Traffic data used from the July 2022 AJR:

- 2045 design traffic data existing and committed configuration
- 2020 design traffic data existing configuration
- Report section 1.3, 1.4 and appendix A
 - o Traffic growth: used 1.5% growth at I-35 and 2.0% at SH-74

Assumed equation used to estimate No-Build (existing) vs. Build (proposed) traffic projections:

$$y=x_1\big(1+g_1(t)\big)+x_2\big(1+g_2(t)\big)$$
 where,
$$y=\text{traffic projected or proposed}$$

$$x_1\big(1+g_1(t)\big)=\text{baseline traffic, projected or existing}$$

$$x_2\big(1+g_2(t)\big)=\text{interchange improvement generated traffic, projected}$$
 *Assumed linear growth rate

Traffic projection results:

Traffic Projections for SH-74 & I-35						
	SH-74				I-35	
YEAR	East End		At Bridge		At W. Grant St.	
	EXISTING (vpd)	PROPOSED (vpd)	EXISTING (vpd)	PROPOSED (vpd)	EXISTING (vpd)	PROPOSED (vpd)
2020	3,382	4,575	2,887	3,528	28,831	29,048
2025	3,720	5,032	3,176	3,881	30,994	31,227
2045	5,074	6,864	4,331	5,292	39,415	39,713

Traffic inputs to estimate vehicle hours traveled (VHT) and vehicle miles traveled (VMT):

Name of Segment	Time (mins.)	Distance (mi.)	Daily Traffic Volume	Passenger Car	Truck Trips	TT Savings (mins.)
S.E.01	10.5	4	332	315	17	4.5
S.P.01a	2	0.7				
S.P.01b	1	0.3	332	315	17	
S.P.01c	3	3.3				
S.E.02	12	4.8	23	21	2	7
S.P.02a	1	0.3		21	2	
S.P.02b	1	0.3	23			
S.P.02c	3	3.3				
S.E.03	4.5	2.6	35	33	2	1.5
S.P.03a	1	1.2				
S.P.03b	1	0.3	35	33	2	
S.P.03c	1	0.2				
N.E.01	8.5	3.8	283	268	15	2.5
N.P.01a	3	3.3				
N.P.01b	1	0.3	283	268	15	
N.P.01c	2	0.7				
N.E.02	4	2.5	81	76	5	1
N.P.02a	1	0.3				
N.P.02b	1	0.3	81	76	5	
N.P.02c	1	1.1				
N.E.03	11	4.6	15	14	1	6
N.P.03a	3	3.4				
N.P.03b	1	0.3	15	14	1	
N.P.03c	1	0.3				

2045 VHT & VMT Calculations for Passenger Car (based on assumptions shown below)				
	VHT	VMT		
No-Build	107	2719.4		
Build	67	2830.1		
Difference	41	(110.70)		
Annual Conversion	14,878	(40,433.17)		

2045 VHT & VMT Calculations for Trucks (based on assumptions shown below)				
	VHT	VMT		
No-Build	6	156.9		
Build	4	161.3		
Difference	2	(4.40)		
Annual Conversion	864	(1,607.10)		

S.E.01

from 1500 N Green Ave, Purcell, OK 73080 to Monarch Hwy, Purcell, OK 73080

7 - 14 min (4.0 miles)

