Department of Transportation

Adopted Permanent Rules Relating to Highway State-Aid Operations

Rules as Adopted

CHAPTER 8820

DEPARTMENT OF TRANSPORTATION

DIVISION OF STATE AID FOR LOCAL TRANSPORTATION

STATE-AID OPERATIONS

8820.0100 DEFINITIONS.

[For text of subps 1 and 1a, see M.R.]

Subp. 2. **Advance.** "Advance" means the authorized expenditure of local funds or state-aid funds from another account, in lieu of state-aid funds from a specified account, by a county or urban municipality for use on an approved state-aid project. By agreement with the commissioner, the advanced funds will be repaid to the county or urban municipality from future county or municipal state-aid allotments or from future county or municipal turnback funds.

[For text of subp 2a, see M.R.]

Subp. 2b. [See renumbering instruction.]

Subp. 2c. **Bridge.** "Bridge" has the meaning given it in part 8810.8000, subpart 2.

[For text of subps 3 and 3a, see M.R.]

Subp. 3b. **City streets.** "City streets" are those streets under the jurisdiction of an urban municipality, and do not include county highways or trunk highways within the urban municipality.

Subp. 4. **Commissioner.** "Commissioner" means the commissioner of the Minnesota Department of Transportation, or a designated representative.

Subp. 4a. [See repealer.]

Subp. 5. **County highway engineer.** "County highway engineer" means a registered engineer employed as the county highway engineer, county engineer, or the director of public

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works, county engineer of each county.

[For text of subps 6 to 8, see M.R.]

Subp. 9. [See repealer.]

Subp. 9a. **District state-aid engineer.** "District state-aid engineer" means a registered engineer employed as the district state-aid engineer of the Minnesota Department of Transportation, or a designated representative.

Subp. 9b. **Force account agreement.** "Force account agreement" means an agreement between the Minnesota Department of Transportation and an urban municipality or county for the urban municipality or county to do state-aid funded construction projects with local forces, and for the urban municipality or county to be reimbursed, based on agreed unit prices.

[For text of subp 10, see M.R.]

Subp. 10a. **Local forces.** "Local forces" means railroad forces when working on a railroad crossing, utility forces when conducting utility work eligible under a force account agreement, the employees of a local unit of government, or contract forces for contracts not advertised for bids in accordance with Minnesota Statutes, section 471.345, needed to perform a specific project for reasons of expertise or necessary expediency.

[For text of subps 11 to 13, see M.R.]

Subp. 13a. **Project development costs.** "Project development costs" are any costs (1) incurred before a contract is awarded and (2) attributable to the development of a project on a designated state-aid route. These costs include, but are not limited to, costs for preparation of environmental documentation, special studies or reports, historical or archaeological reviews, project design, costs of obtaining permits, and public involvement, but does not include costs for acquiring right-of-way.

Subp. 14. **Screening board.** "Screening board" means the county screening board or municipal screening committee appointed in accordance with law and authorized to recommend to the commissioner the size and money needs for each of their

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state-aid systems.

Subp. 14a. **Special resurfacing project.** "Special resurfacing project" means a bituminous or concrete resurfacing or concrete joint repair project that has been funded at least partially with money from the county or municipal state-aid account, and for which a needs adjustment has been made.

Subp. 15. **State-aid engineer.** "State-aid engineer" means a registered engineer employed as the state-aid engineer of the Minnesota Department of Transportation, or a designated representative.

Subp. 15a. [See repealer.]

[For text of subps 16 and 17, see M.R.]

Subp. 17a. [See renumbering instruction.]

Subp. 17b. **Town road.** "Town road" means a road that is maintained by a town or any other local unit of government acting as a town and open to the traveling public a minimum of eight months of the year as certified by the county highway engineer.

Subp. 18. **Town allotment.** "Town allotment" means the county apportionment of county state-aid highway funds for use in constructing and maintaining town roads.

Subp. 19. [See repealer.]

Subp. 20. **Turnback account.** "Turnback account" means the account provided by law for payment to the county or urban municipality for the approved repair and restoration or reconstruction and improvement of those former trunk highways that have reverted to county or urban municipal jurisdiction and have become part of the state-aid system.

[For text of subps 21 and 22, see M.R.]

8820.0600 SELECTION OF ROUTES.

Final selection of routes to be included in the respective county state-aid and municipal state-aid systems are subject to the approval of the commissioner. These routes may be established on new locations where no existing roadway exists or may be located upon or over an established roadway or specified

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portion of a roadway.

The highway and street systems to be selected and designated in accordance with law are:

A. a county state-aid highway system of a size determined by the county screening board, excluding the length of former trunk highways that have reverted to the county pursuant to law on and after July 1, 1965, and the length of former municipal state-aid streets in cities whose population fell below 5,000 under the 1980 or 1990 federal census; and

B. a municipal state-aid street system not exceeding 20 percent of the total length of city streets and county roads within the jurisdiction of an urban municipality plus the length of all trunk highways reverted or turned back to the jurisdiction of the urban municipality pursuant to law on and after July 1, 1965, plus the length of county highways reverted or turned back to the jurisdiction of the urban municipality pursuant to law on or after May 11, 1994.

For an undivided, one-way street with a minimum width of 7.8 meters and with no parking lane or with a maximum width of 14.7 meters with parking available on one side of the street, the chargeable length allowed for municipal state-aid street length purposes is one-half of the length of the one-way street.

8820.0700 SELECTION CRITERIA.

[For text of subpart 1, see M.R.]

Subp. 2. **County state-aid highway.** A county state-aid highway may be selected if it:

A. is projected to carry a relatively heavier traffic volume or is functionally classified as collector or arterial as identified on the county's functional classification plan;

[For text of items B and C, see M.R.]

Subp. 3. **Municipal state-aid street.** A municipal state-aid street may be selected if it:

A. is projected to carry a relatively heavier traffic volume or is functionally classified as collector or arterial as identified on the urban municipality's functional classification

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plan;

B. connects the points of major traffic interest, parks, parkways, or recreational areas within an urban municipality; and

C. provides an integrated street system affording, within practical limits, a state-aid street network consistent with projected traffic demands.

8820.0800 ROUTE DESIGNATIONS.

[For text of subpart 1, see M.R.]

Subp. 1a. **Route revisions.** Route revisions must be completed in accordance with subpart 1, except that revisions may be made on the basis of a construction plan without action of the respective governing body if the designated route is relocated and the function of the designated route at the previous location is transferred to the new location.

[For text of subp 2, see M.R.]

Subp. 3. **Payback on revoked state-aid routes.** If a local unit of government revokes a state-aid route for which state-aid construction money has been spent, the district state-aid engineer shall determine the remaining life of the project and compute the value of the items that were financed with state-aid money. This computed value must be subtracted from the next state-aid contract let by the local unit of government. For this determination, (1) the life of a construction project is 25 years, (2) the life of a bridge project is 35 years, and (3) the life of a surfacing project is ten years. Payback is not required if the state-aid construction was a special resurfacing project.

8820.1000 MONEY NEEDS AND APPORTIONMENT DETERMINATION.

[For text of subpart 1, see M.R.]

