

**ROUTE IMPROVEMENT
STUDY**

**OF IOWA 148 THROUGH
ANITA
IN CASS COUNTY**

**FROM THE SOUTH CITY LIMITS
OF ANITA NORTHERLY TO
IOWA 148 IN NORTH ANITA**

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A Report Developed By

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FOREWORD

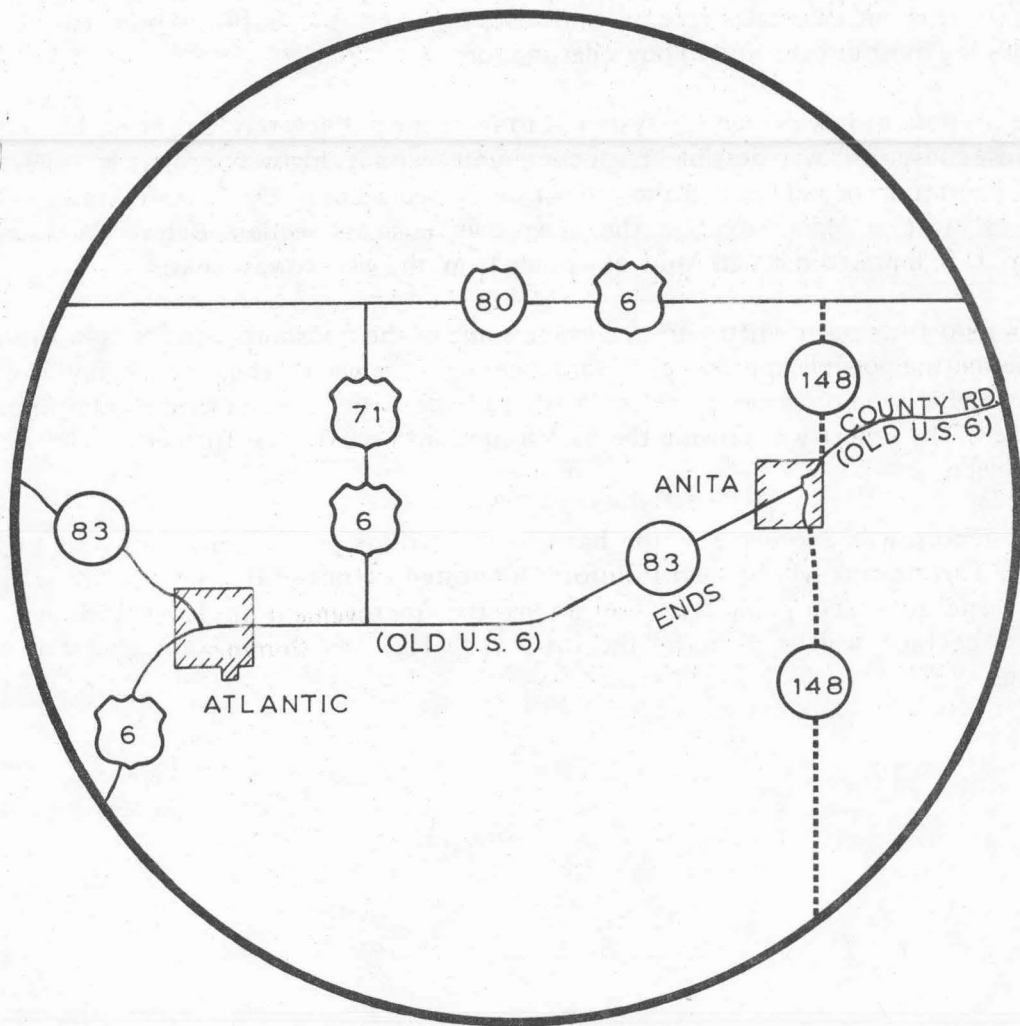
The question of relocating a highway to bypass a town or certain parts of it involves many considerations. Various purposes can be achieved in urban highway relocations. However, in Iowa's small communities having static population and economics, the situation is less complex and the solution may be rather straight forward.

Depending on the community's situation, a highway relocation will reduce traffic congestion in the business district by routing through traffic around this part. It can also alleviate excessive noise from a residential area. On the other hand, routing traffic through the town may increase sales receipts and in cases where the traffic is primarily local, it provides the most direct route to one's destination.

The purpose of Iowa's highway system is to serve the public's traveling needs in the safest and most convenient way possible. Each community with its highway project is reviewed for its transportation objectives and the project developed accordingly. In Anita, Iowa 148 and Iowa 83 meet at Main Street in the downtown business section. Before the Interstate System, U.S. 6 passed through Anita extending from the west to east coasts.

This report has been written to determine some of the transportation needs in Anita and to describe the possible approaches toward meeting those needs. The socio-economic effects of the highway improvement are set forth and the anticipated environmental impact is described. The report will provide the background information for further development of this project.

This report will also serve as the basis for a corridor public hearing on this highway project. This hearing will be held to inform interested parties of the status of the proposed project and to solicit public views regarding the improvement of Iowa 148. A formal location decision will be made by the Iowa State Highway Commission after the public hearing.



PAVED IN 1972 -----

STUDY AREA

The proposed improvement of Iowa 148 in Cass County begins just inside the south corporate limits and extends approximately one mile northerly through Anita.

History of the Route

Iowa 148 begins at the Iowa-Missouri border and extends northerly to Interstate 80. As it passes through this three county area, it serves the communities of Bedford, Corning and Anita.

Iowa 148 came into being between 1926 and 1938 and has always had the same location and route number. Three miles of highway north of Anita, which had been a county road, were added to Iowa 148 in 1972. This connected Iowa 148 to the Interstate System, and U.S. 6 was rerouted along I-80. See Figure 2. Prior to 1972, Iowa 148 ended at U.S. 6 in Anita.

In 1948 the first four miles of Iowa 148 were paved north of Corning. By 1961 the route was paved from the Missouri State line north to Massena. However, it was not until 1972 that Iowa 148 from Massena to Anita was paved. From the beginning of the project, near the south corporate limits of Anita, to Main Street (old U.S. 6) the route has never been paved. This entire section is constructed of brick and gravel and treated with a bituminous surface. Along Main Street Iowa 148 is portland cement concrete pavement. This section is the result of rerouting Iowa 148 along the old U.S. 6 route. With the proposed improvement through Anita, however, the entire urban section will have a modern paved surface.

Sufficiency Study

The sufficiency study is a numerical system of rating the primary highways in Iowa. This study allows highway officials to measure the adequacy of a particular primary road section compared to other road sections in the state.

Rural sections are rated for structural adequacy, safety, and service; municipal sections are rated for structural adequacy and service. The basic sufficiency rating is then adjusted for the amount of traffic and for various other factors to obtain the final sufficiency rating.

The following numerical classifications represent the sufficiency ratings:

Points	Condition
0 - 49	Critical
50 - 64	Poor
65 - 79	Tolerable
80 - 89	Good
90 - 100	Excellent

Table 1 lists the 1973 sufficiency ratings on Iowa 148 in Anita. See page 5.

TABLE 1

1973 SUFFICIENCY RATINGS - IOWA 148

Location	Length in Miles	Width in Feet	Sufficiency Rating
South Limits Anita to Begin 22' Section (Paved in 1972)	.15	24	93
Begin 22' Section to CRI & P RR Tracks	.45	22	71
CRI & P RR Tracks to Begin 40' Section	.03	32	86
Begin 40' Section to Chestnut Street	.05	40	82
Chestnut St. to Elm St. (old U.S. 6)	.18	44	87
Elm St. to North Limits Anita (old U.S. 6)	.55	30	86

The present alignment includes one 80' x 24' bridge over Turkey Creek, which has a sufficiency of 78. This bridge is located 280 feet south of the at-grade Chicago-Rock Island and Pacific Railroad tracks which carries eight freight trains daily.

