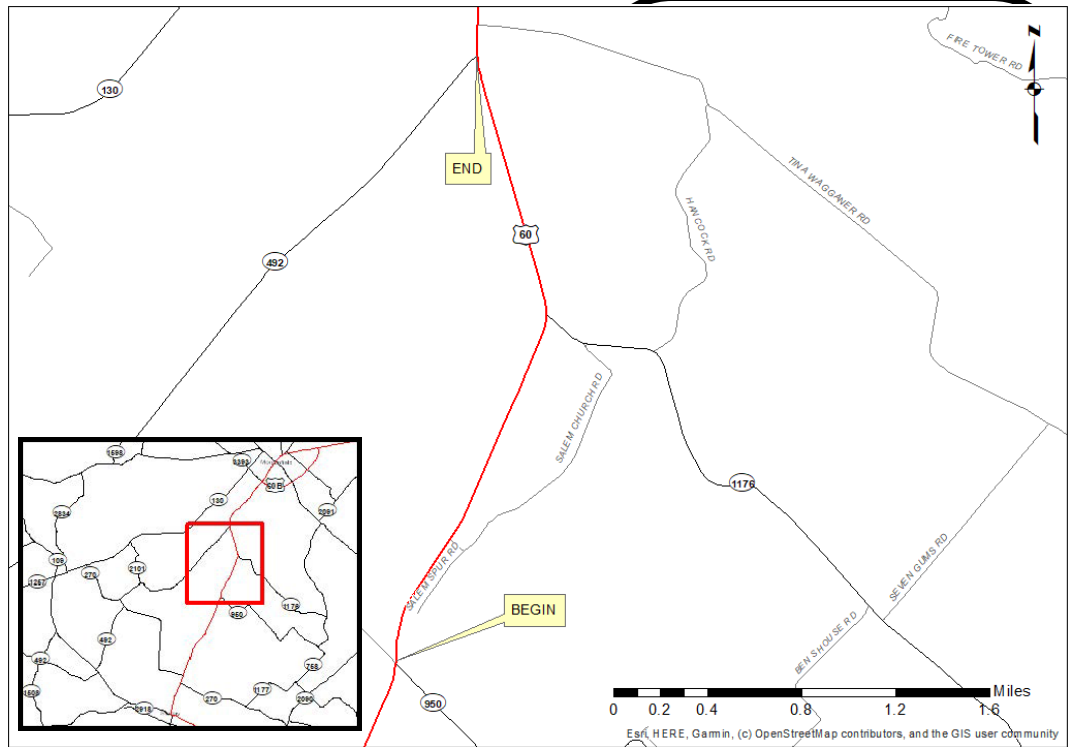
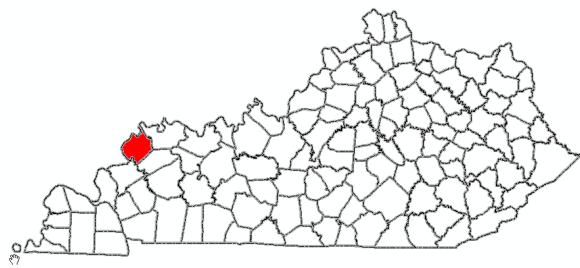


Data
Needs
Analysis



Scoping Study



US 60 from KY 950 to KY 492
Union County
Item No. **2-80202.00**
Prepared by
KYTC District 2 Planning
July 2022