- □ < -

via State Hwy 74 N

1500 N Green Ave

Purcell, OK 73080

↑ Head north toward W Grant St

299 ft

Turn left onto W Grant St

295 ft

← Turn left onto State Hwy 74 S/N Green Ave

1 Continue to follow State Hwy 74 S

1 Pass by Carl's Jr (on the right in 1.1 mi)

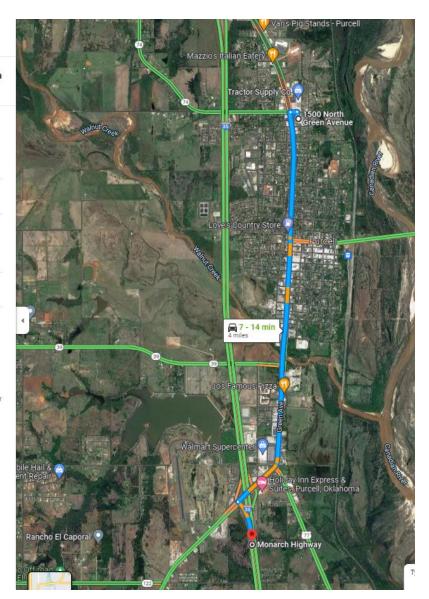
3.5 mi -

↑ Turn left to merge onto I-35 S toward Dallas

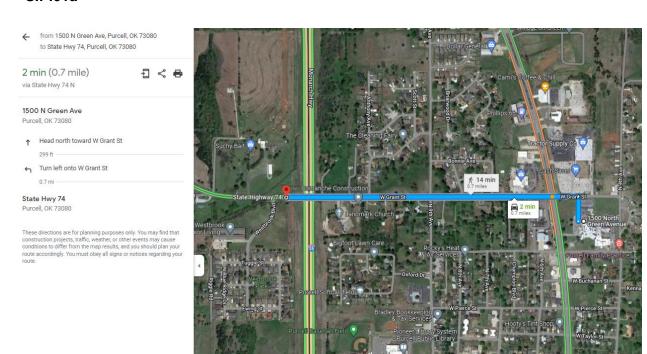
0.4 mi

Monarch Hwy

Purcell, OK 73080



S.P.01a



S.P.01c



3 min (3.3 miles)

via I-35 S







Monarch Hwy

Purcell, OK 73080

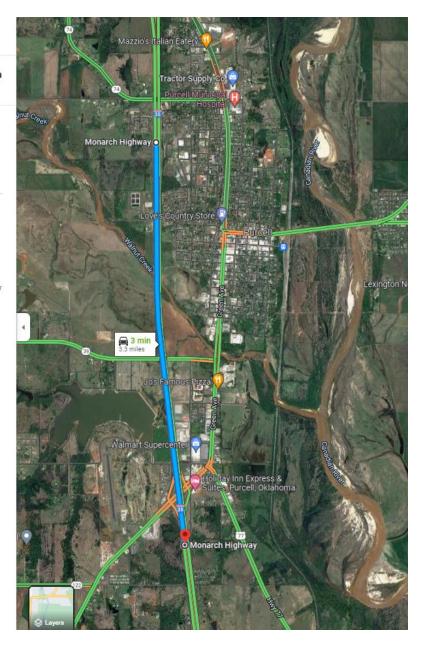
↑ Head south on I-35 S

1 Destination will be on the right

to Monarch Hwy, Purcell, OK 73080

Monarch Hwy

Purcell, OK 73080



S.E.02

from 22016-22158 State Hwy 74, Purcell, OK 73080 to Monarch Hwy, Purcell, OK 73080

8 - 16 min (4.8 miles)

miles)



via State Hwy 74 S

22016-22158 State Hwy 74

Purcell, OK 73080

- ↑ Head southeast on State Hwy 74 S toward 220th St
- Turn right onto State Hwy 74 S/N Green Ave
 - 1 Continue to follow State Hwy 74 S
 - 1 Pass by Carl's Jr (on the right in 1.1 mi)

