Department of Transportation
State Aid for Local Transportation Division

State-Aid Operations
Chapter 8820

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REVISOR'S CERTIFICATE

I, Michele L. Timmons, am the Revisor of Statutes for the Minnesota Legislature. I am charged by law to compile, edit, and publish the administrative rules of the State of Minnesota. These rules were extracted from *Minnesota Rules 2011* and include any amendments adopted and published in the *State Register* through February 4, 2013. This is a true copy of the rules as they existed on the date stated on the cover.

MICHELE L. TIMMONS
Revisor of Statutes

CHAPTER 8820
DEPARTMENT OF TRANSPORTATION
LOCAL STATE-AID ROUTE STANDARDS, FINANCING

8820.0200 DEFINITIONS.
8820.0400 LOCAL HIGHWAY AND STREET DEPARTMENTS.
8820.0500 SELECTION GOAL: INTEGRATED NETWORK.
8820.0600 SELECTION OF ROUTES, GENERALLY.
8820.0700 SELECTION CRITERIA.
8820.0800 ROUTE DESIGNATION PROCEDURES; TURNBACKS; REVOCATION.
8820.1000 MONEY NEEDS AND APPORTIONMENT DETERMINATION.
8820.1100 SCREENING BOARD REPORTS.
8820.1200 COMPILATION AND NOTICE OF APPORTIONMENT.
8820.1400 MAINTENANCE, CONSTRUCTION, AND TURNBACK ACCOUNTS; STATE-AID PAYMENTS.
8820.1500 CONSTRUCTION FUNDS.
8820.1600 ANNUAL STATEMENTS.
8820.1700 OTHER AUTHORIZED PAYMENTS.
8820.1800 TRANSFER FOR HARDSHIP CONDITION OR LOCAL OTHER USE.
8820.1900 TOWN ALLOTMENTS.
8820.2000 CONSTRUCTING SELECTED STATE PARK PROJECTS.
8820.2100 DISASTER ACCOUNT.
8820.2200 RESEARCH ACCOUNT.
8820.2300 TURNBACK, TOWN BRIDGE, AND TOWN ROAD ACCOUNTS.
8820.2400 TRANSFER TO COUNTY REGULAR ACCOUNT FUND.
8820.2500 MINIMUM STATE-AID STANDARDS.
8820.2600 SPENDING STATE-AID APPROPRIATIONS.
8820.2700 MAINTENANCE REQUIREMENTS.
8820.2800 CONSTRUCTION REQUIREMENTS.
8820.2900 TURNBACK AND TOWN BRIDGE ACCOUNT EXPENDITURES.
8820.3000 ADDITIONAL CONTROLS ON EXPENDITURES.
8820.3100 GENERAL STATE-AID LIMITATIONS.
8820.3150 LOCAL ROAD RESEARCH.
8820.3200 LOCAL ROAD RESEARCH BOARD.
8820.3300 VARIANCE.
8820.3400 ADVISORY COMMITTEE ON VARIANCES.
8820.3500 BOARD OR COMMITTEE MEMBER'S PERSONAL EXPENSES.

NATURAL PRESERVATION ROUTES

8820.4000 REQUEST TO DESIGNATE NATURAL PRESERVATION ROUTE.
8820.4010 NATURAL PRESERVATION ROUTE CHARACTERISTICS.
8820.4020 NATURAL PRESERVATION ROUTE PROPOSALS.
8820.4040 NATURAL PRESERVATION ROUTE CONSIDERATION.
8820.4050 NATURAL PRESERVATION ROUTE STATE AID.
8820.4060 NATURAL PRESERVATION ROUTE DESIGN STANDARDS.
8820.4070 NATURAL PRESERVATION ROUTE RECONSTRUCTION.
8820.4080 NATURAL PRESERVATION ROUTE SIGNS.
8820.4090 NATURAL PRESERVATION ROUTE DESIGNATION REMOVAL.

