

ALIGNMENT NAME: Centralia End Link (CEL)

ALIGNMENT SEGMENTS: <u>T1</u>

SUMMARY OF CORRIDOR LOCATION

The Centralia End Link (CEL) corridor is independent of all other Centralia-Sandoval alternatives. The corridor follows US 51 along the Marion/Washington County Line and is a four-lane highway. The southern limit is the Jefferson/Marion County Line at Base Line Road (1). From the County Line, the corridor travels directly north and terminates at Greenview Church Road, south of Wamac (2). The length of this corridor along existing US 51 alignment is approximately 0.5 miles.

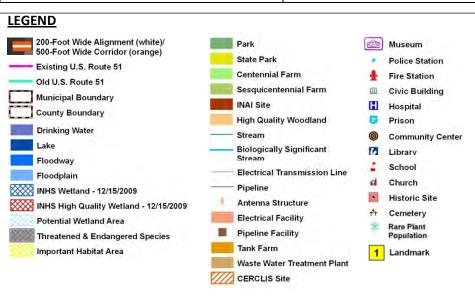
SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

The alignment within corridor Centralia End Link (CEL) was developed to tie other alignment alternatives into the existing four-lane US 51. As such, impacts only occur at the north end of the alignment. The alignment was developed to avoid impacts to wetlands, public facilities, and residential displacements. Approximately eight acres of prime and important farmland are impacted at the north end of the alignment where new alignments tie in. The majority of this alignment is along existing roadway.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor. It is recommended that the Centralia End Link (CEL) be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CATEGORY	ANALYSI	S RESULTS
Environmental	Corridor	Alignment
Liivii Oiliileittai	Impacts	Impacts
Floodplains	None	None
—— Stream crossings	None	None
Drinking Water Supplies – Surface Water	None	None
Wetlands	0.5 acres	None
Number of wetland sites	2 sites	None
High Quality Wetlands	None	None
Number of high quality wetland sites	None	None
CERCLIS Sites	None	None
Community		
Residential displacements	3 total	None
Commercial displacements	None	None
Public facility displacements	2 facilities	None
Parklands (4(f) / 6(f))	None	None
<u>Agricultural</u>		
Prime and Important farmlands	26 acres	8 acres
Parcels severed	None	None
<u>Operations</u>		
Distance of travel	0.5	miles
Travel time	00:26 min:sec	
LEGEND 200-Foot Wide Alignment (white)/ 500-Foot Wide Corridor (orange)		Museum





Centralia End Link (CEL) Appendix B



ALIGNMENT NAME: Centralia-Sandoval D

ALIGNMENT SEGMENTS: <u>T2-C59-T6-T7-T8-S38-S39-T9-T10-T11</u>

SUMMARY OF CORRIDOR LOCATION

This corridor is an eastern bypass of the City of Centralia combined with an eastern bypass of the Village of Sandoval. The southern limit is located at Greenview Church Road south of the City of Wamac (1). The corridor bypasses the City of Wamac and the City of Centralia by traveling northeasterly until the Centralia Municipal Airport (4) near the intersection of Country Club Road and Illinois Route 161. At this point, the corridor is approximately 2.6 miles east of US 51 within the City of Centralia. The corridor continues north-northwest over Raccoon Lake (7), Centralia's source of drinking water, and ties back into US 51 in the vicinity of Community Beach Road (9). Following north along US 51 until Cemetery Road (12), the corridor diverges from existing alignment and continues north of the Village of Sandoval. The corridor again joins the US 51 alignment approximately 0.25 miles north of its intersection with the east leg of US 50 (14) and ends near Boone Street Road (16). The length of roadway on new alignment is approximately 8.6 miles on a total alignment of 13.0 miles.

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

The alignment within corridor Centralia-Sandoval D was developed to minimize impacts to floodplains, wetlands, residences, and parkland; 21 residential displacements, six stream crossings (including one biologically significant stream), four farmland severances, nine commercial displacements, <0.1 acres of parkland, and a public facility could not be avoided. Complete avoidance of wetlands was not feasible. Wetland impacts were minimized at six locations in the development of the alignment. Transverse crossings were developed at the narrowest identifiable point of impact. Of the 3.6 acres of wetlands impacted, 1.9 acres are high quality wetlands. At the southern limit, the alignment was shifted to the east to minimize floodplain impacts by crossing at the narrowest impact point. Several commercial properties exist in the vicinity and north of the Centralia Municipal Airport. Nine commercial displacements were not avoidable. At this same location, the alignment was shifted west to avoid one place of worship; impact to one school was not avoidable. As the alignment travels northeast away from the Centralia Municipal Airport, the alignment was again shifted to the west to minimize impacts to Centralia's Rotary Park. Turning north, crossing over Raccoon Lake (a drinking water source for Centralia, Wamac, Central City, Sandoval, Walnut Hill, Kaskaskia College, and Centralia Correctional Center) and continuing northwest where the alignment joins US 51 north of Community Beach Park, an alignment shift to the west was initiated in order to further minimize floodplain impacts. At the south end of the Village of Sandoval, homes and farm residences become more prominent; shifts in the alignment were made to avoid impacts. As a result 40 residential displacements identified in the corridor analysis were avoided. Since 8.6 miles of this proposed alignment would be new roadway, impacts to prime and important farmland could not be avoided but were minimized, still impacting approximately 274 acres.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor minimizing impacts to environmental resources. It is recommended that the Centralia-Sandoval D be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CATEGORY		ANALYSI	S RESULTS
Farrisans antal		Corridor	Alignment
<u>Environmental</u>		Impacts	Impacts
	Floodplains	85 acres	34.5 acres
Biologically signific	ant streams	1 crossing	1 crossing
	Streams	5 crossings	5 crossings
Drinking Wate	r Supplies – rface Water	1 supply	1 supply
	Wetlands	12.5 acres	3.6 acres
Number of w	etland sites	15 sites	7 sites
High Qualit	ty Wetlands	8.0 acres	1.9 acres
Number of high quality w	etland sites	2 sites	2 sites
	ERCLIS Sites	None	None
Community			1
Residential dis	placements	61 total	21 total
Commercial dis	placements	19 buildings	9 buildings
Public facility dis	placements	2 locations	1 location
Parklands	s (4(f) / 6(f))	2.6 acres	<0.1 acre
 Agricultural			
Prime and Importan	t farmlands	668 acres	274 acres
•	cels severed	4 parcels	4 parcels
Operations		•	· ·
 Distar	nce of travel	13.0) miles
. FOEND	Travel time	12:39	min:sec
<u>LEGEND</u>			
200-Foot Wide Alignment (white)/ 500-Foot Wide Corridor (orange)	Park		Museum
Existing U.S. Route 51	State Park		Police Station
Old U.S. Route 51	Centennial		Fire Station
Municipal Boundary			Civic Building
County Boundary	INAI Site		Hospital
Drinking Water	High Quality Woodland		Prison
Lake	Stream		Community Cent
Floodway	 Biologically Significant Stream 		Library
Floodplain	Electrical Transmission Line		School
INHS Wetland - 12/15/2009	Pipeline		d Church
		ructure	Historic Site
INHS High Quality Wetland - 12/15/2009	Antenna St		t [†] t Cemetery
INHS High Quality Wetland - 12/15/2009 Potential Wetland Area	Antenna St	acility	and the property of
		1000	Rare Plant Population
Potential Wetland Area	Electrical F Pipeline Fa Tank Farm	1000	Rare Plant



Centralia-Sandoval D Appendix B



ALIGNMENT NAME: Centralia-Sandoval DJ

ALIGNMENT SEGMENTS: <u>C43-C63-C48-C65-C67-C57-C60-S46-S50-S49-T10-T11</u>

SUMMARY OF CORRIDOR LOCATION

This corridor is a western bypass of the City of Centralia combined with a western bypass of the Village of Sandoval. The southern limit is located at Greenview Church Road south of the City of Wamac (1). The corridor bypasses the City of Wamac and City of Centralia by traveling northwest towards Wilkin Road just west of Neff Road (2). The corridor continues by traveling northwest towards the intersection of Sewer Road and 10th Street (3). At this point, the corridor traverses north past Illinois 161 just west of the Murray Center (5) and is approximately 2.3 miles west of existing US 51 through the City of Centralia. Turning northeast, the corridor passes the Burlington Northern Railroad east of Jolliff Bridge Road (8) and continues northeasterly past Junction Road west of Junction City (10) where the corridor then travels directly north and passes Sandoval High School (13). The corridor then turns northeast where it joins US 51 just north of CR 1100N (15) and ends near Boone Street Road (16). The length of roadway on new alignment is approximately 10.7 miles on a total alignment of 13.1 miles.

