'	6°40'54"	S81°06'18"E
C100	225.00'	15.08'	7.54'	15.07'	3°50'20"	S75°50'41"E
C101	225.00'	70.32'	35.45'	70.03'	17°54'20"	S64°58'21"E
C102	225.00'	59.14'	29.74'	58.97'	15°03'36"	S48°29'23"E
C103	275.00'	117.42'	59.62'	116.53'	24°27'48"	N47°00'30"E
C104	275.00'	132.01'	67.30'	130.75'	27°30'15"	N21°01'28"E
C105	275.00'	27.37'	13.70'	27.36'	5°42'11"	N04°25'15"E
C106	175.00'	70.42'	35.69'	69.94'	23°03'17"	S75°17'01"W
C107	1105.00'	33.63'	16.82'	33.63'	1°44'37"	S64°37'41"W
C108	1105.00'	74.63'	37.33'	74.62'	3°52'11"	S67°26'05"W
C109	1105.00'	74.63'	37.33'	74.62'	3°52'11"	S71°18'16"W
C110	1105.00'	74.63'	37.33'	74.62'	3°52'11"	S75°10'27"W
C111	1105.00'	74.63'	37.33'	74.62'	3°52'11"	S79°02'38"W
C112	1105.00'	74.63'	37.33'	74.62'	3°52'11"	S82°54'49"W
C113	1105.00'	74.63'	37.33'	74.62'	3°52'11"	S86°47'00"W
C114	1105.00'	55.85'	27.93'	55.84'	2°53'45"	N89°50'02"W
C115	475.00'	76.28'	38.22'	76.19'	9°12'03"	S87°00'49"W
C116	475.00'	64.14'	32.12'	64.09'	7°44'13"	S78°32'41"W
C117	525.00'	50.96'	25.50'	50.94'	5°33'40"	N77°27'25"E
C118	525.00'	76.72'	38.43'	76.65'	8°22'21"	N84°25'26"E
C119	765.00'	140.34'	70.37'	140.14'	10°30'39"	S07°01'16"E
C120	525.00'	27.53'	13.77'	27.52'	3°00'14"	S89°53'17"E
C121	1055.00'	30.56'	15.28'	30.56'	1°39'35"	S89°12'57"E
C122	1055.00'	86.56'	43.31'	86.54'	4°42'04"	N87°36'13"E
C123	1055.00'	86.56'	43.31'	86.54'	4°42'04"	N82°54'09"E
C124	1055.00'	86.56'	43.31'	86.54'	4°42'04"	N78°12'04"E
C125	1055.00'	86.56'	43.31'	86.54'	4°42'04"	N73°30'00"E
C126	1055.00'	86.56'	43.31'	86.54'	4°42'04"	N68°47'56"E
C127	1055.00'	49.57'	24.79'	49.57'	2°41'32"	N65°06'08"E
C128	225.00'	30.98'	15.51'	30.95'	7°53'17"	N67°42'01"E
C129	225.00'	63.71'	32.07'	63.50'	16°13'29"	N79°45'23"E
C130	225.00'	109.31'	55.76'	108.24'	27°50'12"	S74°00'59"W
C131	225.00'	13.98'	6.99'	13.98'	3°33'34"	S58°19'06"W
C132	815.00'	64.82'	32.43'	64.81'	4°33'26"	S58°49'02"W
C133	815.00'	73.85'	36.95'	73.83'	5°11'32"	S63°41'30"W
C134	815.00'	73.85'	36.95'	73.83'	5°11'32"	S68°53'02"W
C135	815.00'	73.85'	36.95'	73.83'	5°11'32"	S74°04'34"W
C136	815.00'	73.85'	36.95'	73.83'	5°11'32"	S79°16'05"W
C137	815.00'	73.85'	36.95'	73.83'	5°11'32"	S84°27'37"W
C138	815.00'	64.83'	32.43'	64.81'	4°33'28"	S89°20'06"W
C139	765.00'	45.23'	22.62'	45.22'	3°23'15"	S00°04'19"E
C140	765.00'	74.01'	37.03'	73.98'	5°32'34"	N88°50'33"E
C141	765.00'	84.38'	42.23'	84.34'	6°19'12"	N82°54'41"E
C142	765.00'	84.38'	42.23'	84.34'	6°19'12"	N76°35'29"E
C143	765.00'	84.38'	42.23'	84.34'	6°19'12"	N70°16'17"E
C144	765.00'	83.22'	41.65'	83.18'	6°13'58"	N63°59'42"E
C145	765.00'	57.94'	28.99'	57.93'	4°20'23"	N58°42'31"E
C146	765.00'	123.90'	62.09'	123.77'	9°16'47"	S22°54'32"E
C147	275.00'	21.53'	10.77'	21.52'	4°29'08"	N58°46'53"E
C148	275.00'	71.09'	35.74'	70.89'	14°48'42"	N68°25'48"E
C149	275.00'	61.24'	30.75'	61.12'	12°45'36"	N82°12'57"E
C150	515.00'	82.14'	41.16'	82.05'	9°08'18"	S85°24'45"W
C151	515.00'	89.07'	44.65'	88.96'	9°54'34"	S75°53'18"W
C152	515.00'	89.07'	44.65'	88.96'	9°54'34"	S65°58'44"W
C153	515.00'	40.32'	20.17'	40.31'	4°29'08"	S58°46'53"W
C154	525.00'	39.77'	19.89'	39.76'	4°20'23"	S58°42'31"W
C155	525.00'	72.64'	36.38'	72.58'	7°55'40"	S64°50'32"W
C156	525.00'	72.64'	36.38'	72.58'	7°55'40"	S72°46'12"W
C157	525.00'	72.64'	36.38'	72.58'	7°55'40"	S80°41'51"W
C158	525.00'	63.71'	31.89'	63.67'	6°57'09"	S88°08'16"W
C159	515.00'	28.08'	14.04'	28.07'	3°07'25"	S03°11'01"W
C160	515.00'	89.38'	44.80'	89.26'	9°56'36"	S09°43'01"W

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA	CHORD BEARING
C161	515.00'	89.38'	44.80'	89.26'	9°56'36"	S19°39'38"W
C162	515.00'	85.65'	42.93'	85.56'	9°31'46"	S29°23'49"W
C163	425.00'	3.05'	1.53'	3.05'	0°24'42"	S33°57'20"W
C164	425.00'	72.12'	36.15'	72.03'	9°43'21"	S28°53'19"W
C165	425.00'	72.12'	36.15'	72.03'	9°43'21"	S19°09'58"W
C166	425.00'	72.12'	36.15'	72.03'	9°43'21"	S09°26'37"W
C167	425.00'	22.04'	11.02'	22.04'	2°58'18"	S03°05'48"W
C168	275.00'	64.72'	32.51'	64.58'	13°29'07"	S85°52'48"W
C169	665.00'	15.12'	7.56'	15.12'	1°18'09"	N02°15'43"E
C170	665.00'	87.68'	43.90'	87.62'	7°33'15"	N06°41'25"E
C171	665.00'	87.68'	43.90'	87.62'	7°33'15"	N14°14'41"E
C172	665.00'	87.68'	43.90'	87.62'	7°33'15"	N21°47'56"E
C173	665.00'	87.68'	43.90'	87.62'	7°33'15"	N29°21'12"E
C174	665.00'	11.97'	5.98'	11.97'	1°01'52"	N33°38'45"E
C175	275.00'	61.57'	30.92'	61.44'	12°49'43"	N27°44'50"E
C176	275.00'	71.31'	35.85'	71.11'	14°51'24"	N13°54'16"E
C177	275.00'	23.30'	11.66'	23.29'	4°51'15"	N04°02'56"E
C178	225.00'	39.73'	19.92'	39.68'	10°07'02"	S06°40'49"W
C179	225.00'	88.05'	44.60'	87.49'	22°25'21"	S22°57'01"W
C180	715.00'	17.16'	8.58'	17.16'	1°22'30"	S33°28'26"W
C181	715.00'	74.57'	37.32'	74.54'	5°58'33"	S29°47'55"W
C182	715.00'	74.57'	37.32'	74.54'	5°58'33"	S23°49'22"W
C183	715.00'	74.57'	37.32'	74.54'	5°58'33"	S17°50'49"W
C184	715.00'	74.57'	37.32'	74.54'	5°58'33"	S11°52'16"W
C185	715.00'	74.57'	37.32'	74.54'	5°58'33"	S05°53'44"W
C186	715.00'	16.18'	8.09'	16.18'	1°17'48"	S02°15'33"W
C187	175.00'	57.87'	29.20'	57.61'	18°56'50"	N77°54'14"W
C188	175.00'	72.53'	36.79'	72.01'	23°44'44"	N56°33'27"W
C189	375.00'	58.97'	29.55'	58.91'	9°00'38"	N13°00'07"E
C190	375.00'	4.71'	2.35'	4.71'	0°43'10"	N08°08'12"E
C191	955.00'	75.94'	37.99'	75.92'	4°33'23"	N10°03'19"E
C192	955.00'	81.39'	40.72'	81.37'	4°52'59"	N14°46'30"E
C193	955.00'	81.39'	40.72'	81.37'	4°52'59"	N19°39'29"E
C194	955.00'	81.39'	40.72'	81.37'	4°52'59"	N24°32'29"E
C195	955.00'	55.60'	27.81'	55.59'	3°20'09"	N28°39'03"E
C196	225.00'	21.39'	10.70'	21.38'	5°26'52"	N27°35'41"E
C197	225.00'	67.50'	34.01'	67.25'	17°11'19"	N16°16'36"E
C198	225.00'	67.85'	34.19'	67.60'	17°16'44"	N00°57'26"W
C199	225.00'	49.12'	24.66'	49.02'	12°30'26"	N15°51'01"W
C200	475.00'	143.47'	72.28'	142.92'	17°18'19"	N81°22'30"E
C201	475.00'	13.15'	6.58'	13.15'	1°35'11"	S89°10'45"E
C202	1005.00'	10.89'	5.45'	10.89'	0°37'15"	S30°00'29"W
C203	175.00'	160.12'	86.15'	154.59'	52°25'22"	S04°06'26"W
C204	475.00'	54.14'	27.10'	54.11'	6°31'52"	N59°48'15"E
C205	565.00'	32.13'	16.07'	32.12'	3°15'28"	N58°10'03"E
C206	565.00'	76.83'	38.47'	76.77'	7°47'28"	N63°41'31"E
C207	565.00'	76.83'	38.47'	76.77'	7°47'28"	N71°28'58"E
C208	565.00'	76.83'	38.47'	76.77'	7°47'28"	N79°16'26"E
C209	565.00'	68.56'	34.32'	68.52'	6°57'10"	N86°38'45"E
C210	175.00'	101.89'	52.43'	100.46'	33°21'33"	N15°06'37"W
C211	175.00'	145.56'	77.29'	141.40'	47°39'20"	N55°37'04"W
C212	175.00'	24.23'	12.13'	24.21'	7°55'55"	N83°24'41"W
C213	225.00'	19.00'	9.51'	19.00'	4°50'20"	N84°57'29"W
C214	325.00'	55.06'	27.59'	54.99'	9°42'23"	S12°37'49"W
C215	1005.00'	12.64'	6.32'	12.64'	0°43'14"	S08°08'14"W
C216	1005.00'	73.96'	37.00'	73.95'	4°13'00"	S10°36'21"W
C217	1005.00'	73.96'	37.00'	73.95'	4°13'00"	S14°49'21"W
C218	1005.00'	73.96'	37.00'	73.95'	4°13'00"	S19°02'22"W
C219	1005.00'	149.97'	75.13'	149.83'	8°33'00"	S25°25'22"W
C220	300.00'	288.30'	156.37'	277.33'	55°03'39"	S30°07'21"W
C221	350.00'	272.34'	143.48'	265.52'	44°34'58"	S79°56'40"W
C222	200.00'	164.08'	86.97'	159.51'	47°00'15"	N54°15'44"W
C223	200.00'	164.93'	87.48'	160.30'	47°15'01"	N07°08'06"W
C224	1080.00'	131.89'	66.03'	131.80'	6°59'48"	S28°49'02"E
C225	210.00'	127.80'	65.95'	125.84'	34°52'07"	N14°52'53"W
C226	500.00'	304.29'	157.02'	299.61'	34°52'07"	N14°52'53"W
C227	790.00'	234.97'	118.36'	234.10'	17°02'29"	S23°47'42"E
C228	790.00'	232.97'	117.33'	232.12'	16°53'46"	S06°49'35"E
C229	540.00'	306.68'	157.60'	302.57'	32°32'23"	S17°53'30"W
C230	400.00'	227.25'	116.78'	224.20'	32°33'03"	N17°53'10"E
C231	300.00'	70.61'	35.47'	70.45'	13°29'07"	S85°52'48"W
C232	200.00'	149.03'	78.16'	145.60'	42°41'34"	N66°01'52"W
C233	200.00'	96.53'	49.22'	95.60'	27°39'15"	S58°30'42"E
C234	200.00'	52.49'	26.40'	52.34'	15°02'19"	S79°51'29"E
C235	200.00'	310.48'	196.36'	280.23'	88°56'48"	N42°54'15"W
C236	300.00'	301.96'	165.17'	289.38'	57°40'14"	N30°24'16"E
C237	500.00'	147.81'	74.45'	147.27'	16°56'16"	S83°08'42"W
C238	1080.00'	525.11'	267.85'	519.95'	27°51'28"	N77°41'06"E
C239	200.00'	97.09'	49.52'	96.14'	27°48'47"	S77°39'46"W
C240	790.00'	483.61'	249.65'	476.10'	35°04'28"	N74°04'33"E

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA	CHORD BEARING
C241	250.00'	152.85'	78.90'	150.48'	35°01'50"	S74°03'14"W
C242	500.00'	206.98'	104.99'	205.50'	23°43'05"	N79°45'18"E
C243	500.00'	99.11'	49.72'	98.95'	11°21'27"	N62°13'02"E
C244	540.00'	330.16'	170.42'	325.04'	35°01'50"	S74°03'14"W
C245	250.00'	141.98'	72.96'	140.08'	32°32'23"	S17°53'30"W
C246	690.00'	392.00'	201.45'	386.75'	32°33'03"	N17°53'10"E
C247	200.00'	182.99'	98.46'	176.67'	52°25'22"	S04°06'26"W
C248	980.00'	385.56'	195.30'	383.07'	22°32'30"	N19°02'52"E
C249	350.00'	60.38'	30.26'	60.30'	9°53'03"	S12°43'09"W
C250	330.00'	169.32'	86.57'	167.47'	29°23'51"	S17°17'27"W
C251	225.00'	68.54'	34.54'	68.28'	17°27'16"	N53°24'42"W
C252	175.00'	7.07'	3.54'	7.07'	2°18'57"	S86°13'10"E
C253	50.00'	22.33'	11.36'	22.15'	25°35'26"	N23°49'30"W

LINE TABLE		
LINE	LENGTH	BEARING
L1	22.17'	N10°01'27"E
L2	21.21'	S77°19'53"E
L3	21.22'	N12°40'07"E
L4	21.62'	N61°26'33"W
L5	21.64'	N30°50'34"E
L6	21.03'	N47°07'00"E
L7	21.40'	S42°53'00"E
L8	22.69'	S18°23'05"W
L9	57.34'	S49°24'39"E
L10	56.92'	S41°41'53"E
L11	67.84'	S17°42'25"W
L12	29.32'	S6°32'30"W
L13	36.96'	S36°07'57"E
L15	19.98'	N80°34'04"W
L16	21.22'	S12°40'07"W
L17	20.20'	S15°22'19"W
L18	21.21'	S42°26'49"E
L19	21.21'	N47°33'11"E
L20	21.21'	N77°19'53"W
L21	22.06'	S74°59'13"E
L22	22.69'	S79°54'18"E
L23	20.78'	N44°34'59"W
L24	20.77'	S28°29'04"W
L25	20.75'	S59°04'52"E
L26	21.54'	N45°40'23"E
L27	20.89'	N44°17'43"W
L28	21.21'	S46°37'04"W
L29	21.21'	S43°22'56"E
L30	21.47'	N45°51'43"E
L31	21.07'	N43°48'30"W

LINE TABLE		
LINE	LENGTH	BEARING
L32	21.21'	S46°37'04"W
L33	21.21'	S43°22'56"E
L34	23.39'	S40°22'27"W
L35	21.40'	N42°53'00"W
L36	21.21'	N46°37'04"E
L37	21.21'	S43°22'56"E
L38	21.03'	S47°07'00"W
L39	22.69'	N23°11'48"W
L40	20.47'	N24°51'25"E
L41	20.47'	S69°03'53"E
L42	21.34'	N46°13'30"E
L43	22.69'	S58°30'48"W
L44	2.04'	N57°39'10"E
L45	1.84'	N57°39'10"E
L46	91.98'	S16°29'25"W
L47	25.00'	S64°40'52"W
L48	86.58'	N32°18'57"W
L49	86.74'	S32°18'57"E
L50	74.73'	S1°36'39"W
L51	71.74'	S79°08'14"W
L52	52.29'	N87°22'39"W
L53	60.81'	S74°40'34"W
L54	25.47'	N88°25'51"W
L55	25.73'	S88°25'51"E
L56	25.73'	S88°25'51"E
L57	58.24'	S22°06'14"E
L58	42.43'	S42°27'04"E
L59	37.60'	S17°39'40"W
L60	62.65'	S55°09'28"W