EXHIBITS, FIGURES, AND TABLES

8820.9920 MINIMUM DESIGN STANDARDS; RURAL AND SUBURBAN UNDIVIDED; NEW OR RECONSTRUCTION PROJECTS.
8820.9922 MINIMUM DESIGN STANDARDS; NEW BRIDGE, BRIDGE REPLACEMENT, OR BRIDGE REHABILITATION PROJECTS AND APPROACH ROADWAYS ON RURAL OR SUBURBAN UNDIVIDED ROADWAYS THAT ARE NOT ON THE STATE-AID SYSTEM.
8820.9926 MINIMUM DESIGN STANDARDS: RURAL AND SUBURBAN UNDIVIDED; RECONDITIONING PROJECTS.
8820.9936 MINIMUM DESIGN STANDARDS, URBAN; NEW OR RECONSTRUCTION PROJECTS.
8820.9941 MINIMUM DESIGN STANDARDS: ON-ROAD BICYCLE FACILITY FOR URBAN; NEW OR RECONSTRUCTION PROJECTS.
8820.9946 MINIMUM DESIGN STANDARDS, URBAN; RECONDITIONING PROJECTS.
8820.9951 MINIMUM DESIGN STANDARDS, ON-ROAD BICYCLE FACILITIES FOR URBAN; RECONDITIONING PROJECTS.
8820.9956 MINIMUM VERTICAL CLEARANCES FOR UNDERPASSES.
8820.9961 MINIMUM DESIGN STANDARDS FOR 45-DEGREE AND 60-DEGREE PULL-IN DIAGONAL PARKING.
8820.9981 MINIMUM DESIGN STANDARDS: NATURAL PRESERVATION ROUTES, DESIGNATED NATIONAL FOREST HIGHWAYS WITHIN NATIONAL FORESTS, AND STATE PARK ACCESS ROADS WITHIN STATE PARKS; NEW OR RECONSTRUCTION PROJECTS.
8820.9986 MINIMUM DESIGN STANDARDS: NATURAL RESERVATION ROUTES, DESIGNATED NATIONAL FOREST HIGHWAYS WITHIN NATIONAL FORESTS, AND STATE PARK ACCESS ROADS WITHIN STATE PARKS; RECONDITIONING PROJECTS.
8820.9990 ROUTE MARKER.
8820.9995 MINIMUM BICYCLE PATH STANDARDS.

8820.0200 DEFINITIONS.

Subpart 1. **Scope.** For purposes of this chapter the following terms have the meanings given them in this part.

Subp. 2. **AASHTO.** "AASHTO" means the American Association of State Highway and Transportation Officials, 444 North Capitol Street Northwest, Suite 249, Washington, D.C. 20001.

Subp. 3. **ADT.** "ADT" means average daily traffic, which is computed by dividing the total number of vehicles traveling over a segment of roadway in one year by 365.

Subp. 4. **Advance.** "Advance" means the authorized expenditure of future funds from any funds available for use on an approved state-aid project. Advanced funds will be repaid to the appropriate account from subsequent apportionments.

Subp. 5. **Agency agreement.** "Agency agreement" means an agreement between a city, county, or other governmental unit and the commissioner by which the city, county, or other governmental unit may appoint the commissioner as the agent, with respect to federally funded projects, to accept and receive federal funds made available for projects and to let contracts or provide oversight to city, county, or other governmental unit contracts, in accordance with law for the construction or improvement of local streets or roads or other construction projects.

Subp. 6. **Bicycle lane.** "Bicycle lane" has the meaning given it in Minnesota Statutes, section 169.011, subdivision 5.

Subp. 7. **Bridge.** "Bridge" has the meaning given it in part 8810.8000, subpart 2.

Subp. 8. **Bridge rehabilitation.** "Bridge rehabilitation" means (1) the partial reconstruction of an existing bridge to meet current design criteria and construction standards or (2) a project that fixes the deterioration in the structure or improves the geometrics or load-carrying capacity, but may not necessarily provide improvement to meet new design standards.

Subp. 9. **City.** "City" means a statutory or home rule charter city.

Subp. 10. **City engineer.** "City engineer" means a licensed professional engineer employed as the city engineer or the director of public works, city engineer of each urban municipality.

Subp. 11. **City of the first class.** "City of the first class" has the meaning given it in Minnesota Statutes, section 410.01.

Subp. 12. **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. 13. **Clear zone.** "Clear zone" is the distance measured from the edge of the outside through-traffic lane, which must be free of fixed objects and meet or exceed the minimum in-slope dimensions indicated in the design charts of this chapter.

Subp. 14. **Commissioner.** "Commissioner" means the commissioner of the Minnesota Department of Transportation, or a designated representative.

Subp. 15. **County highway engineer.** "County highway engineer" means a licensed professional engineer employed as the county highway engineer, county engineer, or the director of public works, county engineer of each county.

Subp. 16. **County-municipal account.** "County-municipal account" means a separate record of that portion of the county state-aid highway funds allocated for expenditure on county state-aid highways within cities having less than 5,000 population.

Subp. 17. **Disaster account.** "Disaster account" means an account provided by law for use in aiding a county or urban municipality that has suffered a serious damage to its county state-aid highway system or municipal state-aid street system from fire, flood, tornado, or other uncontrollable forces of such proportion that the cost of repairs to that county state-aid highway system or municipal state-aid street system is beyond the normal resources of the county or urban municipality.

Subp. 18. **Disaster board.** "Disaster board" means a board, appointed in accordance with law, to investigate and report its findings and recommendations to the commissioner as to a county's or urban municipality's claim of a disaster or unforeseen event affecting its county state-aid highway or municipal state-aid street system and resulting in a financial hardship.

Subp. 19. **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. 20. **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.