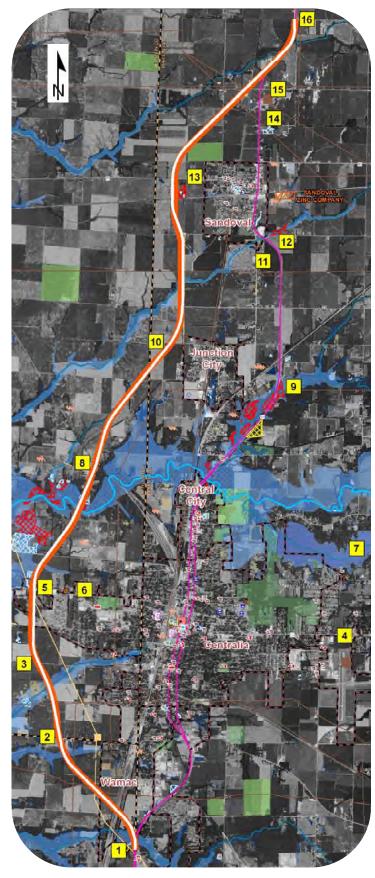
SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

The alignment within corridor Centralia-Sandoval DJ was developed to minimize impacts to wetlands, floodplains, residences, and farmland; eight residential displacements, seven stream crossings (including one biologically significant stream), and eleven farmland severances could not be avoided. Complete avoidance of wetlands was not feasible. Wetland impacts were minimized at nine sites in the development of the alignment. Transverse crossings were developed at the narrowest identifiable point of impact. Of the 1.3 acres of wetlands impacted, 0.3 acres are high quality wetlands. At the southern limit and as the alignment travels northwest near the Wilkin Road/Neff Road intersection, the alignment was shifted to minimize floodplain impacts by crossing at the narrowest impact point. All floodplain impacts are transverse. Continuing northwest where the alignment crosses IL 161, the alignment was shifted west to minimize impacts to floodplains and a stream crossing. As the alignment nears the villages of Junction City and Sandoval, homes and farm residences become more prominent; shifts in the alignment were made to avoid impacts. As a result, 72 residential displacements were avoided. Since approximately eleven miles of this proposed alignment would be new roadway, impacts to prime and important farmland could not be avoided but were minimized, still impacting approximately 303 acres.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor minimizing impacts to environmental resources. It is recommended that the Centralia-Sandoval DJ be carried forward in the reasonable range of alternatives for further consideration.

MPACT CATEGORY		ANALYS	IS RESULTS
and the managed of		Corridor	Alignment
<u>invironmental</u>		Impacts	Impacts
F	loodplains	60 acres	22.4 acres
Biologically significan	nt streams	1 crossing	1 crossing
_	Streams	8 crossings	6 crossings
Drinking Water Surf	Supplies – ace Water	None	None
	Wetlands	13.6 acres	1.3 acres
Number of we	tland sites	12 sites	3 sites
High Quality	Wetlands	7.0acres	0.3 acres
Number of High Quality Wetland	d Sites	2 sites	1 site
CEF	RCLIS Sites	None	None
Community			
Residential disp	lacements	80 total	8 total
Commercial disp		1 building	None
Public facility disp	lacements	1 facility	None
Parklands ((4(f) / 6(f))	None	None
gricultural			
Prime and Important	farmlands	756 acres	303 acres
Parce	ls severed	13 parcels	11 parcels
<u>Operations</u>			
Distanc	e of travel	13.:	1 miles
	ravel time	14:41	min:sec
<u>EGEND</u>			
200-Foot Wide Alignment (white)/ 500-Foot Wide Corridor (orange)	Park		Museum
Existing U.S. Route 51	State Park		* Police Station
Old U.S. Route 51	Centennial		Fire Station
Municipal Boundary		tennial Farm	Civic Building
County Boundary	INAI Site	ty Woodland	Hospital Prison
Drinking Water	High Quality Woodland Stream		Community Cent
Lake	Biologically Significant		Library
Floodway	Stream		School
Floodplain		Transmission Line	d Church
INHS Wetland - 12/15/2009	Pipeline		Historic Site
INHS High Quality Wetland - 12/15/2009	Antenna S		th Cemetery
Potential Wetland Area	Electrical F	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Rare Plant
Threatened & Endangered Species	Pipeline Fa	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Population
Important Habitat Area	Tank Farm Waste Wat	er Treatment Plant	1 Landmark





ALIGNMENT NAME: Centralia-Sandoval DL

ALIGNMENT SEGMENTS: C43-C63-C48-C65-C67-C57-S45-S38-S39-T9-T10-T11

SUMMARY OF CORRIDOR LOCATION

This corridor is a western bypass of the City of Centralia combined with an eastern bypass of the Village of Sandoval. The southern limit is located at Greenview Church Road south of the City of Wamac (1). The corridor bypasses the City of Wamac and City of Centralia by traveling northwest towards Wilkin Road just west of Neff Road (2). The corridor continues by traveling northwest towards the intersection of Sewer Road and 10th Street (3). At this point, the corridor traverses north past Illinois 161 just west of the Murray Center (5) and is approximately 2.3 miles west of existing US 51 through the City of Centralia. Turning northeast, the corridor passes the Burlington Northern Railroad east of Jolliff Bridge Road (8), continues northeasterly past Junction Road west of Junction City (10), and continues to a point east of the Colonial Golf Course (11). Traveling north and approximately 1,000 feet east of existing US 51, the corridor continues along the east side of Sandoval until it joins the US 51 alignment approximately 0.25 miles north of its intersection with the east leg of US 50 (14) and ends near Boone Street Road (16). The length of roadway on new alignment is approximately 11.8 miles on a total alignment of 13.4 miles.

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

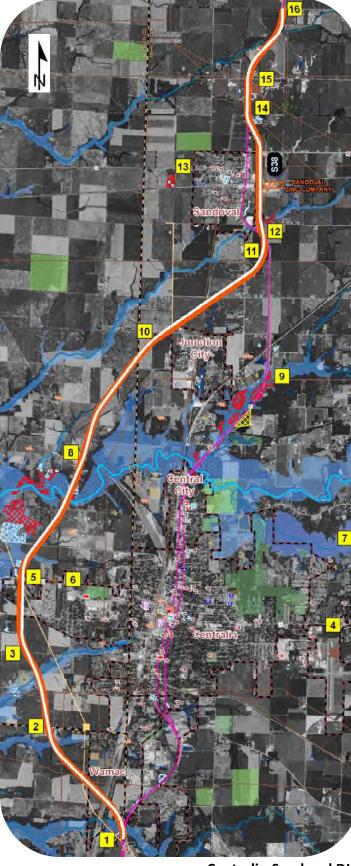
The alignment within corridor Centralia-Sandoval DL was developed to minimize impacts to wetlands, the water treatment plant facility, residences, and farmland; 12 residential displacements, seven total stream crossings (including one biologically significant stream), and 14 farmland severances could not be avoided. Complete avoidance of wetlands was not feasible. Wetland impacts were minimized at seven locations in the development of the alignment. Transverse crossings were developed at the narrowest identifiable point of impact. Of the 2.2 acres of wetlands impacted, 1.2 acres are high quality wetlands. At the southern limit and as the corridor travels northwest just north of the Wilkin Road/Neff Road intersection, the alignment was shifted west to minimize floodplain impacts by crossing at the narrowest impact point. All floodplain impacts are transverse. Continuing northwest towards Sewer Road and 10th Street, the alignment was shifted west to minimize the impacts to high quality wetlands. Near the location where the alignment crosses IL 161, the alignment was shifted east to minimize impacts to floodplains. Here, also impacts to stream crossings were reduced; the preliminary alignment bypassed crossings that the 500 foot corridor could not avoid. As the alignment nears Junction City and Sandoval, homes and farm residences become more prominent; shifts in the alignment were made to avoid impacts. As a result, 69 residential displacements identified in the corridor analysis were avoided. Since approximately twelve miles of this proposed alignment would be new roadway, impacts to prime and important farmland could not be avoided but were minimized, still impacting approximately 424 acres.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor minimizing impacts to environmental resources. It is recommended that the Centralia-Sandoval DL be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CATEGORY		ANALYSIS RESULTS	
Environmen	+ - 1	Corridor	Alignment
Environmen	<u>tai</u>	Impacts	Impacts
	Floodplains	58 acres	21.8 acres
	Biologically Significant Streams	1 crossing	1 crossing
	All Other Streams	8 crossings	6 crossings
	Drinking Water Supplies – Surface Water	None	None
	Wetlands	9.6 acres	2.2 acres
	Number of wetland sites	11 sites	4 sites
	High Quality Wetlands	2.0 acres	1.2 acres
Num	per of high quality wetland sites	1 site	1 site
	CERCLIS Sites	None	None
Community			
	Residential displacements	81 total	12 total
	Commercial displacements	None	None
	Public facility displacements	1 facility	None
	Parklands (4(f) / 6(f))	None	None
<u>Agricultural</u>			
	Prime and Important farmlands	758 acres	424 acres
	Parcels severed	14 parcels	14 parcels
Operations			
	Distance of travel	I 13.4 miles	
	Travel time	15:40 min:sec	
LEGEND			





Centralia-Sandoval DL Appendix B



ALIGNMENT NAME: Sandoval to Patoka Link (SPL)

ALIGNMENT SEGMENTS: <u>T13</u>

SUMMARY OF CORRIDOR LOCATION

The Sandoval to Patoka Link corridor is independent of all other Centralia-Sandoval and Vernon-Patoka alternatives. The corridor follows existing US 51 throughout a rural area of northern Marion County. This corridor essentially connects the Sandoval community with the Patoka community. The southern limit is just south of Boone Street Road (1). Continuing north along US 51, this alignment turns northeast until it terminates at CR 1475N just south of Patoka (2). The length of this corridor along US 51 is approximately 3.1 miles.

