

FHWA-INDIANA Environmental Document

GENERAL PROJECT INFORMATION

Road No./County:	US 27/ Jay County		
Designation Number:	0100568	<i>Des No 0400594 / Bridge over Bear Creek included in this</i>	
Project Description/Termini:	Road Reconstruction from 0.87 mile north of N. Jct. with SR 26/SR 67 to SR 18/ SR 67		

RELEASE FOR PUBLIC INVOLVEMENT

After completing this form, I conclude that this project qualifies for the following type of Categorical Exclusion and hereby release it for NEPA public involvement (FHWA must review if Section 4(f) property is used): (Explanation)

Statewide CE (SCE):
(Approval requires only INDOT signature)

X

FHWA CE:
(Approval requires both INDOT and FHWA signature)

Environmental Assessment (EA)



 Signature
 (FHWA must sign for FHWA EAs.)

 11-3-05
 Date

APPROVAL



 INDOT Signature

 11-3-05
 Date

 FHWA Signature
 (Required for FHWA CE only. EAs require a separate FONSI)

 Date

Note: Do not approve until after Section 106 public involvement and all other environmental requirements have been satisfied. (Explanation)

Environmental Commitments Sheet

Des. No.:	0100568
Project No.:	STP-249-7 ()
County:	Jay
Description:	US 27 Road Reconstruction
Project Termini:	From 0.87 Mile North of N. Jct. with SR 26/SR 67 to SR 18/ SR 67
Average R/W Width:	70' to 80' (half width)

Committed Items: (If implementation is not possible, section that made commitment must review document.)	Implemented: Yes/No (reason)
The Design Division will acquire the appropriate US Army COE, IDEM, and IDNR permits for this project. This could include a Section 404 permit, Section 401 permit, construction in a floodway permit, and Rule 5 permit.	
All archaeological work for this project has been completed. However, under state law, archaeological artifacts or human remains that are uncovered during the construction process must be reported to the Department of Natural Resources within 2 business days.	
The physical disturbance of the stream and riparian vegetation is to be limited to only that which is absolutely necessary to complete the project.	
A drained wetland exists at the eastern project limits. The wetland area being taken by this project is approximately 3400 square feet, totaling less than 0.10 acre. Therefore, mitigation is not required at this time. If any further right-of-way is required for this project, the environmental assessment section must be contacted. Species noted in the wetland area included typha spp., barnyard grass, curly doc, and fowl manna grass.	
IDEM, Office of Water Quality, is to be contacted if the project involves over 2,023 m ² (0.5 acre) of wetland impact, stream relocation, or other large-scale alterations to waterbodies such as the creation of a dam or a water diversion.	

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Average R/W Width:	70' to 80' (half width)

Committed Items: (If implementation is not possible, section that made commitment must review document.)	Implemented: Yes/No (reason)
No open burning of construction wastes is to be permitted without proper variance from IDEM. Vegetative wastes are to be removed to a registered yard waste composting facility or the waste may be chipped or shredded with composting on site. The finished compost can then be used as a mulch or soil amendment. Vegetative wastes (leaves, twigs, braches, limbs, tree trunks, and stumps) can be buried onsite.	
Appropriate structures and techniques are to be utilized during the construction phase and after completion of the project to minimize soil erosion.	
Fugitive dust must be controlled by proper wetting, chemical stabilizers, or wind barriers. Dirt tracked onto paved roads from unpaved areas is to be minimized.	
Proper measures are to be taken to ensure that asphalt paving plants are permitted and operating properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent oil distillate is prohibited during the month of April through October. The Asphalt Paving Rule 326 IAC 8-5 should be reviewed.	
New sources of air emissions or the modification of an existing source of air emissions or air pollution control equipment will need to be reviewed by the IDEM Office of Air Quality.	

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Committed Items: (If implementation is not possible, section that made commitment must review document.)	Implemented: Yes/No (reason)
<p>Any demolition is to be reported to the Office of Air Management at least 10 days prior to demolition and must be submitted on State Form 44593 (1-91). The following rules as found in 326 of the Indiana Administrative Code (IAC) apply:</p> <ul style="list-style-type: none"> ▪ 326 IAC 14-2 Emission Standards for Asbestos ▪ 327 IAC 14-10 Emission Standards for Asbestos Demolition and Renovation Operations ▪ 326 IAC 18-1 and 18-3 Asbestos Personnel Accreditation Rules 	
Restrict below low-water work to placement of piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap.	
Avoid or minimize channel work in Bear Creek. If channel work is necessary, restrict below low-water work to the minimum necessary for bridge widening. Use 3-sided culverts for small structure crossings of streams that contain fish and invertebrate communities. (USF&W)	
Provide vegetative buffer between Bockoven Ditch and the highway during construction. (USF&W)	
Minimize and contain within the project limits in-channel disturbance and the clearing of trees and brush.	
Any contaminated soils encountered during construction are to be reported to the IDEM, Office of Land Quality and may be subjected to special disposal requirements.	
The Industrial Waste Section of the Office of Land Quality is to be contacted if PCBs are found at the site.	
Minimize the extent of artificial bank stabilization. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.	

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Committed Items: (If implementation is not possible, section that made commitment must review document.)	Implemented: Yes/No (reason)
Implement temporary erosion and siltation control devices.	
Where possible, use bridges in place of culverts. Bridges allow for longer spans across floodway and floodplain habitat. Longer spans allow for improved wildlife movement and vegetative restoration along a stream's riparian corridor. (IDNR)	
Restrict channel work and vegetation clearing to within the width of the normal approach road right-of-way. (USF&W)	
The Indianapolis Executive Airport is located 3000 feet southwest of the Western terminus of the project. If any equipment utilized on this project is taller than 30 feet above ground level, FAA Form 7460-1 must be filled. This project may also limit access to the Indianapolis Executive Airport. It is very important to keep access to this airport at a maximum at all times. (IDNR)	
Avoid all work in Bear Creek during the fish spawning season (April 1 through June 30). (USF&W)	
The Portland Municipal Airport is located 1,200 feet Southwest of the Southern Terminus of the project. If any equipment utilized on this project is taller than 12 feet above ground level, FAA Form 7460-1 (Notice of Proposed Construction of Alteration) must be filed.	
A Preliminary Site Investigation was completed for this area. Please follow project recommendations listed in the PSI Report. Copies of this report are located in INDOT's Environmental Services Section.	

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Committed Items: (If implementation is not possible, section that made commitment must review document.)	Implemented: Yes/No (reason)
<p>Wetlands exist in the project area, as noted on the attached plan and profile sheets (Appendix A8-A19). One wetland area is a cattail marsh located on the west side of SR 27, south of the bridge over Bear Creek. If the current ditch is moved, wetlands may be impacted. The wetland area is 150' long. If more than 0.10 acre is impacted, mitigation may be required.</p> <p>Another wetland area is located on the east side of SR 27 adjacent to Bear Creek. Wetland areas exist beyond proposed right-of-way; approximately 150' from the edge of SR 27. Design must maintain the existing slopes. If more than the current slope is necessary, it may impact the wetland area and mitigation may be required.</p> <p>If Design expects impacts to these areas, please contact the Environmental Assessment Section.</p>	

Items for further consideration: (Designer or other responsible party must briefly describe implement response.)	Implemented: Yes/No (reason)
<p>We recommend using 3 sided culverts in place of box or pipe culverts. Three-sided culverts maintain a more natural substrate and offer fewer barriers to the movement of aquatic and terrestrial wildlife both upstream and downstream of the culvert installation. (IDNR)</p>	
<p>When determining an appropriate culvert size, consider whether or not wildlife/vehicle collisions are a concern at the culvert site. A larger culvert or bridge opening can allow for the movement of wildlife under the roadway in order to minimize wildlife/vehicle collision. (IDNR)</p>	
<p>Post "Do Not Disturb" signs at the construction zone boundaries and do not clear trees or understory vegetation outside the boundaries. Post "Do Not Mow or Spray" signs along the right-of-way.</p>	

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Items for further consideration: (Designer or other responsible party must briefly describe implement response.)	Implemented: Yes/No (reason)
We recommend using 3 sided culverts in place of box or pipe culverts. Three-sided culverts maintain a more natural substrate and offer fewer barriers to the movement of aquatic and terrestrial wildlife both upstream and downstream of the culvert instillation. (IDNR)	
When determining an appropriate culvert size, consider whether or not wildlife/vehicle collisions are a concern at the culvert site. A larger culvert or bridge opening can allow for the movement of wildlife under the roadway in order to minimize wildlife/vehicle collision. (IDNR)	
Revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue), legumes as soon as possible upon completion; low endophyte tall fescue may be used in the ditch bottom and side slopes only.	
Post "Do not mow or spray" signs along the right-of-way.	

Commitments by Environmental Assessment by:	Michelle Allen
Evaluated and/or Modified/Updated by Design by:	
Evaluated and/or Modified/Updated by Land Acquisition by:	
Final Design Evaluation and Preparation for Construction by:	
All Commitments have been Incorporated into the Project (PE/S):	

Road No./County:

US 27/ Jay County

Designation Number:

0100568

Project Description/Termini:

Road Reconstruction from 0.87 mile north of N. Jct. with SR 26/SR 67 to SR 18/ SR 67

PURPOSE AND NEED

Existing Conditions:

This road reconstruction project begins on the north side of Portland, and ends on the north side of the town of Bryant. The prevailing cross section along US 27 consists of two 12' lanes bordered by 3' paved shoulders (4' usable). Prevailing apparent right-of-way through the corridor is 35' (half-width). Roadside drainage ditches are intermittent (ditches, where present, are "V" ditches of varying depth and slopes, shallow, and non-traversable). The US 27 corridor generally runs in a northerly direction. There are 9 horizontal curves along US 27 within the project limits. The prevailing vertical terrain along the US 27 corridor is considered level. The posted speed limit varies between 35 mph to 55 mph. Six major cross culverts ranging in size from 2' to 5' diameter metal pipes were identified in the project area, four of them will be replaced with this project. There is one bridge structure within the project limits, which will be widened and rehabilitated.

Need for Improvement:

The need for the improvement is based on the facility's substandard shoulder width, substandard roadside items (i.e. nontraversable ditches, obstructions within the clear zone), crash history, and substandard vertical alignment. The purpose of this project is to improve the traffic flow/mobility and safety of US 27 by a general update of the typical section along the corridor to satisfy current design standards.

ALTERNATIVES

Proposed improvement:

This project will fully reconstruct the roadway using 4R standards, and will provide turning lanes and improved geometry at intersections, widened shoulders, and a general update of the typical section. The US 27 bridge over Bear Creek will be widened and roadway cross-culverts will be replaced and extended as appropriate. The widening of US 27 will require a continuous strip of right-of-way acquisition. The following table summarizes proposed improvements at each intersection within the project limit:

Intersection Treatment Summary

Intersection	Station	Type of PRA	Improvements on US 27
CR 100N	(Sta. 52+76)	Type "B"	Left-Turn Lanes
CR 200N	(Sta. 107+90)	Type "B"	Left-Turn Lanes
CR 300N	(Sta. 159+70)	Type "B"	Left-Turn Lanes
CR 400N	(Sta. 212+75)	Type "B"	Left-Turn Lanes
CR 500N	(Sta. 267+33)	Type "C"	Left-Turn Lanes
CR 600N	(Sta. 320+63)	Type "B"	Passing Blister
North Bryant Pike	(Sta. 328+00)	Type "B"	Passing Blister
Wilson Street	(Sta. 349+47)	Street approach, 25' radii	

August 22, 2002

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Main St. (CR 650 N)	(Sta. 352+77)	Street approach, 25' radii	
Elm St	(Sta. 356+14)	Street approach, 25' radii	
N. Main St.	(Sta. 367+52)	Street approach, 25' radii	
SR 18/ SR 67	(Sta. 378+93)	No Change	

Estimated Costs (2004):

Road Construction	\$10,900,000
Bridge Rehabilitation	\$460,000
Traffic Maintenance	\$500,000
CONSTRUCTION TOTAL	\$11,860,000
Right-of-way Services	\$450,000
Right-of-way	\$750,000
RIGHT-OF-WAY TOTAL	\$1,200,000
Engineering (Includes Survey)	\$650,000
PROJECT TOTAL	\$13,710,000

Other alternatives considered – Describe Section 4(f) and Section 404 avoidance alternatives and measures to minimize harm.

1. No build alternative. This alternative does not address the need for the project which is based on facilities substandard shoulder width, substandard roadside items, crash history, and substandard vertical alignment.
2. Proposed alternative.

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STATEWIDE CATEGORICAL EXCLUSION DETERMINATION

Note: If all answers below are "no", then INDOT can approve SCE. For any answered "yes", explain in the Support Documentation section why significant impacts will not occur and seek FHWA approval of CE.

Travel Patterns – Does this project include a bypass or convert a local street into a higher order roadway? Will this project have an impact on travel patterns?

Relocations – Will the project require more than five (5) relocations (any combination of residential and/or commercial displacements that total more than five relocations)?

Historic Resources – Has the Section 106 consultation resulted in an "adverse effect" finding on any historic property?

Sections 4(f) – Does the project require the use of any Section 4(f) property?

Air Quality/Land Use – Is (1) the project in a non-attainment or maintenance area, (2) does the current design concept and scope add capacity, and (3) is this current design concept and scope NOT incorporated in a Conforming MPO 20 year Transportation Plan (TP)?

Noise – Is a noise analysis required for this project?

Wetlands – Is an individual Army Corps of Engineers permit required for this project?

Sole Source Aquifers – Is a detailed groundwater impact assessment required for this project?

Threatened and Endangered Species – Has consultation with the USFWS/IDNR resulted in an adverse effect determination on any federally listed or proposed threatened or endangered species or critical habitat?

No	Yes
X	
X	
X	
X	
X	
X	
X	
X	
X	

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SUPPORT DOCUMENTATION

Early Coordination - List (1) Parties to whom the early coordination letter was sent, (2) indicate whether the party responded and if so the date of the response, and (3) attach correspondence.

Federal Highway Administration.....	No Response
Indiana Department of Natural Resources, Division of Fish & Wildlife.....	4/20/05
U.S. Army Corps of Engineers, Louisville District.....	2/22/04
Division of Aeronautics.....	3/1/05
Indiana Geological Survey.....	2/4/05
Natural Resource Conservation Service.....	3/4/05
U.S. Fish & Wildlife Service, Bloomington Field Office.....	2/8/05
Indiana Department of Environmental Management.....	1/27/05
INDOT Greenfield District.....	No Response
Hamilton County Road Supervisor.....	No Response
State Historic Preservation Officer.....	2/4/05
Hamilton County Commissioner.....	No Response
Historic Landmarks Foundation, Central Regional Office.....	No Response
Hamilton County Historian.....	No Response
Hamilton County Historical Society.....	No Response
Westfield-Washington Historical Society.....	No Response

Right of Way/Land Use/Natural Areas/Nature Preserves – Provide permanent and temporary right-of-way amounts in acres. Break proposed right-of-way amount into land use classification and give typical and maximum right-of-way widths (existing and proposed). Describe any natural areas and nature preserves within the project area.

The apparent existing right-of-way is 35' each side of the centerline. The widening of US 27 will require a continuous (more or less) strip of right-of-way acquisition. The rural typical section with open drainage will have a right-of-way width that varies from 70' to 80'. Two relocations are anticipated. One is an old gas station located at CR 300N (SE quadrant), and the other is an abandoned hotel at CR 500N (SE quadrant). Below is a right-of-way summary table:

Land Use	Perm R/W
Commercial	5.78 acres (15 parcels)
Residential	9.90 acres (37 parcels)
Agricultural/ Wooded	32.13 acres (44 parcels)
Totals:	47.81 acres (96 parcels)

No natural areas or nature preserves exist within the project area.

Flood Plain Encroachments/Stream Channel/Waterway/Groundwater/Water Table – Describe any effects the project might have on flood plain, stream channel, waterways, groundwater, and the water table. If there are homes within the floodplain, within 1000' up and downstream, make a note of it here.

There is one bridge structure within the project limits, which will be widened and rehabilitated. Four culverts along SR 27 will be replaced.

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Relocations – Describe relocations.

Two relocations are anticipated. One is an old gas station located at CR 300N (SE quadrant), and the other is an abandoned hotel at CR 500N (SE quadrant).

Historic Resources –Summarize the Section 106 process including any historic and archaeology resources.

As per Section 106 Regulations, consulting parties have been identified and were invited to comment on the potential impacts to historical resources as the result of the proposed project. The following groups were asked to be consulting parties: the State Historic Preservation Officer (SHPO), Historic Landmark Foundation of Indiana (HLFI), Jay County Historian, Jay County Historical Society. SHPO concurred with Federal Highway Administrations finding on February 4, 2005 that there are “no historic buildings, structures, districts, objects, or archeological resources within the area of potential effects” (see Appendix C1).

On September 13, 2005, INDOT received FHWA-IN approval for the recommended Area of Potential Effect eligibility determination, and effect finding of “no historic properties affected” (Appendix D-1). The opportunity for requesting a public hearing will be offered. The identified consulting parties have been individually notified by letter. A legal notice was placed in a widely circulated project area newspaper to solicit section 106 related comments from the general public. The legal notice included the following paragraph “Pursuant to 36CFR 800.4(d), documentation is available for public inspection in the INDOT, Division of Environment, Planning and Engineering Office in Indianapolis which serves as a basis for the determination of no historic properties affected.”

An archaeological records check and field reconnaissance has been performed for this project and was forwarded to the Indiana State Historic Preservation Officer for review and concurrence. No known archaeological sites listed or eligible for inclusion in the National Register of Historic Places will be affected by this project according to the IDNR Division of Historic Preservation and Archaeology (see Appendix C1). If evidence of undetected archaeological resources should become known as a result of construction activities or through any other source, disturbance should be avoided or discontinued immediately. The Environmental Assessment Section of the Division of Environment, Planning and Engineering should be notified so that a re-evaluation of the significance of the site can be made and mitigation efforts performed, if required prior to the resumption of work.

Sections 4(f) – If Section 4(f) property is being used, indicate which type of Section 4(f) evaluation applies. Also, in a few paragraphs describe below or attach (1) a list of 4(f) properties near the project, (2) a description and list of the 4(f) properties impacted, (3) the views of official with jurisdiction, and (4) any appropriate photos or plan sheets.

Public Parks, Recreation Lands, and Wildlife and Waterfowl Refuges	<input type="checkbox"/>	Historic sites	<input type="checkbox"/>	Bikeways and Walkways	<input type="checkbox"/>
		Historic bridges	<input type="checkbox"/>	FULL (DOI & legal review)	<input type="checkbox"/>

This project will not have any 4(f) impacts.

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Air Quality – If this is an added capacity project, include MPO 20-year Transportation Plan (TP) reference that affirms that this project's design concept and scope was modeled, if the project adds capacity and is in an air quality non-attainment or maintenance area.

During construction, the construction equipment will create air pollution of limited duration and will cease upon completion of the project. Due to the nature of this project, it has been exempted from further air pollution analysis. This road reconstruction project is considered non-major in scope and will not generate additional traffic volumes. This project is in an area where the State Implementation Plan (SIP) does not contain any transportation control measures. Therefore, the conformity procedures of 40 CFR 93 does not apply to this project.

Noise – Summarize or attach noise analysis, including where noise abatement may be reasonable and feasible.

During construction, the construction equipment will create noise pollution of limited duration and will cease upon completion of the project. No noise mitigative structures will be provided. This project is not a Type I project. In accordance with 23 CFR 772 and the Indiana Department of Transportation Highway Traffic Noise Policy, with FHWA concurrence on October 15, 1997, this action requires no formal noise analysis, and is exempt from construction noise requirements.

Wetlands – Describe or attach (1) wetland size and impacts, (2) functions & values, (3) possible mitigation, and (4) any applicable plan sheets.

Wetlands exist in the project area, as noted on the attached plan and profile sheets (Appendix A8-A19). One wetland area is a cattail marsh located on the west side of SR 27, south of the bridge over Bear Creek. If the current ditch is moved, wetlands may be impacted. The wetland area is 150' long. If more than 0.10 acre is impacted, mitigation may be required.

One other wetland area is located on the east side of SR 27 adjacent to Bear Creek. Wetland areas exist beyond proposed right-of-way; approximately 150' from the edge of SR 27. Design must maintain the existing slopes. If more than the current slope is necessary, it may impact the wetland area and mitigation may be required.

Two ponds are located along the project corridor near the edge of the proposed right-of-way. Design should attempt to avoid impacts to these areas.

Please see attached aerials for locations of pond and wetland areas. If Design expects impacts to these areas, please contact the Environmental Assessment Section.

Sole Source Aquifers - Describe or attach (1) plans showing extent of SSA, (2) communities depending on SSA, and (3) coordination conducted to date with the USEPA.

This project is not located within the Sole Source Aquifer boundary.

Threatened and Endangered Species/Flora and Fauna – Include summary of coordination with USFWS/IDNR.

USF&W responded to early coordination on February 8, 2005. They noted the project was in the range of the federally endangered Indiana bat and federally threatened bald eagle, but the proposed project is not likely to adversely affect these 2 species. Additional mitigation measures USF&W listed for this project are under the mitigation section of this document.

As noted by IDNR, "The Natural Heritage Program's data have been checked. To date, no plant or

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animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity" (see Appendix B1). IDNR has listed measures to minimize impacts that are listed in the mitigation section of this document.

Agriculture – Describe or attach (1) amount of prime and non-prime farmland impacted, (2) discuss farmland conversion impacts, and (3) Farmland Conversion Impact Rating Sheet (Form AD-1006).

Approximately 21.46 acres of statewide and locally important farmland currently or previously used for agricultural purposes will be converted as a result of this project. As is required by the Farmland Protection Policy Act, coordination with the NRCS has been completed and the Form AD-1006 has been completed (see Appendix B5). Since this project received a total point value of less than 160 points, this site will receive no further consideration for farmland protection. No other alternatives other than those already discussed in this document will be considered without a reevaluation of the project's potential impacts upon farmland. This project will not have a significant impact to farmland.

Socioeconomic – Describe or attach temporary and permanent economic and social effects of the proposed project.

No known low income or minority populations will be disproportionately impacted as a result of this project.

Detours/Traffic Maintenance – Describe any detours used during construction.

Due to lack of a good state detour route, relatively high AADT, importance of this route to the residences and businesses along this route, it is desirable to maintain traffic through the project. If this is done, construction of the roadway would require temporary pavement widening, a shoulder section capable of handling traffic during construction and multiple phases of construction.

Section 6(f) – Describe any property that may be impacted that was purchased or improved through the Land and Water Conservation Fund Program. Any property taken must be replaced.

None

Other construction projects – Describe other roadway design or construction projects in the area.

The subject project is scheduled for a ready for contracts date in December of 2007. According to the 2002 Directory of INDOT Highway Projects and the INDOT Project Database, there are two scheduled projects in the project area. They are as follows:

Des Numbers	Project Description	Comments
0100548	Small Structure Replacement, US 27, 3.25 Miles N of SR 26 (N. Jct.), Jay County.	RFC date 7/04. This project is within the project limits of the subject project. Effort should be made to minimize duplication of work.
0100549	Small Structure Replacement, US 27, 4.76 Miles N of SR 26 (N. Jct.), Jay County.	RFC date 7/04. This project is within the project limits of the subject project. Effort should be made to minimize duplication of work.

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Permits/Mitigation – Are there any permits that must be applied for in final design? If so, list them. What are the current mitigation requirements for this project? Differentiate between “Firm” and “Optional” commitments.

Permits:

The project may require the formal approval of IDNR pursuant to the Flood Control Act (IC 14-28-1), unless it qualifies for a bridge exemption (see Appendix B1).

A Department of the Army (DA) permit may be needed for this project (see Appendix B2).

An IDEM 401 Water Quality Certification may be needed for this project (see Appendix B6).

Mitigation:

US F&W suggests the following mitigation measures:

1. Post DO NOT DISTURB signs at the construction zone boundaries and do not clear trees or understory vegetation outside the boundaries.
2. Avoid or minimize channel work in Bear Creek. If channel work is necessary, restrict below low-water work to the minimum necessary for bridge widening. Use 3-sided culverts for small structure crossings of streams that contain fish and invertebrate communities.
3. Provide vegetative buffer between Bockoven Ditch and the highway during construction.
4. Restrict channel work and vegetation clearing to within the width of the normal approach road right-of-way.
5. Minimize the extent of artificial bank stabilization.
6. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.
7. Implement temporary erosion and siltation control devices such as placement of straw bales in drainage ways and ditches, covering exposed areas with burlap, jute matting or straw, and grading slopes to retain runoff in basins.
8. Revegetate all disturbed soil areas immediately upon project completion.
9. Avoid all work in Bear Creek during the fish spawning season (April 1 through June 30).

The Indiana Department of Natural Resources suggested the following mitigation measures:

1. Where possible, use bridges in place of culverts. Bridges allow for longer spans across floodway and floodplain habitat. Longer spans allow for improved wildlife movement and vegetative restoration along a streams riparian corridor.
2. We recommend using 3 sided culverts in place of box or pipe culverts. Three-sided culverts maintain a more natural substrate and offer fewer barriers to the movement of aquatic and terrestrial wildlife both upstream and downstream of the culvert installation.
3. When determining an appropriate culvert size, consider whether or not wildlife/vehicle collisions are a concern at the culvert site. A larger culvert or bridge opening can allow for the movement of wildlife under the roadway in order to minimize wildlife/vehicle collision.

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The following are standard conditions that appear on floodway construction permits for bridge/culvert replacements. These conditions should be considered when planning bridge or culvert installations due to work restrictions required during fish spawning and Indiana Bat maternity roosting periods:

1. Revegetate "low maintenance" areas with a mixture of grasses (excluding all varieties of tall fescue), legumes, and native shrub and hardwood tree species as soon as possible upon completion; low endophyte tall fescue may be used in "high maintenance" areas only.
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat roosting (greater than 14 inches in diameter, living or dead, with loose hanging bark) from April 15 through September 15.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.

Archeology:

All of the archaeological work has been completed for this project.

Wetlands:

Wetlands exist in the project area, as noted on the attached plan and profile sheets (Appendix A8-A19). One wetland area is a cattail marsh located on the west side of SR 27, south of the bridge over Bear Creek. If the current ditch is moved, wetlands may be impacted. The wetland area is 150' long. If more than 0.10 acre is impacted, mitigation may be required.

One other wetland area is located on the east side of SR 27 adjacent to Bear Creek. Wetland areas exist beyond proposed right-of-way; approximately 150' from the edge of SR 27. Design must maintain the existing slopes. If more than the current slope is necessary, it may impact the wetland area and mitigation may be required.

Two ponds are located along the project corridor near the edge of the proposed right-of-way. Design should attempt to avoid impacts to these areas.

Please see attached aerials for locations of pond and wetland areas. If Design expects impacts to these areas, please contact the Environmental Assessment Section.

Air Traffic:

The Portland Municipal Airport is located 1,200 feet Southwest of the Southern Terminus of the project. If any equipment utilized on this project is taller than 12 feet above ground level, FAA Form 7460-1 (Notice of Proposed Construction of Alteration) must be filed.

Hazardous Materials:

A Preliminary Site Investigation was completed for this area. Please follow project recommendations listed in the PSI Report. Copies of this report are located in INDOT's Environmental Services Section.

Road No./County:

US 27/ Jay County

Designation Number:

0100568

Project Description/Termini:

Road Reconstruction from 0.87 mile north of N. Jct. with SR 26/SR 67 to SR 18/ SR 67

Karst/Topography/Geology – Does the Karst MOA apply? If so, please explain.

This project is not located within the potential karst feature area of the state.

Hazardous Waste – Is there any additional evaluations or remediation work that has to be done regarding hazardous or contaminated material? If so, please explain.

A Preliminary Site Investigation was completed for this area. Please follow project recommendations listed in the PSI Report. Copies of this report are located in INDOT's Environmental Services Section.

Secondary Impacts/Cumulative Impacts/Others – Discuss any reasonably foreseeable secondary and cumulative impacts from the project. Other environmental impacts not covered under previous topics should be included here.

No foreseeable secondary or cumulative impacts are expected from this project.

Public Involvement – Will the opportunity for a public hearing be offered?

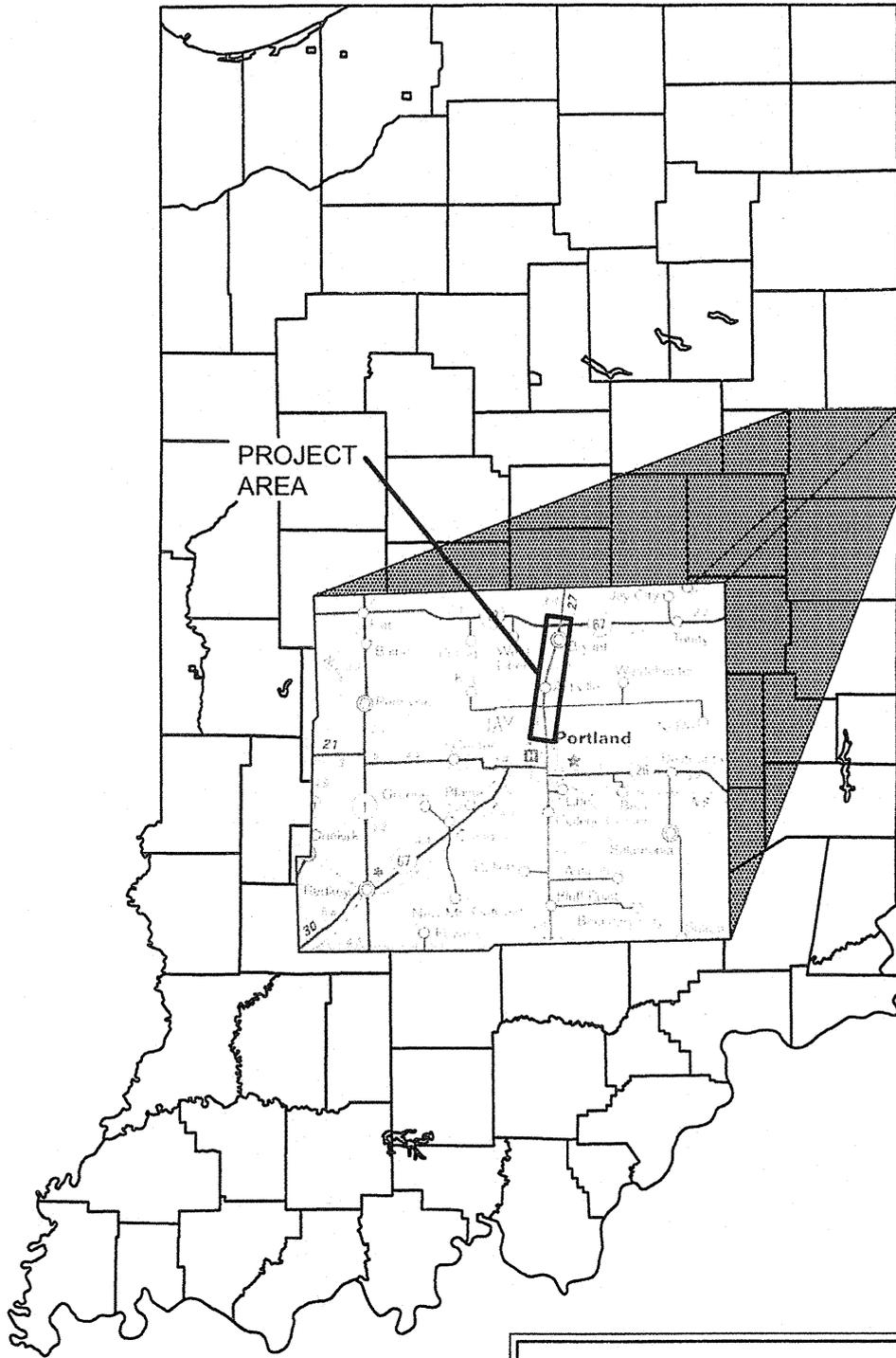
The opportunity for requesting a public hearing will be offered. A legal notice has been placed in a widely circulated project area newspaper to solicit comments from the general public regarding the FHWA approved Section 106 determination of no historic properties affected.

End of Categorical Exclusion-----End of Categorical Exclusion

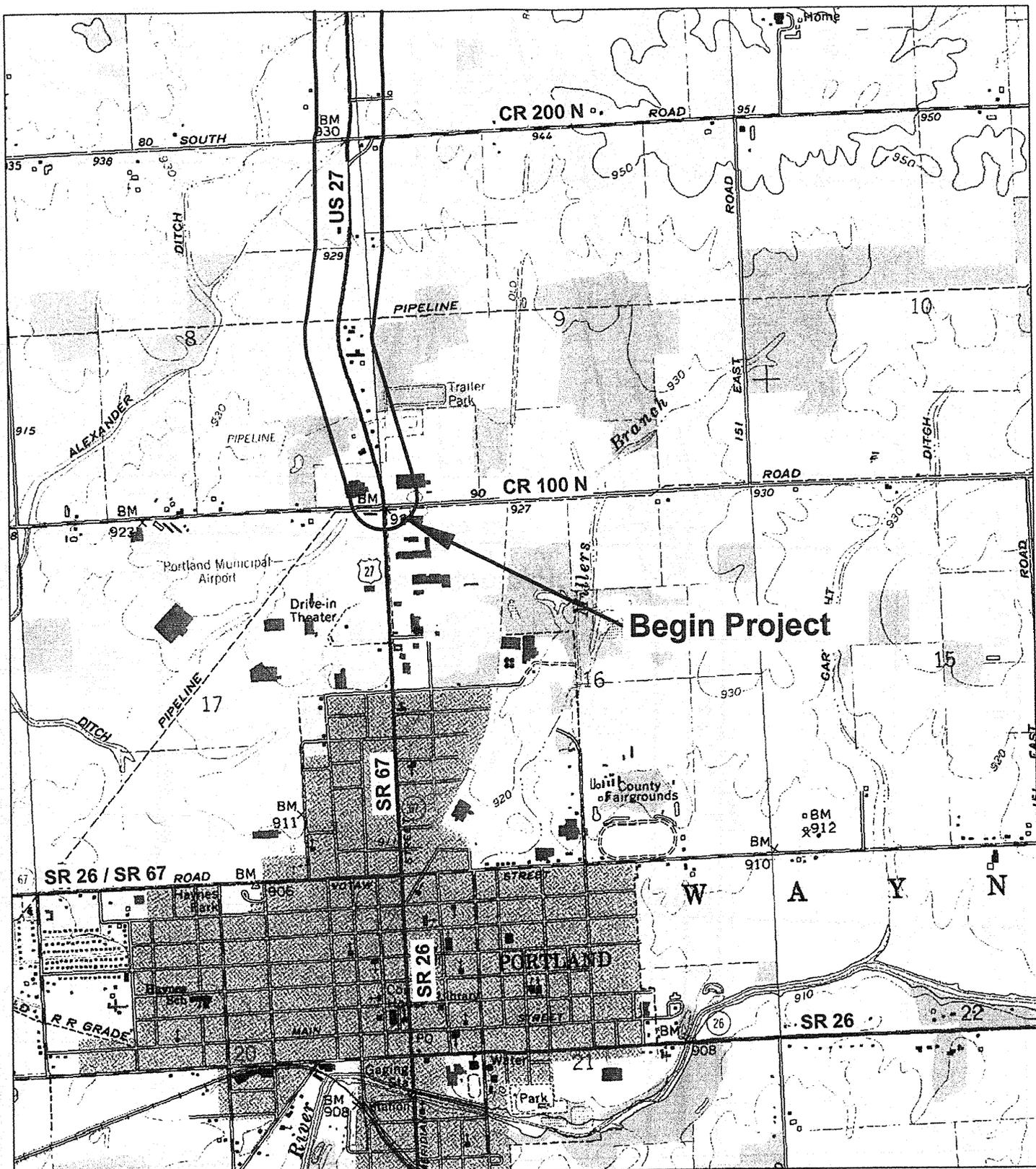
APPENDICES

Graphics.....	A1-A19
Indiana Department of Natural Resources, Environmental Unit.....	B1
U. S. Army Corps of Engineers, Louisville District.....	B2
Division of Aeronautics.....	B3
Indiana Geological Survey.....	B4
Natural Resource Conservation Service.....	B5
U.S. Fish and Wildlife Service, Bloomington Field Office.....	B6
Indiana Department of Environmental Management.....	B7
INDOT Greenfield District.....	*No Response
Hamilton County Engineer.....	*No Response
Hamilton County Commissioner.....	*No Response
State Historic Preservation Officer.....	C1
Historic Landmarks Foundation.....	*No Response
Hamilton County Historian.....	*No Response
Hamilton County Historical Society.....	*No Response
Westfield-Washington Historical Society.....	*No Response
FHWA 800.11(d).....	D1
FHWA APE letter.....	D2
Archeological Field Reconnaissance.....	E1
Hazardous Waste Site Correspondence.....	E2

*The comments from the preceding agencies or individuals have been discussed in the appropriate sections of this document. No response implies that the agency feels that there will be no adverse impacts due to the proposed project.



