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## I. DESCRIPTION OF THE PROPOSED ACTION

This proposed U.S. 61 improvement begins at the existing four-1ane section north of the Burlington corporate limits and just south of Plank Road. The proposed project extends north 28.5 km ( 17.7 miles) to 0.6 km ( 0.4 mile ) north of the junction with Iowa 78 in Louisa County. See Figure 1, the project location map.

The purpose of the proposed improvement is to upgrade the existing two-lane highway to a four-lane rural type facility throughout the project corridor and to examine a Mediapolis bypass proposal.

One basic construction alternative and the "no-build" alternative are being studied for the improvement. The construction alternative generally follows present alignment throughout the project with two exceptions. A relocation segment, west of present alignment, begins north of the Flint River bridge and continues for 2.1 km ( 1.3 miles ). Also, a $6.1-\mathrm{km}$ ( $3.8-\mathrm{mile}$ ) bypass is proposed west of Mediapolis, considering both long and short bypass options.

## II. NEED FOR THE PROJECT

U.S. 61 is a commuter route connecting Mediapolis, Wapello and vicinity with Burlington and points south. U.S. 61 also serves as the primary transportation corridor for Burlington and other towns along the Mississippi River, in route to the Quad Cities area. Any improvement to the existing transportation system would be both beneficial and necessary as traffic demands increase in the future. By constructing a four-lane improvement with a bypass of Mediapolis, present and future traffic congestion would be alleviated, resulting in improved traffic service levels and safety throughout the study corridor.

## A. Present Facility

Des Moines County - 26.2 km ( 16.3 miles)
Existing U.S. 61 in this portion of the project has 7.3-meter (24-foot) pavement with 3 -meter (10-foot) granular shoulders and $3: 1$ foreslopes. Within Mediapolis a $0.4-\mathrm{km}(0.28-\mathrm{mile})$ segment is 14.6 meters ( 48 feet) wide. A $74 \mathrm{~m} \times 9 \mathrm{~m}\left(243^{\prime} \times 30^{\prime}\right)$ steel beam bridge over the Flint River was constructed in 1966. The $11 \mathrm{~m} \times 13.4 \mathrm{~m}$ ( $36^{\prime} \times 43.8^{\prime}$ ) steel beam bridge over a branch of Smith Creek was constructed in 1927, widened in 1957 and underwent structural repairs in 1983 . The entire section of roadway was ACC resurfaced in 1984.


## PROJECT LOCATION MAP

## U.S. 61 <br> Des Moines \& Louisa Counties



Figure 1

Crest vertical curves in rural areas with design speed below 55 mph are as follows:

| Design Speed of crest Vertical Curves mph | Number of crest Vertical curves |
| :---: | :---: |
| under 40 | 4 |
| 40 to 45 | 3 |
| 45 to 50 | 5 |
| 50 to 55 | 7 |
| Total under 55 mph | 19 |

## Louisa County - 2.3 km (1.4 miles)

This section of U.S. 61 has 7.3 -meter ( $24 \cdot$ foot) pavement and 3 -meter (10-foot) granular shoulders.

Vertical and horizontal geometrics on the $2.3 \cdot \mathrm{~km}$ (1.4-mile) section of existing U.S. 61 in Louisa County meet current highway standard guidelines.
U.S. 61 in both Des Moines and Louisa Counties is functionally classified "arterial" and is a service level "B" road.

## B. Traffic Data

Existing (1994) average annual daily traffic (AADT) volumes are shown in Figure 2. Current volumes range from 4780 to 7000 vehicles per day (vpd). Program year (2000) and design year (2020) AADT volumes are shown in Figure 3. Projected volumes range from 5880 to 7700 vpd for the year 2000 and from 7875 to 10350 vpd for the year 2020. Trucks and buses make up between 11 and 17 percent of these projected volumes.

## C. Accident Study

The accident statistics for U.S. 61 in the project area for the years 1989 through 1993 are shown in Table 1 . The $17.9 \cdot \mathrm{~km}$ (11.1-mile) segment between Burlington and Mediapolis carries a five-year accident rate of 154 as compared to a statewide average rate of 130 in rural areas for that same time period. Eight fatalities occurred on this section of U.S. 61 during that five-year period, with a total of nine fatalities for the total project area during the same time frame.



## TABLE 1

## 1989-1993 PROHECT AREAACCIDENT DATA

|  | Total <br> Accidents | Property Damage | Personal Injury Accidents (Total Injuries) | Total <br> Fatallities | Accident Rate |  | Percent Above/Below Statewide Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year |  |  |  |  | Project | Statewide |  |


| From the Existing Four-Lane North of Burlington North to the SCL Mediapolis - 17.8 km (11.1 miles) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1989 | 39 | 24 | 15 (20) | 0. | 156 | 129 | 21\% above |
| 1990 | 39 | 31 | 7 (13) | 2. | 156 | 135 | 15\% a a maye |
| 1991. | 34 | 19 | 14 (32) | 2. | 136 | 127 | 7 N above |
| 1992. | 40 | 22 | 18 (39) | 0 | 160 | 130 | 23* above |
| 1993 | 40 | 23 | 13 (25) | 4 | 160 | 129 | 24*Nabove |
| Totals | 192 | 119 | 67 (129) | 8. | Avg $=154$ | $A v g=130$ | 18\% \%inove |


| SCL Mediapolis to NCL Mediapolis - 1.6 km (1.0 mile) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1989 | 10 | 6 | 4 (10) | 0. | 489 | 586 | 16\% belows |
| 1990 | 6 | 4. | 2 (2) | 0. | 294 | 563 | 488, bely |
| 1991 | 8 | 4 | 4 (9) | 0 | 391 | 547 | 28\% belonk |
| 1992. | 4 | 3 | 1 (2) | 0 | 196 | 562 | 654 behoy. |
| 1993 | 12 | 8 | 4 (5) | 0. | 603 | 559 | 8\% aboves. |
| Totals | 40 | 25 | 15 (28) | 0 | $\mathrm{Avg}=402$ | $A \vee g=559$ | 28\% Welohem |


| NCL Mediapolis to Des Moines/Louisa County Line - 6.7 km (4.2 miTes) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1989 | 7 | 4. | 3 (3) | 0 | 100 | 129 | 22\% below: |
| 1990 | 9 | 6. | 3 (7) | 0 | 128 | 135 | 5\% below |
| 1991 | 11 | 10 | 1 (7) | 0 | 156 | 127 | 23\% above |
| 1992. | 3 | 3, | 0 (0) | 0 | 43 | 130 | 67\% below |
| 1993 | 7 | 4. | 2 (5) | 1 | 98 | 129 | 24* belows |
| Totals. | 37 | 27. | 9 (16) | 1 | $\mathrm{Avg}=104$ | Avg $=129$ | 19\% belowz |


| Des Moines/Louisa County Line North to Jct, Iowa $78-2.3 \mathrm{~km}$ (1.4.miles) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1989 | 3 | 3 | 0 (0) | 0 | 127 | 129 | 2\% below |
| 1990 | 3 | 2. | 1 (1) | 0 | 127 | 135 | 6\% beelow |
| 1991 | 1 | 1 , | 0 (0) | 0 | 42 | 127 | 67\% below |
| 1992 | 3 | 0. | 3 (4) | 0 | 127 | 121 | 5\% above |
| 1993. | 2 | 1. | 1 (1) | 0 | 86 | 129 | 33\% below |
| Totals. | 12 | 7 | 5 (6) | 0 | Avg $=104$ | Avg $=129$ | 19\% below |

## D. Sufficiency Ratings

Sufficiency ratings in Iowa are composed of three major categories which measure the roadway's structural adequacy, motorist safety, and capability to accommodate specific traffic volumes with a minimum of conflict. A rating of $90-100$ is classified as excellent; 80.89 is good; 65.79 is fair; 50.64 is tolerable; and $0-49$ is poor.

1995 Sufficiency ratings for U.S. 61 in the project area are as follows:

## TABLE 2

1995 SUFFICIENCY RATINGS

| Section. | Rating |
| :--- | :--- |
| NUAL Burlington to SCL Mediapolis ( 10.51 mi.) | 36 poor |
| SCL Mediapolis to begin 48' sect. ( 0.39 mi.$)$ | 39 poor |
| Begin 48' sect. to begin 24' sect. ( 0.32 mi.) | 93 excellent |
| Begin 24' sect. to NCL Mediapolis ( 0.29 mi.$)$ | 88 good |
| NCL Mediapolis to Louisa Co. line (4.17 mi.) | 35 poor |
| Des Moines/Louisa Co. line to Jct. IA-78 (1.02 mi.) | 36 poor |

The pavement sections rated as poor make up 96\% of the project.
III. PROPOSED ALTERNATIVES

This document studies one basic construction alternative for the proposed four-lane improvement of U.S. 61, which would generally follow present alignment, with the exception of a west bypass of Mediapolis and a $2.1 \cdot \mathrm{~km}$ ( $1.3-\mathrm{mile}$ ) west relocation near the beginning of the project (BOP). The no-build alternative is also being studied. Total project length is approximately 28.5 km ( 17.7 miles ).

## A. Construction Alternative

For discussion purposes the proposed construction alternative is divided into six segments. Refer to Appendix A, Topographic Plates 1 through 5.

Segment 1 starts approximately 61 meters ( 200 feet) south of Memorial Park Road (Sta. $1165+00$ ) near the end of the existing four-lane section north of Burlington, and extends northwesterly to the Flint River, Sta. $82+00$. (Equation: Sta. 1196+82.10 $=$ Sta. $79+25.60$ ) Segment 1 is approximately 1.0 km ( 0.6 mile ) in length and would include a new river bridge for southbound traffic. (See Plate 1.)