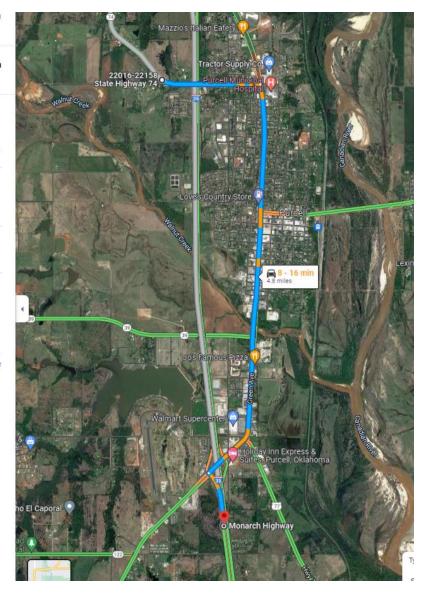
3.5 m

- ↑ Turn left to merge onto I-35 S toward Dallas
 - Destination will be on the right

0.5 mi

Monarch Hwy

Purcell, OK 73080



S.P.02a

from 22016-22158 State Hwy 74, Purcell, 0K 73080 to State Hwy 74, Purcell, 0K 73080

1 min (0.3 mile) via State Hwy 74 S

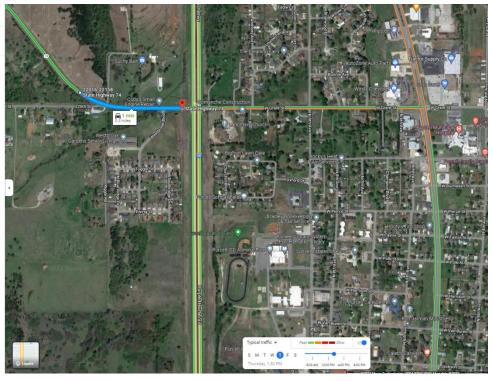


22016-22158 State Hwy 74 Purcell, OK 73080

Head southeast on State Hwy 74 S toward 220th St
 Destination will be on the right

0.3 mi

State Hwy 74 Purcell, OK 73080



S.P.02c



from Monarch Hwy, Purcell, OK 73080 to Monarch Hwy, Purcell, OK 73080

3 min (3.3 miles)



via I-35 S

Monarch Hwy

Purcell, OK 73080

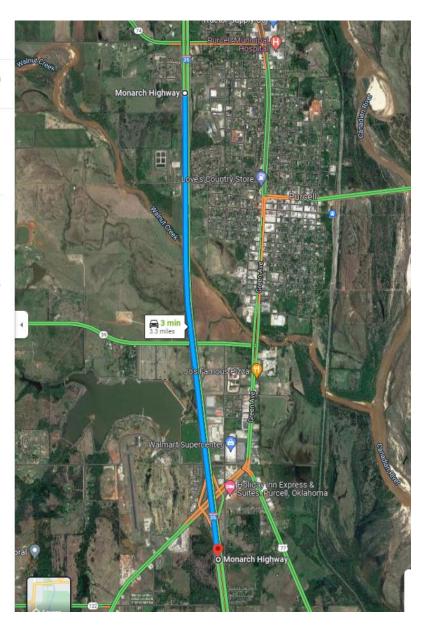
↑ Head south on I-35 S

1 Destination will be on the right

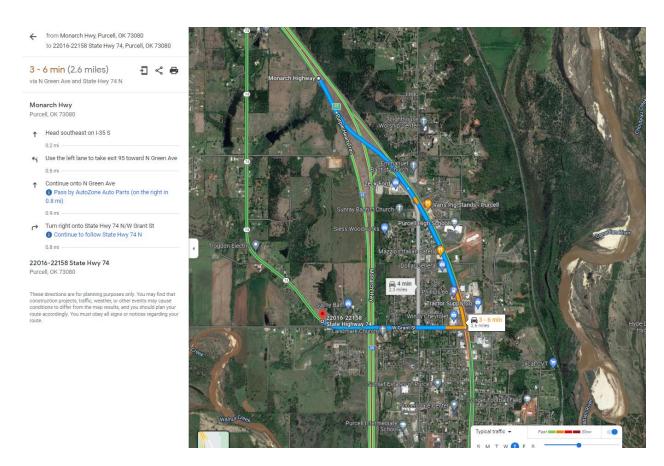
3.3 mi -

Monarch Hwy

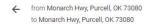
Purcell, OK 73080



S.E.03



S.P.03a



1 min (1.2 miles)

via I-35 S



Monarch Hwy

Purcell, OK 73080

↑ Head southeast on I-35 S

① Destination will be on the right

1 2 mi

Monarch Hwy

Purcell, OK 73080



S.P.03c



1 min (0.2 mile)