Des. No. 0100568
Project No. STP-249-7()
US 27 from 0.87 Mi. North of N. Jct.
with SR 26/SR 67 to SR 18
Jay County



Begin Project

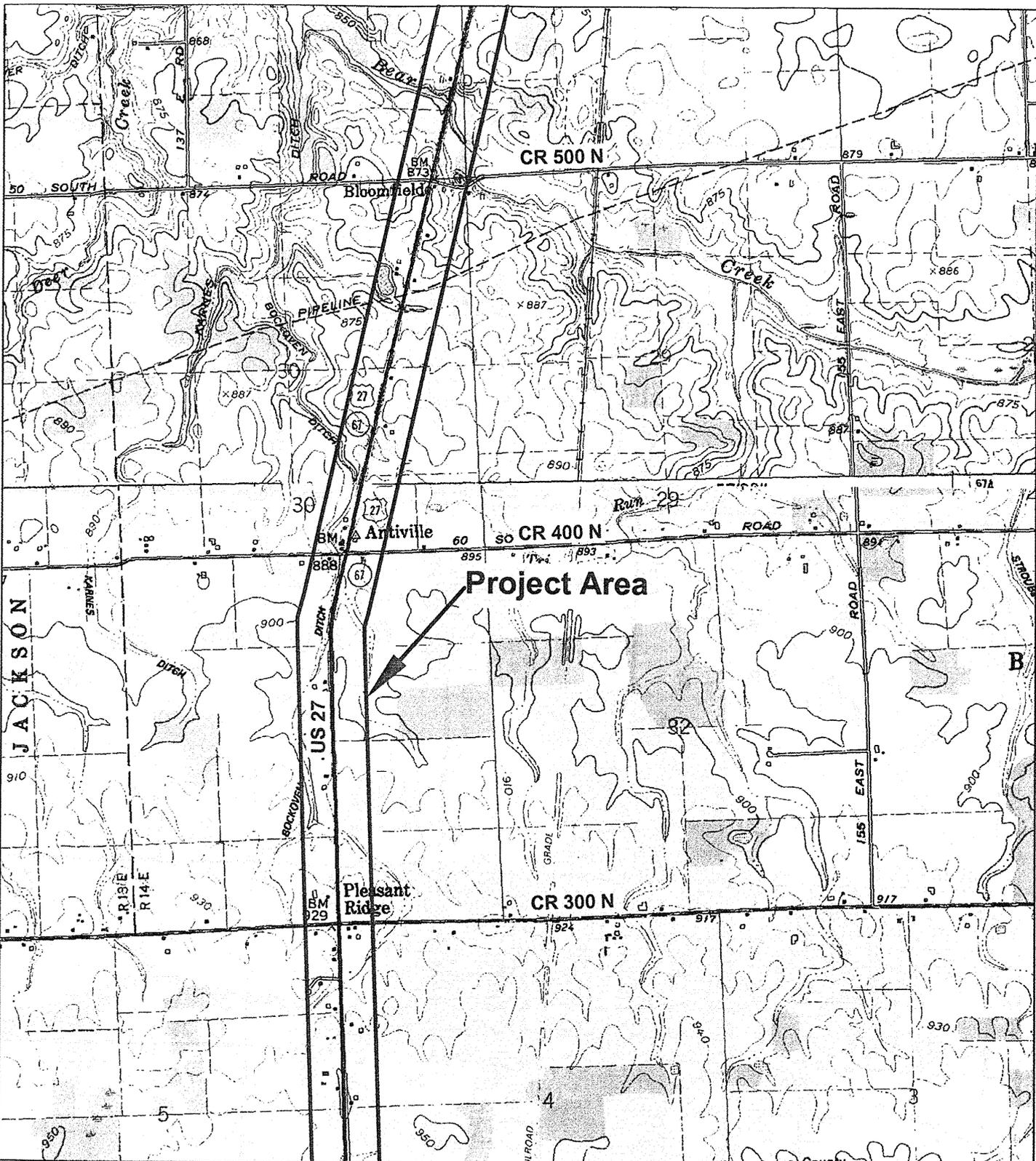
**Geneva & Portland
Quadrangles, IN
Scale = 1" = 2000'**

**Des. No. 0100568
Project No. STP-249-7()
US 27 from 0.87 Mi. N. of N. Jct.
with SR 26/SR 67 to SR 18
Road Reconstruction
Jay County**

A-2a

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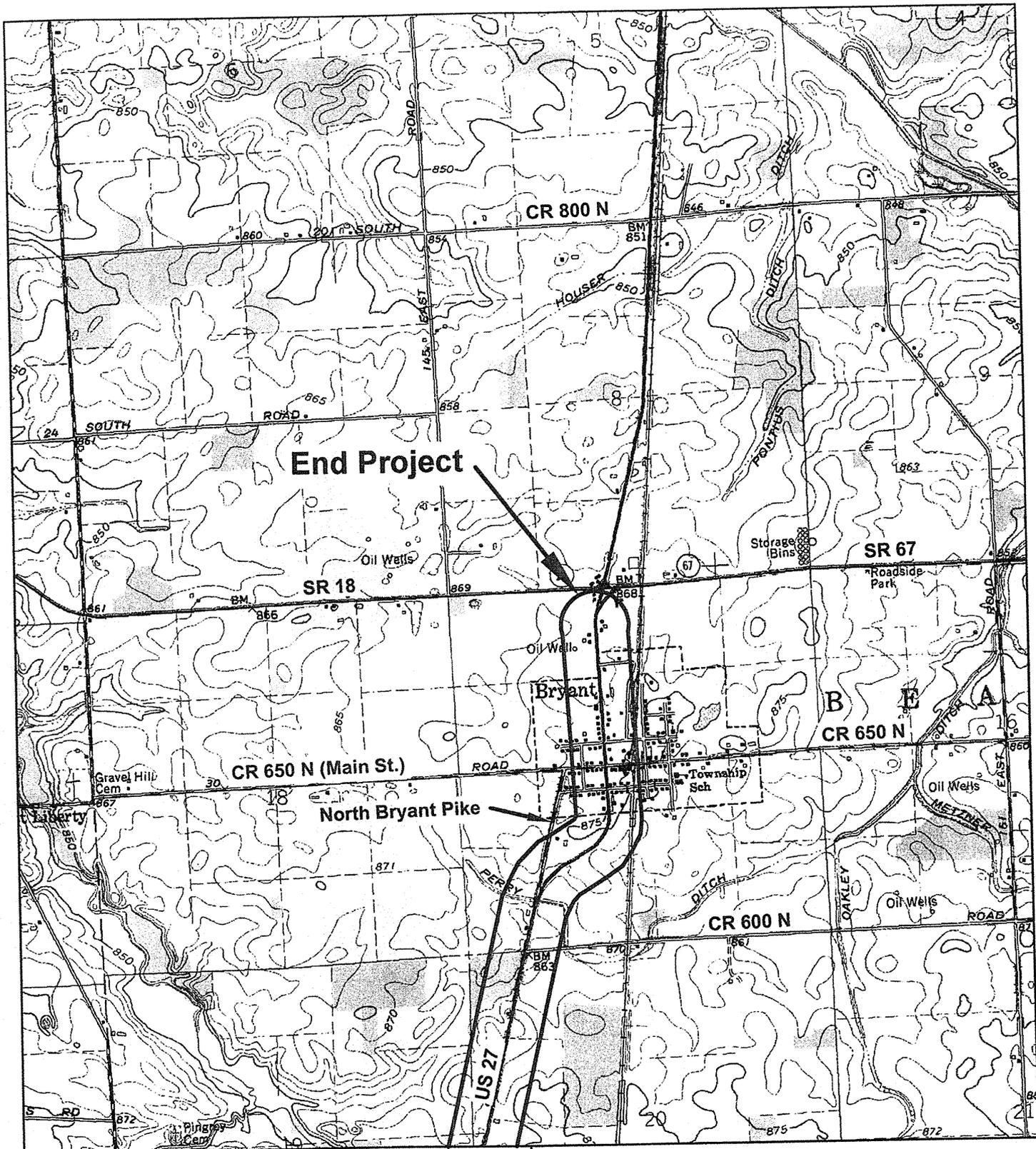
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Geneva & Portland
 Quadrangles, IN
 Scale = 1" = 2000'

Des. No. 0100568
 Project No. STP-249-7()
 US 27 from 0.87 Mi. N. of N. Jct.
 with SR 26/SR 67 to SR 18
 Road Reconstruction
 Jay County

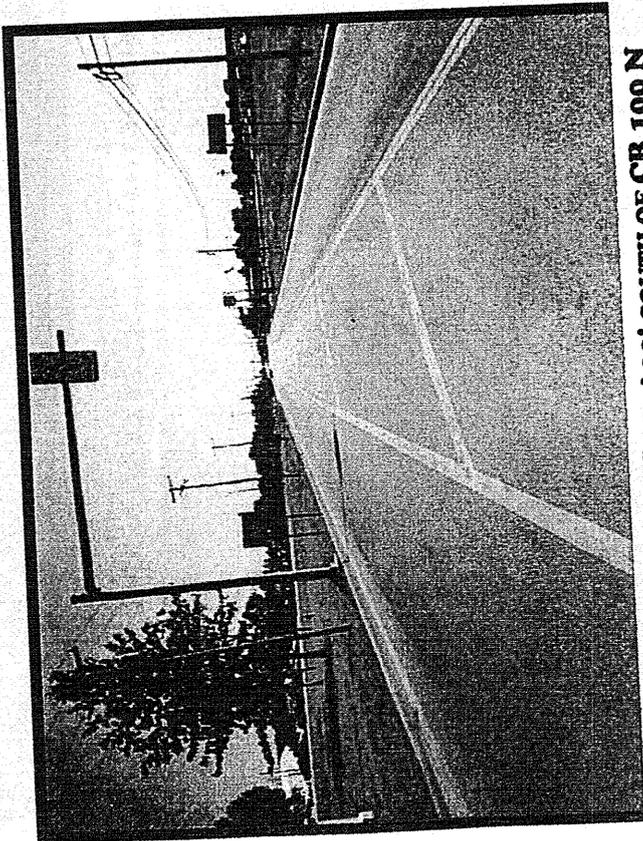
A-2b



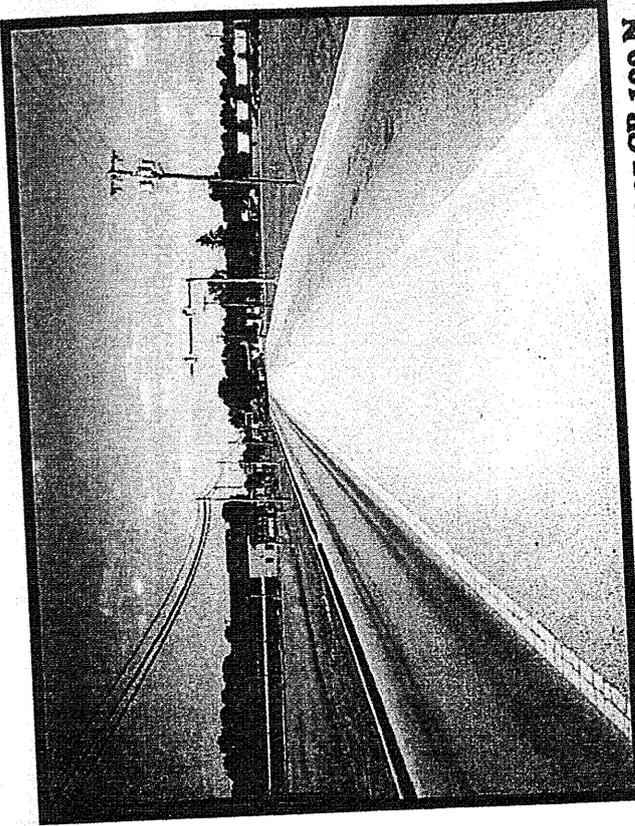
Geneva & Portland
 Quadrangles, IN
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Des. No. 0100568
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 US 27 from 0.87 Mi. N. of N. Jct.
 with SR 26/SR 67 to SR 18
 Road Reconstruction
 Jay County

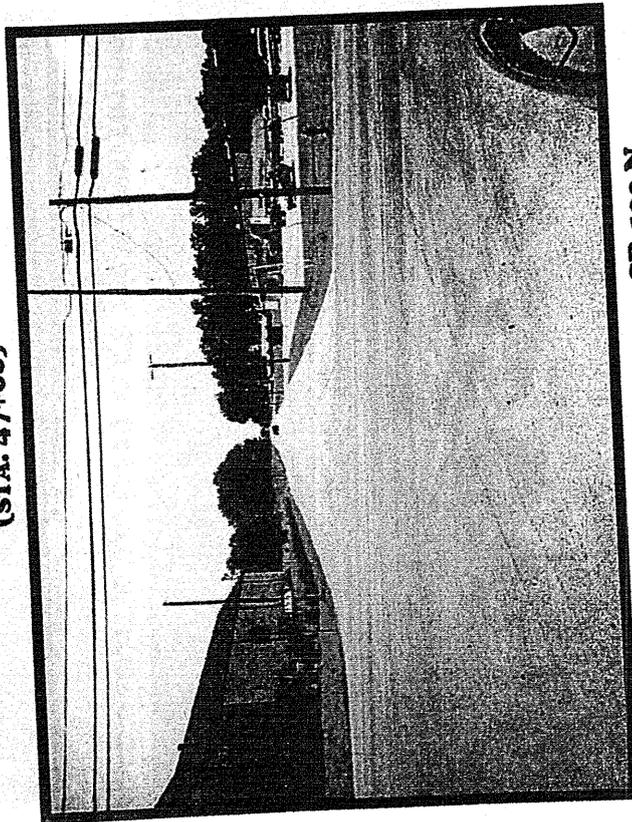
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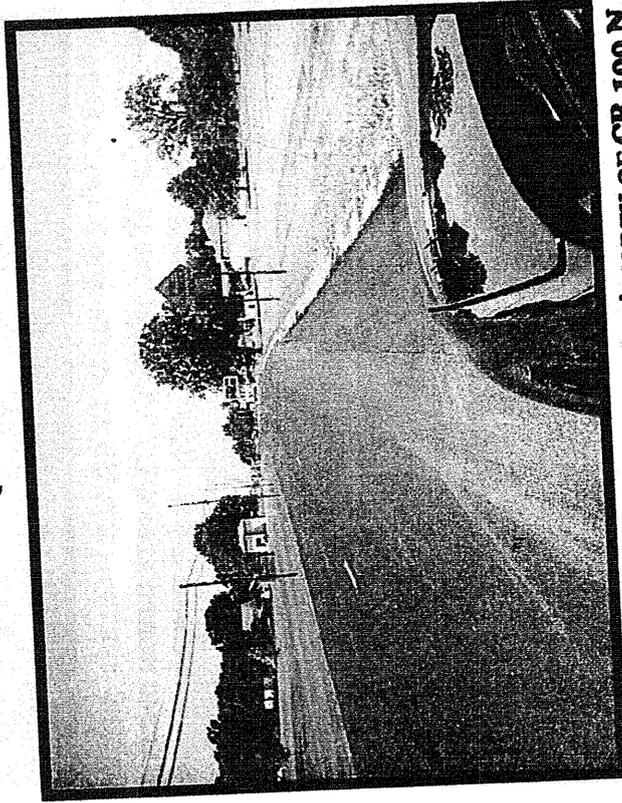
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(STA. 47+00)



FACING NORTH ALONG US 27, 500' SOUTH OF CR 100 N
(STA. 48+00)

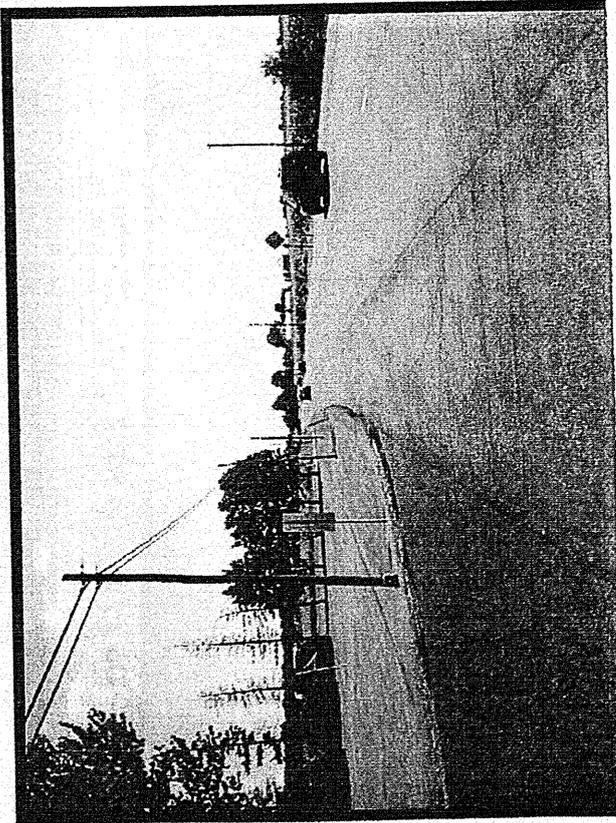


US 27 FACING WEST ALONG CR 100 N

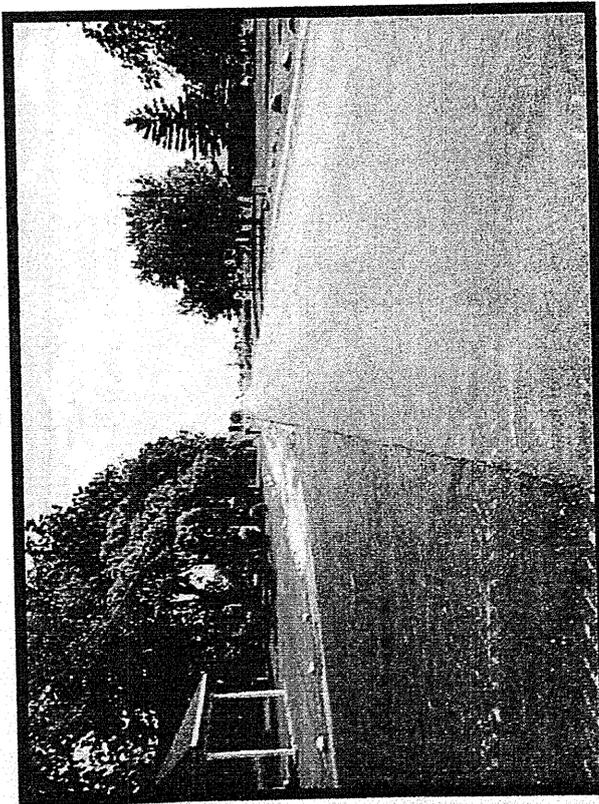


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(STA. 55+00)

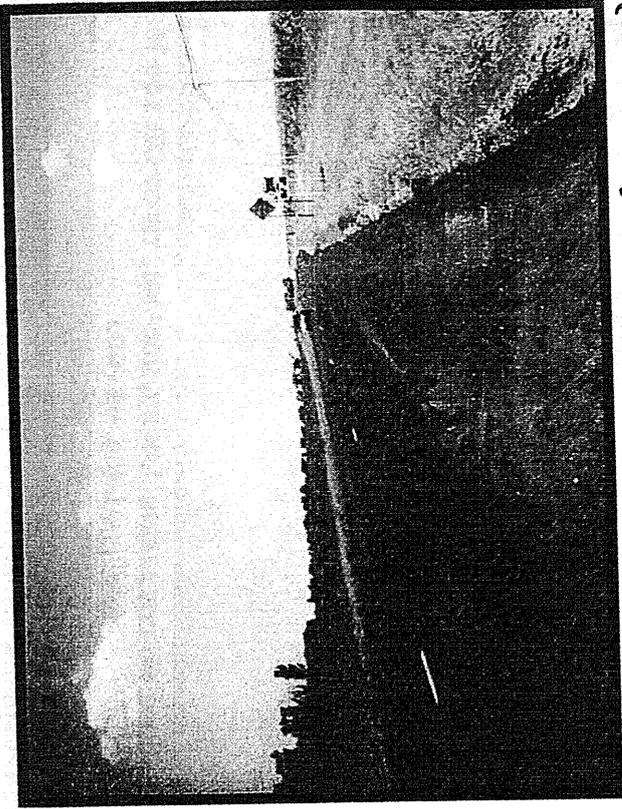
US 27 Road Reconstruction



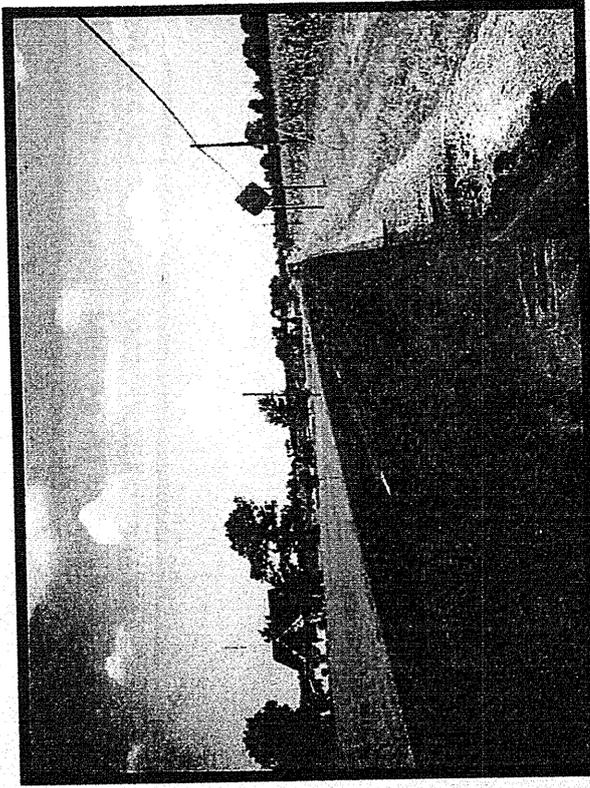
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FACING SOUTH ALONG US 27 AT CR 300 N (STA. 160+00)

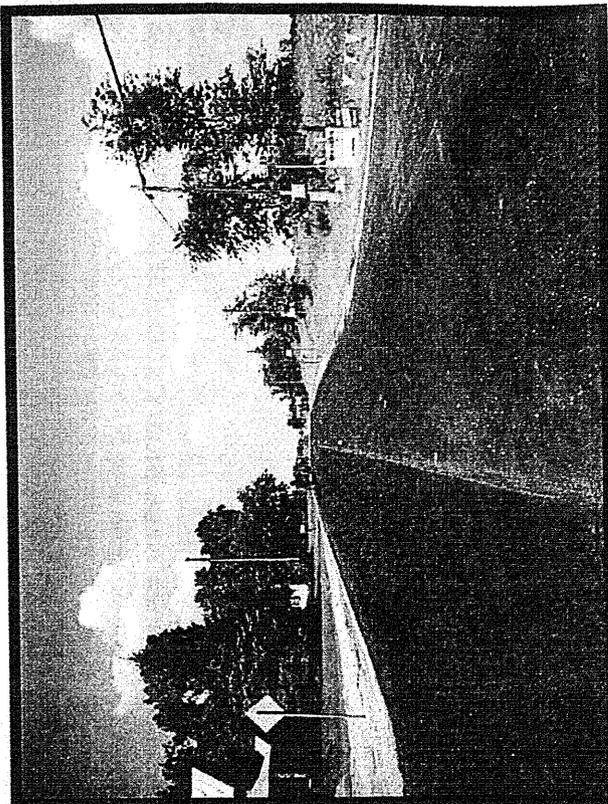


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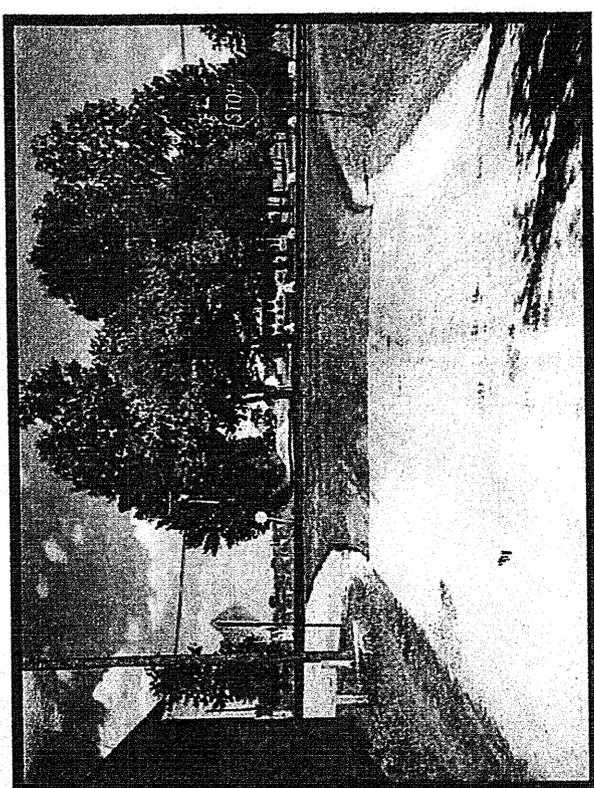


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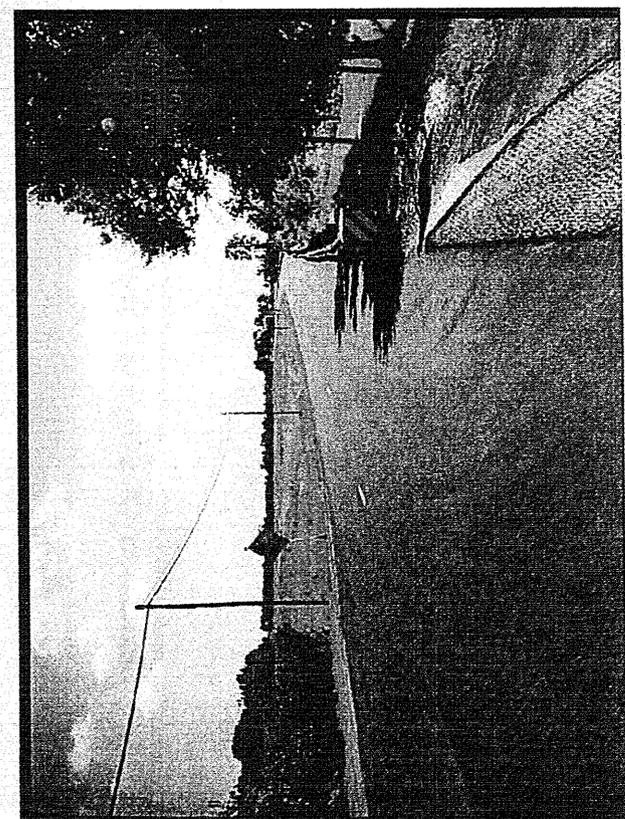
US 27 Road Reconstruction



FACING NORTH ALONG US 27 AT CR 400 N (STA. 212+50)



FACING EAST ALONG CR 400 N

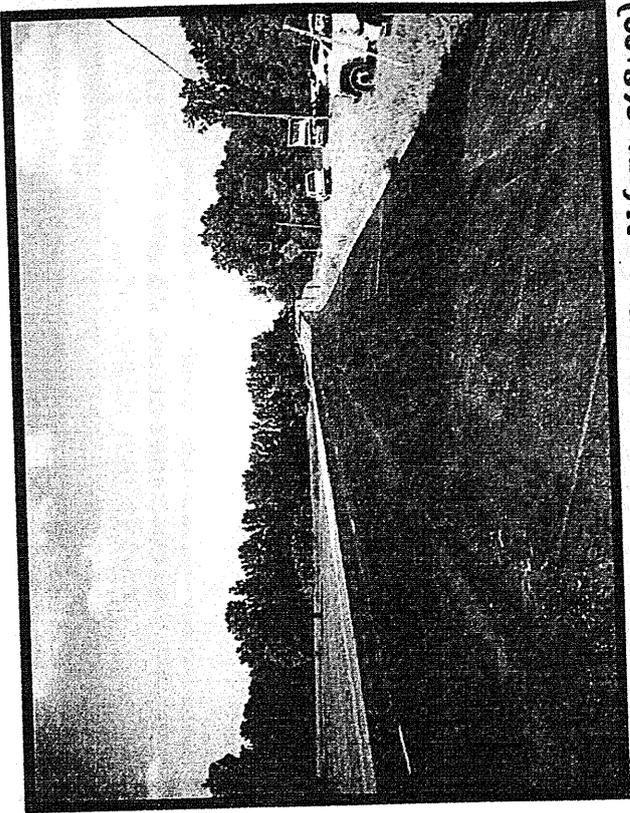


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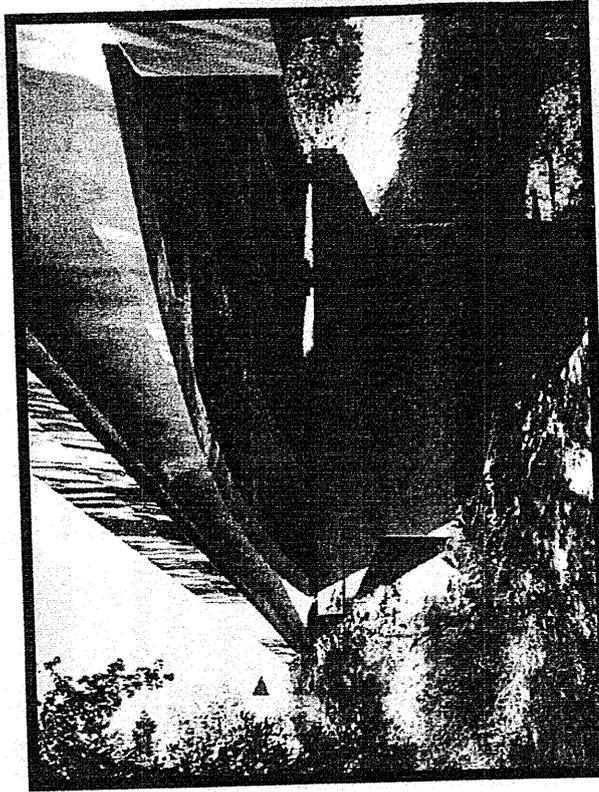


**FACING SOUTH ALONG WEST SIDE OF US 27,
SOUTH OF CR 400 N (STA. 212+00)**

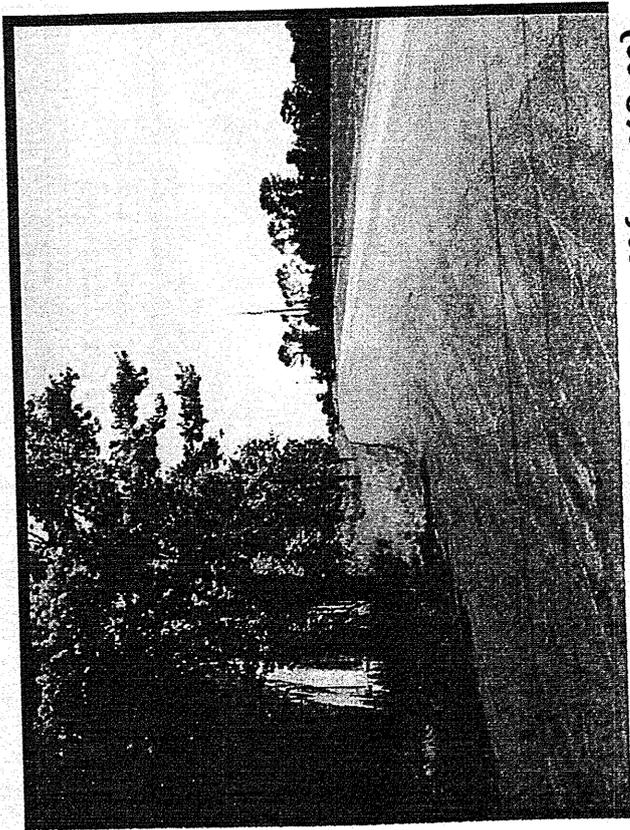
US 27 Road Reconstruction



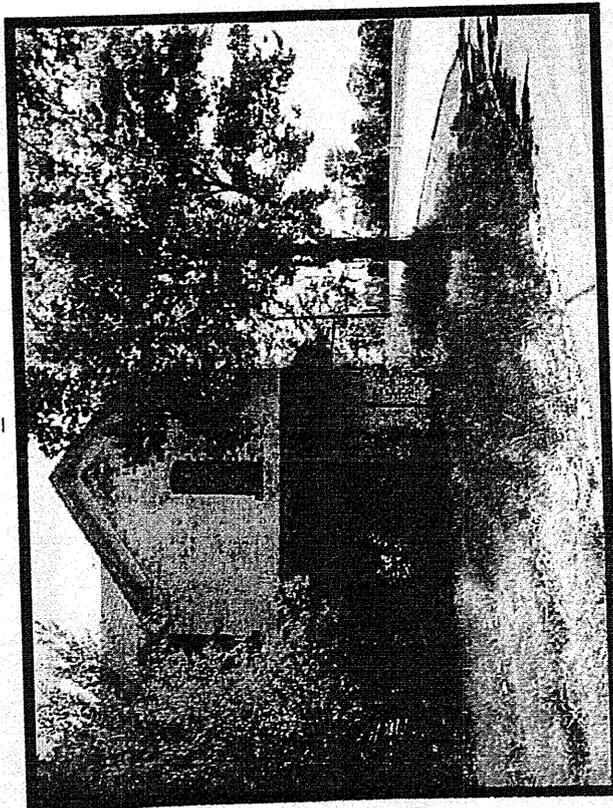
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BRIDGE OVER BEAR CREEK (STA. 273+00)

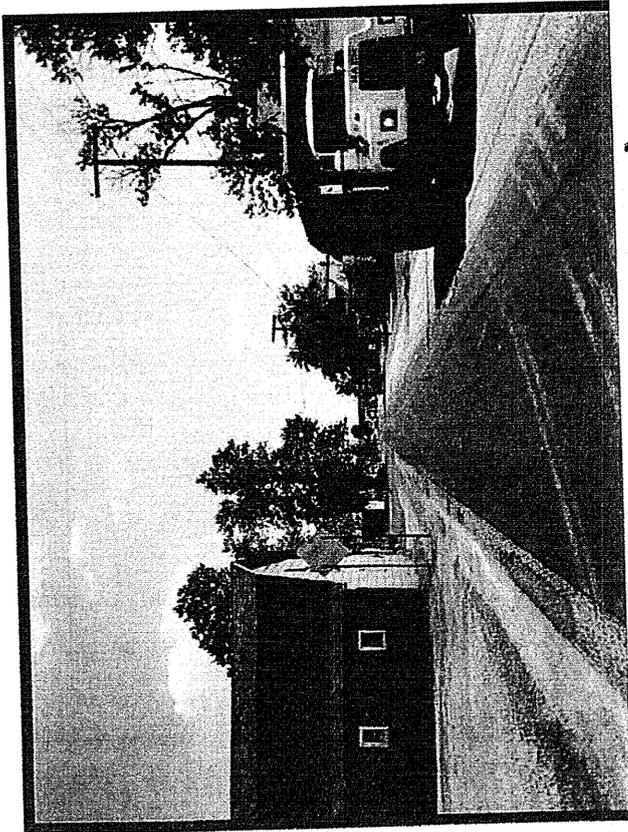


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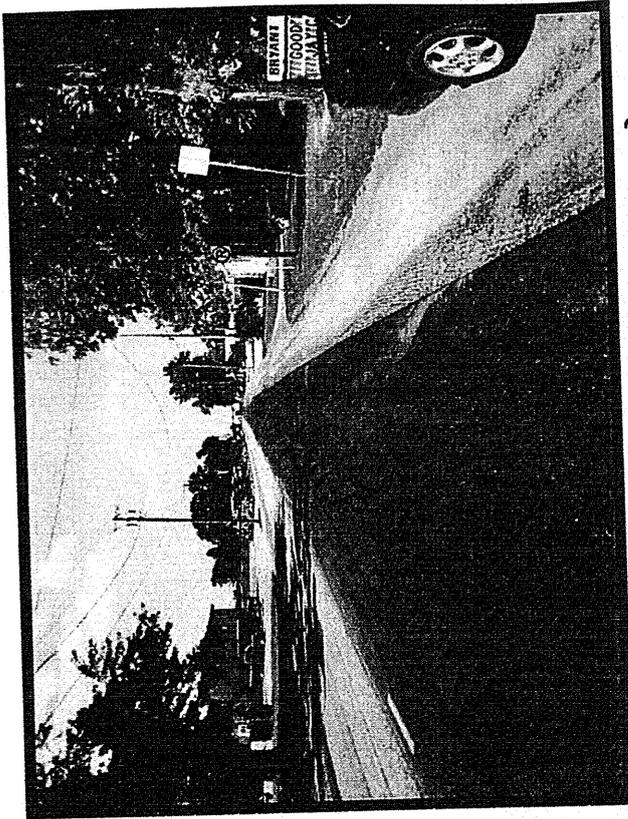