Subp. 21. **Functional classification plan.** "Functional classification plan" means a plan by which highways and streets are grouped into classes according to the character of service they are intended to provide.

Subp. 22. **Level of service.** "Level of service" has the meaning given 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 Rev. Dr. Martin Luther King Jr. Blvd., St. Paul, Minnesota 55155.

Subp. 23. **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.

Subp. 24. **Local highway or street department.** "Local highway or street department" means the highway or appropriate department of each county and each urban municipality.

Subp. 25. **Local road research board.** "Local road research board" means a board appointed in accordance with part 8820.3200 to recommend specific research projects to the commissioner.

Subp. 26. **Natural preservation route.** "Natural preservation route" means an existing or proposed roadway that has been designated as a natural preservation route by the commissioner upon petition by a county board and that possesses sensitive or unique scenic, environmental, pastoral, or historical characteristics. Examples may include, but are not limited to, roads along lakes, rivers, wetlands, or floodplains or through forests or hilly, rocky, or bluff terrain.

Subp. 27. **Needs report.** "Needs report" means a report of the estimated construction cost required to improve a state-aid system to standards adequate for future traffic on a uniform basis.

Subp. 28. **Paved shoulder.** "Paved shoulder" means a part of a highway which is contiguous to the regularly traveled portion of the highway and is on the same level as the highway.

Subp. 29. **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. 30. **Reconditioning.** "Reconditioning" includes resurfacing, replacement, or rehabilitation of the pavement structure to extend the life of the roadway and effectively address critical safety and operations needs through minor improvements to the existing facility. Reconditioning projects generally utilize the existing horizontal and vertical alignment, may entail minor widening or geometric improvement, and normally require little or no additional right-of-way. Reconditioning may include changes in vertical or horizontal alignment involving no more than 20 percent of the length of the project. Reconditioning

may include curb replacement along no more than 20 percent of the length of the project, not including curb replacement for purposes of the Americans with Disabilities Act of 1990, United States Code, title 42, section 12101 et seq. Work does not normally extend beyond the existing ditch bottom.

Subp. 31. **Reconstruction.** "Reconstruction" means (1) the replacement of an existing roadway on a similar alignment or (2) the replacement of an existing bridge with a completely new bridge.

Subp. 32 **Screening board.** "Screening board" means the county screening board or municipal screening board appointed in accordance with law and authorized to recommend to the commissioner the size and money needs for each of their state-aid systems.

Subp. 33. **Shared lane.** "Shared lane" means any roadway or travel lane upon which a separate bicycle lane is not designated and which bicycles may legally use, whether or not such facility is specifically designated as a bikeway or bicycle route.

Subp. 34. **Shared use path.** "Shared use path" means a bikeway that is physically separated from a roadway or shoulder by the use of an open space buffer or physical barrier. A shared use path can also be used by a variety of nonmotorized users such as pedestrians, joggers, skaters, and wheelchair users.

Subp. 35. **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. 36. **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. 37. **Suburban.** "Suburban" means an area both in a subdivided area or an area in a detailed development process, and where physical restraints are present that prevent reasonable application of the rural design standards.

Subp. 38. **Town allotment.** "Town allotment" means the county apportionment of county state-aid highway funds for use in constructing and maintaining town roads.

Subp. 39. **Town bridge account.** "Town bridge account" means the apportionment of county state-aid turnback funds for use in the construction or reconstruction of bridges on town roads.

Subp. 40. **Town bridge need.** "Town bridge need" means the estimated construction cost required to improve or replace a town bridge to conform to standards adequate for future traffic on a uniform basis.

Subp. 41. **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. 42. **Town road account.** "Town road account" means the apportionment of county state-aid turnback funds for use in the construction, reconstruction, or gravel maintenance of town roads.

Subp. 43. **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.

Subp. 44. **Urban municipality.** "Urban municipality" means a city having 5,000 or more population, determined in accordance with the provisions of law.

Subp. 45. **Variance committee.** "Variance committee" means a committee appointed in accordance with part 8820.3400 to investigate and make recommendations to the commissioner on requests for variances from this chapter.

Subp. 46. **Wide outside lane.** "Wide outside lane" means outside lanes which accommodate bicycles and motorists in the same lane with a lane width of 14 to 16 feet. For accommodating bicyclists, the wide outside lane dimension shall be to the face of curb.

