AMENDMENT TO THE

REGIONAL TRANSPORTATION PLAN--2000

STADIUM FREEWAY-SOUTH CORRIDOR

AS ADOPTED BY THE

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

MARCH 1985

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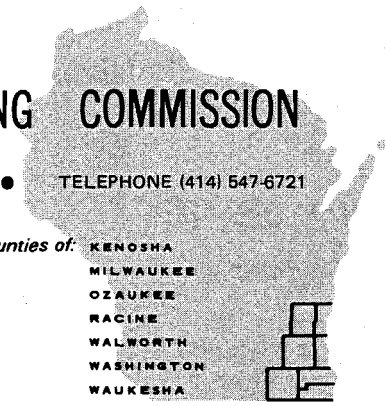

SUBJECT: Certification of Amendment to the Adopted Regional Transportation Plan (Stadium Freeway-South Corridor)

TO: The Legislative Bodies of Concerned Local Units of Government Within the Southeastern Wisconsin Region, namely: the County of Milwaukee, the Cities of Greenfield and Milwaukee; and the Village of West Milwaukee

This is to certify that at a regular meeting of the Southeastern Wisconsin Regional Planning Commission, held at the Walworth County Courthouse, Elkhorn, Wisconsin, on the 11th day of March 1985, the Commission did by unanimous vote of all Commissioners present, being 18 ayes and 0 nayes, and by appropriate Resolution, a copy of which is made a part hereof and incorporated by reference to the same force and effect as if it had been specifically set forth herein in detail, adopt an amendment to the regional transportation plan, which plan was originally adopted by the Commission on the 1st day of June 1978, as part of the master plan for the physical development of the Region. The said amendment to the regional transportation plan pertains to the previously recommended Stadium Freeway-South in Milwaukee County and consists of the inventory, analysis, plan, and plan implementation findings and recommendations contained in the documents attached hereto and made a part hereof. Such action taken by the Commission is hereby recorded on, and is a part of, said plan, and the plan, as amended, is hereby transmitted to the constituent local units of government for consideration and implementation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal and cause the Seal of the Southeastern Wisconsin Regional Planning Commission to be hereto affixed. Dated at the City of Waukesha, Wisconsin, this 12th day of March 1985.

Anthony F. Balestrieri, Chairman
Southeastern Wisconsin Regional
Planning Commission

ATTEST:

Kurt W. Bauer, Deputy Secretary

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RESOLUTION NO. 85-2

RESOLUTION OF THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION AMENDING THE ADOPTED REGIONAL TRANSPORTATION PLAN, THAT PLAN BEING A PART OF THE MASTER PLAN FOR THE PHYSICAL DEVELOPMENT OF THE REGION COMPRISED OF THE COUNTIES OF KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH, WASHINGTON, AND WAUKESHA IN THE STATE OF WISCONSIN (STADIUM FREEWAY-SOUTH)

WHEREAS, pursuant to Section 66.945(10) of the Wisconsin Statutes, the Southeastern Wisconsin Regional Planning Commission, at a meeting held on the 1st day of June 1978, duly adopted a regional transportation system plan as documented in the two-volume SEWRPC Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000; and

WHEREAS, it is envisioned in the adopted regional transportation system plan that the plan will be amended from time to time as elements of the plan are prepared in greater detail and as changing conditions may indicate or require; and

WHEREAS, the adopted regional transportation plan contains, with respect to the regional freeway system, both a lower and an upper tier, with the lower tier consisting of a short-range element and the upper tier consisting of a long-range element; and

WHEREAS, the plan includes in the lower tier a recommendation that the Stadium Freeway-South be constructed from its current terminus at W. National Avenue to W. Lincoln Avenue, and an appropriate surface arterial connection at the stub end of the Stadium Freeway-South at W. Lincoln Avenue be designed and constructed; and

WHEREAS, such plan includes in the upper tier a contingent recommendation to complete the Stadium Freeway-South from W. Lincoln Avenue to the Airport Freeway; and

WHEREAS, the two-tier nature of the plan holds open the possibility for future freeway construction, leaving the neighborhood and community directly affected with uncertainty concerning the future development of the area; and

WHEREAS, on January 12, 1977, then Governor of Wisconsin Patrick J. Lucey issued an Executive Order halting all construction on the Stadium Freeway-South as a result of sharp division of public opinion regarding the costs and benefits of freeway construction in Milwaukee County; and

WHEREAS, the State Legislature of Wisconsin and the Governor of Wisconsin have enacted and signed into law on July 1, 1983, legislation removing the proposed Stadium Freeway-South from the Milwaukee County expressway system and prohibiting the use of state and federal funds for the construction of the freeway, thereby making construction of the freeway impractical; and

WHEREAS, the State Legislature of Wisconsin and the Governor of Wisconsin directed that the Wisconsin Department of Development conduct a study to determine what surface street improvements should be made in the absence of the once-planned freeway, and whether or not S. 43rd Street should remain on the state trunk highway system; and

WHEREAS, the Southeastern Wisconsin Regional Planning Commission was engaged by the Wisconsin Department of Development to conduct the legislatively required study which is documented in a SEWRPC staff memorandum entitled, "Study of Surface Street Improvement Alternatives in the Stadium Freeway-South Corridor and Recommendation of an Amendment to the Regional Transportation System Plan," a copy of which is attached hereto and made a part hereof; and

WHEREAS, well-attended public informational meetings were held on May 10, 1984, in the City of Greenfield; on May 11, 1984, in the City of Milwaukee; and on May 14, 1984, in the Village of West Milwaukee for the purpose of describing both alternative and preliminary recommended plans; responding to questions raised by citizens and local elected officials; and receiving comments regarding public reaction to the preliminary recommended plan; and

WHEREAS, the Commission's Intergovernmental Coordinating and Advisory Committee on Transportation System Planning and Programming for the Milwaukee Urbanized Area, at its meeting held on May 16, 1984, endorsed the preliminary recommendations set forth in the aforereferenced SEWRPC staff memorandum; and

WHEREAS, the Stadium Freeway-South Intergovernmental Advisory Committee, composed of representatives from the State of Wisconsin, Milwaukee County, the City of Greenfield, the City of Milwaukee, and the Village of West Milwaukee, was appointed by the Wisconsin Department of Development to guide the conduct of the study of surface street improvements to serve the S. 43rd Street corridor and on May 22, 1984, considered and unanimously endorsed the recommended improvement plan set forth in the aforereferenced SEWRPC staff memorandum which included: the construction of a new, at-grade intersection connection of S. 43rd Street to the Stadium Freeway-South at W. National Avenue; the reconstruction of S. 43rd Street from W. National Avenue to W. Lincoln Avenue as a divided, urban arterial facility providing for four traffic lanes and two parking lanes; minimal improvement of S. 43rd Street south of W. Lincoln Avenue to convert rural cross-sections to undivided urban cross-sections, specifically the improvement of the Chicago & North Western Transportation Company's railway bridge to accommodate four lanes and the improvement of S. 43rd Street from the bridge to W. Cleveland Avenue, and from W. Euclid Avenue to W. Howard Avenue, to provide for two traffic lanes and two parking lanes; the continued use of the uncompleted Stadium Freeway-South interchange with the Airport Freeway (IH 894) only as a transit vehicle access facility to the Milwaukee County Transit System park-ride lot; and the removal of S. 43rd Street from the state trunk highway system subsequent to its improvement by the State; and

WHEREAS, the Wisconsin Department of Development presented the recommended transportation improvements at three public hearings on August 28, 1984, in the Village of West Milwaukee; on August 29, 1984, in the City of Milwaukee; and on August 30, 1984, in the City of Greenfield; and

WHEREAS, comments made at the public hearings generally indicated support of the recommended improvements in the Village of West Milwaukee and the City of Greenfield, and indicated substantial opposition to the recommended reconstruction of the Chicago & North Western railway bridge south of W. Lincoln Avenue to provide for two traffic lanes and two parking lanes in the City of Milwaukee; and

WHEREAS, the Wisconsin Department of Development has recommended to the Governor and the State Legislature a final transportation plan which is the same as that presented at the August 1984 public hearings, except that: the Chicago & North Western railway bridge would remain unimproved; the new at-grade intersection connecting S. 43rd Street with the Stadium Freeway-South at W. National Avenue would provide for access to Harnischfeger Avenue from W. National Avenue, and close Harnischfeger Avenue to traffic at a point south of the Chicago, Milwaukee, St. Paul & Pacific railway bridge; and a transition from the divided urban cross-section provided north of W. Lincoln Avenue to the undivided urban cross-section provided south of W. Lincoln Avenue would be provided south of W. Lincoln Avenue; and

WHEREAS, the recommendations not to improve the Chicago & North Western railway bridge south of W. Lincoln Avenue and to provide transition from divided cross-section to undivided cross-section south of W. Lincoln Avenue, under the proviso that no business or industrial dislocation is entailed, are not in conflict with the Commission staff and Advisory Committee recommendations; and

WHEREAS, a lack of consensus regarding the construction of the Stadium Freeway-South from its current terminus at W. National Avenue to the Airport Freeway (IH 94) has caused local communities to live with heavy through traffic on local streets and to suffer a loss in tax base for many years; and

WHEREAS, the implementation of the recommended improvement to S. 43rd Street, while not as effective as a freeway in terms of capacity or operating characteristics, is anticipated to improve accessibility from the local area to the freeway system and remove through traffic from local residential streets, thereby improving property values and promoting economic development; to reduce traffic and air pollutant emissions on local streets and parallel arterial streets in south-central Milwaukee County; and to improve the visual appeal of land cleared for construction from the previously proposed Stadium Freeway-South in the Village of West Milwaukee; and

WHEREAS, Section 66.945(9) of the Wisconsin Statutes authorizes and empowers the Regional Planning Commission, as the work of making the whole master plan progresses, to amend, extend, or add to the master plan or carry any part or subject matter thereof into greater detail.

NOW, THEREFORE, BE IT HEREBY RESOLVED:

FIRST: That the regional transportation plan for the year 2000, being a part of the master plan for the physical development of the Region and comprised of SEWRPC Planning Report No. 25, Volumes One and Two, which plan was adopted by the Commission as part of the master plan on the 1st day of June 1978, be and the same hereby is amended as follows:

1. The Stadium Freeway-South from W. National Avenue to its intersection with the Airport Freeway (IH 894) as included in the upper tier of the plan is hereby removed from the plan, and any distinction between the upper and lower tiers of the plan with respect to the Stadium Freeway-South is hereby eliminated.

2. The recommended S. 43rd Street improvement plan and the recommended stub end connection of the Stadium Freeway-South with S. 43rd Street and W. National Avenue, as shown in Figures 22 and 23, respectively, in the aforereferenced Commission staff memorandum, which memorandum is attached hereto and made a part hereof, are hereby added to the plan.

3. The Wisconsin Department of Transportation is hereby requested to complete the designs for the recommended improvements to S. 43rd Street and a new stub end intersection connection to the Stadium Freeway-South at W. National Avenue, and to proceed to secure the necessary funding and to construct these improvements as rapidly as possible.

4. The Wisconsin Department of Transportation, subsequent to the construction of the aforenoted improvements, is hereby requested to remove S. 43rd Street between W. National Avenue and W. Loomis Road from the state trunk highway system, and return jurisdictional responsibility for its operation and maintenance to the appropriate city and village units of government.

SECOND: That a true, correct, and exact copy of this resolution and its attachments shall be forthwith distributed to each of the local legislative bodies of the governmental units within the Region entitled thereto and to such other bodies, agencies, or individuals as the law may require or as the Commission, its Executive Committee, or its Executive Director, at their discretion, shall determine and direct.

The foregoing resolution, upon motion duly made and seconded, was regularly adopted at the meeting of the Southeastern Wisconsin Regional Planning Commission held on the 11th day of March 1985, the vote being: Ayes 18; Nayes 0.

Anthony F. Balestrieri, Chairman

ATTEST:

Kurt W. Bauer, Deputy Secretary

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Amendment to the

REGIONAL TRANSPORTATION PLAN--2000

STADIUM FREEWAY-SOUTH CORRIDOR

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Commission Offices
P. O. Box 769
Old Courthouse
916 N. East Avenue
Waukesha, Wisconsin 53187-1607

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March 1985

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SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
STAFF MEMORANDUM

STUDY OF SURFACE STREET IMPROVEMENT ALTERNATIVES IN THE STADIUM FREEWAY-SOUTH CORRIDOR AND RECOMMENDATION OF AN AMENDMENT TO THE REGIONAL TRANSPORTATION SYSTEM PLAN

INTRODUCTION

This report proposes and evaluates surface street alternatives in the Stadium Freeway-South corridor and recommends a surface street alternative as an amendment to the regional transportation system plan. The report includes:

- A summary of the history of the Stadium Freeway-South;
- A description of surface street improvement alternatives in the freeway corridor and an evaluation of these alternatives;
- Commission staff and and Stadium Freeway-South Intergovernmental Advisory Committee preliminary recommendations for an alternative surface street improvement;
- A summary of public reaction to those preliminary recommendations; and
- A final recommended surface street improvement alternative in the Stadium Freeway-South corridor.

This report was prepared by Southeastern Wisconsin Regional Planning Commission staff under contract to the State of Wisconsin Department of Development. The study was conducted for the Wisconsin State Legislature, which directed in the 1983-1984 state budget bill that the Stadium Freeway-South from its current stub end at W. National Avenue to the Airport Freeway be removed from the Milwaukee County expressway system, and that a study be conducted to recommend alternative surface street improvements and to establish whether the S. 43rd Street corridor should remain on the state trunk highway system. The State Legislature also required that a disposition plan be prepared for the cleared lands in the Stadium Freeway-South corridor which would not be required for transportation purposes.

The study was guided by two advisory committees. The first committee was the Stadium Freeway-South Intergovernmental Advisory Committee, which was appointed by the Wisconsin Department of Development, with the purpose of directing the preparation of the transportation and land dispostion plans in the corridor. The membership of this Committee is listed in Appendix A of this report. The second committee was the Intergovernmental Coordinating and Advisory Committee on Transportation System Planning and Programming for the Milwaukee Urbanized Area, which considers and recommends to the Regional Planning Commission amendments to the regional transportation system plan concerning the greater Milwaukee area. The membership of this Committee is listed in Appendix B of this report.

HISTORY OF CONSIDERATION OF THE STADIUM FREEWAY-SOUTH

The Stadium Freeway-South was first proposed in an expressway plan prepared for the City of Milwaukee in 1949 and approved by the City in 1952. In this plan, the Stadium Freeway-South extended from a proposed freeway located generally along the alignment of the present East-West Freeway (IH 94) to approximately W. National Avenue. Construction of this segment of the Stadium Freeway-South was begun in 1953 and was completed in 1955.

Until 1962, when the Stadium Freeway was extended to the north and the first segments of the East-West Freeway were built, the Stadium Freeway-South served principally to provide access to the Milwaukee County Stadium. Plans to extend the Stadium Freeway-South to a proposed freeway located generally along the alignment of the present Airport Freeway (IH 894) were approved in 1955 by Milwaukee County. Advance acquisition of right-of-way was undertaken over the next decade until about 60 percent of the required right-of-way was in public ownership. The first generation regional transportation plan completed and adopted by the Commission in 1966 considered the Stadium Freeway-South to be a committed facility, that is, an improvement which would be implemented by the plan design year because prior decisions had been made and actions taken by the responsible public agencies concerned to commit public investment and resources to the construction of this facility.

In 1965 detailed planning for the construction of the Stadium Freeway-South was undertaken by Milwaukee County staff and was completed in 1966. In 1967 a preliminary plan for a recommended freeway alternative in the Stadium Freeway-South corridor was prepared. In 1975 final design for the Stadium Freeway-South was completed, and in 1976 an environmental impact statement for the Stadium Freeway-South was approved. The letting of construction contracts was scheduled for 1977; however, on January 12, 1977 then Governor Patrick J. Lucey of the State of Wisconsin issued a stop-order halting all work on the Stadium Freeway-South, as a result of the sharp division of public opinion regarding the costs and benefits of further Milwaukee County freeway construction. The freeway would have been expected to carry between 48,000 and 68,000 vehicles on an average weekday by the year 2000, and to remove traffic from and improve traffic conditions on not only such parallel arterials as S. 27th, S. 35th, and S. 60th Streets, but also on the Marquette Interchange, the North-South Freeway (IH 894), and the East-West Freeway (IH 94).

In June 1978 the Southeastern Wisconsin Regional Planning Commission, after several years of intensive study, adopted a second-generation regional transportation system plan, which attempted to cope with this division of public opinion. The second-generation plan maintained the Stadium Freeway-South on the regional transportation system plan, but proposed only that the segment of the Stadium Freeway-South from W. National Avenue to W. Lincoln Avenue be constructed during the plan implementation period. The plan further recommended that no action be taken to construct the segment of the Stadium Freeway-South from W. Lincoln Avenue to the Airport Freeway for a period of at least 10 years, but that, instead, a variety of actions to modify travel demand and achieve maximum use of surface arterials and transit services be implemented. The need for the remaining freeway segment was to be reassessed at the end of that 10-year period. In the interim, all lands cleared for the Stadium Freeway-South segment were to be held in a transportation land bank and no actions taken to foreclose the construction of the freeway. This division of the Stadium Freeway-South into two segments--only one proposed for construction--was intended to provide a compromise to the freeway controversy in Milwaukee County and the Region, which was halting all transportation, and indeed much needed other public works activity in the County.

Since 1978, no action has been taken on the construction of the Stadium Freeway-South primarily as a result of a lack of funding. Action taken by the State Legislature on July 1, 1983, as a part of the 1983-1984 budget bill removed the Stadium Freeway-South from its current terminus at W. National Avenue to the Airport Freeway from the Milwaukee County expressway system and prohibited the use of state and federal funds for the construction of the freeway. This legislative action makes construction of the freeway impractical.

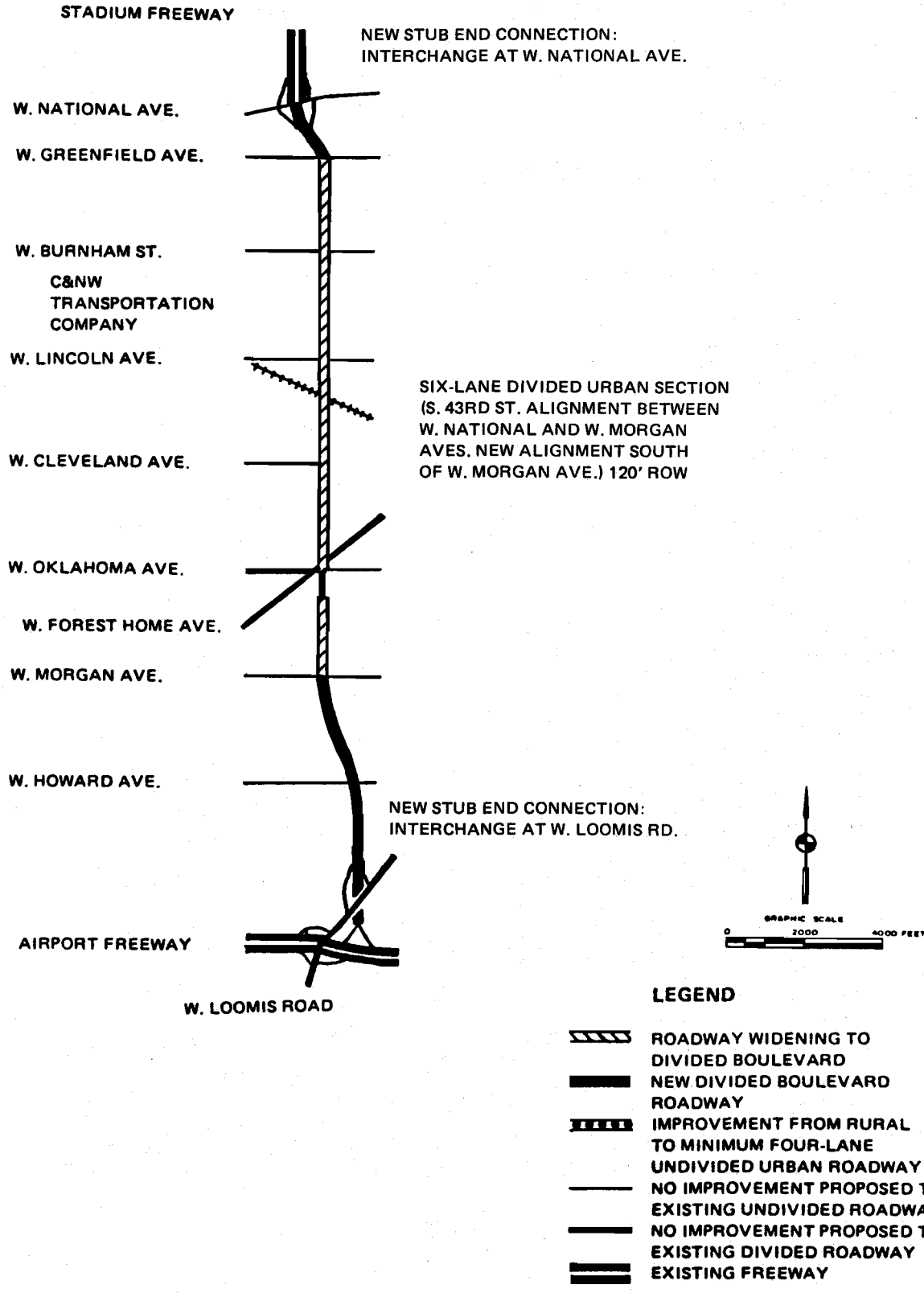
DESCRIPTION OF SURFACE STREET IMPROVEMENT ALTERNATIVES

Five surface street improvement alternatives and a "do-nothing" alternative in the Stadium Freeway-South corridor were considered. The alternatives are shown on Figures 1 through 6 and summarized in Table 1. The alternatives specify the number of lanes to be provided for traffic movement. In addition, the right-of-way and a tentative basic cross-section which could be used to provide these traffic lanes is indicated in the table. Identification in this study of the right-of-way required for each improvement is essential to the concurrent proper preparation of land use development and land disposition plans for the publicly owned cleared lands in the freeway corridor which will not be needed for transportation purposes. The ultimate selection of a cross-section to carry these traffic lanes within the specified right-of-way will be made by the units and agencies of government involved during the preliminary engineering and final design of any improvements. Specification of a tentative basic cross-section is necessary at this time, however, in order to permit estimation of the impacts and costs of any improvements in the S. 43rd Street corridor. The tentative basic cross-sections were determined in consultation with the Wisconsin Department of Transportation and the local units of governments involved.

Alternatives 1 through 5 include new connections at the Stadium Freeway-South northern stub end. The new connection under Alternative 1 would provide an interchange at W. National Avenue, as shown on Figure 7; and the new connection under Alternatives 2, 3, 4, and 5 would provide an improved at-grade intersection, as shown on Figure 8.

Figure 1

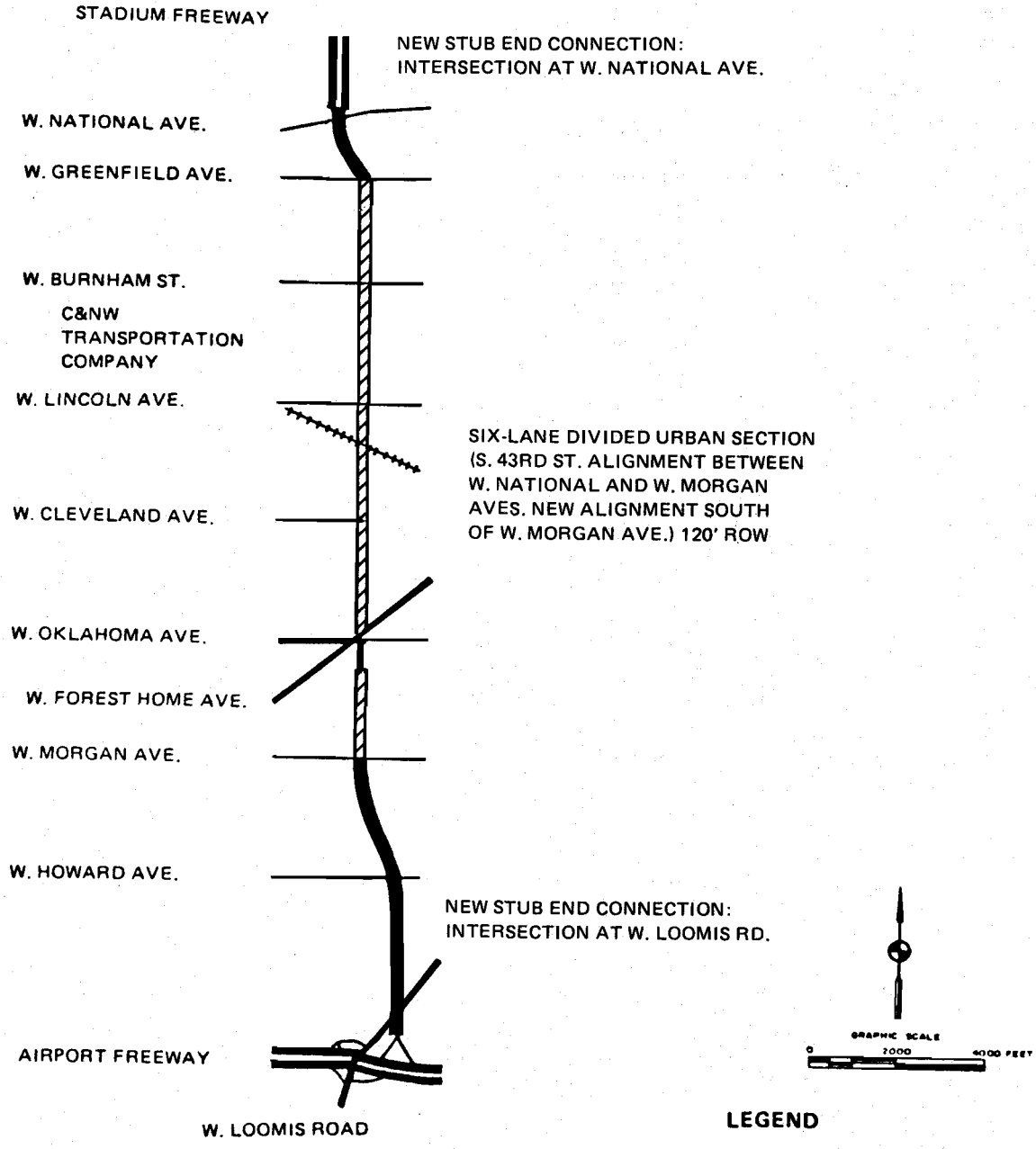
ALTERNATIVE 1: DIVIDED BOULEVARD WITH NORTHERN AND SOUTHERN STUB END INTERCHANGE CONNECTIONS



Source: SEWRPC.

Figure 2

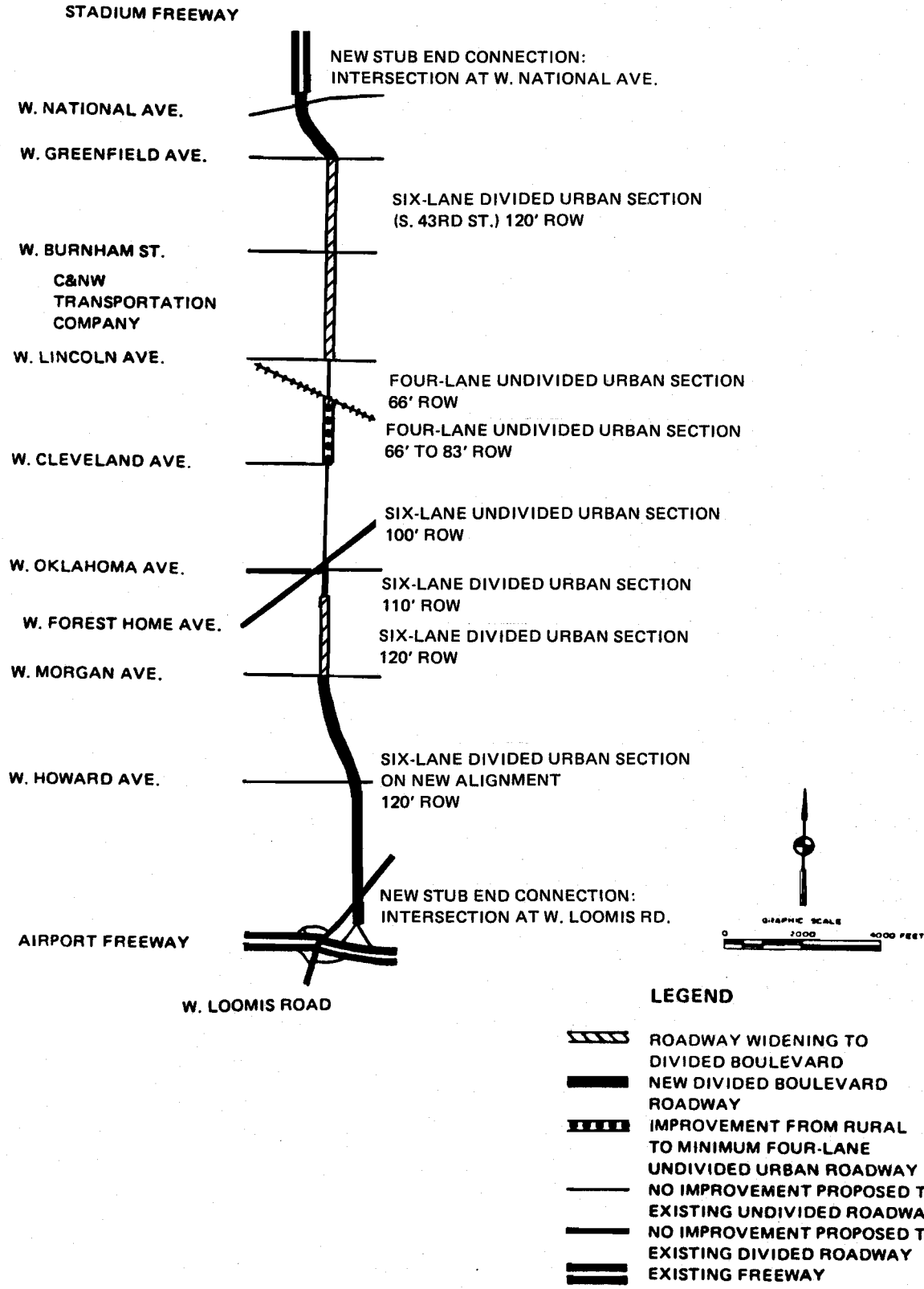
ALTERNATIVE 2: DIVIDED BOULEVARD WITH NORTHERN AND SOUTHERN STUB END AT-GRADE INTERSECTION CONNECTIONS



Source: SEWRPC.