1974 Traffic

The estimated 1974 annual average daily traffic (ADT) on Iowa 148 through Anita is 1120 vehicles per day; 10% of these are commercial vehicles. Between the south corporate limits and Main Street, the average daily traffic is 1130 vehicles with 12% of these being trucks and other commercial vehicles. It is in this section that the Farmer's Co-op Elevator Company is located adjacent to the railroad track. Table 2 gives the estimated 1974 traffic on Iowa 148 through Anita.

TABLE 2

1974 TRAFFIC

Location	Length	1974 ADT
From South City Limits Anita		
to Lincoln Street	0.40	880
to Roosevelt Road	0.10	1140
to Truman Road	0.10	1460
to Main Street (old U.S. 6)	0.08	1980
to Locust Street	0.07	2480
to Elm Street	0.14	1720
to Iowa 148 North	0.12	1390
to North City Limits Anita	0.40	570

Accident Study (1968-1972)

During the five-year study period, eight reported accidents occurred on Iowa 148 between the south city limits of Anita and Main Street (old U.S. 6). These eight accidents included no fatalities, one personal injury and seven property damage accidents. Table 3 lists the type of accidents by year.

TABLE 3
MUNICIPAL ACCIDENTS

Year	Property Damage	Personal Injury	Fatal	Total
1968	1	0	0	1
1969	1	0	0	1
1970	1	0	0	1
1971	2	0	0	2
1972	2	1	0	3
Total	7	1	0	8

The traffic accident rate for Iowa 148 in through Anita in 1972 was higher than the statewide average for municipal primary highways. The statewide rate was 871 accidents per 100 million vehicle miles of travel. Iowa 148 through Anita had 1,115 accidents per 100 million vehicle miles of travel in 1972.

Functional Classification and Access Control

The functional highway classification bill, enacted by the 63rd General Assembly of the Iowa legislature in 1970, required that all roads and streets in Iowa be classified according to the type of traffic that they serve. For this purpose, Iowa's primary roads are separated into three categories: The freeway-expressway system, the arterial system, and the arterial connector system. Iowa 148 is designated as part of the state's arterial connector system. This system consists of those roads providing service for short-distance intrastate traffic, or providing connections between highways classified as arterial or freeway-expressway.

Access control on Iowa 148 is presently classified as Class IV. A Class IV highway is a planned controlled access highway on which through traffic and land service traffic are given equal consideration.

The Class IV access would not change with the improvement of Iowa 148 through Anita. However, some entrances may need revision to meet minimum requirements.

ALTERNATES STUDIED

Two improvements of Iowa 148 through Anita are presented in this planning report. Alternate 1 is an improvement along the existing alignment; Alternate 2 is a bypass of the existing alignment and business area. These are presented below. (See Plate 1 in APPENDIX for locations.)

Alternate 1 is an improvement of the existing Iowa 148 from just inside the south corporate limits of Anita to Main Street (old U.S. 6), a distance of 0.54 mile. The project would use-as-constructed the next 0.34 mile along Main Street to the east junction of Iowa 148. Alternate 1 would include a 31-foot urban section from Station 656+75 to 684+40 (from just inside the south city limits to Main Street) and a new bridge with a pedestrian sidewalk over Turkey Creek. It would require no additional right-of-way. None of the existing parking along Main Street would be affected.

Alternate 2 is a relocation of Iowa 148 through the east edge of Anita. This alignment, which is 0.91 mile long would be 24-foot paving with 10-foot stabilized shoulders. It would connect to the newly paved rural sections of Iowa 148, both north and south of Anita. This relocation would improve route continuity of Iowa 148 and eliminate the two right-angle turns through the business district in Anita. However, this improvement would require a grade elevation for the Chicago, Rock Island and Pacific Railroad tracks costing \$25,000, and a bridge over Turkey Creek. It also includes purchase of the auto salvage yard at Station 668+, purchase of two other homes and relocation assistance for people living in these three properties.

Alternate 3, a possible Do-Nothing alternative, would leave the present Iowa 148 in its existing condition.

Construction Costs

Construction costs for the proposed improvements are given in Table 4.

TABLE 4
CONSTRUCTION COSTS

	Alternate 1	Alternate 2
Length	0.99 mi. ^a	0.91 mi.
Right-of-Way	\$ -----	\$101,000 ^b
Structures	84,000	92,000
Grading	40,000	189,000 ^c
Paving	81,000	127,000
Misc. & Cont.	51,000	42,000
 Total	 \$256,000	 \$551,000

(a) Includes only 0.54 mile of construction

(b) Includes relocation assistance for three houses

(c) Includes \$25,000 for raising grade for railroad siding

Maintenance Costs

Maintenance costs for Iowa 148 on the 0.53-mile section between the south city limits and Main Street (old U.S. 6) are given in Table 5. These costs have netted an average maintenance cost of \$6,914.04 per mile in this section for this three year period. Costs for 1972 include pavement leveling where the new pavement ended, asphalt leveling at the railroad crossing and repainting the bridge. High maintenance costs for this section include seal coat treatment of the pavement surface in alternate years.

TABLE 5
MAINTENANCE COSTS

Fiscal Year	Miles	Expenditure	Cost/Mi.
1971	.68	\$3,262.49	\$ 4,798
1972	.68	7,471.35	10,987
1973	.53*	3,370.83	6,360

*Iowa 148 was paved in 1972 south of this section

Forecast Traffic

Forecast traffic volumes on a proposed highway improvement are based on local area trends from such items as motor vehicle registration, licensed drivers, retail sales and population. Other traffic related items such as land use patterns are also considered. In addition, continuity of the state's highway system plays an important part in projecting future traffic volumes.

In Cass County, the rerouting of U.S. 6 outside Anita has had an impact on traffic through that community. Future volumes for Iowa 148 along Main Street would be higher if U.S. 6 had continued to be routed through Anita. However, routing Iowa 148 north to Interstate 80 and the development of Lake Anita State Park just south of Anita will have some effect on traffic through Anita.

Most of the traffic on Iowa 148 is local in nature; through traffic comprises only a small portion of the total. This through traffic is the volume which has been assigned to the proposed bypass. Table 6 gives the estimated 1978 and 1998 annual average daily traffic for both alternates through Anita.

As the data indicates, Alternate 2, the proposed bypass, attracts only low traffic volumes. Higher volumes are carried as residual traffic on existing Iowa 148, indicating the high amount of local traffic in Anita. More detailed information on forecast traffic volumes, including design hourly volumes, directional distribution and percent of trucks can be found in the APPENDIX.

TABLE 6

1978-1998 TRAFFIC - IOWA 148

Location	1978 ADT	1998 ADT
ALTERNATE 1		
From South City Limits Anita to Main Street	1400	1840
to Iowa 148 North	1990	2660
ALTERNATE 2		
From Beginning of Bypass to Iowa 148 North & Main St.	400	510
Residual Traffic on Present Route		
South City Limits Anita to Main Street	1040	1380
to Iowa 148 North	1620	2200

Benefit-Cost Analysis

A road-user benefit-cost analysis is one method of determining the economic feasibility of a proposed highway improvement. This type of analysis compares the dollars saved by the road users utilizing the improved highway to the dollars spent for constructing and maintaining the improvement. This comparison gives the road-user benefit-cost ratio.

TABLE 7

ROAD-USER ANALYSIS

Alternate	Annual Constr. & Maint. Costs	Annual Road- User Costs	Benefit-Cost Ratio
Do Nothing	\$ 7,000	\$113,800	---
Alternate 1	21,800	111,200	0.17
Alternate 2	47,500	108,800	0.12

A benefit-cost ratio of 1.0 or greater indicates that the benefits from the improvement -- to its road users -- offset the annual costs to construct and maintain the new highway. Since both of the alternates for Iowa 148 have benefit-cost ratios less than 1.0, they are not considered as feasible alternatives from this method of analysis.