Statutory Authority: *MS s 14.386; 14.389; 161.082; 161.083; 162.02; 162.021; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 18 SR 32; 20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449; 32 SR 608; 36 SR 925; 37 SR 697*

8820.0400 LOCAL HIGHWAY AND STREET DEPARTMENTS.

Each county and each urban municipality shall establish and maintain a highway or street department. These departments must be adequately organized, staffed, and equipped to administer for the county or urban municipality matters relating to the operations of the state-aid program and to exercise all functions incidental thereto, in accordance with law. Preparation of plans and specifications and supervision of construction and maintenance must be under the control and direction of a professional engineer, registered in the state of Minnesota and employed or retained for that purpose.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146*

8820.0500 SELECTION GOAL: INTEGRATED NETWORK.

The state-aid highways and streets designated to form the basis for a long-range improvement program must be so selected as to form an integrated network of highways and streets in accordance with parts 8820.0600 to 8820.0800.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146*

8820.0600 SELECTION OF ROUTES, GENERALLY.

Subpart 1. **Commissioner's approval.** 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 portion of a roadway.

Subp. 2. **County and municipal designations.** The highway and street systems are to be selected and designated in accordance with Minnesota Statutes, chapter 162.

Subp. 3. [Repealed by amendment, 29 SR 449]

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041; 24 SR 1885; 29 SR 449*

8820.0700 SELECTION CRITERIA.

Subpart 1. **Basis.** A state-aid route must be selected on the basis of all criteria in either subpart 2 or 3.

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;

B. connects towns, communities, shipping points, and markets within a county or in adjacent counties; provides access to rural churches, schools, community meeting halls, industrial areas, state institutions, and recreational areas; or, serves as a principal rural mail route and school bus route; and

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

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 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.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041*

8820.0800 ROUTE DESIGNATION PROCEDURES; TURNBACKS; REVOCATION.

Subpart 1. **Resolution and certification.** With regard to route designations, county state-aid highways (CSAH) and municipal state-aid streets (MSAS) must be selected by the respective boards of county commissioners or governing bodies of urban municipalities. The highway or street selections must be reviewed by the district state-aid engineer of that area and the engineer's recommendation must be filed with the commissioner. Upon preliminary approval of the commissioner, the respective boards or governing bodies shall establish the route by designation. For MSAS routes to be designated on county roadways, the designation must be approved in the form of a resolution by the county board and the resolution filed with the commissioner. After receipt of each board action requesting designation, the commissioner shall approve all or part of the highway or street designations that comply with the criteria set out in this chapter. The commissioner shall certify to the respective boards of county commissioners or governing bodies of urban municipalities the approved portion of the highway or street designation. Highways or streets so approved become a part of the CSAH system or the MSAS system, subject to additions or revisions as may be, from time to time, requested and approved.

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.

Subp. 2. **Turnback designations.** With regard to turnback designations, prior to release of a trunk highway to the jurisdiction of a county or urban municipality, the commissioner shall notify the board of county commissioners or the governing body of the urban municipality through its county highway or city engineer, which portions of the turnback are eligible for designation as part of its state-aid system and which portions are eligible for restoration or reconstruction and improvement with turnback funds. Upon a request for the designation of eligible portions of the turnback from the board of county commissioners or the governing body of the urban municipality, the commissioner shall issue the official order for designation and notify the county or municipal screening board of this action.

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 and reconstruction project is 25 years, (2) the life of a bridge project

is 35 years, and (3) the life of a surfacing or reconditioning project is ten years. Payback is not required if the state-aid construction was a special resurfacing project.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041; 23 SR 1455; 29 SR 449*

8820.1000 MONEY NEEDS AND APPORTIONMENT DETERMINATION.

Subpart 1. **Construction cost estimates.** To provide data to implement the formulas for state-aid apportionment, each county highway engineer and city engineer shall prepare cost estimates of construction required to improve the county state-aid or municipal state-aid system to approved standards.

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;

B. automatic traffic control signals;

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

D. drainage costs.

Subp. 3. [Repealed, 20 SR 1041]

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041*

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.

Subp. 2. [Repealed by amendment, 8 SR 2146]

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 20 SR 1041*

8820.1200 COMPILATION AND NOTICE OF APPORTIONMENT.

Subpart 1. **Compilation of data by commissioner.** The commissioner shall determine the apportionment percentage due each county and urban municipality in accordance with the formulas established by law.

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.

Subp. 2. **Notice of annual apportionment.** Not later than February 1 of each year, the commissioner shall certify the annual apportionment to each respective county or urban municipality.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 20 SR 1041; 29 SR 449*

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

Subpart 1. **County maintenance apportionments.** As soon as the annual county and urban municipal state-aid allotments have been determined, the commissioner shall apportion and set aside the following amounts:

A. 40 percent of the regular county state-aid allotment for the general maintenance of county state-aid highways;

B. 40 percent of the county-municipal account allotment for maintaining the county state-aid highways within municipalities of less than 5,000 population.

Subp. 2. **Revisions of county maintenance apportionments.** The commissioner may, upon recommendation of the screening board or upon receipt of a resolution from a county board and for good cause shown, increase or decrease the proportion to be used for maintenance under either subpart 1, item A or B.

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 $1,500 per mile 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 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.

