

A TRUNKLINE PLAN

FOR THE

CITY OF

NORWAY

MICHIGAN STATE HIGHWAY DEPARTMENT
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October 3, 1960

Mr. J. D. Cruise
Chief Planning Engineer
Michigan State Highway Department
Lansing, Michigan

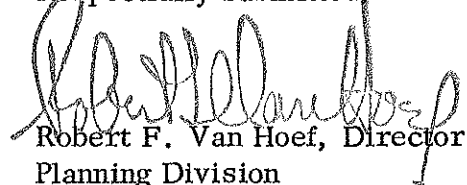
Dear Mr. Cruise:

Attached is the "Trunkline Plan for The City of Norway". This plan was developed by the Planning Division and has received the concurrence of city officials.

Stage I of the plan involves the widening of existing US-2 through the city and will serve traffic needs for the foreseeable future. Stage II, which is the long-range plan for the city, involves a one-way pair of trunkline streets for US-2 to be effected sometime in the future when traffic volumes indicate the need for such an expansion of the trunkline system. US-8, the other trunkline in the city, carries a nominal amount of traffic and no relocation nor increase of traffic capacity is warranted on the route.

As existing US-2 west of Norway will be converted to a multi-lane facility in the immediate future, it is suggested that the improvement of US-2 through the city be included as an early project in the 1963-1967 construction program. This will allow the city of Norway to receive optimum benefits from the improvement of the rural portion of US-2, and at the same time eliminate the possibility of excessive traffic congestion occurring in the downtown area.

Respectfully submitted,


Robert F. Van Hoef, Director
Planning Division

RFV:JCV:pp
Att.

CITY OF NORWAY

The city of Norway is located in the southern part of Dickinson County in the Upper Peninsula of Michigan. It is a relatively small municipality, having a 1960 population of 3,250. Formerly a logging center, the city's economy is now based on small manufacturing establishments and the iron mining industry. An additional economic base is supplied by the tourist industry which is, for the most part, limited to the summer months.

In surveying the economy of the city, one economic index, retail sales, indicates that during the period between 1948 - 1954 the economy of Norway experienced a slight decline. A similar decline was also noted in the population of the city. From 1940 to 1950 the population decreased by 470 (approximately 12.6%). However, it appears that the population of the city will level off somewhere around the 1960 figure of 3,250, which is almost identical to the 1950 census count of 3,258. In the light of these statistics, it appears that there is little possibility that the city of Norway will expand to any appreciable extent within the next two decades. Unless unforeseen developments occur which result in the establishment of new industries in the area, Norway, in all probability, will continue to remain a relatively small municipality.

Future Potential of US-2

In proposing a trunkline plan for US-2 in the city of Norway, any future plans concerning the trunkline which may alter both the alignment and the function of the existing route must be considered. One such plan, which is presently under consideration, is for US-2 to be included as part of the Interstate System. As such, it would serve the entire Upper Peninsula as well as the out-state through traffic movement which will be generated by the construction of the International Bridge over the St. Mary's River at Sault Ste. Marie. Upon completion, this bridge will provide the final link to a continuously numbered US-2 east-west transcontinental route. If optimum trunkline service is to be provided to the entire Upper Peninsula, as well as to this out-state through traffic movement, it is imperative that the trunkline be centrally located. An added advantage of a centrally located route is the direct route alignment which would be achieved with US-2 west of Michigan and King's Highway #17 through Canada.

If this new alignment becomes a reality, (not necessarily as part of the Interstate System) the chief function of existing US-2 will then be the servicing of local traffic needs. Therefore, major consideration should be given to selecting a location for US-2 in the city of Norway which will provide optimum benefits to local motorists. However, service must also be provided to the through traffic movement which will be encountered during the interim period preceding the possible construction of US-2 along a new location. These major objectives are provided for in the proposed trunkline plan. It must also be mentioned that this possible relocation of US-2 was only one of numerous factors considered in selecting a trunkline routing for US-2 in Norway. Other more substantial factors formed the major basis for the city of Norway trunkline plan.

Traffic Data

The existing (1958) average daily traffic figures established for US-2 in the city of Norway, range from a high of 6,500 to a low of 3,100. As can be expected, the highest volumes of traffic were recorded in the downtown area and the lower volumes of traffic near the outskirts of the city.