However, the road-user analysis is only one parameter indicating the feasibility of a proposed project. Other social and economic factors such as convenience and safety, quality

of the road, and quality of other highway facilities in the area, and service are involved in establishing the need for a highway improvement through a community. In the *Code of Iowa*, Section 313.8, the Highway Commission has a responsibility for maintaining the State's highway system. The law states that "Improvements shall be made and carried out in such a manner to equalize the condition of the primary roads, as nearly as possible, in all areas of the state" and that "the relative urgency of the proposed improvement shall be determined by a consideration of the physical conditions, safety, and service characteristic of the various primary roads."

The construction schedule for Iowa 148 through Anita currently lists right-of-way acquisition for 1978 with reconstruction in 1979.

SOCIAL, ECONOMIC & ENVIRONMENTAL STUDY

Community Growth and Development

The community of Anita, situated in the northeast corner of Cass County, is located approximately midway between Des Moines and Omaha. Two primary highways serve the town, Iowa 83 and Iowa 148, while Interstate 80 and U.S. 6 lie three miles to the north.

Rail service is provided by the Chicago, Rock Island and Pacific Railroad. The main line tracks run diagonally through town generally parallel to Main Street. Elevators located adjacent to the tracks facilitate grain shipment at the rail terminal.

Anita exists primarily as a convenience goods center for the town's population and the surrounding rural areas. It also serves, to a lesser extent, as a market for certain farm products and farm related services. The town's population has remained fairly constant over the last thirty years, while the population of Cass County has been steadily declining (See Table 8).

TABLE 8

POPULATION FIGURES

Year	Anita	Cass County
1940	1088	18647
1950	1112	18532
1960	1233*	17919
1970	1101	17007

*Interstate construction personnel housed in Anita at time of 1960 census.

In the near future, Anita is expected to remain fairly static. In order for the community to grow and develop, it is essential that Anita provide new job opportunities and attract new industry. There are several factors that provide Anita with possible growth potential. The close proximity of Interstate 80 to the community could serve as an attraction to business and industry. The development of Lake Anita State Park, located just south of Anita, could attract industry related to recreation and tourism. The municipal airport provides air service to the community which other comparable sized town's cannot match.

Adoption of Alternate 2, which calls for the relocation of Iowa 148 east of the existing highway, would be in accord with Anita's Comprehensive Plan published by Veenstra and Kimm Engineers and Planners in September of 1969.

Conservation and Preservation

Conservation of our natural resources is essential if we are to maintain a balance in nature and sustain life. The principle of conservation involves the preservation and management of soil, water, wildlife, fish and plant life.

Conservation practices related to highway construction deal primarily with erosion control and drainage. The sub-base of the highway must be protected from the destructive action of water to prevent it from washing out and damaging the highway. Alternate 1, which calls for a 31-foot urban section along present Iowa 148, will require the building of curb and gutter facilities for drainage. Alternate 2, which consists of a 24-foot rural section, will require adequate backslope and foreslope construction to prevent soil from washing into ditches or onto the roadway. These areas will be protected against erosion by using modern erosion control techniques, including seeding with native grasses.

Existing wildlife cover will not be seriously affected by Alternate 1, since this alternate follows the existing alignment and requires no additional right-of-way. The new corridor alignment of Alternate 2 will necessitate the removal of some existing wildlife cover. Seeding the right-of-way with legumes and prairie grass will restore much of the area's cover.

Natural and historic landmarks are important reminders of Man's heritage and as such should be preserved. Situated five miles northeast of Anita is a locomotive wheel and plaque commemorating the site of the world's first robbery of a moving train by the Jesse James gang in 1873.

With people having more and more leisure time, there has been an increased demand for outdoor recreational facilities. Anita has four municipally owned parks and a privately owned golf course, none of which will be adversely affected by either of the proposed improvements. Victory Park in north Anita contains the school athletic facilities, a picnic area, tennis courts, playground equipment, camping facilities, restrooms and shower house, a ball diamond and an open play area. Located in the business district is Concert Park, a small, passive area centered around the community band shell. Keystone Park, located south of Turkey Creek and west of Pennsylvania Street, has been reduced in area by airport expansion and serves primarily as a picnic area. Situated in western Anita is Hilltop Park, which functions as a neighborhood playground. The Crestwood Hills Golf Course is located just south of the municipal airport.

Lake Anita State Park, located just south of Anita, contains 750 acres of rolling loess land surrounding a 170-acre artificial lake. Activities available at the park include: fishing, boating, camping, swimming, picnicking and hiking. Alternate 1 would improve the accessibility of Lake Anita State Park to Anita residents, while Alternate 2 would make the park more accessible to people living north of Anita, allowing them to bypass downtown Anita. The Do Nothing Alternate would not change the present accessibility of Lake Anita State Park.

Public Facilities and Services

Highways, as a public facility, are responsible for the efficient and convenient accessibility to other public facilities and services. Adoption of any highway improvement should be coordinated with a community's health, educational, religious and welfare institutions.

Since a majority of Anita's residents commute to Atlantic via Iowa 83 for their medical needs, the proposed project is not expected to enhance the accessibility of area medical facilities appreciably. Anita is served by one physician, while the Crestwood Nursing Home provides care for the community's elderly. Ambulance service is provided by the Anita Fire Department. Atlantic contains the greatest repository of medical practitioners in Cass County, including: eight physicians, one osteopath, seven dentists, one orthodontist, three optometrists and four chiropractors. The Cass County Memorial Hospital, with a 105-bed capacity, is also located in Atlantic. Regional mental health care is provided in Atlantic by the Southwest Iowa Mental Health Center. Custodial and nursing care for the aged is provided by four nursing homes in the community. Ambulance service is furnished by a private firm.

Anita and the surrounding rural areas lie within the Anita Community School District. All of the classroom buildings, Anita Elementary and Anita Junior-Senior High, are located in Anita. The enrollment for 1973-1974 totaled 620 students.

Neither Alternate 1 nor the bypass proposal (Alternate 2) will disrupt school district boundaries or operations. Some temporary rerouting of school buses may be necessary during the construction stage if Alternate 1 is adopted. Construction of Alternate 1 or 2 should contribute to improved safety for school buses using existing Iowa 148; Alternate 1 by providing a wider roadway, improved geometrics and new bridge; and Alternate 2 by diverting through traffic from existing Iowa 148.

Local law enforcement in Anita is provided by one full-time policeman, one part-time policeman and the Cass County Sheriff and his deputies. The county jail is located in nearby Atlantic. Adoption of either Alternate 1 or 2 should improve safety conditions on Iowa 148 for local law enforcement officers serving south Anita and outlying areas.

The Anita Fire Department, with its force of 26 volunteers and five vehicles, provides fire protection for Anita, Grant Township and portions of five adjacent townships. The improvement of Iowa 148, Alternate 1, should result in improved mobility and safety for fire fighting equipment and their personnel in south Anita and rural areas south of town. Construction of Alternate 2 should also improve conditions for fire fighting vehicles utilizing Iowa 148 by drawing off through traffic.

Anita is served by six churches. Denominations include Baptist, Christian, Congregational, Lutheran, Methodist and Catholic. Neither the improvement of Iowa 148 (Alternate 1) nor the bypass proposal (Alternate 2) will have any noticeable effect on religious institutions and practices, as none of the churches are located along the affected route.

Interstate 80, located approximately three miles north of the proposed project is the closest designated national defense route. No national defense units are located in Anita. The nearest National Guard unit is in Atlantic 13 miles to the west of the project area. The improvement of Iowa 148 is not expected to affect this unit.