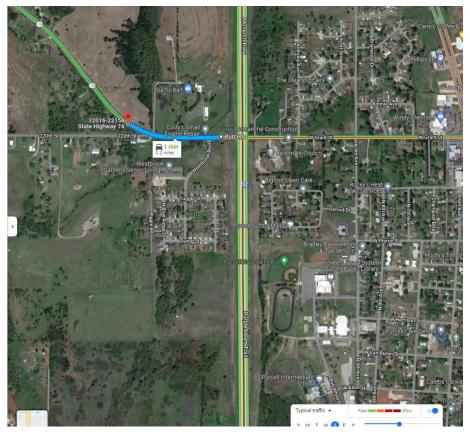
via State Hwy 74 N

- □ < -

Purcell Oklahoma

↑ Head west on State Hwy 74 N toward Westbrook Blvd

22016-22158 State Hwy 74 Purcell, OK 73080



N.E.01

from Monarch Hwy, Purcell, OK 73080 to 1500 N Green Ave, Purcell, OK 73080

7 - 12 min (3.8 miles)



via State Hwy 74 N

Monarch Hwy

Purcell, OK 73080

↑ Head north on I-35 N

0.2 mi -

Take exit 91 for OK-74 toward OK-39/Purcell/Lexington

Turn right onto OK-74 N/State Hwy 74 N

1 Pass by Pizza Hut (on the left in 1.8 mi)

Continue straight onto N Green Ave

1 Pass by IBC Bank (on the right in 1.0 mi)

1.0 mi

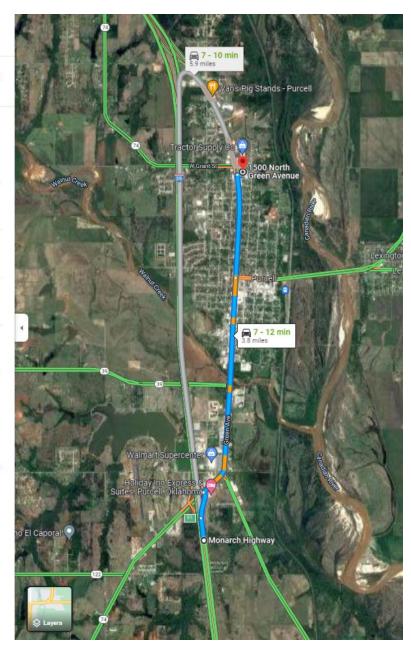
→ Turn right

1 Destination will be on the right

364 ft

1500 N Green Ave

Purcell, OK 73080



N.P.01a

from Monarch Hwy, Purcell, OK 73080 to Monarch Hwy, Purcell, OK 73080

3 min (3.3 miles)