The peak average daily traffic count of 6500 was recorded just west of the junction with US-8, indicating that the major interchange of traffic between trunklines is the US-8 - US-2 (west) movement. Other high traffic volumes on US-2 occurred between Brown Street (US-8) and Iron Street. This segment of the route spans the central business district of the city. Further east and west of the downtown area, traffic decreases substantially to an average of 3100 vehicles per day at the west city limits and 3200 vehicles per day at the east city limits. Future traffic volumes anticipated on the US-8 as indicated on Exhibit I of the report, will range from a high average daily volume of 16,900 vehicles to a low average daily volume of 9,600. The estimated design hour volumes will range from 2,000 to 1,150, respectively. These projected traffic volumes can be adequately served by the Stage I improvements on US-2 proposed in this report.

Traffic Capacity

As indicated in Chart I of this report, the existing traffic on US-2 exceeds the practical capacity (traffic moving without unreasonable delay, hazard, or restriction) on a substantial portion of the route within the city limits. This indicates the need for increased capacity being incorporated into the route in the not too distant future. Upon completion of the expansion of US-2 outside of Norway, the traffic problems inside of the city will undoubtedly become more acute, and will further emphasize the need for expanding the city's portion of the route.

CITY OF NORWAY

ESTIMATED 1978 AVERAGE DAILY TRAFFIC

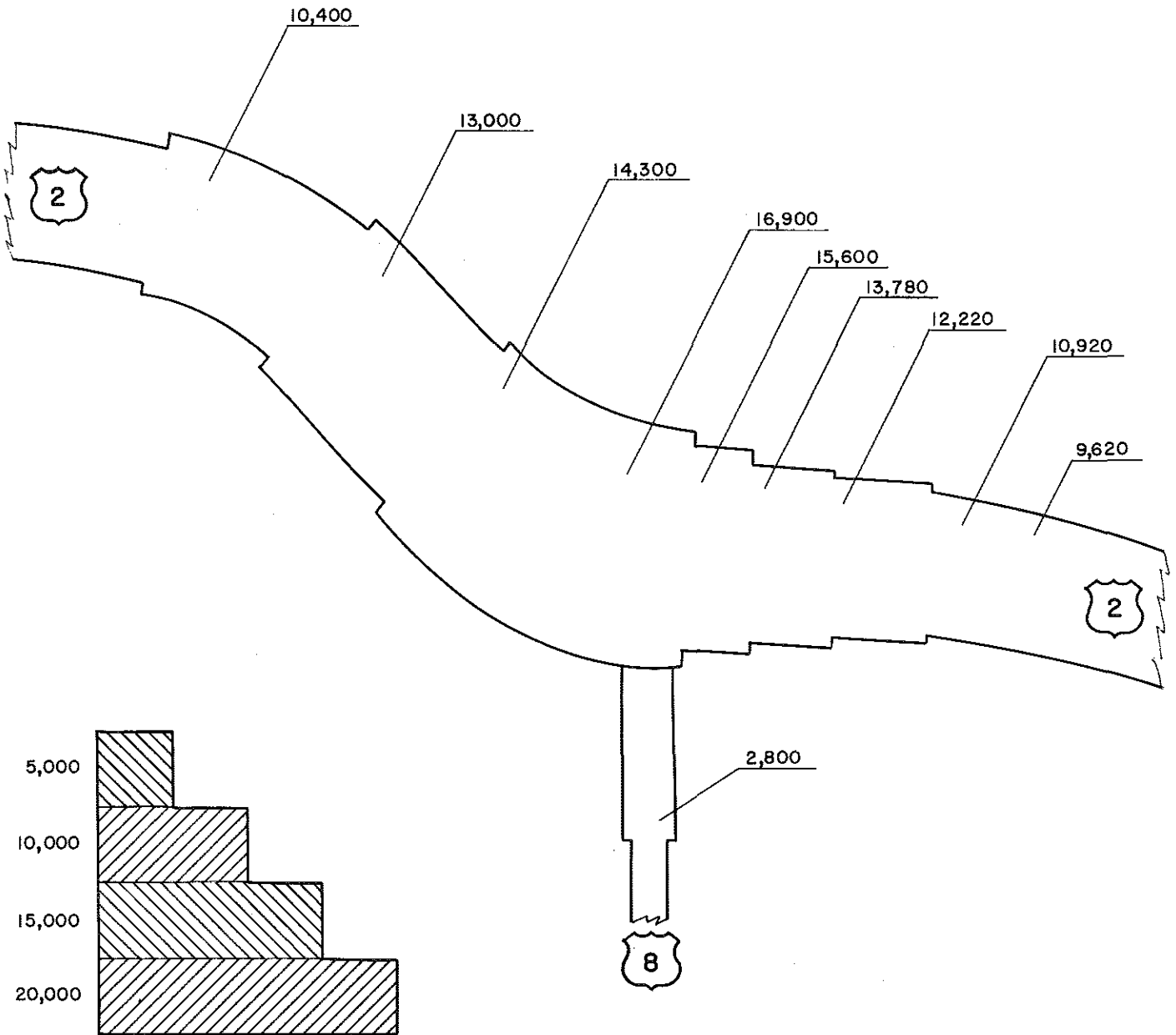


CHART I

CITY OF NORWAY

US-2

1958 Practical Capacity of US-2
 (From west city limits to east city limits)

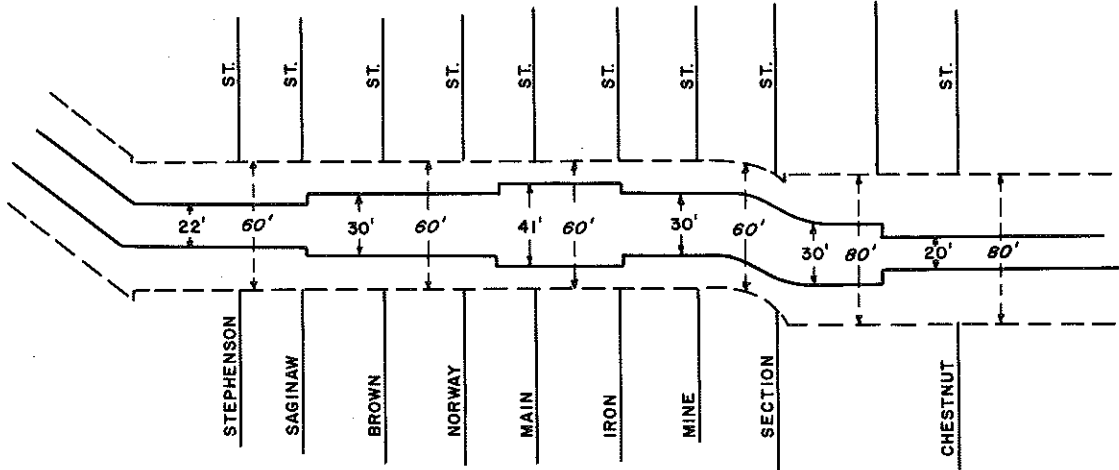
Area Traversed	Distance (Miles)	Street Width	Avg Hrly Capacity	1958 DHV	Capacity Factor	Yr. Practical Capacity Exceeded
Outlying	.442	20'	430	480	0.89	Exceeded
Outlying	.591	22'	540	600	0.90	Exceeded
Intermediate	.810	22'	590	660	0.89	Exceeded
Intermediate	.066	20'	470	780	0.60	Exceeded
Intermediate	.093	30'	900	720	1.25	1962
Downtown	.081	41'	1260	636	1.98	1974
Downtown	.199	30'	810	564	1.44	1965
Intermediate	.241	20'	400	504	0.79	Exceeded
Outlying	.699	22'	540	444	1.21	1962