The improvement of Iowa 148 will effect utilities within the highway right-of-way. The affected utilities include the following: water pipes, gas lines, sanitary sewer pipes, and telephone cables. The bypass alternate will also effect water and gas lines. The exact location of utilities affected by Alternates 1 and 2 will be determined when the project is surveyed for final design. Plans for the relocation of utilities affected by the proposed project will be coordinated with the utility companies at the time of construction to insure uninterrupted service to the public. The Town of Anita will be expected to participate in some portions of this project, such as storm sewer work. Agreements concerning this work will be negotiated as the plans for the project are developed.

Community Cohesion

Residential and neighborhood character is basically an urban aspect. No community or neighborhood divisions would be created by the adoption of Alternate 1, since this improvement would be made on the existing alignment with no additional right-of-way. Also, selection of Alternate 2, which consists of a relocation of Iowa 148 on an undeveloped area of Anita, would create no divisions in the community.

The proposed improvements of Iowa 148 (Alternates 1 and 2) should have no adverse effect upon any minority or other specific groups in the study area. According to the *1970 Census of Population*, Anita has only one member of a minority race residing in the community. Since no neighborhoods in Anita have been established with any cultural, racial or religious identity, no minority groups should be adversely affected by the highway.

Since proposed Alternate 1 follows the existing alignment without taking additional right-of-way, there should be no adverse impact upon the local tax base. The bypass proposal, Alternate 2, would require the acquisition of some additional right-of-way (approximately 15 acres), but this minor loss to the tax rolls should not significantly alter the tax base.

The Do Nothing Alternate would not affect residential and neighborhood character, minority groups, or the local tax base in Anita.

Displacement of People, Businesses and Farms

Anita serves primarily as a retail and service center for the surrounding rural trade area residents. Most of the community's small industries are directly related to agriculture, such as feed and fertilizer companies, livestock auctioning and hauling, meat processing and veterinarian clinics. Retail businesses, which are located in the central business district along Main Street, employ a small portion of the townspeople. The Anita Community School System is the largest employer in the community with approximately 60 employees.

Nearly 15% of Anita's labor force commutes to Atlantic for employment. Atlantic also serves as a major competitor to the Anita trade area. A large percentage of Anita residents purchase clothing, appliances, hardware, medical, dental and dry cleaning services in Atlantic. The rural population surrounding Anita follows a similar pattern.

The proposed reconstruction of Iowa 148 from the SCL to Main Street, Alternate 1, should have no long-term adverse effect on the retail trade in the community. However, a few businesses located along the highway may undergo a temporary adjustment in retail trade during the actual period of construction. In the long run the improved facility may prove beneficial to all the retail businesses in the community by providing a safer, smoother, more efficient highway for all road-users.

With the bypass proposal, Alternate 2, a good percentage of the truck and through traffic would be routed around the central business district of Anita. This could have some adverse effects on businesses in Anita which are dependent on motorists for their sales, such as service stations and cafes. A service station located at 601 Main Street could possibly suffer from the relocation alternate. Studies have shown that service stations on a route which is bypassed experience an immediate loss in trade after the opening of the new route, with the greatest loss being in the sales of gasoline. After a period of unstable activity in which some stations may close or relocate along a new alignment, the majority of the stations again experience normal growth rates, often times compensating for the loss of gasoline sales by offering more general merchandise and services to local customers. Anita has two cafes located in the downtown business district along present Iowa 148. Both cater to local residents and should not be affected by the adoption of Alternate 2. However, the construction of the bypass alternate would necessitate the removal of an automobile salvage yard.

Adoption of Alternate 1, the 31-foot reconstruction proposal along existing Iowa 148, will not require any additional right-of-way nor the displacement of any families or businesses.

If the eastern bypass proposal, Alternate 2, is adopted the new alignment will require approximately 15 acres of right-of-way, the displacement of three families and one business (auto salvage yard). For a list of the buildings that will be removed see Table 9.

TABLE 9
DISPLACED STRUCTURES

Structure	Location
Alternate 1	
None	
Alternate 2	
Shed	1662±
House and office	1668±
2 sheds	1668±
House, garage and barn	1676±
House, barn and 3 sheds	1680±
Shed	1696±

The owners of property acquired for highway right-of-way needs will be paid just compensation for the value of land and buildings taken. Relocation assistance will also be provided to all eligible relocatees on this highway project.

With the Do-Nothing Alternate, no additional right-of-way will be required and no right-of-way or relocation costs will be incurred.

Air, Noise and Water Pollution

Increased concern for the deteriorating quality of our environment makes it imperative that our transportation systems contribute in every practical way to the elimination of pollution. Unfortunately, motor vehicles constitute one of the primary causes of pollution. The internal combustion engine, with its inefficient operation, adds a variety of harmful pollutants to the air, including: carbon monoxide, hydrocarbons, oxide of nitrogen, unburned particles and lead. Although the primary responsibility for the reduction of motor vehicle pollutants lies with the automobile manufacturers, improved highway designs can also help reduce harmful emissions by enhancing combustion efficiency.

Motor vehicles are also a principal source of noise pollution, much of which originates from engines, exhausts, tires and brakes. Noise levels as well as exhaust emissions are highest when a vehicle accelerates or decelerates; so it is possible to reduce noise and air pollution simultaneously with a modern highway which reduces the need for acceleration and braking.

Adoption of Alternate 1 would not noticeably reduce air and noise pollution on Iowa 148, even though it would provide a new, wider and smoother roadway surface from the SCL of Anita to Main Street. The presence of two 90° angle turns, a stop sign, off street parking (on Main Street) and future increased traffic along present Iowa 148 would all tend to neutralize the positive impact of Alternate 1 on air and noise pollution. Construction of Alternate 2 (bypass alternate) would route most of the present truck traffic, which makes up approximately 6% of the average daily traffic on Iowa 148, away from downtown Anita. The bypass alternate would also route through traffic off existing Iowa 148 and away from downtown Anita. The Do Nothing Alternate would be the least desirable as further deterioration of the roadway surface and increased traffic would maximize the problems of congestion and pollution.

Water pollution should not be a serious problem concerning this project. Control measures will be carried out during construction to prevent erosion of soil and minimize the amount of siltation. Some sedimentation will accompany the construction of a new bridge over Turkey Creek, required for both Alternates 1 and 2. Also, trace amounts of oil, chemicals and de-icing compounds will be contained in the pavement surface run-off. The surface run-off rates will be similar for old and new pavements. With the Do Nothing Alternate, no changes would be made in the present highway, therefore no siltation and sedimentation would occur during construction.

Aesthetic and Other Values

The aesthetic qualities of any highway project are in part determined by its location, the terrain of the land, the vegetation and the artifacts contributed by Man.

Selection of Alternate 1 would cause little or no change in the aesthetic appearance along Iowa 148, since this alternate would follow the existing alignment without taking any additional right-of-way. If built, Alternate 2 would provide a more rural and undeveloped view of Anita. The bypass alternate would also traverse an old automobile salvage yard on the southern edge of town and necessitate its removal, thus eliminating the blighted appearance of the area. In addition, Alternate 2 would help alleviate congestion on Main Street by routing through traffic around downtown Anita.

Another broad concept which can be applied to highway building is that of multiple use of space. This concept dictates that land used for right-of-way or space above or below a highway can be used for non-highway purposes. In urban areas, this concept is utilized to maximize use of land and space. Gas pipelines, water mains, sewer lines and telephone cables presently cross or are within the right-of-way of Iowa 148. No foreseeable problems involving utilities are anticipated if Alternate 1 is adopted, since the reconstruction will follow the existing alignment of Iowa 148. Alternate 2 traverses a relatively undeveloped area of Anita, where multiple use of space development will be limited. If utility relocation is necessitated by the proposed project, it will be negotiated during the final design stages.