Figure 3

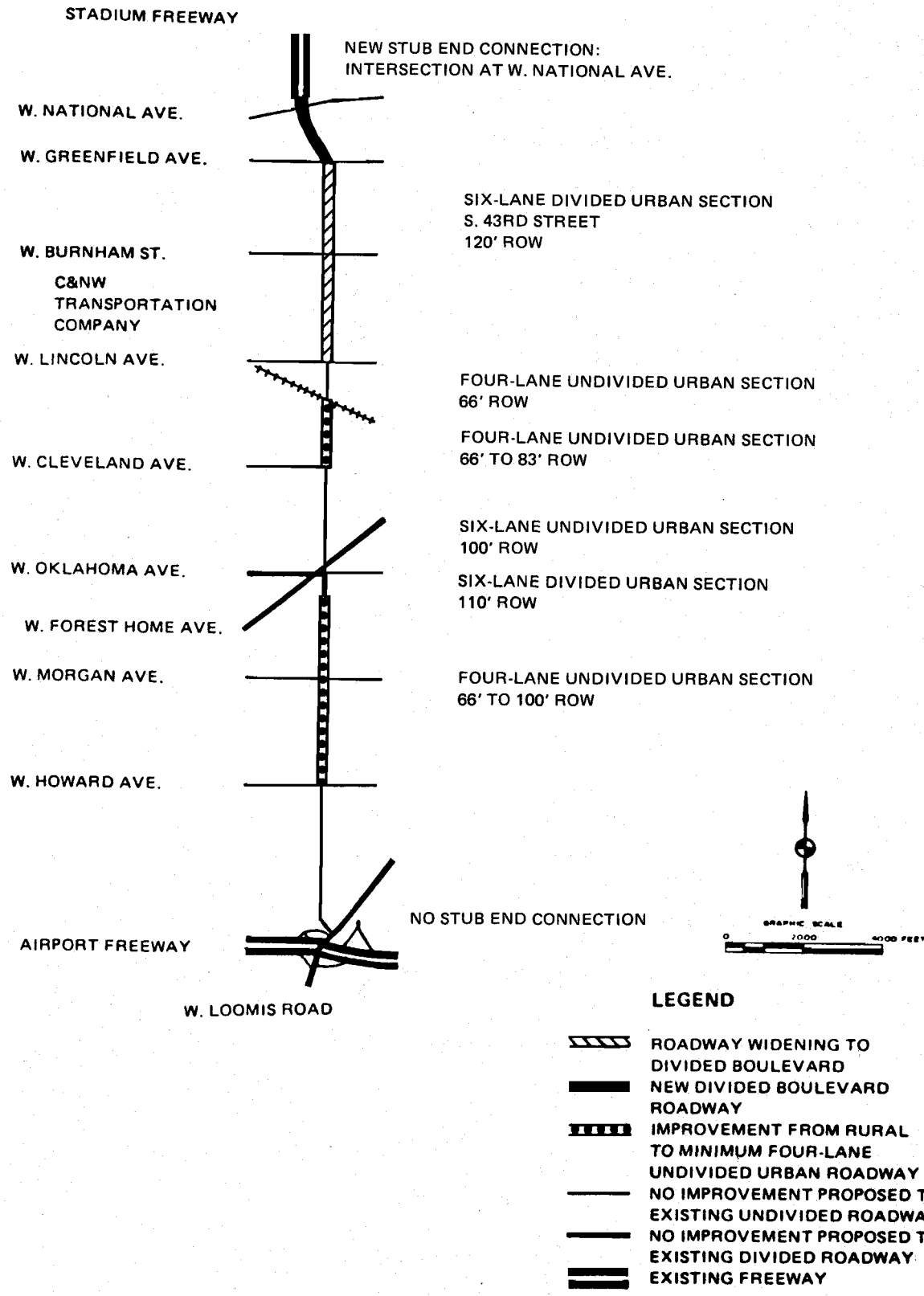
ALTERNATIVE 3: SUBSTANTIAL IMPROVEMENT WITH NORTHERN AND SOUTHERN STUB END AT-GRADE INTERSECTION CONNECTIONS



Source: SEWRPC.

Figure 4

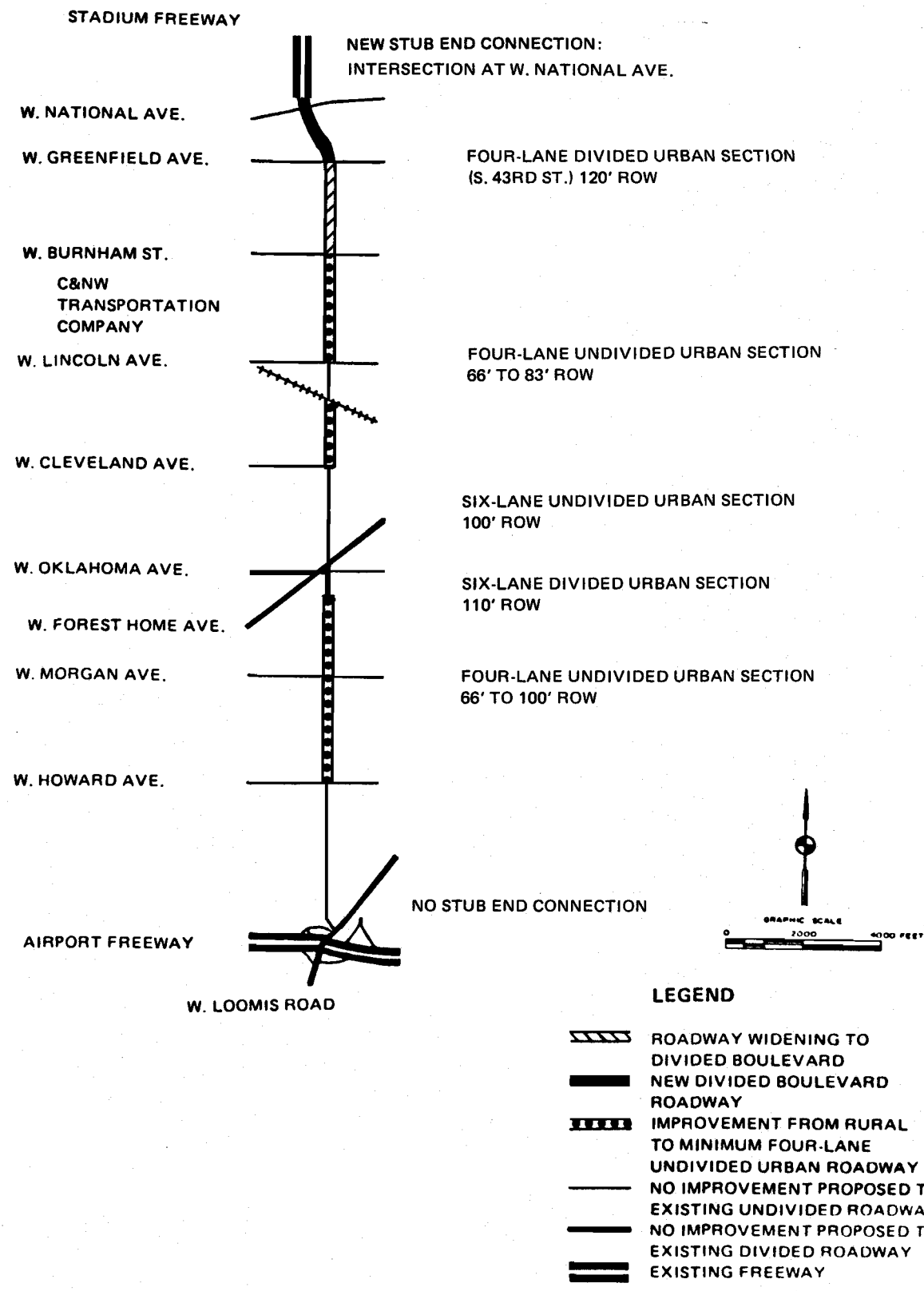
ALTERNATIVE 4: SUBSTANTIAL IMPROVEMENT WITH NORTHERN STUB END AT-GRADE INTERSECTION CONNECTION ONLY



Source: SEWRPC.

Figure 5

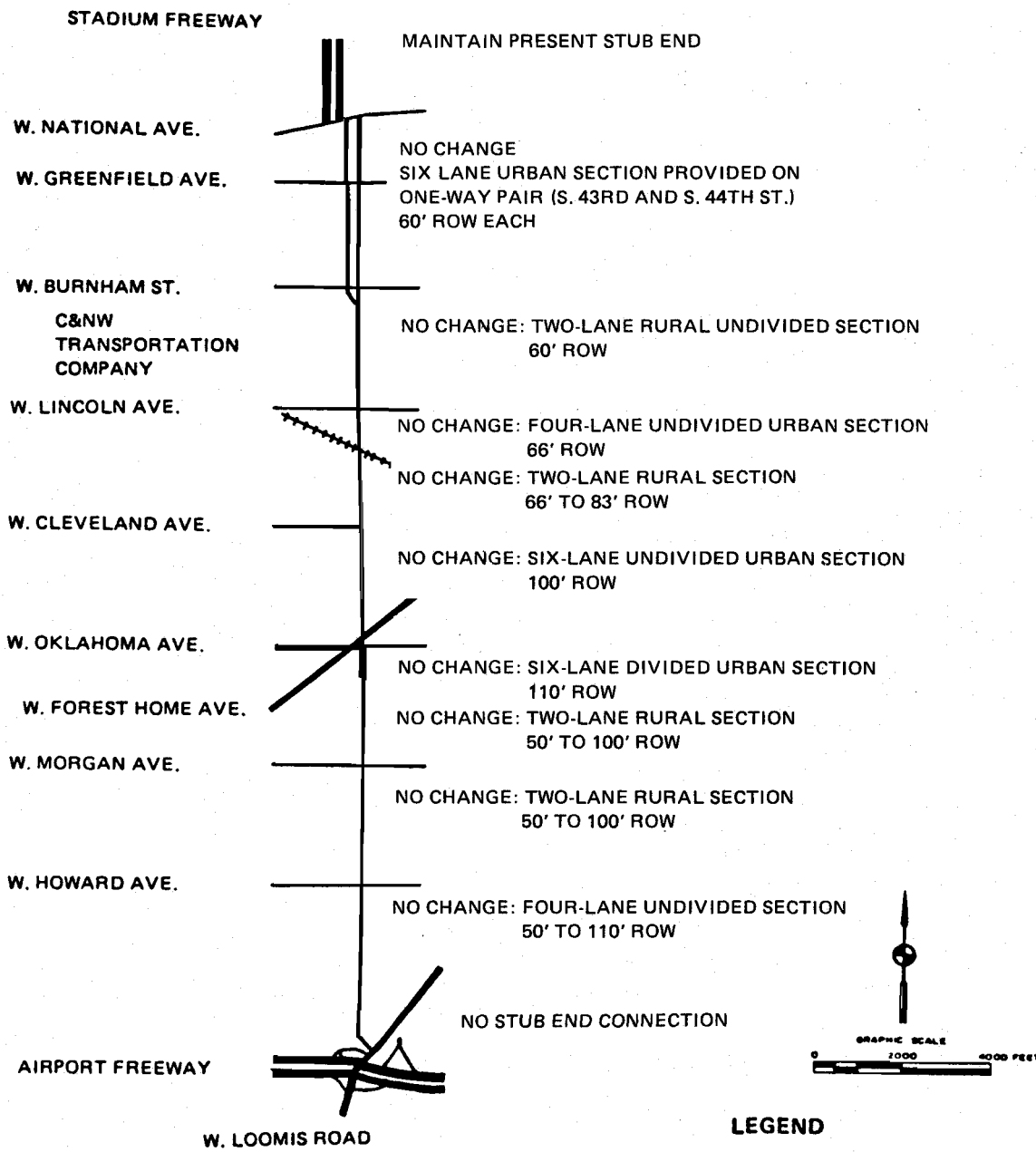
ALTERNATIVE 5: MINIMUM IMPROVEMENT WITH NORTHERN STUB END AT-GRADE INTERSECTION CONNECTION ONLY



Source: SEWRPC.

Figure 6

DO-NOTHING ALTERNATIVE



Source: SEWRPC.

Table 1

ALTERNATIVE S. 43RD STREET CORRIDOR IMPROVEMENTS TO THE STADIUM FREEWAY-SOUTH

Segment	"Do-Nothing" Alternative	Alternative 1: Divided Boulevard with Northern and Southern Stub End Interchange Connections[b,c,e]	Alternative 2: Divided Boulevard with Northern and Southern Stub End At-Grade Intersection Connections[b,c]	Alternative 3: Substantial Improvement with Northern and Southern Stub End At-Grade Intersection Connections[b,d,e]	Alternative 4: Substantial Improvement With Northern Stub End At-Grade Intersection Connection[b,d,e]	Alternative 5: Minimum Improvement With Northern Stub End At-Grade Intersection Connection[b,d,e]
Northern Stub End.....	No change (present stub end to remain)	New connection to be made with an interchange	New connection to be made with an at-grade intersection	New connection to be made with an at-grade intersection	New connection to be made with an at-grade intersection	New connection to be made with an at-grade intersection
W. National Avenue to W. Burnham Street						
Basic Cross-Section..	No change (one-way pair of three-lane urban roadways with two traffic lanes and one parking lane)	S. 43rd Street to be widened to six-lane, divided urban-boulevard with no parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane divided urban boulevard with parking
Right-of-Way.....	Existing 60' each for each of one-way pair	120'	120'	120'	120'	120'
Number of Traffic Lanes.....	4	6	6	6	6	4
W. Burnham Street to W. Lincoln Avenue						
Basic Cross-Section..	No change[a] (two-lane, undivided rural roadway)	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to four-lane, undivided urban roadway with no parking
Right-of-Way.....	Existing 60'	120'	120'	120'	120'	66'
Number of Traffic Lanes.....	2	6	6	6	6	4
W. Lincoln Avenue to CNW Railway Bridge						
Basic Cross-Section..	No change (four-lane, undivided urban roadway with parking)	S. 43rd Street to be widened to six-lane, divided urban boulevard with parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with parking	Parking prohibited on existing basic cross-section	Parking prohibited on existing basic cross-section	Parking prohibited on existing basic cross-section
Right-of-Way.....	Existing 66'	120'	120	66'	66'	66'
Number of Traffic Lanes.....	2	4	4	4	4	4

-continued-

Table 1 (continued)

Segment	"Do-Nothing" Alternative	Alternative 1: Divided Boulevard with Northern and Southern Stub End Interchange Connections[b,c,e]	Alternative 2: Divided Boulevard with Northern and Southern Stub End At-Grade Intersection Connections[b,c]	Alternative 3: Substantial Improvement with Northern and Southern Stub End At-Grade Intersection Connections[b,d,e]	Alternative 4: Substantial Improvement With Northern Stub End At-Grade Intersection Connection[b,d,e]	Alternative 5: Minimum Improvement With Northern Stub End At-Grade Intersection Connection[b,d,e]
CNW Railway Bridge to W. Cleveland Avenue Basic Cross-Section..	No change[a] (two-lane undivided rural roadway)	S. 43rd Street to be widened to six-lane divided urban boulevard with parking	S. 43rd Street to be widened to six-lane divided urban boulevard with parking	Roadway, including segment under railway structure, to be widened to four-lane undivided urban roadway with no parking	Roadway, including segment under railway structure, to be widened to four-lane undivided urban roadway with no parking	Roadway, including segment under railway structure, to be widened to four-lane undivided urban roadway with no parking
Right-of-Way.....	Existing 66' to 83'	120'	120'	66' to 83'	66' to 83'	66' to 83'
Number of Traffic Lanes.....	2	4	4	4	4	4
W. Cleveland Avenue to W. Oklahoma Avenue Basic Cross-Section..	No change (six-lane, undivided urban roadway with four traffic lanes and two parking lanes)	S. 43rd Street to be widened to six-lane, divided urban boulevard with parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with parking	No change	No change	No change
Right-of-Way.....	Existing 100'	120'	120'	100'	100'	100'
Number of Traffic Lanes.....	4	4	4	4	4	4
W. Oklahoma Avenue to W. Euclid Avenue Basic Cross-Section..	No change (six-lane, divided urban roadway with four traffic lanes and two parking lanes)	Parking prohibited on existing basic cross-section	Parking prohibited on existing basic cross-section	Parking prohibited on existing basic cross-section	No change	No change
Right-of-Way.....	Existing 110'	110'	110'	110'	110'	110'
Number of Traffic Lanes...	4	6	6	6	4	4

-continued-

Table 1 (continued)

Segment	"Do-Nothing" Alternative	Alternative 1: Divided Boulevard with Northern and Southern Stub End Interchange Connections[b,c,e]	Alternative 2: Divided Boulevard with Northern and Southern Stub End At-Grade Intersection Connections[b,c]	Alternative 3: Substantial Improvement with Northern and Southern Stub End At-Grade Intersection Connections[b,d,e]	Alternative 4: Substantial Improvement With Northern Stub End At-Grade Intersection Connection[b,d,e]	Alternative 5: Minimum Improvement Northern Stub End At-Grade Intersection Connection[b,d,e]
W. Euclid Avenue to W. Howard Avenue						
Basic Cross-Section....	No change[a] (two-lane, undivided rural roadway)	New six-lane, divided urban arterial on Stadium Freeway alignment with at-grade intersections at W. Morgan Avenue and W. Howard Avenue	New six-lane, divided urban arterial on Stadium Freeway alignment with at-grade intersections at W. Morgan Avenue and W. Howard Avenue	New six-lane, divided urban arterial on Stadium Freeway alignment with at-grade intersections at W. Morgan Avenue and W. Howard Avenue	S. 43rd Street to be widened to four-lane, undivided urban roadway with no parking	S. 43rd Street to be widened to four-lane, undivided urban roadway with no parking
Right-of-Way.....	Existing 50' to 100'	120'	120'	120'	66' to 100'	66' to 100'
Number of Traffic Lanes.....	2	6	6	6	4	4
W. Howard Avenue to W. Loomis Road						
Basic Cross-Section....	No change (four-lane, undivided urban roadway with two traffic lanes and two parking lanes)	New six-lane, divided urban arterial on Stadium Freeway alignment with grade separation at W. Loomis Road	New six-lane, divided urban arterial on Stadium Freeway alignment	New six-lane, divided urban arterial on Stadium Freeway alignment	Parking prohibited on existing S. 43rd Street cross-section	Parking prohibited on existing S. 43rd Street cross-section
Right-of-Way.....	Existing 50' to 110	120'	120'	120'	66' to 110'	66' to 110'
Number of Traffic Lanes.....	2	4	4	4	4	4
Southern Stub End.....	No connection	Complete connection along Stadium Freeway-South alignment from existing interchange to approximately W. Morgan Avenue	Complete connection along Stadium Freeway-South alignment from existing interchange to approximately W. Morgan Avenue	Complete connection along Stadium Freeway-South alignment from existing interchange to approximately W. Morgan Avenue	No connection	No connection

[a]Under the "do-nothing" alternative, these cross-sections which are now undivided, two-lane, rural roadways may be converted to undivided, minimal urban roadways with two traffic lanes, two parking lanes, and curb, gutter, and storm sewers.

[b]Any proposed prohibition of on-street parking may only need to be limited to peak traffic periods in the peak traffic direction.

[c]The estimated right-of-way for Alternatives 1 and 2 generally provides sufficient right-of-way for a desirable six-lane, divided urban arterial throughout the corridor.

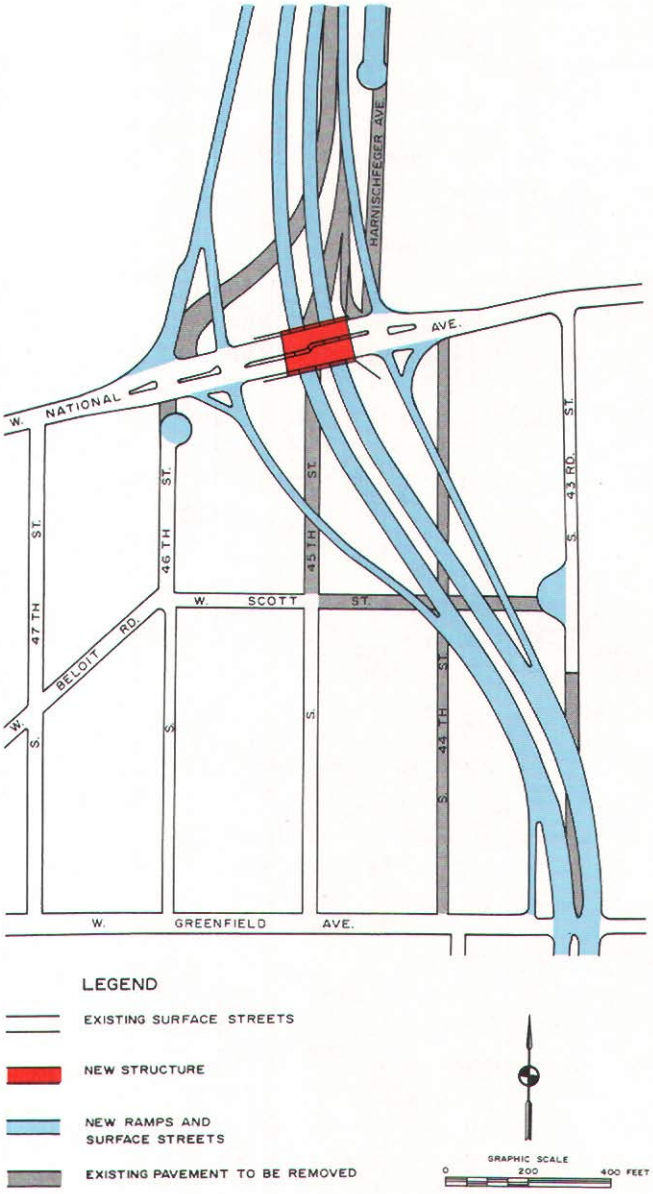
[d]The estimated right-of-way for Alternatives 3, 4, and 5 provides sufficient right-of-way for typical arterial cross-sections throughout the corridor, except through the Village of West Milwaukee, where a desirable boulevard cross-section is proposed. Under Alternatives 3 and 4, the necessary traffic capacity--three traffic lanes in each direction--could also have been provided with the existing one-way pair of S. 43rd Street and S. 44th Street (with peak period parking prohibited) and an improved transition to two-way operation south of W. Burnham Street, or with S. 43rd Street widened to a six-lane undivided roadway with no parking. Under Alternative 5, the necessary traffic capacity--two lanes in each direction--could also have been provided with the existing one-way pair of S. 43rd Street and S. 44th Street (with peak period parking permitted) and an improved transition to two-way operation south of W. Burnham Street or with S. 43rd Street widened to a four-lane undivided roadway with no parking.

[e]Examples of the proposed divided boulevard and undivided roadway cross-sections proposed under these alternatives are provided in Appendix C of this report.

Source: SEWRPC.

Figure 7

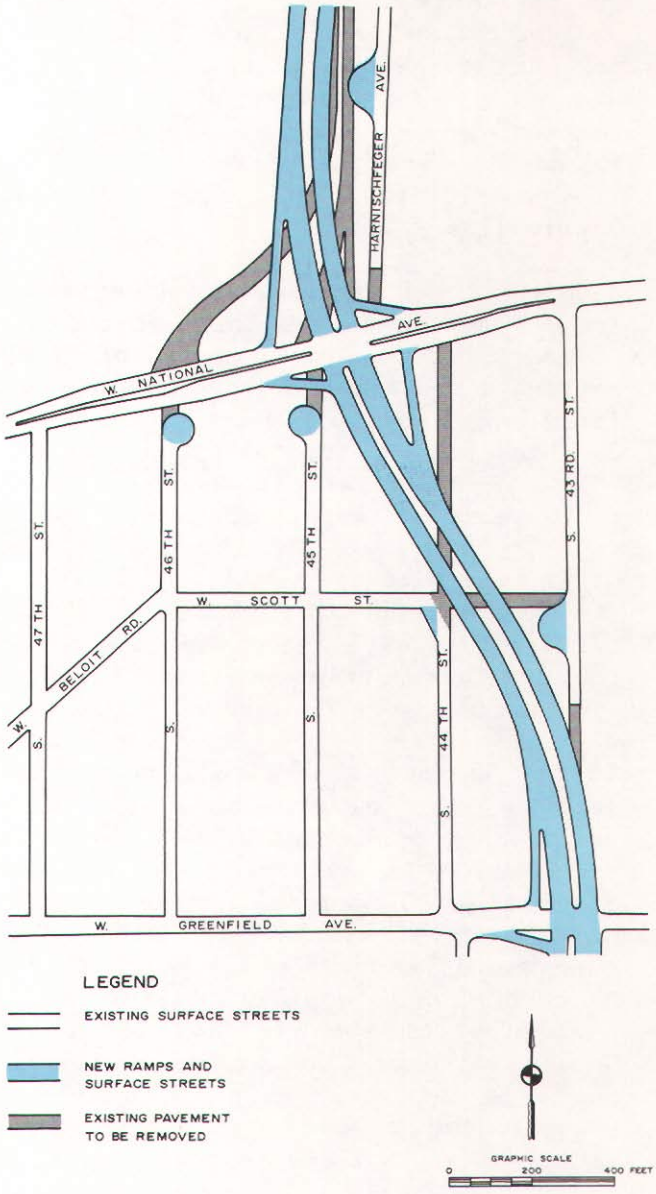
PROPOSED NEW INTERCHANGE CONNECTION AT THE STADIUM FREEWAY-SOUTH NORTHERN STUB END UNDER ALTERNATIVE 1



Source: Wisconsin Department of Transportation.

Figure 8

PROPOSED NEW AT-GRADE INTERSECTION CONNECTION AT THE STADIUM FREEWAY-SOUTH NORTHERN STUB END UNDER ALTERNATIVES 2,3,4,AND 5



Source: Wisconsin Department of Transportation.

Additional improvements to the Stadium Freeway-South which would improve access to the Milwaukee County Stadium would be compatible with the new interchange proposed under Alternative 1. These improvements, as shown on Figure 9, would provide southbound freeway traffic access to the Stadium by way of an extended, elevated loop ramp rather than by the present short off-ramp at County Stadium access road. The new ramp would increase safety by removing Stadium traffic backups from the mainline freeway and by increasing the distance for merging maneuvers of Stadium-bound traffic.

Alternatives 1 through 3 would also include a new connection with the Stadium Freeway-South southern stub end. The southern stub end connection would generally follow the planned alignment of the Stadium Freeway-South from its present southern stub end to W. Morgan Avenue, where it would connect to a widened S. 43rd Street. Under Alternative 1, the proposed southern stub end connection would include a grade separation at W. Loomis Road, as shown on Figure 10. Under Alternatives 2 and 3, the proposed southern stub end connection would include an at-grade intersection with W. Loomis Road, as shown on Figure 11.

Each of the alternatives assumes improvement and expansion of the local public transit system in the corridor and the addition of express bus routes in the northern portion of the corridor. Also, each of the alternatives assumes the continued operation of the existing park-ride lot at the Stadium Freeway-South interchange with the Airport Freeway (IH 894). Under Alternatives 1, 2, and 3, which provide for the connection of this interchange to S. 43rd Street on a new alignment, the park-ride lot would require reconstruction and relocation to the east of the new connection.

Other Alternatives Considered

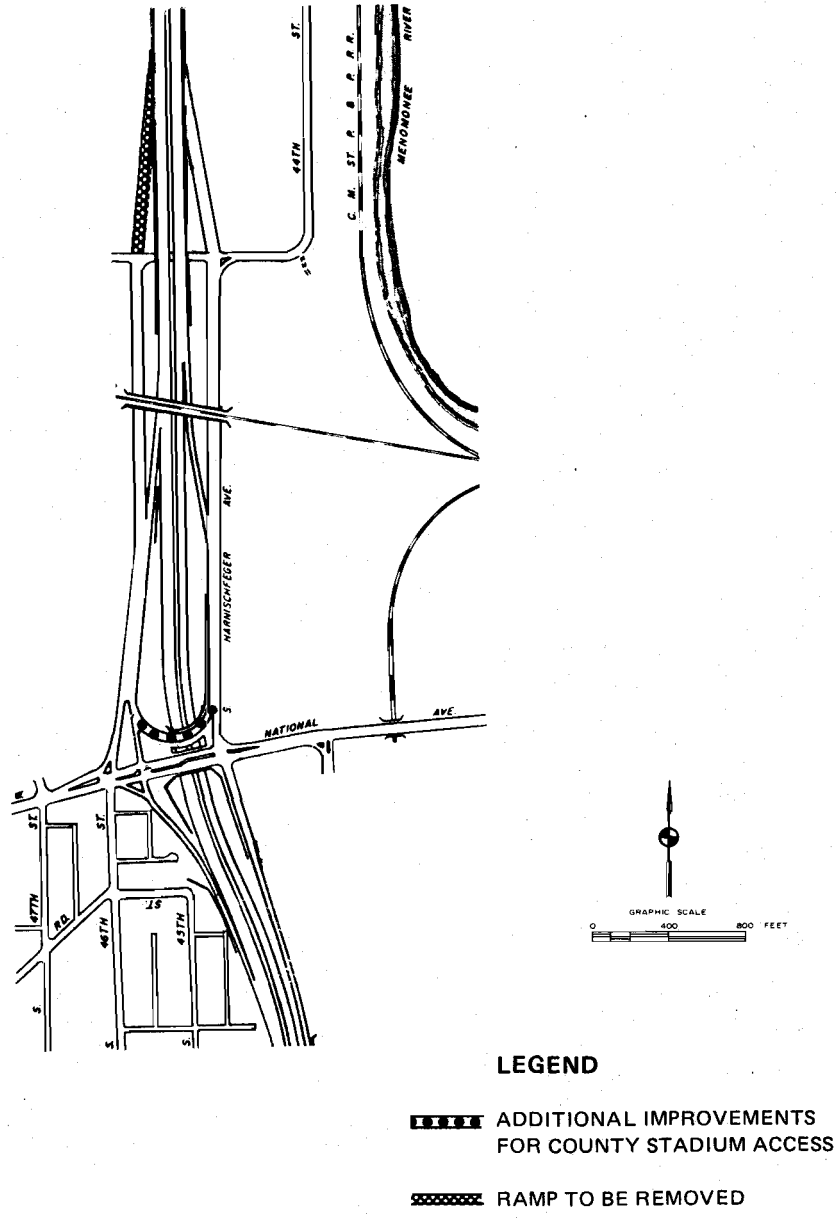
The remainder of this report provides an evaluation and comparison of the do-nothing alternative and the five street improvement alternatives presented in the previous section of this report. It should be noted, however, that other alternatives were considered but were rejected.

In the Village of West Milwaukee, two alternatives to carrying six lanes of traffic with a divided boulevard from W. National Avenue to W. Lincoln Avenue, as proposed by Alternatives 3 and 4, were considered but rejected, as shown on Figure 12. One alternative cross-section would have provided the six traffic lanes from W. National Avenue to W. Burnham Street with the one-way pair of S. 43rd Street and S. 44th Street. An improved transition to two-way operation would be provided south of W. Burnham Street, where the six lanes would be carried on a divided boulevard. The other alternative cross-section would have provided the six traffic lanes with a six-lane, undivided roadway on S. 43rd Street. The boulevard cross-section was selected for Alternatives 3 and 4 because current plans of the Village of West Milwaukee recommend the provision of a divided boulevard on S. 43rd Street within the Village.[1] In addition, the boulevard cross-section was deemed more desirable in the Village of West Milwaukee. Due to the substantial anticipated traffic volumes with an improved Stadium Freeway-South northern stub end connection, traffic movement

[1]Village of West Milwaukee, Redevelopment Plan: Stadium Freeway Corridor, July 1982 (amended February 1983).