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

The alignment within the Sandoval to Patoka Link corridor was developed to tie other alignment alternatives into US 51 between Sandoval and Patoka. The alignment within this corridor was developed to widen to a four-lane facility parallel to an existing two-lane facility. At the southern limit, just south of Boone Street Road, the alignment was developed to minimize impacts to floodplains and avoid all impacts to wetlands. All floodplain impacts are transverse. All high quality wetlands were avoided. Since residences exist along both sides of this corridor, four residential displacements could not be avoided. Since the existing roadway cross-section is two-lanes, approximately 47 acres of prime and important farmland would be impacted to widen to a four-lane facility.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor minimizing impacts to environmental resources. It is recommended that the Sandoval to Patoka Link (SPL) be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CA	ΓEGORY		ANALYS	SIS RESULTS	
Fundamental		Corridor	Alignment		
<u>Environmer</u>	<u>itai</u>		Impacts	Impacts	
		Floodplain	6.0 acres	1.2 acres	
	Biologically signific	ant streams	None	None	
	Strea	m crossings	1 crossing	1 crossing	
	Drinking Wate Su	r Supplies – rface Water	None	None	
		Wetlands	0.5 acres	None	
	Number of w	etland sites	2 sites	None	
	High Qualit	ty Wetlands	0.5 acres	None	
Num	ber of high quality w	etland sites	1 site	None	
	С	ERCLIS Sites	None	None	
Community					
	Residential dis	placements	10 total	4 total	
	Commercial dis	placements	None	None	
	Public facility dis	placements	None	None	
		s (4(f) / 6(f))	None	None	
Agricultural					
	Prime and Importan	t farmlands	155 acres	47 acres	
	Paro	cels severed	None	None	
<u>Operations</u>					
	Distar	nce of travel	3.1	1 miles	
		Travel time	2:53	2:53 min:sec	
LEGEND					
	ide Alignment (white)/ ide Corridor (orange)	Park		Museum	
	S. Route 51	State Park Centennial	Farm	Police Station Fire Station	
Old U.S. Ro		Sesquicen	tennial Farm	Civic Building	
Municipal E	2,750° 1.	INAI Site		Hospital	
County Bo		High Quali	ty Woodland	Prison	
Drinking W	atei	Stream		Community Cent	
Floodway		Biologically Significant Stream		Library	
Floodplain		Electrical Transmission Line		School	
LAXXX	nd - 12/15/2009	Pipeline		d Church	
INHS High	Quality Wetland - 12/15/2009	4 Antenna S	tructure	Historic Site	
Potential W	etland Area	Electrical I	Facility	t [†] t Cemetery ⊗ Rare Plant	
Threatened	& Endangered Species	Pipeline Fa	7 (a.e. F.)	Population	
Important I	Habitat Area	Tank Farm Waste Wat	er Treatment Plant	1 Landmark	



Sandoval to Patoka Link (SPL)

Appendix B



ALIGNMENT NAME: Vernon-Patoka J

ALIGNMENT SEGMENTS: T14-VP24-VP23-T15-VP40-VP39-VP 42

SUMMARY OF CORRIDOR LOCATION

This corridor is a bypass east of the Village of Patoka and west of the Village of Vernon. The southern limit is located in the proximity of the US 51 and CR 1475N intersection (1). The corridor follows US 51 north for approximately 3 miles. Just south of Britt Road (2), the corridor diverges northeast away from US 51 and travels northeasterly towards Berry Road (3). At Berry Road, the corridor falls back on US 51 traveling north to Boat Dock Road (4). Here, the corridor traverses northwest to a point on Railroad Street between Boat Dock Road and Dickey Pond Road (5). At this point, the corridor is approximately 1/2 mile west of US 51. Continuing north, Railroad Street becomes Willett Road and the corridor bypasses the western limit of the Village of Vernon. At Lake Street (6), the corridor turns northeast to join with US 51 at the Marion/Fayette County line (7). The length of roadway on new alignment is approximately 3.7 miles on a total alignment of 9.5 miles.

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

The alignment within corridor Vernon-Patoka J was developed to minimize impacts to floodplains, wetlands, residences, and farmland; three residential displacements, one commercial displacement, five farmland severances, and utility (pipeline) crossings could not be avoided. Complete avoidance of wetlands was not feasible. Impacts were minimized, however, through an alignment shift only the edge of the wetlands are impacted. Of the 0.3 acres of wetlands impacted, <0.1 acres are high quality wetlands. In order to minimize impacts to high quality wetlands, the alignment nears a rare plant population, twinleaf (Jeffersonia diphylla). The population of twinleaf was avoided. Between the southern limit and Berry Road a majority of the alignment follows US 51 then diverges northeast away from US 51 and north toward Berry Road. In the diverging area, the only resource impacted is prime and important farmland. As this is new alignment, this resource cannot be avoided. Between Berry Road and Boat Dock Road, a cluster of residences, farm buildings, a business, and a school is located within the corridor. The alignment shifts to the west to minimize the number of impacts to residential and farm displacements and public facilities in this area. In order to avoid the residences and school, a commercial displacement near Berry Road is not able to be avoided. Approaching US 51 at the Marion/Fayette County line, a stream and floodway are crossed at the narrowest point to minimize impacts. With approximately one-third of the proposed alignment being new roadway, impacts to prime and important farmland could not be avoided but were minimized; still impacting 221 acres.

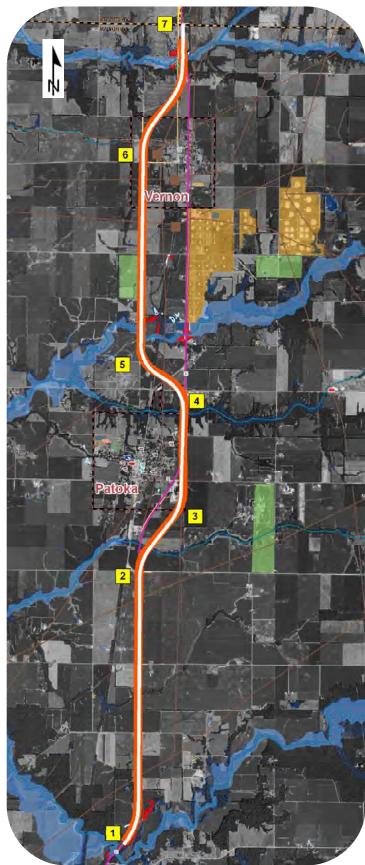
RECOMMENDATION

Segment VP24 was created to provide a better skew angle at an intersection on the southwest side of Patoka. Review during alignment analysis indicated that this skew could be remedied using VP25 (using Vernon-Patoka Q). Vernon-Patoka J does not demonstrate an identifiable advantage over Vernon-Patoka Q. Because VP25 maximizes use of existing right-of-way, and because public comment received during presentation of these corridors questioned the creation of new roadway parallel to existing roadway that impacted additional farmland, it is recommended that Vernon-Patoka J be eliminated from the reasonable range of alternatives for further consideration.

IMPACT CATEGORY	ANALYSIS RESULTS	
Environmental	Corridor	Alignment
<u> </u>	Impacts	Impacts
Floodplain	12 acres	4.6 acres
Wetlands	4.4 acres	0.3 acres
Number of wetland sites	10 sites	4 sites
High Quality Wetlands	3.0 acres	<0.1 acres
Number of high quality wetland sites	4 sites	1 site
Community		
Residential displacements	19 total	3 total
Commercial displacements	1 building	1 building
Utility conflicts	19 conflicts	19 conflicts
<u>Agricultural</u>		
Prime and Important Farmlands	520 acres	221 acres
Parcels severed	5 parcels	5 parcels
<u>Operations</u>		
Distance of travel	el 9.5 miles	
Travel time	8:40 r	nin:sec

200-Foot Wide Alignment (white)/ 500-Foot Wide Corridor (orange)	Park		Museum
Existing U.S. Route 51	State Park	*	Police Station
old U.S. Route 51	Centennial Farm	1	Fire Station
	Sesquicentennial Farm	m	Civic Building
Municipal Boundary	INAI Site		Hospital
County Boundary	High Quality Woodland		Prison
Orinking Water	Stream	0	Community Cente
_ake	Biologically Significant	10	Library
Floodway	Stream		School
Floodplain	Electrical Transmission Line	d	Church
NHS Wetland - 12/15/2009	Pipeline	2.0	
NHS High Quality Wetland - 12/15/2009	Antenna Structure		Historic Site
Potential Wetland Area	Electrical Facility	t ⁷ t	Cemetery
Threatened & Endangered Species	Pipeline Facility	8	Rare Plant Population
mportant Habitat Area	Tank Farm	4	Landmark
2.0	Waste Water Treatment Plant		Landmark
mportant Habitat Area		1	Lan





Vernon-Patoka J Appendix B



ALIGNMENT NAME: Vernon-Patoka Q

ALIGNMENT SEGMENTS: T14-VP25-T15-VP40-VP39-VP42

SUMMARY OF CORRIDOR LOCATION

This corridor is a bypass located east of the Village of Patoka and west of the Village of Vernon. The southern limit is located in the proximity of the US 51 and CR 1475N intersection (1). The corridor follows US 51 until Boat Dock Road (4). Here, the corridor traverses northwest to a point on Railroad Street between Boat Dock Road and Dickey Pond Road (5). At this point, the corridor is approximately 1/2 mile west of US 51. Continuing north, Railroad Street becomes Willett Road and the corridor bypasses the western limit of the Village of Vernon. At Lake Street (6), the corridor turns northeast to join with US 51 at the Marion/Fayette County line (7). The length of roadway on new alignment is approximately 2.2 miles on a total alignment of 9.4 miles.