PROPOSED CONSTRUCTION AND SUMMARY

The proposed improvement of Iowa 148 in Cass County begins near the south corporate limits of Anita and extends northerly to the east junction of Iowa 148 and Main Street (old U.S. 6). Three alternative approaches are studied in this planning report.

Alternate 1 consists of constructing a 31-foot back-of-curb to back-of-curb urban section along the existing alignment and grade from approximately 800 feet north of the south corporate limits of Anita (at the end of the 1972 paving on Iowa 148) to the west junction of Iowa 148 and Main Street. A new bridge will be built over Turkey Creek. The section of Iowa 148 along old U.S. 6 will be used as constructed. Actual construction along the existing alignment is 0.54 miles.

Alternate 2 begins 225 feet north of the south corporate limits of Anita, swings east off the existing alignment, bypassing the downtown business district, and intersects the present highway at the east junction of Iowa 148 and old U.S. 6. This alternate would utilize 24-foot pavement and 10-foot stabilized shoulders and a new bridge would be constructed over Turkey Creek.

Alternate 3 is the Do Nothing Alternate and would result in no change to Iowa 148 through Anita.

The alternate alignments are depicted on the aerial photographic plate in the APPENDIX. A short alternate description is included. Also shown in the APPENDIX in Figures 3-9 are typical cross sections, average daily traffic data, and vehicular turning movements.

This project will have Class IV access control (planned controlled access highways on which through traffic and land service are given equal consideration). Should the bypass be selected for construction, property ownership and access points will be examined during design.

The reconstruction of Iowa 148 on present alignment will not require the purchase of any additional right-of-way, but Alternate 2 will require new right-of-way acquisitions as well as the purchase of several structures. These include a shed at Station 1662±, a house and office and two sheds at Station 1668±; a house, garage, and barn at Station 1676±; a house, barn, and three sheds at Station 1680±; and a shed at Station 1696±.

Construction costs for Alternates 1 and 2 are shown in Table 10.

TABLE 10
PROJECT COSTS

	Alternate 1	Alternate 2
Right-of-Way	---	\$101,000
Construction	\$256,000	\$450,000
Total Cost	\$256,000	\$551,000

The Highway Commission's Five-Year Construction Program lists right-of-way purchases for 1978 and construction for 1979.

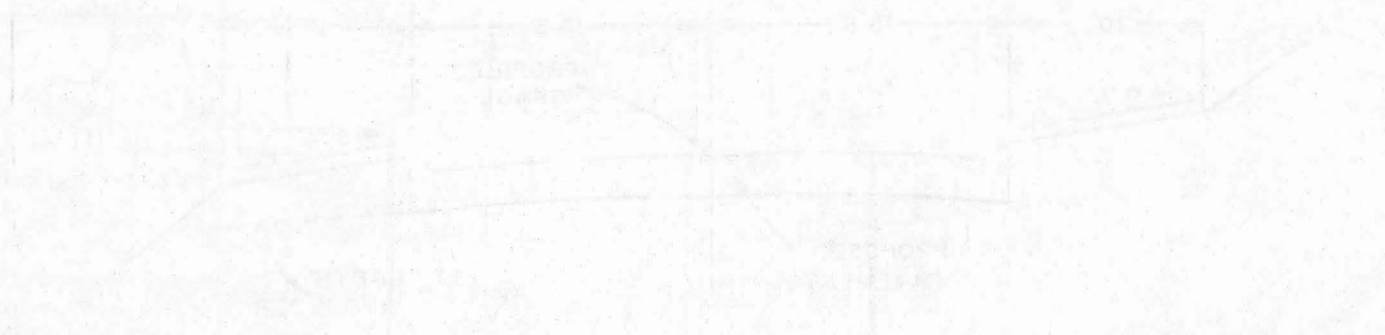
During construction, steps will be taken to insure the flow of both local and through traffic. This will be accomplished by detouring traffic on other primary and secondary roads in the area as well as on other city streets. The selection of detour routes will be determined during the final design stage of the project.

The primary objective of this report was to study an improvement of this route with regard to environmental impact, socio-economic effects upon the area, design concepts, costs and service to traffic. A discussion of each alignment was made using these factors. Maps, graphs, charts and aerial photographs of the alternates were used as aids in the evaluation.

This report has been developed to show the relative merits of three possible alternates for the Iowa 148 project and to present the facts to the staff, the Iowa State Highway Commission and the public concerning the various proposed improvements. After considering the total costs involved and the traffic service provided by the two alternates, as documented in this report, it is recommended that Alternate 1 be built. The Do Nothing Alternate does not respond to the legislative mandate which states that the Iowa State Highway Commission is to make improvements to the primary road system in such a manner so as to equalize the condition of the primary roads, as nearly as possible, in all areas of the state and to schedule these improvements by considering the physical condition, safety, and service characteristics of the various primary roads.