Segment 2 begins at the Flint River (Sta. 82+00) and extends northwesterly to Pfeiff Road (Sta. 187+50). Segment 2 totals 3.2 km (2.0 miles). (See Plate 1.)

Segment 3 begins at Pfeiff Road (Sta. 187+50) and extends north to just south of Mediapolis, Sta. 611+00. Segment 3 totals 12.9 km ( 8.0 miles). (See Plates 1, 2 and 3.)

Segment 4 begins at Sta. 611+00 just south of Mediapolis and continues north, bypassing the community to the west and ending at Sta. $810+00$ (S. Jct. County Road H28). Segment 4 totals 6.1 km ( 3.8 miles). (See Plates 3 and 4.)

Segment 5 begins at Sta. $810+00$ (S. Jct. County Road H28) and extends north to the Louisa County line, Sta. $910+07.90$. (Equation: Sta. $910+07.90=$ Sta. $100+00$ ) Segment 5 totals 3.1 km ( 1.9 miles). (See Plates 4, 4A and 5.)

Segment 6 begins at the Des Moines/Louisa County line, Sta. $100+00$, and extends north to approximately 0.6 km ( 0.4 mile ) north of the Iowa 78 intersection to Sta. $174+24.62$, the end of the project. Segment 6 totals 2.25 km ( 1.4 miles). (See Plate 5.)

The $28.5 \cdot \mathrm{~km}$ (17.7-mile) construction alternative generally proposes to build two new lanes alongside the existing two-lane highway to provide a four-lane divided facility with a depressed grass median. The new lanes would be constructed 7.2 meters (23.6') wide with $1.8 \cdot m e t e r$ (5.9') inside and $3.0-m e t e r ~\left(9.8^{\prime}\right)$ outside shoulders. The present roadway would serve the opposite direction of traffic. In addition, a west bypass of Mediapolis is being studied.

Two new lanes, 7.2 meters (23.6') wide, would be constructed west of U:S. 61 from the BOP to approximately 0.3 km ( 0.2 mile ) south of 160 th Street, in Segment 3. The new lanes would then cross over the existing roadway and continue along the east side to Hawk Road just south of Mediapolis. At this point the new lanes would again cross U.S. 61 as the proposed bypass proceeds northwest and north on an alignment west of the community. New lanes would generally continue along the west side of U.S 61 for the remainder of the project, the exception being the short section of four-lane construction east of U.S. 61, from 235th Street to 245th Street, included in the short bypass proposal. Alternating the location of new lanes along either side of the existing highway would minimize right of way impacts resulting from the project.

Four-lane construction would be required in several areas as follows:

- on the $2.1-\mathrm{km}$ ( $1.3-\mathrm{mile}$ ) relocation segment near the BOP;
- throughout the $6.1-\mathrm{km}(3.8-\mathrm{mile})$ bypass segment;
- from the end of the bypass, north 2.6 km ( 1.6 miles ); and
- for short distances at each crossover.

The basic overall construction concept for the project would initially utilize a wider 38 -meter ( 125 ' $\pm$ ) cross section in several areas. This wider cross section would provide an adequate right of way corridor to minimize impacts to properties on the opposite side of the present roadway when future reconstruction of existing U.S. 61 occurs. This wider median also accommodates grade differences between the new and existing roadways, providing a safer and smoother transition from one pavement slab to the other at median crossings.

A study completed by the DOT Office of Design considered three alternatives, as shown below, for future treatment of the sections of existing U.S. 61 pavement not requiring replacement as part of the initial four-lane project.

1) total reconstruction followed by resurfacing at 30 years
2) resurface initially and resurface at 15 -year intervals thereafter, to a total of 45 years
3) resurface initially and reconstruct at 15 years

The base PCC pavement, in the areas not requiring replacement, is rated as structurally sufficient. The recommended treatment would therefore be as shown in item 2 above. Estimates included with this document reflect the initial resurfacing, which would be a part of initial project construction. Subsequent resurfacing and/or reconstruction estimates are not included.

Ultimately, the existing pavement would be reconstructed to develop a four-lane facility with a depressed median at the standard cross section width of 28 meters (92') CL to CL. When the existing pavement is replaced, the grade line of the two pavement slabs would be matched. Both lanes of travel would have 1.8 -meter ( $5.9^{\prime}$ ) inside and $3.0 \cdot$ meter ( $9.8^{\prime}$ ) outside shoulders incorporated into the design. Refer to Figure 4 for typical cross sections of the proposed initial and ultimate construction concepts.

Proposed construction is outlined, by segment, as follows:

## TYPICAL CROSS SECTIONS <br> U.S. 61 IMPROVEMENT DES MOINES \& LOUISA COUNTIES



Segment 1 - Proposed Construction
Through the curve at the start of the project, the cross section transitions from the existing $27 \cdot$ meter ( $88^{\prime}$ ) CL to CL cross section to a 28 -meter ( $92^{\prime}$ ) CL to CL cross section, which would continue through the remainder of the $1.0 \cdot \mathrm{~km}(0.6 \cdot \mathrm{mile})$ segment. (See Plate 1.) New lanes would be constructed on the west side of existing U.S. 61 . A new $74.4 \mathrm{~m} \times 12.2 \mathrm{~m}$ ( $244^{\prime} \times 40^{\circ}$ ) Flint River bridge would be built for southbound traffic.

The Plank Road connection just south of the river would be relocated 76 meters ( $250^{\circ}$ ) south for improved sight distance between this intersection and the river bridge.

Right of way required for this segment would total 2.0 hectares (5.0 acres) of land. No homes or businesses would be acquired. Access rights have previously been acquired in this area. Costs are estimated for Segment 1 as follows:

| Grading | 321,670 |
| :--- | ---: |
| Paving | 393,155 |
| Resurfacing | 52,790 |
| Structures | 432,000 |
| Right of Way | 7,350 |
| Total | $\$ 1,206,965$ |

## Segment 2 - Proposed Construction

The $2.1-\mathrm{km}(1.3-\mathrm{mile})$ relocation section (Plate 1$)$, located within Segment 2, leaves the existing roadway at a point approximately 0.3 km ( 0.2 mile ) south of Flint Bottom Road and follows an alignment west of present U.S. 61. The new alignment, located 152 to 213 meters ( 500 to 700 feet) west of present U.S. 61, rejoins the existing roadway at 130th Street. A $28-m e t e r ~(92$ ') cross section $C L$ to $C L$ is proposed from the beginning of the segment to just north of 130th Street. From that point to the end of Segment 2, a 38 -meter (125') cross section is proposed.

The proposed westerly relocation of the highway through this area would minimize impacts to homes along existing U.S. 61 . It would also alleviate problems encountered in reconnecting entrances were the new lanes constructed along present alignment. Steep grades and curving roadways associated with the area's rough topography present problems with meeting the spacing guidelines for access points as required by the Priority III access control proposed for the project [a minimum of 305 meters ( 1000 feet) apart]. The relocation proposal would utilize existing pavement to provide access to properties along the present roadway.

Right of way for Segment 2 would involve 21 hectares ( 52 acres) of land, one acreage and one business.

Estimated costs for Segment 2 are as follows:

| Grading | $\$ 1,206,130^{*}$ |
| :--- | :---: |
| Paving | $1,449,870$ |
| Resurfacing | 68,335 |
| Structures | $\ldots$ |
| Right of Way | 328,000 |
| Totals | $\$ 3,052,335$ |


| $*$ |
| :---: |
| * Includes costs ( $\$ 19,870$ ) |
| for relocating existing |
| water lines. |

## Segment 3. Proposed Construction

This $12.9 \cdot \mathrm{~km}$ ( $8.0 \cdot \mathrm{mile}$ ) segment is shown on Plates 1,2 and 3. The cross section throughout is proposed to be 38 meters (125') CL to CL. The new lanes would be constructed on the west side of U.S. 61, for a distance of 3.4 km ( 2.1 miles ), from Pfeiff Road to a point approximately 0.3 km ( 0.2 mile ) south of 160 th Street. Thereon to the end of Segment 3, just south of Mediapolis, new lanes would be located east of U.S. 61. The crossover to the east side near 160th Street saves two potentially historic properties located on the west side: a brick one-story school building located in the southwest quadrant of the intersection with 160th Street, and a two-story brick home west of U.S. 61 and north of 170th Street.

Two properties located near the beginning of Segment 3 also have historic potential. A white frame one-story school house located in the northwest quadrant of the Pfeiff Road intersection is within the needed right of way for the project. A two-story brick home (formerly the Ripley Inn), east of U.S. 61 and 0.3 km ( 0.2 mile) north of Pfeiff Road, will not be impacted. A cultural resources study will be completed to address the project impacts on these and any other culturally significant properties within the corridor.

A new rural water tower, which serves the Rathbun Regional Water Association (RRWA), is located east of U.S. 61 and north of 182nd Street. (See Plate 3.) The tower itself will not be impacted by the proposed project. RRWA water lines, however, located along existing U.S. 61 through most of the project length, would be impacted. The greater part of these impacted water lines are located on private property. The relocation of existing water
lines would be coordinated with RRWA as project development continues. The costs associated with relocating the lines would be a part of monetary compensation to the affected property owners.