Figure 9

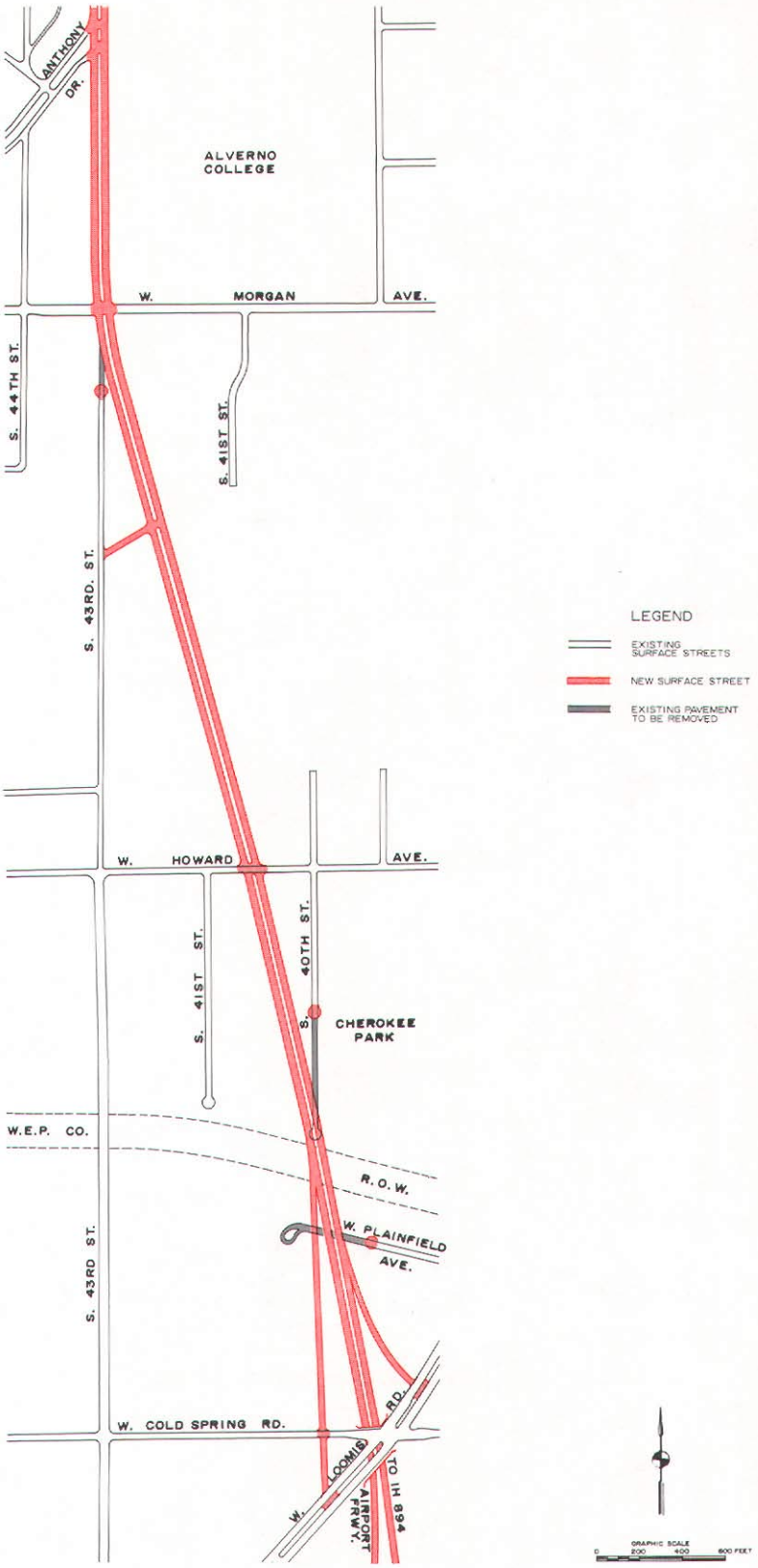
ADDITIONAL STADIUM FREEWAY-SOUTH IMPROVEMENTS WHICH WILL IMPROVE MILWAUKEE COUNTY STADIUM ACCESS AND WHICH ARE ONLY COMPATIBLE WITH ALTERNATIVE 1



Source: Wisconsin Department of Transportation.

Figure 10

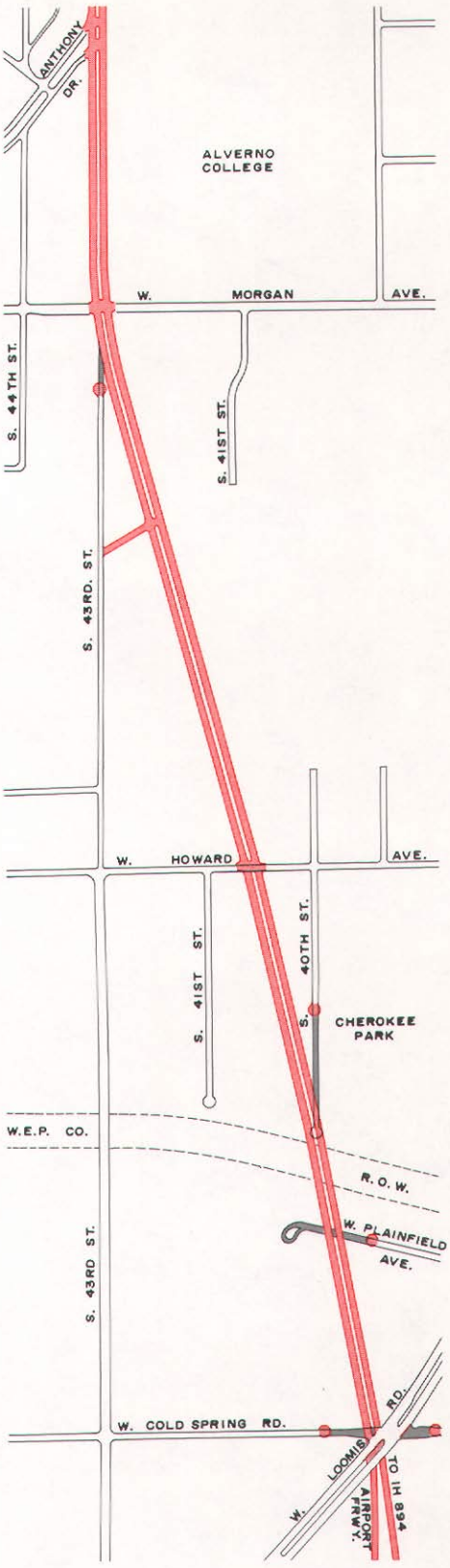
PROPOSED NEW CONNECTION AT THE STADIUM FREEWAY-SOUTH SOUTHERN STUB END UNDER ALTERNATIVE 1



Source: Wisconsin Department of Transportation and SEWRPC.

Figure 11

PROPOSED NEW CONNECTION AT THE STADIUM FREEWAY-SOUTH SOUTHERN STUB END UNDER ALTERNATIVES 2 AND 3

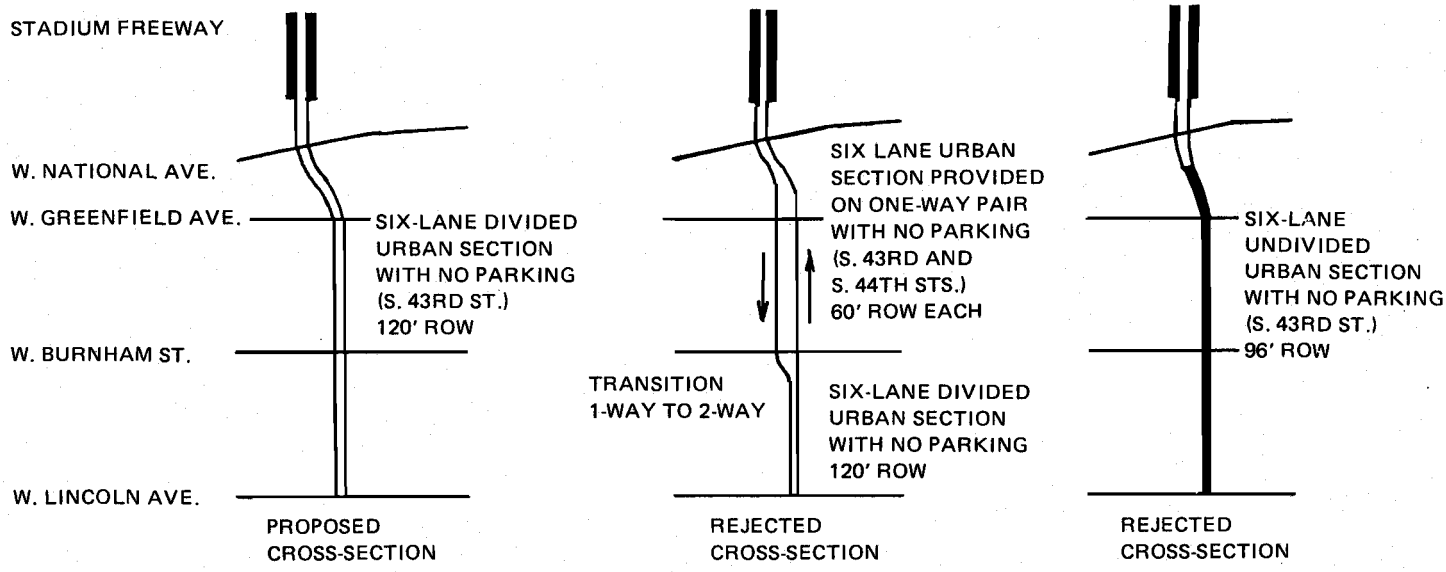


Source: Wisconsin Department of Transportation and SEWRPC.

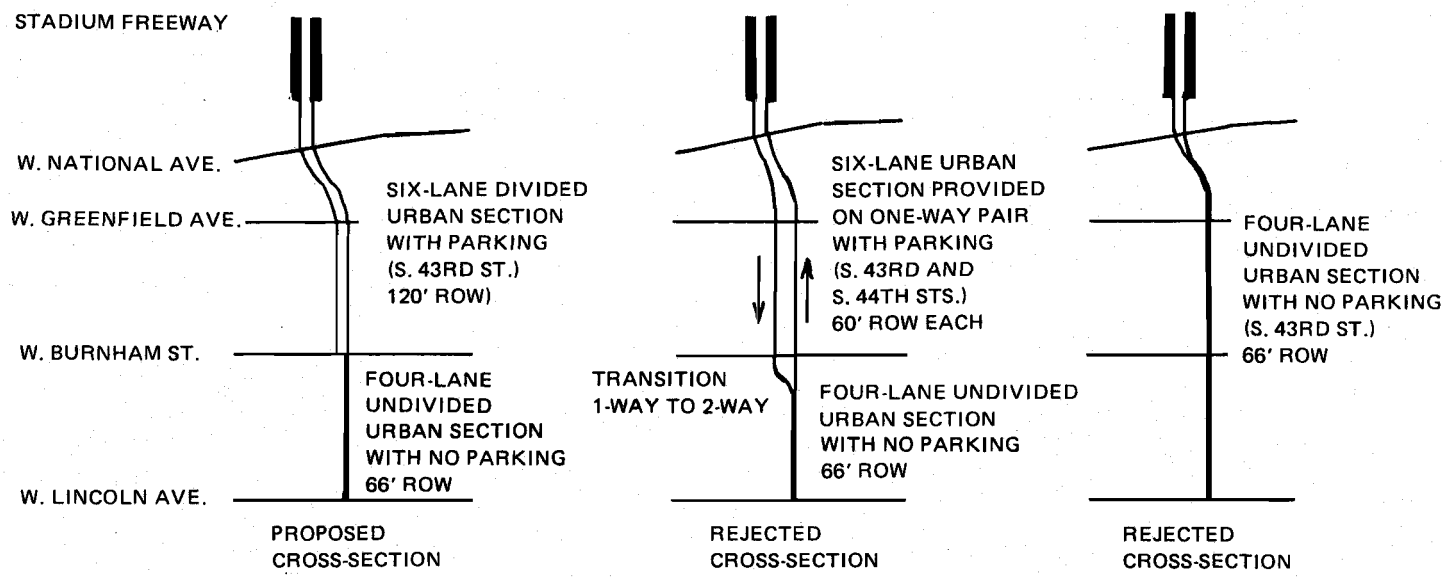
Figure 12

ALTERNATIVE CROSS-SECTIONS WITHIN THE VILLAGE OF WEST MILWAUKEE WHICH WERE CONSIDERED BUT REJECTED

ALTERNATIVE 3 and 4



ALTERNATIVE 5



Source: SEWRPC.

and safety, and pedestrian safety would be severely compromised with an undivided roadway cross-section. Also, the divided boulevard--particularly if appropriately landscaped--would serve to provide a more attractive setting for the proposed redevelopment of the freeway corridor land by increasing visual appeal. The principal advantages of the undivided roadway cross-section and the one-way pair roadways would be to provide some reduction of right-of-way needs. The one-way pair cross-section, however, would require additional right-of-way for an improved transition to two-way operation south of W. Burnham Street. Also, a minimum of 12 additional feet of right-of-way would be required for nearly the full length of each one-way roadway in order to provide left-turn lanes at each intersection. Similarly, the undivided roadway would require a minimum of 12 feet of right-of-way in addition to its basic 96 feet of right-of-way for nearly its full length in order to provide left-turn lanes at each intersection.

Also in the Village of West Milwaukee, two alternative cross-sections to the divided boulevard cross-section proposed under Alternative 5 from S. National Avenue to W. Burnham Street were considered, but were rejected. Alternative 5 proposes carrying four traffic lanes with a divided boulevard, as shown on Figure 12. One alternative cross-section would have provided the four traffic lanes with the one-way pair of S. 43rd Street and S. 44th Street. An improved transition to two-way operation, though, would be required south of W. Burnham Street. The other alternative cross-section would have provided the four traffic lanes with a four-lane, undivided urban roadway with parking prohibited.

Again, as under Alternatives 3 and 4, the boulevard cross-section was selected because current plans of the Village of West Milwaukee recommend the provision of a divided boulevard on S. 43rd Street within the Village. In addition, the boulevard cross-section was deemed more desirable in the Village of West Milwaukee. Due to the substantial anticipated traffic volumes with an improved Stadium Freeway-South northern stub end connection, traffic movement and safety, and pedestrian safety would be severely compromised with an undivided roadway cross-section. Also, the divided boulevard--particularly if appropriately landscaped--would serve to provide a more attractive setting for the proposed redevelopment of the freeway corridor land by increasing visual appeal. The principal advantage of the undivided roadway cross-section and the one-way pair roadways would be to provide some reduction of right-of-way needs. The one-way pair cross-section, however, would require additional right-of-way for an improved transition to two-way operation south of W. Burnham Street. Also, a minimum of 12 feet of right-of-way would be required for nearly the full length of each one-way roadway in order to provide left-turn lanes at each intersection. Similarly, the undivided roadway would require a minimum of 24 feet of right-of-way in addition to its basic 66 feet of right-of-way for nearly its full length in order to provide left-turn lanes and right-turn lanes at each intersection.

Two other alternatives which were considered but were rejected include two alternative stub end connections to the Stadium Freeway-South southern stub end in the City of Greenfield. The proposed connection--which would be included in Alternatives 1, 2, and 3--would generally follow the planned Stadium Freeway-South alignment to about W. Morgan Avenue, where it would connect with an improved S. 43rd Street (see Figures 10 and 11). One of the alternatives to this alignment which was considered, but was rejected, would have

followed the Stadium Freeway-South alignment from the stub end to the Wisconsin Electric Power Company (WEPCO) right-of-way south of Cherokee Park, and then followed the WEPCO right-of-way to a widened S. 43rd Street (see Figure 13) This alignment was rejected for a number of reasons. First, it included a substantial cost--an estimated $1.25 million--for the relocation of electric power trunk transmission lines and towers, and for the relocation of an electric power terminal which provides a transition between overhead and underground lines. The total cost of the alignment--$3.6 million from W. Plainfield Avenue to W. Morgan Avenue--was 45 percent higher than the cost of the alignment selected. Second, the rejected alignment required a 0.6-mile segment of S. 43rd Street from the WEPCO right-of-way to W. Morgan Avenue to be widened to provide a six-lane boulevard. To expand the right-of-way to 120 feet from its present 50- to 110-foot width would require locating the street curbline within about 20 feet of three homes and within 30 feet of another three homes. Third, the horizontal curvature required to follow the rejected alignment would be expected to increase traffic accidents. The advantage of the alternative alignment using the WEPCO right-of-way would be that it would require 5 fewer acres of land and 12 fewer homes to be acquired.

The other alternative which was considered but rejected would generally follow the alignment of the proposed alternative. However, between W. Howard Avenue and W. Morgan Avenue, the alignment would parallel S. 40th Street. This alternative, as shown on Figure 14, was rejected because it would require taking three more homes than the alignment selected. The rejected alternative, however, would permit all existing lots on the east side of S. 41st Street to remain at the existing 240-foot depth. The selected alternative permits only nine of these lots to remain at their existing depth, while the remaining seven would be reduced to a depth of between 150 and 240 feet.

EVALUATION OF SURFACE STREET IMPROVEMENT ALTERNATIVES

A summary of the evaluation of surface street improvement alternatives to the Stadium Freeway-South considered is presented in Table 2. The alternatives are compared with respect to their traffic capacity and effect on traffic congestion and delay, construction cost, and land requirements. In addition, a benefit-cost ratio for each alternative is presented. This ratio compares the economic value of the transportation improvement provided under each alternative to its costs of construction. In the following paragraphs the impacts of each of the alternatives are discussed.

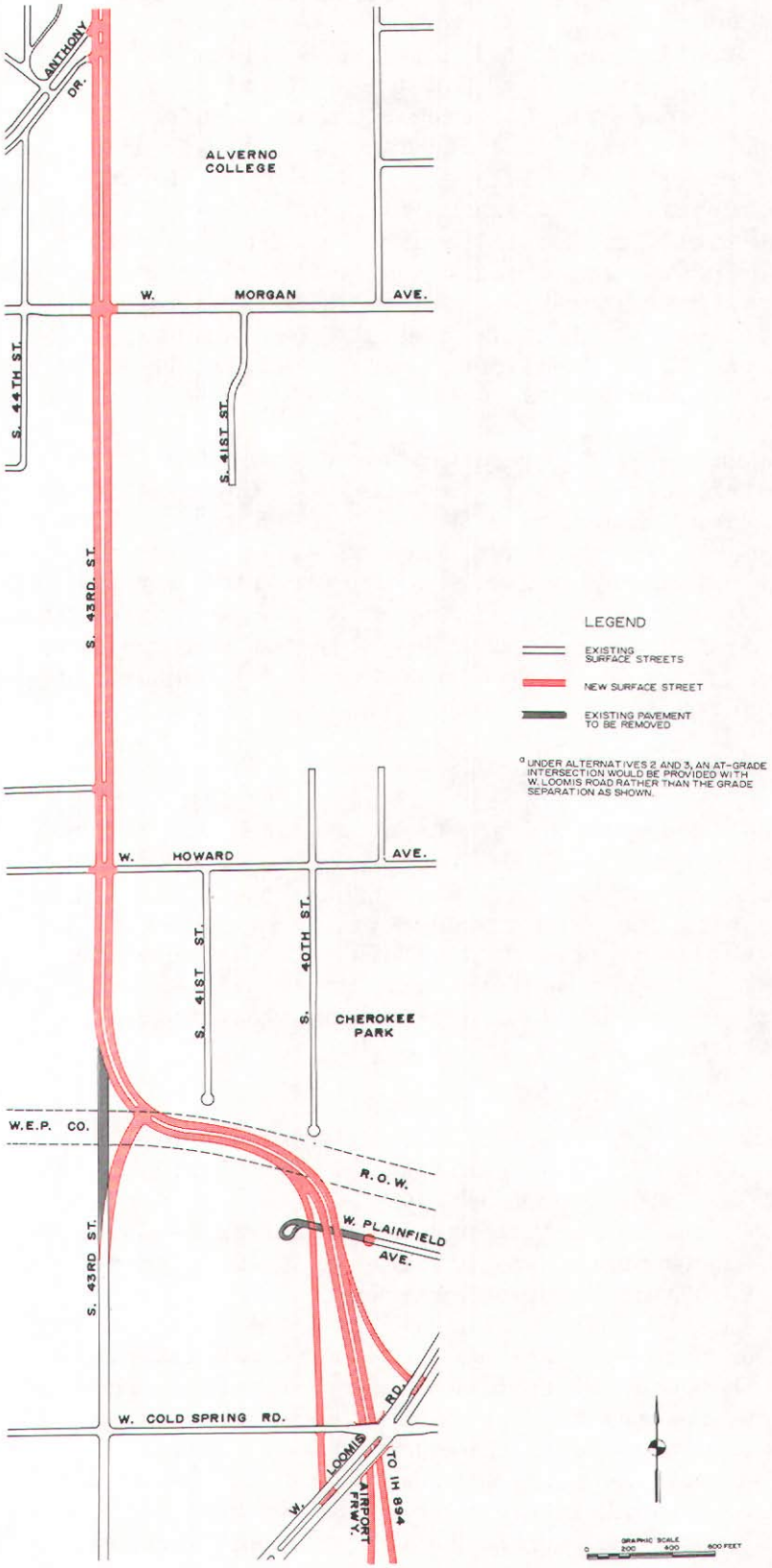
Traffic Congestion and Delay

The forecast design year 2000 traffic expected to be carried in the S. 43rd Street corridor is summarized in Table 3. The resultant forecast design year traffic congestion is summarized in Table 2 and on Maps 1 through 6 for the S. 43rd Street corridor and for the south central portion of Milwaukee County which would be affected by such improvements, specifically an area bounded by IH 94 on the north and east, and IH 894 on the south and west.

Traffic congestion is depicted in this analysis as those arterial intersections and segments of freeway which would be expected to carry traffic volumes equaling or exceeding their design capacity traffic volumes during morning and evening peak traffic hours. At those arterial intersections operating over their design capacity, delays at intersection approaches may be expected. During peak traffic periods, vehicles will nearly always have to wait through more than one traffic signal red phase. The average delay to each vehicle at

Figure 13

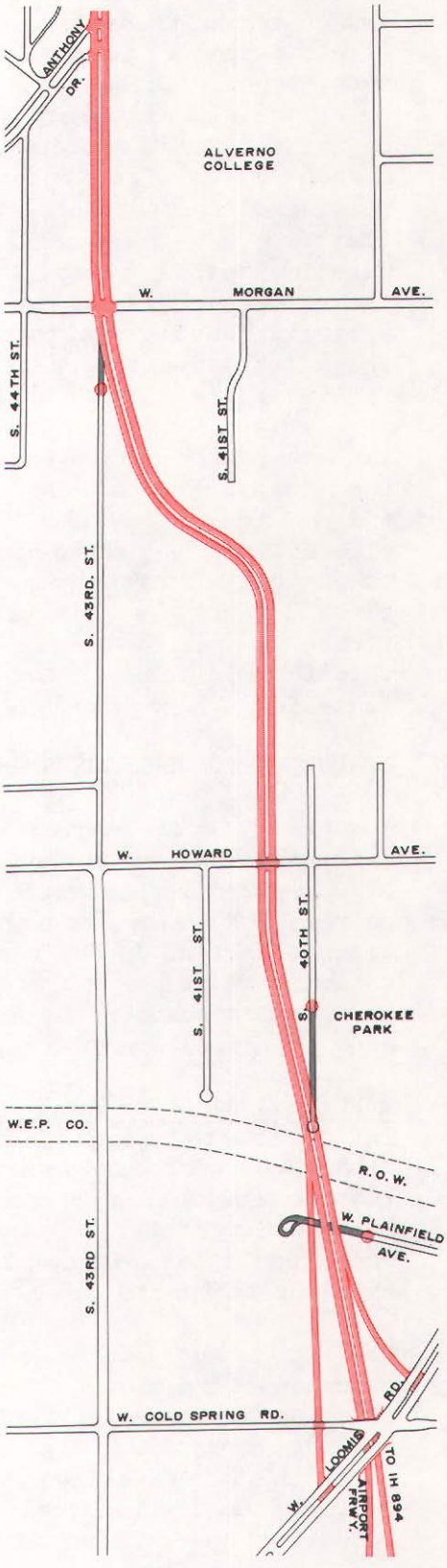
ALTERNATIVE ALIGNMENT FOR THE SOUTHERN STUB END CONNECTION UNDER ALTERNATIVES 1, 2, AND 3 WHICH WAS CONSIDERED AND REJECTED[a]



Source: Wisconsin Department of Transportation and SEWRPC.

Figure 14

ALTERNATIVE ALIGNMENT FOR THE SOUTHERN STUB END CONNECTION UNDER ALTERNATIVES 1, 2, AND 3 WHICH WAS CONSIDERED AND REJECTED[a]



Source: Wisconsin Department of Transportation and SEWRPC.

Table 2

SUMMARY OF EVALUATION OF STADIUM FREEWAY-SOUTH SURFACE STREET IMPROVEMENT ALTERNATIVES

Surface Street Alternatives	Forecast Traffic Conditions	Construction Cost (1983 dollars)	Land Needed	Benefit-Cost Ratio	Motor Fuel Consumption Reduction to the Year 2000	Air Pollutant Emissions Reduction to the Year 2000
"Do-Nothing Alternative	S. 43rd Street 2 Intersections over design capacity 5 Intersections at design capacity South Central Milwaukee County 11 Intersections over design capacity 31 Intersections at design capacity	$5.9 million	No land needed (66 acres of cleared freeway land available for development)	Not Applicable (The net costs and net benefits for each alternative were developed as increments to the do-nothing alternative)	Not Applicable (motor fuel consumption of each improvement alternative is expressed as a savings compared to the do-nothing alternative	Not Applicable (air pollutant emissions of each improvement alternative are expressed as a savings compared to the do-nothing alternative
Alternative 1: Divided Boulevard with Northern and Southern Stub End Interchange Connections	S. 43rd Street 2 Intersections over design capacity 2 Intersections at design capacity South Milwaukee County 8 Intersections over design capacity 21 Intersections at design capacity 330 Hours each weekday of peak hour traffic delay reduction Freeway System Implications 5,000 vehicles per weekday removed from Marquette Interchange and the North-South Freeway (IH 94)	$21.8 million	19 Homes 6 Manufacturing buildings 1 Public building 44 Acres of Land (includes 18 acres of cleared freeway land and 26 acres of new acquisition. 48 acres of freeway land available for development)	Discount Rate: 4% 6% 10% Benefit-Cost Ratio: 1.35 1.05 0.73 Net Benefits Delay Reduction ($ million) 9.0 7.9 6.2 Operating Cost Reduction ($ million) 3.0 2.6 2.1 Accident Cost Reduction ($ million) 2.5 2.2 1.7 Net Costs ($ million) 10.7 12.0 13.7	1.05 million gallons	Hydrocarbons--52 tons Carbon Monoxide--878 tons Nitrous Oxides--18 tons

Table 2 (continued)

Surface Street Alternatives	Forecast Traffic Conditions	Construction Cost (1983 dollars)	Land Needed	Benefit-Cost Ratio	Motor Fuel Consumption Reduction to the Year 2000	Air Pollutant Emissions Reduction to the Year 2000
Alternative 2: Divided Boulevard with Northern and Southern Stub End At-Grade Intersection	S. 43rd Street 3 Intersections over design capacity 1 Intersection at design capacity South Central Milwaukee County 9 Intersection over design capacity 20 Intersections at design capacity 200 Hours each weekday of peak hour traffic delay reduction Freeway System Implications 5,000 vehicles per weekday removed from Marquette Interchange and the North-South Freeway (IH 94)	$16.7 million	19 Homes 6 Manufacturing buildings 1 Public building 41 Acres of Land (includes 15 acres of cleared freeway land and 26 acres of new acquisition. 52 acres of freeway land available for development)	Discount Rate: 4% / 6% / 10% Benefit-Cost Ratio: 1.31 / 1.01 / 0.64 Net Benefits Delay Reduction ($ million): 5.5 / 4.8 / 3.7 Operating Cost Reduction ($ million): 1.8 / 1.6 / 1.2 Accident Cost Reduction ($ million): 2.0 / 1.8 / 1.4 Net Cost ($ million): 7.1 / 8.2 / 9.8	0.77 million gallons	Hydrocarbons--32 tons Carbon Monoxide--540 tons Nitrous Oxides--11 tons
Alternative 3: Substantial Improvement with Northern and Southern Stub End At-Grade Intersection Connections	S. 43rd Street 3 Intersections over design capacity 3 Intersections at design capacity South Central Milwaukee County 9 Intersections over design capacity 22 Intersections at design capacity 190 Hours each weekday of peak hour traffic delay reduction Freeway System Implications 5,000 vehicles per weekday removed from Marquette Interchange and the North-South Freeway (IH 94)	$14.5 million	19 Homes 4 Manufacturing buildings 1 Public building 36 Acres of Land (includes 14 acres of cleared freeway land and 22 acres of new acquisition. 52 acres of freeway land available for development)	Discount Rate: 4% / 6% / 10% Benefit-Cost Ratio: 1.47 / 1.14 / 0.78 Net Benefits Delay Reduction ($ million): 5.2 / 4.5 / 3.6 Operating Cost Reduction ($ million): 1.7 / 1.5 / 1.2 Accident Cost ($ million): 1.6 / 1.4 / 1.1 Net Cost ($ million): 5.8 / 6.5 / 7.6	0.62 million gallons	Hydrocarbons--29 tons Carbon Monoxide--518 tons Nitrous Oxides--11 tons

-continued-

Table 2 (continued)

Surface Street Alternatives	Forecast Traffic Conditions	Construction Cost (1983 dollars)	Land Needed	Benefit-Cost Ratio	Motor Fuel Consumption Reduction to the Year 2000	Air Pollutant Emissions Reduction to the Year 2000
Alternative 4: Substantial Improvement with Northern Stub End At-Grade Intersection Connection	S. 43rd Street 2 Intersections over design capacity 5 Intersection at design capacity South Central Milwaukee County Arterials 9 Intersections over design capacity 24 Intersections at design capacity 170 Hours each weekday of peak hour traffic delay reduction Freeway System Implications 3,500 vehicles per weekday removed from Marquette Interchange and the North-South Freeway (IH 94)	$10.8 million	4 Manufacturing buildings 1 Public building 12 Acres of Land (includes 7 acres of cleared freeway land and 5 acres of new acquisition. 59 acres of freeway land available for development)	Discount Rate: 4% / 6% / 10% Benefit-Cost Ratio: 2.01 / 1.59 / 1.10 Net Benefits Delay Reduction ($ million): 4.6 / 4.1 / 3.2 Operating Cost ($ million): 1.6 / 1.4 / 1.1 Accident Cost Reduction ($ million): 0.7 / 0.6 / 0.5 Net Cost ($ million): 3.4 / 3.8 / 4.3	0.56 million gallons	Hydrocarbons--27 tons Carbon Monoxide--450 tons Nitrous Oxides--9 tons
Alternative 5: Minimum Improvment with Northern Stub End At-Grade Intersection Connection	S. 43rd Street 2 Intersections over design capacity 5 Intersections at design capacity South Central Milwaukee County 9 Intersections over design capacity 27 Intersections at design capacity 120 Hours each weekday of peak hour traffic delay reduction Freeway System Implications None	$10.5 million	4 Manufacturing buildings 1 Public building 12 Acres of Land (includes 7 acres of cleared freeway land and 5 acres of new acquisition. 59 acres of freeway land available for development)	Discount Rate: 4% / 6% / 10% Benefit-Cost Ratio: 1.59 / 1.25 / 0.86 Net Benefits Delay Reduction ($ million): 3.3 / 2.9 / 2.2 Operating Cost Reduction ($ million): 1.1 / 1.0 / 0.8 Accident Cost Reduction ($ million): 0.6 / 0.5 / 0.4 Net Cost ($ million): 3.1 / 3.5 / 3.9	0.39 million gallons	Hydrocarbons--20 tons Carbon Monoxide--315 tons Nitrous Oxides--7 tons

Source: Wisconsin Department of Transportation and SEWRPC.