TYPICAL CROSS SECTIONS

11-FOOT TYPICAL SECTION



APPENDIX

BY FOOT TYPICAL SECTION

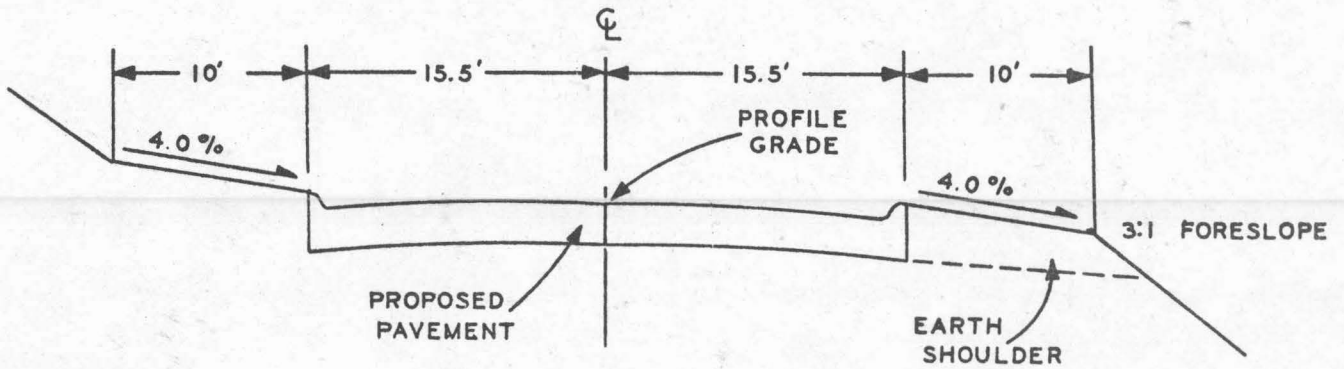


1. CHECK WITH THE ARCHITECT FOR THE CORRECT DIMENSIONS AND MATERIALS TO BE USED IN THE CONSTRUCTION OF THE SECTION.

11-FOOT SECTION

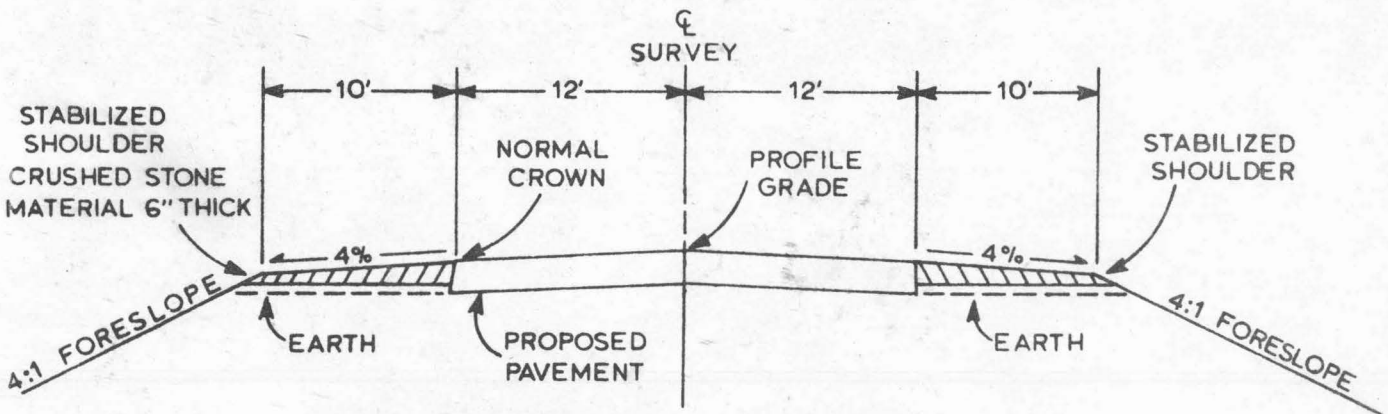
TYPICAL CROSS SECTIONS

31-FOOT URBAN SECTION



LOCATION:
ALTERNATE 1

24-FOOT RURAL SECTION



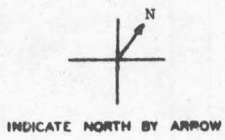
6:1 FORESLOPE WHEN FILL IS 0' THROUGH 5'
 4:1 FORESLOPE WHEN FILL IS 6' THROUGH 15'
 3:1 FORESLOPE WHEN FILL IS OVER 15'

LOCATION:
ALTERNATE 2

TRAFFIC DATA SHEET

COUNTY	ROUTE	LOCATION	SECT. LENGTH	EST	EST	EST	DIR. DIST. %	% TKS
				1978 ADT	19 98 ADT	1998 DHV		
Cass	Ia.148	So. Corp. Limit Anita to Jct. Ia. 83	.68	1400	1840	240	54	12
Cass	Ia.148	Ia. 83 East to Ia. 148 Turn North	.33	1990	2660	310	52	7
		Conditions:						
		1. The Proposed Interstate System Completed.						
		2. Continued Use and Development of Lake Anita State Park Through 1998						
		3. Ia. 148 Improved on Present Route Through Anita.						
Cass	Ia.148	So. Corp. Limit Anita to Jct. Ia. 83	.68	1040	1380	201	54	12
Cass	Ia.148	Ia. 83 East to Ia. 148 Turn North	.33	1620	2200	271	52	7
Cass	148Bypass	Jct. Ia. 148 South to Jct. Ia. 148 North	.85	400	510	77	50	5
		Conditions:						
		1. The Proposed Interstate System Completed.						
		2. Continued Use and Development of Lake Anita State Park.						
		3. Ia. 148 Bypass East Around Anita Completed.						

FIGURE 4



VEHICULAR TURNING MOVEMENTS

COUNTY Cass

Conditions:

1. The Proposed Interstate System Completed.
2. Continued Use and Development of Lake Anita State Park Through 1998.
3. Ia. 148 Improved on Present Route Through Anita.

LOCATION Jct. Ia. 148 and Ia. 83;
Point B

ALTERNATE 1

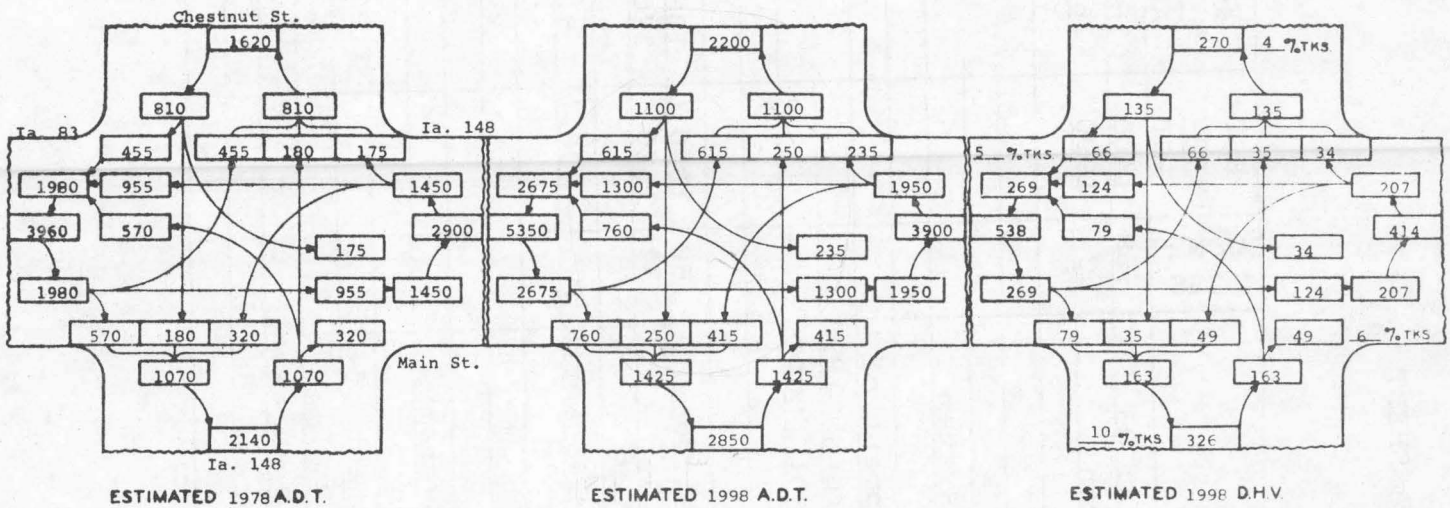


FIGURE 5



Conditions:

1. The Proposed Interstate System Completed.
2. Continued Use and Development of Lake Anita State Park Through 1998.
3. Ia. 148 Improved on Present Route Through Anita.

LOCATION Jct. Old US 6 and
Ia. 148 No. Anita
Point C

ALTERNATE 1

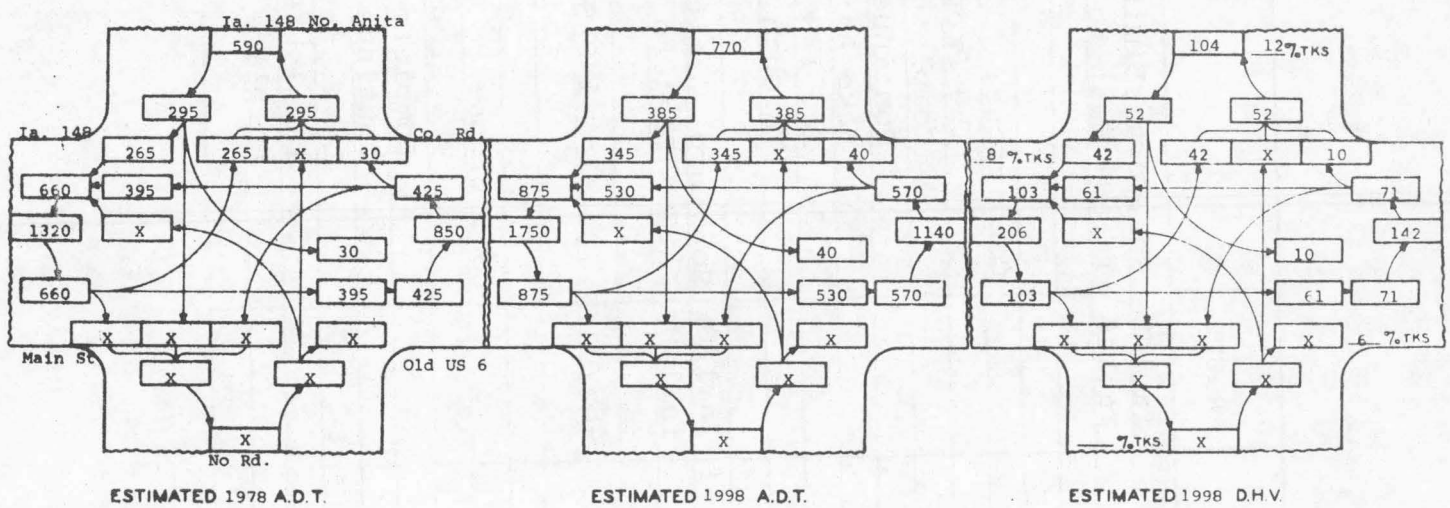


FIGURE 6



VEHICULAR TURNING MOVEMENTS

COUNTY Cass

Conditions:

1. The Proposed Interstate System Completed.
2. Continued Use and Development of Lake Anita State Park Through 1998.
3. Ia. 148 Bypass East Around Anita Completed.