Subp. 2. **Incidental costs.** In addition to the direct construction or maintenance costs permitted under law, the cost of the following incidental items is eligible for inclusion in the total estimate of needs:

A. right-of-way;

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B. automatic traffic control signals;

C. lighting of roadways and bridges within approved standards; and

D. drainage costs.

Subp. 3. [See repealer.]

8820.1100 SCREENING BOARD REPORTS.

Subpart 1. **Annual reports.** A detailed report of the length of the state-aid systems and cost estimates must be tabulated and referred to the respective screening boards appointed pursuant to law. These boards shall investigate and review the length of the systems, cost estimates, and the reports of those expenditures listed under deductible items, and shall, on or before November 1 of each year, submit their findings and recommendations in writing to the commissioner as to the length of the systems and adjusted money needs for each of the governmental subdivisions represented by the respective boards.

8820.1200 COMPILATION AND NOTICE OF APPORTIONMENT.

[For text of subpart 1, see M.R.]

Subp. 1a. **State-aid apportionments.** State-aid apportionments must be made from the county state-aid highway fund and the municipal state-aid street fund as provided by law.

[For text of subp 2, see M.R.]

8820.1400 MAINTENANCE, CONSTRUCTION, AND TURNBACK ACCOUNTS; STATE-AID PAYMENTS.

[For text of subps 1 and 2, see M.R.]

Subp. 3. **Urban maintenance apportionment account.** Twenty-five percent of the total allocation, if requested by the urban municipality before December 16 preceding the annual allocation, or $1,000 per kilometer of improved municipal state-aid streets, is the minimum allotment for the general maintenance of the approved state-aid system. The commissioner may modify any allotments to the urban maintenance account to finance the amount needed to pay the interest due on municipal

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state-aid bonds and to accommodate the screening board resolutions pertaining to trunk highway turnback maintenance allowances.

Those municipalities desiring to receive an amount greater than the established minimum, not to exceed 35 percent of the total allocation, shall file a request with the commissioner before December 16 preceding the annual allocation and shall agree to file a detailed annual maintenance expenditure report at the end of the year.

[For text of subps 4a to 4d, see M.R.]

Subp. 5. **Payment schedule.** At the earliest practical date, after the allotments have been determined, the commissioner shall release the following amounts to the respective counties and urban municipalities:

A. One hundred percent of the town road account.

B. Maintenance funds:

(1) Fifty percent of the maintenance allotment from the regular account of each county.

(2) Fifty percent of the maintenance allotment from the municipal account of each county.

(3) Fifty percent of the maintenance allotment to each urban municipality.

Subp. 6. **Additional advances.** On or about July 1 of each year, the commissioner shall release an additional advance from the respective maintenance accounts listed above, in an amount not to exceed 40 percent of the total maintenance allocations, except that the entire remaining amount may be released to those urban municipalities receiving the minimum maintenance allocation specified in subpart 3.

Subp. 7. **Remaining maintenance funds.** The remaining maintenance funds will be released to the counties and urban municipalities upon receipt of their report of actual maintenance expenditures.

Subp. 8. **Unobligated maintenance account balance.** An unobligated balance remaining in the state-aid maintenance account to the credit of a county or urban municipality, after

final settlement has been made for the annual maintenance expenditures, must be automatically transferred to the construction account of that county or urban municipality.

8820.1500 CONSTRUCTION FUNDS.

[For text of subp 2, see M.R.]

Subp. 3. **Federal-aid contracts.** Under authority of an agency agreement with the governing body of a county or urban municipality and acting as its agent in federal-aid operations, the commissioner shall release from available state-aid funds 95 percent of the county's or urban municipality's share of the entire contract obligation for immediate transfer to the state-aid agency account, to be used in paying the county's or urban municipality's eligible share of the partial estimates and for advancing the federal share of those estimate payments. The commissioner shall keep the remaining percentage of the contract cost of the project until the final cost is determined and the project accepted by the district state-aid engineer. When other than state-aid funds are to be used for depositing in the state-aid agency account, 100 percent of the local governmental share of the contract amounts must be deposited in the state-aid agency account before the contract is awarded.

Subp. 4. **Force account agreements.** Upon receipt of an approved force account agreement and a report of state-aid contract, the commissioner shall promptly release from funds available for these approved projects 95 percent of the agreement amount. The commissioner shall keep the remaining percentage of the agreement amount until the project is 95 percent or more completed as substantiated and requested by the county or city engineer, or until the final cost is determined and the project accepted by the district state-aid engineer.

Subp. 5. **Payment limitations.** Approval of state-aid projects by the commissioner does not imply that state-aid payments will be made in excess of the construction funds available from current state-aid allotments. A county or urban municipality having depleted its currently available funds

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during the calendar year will not be eligible for reimbursement from future allotments unless a request for an advance has been approved or a project is completed in a subsequent year and funds are available.

Subp. 6. **Engineering costs.** Requests for reimbursement of project development costs may be submitted at any time after the costs have been incurred. The commissioner, upon receipt of this request supplemented by documentation as may be requested, shall authorize the reimbursement for actual documented project development costs. Requests for reimbursement must be processed at least semiannually, except that payments requested with the report of state-aid contract, report of final estimate, force account partial payments, or force account final payments must be made at the time the reports are processed.

Requests for payment of actual construction engineering costs must be documented and submitted along with the final estimate report. The commissioner, upon receipt of this request, shall authorize a construction engineering payment.

The sum of the project development and construction engineering charges must be limited to 25 percent of the eligible construction costs. Limitations for project development costs paid before a contract is awarded must be based upon the engineer's estimate of the eligible construction costs.

[For text of subp 7, see M.R.]

Subp. 8. **Advance from county funds.** When the commissioner approves a request from the county board for constructing an approved county state-aid project requiring county state-aid highway funds in excess of the county's available balance, then, subject to limits of the law, the county may make advances from any state-aid or local funds available to the county for the construction of that project. The request for an advance must be in the form of a resolution. Advances repaid from the turnback account must be processed according to part 8820.2900, subpart 4. The commissioner shall repay the advanced funds out of subsequent county construction account apportionments or

turnback account apportionments in accordance with the terms and conditions specified in the approved request.

Subp. 9. **Advance from county state-aid highway fund.** When the commissioner approves a request from the county board for constructing an approved county state-aid project requiring county state-aid highway funds in excess of the county's available balance, then, subject to limits of the law, the county may request to advance funds from the county state-aid highway fund. The request for an advance must be in the form of a resolution. The commissioner shall restore the county state-aid fund out of subsequent county construction account apportionments or turnback account apportionments in accordance with the terms and conditions specified in the approved request.

The county screening board shall recommend to the commissioner procedures for prioritizing requests for advance funding and a minimum balance for the county state-aid highway account, below which no further advances may be granted.

Subp. 10. **Advance from urban municipal funds.** When the commissioner approves a request from the governing body of an eligible urban municipality for constructing an approved municipal state-aid street project requiring funds in excess of the urban municipality's available balance, then, subject to limits of the law, the urban municipality may make advances from any state-aid or local funds available to the urban municipality for the construction of that project. The request for an advance must be in the form of a resolution. Advances repaid from the turnback account must be processed according to part 8820.2900, subpart 4. The commissioner shall repay the advanced funds out of subsequent urban municipal construction account apportionments or turnback account apportionments in accordance with the terms and conditions specified in the approved request.