Subp. 4. [Repealed by amendment, 8 SR 2146]

Subp. 4a. **Construction apportionments.** The construction portion of the annual allocation to each county and urban municipality must be credited to the respective accounts and retained by the commissioner for payment on approved projects.

Subp. 4b. **Town bridge account.** The commissioner shall retain for payment on approved projects the town bridge account portion of the annual allocation.

Subp. 4c. **Town road account.** The town road account portion of the annual allocation must be set aside and credited to each respective county.

Subp. 4d. **State-aid payments.** Annual apportionments to the respective counties and urban municipalities must be released in the manner provided in subparts 5 to 8 and parts 8820.1500 to 8820.2400.

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. 100 percent of the town road account; and

B. maintenance funds:

(1) 50 percent of the available maintenance allotment, after reduction for bond interest if any, from the regular account of each county;

(2) 50 percent of the maintenance allotment from the municipal account of each county, except that counties desiring to receive less than 50 percent must submit a request prior to January 1; and

(3) 50 percent of the available maintenance allotment, after reduction for bond interest if any, 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 below:

A. from the regular account of each county:

(1) 40 percent of the available maintenance allotment, after reduction for bond interest if any; or

(2) 50 percent of the available maintenance allotment, after reduction for bond interest if any, but only if the county makes the request before January 1 and agrees to file an annual maintenance expenditures report by August 1 of the following year;

B. from the municipal account of each county:

(1) 40 percent of the maintenance allotment from the municipal account of each county; or

(2) 50 percent of the maintenance allotment but only if the county makes the request before January 1 and agrees to file an annual maintenance expenditures report by August 1 of the following year; and

C. from the municipal account of each urban municipality:

(1) 40 percent of the available maintenance allotment, after reduction for bond interest if any; or

(2) the entire remaining available amount, after reduction for bond interest if any, 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.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449*

8820.1500 CONSTRUCTION FUNDS.

Subpart 1. [Repealed by amendment, 8 SR 2146]

Subp. 2. **State-aid contracts.** Upon receipt of an abstract of bids, a certification as to the execution of a contract that includes a requirement for bond, and a payment request, the commissioner shall promptly release from the funds available to the county or urban municipality up to 95 percent of the state-aid portion of the contract. Upon further receipt of a signed supplemental agreement, including by means of an electronic signature, for a major addition to the contract, or appraised values for additional right-of-way costs, the commissioner shall promptly release from the funds available to the county or urban municipality up to 95 percent of the state-aid portion of the supplemental agreement or right-of-way appraised value. The commissioner shall keep the remaining percentage of the state-aid share of the contract, except of approved right-of-way claims which will be paid in full upon proof of acquisition and availability of funds, until the project is 95 percent or more completed as substantiated and requested by the county or city engineer.

Upon receipt of the final project acceptance and final cost determination by the county or city engineer, and upon concurrence of project acceptance by the district state aid engineer, the commissioner shall promptly release from the funds available any remaining money due to the state-aid portion of the contract.

Subp. 3. **Federal-aid contracts.** Under authority of an agency agreement and acting as its agent in federal-aid operations, the commissioner may release from available state-aid

funds for transfer to the state-aid agency account up to 100 percent of the county's or urban municipality's state-aid-eligible share of any contract obligations for which the commissioner is not reimbursed by the federal government, county, or urban municipality. When the commissioner is also contracting for work as agent for a county or urban municipality, and when the county or urban municipality is using funds other than federal aid funds, state or state-aid funds, or transportation revolving loan funds, 100 percent of the contract amount to be paid by those other funds 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 payment request, 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 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.

Subp. 7. **Right-of-way.** State-aid payments for right-of-way costs on approved projects must be limited to 95 percent of the approved claim until the acquisition of right-of-way parcels required are actually completed and the final costs established. Each parcel contained in an approved right-of-way plan must be considered as separate entities in regard to payment eligibility.

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, 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, 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 in accordance with the terms and conditions specified in the approved request.

On an annual basis, the County Screening Board shall recommend to the commissioner guidance for advance funding.

Subp. 9a. **Advance from town bridge account.** When the commissioner approves a request from the governing body of a county for the replacement, reconstruction, or rehabilitation of a town bridge requiring funds in excess of the county's available town bridge account, the commissioner shall reimburse those expenditures in accordance with the terms and conditions specified in the approved request.

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. [Renumbered subp. 9a]

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 funds in excess of the urban municipality's available balance, then 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 in accordance with the terms and conditions specified in the approved request.

On an annual basis, the Municipal Screening Board shall recommend to the commissioner guidance for advance funding.