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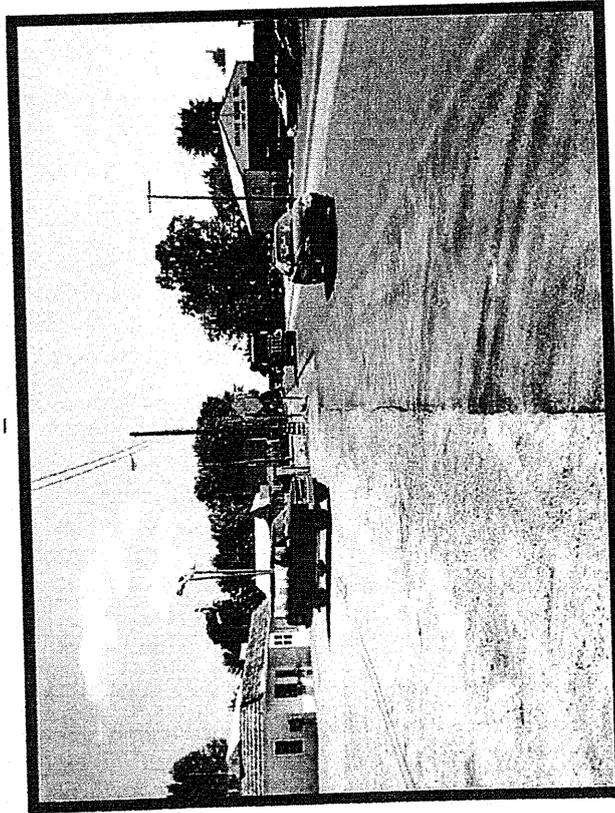
US 27 Road Reconstruction



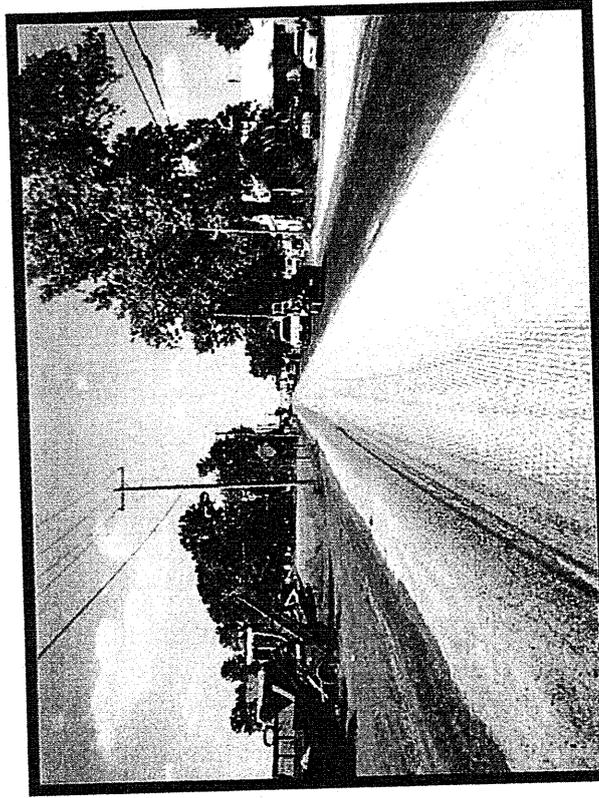
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FACING NORTH IN BRYANT (STA. 358+00)



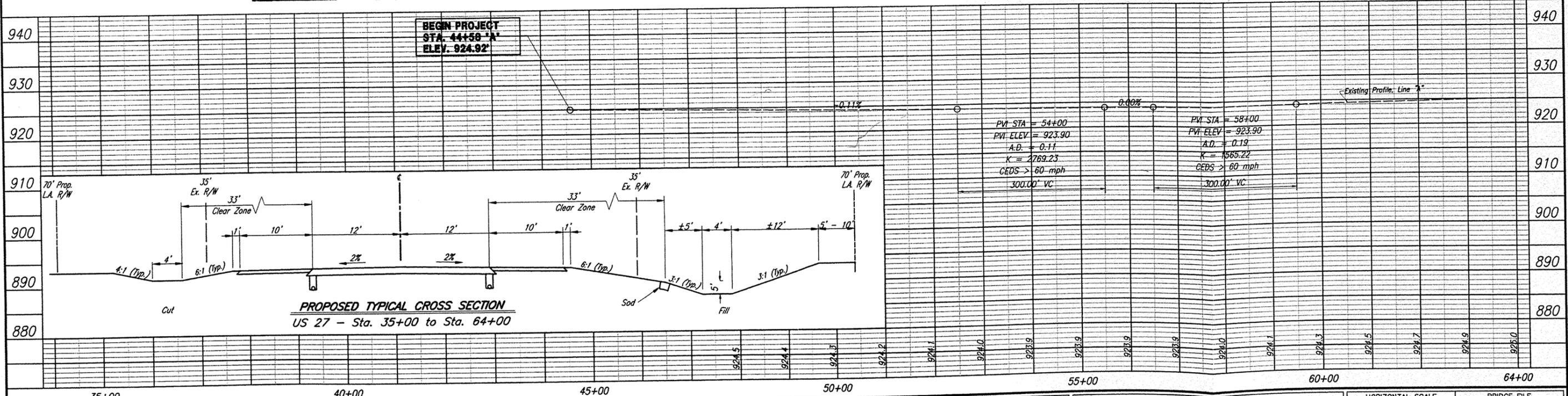
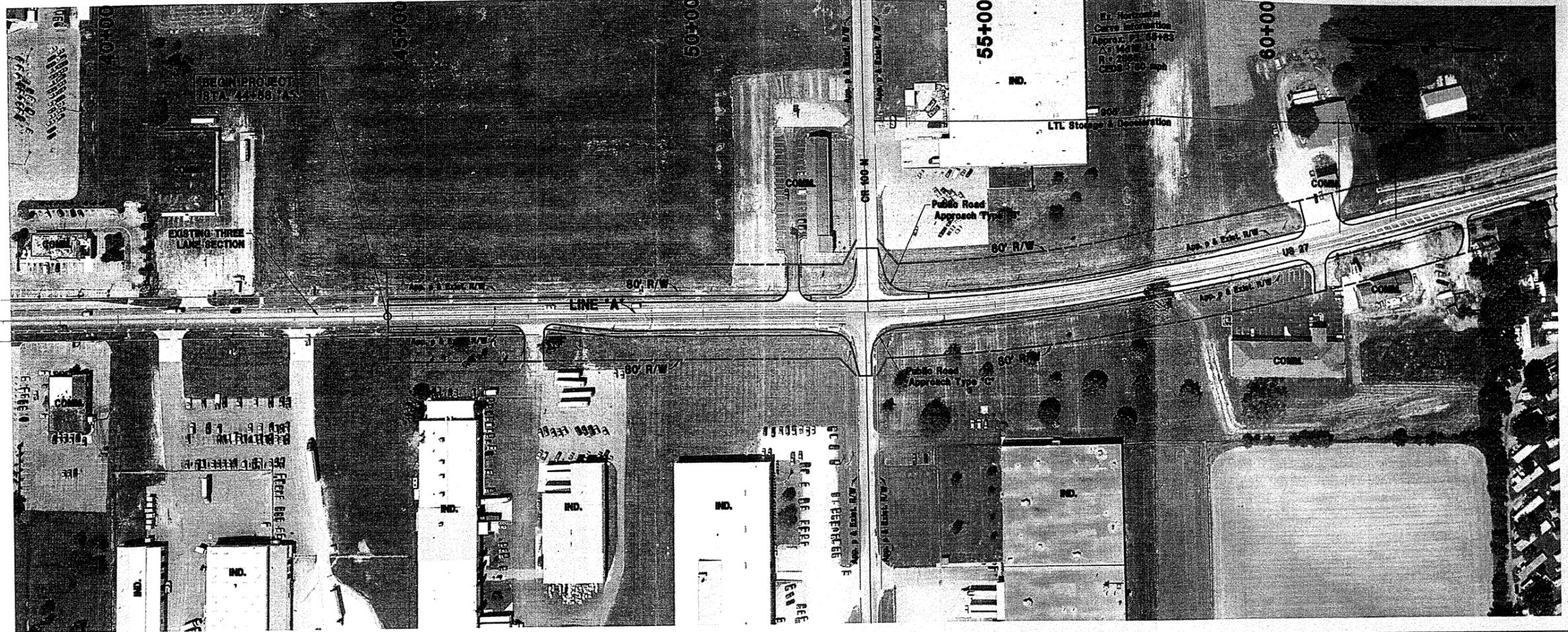
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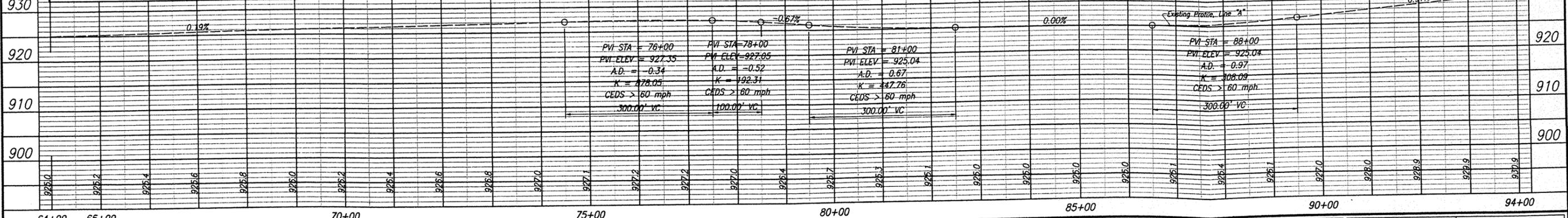
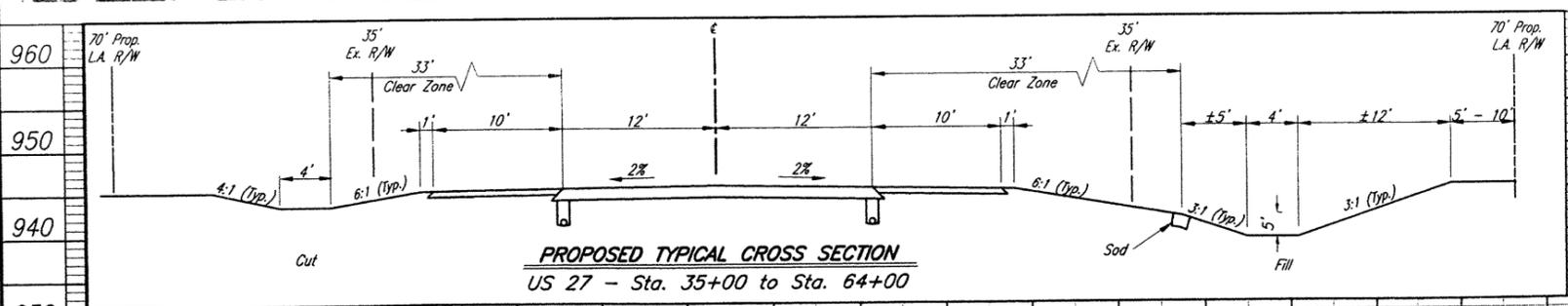
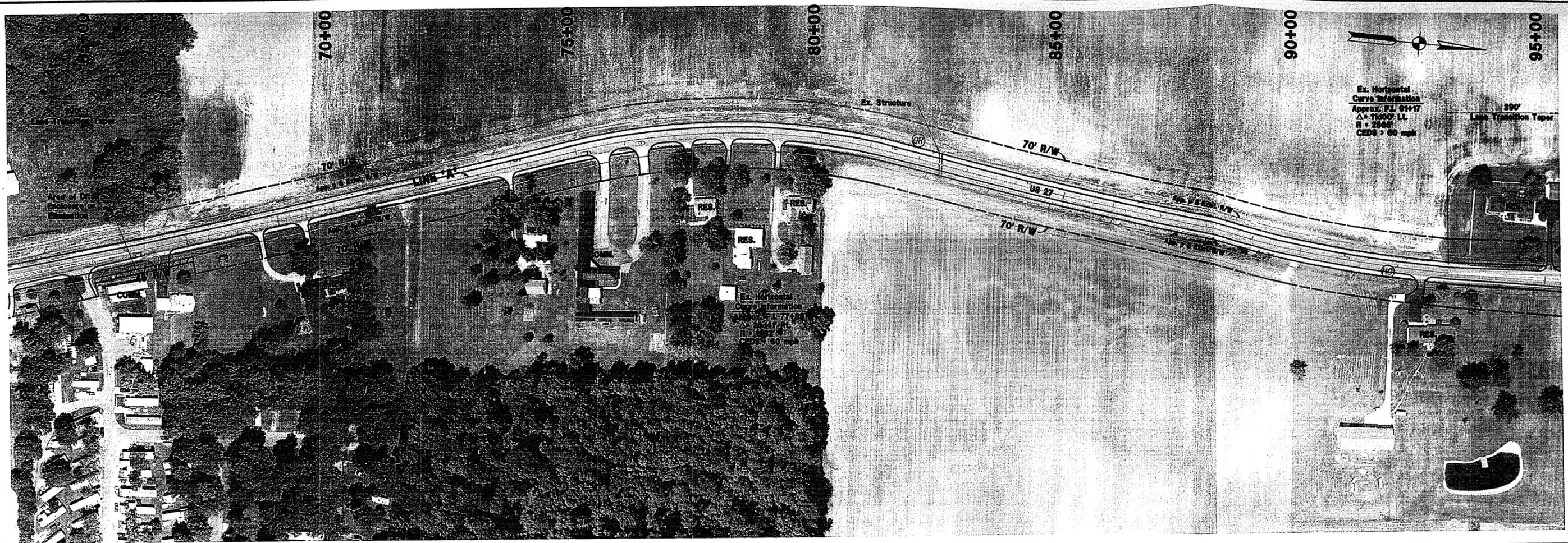
FACING NORTH IN BRYANT (STA. 364+00)

US 27 Road Reconstruction

35+00



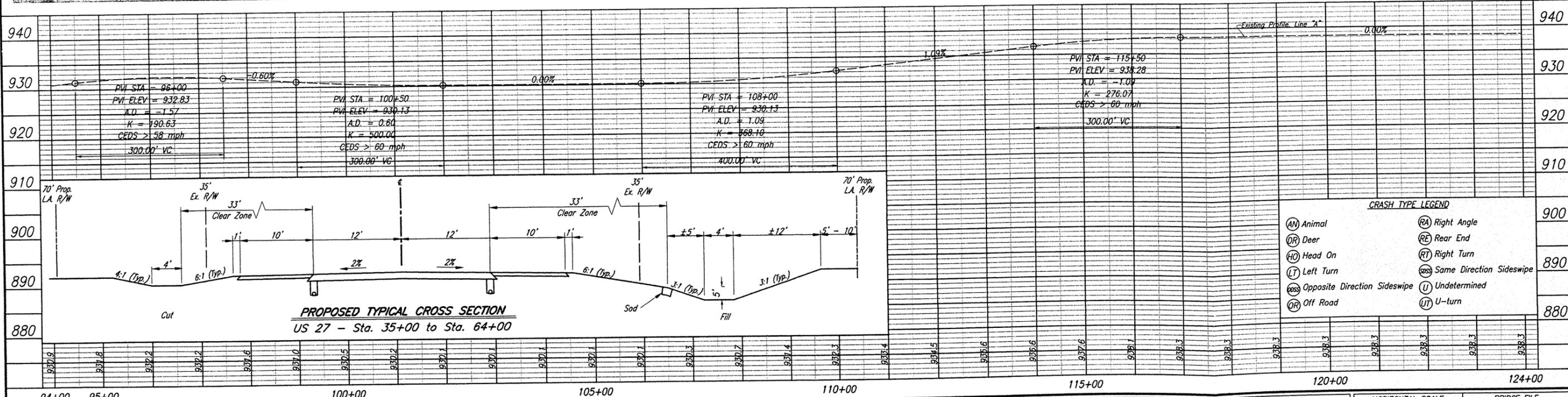
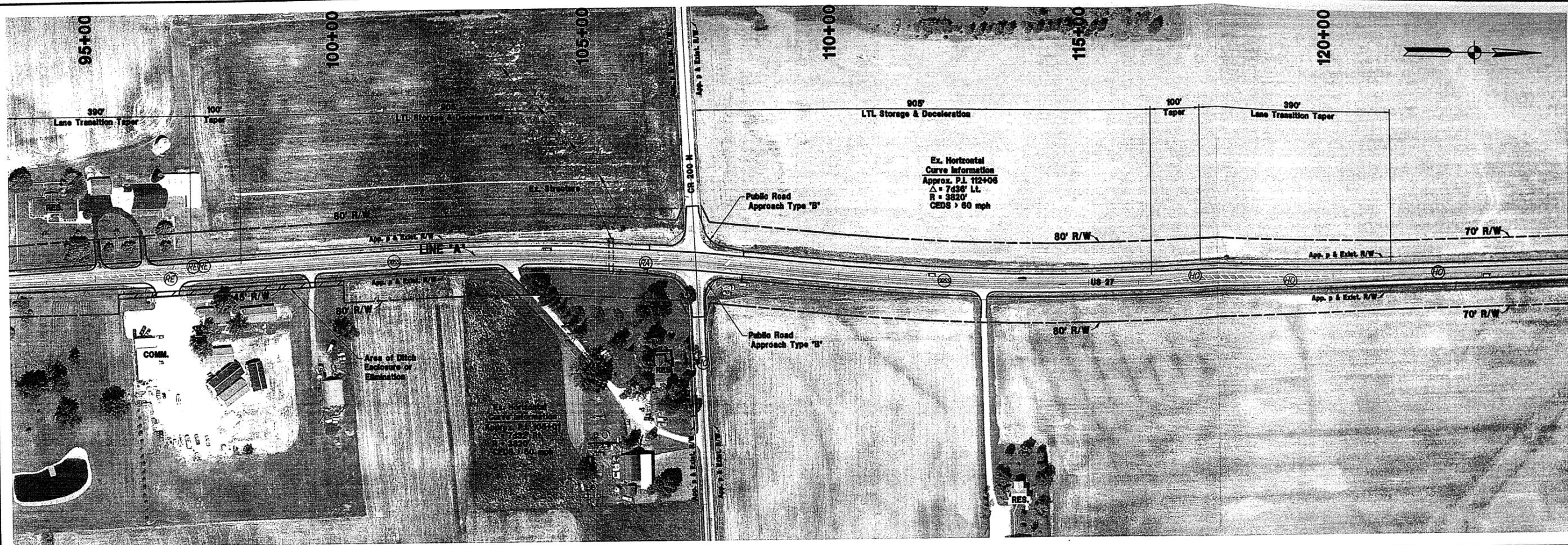
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CHECKED: DPF												CHECKED: GRW																								VERTICAL SCALE 1" = 20'			DESIGNATION 0100568		
																								SURVEY BOOK			SHEETS														
																								CONTRACT			PROJECT														
																											A-8 of														
																											STP-249-7 ()														



CRASH TYPE LEGEND

(AN) Animal	(RA) Right Angle
(DR) Deer	(RE) Rear End
(HO) Head On	(RT) Right Turn
(LT) Left Turn	(SS) Same Direction Sideswipe
(OS) Opposite Direction Sideswipe	(U) Undetermined
(OR) Off Road	(UT) U-turn

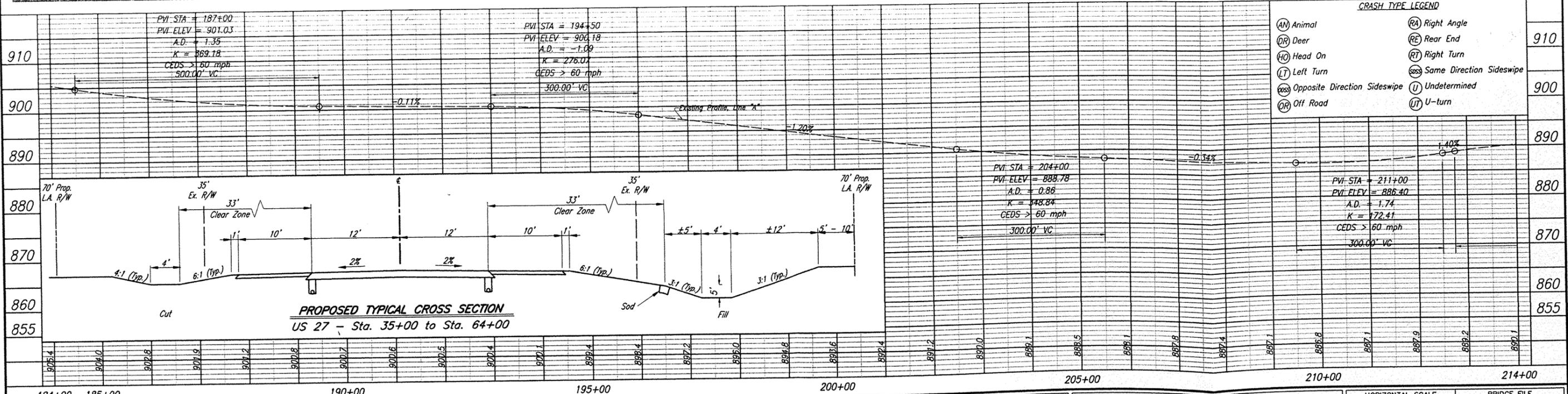
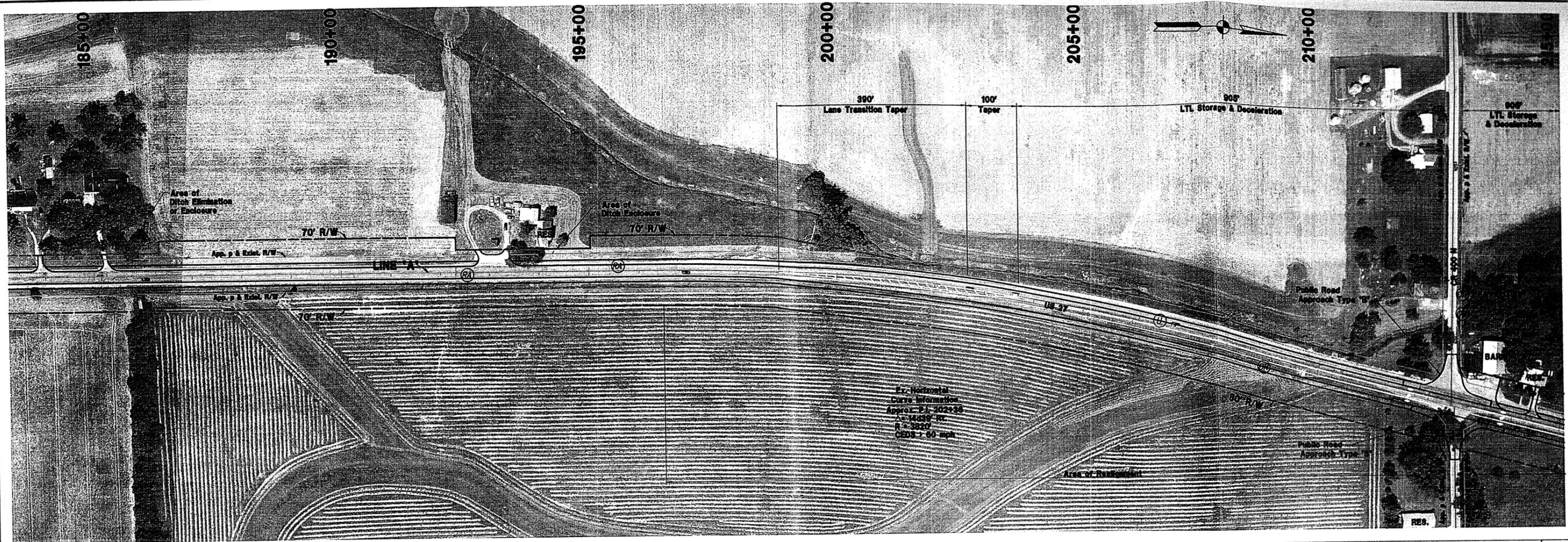
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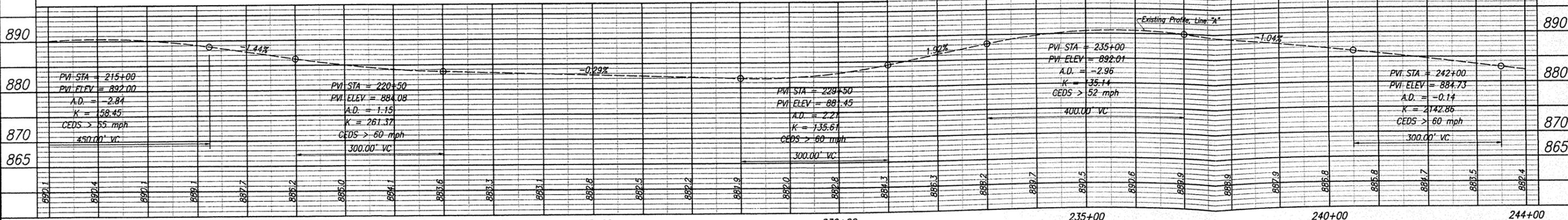
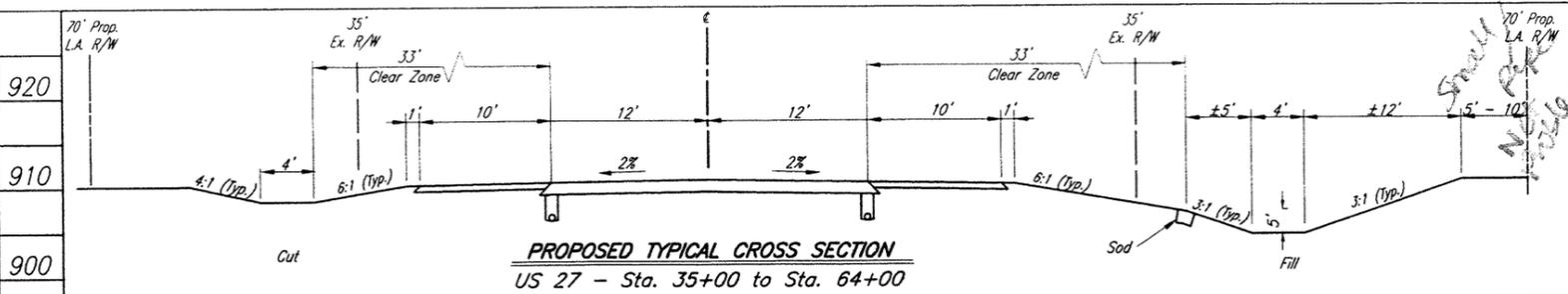
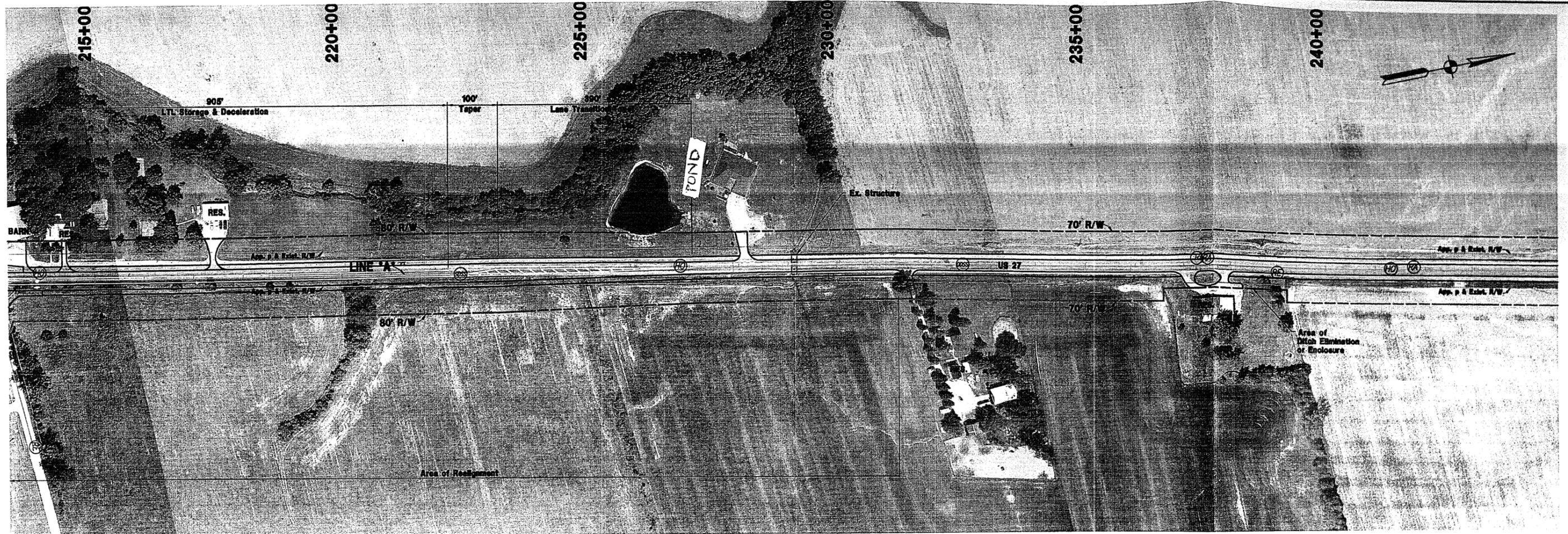
CRASH TYPE LEGEND

(AN) Animal	(RA) Right Angle
(DR) Deer	(RE) Rear End
(HO) Head On	(RT) Right Turn
(LT) Left Turn	(SS) Same Direction Sideswipe
(OS) Opposite Direction Sideswipe	(U) Undetermined
(OR) Off Road	(UT) U-turn

INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 200' VERTICAL SCALE 1" = 20'	BRIDGE FILE DESIGNATION 0100568 SHEETS A-10 of PROJECT STP-249-7()
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DESIGNED: GRW CHECKED: DPF	DRAWN: NLC CHECKED: GRW



CRASH TYPE LEGEND

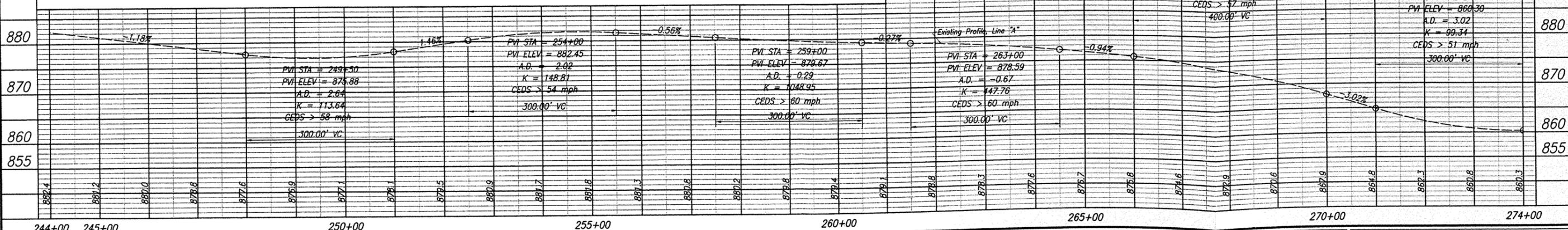
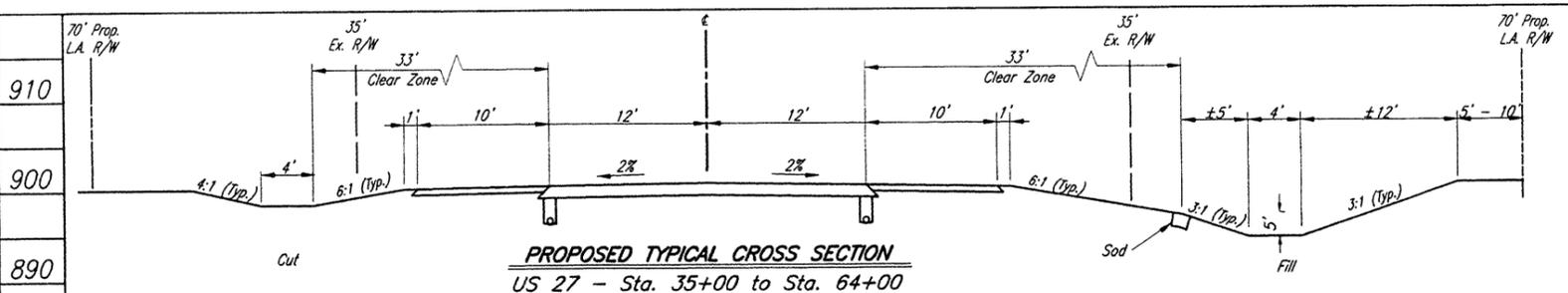
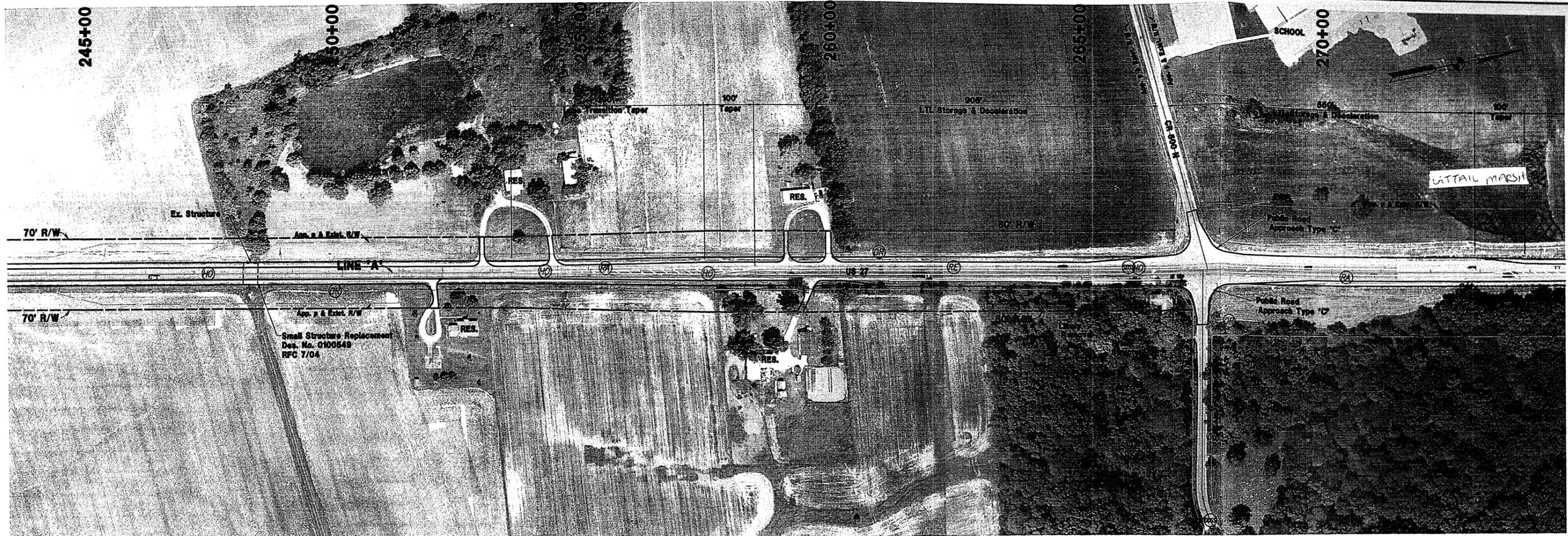
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(DR) Deer	(RE) Rear End
(HO) Head On	(RT) Right Turn
(LT) Left Turn	(SS) Same Direction Sideswipe
(OS) Opposite Direction Sideswipe	(U) Undetermined
(OR) Off Road	(UT) U-turn

DESIGNED: GRW	DRAWN: NLC
CHECKED: DPF	CHECKED: GRW

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**US 27 - PLAN & PROFILE
STA. 214+00 TO 244+00 "A"**