Right of way required for Segment 3 would total 53.2 hectares ( 131.5 acres) of land, five acreages, two farmsteads, one telephone equipment building, and the potentially historic frame school building previously noted. No businesses would be impacted. Costs are estimated for Segment 3 as follows:

| Grading | $\$ 2,706,500^{*}$ |
| :--- | ---: |
| Paving | $3,232,800$ |
| Resurfacing | $1,338,335$ |
| Structures | 23,900 |
| Right of Hay | 727.400 |
| Total | $\$ 8,028,935$ |

$*$
Includes costs ( $\$ 61,485$ )
for relocating existing
water lines.

## Segment 4 - Proposed Construction

This $6.1 \cdot \mathrm{~km}$ ( $3.8 \cdot \mathrm{mile}$ ) segment begins at Hawk Road approximately 0.8 km ( 0.5 mile ) south of the SCL of Mediapolis and proceeds northwesterly and northerly, bypassing the community to the west on one of two alignment options. (Refer to Plates 4 and 4A.) Segment 4 ends at 250th Street/south junction of County Road H28. The proposed cross section throughout this segment, for both options, would be 28 meters (92') CL to CL.

## Option 1 - Long Bypass

The Option 1 (long bypass) alignment leaves the existing highway near Hawk Road just south of the SCL of Mediapolis. The alignment proceeds northwest and north, bypassing the community 0.6 km ( 0.4 mile ) west of existing U.S. 61. This option/segment ends just north of 250 th Street/South Jct. Co. Rd. H28. The new four-lane roadway would be located approximately 53.4 meters (175') west of existing U.S. 61 at this location. (See Plate 4.)

Four connections between the bypass and existing U.S. 61 are proposed with this option, as follows:

- A diamond interchange, proposed at Mediapolis Road/County Road H38, would carry relocated U.S. 61 over the county road. To meet access control guidelines, frontage roads would be required for the first access points immediately north and west of the interchange.
o At-grade connections are proposed:
0 at Hawk Road 0.8 km ( 0.5 mile ) south of the SCL ,
0 at 240th Street, and
0 at 250th Street/S.Jct.Co.Rd. H28
A $0.6 \cdot \mathrm{~km}$ ( $0.4 \cdot \mathrm{mile}$ ) segment of U.S. 61 would be reconstructed on a slight easterly realignment south of Mediapolis to connect with Hawk Road and provide access to the community from the south. Visual screening to reduce headlight glare would be recommended along this relocated portion of U.S. 61.

It is estimated that 58.2 hectares (144 acres) of land would need to be acquired for this proposal. Outbuildings only, at two farmsteads, would need to be acquired as well.

## Option 2 - Short Bypass

The Option 2 (short bypass) alignment generally duplicates Option 1 from Hawk Road to Mediapolis Road/County Road H38 and the proposed diamond interchange. Immediately north of the proposed interchange, the Option 2 alignment curves back northeasterly, rejoining existing U.S. 61 at 235th Street. (See Plate 4A.)

As with Option 1, frontage roads would be required for the first access points immediately north and west of the interchange. Relocated U.S. 61 would be carried over the county road at the proposed interchange. Access to Mediapolis would also be provided by reconstructed segments of U.S. 61, on slight easterly realignment, both at Hawk Road where the bypass leaves U.S. 61 and at 235th Street where it rejoins the present highway. Visual screening to reduce headlight glare would be recommended along these relocated portions of U.S. 61.

From 235th Street north to the end of Segment 4 (just north of 250th Street/S.Jct.Co.Rd.H28), Option 2 proposes new four-lane construction throughout. From 235th Street, north 1.9 km ( 1.2 miles), the new four-lane roadway would be located immediately east of, and parallel to, existing
U.S. 61. Just north of 245th Street, the new four-lane would cross over existing U.S. 61 and continue northwesterly, joining the Option 1 alignment just north of 250th Street/County Road H28. At this location, centerline of the new highway would be located approximately 53.4 meters ( 175 feet) west of existing U.S. 61.

Outbuildings only, at three farmsteads, as well as an estimated 56.2 hectares ( 138 acres) of land, would need to be acquired for this proposal. Although Option 2 (short bypass) uses approximately 1.6 km ( 1.0 mile ) of existing right of way, the total Option 2 alignment is 118 meters (387') longer than Option 1 (long bypass) and involves a greater number of accessways and sideroad relocations, bringing the total right of way needs for Option 2 very near the Option 1 total.

Costs for Segment 4, considering both options, are estimated as follows:

|  | Option 1 | Option 2 <br>  <br>  <br> Long Bypass |
| :--- | :---: | :---: |
| Short Bypass |  |  |
| Grading | $\$ 3,449,020^{*}$ | $\$ 3,749,755 *$ |
| Paving | $4,087,680$ | $4,284,825$ |
| Structures | 740,000 | 721,850 |
| Right of Way | 345,000 | 386,450 |
| Totals | $\$ 8,621,700$ | $\$ 9,142,880$ |

## Segment 5. Proposed Construction

This $3.1-\mathrm{km}$ ( $1.9 \cdot \mathrm{mile}$ ) segment begins just north of 250 th St./ South Jct. Co. Rd. H28 and ends at the Louisa County line. (See Plates 4, 4A and 5.) Four lanes would be constructed, on relocation, from the beginning of the segment north 2.6 km ( 1.6 miles). The new alignment would be located from 53 to 171 meters ( $175^{\prime}$ to $560^{\prime}$ ) west of existing U.S. 61, and provide improved vertical and horizontal geometrics. The cross section would be 28 meters (92') CL to CL throughout.

Section III-F, Project Status/Related U.S. 61 Projects, discusses the scheduled 1998 shouldering, ditching and resurfacing project which begins at the county line and proceeds north. Considering this scheduled improvement, the remaining 0.5 km ( 0.3 mile ) in

Segment 5 would involve only the construction of two new southbound lanes west of existing U.S. 61 on a cross section varying from 28 meters ( $92^{\prime}$ ) to 46 meters ( $150^{\prime}$ ) CL to CL. The present roadway would serve as the northbound lanes.

It is estimated that 25.9 hectares ( 64 acres) of land would need to be acquired for Segment 5. Displacements include two acreages and one outbuilding at another site. Costs are estimated as follows:

| Grading |  |
| :--- | ---: |
| Paving | $1,372,270$ |
| Structures | $1,665,290$ |
| Right of Way | 256,150 |
| Total | $\$ 4,356,710$ |

## Segment 6 - Proposed Construction

This segment begins at the Des Moines/Louisa County line and extends north 2.3 km ( 1.4 miles) to 0.6 km ( 0.4 mile ) north of Iowa 78, the end of the project. (See Plate 5.) Two new lanes for southbound traffic would be constructed west of U.S. 61 on a cross section varying from 28 meters (92') to 58 meters ( $190^{\circ}$ ), CL to CL. The Iowa 78/County Road H22 connection would be reconstructed at-grade. See Section III-F, Project Status/Related U.S. 61 Projects, for additional information concerning programmed improvements in this area.

It is estimated that 8.7 hectares ( 21.5 acres) of land would need to be acquired for Segment 6. Displacements include two acreages. Costs are estimated as follows:

| Grading | $\$ 445,955$ |
| :--- | :---: |
| Paving | 545,060 |
| Structures | $\cdots$ |
| Right of Way | 127,400 |
| Total | $\$ 1,118,415$ |

## B. No Build Alternative

A no-build alternative would not correct present deficiencies in this segment of U.S. 61; hence, would not accomplish the primary objectives of improving the level of service in the project area and creating a safer traveling environment within the project corridor.

## C. Access Control

Priority III access control standards are proposed throughout the project. With the primary access to Mediapolis provided at the proposed diamond interchange, some out-of-distance travel might be required for area residents, agricultural producers, and emergency equipment in accessing and serving the area. Access along the remaining rural portions of the project corridor would be provided at-grade, at minimum 305 -meter ( 1000 -foot) locations. This would eliminate direct access for farmsteads and residences at some locations along the route, requiring the use of frontage roads to the nearest predetermined access location. Public frontage roads, which serve more than one property, would be publicly maintained, while private roads, serving only one property, would be maintained by that individual. While the primary purpose of access control is to provide a safer facility, by limiting the points of ingress and egress, it also follows that future roadside development within the corridor is controlled to a certain extent.

## D. Construction Cost Estimates

Table 3 outlines cost estimates for construction, considering each of the Mediapolis bypass options.
E. Summary of Costs and Anticipated Right of Way Impacts

Project construction costs and anticipated right of way impacts within each of the six construction segments are summarized as follows:

Segment 1
Length - 1.0 km ( 0.6 mile )
Construction Costs - \$1,206,965
ROW Needs - 2.0 hectares ( 5.0 acres)
Displacements - none
Segment 2
Length - 3.2 km (2.0 miles)
Construction Costs - $\$ 3,052,335$
(includes $\$ 19,870$ for relocation of rural water lines)
ROW Needs - 21.0 hectares ( 52.0 acres)
Displacements - 1 acreage, 1 business

## TABLE 3

## COST ESTIMATES

| Construction Segment | 1 | 2 | 3 | 4 |  | 5 | 6 | TOTALS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bypass Option** | 1 or 2 | 1 or 2 | 1 or 2 | $\begin{gathered} 1 \\ \text { (long) } \end{gathered}$ | $\begin{gathered} 2 \\ \text { (short) } \end{gathered}$ | 1 or 2 | 1 or 2 | $\begin{aligned} & \text { Opt. } 1 \\ & \text { (long) } \end{aligned}$ | $\begin{aligned} & \hline \text { Opt. } 2 \\ & \text { (short) } \end{aligned}$ |
| Grade | 321,670 | *1.206.130 | *2,706,500 | *3,449.020 | *3,749,755 | 1,372,270 | 445,955 | 9,501,545 | 9.802.280 |
| Pave | 393,155 | 1.449.870 | 3,232.800 | 4.087 .680 | 4,284.825 | 1,665,290 | 545.060 | 11.373.855 | 11.571.000 |
| Resurface | 52.790 | 68.335 | 1,338.335 | - | -- | -- | -- | $1.459 .460$ | 1.459.460 |
| Structures | 432,000 | -- | 23.900 | $740.000$ | 721,850 | 1,063,000 | -- | $2.258 .900$ | 2,240,750 |
| Right of Way | 7.350 | 328,000 | 727,400 | 345,000 | 386,450 | 256,150 | 127.400 | $1.791,300$ | 1.832 .750 |
| TOTALS | 1,206,965 | 3,052,335 | 8,028,935 | $8.621 .700$ | 9,142.880 | 4.356.710 | 1,118,415 | 26.385.060 | 26,906.240 |

* Grading estimates in these segments include costs for relocating existing rural water lines.
** Option 1 includes long bypass proposal.
Option 2 includes short bypass proposal.