Subp. 11. **County or municipal bond account.** With regard to a county or municipal bond account, a county or urban municipality that resolves to issue bonds payable from the appropriate state-aid fund in accordance with law for the purpose of establishing, locating, relocating, constructing, reconstructing, or improving state-aid streets or highways and, for a county only, constructing buildings and other facilities for maintaining a county state-aid highway under its jurisdiction, shall certify to the commissioner within 30 days following issuance of the bond, the amount of the total obligation and the amount of principal and interest that will be required annually to liquidate the bonded debt. The commissioner shall set up a bond account, itemizing the total amount of principal and interest involved and shall annually certify to the commissioner of management and budget the amount needed from the appropriate state-aid construction fund to pay the principal due on the obligation, and the amount needed from the appropriate state-aid maintenance fund to pay the current interest. The total maximum annual repayment of funds loaned from the transportation revolving loan fund plus state-aid bond funds that may be paid with state-aid funds is limited to 90 percent of the amount of the county's or urban municipality's last annual construction allotment preceding the bond issue. Proceeds from bond sales are to be expended only on approved state-aid projects and for items determined to be eligible for state-aid reimbursement. A county or urban municipality that intends to expend bond funds on a specific state-aid project shall notify the commissioner of this intent without delay upon awarding a contract or executing a force account agreement. Upon completion of each such project, a statement of final construction costs must be furnished to the commissioner by the county or the urban municipality. Counties may only fund the portion of maintenance buildings and structures related to state-aid transportation maintenance operations. If a building or structure or any portion of it is used for other than state-aid maintenance purposes during

its useful life, the commissioner may determine an amount the county shall pay back to the county's maintenance account.

Subp. 11a. **Transportation revolving loan fund.** The commissioner shall set up a payment schedule that matches the transportation revolving loan fund repayment schedule, itemizing the total amount of principal and interest. The amount needed from the appropriate state-aid construction fund to pay the principal due on the loan and the amount needed from the appropriate state-aid maintenance fund to pay the current interest must be paid to the county or urban municipality.

The total maximum annual repayment of funds loaned from the transportation revolving loan fund and state-aid bond funds subject to reimbursement from state-aid funds due in any calendar year is limited to 50 percent of the amount of the county's or urban municipality's last annual construction allotment at the time of the loan.

The loaned funds subject to reimbursement from state-aid funds are to be expended only on approved state-aid projects and for items determined to be eligible for state-aid reimbursement.

A county or urban municipality that intends to borrow funds for a specific state-aid project shall notify the commissioner of this intent without delay upon awarding a contract or executing a force account agreement and submittal of a Report of State Aid Contract.

Upon completion of each state-aid project, a statement of final construction costs must be furnished to the commissioner by the county or the urban municipality in the form of a Report of Final Estimate.

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 bids are opened 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.

Statutory Authority: *MS s 14.389; 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449; 32 SR 608; L 2009 c 101 art 2 s 109; 36 SR 925*

8820.1600 ANNUAL STATEMENTS.

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

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 20 SR 1041; 29 SR 449*

8820.1700 OTHER AUTHORIZED PAYMENTS.

Certain specific allotments or transfers of state-aid funds have been authorized by law. These will be processed as provided in parts 8820.1800 to 8820.2400.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146*

8820.1800 TRANSFER FOR HARDSHIP CONDITION OR LOCAL OTHER USE.

Subpart 1. **Hardship.** When the county board or governing body of an urban municipality desires to use a part of its state-aid allocation off an approved state-aid system, it shall certify to the commissioner that it is experiencing a hardship condition in regard to

financing its local roads or streets while holding its current road and bridge levy or budget equal to or greater than the levy or budget for previous years. Approval may be granted only if the county board or governing body of an urban municipality demonstrates to the commissioner that the request is made for good cause. If the requested transfer is approved, the commissioner, without requiring progress reports and within 30 days, shall authorize either immediate payment of at least 50 percent of the total amount authorized, with the balance to be paid within 90 days, or schedule immediate payment of the entire amount authorized on determining that sufficient funds are available.

Subp. 2. **Other local use.** When the county board or governing body of an urban municipality desires to use a part of its state-aid allocation on local roads or streets not on an approved state-aid system, it shall certify to the commissioner that its state-aid routes are improved to state-aid standards or are in an adequate condition that does not have needs other than additional surfacing or shouldering needs identified in its respective state-aid needs report. That portion of the county or city apportionment attributable to needs must not be used on the local system.

A construction project for a local road or street not on an approved state-aid system and not designed to state-aid standards must not be given final approval by the State Aid for Local Transportation Division unless the plan is accompanied by a resolution from the respective county board or urban municipality that indemnifies, saves, and holds harmless the state of Minnesota and its agents and employees from claims, demands, actions, or causes of action arising out of or by reason of a matter related to constructing the local road or street as designed. The resolution must be approved by the respective county board or urban municipality and agree to defend at the sole cost of the county or urban municipality any claim arising as a result of constructing the local road or street.