via I-35 N

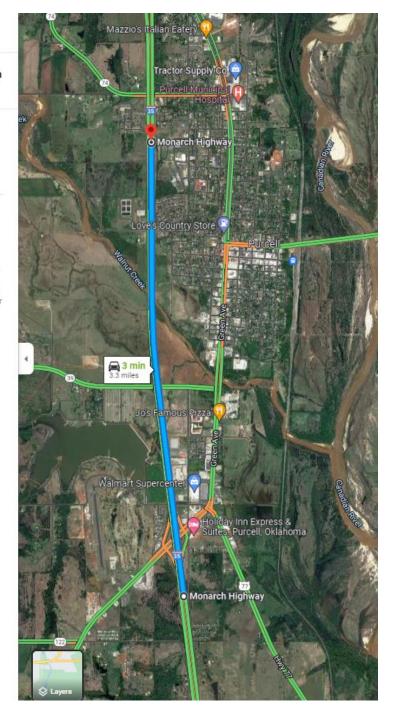
Monarch Hwy

Purcell, OK 73080

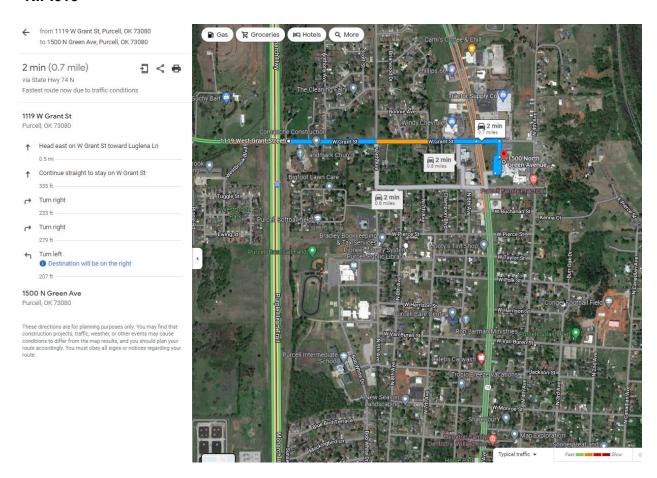
Head north on I-35 N

Monarch Hwy

Purcell, OK 73080



N.P.01c



N.E.02

← from 22016-22158 State Hwy 74, Purcell, OK 73080 to Purcell, Oklahoma

4 min (2.5 miles)

via State Hwy 74 S and N Green Ave

- □ < -



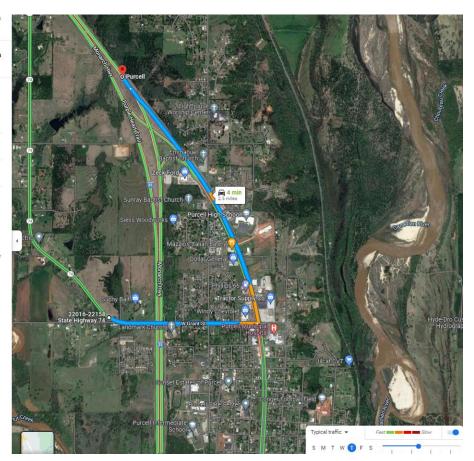
22016-22158 State Hwy 74

Purcell, OK 73080

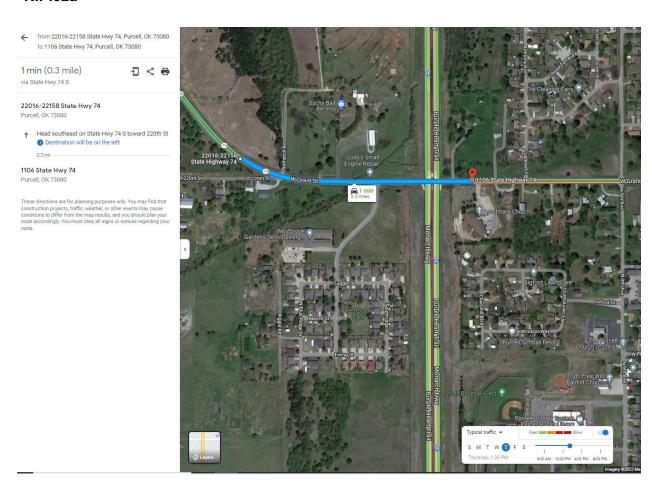
- ↑ Head southeast on State Hwy 74 S toward 220th St 0.8 mi
- ← Turn left onto N Green Ave
- ★ Merge onto I-35 N