LOT AREA TABLE	
LOT	AREA (SQ.FT.)
1	11,443
2	10,649
3	10,897
4	13,511
5	15,829
6	19,092
7	9,363
8	9,467
9	10,341
10	10,694
11	10,155
12	10,253
13	11,104
14	10,536
15	9,677
16	9,599
17	9,334
18	9,337
19	9,338
20	9,339
21	9,340
22	9,341
23	9,342
24	9,345
25	10,108
26	11,281
27	13,821
28	15,220
29	9,531
30	10,617
31	10,868
32	16,727
33	13,587
34	10,776
35	9,644
36	9,830
37	10,493
38	11,913
39	15,329
40	11,057
41	10,062
42	12,765
43	20,684
44	20,731
45	12,757
46	10,061
47	9,346
48	9,347

LOT AREA TABLE	
LOT	AREA (SQ.FT.)
49	9,005
50	9,005
51	9,005
52	9,005
53	9,005
54	9,005
55	9,006
56	9,262
57	9,262
58	9,262
59	9,262
60	9,262
61	9,261
62	10,003
63	11,848
64	16,320
65	24,587
66	19,635
67	11,840
68	10,031
69	10,301
70	14,286
71	16,691
72	13,882
73	11,552
74	10,223
75	10,987
76	10,696
77	9,273
78	9,318
79	10,457
80	10,477
81	9,458
82	9,332
83	9,367
84	9,681
85	9,831
86	9,695
87	14,188
88	10,468
89	9,724
90	9,799
91	9,684
92	10,257
93	13,765
94	11,514
95	12,119
96	15,037

LOT AREA TABLE	
LOT	AREA (SQ.FT.)
97	11,297
98	11,030
99	10,606
100	10,754
101	10,774
102	10,434
103	10,622
104	10,639
105	10,824
106	15,877
107	11,248
108	10,745
109	11,562
110	12,420
111	14,085
112	18,637
113	12,633
114	13,997
115	15,850
116	13,486
117	11,727
118	9,404
119	13,656
120	16,374
121	13,065
122	11,041
123	10,430
124	10,501
125	10,640
126	11,060
127	11,433
128	11,841
129	12,212
130	10,800
131	9,879
132	9,649
133	9,698
134	9,822
135	9,837
136	9,837
137	9,837
138	9,837
139	10,170
140	14,645
141	11,424
142	9,534
143	9,456
144	9,474

LOT AREA TABLE	
LOT	AREA (SQ.FT.)
145	9,472
146	9,470
147	9,471
148	9,458
149	9,134
150	9,134
151	9,134
152	9,134
153	9,842
154	9,862
155	9,132
156	9,132
157	9,132
158	9,132
159	9,384
160	9,401
161	9,396
162	9,400
163	9,284
164	9,563
165	10,168
166	10,741
167	10,405
168	9,566
169	9,610
170	9,584
171	9,621
172	9,621
173	9,621
174	9,558
175	9,132
176	9,132
177	9,132
178	9,132
179	9,860
180	9,891
181	9,163
182	9,302
183	9,610
184	9,597
185	9,661
186	9,778
187	9,755
188	9,755
189	10,819
190	10,097
191	9,656
192	9,653

LOT AREA TABLE	
LOT	AREA (SQ.FT.)
193	9,661
194	9,664
195	10,117
196	10,198
197	9,646
198	9,163
199	9,889
200	9,989
201	9,074
202	9,792
203	10,109
204	9,634
205	9,634
206	9,634
207	9,634
208	9,634
209	9,982
210	13,537
211	9,248
212	9,201
213	9,204
214	9,212
215	9,594
216	10,878
217	10,634
218	12,132
219	11,860
220	12,215
221	10,746
222	13,092
223	13,045
224	10,945
225	10,945
226	11,304
227	11,404
228	9,851
229	10,116
230	12,415
231	14,337
232	16,475
CA1	6,222
CA2	141,527
CA3	51,564
CA4	48,083

DESCRIPTION:

SOURCE OF DESCRIPTION: BOOK 2015 AT PAGE 973

THAT CERTAIN PARCEL OR TRACT OF LAND BEING A PART OF THE SOUTHWEST QUARTER (SW1/4) OF THE SOUTHWEST QUARTER (SW1/4) AND A PART OF THE SOUTHEAST QUARTER (SE1/4) OF THE SOUTHWEST QUARTER (SW1/4) AND THE NORTHEAST QUARTER (NE1/4) OF THE SOUTHWEST QUARTER (SW1/4) IN SECTION 8, TOWNSHIP 27 NORTH, RANGE 21 WEST, IN THE CITY OF NIXA, CHRISTIAN COUNTY, MISSOURI, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT AN EXISTING IRON PIN AT THE SOUTHWEST CORNER OF SAID SW1/4 OF THE SW1/4; THENCE S87°52'19"E, ALONG THE SOUTH LINE OF SAID SW1/4 OF THE SW1/4, A DISTANCE OF 1258.82 FEET; THENCE N02°07'41"E, A DISTANCE OF 40.00 FEET TO AN IRON PIN SET ON THE NORTH RIGHT-OF-WAY LINE OF NORTH ROAD, AS IT NOW EXISTS, FOR A POINT OF BEGINNING; THENCE N47°07'41"E, A DISTANCE OF 42.43 FEET TO AN IRON PIN SET; THENCE N02°07'41"E, A DISTANCE OF 222.31 FEET TO AN IRON PIN SET; THENCE NORTHERLY ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 330.00 FEET, A CENTRAL ANGLE OF 29°24'51", A CHORD BEARING OF N16°50'06"E, AN ARC LENGTH OF 169.41 FEET TO AN IRON PIN SET; THENCE N32°44'26"W, A DISTANCE OF 116.22 FEET TO AN IRON PIN SET; THENCE N46°16'55"W, A DISTANCE OF 87.30 FEET TO AN IRON PIN SET; THENCE N47°29'47"E, A DISTANCE OF 83.72 FEET TO AN IRON PIN SET; THENCE N18°13'47"W, A DISTANCE OF 88.06 FEET TO AN IRON PIN SET; THENCE N11°47'32"E, A DISTANCE OF 151.94 FEET TO AN IRON PIN SET; THENCE EASTERLY ALONG A NON-TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 325.00 FEET, A CENTRAL ANGLE OF 08°51'19", A CHORD BEARING OF N78°43'28"E, AN ARC LENGTH OF 50.23 FEET TO AN IRON PIN SET; THENCE N74°17'48"E, A DISTANCE OF 199.63 FEET TO AN IRON PIN SET; THENCE N16°10'44"W, A DISTANCE OF 50.00 FEET TO AN IRON PIN SET; THENCE N11°01'37"W, A DISTANCE OF 102.56 FEET TO AN IRON PIN SET; THENCE N05°03'52"W, A DISTANCE OF 91.95 FEET TO AN IRON PIN SET; THENCE N00°06'08"E, ALONG THE WEST LINE OF LOT 1B IN NIXA SCHOOL – RICE SITE PHASE 2, A SUBDIVISION IN THE CITY OF NIXA, AND ITS EXTENSION, A DISTANCE OF 88.33 FEET TO AN EXISTING IRON PIN; THENCE N01°11'48"E, A DISTANCE OF 29.03 FEET TO AN EXISTING IRON PIN AT THE NORTHEAST CORNER OF SAID SW1/4 OF THE SW1/4; THENCE N01°11'48"E (N01°11'16"E PLAT), ALONG THE EAST LINE OF SAID LOT 1B AND LOT 1A IN SAID NIXA SCHOOL – RICE SITE PHASE 2, SAID LINE ALSO BEING THE WEST LINE OF SAID NE1/4 OF THE SW1/4, A DISTANCE OF 1321.34 FEET (1321.36' PLAT) TO AN EXISTING IRON PIN AT THE NORTHWEST CORNER OF SAID NE1/4 OF THE SW1/4 SAID POINT ALSO BEING THE NORTHEAST CORNER OF SAID LOT 1A; THENCE S87°48'04"E, ALONG THE NORTH LINE OF SAID NE1/4 OF THE SW1/4, A DISTANCE OF 1334.26 FEET TO AN EXISTING IRON PIN AT THE NORTHEAST CORNER OF SAID NE1/4 OF THE SW1/4; THENCE S01°08'39"W, ALONG THE EAST LINE OF SAID NE1/4 OF THE SW1/4 AND THE EAST LINE OF SAID SE1/4 OF THE SW1/4, A DISTANCE OF 2063.19 FEET TO AN EXISTING IRON PIN AT THE NORTHEAST CORNER OF A TRACT OF LAND DESCRIBED IN BOOK 315 AT PAGE 559; THENCE N87°52'19"W, ALONG THE NORTH LINE OF SAID TRACT OF LAND, A DISTANCE OF 240.67 FEET TO THE NORTHWEST CORNER OF SAID TRACT OF LAND; THENCE S01°07'21"W, ALONG THE WEST LINE OF SAID TRACT OF LAND, A DISTANCE OF 539.62 FEET TO AN EXISTING IRON PIN ON THE NORTH RIGHT-OF-WAY OF SAID NORTH ROAD; THENCE N87°52'19"W, ALONG SAID NORTH RIGHT-OF-WAY LINE, A DISTANCE OF 1173.60 FEET TO THE POINT OF BEGINNING. SAID TRACT CONTAINS 78.692 ACRES (MORE OR LESS) AND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, AND RESTRICTIONS OF RECORD.

NOTES:

1. THE PROPERTY SHOWN HEREON LIES WITHIN AN AREA OF MINIMAL FLOODING, ZONE X, ACCORDING TO THE F.E.M.A. FLOOD INSURANCE RATE MAP COMMUNITY MAP PANEL NO. 29043C0070C, WHICH BEARS AN EFFECTIVE DATE OF DECEMBER 17, 2010.
2. SOURCE OF SURVEY: FINAL PLAT OF CHEYENNE VALLEY; FINAL PLAT OF NIXA SCHOOL – RICE SITE; FINAL PLAT OF NIXA SCHOOL – RICE SITE PHASE 2; FINAL PLAT OF FREMONT HILLS 14TH ADDITION; SURVEYS BY SHAFFER & HINES, INC., DATED 12-14-2010, 03-02-2006 AND 09-29-2003; SURVEYS BY BDM & ASSOCIATES, LLC, DATED 12-18-2014 AND 09-16-2014.
3. NO INTERNAL FENCES WERE LOCATED DURING THE COURSE OF THIS SURVEY, AND ARE NOT SHOWN HEREON.
4. LOTS 1-232 AND CA1-CA4 ARE ZONED AS R-1.
5. R-1 BUILDING SETBACKS: FRONT 25', SIDEYARD 7', SIDEYARD WITH STREET FRONTAGE 12', REAR 20'.
6. SIDEWALKS WILL BE PROVIDED ON ONE SIDE OF ALL INTERNAL STREETS.
7. LOTS CA1-CA4 ARE COMMON AREA AND ARE TO BE DEEDED TO AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
8. ALL STREETS, SANITARY SEWER, WATER, AND STORM WATER IMPROVEMENTS WILL BE PROVIDED PER CITY OF NIXA SPECIFICATIONS.
9. THERE SHALL BE A 12 FEET WIDE UTILITY EASEMENT PARALLEL AND ADJACENT TO ALL STREET RIGHT-OF-WAY LINES EXCEPT AS NOTED.
10. STREET RIGHT-OF-WAY LINES ARE PARALLEL WITH THE CENTERLINE DATA, EXCEPT AS NOTED.
11. LARGEST LOT: LOT CA2 (140,708 SQ.FT.)
12. SMALLEST LOT: LOT CA1 (6,222 SQ.FT.)
13. OWNER: JACK'S PLACE, LLC
14. DEVELOPER:

LEGEND:

- ● = EXISTING IRON PIN FOUND (EXCEPT AS NOTED)
- ○ = 5/8" IRON PIN SET, CAPPED "LC 383" (EXCEPT AS NOTED)
- ■ = EXISTING PERMANENT MON. FOUND (EXCEPT AS NOTED)
- ⊡ = PERMANENT MON. SET (5/8" x 24" REBAR W/ ALUM. CAP)
- (M) = MEASURED DATA
- (P) = PLATTED DATA
- (D) = DEEDED DATA
- BSL. = BUILDING SETBACK LINE
- DRAIN. = DRAINAGE
- SEWER = SANITARY SEWER
- UTIL. = UTILITY
- ESMT. = EASEMENT
- N = NORTH
- S = SOUTH
- E = EAST
- W = WEST
- —o— = EXISTING CHAIN LINK FENCE
- —▫— = EXISTING BOARD FENCE
- —x— = EXISTING WIRE FENCE

BENCHMARK DATA:

B.M. – GRS MONUMENT CH-22 LOCATED ON THE EAST SIDE OF MAIN STREET BY THE NIXA JUNIOR HIGH SCHOOL. ELEVATION: 1298.55

T.B.M. #1 – EXISTING 5/8" IRON PIN AT THE SOUTHWEST CORNER OF THE SE1/4 OF THE SW1/4 LOCATED IN THE ASPHALT OF NORTH STREET LOCATED APPROXIMATELY 77.3' EAST AND 40.0' SOUTH OF THE SOUTHWEST CORNER OF SITE. ELEVATION: 1314.06'

RIVERTON PARK
A SUBDIVISION IN THE CITY OF NIXA, CHRISTIAN COUNTY, MISSOURI
OWNER: JACK'S PLACE, LLC
DEVELOPERS: RIVERTON PARK, LLC

STATE OF MISSOURI
J. CLAYTON M. HINES
NUMBER E-29799
REGISTERED PROFESSIONAL ENGINEER
J. CLAYTON M. HINES E-29799
11-8-21

SHAFFER & HINES, INC.
CERTIFICATE OF AUTHORITY
LICENSE NO. E-1665-D

SHAFFER & HINES INC.
CONSULTING ENGINEERS - PROFESSIONAL LAND SURVEYORS
DBE CERTIFIED COMPANY
P.O. Box 493, Nixa, Missouri, 65714
Tel: (417) 725-4663 - Fax: (417) 725-5230
Email: ch@shafferhines.com

PRELIMINARY PLAT

DESIGN BY: JCMH
DRAWN BY: RBW
CHECKED BY: JCMH
DATE: URBAN
SCALE: 1" = 100'

REVISIONS

11-03-21	CITY COMMENTS

JOB NO. 200029

SHEET 2 OF 2

STINEROCK HILL DEVELOPMENT

TRAFFIC IMPACT ASSESSMENT

PREPARED FOR

Mr. Tyler Bussell
Bussell Building Inc.
5616 S. Farm Road 131, Brookline, MO 65619

July 24, 2019

PREPARED BY:

CJW

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INTRODUCTION

PURPOSE OF STUDY

A residential development has been proposed for an existing parcel in Nixa, Missouri that has North Street run along its southern border. It is anticipated that the property will include one new access point onto North Street. **Exhibit 1** illustrates the location of the proposed development. The purpose of this study is to determine the potential impact to the transportation network due to potential development and identify any necessary improvements (lane additions and/or traffic control modifications) to the adjacent and nearby road system to mitigate the impact and maintain a satisfactory level of service, adequate safety, and access for the proposed development.

STUDY OBJECTIVES

The objective of this study is to evaluate development access points and traffic impacts on the public roadway network adjacent to the site of the proposed development. This report will identify possible traffic related concerns that could arise due to the proposed development and recommend any needed improvements based on comprehensive data attained in the field and traffic projections.