Union

I. PRELIMINARY PROJECT INFORMATION			
County:	Union	Item No.:	2-80202
Route Number(s):*	US 60	Road Name:	
Program No.:	15233	UPN:	FD52 113 US 60 010-014
Federal Project No.:	STP 0601214	Type of Work:	Safety
2022 Highway Plan Project Description:			
Address Safety and Service concerns of US 60 from the KY 950 to KY 492.			
Beginning MP:	10.200	Ending MP:	13.290
		Project Length:	3.090
In TIP:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Use PDP/CHAF to Verify Project Data		
State Class.:	<input checked="" type="checkbox"/> Primary <input type="checkbox"/> Secondary		
Functional Class.:	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural <input type="checkbox"/> Arterial		
MPO Area:	Not Applicable		
ADT (current):	4784 2019		
Access Control:	<input type="checkbox"/> None <input checked="" type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled <input type="checkbox"/> Partial Spacing: <input type="checkbox"/>		
Median Type:	<input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (Type):		
Existing Bike Accommodations:	Shared Lane <input type="checkbox"/> Ped: <input type="checkbox"/> Sidewalk		
Posted Speed:	<input type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input checked="" type="checkbox"/> 55 mph <input type="checkbox"/> Other (Specify):		
KYTC Guidelines Preliminarily Based on :	55 MPH Proposed Design Speed		
COMMON GEOMETRIC			
Roadway Data:	EXISTING	PRACTICES**	
No. of Lanes	2	2	Existing Rdwy. Plans available?
Lane Width	11-12'	12'	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Shoulder Width	4-10'	8'	Year of Plans: 1965 /1969
Max. Superelevation***	8%	8%	<input type="checkbox"/> Traffic Forecast Requested
Minimum Radius***	1145.94'	960'	Date Requested: NA
Maximum Grade	6%	5%	<input type="checkbox"/> Mapping/Survey Requested
Minimum Sight Dist.	495'	495'	Date Requested:
Sidewalk Width(urban)	NA	NA	Type: <input type="checkbox"/>
Clear-zone [†]	40'	40'	
Project Notes/Design Exceptions?			
Bridge No.:#	113B00029N	(Bridge #2)	
Sufficiency Rating	69.9		Existing Geotech Data Available?
Total Length	107		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Width, curb to curb	45		
Span Lengths	39		
Year Built	1970		
Posted Weight Limit	NA		Detour Length(s): 79.7
Structurally Deficient?	No		
Functionally Obsolete?			
Existing Bridge Type	3- RCDG Spans		
*If more than one road is included in the project, include additional sheets. **Based on proposed Design Speed ***AASHTO's A Policy on Geometric Design of Highways and Streets †AASHTO's Roadside Design Guide ‡If more than two bridges are located on the project, include additional sheets.			

II. PROJECT PURPOSE AND NEED

A. Legislation

This project was funded in the 2022 enacted plan as shown.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
STP2	D	2024	\$1,500,000
STP2	R	2025	\$3,500,000
STP2	U	2026	\$2,500,000
STP2	C	2027	\$17,000,000

B. Project Status

This project is expected to be advertised in August 2022.

C. System Linkage

This route is on the National Truck Network and provides a connection between two of the largest communities in Union County. It connects to KY 56 (via KY 3393 in Morganfield) which has a river crossing at the Shawneetown bridge.

D. Modal Interrelationships

This section of US 60 does not directly connect with an airport or intermodal facility.

E. Social Demands & Economic Development

US 60 is on the National Truck Network from KY 109 to the Morganfield Bypass. This section of the route serves mostly farms, but does provide access to the hospital, a middle school and a high school which would have student drivers. There is a lot of coal traffic on this route. This route connects to KY 56 at Morganfield via KY 3393.

Union

II. PROJECT PURPOSE AND NEED (cont.)

F. Transportation Demand

The historical traffic counts show a fairly stable ADT for the last few year. The latest traffic count was done in 2019 with and ADT of 4784.

G. Capacity

This project is not intended to add capacity.


H. Safety

There were 53 crashes on this route from June 2018 to June 2022. Of those crashes 28 were single vehicle crashes and 12 were rearends. There was one fatality that was not in this time frame but was included in the CDAT data (2019-2020). Using CDAT data from 2016- 2020, there was a Excess Expected Crashes (ECC) -8.15, and a Level of Service of Safety (LOSS) of 2.

I. Roadway Deficiencies

This route has 3 skewed intersections at KY 950, KY 1176, and KY 492. In addition, US 60 possesses little to no shoulder. Finally, there are a few horizontal and vertical curve deficiencies to be addressed.