## Segment 3

Length - 12.9 km ( 8.0 miles )
Construction Costs - \$8,028,935
(includes $\$ 61,485$ for relocation of rural water lines)
ROW Needs - 53.2 hectares (131.5 acres)
Displacements - 5 acreages, 2 farmsteads,
1 telephone equipment building, and
1 potentially historic school building
Segment 4 (considering long bypass option)
Length $\cdot 6.1 \mathrm{~km}$ ( 3.78 miles)
Construction Costs - $\$ 8,621,700$
ROW Needs - 58.2 hectares ( 144.0 acres)
Displacements - 2 sites
involving outbuildings only
Segment 4 (considering short bypass option)
Length -6.2 km ( 3.85 miles). Though the short bypass alignment rejoins U.S. 61 after 3.4 km ( 2.1 miles), new four-lane construction is proposed throughout the segment, which results in a total length which is 118 meters (387 feet) longer than with the long bypass option.
Construction Costs - \$9,142,880
ROW Needs - 56.2 hectares ( 138.0 acres)
Displacements - 3 sites involving outbuildings only

Segment 5
Length - 3.1 km ( 1.9 miles )
Construction Costs - \$4,356,710
ROW Needs - 25.9 hectares ( 64.0 acres)
Displacements - 2 acreages and 1 site involving outbuildings only

Segment 6
Length • 2.25 km (1.4 miles)
Construction Costs - $\$ 1,118,415$
ROW Needs - 8.7 hectares ( 21.5 acres)
Displacements - 2 acreages
A summary of Segments 1-6, considering the long bypass option, reflects the following:

- 28.55 km ( 17.68 miles) in length
- \$26,385,060 estimated cost
- displaces 10 acreages, 2 farmsteads, 5 sites involving outbuildings only, and one business
- 169.0 hectares (418 acres) additional right of way
- 140.4 hectares (347 acres) prime/unique farmland

A summary of Segments 1-6, considering the short bypass option, reflects the following:

- 28.65 km ( 17.75 miles ) in length
- \$26,906,240 estimated cost
- displacements identical to long bypass option, except there would be one additional site involving outbuildings only
- 167.0 hectares ( 412 acres) additional right of way
- 138.8 hectares ( 343 acres) prime/unique farmland

A review of the above summarized data reflects that the project length, overall costs and right of way impacts are estimated to be slightly greater with Option 2, the short bypass proposal, the exception being additional right of way acres needed. This infrequent finding is explained in part, as follows: The alignment for Option 2, the short bypass proposal, rejoins U.S. 61 at 235th Street just north of Mediapolis. Continuing north 1.9 km ( 1.2 miles) from 235th Street, four-lane construction is proposed parallel to, and immediately east of, existing U.S. 61. This section of four-lane construction is included with this project in order to minimize future disruption to adjacent property owners. Though approximately 1.0 mile of existing right of way is utilized on the short bypass option, the total Segment 4 alignment length is 118 meters ( 387 feet) longer with Option 2, the short bypass, than with Option 1, the long bypass. Option 2 also involves a greater number of accessways and sideroad relocations.

## F. Project Status/Related U.S. 61 Projects

The improvement discussed in this document is shown in the planning study section of the 1996-2000 Iowa Transportation Improvement Program as a Group I project. Based on this environmental assessment, a location public hearing will be held. The DOT Commission will then select an alternative to be advanced for further development.

Also, included in the five-year construction program is a U.S. 61 shouldering project scheduled for completion in 1998. This shouldering project overlaps the most northerly 2.3 km ( 1.4 miles ) of the project being studied in this document. Shouldering, ditching and resurfacing begin at the county line and continue north $1.6 \mathrm{~km}(1.0 \mathrm{mile})$ to a point just south of Iowa 78 where reconstruction on present alignment begins. Reconstruction continues northerly 11.3 km ( 7.0 miles ). Access rights are to be acquired with this 1998 project.
IV. PROJECT IMPACTS

## A. Socio-Economic Impacts

The proposed improvement to U.S. 61 is not expected to significantly affect the social or economic character of the project corridor. There are no unique social or economic conditions in the area, except for the distinction that U.S. 61 through the area is a regular commuter route connecting Mediapolis, Wapello and vicinity with Burlington and points south. U.S. 61 also serves as the primary transportation corridor for Burlington and other towns along the Mississippi River, in route to the Quad Cities.

Land use in the corridor is dominated by agricultural uses, primarily row crops and pastureland. Farmstead dwellings and homes on small acreages are typical along the route. The Burlington north corporate limits are located just south of the project. Mediapolis, a farming community of 1,637 people and located 12 miles north of Burlington, is proposed to be bypassed to the west by the project. It is not anticipated that the proposed improvement would generate significant land use changes along U.S. 61 within the study corridor.

The most adverse impact of the proposed improvement would be the infringement on properties adjacent to the existing facility. Right of way impacts along the project, inherent to highway improvements of this type, are summarized by segment in Table 4; considering both long and short Mediapolis bypass options.

Analyzing the preliminary information available on possible relocations, all of the homes to be displaced within the highway corridor are either rural farmstead dwellings or houses on small acreages and are primarily owner occupied. Local contacts were made to ascertain the availability of current replacement housing in the area. From this review of the area's current real estate market, it was determined that it is very possible there will not be sufficient replacement housing available.

Because providing replacement housing can be difficult, every attempt is made to minimize impacts by incorporating additional lead time into the project planning process. Additionally, complicated relocation problems are being further addressed by the state's commitment to provisions of 49 CFR 24.404 (Replacement Housing of Last Resort).

It is the policy of the state of Iowa that displaced individuals receive fair and equitable treatment, and do not suffer disproportionately from highway programs destined for the public as a whole. Those individuals required to move as a result of a highway construction project, whether an owner or tenant, will be

## TABLE 4

## PROPOSED RIGHT OF WAY IMPACTS

| Construction Segment | 1 | 2 | 3 | 4 |  | 5 | 6 | TOTALS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bypass Option* | 1 or 2 | 1 or 2 | 1 or 2 | $\frac{1}{(\text { long })}$ | $\begin{gathered} 2 \\ \text { (short) } \end{gathered}$ | 1 or 2 | 1 or 2 | $\begin{aligned} & \text { Opt. } 1 \\ & \text { (long) } \end{aligned}$ | $\begin{aligned} & \text { Opt. } 2 \\ & \text { (short) } \end{aligned}$ |
| Acreages | -- | 1 | 5 | - | -- | 2 | 2 | 10 | 10 |
| Farmsteads | -- | $\cdots$ | 2 |  | -- | -- | -- | 2 | 2 |
| Other B1dgs. | -- | -- | 1 telephone equip. <br> 1 old school | 2 sites outbldgs. only | 3 sites outbldgs. only | $\begin{array}{ll} 1 & \text { site - } \\ \text { outbldgs. } \\ \text { only } \end{array}$ | -- | 5 | 6 |
| Businesses | -- | 1 | -- | $\because$ | -- | -- | -- | 1 | 1 |
| Farmland hectares (acres) | 2.0 (5.0) | 21.0 (52.0) | 53.2 (131.5) | 58.2 (144.0) | 56.2 (138.0) | 25.9 (64.0) | 8.7 (21.5) | 169 (418) | 167 (412) |

* Option 1 includes long bypass proposal.

Option 2 includes short bypass proposal.
eligible for relocation assistance advisory services, and may be eligible for moving assistance, supplemental replacement housing payments, and reimbursement for certain expenses incurred in purchasing replacement housing (such as the difference in increased mortgage interest costs). Every attempt is made to provide equal or better housing for all relocatees. Relocation assistance agents are employed by the state to explain all available options.

The primary beneficial impact of the proposed improvement would be the increase in operating safety and an improved level of service. The construction of a higher volume highway facility may enhance the area's attraction for new business and industry, and also reduce travel time for commuters to area employment centers. shopping areas, and area colleges and universities. The improved access would make communities along the project corridor more attractive places in which to reside or from which to commute, and would provide an overall net positive impact within the project corridor.

The telephone equipment building at 180th Street/NE 48th Avenue is anticipated to be displaced by the project.

The Rathbun Regional Water Association (RRWA) tower, located east of U.S. 61 and north of 182 nd Street, will not be impacted by the project. Existing RRWA water lines along U.S. 61 through much of the project would, however, be impacted. These affected water lines are located primarily on private property.

The relocation of the telephone equipment site, the rural water lines, and any other utility adjustments, would be coordinated with the appropriate local provider in order to assure the maintenance of essential services during the construction period. Other temporary inconveniences could also occur during construction; however, access through the area would be provided for local traffic and emergency vehicles.