Payment for the project must be made in accordance with part 8820.1500, subparts 1 to 5.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 23 SR 1455*

8820.1900 TOWN ALLOTMENTS.

The commissioner shall authorize payment of the amount requested for distribution by the county for constructing town roads:

A. upon receipt of a certified copy of a county board resolution allocating a specific amount of the county state-aid construction funds for aid to the county's towns;

B. upon showing compliance with the law governing these allocations; and

C. upon forwarding the resolution to the commissioner on or before the second Tuesday in January of each year.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596*

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.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041*

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.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041*

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.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 20 SR 1041*

8820.2300 TURNBACK, TOWN BRIDGE, AND TOWN ROAD ACCOUNTS.

Subpart 1. **County and municipal turnback accounts.** A percentage of the net highway user tax distribution fund is set aside in accordance with law and apportioned to separate accounts respectively identified as the county turnback account and the municipal turnback account.

Subp. 1a. **Town bridge account.** Further, a percentage of the net highway user tax distribution fund is 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 net highway user tax distribution fund must be apportioned to the counties for the construction, reconstruction, and maintenance of town roads. This account is known as the town road account.

Subp. 2. **Town bridge fund allocation.** The funds set aside for town bridges must be allocated to the eligible counties.

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).

(1) The county auditor shall certify to the commissioner the name of each town that has levied 0.04835 percent of taxable market value of the town for road and bridge purposes in the year preceding the allocation year.

(2) The county auditor shall certify to the commissioner the name of each unorganized town in which the county has levied 0.04835 percent of taxable market value of the unorganized town for town road and bridge purposes in the year preceding the allocation year.

(3) Fifty percent of the funds apportioned to a county must be distributed to an eligible town based upon the percentage that its population bears to the total population of the eligible towns in the county.

(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.

Subp. 3. **Surplus turnback funds.** At any time the commissioner determines that either the county or municipal turnback accounts, notwithstanding the town bridge accounts or the town road accounts, has accumulated a surplus not needed for turnback purposes, the commissioner shall properly notify the commissioner of management and budget requesting the transfer of the surplus to the respective county state-aid highway fund or municipal state-aid street fund for apportionment as provided by law.

Subp. 4. [Repealed by amendment, 8 SR 2146]

Subp. 5. [Repealed by amendment, 8 SR 2146]

Subp. 6. **Release of turnback account funds.** Upon receipt of an abstract of bids and a certification as to the execution of a contract and bond on an eligible project, the commissioner shall release to a county or urban municipality from turnback account funds up to 95 percent of the turnback share of the contract. The commissioner shall keep the remaining percentage of the turnback share of the contract until the final cost is determined and the project accepted by the district state-aid engineer.

On force account agreements, partial estimates must be accepted on turnback projects approved for construction by local forces, using the agreed unit prices for determining the value of the completed work.

The commissioner shall release from the respective turnback account 95 percent of the value as reported by partial estimates on an eligible turnback project.

Requests for reimbursement of preliminary and construction engineering costs on an eligible turnback project must be submitted and payment must be authorized in accordance with part 8820.1500, subpart 6.

Subp. 6a. **In lieu payment.** In lieu of contracting work or force account work, the commissioner, with concurrence of the receiving agency, may enter into an agreement to pay a lump sum payment from the turnback account to the receiving agency's road and bridge account equal to the net value of eligible turnback costs for a project to be constructed within 20 years of the release date.

Subp. 7. **Release of town bridge account funds.** Upon receipt of an abstract of bids and a certification as to the execution of a contract and bond on an eligible project, the commissioner shall release to a county, from town bridge account funds, up to 95 percent of the town bridge account share of the contract. The commissioner shall keep the remaining five percent until the final cost is determined and the project is accepted by the district state-aid engineer.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 17 SR 1279; 20 SR 1041; 23 SR 1455; 24 SR 1885; L 2009 c 101 art 2 s 109*

8820.2400 TRANSFER TO COUNTY REGULAR ACCOUNT FUND.

Upon receipt of a certified copy of a county board resolution requesting the transfer of part or all of the total accumulated amount in the county municipal account fund, to the county regular account fund, the commissioner shall transfer the funds, provided the county submits a written request to the commissioner and holds a public hearing within 30 days of the request to receive and consider objections by the governing body of a city within the county, having a population of less than 5,000, and:

A. no written objection is filed with the commissioner within 14 days of that hearing; or

B. within 14 days of the public hearing held by the county, a city having a population of less than 5,000 files a written objection with the commissioner identifying a specific county state-aid highway within the city which is requested for improvement and the commissioner investigates the nature of the requested improvement and finds:

(1) the identified highway is not deficient in meeting minimum state-aid street standards;

(2) the county has shown evidence that the identified highway has been programmed for construction in the county's five-year capital improvement budget in a manner consistent with the county's transportation plan; or

(3) there are conditions created by or within the city beyond the control of the county that prohibit programming or reconstruction of the identified highway.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596*

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 November 13, 1995, 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 8820.9936 apply to urban design roadways, new or reconstruction.