Union

III. PRELIMINARY ENVIRONMENTAL OVERVIEW	
A. Air Quality	
Project is in: <input checked="" type="checkbox"/> Attainment area <input type="checkbox"/> Nonattainment or Maintenance Area <input type="checkbox"/> PM 2.5 County	
STIP Pg.#:	TIP Pg.#:
No air quality impacts are anticipated.	
B. Archeology/Historic Resources	
<input type="checkbox"/> Known Archeological or Historic Resources are present	
No known sites are present, however, archeological impacts are always possible and a survey will be required.	
C. Threatened and Endangered Species	
Potential impacts to T & E species (bats).	
D. Hazardous Materials	
<input checked="" type="checkbox"/> Potentially Contaminated Sites are present <input type="checkbox"/> Potential Bridge or Structure Demolition	
Several locations where contaminated soils may be present are along the project. A Phase 1 assessment is needed.	
E. Permitting	
Check all that may apply: <input checked="" type="checkbox"/> Waters of the US <input type="checkbox"/> MS4 area <input type="checkbox"/> Floodplain Impacts <input type="checkbox"/> Navigable Waters of the US Impacts	
Are 401/404 Permits likely to be required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Impacts to: <input checked="" type="checkbox"/> Wetlands <input checked="" type="checkbox"/> Stream/Lake/Pond	
<input type="checkbox"/> ACE LON <input checked="" type="checkbox"/> ACE NW <input type="checkbox"/> ACE IP <input type="checkbox"/> DOW IWQC <input type="checkbox"/> Special Use Waters	
Minor stream impacts are anticipated.	
F. Noise	
Are existing or planned noise sensitive receptors adjacent to the proposed project? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Is this considered a "Type I Project" according to KYTC Noise Analysis and Abatement Policy? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
No noise impacts are anticipated.	
G. Socioeconomic	
Check all that may apply: <input type="checkbox"/> Low Income/Minority Populations <input type="checkbox"/> Relocations <input type="checkbox"/> Local Land Use Plan available	
Relocations not anticipated.	
H. Section 4(f) or 6(f) Resources	
The following are present on the project: <input type="checkbox"/> Section 4(f) Resources <input type="checkbox"/> Section 6(f) Resources	
No Section 4(f) or 6(f) impacts are anticipated.	
Anticipated Environmental Document:	CE for Minor Projects 

Union	Data Needs Analysis Scoping Study	US 60 Safety
IV. PROJECT NEED, PURPOSE & SCOPE		
A. Need:		
<p>This section of US 60 is a major connection between Sturgis and Morganfield. It provides access to a high school, a middle school and the county hospital. This section has very little shoulders, a few geometric deficiencies, and undesirable intersection layouts. This project is needed to provide a safe and reliable route for those accessing services within the corridor as well as residential and commercial traffic traveling to Morganfield. In addition, this section of US 60 is part of the truck network in Union County which is vital to businesses.</p>		
B. Purpose:		
<p>The purpose of this project is to improve safety, traffic flow, and function of US 60.</p>		
C. Scope:		
<p>To make necessary improvements to US 60 from the intersection with KY 950 (MP 10.2) to the intersection with KY 492 (MP 13.29). This would include addressing geometric deficiencies, improving functionality issues, and addressing any other concerns.</p>		

Union	Data Needs Analysis Scoping Study	US 60 Safety
V. PROJECT ESTIMATE & METHODOLOGY		
Estimate Methodology:	Current Estimate	
This estimate is based on similar projects.	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	1,500,000
	R/W	3,500,000
	Utilities	2,500,000
	Const	17,000,000
	Total	24,500,000

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION

KU

Contact -Hunter Gipson
Electrical Engineer I
195 Hubert Reid Drive
Earlington, KY 42410
M: 270-841-0354
O: 270-383-6000

AT&T

Contact - Scott Roche
1340 E John Rowan Blvd
Bardstown, KY 40004
502-348-4528

Windstream

Contact -James Galvin
111 South Main Street
Elizabethtown, KY 42701
270-765-1818

City of Morganfield

Contact: Les Piper
526 N. Court Street
Morganfield, KY 42437
270-389-2186

Kenergy

Contact: Scott Atherton
P.O. Box 1389
Owensboro, KY 42302-1389
O: 800-844-4832
D: 270-689-6110