## 1. Farmland Protection Policy Act

Farmland Conversion Impact Rating forms were used to determine farmland impacts and project impacts to prime and unique farmland within the project limits. The results of this review are shown in the following table.

## TABLE 5

PPRIME FARMLAND IMPACTS

| Farmland <br> hectares (acres) | Considering <br> Long Bypass | Considering <br> Short Bypass |
| :---: | :---: | :---: |
| Total | $169(418)$ | $167(412)$ |
| Pri玉e | $140(347)$ | $139(343)$ |

The completed Forms AD-1006 for Des Moines and Louisa Counties are included in the Comments and Coordination Section.

## B. Secondary Impacts

As previously documented, the upgrading and modernization of U.S. 61 is not expected to precipitate major changes in land use within the study corridor. Access rights would be acquired along the corridor to provide a measure of control over potential developments adjacent to the new highway.

## 1. Economic Impacts of Highway Bypasses

As previously stated, an important consideration to businesses and industries which rely on highways for produce movement is to be located in communities with access to free flowing highway corridors. In Iowa, this factor continues to grow in importance as the state's rail network is reduced through abandonments. This factor has placed added emphasis on the state's highways as the principal mode of surface transportation to move bulk commodities, raw materials, and finished products with speed and economy.

Highway bypasses are an integral part of the comprehensive highway planning process when fast, safe, and efficient transportation facilities are to be provided. Although highly desired by highway users because they provide motorists with the option of avoiding congested areas, bypasses are not generally welcomed by local businesses because of the potential for lost commerce represented by diverted traffic.

Recent studies conducted in Iowa, together with interviews of business and community leaders suggest such expectations may not be warranted, however. Over 85 bypassed communities were included in the various evaluations associated with
these studies, which indicated that while actual beneficial and adverse consequences of a highway bypass would be unique to each community, the general experience has been that bypasses are economically and socially desirable, and represent a stimulus for regional economic development.

In predicting secondary impacts from the proposed bypass of Mediapolis, these studies cited above and past experience with bypassed communities in Iowa indicate that potential adverse impacts would be minimal and limited to the short term. The enhanced climate for regional economic growth provided by improved traffic flow and greater community access would result in offsetting economic gains that would, over the long term, represent a positive economic influence on area commerce.

## C. Environmental Impacts

1. Air Quality

The proposed project is in an area for which the State Implementation Plan for attaining and maintaining the national ambient air quality standards contains no transportation control measures; therefore, the conformity rules established by the Clean Air Act Amendments of 1990 do not apply to the project. Because the proposed project would be located in an area that is rural and agricultural in character, the effects on air quality from the implementation of this project are expected to be minor.

During the construction period, fugitive dust (particulates) would constitute the principal air contaminant (resulting from soil exposed to wind and construction traffic). During the construction period, however, contractors would be required by standard construction specifications to comply with state regulations including limits on the generation of fugitive dust.
2. Noise Impacts

Due to the rural nature of the U.S. 61 corridor, concentrated noise sensitive land use that would require special abatement features is not present. In the bypass area and along the relocation segments, traffic noise impacts would occur at isolated rural farmsteads which are not now affected by highway traffic noise. In such instances where rural homes remain near the new highway a noise impact occurs in the form of a substantial increase over existing noise levels. In such cases the impact must be accepted as an unavoidable environmental cost of the project and is regarded as a trade-off for the public
convenience and safety benefits of the transportation improvement. Conventional individual noise abatement strategies such as walls and/or berms are not practical at isolated residences because of high costs involved. Because of this cost factor, noise abatement in Iowa is focused on urban areas where many homes can benefit from a single structure. Also, because homes in urban areas are generally closer to the roadway, the noise abatement structure is more effective.

Along present U.S. 61, upon completion of four-laning, noise levels might not increase over existing levels, but the absolute noise level might approach the FHWA noise abatement criterion which also would constitute a noise impact. Again, special noise abatement for individual homes is not practical, so such an impact must be accepted as an unavoidable cost. Because no concentrated development occurs adjacent to the U.S. 61 study corridor where cost effective noise abatement could be applied, no special traffic noise abatement features are recommended as part of the eventual project design.

The technical traffic noise study is summarized on the analysis form included in Appendix B.
3. Water Quality Impacts/River and Floodplain Crossings

The proposed project would require the construction of new bridges as outlined within each segment description in Section III, Proposed Alternatives and as reflected on the topographic plates. Culverts would be utilized at all other creeks and drainageways traversed by the project. Drainage issues have been coordinated with the DOT Preliminary Bridge staff. Necessary permits from the Iowa Department of Natural Resources would be obtained when precise design stage information is developed.

Standard construction specifications would assure that erosion during construction would be controlled to minimize sedimentation into receiving waters. A fast growing stabilizing crop and permanent roadside seeding which includes native grass species will minimize erosion after grading operations are completed.

Both Des Moines and Louisa Counties participate in the National Flood Insurance Program (NFIP) and are thus required by state and federal statutes to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These regulations must be applied to all development in the floodplain of a regulated area, including the proposed highway improvements.

In the opinion of the regulatory agencies concerned (Federal Emergency Management Agency, U.S. Army Corps of Engineers, and Iowa Department of Natural Resources), highway construction within the study corridor would not present a flooding risk. There would be no long-term impacts on the natural and beneficial values of area floodplains, nor would project construction be an incompatible development with respect to the base (100) year floodplain within the construction corridor.

Project construction, regardless of alternative, would not require a federal floodplain development permit and would be consistent with national floodplain insurance requirements'. After alternative selection is completed and design details formalized, application materials would be forwarded to obtain floodplain construction permits from the Iowa Department of Natural Resources as well as 404 and 401 permits where applicable.

## 4. Wetlands, Woodlands, Natural Areas, and Endangered Species

The existing U.S. 61 alignment in Des Moines County traverses primarily the Mahaska-Taintor soil association of the county's uplands which is used for cultivated crops. Although these soils are somewhat poorly drained, no significant natural wetland areas are identified in the study corridor. The U.S. 61 reconstruction is not expected to affect the general wetland resources of the county. No publicly-owned wetland areas which signify special natural quality will be affected by the project.

At the Flint River crossing approximately three acres of oxbow wooded wetland would be converted to transportation use to avoid the taking of developed residential properties. Mitigation for this unavoidable impact will likely take the form of plantings on hydric soils where excess right of way might be available; the exact location will be determined during final design and the Section 404 permit process. This site appears to be the most significant jurisdictional wetland impact as a result of the U.S. 61 improvement, but has not been identified as being of special concern to the local resource agency or Iowa Department of Natural Resources.

The crossing of minor creeks and drainageways would require the only encroachments into other natural areas. These crossings are not considered to have major natural area conversions, and are not considered significant natural area losses because of the local prevalence of similar areas.

No other significant natural areas or special habitats which protect threatened or endangered plant or animal species will be affected by the U.S. 61 project.

Des Moines and Louisa Counties are included in the area of southeast Iowa where special precautions are taken to protect possible summer habitat for the federally-protected Indiana bat, Myotis sodalis. Although no suitable habitat for this species was identified at this early stage of project development, mature trees affected by the project's final design will be surveyed to determine their suitability to provide summer habitat and, if necessary, special clearing practices will assure that adverse impacts to this bat species will be avoided.

## 5. Biodiversity

Highway construction is often associated with the removal of natural areas and a reduction in biodiversity by insertion of a transportation corridor through woodlands, wetlands or even pasturelands that, if left undisturbed, might revert to a native prairie character. With the growing awareness of the value of such natural areas and their relative scarcity compared to cultivated farmland, today's highway engineers try to utilize existing highway right of way to the maximum extent possible. When new transportation corridors are required, such as the U.S. 61 bypass of Mediapolis and other relocation areas, they are located such that effects on natural areas are avoided or minimized.

Because of this desire to avoid natural areas, construction of highway bypasses around Iowa cities, towns and communities, and construction of highways on new location, usually affects Iowa cropland. This conversion of cultivated areas to transportation use can frequently result in enhanced biodiversity. The monoculture of planted crop is replaced by a transportation corridor two-thirds of which is a permanent ground cover that includes native grasses. This grassy zone between the highway itself and the cultivated farmland serves as permanent habitat for small mammals, small game species, and a variety of insects including butterflies. Because of this habitat value, the highway right of way is a major food source for raptors such as the red-tailed hawk and the American kestrel. Lower lying portions of the highway right of way might also display wetland features such as cattail stands. At other locations mature trees might be preserved within the right of way or tree plantings included to provide nesting sites for song birds and add to aesthetic variety. Borrow areas excavated for highway fill usually occur on cultivated cropland as well. These borrows are constructed in a manner
which results in large, more identifiable and functional created wetland areas that help compensate for unavoidable wetland loss and also provide scenic views from the highway. Thus, although the new highway environment is not one of natural solitude and vast biological variety, its contribution to biodiversity in Iowa's agricultural areas, where the natural biodiversity has been greatly reduced, is noteworthy.