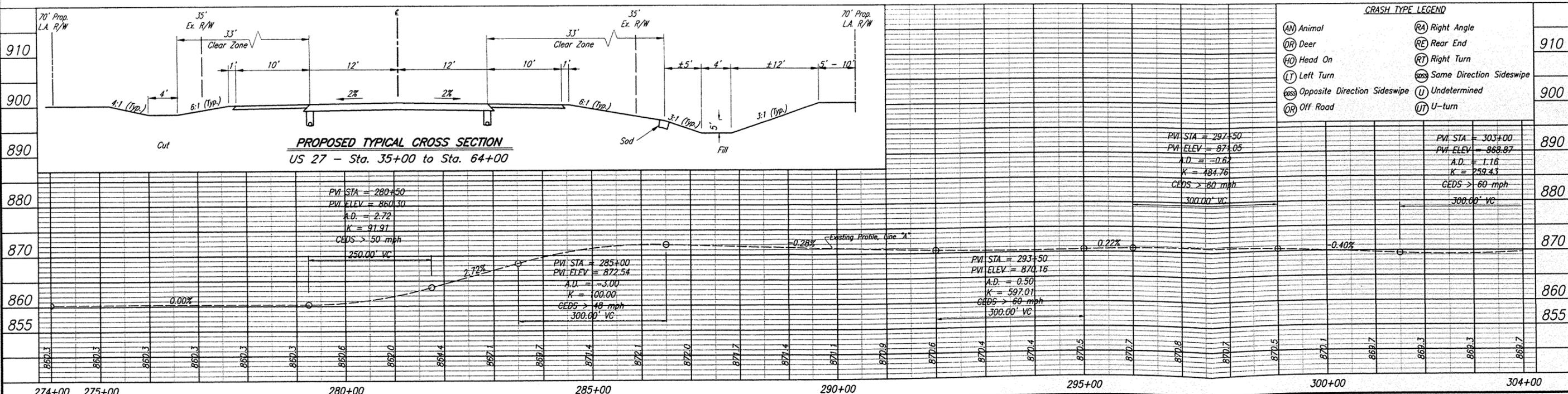
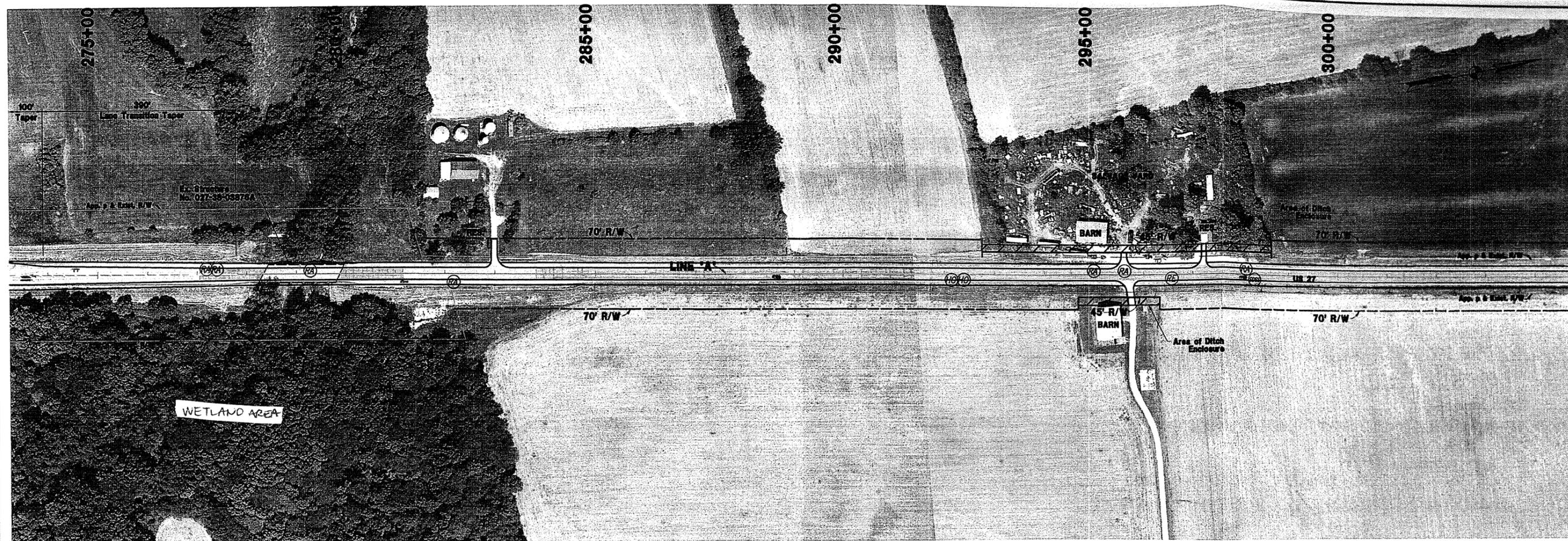
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SURVEY BOOK	SHEETS
CONTRACT	A-14 of
	PROJECT
	STP-249-7()



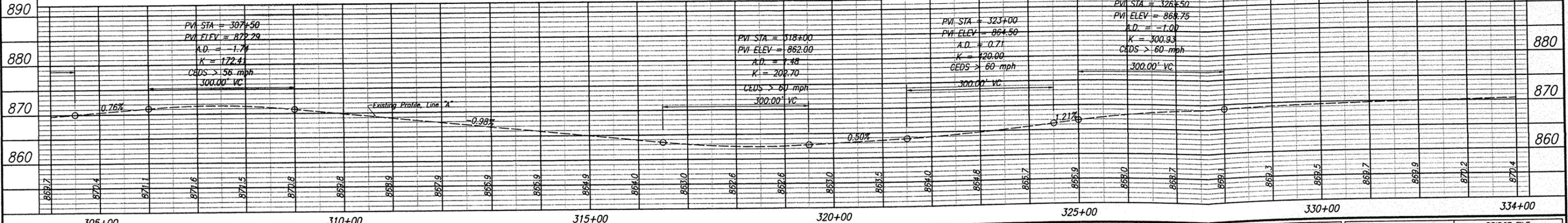
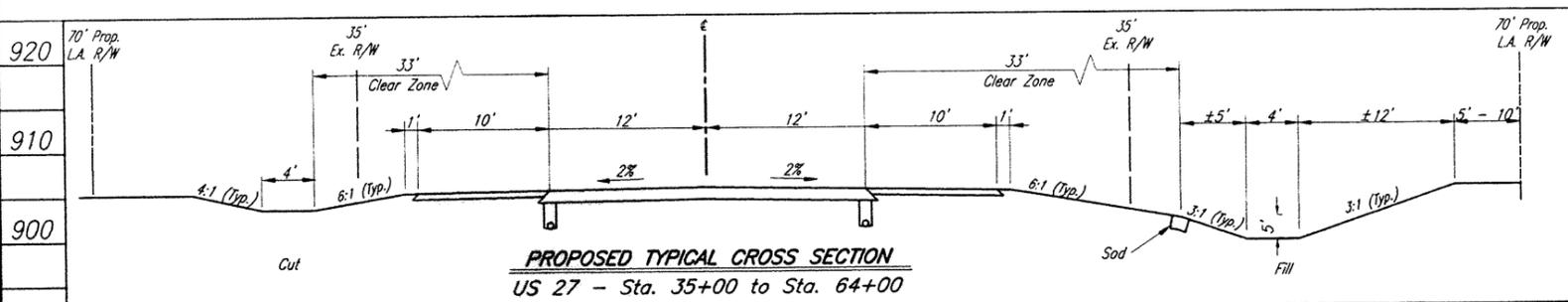
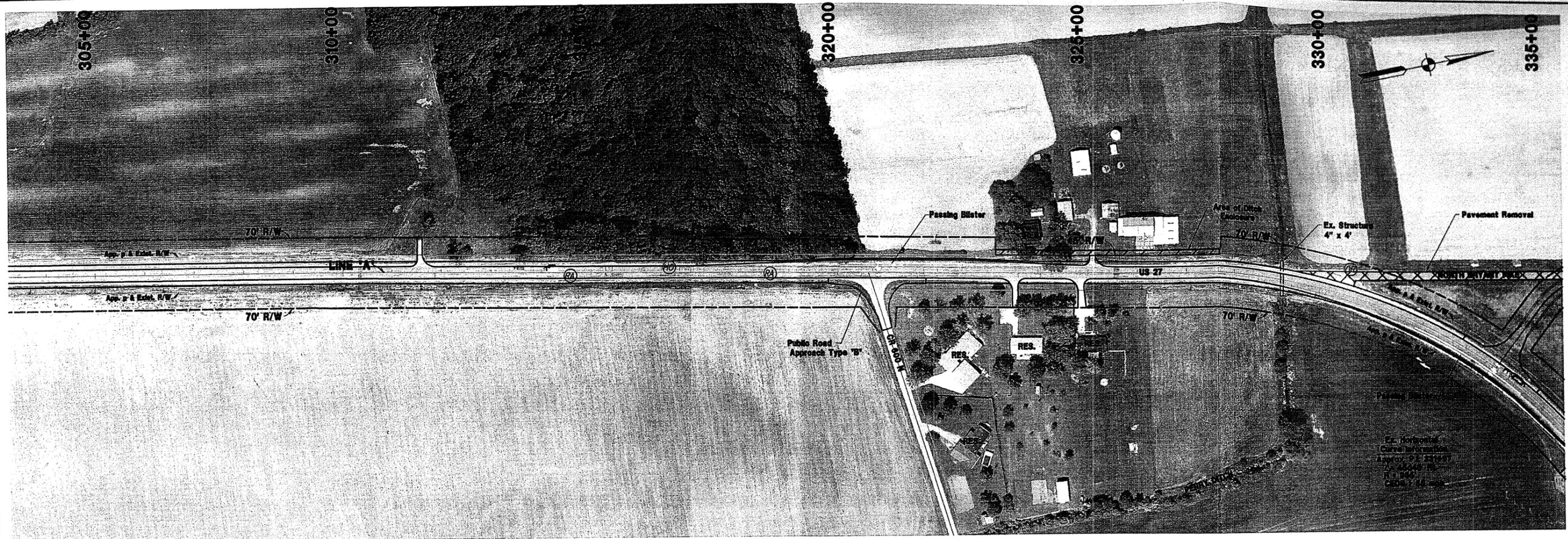
CRASH TYPE LEGEND

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(DR) Deer	(RE) Rear End
(HO) Head On	(RT) Right Turn
(LT) Left Turn	(SS) Same Direction Sideswipe
(OS) Opposite Direction Sideswipe	(U) Undetermined
(OR) Off Road	(UT) U-turn

INDIANA DEPARTMENT OF TRANSPORTATION US 27 - PLAN & PROFILE STA. 244+00 TO 274+00 "A"				HORIZONTAL SCALE 1" = 200' VERTICAL SCALE 1" = 20'	BRIDGE FILE DESIGNATION 0100568 SHEETS A-15 of PROJECT STP-249-7()
DESIGNED: GRW	DRAWN: NLC				
CHECKED: DPF	CHECKED: GRW				



INDIANA DEPARTMENT OF TRANSPORTATION				HORIZONTAL SCALE 1" = 200'	BRIDGE FILE
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CRASH TYPE LEGEND

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(DR) Deer	(RE) Rear End
(HO) Head On	(RT) Right Turn
(LT) Left Turn	(SS) Same Direction Sideswipe
(OS) Opposite Direction Sideswipe	(U) Undetermined
(OR) Off Road	(UT) U-turn

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State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Water

Early Coordination/Environmental Assessment

DNR #: ER-11414 **Request Received:** January 26, 2005

Requestor: *Indiana Department of Transportation
Lyle R. Sadler
Environmental Assessment Section
100 North Senate Avenue, Room N848
Indianapolis, IN 46204-2228

Project: US 27 Road Reconstruction; Project# STP-249-7 (); Des# 0100568

County/Site info: Jay

Regulatory Assessment: The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969. This proposal will require the formal approval of our agency for construction in a floodway, pursuant to the Flood Control Act (IC 14-28-1). Please submit a copy of this letter with the permit application.

Natural Heritage Database: The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Fish & Wildlife Comments: Fish, wildlife, and botanical resource losses as a result of this project can be minimized through implementation of the following measures. Where possible, use bridges in place of culverts. Bridges allow for longer spans across floodway and floodplain habitat. Longer spans allow for improved wildlife movement and vegetative restoration along a streams riparian corridor.

And, we recommend using three-sided culverts in place of box or pipe culverts. Three-sided culverts maintain a more natural substrate and offer fewer barriers to the movement of aquatic and terrestrial wildlife both upstream and downstream of the culvert installation.

When determining an appropriate culvert size, consider whether or not wildlife/vehicle collisions are a concern at the culvert site. A larger culvert or bridge opening can allow for the movement of wildlife under the roadway in order to minimize wildlife/vehicle collisions.

The following are standard conditions that appear on floodway construction permits for bridge/culvert replacements. These conditions should be considered when planning bridge or culvert installations due to work restrictions required during fish spawning and Indiana Bat maternity roosting periods:

Revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue), legumes, and native shrub and hardwood tree species as soon as possible upon completion.

Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.

Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.

Do not cut any trees suitable for Indiana bat roosting (greater than 14 inches in diameter, living or dead, with loose hanging bark) from April 15 through September 15.

Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.

Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.

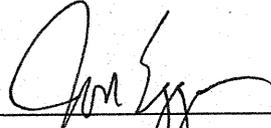
THIS IS NOT A PERMIT

**State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Water**

Early Coordination/Environmental Assessment

Contact Staff:

Christie L. Kiefer, Environ. Coordinator, Environmental Unit
Our agency appreciates this opportunity to be of service. Please do not hesitate to contact the above staff member at (317) 232-4160 or 1-877-928-3755 (toll free) if we can be of further assistance.



Date: April 19, 2005

Jon W. Eggen
Environmental Supervisor
Division of Fish and Wildlife



OKS
MBA

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
INDIANAPOLIS FIELD OFFICE
9799 BILLINGS ROAD
INDIANAPOLIS, INDIANA 46216-1055
FAX: (317) 532-4228
<http://www.lrl.usace.army.mil>

February 22, 2005

Operations Division
Regulatory Branch (North)
ID no. 200500171-trs

This is in response to your request for comments concerning:

Project No: STP-249-7 ()

Structure No: 0100568

Description: US 27 Road Reconstruction from 0.87 Mile North of N.
Jct. with SR 26/SR 67 to SR 18/SR 67, Jay County,
Indiana

Name of Organization requesting early coordination:

Indiana Department of Transportation

We do not have any comments on the general environmental impacts of the proposed project(s). This agency is not funded or authorized to provide general environmental assessments for all federally related development proposals. Our lack of comments on specific potential environmental impacts should not be construed as concurrence that no significant environmental damage would result from the project.

1. The proposed improvement may impact the following waterway(s) under our jurisdiction:

Alexander Ditch, Bockoven Ditch, Bear Creek, Perry Ditch

2. Current and/or future plans to develop the waterway(s) include:

None

3. The following Corps of Engineer's projects and/or studies are located within the area:

None

4. The depth or elevation of Ordinary High Water (OHW) is:

___ Feet mean sea level.

X The OHW elevation is the line on the bank established by the changing water surface and indicated by physical characteristics such as a clear natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; and other indications as determined upon inspection of the area. If additional

information is needed for the OHW you may contact our Hydrology & Hydraulics Branch by calling (502) 315-6456.

5. The project site is within flood elevations:

X Flood plain information is available by writing this office directly and requesting a floodplain delineation for a specific area. However, we are required by law to collect a fee for this service. The fee varies with the scope and complexity of the request. If you are interested in receiving this service please re-submit this request to the above address, ATTN: CELRL-PMP or call (502) 315-6892 and we will provide information on the fee schedule. Otherwise you may be able to obtain this information from local agency sources such as planning commissions.

6. Wetlands:

_____ are located on the site as indicated on the attached sheet.

X To our knowledge, no wetland mapping of your proposed project site has been done, nor does the Corps of Engineers have any future plans to delineate and map jurisdictional wetlands for public or private use. If you suspect wetlands would be impacted by the discharge of dredged or fill material, a wetland delineation report conforming to the "Corps of Engineers Wetland Delineation Manual, Technical Report Y-87-1," would have to be submitted. Members of our regulatory staff having expertise in this area, would evaluate and verify the wetland delineation report as part of our review process. If you need assistance in preparing a wetland delineation, there are several environmental consultants in your geographic area having this expertise.

7. If based on your coordination with the State Historic Preservation Officer, it is determined that the project may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the Department of the Army permit application must include information stating which historic property may be affected by the proposed work and/or a vicinity map indicating the location of the historic property.

8. If your project would impact any "waters of the United States," including jurisdictional wetlands, then you should submit a Department of the Army (DA) permit application for review by this office. Copies of DA permit application forms can be obtained by writing to the above address ATTN: CELRL-OP-FN or by calling (502) 315-6733.



Tim Smith
Regulatory Specialist
Regulatory Branch

Michelle

Project No. STP-249-7 () Des. No. 0100568

Project Description: US 27 Road Construction

Name of Organization requesting early coordination:
Indiana Department of Transportation

QUESTIONNAIRE FOR THE INDIANA GEOLOGICAL SURVEY

1) Do unusual and/or problem () geographic, () geological, () geophysical, or () topographic features exist within the project limits? Describe:
No

2) Have existing or potential mineral resources been identified in this area? Describe:
No

3) Are there any active or abandoned mineral resources extraction sites located nearby? Describe: No

This information was furnished by:

Name: Jennifer Olejnik Title: Geologist

Address: 611 North Walnut Grove Bloomington, IN 47405

Phone: 812-855-1347 Date: February 1, 2005

RECEIVED

FEB 4 2005

DIVISION OF
ENV. PLANNING & ENGINEERING

**Questionnaire for the Indiana Department of Transportation,
Aeronautics Section**

Project No: STP-249-7()

Des/Bridge No: 0100568

Project Description:

US 27 Road Reconstruction from 0.87 mile North of N. Junction
with SR 26/SR 67 to SR 18/SR 67 in Jay County, Indiana.

Requested By:

INDOT

Are there any existing or proposed airports within or near the project limits? Yes

If yes, describe any potential conflicts with air traffic during or after the construction of the project.

The Portland Municipal Airport is located 1,200 feet Southwest
of the Southern Terminus of the project. If any equipment
utilized on this project is taller than 12 feet above ground
level, FAA Form 7460-1 (Notice of Proposed Construction or
Alteration) must be filed. For assistance with this process,
contact Andy Nahrwold, INDOT Aeronautics (317) 232-1487.

This information was furnished by:

Name: Martin J. Blake
Title: Project Manager, INDOT-Aeronautics
Date: 03-01-05

Michelle



Natural Resources Conservation Service
6013 Lakeside Blvd.
Indianapolis, IN 46268

RECEIVED March 1, 2005

MAR - 4 2005

DIVISION OF
ENV. PLANNING & ENGINEERING

Lyle R. Sadler, Manager
Environmental Assessment Section
Div. of Pre-Engineering & Environment
Indiana Dept. of Transportation
100 North Senate Ave., Rm N755
Indianapolis, IN 46204-2228

RE: Project No. STP-249-7 ()
Des. No. 0100568
US 27 Road Rehabilitation
Jay County, Indiana

Dear Mr. Sadler:

Enclosed are the completed questionnaire and/or the 1006 Farmland Conversion Rating Form from the Natural Resources Conservation Service (NRCS) for the above named project(s). It has been found that there will be a conversion of prime farmland.

The attached packet of information is for your use in completing Parts VI and VII of the AD-1006. After completion the federal funding agency needs to forward one copy to NRCS for our records.

If you need additional information, please contact Lisa Bolton at 317-290-3200, extension 342.

Sincerely,

JANE E. HARDISTY
State Conservationist

Enclosure(s)

APPENDIX B5

Des. #: 0100568

Project #: STP-249-7 ()

Project Description: US 27 Road Reconstruction

Name of organization requesting early coordination: Indiana Department of Transportation

Questionnaire for the Natural Resources Conservation Service

- 1) Are the drainage courses within the project area subject to (x) siltation, () erosion, or () pollution? Identify and describes:

Slight siltation occurs because of agriculture activities in the immediate areas.

- 2) Are the soils within the project area susceptible to (x) erosion, () landslides, or () settlement? Describe the degree of each:

Some erosion occurs because of the farming activities in the project areas

- 3) Is detailed soil survey information available? If so, where is this information available?

yes, NRCS, 1331 Wat Hwy 67
Portland, IN.

- 4) Is there any project in existence or in the planning stage where a conflict of purpose would be created? Where is the problem area? () watershed project, () group drainage system, () other. At what stage is the project?

none

What should be done to make the project compatible or complementary?

- 5) Are major land use changes taking place in the project are? Describe:

no

- 6) Is the general agricultural economy of the area (x) stable, () declining, () increasing?
Comments:

Des. #: 0100568

Project #: STP-249-7 ()

Project Description: US 27 Road Reconstruction

Name of organization requesting early coordination: Indiana Department of Transportation

7) Please list known positive aspects of the proposed project:

It would become a safer Highway with the heavy traffic volume.

8) Is this prime farmland? If so, estimate the number of acres that will be affected:

Yes, 25 acres approx.

9) Is this farmland of statewide importance? If so, estimate the number of acres that will be affected:

no

This information was furnished by:

Name: Scott Mynsberge Title: DC

Address: 1331 W. Hwy 67, Portland, IN. 47371

Phone: (260) 724-4888 Ext. 3 Date: 2-17-05

FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request	4. Sheet 1 of _____
1. Name of Project: <i>Des No: 01005108</i>		5. Federal Agency Involved: <i>FHWA</i>	
2. Type of Project: <i>Road Reconstruction</i>		6. County and State: <i>Jay Co. Indiana</i>	
PART II (To be completed by NRCS)		1. Date Request Received by NRCS: <i>1-26-05</i>	2. Person Completing Form: <i>Rick Neilson</i>
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated: <i>175</i> Average Farm Size	
5. Major Crop(s): <i>Corn</i>	6. Farmable Land in Government Jurisdiction Acres: <i>237,406</i> % <i>97</i>		7. Amount of Farmland As Defined in FPPA Acres: <i>165,616</i> % <i>67</i>
8. Name Of Land Evaluation System Used: <i>LESA</i>	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS: <i>3-1-05</i>	

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	<i>47.81</i>			
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	<i>47.81</i>	<i>0</i>	<i>0</i>	<i>0</i>

PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	<i>21.46</i>			
B. Total Acres Statewide And Local Important Farmland	<i>0</i>			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<i>0.015</i>			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	<i>36</i>			

PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)				
	<i>58</i>			

PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points	Alternative Corridor For Segment			
		Corridor A	Corridor B	Corridor C	Corridor D
1. Area in Nonurban Use	15	<i>13</i>			
2. Perimeter in Nonurban Use	10	<i>10</i>			
3. Percent Of Corridor Being Farmed	20	<i>15</i>			
4. Protection Provided By State And Local Government	20	<i>0</i>			
5. Size of Present Farm Unit Compared To Average	10	<i>10</i>			
6. Creation Of Nonfarmable Farmland	25	<i>5</i>			
7. Availability Of Farm Support Services	5	<i>5</i>			
8. On-Farm Investments	20	<i>7</i>			
9. Effects Of Conversion On Farm Support Services	25	<i>0</i>			
10. Compatibility With Existing Agricultural Use	10	<i>0</i>			
TOTAL CORRIDOR ASSESSMENT POINTS	160	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

PART VII (To be completed by Federal Agency)				
Relative Value Of Farmland (From Part V)	100	<i>58</i>		
Total Corridor Assessment (From Part VI above or a local site assessment)	160	<i>65</i>	<i>0</i>	<i>0</i>
TOTAL POINTS (Total of above 2 lines)	260	<i>123</i>	<i>0</i>	<i>0</i>

1. Corridor Selected: <i>A</i>	2. Total Acres of Farmlands to be Converted by Project: <i>21.46</i>	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
--------------------------------	--	-----------------------	---

5. Reason For Selection:
Because this site received a total score of less than 160 points, it will be given a minimal level of consideration for protection and no additional sites will be evaluated.

Signature of Person Completing this Part:	DATE
---	------

NOTE: Complete a form for each segment with more than one Alternate Corridor

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

- (1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
 More than 90 percent - 15 points
 90 to 20 percent - 14 to 1 point(s)
 Less than 20 percent - 0 points
- (2) How much of the perimeter of the site borders on land in nonurban use?
 More than 90 percent - 10 points
 90 to 20 percent - 9 to 1 point(s)
 Less than 20 percent - 0 points
- (3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
 More than 90 percent - 20 points
 90 to 20 percent - 19 to 1 point(s)
 Less than 20 percent - 0 points
- (4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
 Site is protected - 20 points
 Site is not protected - 0 points
- (5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County?
 (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with \$1,000 or more in sales.)
 As large or larger - 10 points
 Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points
- (6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
 Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
 Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
 Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points
- (7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
 All required services are available - 5 points
 Some required services are available - 4 to 1 point(s)
 No required services are available - 0 points
- (8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
 High amount of on-farm investment - 20 points
 Moderate amount of on-farm investment - 19 to 1 point(s)
 No on-farm investment - 0 points
- (9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
 Substantial reduction in demand for support services if the site is converted - 25 points
 Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
 No significant reduction in demand for support services if the site is converted - 0 points
- (10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
 Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
 Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
 Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points



United States Department of the Interior
Fish and Wildlife Service



CRS
Michelle

Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

February 8, 2005

RECEIVED

FEB 14 2005

DIVISION OF
ENV. PLANNING & ENGINEERING

Mr. Lyle Sadler, Manager
Environmental Assessment Section
Department of Transportation
100 North Senate Avenue, Room N808
Indiana Government Center North
Indianapolis, Indiana 46204-2249

Project No.: STP-249-7 Des. 0100568
Road(s): US 27
Waterway: Bear Creek, Alexander Ditch, Bockoven Ditch, Perry Ditch
Structure: Bridge #027-38-03876A, multiple culverts
Work Type: Road reconstruction, bridge widening, 4 culvert replacements
County(ies): Jay

Dear Mr. Sadler:

This responds to your letter dated January 24, 2005 requesting U.S. Fish and Wildlife Service (FWS) comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The proposed project consists of reconstruction of approximately 7 miles of US 27, including multiple intersections, between the towns of Portland and Bryant. The project purpose is to improve safety and traffic flow. Your letter states that the existing horizontal alignment will be followed with the exception of a slight alignment shift to the east for approximately 1/4 mile south of CR 400 North, to avoid relocation of Bockoven Ditch. A total of 47.8 acres of new right-of-way will required, with the majority consisting of agricultural, residential and commercial land. We estimate from your aerial photos that less than 1 acre of forest loss will occur. The bridge over Bear Creek will be widened and rehabilitated and 4 culverts will be replaced.

APPENDIX B6

The FWS supports the proposed road shift to avoid relocating Bockoven Ditch, however it will be important to provide some type of vegetative buffer between the highway and the waterway. Based on a review of the plans you provided, we recommend the following additional mitigation measures be included in the final project plans to minimize adverse impacts on fish and wildlife resources:

1. Post DO NOT DISTURB signs at the construction zone boundaries in wooded areas and do not clear trees or understory vegetation outside the boundaries.
2. Avoid or minimize channel work in Bear Creek. If channel work is necessary, restrict below low-water work to the minimum necessary for bridge widening. Use 3-sided culverts for small structure crossings of streams that contain fish and invertebrate communities.
3. Restrict channel work and vegetation clearing to within the width of the normal approach road right-of-way.
4. Minimize the extent of artificial bank stabilization.
5. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.
6. Implement temporary erosion and siltation control devices such as placement of riprap check dams in drainage ways and ditches, installation of silt fences, covering exposed areas with erosion control matting or straw, and grading slopes to retain runoff in basins.
7. Revegetate all disturbed soil areas immediately upon project completion. Plant native trees and shrubs along stream and ditch banks wherever possible.
8. Avoid channel work in Bear Creek during the fish spawning season (April 1 through June 30).

According to the National Wetland Inventory maps the study area contains forested wetlands at the crossings of Bear Creek and Bockoven Ditch. A wetland delineation may be necessary to determine the extent of wetland impacts.

Endangered Species

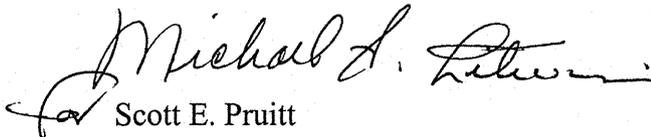
The proposed project is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and federally threatened bald eagle (*Haliaeetus leucocephalus*). The proposed project is not likely to adversely affect these 2 species.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation.

A permit under Section 404 of the Clean Water Act may be needed for the proposed project. Our recommendations to the U.S. Army Corps of engineers for permit conditions would be consistent with our comments here.

We appreciate the opportunity to comment at this early stage of project planning. If project plans change such that fish and wildlife habitat may be affected, please re-coordinate with our office as soon as possible. If you have any questions about our recommendations, please call Mike Litwin at (812) 334-4261 (Ext. 205).

Sincerely yours,


Scott E. Pruitt
Field Supervisor

cc: Federal Highway Administration, Indianapolis, IN
Andrew Pelloso, IDEM, Water Quality Standards Section, Indianapolis, IN
Christie Kiefer, Indiana Division of Fish and Wildlife, Indianapolis, IN



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

January 27, 2005

Lyle Sadler
INDOT Environmental Review Section
100 N. Senate Avenue, Room N755
Indianapolis, IN 46204-2228

Dear Lyle Sadler:

RE: Jay County; Reconstruction of US27, From 0.87 Mi. North of SR26/SR67 in Portland, to SR 18/SR67, STP-249-7 (), Des. No. 0100568

The Indiana Department of Environmental Management (IDEM) has reviewed the above-noted project with respect to applicable environmental rules, law and standards. Our review did not raise any specific comment regarding the environmental requirements for your proposed project. IDEM recommends that you consider the following issues as you move forward:

WATER AND BIOTIC QUALITY

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before dredging and/or filling in any wetlands or other waters of the state of Indiana, such as rivers, lakes, streams, and ditches. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands.

A valid jurisdictional wetlands determination can only be made by the Corps of Engineers, using the 1987 Wetland Delineation Manual. Much of northern Indiana is served by the Corps of Engineers District Office in Detroit, while the central and southern portions of the state are served by their Louisville District Office. Contacts for these offices can be found at: www.in.gov/idem/water/planbr/401/reglinks.html. IDEM recommends that, to the extent possible, impacts to wetlands and other resources simply be avoided.

2. In the event a Section 404 wetlands permit is required from the Corps of Engineers, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality. Even if the Corps of Engineers determines that the activity or area associated with



your project is not under their jurisdiction, you may still need to obtain authorization for the project from this office. The relocation, channelization, widening, or other such alteration of a stream would also require a 401 Water Quality Certification. Contact the Office of Water Quality at (317)233-8488 for additional information. In general, IDEM is opposed to such changes to streams, and would require additional information in order to provide more project specific comments.

3. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to waterbodies such as the creation of a dam or a water diversion, you should seek additional input from Section 401 Water Quality Certification staff. Consult this web site: www.in.gov/idem/water/planbr/401/staff.html for the appropriate staff contact to discuss your project further.
4. The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected waterbodies should be limited to only that which is absolutely necessary to complete the project. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.
5. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality - Permits Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Permit. Visit the following Web pages:
 - <http://www.in.gov/idem/guides/permit/water/stormwaterconstruction.html>
 - <http://www.in.gov/idem/water/npdes/permits/wetwthr/storm/rule5.html>
 - <http://www.in.gov/idem/water/npdes/permits/wetwthr/storm/rule5defs.html#compliance>
6. Regardless of the size of your project, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize soil erosion. The use of straw bale barriers, silt fencing, earthen berms or other appropriate techniques around disturbed areas are recommended to prevent soil from leaving the construction site. Information and assistance regarding control of construction-related soil erosion are available from the Soil and Water Conservation District (SWCD) offices, co-located with the local field office of the USDA Natural Resource Conservation Service (NRCS) in each county. (To find a SWCD office: www.agry.purdue.edu/swq/swcd.htm)
7. For projects involving work within floodways of waterbodies, contact the Department of Natural Resources - Division of Water (317/232-4160) regarding the need for permits.
8. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for addition project input.
9. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317/308-3299) regarding the need for permits. (www.in.gov/idem/guides/permit/water/drinkingwater.html)
10. For projects involving effluent discharges to waters of the State of Indiana, contact the Office of Water Quality - Permits Branch (317/233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.

11. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317/232-8675) regarding the need for permits. (www.in.gov/idem/guides/permit/water/wwconstructionpermits.html)

AIR QUALITY

The above-noted project should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations. Consideration should be given to the following:

1. Regarding open burning, and disposing of organic debris generated by land clearing activities; some types of open burning are allowed (www.in.gov/idem/guides/permit/air/openburning.html#maintenance) under specific conditions (www.in.gov/idem/guides/permit/air/openburning.html#conditionsallowed). You also can seek an open burning variance from IDEM. See: www.in.gov/idem/guides/permit/air/openburning.html#variances.

However, IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on site (you must register with IDEM if more than 2,000 pounds is to be composted; contact 317/232-0066). The finished compost can then be used as a mulch or soil amendment. You also may bury any vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) onsite, although burying large quantities of such material can lead to subsidence problems, later on.

2. Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized. See: www.in.gov/idem/guides/permit/air/fugitivedust.html.

Additionally, if construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for 3-5 years precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus *Histoplasma capsulatum*, which stems from bird or bat droppings that have accumulated in one area for 3-5 years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at (317) 233-7272.

3. The U.S. EPA and the Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. (For a county-by-county map of predicted radon levels in Indiana, visit: <http://www.in.gov/idem/radon/health.html>.)

The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher, EPA recommends the installation of radon-reduction measures. (For a list

of qualified radon testers and radon mitigation (or reduction) specialists visit: http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf.) It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels. To learn more about radon, radon risks, and ways to reduce exposure visit: <http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>, <http://www.in.gov/idem/radon/>, or <http://www.epa.gov/iaq/radon/index.html>.

4. With respect to asbestos removal: all facilities slated for renovation or demolition (except residential buildings that have (4) four or fewer dwelling units and which will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements.

If no asbestos is found where a renovation activity will occur, or if the renovation involves removal of less than 260 linear feet of RACM off of pipes, less than 160 square feet of RACM off of other facility components, or less than 35 cubic feet of RACM off of all facility components, the owner or operator of the project does not need to notify IDEM before beginning the renovation activity.

For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead/Asbestos section at 1-888-574-8150.

However, in all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at www.in.gov/icpr/webfile/formsdiv/44593.pdf.

Anyone submitting a renovation/demolition notification form will be billed a notification fee based upon the amount of friable asbestos containing material to be removed or demolished. Projects that involve the removal of more than 2,600 linear feet of friable asbestos containing materials on pipes, or 1,600 square feet or 400 cubic feet of friable asbestos containing material on other facility components, will be billed a fee of \$150 per project; projects below these amounts will be billed a fee of \$50 per project. All notification remitters will be billed on a quarterly basis.

For more information about IDEM policy regarding asbestos removal and disposal, visit: www.in.gov/idem/guides/permit/waste/asbestosremoval.html.

5. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978, or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: www.in.gov/idem/guides/permit/waste/leadabatement.html.

6. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2, Asphalt Paving Rule (www.ai.org/legislative/iac/t03260/a00080.pdf)
7. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: www.ai.org/legislative/iac/t03260/a00020.pdf.) New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
8. For more information on air permits visit: www.in.gov/idem/guides/permit/air/index.html, or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD@dem.state.in.us.

LAND QUALITY

In order to maintain compliance with all applicable laws regarding contamination and/or proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at (317) 308-3103.
2. If any contaminated soils are discovered during this project, they may be subject to disposal as either special or hazardous waste. Please contact the OLQ at (317) 308-3103 to obtain information on proper disposal procedures.
3. If PCBs are subsequently found at this site, please contact the Industrial Waste Section of OLQ at (317) 308-3103 for information regarding management of any PCB wastes from this site.
4. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at (317) 308-3103 for information regarding the management of asbestos wastes." (Asbestos removal is addressed above, under Air Quality.)

The IDEM Office of Land Quality reserves the right to provide additional comments, or to undertake other appropriate actions, if additional information becomes available that reveals potential waste disposal or contamination problems at the site.

FINAL REMARKS

Should you need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that you notify all adjoining property owners and/or occupants within ten days your submittal of each permit application. However, if you are seeking multiple permits, you can still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten day period. For additional information and forms: www.in.gov/idem/guides/permit/landdevelopment/notification.html.

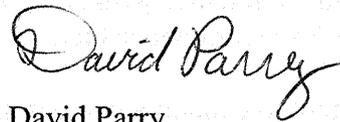
IDEM reserves the right for further review if the scope of the project, or any of its aspects, should change significantly from that which has been proposed, or we are made aware of factors which could have detrimental environmental effects.

Please note that this letter does not constitute a permit, license, endorsement or any other form of approval on the part of either the Indiana Department of Environmental Management or any other Indiana state agency.

The IDEM makes all information pertaining to environmental reviews available to the public. During regular business hours these files are accessible in the IDEM file room located in Room N1201, Indiana Government Center North, 100 North Senate Avenue, Indianapolis.

Should you have any questions relating to our review or recommendations, please feel free to contact me at (317) 233-4638 or at dparry@dem.state.in.us.