Spectrum

Contact - John Wade
250 Madison Square Dr.
Madisonville, KY 42431
502-253-2710

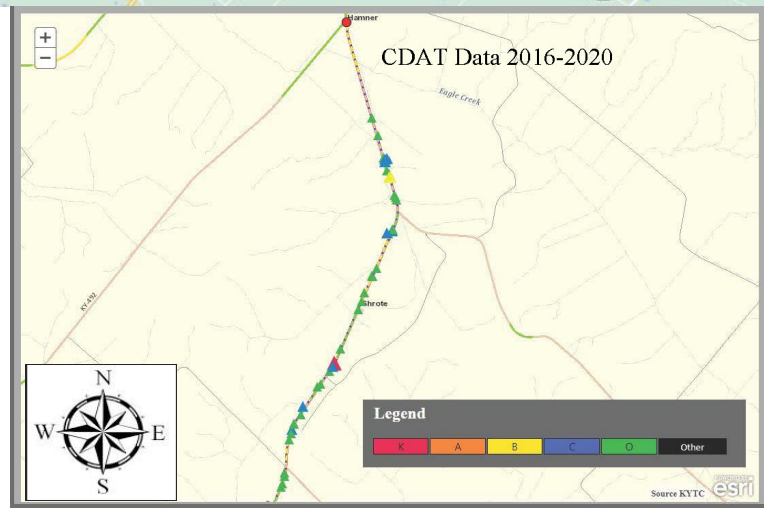
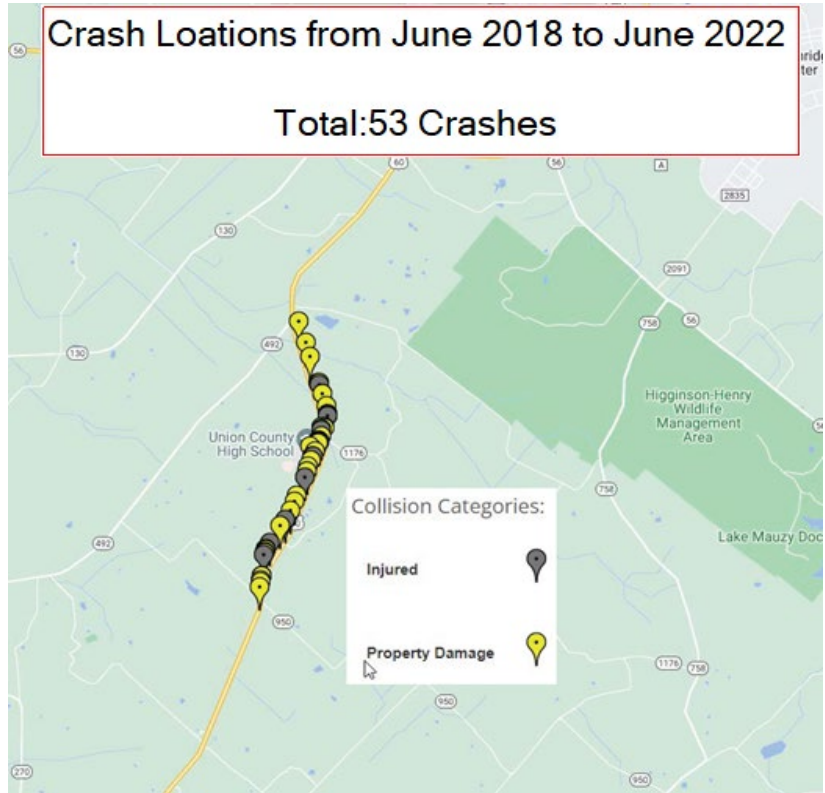
Union County Water District