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

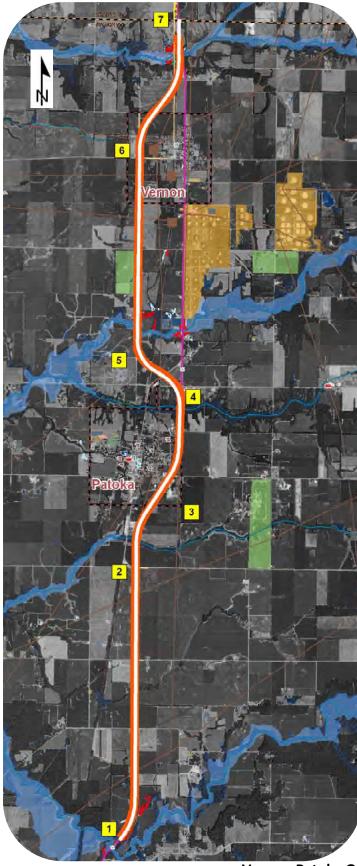
The alignment within corridor Vernon-Patoka Q was developed to minimize impacts to floodplains, wetlands, residences, and farmland; three residential displacements, four farmland severances, and utility (pipeline) crossings could not be avoided. Complete avoidance of wetlands was not feasible. Impacts were minimized; however, through an alignment shift only the edge of the wetlands are impacted. Of the 0.3 acres of wetlands impacted, <0.1 acres are high quality wetlands. In order to minimize impacts to high quality wetlands, the alignment nears a rare plant population, a twinleaf (Jeffersonia diphylla). The population of twinleaf was avoided. Over half of this alignment follows existing US 51. The only other impacts within the existing US 51 section is to prime and important farmland. Near Boat Dock Road the alignment travels northwest and north, the residences and buildings are dispersed allowing the alignment to be adjusted to avoid them. Approaching the existing US 51 at the Marion/Fayette County line, a stream and floodway are crossed at the narrowest point to minimize impacts. With approximately one-half of the proposed alignment being new roadway, impacts to prime and important farmland could not be avoided but were minimized; still impacting 221 acres.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor minimizing impacts to environmental resources. It is recommended that the Vernon-Patoka Q be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CATEGORY	ANALYSIS RESULTS	
Environmental	Corridor	Alignment
Environmental	Impacts	Impacts
Floodplain	12 acres	4.6 acres
Wetlands	4.4 acres	0.3 acres
Number of wetland sites	10 sites	3 sites
High Quality Wetlands	3.1 acres	<0.1 acres
Number of high quality wetland sites	4 sites	1 site
Community		
Residential displacements	20 total	3 total
Commercial displacements	None	None
Utility conflicts	19 conflicts	15 conflicts
<u>Agricultural</u>		
Prime and Important Farmlands	518 acres	221 acres
Parcels severed	4 parcels	4 parcels
<u>Operations</u>		
Distance of travel	l 9.4 miles	
Travel time	8:39 r	min:sec





Vernon-Patoka Q Appendix B



ALIGNMENT NAME: Vernon to Vandalia Link (VVL)

ALIGNMENT SEGMENT: T21

SUMMARY OF CORRIDOR LOCATION

This corridor follows the US 51 roadway between the northern limit of the Vernon corridors to the southern limit of the Vandalia corridors. Its southern limit is located just north of Vernon at CR 2400 (1). The corridor follows US 51 north for 5.0 miles and ends approximately two tenths of a mile north of CR 1075 (2).

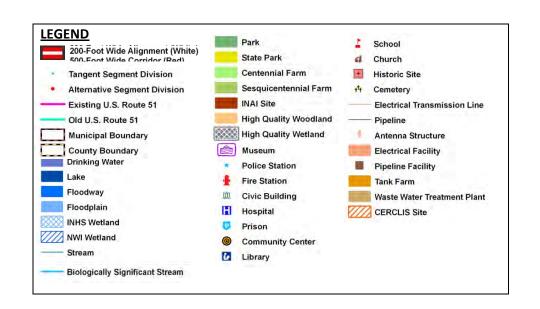
SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

The alignment within corridor Vernon to Vandalia Link was developed to minimize impacts to savanna habitats, wetlands, residences, commercial buildings and farmland; 2 wetland sites and utility (pipeline) crossings could not be avoided. However, all high quality wetlands (FQI \geq 20) were avoided. At the southern limit, the alignment was shifted to the east side of the corridor to avoid a savanna habitat identified by the INHS. As the corridor travels north, the proposed northbound lanes are aligned with the existing US 51 roadway to avoid a high quality wetland and two residential displacements. The alignment is then shifted east with the proposed southbound lanes using the existing US 51 roadway to avoid an open water area near CR 800. As the corridor continues north, the alignment shifts east to west as it approaches Shobonier to avoid residential displacements and commercial building displacements. North of Shobonier, the alignment shifts the proposed northbound lanes to the existing US 51 roadway to avoid a wetland, open water area, and residential displacements. At the south end of Vandalia, 2 homes and 1 farm residence are unavoidable along the east side of the alignment. Impacts to prime and important farmland could not be avoided but was minimized, impacting approximately 82 acres.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor. It is recommended that the Vernon to Vandalia Link be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CATEGORY ANALYSIS RESU		S RESULTS
Environmental	Corridor	Alignment
<u>Environmental</u>	Impacts	Impacts
Wetlands	1.8 acres	0.4 acres
Number of wetland sites	7 sites	2 sites
High quality wetlands	None	None
Number of high quality wetland sites	None	None
Community		
Residential displacements	19 total	None
Commercial displacements	14 buildings	None
<u>Agricultural</u>		
Prime and Important farmlands	261 acres	82 acres
Parcels severed	None	None
<u>Operations</u>		
Distance of travel	5.0 miles	
Travel time	04:36 min:sec	







ALIGNMENT NAME: Vandalia A

ALIGNMENT SEGMENTS: V55-V68-V59-V63-V65-V54-T29

SUMMARY OF CORRIDOR LOCATION

This corridor is a bypass situated to the west of the City of Vandalia. The southern limit is located in the proximity of the intersection of US 51 and CR 1075 (1). The corridor diverges from US 51 to the northwest approximately six miles until it crosses I-70 (2). At this point, the corridor is approximately 3.6 miles west of and parallel to US 51 through downtown Vandalia. From I-70, the corridor travels north and turns northeast in the vicinity of CR 500 and CR 1700 (4). The corridor then travels northeast and crosses IL 185 south of Vandalia Lake (7) and turns north-northeast for approximately two miles to join with US 51. Following US 51 north toward Ramsey the corridor ends approximately 1-1/4 miles north of the Vandalia Correctional Center (9). The length of the roadway on new alignment is approximately 12.3 miles on a total alignment of 12.8 miles.

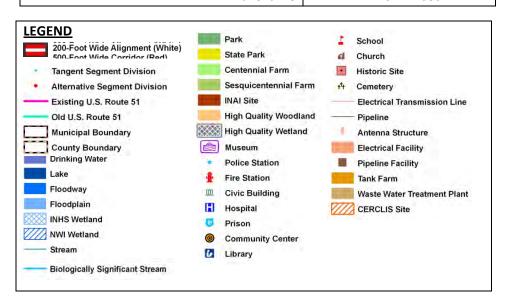
SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

The alignment within corridor Vandalia A was developed to avoid and minimize impacts to resources. At the southern limit, north of CR 1075, the alignment travels around the southwest side of Vandalia towards I-70. This section of the alignment is located approximately 400 feet east of a high-quality wetland (FQI ≥ 20) along the Kaskaskia River bluffs, which contains a T&E species (heart-leaved plantain). Near this location the alignment also avoids a high quality woodland area along the bluffs, located northeast of the high quality wetland. The alignment is located between the high quality wetland and woodland, resulting in no impacts to either resource. The alignment travels northwest with minor shifts to avoid residential displacements and farm severances, turns north as the alignment approaches and crosses I-70, and then continues northeast. The alignment crosses IL 185 south of Vandalia Lake and continues northeast and through a residential area resulting in 14 residential displacements. To the east of the residential area, the alignment traverses a wooded area with steep vertical relief. North of Vandalia near CR 2000, the alignment shifts east to align with existing roadway. Since 12.3 miles of this alignment would be new roadway, impacts to floodplain and prime and important farmland could not be avoided but were minimized, impacting approximately 61 acres and 295 acres respectively. All floodplain encroachments are traverse.

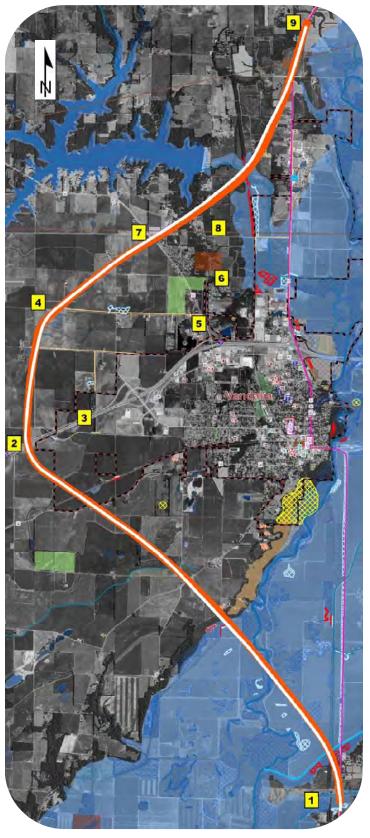
RECOMMENDATION

Engineering considerations associated with Vandalia A include traversing an area of steep vertical relief south of Vandalia Lake that includes an approximate forty-foot cut into a ridge formation. In this area, vertical profile cannot be developed without exceeding critical length of grade for acceptable truck speed reduction, or without resulting in excessive momentum grades as identified in Section 33-2.04 in the IDOT BDE Manual. Additionally, the Vandalia Community Advisory Group (CAG) expressed opposition to Vandalia A because of impacts to a residential area. All western bypasses must cross the ridge, but Vandalia S and Vandalia U cross at lower elevation and avoid severing a residential area. For the reasoning stated above, Vandalia A is recommended to be eliminated from further study.