Subp. 10a. [See renumbering instruction.]

Subp. 10b. **Advance from municipal state-aid street fund.** When the commissioner approves a request from the governing body of an eligible urban municipality for constructing an approved municipal state-aid project requiring municipal state-aid street

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funds in excess of the urban municipality's available balance, then, subject to limits of the law, the urban municipality may request to advance funds from the municipal state-aid street fund. The request for an advance must be in the form of a resolution. The commissioner shall restore the municipal state-aid street fund out of subsequent urban municipal construction account apportionments or turnback account apportionments in accordance with the terms and conditions specified in the approved request. The amount of the advance ~~encumbrance~~ must not exceed $500,000 or the last year's apportionment whichever is greater, except that in no case may the advance exceed three times the last year's apportionment.

The municipal screening board shall recommend to the commissioner procedures for prioritizing requests for advance funding and a minimum balance for the municipal state-aid street account, below which no further advances may be granted.

[For text of subp 11, see M.R.]

Subp. 12. **Municipal state-aid funds; county or trunk highway projects.** The governing body of an urban municipality desiring to use a portion of its state-aid funds for improvements within its boundaries on a state trunk highway or county state-aid highway, must have the plans approved by the state-aid engineer before the contract is awarded for these purposes. The extent of state-aid participation must be determined on the same basis as a regular municipal state-aid highway project, including engineering and right-of-way costs.

8820.1600 ANNUAL STATEMENTS.

Within 30 days after the close of each year, the commissioner shall submit to each county or urban municipality annual statements as to the status of its respective state-aid accounts.

8820.2000 CONSTRUCTING SELECTED STATE PARK PROJECTS.

For constructing selected state park projects and as provided by law, a portion of the county state-aid highway funds must be set aside and used for constructing, reconstructing, and

improving county state-aid highways, county roads, city streets, and town roads providing access to outdoor recreation units as defined in Minnesota Statutes, section 86A.04. These funds set aside must be spent for this purpose only on a request from the commissioner of natural resources. Projects selected on county state-aid highways or municipal state-aid streets must be approved by the commissioner of transportation in accordance with the procedure established for other state-aid operations, and must also receive the approval of the appropriate screening board.

8820.2100 DISASTER ACCOUNT.

A disaster appropriation approved by the commissioner for a county or urban municipality in accordance with law, must be promptly paid to the county or urban municipality for which the appropriation was authorized. The funds so allotted and paid to the county or urban municipality may only be spent for the purpose for which they were authorized, and within a reasonable time specified by the commissioner. Immediately upon completion of the work for which the disaster payment was made or the expiration of the time specified for doing the work, whichever occurs first, the county or urban municipality shall file a report certifying the extent of the authorized work completed and showing the total expenditure made. If the total disaster allotment was not required or used for the purpose specified or if federal disaster aid is later received, the remainder and an amount equal to the federal aid received must be promptly reimbursed to the commissioner for redeposit in the county state-aid highway fund or the municipal state-aid street fund, as the case may be, and apportioned by law. Damage estimates submitted by a county or urban municipality must exceed ten percent of the current annual state-aid allotment to the county or urban municipality before the commissioner shall authorize the disaster board to inspect the disaster area. The disaster board shall consider the availability of any available federal disaster relief funds before making its recommendation.

8820.2200 RESEARCH ACCOUNT.

County and municipal state-aid funds that may be annually allocated to the research account must be used solely for those research projects recommended by the local road research board and approved by the commissioner.

8820.2300 TURNBACK, TOWN BRIDGE, AND TOWN ROAD ACCOUNTS.

[For text of subpart 1, see M.R.]

Subp. 1a. **Town bridge account.** Further, a percentage of the county turnback account has been set aside and must be used for replacement or reconstruction of town bridges pursuant to the law. This latter account is known as the town bridge account.

Subp. 1b. **Town road account.** Further, a percentage of the county turnback account must be apportioned to the counties for the construction, reconstruction, and maintenance of town roads. This account is known as the town road account.

[For text of subp 2, see M.R.]

Subp. 2a. **Town road account allocation.** The amounts to be distributed to the counties from the town road account must be determined according to the formula prescribed by Minnesota Statutes, section 162.081, subdivisions 2 and 4.

A. The funds apportioned to a county from the town road account must be distributed to the treasurer of each eligible town within 30 days of the receipt of the funds by the county treasurer, according to a distribution formula adopted by the county board. The county board must consider each town's levy for road and bridge purposes, its population, length of town roads, and other factors considered advisable to the interest of achieving equity among the towns.

The county treasurer is the treasurer for eligible unorganized towns.

B. If a county board does not adopt a distribution formula, the funds must be distributed to the town according to subitems (1) to (4).

[For text of subitems (1) to (3), see M.R.]

(4) Fifty percent of the funds apportioned to a county must be distributed to eligible towns based upon the percentage of the length of town roads of each town to the total length of town roads of eligible towns in the county.

[For text of subps 3 to 7, see M.R.]

8820.2500 MINIMUM STATE-AID STANDARDS.

Subpart 1. **Applicability of standards.** The standards in this part apply to all new construction, reconstruction, rehabilitation, or resurfacing projects approved by the state-aid engineer on and after the effective date of this subpart, except as noted or otherwise provided for in law.

Subp. 1a. **Geometric design standards.** The standards in part 8820.9920 apply to rural design undivided roadways, new or reconstruction.

The standards in part 8820.9931 apply to suburban design roadways that meet indicated conditions, new or reconstruction.

The standards in part 8820.9936 apply to urban design roadways, new or reconstruction.

The requirements in parts 8820.9926 and 8820.9946 apply to resurfacing projects.

The vertical clearances for underpasses in part 8820.9956 apply.

The standards in parts 8820.9981 and 8820.9986 apply to designated forest highways within national forests and state park access roads within state parks and to designated natural preservation routes.

The standards in part 8820.9995 apply to bicycle paths.

[For text of subp 2, see M.R.]

Subp. 3. **Right-of-way.** The minimum widths of right-of-way for state-aid routes must be at least 18 meters within cities and 20 meters in rural areas, except that the right-of-way may be less for routes that are within a city, that were constructed before the effective date of this subpart, and that can be reconstructed to new construction standards within the previously existing right-of-way. Before construction, the

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governing body shall acquire control of the additional widths of right-of-way as may be necessary to properly maintain the ditch section, drainage structures, and the recovery area. Permanent easements for highway purposes are considered to be right-of-way for the purposes of this subpart.

[For text of subp 4, see M.R.]

8820.2700 MAINTENANCE REQUIREMENTS.

Subpart 1. **Standards.** The commissioner shall require a reasonable standard of maintenance on state-aid routes within the county or urban municipality, consistent with available funds, the existing street or road condition, and the traffic being served. This maintenance must be considered to include:

[For text of items A to C, see M.R.]

D. the striping of pavements of 6.6 meters or more in width, consistent with the current manual on uniform traffic control devices, and for which there are no pending improvements;

[For text of item E, see M.R.]