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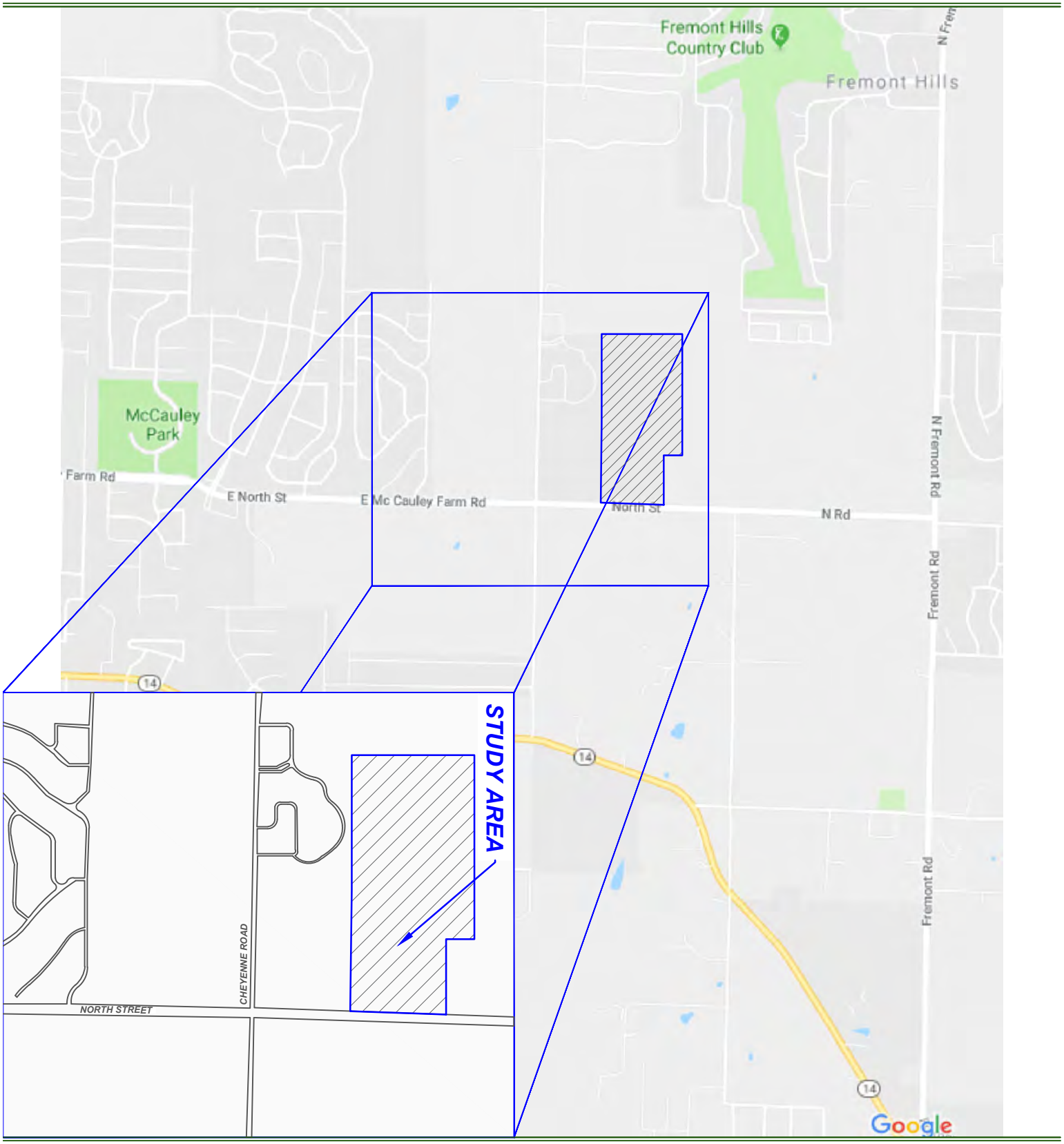
NIXA, MISSOURI

EXHIBIT 1
STUDY AREA



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AREA CONDITIONS

TRANSPORTATION NETWORK STUDY AREA

AREA ROADWAY SYSTEM – EXISTING

Exhibit 2 illustrates the existing roadway system with AM and PM peak hour traffic volumes for the adjacent roadways. The roadways analyzed within the study have the following characteristics:

NORTH STREET – (South of the development) North Street is an east/west roadway. The roadway provides full access to residential and commercial properties in Nixa, Missouri. It is a two-lane roadway with lane widths of 12 feet. A traffic count at North Street recorded 3,930 vehicles per day, 233 vehicles in the AM peak hour, and 354 vehicles in the PM peak hour. North Street is classified as a Secondary Arterial by the Ozarks Transportation Organization (OTO) Major Thoroughfare Plan. The roadway is under the joint jurisdiction of the City of Nixa and Christian County and is currently posted with a 45 mph speed limit near the development.

CHEYENNE ROAD – (West of the development) Cheyenne Road is a north/south roadway. The roadway provides full access to residential and commercial properties in Nixa, Missouri. It is a two-lane roadway with typical lane widths of 12 feet. A traffic count at Cheyenne Road recorded 4,270 vehicles per day, 289 vehicles in the AM peak hour, and 384 vehicles in the PM peak hour. Cheyenne Road is classified as a Primary Arterial by the OTO Major Thoroughfare Plan. The roadway is under the joint jurisdiction of the City of Nixa and Christian County and is currently posted with a 35 mph speed limit near the development.

AREA ROADWAY SYSTEM – FUTURE

ACCESS P1 – Access P1 will provide full access onto North Street to the subject property and will provide full ingress/egress to all development traffic.

Traffic is typically analyzed in the peak hour condition, which allows an analysis of the "worst-case scenario" due to the nature of traffic in the study area and projected land uses, the AM & PM peak hours were determined to be the most applicable periods for analysis.

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EXHIBIT 2
EXISTING TRAFFIC VOLUME
AM & PM PEAK HOUR

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Existing Traffic

EXISTING CAPACITY

Due to the type of development proposed at this property, a capacity analysis of the existing road system was conducted to analyze intersection operations during the AM and PM peak hour.

EXISTING LEVEL OF SERVICE

The capacity was analyzed using Synchro Traffic modeling software, which is based on procedures and techniques outlined in the *HIGHWAY CAPACITY MANUAL*, 2010 Edition which is published by the Transportation Research Board to determine operational level of service (LOS) and lane requirements. The quality of traffic flow is estimated based on calculations of delay to vehicles on each approach at an intersection. A grading system has been developed in the *Highway Capacity Manual* related to delay per vehicle which defines the quality of flow from Level A for free flowing conditions through Level F representing extreme congestion with excessive delays. Levels of traffic service are quantifiable measures of traffic flow that are represented by such factors as speed and delay time, traffic interruptions, safety, driving comfort and convenience. Level of service (LOS), vehicular delay and volume-to-capacity are key "measures of effectiveness" (MOEs) in the analysis of intersections.

The thresholds that define LOS are based on the type of traffic control used at an intersection; i.e., whether it is signalized or unsignalized. For signalized intersections, the average control delay per vehicle is estimated for each movement and aggregated for each approach and the intersection as a whole. At intersections with partial (side-street) stop control, the delay for each minor movement and approach is determined with no report for the intersection as a whole (since motorists on the main road are not required to stop and are assumed to operate under free-flow conditions). LOS is directly related to control delay. Highway designers strive for a minimum LOS of "C" as design criteria for operations during peak hour conditions, but a LOS E is acceptable during the peak hour. **Table 1** shows the LOS for the existing traffic volumes and lane geometrics for the AM & PM peak hour.

Table 1: Existing Peak Hour Measures of Effectiveness
Summary of Intersection Capacity Analysis & Geometric Configuration

INTERSECTION N/S	E/W	# of Lanes	Traffic Control	AM Delay	AM LOS	PM Delay	PM LOS
Cheyenne Road & North Street			**TWSC**	**8.5**	**A**	**9.6**	**A**
Eastbound Left / Through / Right		1	Stop	8.7	A	9.2	A
Westbound Left / Through / Right		1	Stop	8.1	A	9.5	A
Northbound Left / Through / Right		1	Stop	8.6	A	9.6	A
Southbound Left / Through / Right		1	Stop	8.2	A	9.8	A

Projected Traffic

SITE TRAFFIC

2021 PROPOSED TRIP GENERATION

Traffic generated to and from the development was estimated based upon data provided in "Trip Generation, 10th Edition," an informative report published by the Institute of Transportation Engineers (2017). The ITE Trip Generation Report is recognized by land use and traffic planners as the most authoritative text available for estimating the trip generation of various types of land development. Traffic volumes for future development are estimated in terms of "Trip Ends" for each land use. A Trip End is defined as a one-way trip to or from the subject property that has the property as either its origin or destination. In determining trip generation, the average rate as given by the ITE Trip Generation Report was used. Average daily trip generations have been calculated for the proposed development. For the purpose of this study, the criterion above was used to compute the trips generated. The number of trips was subsequently used to determine the impact on adjacent roadways.

Table 2 summarizes the average daily, AM peak hour, & PM peak hour traffic generated to and from the property for the proposed development, based on the expectations previously stated.

Table 2: Average Daily, AM, & PM Trip Generation

	ITE			24-HOUR	AM PEAK		PM PEAK	
LAND USE	CODE	Size	Variable	WEEKDAY	IN	OUT	IN	OUT
Single Family Residential	210	250	Dwelling Units	2,360	46	139	156	92
			TOTAL NEW TRIPS	**2,360**	**46**	**139**	**156**	**92**

Full Trip Generation Table including the AM & PM Peak Hour Rate and Percent Entering / Percent Exiting can be viewed in the 2021 Appendix.

2021 Proposed Trip Distribution

For the purpose of this study a directional distribution of traffic was compiled in order to accurately describe the traffic patterns the development is projected to create. The directional distribution is used to distribute the traffic generated by the proposed development onto the roadway network.

Table 3 summarizes the expected 2021 AM and PM new trip directional distribution of traffic to and from the site as used in the study.

Table 3: 2021 New Trip Directional Distribution

LOCATION			AM Peak New Trip Traffic Distribution		PM Peak New Trip Traffic Distribution	
Roadway	From	To	% IN	% OUT	% IN	% OUT
Access P1			100% / 100%		100% / 100%	
Cheyenne Road	North of	North Street	19% / 19%		34% / 34%	
Cheyenne Road	South of	North Street	34% / 34%		27% / 27%	
North Street	West of	Cheyenne Road	36% / 36%		20% / 20%	
North Street	Cheyenne Road	Access P1	89% / 89%		81% / 81%	
North Street	East of	Access P1	11% / 11%		19% / 19%	

Exhibit 3 illustrates the new trip directional distribution of traffic entering and exiting the study area for the AM & PM peak hour as shown in **Table 3**.

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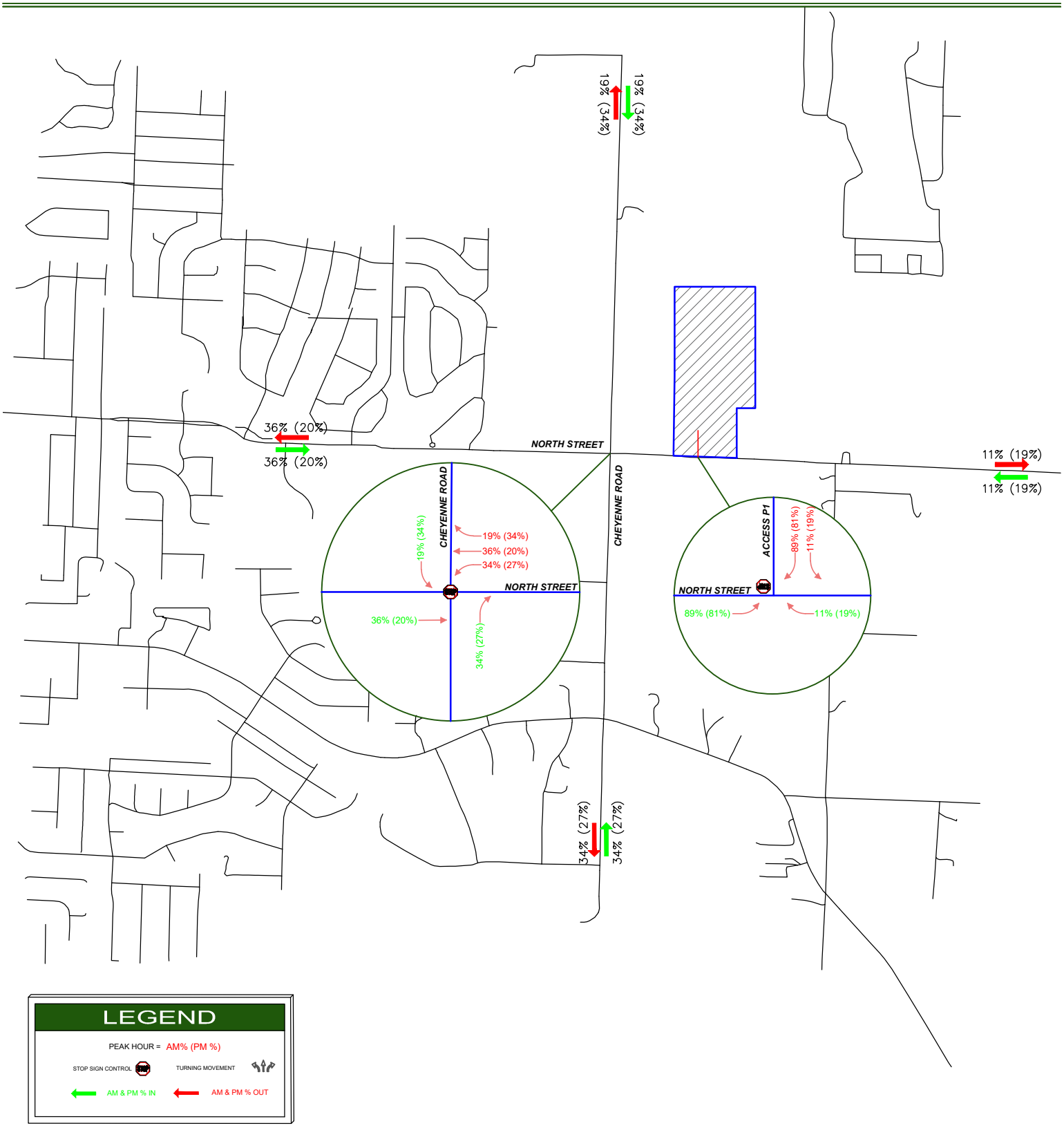
NIXA, MISSOURI

EXHIBIT 3
2021 PROJECTED LAND USE DIRECTIONAL DISTRIBUTION



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TOTAL FUTURE TRAFFIC

2021 BUILD CONDITION (TOTAL TRAFFIC CONDITIONS)

Using the existing traffic grown at 2% for 2 years, the estimated generated trip ends from **Table 2** and the assumed directional distribution of traffic from **Table 3**, it is possible to estimate the traffic on each of the impacted roads. **Tables 4, 5, & 6** represent the two-way traffic anticipated at full build out during the day, AM Peak Hour, and PM Peak Hour respectively onto each roadway segment.

Table 4: 2021 Daily Projected Traffic Volumes

			Daily Traffic	
Roadway	From	To	Existing	2021 Projections with the Proposed
Access P1			-	3,820
Cheyenne Road	North of	North Street	3,710	4,770
Cheyenne Road	South of	North Street	4,270	5,170
North Street	West of	Cheyenne Road	3,930	4,630
North Street	Cheyenne Road	Access P1	2,380	4,710
North Street	East of	Access P1	2,380	3,000

Table 5: 2021 AM Peak Hour Projected Traffic Volumes

			AM Peak Hour	
Roadway	From	To	Existing	2021 Projections with the Proposed
Access P1			-	185
Cheyenne Road	North of	North Street	224	268
Cheyenne Road	South of	North Street	289	364
North Street	West of	Cheyenne Road	233	310
North Street	Cheyenne Road	Access P1	164	336
North Street	East of	Access P1	164	191

Table 6: 2021 PM Peak Hour Projected Traffic Volumes

Roadway	From	To	PM Peak Hour Existing	PM Peak Hour 2021 Projections with the Proposed
Access P1			-	344
Cheyenne Road	North of	North Street	334	430
Cheyenne Road	South of	North Street	384	466
North Street	West of	Cheyenne Road	354	417
North Street	Cheyenne Road	Access P1	214	424
North Street	East of	Access P1	214	270

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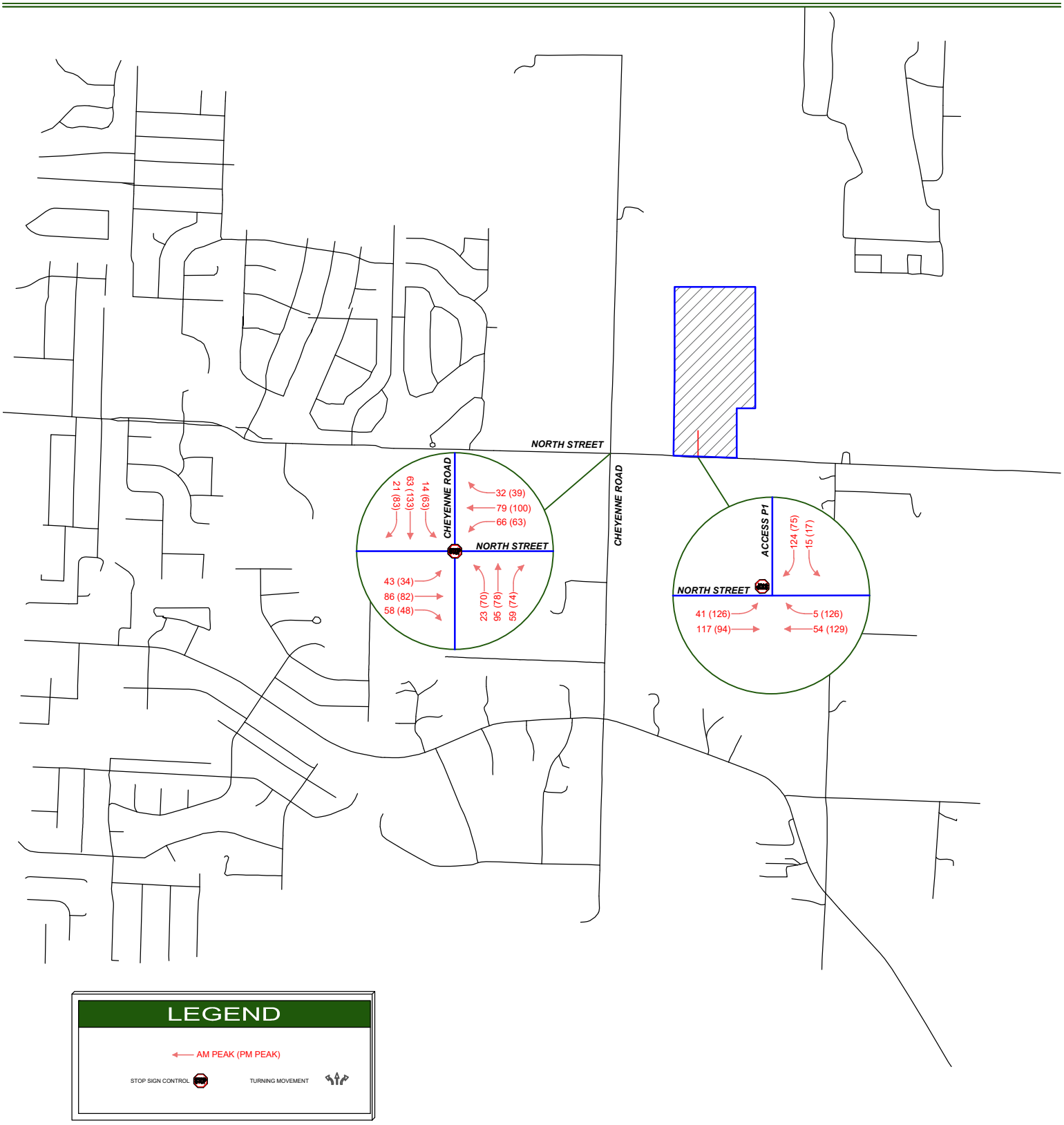
EXHIBIT 4
PROJECTED 2021 TRAFFIC ASSIGNMENT
AM AND PM PEAK



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Traffic Analysis

SITE ACCESS

Access to the development is being proposed through one access point. The access point to the development will be location on North Street. Roadway access point capacity must be analyzed thoroughly in order to ensure that the roadway network adequately handles future traffic demands based on the additional development trip generation.