The Iowa DOT has recently published an informational brochure on the potential for enhanced use of the highway right of way by the American kestrel, a small bird of prey that is experiencing a dwindling of natural nesting sites. This publication demonstrates an example of the value of the highway right of way's contribution to biodiversity in Iowa's agricultural landscape. (Varland, Andrews, and Ehresman, Establishing a Nest Box Program for American Kestrels Along an Interstate Highway - Recommendations based on the Iowa Program, 1992)

## 6. Parks and Recreation Areas

No parks or recreation areas would be directly impacted by the proposed project. The U.S. 61 study corridor may; however, involve a portion of the Hoover Nature Trail, a hiking, biking and nature trail, as shown in Figure 5. This trail is being developed and constructed by Hoover Nature Trail, Inc. (HNT), a non-profit Iowa corporation.
Ultimately, Hoover Trail is proposed to traverse 185 km ( 115 miles ) between Cedar Rapids and Burlington, with a spur to Muscatine, and would utilize abandoned Rock Island Railway beds where possible. Completed trail segments would be managed and maintained by county conservation commissions, and trail user fees would pay annual maintenance costs. Federal funding for construction of the remaining Des Moines County portion of the trail, from Burlington north to the Louisa County line, was recently approved by the Iowa DOT Commission.

As noted previously, the trail location preferred throughout by HNT would follow abandoned railway beds. Alternate routes have been planned, however, for those trail segments where negotiations to acquire the abandoned rail beds are not successful, as has been the case in the Mediapolis area. Within the U.S. 61 study area the proposed alternate route for Hoover Trail would follow U.S. 61, beginning at the intersection with County Road H50 (Stony Hollow Road), and continuing northerly approximately 18 km ( 11.2 miles) to Iowa 78. The trail would then follow Iowa 78 easterly approximately 5.2 km ( 3.25 miles) to the point where it would rejoin and follow the abandoned rail bed northerly.


Figure 5

Utilizing the alternate trail location along relocated U.S. 61 right of way would require that the trail cross, east to west, under the relocated highway, via a planned box culvert, near Sta. 884士, approximately 0.8 km ( 0.5 mile ) north of NE 176th Avenue/County Road H28.

The Iowa DOT will continue coordination efforts with HNT throughout the U.S. 61 project development, to assure a maximum effort to accommodate the trail in the project design.

## 7. Cultural Resources

Because this project involves the acquisition of new right of way, a Phase I Cultural Survey will be completed to determine project impacts within the study corridor. This study will be completed prior to making a final assessment of project impacts and will be coordinated with the Iowa State Historical Preservation Officer (SHPO). The results will be included in the final environmental document for this project.

Four properties which appear to have historic potential are located within the U.S. 61 study corridor. These properties are listed here in the order they are encountered along the project, south to north.

- A two-story brick home, formerly the Ripley Inn, located east of U.S. 61 and 0.3 km ( 0.2 mile ) north of Pfeiff Road at the beginning of Segment 3. (See Plate 1.) It is not anticipated that this property would be impacted.
- A white frame one-story school building (Excelsior School), located in the northwest quadrant of the Pfeiff Road intersection, near the beginning of Segment 3. (See Plate 1.) This structure is proposed for acquisition.
- A brick one-story school building (Franklin Mills School) located in the southwest quadrant of the 160th Street intersection in Segment 3. (See Plate 2.) The proposed construction of new lanes crosses over to the east side just south of this property, in part to avoid this potentially historic structure.
- A brick two-story home located west of U.S. 61 and north of 170 th Street in Segment 3. (See Plate 2.) As with the Franklin Mills School site (noted above), the proposed construction of new lanes is located on the east side of U.S. 61 in this area, avoiding impact to this potentially historic structure.


## 8. Hazardous Waste

As part of the early coordination process for this environimental assessment, the following public entities were contacted regarding the identification of potential hazardous waste sites within the project corridor.

- Iowa RCRA Section of U.S. Environmental Protection Agency
- Environmental Protection Division of the Iowa Department of Natural Resources (DNR)
- Des Moines and Louisa County Engineers
- Mayors of communities located within project corridor

DOT staff also completed an on-site field review of the corridor.

To date two sites in the Des Moines County portion of the project have been identified as potentially contaminated. They are described as follows:

- a former oil station site located in the NE quadrant of the intersection of U.S. 61 with a local road, approximate Sta. $241+50 \mathrm{Rt}$. (See Plate 2.)
- a "roadhouse" site, circa 1930, located in the NE quadrant of the intersection of U.S. 61 with 190th Street/County Road H40 (also known as Sperry Road), approximate Sta. 480+00 Rt. It is not presently known whether gas was sold on this site. (See Plate 3.)

Because this project involves the acquisition of new right of way, a Phase I hazardous waste survey will be completed to determine if these, or any additional sites noted as potentially contaminated, would warrant a Phase II survey. During Phase II, soils samples are taken to determine if contamination has occurred and if so, the extent of same. Based on Phase II findings, alternatives may include realignment of the corridor to avoid contaminated soils and/or clean-up operations coordinated with the Iowa DNR.

The hazardous waste survey will be completed prior to making a final assessment of project impacts. A summary will be included in the final environmental document for this project.

United States Department of Agriculture

Natural Resources
Conservation
Service

1805 West Jefferson Fairfield, IA 52556 Phone 515-472-8411

SUBJECT: Farmland Conversion Impact Ratings
DATE: Feb. 15, 1996 Form AD-1006
USS. 61 - Des Moines/Louisa Cos. Mediapolis Bypass

TO: Margaret Westvold
Office of Project Planning
Iowa Department of Transportation
800 Lincolnway
Ames, Iowa 50010

Dear Ms. Westvold,
Your request for the completion of farmland conversion impact ratings (2 separate $A D-1006$ Forms) for the projects captioned above have been referred to this office. Parts II, IV, and V on the enclosed forms have been completed.

When you have completed the remainder of these forms, please return a copy of each to this office for our records.

Please let me know if you have any questions or need further assistance.


Mark R. La Van
Area Resource Soil Scientist
cc: Mike Lewitke, District Conservationist, NRCS

## U.S. Department of Agriculture

## FARMLAND CONVERSION IMPACT RATING




Reason For Selection:

## FARMLAND CONVERSION IMPACT RATING

| PART 1 (To be completed by Federal Agency) |  | Date Of Land Evaluation Request January 1996 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name Of ProjectU.S |  |  | Federal Agency Involved |  | Highway Administrat |  |
| Proposed Land Use : Hi ghway |  | County And State |  | Des Moines County, Iowa |  |  |
|  |  |  |  |  |  |  |
|  <br>  |  |  |  |  |  |  |
|  |  |  |  | Amount Of Farmland'As Defined in FPPA Acres 1473201556 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| A. Total Acres To Be Converted Directly |  |  | 396 | 390 |  |  |
| B. Total Acres To Be Converted Indirectly |  |  | -- | -- |  |  |
| C. Total Acres In Site |  |  | 396 | 390 |  |  |
|  |  |  | \%mt | +htas |  | - |
|  |  |  | 328.6 | 323.7 | 4tan土! | 及т, |
| TB - Total Acres Statewide And Local Important Farmland taneme |  |  | $\cdots$ | 0 | \% ${ }^{2}$ \% | \% |
| graviefcentage Offarmland In CountyOr Local Govt: Unit To Be Converted |  |  | $<0.01$ | $<0.01$ | $\because$ - | 84 |
| D Dinperceotage Of Farmland In Goyt Jurisdiction With Same Or Higher Relative Value |  |  | 43.8 | 32.3 | Hitinemer | ¢ |
| PARTVU(To be completed by SCS) Land Evaluation Criterion <br>  |  |  | 79.5 | $83: 5$ | K+ |  |
| PART VI (To be completed by Federal Agency) <br> Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b) |  | $\begin{gathered} \text { Maximum } \\ \text { Points } \end{gathered}$ |  |  |  |  |
| 1. Area In Nonurban Use |  | 15 | 15 | 15 |  |  |
| 2. Perimeter In Nonurban Use |  | 10 | 10 | 10 |  |  |
| 3. Percent Of Site Being Farmed. |  | 20 | 20 | 20 |  |  |
| 4. Protection Provided By State And Local Government |  | 20 | 20 | 20 |  |  |
| 5. Distance From Urban Builtup Area |  |  | -- | -- |  |  |
| 6. Distance To Urban Support Services N/A |  |  | -- | -- |  |  |
| 7. Size Of Present Farm Unit Compared To Average |  | - 10 | 10 | 10 |  |  |
| 8. Creation Of Nonfarmable Farmiand |  | 25 | 0 | 0 |  |  |
| 9. Availability Of Farm Support Services |  | 5 | 5 | 5 |  |  |
| 10. On-Farm Investments |  | 20 | 20 | 20 |  |  |
| 11. Effects Of Conversion On Farm Support Services |  | 25 | 0 | 0 |  |  |
| 12. Compatibility With Existing Agricultural Use |  | 10 | 0 | 0 |  |  |
| TOTAL SITE ASSESSMENT POINTS |  | 160 | 100 | 100 |  |  |
| PART VII (To be completed by Federal Agency) |  |  |  |  |  |  |
| Relative Value Of Farmland (From Part V) |  | 100 | 79.5 | 83.5 |  |  |
| Total Site Assessment (From Part VI above or a local site assessment) |  | 160 | 100 | 100 |  |  |
| TOTAL POINTS (Total of above 2 lines) |  | 260 | 179.5 | 183.5 |  |  |
| Site Selected: | Date Of Selection |  |  | Was A Local Site Assessment Used? Yes $\square \quad$ No |  |  |

Reason For Selection:

TERRY E. BRANSTAD, GOVERNOR

February 19, 1996

Margaret Westvold
lowa Department of Transportation
800 Lincoln Way
Ames, IA 50010
RE: NHS-61-2(50)-12-29 Improvement of U.S. 61 in Des Moines and Louisa Counties.

Dear Ms. Westvold:
Thank you for inviting our comments on the impact of the above referenced project on protected species and rare natural communities.