Sincerely,



David Parry
Environmental Review Coordinator
Office of Planning and Assessment

Project No. 5070



February 4, 2005

Lyle R. Sadler
Environmental Assessment Section
Division of Environment, Planning & Engineering
Indiana Department of Transportation
100 North Senate Avenue, Room N755
Indianapolis, IN 46204-2249

Federal Agency: Federal Highway Administration (“FHWA”)

Re: General project information and archaeological field reconnaissance (Stillwell 12/3/04) for the proposed US 27 improvements from 0.87 miles North of the North Junction with SR 26/SR 67 to SR 18/SR67 (STP-249-7(), Designation # 0100568)

Dear Mr. Sadler:

Pursuant to Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f) and 36 C.F.R. Part 800, the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has conducted an analysis of the materials dated December 29, 2004, and January 24, 2005, and received on January 6, 2005, and January 27, 2005, for the above indicated project in Bear Creek and Wayne Townships, Jay County, Indiana.

We concur with the conclusions and recommendations of the archaeological reconnaissance. As such, no further archaeological investigation appears to be warranted. Based upon the documentation available to the staff of the Indiana SHPO, we have not identified any historic buildings, structures, districts, objects, or archaeological resources listed in or eligible for inclusion in the National Register of Historic Places within the probable area of potential effects.

At this time, it would be appropriate for the FHWA to analyze the information that has been gathered from the Indiana SHPO, the general public, and any other consulting parties and make the necessary determinations and findings. Refer to the following comments for guidance:

- 1) If the FHWA believes that a determination of “no historic properties affected” accurately reflects its assessment, then it shall provide documentation of its finding as set forth in 36 C.F.R. §800.11 to the Indiana SHPO, notify all consulting parties, and make the documentation available for public inspection (36 C.F.R. §§ 800.4[d][1] and 800.2[d][2]).
- 2) If, on the other hand, the FHWA finds that an historic property may be affected, then it shall notify the Indiana SHPO, the public and all consulting parties of its finding and seek views on effects in accordance with 36 C.F.R. §§ 800.4(d)(2) and 800.2(d)(2). Thereafter, the FHWA may proceed to apply the criteria of adverse effect and determine whether the project will result in a “no adverse effect” or an “adverse effect” in accordance with 36 C.F.R. § 800.5.

We look forward to receiving notice of the FHWA’s findings.

Also, be advised that if any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 1421-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In the event that artifacts or features are discovered during the implementation of the Federally assisted project, activity, or program and a plan has not been developed, it is the Federal agency's responsibility to make reasonable efforts to avoid, minimize or mitigate adverse effects in accordance with 36 C.F.R. § 800.13.

A copy of the revised 36 C.F.R. Part 800 that went into effect on August 5, 2004, may be found on the Internet at www.achp.gov for your reference. If you have questions about our comments, please call our office at (317) 232-1646. Questions about archaeological issues should be directed to Dr. Rick Jones or Christopher Koeppe. Questions about historic buildings or structures pertaining to this project should be directed to Karie A. Brudis

Very truly yours,

Jon C. Smith
Deputy State Historic Preservation Officer

JCS:KAB:CDK:cdk

cc: Robert F. Tally, Jr., P.E., Division Administrator, Federal Highway Administration
Larry N. Stillwell, Archaeological Consultants of Ossian
emc: Wayne Goodman, Eastern Regional Office, Historic Landmarks Foundation of Indiana

**FEDERAL HIGHWAY ADMINISTRATION
DOCUMENTATION OF SECTION 106 FINDING OF
NO HISTORIC PROPERTIES AFFECTED
SUBMITTED TO THE STATE HISTORIC PRESERVATION OFFICER
PURSUANT TO 36 CFR 800.4(d)(1)
US 27 Road Reconstruction
From 0.87 Mile North of N. Jct. with SR 26/ SR 67 to SR 18/ SR 67
Jay County, Indiana
DES. NO.: 0100568
FEDERAL PROJECT NO.: STP-249-7 ()**

1. DESCRIPTION OF THE UNDERTAKING

The need for the improvement is based on the facilities substandard shoulder width, substandard roadside items, crash history, and substandard vertical alignment. The purpose of this project is to improve the traffic flow/mobility and safety of US 27 by a general update of the typical section along the corridor to satisfy current design standards.

The prevailing cross section along US 27 consists of two 12' lanes bordered by 3' paved shoulders (4' usable). Prevailing apparent right-of-way through the corridor is 35' (half-width). There is one bridge structure within the project limits, which will be widened and rehabilitated. The widening of US 27 will require a continuous (more or less) strip of right-of-way acquisition totally 47.8 acres. The rural typical section with open drainage will have a right-of-way width that varies from 70' to 80'. Two relocations are anticipated. One is an old gas station located at CR 300N (SE quadrant), and the other is an abandoned hotel at CR 500N (SE quadrant). As shown on the enclosed maps, the FHWA approved APE includes the proposed right-of-way and the area immediately surrounding it (see appendix I).

2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES

No properties listed in or eligible for the *National Register of Historic Places*, the *Indiana State Register of Historic Sites and Structures* are located within the APE. Three properties listed in the *Jay County Interim Report* (1995) are within the APE. INDOT's Architectural Historian, Mary Kennedy, met with Frank D. Hurdis with DNR's Division of Historic Preservation and Archaeology. They concluded one of the listed properties, the Bloomfield Hotel, and a former service station located on CR 400 N, were not eligible for the National Register. Bloomfield Cemetery is also listed, but is more than 100' from proposed construction limits. The third property listed is a farm on SR 27 and 300N, rated Contributing.

Early coordination was sent out on January 25, 2005 and the following parties were invited to be Section 106 consulting parties for this project: State Historic Preservation Officer (SHPO), Historic Landmarks Foundation of Indiana, Jay County Historian, and Jay County Historical Society, Inc., Balbec Historical Club, Inc., and Headwaters Heritage, Inc.

SHPO responded on February 4, 2005 stating "we have not identified any historic buildings, structures, districts, objects, or archaeological resources listed in or eligible for inclusion in the National Register within the probable area of potential effects."

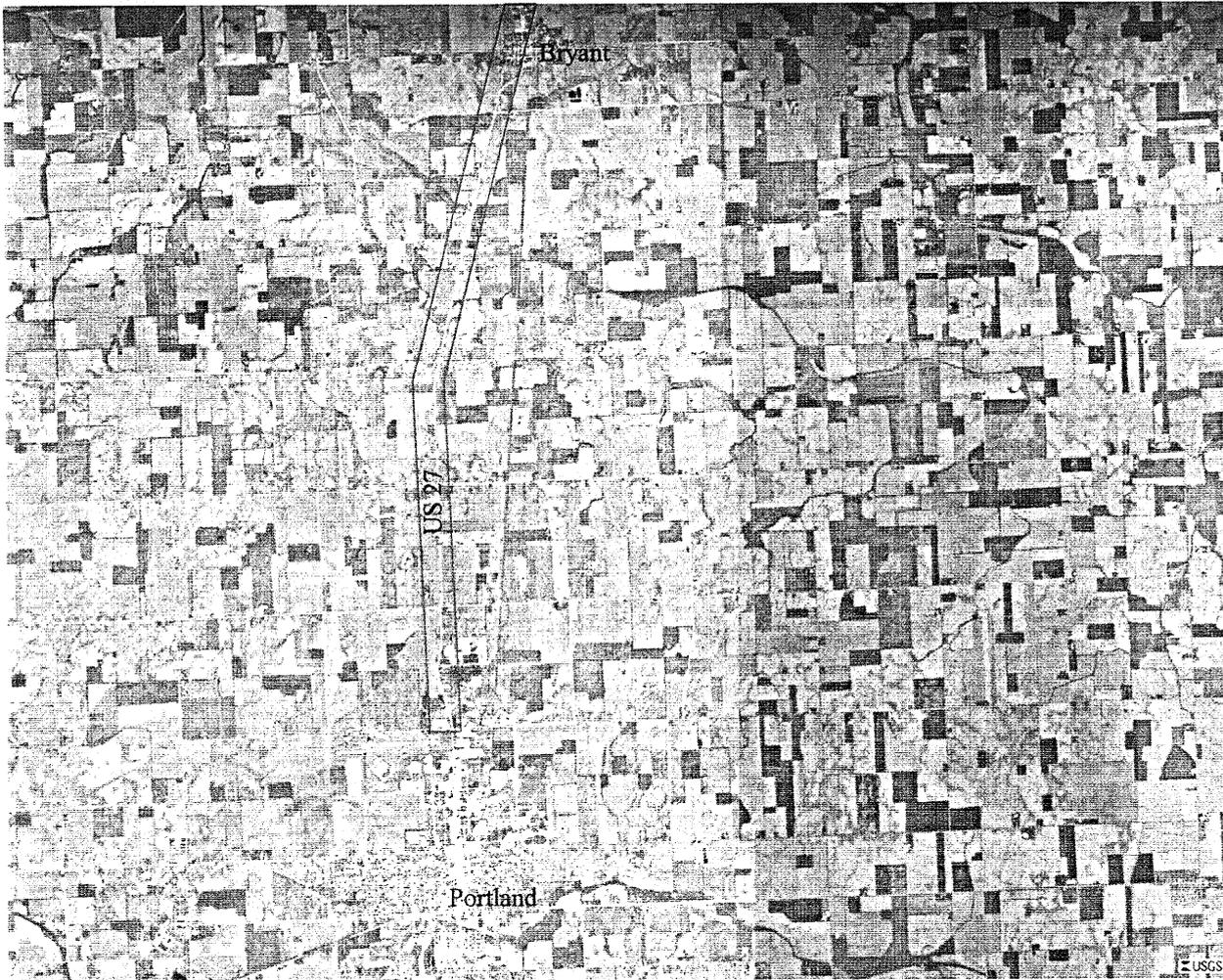
An Archeological Field Reconnaissance was completed, and no properties that are eligible for nomination to the National Register of Historic Places were detected.

3. BASIS FOR FINDING

Since no historic properties are present within the area of potential effects, as approved by FHWA, the finding of no historic properties was made.

Appendix

- I. Map of APE
- II. APE/Eligibility/Effect Finding
- III. Section 106 Correspondence



Map of APE
Des No 0100568
US 27 Road Reconstruction from 0.87 Mi. N. of N. Jct. with SR 26/SR 67 to SR 18
Jay County.

**FEDERAL HIGHWAY ADMINISTRATION'S
SECTION 106 FINDINGS AND DETERMINATIONS
AREA OF POTENTIAL EFFECT
ELIGIBILITY DETERMINATIONS
EFFECT FINDING
Road Reconstruction
US 27
Jay County
DES. NO.: 0100568
FEDERAL PROJECT NO.: STP-249-7 ()**

AREA OF POTENTIAL EFFECT

(Pursuant to 36 CFR Section 800.4(a)(1))

This road reconstruction project begins on the north side of Portland, and ends on the north side of the town of Bryant. The recommended APE includes the proposed right-of-way and the area immediately surrounding it (please see enclosed map).

ELIGIBILITY DETERMINATIONS

(Pursuant to 36 CFR 800.4(c)(2))

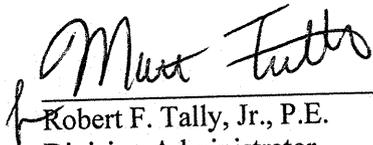
No properties listed in or eligible for the *National Register of Historic Places* or the *Indiana State Register of Historic Sites and Structures* are located within the APE.

EFFECT FINDING

(Pursuant to 36 CFR 800.4(d)(1))

We are recommending a determination of "No Historic Properties Affected" based on the fact that no properties within the project area appear to have architectural, archaeological, or historic significance.

Based on the above and the enclosed information, we are requesting FHWA's approval for the recommended APE, recommended eligibility determination, and recommended finding of "No Historic Properties Affected." Consulting parties will be provided a copy of FHWA's findings and determinations in accordance with FHWA's Section 106 procedures. Comments will be accepted for 30-days upon receipt of the findings.



Robert F. Tally, Jr., P.E.

Division Administrator

9/13/05

Approved Date

State of Indiana, Jay County, ss:

Legal Notice

Public Notice

The Indiana Department of Transportation is planning to undertake a Road Reconstruction project, funded in part by the Federal Highway Administration. The project is on US 27, from 0.87 mile north of the north junction with SR 26/ SR 67 to SR 18/ SR 67. The project is located in Jay County, Des. No 0100568.

This project requires a strip of right-of-way acquisition totaling approximately 47.8 acres. Two relocations are anticipated as a result of this project.

The proposed action doesn't impact items listed on or eligible for the National Register of Historic Places. The Federal Highway Administration has issued a "No Historic Properties Affected" finding for the project, due to no historic properties within the area of potential effect. In accordance with the National Historic Preservation Act, the views of the public are being sought regarding the effect of the proposed project on the historic elements as per 36 CFR 800.2(d), 800.3(e) and 800.6(a)(4). Pursuant to 36 CFR 800.6(a) (4), the documentation specified in 36 CFR 800.11 (d) is available for inspection in the INDOT Environment, Planning and Engineering Division in Indianapolis. This documentation serves as the basis for the Federal Highway Administration's "No Historic Properties Affected" finding. The views of the public on this finding are being sought.

Please reply no later than October 16th, 2005.

Mr. Ben T. Lawrence,
Acting Manager
Environmental Assessment
Section
Environment, Planning and
Engineering Division
100 N. Senate Avenue, IGCN
Room 848
Indianapolis, In. 46204-2218
Phone: (317) 233-1164
Fax: (317) 232-5478
CR-September 17, 2005

Personally appeared before me the undersigned, a Notary Public in and for said County and State, the undersigned JULIE E. SWOVELAND who, being duly sworn, says that she is Business Manager of THE COMMERCIAL REVIEW, a public daily newspaper of general circulation, in said county, printed and published in Portland, in the county aforesaid, and that the Notice of which the attached is a true copy, was duly published in said paper for 1 insertion weeks successively.

The first publication was on the 17 day of September 20 05

The last on the day of 20
Julie E. Swoveland
Julie E. Swoveland

Subscribed and sworn to before me, this 23 day of Sept 20 05

My commission expires December 11 2007

J. E. Ballard
Joy E. Ballard, Jay Co. Notary Public

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Michelle

MITCHELL E. DANIELS, JR., Governor
THOMAS O. SHARP, Commissioner

Writer's Direct Line

February 28, 2005

Mr. Andrew Sargent
Keramida Environmental, Inc.
330 North College Avenue
Indianapolis, Indiana 46202

Re: Initial Site Assessment (ISA) Report
US 27 from SR 26 to SR 18/67
Road Reconstruction
Jay County, Indiana.
INDOT Project No.: STP-249-70
INDOT DES No.: 0100568

Dear Mr. Sargent:

We have reviewed the above-referenced document. We agree with the recommendations in the ISA. We request a Preliminary Site Investigation (PSI) based on the ISA. Please find below our request for further work.

We do not believe that borings need to be taken at the parcel located at 5534 US 27. This parcel appears in aerial photographs and in the Engineers Report as a residential property. Please submit a boring plan for the remaining 7 locations for prior approval. If you have any questions please contact Kristie Davis at 317-232-5112 or at kdavis@indot.state.in.us.

Sincerely,


Thomas L. Duncan, PE, Manager
Environmental Services Section
Environment, Planning and Engineering Division

TLD\kjd

cc: file, Brenda Fox

CONCLUSIONS AND RECOMMENDATIONS

An Initial Site Assessment, conducted in general conformance with the scope and limitations of ASTM Practice E 1527-00, was performed of a road reconstruction project along US 27 starting 0.87 miles north of the junction with State Road (SR) 26 and ending at SR 18 in Jay County, Indiana.

The ISA has revealed the following evidence of *de minimus* conditions in connection with the Site:

1. Several spills involving malfunction of agriculture and sewage handling equipment have occurred south of the intersection of US 27 and State Road 18 near the Study Area. These spills were cleaned up and are not expected to have impacted the Study Area.
2. An industrial park is located at the intersection of US 27 and County Road 100 North at the southern end of the Study Area. The industries on the northeast and northwest corner of this intersection have their operations more than 100 feet off the right-of-way and have no regulator records of release.

The ISA has revealed the following possible environmental concerns:

1. Subsurface petroleum contamination is possible at the Study Area in the vicinity of the Bearcreek Crossing Shell station located on the southwest corner of the intersection of US 27 and State Road 18. KERAMIDA recommends subsurface sampling along the right-of-way in the vicinity of the Bearcreek Crossing Shell.
2. Subsurface petroleum contamination is possible at the Study Area in the vicinity of Jimmy's Café located on the east side of US 27 approximately ¼ mile south of State Road 18. KERAMIDA recommends subsurface sampling along the right-of-way in the vicinity of Jimmy's Café.
3. Subsurface petroleum contamination is possible at the Study Area in the vicinity of the Bryant Equipment Combine Shop and storage facility located on the west side of US 27

approximately ¼ mile south of State Road 18. KERAMIDA recommends subsurface sampling along the right-of-way in the vicinity of the Bryant Equipment combine Shop.

4. Subsurface petroleum contamination is possible at the Study Area in the vicinity of a suspect automotive repair garage located on the east side of US 27 adjacent to the Bryant Fire Department approximately ¼ mile south of State Road 18. KERAMIDA recommends subsurface sampling along the right-of-way in the vicinity of the garage.
5. Subsurface petroleum contamination is possible at the Study Area in the vicinity of a suspect automotive repair garage and storage facility located on the west side of US 27 at 5534 US 27. KERAMIDA recommends subsurface sampling along the right-of-way in the vicinity of the suspect garage.
6. Subsurface petroleum contamination is possible at the Study Area in the vicinity of a suspect automotive repair garage and storage facility located on the west side of US 27 at 3386 US 27. KERAMIDA recommends subsurface sampling along the right-of-way in the vicinity of the suspect garage.
7. Subsurface petroleum contamination is possible at the Study Area in the vicinity of a suspect automotive repair garage located on the west side of US 27 at 2910 US 27. KERAMIDA recommends subsurface sampling along the right-of-way in the vicinity of the suspect garage.
8. Subsurface petroleum contamination is possible at the Study Area in the vicinity of a suspect heavy equipment repair garage located on the west side of US 27 at 1148 US 27. KERAMIDA recommends subsurface sampling along the right-of-way in the vicinity of the suspect garage.

**An Archaeological Field Reconnaissance of the Proposed U.S. 27 Improvements
from 0.87 miles North of the North Junction with S.R. 26/S.R. 67 to S.R. 18/S.R.
67 (Project #STP-249-7(), Des. 0100568) in Jay County, Indiana**

by
Larry N. Stillwell
Principal Investigator

Submitted by:

Archaeological Consultants of Ossian
P.O. Box 2374
Muncie, IN 47307

Submitted to:
IN Dept. of Transportation
Indianapolis, IN

December 3, 2004

Introduction

As a result of a request by the Indiana Department of Transportation, Archaeological Consultants of Ossian was contracted to determine the effects on cultural resources of the proposed U.S. 27 Improvements from 0.8 miles north of the north junction of S.R. 26/ S.R. 67 to S.R. 18/S.R. 67 (Project #STP-249-7(), Des. 0100568) in Jay County, Indiana (Figure 1). On November 23 and 24, 2004, personnel from Archaeological Consultants of Ossian conducted an archaeological reconnaissance survey of an approximate 47.81 acre tract of land selected for development. The area surveyed is located in portions of Sections 17, 19, 20, 30, and 31, Township 24 North, Range 14 East; and in portions of Sections 4, 5, 8, 9, 16, and 17, Township 23 North, Range 14 East (Bear Creek and Wayne Townships) in Jay County, Indiana (Figures 2 and 3). Four previously unknown archaeological sites were discovered as a result of the survey. This report is a summary of the background review and the results of the Phase I archaeological investigation.

Physical Environment

Jay County has a continental climate with cold winters and quite hot summers (average daily low in January = 18 degrees F, average daily high in July = 85 degrees F), with 39 inches of precipitation per year (Kluess 1986). Approximately 60% of the annual precipitation falls between the months of April and September. The average number of days per year with minimum temperatures above 32 degrees (five in ten year probability) is 165 (Kluess 1986).

The project area lies within the Tipton Till Plain (Schneider 1966), generally a flat featureless till plain which was laid down during the Wisconsin glacial period (Wayne 1966). In particular, it lies on materials of the Cartersburg Till Member of the Trafalgar Formation (Wayne 1966). These materials, including outwash sand and gravels, and moraines such as the Crawfordsville and Knightsville Moraines, were laid down by a pair of advances and retreats of the ice from northeast to south-central Indiana circa 21,000 to 20,000 years B.P. This ice then became stagnant, as evidenced by eskers and esker troughs found in the region (Wayne 1966). The thickness of glacial till deposited by the ice mass over the bedrock ranges from 10 to 200 feet (3 to 60 meters). Owing to the deep mantle of glacial drift, the underlying bedrock has little effect on present-day topographic features (Bleuer and Moore 1978). The deep till deposits overlying bedrock has resulted in a relatively chert-poor environment. Bedrock exposures of chert in the study area are not known, although siliceous materials are common components in the gravels of till and outwash

deposits. These gravels tend to be small, poor quality, and prone to internal flaws and frost fractures owing to their transport and environment.

Soils in the project area fall within two different associations. They are the Glynwood-Blount-Pewamo, and the Blount-Pewamo-Glynwood Associations. The Glynwood-Blount-Pewamo Association contains nearly level to moderately sloping, poorly drained to well drained, silty, clayey, and loamy soils formed in glacial till on moraines and till plains. The Blount-Pewamo-Glynwood Association is described as deep, nearly level and gently sloping, poorly drained to moderately well drained, silty, clayey, and loamy soils formed in glacial till on moraines and till plains (Kluess 1986).

The specific soil types of the project area include the deep, somewhat poorly drained to well drained Blount-Glynwood, thin solum complex, 0-3% slopes; the deep, well drained Glynwood clay loam, thin solum, 2-6% slopes, severely eroded; and the deep, very poorly drained Pewamo silty clay (Kluess 1986). Glynwood, Blount, and Pewamo soils are upland soils that are found on till plains and moraines within the county and are formed in glacial till with Pewamo soils occupying depressional areas (Kluess 1986).

The hydrology of the area suggests that lack of water would not have been a concern for prehistoric and early historic occupants of the project area. Given the length of the project right-of-way, at least three sources of water cross through the U.S. 27 improvement project. These sources of water include Bear Creek, Perry Ditch, and Bockoven Ditch. Other sources of water located near the road improvement project include the Salamonie River, Deer Creek, Karnes Ditch, Millers Branch, and Alexander Ditch. Additional prehistoric water resources located in the project area would have consisted of wetlands. The presence of very poorly drained soils (i.e. Pewamo soils) that are high in organic content situated within the survey area indicate that an extensive wetland system would have been present within the project right-of-way during the prehistoric era. The project area falls within the Upper Wabash River Drainage.

Presettlement vegetation of the area is beech-maple hardwood forest (Petty and Jackson 1966). The General Land Office survey notes of the townships documented maple as the dominate tree species. Other tree species noted were ironwood, hornbeam, cherry, buckeye, redbud, hackberry, hickory, basswood, etc. Lindsey (1965 et.al.) provides a similar vegetational description for the project area.

Taken as a whole, the environmental data (soils, hydrologic, and vegetational) all suggest that the area has a high probability to contain archaeological sites and was likely to have been utilized by prehistoric Native Americans as well as Euroamerican settlers. The combination of well drained

soils (i.e. Glynwood soils) in conjunction with constant waterways (i.e. Bear Creek), in a vegetational zone that provides abundant resources has consistently yielded relatively high densities of archaeological sites in previous surveys (e.g., Hart and Jeske 1988, 1991; Jeske 1992; James and Cochran 1985). Climatological, vegetational, and edaphic variables all point to the probability that the area would have been an attractive draw to both hunter-gatherers and early horticulturalists in this portion of the Midwest.

Culture Sequence/Background Review

The archaeology of Jay County is relatively poorly known. Little study has been conducted within county including cultural resource management surveys and/or sponsored research. What is known about the archaeology of Jay County comes primarily from James and Cochran (1985). As a result, the archaeological site files and maps at both the Division of Historic Preservation and at Archaeological Consultants of Ossian were examined as part of the background review for this project. Historical documents such as county plat maps (Anonymous 1876) and notes and maps of the General Land Office were also examined. Some of the cultural resources around the county are known from interviews with private collectors, and others are known from historic sources (e.g., Guernsey 1932). However, many of the archaeological sites recorded for Jay County were discovered as a result of a large scale cultural resource management project (James and Cochran 1985). Additionally, the author has conducted several archaeological surveys within Jay County (Stillwell 1992a, 1992b, 1997, 1998, 1999, 2000, 2001a, 2001b, 2003a, 2003b, 2004a, 2004b). All of these were reviewed for comparative data.

Both Cree's Delaware County survey (1994a) and James and Cochran's survey of Jay County (1985) are the most relevant large scale surveys applicable to the current project area. Cree's survey examined approximately 749 acres in neighboring Delaware County with some his survey being conducted near the border with Jay County. His survey recorded a site density of approximately one site per 2.11 acres. The Delaware County survey was also used as a model for the current project. Cree conducted a portion of the survey in the area of Albany to examine the Delaware-Jay County Moraine. Sites recorded by Cree suggest that they vary in size and artifact density. It was also noted that many of the till plain/moraine sites recorded by Cree contained low artifact density but high concentrations of fire-cracked rock. Cree's survey also demonstrated a prehistoric cultural history within the region that spanned from the Paleo-Indian to Late Woodland periods.

James and Cochran's (1985) survey primarily focused on the Salamonie River drainage. The

survey covered approximately 1200 acres and located over 320 archaeological sites. The survey recorded sites from the PaleoIndian to Late Woodland periods. Additionally, materials recovered from the survey indicated some chert resources were coming into the state from Ohio (most notably from the Lake Erie Basin). These trends have been further reinforced by fieldwork conducted by Stillwell during the St. Mary's River survey (Jeske 1996). The fieldwork conducted by James and Cochran (1985) is relevant to the current project area because the Salamonie River is located less than a mile south of the survey right-of-way.

At least six Paleo-Indian sites are known for Jay County (Tankersley 1990 et. al.). Other prehistoric archaeological manifestations noted within the region include the Early Archaic Lake Erie bifurcate tradition. Late Archaic Glacial Kame, Riverton, and Red Ochre have also been documented within northeastern Indiana. Early Woodland Adena, Middle Woodland Hopewell, and Late Woodland Albee phase sites have been recorded in or around Jay County as well. However, Mississippian period sites are scarce within the region. Although projectile point types often attributed or associated with Mississippian Period settlement have been found in many of the northeastern Indiana Counties, there is continued debate as to whether they actually represent the culture or were a continuation of the Late Woodland lifestyle.

As of 2004, at least 607 archaeological sites have been recorded for Jay County. The Division of Historic Preservation archives indicate that several known cultural resources are located within a 1.0 mile radius of the current project right-of-way. The sites include 12-Ja-2 through 12-Ja-5, 12-Ja-539 through 12-Ja-542, 12-Ja-547, 12-Ja-553 through 12-Ja-561, 12-Ja-571, and 12-Ja-573. Site 12-Ja-571 was documented by Mann (1994) during his examination of a sewage upgrade project centered around the City of Portland. The field reconnaissance actually documented two prehistoric sites. Site 12-Ja-571 consisted of a single unidentified projectile point.

Sites 12-Ja-2 through 12-Ja-5 were recorded by T.D. Freudenrich in 1977. Freudenrich was working for Indiana University when the sites were documented. Although no field survey report detailing the sites was on file at the Historic Preservation Office, it is believed by the author that Freudenrich's work may have related to one of the initial construction phases of the Portland Municipal Airport. Little information was available on sites 12-Ja-2 through 12-Ja-5. It is known that they consisted of low density lithic/historic scatters that were not considered significant. Stillwell (2003b, 2004a) conducted two subsequent surveys for the Portland Municipal Airport Improvements and located only one archaeological site.

Sites 12-Ja-539 through 12-Ja-542 were examined by Zoll during his survey of the sanitary

systems improvements for the Town of Bryant. Zoll (1989) studied approximately 3.2 acres and recorded the four prehistoric sites. The sites all consisted of single artifact finds from an undetermined prehistoric period. Site 12-Ja-547 was recorded during a field reconnaissance for a proposed pipeline (Weston 1989). The site consisted of a foundation remnant and was not thought to have been significant.

Sites 12-Ja-553 through 12-Ja-561 were also documented by Zoll (1990) during his examination of a proposed sewage treatment plant for the Town of Bryant. The sites consisted of either single artifact finds or extremely low density lithic scatters from the prehistoric period. Two of the sites, 12-Ja-557 and 12-Ja-561, contained diagnostic components. Site 12-Ja-557 contained a Late Archaic component, while 12-Ja-561 had a Late Woodland aspect associated with it. The last site, 12-Ja-573, consisted of a historic dump. Angst (1995) recorded the site but made no collections from it. He termed the site as insignificant.

Historically, Jay County was inhabited by Delaware and Miami Indians when the first white settlers came to the region. The Delaware and the Miamis remained in the area until after the Treaty of St. Mary's was signed in 1818. Most of the early settlers of the county came from Virginia, Pennsylvania, and Kentucky. The County reached both its population and economic zenith between 1886-1920. The economic boom was spurred by the discovery of large pockets of natural gas and small fields of oil. The City of Portland and the Town of Dunkirk became major population centers during the period, and after the natural resources had been exhausted within the area, the population of the county deflated (Carmony 1966; Lockridge 1980; Barnhart and Riker 1971; Rudolph 1980).

The General Land Office survey notes for the townships did not indicate any cultural resources present within the project area. Historic plat maps (Anonymous 1876) of Jay County revealed the presence of a house, three schools, a mill, a railroad, the Towns of North Bryant, Bryant, and Bloomfield as well as the City of Portland within one mile of the current project right-of-way.

Archaeological Survey Method

The approximate 47.81 acre parcel examined for the proposed road improvement project was currently situated in portions of pasture, woods, agricultural field, and on residentially/commercially developed property. Ground surface visibility within the project area was estimated to range between 0-100%. Due to the varying ground surface visibility, the project right-of-way was subjected to both shovel testing and pedestrian walkover survey. In areas where ground surface visibility was less than 30%, shovel testing was conducted. Shovel probe survey consisted of small test holes, approximately 35-cm in diameter and 35-cm deep, that were excavated across the project

area at intervals of 10-meters along transects spaced 10-meters apart. All holes were checked by scraping with trowels, and the cone of dirt from the hole was excavated back into the hole. Soil from the probes was screened through 6.4 mm mesh in an attempt to locate cultural materials. Soil conditions (including stratigraphy) and the presence or absence of cultural materials were noted for each hole. In areas where shovel probes tested positive for cultural materials, additional probes were excavated at 5-meter intervals in the cardinal directions around the positive shovel test pit. Although the shovel probe technique will not find deeply buried sites, and may miss small or ephemeral sites, it is the most cost-effective, reliable form of archaeological survey in areas of low or zero surface visibility (Lightfoot 1986; Nance & Ball 1986).

In areas where ground surface visibility was thought to be 30% or greater, pedestrian walkover survey was utilized. Pedestrian survey of the project area consisted of archaeologists walking abreast at 10-meter intervals visually examining the ground for cultural debris. Where cultural materials were located, survey flags were placed, and sites were then rewalked at 2-meter intervals to determine the artifact density and boundary of each site.

If applicable, fire-cracked rock was noted but not collected during the survey. All cultural materials recovered during the course of the survey were taken to the ACO office for processing. Artifacts recovered from the survey will be taken to the Indiana State Museum for curation.

Archaeological Reconnaissance Survey

After the background check, ACO personnel conducted an archaeological survey of the project area. On November 23 and 24, 2004, personnel from Archaeological Consultants of Ossian conducted an archaeological reconnaissance survey of an approximate 47.81 acre tract of land selected for development. The project right-of-way was examined by Alan Miller, Shawn Miller, Max Black, and Dave Sherrill with the author serving as Principal Investigator. The proposed U.S. 27 improvement stretched from approximately 0.8 miles north of its junction with S.R. 26/ S.R. 67 to the Town of Bryant (Figures 2-4). ACO personnel examined an average corridor that varied between 70-80 feet in width on each from the center line of U.S. 27. A project exception was noted at the intersection of Bear Creek and U.S. 27 where no new right-of-way had to be subjected to archaeological survey (Figure 2). Another segment of the project called for the archaeologists to examine a connector road corridor. The corridor connected U.S. 27 with North Bryant Pike (Figure 2). The connector corridor was approximately 70-feet in width. The archaeologists adhered to the right-of-way specifications proposed by INDOT for the project. A brief description of the project right-of-way as well as the survey techniques utilized therein is given below.

The vast majority of the right-of-way examined for the road improvement project was located within actively farmed agricultural field. Small areas of pasture, woods, and residential yards also fell within the survey corridor. Commercially developed property was also present as the road improvement right-of-way entered the Portland City limits. Archaeological survey was initiated at the Bryant town limits and was conducted in an southward direction. From the Town of Bryant to C.R. 500 North, approximately 75% of the project right-of-way was situated in farm field which contained 30% or greater ground surface visibility (Figures 4 and 5). Two small areas of woods, a portion of the connector road corridor, the grounds of the Bloomfield School, a pasture, as well as a few lawns of residences situated along the road improvement route had to be subjected to shovel testing. As was expected areas of non-agricultural disturbance were noted in the yards of the residences and on the school property. An agricultural plowzone which extended at least 8-9 inches below the ground surface was documented within the two areas of woods as well as in a pasture located north of C.R. 600 North. One archaeological site, 12-Ja-608, was located within this segment of the project right-of-way (Figure 10). The site is discussed in more detail later in this report.

The section of project right-of-way located between C.R. 500 North and C.R. 300 North was also almost entirely situated within agricultural field (Figures 5-7). A few residences with expansive lawns, a small woods, and a heavily weeded field were the only areas where ground surface visibility was not apparent. Where non-agricultural disturbance was not obvious, shovel probes were excavated on the lawns of the residences situated within this section of the project corridor. The woods and the weeded field were also subjected to shovel testing and an agricultural plowzone was recorded to a maximum depth of 9.5 inches below the ground surface. Three archaeological sites, 12-Ja-609 through 12-Ja-611, were documented within this segment of the project (Figure 10). The sites are described in more detail later in this report.

The final segment of the project stretched from C.R. 300 North to an area south of C.R. 100 North (Figures 7-9). This area contained the most development compared to the rest of the project corridor. Although the majority of the project right-of-way was still dominated by agricultural field, the area south of C.R. 200 North contained more residential housing than any other portion of the project. Additionally, several commercially disturbed areas were located in this segment of the project which were concentrated around C.R. 100 North (Figure 9). Several motels, and manufacturing plants, a restaurant, and a trailer park were located there. Shovel probes detected graded and filled areas on the industrial properties. Other areas (i.e. around the motels, etc.) contained paved or gravel parking lots. Only the residential lawns situated close to the intersection

of C.R. 300 North and U.S. 27 demonstrated any semblance of an agricultural plowzone. The plowzone tended to disappear within the test pits the closer the shovel probes were excavated to property owners houses. The plowzone in this portion of the project right-of-way (including the woods located near C.R. 100 North) tended to average approximately 8-inches in depth. No cultural materials were recovered along the final segment of the project.

The current field reconnaissance recorded four previously undocumented archaeological sites (12-Ja-608 through 12-Ja-611) (Figure 10). Three of the sites, 12-Ja-608 through 12-Ja-610, consisted of historic field scatters in farm fields which had been dispersed over time by plowing and tilling activity. The agricultural activity appeared to have greatly increased the size of the scatters and there were no associated structures that could be directly tied to the artifact assemblages. Site 12-Ja-610 also contained a prehistoric component which was represented by a single biface. Site 12-Ja-611 constituted a small lithic scatter that contained no diagnostic materials.

The historic sites located during the field survey appear to closely mirror what Ball (1984) described as an Open Field Scatter Pattern. Ball's Open Field Scatter Pattern (1984) is described as the occasional random deposit of mainly Kitchen Group items (as defined by South 1977) in a cultivated field or pasture. The Open Field Scatter assemblage pattern has been documented to contain 80-100% Kitchen Group artifacts such as whiteware, stoneware, misc. ceramics, bottle glass, etc. Sites 12-Ja-608 through 12-Ja-610 were of no exception. An estimated 25% artifact sample from the historic sites was collected. Archaeological resources located during the field survey are described in more detail below (Figures 5 and 6, Tables 1 and 2). Dating of the historic artifacts recovered during the field reconnaissance was primarily obtained from the author's study of the historic assemblage at the Richardville/LaFontaine House (Cochran 1990).

Table 1. Prehistoric Artifacts Recovered from U.S. 27 Survey.

Site No.	Debris	Tools	Cores	FCR
12-Ja-609	0	1	0	0
12-Ja-611	3	0	0	0
Total	3	1	0	0

Table 2. Historic Artifacts Recovered from U.S. 27 Survey.