433 ft -

Purcell Oklahoma



N.P.02a



N.P.02c

from Monarch Hwy, Purcell, OK 73080 to Purcell, Oklahoma

1 min (1.1 miles) via I-35 N

Monarch Hwy

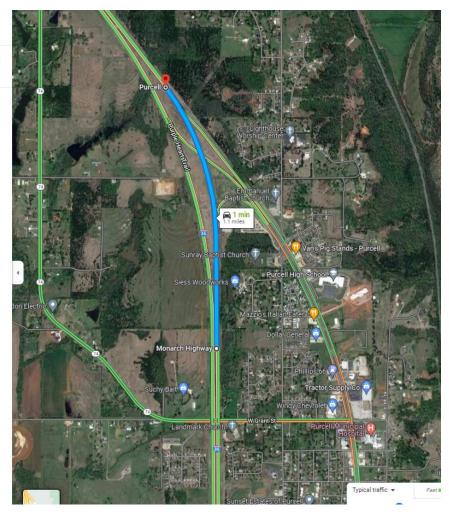
Purcell, OK 73080

↑ Head north on I-35 N

1.1 mi -

Purcell

Oklahoma



N.E.03

← from Monarch Hwy, Purcell, OK 73080 to Purcell, Oklahoma

8 - 14 min (4.6 miles)



via State Hwy 74 N

Monarch Hwy

Purcell, OK 73080

↑ Head north on I-35 N

Take exit 91 for OK-74 toward OK-39/Purcell/Lexington

0.3 mi

Turn right onto OK-74 N/State Hwy 74 N

1 Pass by Pizza Hut (on the left in 1.8 mi)

↑ Continue straight onto N Green Ave

1 Pass by IBC Bank (on the right in 1.0 mi)

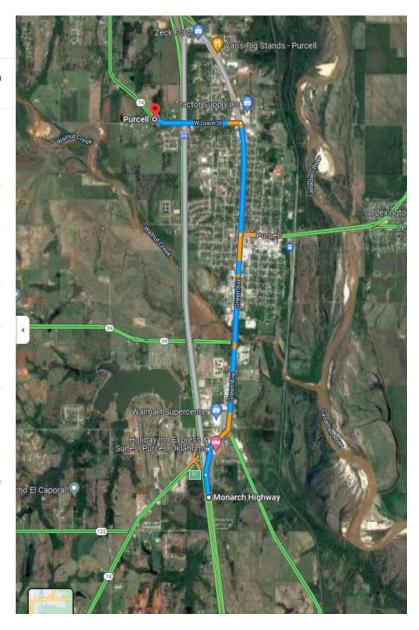
← Turn left onto State Hwy 74 N/W Grant St

1 Continue to follow State Hwy 74 N

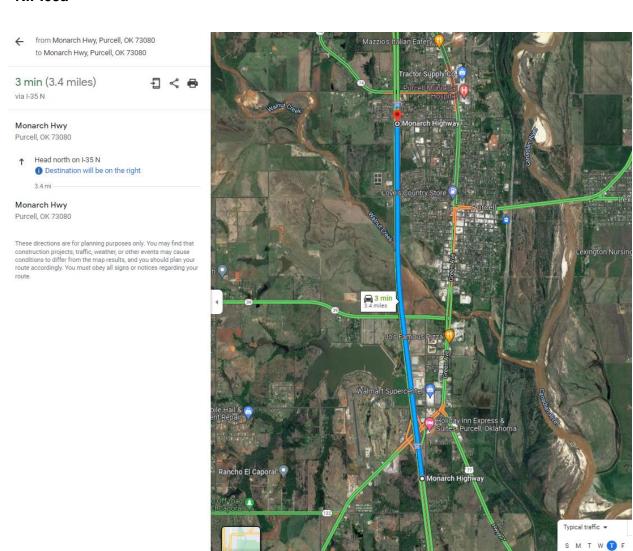
1 Destination will be on the right

Purcell

Oklahoma



N.P.03a



N.P.03c