After review of the project area, the department has the following comments:

1. The Orange-throated darter (Etheostoma spectabile), a state threatened fish species occurs in Flint Creek (in Starr's Cave State Preserve) and its tributary Knotty Creek. It also occurs in Smith Creek at the Des Moines-Louisa County line. The department recommendation is to minimize disturbance to the streams.
2. Three rare plant species occur in the general vicinity of the project near Burlington. Downy Woodmint (Blephilia ciliata, State Threatened) has been recorded from the Starr's Cave State Preserve located east of the right-of-way. Also, the Green Fringed Orchid (Platanthera lacera) and Adder's-tongue Fern (Ophioglossum vulgatum) are known to occur in the Army Ammunition Plant property located west of the project; these two species are presently classified as Special Concern, but are being considered for State Endangered status. Due to their proximity to the right-of-way, there is potential that these three species may occur in the project area. The department recommends surveys for these species.

This letter is a record of review for protected species and rare natural communities in the project area. It does not constitute a permit and before proceeding with the project, you may need to obtain permits from the DNR or other state and federal agencies.

If you have any questions about this letter or if you require further information, please contact Daryl Howell at (515) 281-8524 or John Pearson at (515) 281-3891.


LARRY J. WIL SON, DIRECTOR
IOWA DEPARTMENT OF NATURAL RESOURCES
LJW:s/b

TERRY E. BRANSTAD, GOVERNOR

1 February, 1996

Ms. Margaret Westvold
Iowa Department of Natural Resources
800 Lincoln Way
Ames, Iowa 50010

SUBJECT: Hazardous waste site concerns in the vicinity of proposed improvements to U S. 61 in Dcs Moines and Louisa Counties

Dear Ms. Westvold:
I have reviewed current and historical records to determine whether there are any CERCLA (Superfund) sites or related sites administered under state authority in the corridor where you propose improvements to U.S. 61. Outside of the city limits of Burlington there do not appear to be any such sites of concern.

If you have any further questions, please feel free to call me at 515/281-7040.
Respectfully,

cc: FO 6

February 13, 1996

Ms. Margaret Westvold
Office of Project Planning
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010
Ref. No. Des Moines County
NHS-61-2(50)-19-29

Dear Ms. Westvold:
The attached map shows two obliterated roadway sites which are potential hazardous waste sites.

Concerning the route, Des Moines County and the City of Burlington and West Burlington are developing a transportation comprehensive plan with Stanley Consultants. A Burlington bypass for Highway 61 is one potential element of that plan. IDOT - Fairfield has requested that the three jurisdictions speak with one voice on the subject, and we hope to come to some consensus in the near future. Thank you for your patience.




# Federal Emergency Management Agency 

Region VII
2323 Grand Blvd., Suite 900
Kansas City, MO 64108-2670
JAN 301996
Margaret Westvold
Office of Project Planning
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010
Dear Ms. Westvold:
This is in response to your correspondence dated January 16, 1996 on the environmental assessment (EA) for the improvement of U.S. Highway 61 in Des Moines and Louisa Counties.

Both Des Moines and Louisa Counties participate in the National Flood Insurance Program (NFIP). Communities that participate in the NFIP are required by state and Federal statutes to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These regulations must be applied to all development in the floodplain of a participating community, including development undertaken by a State agency.

For compliance with floodplain management regulations, IDOT can either follow the community requirements by obtaining a "Record of Coordination-Floodplain Management" form or receive a State floodplain development permit from the Department of Natural Resources (DNR).

More importantly are the potential impacts that may occur if the project encroaches into a delineated floodway. This must be considered by the communities or DNR when floodplain development permits are issued.

Our office would emphasize that IDOT obtain all appropriate permits. If there are further questions, please contact Ross Richardson of my staff at (816) 283-7005.

Sincerely,


Cc: Bill Cappuccio, Iowa DNR
Ross Richardson, Iowa CCO

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT. CORPS OF ENGINEERS CLOCK TOWER BUILDING - P.O. BOX 2004 ROCK ISLAND. ILLINOIS 61204.2004

REPLYTO ATTENTION OF

Planning Division (10-1-7c)

Ms. Margaret Westvold
Office of Project Planning
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010
Dear Ms. Westvold:
I received your letter dated January 16, 1996, concerning improvement of U.S. 61 in Des Moines and Louisa Counties. Rock Island District staff reviewed the information you provided and have the following comments:
a. Your proposal does not involve Corps of Engineers (Corps) administered land; therefore, no further Corps real estate coordination is necessary.
b. Any proposed placement of fill or dredged material into waters of the United States (including wetlands) requires Department of the Army (DA) authorization. During this planning and design stage, efforts must be made to avoid wetland impacts where practicable and minimize impacts when wetlands cannot be avoided. It is likely that the Iowa Department of Transportation (DOT) will be required to mitigate for impacted wetlands.

When the alignment is final and plans become available, the Iowa DOT should complete and submit a joint application for the work. The application should be submitted as early as possible. your point of contact in our operations Division, Regulatory Branch, will be Mr. Neal Johnson, telephone 309/794-5379.
c. Floodplain issues cannot be evaluated without detailed plans. When the final plans become available, please send a copy to Mr. Jim Murray of our Planning Division, Flood Control and Special Studies Branch for examination.
d. You should coordinate with the Iowa state Historic Preservation Officer, Capitol Complex, Des Moines, Iowa 50319 to determine impacts to historic properties.
e. You should contact the Rock Island Field Office of the U.S. Fish and Wildife Service to determine if any federally listed endangered species are being impacted and, if so, how to avoid or minimize impacts. The Rock Island Field Office address is: 4469 - 48th Avenue Court, Rock Island, Illinois 61201. Mr. Rick Nelson is the Field Supervisor. You can reach him by calling 309/793-5800.

No other concerns surfaced during our review. Thank you for the opportunity to comment on your proposal. If you need more information, please call Mr . Randy Kraciun of our Environmental Analysis Branch, telephone 309/794-5174.

Sincerely,


February 6, 1996

Iowa Department of Transportation
Attn: Margaret Westvold
Office of Project Planning
800 Lincoln Way
Ames, Iowa 50010
Dear Ms. Westvold:
These are the only comments that I currently have in reference to the improvements project on U.S. 61, Just north of Burlington.

1. Will the project include the intersection of Plank Road and U.S. 61? If it does, care must be taken with the intersection design because of the number of accidents that have occurred at this location in the past.
2. For your information, if all goes well; and by the end of the summer, West Burlington Avenue will be paved from Plank Road to West Avenue. This will provide a parallel and alternate route to U.S. 61/Roosevelt through Burlington, hopefully alleviating some of the congestion on U.S. 61. This is another reason why the intersection of Plank Road is so important.


Eugene H. Cranor
Director of Public Works
Burlington, Iowa
ta
cc: City Manager Iowa Department of Transportation
800 Lincoln Way, Ames, IA 50010
515-239-1275
FAX: 515-239-1982

February 16, 1996
Ref. No. Des Moines/Louisa Cos. NHS-61-2(50)--19-29

Mr. Eugene H. Cranor
Director of Public Works
City of Burlington
400 Washington
Burlington IA 52601
Dear Mr. Cranor:
Thank you for your recent letter regarding the proposed improvement of U.S. 61 from Burlington north to Iowa 78.

The information you provided concerning the proposed 1996 paving of a portion of West Burlington Avenue will be made a part of the project file for future reference as the project is developed.

The U.S. 61 improvement includes a proposal to reconstruct $0.2 \pm$ mile of Plank Road on realignment 250 ' $\pm$ south of the existing roadway. (See enclosed aerial photocopy.) This would provide improved sight distance south of the bridge while accommodating our proposed access control spacing.

If you have further comments or questions concerning this project, feel free to contact me.
mw

enc.
cc: Tom McDonald, Southeast Iowa Transportation Center, Iowa DOT Larry Jackson, Southeast Iowa Transportation Center, Iowa DOT


Peterson Building, Suite 3A - 214 N. 4th • P.O. Box 397 • Burlington, IA 52601.
Phone (319) 753-5107 • Fax (319) 754.4763

## ACKNOWLEDGEMENT OF NOTICE OF INTENT

TO: Mr. Harry S. Budd
FROM: Southeast Iowa Regional Planning Commission
RE: Project Notification and Review System
Applicant: Iowa Department of Transportation
Project: Upgrading U.S. 61
SEIRPC \#: IA960016-01

## Hillsboro

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Napello

## School Districts

Danville
Mediapolis
New London Notre Dame West Burlington Winfield-Mt. Union
Burlington
-anville ediapolis viddletown West Burlington
enry County
vinheld redonia

This is to notify you that we have received your request for review of the above referenced project and said review has begun. The project has been assigned the number noted above, which should be used in all correspondence pertaining to this project.

The Southeast Iowa Regional Planning Commission will identify other organizations and agencies in the area with a potential interest in this proposed project and they will be given an opportunity to comment. If those comments indicate the need for further inquiry or the desire for a meeting to discuss the project, SEIRPC will contact you. Otherwise, a sign-off letter, together with any comments received, will be sent to you within 30 days from our receipt of your project notification.

If you have any questions about the process or about our agency's review, contact Susan Coffey at (319) 753-5107 or myself.