Site No.	Artifact Type	No.	Date Range
12-Ja-608	Slip Glazed Stoneware	5	1850-Present
	Brown Bottle Glass	1	Unknown

	Whiteware	14	Unknown
	Milk Glass Jar Liner	4	Post 1920
	Milk Glass	2	Unknown
	Cobalt Blue Glass	2	Post 1940
	Undecorated Porcelain	1	Unknown
	Aqua Glass Jar Fragment	7	Post 1920
	Embossed Whiteware	4	Unknown
	Mussel Shell	1	Unknown
	Partial Makers Mark	2	Unknown
	Ceramic Door Handles	2	Pre 1940
	Annular Banded Yellow Ware	1	Post 1900
	Blue Spatterware	1	1880-1940
	Decaled Transferprinted Porcelain	1	Post 1880
	Blue Edgeware (Raised Feather & Scale)	1	1870-1920
	Decaled Transferprint	1	1870-1940
	Brown Transferprint	1	1840-1870
	Green Transferprinted Edgeware	1	1840-1880
12-Ja-609	Slip Glazed Refined Earthenware	1	Unknown
	Slip Banded Porcelain	1	Unknown
	Animal Bone	1	Unknown
	Window Glass	4	Unknown
	Whiteware	19	Unknown
	Aqua Glass	3	Unknown
	Purple Glass Bottleneck	1	Pre 1900
	Blue Spongeware	1	1850-1900
	Purple Glass Fragments	4	Unknown
	Slip Glazed Crockery	4	1850-Present
	Salt Glazed Crockery	1	1850-Present
	Brown Bottle Glass	1	Unknown
	Brown Glass Bottleneck	1	Pre 1900
12-Ja-610	Slip Glazed Crockery	1	1850-Present
	Window Glass	4	Unknown
	Brown Glass	1	Unknown

Slip/Salt Glazed Crockery	4	1850-Present
Aqua Glass	1	Unknown
Embossed Whiteware	1	Unknown
Blue Edgeware	1	1850-1920
Whiteware	11	Unknown
Milk Glass Button	1	Pre 1940
Partial Makers Mark	1	Unknown
Salt Glazed Crockery	1	1850-Present
Salt Glazed Refined Earthenware	1	Unknown
Handpainted Floral Polychrome Ware	1	1830-1870

12-Ja-608 This site consisted of a 20-meter by 50-meter historic scatter situated along a slight rise on the till plain on well drained, eroded Glynwood soils approximately 1400 feet south of Perry Ditch in a disturbed agricultural setting (Figure 10). The site is located in the SE 1/4 of the NW 1/4 of the NW 1/4 of the NW 1/4 of Section 20, Township 24 North, Range 14 East as shown on the Geneva, Indiana USGS 7.5' Quadrangle. Artifacts recovered from the site included five slip glazed stoneware, one piece of brown bottle glass, 14 whiteware, four milk glass mason jar liner fragments, two other milk glass pieces, two cobalt blue glass, one undecorated porcelain, seven aqua glass jar fragments, four embossed whiteware sherds, one mussel shell, two partial makers mark fragments, two ceramic door handle pieces, one annular banded yellow ware fragment (Figure 11a), one blue spatterware (Figure 11b), one decal transferprinted porcelain, one blue edgeware (Raised Feather & Dot Scale motif) (Figure 11c), one decal transferprinted ceramic, one brown transferprint (Figure 11d), and one green transferprinted edgeware (Figure 11e). The site was surveyed by using pedestrian transects spaced at 2-meter intervals with a 25% sample methodology being employed for the historic artifacts collected. Ground surface visibility for the site was estimated to range between 50-60%. Other than agricultural activity, no obvious disturbance was noted for the site. The open field scatter does not appear to be tied to any historical structures or foundations. Therefore it appears unlikely that the site would contribute any relevant information significant to the history of the region. The site has been agriculturally disturbed and no further archaeological assessment is recommended for the site.

12-Ja-609 This site consisted of a 30-meter by 80-meter historic/prehistoric scatter situated

along a slight rise on the till plain on well drained, eroded Glynwood soils approximately 1300 feet south of Bear Creek in a disturbed agricultural setting (Figure 10). The site is located in the NW 1/4 of the NE 1/4 of the NE 1/4 of Section 30, Township 24 North, Range 14 East as shown on the Geneva, Indiana USGS 7.5' Quadrangle. Artifacts recovered from the site included a biface, one slip glazed refined earthenware, one slip banded porcelain, one animal bone, four pieces of window glass, 19 whiteware, three aqua glass fragments, one purple glass bottleneck (Figure 12a), one blue spongeware (Figure 12b), four other purple glass fragments, four slip glazed crockery, one salt glazed crockery, one piece of brown bottle glass, and one brown glass bottleneck (Figure 12c). The site was surveyed by using pedestrian transects spaced at 2-meter intervals with a 25% sample methodology being employed for the historic artifacts collected. Ground surface visibility for the site was estimated to range between 45-55%. Other than agricultural activity, no obvious disturbance was noted for the site. The open field scatter does not appear to be tied to any historical structures or foundations and the prehistoric component of the site was ephemeral. Therefore it appears unlikely that the site would contribute any relevant information significant to the history/prehistory of the region. The site has been agriculturally disturbed and no further archaeological assessment is recommended for the site.

12-Ja-610 This site consisted of a 130-meter by 20-meter historic scatter situated along a slight rise on the till plain on well drained, eroded Glynwood soils approximately 200 feet east of Bockoven Ditch in a disturbed agricultural setting (Figure 10). The site is located in the SE 1/4 of the NE 1/4 of the SW 1/4 of the SE 1/4 of Section 30, Township 24 North, Range 14 East as shown on the Geneva and Portland, Indiana USGS 7.5' Quadrangles. Artifacts recovered from the site included one slip glazed crockery, four pieces of window glass, one piece of brown bottle glass, four slip/salt glazed crockery, one aqua glass, one embossed whiteware sherd, one blue edgeware, 11 whiteware, one milk glass garment button, one salt glazed crockery, one salt glazed refined earthenware, one hand painted floral polychrome ware (Figure 12d), and one makers mark fragment. The site was surveyed by using pedestrian transects spaced at 2-meter intervals with a 25% sample methodology being employed for the historic artifacts collected. Ground surface visibility for the site was estimated to be 100%. Other than agricultural activity, no obvious disturbance was noted for the site. The open field scatter does not appear to be tied to any historical structures or foundations. Therefore it appears unlikely that the site would contribute any relevant

information significant to the history of the region. The site has been agriculturally disturbed and no further archaeological assessment is recommended for the site.

12-Ja-611 This site consisted of a low density lithic scatter of an unknown prehistoric period situated along a slight rise on the till plain on well drained, eroded Glynwood soils approximately 250 feet east of Bockoven Ditch in a disturbed agricultural setting (Figure 10). The site is located in the NW 1/4 of the SW 1/4 of the NW 1/4 of the SE 1/4 of Section 31, Township 24 North, Range 14 East as shown on the Portland, Indiana USGS 7.5' Quadrangle. A total of three unmodified flakes were recovered from the site. No fire-cracked rock were noted for the site. The site was surveyed by using pedestrian transects spaced at 2-meter intervals with all artifacts observed being collected. Ground surface visibility for the site was estimated at 50%. Other than agricultural activity, no obvious disturbance was noted for the site. The low artifact density coupled with the eroded nature of the soils suggests that the site appears unlikely to contain any relevant information significant to the prehistory of the region. No further archaeological assessment is recommended for the site.

While several cultural resource management projects were reviewed for comparative data, James and Cochran's survey is the most representative of site densities applicable to the current project area. The results of their survey suggests that sites contained within both the Delaware Moraine and the Salamonie River drainage tend to be frequent with densities ranging from one site per 3.6 acres to one site per 5 acres. The current survey located four archaeological sites. However, two of the sites contained no prehistoric artifacts. Thus, two prehistoric sites were documented during the field reconnaissance within an approximate 47.81 acre tract. Allowing for approximately 10 acres of residential and/or commercial disturbance to be subtracted from the project universe, the current survey documented a prehistoric density of one site per 15.4 acres studied. The results of the current survey would appear to fall well below the prehistoric site densities established by James and Cochran for the region.

Conclusions and Recommendations

An archaeological field reconnaissance for a proposed road improvement project in Jay County, Indiana, documented four previously unknown cultural resources. The sites (12-Ja-608 through 12-Ja-611) consisted of either low density lithic scatters from an undetermined prehistoric period or

historic field scatters/dumps which ranged in date from 1850-1950. The sites appear to be insignificant and no further archaeological assessment has been recommended for them. Known sites in the region range in size and significance from large artifact concentrations and mortuary sites to smaller ephemeral lithic scatters of unknown prehistoric age as evidenced by Cree (1994a), Zoll (2000), etc. Because no significant archaeological materials were located during the field reconnaissance, it is the opinion of the archaeologist that the proposed undertaking will not affect any properties eligible for listing on the National Register of Historic Places, and no further archaeological work is warranted. Project clearance is recommended. However, if any unanticipated artifact concentrations, burials, or features become apparent during construction of the project, work should be halted until the archaeologist in the Department of Natural Resources-Division of Historic Preservation and Archaeology is contacted.

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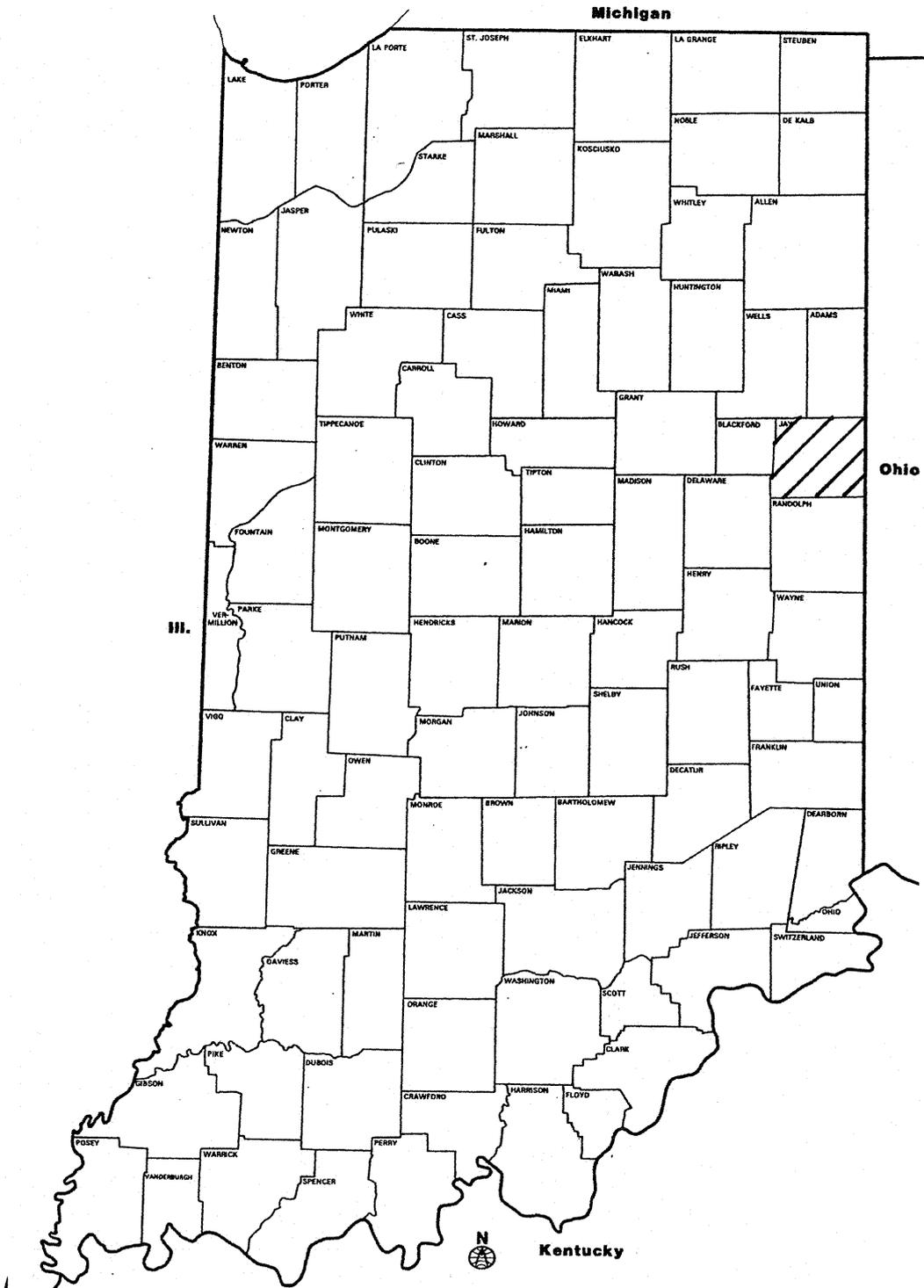


Figure 1. Location of Jay County within the State.

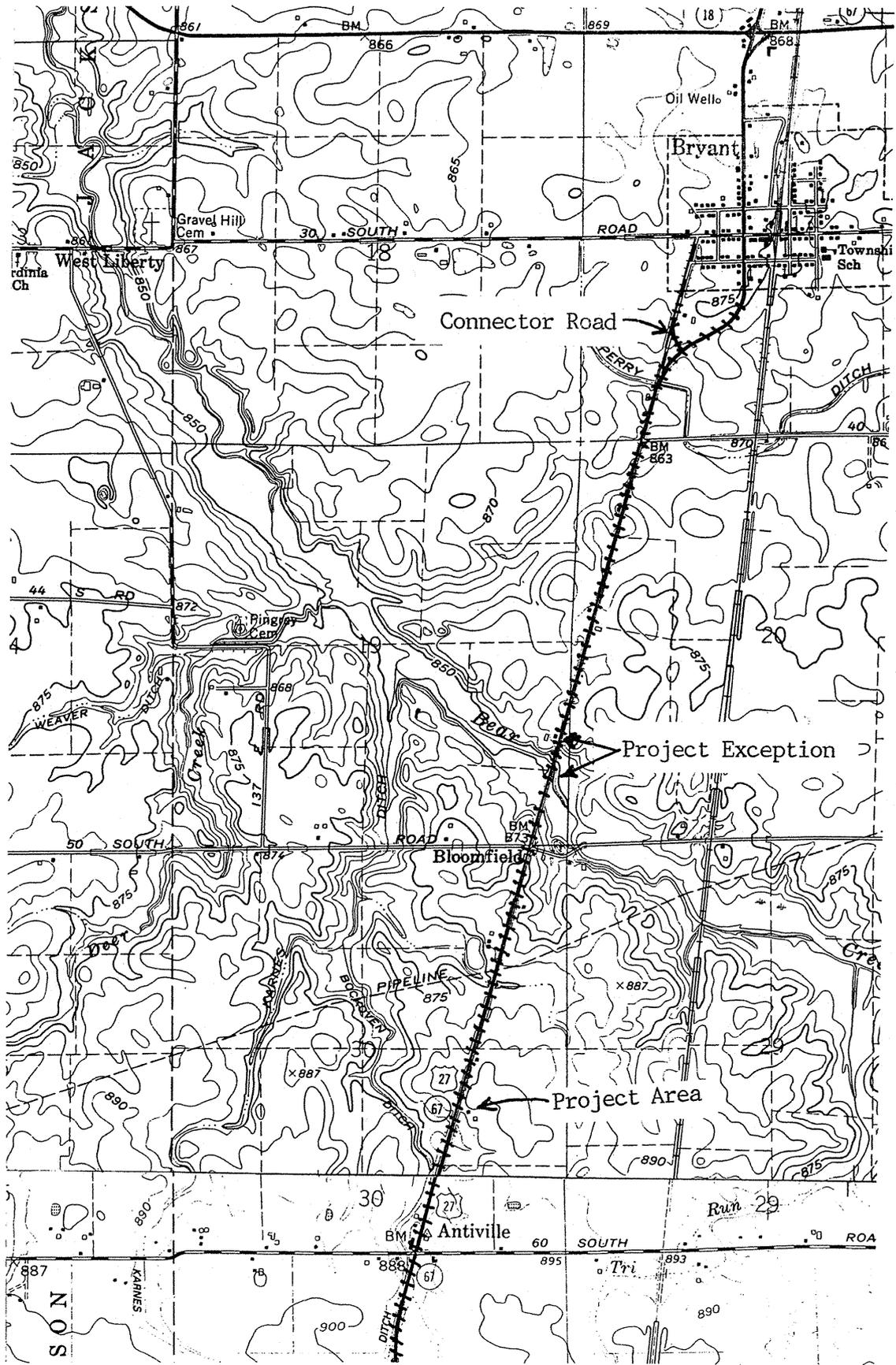


Figure 2. Portion of Geneva and Portland, Indiana USGS 7.5' Quadrangles showing the northern portion of the project.

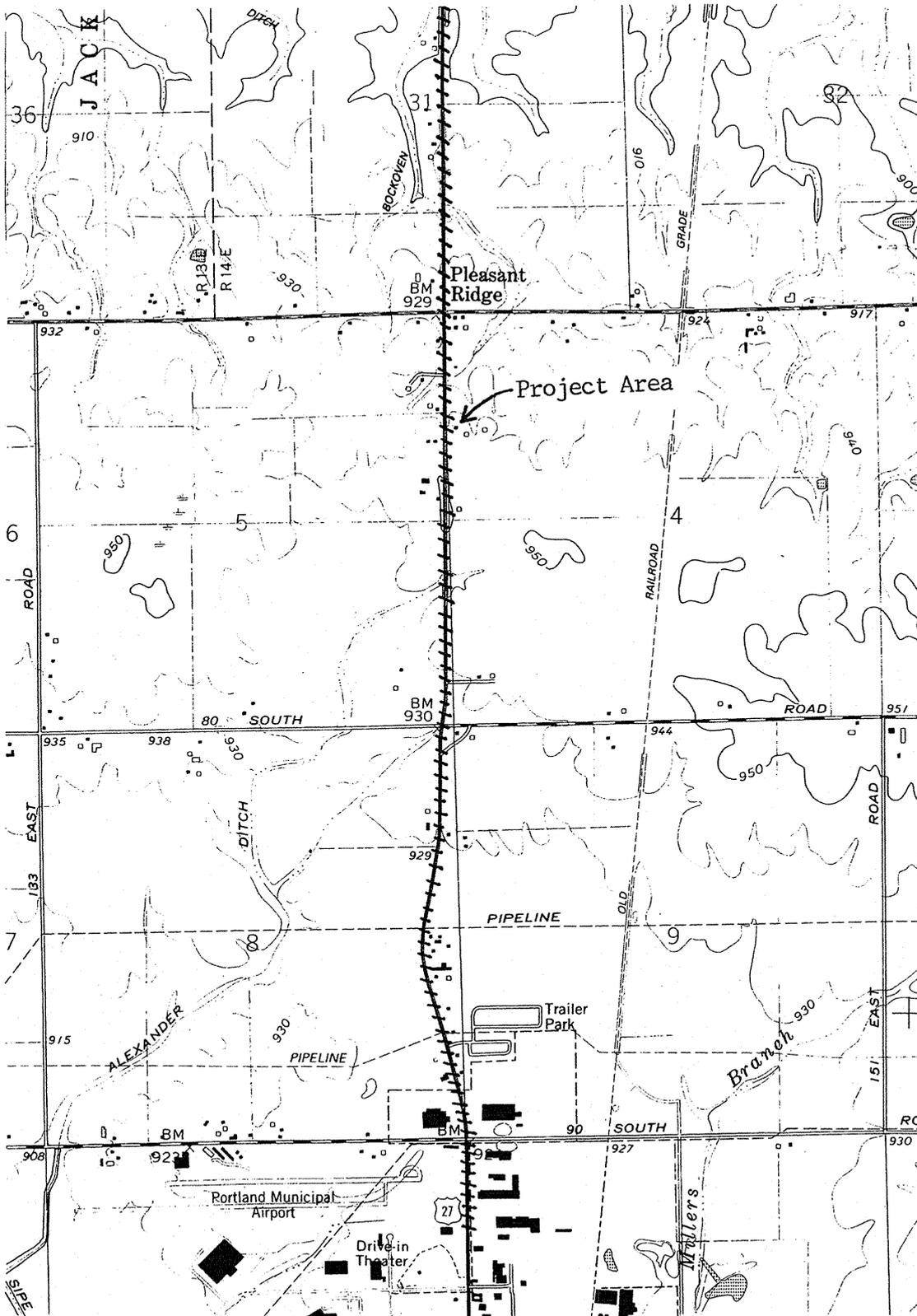


Figure 3. Portion of Portland, Indiana USGS 7.5' Quadrangle showing the southern portion of the project.

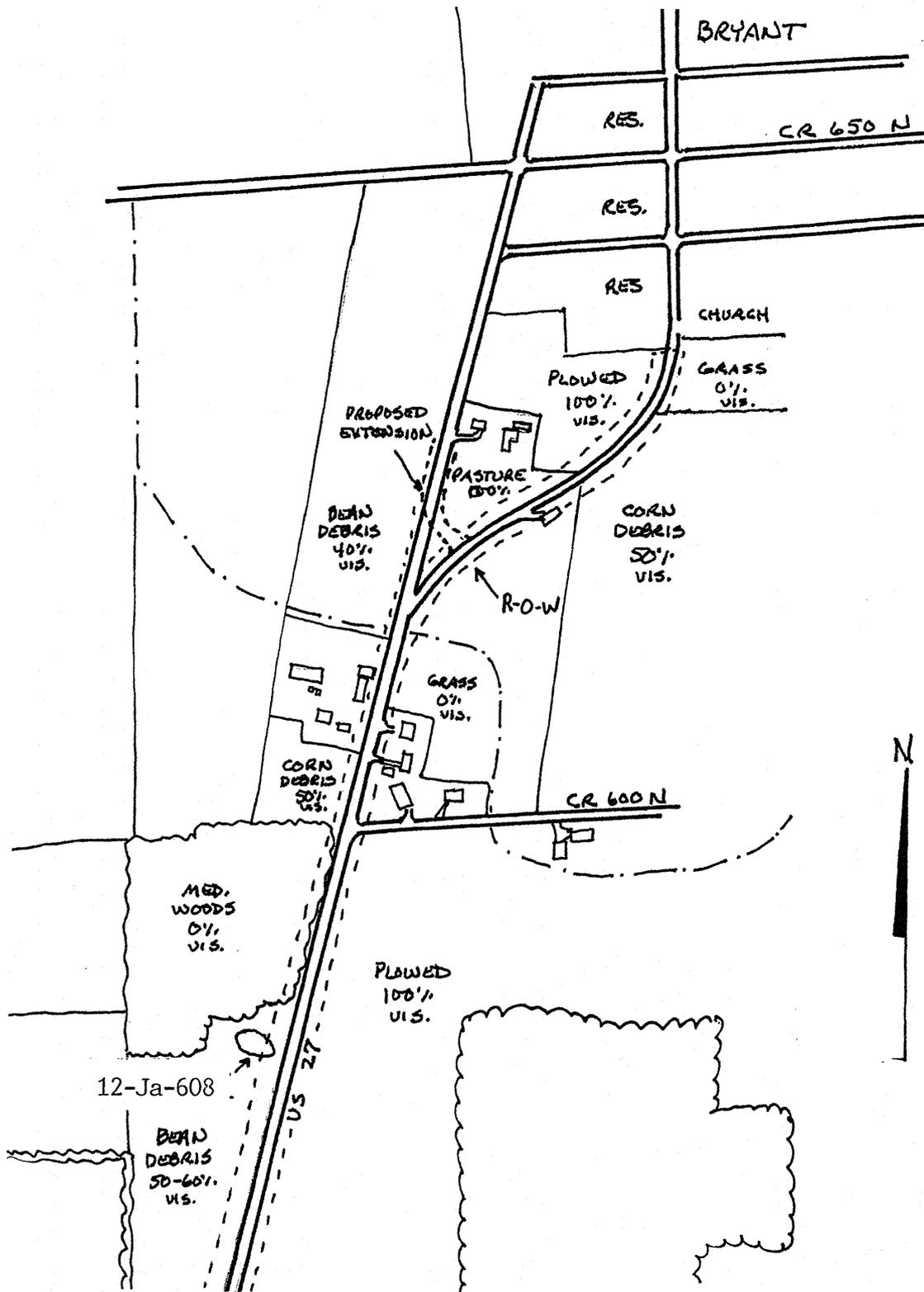


Figure 4. Sketch Map of the portion of the U.S. 27 right-of-way around the Town of Bryant.

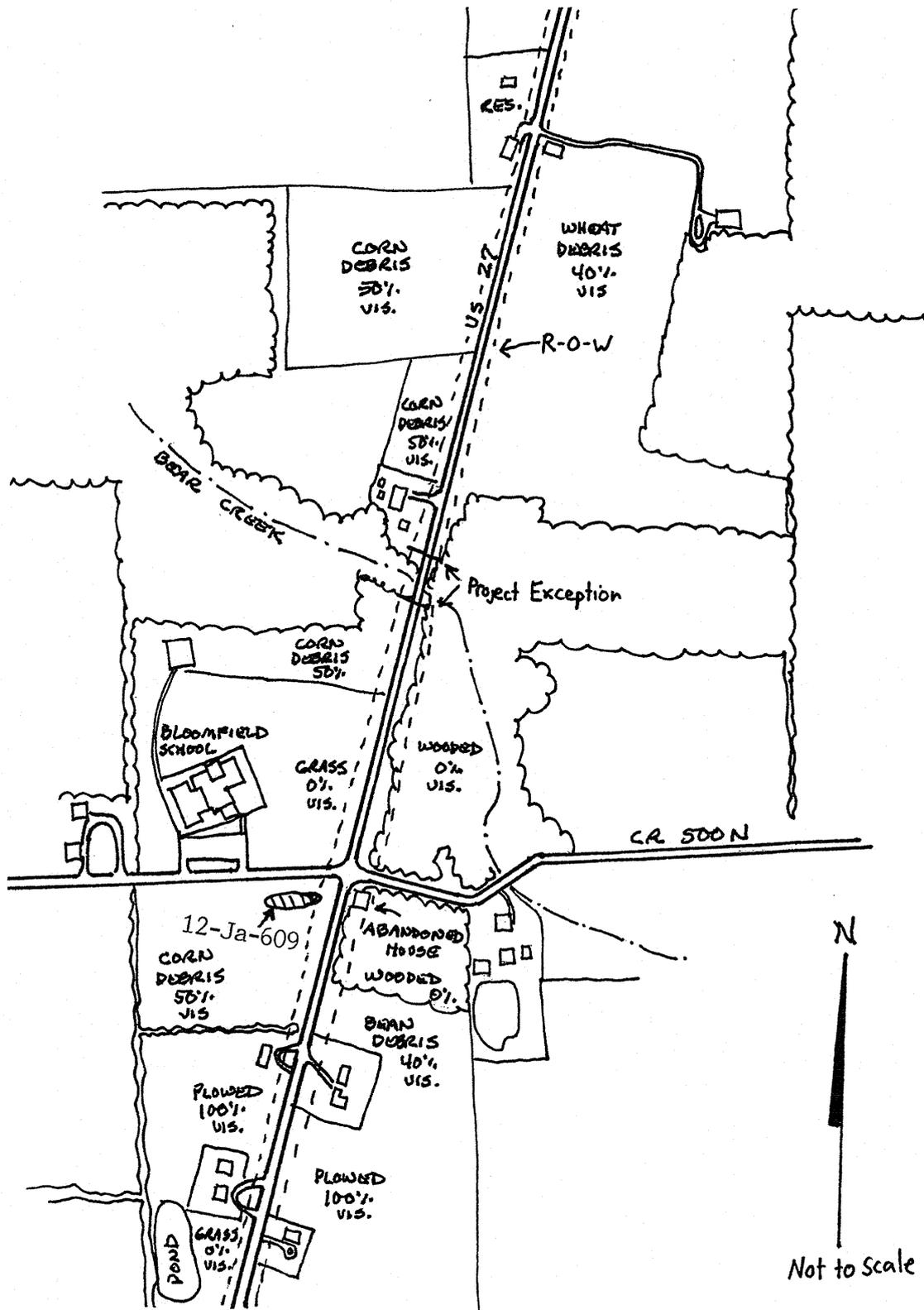


Figure 5. Sketch Map of the portion of the U.S. 27 right-of-way around C.R. 500 North.

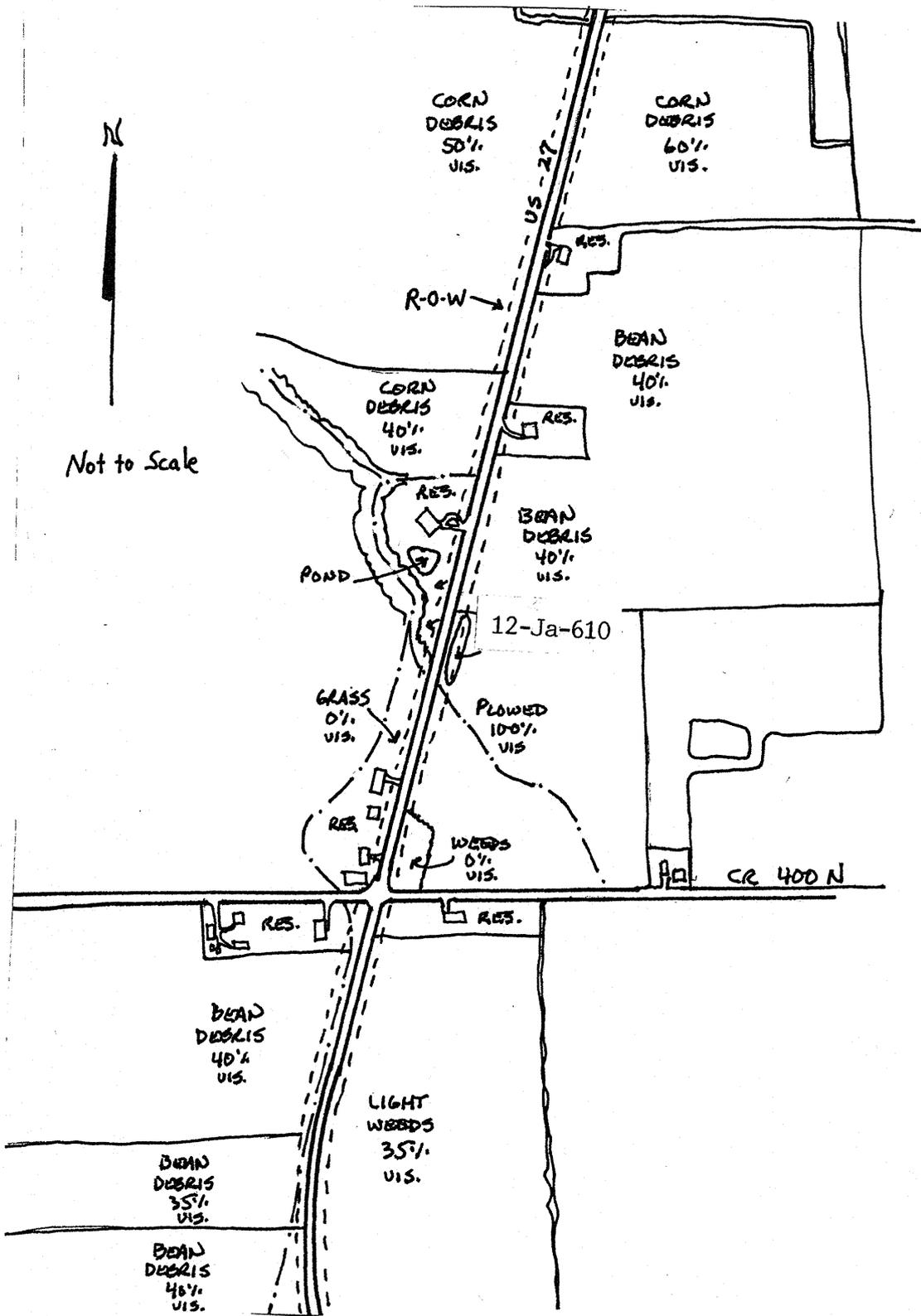


Figure 6. Sketch Map of the portion of the U.S. 27 right-of-way around C.R. 400 North.

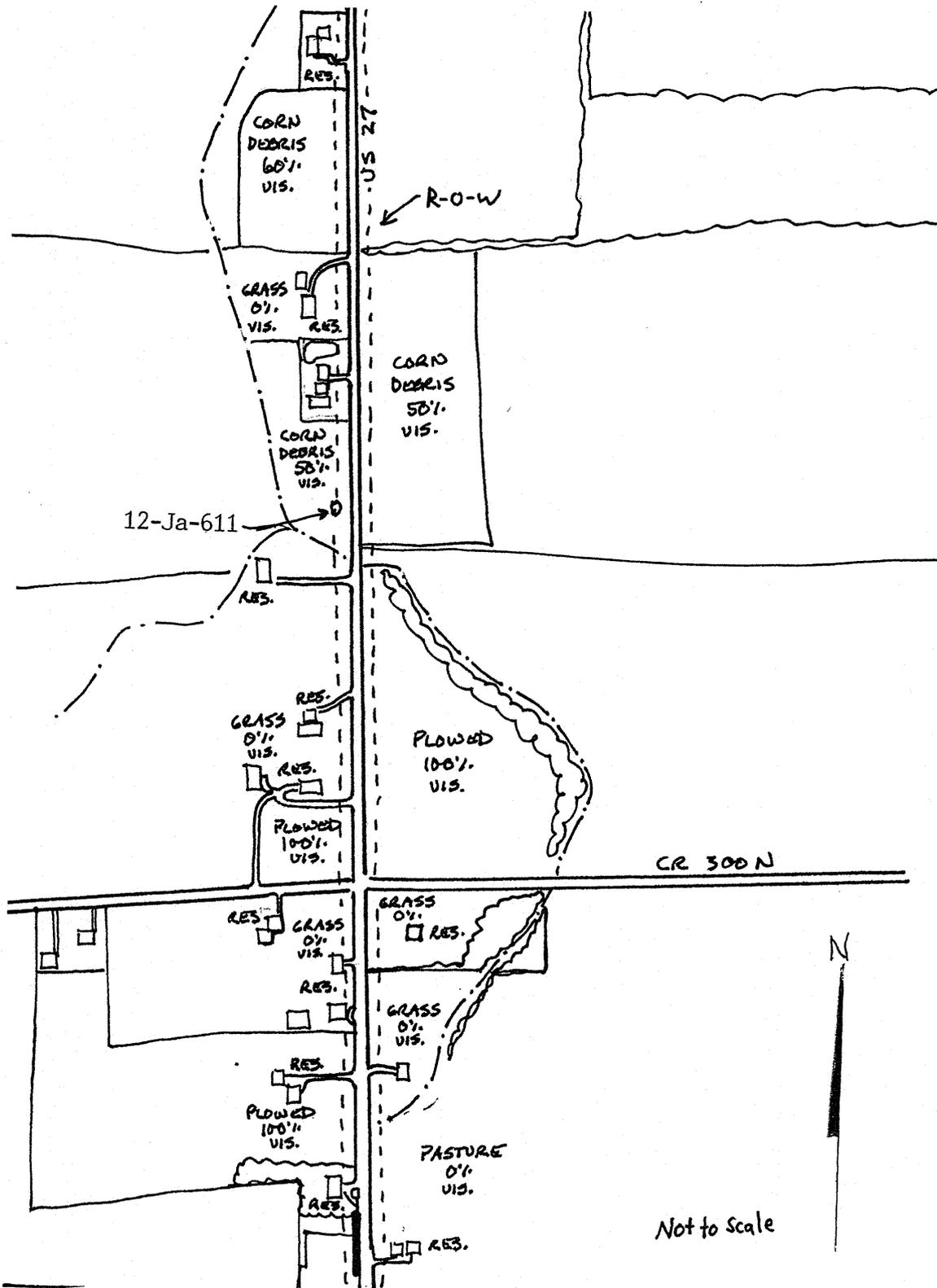


Figure 7. Sketch Map of the portion of the U.S. 27 right-of-way around C.R. 300 North.