F. the installation of route markers on county state-aid highways as follows:

(1) route markers must be a minimum of 405 millimeters by 405 millimeters square with black letters or numerals on a white background; or

[For text of subitem (2), see M.R.]

[For text of subps 2 and 3, see M.R.]

8820.2800 CONSTRUCTION REQUIREMENTS.

Subpart 1. **Engineer's duties.** Surveys, preparation of plans and estimates, and construction inspection for state-aid projects must be performed by or under the supervision of the county highway or city engineer in accordance with standards for form and arrangement prescribed by the commissioner.

Subp. 2. **Plans and estimates.** Plans and estimates for each state-aid construction project must be submitted for review. Each plan must show the subsequent stages required for the completion of the improvement, portions of which may be

covered by later contracts or agreements. Only those projects for which final plans are approved by the state-aid engineer before awarding a contract or approving a force account agreement are eligible for state-aid construction funds, except as provided in subpart 8.

[For text of subps 3 and 4, see M.R.]

Subp. 5. **Force account.** A county or urban municipality desiring to use funds credited to it on a force account basis must have its engineer file a request with the commissioner for each construction project to be built by the county or urban municipality at agreed unit prices. The unit prices must be based upon estimated prices for contract work, less a reasonable percentage to compensate for move-in, move-out, and contractor's profit. These requests must contain a complete list of pay items and the unit prices at which it proposes to do the work. Before approval by the commissioner, the district state-aid engineer shall file recommendations with the commissioner concerning the request and the cost estimate. Items of work other than those listed as a pay item or approved by supplemental agreements must be considered incidental work not eligible for state-aid payment.

[For text of subps 6 and 7, see M.R.]

Subp. 8. **Certified acceptance.** The commissioner may establish a certified acceptance program and establish qualifications for counties and urban municipalities to be eligible for participation in the program. Judgment of qualifications must be based upon factors such as the existence of a peer review program, the volume of state-aid contracts, availability of staff, and completion of appropriate training or demonstration of sufficient competency, or other similar factors. Certification may be granted in any or all of the following functional areas: road design, bridge design, traffic signal design, storm sewer design, right-of-way acquisition, or construction inspection and contract administration.

Counties and urban municipalities who request and are qualified may enter into an agreement with the state-aid

engineer certifying that they will comply with all laws and state-aid rules and administrative policies in those functional areas for which they are qualified. Projects certified in accordance with the terms of the agreement are considered approved for purposes of subpart 2 and, when applicable, parts 8820.1500, subparts 2 (final inspection) and 12 (construction plans); 8820.3000, subpart 3 (bridges); and 8820.3100, subpart 8 (hydraulics).

The certified acceptance agreement must authorize the state-aid engineer to audit the work performed under the agreement and must contain provisions for cancellation of the agreement by the commissioner and for reimbursement of state-aid funds for cases of repeated noncompliance by the county or urban municipality.

8820.2900 TURNBACK AND TOWN BRIDGE ACCOUNT EXPENDITURES.

Subpart 1. **Eligibility; former trunk highways.** The funds in the county and municipal turnback accounts must be spent only as payments to a county or urban municipality for the approved repair and restoration or reconstruction and improvement of those former trunk highways that have reverted to county or urban municipal jurisdiction after July 1, 1965, and that are a part of the county state-aid highway or municipal state-aid street system.

Approval of plans for the initial construction of a turnback project is limited to a period of five years from the date of reversion. After plan approval for constructing the initial part of a turnback project, plans for other portions of the same route must be approved within ten years from the date of reversion to be eligible for turnback funds. Each approved project must be advanced to construction status within one year after notification to the county or urban municipality that sufficient funds are available for constructing the project. Payment for repair and restoration or reconstruction and improvement of a section terminates eligibility for repair and restoration or reconstruction and improvement of that section

with turnback funds.

Subp. 1a. [See repealer.]

Subp. 2. [See repealer.]

Subp. 2a. **Eligibility; town bridges.** A town bridge is eligible for replacement or reconstruction after the county board reviews the pertinent data supplied by local citizenry, local units of government, the regional development commission, or the metropolitan council, and adopts a formal resolution identifying the town bridge or bridges to be replaced or reconstructed. Payment to the counties is limited to 90 percent, except may be 100 percent where provided by law, of the cost of the bridge, and must be made in accordance with part 8820.2300, subpart 7.

[For text of subp 3, see M.R.]

Subp. 4. **Construction authorization.** As soon as the plans for a state-aid turnback or town bridge project are approved, the county or urban municipality must be furnished either an authorization to proceed with construction or a notice that sufficient funds are not available within the applicable turnback account or town bridge account and that a priority has been established for the project for construction authorization as soon as funds are available. When funds are advanced by the county or urban municipality to construct an approved project for which sufficient funds are not available in the turnback account or town bridge account, authorization to proceed with construction will be notification that the agreement for reimbursement of funds, in accordance with part 8820.1500, subpart 8, 8a, 9, 10, or 10b, has been approved by the commissioner.

8820.3100 GENERAL STATE-AID LIMITATIONS.

[For text of subpart 1, see M.R.]

Subp. 2. **Lighting hazardous areas.** The cost of roadway lighting of locations at which accidents are likely to occur or are otherwise hazardous is an eligible expense if that lighting:

A. meets one or more of the following criteria:

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(1) is intended for four or more lanes (complete cost eligible);

(2) is intended for lighting intersections;

(3) is a cost incidental to the necessary revision or relocation of existing lighting facilities on reconstruction projects; or

B. is within a city.

For the funding of additional locations, lighting expenses are eligible only to the extent that the county or urban municipality has furnished traffic information or other needed data to support its request.

Ornamental light poles will be 100 percent eligible for state-aid funds only if the ornamental pole is required by an adopted city or county policy. In the absence of such a policy, ornamental poles will be treated as a landscaping item according to subpart 10.

Subp. 3. [See repealer.]

Subp. 4. [See repealer.]

Subp. 5. **Traffic control signals.** The extent of state-aid participation in signal installations must be determined by the proportion of the number of approaching routes under the jurisdiction of the county or urban municipality to the total number of approaching routes involved at each installation. When at least one approach is eligible for state-aid participation for a county or urban municipality, then all other approaches under the same jurisdiction are also eligible.

Subp. 6. **Right-of-way.** The cost of lands and properties required for right-of-way to accommodate the design width of the street or highway as governed by the state-aid standards, including necessary width for sidewalks and bicycle paths, is considered an eligible expense. This cost includes relocation and moving costs as provided by law and includes damages to other lands if reasonably justified to the satisfaction of the commissioner. Costs incurred by the county or urban municipality for title searches and costs associated with condemnation proceedings are also an eligible expense. Receipts

from the rental or sale of excess properties paid for with state-aid funds must be placed in the local agency's road and bridge account to be used on the next state-aid project constructed.

Subp. 7. [See repealer.]

Subp. 7a. **Bicycle paths.** Payment for bicycle paths must be made when requested by urban municipalities, but only if the bicycle path is located within the permanent right-of-way of a state-aid eligible route or within an easement generally parallel with a state-aid route. County state-aid funds may be spent on bicycle paths as a match to federal-aid funds or on paths that are both a part of an adopted bicycle path plan and are located within the permanent right-of-way of a state-aid route or within an easement generally parallel with a state-aid route.