Table 3

TRAFFIC IMPACTS OF ALTERNATIVE S. 43RD STREET CORRIDOR SURFACE ARTERIAL IMPROVEMENTS TO THE STADIUM FREEWAY-SOUTH

Segment	"Do-Nothing" Alternative	Alternative 1: Divided Boulevard with Northern and Southern Stub End Interchange Connections[b,c]	Alternative 2: Divided Boulevard with Northern and Southern Stub End At-Grade Intersection Connections[b,c]	Alternative 3: Substantial Improvement with Northern and Southern Stub End At-Grade Intersection Connections[b,d]	Alternative 4: Substantial Improvement With Northern Stub End At-Grade Intersection Connection[b,d]	Alternative 5: Minimum Improvement With Northern Stub End At-Grade Intersection Connection[b,d]
Northern Stub End.....	No change (present stub end to remain)	New connection to be made with an interchange	New connection to be made with an at-grade intersection	New connection to be made with an at-grade intersection	New connection to be made with an at-grade intersection	New connection to be made with an at-grade intersection
Year 2000 Weekday Traffic..... (1983 weekday traffic: 25,000)	25,000 awdt	54,000 awdt	50,000 awdt	50,000 awdt	49,000 awdt	38,000 awdt
W. National Avenue to W. Burnham Street Basic Cross-Section..	No change (one-way pair of three-lane urban roadways with two traffic lanes and one parking lane)	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane divided urban boulevard with parking
Right-of-Way.....	Existing 60' for each of one-way pair	120'	120'	120'	120'	120'
Number of Traffic Lanes.....	4	6	6	6	6	4
Year 2000 Weekday Traffic..... (1983 weekday traffic: 13,000)	19,000-23,000 awdt	37,000-49,000 awdt	31,000-40,000 awdt	31,000-40,000 awdt	30,000-39,000 awdt	22,000-25,000 awdt
W. Burnham Street to W. Lincoln Avenue Basic Cross-Section..	No change [a] (two-lane, undivided rural roadway)	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with no parking	S. 43rd Street to be widened to four-lane, undivided urban roadway with no parking
Right-of-Way.....	Existing 60'	120'	120'	120'	120'	66' to 80'
Number of Traffic Lanes.....	2	6	6	6	6	4
Year 2000 Weekday Traffic..... (1983 weekday traffic: 11,000)	11,000 awdt	26,000-32,000 awdt	22,000-28,000 awdt	22,000-28,000 awdt	21,000-27,000 awdt	15,000-19,000 awdt

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Table 3 (continued)

Segment	"Do-Nothing" Alternative	Alternative 1: Divided Boulevard with Northern and Southern Stub End Interchange Connections[b,c]	Alternative 2: Divided Boulevard with Northern and Southern Stub End At-Grade Intersection Connections[b,c]	Alternative 3: Substantial Improvement with Northern and Southern Stub End At-Grade Intersection Connections[b,d]	Alternative 4: Substantial Improvement With Northern Stub End At-Grade Intersection Connection[b,d]	Alternative 5: Minimum Improvement With Northern Stub End At-Grade Intersection Connection[b,d]
W. Lincoln Avenue to CNW Railway Bridge						
Basic Cross-Section..	No change (four-lane, undivided urban roadway with parking)	S. 43rd Street to be widened to six-lane, divided urban boulevard with parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with parking	Parking prohibited on existing basic cross-section	Parking prohibited on existing basic cross-section	Parking prohibited on existing basic cross-section
Right-of-Way.....	Existing 66'	120'	120'	66'	66'	66'
Number of Traffic Lanes.....	2	4	4	4	4	4
Year 2000 Weekday Traffic..... (1983 average traffic: 12,000)	11,000 awdt	21,000 awdt	19,000 awdt	19,000 awdt	18,000 awdt	13,000 awdt
CNW Railway Bridge to W. Cleveland Avenue						
Basic Cross-Section..	No change[a] (two-lane undivided rural roadway)	S. 43rd Street to be widened to six-lane divided urban boulevard with parking	S. 43rd Street to be widened to six-lane divided urban boulevard with parking	S. 43rd Street, including segment under railway structure, to be widened to four-land, undivided urban roadway with no parking	Roadway, including segment under railway structure, to be widened to four-lane, divided urban roadway with no parking	Roadway, including segment under railway structure, to be widened to four-lane, undivided urban roadway with no parking
Right-of-Way.....	Existing 66' to 83'	120'	120'	66' to 83'	66' to 83'	66' to 83'
Number of Traffic Lanes.....	2	4	4	4	4	4
Year 2000 Weekday Traffic..... (1983 weekday traffic: 12,000)	11,000 awdt	21,000 awdt	19,000 awdt	19,000 awdt	18,000 awdt	13,000 awdt
W. Cleveland Avenue to W. Oklahoma Avenue						
Basic Cross-Section..	No change (six-lane, undivided urban roadway with four traffic lanes and two parking lanes)	S. 43rd Street to be widened to six-lane, divided urban boulevard with parking	S. 43rd Street to be widened to six-lane, divided urban boulevard with parking	No change	No change	No change
Right-of-Way.....	Existing 100'	120'	120'	100'	100'	100'
Number of Traffic Lanes.....	4	4	4	4	4	4
Year 2000 Weekday Traffic..... (1983 weekday traffic: 12,000)	11,000 awdt	18,000 awdt	18,000 awdt	18,000 awdt	17,000 awdt	15,000 awdt

-continued-

Table 3 (continued)

Segment	"Do-Nothing" Alternative	Alternative 1: Divided Boulevard with Northern and Southern Stub End Interchange Connections[b,c]	Alternative 2: Divided Boulevard with Northern and Southern Stub End At-Grade Intersection Connections[b,c]	Alternative 3: Substantial Improvement with Northern and Southern Stub End At-Grade Intersection Connections[b,d]	Alternative 4: Substantial Improvement With Northern Stub End At-Grade Intersection Connection[b,d]	Alternative 5: Minimum Improvement With Northern Stub End At-Grade Intersection Connection[b,d]
W. Oklahoma Avenue to W. Euclid Avenue Basic Cross-Section..	No change (six-lane, divided urban roadway with four traffic lanes and two parking lanes)	Parking prohibited on existing basic cross-section	Parking prohibited on existing basic cross-section	Parking prohibited on existing basic cross-section	No change	No change
Right-of-Way.....	Existing 110'	110'	110'	110'	110'	110'
Number of Traffic Lanes...	4	6	6	6	4	4
Year 2000 Weekday Traffic..... (1983 weekday traffic: 7,000)	13,000 awdt	24,000 awdt	24,000 awdt	24,000 awdt	16,000 awdt	15,000 awdt
W. Euclid Avenue to W. Howard Avenue Basic Cross-Section....	No change[a] (two-lane, undivided rural roadway)	New six-lane, divided urban arterial with no parking on Stadium Freeway alignment with at-grade intersections at W. Morgan Avenue and W. Howard Avenue	New six-lane, divided urban arterial on Stadium Freeway alignment with at-grade intersections at W. Morgan Avenue and W. Howard Avenue	New six-lane, divided urban arterial on Stadium Freeway alignment with at-grade intersections at W. Morgan Avenue and W. Howard Avenue	S. 43rd Street to be widened to four-lane, undivided urban roadway with no parking	S. 43rd Street to be widened to four-lane, undivided urban roadway with no parking
Right-of-Way.....	Existing 50' to 100'	120'	120'	66' to 80'	66' to 100'	66' to 100'
Number of Traffic Lanes.....	2	6	6	6	4	4
Year 2000 Weekday Traffic..... (1983 weekday traffic: 6,000)	13,000 awdt	15,000-24,000 awdt	15,000-24,000 awdt	15,000-24,000 awdt	8,000-16,000 awdt	8,000-15,000 awdt

-continued-

Table 3 (continued)

Segment	"Do-Nothing" Alternative	Alternative 1: Divided Boulevard with Northern and Southern Stub End Interchange Connections[b,c]	Alternative 2: Divided Boulevard with Northern and Southern Stub End At-Grade Intersection Connections[b,c]	Alternative 3: Substantial Improvement with Northern and Southern Stub End At-Grade Intersection Connections[b,d]	Alternative 4: Substantial Improvement With Northern Stub End At-Grade Intersection Connection[b,d]	Alternative 5: Minimum Improvement With Northern Stub End At-Grade Intersection Connection[b,d]
W. Howard Avenue to W. Loomis Road						
Basic Cross-Section...	No change (four-lane, undivided urban roadway with two traffic lanes and two parking lanes	New six-lane, divided urban arterial with parking on Stadium Freeway alignment with grade separation at W. Loomis Road	New six-lane, divided urban arterial with parking on Stadium Freeway alignment with grade separation at W. Loomis Road	New six-lane, divided urban arterial with parking on Stadium Freeway alignment with grade separation at W. Loomis Road	Parking prohibited on existing S. 43rd Street cross-section	Parking prohibited on existing S. 43rd Street cross-section
Right-of-Way.....	Existing 50' to 110	120'	120'	120'	66' to 110'	66' to 110'
Number of Traffic Lanes.....	2	4	4	4	4	4
Year 2000 Weekday Traffic..... (1983 weekday traffic: 6,000)	7,000 awdt	15,000 awdt	15,000 awdt	15,000 awdt	8,000 awdt	8,000 awdt
Southern Stub End.....	No connection	Complete connection along Stadium Freeway-South alignment from existing interchange to approximately W. Morgan Avenue	Complete connection along Stadium Freeway-South alignment from existing interchange to approximately W. Morgan Avenue	Complete connection along Stadium Freeway-South alignment from existing interchange to approximately W. Morgan Avenue	No connection	No connection
Year 2000 Weekday Traffic....	No traffic	15,000 awdt	15,000 awdt	15,000 awdt	--	--

[a]Under the "do-nothing" alternative, these cross-sections which are now undivided, two-lane, rural roadways may be converted to undivided, minimal urban roadways with two traffic lanes, two parking lanes, and curb, gutter, and storm sewers.

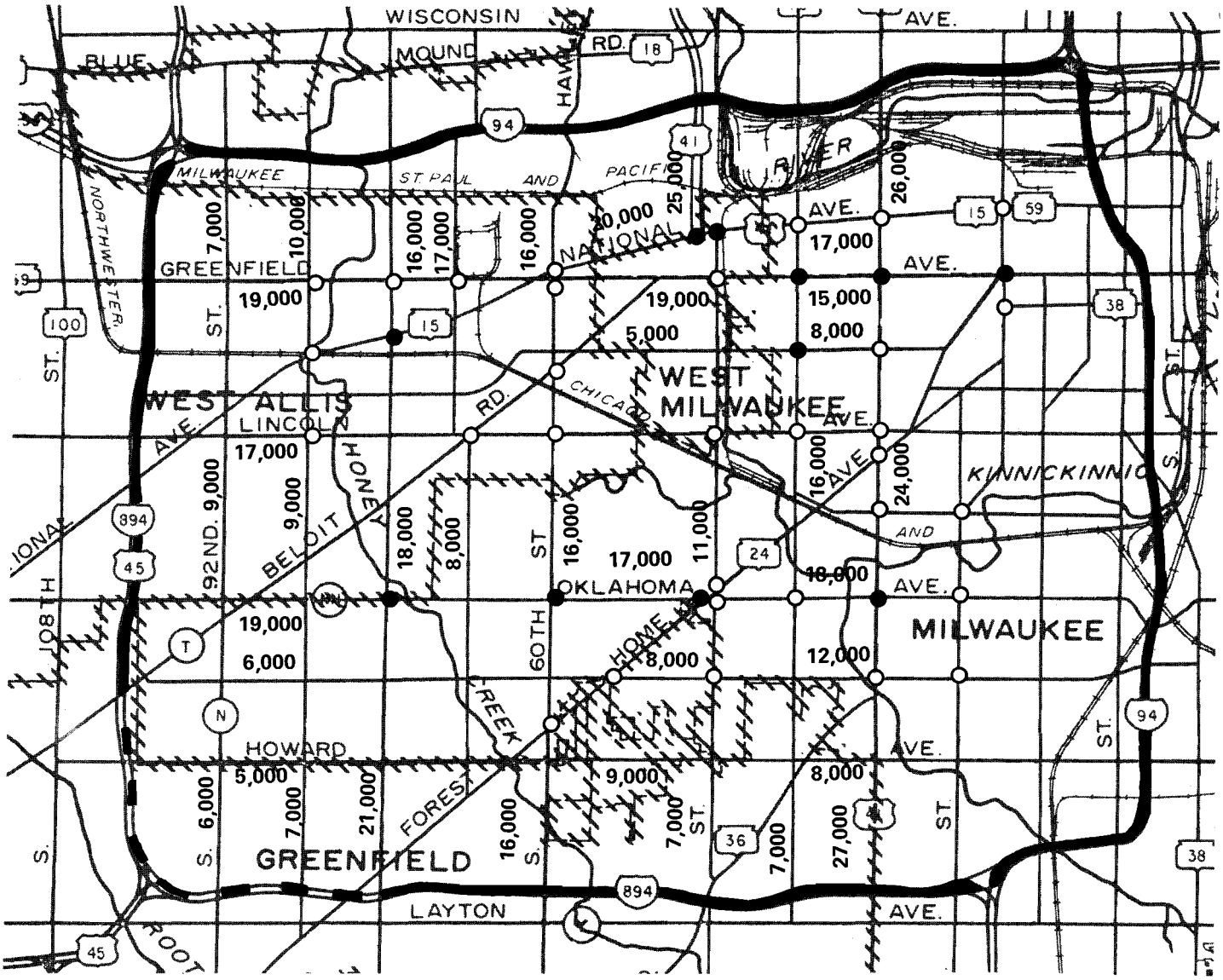
[b]Any proposed prohibition of on-street parking may only need to be limited to peak traffic periods in the peak traffic direction.

[c]The estimated right-of-way for Alternatives 1 and 2 generally provides sufficient right-of-way for a desirable six-lane, divided urban arterial throughout the corridor.

[d]The estimated right-of-way for Alternatives 3, 4, and 5 provides sufficient right-of-way for typical arterial cross-sections throughout the corridor, except through the Village of West Milwaukee, where a desirable boulevard cross-section is proposed. Under Alternatives 3 and 4, the necessary traffic capacity--three traffic lanes in each direction--could also have been provided with the existing one-way pair of S. 43rd Street and S. 44th Street (with peak period parking prohibited) and an improved transition to two-way operation south of W. Burnham Street, or with S. 43rd Street widened to a six-lane undivided roadway with no parking. Under Alternative 5, the necessary traffic capacity--two lanes in each direction--could also have been provided with the existint one-way pair of S. 43rd Street and S. 44th Street (with peak period parking permitted), and an improved transition to two-way operation south of W. Burnham Street or with S. 43rd Street widened to a four-lane undivided roadway with no parking.
Source: SEWRPC.

Map 1

MORNING AND EVENING PEAK HOUR TRAFFIC CONGESTION IN SOUTH CENTRAL MILWAUKEE COUNTY IN THE YEAR 2000: DO-NOTHING ALTERNATIVE



LEGEND

6,000 AVERAGE WEEKDAY TRAFFIC VOLUME

AT GRADE INTERSECTIONS

- ○ AT DESIGN CAPACITY
- ● OVER DESIGN CAPACITY

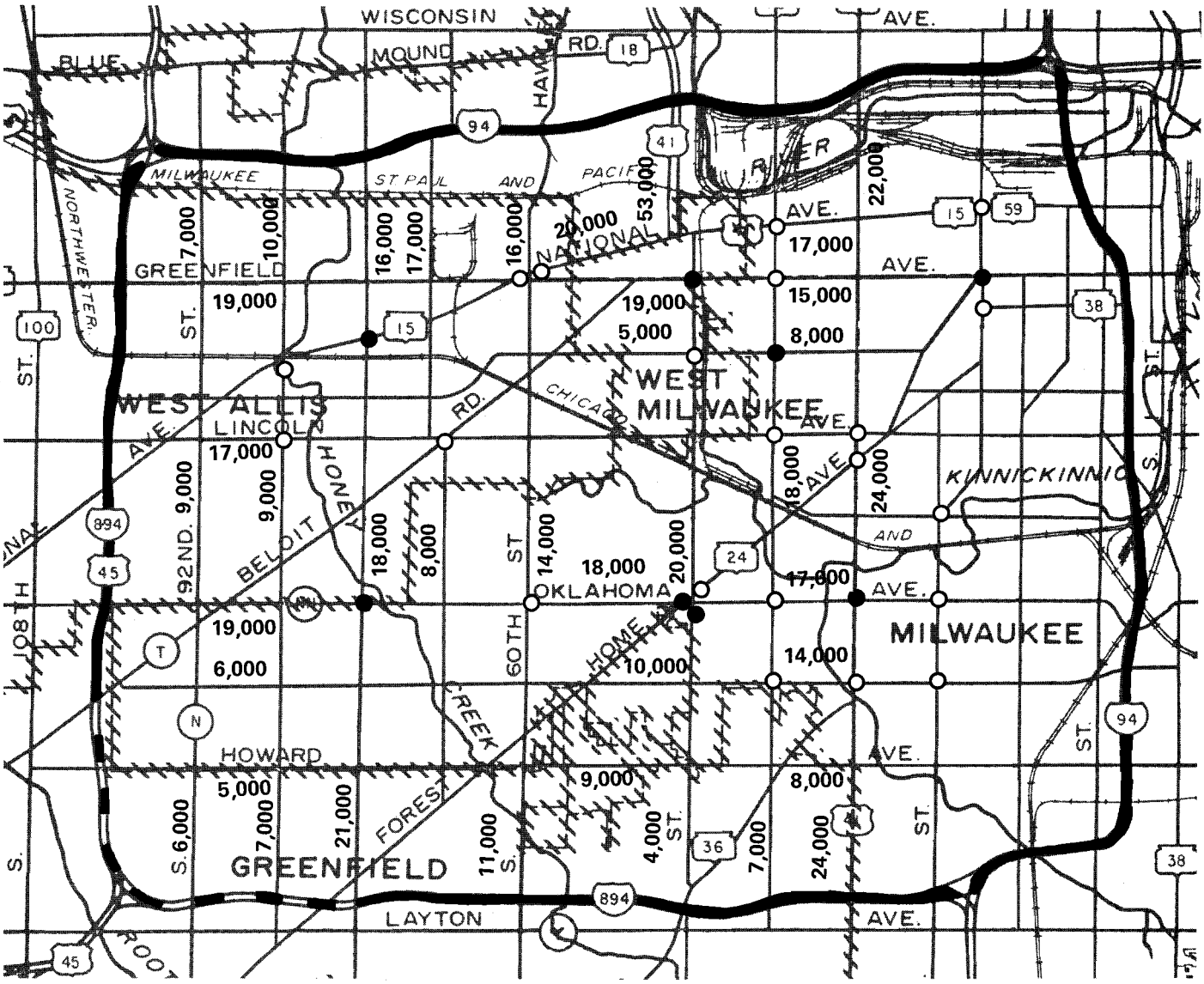
FREEWAY SEGMENTS

- ▬ ▬ AT DESIGN CAPACITY
- ▬▬ OVER DESIGN CAPACITY

Source: SEWRPC.

Map 2

MORNING AND EVENING PEAK HOUR TRAFFIC CONGESTION IN SOUTH CENTRAL MILWAUKEE COUNTY IN THE YEAR 2000: ALTERNATIVE 1–DIVIDED BOULEVARD WITH NORTHERN AND SOUTHERN STUB END INTERCHANGE CONNECTIONS



LEGEND

6,000 AVERAGE WEEKDAY TRAFFIC VOLUME

AT GRADE INTERSECTIONS
- ○ AT DESIGN CAPACITY
- ● OVER DESIGN CAPACITY

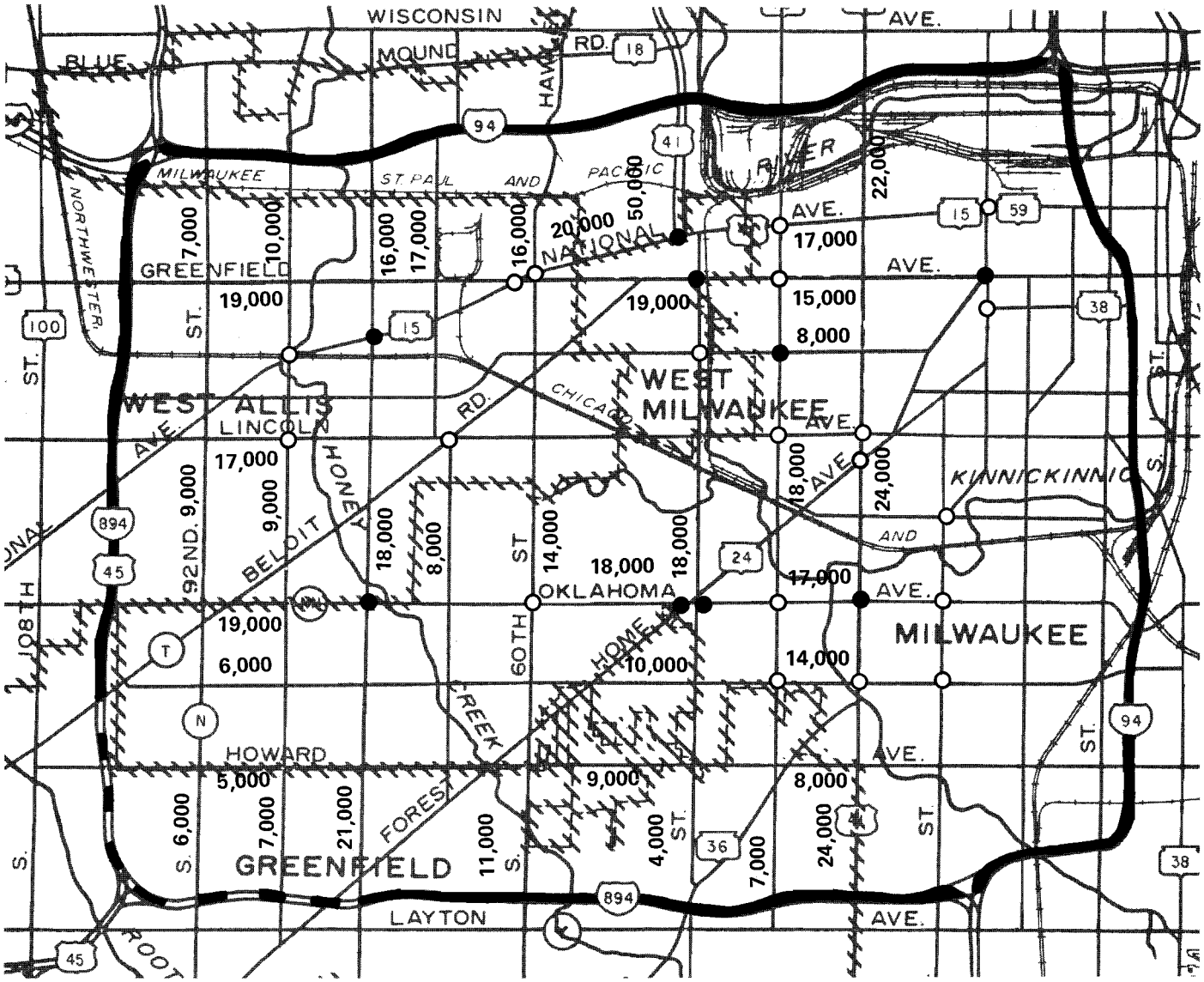
FREEWAY SEGMENTS
- AT DESIGN CAPACITY
- OVER DESIGN CAPACITY

GRAPHIC SCALE
0 1/2 1 MILE
0 2000 4000 6000 8000 FEET

Source: SEWRPC.

Map 3

MORNING AND EVENING PEAK HOUR TRAFFIC CONGESTION IN SOUTH MILWAUKEE COUNTY IN THE YEAR 2000: ALTERNATIVE 2– DIVIDED BOULEVARD WITH NORTHERN AND SOUTHERN STUB END AT-GRADE INTERSECTION CONNECTIONS



LEGEND

6,000 AVERAGE WEEKDAY TRAFFIC VOLUME

AT GRADE INTERSECTIONS
- ○ AT DESIGN CAPACITY
- ● OVER DESIGN CAPACITY

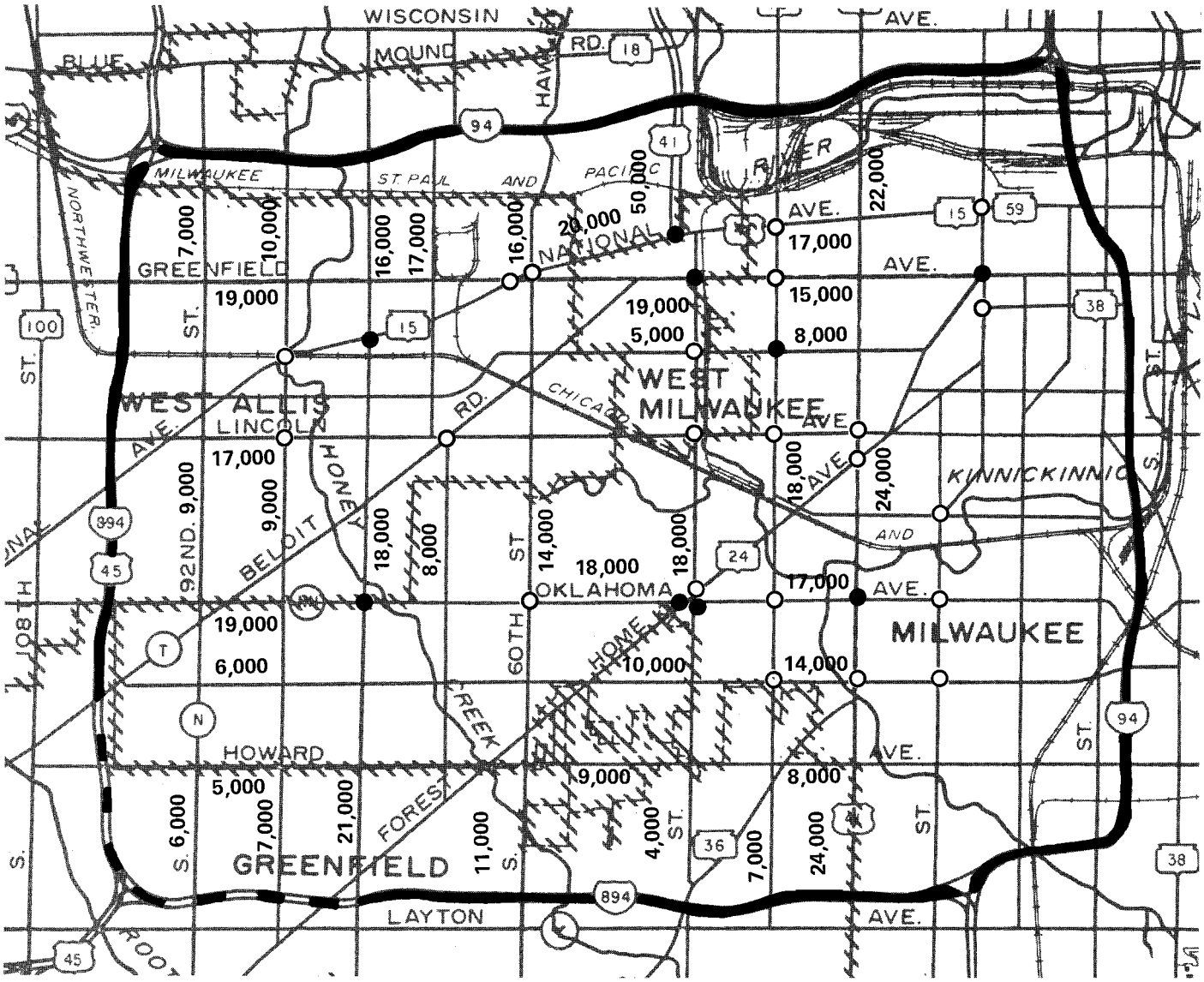
FREEWAY SEGMENTS
- ▬ ▬ AT DESIGN CAPACITY
- ▬▬ OVER DESIGN CAPACITY

GRAPHIC SCALE
0 1/2 1 MILE
0 2000 4000 6000 8000 FEET

Source: SEWRPC.