IMPACT CATEGORY	ANALYSIS RESULTS	
<u>Environmental</u>	Corridor Impacts	Alignment Impacts
Floodplain	156 acres	61.1 acres
Wetlands	14.5 acres	5.3 acres
Number of wetland sites	9 sites	7 sites
High quality wetlands	11.8 acres	4.4 acres
Number of high quality wetland sites	3 sites	1 site
INAI Sites	None	None
Community		
Residential displacements	35 total	16 total
Commercial displacements	2 buildings	1 building
Public Facility displacements	None	None
Agricultural		
Prime and Important farmlands impacted	746 acres	295 acres
Parcels severed	20 parcels	13 parcels
<u>Operations</u>		
Distance of travel	12.8	miles
Travel time	12:46	min:sec







Vandalia A Appendix B



ALIGNMENT NAME: Vandalia D

ALIGNMENT SEGMENTS: V55-V68-V59-V64-V58-V61-V50-V54-T29

SUMMARY OF CORRIDOR LOCATION

This corridor is a bypass situated west of the City of Vandalia. The southern limit is located in the proximity of the intersection of US 51 and CR 1075 (1). The corridor diverges from US 51 to the northwest approximately six miles until it crosses I-70 (2). At this point, the corridor is approximately 3.6 miles west of and parallel to US 51 through downtown Vandalia. From I-70, the corridor travels north and turns northeast in the vicinity of CR 500 and CR1700 (4). The corridor then travels east, following CR 1700 until it crosses IL 185 (5). From this point the corridor traverses northeast until it crosses Thrill Hill Road (8) and turns northnortheast for approximately two miles to join with US 51. Following US 51 north toward Ramsey the corridor ends approximately 1-1/4 miles north of the Vandalia Correctional Center (9). The length of roadway on new alignment is approximately 13.2 miles on a total alignment of 13.7 miles.

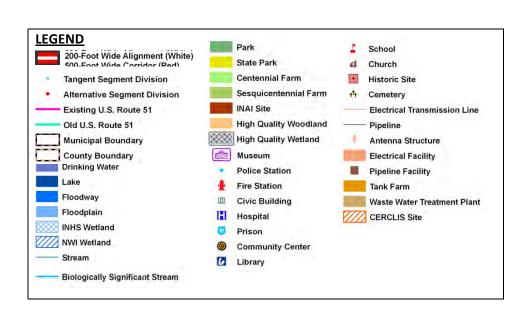
SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

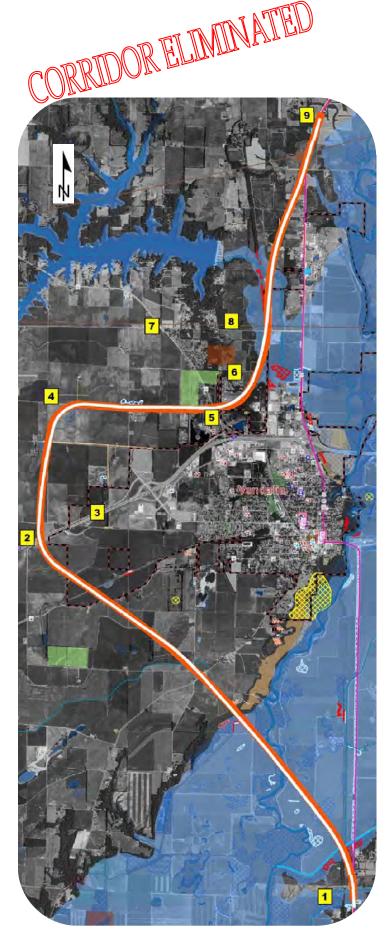
The alignment within corridor Vandalia D was developed to avoid and minimize impacts to resources. At the southern limit, just north of CR 1075, the alignment travels around the southwest side of Vandalia towards I-70. This section of the alignment is located approximately 400 feet east of a high quality wetland (FQI ≥ 20) along the Kaskaskia River bluffs, which contains a T&E species (heart-leaved plantain). Near this location the alignment also avoids a high quality woodland area along the bluffs, located northeast of the high-quality wetland. The alignment is located between the high quality wetland and woodland, resulting in no impacts to either resource. As the alignment travels northwest, additional minor alignment shifts within the corridor avoid residential displacements and farm severances. As the alignment approaches I-70, it turns north until reaching CR 1700. The alignment then turns east toward Vandalia following the existing CR 1700, avoiding the majority of residences on the north and south side of the road. Once the alignment crosses IL 185, it turns north and avoids farm residences and a commercial building within the corridor. North of Vandalia near CR 2000, the alignment shifts east to align with existing roadway. Since 13.2 miles of this alignment would be new roadway, impacts to floodplain and prime and important farmland could not be avoided but were minimized, impacting approximately 86 acres and 310 acres respectively. All floodplain encroachments are traverse.

RECOMMENDATION

This alignment does not demonstrate an identifiable advantage over adjacent and feasible alignments located closer to the City of Vandalia. At its farthest western point, Vandalia D is located 3.6 miles west of existing US 51. It exhibits the greatest acreage impacts to prime and important farmland of all the remaining corridors. Such a corridor could promote leap-frog development which would result in increased impacts to farmland. Additionally, vehicles heading southbound utilizing Vandalia D will travel approximately 2 miles directly west in their bypass of Vandalia. Based upon case studies of similar bypass routes, this is a deterrent that would persuade regional travelers to use existing US 51 through town. It is recommended that Vandalia D be eliminated from the reasonable range of alternatives for further consideration.

IMPACT CATEGORY	ANALYSIS RESULTS	
<u>Environmental</u>	Corridor	Alignment
Livioninental	Impacts	Impacts
Floodplain	224 acres	85.6 acres
Wetlands	39.4 acres	17.3 acres
Number of wetland sites	14 sites	13 sites
High quality wetlands	17.4 acres	7.0 acres
Number of high quality wetland sites	3 sites	3 sites
INAI Sites	None	None
Community		
Residential displacements	25 total	7 total
Commercial displacements	2 buildings	None
Public facility displacements	None	None
Agricultural		
Prime and Important farmlands	784 acres	310 acres
Parcels severed	22 parcels	19 parcels
<u>Operations</u>		
Distance of travel	13.7	miles
Travel time	12:45	min:sec





SUMMARY OF CORRIDOR LOCATION

This corridor is a bypass situated to the west of the City of Vandalia. The southern limit is located in the proximity of the intersection of US 51 and CR 1075 (1). The corridor diverges from existing US 51 to the northwest for approximately 5-1/4 miles where it begins turning north until crossing I-70 (3). At this point, the corridor is approximately 2.8 miles west of and parallel to existing US 51 through downtown Vandalia. From this point the corridor traverses northeast and crosses IL 185 south of Vandalia Lake (7) and turns north-northeast for approximately two miles to join US 51. Following US 51 north toward Ramsey the corridor ends approximately 1-1/4 miles north of the Vandalia Correctional Center (9). The length of the roadway on new alignment is approximately 11.4 miles on a total alignment of 11.9 miles.

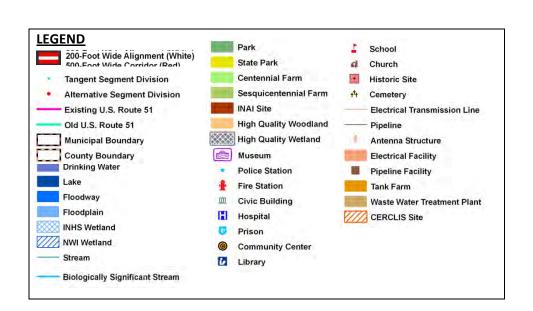
SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

The alignment within corridor Vandalia Q was developed to avoid and minimize impacts to resources. At the southern limit, north of CR 1075, the alignment travels around the southwest side of Vandalia towards I-70. This section of the alignment is located approximately 400 feet east of a high quality wetland (FQI ≥ 20) along the Kaskaskia River bluffs, which contains a T&E species (heart-leaved plantain). Near this location the alignment also avoids a high quality woodland area along the bluffs, located northeast of the high-quality wetland. The alignment is located between the high-quality wetland and woodland, resulting in no impacts to either resource. The alignment travels northwest with minor shifts to avoid residential displacements and farm severances, turns north as the alignment approaches and crosses I-70. The alignment crosses IL 185 south of Vandalia Lake and continues northeast and through a residential area resulting in 14 residential displacements. To the east of the residential area, the alignment traverses a wooded area with steep vertical relief. North of Vandalia near CR 2000, the alignment shifts east to align with existing roadway. Since 11.4 miles of this alignment would be new roadway, impacts to floodplain and prime and important farmland could not be avoided but were minimized, impacting approximately 61 acres and 295 acres respectively. All floodplain encroachments are traverse.