Subp. 8. **Storm sewers.** Plans containing items for storm sewer construction must be reviewed by the hydraulics engineer for the Minnesota Department of Transportation and the engineer's recommendations obtained concerning compliance with adopted state-aid storm sewer design requirements and the proportionate share chargeable to the state-aid system. These recommendations along with those of the district state-aid engineer must be considered in determining the maximum state-aid participation in this work.

Subp. 9. [See repealer.]

Subp. 9a. **Flexible or rigid pavement.** The use of state-aid construction funds to finance the initial surfacing of rural roadways with flexible or rigid pavement materials is limited to the following costs participation:

Projected ADT (a)	Participation
80 and over	100 percent
50 to 79	75 percent
0 to 49	(b)

(a) If the next traffic count scheduled by the Minnesota Department of Transportation shows an increase in traffic, the percentage participation on an approved project must be adjusted to reflect the revised projected ADT if the county requests

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reimbursement at the increased percentage rate.

(b) Payment will be made up to the cost of a standard designed aggregate surface.

Subp. 10. **Landscaping.** The extent of state-aid participation in landscaping is limited to five percent of the total construction allocation in any year. Landscaping includes, but is not limited to:

A. items such as trees when exceeding two-to-one replacement, shrubs, ground covers, and mulch; and

B. retaining walls, fences, and other landscaping appurtenances when only decorative in function.

The extent of participation also includes excess costs for functional but ornamental features such as, but not limited to, ornamental fences and railings, brick pavers, aesthetic surface treatments, and internally lit street signs. Excess cost is the cost in excess of a functional, standard item. Seeding, with mulch and fertilizer, and sodding are considered normal grading items.

8820.3200 LOCAL ROAD RESEARCH BOARD.

Subpart 1. **Appointment.** The commissioner shall appoint a local road research board consisting of the following members:

[For text of items A to C, see M.R.]

D. one University of Minnesota representative; and

E. one ex officio secretary, who must be the department's research coordination engineer.

Subp. 2. **Terms.** Appointments of county highway and city engineers, except for unexpired terms, are for three years. The other members shall serve at the will of the commissioner.

[For text of subp 3, see M.R.]

8820.3300 VARIANCE.

[For text of subps 1 to 2, see M.R.]

Subp. 3. **Decision.** The commissioner shall base the decision on the criteria in part 8820.3400, subpart 3 and shall notify the political subdivision in writing of the decision. The commissioner may require a resolution by the recipient of

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the variance that indemnifies, saves, and holds harmless the state and its agents and employees of and from claims, demands, actions, or causes of action arising out of or by reason of the granting of the variance. The recipient of the variance shall further agree to defend at its sole cost and expense any action or proceeding begun for asserting any claim of whatever character arising as a result of the granting of the variance.

[For text of subp 4, see M.R.]

8820.3400 ADVISORY COMMITTEE ON VARIANCES.

[For text of subpart 1, see M.R.]

Subp. 2. **Membership.** The committee shall consist of any five of the following persons: not more than two county highway engineers, only one of whom may be from a county containing a city of the first class; not more than two city engineers, only one of whom may be from a city of the first class; not more than two county officials, only one of whom may be from a county containing a city of the first class; and not more than two officials of an urban municipality, only one of whom may be from a city of the first class. The committee must have at least two elected officials as members. The committee shall have at least one member but not more than four members from a metropolitan area, as defined in Minnesota Statutes, section 473.121, subdivision 2, as well as cities with a population of over 50,000 according to the most recent census.

Subp. 3. **Operating procedure.** The committee shall meet on call from the commissioner at which time they must be instructed as to their responsibilities by a designee of the commissioner, shall elect a chairperson, and shall establish their own procedure to investigate the requested variance.

The committee shall consider the:

[For text of items A to G, see M.R.]

[For text of subp 4, see M.R.]

8820.4030 NATURAL PRESERVATION ROUTE ADVISORY COMMITTEE.

[For text of subpart 1, see M.R.]

Subp. 2. **Operating procedure.** The advisory committee

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shall meet on call from the commissioner at which time they must be instructed as to their responsibilities by a designee of the commissioner, shall elect a chair, and shall establish their own procedures to investigate the designation proposals.

The committee shall consider:

[For text of items A to F, see M.R.]

[For text of subp 3, see M.R.]

8820.4050 EXTENT OF STATE AID FOR NATURAL PRESERVATION ROUTE.

The extent of state aid participation for a construction project must be determined on the same basis as a regular county state-aid highway project, except that landscaping items are eligible for up to two percent of the total construction allocation of the year in which any construction on the natural preservation route is completed. This amount for landscaping is in addition to the amount allowed in part 8820.3100, subpart 10.

8820.4070 RECONSTRUCTION NOTIFICATION FOR NATURAL PRESERVATION ROUTE.

A county proposing a project that requires removal of the entire surface of a county state-aid highway that is a natural preservation route shall send to owners of property abutting the highway a written notice that describes the project. In addition, the county shall hold a public meeting to discuss design and construction alternatives. Before project approval, the county highway engineer shall provide evidence to the state aid engineer that the concerns raised at the public meeting have been addressed or incorporated into the project. Spot maintenance projects, such as culvert replacements or subgrade corrections, do not require notice.

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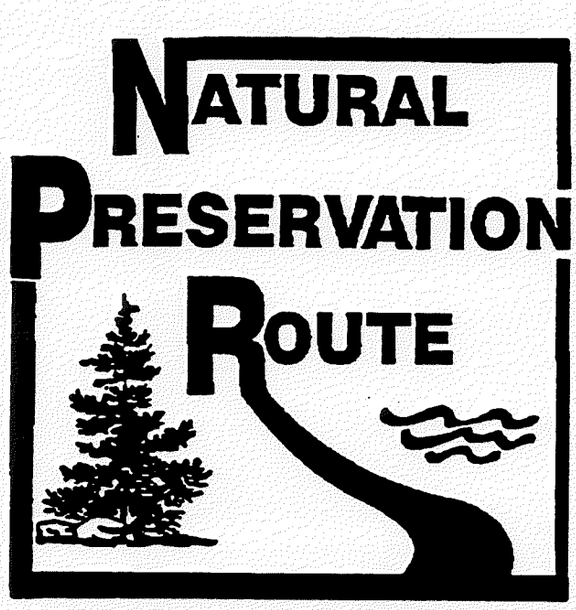
8820.9990 ROUTE MARKER.



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Green legend; white reflectorized background

8820.9920 GEOMETRIC DESIGN STANDARDS; RURAL UNDIVIDED; NEW OR RECONSTRUCTION.

Projected ADT(b)	Lane Width (meters)	Shoulder Width (meters)	Inslope (c) (rise:run)	Recovery Area (d) (meters)	Design Speed (e) (km/h)	Surfacing	Structural Design Strength (metric tons)	Bridges to Remain (f) Width Curb-Curb (meters)
0-49	3.3	0.3	1:3	2	50-100	Aggregate	-----	6.6
50-149	3.3	0.9	1:4	3	60-100 (g)	Aggregate	-----	6.6
150-399	3.6	1.2 (h)	1:4	5	60-100	Paved	6.4	8.4
400-749	3.6	1.2	1:4	6	60-100	Paved	8.2	8.4
750-1499	3.6	1.8	1:4	8	60-100	Paved	8.2	8.4
1500 and Over	3.6	2.4	1:4	9	60-100	Paved	9.1	9.0

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(a) For rural divided roadways, use the geometric design standards of the Mn/DOT Road Design Manual, with a minimum 9.1 metric tons structural design and minimum 60 kilometers per hour design speed.