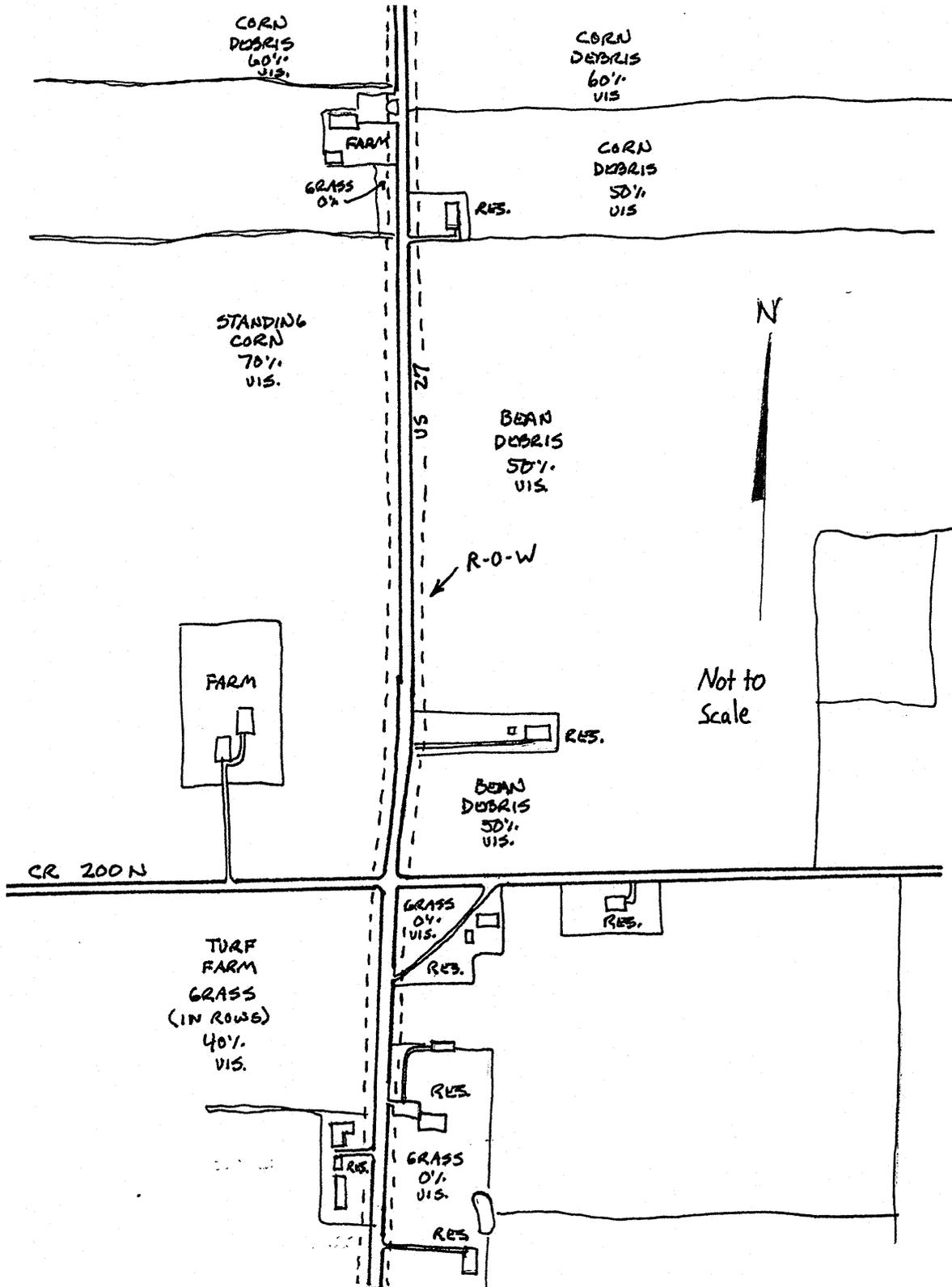


Figure 8. Sketch Map of the portion of the U.S. 27 right-of-way around C.R. 200 North.

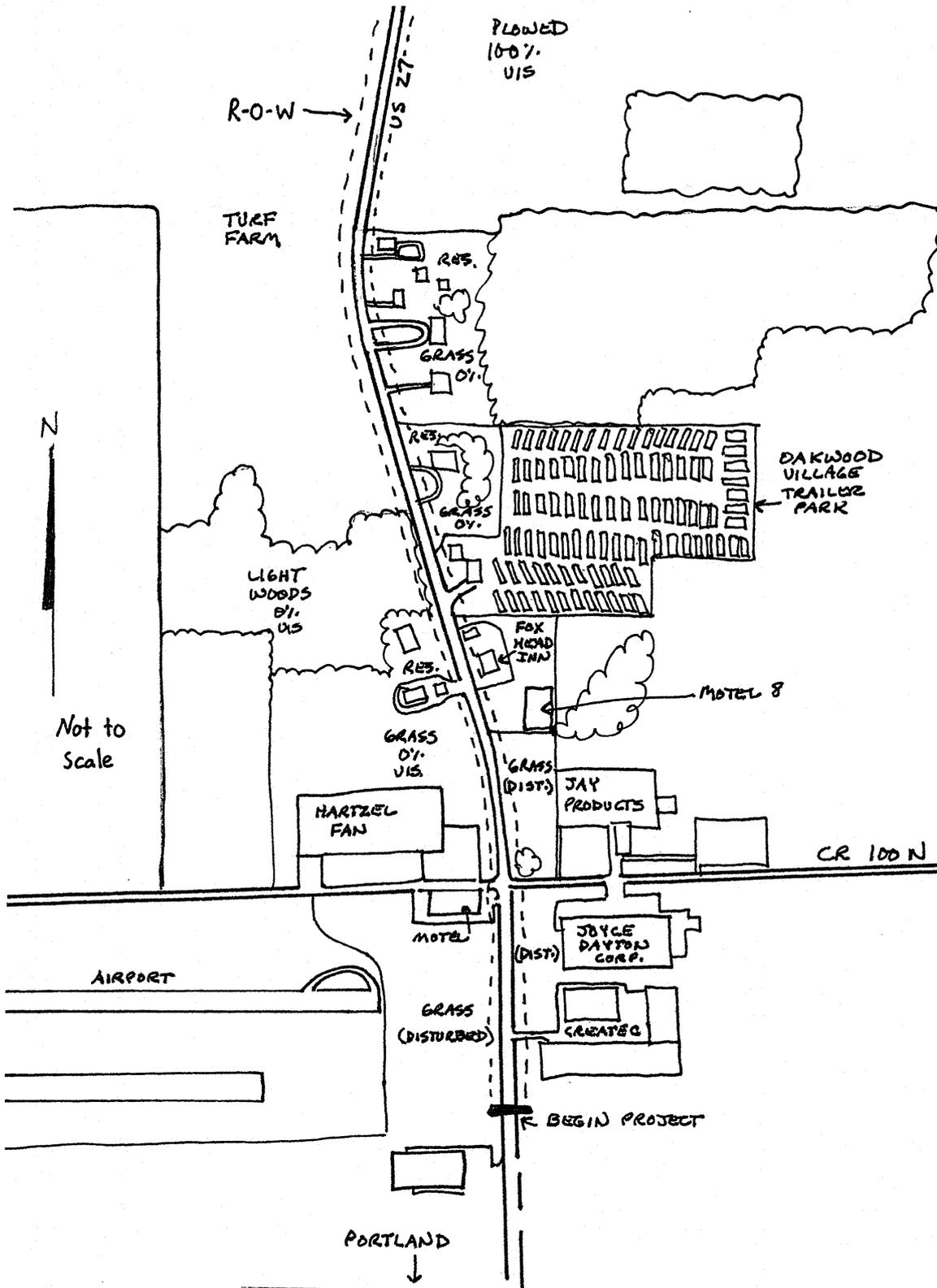


Figure 9. Sketch Map of the portion of the U.S. 27 right-of-way around C.R. 100 North.

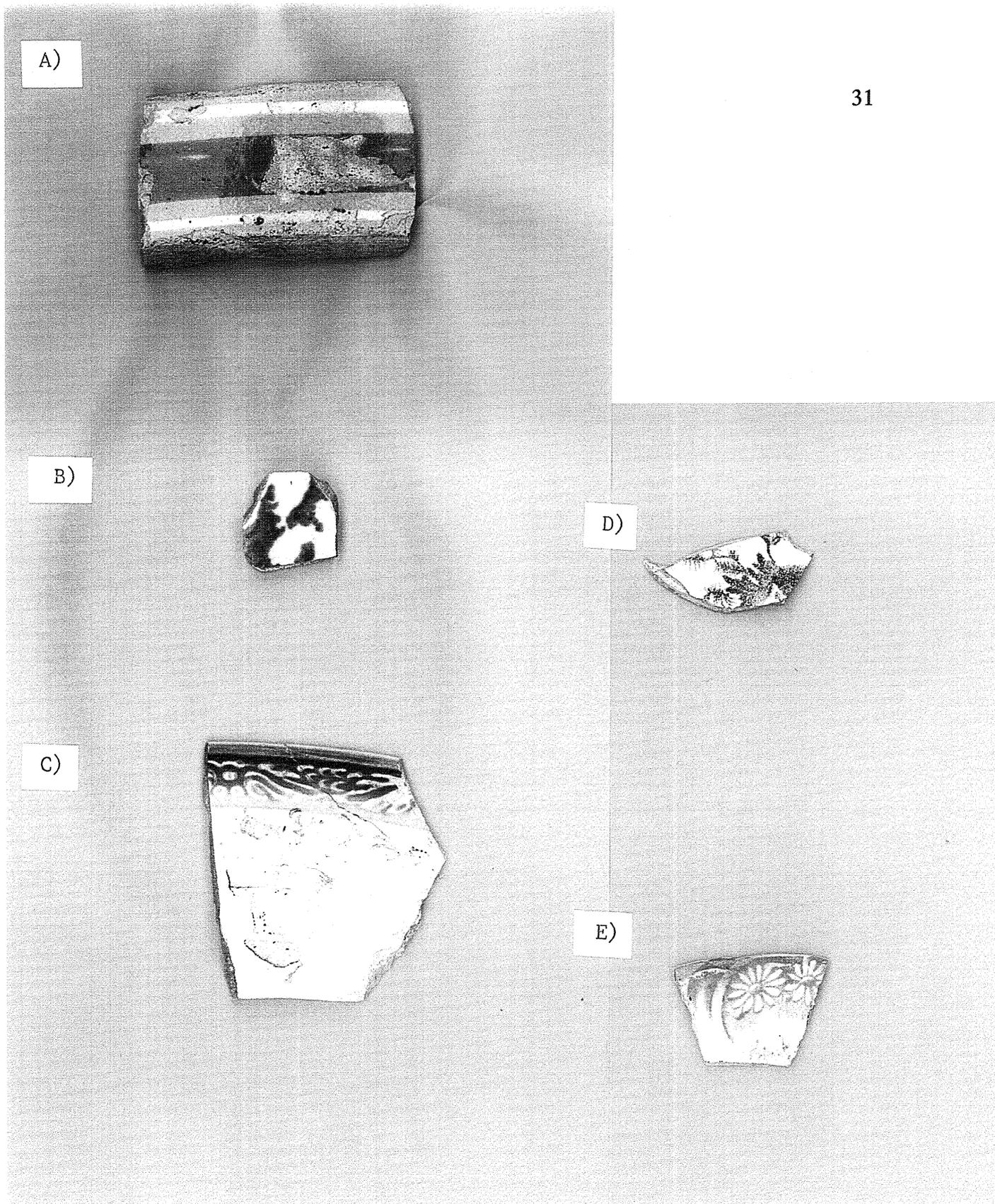


Figure 11. Artifacts Recovered from 12-Ja-608. A) Annular Banded Yellow Ware. B) Blue Spatterware. C) Blue Edgware (Raised Feather & Dot Scale motif). D) Brown Transferprint. E) Green Transferprinted Edgware.

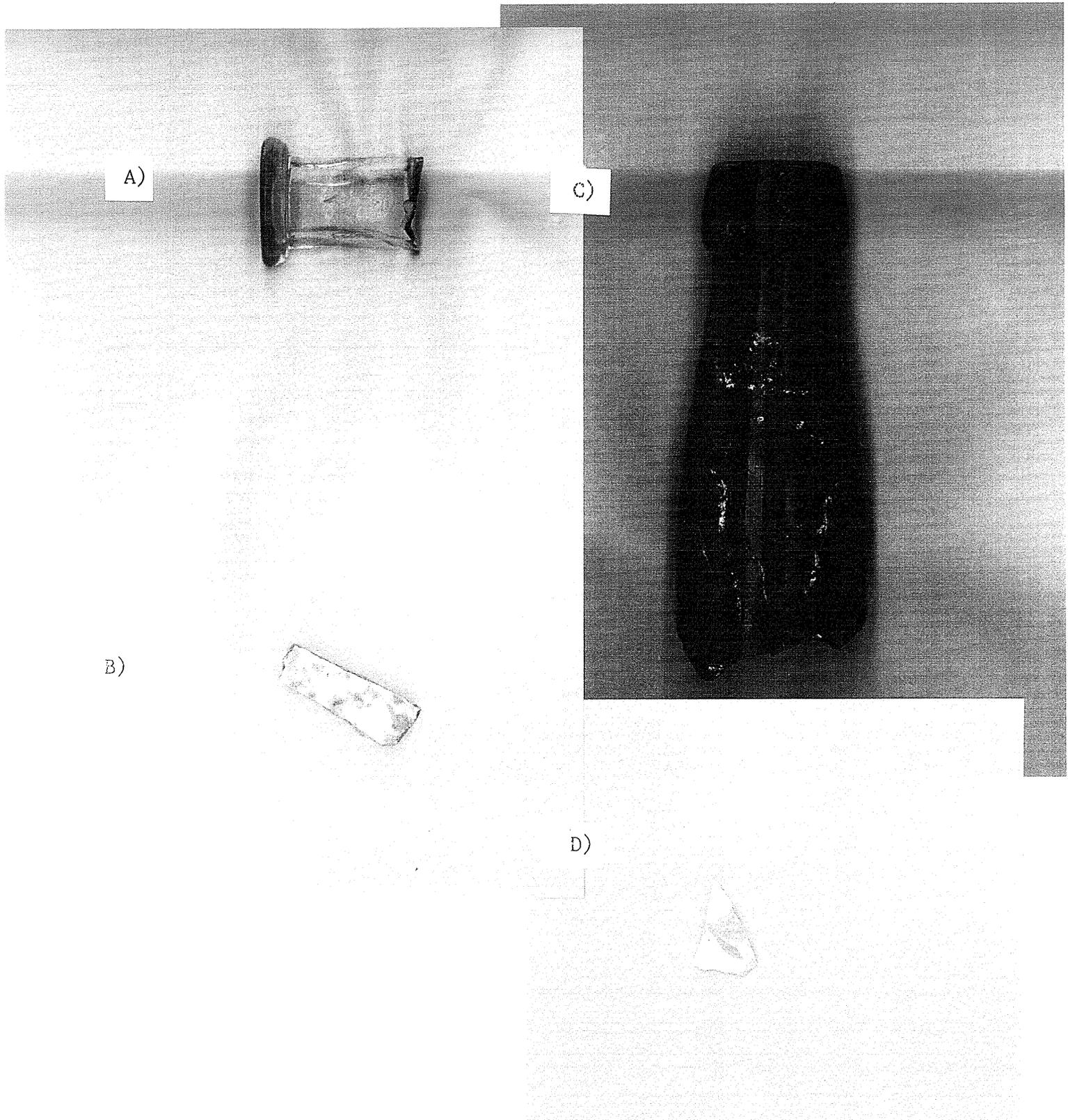


Figure 12. Artifacts Recovered from Sites 12-Ja-609 and 12-Ja-610. A) Amethystine Glass Bottleneck with Applied Lip. B) Blue Spongeware. C) Brown Glass Bottleneck with Applied Lip. D) Hand Painted Polychrome Ware (Floral Motif).



INDIANA HISTORIC SITES AND STRUCTURES INVENTORY - ARCHAEOLOGICAL SITES

State Form 24402 (R / 10-94)

1. State site number 12-Ja-608
2. Resurvey No

SITE NAME	
3. Site name	4. Institution / Access number
5. Other names and numbers ACO # 04FR129 INDOT Site 38-38	Indiana State Museum
6. Project name and number INDOT # SIP-249-7(), Des. 0100568	

CULTURAL - HISTORICAL INFORMATION	
7. Cultural period(s)	
<input type="checkbox"/> Un. Prehistoric <input type="checkbox"/> Paleoindian	<input type="checkbox"/> Archaic <input type="checkbox"/> E <input type="checkbox"/> M <input type="checkbox"/> L <input type="checkbox"/> T <input type="checkbox"/> Woodland <input type="checkbox"/> E <input type="checkbox"/> M <input type="checkbox"/> L <input type="checkbox"/> T <input checked="" type="checkbox"/> Mississippian <input checked="" type="checkbox"/> Historic
8. Culture(s) N/A	
9. Site type(s)	
<input type="checkbox"/> Isolated Find <input type="checkbox"/> Lithic / Scatter <input type="checkbox"/> Workshop <input type="checkbox"/> Rock Art	<input type="checkbox"/> Camp <input type="checkbox"/> Quarry <input type="checkbox"/> Shell Midden <input checked="" type="checkbox"/> Other <i>Historic Scatter</i>
<input type="checkbox"/> Cave <input type="checkbox"/> Rockshelter <input type="checkbox"/> Mounds / Earthworks	<input type="checkbox"/> Village <input type="checkbox"/> Town <input type="checkbox"/> Cemetery
<input type="checkbox"/> Cabin / House <input type="checkbox"/> Farmstead <input type="checkbox"/> Church / Meetinghouse	<input type="checkbox"/> Commer. / Factory <input type="checkbox"/> Civil / Government
10. Deposits present (see No. 55)	
<input type="checkbox"/> Midden <input type="checkbox"/> Burials <input type="checkbox"/> Features	

LOCATION		
11. County Jay	12. Town / city Bryant	13. Civil township Bear Creek
14. Addition N/A	15. Lot number N/A	16. Reserve / military grant N/A
17. USGS 7.5 Min. Quad (attach map or copy) Geneva		18. Section grid alignment W
19. 1/4 SE	1/4 NW	1/4 NW
1/4 NW	Section 20	Twp. 24N
		Range 14E
20.		21. UTM (1)
		22. UTM (2)

OWNERSHIP	
23. Ownership	
<input type="checkbox"/> Public <input checked="" type="checkbox"/> Private	
24. Name of property owner N/A	27. Name of tenant
25. Address of property owner	28. Address of tenant
26. Telephone number of property owner ()	29. Telephone number of tenant ()

RECORDER		
30. Site reported by: A. Miller	31. Address ACO	32. Date reported (month, day, year) 11/24/04
33. Form completed by: L. Stillwell	34. Address PO Box 2374	35. Date form completed (month, day, year) 12/2/04
36. Site investigated by: S. Miller	35. Address Muncie, IN 47307	38. Date investigated (month, day, year) 11/24/04

Site number
12-Ja-608

PHYSICAL ENVIRONMENT

39. Physiographic zone Tipton Till Plain	40. Topography Till Plain	41. Elevation 865' AMSL
42. Soil Association Glynwood-Blount-Pewamo	43. Soil type(s) Glynwood clay loam, thin solum, 2-6% slopes era.	
44. Watershed Upper Wabash	45. Nearby water source Perry Ditch	46. Distance from 1400' 47. Direction to N

SITE INVESTIGATION INFORMATION

48. Describe how the site was discovered

Site was located during a field survey for a proposed road improvement project

49. Describe how the site surface was explored and data recovered

Pedestrian transects @ 2-meter intervals
 FCR and/or building materials counted but not collected.
 100% prehistoric artifact recovery
 If historic artifacts present, a 25% sample was obtained

50. Surface visibility and how estimated

50-60% - visual estimation

51. Factors affecting visibility

Soybean debris

52. Site dimensions and how determined

20m x 50m - paced (extends outside of project R-O-W)

53. Describe how the site subsurface was explored and data recovered

not explored

SITE INVESTIGATION INFORMATION (continued)

54. Collections (include owner and address for each collection)

Indiana State Museum

5 slip glazed stoneware

1 Brown bottle glass

14 Whiteware

4 Mason jar liner (Milk glass)

2 Milk glass

2 Cobalt blue glass

1 Undecorated porcelain

7 Aqua glass Jar frags.

4 Embossed Whiteware

1 Mussel shell

2 Partial Makers Marks

2 Ceramic door handles

1 Annular Banded Yellow ware

1 Blue Spatterware

1 Decaled transferprinted porcelain

1 Blue edgeware

1 Decal transferprint

1 Brown transferprint

1 Green transferprinted edgeware

55. Describe site features, artifact concentrations and structures (key to the SKETCH MAP, see 63)

Large agriculturally dispersed historic scatter

56. Reference and notes

Report 04FR129

57. Photographs (photo and negative number, film, content and photographer; see 61)

None Taken

SITE EVALUATION INFORMATION

58. Site integrity / disturbance

Undisturbed

Disturbed (if so, describe how)

Agricultural Activity

59. Future threats

Road Improvement

60. Remarks and/or significance recommendations

No further archaeological assessment is recommended for the site.

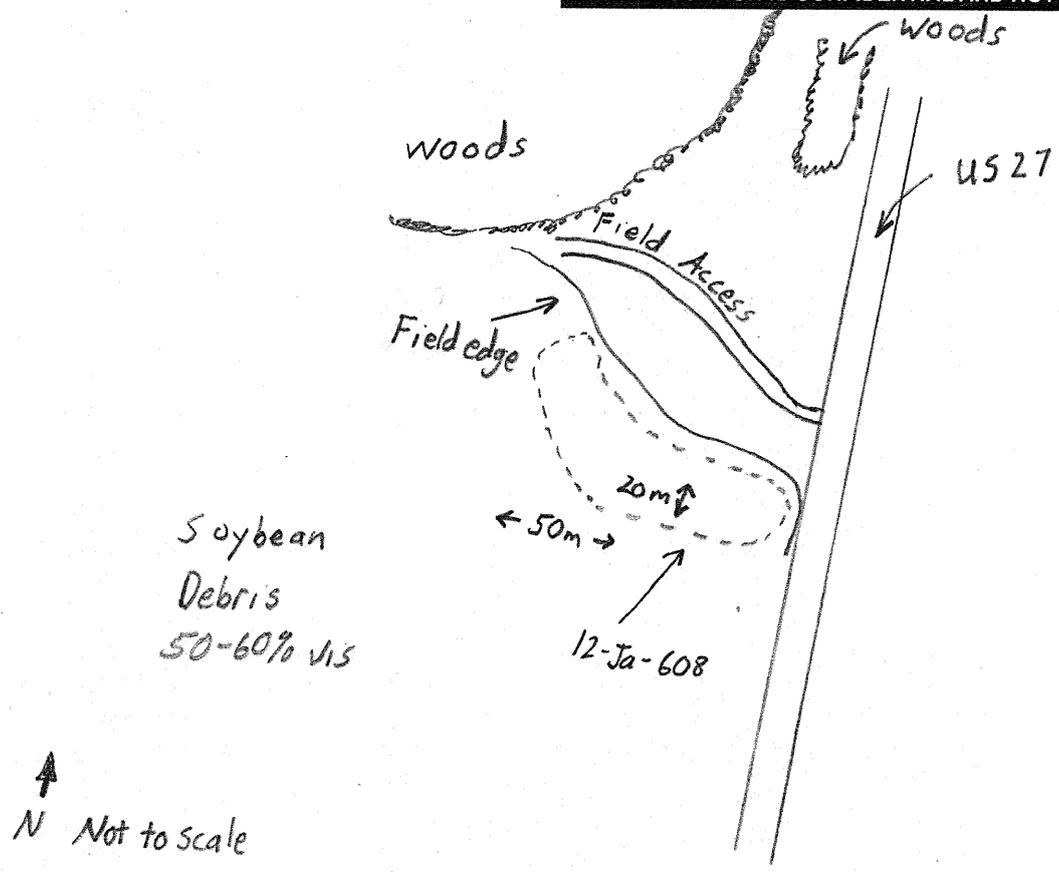
61. **ATTACHMENTS:** Attach a photocopy of the appropriate USGS QUAD MAP marked to show the location of the site and use the SKETCH MAP below to accurately show relevant site landmarks, features, artifact concentrations and structures as well as all areas investigated. All photographs and continuation sheets must be attached to the form.

DIRECTIONS TO REACH SITE

62. Directions to reach site

63. Sketch map (indicate scale and North heading)

SITE LOCATION IS CONFIDENTIAL AND NOT FOR FOR PUBLIC DISCLOSURE



DHPA USE ONLY

64. Site status	State Register	National Register	National Historic Landmark
Det. Elig. Date			
Nominated Date			
To Washington			
Date Listed			

65. Planning status

66. Comments

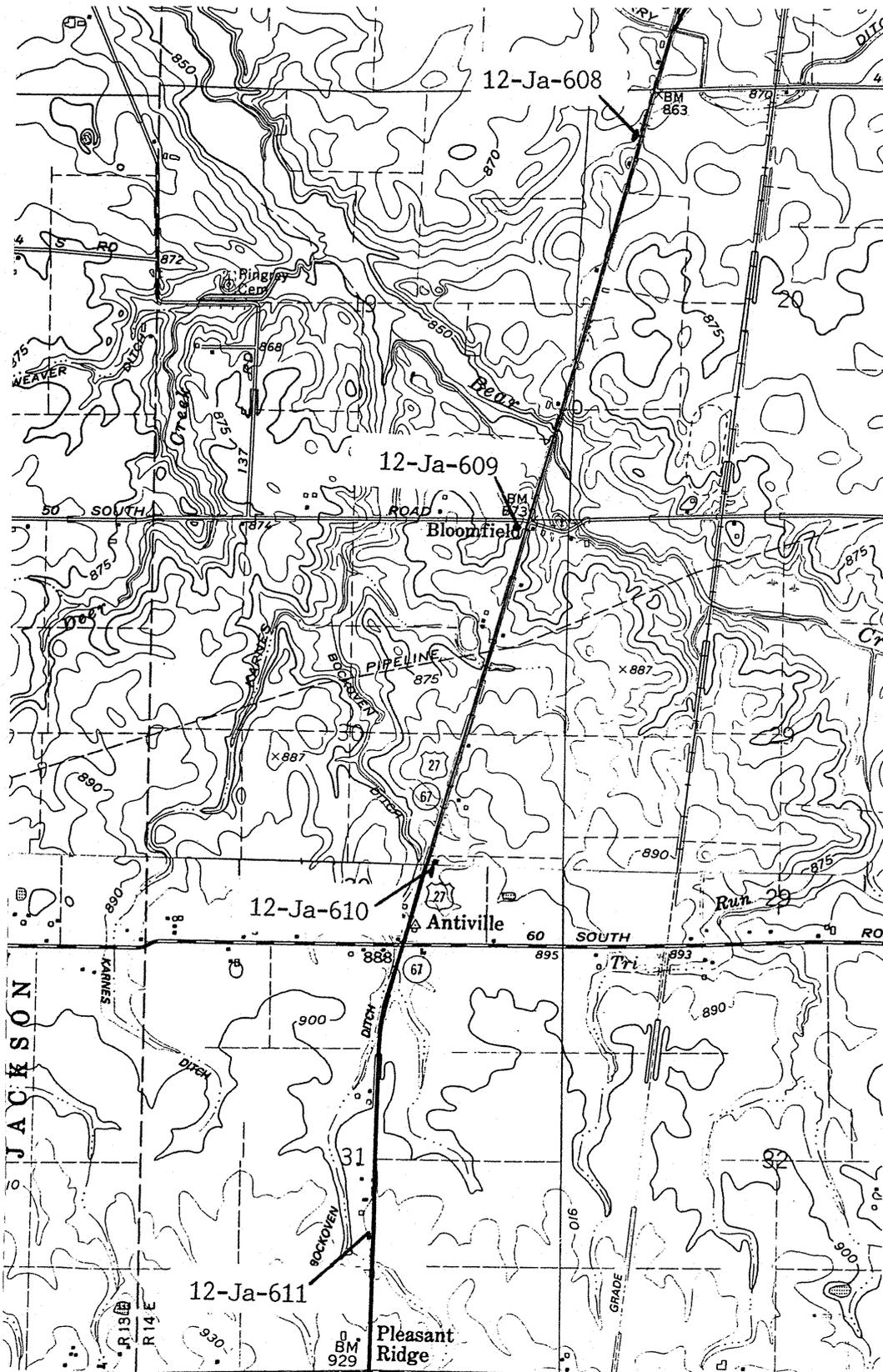


Figure 10. Portion of Geneva and Portland, Indiana USGS 7.5' Quadrangles showing the locations of Sites 12-Ja-608 through 12-Ja-611.

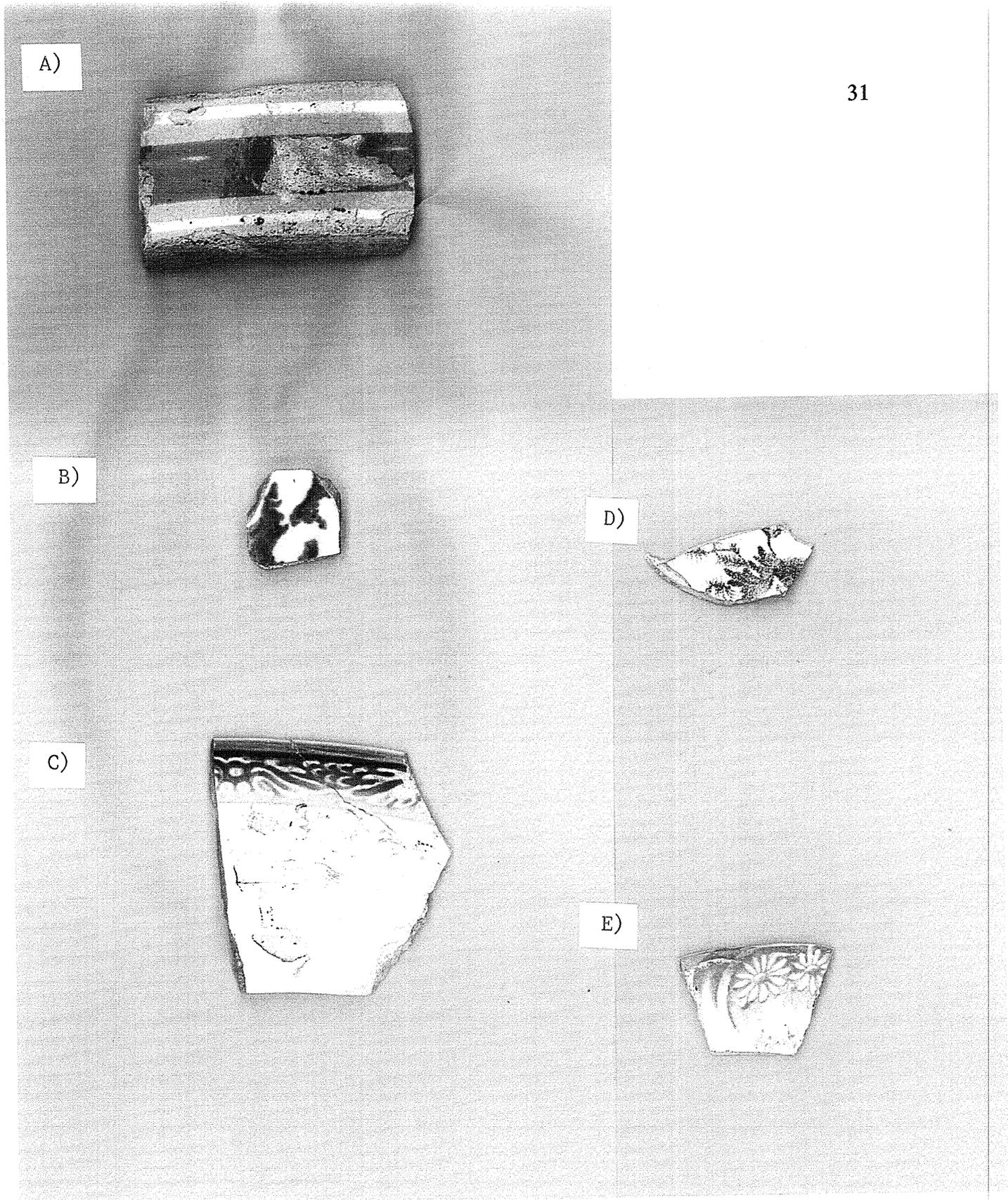


Figure 11. Artifacts Recovered from 12-Ja-608. A) Annular Banded Yellow Ware. B) Blue Spatterware. C) Blue Edgeware (Raised Feather & Dot Scale motif). D) Brown Transferprint. E) Green Transferprinted Edgeware.



INDIANA HISTORIC SITES AND STRUCTURES INVENTORY - ARCHAEOLOGICAL SITES

State Form 24402 (R / 10-94)

1. State site number 12-Ja-609
2. Resurvey No

SITE NAME	
3. Site name	4. Institution / Access number
5. Other names and numbers ACO # 041123 INDOT site 38-39	Indiana State Museum
6. Project name and number INDOT # ST-249-7(), Des. 0100568	

CULTURAL - HISTORICAL INFORMATION	
7. Cultural period(s)	
<input checked="" type="checkbox"/> Un. Prehistoric <input type="checkbox"/> Paleoindian	<input type="checkbox"/> Archaic <input type="checkbox"/> Woodland
<input type="checkbox"/> E <input type="checkbox"/> M <input type="checkbox"/> L <input type="checkbox"/> T	<input type="checkbox"/> Mississippian <input checked="" type="checkbox"/> Historic
8. Culture(s) N/A	
9. Site type(s)	
<input type="checkbox"/> Isolated Find <input type="checkbox"/> Lithic / Scatter <input type="checkbox"/> Workshop <input type="checkbox"/> Rock Art	<input type="checkbox"/> Camp <input type="checkbox"/> Quarry <input type="checkbox"/> Shell Midden <input checked="" type="checkbox"/> Other <u>Historic Scatter</u>
<input type="checkbox"/> Cave <input type="checkbox"/> Rockshelter <input type="checkbox"/> Mounds / Earthworks	<input type="checkbox"/> Village <input type="checkbox"/> Town <input type="checkbox"/> Cemetery
<input type="checkbox"/> Cabin / House <input type="checkbox"/> Farmstead <input type="checkbox"/> Church / Meetinghouse	<input type="checkbox"/> Commer. / Factory <input type="checkbox"/> Civil / Government
10. Deposits present (see No. 55)	
<input type="checkbox"/> Midden <input type="checkbox"/> Burials <input type="checkbox"/> Features	

LOCATION		
11. County Jay	12. Town / city Bryant	13. Civil township Bear Creek
14. Addition N/A	15. Lot number N/A	16. Reserve / military grant N/A
17. USGS 7.5 Min. Quad (attach map or copy) Geneva		18. Section grid alignment N/E
19. 1/4 NW	1/4 NE	1/4 NE
1/4 NE	Section 30	Twp. 24N
		Range 14E
20.		21. UTM (1)
		22. UTM (2)

OWNERSHIP	
23. Ownership	
<input type="checkbox"/> Public <input checked="" type="checkbox"/> Private	
24. Name of property owner N/A	27. Name of tenant
25. Address of property owner	28. Address of tenant
26. Telephone number of property owner ()	29. Telephone number of tenant ()

RECORDER		
30. Site reported by: A. Miller	31. Address ACO	32. Date reported (month, day, year) 11/24/04
33. Form completed by: L. Stillwell	34. Address PO Box 2374	35. Date form completed (month, day, year) 12/2/04
36. Site investigated by: S. Miller	35. Address Muncie, IN 47307	38. Date investigated (month, day, year) 11/24/04

Site number
12-Ja-609

PHYSICAL ENVIRONMENT

39. Physiographic zone Tipton Till Plain	40. Topography Till Plain	41. Elevation 870' AMSL
42. Soil association(s) Glynwood-Blount-Pewamo	43. Soil type(s) Glynwood clay loam, thin solum, 2-6% slopes, etc.	
44. Watershed Upper Wabash	45. Nearby water source Bear Creek	46. Distance from 1300'
		47. Direction to N

SITE INVESTIGATION INFORMATION

48. Describe how the site was discovered

Site was located during a field survey for a proposed road improvement project

49. Describe how the site surface was explored and data recovered

Pedestrian transects @ 2-meter intervals
FCR and/or building materials counted but not collected.
100% prehistoric artifact recovery
If historic artifacts present, a 25% sample was obtained

50. Surface visibility and how estimated

45-55% -visual estimation

51. Factors affecting visibility

Corn

52. Site dimensions and how determined

30m x 30m - paced (extends out of project R-O-W)

53. Describe how the site subsurface was explored and data recovered

not explored

SITE INVESTIGATION INFORMATION (continued)

54. Collections (include owner and address for each collection)

Indiana State Museum

1 Biface
 1 Slip glazed refined earthenware
 1 Slip banded porcelain
 1 Animal bone
 4 Window glass
 19 Whiteware
 3 Aqua glass
 1 Purple glass bottleneck

1 Blue Spongeware
 4 Purple glass
 4 Slip glazed crockery
 1 Salt glazed crockery
 1 Brown bottle glass
 1 Brown glass bottleneck

55. Describe site features, artifact concentrations and structures (key to the SKETCH MAP, see 63)

Agriculturally dispersed historic scatter
 w/ one prehistoric artifact

56. Reference and notes

Report 04FR129

57. Photographs (photo and negative number, film, content and photographer; see 61)

None Taken

SITE EVALUATION INFORMATION

58. Site integrity / disturbance

Undisturbed

Disturbed (if so, describe how)

Agricultural Activity

59. Future threats

Road Improvement

60. Remarks and/or significance recommendations

No further archaeological assessment is recommended for the site.