Map 4

MORNING AND EVENING PEAK HOUR TRAFFIC CONGESTION IN SOUTH CENTRAL MILWAUKEE COUNTY IN THE YEAR 2000: ALTERNATIVE 3— SUBSTANTIAL IMPROVEMENT WITH NORTHERN AND SOUTHERN STUB END AT-GRADE INTERSECTION CONNECTIONS



LEGEND

6,000 AVERAGE WEEKDAY TRAFFIC VOLUME

AT GRADE INTERSECTIONS
- ○ AT DESIGN CAPACITY
- ● OVER DESIGN CAPACITY

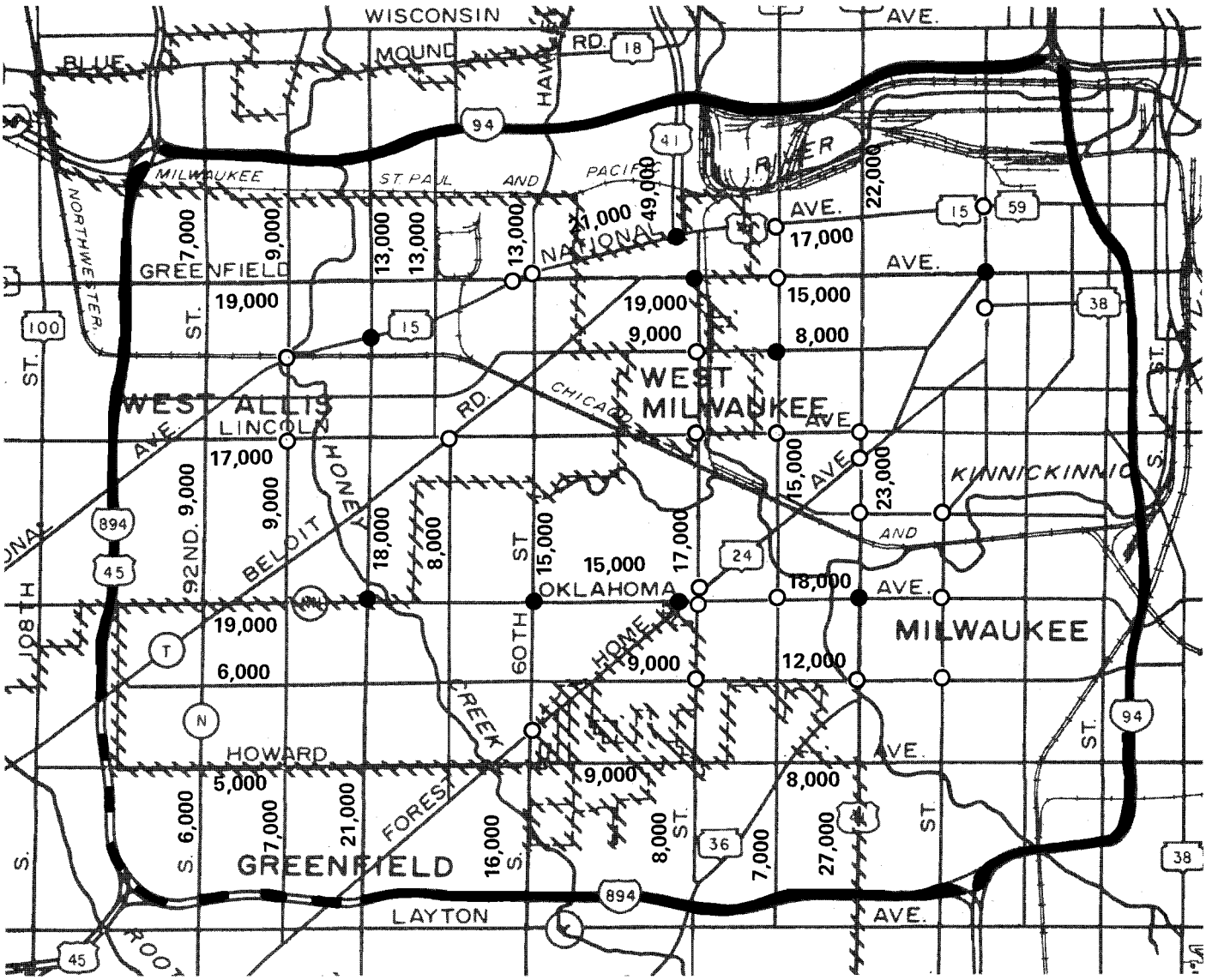
FREEWAY SEGMENTS
- AT DESIGN CAPACITY
- OVER DESIGN CAPACITY

GRAPHIC SCALE
0 1/2 1 MILE
0 2000 4000 6000 8000 FEET

Source: SEWRPC.

Map 5

MORNING AND EVENING PEAK HOUR TRAFFIC CONGESTION IN SOUTH CENTRAL MILWAUKEE COUNTY IN THE YEAR 2000: ALTERNATIVE 4–SUBSTANTIAL IMPROVEMENT WITH NORTHERN STUB END AT-GRADE INTERSECTION CONNECTION ONLY



LEGEND

6,000 AVERAGE WEEKDAY TRAFFIC VOLUME

AT GRADE INTERSECTIONS
- ○ AT DESIGN CAPACITY
- ● OVER DESIGN CAPACITY

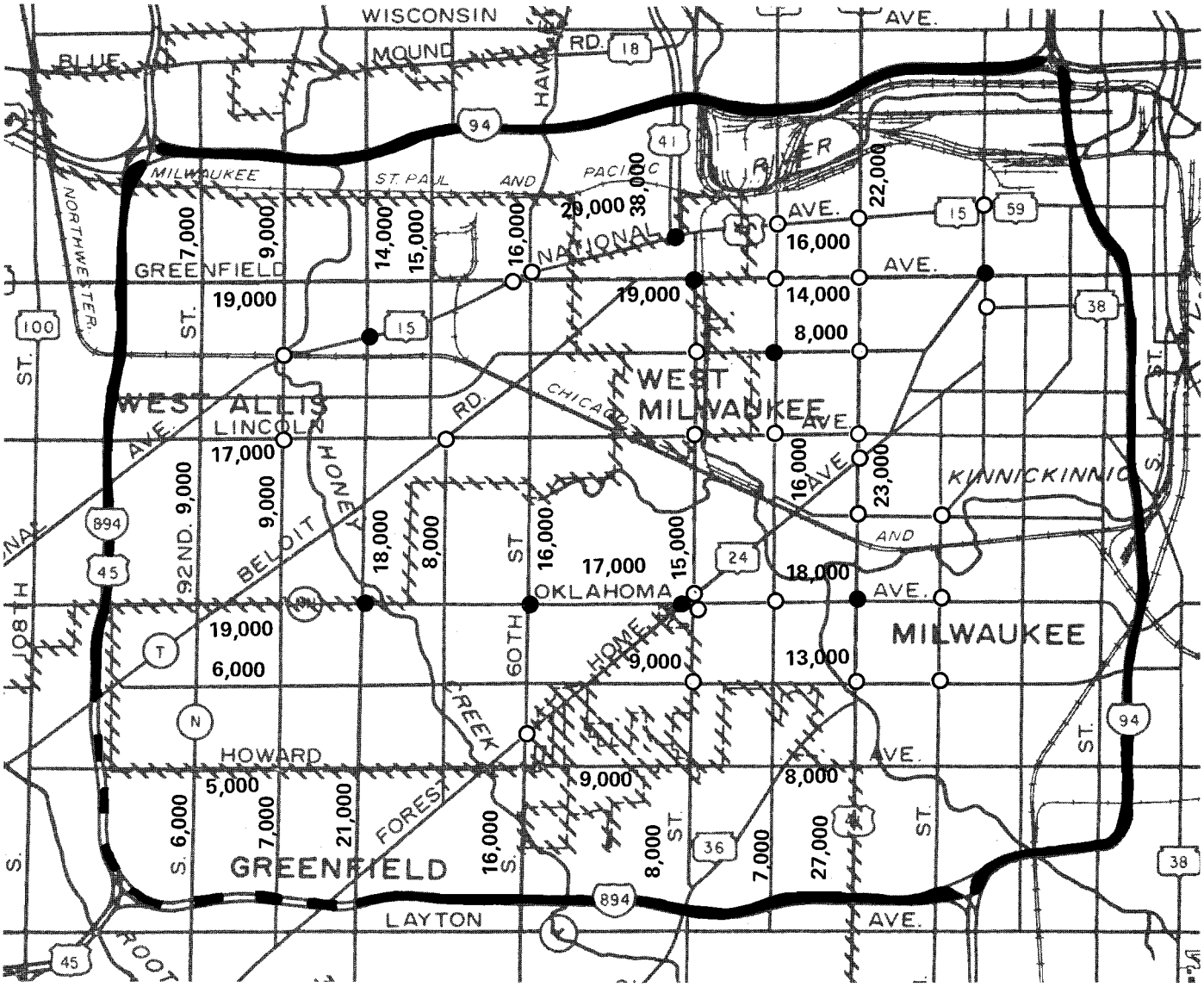
FREEWAY SEGMENTS
- AT DESIGN CAPACITY
- OVER DESIGN CAPACITY

GRAPHIC SCALE
0 1/2 1 MILE
0 2000 4000 6000 8000 FEET

Source: SEWRPC.

Map 6

MORNING AND EVENING PEAK HOUR TRAFFIC CONGESTION IN SOUTH CENTRAL MILWAUKEE COUNTY IN THE YEAR 2000: ALTERNATIVE 5–MINIMUM IMPROVEMENT WITH NORTHERN STUB END AT-GRADE INTERSECTION CONNECTION ONLY



LEGEND

6,000 AVERAGE WEEKDAY TRAFFIC VOLUME

AT GRADE INTERSECTIONS
- ○ AT DESIGN CAPACITY
- ● OVER DESIGN CAPACITY

FREEWAY SEGMENTS
- AT DESIGN CAPACITY
- OVER DESIGN CAPACITY

GRAPHIC SCALE
0 1/2 1 MILE
0 2000 4000 6000 8000 FEET

Source: SEWRPC.

an intersection operating over design capacity will be at least 35 seconds, and delay to some vehicles may approach 120 seconds. The average travel speed along those arterials with intersections operating over design capacity will be approximately 15 miles per hour (mph) or less.

At those intersections operating at their design capacity, some vehicles will occasionally have to wait for more than one traffic signal red phase to clear the intersection. The average delay to each vehicle at an intersection operating at its design capacity will be between 20 to 30 seconds, and delay to some vehicles may approach 60 to 90 seconds. The average travel speeds on arterials with intersections operating at design capacity will range from 15 to 20 mph.

At those arterial intersections operating under their design capacity, there will be little vehicle back-up at intersections and no vehicles will have to wait through more than one red traffic signal phase. The average delay to each vehicle at the intersection will be 5 to 15 seconds and the average travel speeds on arterials with intersections operating under design capacity will be 25 to 30 miles per hour.

None of the surface arterial alternatives would be expected to totally alleviate traffic congestion in south central Milwaukee County. However, Alternatives 1, 2, 3, and 4 would be expected to substantially reduce traffic congestion in this area. Particularly, traffic and attendant delay on parallel arterials such as S. 60th Street and S. 35th Street would be reduced. In addition, an improved S. 43rd Street may be expected to attract and carry traffic in the Village of West Milwaukee which presently uses land access streets such as S. 47th Street and S. 48th Street to travel between the present terminus of the Stadium Freeway-South and W. Beloit Street and W. Greenfield Avenue.

The poorest traffic conditions may be expected to occur under a do-nothing alternative. Under such an alternative, 11 intersections along S. 76th, S. 60th, S. 43rd, S. 35th, and S. 27th Streets would be expected to operate over design capacity and 31 intersections would be expected to operate at design capacity during morning and evening peak traffic hours. Alternative 1 may be expected to provide the best traffic conditions, with 8 intersections along S. 76th, S. 43rd, S. 35th, and S. 27th Streets expected to operate over design capacity, and 21 intersections at design capacity; under Alternative 2, 9 intersections may be expected to operate over design capacity, and 20 at design capacity; under Alternative 3, 9 intersections may be expected to operate over design capacity, and 22 at design capacity; under Alternative 4, 9 intersections may be expected to operate over design capacity and 24 at design capacity; and under Alternative 5, 9 intersections may be expected to operate over design capacity and 27 at design capacity. Maps 1 through 6 show the expected locations of congested intersections under each of the improvement alternatives, as well as the traffic expected to be carried on each arterial facility in south central Milwaukee County.

Compared to the do-nothing alternative, each of the surface arterial improvement alternatives may be expected to reduce peak hour traffic delay as follows: Alternative 1--a reduction of 330 hours of peak hour delay on an average weekday; Alternative 2--a reduction of 200 vehicle hours of peak hour delay on an average weekday; Alternative 3--a reduction of 190 vehicle hours

of peak hour delay on an average weekday; Alternative 4--a reduction of 170 vehicle hours of peak hour delay on an average weekday; and Alternative 5--a reduction of 120 vehicle hours of peak hour delay on an average weekday. The estimated substantial reduction in delay indicates that the S. 43rd Street improvements would be expected not only to reduce the number of intersections expected to operate over and at design capacity, but also to reduce traffic and delay at those intersections which would remain over and at design capacity.

Truck traffic on S. 43rd Street may be expected to increase under all the improvement alternatives. In 1984, truck traffic volumes were estimated to be about 600 trucks per weekday, or about 3 to 5 percent of the total traffic volume on S. 43rd Street, which is substantially less than the 10 percent which is typical of an arterial street in an urban area. Under Alternatives 1, 2, and 3, which would provide a substantially improved arterial service in the corridor, truck traffic may be expected to increase to between 6 and 9 percent of the total traffic, or about 1,200 trucks per weekday, at the southern end of the corridor to 2,500 trucks per weekday at the northern end. An increase in truck traffic to between 700 and 2,000 trucks per weekday, or 5 and 8 percent of total traffic, may be expected under Alternatives 4 and 5, which provide substantial improvements only in the northern section of the corridor.

The traffic volume forecasts provided in this report are for the year 2000 and represent in south central Milwaukee County an increase of approximately 10 to 15 percent over 1983 levels. The forecast values are based upon the population and employment forecasts, land use pattern, and transportation system improvements envisioned in the adopted regional land use and transporttion system plans. The forecast volumes assume a modest increase in regional population and employment levels; the revitalization and continued development and redevelopment of Milwaukee County; an improvement in the area economy with a reduction in unemployment levels to 5 percent from the 1983 level of 10 percent; continued maintenance, improvement, and expansion of the Milwaukee County Transit System; and the installation and operation of a proposed freeway traffic management system within the Milwaukee urbanized area. In addition, it is assumed that other currently planned highway and transit improvements in Milwaukee County and the Region would be implemented. Importantly, the forecast assumes that the usable remnant parcels of the freeway corridor would be redeveloped for medium- to high-density urban uses.

Construction Costs

The construction costs of the surface street improvement alternatives are also presented in Table 2. These costs include actual construction, real estate acquisition, relocation, demolition, and routine maintenance to the year 2000. All attendant traffic signalization and engineering costs are included. Costs have been assigned not only to new or widened roadway segments, but also to roadway segments for which no improvement is planned. It has been assumed that such roadway segments would require one resurfacing during the plan design period.

The lowest-cost alternative would be the do-nothing alternative at a total cost over the plan design period of $5.9 million. This cost estimate assumes that all roadway segments which are now two-lane, rural cross-sections would

be reconstructed to minimum urban cross-sections when resurfaced. The alternative with the next lowest cost is Alternative 5 with a cost of $10.5 million, followed by Alternative 4 with a cost of $10.8 million. The construction of the new at-grade intersection with the Stadium Freeway-South northern stub end and S. 43rd Street at W. National Avenue represents a significant element of the cost of these alternatives--$2.5 million. Alternative 3 is the next highest alternative, with a cost of $14.5 million, followed by Alternative 2 with a cost of $16.7 million. Significant elements of the costs of these two alternatives are a new at-grade intersection at the Stadium Freeway-South northern stub end--$2.5 million--and a new connection on new alignment to the southern stub end with an at-grade intersection with W. Loomis Road--$2.0 million. Alternative 1 is the highest cost alternative, at a cost of $21.8 million. Significant elements of the cost of this alternative include a new interchange with W. National Avenue at the Stadium Freeway-South northern stub end--$4.8 million--and a new connection on new alignment to the southern stub end with an interchange at W. Loomis Road--$4.8 million.

Land Needs

Also summarized in Table 2 is the land need which may be expected to occur under each surface improvement alternative. Figures 15 through 21 graphically depict the additional land and properties which would be required along each segment of the S. 43rd Street corridor under each improvement alternative. The alternative having the greatest effect on land use is Alternative 1, which requires the taking of 26 structures and 44 acres of land; followed by Alternative 2, with 26 structures and 41 acres of land; Alternative 3, with 24 structures and 36 acres of land; Alternative 4, with 5 structures and 12 acres of land; Alternative 5, with five structures and 12 acres of land; and the Do-Nothing alternative with no land acquisition need.

Benefit-Cost Ratios

Benefit-cost ratios are intended to provide a measure of the economic worth of a transportation alternative. The benefit-cost ratio compares the direct economic benefits of the transportation improvements attendant to each alternative to its direct costs. Table 2 presents the forecast incremental direct benefits and costs of each of the four surface street alternatives, as compared to the do-nothing alternative. The benefits include reductions in peak period traffic delay, reductions in peak-period vehicle operating costs, and reduction in traffic accidents. The costs include all capital, operating, and maintenance costs.[2] The benefits and costs were calculated as accruing over the period of 1984 to 2000, and it was assumed that each alternative could be open to traffic in 1985. Discount rates of 4, 6, and 10 percent were used to

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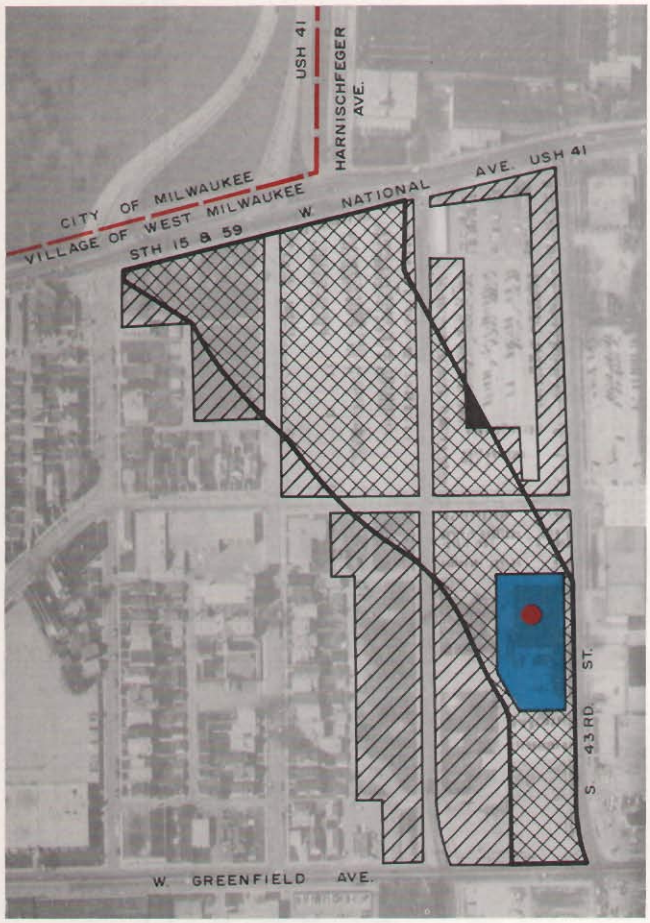
[2]The estimate of the economic value of traffic delay reduction in this study assumes an average value of $4.50 per person-hour of traffic delay in 1984 dollars, as recommended by the American Association of State Highway and Transportation officials. This assumed value is about 50 percent of the average wage in the Milwaukee area.

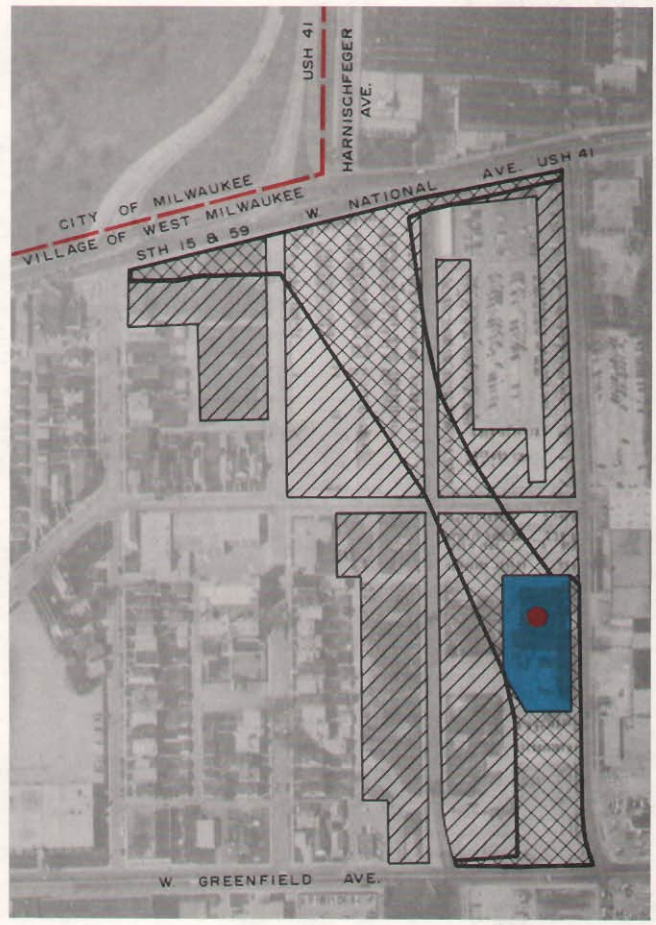
Figure 15

LAND REQUIREMENTS FROM W. NATIONAL AVENUE TO W. GREENFIELD AVENUE: ALTERNATIVES 1 THROUGH 5

ALTERNATIVE 1



ALTERNATIVES 2-5



LEGEND

- CORPORATE LIMITS
- EXISTING OR PROPOSED HIGHWAY R.O.W.
- CLEARED FREEWAY LAND TO BE USED FOR HIGHWAY R.O.W.
- CLEARED FREEWAY LAND AVAILABLE FOR REDEVELOPMENT
- STRUCTURE TO BE REMOVED

LAND TO BE ACQUIRED FOR HIGHWAY R.O.W.

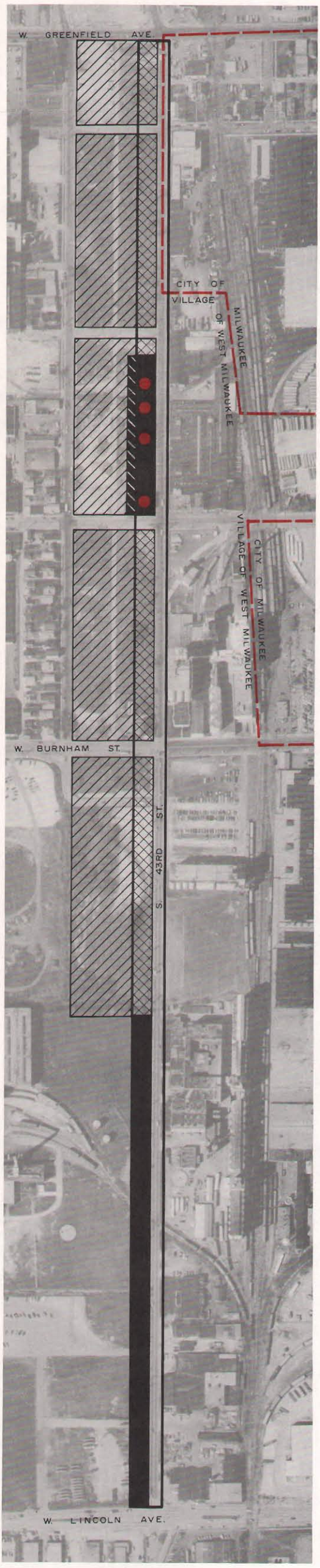
- MANUFACTURING
- GOVERNMENT

GRAPHIC SCALE
0 200 400 FEET

Source: SEWRPC.

Figure 16

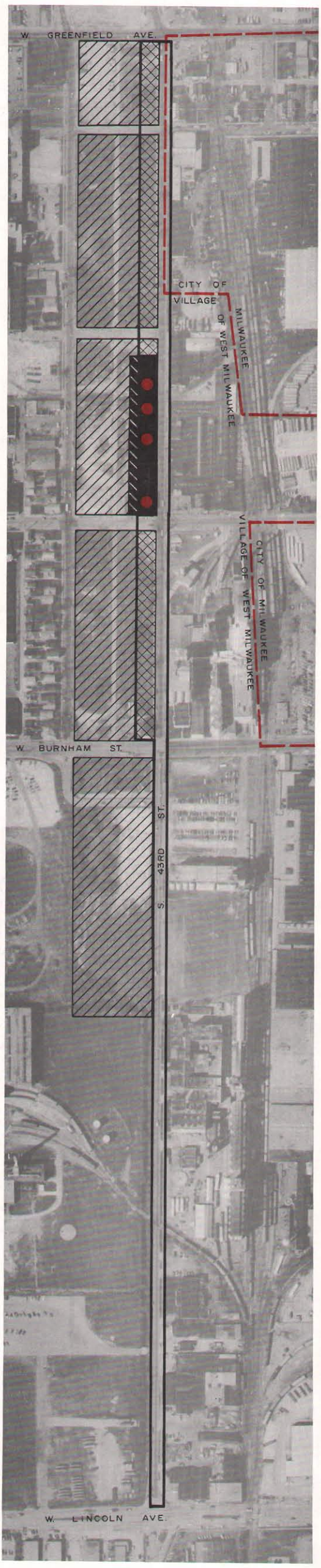
LAND REQUIREMENTS FROM W. GREENFIELD AVENUE TO W. LINCOLN AVENUE: ALTERNATIVES 1 THROUGH 4



Source: SEWRPC.

Figure 17

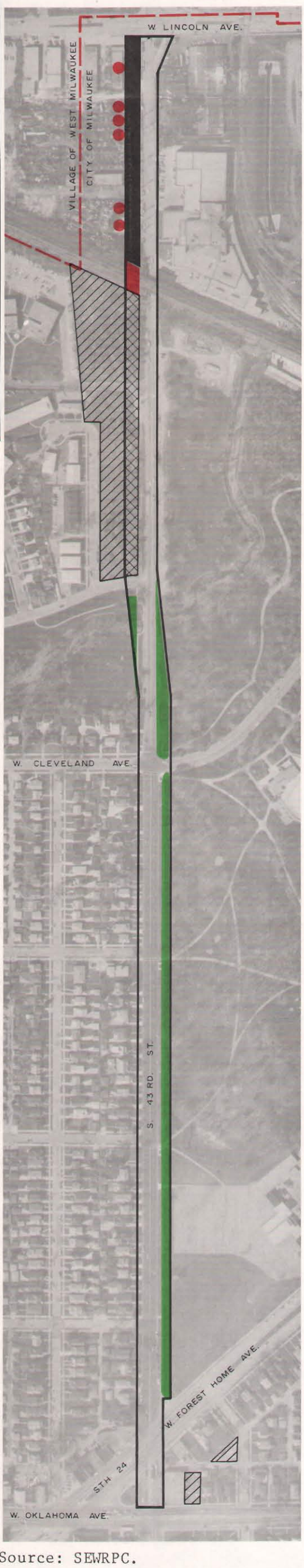
LAND REQUIREMENTS FROM W. GREENFIELD AVENUE TO W. LINCOLN AVENUE: ALTERNATIVE 5



Source: SEWRPC.

Figure 18

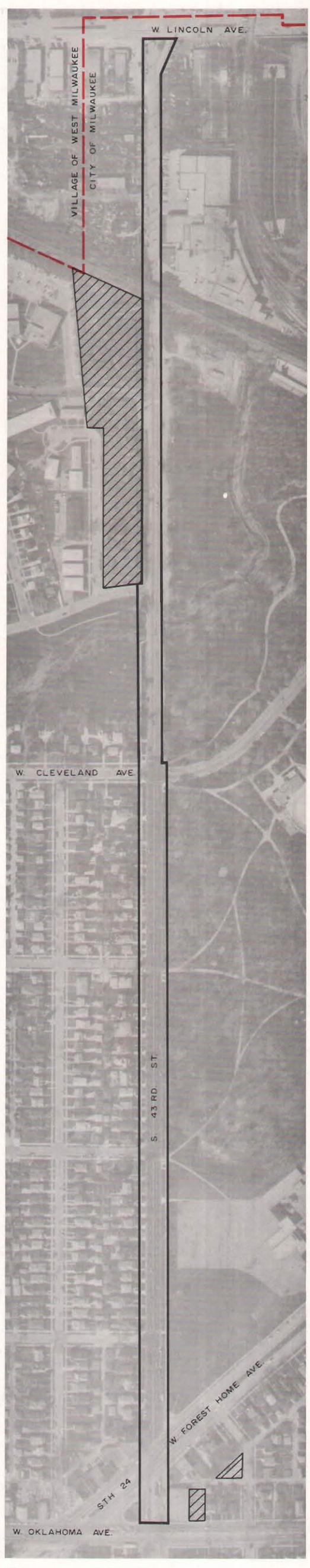
LAND REQUIREMENTS FROM W. LINCOLN AVENUE TO W. OKLAHOMA AVENUE: ALTERNATIVES 1 AND 2



Source: SEWRPC.

Figure 19

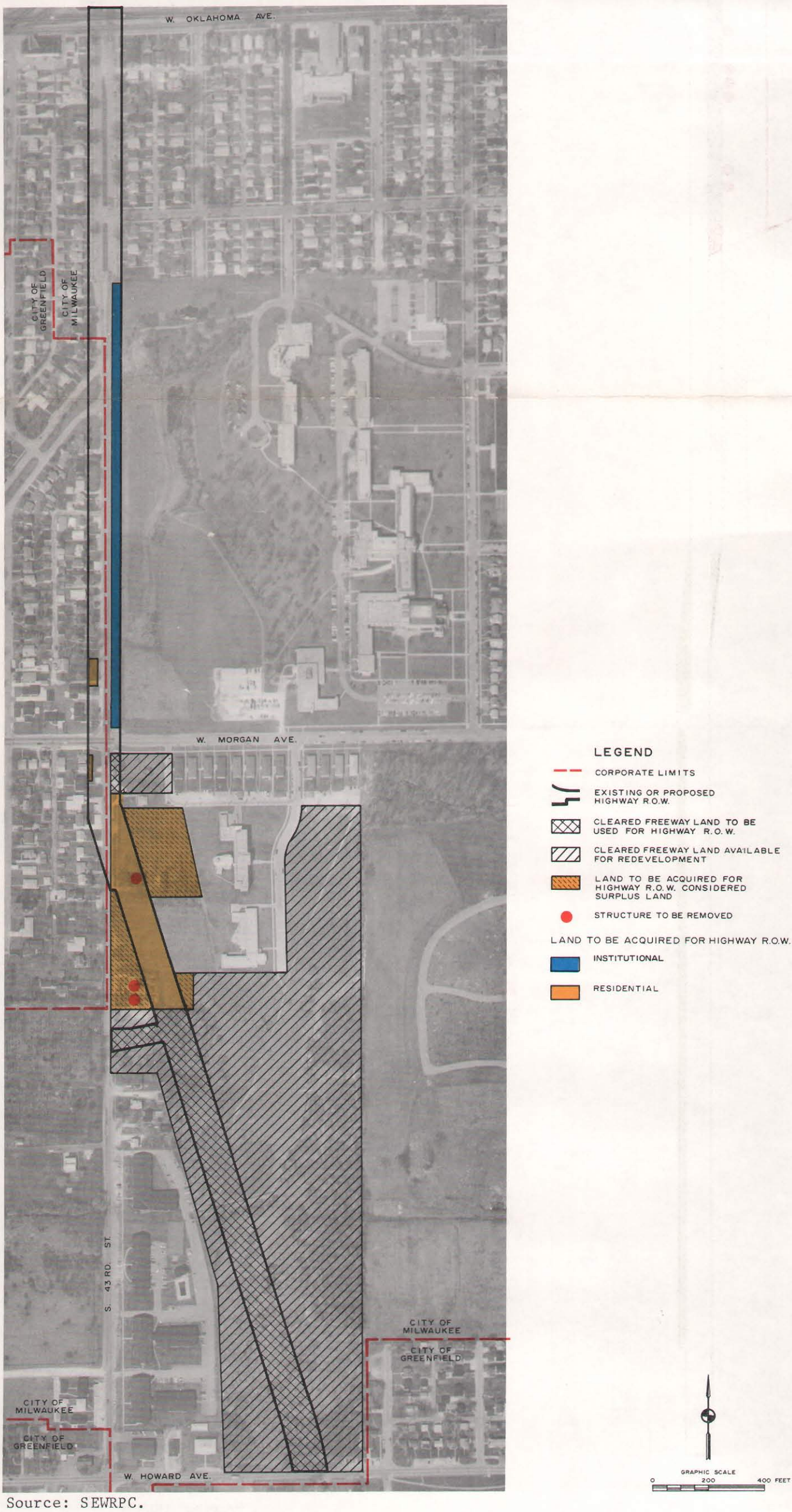
LAND REQUIREMENTS FROM W. LINCOLN AVENUE TO W. OKLAHOMA AVENUE: ALTERNATIVES 3 THROUGH 5



Source: SEWRPC.