CAPACITY AND INTERSECTION UTILIZATION AT STUDY ROADWAYS AND INTERSECTIONS

PROPOSED 2021 PEAK HOUR LEVEL OF SERVICE (NO BUILD)

A capacity analysis of the road system was conducted assuming no improvements would be made in order to analyze intersection operations during the AM and PM peak hour and determine the condition of the future roadway infrastructure with a no-build option. The capacity was analyzed using Synchro Traffic modeling software, which is based on procedures and techniques outlined in the HIGHWAY CAPACITY MANUAL, 2010 Edition which is published by the Transportation Research Board to determine operational level of service (LOS) and lane requirements.

Table 7 illustrates the AM & PM peak hour level of service for the intersection based upon the construction of the development and no roadway improvements.

Table 7: Peak Measures of Effectiveness (No Build)

Summary of Intersection Capacity Analysis & Geometric Configuration

INTERSECTION N/S	E/W	# of Lanes	Traffic Control	AM Delay	AM LOS	PM Delay	PM LOS
Access P1 & North Street			**TWSC**	**4.6**	**A**	**4.3**	**A**
Eastbound Left / Through		1	Free	2.1	A	4.8	A
Westbound Through / Right		1	Free	0.0	A	0.0	A
Southbound Left / Right		1	Stop	9.5	A	10.5	B
Cheyenne Road & North Street			**TWSC**	**9.6**	**A**	**11.9**	**B**
Eastbound Left / Through / Right		1	Stop	9.6	A	11.0	B
Westbound Left / Through / Right		1	Stop	9.7	A	11.8	B
Northbound Left / Through / Right		1	Stop	9.6	A	11.6	B
Southbound Left / Through / Right		1	Stop	9.0	A	12.8	B

Findings & Recommendations

- **Sight Distance at the Proposed Entrance –** Careful consideration should be given to sight distance obstructions when planning any future development or aesthetic enhancements, such as berms, fencing, or landscaping, to ensure that these improvements do not obstruct the view of entering and exiting traffic at the development entrance with public roads. It is generally recommended that all improvements higher than 3.5 feet above the elevation of the nearest pavement edge be held back at least 20 feet from the traveled roadway.

- **Sight Distance Analysis** –

    - The intersection of North Street & Access P1 was analyzed to determine if adequate sight distance was available. At the current speed limit of 45 mph, it was determined that an intersection sight distance of 500 feet with a crest stopping sight distance of 360 feet is needed. A sight distance of 500 feet is available west of the access point. However, there is not an adequate sight distance of 500 feet east of the access point for a vehicle to safely make a southbound left turn onto North Street. The stopping sight distance for the existing roadway was determined to be around 302 feet which is below the necessary distance of 360 feet.

    - If the speed limit was reduced to 35 mph, an intersection sight distance of 390 feet with a crest stopping sight distance of 250 feet is needed. Both east and west of the access point, sight distance is adequate to safely make a southbound left turn onto North Street. The stopping sight distance would also meet the necessary requirements.

- **Access P1** – Access P1 will serve as a full access new city street, providing full ingress and egress to the development.

- **Intersection of Access P1 & North Street** –

    - An eastbound left turn analysis was performed at the intersection. Projected traffic volumes did not meet the requirements necessary for a left turn lane.

    - Projected westbound traffic volumes did not meet the requirements necessary to perform a right turn lane analysis.

- **Intersection of Cheyenne Road & North Street** –

    - An eastbound left turn analysis was performed at the intersection. Projected traffic volumes did not meet the requirements necessary for a left turn lane.

    - Projected eastbound traffic volumes did not meet the requirements necessary to perform a right turn lane analysis.

    - A westbound left turn analysis was performed at the intersection. Projected traffic volumes did not meet the requirements necessary for a left turn lane.

- A westbound right turn analysis was performed at the intersection. Projected traffic volumes did not meet the requirements necessary for a right turn lane.
- A northbound left turn lane analysis was performed at the intersection. Projected traffic volumes did not meet the requirements necessary for a left turn lane.
- A northbound right turn lane analysis was performed at the intersection. Projected traffic volumes did not meet the requirements necessary for a right turn lane.
- A southbound left turn lane analysis was performed at the intersection. Projected traffic volumes did not meet the requirements necessary for a left turn lane.
- A southbound right turn lane analysis was performed at the intersection. Projected traffic volumes did not meet the requirements necessary for a right turn lane.

SUMMARY OF NEEDED IMPROVEMENTS

Roadway Improvements 2019 – It is the policy of the City of Nixa to provide designated left turn lanes for primary arterial roadways at buildout of the development. An eastbound left turn lane is necessary at the intersection of Access P1 and North Street with a minimum storage length of 100 feet plus a 270 foot taper. Improvements regarding intersection sight distance 500 feet east of Access P1 are also necessary.

Table 8: Peak Measures of Effectiveness (Build)
Summary of Intersection Capacity Analysis & Geometric Configuration

INTERSECTION N/S	E/W	# of Lanes	Traffic Control	AM Delay	AM LOS	PM Delay	PM LOS
Access P1 & North Street			**TWSC**	**4.5**	**A**	**4.1**	**A**
Eastbound Left		1	Free	7.4	A	7.8	A
Eastbound Through		1	Free	0.0	A	0.0	A
Westbound Through / Right		1	Free	0.0	A	0.0	A
Southbound Left / Right		1	Stop	9.5	A	10.5	B
Cheyenne Road & North Street			**TWSC**	**9.6**	**A**	**11.9**	**B**
Eastbound Left / Through / Right		1	Stop	9.6	A	11.0	B
Westbound Left / Through / Right		1	Stop	9.7	A	11.8	B
Northbound Left / Through / Right		1	Stop	9.6	A	11.6	B
Southbound Left / Through / Right		1	Stop	9.0	A	12.8	B

SUMMARY OF INTERSECTION ANALYSIS

A review of the 2021 peak hour intersection analysis revealed that the intersection of Cheyenne Road & Access P1 will operate at a level of service A overall. The intersection of Cheyenne Road & North Street will operate at a level of service A in the AM and a level of service B in the PM.

We trust this traffic study satisfactorily answers questions concerning the traffic impact on the proposed development. If you need additional information, please contact me.

Respectfully submitted,

CJW TRANSPORTATION CONSULTANTS, LLC

Dane Seiler, P.E.
CJW Transportation Consultants, LLC.

APPENDIX A – EXISTING TRAFFIC

PREPARED BY:

CJW

Intersection: Cheyenne Road & North Street

N/S Street: Cheyenne Road

E/W Street: North Street

AM Count

Observer: JO

Date: 7/9/2019

	EB			WB			NB			SB		
Time	L	T	R	L	T	R	L	T	R	L	T	R
7:00-7:15	6	12	9	1	2	1	6	23	17	1	6	2
7:15-7:30	13	12	16	5	5	0	6	20	9	3	7	4
7:30-7:45	11	19	17	5	9	2	3	23	10	2	12	5
7:45-8:00	10	20	17	3	5	3	7	24	13	1	16	5
8:00-8:15	8	14	12	5	5	0	6	18	12	1	15	5
8:15-8:30	12	13	10	5	9	1	6	26	6	1	18	5
8:30-8:45	3	11	11	7	6	2	3	13	6	1	16	8
8:45-9:00	4	8	13	4	5	1	6	16	6	0	14	2
Peak Hour	41	66	56	18	28	6	22	91	41	5	61	20
PHF	0.85	0.83	0.82	0.90	0.78	0.50	0.79	0.88	0.79	0.63	0.85	1.00

Intersection: Cheyenne Road & North Street

N/S Street: Cheyenne Road

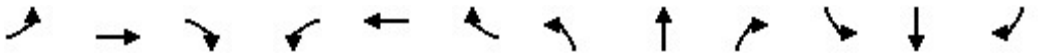
E/W Street: North Street

PM Count

Observer: JO

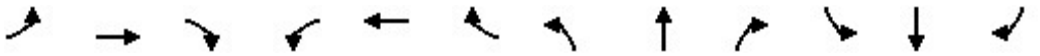
Date: 7/9/2019

	EB			WB			NB			SB		
Time	L	T	R	L	T	R	L	T	R	L	T	R
4:00-4:15	9	16	9	4	14	1	11	13	4	2	20	19
4:15-4:30	3	14	11	5	23	4	20	20	5	3	19	9
4:30-4:45	2	19	13	9	20	0	19	19	4	1	35	16
4:45-5:00	7	13	10	8	16	2	8	29	7	1	19	13
5:00-5:15	14	14	9	9	13	2	12	15	7	4	50	15
5:15-5:30	7	9	11	13	29	2	24	9	8	1	26	33
5:30-5:45	5	13	16	7	21	2	23	22	9	4	33	19
5:45-6:00	5	9	9	9	21	3	10	26	1	1	15	16
Peak Hour	33	49	46	37	79	8	67	75	31	10	128	80
PHF	0.59	0.88	0.72	0.71	0.68	1.00	0.70	0.65	0.86	0.63	0.64	0.61



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.954			0.983			0.964			0.968	
Flt Protected		0.988			0.983			0.993			0.997	
Satd. Flow (prot)	0	1756	0	0	1800	0	0	1783	0	0	1798	0
Flt Permitted		0.988			0.983			0.993			0.997	
Satd. Flow (perm)	0	1756	0	0	1800	0	0	1783	0	0	1798	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		3353			5351			3111			4217	
Travel Time (s)		76.2			121.6			60.6			82.1	
Volume (vph)	41	66	56	18	28	6	22	91	41	5	61	20
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)	45	72	61	20	30	7	24	99	45	5	66	22
Lane Group Flow (vph)	0	178	0	0	57	0	0	168	0	0	93	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.5%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.951			0.991			0.976			0.950	
Flt Protected		0.987			0.985			0.981			0.998	
Satd. Flow (prot)	0	1748	0	0	1818	0	0	1783	0	0	1766	0
Flt Permitted		0.987			0.985			0.981			0.998	
Satd. Flow (perm)	0	1748	0	0	1818	0	0	1783	0	0	1766	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		3353			5351			3111			4217	
Travel Time (s)		76.2			121.6			60.6			82.1	
Volume (vph)	33	49	46	37	79	8	67	75	31	10	128	80
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)	36	53	50	40	86	9	73	82	34	11	139	87
Lane Group Flow (vph)	0	139	0	0	135	0	0	189	0	0	237	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX B – PROJECTED 2021 TRAFFIC CONDITIONS

PREPARED BY:

CJW

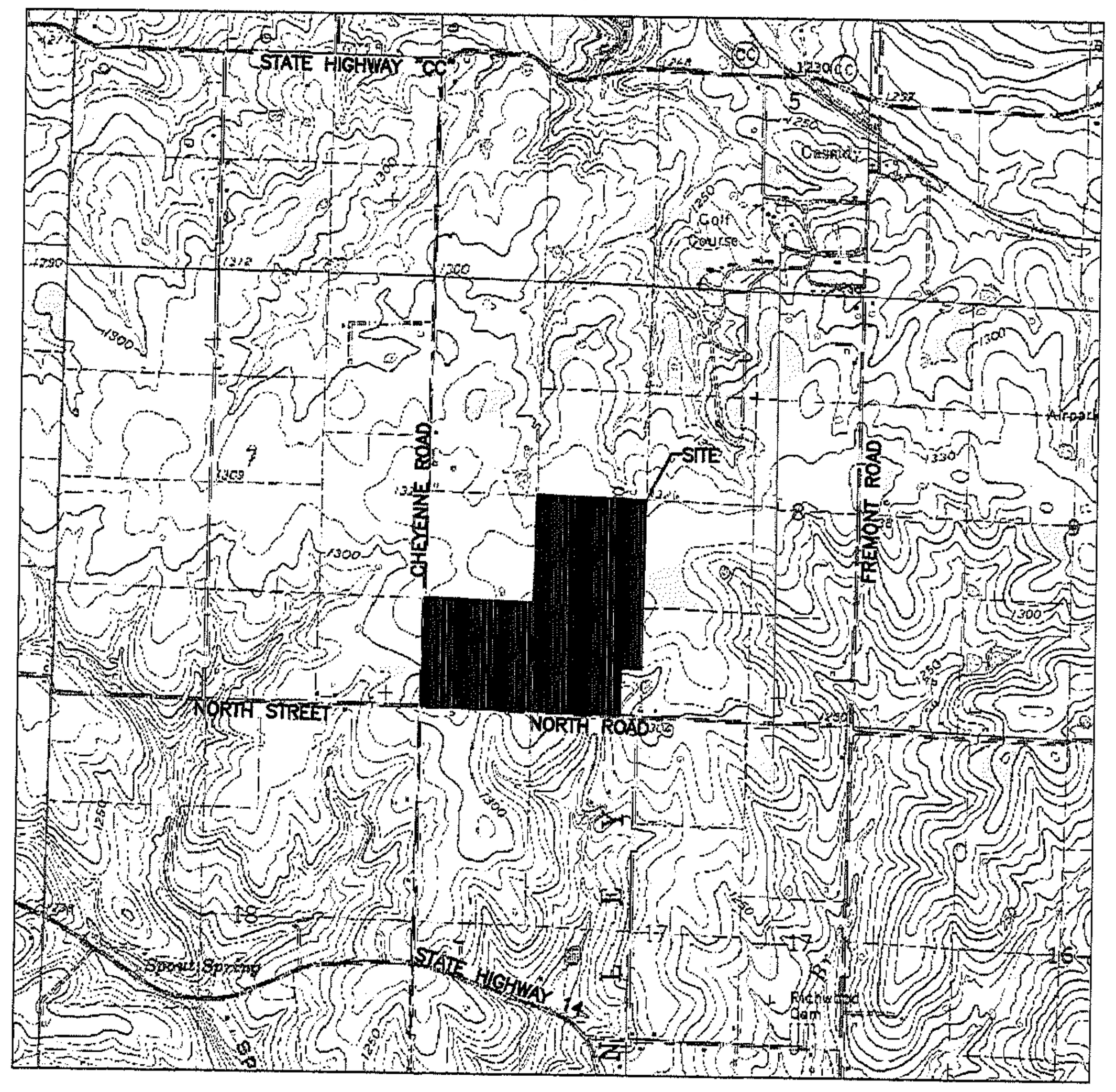
PRELIMINARY PLAT

STINEROCK HILL

A PROPOSED SUBDIVISION IN
THE CITY OF NIXA, CHRISTIAN COUNTY, MISSOURI
OWNER/DEVELOPER: JACK'S PLACE, L.L.C
(SHEET 1 OF 3)

LOCATION MAP:

SECTION 8, TOWNSHIP 27 NORTH, RANGE 21 WEST
SCALE: 1" = 2000'