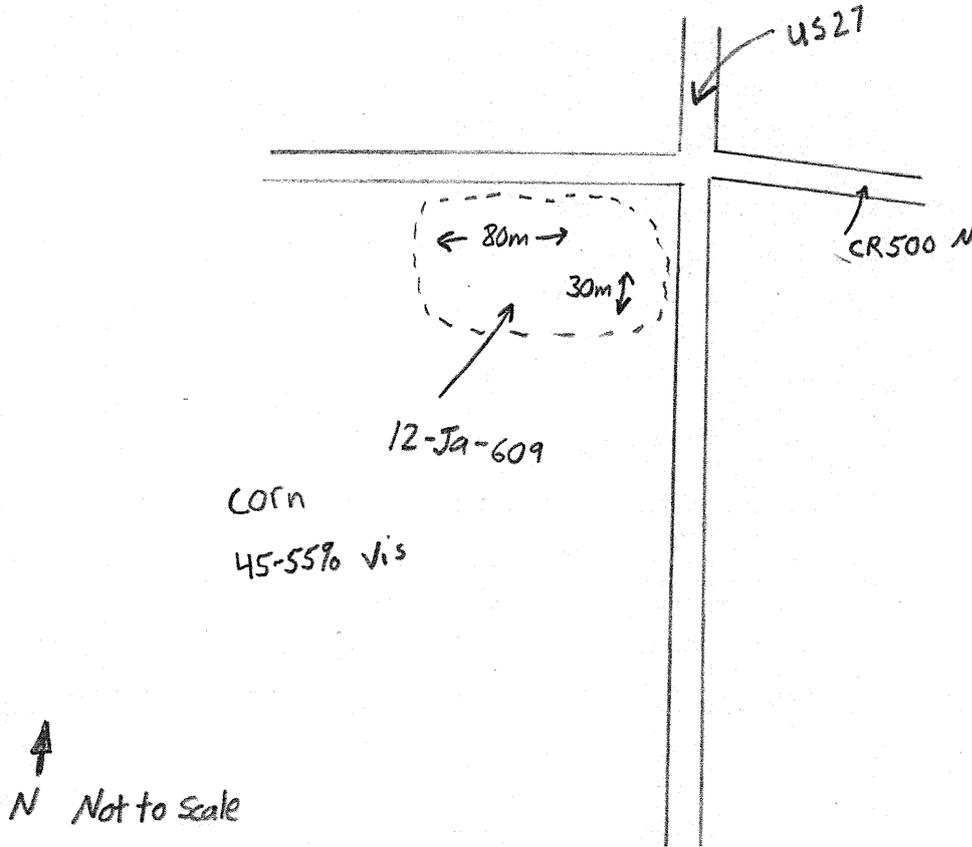
61. **ATTACHMENTS:** Attach a photocopy of the appropriate USGS QUAD MAP marked to show the location of the site and use the SKETCH MAP below to accurately show relevant site landmarks, features, artifact concentrations and structures as well as all areas investigated. All photographs and continuation sheets must be attached to the form.

DIRECTIONS TO REACH SITE

62. Directions to reach site *Site is located in the field immediately in the southwest quadrant of the intersection of CR500 North + US 27.*

63. Sketch map (indicate scale and North heading)

SITE LOCATION IS CONFIDENTIAL AND NOT FOR FOR PUBLIC DISCLOSURE



DHPA USE ONLY

64. Site status	State Register	National Register	National Historic Landmark
Det. Elig. Date			
Nominated Date			
To Washington			
Date Listed			

65. Planning status

66. Comments

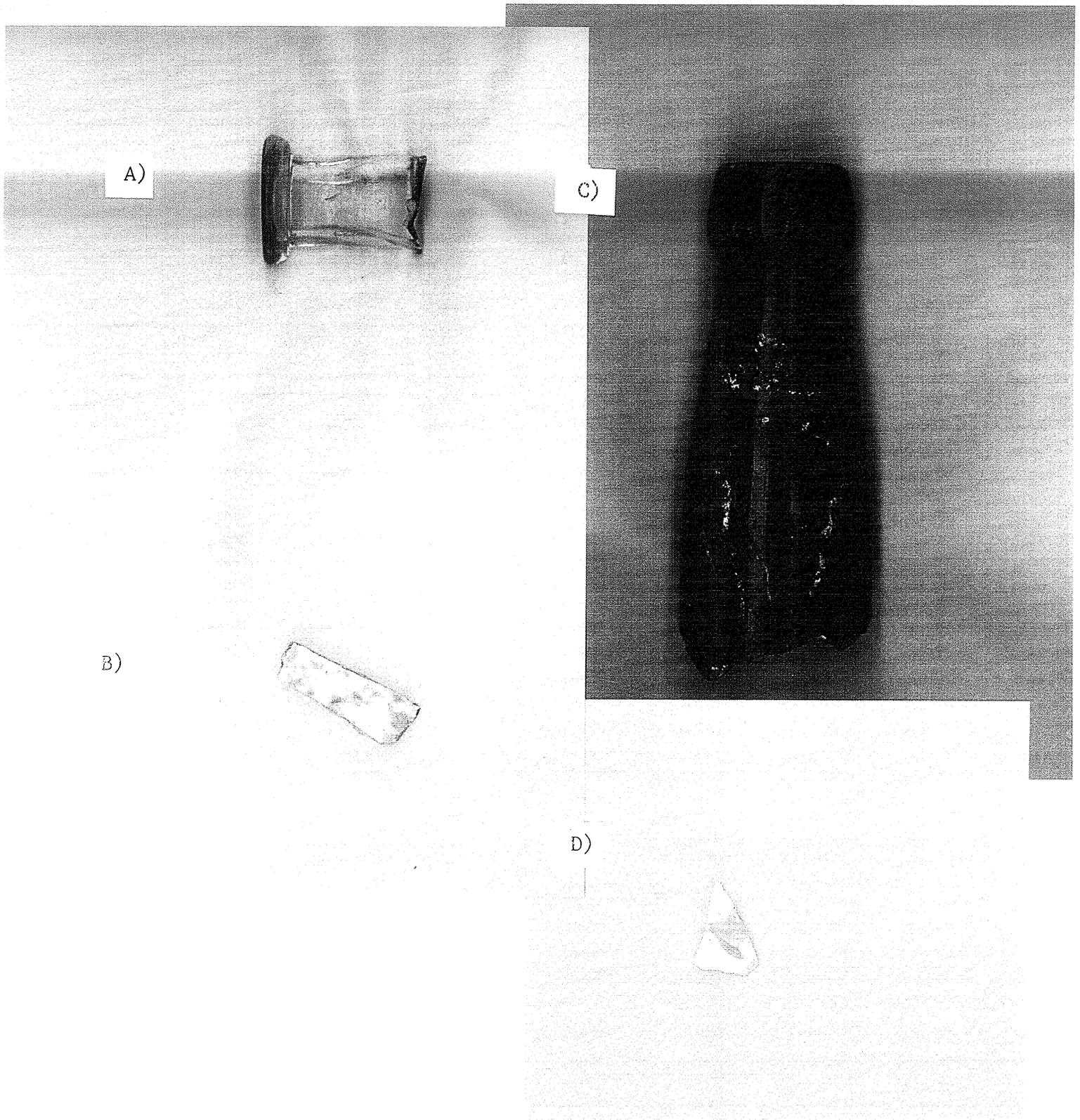


Figure 12. Artifacts Recovered from Sites 12-Ja-609 and 12-Ja-610. A) Amethystine Glass Bottleneck with Applied Lip. B) Blue Spongeware. C) Brown Glass Bottleneck with Applied Lip. D) Hand Painted Polychrome Ware (Floral Motif).

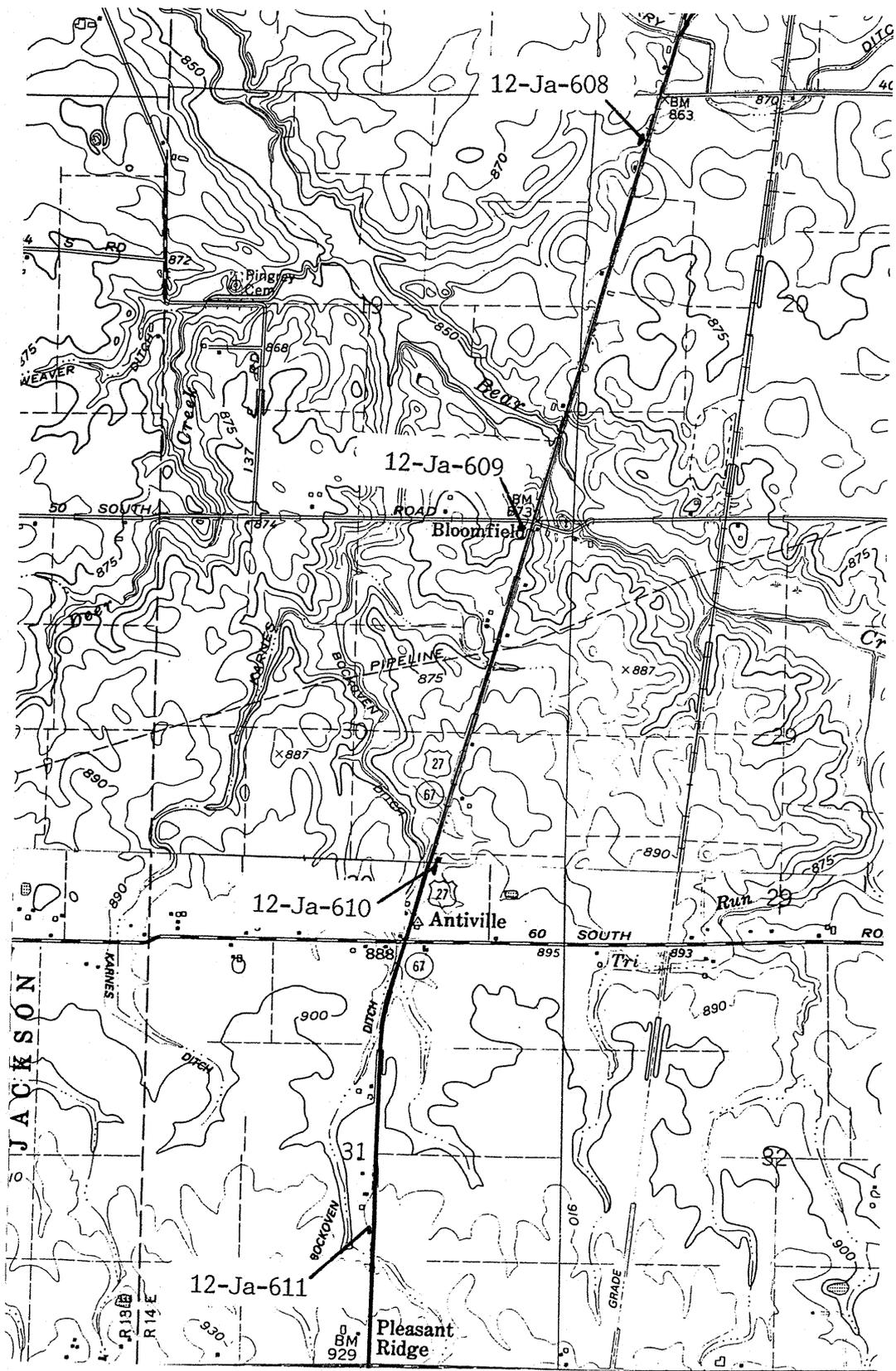


Figure 10. Portion of Geneva and Portland, Indiana USGS 7.5' Quadrangles showing the locations of Sites 12-Ja-608 through 12-Ja-611.



INDIANA HISTORIC SITES AND STRUCTURES INVENTORY - ARCHAEOLOGICAL SITES

State Form 24402 (R / 10-94)

1. State site number 12-Ja-610
2. Resurvey No

SITE NAME	
3. Site name	4. Institution / Access number
5. Other names and numbers ACO # 04FR129 INDOT Site 38-40	Indiana State Museum
6. Project name and number INDOT # SIP-249-7(), Des. 0100568	

CULTURAL - HISTORICAL INFORMATION	
7. Cultural period(s)	
<input type="checkbox"/> Un. Prehistoric <input type="checkbox"/> Paleoindian	<input type="checkbox"/> Archaic <input type="checkbox"/> Woodland
<input type="checkbox"/> E <input type="checkbox"/> M <input type="checkbox"/> L <input type="checkbox"/> T <input type="checkbox"/> E <input type="checkbox"/> M <input type="checkbox"/> L <input type="checkbox"/> T	<input type="checkbox"/> Mississippian <input checked="" type="checkbox"/> Historic
8. Quill(s) N/A	
9. Site type(s)	
<input type="checkbox"/> Isolated Find <input type="checkbox"/> Lithic / Scatter <input type="checkbox"/> Workshop <input type="checkbox"/> Rock Art	<input type="checkbox"/> Camp <input type="checkbox"/> Quarry <input type="checkbox"/> Shell Midden <input checked="" type="checkbox"/> Other <u>Historic Scatter</u>
<input type="checkbox"/> Cave <input type="checkbox"/> Rockshelter <input type="checkbox"/> Mounds / Earthworks	<input type="checkbox"/> Village <input type="checkbox"/> Town <input type="checkbox"/> Cemetery
<input type="checkbox"/> Cabin / House <input type="checkbox"/> Farmstead <input type="checkbox"/> Church / Meetinghouse	<input type="checkbox"/> Commer. / Factory <input type="checkbox"/> Civil / Government
10. Deposits present (see No. 55)	
<input type="checkbox"/> Midden <input type="checkbox"/> Burials <input type="checkbox"/> Features	

LOCATION		
11. County Jay	12. Town / city Bryant	13. Civil township Bear Creek
14. Addition N/A	15. Lot number N/A	16. Reserve / military grant N/A
17. USGS 7.5 Min. Quad (attach map or copy) Portland / Geneva		18. Section grid alignment S+E
19. 1/4 SE	1/4 NE	1/4 SW
1/4 SE	Section 30	Twp. 24N
		Range 14E
20.		21. UTM (1)
		22. UTM (2)

OWNERSHIP	
23. Ownership	
<input type="checkbox"/> Public <input checked="" type="checkbox"/> Private	
24. Name of property owner N/A	27. Name of tenant
25. Address of property owner	28. Address of tenant
26. Telephone number of property owner ()	29. Telephone number of tenant ()

RECORDER			
30. Site reported by: A. Miller	31. Address ACO	32. Date reported (month, day, year) 11/24/04	Site number 12-Ja-610
33. Form completed by: L. Stillwell	34. Address PO Box 2374	35. Date form completed (month, day, year) 12/2/04	
36. Site investigated by: S. Miller	35. Address Muncie, IN 47307	38. Date investigated (month, day, year) 11/24/04	

PHYSICAL ENVIRONMENT

39. Physiographic zone Tipton Till Plain	40. Topography Till Plain	41. Elevation 880' AMSL
42. Soil association(s) Glynwood-Blount-Pewamo	43. Soil type(s) Glynwood clay loam, 2-6% slopes, thin solum, eroded	
44. Watershed Upper Wabash	45. Nearby water source Bockoven Ditch	46. Distance from 200' 47. Direction to W

SITE INVESTIGATION INFORMATION

48. Describe how the site was discovered

Site was located during a field survey for a proposed road improvement project

49. Describe how the site surface was explored and data recovered

Pedestrian transects @ 2-meter intervals
FCR and/or building materials counted but not collected.
100% prehistoric artifact recovery
If historic artifacts present, a 25% sample was obtained

50. Surface visibility and how estimated

100% -visual estimation

51. Factors affecting visibility

tilled field

52. Site dimensions and how determined

130m x 20m - paced (extends outside of project R-O-W)

53. Describe how the site subsurface was explored and data recovered

not explored

SITE INVESTIGATION INFORMATION (continued)

54. Collections (include owner and address for each collection)

Indiana State Museum

1 Slip glazed crockery

4 Window glass

1 Brown glass

4 slip/salt glazed crockery

1 Aqua glass

1 Embossed whiteware

1 Blue edgeware

11 Whiteware

1 Milk glass button

1 Makers Mark frag.

1 salt glazed crockery

1 salt glazed refined earthenware

1 Hand painted floral polychrome ware

55. Describe site features, artifact concentrations and structures (key to the SKETCH MAP, see 63)

Agriculturally dispersed field scatter

56. Reference and notes

Report 04FR129

57. Photographs (photo and negative number, film, content and photographer; see 61)

None Taken

SITE EVALUATION INFORMATION

58. Site integrity / disturbance

Undisturbed

Disturbed (if so, describe how)

Agricultural Activity

59. Future threats

Road Improvement

60. Remarks and/or significance recommendations

No further archaeological assessment is recommended for the site.

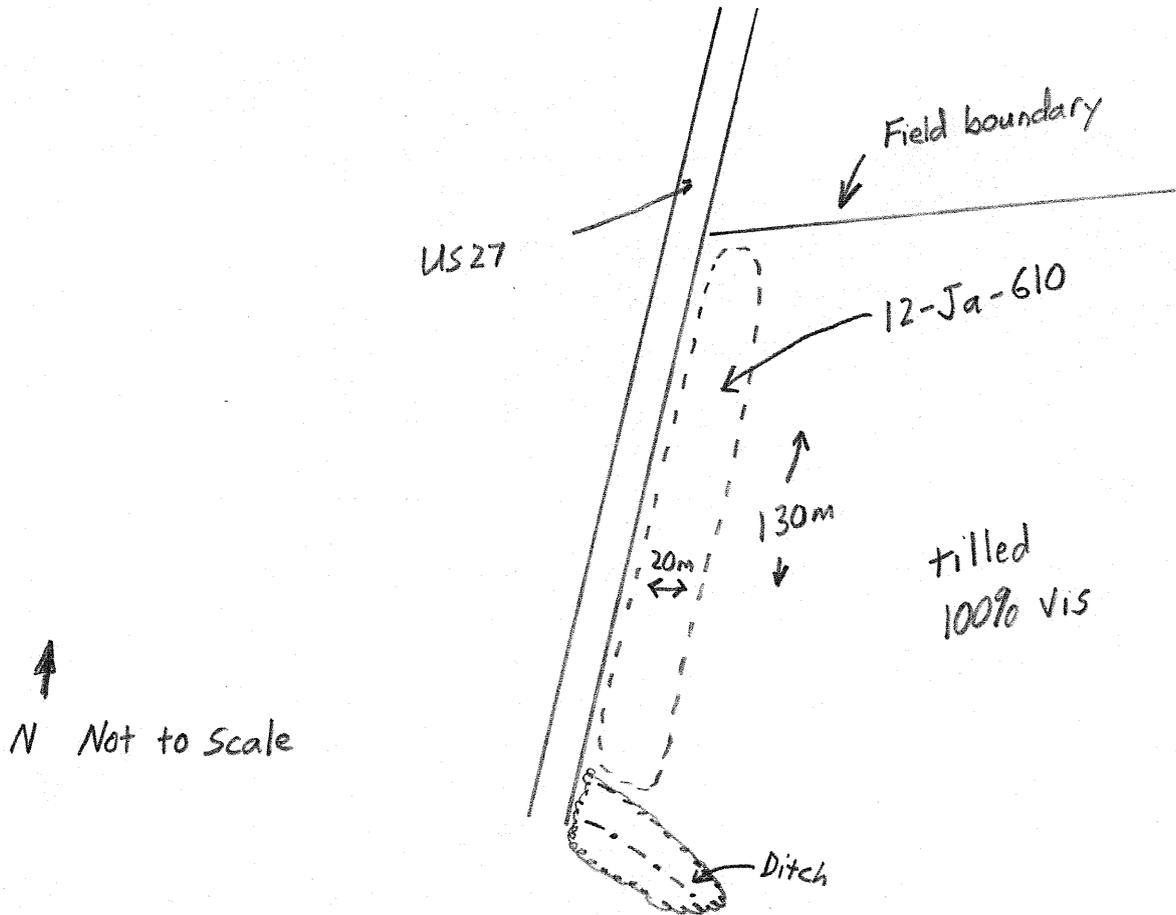
61. **ATTACHMENTS:** Attach a photocopy of the appropriate USGS QUAD MAP marked to show the location of the site and use the SKETCH MAP below to accurately show relevant site landmarks, features, artifact concentrations and structures as well as all areas investigated. All photographs and continuation sheets must be attached to the form.

DIRECTIONS TO REACH SITE

62. Directions to reach site *From the intersection of US 27 + CR 400 north, proceed north up US 27 approximately 900; Site is located in field to the east approximately 30' from the edge of road.*

63. Sketch map (indicate scale and North heading)

SITE LOCATION IS CONFIDENTIAL AND NOT FOR FOR PUBLIC DISCLOSURE



DHPA USE ONLY

64. Site status	State Register	National Register	National Historic Landmark
Det. Elig. Date			
Nominated Date			
To Washington			
Date Listed			

65. Planning status

66. Comments

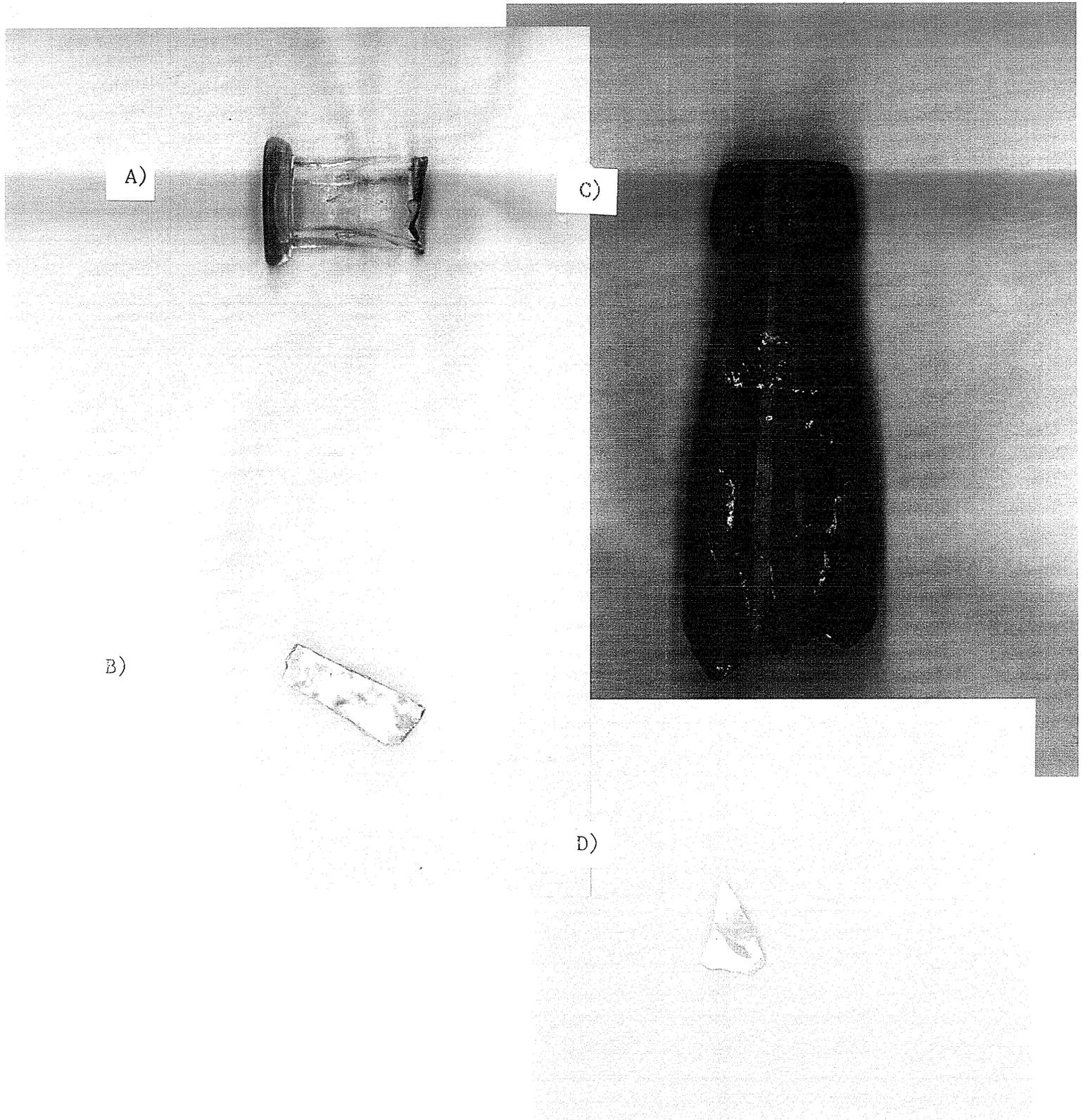


Figure 12. Artifacts Recovered from Sites 12-Ja-609 and 12-Ja-610. A) Amethystine Glass Bottleneck with Applied Lip. B) Blue Spongeware. C) Brown Glass Bottleneck with Applied Lip. D) Hand Painted Polychrome Ware (Floral Motif).



INDIANA HISTORIC SITES AND STRUCTURES INVENTORY - ARCHAEOLOGICAL SITES

State Form 24402 (R / 10-94)

1. State site number 12-Ja-611
2. Resurvey NO

SITE NAME	
3. Site name	4. Institution / Access number
5. Other names and numbers ACO # 04PR129	Indiana State Museum
6. Project name and number INDOT # SIP-249-7(), Des. 0100568	

CULTURAL - HISTORICAL INFORMATION	
7. Cultural period(s)	
<input checked="" type="checkbox"/> Un. Prehistoric <input type="checkbox"/> Paleoindian	<input type="checkbox"/> Archaic <input type="checkbox"/> Woodland
<input type="checkbox"/> E <input type="checkbox"/> M <input type="checkbox"/> L <input type="checkbox"/> T	<input type="checkbox"/> Mississippian <input type="checkbox"/> Historic
8. CNRA(s) N/A	
9. Site type(s)	
<input type="checkbox"/> Isolated Find <input checked="" type="checkbox"/> Lithic / Scatter <input type="checkbox"/> Workshop <input type="checkbox"/> Rock Art	<input type="checkbox"/> Camp <input type="checkbox"/> Quarry <input type="checkbox"/> Shell Midden <input type="checkbox"/> Other _____
<input type="checkbox"/> Cave <input type="checkbox"/> Rockshelter <input type="checkbox"/> Mounds / Earthworks	<input type="checkbox"/> Village <input type="checkbox"/> Town <input type="checkbox"/> Cemetery
<input type="checkbox"/> Cabin / House <input type="checkbox"/> Farmstead <input type="checkbox"/> Church / Meetinghouse	<input type="checkbox"/> Commer. / Factory <input type="checkbox"/> Civil / Government
10. Deposits present (see No. 55)	
<input type="checkbox"/> Midden <input type="checkbox"/> Burials <input type="checkbox"/> Features	

LOCATION		
11. County Jay	12. Town / city Bryant	13. Civil township Bear Creek
14. Addition N/A	15. Lot number N/A	16. Reserve / military grant N/A
17. USGS 7.5 Min. Quad (attach map or copy) Portland		18. Section grid alignment N+W
19. 1/4 NW	1/4 SW	1/4 NW
1/4 SE	Section 31	Twp. 24N
	Range 14E	21. UTM (1)
20.		22. UTM (2)

OWNERSHIP	
23. Ownership	
<input type="checkbox"/> Public <input checked="" type="checkbox"/> Private	
24. Name of property owner N/A	27. Name of tenant
25. Address of property owner	28. Address of tenant
26. Telephone number of property owner ()	29. Telephone number of tenant ()

RECORDER			
30. Site reported by: A. Miller	31. Address ACO	32. Date reported (month, day, year) 11/24/04	Site number 12-Ja-611
33. Form completed by: L. Stillwell	34. Address PO Box 2374	35. Date form completed (month, day, year) 12/2/04	
36. Site investigated by: S. Miller	35. Address Muncie, IN 47307	38. Date investigated (month, day, year) 11/24/04	

PHYSICAL ENVIRONMENT

39. Physiographic zone Tipton Till Plain		40. Topography Till Plain	41. Elevation 910' AMSL
42. Soil association(s) Glynwood-Blount-Pewamo		43. Soil type(s) Glynwood Clay loam, thin solum, 2-6% slopes, eroded	
44. Watershed Upper Wabash	45. Nearby water source Bockoven Ditch	46. Distance from 250'	47. Direction to W

SITE INVESTIGATION INFORMATION

48. Describe how the site was discovered

Site was located during a field survey for a proposed road improvement project

49. Describe how the site surface was explored and data recovered

Pedestrian transects @ 2-meter intervals
 FCR and/or building materials counted but not collected.
 100% prehistoric artifact recovery
 If historic artifacts present, a 25% sample was obtained

50. Surface visibility and how estimated

50% -visual estimation

51. Factors affecting visibility

Corn

52. Site dimensions and how determined

10m x 10m - paced

53. Describe how the site subsurface was explored and data recovered

not explored

SITE INVESTIGATION INFORMATION (continued)

54. Collections (include owner and address for each collection)

Indiana State Museum
3 Unmodified Flakes

55. Describe site features, artifact concentrations and structures (key to the SKETCH MAP, see 63)

N/A

56. Reference and notes

Report 04FR129

57. Photographs (photo and negative number, film, content and photographer; see 61)

None Taken

SITE EVALUATION INFORMATION

58. Site integrity / disturbance

Undisturbed Disturbed (if so, describe how)
Agricultural Activity

59. Future threats

Road Improvement

60. Remarks and/or significance recommendations

No further archaeological assessment is recommended for the site.

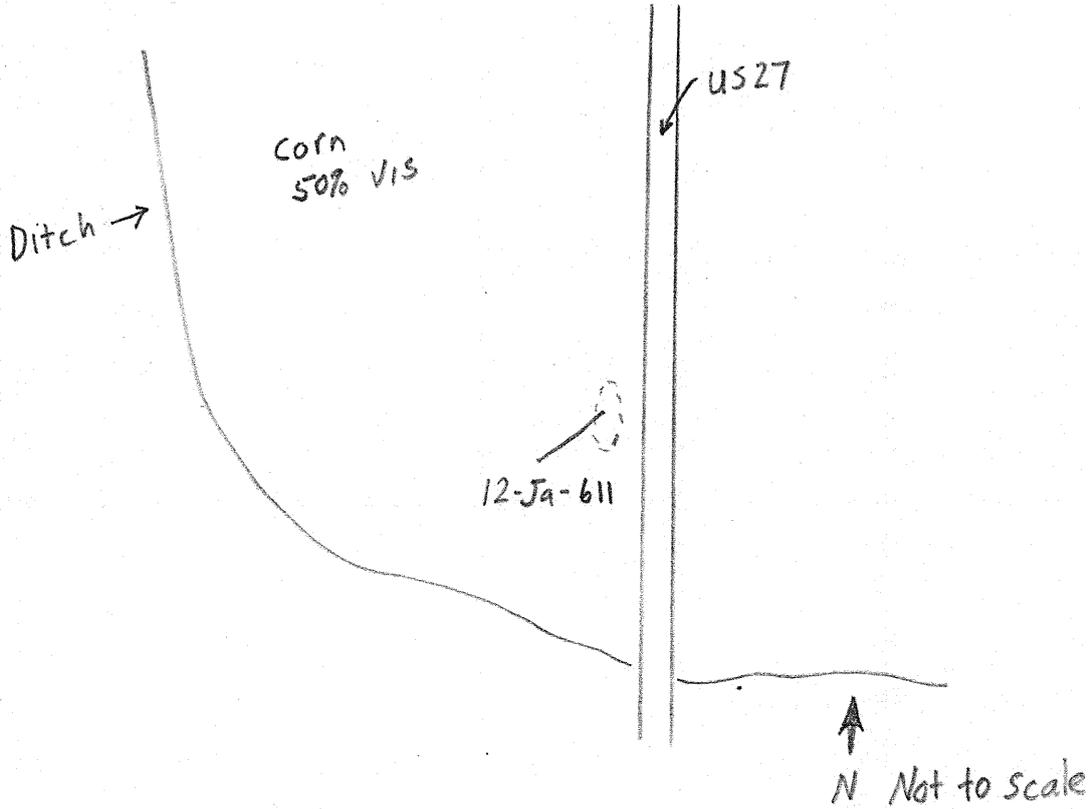
61. **ATTACHMENTS:** Attach a photocopy of the appropriate USGS QUAD MAP marked to show the location of the site and use the SKETCH MAP below to accurately show relevant site landmarks, features, artifact concentrations and structures as well as all areas investigated. All photographs and continuation sheets must be attached to the form.

DIRECTIONS TO REACH SITE

62. Directions to reach site From the intersection of US27 + CR 300 North, proceed north up US 27 approximately 1700'. Site is in field to the west approximately 30' from the edge of the road.

63. Sketch map (indicate scale and North heading)

SITE LOCATION IS CONFIDENTIAL AND NOT FOR FOR PUBLIC DISCLOSURE



DHPA USE ONLY

64. Site status	State Register	National Register	National Historic Landmark
Det. Elig. Date			
Nominated Date			
To Washington			
Date Listed			

65. Planning status

66. Comments

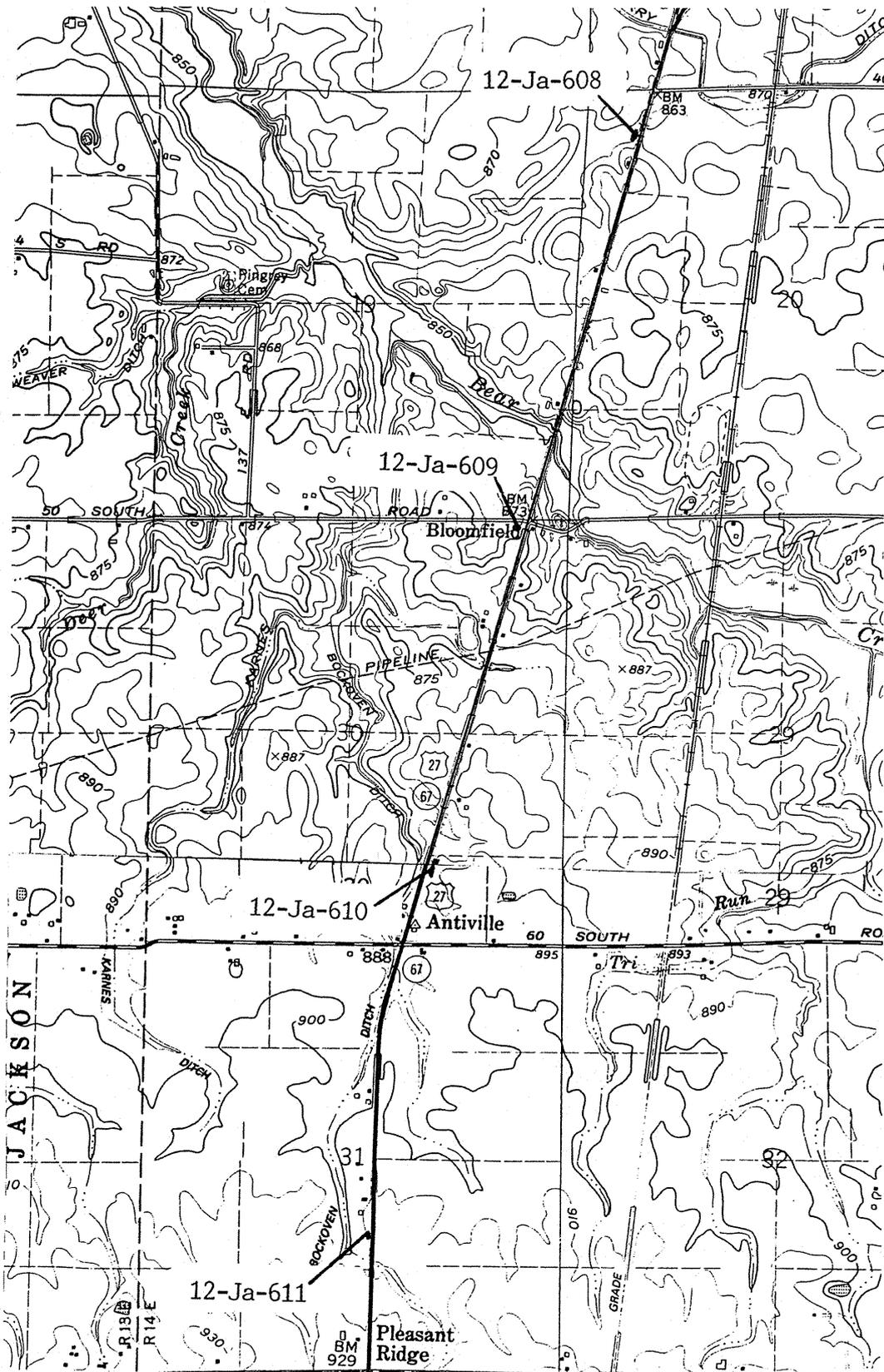


Figure 10. Portion of Geneva and Portland, Indiana USGS 7.5' Quadrangles showing the locations of Sites 12-Ja-608 through 12-Ja-611.