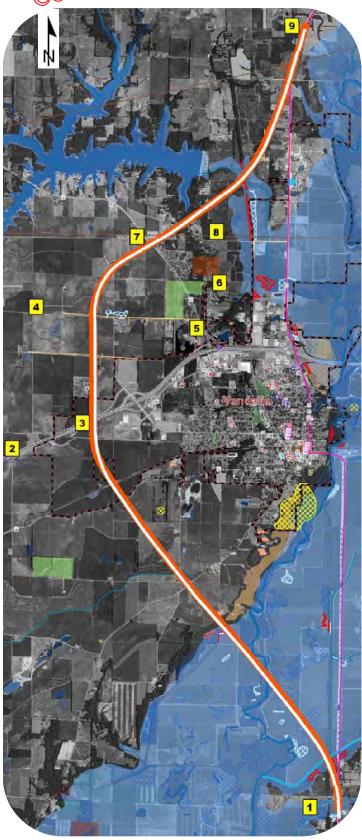
RECOMMENDATION

Engineering considerations associated with Vandalia Q include traversing an area of steep vertical relief south of Vandalia Lake that includes an approximate forty-foot cut into a ridge formation. In this area, vertical profile cannot be developed without exceeding critical length of grade for acceptable truck speed reduction, or without resulting in excessive momentum grades as identified in Section 33-2.04 in the IDOT BDE Manual. Additionally, the Vandalia Community Advisory Group (CAG) expressed opposition to Vandalia Q because of impacts to a residential area. All western bypasses must cross the ridge, but Vandalia S and Vandalia U cross at lower elevation and avoid severing a residential area. For the reasoning stated above, Vandalia Q is recommended to be eliminated from further study.

IMPACT CATEGORY	ANALYSIS RESULTS	
<u>Environmental</u>	Corridor Impacts	Alignment Impacts
Floodplain	156 acres	60.6 acres
Wetlands	15.5 acres	6.3 acres
Number of wetland sites	12 sites	10 sites
High quality wetlands	12.2 acres	4.6 acres
Number of high quality wetland sites	4 sites	4 sites
INAI Sites	None	None
Community		
Residential displacements	37 total	9 total
Commercial displacements	2 buildings	None
Public facility displacements	None	None
Agricultural		
Prime and Important farmlands	689 acres	274 acres
Parcels severed	18 parcels	18 parcels
<u>Operations</u>		
Distance of travel	11.9	miles
Travel time	11:58 min:sec	



CORRIDOR ELIMINATED





ALIGNMENT NAME: Vandalia S

ALIGNMENT SEGMENTS: V55-V72-V58-V61-V50-V54-T29

SUMMARY OF CORRIDOR LOCATION

This corridor is a bypass situated west of the City of Vandalia. The southern limit is located in the proximity of the intersection of US 51 and CR 1075 (1). The corridor diverges from existing US 51 to the northwest for approximately 5-1/4 miles where it begins turning north until crossing I-70 (3). At this point, the corridor is approximately 2.8 miles west of and parallel to existing US 51 through downtown Vandalia. After crossing I-70, the corridor curves to the east until crossing IL 185 (5). From this point the corridor traverses northeast until it crosses Thrill Hill Road (8) and turns north-northeast for approximately two miles to join with US 51. Following US 51 north toward Ramsey the corridor ends approximately 1-1/4 miles north of the Vandalia Correctional Center (9). The length of roadway on new alignment is approximately 11.6 miles on a total alignment of 12.1 miles.

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

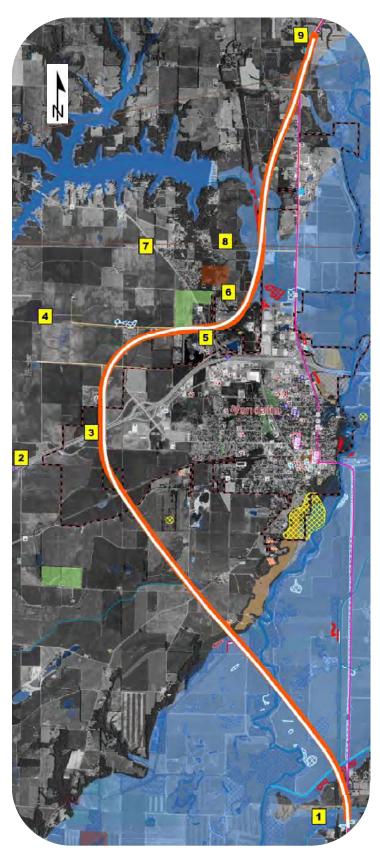
The alignment within corridor Vandalia S was developed to avoid and minimize impacts to resources. At the southern limit, north of CR 1075, the alignment travels around the southwest side of Vandalia towards I-70. This section of the alignment is located approximately 400 feet east of a high quality wetland (FQI ≥ 20) along the Kaskaskia River bluffs, which contains a T&E species (heart-leaved plantain). Near this location the alignment also avoids a high quality woodland area along the bluffs, located northeast of the high quality wetland. The alignment is located between the high quality wetland and woodland, resulting in no impacts to either resource. As the alignment travels northwest, additional minor alignment shifts avoid residential displacements and severances of agricultural parcels. The alignment continues to travel north until reaching I-70, where it curves northeast toward existing US 51 and avoids most of the residential properties, and minimizes farm severances. North of Vandalia near CR 2000, the alignment joins with the existing roadway. Since 11.6 miles of this alignment would be new roadway, impacts to floodplain, and prime and important farmland could not be avoided but were minimized, impacting approximately 86 acres and 278 acres respectively. All floodplain encroachments are traverse.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor. It is recommended that Vandalia S be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CATEGORY	ANALYSIS RESULTS		
Environmental	Corridor	Alignment	
Livitotimentai	Impacts	Impacts	
Floodplain	224 acres	85.5 acres	
Wetlands	37.6 acres	15.7 acres	
Number of wetland sites	16 sites	13 sites	
High quality wetlands	17.8 acres	7.1 acres	
Number of high quality wetland sites	4 sites	4 sites	
INAI Sites	None	None	
Community			
Residential displacements	30 total	10 total	
Commercial displacements	2 buildings	None	
Public facility displacements	None	None	
Agricultural			
Prime and Important farmlands	700 acres	278 acres	
Parcels severed	20 parcels	18 parcels	
<u>Operations</u>			
Distance of travel	12.1 miles		
Travel time	11:16	min:sec	





Vandalia S Appendix B



ALIGNMENT NAME: Vandalia U

ALIGNMENT SEGMENTS: V55-V71-V73-V54-T29

SUMMARY OF CORRIDOR LOCATION

This corridor is a bypass situated west of the City of Vandalia. The southern limit is located in the proximity of the intersection of US 51 and CR 1075 (1). The corridor diverges from existing US 51 to the northwest for approximately 5-1/4 miles where it begins turning north until crossing I-70 (3). At this point, the corridor is approximately 2.8 miles west of and parallel to existing US 51 through downtown Vandalia. After crossing I-70, the corridor curves to the northeast and traverses the southeast portion of the Vandalia Geologic Area INAI site (6). From this point the corridor traverses north-northeast for approximately 2-1/2 miles to join with US 51. Following US 51 north toward Ramsey the corridor ends approximately 1-1/4 miles north of the Vandalia Correctional Center (9). The length of roadway on new alignment is approximately 11.4 miles on a total alignment of 11.9 miles.

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

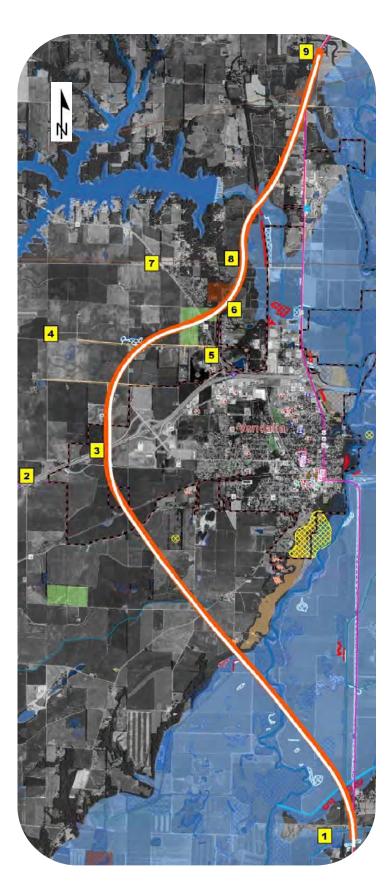
The alignment within corridor Vandalia U was developed to avoid and minimize impacts to resources. At the southern limit, north of CR 1075, the alignment travels around the southwest side of Vandalia towards I-70. This section of the alignment is located approximately 400 feet east of a high quality wetland (FQI ≥ 20), which contains a T&E species (heart-leaved plantain). Near this location the alignment also avoids a high quality woodland area along the bluffs, located northeast of the high quality wetland. The alignment is located between the high quality wetland and woodland, resulting in no impacts to either resource. The alignment travels northwest with minor shifts to avoid residential displacements and farm severances, turns north as the alignment approaches and crosses I-70, and then continues northeast across IL 185 and traverses the southeast portion of the Vandalia Geologic Area INAI site. North of Vandalia near CR 2000, the alignment joins with the existing roadway. Since 11.4 miles of this alignment would be new roadway, impacts to floodplain and prime and important farmland could not be avoided but were minimized, impacting approximately 63 acres and 271 acres respectively. All floodplain encroachments are traverse.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor. It is recommended that Vandalia U be carried forward in the reasonable range of alternatives for further consideration.

	ANALYSIS RESULTS	
<u>Environmental</u>	Corridor Impacts	Alignment Impacts
Floodplain	166 acres	63.1 acres
Wetlands	17.1 acres	6.4 acres
Number of wetland sites	13 sites	10 sites
High quality wetlands	12.5 acres	4.7 acres
Number of high quality wetland sites	4 sites	4 sites
INAI Sites	10 acres	4.1 acres
Community		
Residential displacements	21 total	6 total
Commercial displacements	None	None
Public facility displacements	None	None
<u>Agricultural</u>		•
Prime and Important farmlands	681 acres	271 acres
Parcels severed	18 parcels	17 parcels
<u>Operations</u>		
Distance of travel	11.9 miles	
Travel time	10:57 min:sec	







ALIGNMENT NAME: Vandalia to Ramsey Link A (VRL A)

ALIGNMENT SEGMENTS: <u>T30-T31-T33</u>

SUMMARY OF CORRIDOR LOCATION

This corridor follows the US 51 roadway between Vandalia and Ramsey. The southern limit is approximately two tenths of a mile north of CR 1800 (1). The corridor follows US 51 north for 5.6 miles, ending south of Ramsey, approximately two tenths of a mile north of CR 2600 (4).