(b) Use the existing traffic for highways not on the state-aid or federal-aid systems.

(c) Applies to slope within recovery area only.

(d) Obstacle-free area (measured from edge of traffic lane). Culverts with less than 675 millimeter vertical height allowed without protection in the recovery area.

Guardrail is required to be installed at all bridges where the design speed exceeds 60 kilometers per hour, and either the ADT exceeds 400 or the bridge width is less than the sum of the lane and shoulder widths.

Mailbox supports must be in accordance with the provisions of chapter 8818.

(e) Subject to terrain.

(f) Inventory design rating M 13.5 required. Bridges narrower than these widths may remain in place provided that the bridge does not qualify for federal-aid bridge funds.

(g) Design speed of 50 kilometers per hour allowed off of the state-aid and federal-aid systems.

(h) Initial roadbed width must be adequate to provide a finished roadbed width for 8.2 metric tons design.

Approach sideslopes must be 1:4 or flatter when the ADT exceeds 400.

MS 22.5 loading or ~~LRFD~~ load and resistance factor design (LRFD) is required for new bridges. MS 16 loading is required for all rehabilitated bridges. The curb-to-curb minimum width for new or rehabilitated bridges is the sum of the lane and shoulder widths plus 1.2 meters.

8820.9926 GEOMETRIC DESIGN STANDARDS: RURAL UNDIVIDED; RESURFACING.

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Subpart 1. **Minimum resurfacing standards.**

Present ADT	Proposed Structural Design Strength (metric tons)	Pavement Width (meters)	Shoulder - Shoulder Width (meters)	Design Speed (km/h)
Under 100	6.4	6.6	7.8	50
100 - 749	6.4	6.6	7.8	60
750 - 999	6.4	6.6	9.0	60
1000 and Over	6.4	7.2	9.0	60

Widths of bridges to remain in place must equal roadway pavement width. Bridges narrower than these widths may remain in place provided that the bridge does not qualify for federal-aid bridge funds. M 13.5 loading is required.

Any highway that was previously built to state-aid or state standards or is a trunk highway turnback but does not meet current standards for vertical or horizontal alignment, may be resurfaced and may retain the existing vertical and horizontal alignment where safety considerations do not warrant improvements.

Subp. 2. **Selected improvements.** Selected improvements that widen the embankment or alter the alignment or inslopes may be included in a resurfacing project if the improvement does not require additional right-of-way or the construction limits do not extend beyond the existing ditch bottoms, and the improvement does not remove more than 20 percent of the length of the existing bituminous or concrete surfacing over the length of the project.

Selected improvements must improve roadway design elements where accidents or other safety problems can be documented, or where benefits are clearly supported by an economic analysis. Written justification for these selected improvements must be submitted to the state-aid engineer for concurrence before the plan is approved. The state-aid engineer's concurrence must be based on the applicable criteria of part 8820.3300, subparts 1 and 1a. Resurfacing projects may include spot subgrade corrections over a small percentage of the project length

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without written justification.

In addition to the standards in subpart 1, the inslopes must be 1:3 or flatter and must be free of obstacles to at least three meters from the edge of the driving lane or to the toe of the inslope.

8820.9931 GEOMETRIC DESIGN STANDARDS: SUBURBAN; NEW OR RECONSTRUCTION.

Projected ADT	Lane Width (meters)	Shoulder Width (meters)	Inslope (a) (rise:run)	Recovery Area (b) (meters)	Design Speed (c) (km/h)	Structural Design Strength (metric ton)	Bridges to Remain (d) Curb to Curb Width (meters)
Less than 1000	3.6	1.8	1:4	3	50-80	8.2	8.4
Over 1000	3.6	2.4	1:4	6(e)	50-80	8.2	9.0

(a) Applies to slope within the recovery area only. Approach sideslopes must be 1:4 or flatter.

(b) Obstacle-free area, measured from edge of traffic lane. Culverts with less than 675-millimeter vertical height allowed without protection in the recovery area.

Guardrail is required to be installed at all bridges where the design speed exceeds 60 kilometers per hour, and either the ADT exceeds 400 or the bridge width is less than the sum of the lane and shoulder widths.

Mailbox supports must be in accordance with the provisions of chapter 8818.

(c) Subject to terrain.

(d) Inventory design rating M 13.5. Bridges narrower than these widths may remain in place provided that the bridge does not qualify for federal-aid bridge funds.

(e) Where the posted speed limit is 60 kilometers per hour or less, the minimum recovery area may be reduced to three meters.

This standard applies only when the project is both located

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in a subdivided area or an area in a detailed development process, and physical restraints are present that prevent reasonable application of the rural design standards. This standard may also be applied when the legal speed limit is 60 kilometers per hour or less.

MS 22.5 loading or LRFD design is required for new bridges. MS 16 loading is required for all rehabilitated bridges. The curb-to-curb minimum width for new or rehabilitated bridges is the sum of the lane and shoulder widths plus 1.2 meters.

8820.9936 GEOMETRIC DESIGN STANDARDS, URBAN; NEW OR RECONSTRUCTION.

Functional Classification and Projected Traffic Volume	Design Speed (km/h)	Lane Width (a) (meters)	Curb Reaction Distance (meters)	Parking Lane Width (meters)
Collectors or Locals with ADT <10000*	50-60 km/h	3.3 (b)	0.6	2.4
	over 60 km/h	3.6	0.6	3.0
Collectors or Locals with ADT ≥ 10000 and Arterials	50-60 km/h	3.3 (b)	1.2 (c)	3.0
	over 60 km/h	3.6	1.2 (c)	3.0 (d)

(a) One-way turn lanes must be at least three meters wide, except 3.3 meters is required if the design speed is over 60 kilometers per hour.

(b) Wherever possible, lane widths of 3.6 meters, rather than 3.3 meters, should be used.

(c) May be reduced to 0.6 meters if there are four or more traffic lanes and on one-way streets.

(d) No parking is allowed for six or more traffic lanes or when the posted speed limit exceeds 70 kilometers per hour.

One-way streets must have at least two through-traffic lanes.

When a median is included in the design of the two-way roadway, a 0.3 meter reaction distance to the median is required on either side of the median. Minimum median width is 1.2 meters.

Urban design roadways must be a minimum 8.2 metric ton

structural design.

A new or rehabilitated bridge must have a curb-to-curb width equal to the required street width. MS 22.5 loading or LRFD design is required for new bridges and a minimum of MS 16 loading is required for rehabilitated bridges.

Clearance of 0.5 meter from the face of the curb to fixed objects must be provided when the posted speed is 60 to 70 kilometers per hour. A three-meter clearance from the driving lane must be provided when the posted speed exceeds 70 kilometers per hour.