CITY OF NORWAY

DOWNTOWN AREA

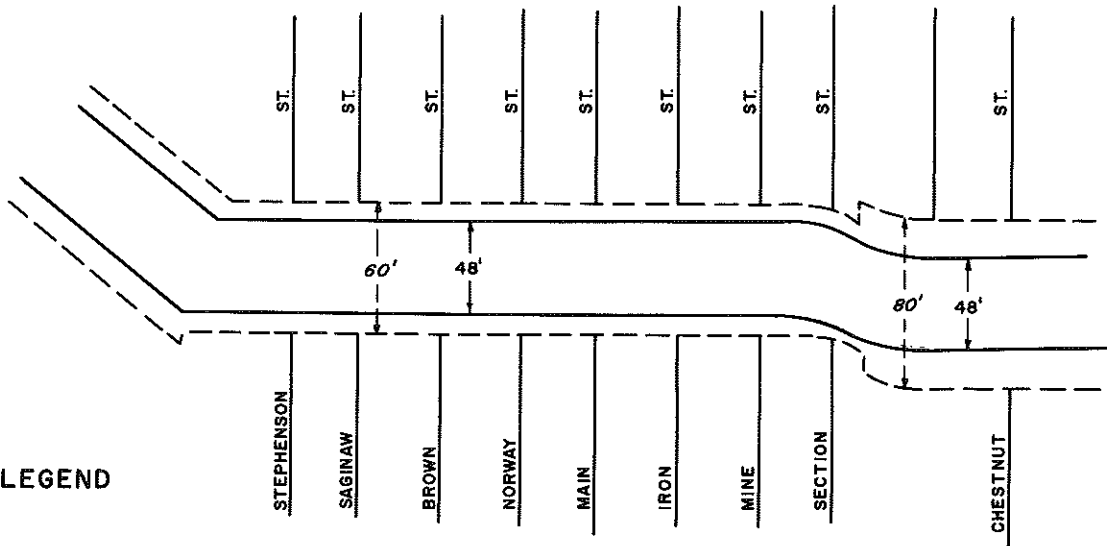
US - 2

EXISTING R.O.W. AND STREET WIDTH

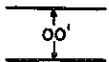


US - 2

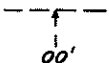
PROPOSED R.O.W. AND STREET WIDTH



LEGEND



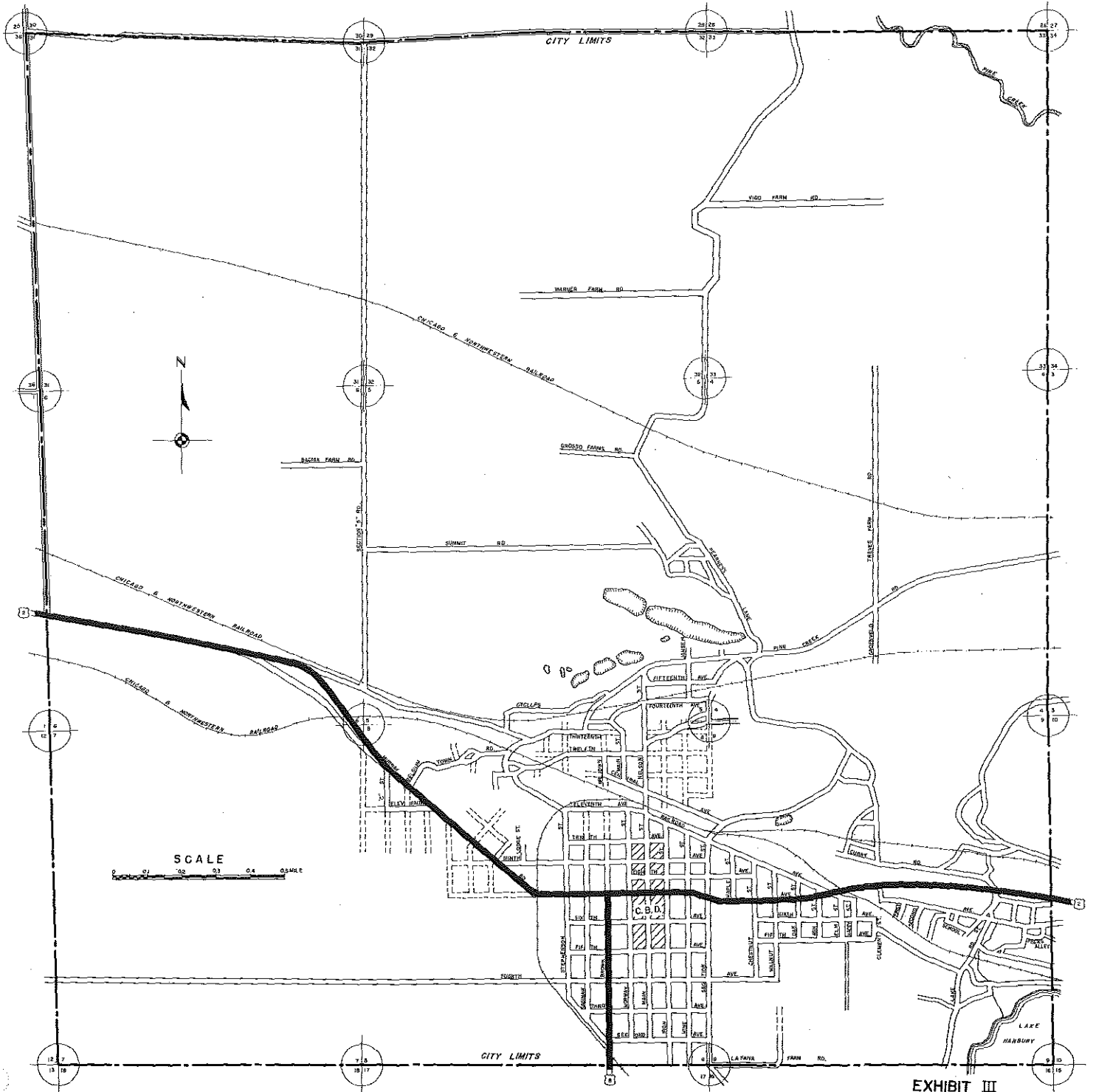
PAVEMENT WIDTH



RIGHT-OF-WAY WIDTH

CITY OF NORWAY STATE TRUNKLINE PLAN

STAGE I



THE TRUNKLINE PLAN

Stage I

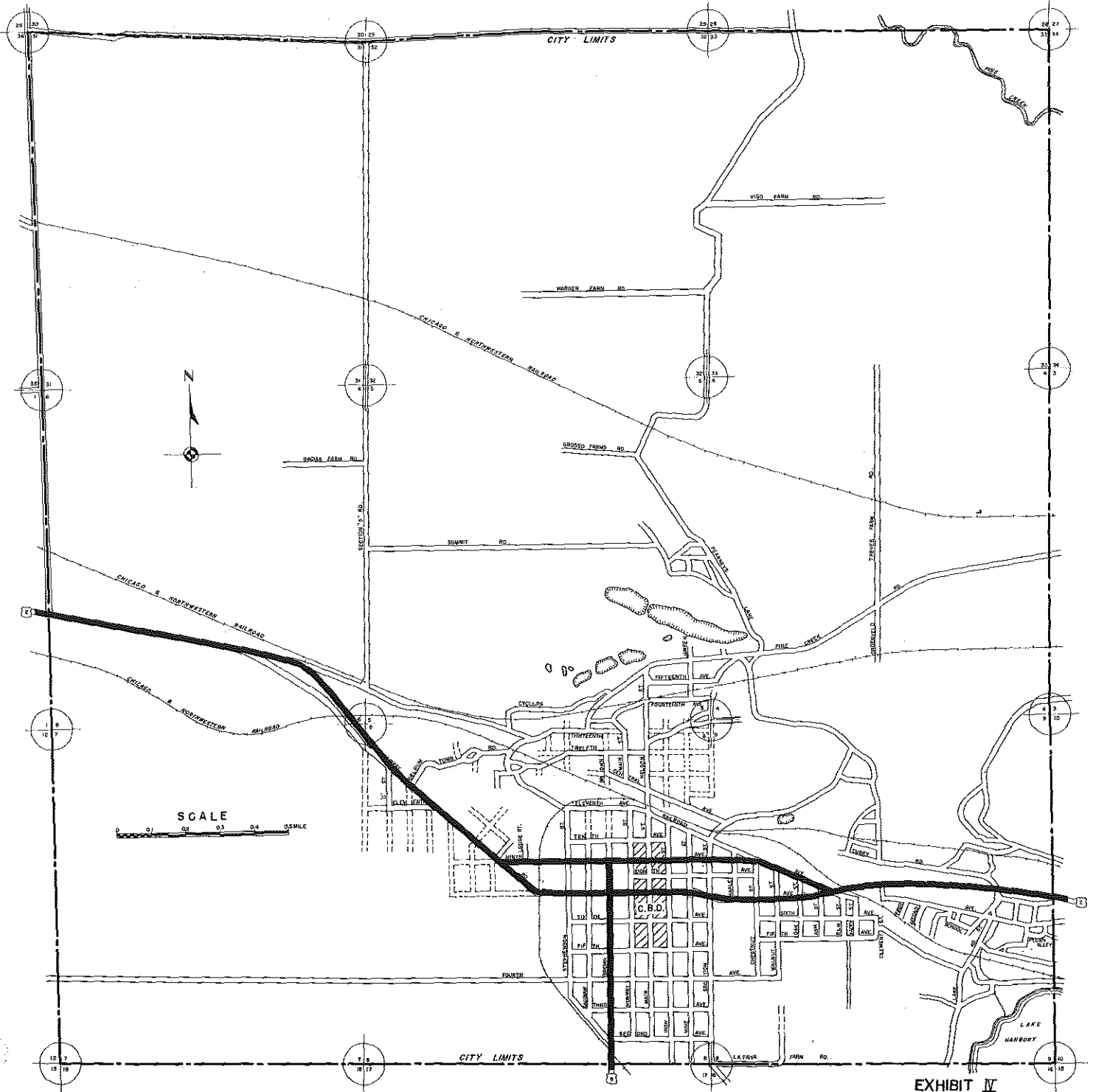
After analyzing the city of Norway as to growth potential and land use, US-2 as to existing and anticipated traffic volumes, and the economy of the route with respect to construction and right-of-way costs, it has been decided that widening the existing facility to a width of 48 feet in the downtown area will provide more than adequate traffic capacity for the Stage I phase of the trunkline plan. Following are the advantages inherent in widening the existing facility:

1. Sufficient traffic capacity is obtained to adequately carry the anticipated traffic volumes. This is a prime factor when considering the alternatives of expanding an existing facility or constructing the route on a new location.
2. By removing parking from the route, sufficient leeway is provided for turning movements, thus minimizing the congestion and friction which would normally result from the conflict between through and terminal traffic.
3. Construction-wise, this is the least costly of the alternate locations through which US-2 could be routed in the city. Except where minor alignment corrections are deemed necessary, sufficient right-of-way is available for expanding the existing pavement width to forty-eight feet over the entire length of US-2. This attains added significance when considering that the area involved is urbanized with subsequently higher land values. In addition, no increase in trunkline mileage is experienced, thus holding to a minimum maintenance costs.
4. By remaining on the existing alignment, little, if any, disruption of the existing land pattern and land use is experienced in the city. The residential areas remain intact and no homes have to be vacated to make way for the highway. Thus, no hardships are imposed on residents of the city.
5. The inhabitants have grown accustomed to the trunkline being in its present location and do not have to re-orient themselves to a new facility. This is especially true in the case of people living in a residential area who suddenly find a trunkline replacing their local street with the subsequent increase in traffic and the attendant disturbances which result.
6. The central business district continues to be served efficiently by the route in its existing location.

The above mentioned factors, along with the limited growth potential of the city, point out the desirability of retaining the trunkline on its existing location and increasing traffic capacity by providing additional lanes. This plan is also in complete harmony with the thinking of local officials and conforms with the increased capacity being incorporated into the rural portion of US-2 west of the city.

CITY OF NORWAY STATE TRUNKLINE PLAN

STAGE II



THE TRUNKLINE PLAN

Stage II

The second stage of this plan is concerned with the trunkline system in Norway at some future date, when traffic needs warrant the incorporation of further traffic capacity into the route. As such, it is the long-range plan for the city which will be effected at such time when future traffic needs dictate such a trunkline expansion (see Exhibit IV).

This plan involves the utilization of existing US-2 and 9th Street (which parallels the existing trunkline) as a one-way pair. Westbound traffic would be routed northwest on Railroad Avenue, thence, west on 9th Street to a connection with US-2. Eastbound traffic would be routed through the city on 7th Street (existing US-2).

The major advantage of this one-way pair is the increased capacity which would result from the ability of one-way streets to carry large volumes of traffic with a minimum of friction from turning movements. Thus, efficient trunkline service would be provided to both terminal and through traffic. The internal circulation of traffic in and around the central business district would also be enhanced by this plan which provides for a free flowing traffic movement.

The reason for not presenting this second stage of the plan as the initial solution to the trunkline routing of US-2 through Norway, is that traffic volumes anticipated on the route are not sufficiently large to warrant an immediate establishment of a one-way trunkline system. When the traffic capacity of the existing route (after widening) is exceeded, the one-way pair of streets offers a logical sequence of trunkline development for the city.

The land which would be required for right-of-way in order to implement Stage II of the plan is residential and highly stabilized. Hence, cost of future right-of-way should not be unduly expensive, even after an extended period.