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

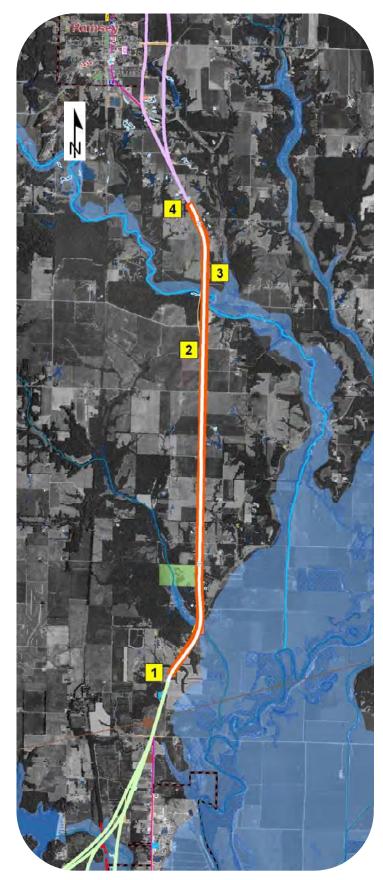
The alignment within corridor Vandalia to Ramsey Link A ties together the Vandalia alignment alternatives and the Ramsey alignment alternatives. The alignment was developed to avoid impacts to wetlands, residences, commercial buildings, and farmland. Some wetland and utility (pipeline) crossings could not be avoided. However, all high quality wetlands (FQI > 20) were avoided. At the southern limit, the proposed northbound lanes align with the US 51 roadway. The alignment shifts to the center of the corridor near CR 2100 in order to avoid farm outbuildings, residences, and a cemetery. As the alignment approaches Hoffman Creek South Branch, impacts to the bridge, a listed historic structure, cannot be avoided without impacting high quality wetlands. North of the bridge, the alignment again shifts to the centerline of the US 51 roadway in order to avoid residences and outbuildings. The alignment follows US 51 across Ramsey Creek, a biologically significant stream, requiring widening or replacement of the existing bridge. South of Ramsey, the alignment shifts to the west of the corridor to avoid all the residential and commercial displacements in the area. Impacts to prime and important farmland cannot be avoided but were minimized by following the roadway; approximately 70 acres were impacted.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor. It is recommended that Vandalia to Ramsey Link A be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CA	TEGORY	ANALYSIS RESULTS	
<u>Environmental</u>		Corridor	Alignment
		Impacts	Impacts
	Biologically significant streams	1 crossing	1 crossing
	Wetlands	0.7 acres	0.1 acres
	Number of wetland sites	4 sites	1 site
	High Quality Wetlands	None	None
Num	ber of high quality wetland sites	None	None
Community			
	Residential displacements	25 total	None
	Commercial displacements	None	None
<u>Agricultural</u>			
	Prime and Important farmlands	248 acres	70 acres
	Parcels severed	None	None
Cultural			
•	Historic Sites	1 site	1 site
Operations			
	Distance of travel	5.6 miles	
	Travel time	05:09 min:sec	





Vandalia to Ramsey Link A (VRLA)

Appendix B



ALIGNMENT NAME: Vandalia to Ramsey Link B (VRL B)

ALIGNMENT SEGMENTS: T30-T31-T32-T33

SUMMARY OF CORRIDOR LOCATION

This corridor follows the US 51 roadway between Vandalia and Ramsey. The southern limit is approximately two tenths of a mile north of CR 1800 (1). The corridor follows US 51 north for approximately 4.5 miles until CR 2450 (2). At this intersection the northbound and southbound lanes split. The northbound lanes continue north following US 51; the southbound lanes curves northwest and are parallel to US 51 until joining the existing roadway less than two tenths of a mile north of CR 2525 (3). The corridor follows US 51 ending south of Ramsey, approximately two tenths of a mile north of CR 2600 (4).

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

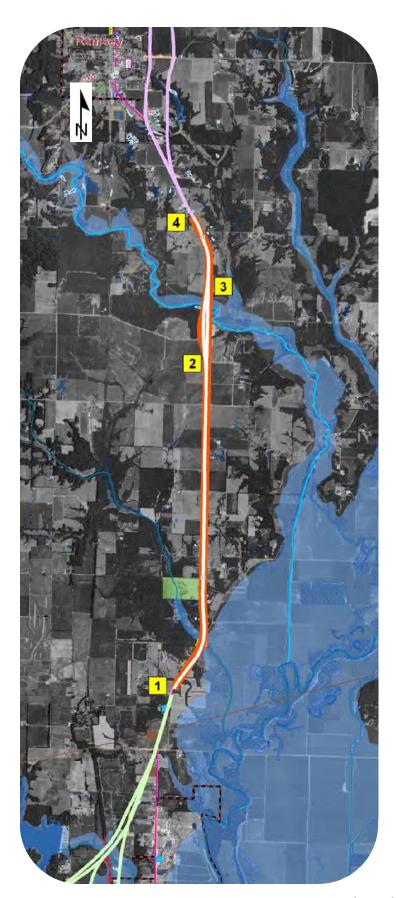
The alignment within corridor Vandalia to Ramsey Link B ties together the Vandalia alignment alternatives and the Ramsey alignment alternatives. The alignment was developed to minimize impacts to wetlands and avoid impacts to residences, commercial buildings, and prime and important farmland. Some wetland and utility (pipeline) crossings could not be avoided. However, all high quality wetlands were avoided. At the southern limit, the proposed northbound lanes align with the US 51 roadway. The alignment shifts to the center of the corridor near CR 2100 in order to avoid farm outbuildings, residences, and a cemetery. As the alignment approaches Hoffman Creek South Branch, impacts to the bridge, a listed historic structure, cannot be avoided without impacting high quality wetlands. North of the bridge, the alignment again shifts to the centerline of the US 51 roadway in order to avoid residences and out buildings. The northbound and southbound lanes of the alignment split south of Ramsey Creek, a biologically significant stream. The southbound lanes diverge to the west of US 51 for 0.9 miles to minimize impacts to Ramsey Creek by traversing an area over the creek previously disturbed by a bridge that carried Old US 51. The northbound lanes follow US 51 across Ramsey Creek on the existing structure. South of Ramsey, the alignment shifts to the west of the corridor to avoid all residential and commercial displacements in the area. Impacts to prime and important farmland could not be avoided but were minimized, impacting approximately 76 acres.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor. It is recommended that Vandalia to Ramsey Link B be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CA	TEGORY	ANALYSIS RESULTS	
Environmental		Corridor	Alignment
<u>Environmental</u>	Impacts	Impacts	
	Biologically significant streams	1 crossing	1 crossing
	Wetlands	0.8 acres	0.2 acres
	Number of wetland sites	5 sites	2 sites
	High Quality Wetlands	None	None
Nun	nber of high quality wetland sites	None	None
Community	Y		
	Residential displacements	26 total	None
	Commercial displacements	7 buildings	None
<u>Agricultura</u>	<u>l</u>		
	Prime and Important farmlands	285 acres	76 acres
	Parcels severed	None	None
<u>Cultural</u>			
•	Historic Sites	1 site	1 site
Operations			
	Distance of travel	5.6 miles	
	Travel time	05:09 min:sec	





Vandalia to Ramsey Link B (VRLB)

Appendix B



ALIGNMENT NAME: Ramsey A

ALIGNMENT SEGMENTS: R19-T36

SUMMARY OF CORRIDOR LOCATION

This corridor is a bypass situated east of the Village of Ramsey. The southern limit is located approximately two tenths of a mile north of CR 2600 (1). The corridor bypasses Ramsey by turning to the north (2) as existing US 51 continues northwest toward the town. From this point, the corridor traverses north and is approximately 3,500 feet east of and parallel to existing US 51 through the Village of Ramsey until joining US 51 approximately one quarter mile north of CR 2885 (4). The corridor continues along the US 51 roadway and ends less than one half mile north of CR 3100 (5). The length of roadway on new alignment is approximately 3.0 miles on a total alignment of 5.4 miles.