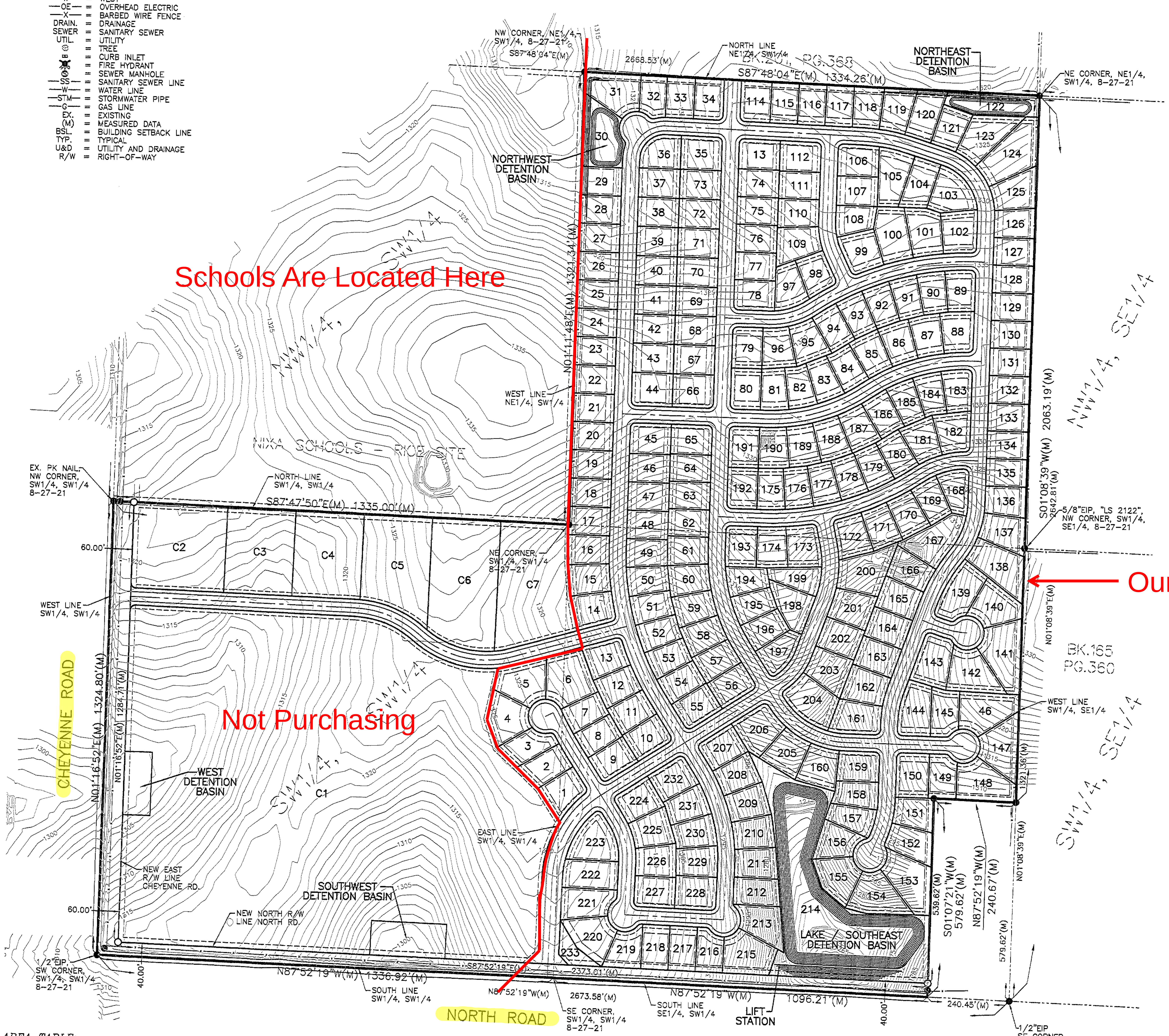


LEGEND:

- ● = EXISTING 5/8" IRON PIN, CAPPED "LC 383" (EXCEPT AS NOTED)
- ○ = 5/8" IRON PIN SET, CAPPED "LC 383" (EXCEPT AS NOTED)
- ■ = EXISTING PERMANENT MON. FOUND (EXCEPT AS NOTED)
- ⊡ = PERMANENT MON. SET (5/8" X 24" REBAR W/ ALUM. CAP.) STAMPED "LC 383"
- (symbol) = POWER POLE
- D.N.R. = DEPARTMENT OF NATURAL RESOURCES
- (T) = DATA ON TODD SURVEY (DWG.#C1902, DATED 10-6-99)
- ESMT. = EASEMENT
- EIP = EXISTING IRON PIN
- N = NORTH
- S = SOUTH
- E = EAST
- W = WEST
- —OE— = OVERHEAD ELECTRIC
- —X— = BARBED WIRE FENCE
- DRAIN. = DRAINAGE
- SEWER = SANITARY SEWER
- UTIL. = UTILITY
- (symbol) = TREE
- (symbol) = CURB INLET
- (symbol) = FIRE HYDRANT
- (symbol) = SEWER MANHOLE
- —SS— = SANITARY SEWER LINE
- —W— = WATER LINE
- —STM— = STORMWATER PIPE
- —G— = GAS LINE
- EX. = EXISTING
- (M) = MEASURED DATA
- BSL. = BUILDING SETBACK LINE
- TYP. = TYPICAL
- U&D = UTILITY AND DRAINAGE
- R/W = RIGHT-OF-WAY

LINE TABLE:

LINE	LENGTH	BEARING
L1	25.00'	S64°15'22"W
L2	42.43'	N42°52'19"W
L3	25.00'	N43°18'08"W
L4	25.73'	S88°51'21"E
L5	25.73'	S88°51'21"E
L6	25.73'	S88°51'21"E
L7	34.37'	S57°15'34"W
L8	41.49'	N32°44'26"W
L9	59.88'	S01°08'39"W
L10	55.62'	N23°13'54"E
L11	59.51'	N70°08'56"W
L12	48.07'	S19°51'04"W



NORTH BASED ON THE WEST LINE OF THE SW1/4 OF THE SW1/4 OF SECTION 8, TOWNSHIP 27 NORTH, RANGE 21 WEST, AS BEING N01°16'52"E.

GRAPHIC SCALE
200' 0' 200' 400'
(IN FEET)
SCALE: 1" = 200'

CURVE TABLE:

CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA	CH. BEARING
C1	300.00'	288.67'	156.61'	277.66'	55°07'53"	S29°41'37"W
C2	15.00'	21.90'	13.42'	20.00'	83°38'36"	N09°04'52"E
C3	15.00'	23.56'	15.00'	21.21'	90°00'00"	S77°44'26"E
C4	15.00'	23.56'	15.00'	21.21'	90°00'00"	S12°15'34"W
C5	15.00'	25.82'	17.44'	22.75'	98°36'54"	N82°02'53"W
C6	1080.00'	131.89'	66.03'	131.80'	6°59'48"	S29°14'32"E
C7	15.00'	19.64'	11.52'	18.27'	75°02'03"	N66°31'08"W
C8	210.00'	127.80'	65.95'	125.84'	34°52'07"	N15°18'23"W
C9	15.00'	13.62'	7.32'	13.16'	52°01'12"	N28°08'17"E
C10	15.00'	13.62'	7.32'	13.16'	52°01'12"	S66°07'04"W
C11	15.00'	23.56'	15.00'	21.21'	90°00'00"	S42°52'19"E
C12	15.00'	23.56'	15.00'	21.21'	90°00'00"	N47°07'41"E
C13	15.00'	13.62'	7.32'	13.16'	52°01'12"	N61°51'43"W
C14	15.00'	13.62'	7.32'	13.16'	52°01'12"	S23°52'56"E
C15	500.00'	304.29'	157.02'	299.61'	34°52'07"	N15°18'23"W
C16	15.00'	23.56'	15.00'	21.21'	90°00'00"	N77°44'26"W
C17	15.00'	23.56'	15.00'	21.21'	90°00'00"	S12°15'34"W
C18	15.00'	23.56'	15.00'	21.21'	90°00'00"	S77°44'26"E
C19	15.00'	23.56'	15.00'	21.21'	90°00'00"	N12°15'34"E
C20	790.00'	234.91'	118.33'	234.05'	17°02'15"	S24°13'19"E
C21	15.00'	22.84'	14.29'	20.70'	87°14'16"	S30°40'40"W
C22	15.00'	22.84'	14.29'	20.70'	87°14'16"	S62°05'04"E
C23	15.00'	23.56'	15.00'	21.21'	89°59'32"	S46°11'34"W
C24	15.00'	23.56'	15.00'	21.21'	90°00'28"	S43°48'26"E
C25	100.00'	79.41'	41.93'	77.34'	45°30'04"	S23°56'50"W
C26	100.00'	79.41'	41.93'	77.34'	45°30'04"	S69°26'54"W
C27	15.00'	16.55'	9.23'	15.72'	63°13'16"	N12°34'23"W
C28	15.00'	16.55'	9.23'	15.72'	63°13'16"	S74°01'52"E
C29	15.00'	23.82'	15.26'	21.40'	91°00'08"	N46°41'52"E
C30	15.00'	23.30'	14.74'	21.03'	88°59'52"	S43°18'08"E
C31	15.00'	23.82'	15.26'	21.40'	91°00'08"	S46°41'52"W
C32	15.00'	23.30'	14.74'	21.03'	88°59'52"	N43°18'08"W
C33	15.00'	23.30'	14.74'	21.03'	88°59'52"	N43°18'08"W
C34	15.00'	23.82'	15.26'	21.40'	91°00'08"	S46°41'52"W
C35	500.00'	136.10'	68.47'	135.68'	15°35'45"	N80°00'12"W
C36	175.00'	224.03'	130.32'	209.05'	73°20'58"	N35°31'50"W
C37	15.00'	23.32'	14.76'	21.04'	89°03'37"	N45°40'28"E
C38	15.00'	23.83'	15.27'	21.40'	91°02'06"	N44°22'24"W
C39	15.00'	22.87'	14.33'	20.72'	87°21'53"	S68°58'26"E
C40	15.00'	22.87'	14.33'	20.72'	87°21'53"	N18°23'27"E
C41	830.00'	382.95'	194.95'	379.57'	26°26'09"	S77°55'35"W
C42	830.00'	124.51'	62.37'	124.39'	8°35'42"	S60°24'40"W
C43	210.00'	128.56'	66.36'	126.56'	35°04'31"	N73°39'05"E
C44	200.00'	92.46'	47.07'	91.64'	26°29'18"	S12°02'50"E
C45	15.00'	23.56'	15.00'	21.21'	89°59'32"	S46°11'34"W
C46	15.00'	23.56'	15.00'	21.21'	90°00'28"	S43°48'26"E
C47	15.00'	23.56'	15.00'	21.21'	90°00'28"	N43°48'26"W
C48	15.00'	23.56'	15.00'	21.21'	89°59'32"	N46°11'34"E
C49	15.00'	23.56'	15.00'	21.21'	90°00'28"	S43°48'26"E
C50	15.00'	23.56'	15.00'	21.21'	89°59'32"	S46°11'34"W
C51	500.00'	306.09'	158.01'	301.33'	35°04'31"	N73°39'05"E
C52	540.00'	330.16'	170.42'	325.04'	35°01'50"	S73°37'44"W
C53	15.00'	23.19'	14.64'	20.95'	88°35'25"	N45°26'22"E
C54	15.00'	23.99'	15.43'	21.51'	91°38'07"	N44°40'24"W
C55	15.00'	22.82'	14.28'	20.68'	87°10'46"	N44°44'03"E
C56	15.00'	24.58'	16.06'	21.92'	93°53'47"	N45°48'14"W
C57	250.00'	152.85'	78.90'	150.48'	35°01'50"	S73°37'44"W
C58	790.00'	307.57'	155.76'	305.63'	22°18'25"	N67°16'02"E
C59	790.00'	176.05'	88.39'	175.69'	12°46'06"	N84°48'17"E
C60	15.00'	22.84'	14.29'	20.70'	87°14'16"	S32°02'22"W
C61	15.00'	22.84'	14.29'	20.70'	87°14'16"	N55°11'54"W
C62	15.00'	23.56'	15.00'	21.21'	90°00'28"	S43°48'26"E
C63	15.00'	23.56'	15.00'	21.21'	89°59'32"	S46°11'34"W
C64	300.00'	164.57'	84.41'	162.51'	31°25'50"	N04°08'09"E
C65	180.00'	117.52'	60.94'	115.45'	37°24'30"	N38°33'19"E
C66	15.00'	23.18'	14.62'	20.94'	88°31'59"	S11°31'33"W
C67	15.00'	24.17'	15.62'	21.64'	92°18'19"	S78°53'36"E
C68	15.00'	23.56'	15.00'	21.21'	90°00'00"	N12°15'34"E
C69	15.00'	23.56'	15.00'	21.21'	90°00'00"	N77°44'26"W
C70	250.00'	244.85'	133.25'	235.18'	56°06'54"	S60°47'54"E
C71	15.00'	23.56'	15.00'	21.21'	90°00'00"	N46°08'39"E
C72	15.00'	23.56'	15.00'	21.21'	90°00'00"	N43°51'21"W
C73	15.00'	23.56'	15.00'	21.21'	90°00'00"	S46°08'39"W
C74	15.00'	23.56'	15.00'	21.21'	90°00'00"	S43°51'21"E
C75	15.00'	13.62'	7.32'	13.16'	52°01'12"	N62°50'44"W
C76	15.00'	13.62'	7.32'	13.16'	52°01'12"	N65°08'03"E
C77	300.00'	115.65'	58.55'	114.93'	22°05'15"	N12°11'17"E
C78	15.00'	13.62'	7.32'	13.16'	52°01'12"	N49°14'30"E
C79	15.00'	13.62'	7.32'	13.16'	52°01'12"	S02°46'42"E
C80	300.00'	97.95'	49.41'	97.51'	18°42'24"	S10°29'52"W
C81	15.00'	23.56'	15.00'	21.21'	90°00'00"	S64°51'04"W
C82	249.02'	77.75'	39.19'	77.43'	17°53'20"	S79°05'36"E
C83	15.00'	12.24'	6.48'	11.90'	46°44'41"	N53°42'24"W
C84	15.00'	15.38'	8.44'	14.72'	58°44'58"	N75°28'53"E
C85	15.00'	23.56'	15.00'	21.21'	90°00'00"	S25°08'56"E
C86	500.00'	168.02'	84.81'	167.23'	19°15'12"	S29°28'40"W
C87	250.00'	165.63'	85.98'	162.62'	37°57'36"	N20°07'27"E
C88	15.00'	23.32'	14.76'	21.04'	89°04'42"	N43°15'29"W
C89	500.00'	296.16'	152.57'	291.85'	33°56'15"	S15°46'19"E
C90	15.00'	23.80'	15.24'	21.38'	90°55'18"	N46°44'31"E
C91	300.00'	203.58'	105.88'	199.70'	38°52'51"	N68°21'24"W
C92	790.00'	233.02'	117.36'	232.18'	16°54'00"	N07°15'12"W
C93	300.00'	297.34'	162.16'	285.31'	56°47'13"	N77°18'35"W

LOT AREA TABLE:

LOT NO.	AREA (SQ.FT.)	LOT NO.	AREA (SQ.FT.)	LOT NO.	AREA (SQ.FT.)	LOT NO.	AREA (SQ.FT.)	LOT NO.	AREA (SQ.FT.)	LOT NO.	AREA (SQ.FT.)	LOT NO.	AREA (SQ.FT.)	LOT NO.	AREA (SQ.FT.)	LOT NO.	AREA (SQ.FT.)	LOT NO.	AREA (SQ.FT.)
1	11,508	26	9,917	51	9,535	76	9,704	101	13,289	126	10,054	151	10,230	176	9,319	201	11,767	226	10,606
2	10,654	27	9,917	52	9,532	77	9,704	102	12,586	127	9,678	152	11,544	177	9,319	202	11,061	227	10,819
3	10,900	28	9,917	53	9,544	78	10,493	103	13,393	128	9,678	153	17,645	178	9,319	203	12,486	228	11,589
4	13,515	29	9,917	54	9,695	79	10,520	104	11,630	129	9,678	154	15,962	179	9,319	204	15,909	229	10,395
5	15,858	30	21,009	55	10,724	80	10,522	105	13,997	130	9,678	155	13,322	180	9,602	205	12,169	230	10,134
6	19,099	31	16,589	56	10,366	81	9,318	106	10,997	131	9,678	156	10,882	181	10,614	206	13,736	231	10,146
7	9,363	32	9,193	57	9.863	82	9,094	107	10,320	132	9,678	157	9,475	182	11,417	207	10,981	232	11,336
8	9,467	33	9,888	58	10,078	83	9,215	108	9,117	133	9,678	158	9,480	183	9,998	208	10,518	233	6,230
9	10,392	34	10,265	59	10,078	84	9,474	109	11,877	134	9,678	159	10,658	184	9,171	209	10,518	C1	1,117,008
10	10,752	35	11,695	60	10,041	85	10,193	110	9,842	135	9,678	160	11,991	185	9,242	210	10,529	C2	68,333
11	10,155	36	10,736	61	9,872	86	10,315	111	9,600	136	10,117	161	12,971	186	9,540	211	10,771	C3	50,000
12	10,253	37	10,226	62	9,574	87	10,243	112	10,467	137	12,145	162	11,733	187	10,296	212	10,686	C4	50,001
13	11,178	38	10,226	63	9,574	88	11,071	113	10,420	138	17,437	163	10,800	188	10,290	213	12,641	C5	55,290
14	11,191	39	10,226	64	9,574	89	10,111	114	10,545	139	15,319	164	10,800	189	10,283	214	145,252	C6	73,709
15	10,261	40	10,226	65	10,365	90	9,335	115	9,678	140	14,053	165	11,052	190	10,158	215	16,124	C7	74,377
16	10,127	41	10,226	66	11,617	91	9,335	116	9,678	141	19,366	166	10,790	191	10,523	216	9,506		
17	9,917	42	10,226	67	10,226	92	9,335	117	9,678	142	15,892	167	15,968	192	10,525	217	10,400		
18	9,917	43	10,226	68	10,226	93	9,335	118	10,078	143	14,406	168	9,244	193	10,959	218	10,400		
19	9,917	44	11,619	69	10,226	94	9,659	119	11,132	144	13,861	169	9,414	194	8,888	219	10,520		
20	9,917	45	10,724	70	10.226	95	10,721	120	12,322	145	10,951	170	10,208	195	9,328	220	13,984		
21	9,917	46	9,931	71	10,226	96	10,495	121	10,099	146	17,040	171	10,208	196	9,594	221	12,779		
22	9,917	47	9,931	72	10,226	97	10,562	122	16,819	147	15,785	172	11,077	197	9,881	222	13,416		
23	9,917	48	9,933	73	10,226	98	9,852	123	15,725	148	17,041	173	11,838	198	11,625	223	15,106		
24	9,917	49	9,664	74	9,704	99	10,047	124	20,801	149	10,291	174	10,530	199	9,325	224	11,203		
25	9,917	50	9,554	75	9,704	100	14,698	125	12,809	150	12,432	175	9,422	200	16,737	225	11,030		

DESCRIPTION:

SOURCE OF DESCRIPTION: (BOOK 400 AT PAGE 2612)

PARENT DESCRITION:
THAT CERTAIN PARCEL OR TRACT OF LAND BEING A PART OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 8, TOWNSHIP 27 NORTH, RANGE 21 WEST, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
ALL OF THE SOUTHWEST QUARTER (SW1/4) OF SAID SW1/4 AND ALL OF THE NORTHEAST QUARTER (NE1/4) OF SAID SW1/4 AND ALL OF THE SOUTHEAST QUARTER (SE1/4) OF SAID SW1/4, EXCEPT THE FOLLOWING: BEGINNING AT AN EXISTING IRON PIN AT THE SOUTHEAST CORNER OF SAID SE1/4 OF SW1/4; THENCE NORTH 87°52'19" WEST, ALONG THE SOUTH LINE OF SAID SE1/4 OF SW1/4, A DISTANCE OF 240.45 FEET; THENCE NORTH 01°07'21" EAST, AND PARALLEL WITH THE EAST LINE OF SAID SE1/4 OF SW1/4, A DISTANCE OF 579.62 FEET TO AN IRON PIN SET; THENCE SOUTH 87°52'19" EAST, A DISTANCE OF 240.67 FEET TO AN IRON PIN SET ON THE SAID EAST LINE OF SE1/4 OF SW1/4; THENCE SOUTH 01°07'21" WEST, ALONG SAID EAST LINE, A DISTANCE OF 579.62 FEET TO THE POINT OF BEGINNING. ALL IN CHRISTIAN COUNTY, MISSOURI, EXCEPT ANY PART THEREOF TAKEN OR USED FOR ROAD OR HIGHWAY PURPOSES.
SUBJECT TO EASEMENTS, RESTRICTIONS, RESERVATIONS AND COVENANTS OF RECORD, IF ANY.
ALL CONTAINING 118.434 ACRES (MORE OR LESS).