Sincerely,


Executive Director

# United States Department of the Interior 

FISH AND WILDLIFE SERVICE
Rock Island Field Office (ES)
4469-48th Avenue Court
Rock Island, Illinois 61201

COM: 309/793-5800
FAX: 309/793-5804

February 6, 1996

Ms. Margaret Westvold
Office of Project Planning
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010
Dear Ms. Westvold:
This responds to your letter of January 16, 1996, requesting our comments on your plans for the improvement of U.S. 61 in Des Moines and Louisa Counties in Iowa. An environmental assessment is being prepared for the project which begins at the existing four-lane section just north of the north corporate limits of Burlington, near Plank Road. The project extends north 17.7 miles to 0.4 mile north of the junction with Iowa 78 in Louisa County. It is proposed to upgrade the existing two-lane highway to a four-lane rural type facility, including consideration of a Mediapolis bypass.

To facilitate compliance with Section 7(c) of the Endangered Species Act of 1973, as amended, Federal agencies are required to obtain from the Fish and Wildlife Service information concerning any species, listed or proposed to be listed, which may be present in the area of a proposed action. Therefore, we are furnishing you the following list of species which may be present. in the concerned area:

| Classification | Common Name | Scientific Name |  | Habitat |
| :--- | :--- | :--- | :--- | :--- |
| Endangered | Indiana bat | Myotis sodalis | Caves, mines; <br> small stream <br> corridors with <br> well developed <br> riparian woods; <br> upland forests |  |
| Threatened | Bald eagle | Haliaeetus <br> leucocephalus | Wintering |  |


| Threatened | Prairie bush <br> clover | Lespedeza <br> leptostachya | Dry to mesic <br> prairies with <br> gravelly soil |
| :---: | :--- | :--- | :--- |
| Threatened | Eastern <br> prairie <br> fringed orchid | Lespedeza <br> leucophaea | Mesic to wet |
| prairies |  |  |  |

The endangered Indiana bat (Myotis sodalis) is listed as occurring in Des Moines and Louisa Counties in Iowa. During the summer, the Indiana bat frequents the corridors of small streams with well developed riparian woods as well as mature upland forests. It forages for insects along the stream corridor, within the canopy of floodplain and upland forests, over clearings with early successional vegetation (old fields), along the borders of croplands, along wooded fencerows, and over farm ponds and in pastures. It has been shown that the foraging range for the bats varies by season, age and sex and ranges up to 81 acres (33ha). It roosts and rears its young beneath the loose bark of large dead or dying trees. It winters in caves and abandoned mines.

An Indiana bat maternity colony typically consists of a primary roost tree and several alternate roost trees. The use of a particular tree appears to be influenced by weather conditions (temperature and precipitation). For example, dead trees found in more open situations were utilized more often during cooler or drier days while interior live and dead trees were selected during period of high temperature and/or precipitation. It has been shown that pregnant and neonatal bats do not thermoregulate well and the selection of the roost tree with the appropriate microclimate may be a matter of their survival. The primary roost tree, however, appears to be utilized on all days and during all weather conditions by at least some bats. Indiana bats tend to be philopatric, i.e. they return to the same roosting area year after year.

Suitable summer habitat in Iowa is considered to have the following characteristics within a $1 / 2$ mile radius of the project site:

1) forest cover of $15 \%$ or greater;
2) permanent water;
3) one or more of the following tree species 11 inches diameter at breast height (dbh) or greater: shagbark and shellbark hickory that may be dead or alive, and dead bitternut hickory, American elm, slippery elm, eastern cottonwood, silver maple, white oak, red oak, post oak, and shingle oak
with slabs or plates of loose bark;
4) at least 1 potential roost tree per 2.5 acres;
5) potential roost trees must have greater than $10 \%$ coverage of loose bark (by visual estimation of peeling bark on trunks and main limbs).

If the project site contains any habitat that fits the above description, it may be necessary to conduct a survey to determine whether the bat is present. If Indiana bats are known to be present, they must not be harmed, harassed or disturbed when present. Minor alterations of Indiana bat habitat (i.e. clearing) may be accomplished between the dates of september 1 and April 30. Large-scale habitat alterations within known or potential Indiana bat habitat should not be permitted without a bat survey and/or Section 7 consultation.

The threatened bald eagle (Haliaeetus leucocephalus) is listed as wintering along large rivers, lakes and reservoirs in Des Moines and Louisa Counties in Iowa. During the winter, this species feeds on fish in the open water areas created by dam tailwaters, the warm water effluents of power plants and municipal and industrial discharges, or in power plant cooling ponds. The more severe the winter, the greater the ice coverage and the more concentrated the eagles become. They roost at night in groups in large trees adjacent to the river in areas that are protected from the harsh winter elements. They perch in large shoreline trees to rest or feed on fish. There is no critical habitat designated for this species. The eagle may not be harassed, harmed or disturbed when present nor may nest trees be cleared.

The prairie bush clover (Lespedeza leptostachya) is listed as threatened and is considered to potentially occur statewide in Iowa based on historical habitat. It occupies dry to mesic prairies with gravelly soil. There is no critical habitat designated for this species. Federal regulations prohibit any commercial activity involving this species or the destruction, malicious damage or removal of this species from Federal land or any other lands in knowing violation of state law or regulation, including state criminal trespass law. This species should be searched for whenever prairie remnants are encountered.

The eastern prairie fringed orchid (Platanthera leucophaea) is listed as threatened in Iowa and may potentially occur in Des Moines and Louisa Counties in Iowa based on historical records and habitat distribution. It occupies wet grassland habitats. There is no critical habitat designated for this species. Federal regulations prohibit any commercial activity involving this species or the destruction, malicious damage or removal of this species from Federal land or any other lands in knowing violation of state law or regulation, including state criminal trespass law. This species should be searched for whenever wet prairie remnants are encountered.

The western prairie fringed orchid (Platanthera praeclara) is listed as threatened in Iowa and is considered to potentially occur statewide based on historical records and habitat distribution. It occupies wet grassland habitats. There is no critical habitat designated for this species. Federal regulations prohibit any commercial activity involving this species or the destruction, malicious damage or removal of this species from Federal land or any other lands in knowing violation of State law or regulation, including State criminal trespass law. This species should be searched for whenever wet prairie remnants are encountered.

National Wetland Inventory maps indicate that there are wetlands within and adjacent to the project area. The Corps of Engineers is the Federal agency responsible for wetland determinations, and we recommend that you contact them for assistance in delineating the wetland types and acreages within the project boundary. Priority consideration should be given to avoid impacts to these wetland areas. Any future activities in the study area that would alter these wetlands may require a Section 404 permit. Unavoidable impacts will require a mitigation plan to compensate for any losses of wetland functions and values. The U.S. Army Corps of Engineers, Clock Tower Building, P.O. Box 2004, Rock Island, Illinois, 61201, should be contacted for information about the permit process.

These comments provide technical assistance only and do not constitute the report of the Secretary of the Interior on the project within the meaning of Section $2(b)$ of the Fish and Wildlife Coordination Act, do not fulfill the requirements under Section 7 of the Endangered Species Act, nor do they represent the review comments of the U.S. Department of the Interior on any forthcoming environmental statement.

Thank you for the opportunity to provide comments early in the planning process. If you have any additional questions or concerns, please contact Heidi Woeber of my staff.


HW:sjg

January 23, 1996

Harry S. Budd, Director Office of Project Planning Iowa Dept. of Transportation 800 Lincolnway
Ames, Iowa 50010

Dear Mr. Budd:
You recently offered the Iowa State Clearinghouse an opportunity to comment on the U.S. 61 Improvement from north of Burlington 17.7 miles to Iowa 78 in Louisa County. My office serves as the Single Point of contact (SPOC) for the state of Iowa for the ingergovernmental process.
On January 23, 1996, I forwarded your request for intergovernmental review, with a copy of this letter to Beth Danowski, Executive Director, Southeast Iowa Regional Planning Commission. That agency is the area-wide planning agency whose region includes Louisa County, and is responsible for the review for local impact projects in that area of the state.

Please call me at 515/242-4719 if you have any questions.
Sincerely,

Steven R. McCann
Federal Funds Coordinator
SRM: Pk
cc: Southeast Iowa Regional Planning Commission






> Iowa Department of Transportation
> Office of Project Planning
> Traffic Noise Analysis Form for Low Impact Highway Projects

This form has been prepared to provide summary noise data for highway projects processed with Environmental Assessment (EA) procedures and where traffic noise effects are not extensive nor are special noise abatement strategies normally reconmended. The following data were developed in accordance with the procedures set out in Federal Aid Highway Program Manual 7-7-3 using the Federal Highway Administration traffic noise prediction model.

Project Description: U.S. 61 Des Moines/Louisa, Burlington to Iowa 78
Adjacent Noise Sensitive Land Use: rural residential
Number and Type of Sensitive Receiver Sites: __ numerous scattered homes
For Worst Case Receiver:
distance from existing near lane centerline: $\quad 78 \mathrm{M}$
existing noise level (estimated/ 62 dBA Leq
distance from proposed near lane centerline: $\quad 61 \mathrm{M}$
predicted design year (2020) hourly Leq noise level: 66 dBA Leq
predicted peak design year hourly Leq, no build: 64 dBA Leq
calculated maximum distance from project main line near lane centerline to design year 67dBA Leq contour: 50 M . It is recommended that future noise sensitive development occur beyond this distance from the highway.

## Discussion and Recommendation

This analysis describes a rural home located near existing U.S. 61 which will remain when the new lanes are constructed between the home and the existing highway. On the most heavily travelled portion of U.S. 61 the future noise level for this worst case condition is expected to approach the noise abatement criterion, but is only slightly higher than that expected under no build conditions. Because of the isolated and scattered nature of such rural receivers, cost effective noise abatement is not feasible, therefore no special noise abatement design features are recommended for the U.S. 61 project.