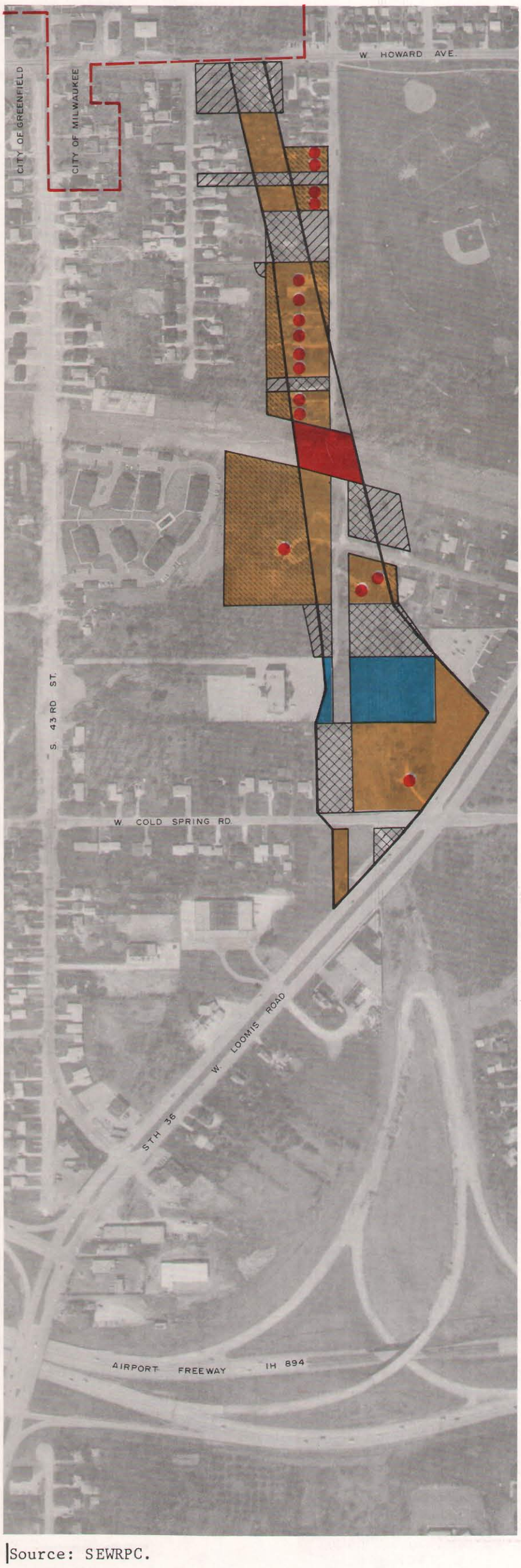
Figure 20

LAND REQUIREMENTS FROM W. OKLAHOMA AVENUE TO THE STADIUM FREEWAY-SOUTH SOUTHERN STUB END: ALTERNATIVES 1 THROUGH 3



Source: SEWRPC.

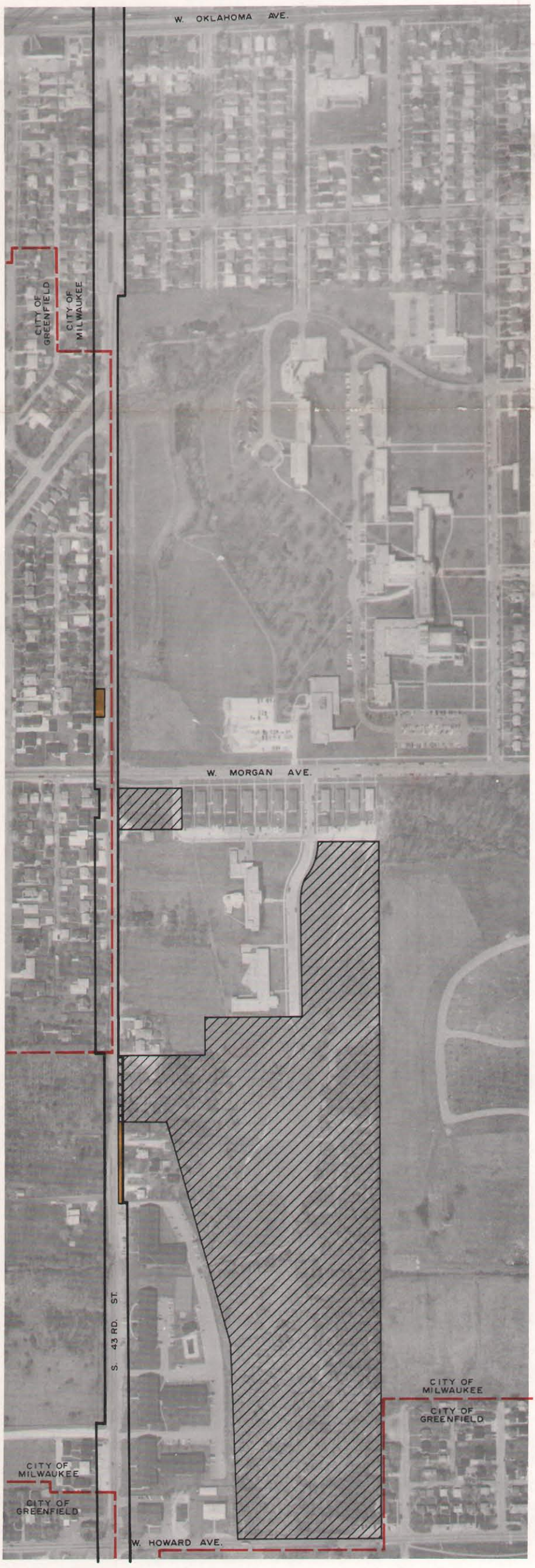
Figure 20 (continued)



Source: SEWRPC.

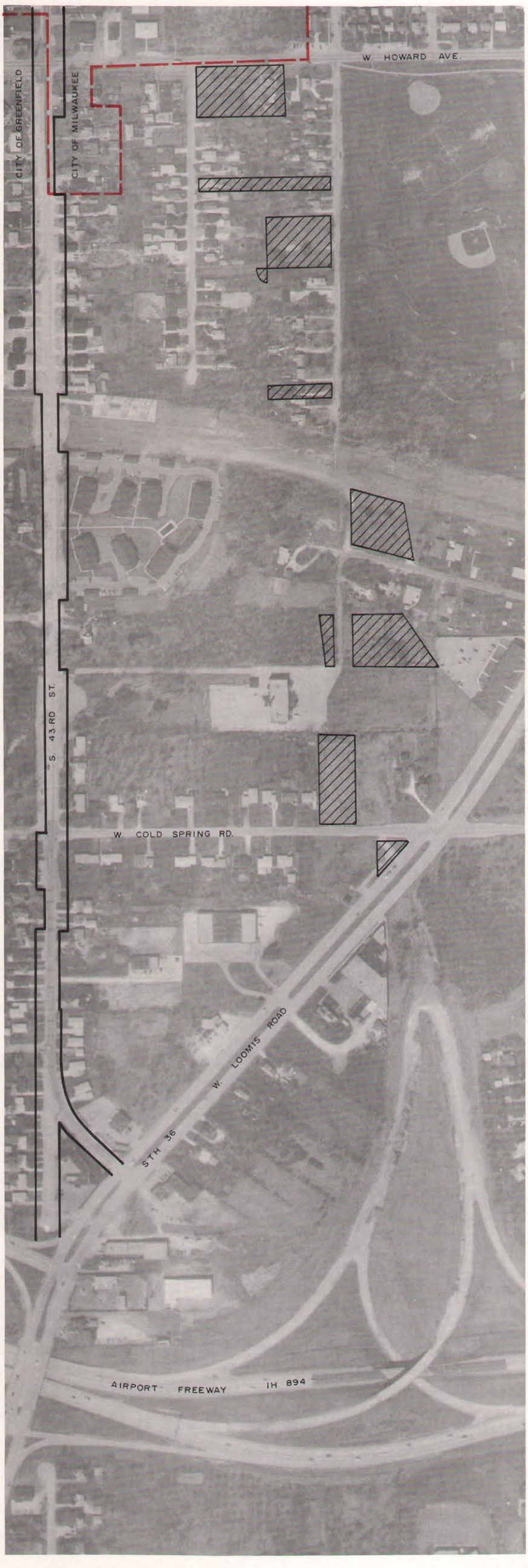
Figure 21

LAND REQUIREMENTS FROM W. OKLAHOMA AVENUE TO THE STADIUM FREEWAY-SOUTH SOUTHERN STUB END: ALTERNATIVES 4 AND 5



Source: SEWRPC.

Figure 21 (continued)



Source: SEWRPC.

convert the stream of benefits and costs to present values.[3] Appendix D to this report provides a more detailed explanation of the benefit-cost analysis conducted for this study.

Alternative 4 has the highest benefit-cost ratio, with 2.01 under a 4 percent discount rate, 1.59 under a 6 percent discount rate, and 1.10 under a 10 percent discount rate, followed by Alternative 5, with 1.59 under a 4 percent rate, 1.25 under a 6 percent discount rate, and 0.86 under a 10 percent discount rate; Alternative 3, with 1.47 under a 4 percent discount rate, 1.14 under a 6 percent discount rate, and 0.78 under a 10 percent discount rate; Alternative 1, with 1.35 under a 4 percent discount rate, 1.05 under a 6 percent discount rate, and 0.73 under a 10 percent discount rate; and Alternative 2, with 1.31 under a 4 percent discount rate, 1.01 under a 6 percent discount rate, and 0.64 under a 10 percent discount rate.

It should be recognized that these benefit-cost ratios are very conservative. The benefits of any delay reduction outside of peak traffic periods have not been included, as well as any indirect or intangible benefits such as the removal of through traffic from Village of West Milwaukee local residential streets.

Motor Fuel Consumption and Air Pollutant Emissions

Also summarized in Table 2 are the potential reduction in motor fuel consumption and air pollutant emissions which may be expected to result under each surface improvement alternative. The estimated reductions in motor fuel and air pollutants are based upon the estimated savings and peak-period traffic delay under each improvement alternative. Alternative 1 would be expected to result in the largest savings of motor fuel and air pollutant emissions with a reduction of 1.05 million gallons of motor fuel and 948 tons of pollutant emissions; followed by Alternative 2, with reductions of 0.77 million gallons of motor fuel and 583 tons of pollutant emissions; Alternative 3, with reductions of 0.62 million gallons of motor fuel and 558 tons of air pollutant emissions; Alternative 4, with reductions of 0.56 million gallons of motor fuel and 486 tons of pollutant emissions; and Alternative 5, with reductions of 0.39 million gallons of motor fuel and 342 tons of pollutant emissions.

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[3] Discount rates represent a time value of money. The discount rates are expressed in terms of constant dollar values, that is, with the effects of inflation removed. For example, if inflation would average 10 percent per year from 1984 to 2000, the discount rate used in this analysis would then represent an actual rate of 14 to 20 percent. The 10 percent constant dollar rate is recommended by the federal government to reflect the return expected by private sector industry and business. A 4 percent constant dollar rate is recommended by the American Association of State Highway and Transportation officials to reflect the return historically obtained by private industry and the general public. A 6 percent constant dollar rate has historically been applied by the Regional Planning Commission. However, it should be noted that over the past 20 years the interest rates obtained on short-term securities have averaged about 2 percent in constant dollars. Constant dollar interest rates on conventional savings accounts have been even lower than 2 percent.

Summary and Preliminary Recommendations

The Wisconsin State Legislature directed in the 1983-1984 state budget that the Stadium Freeway-South from its current stub end at W. National Avenue to the Airport Freeway (IH 894) be removed from the Milwaukee County expressway system and that a study be conducted to recommend surface street improvements in the corridor and to establish whether the S. 43rd Street corridor should remain on the state trunk highway system. The State Legislature also required that a disposition plan be prepared for the cleared lands in the Stadium Freeway-South corridor which would not be required for transportation purposes. This report has been prepared by the Southeastern Wisconsin Regional Planning Commission staff under contract to the State of Wisconsin Department of Development. The report provides a description and evaluation of alternative surface street improvements in the corridor.

Five alternative street improvements and a do-nothing alternative were proposed and evaluated. Two alternatives, Alternatives 4 and 5, were of relatively low cost--between $10.5 and $10.8 million; another alternative, Alternative 3, was of intermediate cost--$14.5 million; and two alternatives, Alternatives 1 and 2, were of relatively high cost--between $16.7 and $21.8 million. The do-nothing alternative had an estimated cost of $5.9 million.

The improvements under Alternative 4--one of the two low-cost alternatives--included the construction of a new, at-grade intersection between the Stadium Freeway-North stub end and S. 43rd Street; the widening of S. 43rd Street from W. National Avenue to W. Lincoln Avenue to a six-lane, divided boulevard; and the reconstruction of rural cross-sections to minimum urban four-lane, undivided roadway cross-sections from the Chicago & North Western Transportation Company railway bridge to W. Cleveland Avenue and from W. Euclid Avenue to W. Howard Avenue. Alternative 5 differed from Alternative 4 only in that the segmentof S. 43rd Street from W. National Avenue to W. Burnham Street would provide only four traffic lanes over the six-lane divided boulevard section, leaving the remaining two lanes for parking and in the segment of S. 43rd Street between W. Burnham Street and W. Lincoln Avenue, where a four-lane minimum urban roadway section would be provided, rather than a six-lane divided boulevard. Alternatives 4 and 5 had very similar negative impacts, including costs of just over $10 million and new right-of-way requirements of about 12 acres of land, including seven acres of cleared freeway land. Alternative 4, though, did have substantially greater positive impacts than Alternative 5. Alternative 4 was estimated to provide the potential for a 40 percent greater reduction in peak hour traffic delay and would accommodate all, rather than about 50 percent, of the traffic in the Village of West Milwaukee which presently uses local residential streets such as S. 47th and S. 48th Streets to travel to and from the Stadium Freeway-South stub end. The benefit-cost ratio of Alternative 4 is about 20 percent higher than the benefit-cost ratio of Alternative 5.

The third alternative examined, Alternative 3, was an alternative of intermediate cost. Its cost of $14.5 million was about 40 percent higher than the cost of Alternative 4. In addition, Alternative 3 required about 200 percent more new land for right-of-way, or 36 acres of land compared to 12 acres of land under Alternative 4. Alternative 3 differed from Alternative 4 in that it provided a substantial improvement in the southern end of the corridor with

a divided boulevard section along S. 43rd Street between W. Euclid Avenue and W. Morgan Avenue, and then following the Stadium Freeway-South stub end to the presently unconnected Stadium Freeway Interchange, rather than a four-lane, undivided minimum urban roadway along S. 43rd Street, with no connection to the interchange. Alternative 3 would have provided a slight improvement in peak hour traffic movement in the corridor, providing a 20 percent reduction in peak hour traffic delay, with 190 hours of peak hour traffic delay reduction under Alternative 3 compared to 170 hours under Alternative 4.

Alternatives 1 and 2 were the highest cost alternatives examined, with costs of $21.8 million for Alternative 1 and $16.7 million for Alternative 2. Both alternatives would have provided new connections with the Stadium Freeway northern and southern stub ends and would have provided a divided boulevard throughout the corridor. Alternative 1 differed from Alternative 2 only in that the connection to the Stadium Freeway-South northern and southern stub ends would have been provided with grade-separated interchanges and the connections under Alternative 2 would have been provided with at-grade intersections. Alternatives 1 and 2 had similar negative impacts, including costs and land requirements. Alternative 1 would have required 44 acres of land for new right-of-way, and Alternative 2 would have required 41 acres of land. The additional three acres of land required by Alternative 1, however, would have been a large portion of a parcel abutting W. National Avenue between S. 43rd Street and S. 45th Street which the Village of West Milwaukee regards as key to the redevelopment of the corridor. Alternative 1 would be expected to have substantially greater potential, however, to reduce peak hour traffic congestion. Its potential reduction of peak hour traffic delay would be almost 65 percent greater than that of Alternative 2. Compared to Alternative 4, Alternative 2 had a substantially higher cost--$16.7 million, compared to $10.8 million--and required substantially greater land for right-of-way--41 acres of land compared to 12 acres of land. However, Alternative 2's estimated potential to reduce peak hour traffic delay was only about 20 percent higher than that of Alternative 4, or 200 hours of peak hour traffic delay reduction compared to 170 hours under Alternative 4. Alternative 1 also had a much higher construction cost--$21.8 million--compared to Alternative 4's construction cost of $10.8 million. Alternative 1 also required substantially greater land for new right-of-way, or 44 acres of land compared to 12 acres of land. Alternative 1, however, had the potential to provide a much greater reduction of peak hour traffic delay, or 330 hours each weekday compared to 170 hours each weekday under Alternative 4.

Based upon this comparison and evaluation, the Commission staff provided a preliminary recommendation that alternative surface street improvement No. 4 be implemented in the S. 43rd Street corridor. At a modest increase in cost compared to the do-nothing alternative, and with modest new right-of-way requirements, Alternative 4 has the potential to make substantial reductions in peak hour traffic delay in the corridor, and the potential to remove from local residential streets in the Village of West Milwaukee traffic which is traveling to and from the Stadium Freeway-south stub end. Alternative 4 provides a substantial improvement only in the northern section of the S. 43rd Street corridor, and provides only a minimal improvement in the southern segment of the corridor.

The Stadium Freeway-South Intergovernmental Advisory Committee met on April 23, 1984, and endorsed the preliminary staff recommendation that Alternative 4 be adopted, and concurred that this recommendation should be taken to public hearing.

Public Reaction to Preliminary Recommendation

The preliminary findings and recommendations of the study of surface street alternatives in the Stadium Freeway-South corridor, including the preliminary recommended street improvement plan, were presented at three public meetings held during May 1984. The meetings were held on May 10, 1984, in the City of Greenfield at 7:30 p.m. in the Greenfield City Hall, 7325 W. Forest Home Avenue; on May 11, 1984, in the City of Milwaukee at 7:30 p.m. at Manitoba School, 4440 W. Forest Home Avenue; and on May 14, 1984, in the Village of West Milwaukee at 7:30 p.m. in the West Milwaukee High School auditorium, 5104 W. Greenfield Avenue. Also presented at the meetings were the preliminary findings of the land disposition planning. A summary of the preliminary findings and recommendations of the street improvement study conducted by Commission staff was distributed at the meetings and was transmitted prior to the meetings to all affected elected and technical officials, and to the news media. This summary is provided in Appendix E of this report.

City of Greenfield Public Meeting: Approximately 60 people attended the City of Greenfield public meeting, including state, county, and local elected and technical officials. Approximately 20 people asked questions or provided comments at the meeting. The comments indicated that public reaction was mixed. Substantial support was voiced for the do-nothing alternative. Reasons advanced for support of the do-nothing alternative included a lack of need for such an improvement and concern that the improvement would bring heavy volumes of traffic. However, support was also voiced for the preliminary recommendation, Alternative No. 4. Those indicating support for Alternative No. 4 did note a concern over a potential increase in truck traffic and asked that consideration be given to removing the designation of S. 43rd Street as a state trunk highway south of W. Lincoln or W. Forest Home Avenues. Support was also voiced for Alternatives No. 1, No. 2, and No. 3, which would provide a new arterial connection between the uncompleted Stadium Freeway-South interchange with the Airport Freeway (IH 894) and S. 43rd Street just south of W. Morgan Avenue. The support for these alternatives came from citizens residing at the southern end of S. 43rd Street. These citizens expressed concern over the potential increase in traffic on the extreme southern end of S. 43rd Street and, as a result, preferred a proposal which would carry a substantial volume of that traffic on the once-planned alignment of the Stadium Freeway-South.

City of Milwaukee Public Meeting: The public meeting in the City of Milwaukee was attended by approximately 80 people, including elected and technical state, county, and local officials. Approximately 25 citizens and a local elected official asked questions or provided comments at the meeting. Nearly the entire audience and all those offering comments were opposed to any improvement in the City of Milwaukee portion of S. 43rd Street, and to the designation of this portion of S. 43rd Street as a state trunk highway. Concern was expressed over the potential increase in traffic volumes, especially truck traffic, and its effect on pedestrian safety, air pollution, and noise. Some people offering comments did note, however, the potential need for improvements in West Milwaukee and possibly in Greenfield.

It was suggested that any state trunk highway routing on S. 43rd Street only be between W. National Avenue and W. Lincoln Avenue, and then could be connected to current routings on S. 27th Street via W. Lincoln Avenue. Concern was also expressed that increased traffic volumes and, particularly, truck traffic volumes, would further aggravate a present bottleneck at the intersection of S. 43rd Street and W. Oklahoma Avenue and W. Forest Home Avenue.

Village of West Milwaukee Public Meeting: The public meeting in the Village of West Milwaukee was attended by approximately 130 people including state, county, and local elected and technical officials. Approximately 30 citizens and elected officials asked questions or provided comments at the meeting. The majority of those offering comments supported an improvement which would provide a four-lane roadway on S. 43rd Street through the Village of West Milwaukee. Suggestions that this four-lane roadway be a divided roadway or an undivided roadway were both made. Support was also voiced for a do-nothing alternative on S. 43rd Street in the Village of West Milwaukee and for the construction of a six-lane, undivided arterial on S. 43rd Street. The principal reasons for the support of the four-lane roadway, the do-nothing alternative, and the six-lane undivided alternative, rather than the preliminary recommended alternative, were that these alternatives would leave more cleared freeway land to be redeveloped in the corridor, and concerns over increased traffic on S. 43rd Street and its impacts on pedestrian safety, air pollution, and noise.

Advisory Committee Response to Public Comments

The Intergovernmental Coordinating and Advisory Committee for Transportation System Planning and Programming for the Milwaukee Urbanized Area met on May 16, 1984, and considered the preliminary findings and recommendations of the study of surface street alternatives in the Stadium Freeway-South corridor, as well as the public reaction to the preliminary recommendations. This Committee, which is advisory to the Regional Planning Commission, includes those elected and technical officials who are most knowledgeable about transportation needs in the Milwaukee urbanized area. The Advisory Committee unanimously endorsed Commission staff submittal to the Wisconsin Department of Development of the preliminary staff recommendation of Alternative 4, with possible modification north of W. Lincoln Avenue to provide for four, rather than six, lanes of traffic. The final recommendation for S. 43rd Street between W. National Avenue and W. Lincoln Avenue was to be determined after further consultation with officials of the Village of West Milwaukee and the other units and agencies of government concerned.

Final Recommended Surface Street Alternative

Based upon the findings of the study of surface street alternatives in the Stadium Freeway-South corridor, the public comments received on those findings and the preliminary recommendation, the direction provided by the Intergovernmental Coordinating and Advisory Committee for Transportation System Planning and Programming for the Milwaukee Urbanized Area, and the direction provided by the officials of the Village of West Milwaukee and other units and agencies of government concerned; the Commission staff recommends to the Wisconsin Department of Development, for submittal for formal public hearing, a street improvement which is different from any of the alternatives examined, and which would provide less transportation improvement than the preliminary recommendation of Alternative No. 4. This recommendation for surface street

improvement in the Stadium Freeway-South corridor is shown in Figure 22 and summarized on Table 4. The recommendation would provide for a new, at-grade intersection connection between S. 43rd Street and W. National Avenue and the Stadium Freeway-South northern stub end. South 43rd Street would be improved to a divided boulevard, with four traffic lanes and two parking lanes between W. National Avenue and W. Lincoln Avenue. South of W. Lincoln Avenue, only minimal improvements would be made, specifically, the conversion of rural cross-sections to minimum, undivided, four-lane, urban cross-sections. No direct connection would be made to the uncompleted Stadium Freeway-South interchange with the Airport Freeway (IH 894). The interchange would continue to be used only as a connection to the Milwaukee County Transit System park-ride lot. The only improvement proposed south of W. Lincoln Avenue would be the eventual reconstruction of the Chicago & North Western Transportation Company's railway bridge to accommodate an undivided, four-lane, urban cross-section, and the improvement of S. 43rd Street from the bridge to W. Cleveland Avenue and from W. Euclid Avenue to W. Howard Avenue from two-lane, rural roadways to undivided, four-lane, urban roadways with curb and gutter and storm sewers. All of these new four-lane urban roadways would provide two traffic lanes and two parking lanes. Parking, however, could be prohibited during the morning and evening peak traffic periods as future conditions may warrant.

The key impacts of the recommended plan are summarized in Tables 4 and 5 and on Figure 22. Implementation of the recommended street improvement plan, would be expected to result in some reduction in traffic congestion in south central Milwaukee County and would permit the removal of about 50 percent of the through traffic which now uses local land access streets in the Village of West Milwaukee to travel to and from the Stadium Freeway-South northern stub end at W. National Avenue.

The estimated cost of the final recommendation is $10.8 million including construction costs and operating and maintenance costs over the next 15 years. It would require 12 acres of land for construction, including seven acres of cleared freeway corridor land. The land requirements of the final recommended improvements would be the same as under Alternative No. 4, which are shown on Figures 15 through 21. The five acres of private lands which would have to be acquired lie principally in the Village of West Milwaukee between W. Burnham Street and W. Lincoln Avenue, and are currently parts of large parking lots. The seven acres of cleared freeway land which would be used for the transportation improvement also lie within the Village of West Milwaukee. Five buildings would have to be acquired to construct the final recommended alternative. All of these buildings are located within the Village of West Milwaukee and include the Village of West Milwaukee municipal garage and four industrial buildings. The benefit-cost ratio of the recommended plan is 1.18 at a 6 percent discount rate, and indicates that the direct economic benefits of the transportation improvement exceeds its costs by 18 percent.

The recommended alternative would address many of the concerns which were raised at the three public meetings. Specifically, it would result in substantially less traffic on an improved S. 43rd Street in the Village of West Milwaukee and in the City of Milwaukee and the City of Greenfield. Forecast year 2000 traffic volumes under the recommended plan in the Village of West Milwaukee would be expected to range from 15,000 vehicles per day at

Table 4

TRAFFIC IMPACTS OF RECOMMENDED S. 43RD STREET SURFACE ARTERIAL IMPROVEMENTS

Segment	Existing Roadway (do-nothing alternative)	Final Recommended Plan
Northern Stub End.....	No change (present stub end to remain)	New connection to be made with an at-grade intersection
Year 2000 Weekday Traffic.. (1983 weekday traffic: 25,000)	25,000 awdt	38,000 awdt
W. National Avenue to W. Burnham Street Basic Cross-Section.....	No change (one-way pair of three-lane, urban roadways with two traffic lanes and one parking lane)	S. 43rd Street to be widened to divided urban boulevard with four traffic lanes and two parking lanes
Right-of-Way.....	Existing 60' for each one-way pair	120'
Number of Traffic Lanes....	4	4
Year 2000 Weekday Traffic.. (1983 weekday traffic: 13,000)	19,000-23,000 awdt	22,000-25,000 awdt
W. Burnham Street to W. Lincoln Avenue Basic Cross-Section.....	No change[a] (two-lane, undivided rural roadway)	S. 43rd Street to be widened to divided urban boulevard with four traffic lanes and two parking lanes
Right-of-Way.....	Existing 60'	120'
Number of Traffic Lanes....	2	4
Year 2000 Weekday Traffic.. (1983 weekday traffic: 11,000)	11,000 awdt	15,000-19,000 awdt
W. Lincoln Avenue to C&NW Railway Bridge Basic Cross-Section.....	No change (undivided urban roadway with two traffic lanes and two parking lanes)	Parking may be prohibited during morning and evening peak traffic periods on existing basic cross-section
Right-of-Way.....	Existing 66'	66'
Number of Traffic Lanes....	2	2 (3 or 4 during peak periods only)
Year 2000 Weekday Traffic.. (1983 weekday traffic: 12,000)	11,000 awdt	13,000 awdt
CNW Railway Bridge to W. Cleveland Avenue Basic Cross-Section.....	No change[a] (two-lane undivided rural roadway)	S. 43rd Street to be widened to undivided, urban roadway with two traffic lanes and two parking lanes. Parking may be prohibited during morning and evening peak traffic periods.
Right-of-Way.....	Existing 66' to 83'	66' to 83'
Number of Traffic Lanes....	2	2 (3 or 4 during peak periods only)
Year 2000 Weekday Traffic.. (1983 weekday traffic: 12,000)	11,000 awdt	13,000 awdt

Table 4 (continued)

Segment	Existing Roadway (do-nothing alternative)	Final Recommended Plan
W. Cleveland Avenue to W. Oklahoma Avenue		
Basic Cross-Section.....	No change (undivided urban roadway with four traffic lanes and two parking lanes)	No change
Right-of-Way.....	Existing 100'	100'
Number of Traffic Lanes....	4	4
Year 2000 Weekday Traffic.. (1983 weekday traffic: 12,000)	11,000 awdt	15,000 awdt
W. Oklahoma Avenue to W. Euclid Avenue		
Basic Cross-Section.....	No change (divided urban roadway with four traffic lanes and two parking lanes)	No change
Right-of-Way.....	Existing 110'	110'
Number of Traffic Lanes....	4	4
Year 2000 Weekday Traffic.. (1983 weekday traffic: 7,000)	13,000 awdt	15,000 awdt
W. Euclid Avenue to W. Howard Avenue		
Basic Cross-Section.....	No change[a] (two-lane, undivided rural roadway)	S. 43rd Street to be widened to undivided, urban roadway with two traffic lanes and two parking lanes. Parking may be prohibited during morning and evening peak traffic periods.
Right-of-Way.....	Existing 50' to 100'	66' to 100'
Number of Traffic Lanes....	2	2 (3 or 4 during peak periods only)
Year 2000 Weekday Traffic.. (1983 weekday traffic: 6,000)	7,000-13,000 awdt	8,000-15,000 awdt
W. Howard Avenue to W. Loomis Road		
Basic Cross-Section.....	No change (undivided, urban roadway with two traffic lanes and two parking lanes)	No change
Right-of-Way.....	Existing 50' to 100'	66' to 110'
Number of Traffic Lanes....	2	2
Year 2000 Weekday Traffic.. (1983 weekday traffic: 6,000)	7,000 awdt	8,000 awdt
Southern Stub End.....	No connection	No connection
Year 2000 Weekday Traffic..	No traffic	No traffic

[a]Under the "do-nothing" alternative, these cross-sections which are now undivided, two-lane, rural roadways may be converted to undivided, minimal urban roadways with two traffic lanes, two parking lanes, and curb and gutter and storm sewers.