Contact - Gary Sheffer
409 N Court Street
Morganfield, KY 42437
270-389-3868

VII. TABLES AND EXHIBITS

Crash Locations from June 2018 to June 2022

Total:53 Crashes

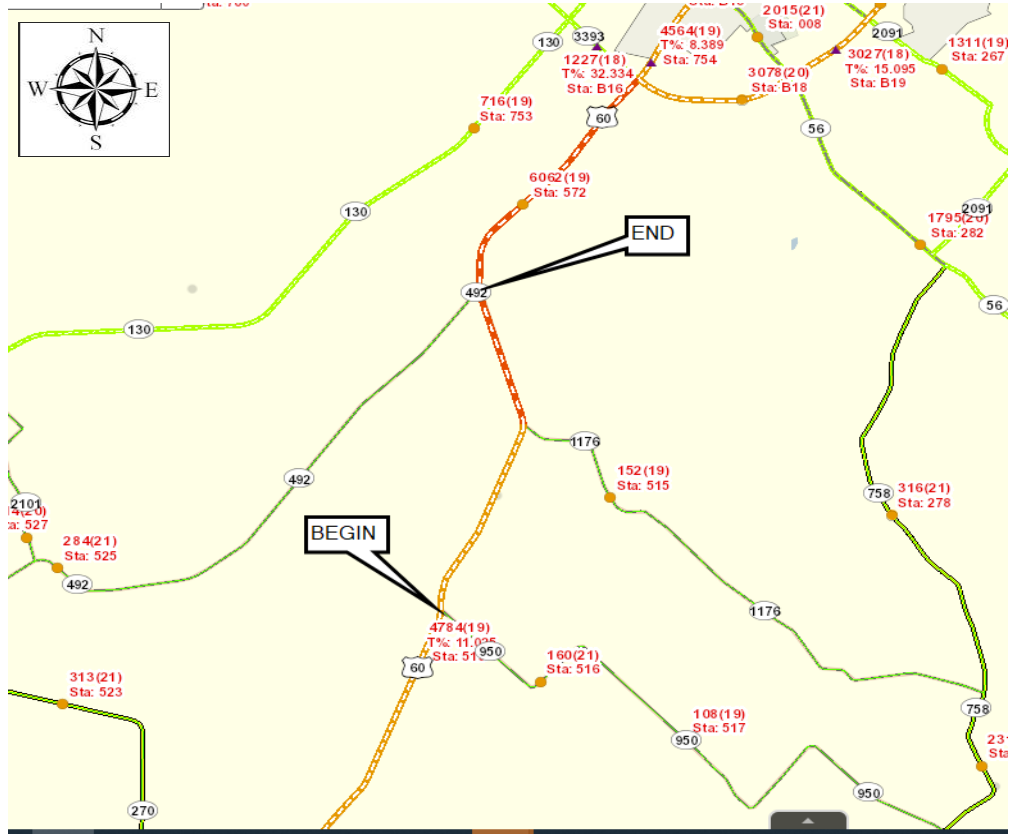


CDAT= Crash Data Analysis Tool

K=Killed
A = Suspected Major injury
B= Suspected Minor injury
C=Possible Injury
O= Property Damage Only

VII. TABLES AND EXHIBITS (cont.)

Traffic Count Map



VII. TABLES AND EXHIBITS (cont.)

Traffic Count History

8/22/22, 2:49 PM

KYTC Traffic Count Reporting System

Historical Traffic Volume Summary

Station Details:

Sta ID:	113519	Begin MP:	7.1970	Newest Count:	AADT: 4784
Sta Type:	Classification	Begin Desc:	KY 270 WEST	Year:	2019
Map:	MapIt	End Mp:	12.1510	% Single:	6.9330
District:	2	End Desc:	KY 1176 (HOLEMAN HILL)	% Combo:	4.0920
County:	Union	Impact Year:		K Factor:	10
Route:	113-US-0060 -000	Year Added:		D Factor:	62
Route Desc:	US-60				

Definitions:
Sta. ID - Three digit county number + station number
MP - milepoint
Impact Year - year of significant change to traffic pattern within station segment
AADT - Annual Average Daily Traffic - the annualized average 24-hour volume of vehicles on a segment of roadway
% Single - single unit truck volume as a percentage of the AADT
% Combo - combination truck volume as a percentage of the AADT
K Factor - peak hour volume as a percentage of the AADT
D Factor - percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2022		2012	2002	5420	
2021		2011	2001		
2020		2010	3110	2000	
2019	4784	2009	1999		
2018		2008	1998		
2017		2007	4240	1997	4370
2016	4879	2006	1996		
2015		2005	1995		
2014		2004	5110	1994	
2013	4409	2003	1993		

https://datacenter.kytc.ky.gov/EDSR_SOLUTIONS/CITS/StationData.aspx?STATION=113519&TF_NE_ID=47740113

https://datacenter.kytc.ky.gov/EDSR_SOLUTIONS/CITS/StationData.aspx?STATION=113519&TF_NE_ID=47740113