For volumes greater than 15,000 projected ADT*, at least four through-traffic lanes are required.

*Additional average daily traffic may be allowed if a capacity analysis demonstrates that level of service D or better is achieved at the higher traffic volume. If the capacity analysis demonstrates that additional lanes are required only during peak traffic hours, then each additional driving lane may be used as a parking lane during nonpeak hours.

"Level of service" has the meaning given it in the Highway Capacity Manual, Special Report 209, as revised and published by the Transportation Research Board of the National Research Council, Washington, D.C. The definition is incorporated by reference, is not subject to frequent change, and is located at the Minnesota State Law Library, 25 Constitution Avenue, St. Paul, Minnesota 55155.

8820.9946 GEOMETRIC DESIGN STANDARDS, URBAN; RESURFACING.

Subpart 1. **Two-way streets.** In the following table, total width is in meters, from face-to-face of curbs.

Number of Through Lanes, Functional Class, and Present Traffic Volume	Total Width with No Parking	Total Width with Parking on One Side	Total Width with Parking on Both Sides	Proposed Structural Design Strength (metric tons)
2-Lane Collector or Local with ADT < 10000	7.8	9.6	11.4	8.2 (b)
4-Lane Collector or Local with ADT < 10000	13.2	15.6	18.0	8.2 (b)
2-Lane Collector or Local with ADT ≥ 10000 or 2-Lane Arterial (a)	7.8	9.6	12.6	8.2
4-Lane Collector or Local with ADT ≥ 10000 or 4-Lane Arterial	13.2	16.2	19.2	8.2
6-Lane Collectors or Arterials	19.8	(c)	(c)	8.2

(a) Permissible for present traffic volumes less than 15,000 ADT.

(b) When ADT is less than 5,000, 6.4 metric tons is allowable.

(c) No parking is allowed.

Minimum design speed is 50 kilometers per hour. When a median is included in the design of the two-way roadway, a 0.3 meter reaction distance to the median is required on either side of the median. Minimum median width is 1.2 meters.

Subp. 2. **One-way streets.** In the following table, total width is in meters, from face-to-face of curbs.

Number of Through Lanes and Functional Class	Present ADT	Total Width with No Parking	Total Width with Parking on One Side	Total Width with Parking on Both Sides	Proposed Structural Design Strength (metric tons)
2-Lane Collector or Local with ADT < 10000	<5000	6.3	8.7	11.1	6.4
	5000 - 10000	6.9	9.3	11.7	8.2
2-Lane Collector or Local with ADT ≥ 10000 or 2-Lane Arterial	<15000	6.9	9.3	11.7	8.2
	≥15000	7.2	9.6	12.0	8.2
3-Lane Arterial or Collector	All	10.2	12.6	15.0	8.2

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Minimum design speed is 50 kilometers per hour.

Subp. 3. **Exception.** Any street that was previously built to state-aid or state standards or is a trunk highway turnback, which does not meet current standards, may be resurfaced regardless of subparts 1 and 2.

8820.9956 VERTICLE CLEARANCES FOR UNDERPASSES.

	Rural-Suburban Design, Vertical Clearance (meters)	Urban Design, Vertical Clearance (meters)
Highway under roadway bridge	5	4.4
Highway under railroad bridge	5	4.4
Highway under pedestrian bridge	5.3	4.4
Highway under sign structure	5.3	4.4
Railroad under roadway bridge*	6.7	6.7

*Variances to the required minimum may be granted by the Minnesota Transportation Regulation Board. That approval eliminates the need for a state-aid variance.

8820.9961 MINIMUM DESIGN STANDARDS FOR 45-DEGREE AND 60-DEGREE DIAGONAL PARKING.

Parking Angle	Stall Width (meters)	Stall Depth (meters)	Traffic Aisle Width (meters)	Length Along Curb (meters)	1/2 Roadway Width Minimum (meters)	Present ADT	Legal Speed Limit (km/h)
45 Degrees	2.7	6.0	4.0	3.9	10.1	Less than 3000	50 km/h or less
60 Degrees	2.7	6.4	5.5	3.2	11.9	Less than 3000	50 km/h or less
45 Degrees	2.7	6.0	7.7	3.9	13.7	3000 and over	50 km/h or less
60 Degrees	2.7	6.4	9.1	3.2	15.5	3000 and over	50 km/h or less

Diagonal parking provisions must be established by cooperative agreement between the local road authority and the

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commissioner.

The cooperative agreement must show the angle of parking, provide for pavement marking of the parking lanes, and provide that the road authority may alter parking provisions if traffic volumes exceed the design criteria.

Minnesota Statutes, section 169.34, must be adhered to in determining diagonal parking spacing.

Provide a 0.6 meter clearance from the face of the curb to fixed objects. Parking meters, when spaced so as to not interfere with vehicle operation, are exempt.

8820.9981 MINIMUM GEOMETRIC DESIGN STANDARDS: NATURAL PRESERVATION ROUTES, DESIGNATED NATIONAL FOREST HIGHWAYS WITHIN NATIONAL FORESTS, AND STATE PARK ACCESS ROADS WITHIN STATE PARKS; NEW OR RECONSTRUCTION.

Subpart 1. **Type I route.**

Surface Type	Design Speed (km/h)	Lane Width (meters)	Shoulder Width (meters) (a)	Inslope (rise:run) (b)	Recovery Area (meters) (c)	Design Strength (metric tons)	Bridge to Remain (meters) (d)
Aggregate	50	3.3	0.3	1:3	1		6.6
Paved	50	3.3	0.5	1:3	3	8.2	6.6

(a) If the route has scenic vistas that will require parking vehicles along the shoulder, widening the shoulder at these locations is acceptable. The designer will provide a 1.2 meter paved shoulder if the route is a popular bicycle route.

(b) Applies to slope within recovery area only. Other design features, such as guardrails or retaining walls, should be considered in particularly sensitive areas in lieu of reconstructing the inslope in accordance with part 8820.4060.

(c) Obstacle-free area (measured from edge of traffic lane).

Guardrail is required to be installed at all bridges where the design speed exceeds 60 kilometers per hour, and either the ADT exceeds 400 or the bridge width is less than the sum of the

lane and shoulder widths.

Mailbox supports must be in accordance with the provisions of chapter 8818.

(d) Inventory design rating M 13.5. A bridge narrower than these widths may remain in place if the bridge does not qualify for federal-aid bridge funds.

MS 18 loading or LRFD design is required for new bridges. MS 16 loading is required for all rehabilitated bridges. The curb-to-curb minimum width for new or rehabilitated bridges is the sum of the lane and shoulder widths plus 1.2 meters.

Ditch depths and widths must be kept to the minimum required to function hydraulically and to provide for adequate snow storage when a standard ditch would negatively impact the surroundings.

The designer shall specify in the plan and special provisions that the clearing width is to be kept to the absolute minimum. In sensitive areas, the normal clearance allowed to a contractor for working room is zero unless otherwise required for special conditions.

Curb and gutter may be used in lieu of a ditch section under the paved option. The lane width, shoulder width, and recovery area must be maintained.