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

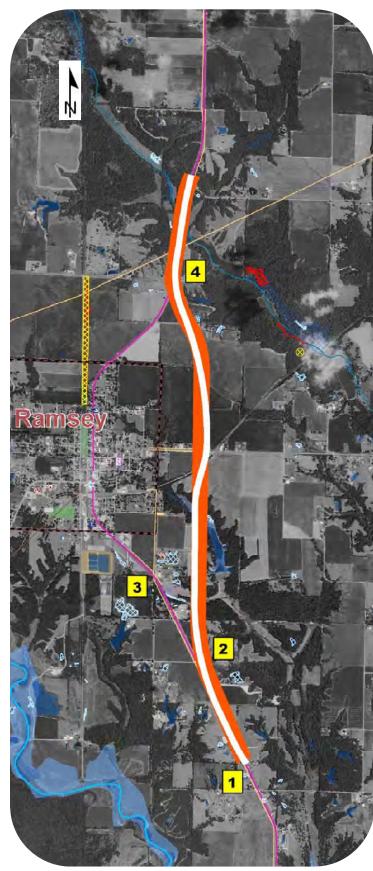
The alignment within corridor Ramsey A was developed to minimize impacts to wetlands, residences, and farmland; 2 residential displacements, farmland and utility (pipeline) crossings could not be avoided. All high quality wetlands (FQI ≥ 20) were avoided. At the southern limit, the alignment was situated to the west in the corridor to minimize farm displacements and farm outbuilding impacts. As the corridor travels north, the alignment shifts to the east toward CR 2675. Past CR 2675, the alignment shifts back to the west to avoid farm displacements and farm outbuilding impacts. At the north end of Ramsey, most impacts are avoided with the exception of prime and important farmland. Since 3.0 miles of this alignment would be new roadway, impacts to prime and important farmland cannot be avoided; approximately 87 acres are impacted.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor. It is recommended that Ramsey A be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CATEGORY	ANALYSIS RESULTS		
Environmental	Corridor	Alignment	
Livioimentai	Impacts	Impacts	
Wetlands	1.6 acres	0.1 acres	
Number of wetland sites	4 sites	1 sites	
High quality wetlands	None	None	
Number of high quality wetland sites	None	None	
Community			
Residential displacements	7 total	2 total	
Commercial displacements	None	None	
Public facility displacements	None	None	
Parklands (4(f) / 6(f))	None	None	
Agricultural			
Prime and Important farmlands	267 acres	87 acres	
Parcels severed	2 parcels	None	
<u>Operations</u>	<u>Operations</u>		
Distance of travel	5.4 miles		
Travel time	04:58	min:sec	





Ramsey A Appendix B



ALIGNMENT NAME: Ramsey C

ALIGNMENT SEGMENTS: T34-R20-R21-R22-T35-T36

SUMMARY OF CORRIDOR LOCATION

This corridor is a bypass situated east of the Village of Ramsey. The southern limit is located approximately two tenths of a mile north of CR 2600 (1). The corridor bypasses Ramsey by turning north (3) as existing US 51 continues northwest towards town. The corridor continues north, approximately 2000 feet east of and parallel to existing US 51 through the Village of Ramsey, until joining existing US 51 one tenth mile north of CR 2885 (4). The corridor continues along the US 51 roadway and ends less than one half mile north of CR 3100 (5). The length of roadway on new alignment is approximately 1.7 miles on a total alignment of 5.5 miles.

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

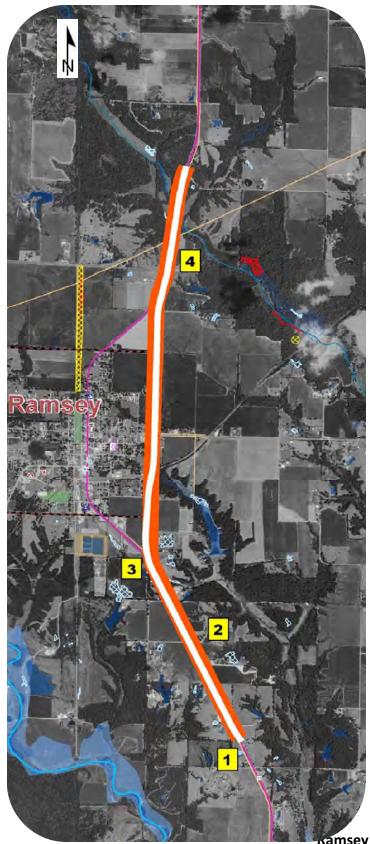
The alignment within corridor Ramsey C was developed to minimize impacts to residences, commercial buildings, wetlands, and farmland; 10 residential displacements and 17 utility (pipeline) crossings could not be avoided. All high quality (FQI ≥ 20) wetlands were avoided. At the southern limit, the alignment was shifted to the west of the existing US 51 roadway to minimize farm displacements and farm outbuilding impacts. As the alignment travels northwest, it is situated along the west side of the corridor in order to avoid the commercial buildings, antenna, and electrical facility impacts within the corridor. The alignment diverges from the US 51 roadway near CR 2675 and continues directly north. At the north end of Ramsey, most impacts have been avoided with the exception of prime and important farmland. Since 1.7 miles of this alignment would be new roadway, impacts to prime and important farmland cannot be avoided; approximately 82 acres are impacted.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor. It is recommended that Ramsey C be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CATEGORY	ANALYSIS RESULTS		
Environmental	Corridor	Alignment	
Livioimentai	Impacts	Impacts	
Wetlands	1.1 acres	None	
Number of wetland sites	8 sites	None	
High quality wetlands	None	None	
Number of high quality wetland sites	None	None	
Community			
Residential displacements	25 total	10 total	
Commercial displacements	3 buildings	None	
Public facility displacements	None	None	
Parklands (4(f) / 6(f))	None	None	
Agricultural			
Prime and Important farmlands	279 acres	82 acres	
Parcels severed	None	None	
<u>Operations</u>			
Distance of travel	5.5 miles		
Travel time	ne 05:14 min:sec		





Appendix B



ALIGNMENT NAME: Ramsey End Link A (REL A)

ALIGNMENT SEGMENTS: <u>T37-T38-T40</u>

SUMMARY OF CORRIDOR LOCATION

This corridor follows the US 51 roadway north of Ramsey. Its southern limit is located approximately one tenth mile north of CR 2885 (1). The corridor follows US 51 north for approximately 13.5 miles until the end of the project limits (4) joining a proposed 4-lane improvement south of Pana.

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

The alignment within corridor Ramsey End Link A was developed to tie together alignment alternatives between Ramsey and the northern project limit where it will join a planned 4-lane improvement south of Pana. The alignment was developed re-using the existing two-lane roadway to avoid or minimize impacts to resources. Near the town of Oconee the alignment shifts to the east side of the corridor to avoid home, farm residence, farm outbuilding, and commercial building impacts. As the corridor continues north past Oconee, the alignment stays along the east side of the corridor to avoid all home, farm residence, and farm outbuilding displacements. The alignment follows US 51 across Opossum Creek requiring widening or replacement of the existing bridge through steep wooded topography. Impacts to prime and important farmland could not be avoided but were minimized, impacting approximately 170 acres.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor. It is recommended that Ramsey End Link A be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CATEGORY	ANALYSIS RESULTS		
Environmental	Corridor	Alignment	
Livioiiiieitai	Impacts	Impacts	
Wetlands	1.3 acres	0.1 acres	
Number of wetland sites	1 site	1 site	
High Quality Wetlands	None	None	
Number of high quality wetland sites	None	None	
Community			
Residential displacements	14 total	None	
Commercial displacements	2 buildings	None	
Agricultural			
Prime and Important farmlands	583 acres	170 acres	
Parcels severed	2 parcels	1 parcels	
<u>Operations</u>			
Distance of travel	11.3 miles		
Travel time	10:22 min:sec		





Ramsey End Link A (RELA)

Appendix B



ALIGNMENT NAME: Ramsey End Link B (REL B)

ALIGNMENT SEGMENTS: <u>T37-T38-T39-T40</u>

SUMMARY OF CORRIDOR LOCATION

This corridor follows the existing US 51 roadway north of Ramsey. Its southern limit is located approximately one tenth mile north of CR 2885 (1). The corridor follows US 51 north for approximately 9.5 miles, and less than one half mile north of CR 500, the northbound and southbound lanes split into two different routes (2). The northbound lanes continue to follow US 51 as the southbound lanes diverge to the west. Moving northward, the southbound lanes eventually curve east until they join to the existing US 51 alignment again approximately three tenths of a mile north of Old Turkey Farm Rd (3). At this intersection, the alignment is a four-lane typical section and the corridor north following US 51 until the end of the project limits joining a proposed 4-lane improvement south of Pana (4).

SUMMARY OF ALIGNMENT IMPACTS WITHIN CORRIDOR

The alignment within the corridor Ramsey End Link B was developed to tie together alignment alternatives between Ramsey and the northern project limit where it will join a planned 4-lane improvement south of Pana. The alignment within this corridor was developed re-using the existing two-lane roadway to avoid and minimizes impacts to resources. North of Oconee, the proposed northbound and southbound lanes split for a distance of 2.3 miles. The northbound lanes continue along existing US 51, while the split west of existing US 51 would serve southbound traffic. The split of the travel lanes is proposed as an alternative to widening or replacing an existing bridge through steep wooded topography and may be necessary due to the unique horizontal geometry and vertical topography associated with Opossum Creek within this segment. Additionally, the alignment split avoids residential and farm outbuildings displacements, wetland impacts, and open water impacts. The split ends near Old Turkey Farm Road. Impacts to prime and important farmland could not be avoided but were minimized, impacting approximately 150 acres.

RECOMMENDATION

A feasible preliminary alignment was developed within the corridor. It is recommended that Ramsey End Link B be carried forward in the reasonable range of alternatives for further consideration.

IMPACT CATEGORY	ANALYSIS RESULTS		
Environmental	Corridor	Alignment	
Environmental	Impacts	Impacts	
Wetlands	0.8 acres	None	
Number of wetland sites	1 site	None	
High Quality Wetlands	None	None	
Number of high quality wetland sites	None	None	
Community			
Residential displacements	14 total	None	
Commercial displacements	2 buildings	None	
<u>Agricultural</u>			
Prime and Important farmlands	578 acres	150 acres	
Parcels severed	None	None	
<u>Operations</u>			
Distance of travel	11.4 miles		
Travel time	10:28 min:sec		





Ramsey End Link B (RELB)
Appendix B