1/1

8/22/22, 2:51 PM

KYTC Traffic Count Reporting System

Historical Traffic Volume Summary

Station Details:

Sta ID:	113572	Begin MP:	12.1510	Newest Count:	AADT: 6062
Sta Type:	Full Coverage	Begin Desc:	KY 1176 (HOLEMAN HILL)	Year:	2019
Map:	MapIt	End Mp:	15.4120	% Single:	6.9330
District:	2	End Desc:	US 60 BYPASS-KY 3393	% Combo:	4.0920
County:	Union	Impact Year:	2002	K Factor:	9.40
Route:	113-US-0060 -000	Year Added:		D Factor:	58
Route Desc:	US-60				

Definitions:
Sta. ID - Three digit county number + station number
MP - milepoint
Impact Year - year of significant change to traffic pattern within station segment
AADT - Annual Average Daily Traffic - the annualized average 24-hour volume of vehicles on a segment of roadway
% Single - single unit truck volume as a percentage of the AADT
% Combo - combination truck volume as a percentage of the AADT
K Factor - peak hour volume as a percentage of the AADT
D Factor - percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2022		2012	2002		
2021		2011	2001	6910	
2020		2010	5800	2000	
2019	6062	2009	1999		
2018		2008	1998		
2017		2007	5890	1997	
2016	5890	2006	1996	6720	
2015		2005	6140	1995	
2014		2004	7220	1994	
2013	6007	2003	7720	1993	

https://datacenter.kytc.ky.gov/EDSR_SOLUTIONS/CITS/StationData.aspx?STATION=113572&TF_NE_ID=47740130

https://datacenter.kytc.ky.gov/EDSR_SOLUTIONS/CITS/StationData.aspx?STATION=113572&TF_NE_ID=47740130

1/1

Union

VII. TABLES AND EXHIBITS (cont.)

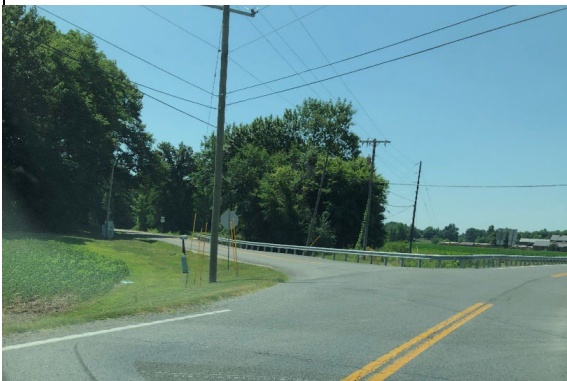
Photos



On KY 950 looking east to the intersection with US 60



On KY 950 looking South on US 60



US 60 looking west at KY 1176



On KY 1176 looking south at US 60

VII. TABLES AND EXHIBITS (cont.)

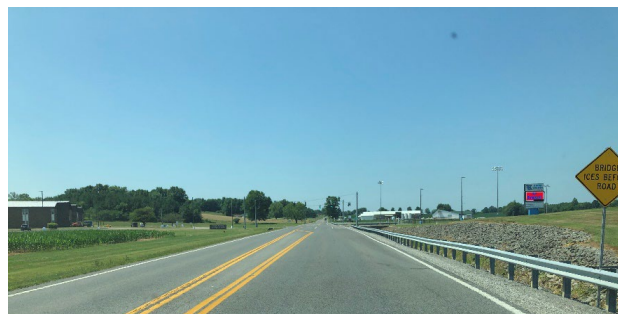
Photos



On US 60 looking south at KY 492



On KY 492 looking west at US 60



On US 60 looking south near schools