Source: SEWRPC.

Table 5

ENVIRONMENTAL ASSESSMENT OF RECOMMENDED ARTERIAL
STREET IMPROVEMENTS IN THE STADIUM FREEWAY-SOUTH CORRIDOR

Type of Environmental Impact	Description of Impact of Recommended Alternative	
	Beneficial	Adverse
Economic.....	• Overall economic benefit indicated by benefit-cost ratio of 1.18 at 6 percent discount rate (reduce vehicle operating costs, traffic accidents, and travel delays). • Improve property value and promote economic development by: --Improving accessibility to freeway. --Removing through traffic from local residential streets. --Provide sufficient street capacity and attractive setting for cleared freeway land. • Consistent with local plan in West Milwaukee Redevelopment Plan-Stadium Freeway Corridor, (7/82)	• Additional cost of $4.9 million over do-nothing alternative. • Require acquisition of five buildings (West Milwaukee garage and four industrial). • Require five acres of new land acquisition and seven acres of cleared freeway land (see Figures 15 to 21).
Community and Residential.....	• Will remove through traffic from local residential streets. • No residential building takings. • Only residential land takings are a 16' by 100', a 16' by 60', a 16' by 72', a 14' by 180', and a 16' by 54' strip.	• Vehicle traffic volume increase over do-nothing alternative of 15 to 30 percent, or 1,000 to 4,000 vehicles per weekday. • Truck traffic volume increase over do-nothing alternative of 300 trucks per weekday, or 75 percent, on southern end of S. 43rd Street to 1,400 trucks per weekday, or 150 percent, on northern end of S. 43rd Street. • Proposed improvements in residential areas are limited to conversions of rural to urban cross-sections.
Commercial and Industrial.....	• Improve accessibility to Stadium-South Freeway and traffic flow on S. 43rd Street and parallel arterials; aid Jackson Park business area and West Milwaukee industry. • Improve visual appeal of West Milwaukee cleared land.	• --

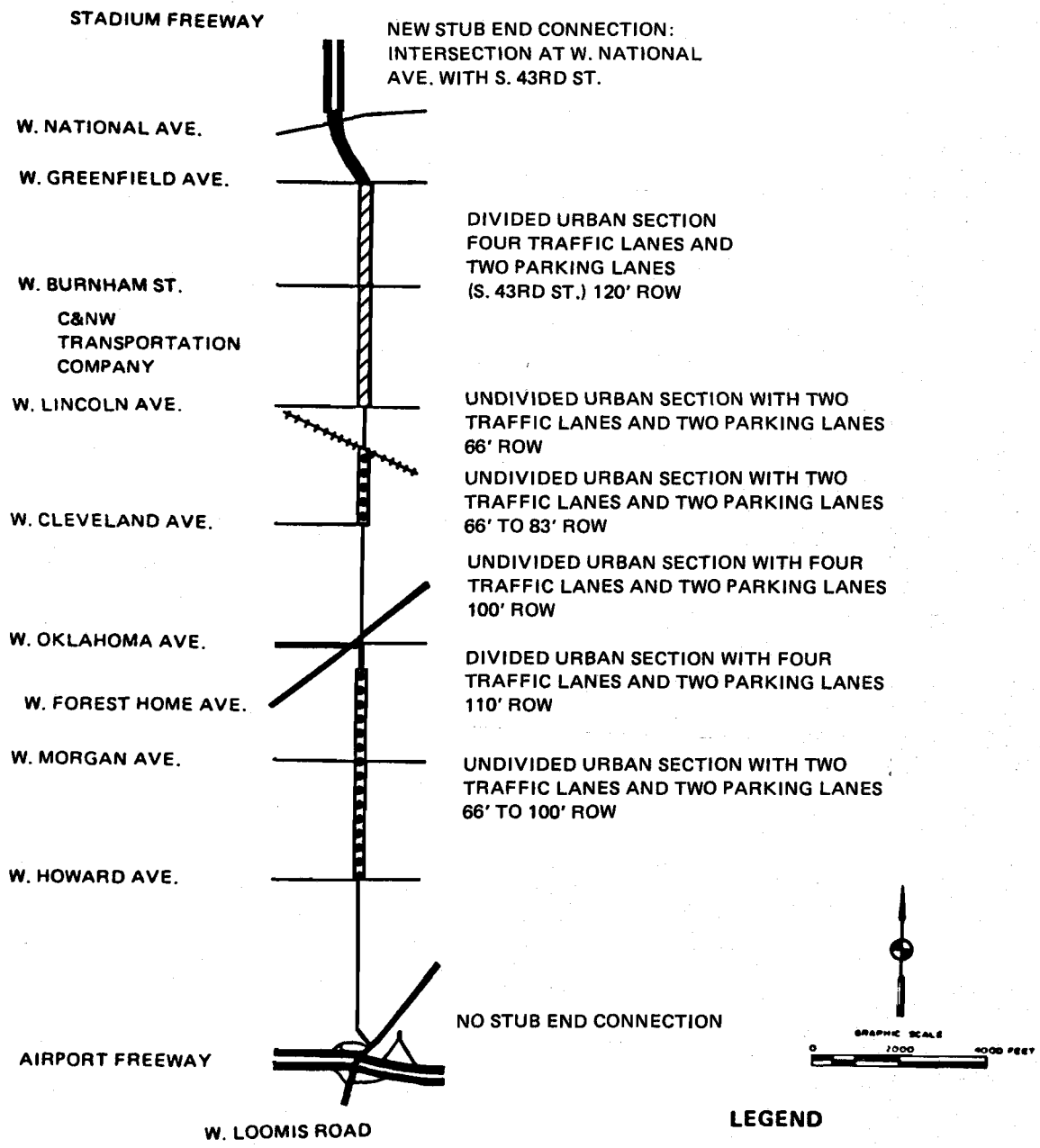
Table 5 (continued)

Type of Environmental Impact	Description of Impact of Recommended Alternative	
	Beneficial	Adverse
Agriculture.....	• --	• --
Wetland, Floodplain, and Water.....	• S. 43rd Street ditch for approximately 1600' (from south of W. Burnham Avenue to north of W. Lincoln Avenue) will be placed underground in twin box culverts (presently underground from W. Lincoln Avenue to the C&NW railway).	• --
Upland Wildlife Habitat...	• --	• --
Unique Area.....	• --	• Minimal impact on Jackson Park: --No new right-of-way. --Convert adjacent cross-section from rural to urban
Air Quality.....	• Reduction in traffic and air pollutant emissions on local streets and parallel arterials (about 120 fewer hours of vehicle idling each weekday and about 342 fewer tons of emissions) in south central Milwaukee County.	• No expected increase of emissions on S. 43rd Street. Fifteen to 50 percent increase in traffic offset by expected 25 percent to 45 percent reduction in emissions per vehicle over next 15 years.
Sound Quality.....	• Reduction in traffic on local streets and parallel arterials, and in total vehicle idling.	• Increase in traffic on S. 43rd Street of 15 to 30 percent over do-nothing alternative.

Source: SEWRPC.

Figure 22

RECOMMENDED S. 43RD STREET IMPROVEMENT PLAN



COST: $10.8 MILLION
LAND-TAKING: 12 ACRES OF LAND AND 5 BUILDINGS
TRAFFIC CONGESTION: 120 FEWER HOURS OF PEAK-HOUR TRAFFIC DELAY EACH WEEKDAY
MOTOR FUEL CONSUMPTION: 0.39 MILLION GALLONS SAVED TO YEAR 2000
AIR POLLUTANT EMISSIONS: 342 FEWER TONS OF EMISSIONS TO YEAR 2000
BENEFIT-COST RATIO: 4 PERCENT DISCOUNT RATE–1.51
6 PERCENT DISCOUNT RATE–1.18
10 PERCENT DISCOUNT RATE–0.82

Source: SEWRPC.

W. Lincoln Avenue to 25,000 vehicles per weekday at W. National Avenue. This compares to a range of 21,000 to 39,000 vehicles per weekday under Alternative No. 4--the preliminary staff recommendation. Under the recommended plan, traffic volumes could be expected to increase by 10 to 30 percent to the year 2000 over the traffic volumes expected under the do-nothing alternative, which were 11,000 to 23,000 vehicles per average weekday in the year 2000 in the Village of West Milwaukee. In the City of Milwaukee, the recommended plan could be expected to have traffic volumes in the year 2000 of about 13,000 to 15,000 vehicles per weekday, or about 15 to 30 percent more than under a do-nothing alternative. The traffic volumes on S. 43rd Street in the City of Milwaukee, under the recommended alternative, are about 15 to 40 percent less than the 17,000 to 18,000 vehicles per weekday expected under Alternative No. 4, the preliminary recommended alternative. In the City of Greenfield, the traffic volumes on S. 43rd Street under the recommended plan would be expected to range from 8,000 to 15,000 vehicles on an average weekday, or only about 10 to 15 percent more than the 7,000 to 13,000 vehicles on an average weekday expected under a do-nothing alternative.

South 43rd Street is presently designated as a state trunk highway. State trunk highways are intended to include those relatively widely spaced routes which carry the longest trip lengths and heaviest traffic volumes; provide the highest level of traffic mobility and lowest degree of traffic congestion; provide minimum land access service; and connect land use activity centers of areawide importance. The Commission first prepared a jurisdictional highway system plan for Milwaukee County in 1969, and updated that plan as part of the regional transportation system plan update in 1978. The Stadium Freeway-South was recommended in both those plans to be a state trunk highway.

The recommended S. 43rd Street improvement plan was analyzed to determine whether S. 43rd Street, under this plan, should remain a state trunk highway. This analysis considered the existing and forecast average weekday traffic volumes on S. 43rd Street; the distance to the nearest paralleling state trunk highways; the potential for integrating S. 43rd Street into the state trunk highway system in Milwaukee County; the average length of trips made over S. 43rd Street; the location of major land use activity centers along S. 43rd Street; the traffic mobility which would be provided by S. 43rd Street; and the degree of land access which would be permitted on S. 43rd Street. This analysis indicated that, given the recommended plan, S. 43rd Street should be removed from the state trunk highway system. Traffic volumes along less than 25 percent of the length of S. 43rd Street met the minimum warrant of 19,000 vehicles per average weekday, and along less than 50 percent of its length, the minimum warrant of an 11-mile average trip length. In addition, an existing and planned S. 27th Street state trunk highway route is located within two miles to the east of S. 43rd Street. Also, the traffic mobility and degree of land access which would be provided by S. 43rd Street would be less than that desired for a state trunk highway. South 43rd Street would, nevertheless, have the potential to continue to be part of an integrated state trunk highway system and would serve, at its northern end, a major regional industrial area in the Village of West Milwaukee.

The removal of S. 43rd Street from the state trunk highway system would address some of the concerns expressed by many at the City of Milwaukee public meeting and at the City of Greenfield public meeting. Many citizens at these meetings expressed concern over existing and, particularly, future traffic

volumes, and expressed support for the prohibition of truck traffic. Such prohibition would not be possible if S. 43rd Street were to remain a state trunk highway, but would be possible if S. 43rd Street were removed from the state trunk highway system. The disadvantage of removing S. 43rd Street from the state trunk highway system would be that local governments would then be responsible for constructing the S. 43rd Street improvements and for the annual operation and maintenance of S. 43rd Street; however, to offset this disadvantage, it is recommended that, prior to the removal of the state trunk highway system designation of S. 43rd Street, the State construct and pay for the recommended improvements on S. 43rd Street. It is further recommended that the improvement plan for S. 43rd Street should be considered as a special "major" project and be recommended for timely implementation by the State Transportation Projects Commission, which recommends to the State Legislature and Governor bi-annually the funding of major transportation projects. It is also recommended that this Transportation Projects Commission recommend state funding of 100 percent of the S. 43rd Street improvements--including parking lanes, lighting, sidewalks, and storm sewers. It is also recommended that the Wisconsin Department of Transportation begin design engineering of S. 43rd Street as soon as possible in order to permit the timely implementation of the recommended improvements when construction funding is approved.

Five reasons support these recommendations. First, without full state funding, it may be expected that the improvements would be made over a long period of time. The local communities in the Stadium Freeway-South corridor have waited a long time for the Stadium Freeway-South to be constructed, and have had to live with poor roads and through traffic on local streets for many years. It is not fair to ask the local communities to live with these conditions any longer, now that the Stadium Freeway-South has been de-mapped. Second, the local communities should not be asked to pay the cost of the improvements. The local communities, particularly the Village of West Milwaukee, had to bear substantial costs for the proposed construction of the Stadium Freeway. The Village lost a valuable portion of its tax base and a significant portion of its population. The Village should not be asked to pay the costs of street improvements which are now to be made in the absence of the Stadium Freeway-South. Third, it was the State, through the actions of the Governor and Legislature, that de-mapped the Stadium Freeway-South. These actions relieved the State of the responsbility to construct the Stadium Freeway-South with state funds. It should, therefore be the State's responsibility to construct what are, by far, less expensive alternative street improvements. Fourth, the proposed improvements are essential to the proper use of the existing portion of the Stadium Freeway. The proposed improvements provide a less restrictive connection at the present terminus of the Stadium Freeway at W. National Avenue, and would more safely and efficiently carry traffic to and from that stub end. Without these improvements, the existing portions of the Stadium Freeway-South will not be properly utilized and will not provide the transportation benefits for which they were planned, designed, and constructed. Finally, and perhaps most importantly, the improvements to S. 43rd Street which are recommended in the absence of the Stadium Freeway-South are considered necessary to permit redevelopment of the lands in the Village of West Milwaukee which were cleared by the State for the now de-mapped freeway.

On May 22, 1984, the Stadium Freeway-South Intergovernmental Advisory Committee met and considered and unanimously endorsed the Commission staff recommendations for submittal to the Wisconsin Department of Development and presentation at the final public hearing.

Action By Wisconsin Department of Development

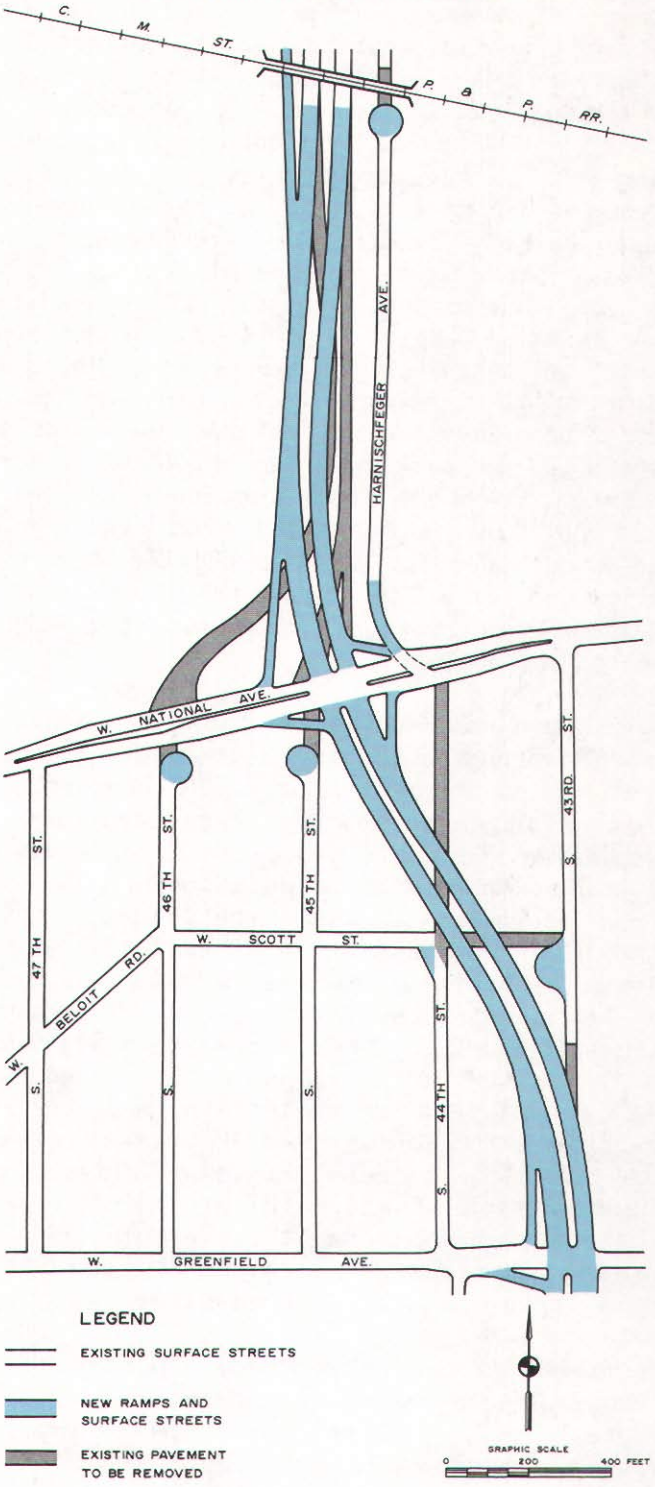
The Wisconsin Department of Development presented the recommended transportation improvement at three public hearings during August 1984. The hearings were held on August 28, 1984, in the Village of West Milwaukee at 7:30 p.m. at West Milwaukee High School Auditorium, 5104 W. Greenfield Avenue; on August 29, 1984, in the City of Milwaukee at 7:30 p.m. at Manitoba School, 4440 W. Forest Home Avenue; and on August 30, 1984, in the City of Greenfield at 7:30 p.m. in the Greenfield City Hall, 7325 W. Forest Home Avenue. Also presented at the hearings were the findings and recommendations of the land disposition planning effort. The comments made at the public hearings generally indicated support of the recommended transportation improvements in the Village of West Milwaukee and the City of Greenfield. With respect to the recommended improvements in the City of Milwaukee, the comments made indicated substantial opposition to the recommended reconstruction of the Chicago & North Western railway bridge south of Lincoln Avenue to provide for two traffic lanes and two auxiliary or parking lanes on S. 43rd Street. This cross-section would be consistent with the cross-sections provided on S. 43rd Street between Lincoln Avenue and Cleveland Avenue. The citizens and elected officials opposed to the reconstruction of the Chicago & North Western railway bridge cited the additional traffic which they perceived would result on S. 43rd Street--particularly, additional truck traffic--and the high cost of reconstruction of the railway bridge.

The Department of Development, in making its final transportation and land use recommendations to the Governor and State Legislature, proposed the improvement of S. 43rd Street as presented at the public hearings, with three exceptions. The first exception concerned the reconstruction of the Chicago & North Western railway bridge. Under the Department of Development recommendations, the existing bridge would remain unimproved and, therefore, only two traffic lanes could be accommodated under the bridge. This exception would not be in conflict with the Commission staff and the Stadium Freeway-South Intergovernmental Advisory Committee recommendations, as both would also provide for two traffic lanes under the Chicago & North Western railway bridge. The two additional lanes proposed by the Commission staff and Advisory Committee were recommended primarily for reasons of increased safety. The lanes would have provided a consistent cross-section between Lincoln Avenue and Cleveland Avenue, and would have been used by parked vehicles, vehicles in distress, and bicycle traffic. In addition, the bridge reconstruction would have permitted the construction of sidewalks on both sides of S. 43rd Street under the bridge. The costs of replacing the 60-year-old bridge, estimated at $1.1 million, would have been assumed entirely by the State if included as part of the recommended improvement of S. 43rd Street at this time.

The second exception concerned the recommended new at-grade intersection connection at the Stadium Freeway-South northern stub end with W. National Avenue. Under the Department of Development recommendations, as shown in Figure 23, Harnischfeger Avenue would be a cul-de-sac at its northern end,

Figure 23

PROPOSED NEW AT-GRADE INTERSECTION CONNECTION AT THE STADIUM FREEWAY-SOUTH NORTHERN STUB END AS MODIFIED FOLLOWING PUBLIC HEARINGS



Source: Wisconsin Department of Transportation.

rather than at its southern end; access would be permitted to Harnischfeger Avenue from the westbound direction on W. National Avenue; and access would be permitted from Harnischfeger Avenue to the eastbound direction on W. National Avenue. This change was proposed by the Village of West Milwaukee and approved by the Wisconsin Department of Transportation to provide truck traffic better access to the Harnischfeger plant. This exception would not be in conflict with the Commission staff and the Stadium Freeway-South Intergovernmental Advisory Committee recommendations.

The third exception concerned the transition to be provided between the four-lane divided boulevard north of W. Lincoln Avenue on S. 43rd Street, and the four-lane undivided section south of W. Lincoln Avenue. Under the Department of Development recommendations, the transition from a divided to an undivided section would specifically be provided south of W. Lincoln Avenue. This proposal would not be in conflict with the Commission staff and the Stadium Freeway-South Intergovernmental Advisory Committee recommendations as long as no dislocation of businesses or industries would be entailed, and any new right-of-way required would be limited to minor taking of abutting property, which would not disrupt any existing or planned business or industry.

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APPENDICES

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Appendix A

STADIUM FREEWAY-SOUTH
INTERGOVERNMENTAL ADVISORY COMMITTEE

Edmund J. Byrkit.....Deputy Administrator, Division of Highway and Transportation Facilities, Wisconsin Department of Transportation
Raymond T. Dwyer.....City Engineer, City of Greenfield
Edwin J. Laszewski, Jr.....City Engineer, City of Milwaukee
George L. McNamara.....Director of Program Development and Management, Milwaukee County
Brian F. O'Connell.....Planner, Department of City Development, City of Milwaukee
Frederick J. Patrie.....Village Administrator, Village of West Milwaukee
Gerald Schwerm.....Director of Transportation, Milwaukee County
Harvey Shebesta.....District Director, District 2, Wisconsin Department of Transportation

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Appendix B

INTERGOVERNMENTAL COORDINATING AND ADVISORY
COMMITTEE ON TRANSPORTATION SYSTEM PLANNING
AND PROGRAMMING FOR THE MILWAUKEE URBANIZED AREA

Harout O. Sanasarian.....Supervisor, Milwaukee County Board; Chairman, Milwaukee County Transit Committee; Commissioner, Southeastern Wisconsin Regional Planning Commission
Chairman
F. Thomas Ament.....Chairman, Milwaukee County Board of Supervisors
Ralph A. Becker, P. E.....City Engineer, Director of Public Works, City of New Berlin
William C. Carey.....Assistant Director, Department of Fiscal Liaison, City of Milwaukee
Vencil F. Demshar.....Highway Commissioner, Waukesha County
William R. Drew.....Commissioner, Departmen of City Development, City of Milwaukee
Paul J. Keenan.....Mayor, City of Waukesha
David A. Kuemmel.....Commissioner, Department of Public Works, City of Milwaukee
Edwin J. Laszewski, Jr.....City Engineer, City of Milwaukee
Nick Paulos.....Director, Department of Public Works, Village of Greendale
Gordon M. Rozmus.....Acting Administrator, City of Wauwatosa
John E. Schumacher.....City Engineer, City of West Allis
Gerald Schwerm.....Director of Transportation, Milwaukee County
Udo L. Wilharm.....City Engineer, City of Oak Creek

EX OFFICIO, NONVOTING MEMBERS

Joel P. Ettinger.....Regional Administrator, Region V, Urban Mass Transportation Administration
Thomas J. Hart.....Director, Program Management, Transportation, Wisconsin Department of Transportation
John M. Hartz.....Director, Bureau of Transit, Wisconsin Department of Transportation
Wolfgang H. Klassen.....Director, Bureau of Air Management, Wisconsin Department of Natural Resources
Galen C. Larson.....Managing Director, Milwaukee County Transit System
Frank M. Mayer.....Division Administrator, Federal Highway Administration
Harvey Shebesta.....District Director, District 2, Wisconsin Department of Transportation
Ernest R. Vogel.....Deputy Director, Milwaukee County Department of Public Works

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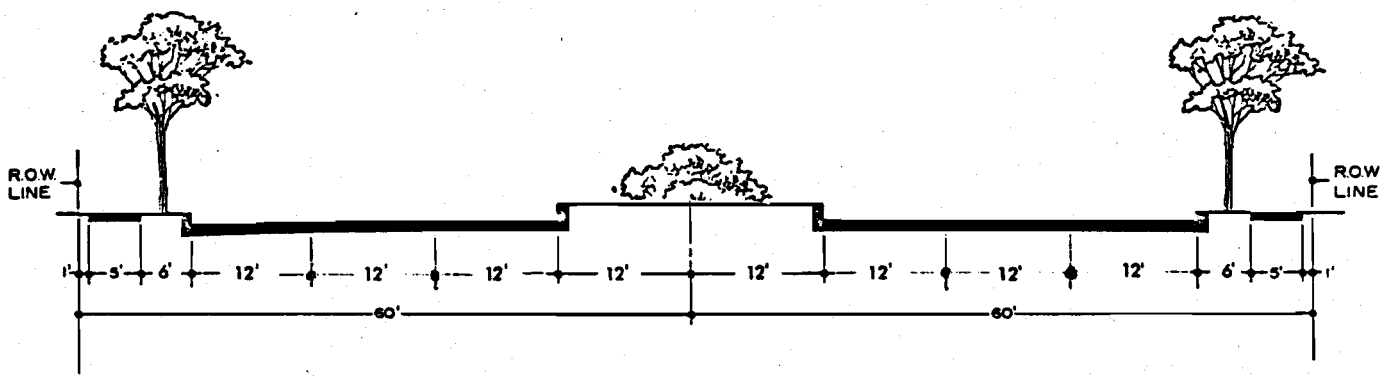
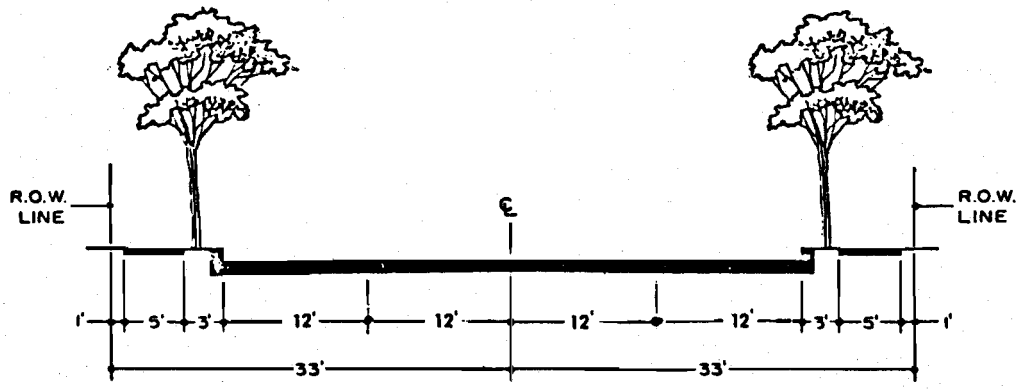
Appendix C

SUGGESTED CROSS-SECTIONS FOR PROPOSED DIVIDED BOULEVARD AND UNDIVIDED ROADWAY IMPROVEMENTS

Six-Lane Divided Urban Boulevard



Four-Lane Undivided Minimum Urban Roadway



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Appendix D

BENEFIT-COST ANALYSIS PROCEDURES USED IN THE STADIUM FREEWAY-SOUTH CORRIDOR STUDY

INTRODUCTION

The benefit-cost analysis method of evaluating government investments in public works came into general use after adoption of the Federal Flood Control Act of 1936. That Act stated that waterways should be improved "if the benefits to whomsoever they may accrue are in excess of the estimated costs." The monetary value of benefits has since been defined as the amount of money an individual would pay for that benefit if he were given the market choice of purchase. Monetary costs are taken as the total value of the resources used in the construction of the project.

While benefits must exceed costs in order for a project to be justified, this criterion alone is not sufficient to justify the investment. Although a project may have a benefit-cost ratio greater than 1.0, it may be less than the benefit-cost ratio of an alternative project which would accomplish the same objectives. Accordingly, in order to assure that public funds are invested most profitably, alternative plans or projects should be investigated and analyzed.

The benefits and costs attributable to a project can be classified either as tangible, or direct, or as intangible, or indirect. Direct benefits and costs are readily measurable in monetary terms. Indirect benefits and costs are of such a nature that no monetary value can be assigned to them. It is important to recognize that indirect benefits are not included in a benefit-cost ratio and must, therefore, be considered together with the calculated benefit-cost ratio.

The benefit-cost analysis for this study is based on procedures previously applied by the Regional Planning Commission as documented in SEWRPC Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin--2000, Volume II, Alternative and Recommended Plans. The analysis is for the time period of 1984 to the year 2000 and assumes that alternative improvements would be open to traffic in the year 1986. The benefits and costs are expressed as a present worth in the year 1984 in 1983 dollars. To reflect that certain roadway improvements will have a service life beyond 15 years, the present worth of the value of the remaining life of these improvements at the end of the year 2000 has been considered in estimating the present worth cost of the improvements.

Three discount rates--4, 6, and 10 percent--have been used to convert all benefits and costs to a common base year of 1984. Discount rates represent a time value of money. The discount rates are expressed in terms of constant

dollar values, that is, with the effects of inflation removed. For example, if inflation would average 10 percent per year from 1984 to 2000, the discount rate used in this analysis would then represent an actual rate of 14 to 20 percent. The 10 percent constant dollar rate is recommended by the federal government to reflect the return expected by private sector industry and business. A 4 percent constant dollar rate is recommended by the American Association of State Highway and Transportation officials to reflect the return historically obtained by private industry and the general public. A 6 percent constant dollar rate has historically been applied by the Regional Planning Commission.

OVERVIEW OF COSTS

The costs in the benefit-cost ratio incorporated all direct costs and included the following:

- Right-of-way acquisition and related relocation and demolition. All right-of-way was assumed to be purchased in the year 1985, and was further assumed to have an economic life of 100 years.

- Construction costs including all traffic signalization, signing, and engineering costs. For benefit-cost analysis purposes, construction costs were assumed to be incurred in the year 1985 and to have an economic life of 30 years, with the exception of railway structure improvements which were assumed to have a life of 50 years, and resurfacing improvments which were assumed to have a life of 15 years.

- Highway maintenance costs. These costs were estimated as annual costs, occurring each year from 1984 to the year 2000 and included routine costs for patching and sealing, sweeping, and street lighting.