LOCATION Jct. Ia. 148 and Ia. 148 Bypass - So. Anita; Point A

ALTERNATE 2

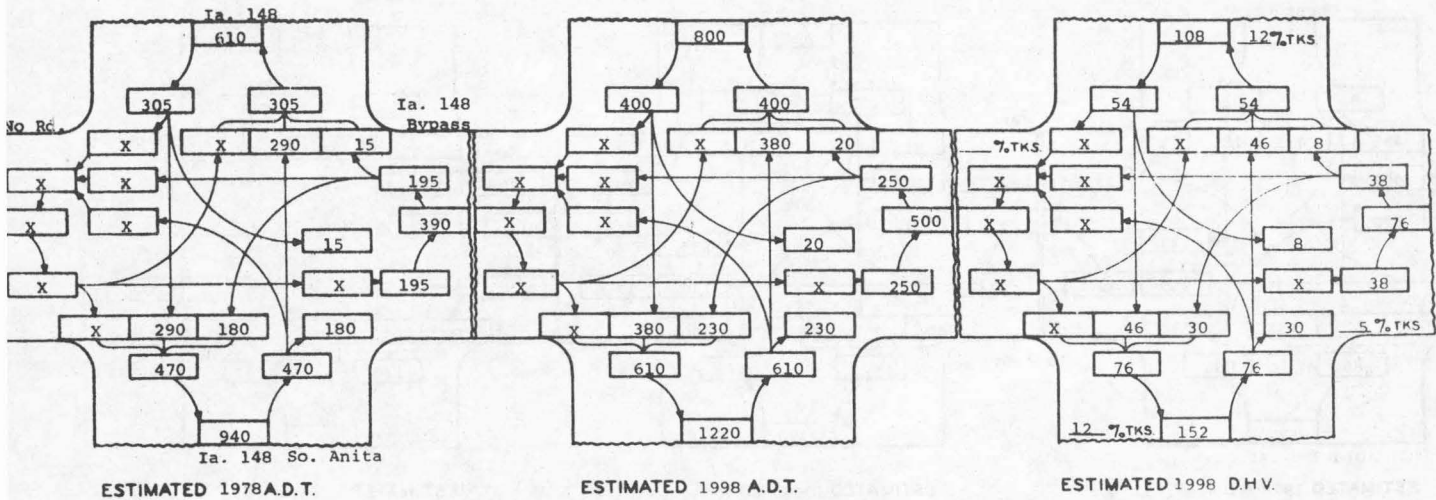


FIGURE 7

Conditions:

1. The Proposed Interstate System Completed.
2. Continued Use and Development of Lake Anita State Park Through 1998.
3. Ia. 148 Bypass East Around Anita Completed.

LOCATION Jct. Old US 6 and Ia. 148 No. Anita Point C - Bypass

ALTERNATE 2

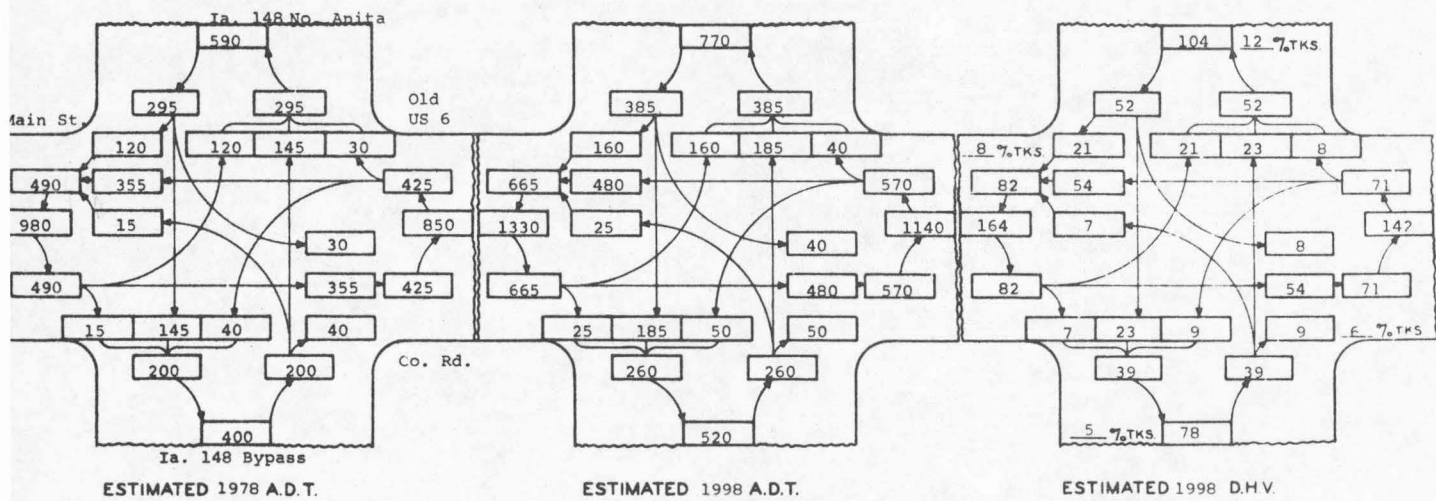
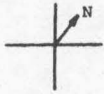


FIGURE 8



INDICATE NORTH BY ARROW

VEHICULAR TURNING MOVEMENTS

COUNTY Cass

Conditions:

1. The Proposed Interstate System Completed.
2. Continued Use and Development of Lake Anita State Park Through 1998.
3. Ia. 148 Bypass East Around Anita Completed.

LOCATION Jct. Old Ia 148 and Ia 83; Chestnut & Main St. Point B - Bypass

ALTERNATE 2

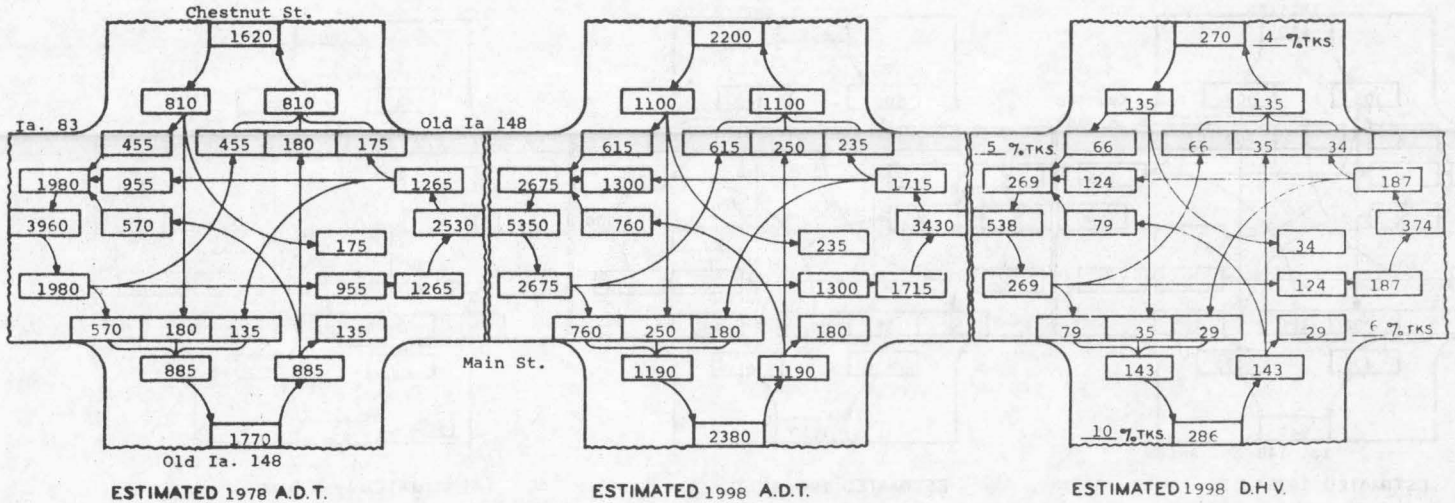


FIGURE 9

Iowa 148 - Alternates 1 & 2

The two alternate proposals on Iowa 148 through Anita begin near the south corporate limits of the town and extend northerly and easterly to the east junction of Iowa 148 and Main Street (old U.S. 6), a distance of approximately one mile.