DESCRIPTION: R-7 ZONING
THAT CERTAIN PARCEL OR TRACT OF LAND BEING A PART OF THE SOUTHWEST QUARTER (SW1/4) OF THE SW1/4 AND PART OF THE SOUTHEAST QUARTER (SE1/4) OF SAID SW1/4 AND THE NORTHEAST QUARTER (NE1/4) OF SAID SW1/4 OF SECTION 8, TOWNSHIP 27 NORTH, RANGE 21 WEST, CHRISTIAN COUNTY, MISSOURI, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE SOUTHEAST CORNER OF SAID SE1/4 OF THE SW1/4; THENCE N87°52'19"W, ALONG THE SOUTH LINE OF SAID SE1/4 OF THE SW1/4, A DISTANCE OF 240.45 FEET FOR A POINT OF BEGINNING; THENCE CONTINUING N87°52'19"W, ALONG THE SOUTH LINE OF SAID SE1/4 OF THE SW1/4 AND THE SOUTH LINE OF SW1/4 OF THE SW1/4, A DISTANCE OF 1114.30 FEET; THENCE N02°07'41"E, A DISTANCE OF 292.31 FEET; THENCE NORTHEASTERLY ALONG A NON-TANGENT CURVE TO THE RIGHT HAVING A RADIUS OF 300.00 FEET, A CENTRAL ANGLE OF 26°37'14", A CHORD BEARING N15°26'18"E, AN ARC LENGTH OF 139.38 FEET; THENCE N32°44'26"W, A DISTANCE OF 149.92 FEET; THENCE N46°16'55"W, A DISTANCE OF 87.30 FEET; THENCE N47°29'47"W, A DISTANCE OF 83.72 FEET; THENCE N18°13'47"W, A DISTANCE OF 88.06 FEET; THENCE N11°47'32"E, A DISTANCE OF 88.06 FEET; THENCE N42°44'05"E, A DISTANCE OF 93.33 FEET; THENCE N74°28'32"E, A DISTANCE OF 200.02 FEET; THENCE N19°34'56"W, A DISTANCE OF 15.14 FEET; THENCE N13°35'46"W, A DISTANCE OF 97.64 FEET; THENCE N07°36'36"W, A DISTANCE OF 97.64 FEET; THENCE N01°24'12"W, A DISTANCE OF 106.02 FEET TO A POINT ON THE WEST LINE OF SAID SE1/4 OF THE SW1/4; THENCE N01°11'48"E, ALONG SAID WEST LINE, A DISTANCE OF 50.01 FEET TO AN EXISTING IRON PIN AT THE SOUTHWEST CORNER OF SAID NE1/4 OF THE SW1/4; THENCE N01°11'48"E, ALONG THE WEST LINE OF SAID NE1/4 OF THE SW1/4, A DISTANCE OF 1321.34 FEET TO AN EXISTING IRON PIN AT THE NORTHWEST CORNER OF SAID NE1/4 OF THE SW1/4; THENCE S87°48'04"E, ALONG THE NORTH LINE OF SAID NE1/4 OF THE SW1/4, A DISTANCE OF 1334.26 FEET TO AN EXISTING IRON PIN AT THE NORTHEAST CORNER OF SAID NE1/4 OF THE SW1/4; THENCE S01°08'39"W, ALONG THE EAST LINE OF SAID NE1/4 OF THE SW1/4 AND THE EAST LINE OF SAID SE1/4 OF THE SW1/4, A DISTANCE OF 2063.19 FEET TO AN EXISTING IRON PIN; THENCE N87°52'19"W, A DISTANCE OF 240.67 FEET TO AN EXISTING IRON PIN; THENCE S01°07'21"W, A DISTANCE OF 579.62 FEET TO THE POINT OF BEGINNING. SAID TRACT CONTAINS 79.367 ACRES (MORE OR LESS), AND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, AND RESTRICTIONS OF RECORD.

DESCRIPTION: (GC ZONING)
THAT CERTAIN PARCEL OR TRACT OF LAND BEING A PART OF THE SOUTHWEST QUARTER (SW1/4) OF THE SW1/4 AND PART OF THE SOUTHEAST QUARTER (SE1/4) OF SAID SW1/4 OF SECTION 8, TOWNSHIP 27 NORTH, RANGE 21 WEST, CHRISTIAN COUNTY, MISSOURI, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE SOUTHEAST CORNER OF SAID SE1/4 OF THE SW1/4; THENCE N87°52'19"W, ALONG THE SOUTH LINE OF SAID SE1/4 OF THE SW1/4 AND THE SOUTH LINE OF SW1/4 OF THE SW1/4, A DISTANCE OF 1354.75 FEET FOR A POINT OF BEGINNING; THENCE CONTINUING N87°52'19"W, A DISTANCE OF 1318.82 FEET TO AN EXISTING IRON PIN AT THE SOUTHWEST CORNER OF SAID SW1/4 OF THE SW1/4; THENCE N01°16'52"E, ALONG THE WEST LINE OF SAID SW1/4 OF THE SW1/4, A DISTANCE OF 1324.80 FEET TO AN EXISTING IRON PIN AT THE NORTHWEST CORNER OF SAID SW1/4 OF THE SW1/4; THENCE S87°47'50"E, ALONG THE NORTH LINE OF SAID SW1/4 OF THE SW1/4, A DISTANCE OF 1335.00 FEET TO AN EXISTING IRON PIN AT THE NORTHEAST CORNER OF SAID SW1/4 OF THE SW1/4; THENCE S01°11'48"W, ALONG THE EAST LINE OF SAID SW1/4 OF THE SW1/4, A DISTANCE OF 50.01 FEET; THENCE S01°24'12"E, A DISTANCE OF 106.02 FEET; THENCE S07°36'36"E, A DISTANCE OF 97.64 FEET; THENCE S13°35'46"E, A DISTANCE OF 97.64 FEET; THENCE S19°34'56"E, A DISTANCE OF 15.14 FEET; THENCE S74°28'32"W, A DISTANCE OF 200.02 FEET; THENCE S42°44'05"W, A DISTANCE OF 93.33 FEET; THENCE S11°47'32"W, A DISTANCE OF 88.06 FEET; THENCE S18°13'47"E, A DISTANCE OF 88.06 FEET; THENCE S47°29'47"E, A DISTANCE OF 87.32 FEET; THENCE S46°16'55"E, A DISTANCE OF 87.30 FEET; THENCE S32°44'26"E, A DISTANCE OF 149.92 FEET; THENCE SOUTHWESTERLY ALONG A NON-TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 300.00 FEET, A CENTRAL ANGLE OF 26°37'14", A CHORD BEARING S15°26'18"W, AN ARC LENGTH OF 139.38 FEET; THENCE S02°07'41"W, A DISTANCE OF 292.31 FEET TO THE POINT OF BEGINNING. SAID TRACT CONTAINS 39.067 ACRES (MORE OR LESS), AND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, AND RESTRICTIONS OF RECORD.

PLAT NOTES:

1.) 5/8" IRON PINS CAPPED "LC 383" SET AT ALL EXTERIOR CORNERS (EXCEPT AS NOTED).
2.) PROPERTY SHOWN HEREON DOES NOT LIE IN A F.E.M.A IDENTIFIED FLOOD PLAIN ACCORDING TO COMMUNITY PANEL NO.: 290847-0003 A, EFFECTIVE APRIL 19, 1983.
3.) OWNERS / DEVELOPER : JACK'S PLACE, LLC
4.) SEE SURVEY BY SHAFFER & HINES, INC., DATED 09-29-2003, FOR ADDITIONAL INFORMATION.
5.) SOURCE OF TITLE: BOOK 0400, PAGE 2612
6.) LOTS 1-233 ARE ZONED R-7.
7.) BUILDING SETBACKS: FRONT: (R-7: 25') EXCEPT AS NOTED,
REAR: (R-7: 20') EXCEPT AS NOTED,
SIDEYARD: (R-7: 5') EXCEPT AS NOTED,
SIDEYARD WITH STREET FRONTAGE: (R-7: 12') EXCEPT AS NOTED.
8.) LARGEST LOT: LOT C1 - 1,117,008 SQ.FT.
9.) SMALLEST LOT: LOT 194 - 8,888 SQ.FT.
10.) LOTS C1-C7 ARE ZONED GC.
11.) REFER TO THE CITY OF NIXA, MISSOURI, FOR BUILDING SETBACK REQUIREMENTS FOR LOTS C1-C7.
12.) STREET RIGHT-OF-WAY LINES ARE PARALLEL WITH THE CENTERLINE DATA, AS SHOWN.
13.) THERE IS A 10.0' UTILITY AND DRAINAGE EASEMENT, ADJACENT AND PARALLEL WITH ALL RIGHT-OF-WAY LINES (EXCEPT AS NOTED).
14.) LOTS 30, 122, AND 214 ARE DETENTION BASINS AND SHALL BE DEDICATED TO AND MAINTAINED BY THE HOME OWNER'S ASSOCIATION.
15.) LOT 233 IS A PROPOSED SUBDIVISION SIGN AND SHALL BE DEDICATED TO AND MAINTAINED BY THE HOME OWNER'S ASSOCIATION.
16.) ALL STREETS, SANITARY SEWER, WATER, AND STORMWATER IMPROVEMENTS WILL BE PROVIDED PER THE CITY OF NIXA REQUIREMENTS.
17.) SIDEWALKS WILL BE PROVIDED ON ONE SIDE OF ALL INTERNAL STREETS.

STINEROCK HILL
A SUBDIVISION IN THE CITY OF NIXA, CHRISTIAN COUNTY, MISSOURI
OWNERS/DEVELOPERS:

SHAFFER & HINES
CONSULTING ENGINEERS - REGISTERED LAND SURVEYORS
P.O. Box 493, Nixa, Missouri, 65714
Tel: (417) 725-4663 - Fax: (417) 725-5230
Email: ch@shafferhines.com

PRELIMINARY PLAT
COVER SHEET

DESIGN BY	JCMH
DRAWN BY	BW
CHK'D BY	JCMH
DATE	05-12-2006
SCALE	1" = 200'

REVISIONS

JOB NO.
060023

SHEET
1 OF 3

TRIP GENERATION																
									WEEKDAY AM PEAK							WEEKEND PM PEAK
LAND USE	ITE CODE	Size	Variable	24-Hour Trip Generation	24-HOUR WEEKDAY	AM PEAK HOUR RATE	AM % IN	AM % OUT	ENTER	EXIT	PM PEAK HOUR RATE	PM % IN	PM % OUT	ENTER	EXIT
Full Buildout																
Single Family Residential	210	250	Dwelling Units	9.44	2,360	0.74	25%	75%	46	139	0.99	63%	37%	156	92
					2,360		TOTAL NEW TRIPS		**46**	**139**		TOTAL NEW TRIPS		**156**	**92**

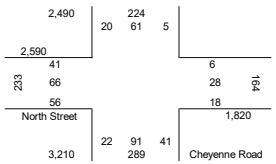
AM Peak Hour Calculation

N/S Street: Cheyenne Road
E/W Street: North Street
Growth Rate (GR): 2.00%
Years (n): 2

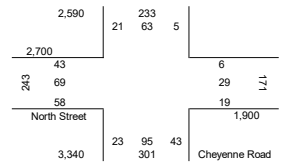
New Trips
In: 46
Out: 139

Turn Movement	(1) Existing Traffic	(2) Growth factor $(1+GR)^n$	A (1) x (2) Traffic Growth	NEW TRIPS (1) Dist. (Exhibit 3)	(2) IN/ OUT	(3) Dist. (Exhibit 3)	(4) IN/ OUT	B (1)x(2)+(3)x(4)+(5)x(6)+(7)x(8) Trips IN/OUT	A+B Projected Turn Movement for 2019	
NBL	22	1.04	23					0	23	VEH/HR
NBT	91	1.04	95					0	95	VEH/HR
NBR	41	1.04	43	34%	46			16	59	VEH/HR
SBL	5	1.04	5	19%	46			9	14	VEH/HR
SBT	61	1.04	63					0	63	VEH/HR
SBR	20	1.04	21					0	21	VEH/HR
EBL	41	1.04	43					0	43	VEH/HR
EBT	66	1.04	69	36%	46			17	86	VEH/HR
EBR	56	1.04	58					0	58	VEH/HR
WBL	18	1.04	19	34%	139			47	66	VEH/HR
WBT	28	1.04	29	36%	139			50	79	VEH/HR
WBR	6	1.04	6	19%	139			26	32	VEH/HR

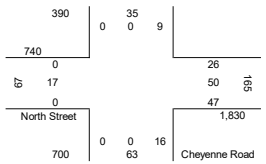
Existing Traffic



Existing Traffic Projected to Construction Year



Site Traffic Assigned for Construction Year



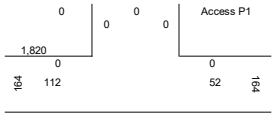
Projected Full Buildout Traffic

N/S Street: Access P1
E/W Street: North Street
Growth Rate (GR): 2.00%
Years (n): 2

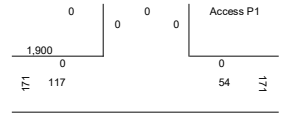
New Trips
In: 46
Out: 139

Turn Movement	(1) Existing Traffic	(2) Growth factor $(1+GR)^n$	A (1) x (2) Traffic Growth	NEW TRIPS (1) Dist. (Exhibit 3)	(2) IN/ OUT	(3) Dist. (Exhibit 3)	(4) IN/ OUT	B (1)x(2)+(3)x(4)+(5)x(6)+(7)x(8) Trips IN/OUT	A+B Projected Turn Movement for 2019	
SBL	0	1.04	0	11%	139			15	15	VEH/HR
SBR	0	1.04	0	89%	139			124	124	VEH/HR
EBL	0	1.04	0	89%	46			41	41	VEH/HR
EBT	112	1.04	117					0	117	VEH/HR
WBT	52	1.04	54					0	54	VEH/HR
WBR	0	1.04	0	11%	46			5	5	VEH/HR

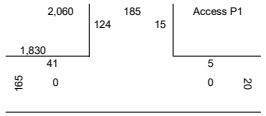
Existing Traffic



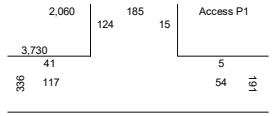
Existing Traffic Projected to Construction Year



Site Traffic Assigned for Construction Year



Projected Full Buildout Traffic



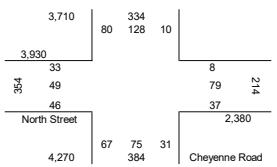
PM Peak Hour Calculation

N/S Street: Cheyenne Road
E/W Street: North Street
Growth Rate (GR): 2.00%
Years (n): 2