OVERVIEW OF BENEFITS

The benefits attributed to each project were direct benefits which could be measured in monetary terms and included reductions in traffic delay, reductions in traffic operating costs, and reductions in traffic accident costs. Benefits which are intangible and not readily measurable in dollar terms such as reductions in traffic noise or pollutant emissions, could not be included in the analysis. The direct benefits included the following:

- Traffic Delay Reduction. The traffic delay reduction benefit represented the economic value of the reduction of the weekday peak-period traffic delay from 1985 to the year 2000. The peak-period traffic delay included the estimated traffic delay in the morning and afternoon peak hours, and the traffic delay in the two hours surrounding each peak hour. The traffic delay in each of the four surrounding hours was assumed to approximate about 25 percent each hour of the total delay which is experienced during each peak hour. The estimate of the economic value of the traffic delay reduction assumes an average value of time of $4.50 per person hour of traffic delay in 1983 dollars, and a vehicle occupancy of 1.4 persons per vehicle, as recommended by the American Association of State Highway

and Transportation officials. The assumed value of time is about 50 percent of the average hourly wage in the Milwaukee area.

- Traffic Operating Cost Reduction. The traffic operating cost reduction benefit reflects savings in total vehicle operating costs which result from reductions in peak period traffic delay. A reduction in peak-period traffic delay entails savings in vehicle idling and speed change cycles. The factors to convert vehicle idling and speed change cycle reductions to monetary values were obtained from Procedure for Estimating Highway User Costs, Fuel Consumption, and Air Pollution published by the U. S. Department of Transportation, Federal Highway Administration. Total peak-period traffic delay was estimated to include 77 percent of stop delay, and 23 percent of speed change delay. A cost of $0.60 was assigned to each vehicle hour of idling, and a cost of about $0.02 was assigned to each speed change cycle.

- Traffic Accident Reduction. Dollar savings from a reduction in traffic accidents were estimated by applying accident rates for segments of freeway, divided arterial, and undivided arterial. The rates applied assumed the following rate of dollars of accidents per 1,000 vehicle miles of travel: for freeways, $15 of accidents per 1,000 vehicle miles of travel; for divided arterials, $30 of accidents per 1,000 vehicle miles of travel; and for undivided arterials, $37 dollars of accidents per 1,000 vehicle miles of travel.

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Appendix E

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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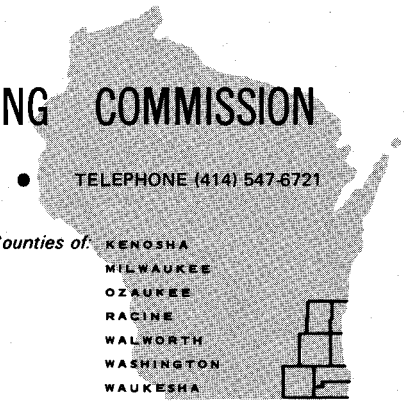


SUMMARY OF PRELIMINARY FINDINGS AND PRELIMINARY RECOMMENDATIONS OF THE STADIUM FREEWAY-SOUTH CORRIDOR ARTERIAL STREET IMPROVEMENT STUDY

INTRODUCTION

The Wisconsin State Legislature acted in 1983 to remove the Stadium Freeway-South from its current stub end at W. National Avenue to the Airport Freeway (IH 894) from the Milwaukee County expressway system plan. In taking that action, the Legislature directed that a study be conducted to determine what surface street improvements should be made in the absence of the once-planned freeway, and to determine whether or not S. 43rd Street should remain on the state trunk highway system. The Legislature also directed that a disposition plan be prepared for the cleared lands in the Stadium Freeway-South corridor which would not be required for transportation purposes.

The Wisconsin Department of Development, in turn, requested the Southeastern Wisconsin Regional Planning Commission, which is the official areawide planning agency for the greater Milwaukee area, to carry out the street improvement study required by the Legislature. The study was guided by an eight-member advisory committee appointed by the Wisconsin Department of Development, and was composed of officials from the City of Greenfield, City of Milwaukee, Village of West Milwaukee, Milwaukee County, and Wisconsin Department of Transportation.

The Commission has recently completed a major element of that study--an evaluation of alternative surface street improvments in the corridor. The findings of that evaluation and preliminary recommendations are to be presented at three meetings to be held on May 10, 1984, in the City of Greenfield at 7:30 p.m. in the Greenfield City Hall (7325 W. Forest Home Avenue); on May 11, 1984, in the City of Milwaukee at 7:30 p.m. at Manitoba School (4040 W. Forest

Home Avenue); and on May 14, 1984, in the Village of West Milwaukee at 7:30 p.m. in the West Milwaukee High School auditorium (5104 W. Greenfield Avenue). Also to be presented at the meetings by the Wisconsin Department of Development are the preliminary findings of the land disposition planning.

ARTERIAL STREET IMPROVEMENT ALTERNATIVES

In conducting the transportation study, five improvement alternatives and a do-nothing alternative were considered by the Commission, as shown in Attachments 1 through 6. The do-nothing alternative provides for essentially no improvements in the S. 43rd Street corridor except that certain segments of roadway which are now undivided, two-lane, rural roadways could be converted to undivided, minimal urban roadways with two traffic lanes, two parking lanes, curb and gutter, and storm sewers.

The first alternative considered would provide the most substantial transportation improvement in the corridor, as it would provide a divided boulevard with four to six traffic lanes throughout the corridor. The boulevard would follow the alignment of S. 43rd Street from W. National Avenue to W. Morgan Avenue and, just south of W. Morgan Avenue, would swing to the east to follow the proposed alignment of the once-planned Stadium Freeway-South. Connections would be made to the current terminus of the Stadium Freeway-South at W. National Avenue by a new, grade-separated interchange, and to the existing Stadium Freeway interchange with the Airport Freeway (IH 894). The intersection of the proposed arterial and W. Loomis Road would be grade-separated.

The second alternative considered would also provide a divided boulevard throughout the Stadium Freeway-South corridor, and would differ from the first alternative only in that the new connection with the Stadium Freeway-South northern stub end at W. National Avenue would be provided by means of an at-grade intersection rather than a grade-separated interchange, and the intersection of the proposed arterial and W. Loomis Road would be at-grade rather than grade-separated.

The third alternative considered would also provide a substantial improvement in the Stadium Freeway-South corridor. Like the second alternative, it would provide new connections to the current Stadium Freeway-South northern and southern stub ends and a new divided boulevard in the northern and southern portions of the corridor. However, in the central portion of the corridor, between W. Lincoln Avenue and W. Euclid Avenue, the only proposed improvements would be the reconstruction of the Chicago & North Western railway bridge south of W. Lincoln Avenue to accommodate four, rather than two, lanes of traffic, and the improvement of the present two-lane, rural roadway from the railway bridge to W. Cleveland Avenue to a four-lane, minimum, undivided urban roadway with curb and gutter and storm sewers.

The fourth alternative considered differs from the first three alternatives in that it would provide a substantial transportation improvement only in the northern portion of the corridor. The fourth alternative would provide for a new, at-grade intersection connection between S. 43rd Street and W. National Avenue and the Stadium Freeway-South northern stub end. South 43rd Street would be improved to a divided boulevard with six traffic lanes between W. National Avenue and W. Lincoln Avenue. South of W. Lincoln Avenue only minimum improvement would be made, and no direct connection would be made to the uncompleted Stadium Freeway-South interchange with the Airport Freeway (IH 894). The interchange would continue to be used only as a connection to the Milwaukee County Transit System park-ride lot. The only improvements proposed south of W. Lincoln Avenue would be the reconstruction of the Chicago & North Western railway bridge to accommodate four, rather than two, traffic lanes, and the improvement of S. 43rd Street from the bridge to W. Cleveland Avenue and from W. Euclid Avenue to W. Howard Street from two-lane, rural roadways to four-lane, minimum undivided urban roadways with curb and gutter and storm sewers.

The fifth alternative considered, like the fourth, proposes major improvements only north of W. Lincoln Avenue and minimum improvements south of W. Lincoln Avenue. The fifth alternative differs from the fourth alternative in that only four traffic lanes, rather than six traffic lanes, would be provided on the divided boulevard between W. National Avenue and W. Burnham Avenue. From

W. Burnham Avenue to W. Lincoln Avenue a four-lane, undivided urban roadway cross-section would be provided rather than a divided boulevard.

EVALUATION OF ALTERNATIVES

The Commission staff has evaluated the alternatives with respect to their cost; their land acquisition requirements; their effect on traffic conditions on S. 43rd Street and other arterial streets in south-central Milwaukee County; their ability to remove through traffic from local streets in the Village of West Milwaukee; their effect on traffic safety; and their implications for motor fuel consumption and air pollutant emissions. The alternatives ranged in cost from $5.9 million for the do-nothing alternative, to $21.8 million for the first alternative. The cost attendant to the second and third alternatives was about $15 million, and to the fourth and fifth was about $11 million.

The land acquisition requirement for the construction of the alternatives varied from no additional land being required under the do-nothing alternative to 44 acres of land under the first alternative. The second and third alternatives required about 40 acres of land, and the fourth and fifth about 12 acres of land. Also, the first, second, and third alternatives required the acquisition of 19 homes and five to seven other buildings. The fourth alternative required the acquisition of five buildings, the fifth alternative required the acquisition of five buildings, and the do-nothing alternative required no acquistion.

The ability of the alternatives to improve traffic conditions in south-central Milwaukee County ranged from no improvement under the do-nothing alternative to substantial improvement under the first alternative. Moderate improvement of traffic conditions would be achieved under the second, third, and fourth alternatives, with a minimum improvement under the fifth. The first through fourth alternatives all have the potential to remove through traffic from Village of West Milwaukee residential streets, and the fifth alternative has the potential to remove only some of the through traffic.

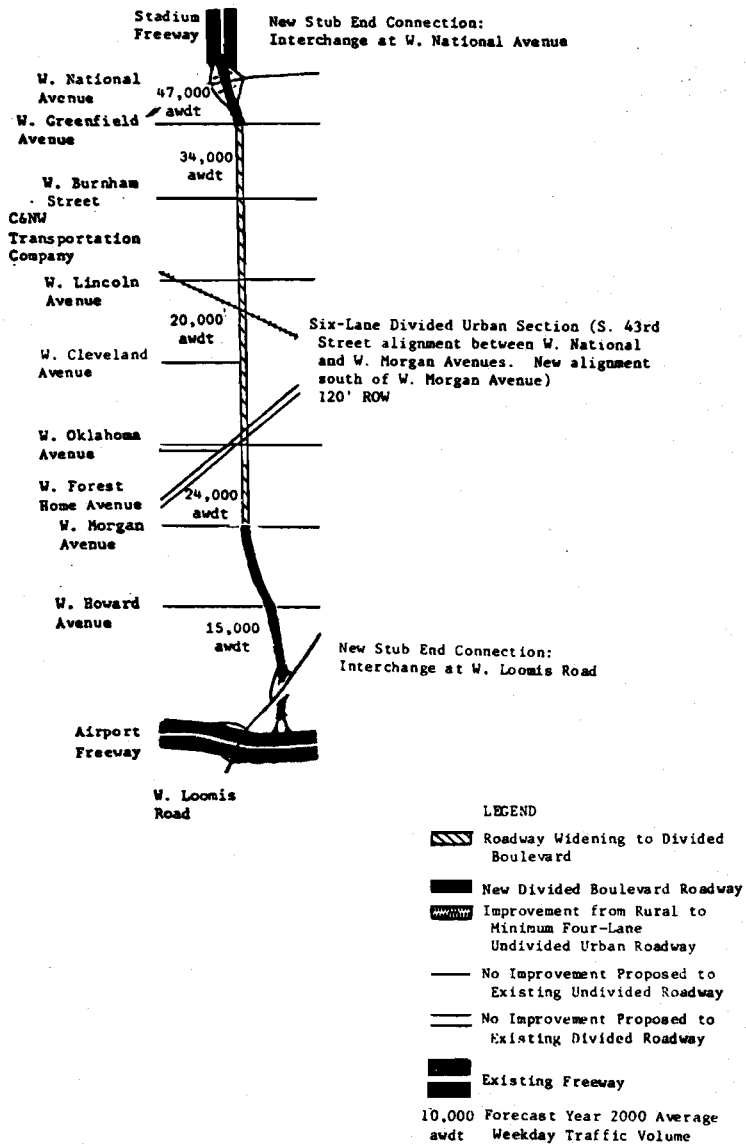
PRELIMINARY RECOMMENDATION

Based upon this evaluation, the Commission staff has made a preliminary recommendation that the fourth alternative be adopted because, at a modest increase in cost over the do-nothing alternative, and with modest new right-of-way requirements, a substantial improvement in traffic conditions could be achieved in the corridor, and much traffic would be removed from local streets in the Village of West Milwaukee. Also, the fourth alternative would enhance the redevelopment potential of cleared lands in the Village of West Milwaukee by providing an attractive landscaped facility. This preliminary recommendation, which has been endorsed by the study advisory committee, will be presented at the three public meetings together with all the other alternatives, and public comment will be sought on the study findings to date. Based upon the comments received at the public meetings, the final arterial improvement recommendation of the staff and the study advisory committee may, indeed, change. The continued designation of any part, or all, of S. 43rd Street as a state trunk highway will be considered following the issuing of the final arterial improvement recommendation.

Attachment 1

STADIUM FREEWAY-SOUTH CORRIDOR ARTERIAL STREET IMPROVEMENT STUDY

ALTERNATIVE 1: DIVIDED BOULEVARD WITH NORTHERN AND SOUTHERN STUB END INTERCHANGE CONNECTIONS



Cost: $21.8 million

Land-Taking: 44 acres of land

Traffic Congestion: 330 fewer hours of peak-hour traffic delay each weekday

Motor Fuel Consumption: 1.05 million gallons saved to year 2000

Air Pollutant Emissions: 948 fewer tons of emissions to year 2000

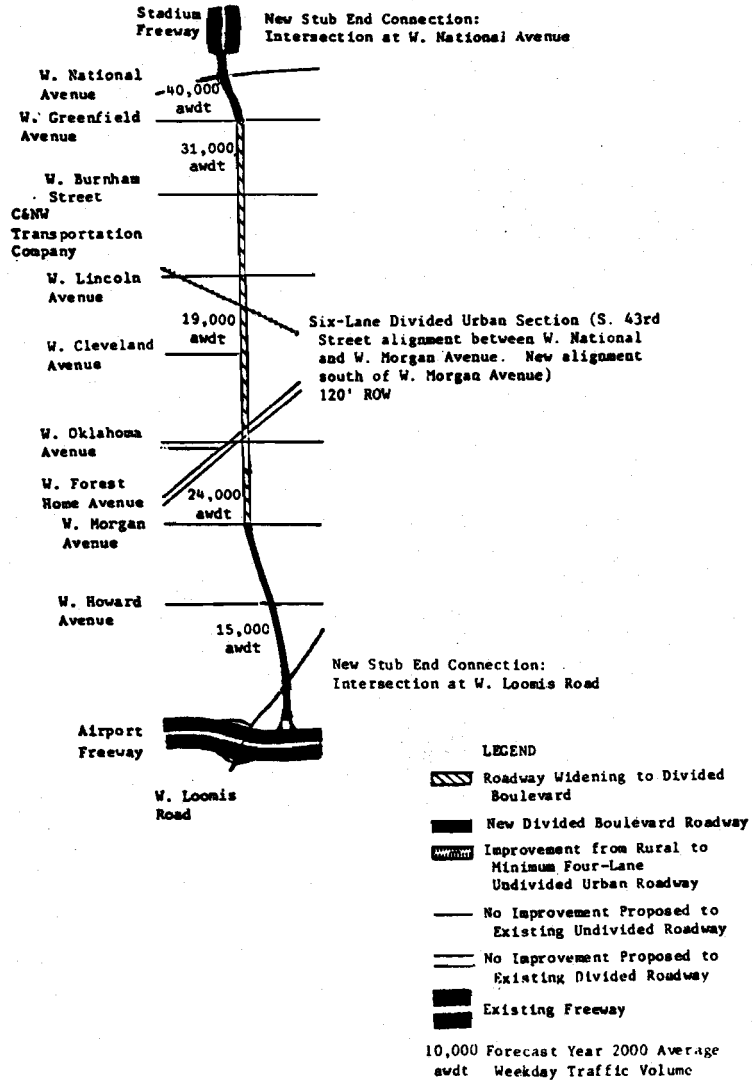
Benefit-Cost Ratio: 4 percent discount rate--1.35
6 percent discount rate--1.05
10 percent discount rate--0.73

Source: SEWRPC

Attachment 2

STADIUM FREEWAY-SOUTH CORRIDOR ARTERIAL STREET IMPROVEMENT STUDY

ALTERNATIVE 2 : DIVIDED BOULEVARD WITH NORTHERN AND SOUTHERN STUB END AT-GRADE INTERSECTION CONNECTIONS



Cost: $16.7 million

Land-Taking: 41 acres of land

Traffic Congestion: 200 fewer hours of peak-hour traffic delay each weekday

Motor Fuel Consumption: 0.77 million gallons saved to year 2000

Air Pollutant Emissions: 583 fewer tons of emissions to year 2000

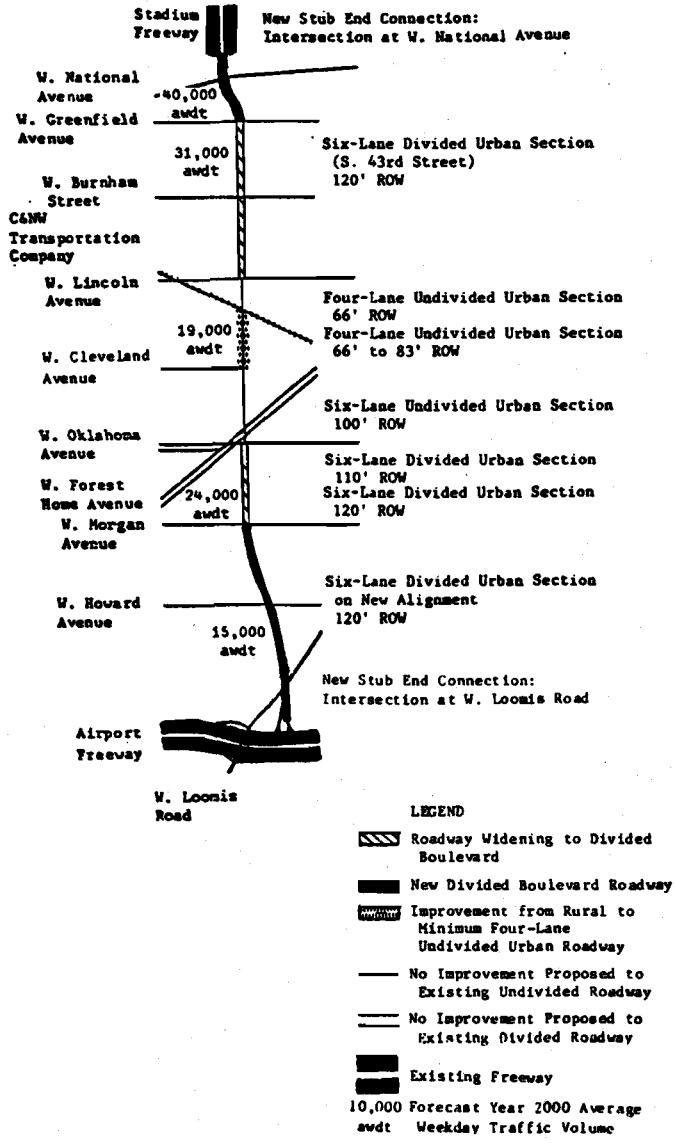
Benefit-Cost Ratio: 4 percent discount rate--1.31
6 percent discount rate--1.01
10 percent discount rate--0.64

Source: SEWRPC

Attachment 3

STADIUM FREEWAY-SOUTH CORRIDOR ARTERIAL STREET IMPROVEMENT STUDY

ALTERNATIVE 3 : SUBSTANTIAL IMPROVEMENT WITH NORTHERN AND SOUTHERN STUB END AT-GRADE INTERSECTION CONNECTIONS



Cost: $14.5 million

Land-Taking: 36 acres of land

Traffic Congestion: 190 fewer hours of peak-hour traffic delay each weekday

Motor Fuel Consumption: 0.62 million gallons saved to year 2000

Air Pollutant Emissions: 558 fewer tons of emissions to year 2000

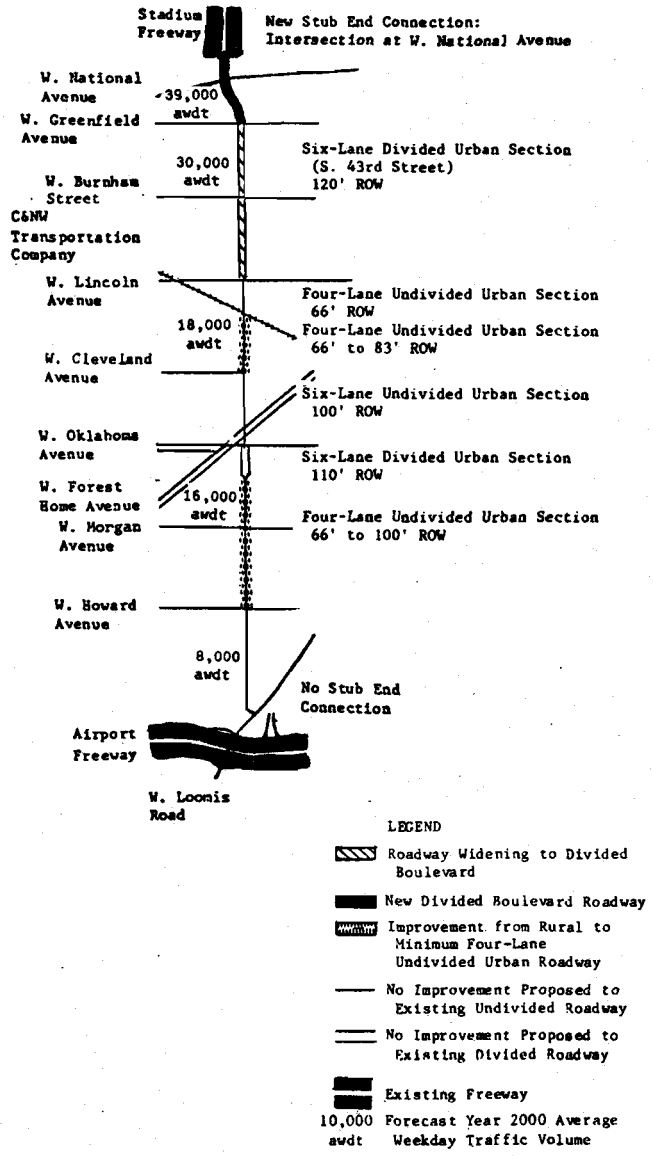
Benefit-Cost Ratio: 4 percent discount rate--1.47
6 percent discount rate--1.14
10 percent discount rate--0.78

Source: SEWRPC

Attachment 4

STADIUM FREEWAY-SOUTH CORRIDOR ARTERIAL STREET IMPROVEMENT STUDY

ALTERNATIVE 4: SUBSTANTIAL IMPROVEMENT WITH NORTHERN STUB END AT-GRADE INTERSECTION CONNECTION ONLY



Cost: $10.8 million

Land-Taking: 12 acres of land

Traffic Congestion: 170 fewer hours of peak-hour traffic delay each weekday

Motor Fuel Consumption: 0.56 million gallons saved to year 2000

Air Pollutant Emissions: 486 fewer tons of emissions to year 2000

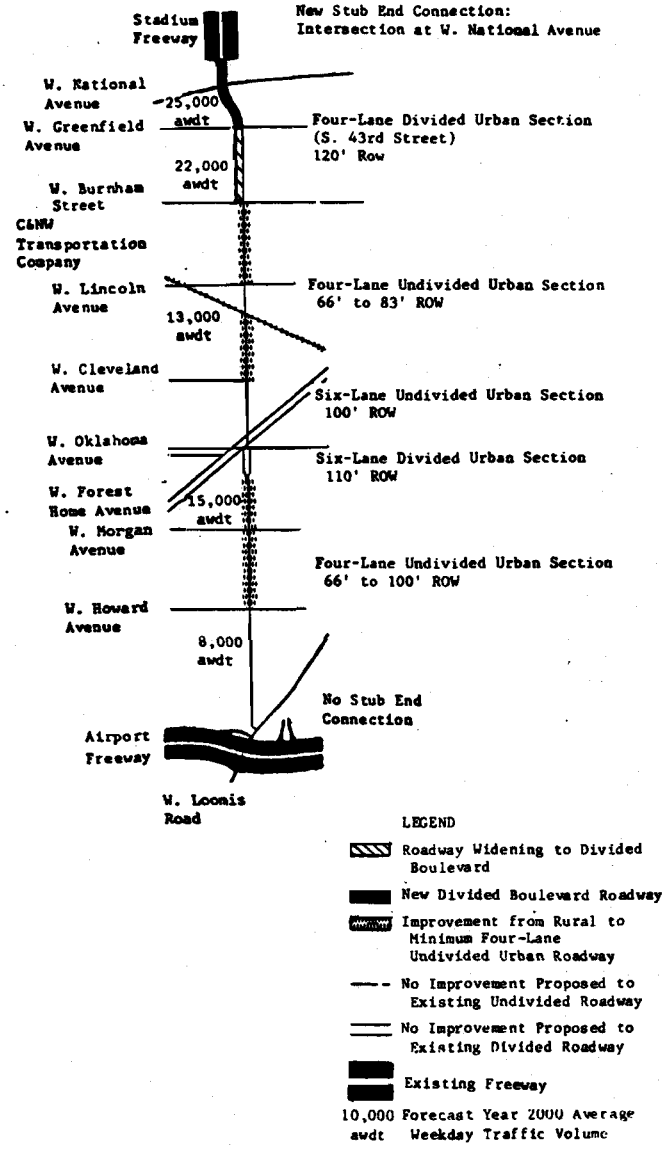
Benefit-Cost Ratio: 4 percent discount rate--2.01
6 percent discount rate--1.59
10 percent discount rate--1.10

Source: SEWRPC

Attachment 5

STADIUM FREEWAY-SOUTH CORRIDOR ARTERIAL STREET IMPROVEMENT STUDY

ALTERNATIVE 5: MINIMUM IMPROVEMENT WITH
NORTHERN STUB END AT-GRADE INTERSECTION CONNECTION ONLY



Cost: $10.5 million

Land-Taking: 12 acres of land

Traffic Congestion: 120 fewer hours of peak-hour traffic delay each weekday

Motor Fuel Consumption: 0.39 million gallons saved to year 2000

Air Pollutant Emissions: 342 fewer tons of emissions to year 2000

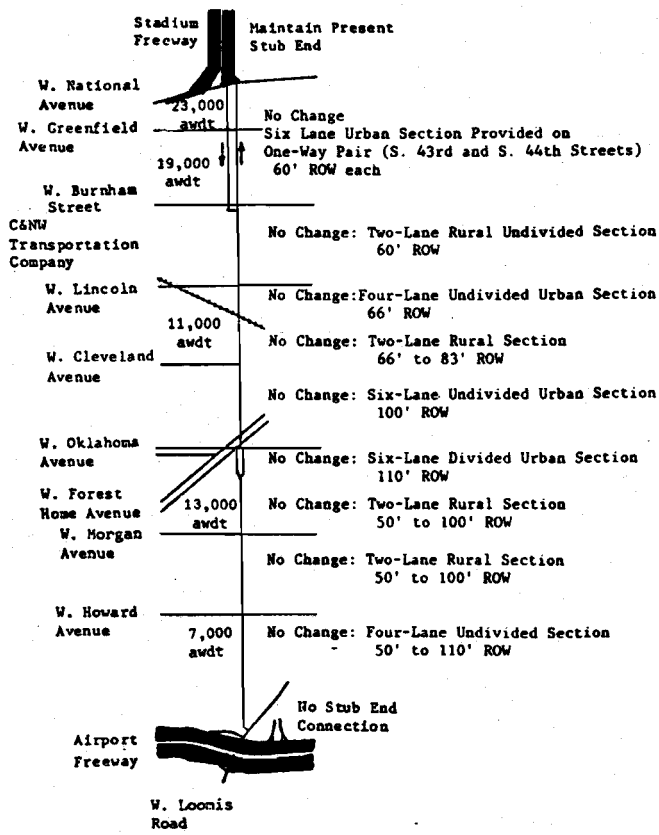
Benefit-Cost Ratio: 4 percent discount rate--1.59
6 percent discount rate--1.25
10 percent discount rate--0.86

Source: SEWRPC

Attachment 6

STADIUM FREEWAY-SOUTH CORRIDOR ARTERIAL STREET IMPROVEMENT STUDY

DO-NOTHING ALTERNATIVE



Cost: $5.9 million

Land-Taking: Not applicable

Traffic Congestion: Not applicable
(other alternatives compared to "do-nothing" alternative)

Motor Fuel Consumption: Not applicable
(other alternatives compared to "do-nothing" alternative)

Air Pollutant Emissions: Not applicable
(other alternatives compared to "do-nothing" alternative)

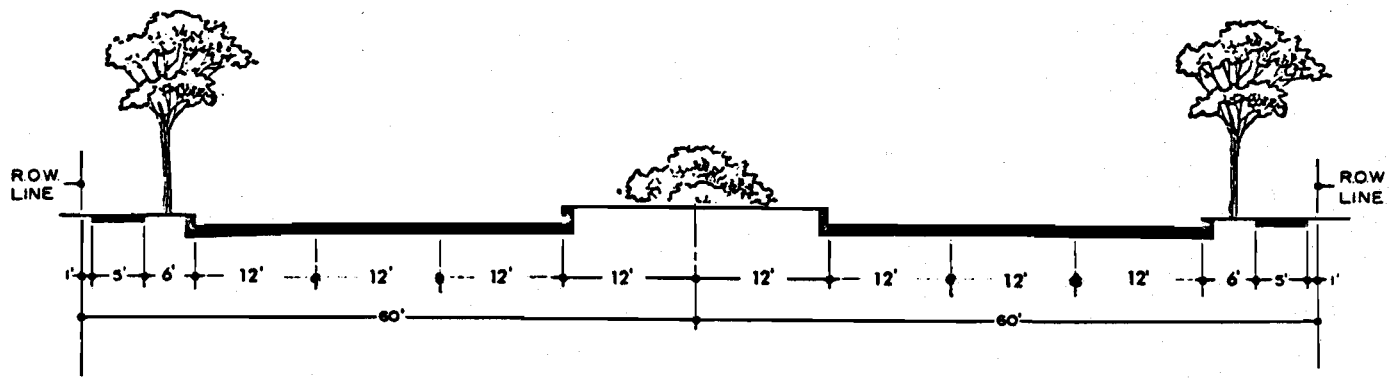
Benefit-Cost Ratio: Not applicable
(other alternatives compared to "do-nothing" alternative)

Source: SEWRPC

STADIUM FREEWAY-SOUTH CORRIDOR ARTERIAL STREET IMPROVEMENT STUDY

Suggested Cross-Sections for Proposed Improvements

Six-Lane Divided Urban Boulevard



Four-Lane Undivided Minimum Urban Roadway