The actual construction on Alternate 1 begins approximately 800 feet north of the south corporation line, at Station 656+00, and ends at the west junction of Iowa 148 and Main Street (Station 684+40). For continuity, the project limits are designated the same as for Alternate 2. The section of Iowa 148 along old U.S. 6 will be used as constructed. From the beginning of construction to Station 656+70 the pavement tapers from 24-feet to 31-feet, and from that point to the end of construction a 31-foot back-of-curb to back-of-curb urban section will be built. The existing bridge over Turkey Creek will be replaced by a 130-foot by 37-foot structure. No additional right-of-way will be acquired along the improvement.







Alternate 2 begins 225 feet north of the south corporation line, at Station 1650+25, and continues northeasterly and northerly on relocation, bypassing the downtown area, and intersecting Iowa 148 again at the east junction of Iowa 148 and old U.S. 6. The aerial photograph shown here is a 1970 flight and shows only the grading of Iowa 148 to the north. The section was paved in 1972. The improvement proposes 24-foot pavement with 10-foot stabilized shoulders. A connection to present Iowa 148 into Anita will be provided at Station 1660±. The pavement on existing Iowa 148 from Station 650+25 to Station 657+00 will be removed as part of Alternate 2. A new 130-foot by 44-foot bridge will be built over Turkey Creek near Station 1689±. Vermont Street will need to be closed from Roosevelt Road to Truman Road.

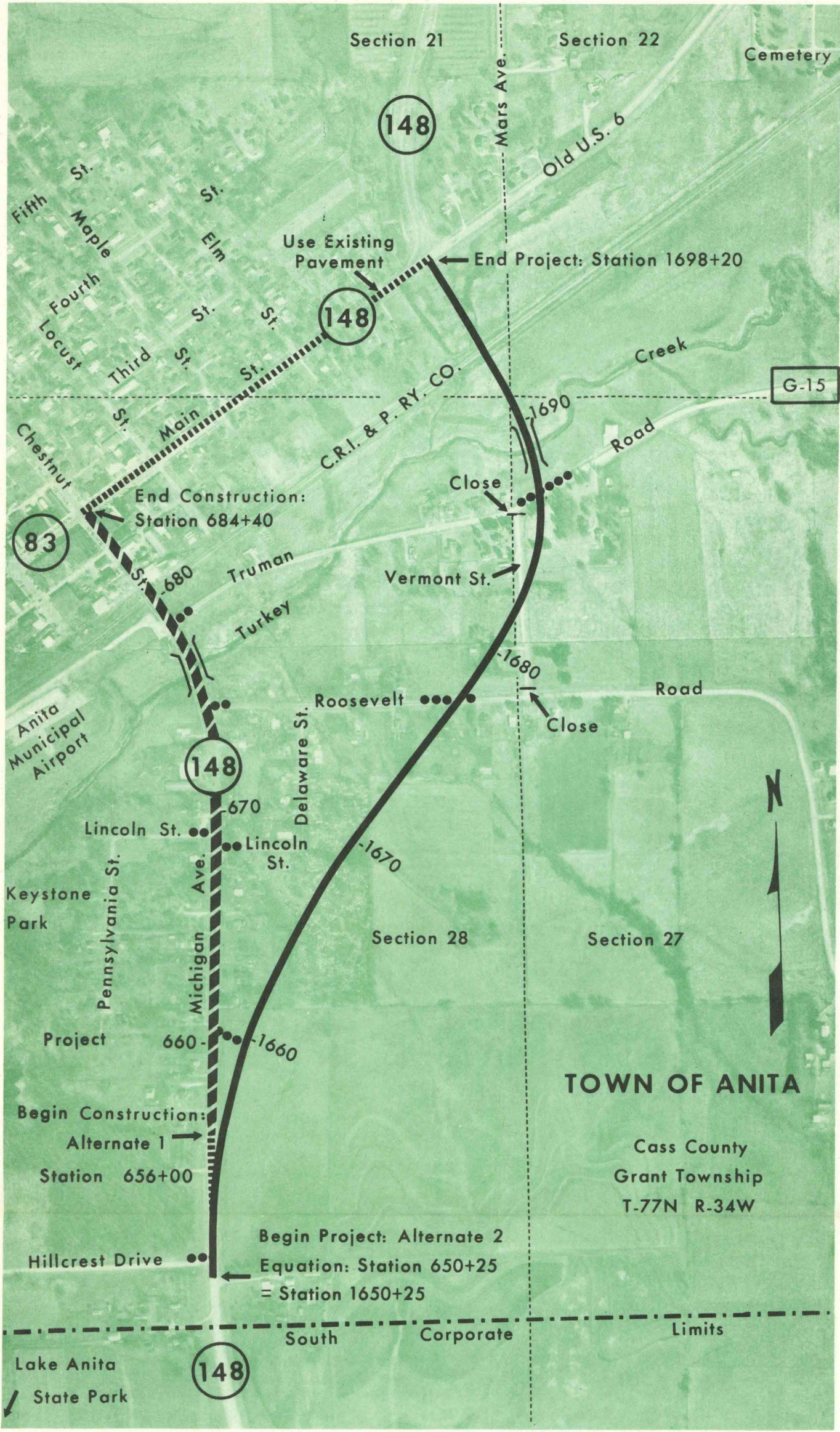
Relocation assistance will be provided for displaced persons and businesses at three locations on Alternate 2. A house and office will be acquired at Station 1668±. The office serves the auto salvage yard in the same vicinity, which will also be purchased. Other houses to be acquired are at Stations 1676± and 1680±. Several other out-buildings will also be purchased along the proposed route.

All intersecting city streets and county roads along both alternates will be reconstructed to match the proposed grade and alignment of the new highway. Private drives and other entrances have not been shown on this project. This will be done when final design plans are prepared. Every effort will be made at that time to locate drives and entrances in compliance with both current design standards and the safety and convenience of the individuals involved.

NOTE: These are preliminary plans and are subject to review and change in final design.

LEGEND:

-  Proposed Reconstruction: 31-Foot Back-of-Curb to Back-of-Curb
-  Proposed Relocation: 24-Foot Reconstruction
-  Proposed Side Road and Side Street Connections
-  Use Existing Roadway As Constructed
-  Corporation Line
-  Section Lines



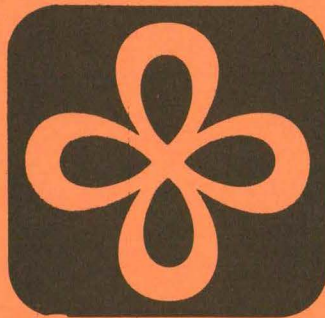
SCALE: 1 in. = 500 ft.

PLATE 1

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3 1723 02104 2148



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a place to grow