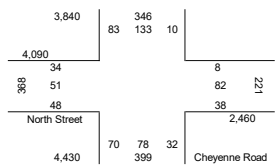
New Trips
In: 156
Out: 92

Turn Movement	(1) Existing Traffic	(2) Growth factor $(1+GR)^n$	A (1) x (2) Traffic Growth	NEW TRIPS (1) Dist. (Exhibit 3)	(2) IN/ OUT	(3) Dist. (Exhibit 3)	(4) IN/ OUT	B (1)x(2)+(3)x(4)+(5)x(6)+(7)x(8) Trips IN/OUT	A+B Projected Turn Movement for 2019	
NBL	67	1.04	70					0	70	VEH/HR
NBT	75	1.04	78					0	78	VEH/HR
NBR	31	1.04	32	27%	156			42	74	VEH/HR
SBL	10	1.04	10	34%	156			53	63	VEH/HR
SBT	128	1.04	133					0	133	VEH/HR
SBR	80	1.04	83					0	83	VEH/HR
EBL	33	1.04	34					0	34	VEH/HR
EBT	49	1.04	51	20%	156			31	82	VEH/HR
EBR	46	1.04	48					0	48	VEH/HR
WBL	37	1.04	38	27%	92			25	63	VEH/HR
WBT	79	1.04	82	20%	92			18	100	VEH/HR
WBR	8	1.04	8	34%	92			31	39	VEH/HR

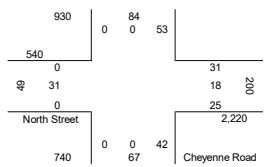
Existing Traffic



Existing Traffic Projected to Construction Year



Site Traffic Assigned for Construction Year



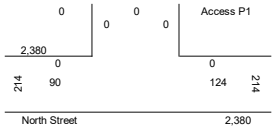
Projected Full Buildout Traffic

N/S Street: Access P1
E/W Street: North Street
Growth Rate (GR): 2.00%
Years (n): 2

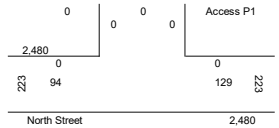
New Trips
In: 156
Out: 92

Turn Movement	(1) Existing Traffic	(2) Growth factor $(1+GR)^n$	A (1) x (2) Traffic Growth	NEW TRIPS (1) Dist. (Exhibit 3)	(2) IN/ OUT	(3) Dist. (Exhibit 3)	(4) IN/ OUT	B (1)x(2)+(3)x(4)+(5)x(6)+(7)x(8) Trips IN/OUT	A+B Projected Turn Movement for 2019	
SBL	0	1.04	0	19%	92			17	17	VEH/HR
SBR	0	1.04	0	81%	92			75	75	VEH/HR
EBL	0	1.04	0	81%	156			126	126	VEH/HR
EBT	90	1.04	94					0	94	VEH/HR
WBT	124	1.04	129					0	129	VEH/HR
WBR	0	1.04	0	19%	156			30	30	VEH/HR

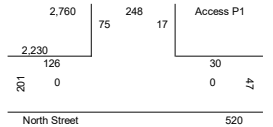
Existing Traffic



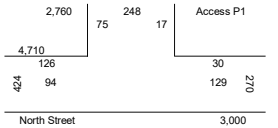
Existing Traffic Projected to Construction Year



Site Traffic Assigned for Construction Year



Projected Full Buildout Traffic



Access P1:

940.9.2 Left Turn Lane Guidelines for Two-Lane Roads, 45 mph, ACCESS P1

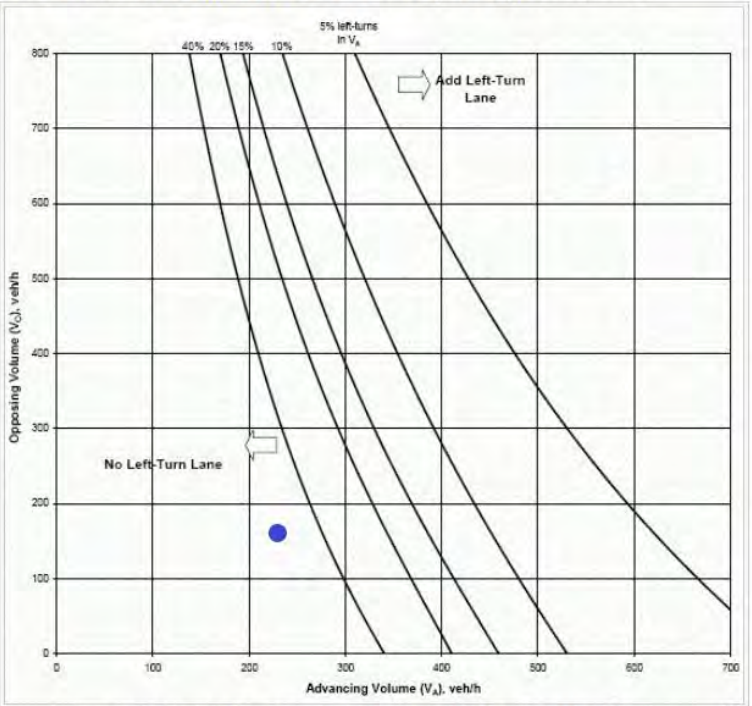


Figure 940.9.2, Left Turn Lane Guidelines for Two-Lane Roads, 45 mph

The following data are required:

1. Opposing Volume (veh/hr) - VO - The opposing volume is to include only the right-turn and through movements in the opposite direction of the left turning vehicle. 159 veh/hr

2. Advancing Volume (veh/hr) - VA - The advancing volume is to include the right-turn, left-turn and through movements in the same direction as the left turning vehicle. 220 veh/hr

3. Operating Speed (mph) - The greatest of anticipated operating speed, measured 85th percentile speed or posted speed. 45 MPH

4. Percentage of left turns in VA 57.3%

Left turn lane is not needed for left turn volume less than 10 vph. However, criteria other than volume, such as crash experience, may be used to justify a left turn lane.

The appropriate trend line is identified on the basis of the percentage of left-turns in the advancing volume, rounded up to the nearest percentage trend line. If the advancing and opposing volume combination intersects above or to the right of this trend line, a left-turn lane is appropriate.

Eastbound North Street:

940.9.1 Left Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph EASTBOUND NORTH ST

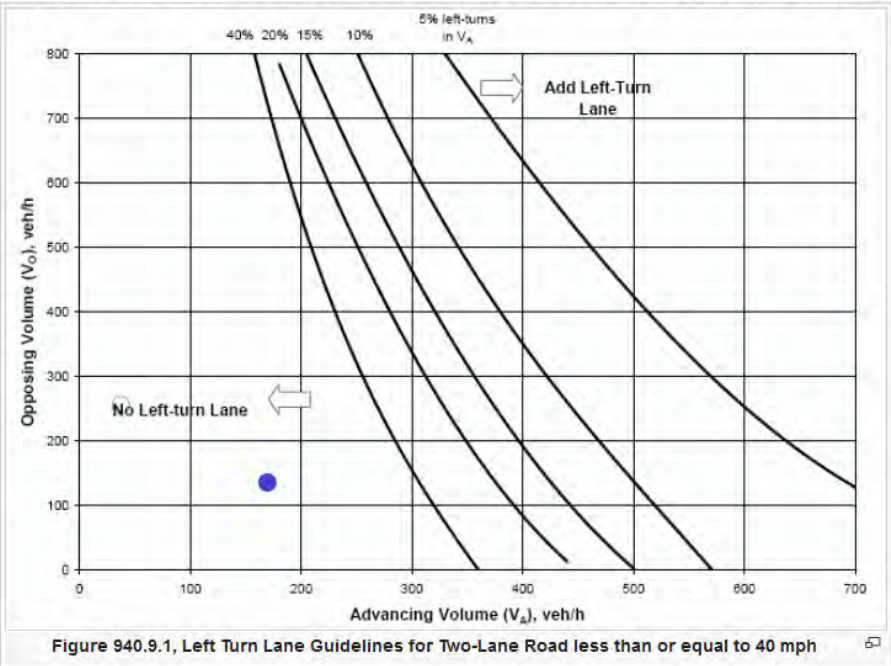


Figure 940.9.1, Left Turn Lane Guidelines for Two-Lane Road less than or equal to 40 mph

The following data are required:

1. Opposing Volume (veh/hr) - VO - The opposing volume is to include only the right-turn and through movements in the opposite direction of the left turning vehicle. 139 veh/hr

2. Advancing Volume (veh/hr) - VA - The advancing volume is to include the right-turn, left-turn and through movements in the same direction as the left turning vehicle. 164 veh/hr

3. Operating Speed (mph) - The greatest of anticipated operating speed, measured 85th percentile speed or posted speed. 30 MPH

4. Percentage of left turns in VA 20.7%

Left turn lane is not needed for left turn volume less than 10 vph. However, criteria other than volume, such as crash experience, may be used to justify a left turn lane.

The appropriate trend line is identified on the basis of the percentage of left-turns in the advancing volume, rounded up to the nearest percentage trend line. If the advancing and opposing volume combination intersects above or to the right of this trend line, a left-turn lane is appropriate.

Westbound North Street:

940.9.1 Left Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph WESTBOUND NORTH ST

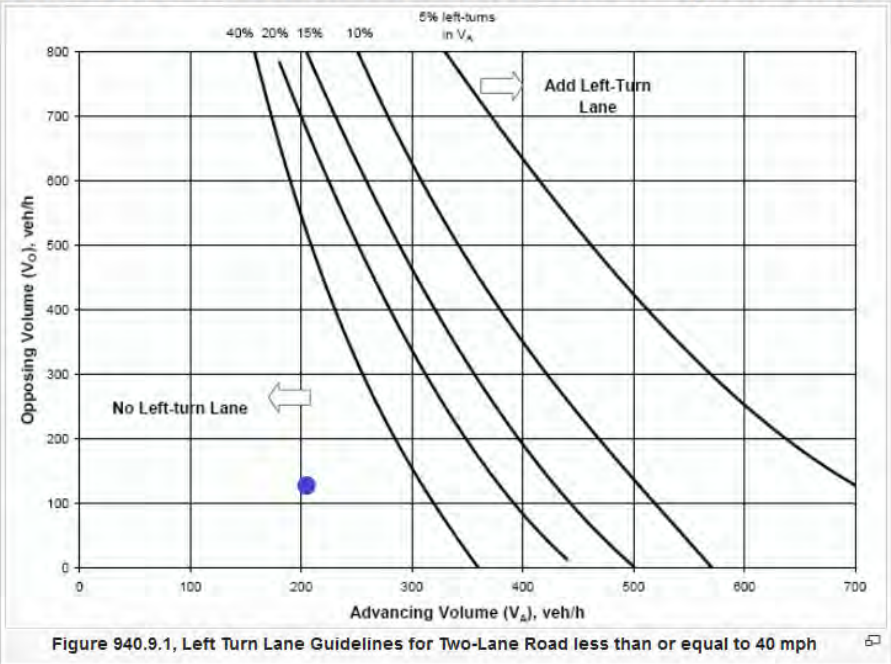


Figure 940.9.1, Left Turn Lane Guidelines for Two-Lane Road less than or equal to 40 mph

The following data are required:

1. Opposing Volume (veh/hr) - VO - The opposing volume is to include only the right-turn and through movements in the opposite direction of the left turning vehicle. 130 veh/hr

2. Advancing Volume (veh/hr) - VA - The advancing volume is to include the right-turn, left-turn and through movements in the same direction as the left turning vehicle. 202 veh/hr

3. Operating Speed (mph) - The greatest of anticipated operating speed, measured 85th percentile speed or posted speed. 45 MPH

4. Percentage of left turns in VA 31.2%

Left turn lane is not needed for left turn volume less than 10 vph. However, criteria other than volume, such as crash experience, may be used to justify a left turn lane.

The appropriate trend line is identified on the basis of the percentage of left-turns in the advancing volume, rounded up to the nearest percentage trend line. If the advancing and opposing volume combination intersects above or to the right of this trend line, a left-turn lane is appropriate.

940.9.8 Right Turn Lane Guidelines for Two-Lane Roadways, WESTBOUND NORTH STREET

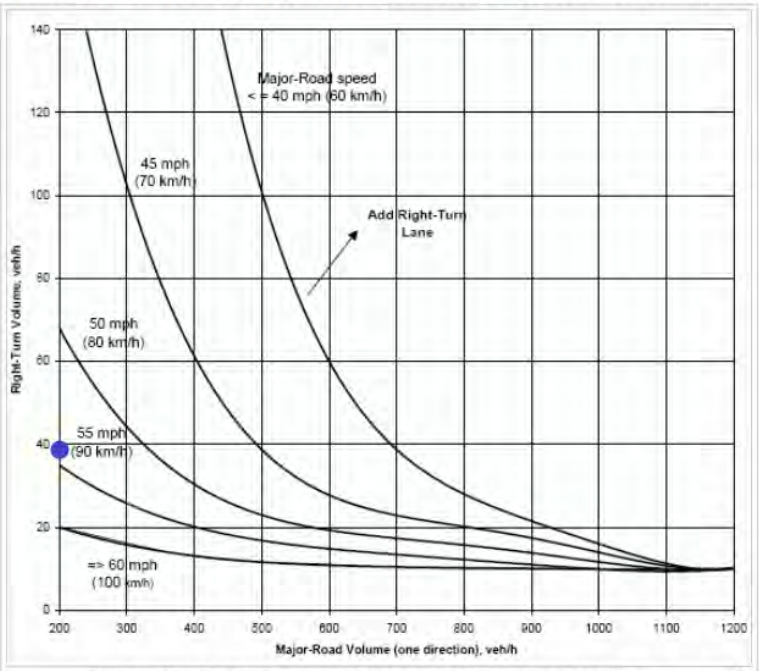


Figure 940.9.8 Right Turn Lane Guidelines for Two-Lane Roadways

The following data are required:

1. Advancing Volume (veh/hr) - The advancing volume is to include the right-turn, left-turn and through movements in the same direction as the right turning vehicle. 202 veh/hr

2. Right Turning Volume (veh/hr) - The right turning volume is the number of advancing vehicles turning right. 39 veh/hr

3. Operating Speed (mph) - The greatest of anticipated operating speed, measured 85th percentile speed or posted speed. 45 MPH

Note: Right turn lane is not needed for right turn volume less than 10 vph. However, criteria other than volume, e.g. crash experience, may be used to justify a right turn lane.

If the combination of major road approach volume and right-turn volume intersects above or to the right of the speed trend line corresponding the major road operating speed, then a right-turn lane is appropriate.

Northbound Cheyenne Road:

940.9.1 Left Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph

NORTHBOUND CHEYENNE RD

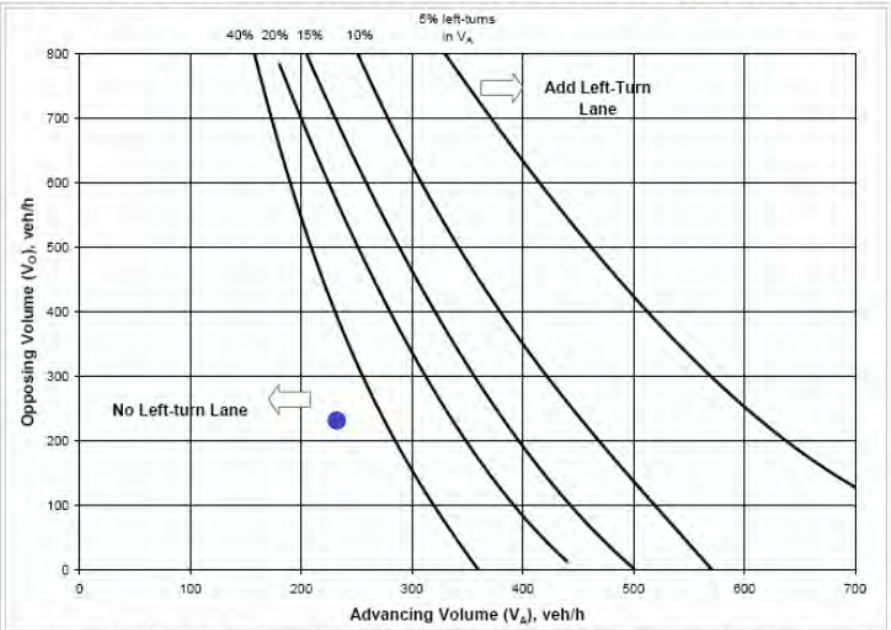


Figure 940.9.1, Left Turn Lane Guidelines for Two-Lane Road less than or equal to 40 mph

The following data are required:

1. Opposing Volume (veh/hr) - VO - The opposing volume is to include only the right-turn and through movements in the opposite direction of the left turning vehicle. 216 veh/hr

2. Advancing Volume (veh/hr) - VA - The advancing volume is to include the right-turn, left-turn and through movements in the same direction as the left turning vehicle. 222 veh/hr

3. Operating Speed (mph) - The greatest of anticipated operating speed, measured 85th percentile speed or posted speed. 35 MPH

4. Percentage of left turns in VA 31.5%

Left turn lane is not needed for left turn volume less than 10 vph. However, criteria other than volume, such as crash experience, may be used to justify a left turn lane.

The appropriate trend line is identified on the basis of the percentage of left-turns in the advancing volume, rounded up to the nearest percentage trend line. If the advancing and opposing volume combination intersects above or to the right of this trend line, a left-turn lane is appropriate.