For designated national forest highways within national forests, and state park access roads within state parks, this subpart applies only where the projected ADT is less than 100, unless the route has been designated as a natural preservation route.

Subp. 2. **Type II route.**

Surface Type	Design Speed (km/h)	Lane Width (meters)	Shoulder Width (meters) (a)	Inslope (rise:run) (b)	Recovery Area (meters) (c)	Design Strength (metric tons)	Bridge to Remain (meters) (d)
Aggregate	50	3.3	0.6	1:3	3		7.2
Paved	60	3.6	1.2	1:4	3	8.2 t	7.2

(a) The designer will provide a 1.8 meter paved shoulder if the route is a popular bicycle route. If the route has scenic

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vistas that will require parking vehicles along the shoulder, widening the shoulder at these locations is acceptable.

(b) Applies to slope within recovery area only. Other design features, such as guardrail or retaining walls, should be considered in particularly sensitive areas in lieu of reconstructing the inslope in accordance with part 8820.4060. Approach sideslopes must be 1:4 or flatter within the recovery area when the ADT exceeds 400.

(c) Obstacle-free area (measured from edge of traffic lane).

Guardrail is required to be installed at all bridges where the design speed exceeds 60 kilometers per hour, and either the ADT exceeds 400 or the bridge width is less than the sum of the lane and shoulder widths.

Mailbox supports must be in accordance with the provisions of chapter 8818.

(d) Inventory design rating M 13.5. A bridge narrower than these widths may remain in place if the bridge does not qualify for federal-aid bridge funds.

MS 18 loading or LRFD design is required for new bridges. MS 16 loading is required for all rehabilitated bridges. The curb-to-curb minimum width for new or rehabilitated bridges is the sum of the lane and shoulder widths, but may not be less than nine meters.

Ditch depths and widths must be kept to the minimum required to function hydraulically, to be traversable if within the recovery area, and to provide for adequate snow storage when a standard ditch would negatively impact the surroundings.

The designer shall specify in the plan and special provisions that the clearing width is to be kept to the absolute minimum. In sensitive areas the normal clearance allowed to a contractor for working room is zero unless required for special conditions.

For designated national forest highways within national forests, and state park access roads within state parks, this subpart may be applied only where the projected ADT is less than 300, unless the route has been designated as a natural

preservation route.

Subp. 3. **Type III route.**

Surface Type	Design Speed (km/h)	Lane Width (meters)	Shoulder Width (meters) (a)	Inslope (rise:run) (b)	Recovery Area (meters) (c)	Design Strength (metric tons)	Bridge to Remain (meters) (d)
Aggregate	50	3.6	0.9	1:4	3		7.2
Paved (e)	50	3.6	1.2	1:4	3	8.2 t	7.2
Paved	60	3.6	1.8	1:4	5	8.2 t	7.2

(a) The designer will provide a 1.8 meter paved shoulder if the route is a popular bicycle route. If the route has scenic vistas which will require parking vehicles along the shoulder, widening the shoulder at these locations is acceptable.

(b) Applies to slope within recovery area only. Other design features, such as guardrail or retaining walls, should be considered in particularly sensitive areas in lieu of reconstructing the inslope in accordance with part 8820.4060. Approach sideslopes must be 1:4 or flatter within the recovery area when the ADT exceeds 400.

(c) Obstacle-free area (measured from edge of traffic lane).

Guardrail is required to be installed at all bridges where the design speed exceeds 60 kilometers per hour, and either the ADT exceeds 400 or the bridge width is less than the sum of the lane and shoulder widths.

Mailbox supports must be in accordance with the provisions of chapter 8818.

(d) Inventory design rating M 13.5. A bridge narrower than these widths may remain in place if the bridge does not qualify for federal-aid bridge funds.

(e) This standard may be applied only when the project is located in a subdivided area or an area in a detailed development process, and physical restraints are present that prevent reasonable application of another level of these standards.

MS 22.5 loading or LRFD design is required for new bridges.

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MS 16 loading is required for all rehabilitated bridges. The curb-to-curb minimum width for new or rehabilitated bridges is the sum of the lane and shoulder widths, but may not be less than 9.6 meters.

Ditch depths and widths must be kept to the minimum required to function hydraulically, to be traversable if within the recovery area, and to provide for adequate snow storage when a standard ditch would negatively affect the surroundings.

The designer shall specify in the plan and special provisions that the clearing width is to be kept to the absolute minimum. In sensitive areas the normal clearance allowed to a contractor for working room is zero unless required for special conditions.

8820.9986 MINIMUM GEOMETRIC DESIGN STANDARDS: NATURAL PRESERVATION ROUTES, DESIGNATED NATIONAL FOREST HIGHWAYS WITHIN NATIONAL FORESTS, AND STATE PARK ACCESS ROADS WITHIN STATE PARKS; RESURFACING.

TYPE I, II, OR III ROUTE

Proposed Design Strength (metric tons)	Pavement Width (meters)	Shoulder-to-Shoulder Width (meters)
6.4	6.6	7.8

Widths of bridges to remain in place must equal pavement width. A bridge narrower than these widths may remain in place if the bridge does not qualify for federal-aid bridge funds. M 13.5 loading is required.

8820.9995 MINIMUM BICYCLE PATH STANDARDS.

Minimum Bicycle Path Standards

Off-Road Design (a)

Minimum Surfacing Width (two-way)	2.5 meters (b)
Shoulder/Clear Zone	0.5 meters (c)
Inslope	1:2 (rise:run)
Design Speed	30 km/h (d)
Vertical Clearance	3 meters

(a) For on-road bicycle facilities, the appropriate tables in the Minnesota Bicycle Transportation Planning and Design Guidelines apply.

(b) Three meters is required for combined

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bicycle/pedestrian paths. 1.5 meters is required for one-way paths.

(c) The shoulder/clear zone should be carried across bridges and through underpasses. Minimum bridge or underpass width is three meters.

(d) Use a 50-kilometer per hour design speed for grades longer than 150 meters and greater than four percent, from the uphill point where the grade equals four percent to 150 meters beyond the downhill point where the grade becomes less than four percent. The maximum allowable grade is 8.3 percent.

RENUMBERING INSTRUCTION. In the next publication of Minnesota Rules, the revisor of statutes shall renumber the parts and subparts listed in column A as the parts and subparts listed in column B.

A	B
8820.0100, subpart 2b	8820.0100, subpart 2d
8820.0100, subpart 17a	8820.0100, subpart 17c
8820.0100, subpart 18	8820.0100, subpart 15b
8820.1500, subpart 10a	8820.1500, subpart 8a

INSTRUCTION TO REVISOR. In the next publication of Minnesota Rules, the revisor of statutes shall change the reference to part 8820.9985, which is found in part 8820.4060, to part 8820.9986.

REPEALER. Minnesota Rules, parts 8820.0100, subparts 4a, 9, 15a, and 19; 8820.1000, subpart 3; 8820.2900, subparts 1a and 2; 8820.3100, subparts 3, 4, 7, and 9; 8820.9910; 8820.9925; 8820.9930; 8820.9935; 8820.9940; 8820.9945; 8820.9950; 8820.9955; 8820.9965; 8820.9970; and 8820.9985, are repealed.

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