940.9.8 Right Turn Lane Guidelines for Two-Lane Roadways, NORTHBOUND CHEYENNE ROAD

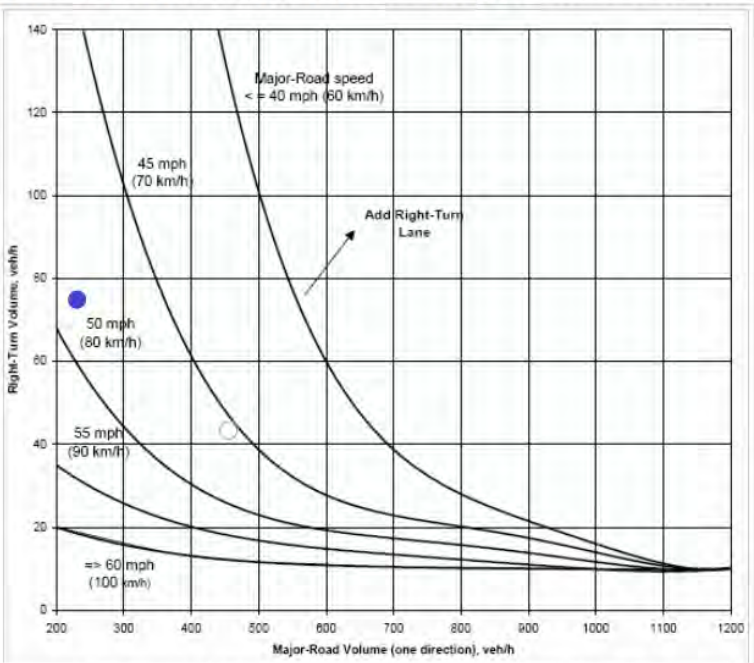


Figure 940.9.8 Right Turn Lane Guidelines for Two-Lane Roadways

The following data are required:

1. Advancing Volume (veh/hr) - The advancing volume is to include the right-turn, left-turn and through movements in the same direction as the right turning vehicle. 222 veh/hr

2. Right Turning Volume (veh/hr) - The right turning volume is the number of advancing vehicles turning right. 74 veh/hr

3. Operating Speed (mph) - The greatest of anticipated operating speed, measured 85th percentile speed or posted speed. 35 MPH

Note: Right turn lane is not needed for right turn volume less than 10 vph. However, criteria other than volume, e.g. crash experience, may be used to justify a right turn lane.

If the combination of major road approach volume and right-turn volume intersects above or to the right of the speed trend line corresponding the major road operating speed, then a right-turn lane is appropriate.

Southbound Cheyenne Road:

940.9.1 Left Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph

SOUTHBOUND CHEYENNE RD

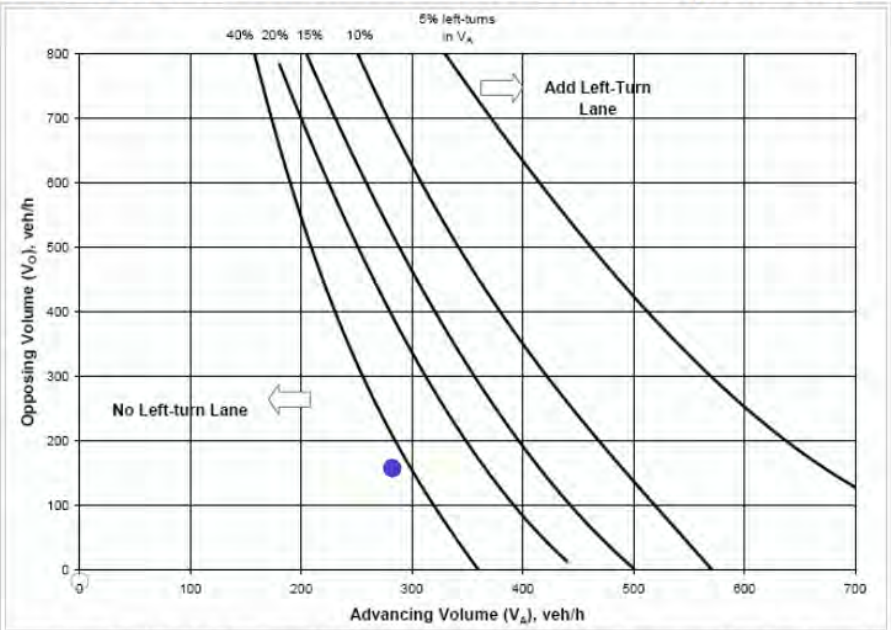


Figure 940.9.1, Left Turn Lane Guidelines for Two-Lane Road less than or equal to 40 mph

The following data are required:

1. Opposing Volume (veh/hr) - VO - The opposing volume is to include only the right-turn and through movements in the opposite direction of the left turning vehicle. 152 veh/hr

2. Advancing Volume (veh/hr) - VA - The advancing volume is to include the right-turn, left-turn and through movements in the same direction as the left turning vehicle. 279 veh/hr

3. Operating Speed (mph) - The greatest of anticipated operating speed, measured 85th percentile speed or posted speed. 35 MPH

4. Percentage of left turns in VA 22.6%

Left turn lane is not needed for left turn volume less than 10 vph. However, criteria other than volume, such as crash experience, may be used to justify a left turn lane.

The appropriate trend line is identified on the basis of the percentage of left-turns in the advancing volume, rounded up to the nearest percentage trend line. If the advancing and opposing volume combination intersects above or to the right of this trend line, a left-turn lane is appropriate.

940.9.8 Right Turn Lane Guidelines for Two-Lane Roadways, SOUTHBOUND CHEYENNE ROAD

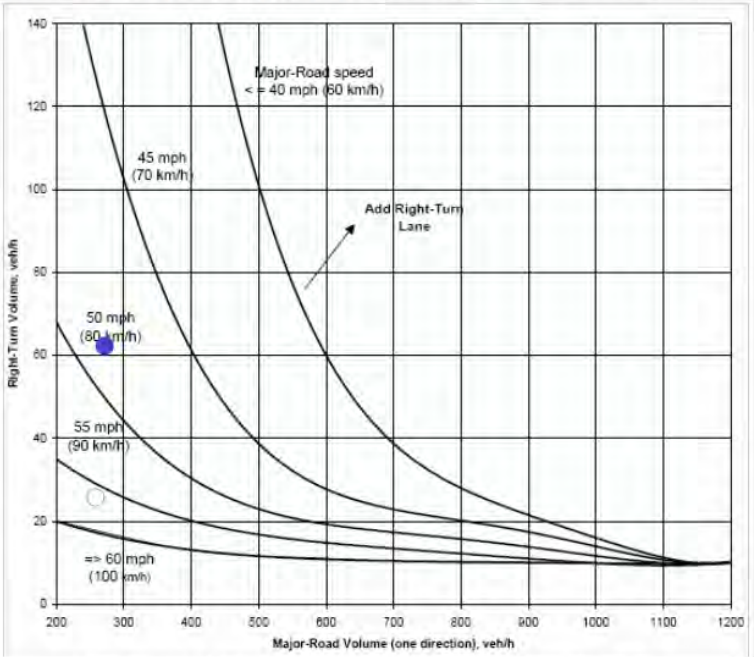


Figure 940.9.8 Right Turn Lane Guidelines for Two-Lane Roadways

The following data are required:

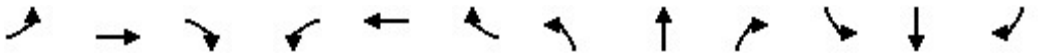
1. Advancing Volume (veh/hr) - The advancing volume is to include the right-turn, left-turn and through movements in the same direction as the right turning vehicle. 279 veh/hr

2. Right Turning Volume (veh/hr) - The right turning volume is the number of advancing vehicles turning right. 63 veh/hr

3. Operating Speed (mph) - The greatest of anticipated operating speed, measured 85th percentile speed or posted speed. 35 MPH

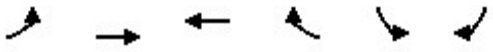
Note: Right turn lane is not needed for right turn volume less than 10 vph. However, criteria other than volume, e.g. crash experience, may be used to justify a right turn lane.

If the combination of major road approach volume and right-turn volume intersects above or to the right of the speed trend line corresponding the major road operating speed, then a right-turn lane is appropriate.



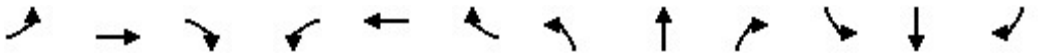
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958			0.976			0.955			0.971	
Flt Protected		0.989			0.982			0.994			0.993	
Satd. Flow (prot)	0	1765	0	0	1785	0	0	1768	0	0	1796	0
Flt Permitted		0.989			0.982			0.994			0.993	
Satd. Flow (perm)	0	1765	0	0	1785	0	0	1768	0	0	1796	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		3353			3435			3111			1306	
Travel Time (s)		76.2			78.1			60.6			25.4	
Volume (vph)	43	86	58	66	79	32	23	95	59	14	63	21
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)	47	93	63	72	86	35	25	103	64	15	68	23
Lane Group Flow (vph)	0	203	0	0	193	0	0	192	0	0	106	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		



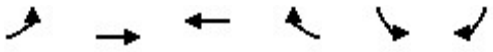
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.989		0.879	
Flt Protected		0.987			0.995	
Satd. Flow (prot)	0	1839	1842	0	1629	0
Flt Permitted		0.987			0.995	
Satd. Flow (perm)	0	1839	1842	0	1629	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		3435	1916		1459	
Travel Time (s)		78.1	43.5		33.2	
Volume (vph)	41	117	54	5	15	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	127	59	5	16	135
Lane Group Flow (vph)	0	172	64	0	151	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.3%	ICU Level of Service	A
Analysis Period (min)	15		



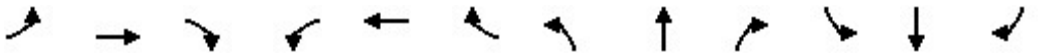
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.974			0.955			0.960	
Flt Protected		0.990			0.985			0.984			0.989	
Satd. Flow (prot)	0	1772	0	0	1787	0	0	1750	0	0	1769	0
Flt Permitted		0.990			0.985			0.984			0.989	
Satd. Flow (perm)	0	1772	0	0	1787	0	0	1750	0	0	1769	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		3353			3435			3111			1306	
Travel Time (s)		76.2			78.1			60.6			25.4	
Volume (vph)	34	82	48	63	100	39	70	78	74	63	133	83
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)	37	89	52	68	109	42	76	85	80	68	145	90
Lane Group Flow (vph)	0	178	0	0	219	0	0	241	0	0	303	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		



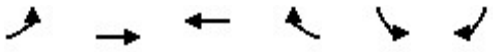
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.933		0.889	
Flt Protected		0.972			0.991	
Satd. Flow (prot)	0	1811	1738	0	1641	0
Flt Permitted		0.972			0.991	
Satd. Flow (perm)	0	1811	1738	0	1641	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		3435	1916		1459	
Travel Time (s)		78.1	43.5		33.2	
Volume (vph)	126	94	129	126	17	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	137	102	140	137	18	82
Lane Group Flow (vph)	0	239	277	0	100	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		



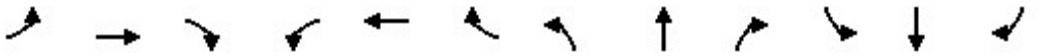
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958			0.976			0.955			0.971	
Flt Protected		0.989			0.982			0.994			0.993	
Satd. Flow (prot)	0	1765	0	0	1785	0	0	1768	0	0	1796	0
Flt Permitted		0.989			0.982			0.994			0.993	
Satd. Flow (perm)	0	1765	0	0	1785	0	0	1768	0	0	1796	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		3353			3435			3111			1306	
Travel Time (s)		76.2			78.1			60.6			25.4	
Volume (vph)	43	86	58	66	79	32	23	95	59	14	63	21
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)	47	93	63	72	86	35	25	103	64	15	68	23
Lane Group Flow (vph)	0	203	0	0	193	0	0	192	0	0	106	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		



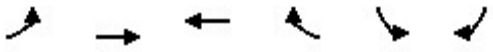
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.989		0.879	
Flt Protected	0.950				0.995	
Satd. Flow (prot)	1770	1863	1842	0	1629	0
Flt Permitted	0.950				0.995	
Satd. Flow (perm)	1770	1863	1842	0	1629	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		3435	1916		1459	
Travel Time (s)		78.1	43.5		33.2	
Volume (vph)	41	117	54	5	15	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	127	59	5	16	135
Lane Group Flow (vph)	45	127	64	0	151	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	24.1%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.974			0.955			0.960	
Flt Protected		0.990			0.985			0.984			0.989	
Satd. Flow (prot)	0	1772	0	0	1787	0	0	1750	0	0	1769	0
Flt Permitted		0.990			0.985			0.984			0.989	
Satd. Flow (perm)	0	1772	0	0	1787	0	0	1750	0	0	1769	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			45			35			35	
Link Distance (ft)		3353			3435			3111			1306	
Travel Time (s)		76.2			52.0			60.6			25.4	
Volume (vph)	34	82	48	63	100	39	70	78	74	63	133	83
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)	37	89	52	68	109	42	76	85	80	68	145	90
Lane Group Flow (vph)	0	178	0	0	219	0	0	241	0	0	303	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.974		0.889	
Flt Protected	0.950				0.991	
Satd. Flow (prot)	1770	1863	1814	0	1641	0
Flt Permitted	0.950				0.991	
Satd. Flow (perm)	1770	1863	1814	0	1641	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45	45		30	
Link Distance (ft)		3435	1916		1459	
Travel Time (s)		52.0	29.0		33.2	
Volume (vph)	126	94	129	30	17	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	137	102	140	33	18	82
Lane Group Flow (vph)	137	102	173	0	100	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.2%	ICU Level of Service	A
Analysis Period (min)	15		

PRELIMINARY ENGINEERING REPORT

FOR

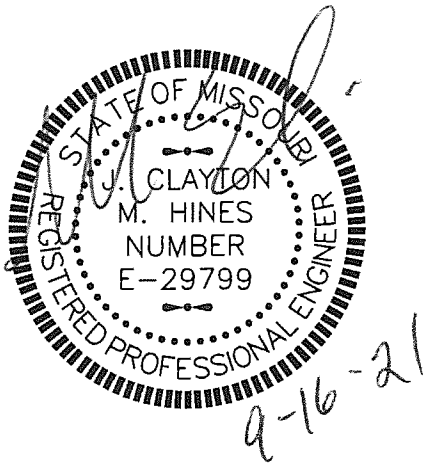
RIVERTON PARK

A Single-Family Development in Nixa, Missouri

September 16, 2021

Prepared For:

Riverton Park, LLC
P.O. Box 14248
Springfield, Missouri 65814



S & H Job No: 200029

SHAFFER & HINES, INC.
CONSULTING ENGINEERS & PROFESSIONAL LAND SURVEYORS
P.O. Box 493
Nixa, MO 65714

TABLE OF CONTENTS

I. INTRODUCTION

Riverton Park is a proposed 79-acre single family development and is generally located on the north side of North Street, approximately ¼ mile east of Cheyenne Road. Refer to the location map on the preliminary plat for the exact location. The legal description is attached to the application.

The proposed preliminary plat consists of 232 total buildable lots and 4 common area lots are to be dedicated to the homeowner's association. The single-family lot density including the open space is (232 lots / 78.69 acres) 2.95 lots / acre.

All improvements are to meet City of Nixa regulations, including paved streets with concrete curb and gutter, storm sewers, sanitary sewers, water mains, electric and natural gas.

III. REPORT

A. Stormwater Drainage

1. The site has 3 separate watersheds. These 3 watersheds flow to proposed stormwater detention basins located on lots CA2, CA3, and CA4. A storm sewer system consisting of inlets, pipe, ditches, and culverts will also collect run-off from the development and discharge to the detention basins per City of Nixa requirements. Design calculations determining the required sizes of the detention basins, pipes and ditches will be provided with the construction plans for review by the City Stormwater Engineer.

2. Silt fences or silt soxx will be installed on the downslope side of the property for erosion control. Any other Best Management Practices (BMP's) will be provided as necessary.

3. This site is not within any FEMA designated flood plains.

B. Water Supply

Water will be supplied by City of Nixa, 715 W. Mt. Vernon, Nixa, MO 65714, (417) 725-3785. An existing water tower and well adjoins this property on the west side. A connection to a proposed water main along North Street will also be provided. This connection is adequate for serving the project.

C. Gas Supply

Natural gas will be supplied by Spire, 207 W Pine, Monnett, MO 65708, (800)582-1234. A connection to an existing gas main on Cheyenne Road will be made to service this project.

D. Electricity

Electrical services will be provided by the City of Nixa, W. Mt. Vernon, Nixa, MO 65714, (417) 725-3785. An electrical connection will be made on North Street and at the Water Tower site.

E. Wastewater Disposal

Wastewater disposal will be provided by the City of Nixa, W. Mt. Vernon, Nixa, MO 65714, (417) 725-3785. An existing 8" diameter gravity main will be utilized in the northwest corner of the site and will serve the northern portion of the site by gravity. A proposed sanitary sewer lift station will be provided on Lot CA2, and this will serve the southern portion of the site. A force main will extend to the gravity sewer line on North Street.

F. Traffic

A traffic impact study will be provided which will show the required turn lane improvements for the proposed roadway connection to North Street. Single Family lots will not have driveway connections onto North Street. The internal roads within the development will be 27 foot wide back of curb to back of curb. The internal streets will have 4' sidewalks on one side of the street.

G. Municipal Services

Much of this development is in the Ozark School District. There are a few lots in the southwest portion of the site that will be within the Nixa Public Schools district (if the east property line of High Point School is projected to the south, then this is the school district boundary between Nixa and Ozark). Fire protection will be provided by the Ozark Fire Protection District and law enforcement will be provided by the Nixa Police Department.

III. CONCLUSION

All services are adequate to serve this development. This development also meets the general requirements of the City of Nixa Comprehensive Plan.