The requirements in parts 8820.9926 and 8820.9946 apply to reconditioning 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.

Subp. 2. **Specifications.** Specifications for construction must be the latest approved Minnesota Department of Transportation specifications, except as modified by special provisions which set forth conditions or requirements for work or materials not covered by the approved specifications, or which set forth conditions or requirements to meet exigencies of construction peculiar to the approved project.

Subp. 3. **Right-of-way.** The minimum widths of right-of-way for state-aid routes must be at least 60 feet within cities and 66 feet in rural areas, except that the right-of-way may be less for routes that are within a city, that were constructed before November 13, 1995, and that can be reconstructed to new construction standards within the previously existing right-of-way. Before construction, the 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 clear zone. Permanent easements for highway purposes are considered to be right-of-way for the purposes of this subpart.

Subp. 4. **Parking provisions.** The criteria in part 8820.9961 must be used in establishing diagonal parking. The criteria in parts 8820.9936 and 8820.9946 must be used where parallel parking is used.

Statutory Authority: *MS s 14.389; 161.082; 161.083; 162.02; 162.021; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 18 SR 32; 20 SR 1041; 23 SR 1455; 24 SR 1885; 36 SR 925*

8820.2600 SPENDING STATE-AID APPROPRIATIONS.

State-aid funds allotted to counties and urban municipalities must be expended in accordance with the provisions of parts 8820.2700 to 8820.2900.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146*

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:

A. the maintenance of road surfaces, shoulders, ditches, and slopes and the cutting of brush and weeds affecting the respective state-aid systems;

B. the maintenance and inspection of bridges, culverts, and other drainage structures pursuant to Minnesota Statutes, section 165.03;

C. the maintenance of regulatory and direction signs, markers, traffic control devices, and protective structures in conformance with the current manual on uniform traffic control devices affecting the respective state-aid systems;

D. the striping of pavements of 22 feet or more in width, consistent with the current manual on uniform traffic control devices, and for which there are no pending improvements;

E. the exclusion of advertising signs, billboards, buildings, and other privately owned installations other than utilities of public interest from the right-of-way of an approved state-aid project; and

F. the installation of route markers on county state-aid highways as required by the Minnesota Manual on Uniform Traffic Control Devices as adopted under Minnesota Statutes, section 169.06.

Subp. 2. **Unsatisfactory maintenance.** On determining that the maintenance of a county or municipal state-aid route is unsatisfactory, the commissioner shall keep up to ten

percent of the current annual maintenance apportionment to the responsible county or urban municipality. Funds kept must be held to the credit of that county or urban municipality until the unsatisfactory condition has been corrected and a reasonable standard of maintenance is provided.

Subp. 3. **Biennial report.** The commissioner's biennial report to the legislature shall enumerate such funds retained more than 90 days, together with an explanation for this action.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041; 24 SR 1885; 29 SR 449*

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. **Eligibility for funding.** A project is eligible for funding under the following conditions, as applicable:

A. 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 opening bids are eligible for state-aid construction funds, except as provided in subpart 8.

B. Force account work is eligible for state-aid funding once a force account agreement is signed by the state-aid engineer, including costs that occur before force account agreement approval.

C. Design-build projects are eligible for funding if, prior to the opening of design-build proposals, the state-aid engineer approves required project information. Among the information required must be project location, project termini, types of work to be performed, and standards to be used.

Subp. 3. **Project identification numbers.** Projects must be assigned state-aid project numbers and must be so identified in records of the Minnesota Department of Transportation and the local governmental unit.

Subp. 4. **Contract information.** Upon award of a state-aid contract by a county or urban municipality, the county highway engineer or city engineer shall furnish the commissioner with an abstract of bids and a certification as to the specific contract and bond executed for the approved construction work.

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.

Subp. 6. **Project reports.** Prior to final acceptance of each construction project by the commissioner, the county highway engineer or the city engineer shall submit to the commissioner final project records as the commissioner may deem necessary or desirable.

Subp. 7. **Project payments.** On state-aid construction projects payments will be made in accordance with part 8820.1500, subparts 2 to 5.

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.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041; 23 SR 1455; 29 SR 449*

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, except when the commissioner makes a lump sum payment under part 8820.2300, subpart 6a.

For trunk highways released after December 31, 1992, approval of plans for the construction of a turnback project is limited to a period of 15 years from the date of reversion. 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. [Repealed, 20 SR 1041]

Subp. 2. [Repealed, 20 SR 1041]

Subp. 2a. **Eligibility; town bridges.** The town bridge account may be used to pay the cost to replace or reconstruct a town bridge, or to abandon an existing bridge that is deficient and in need of replacement but where no replacement will be made. It may also be used to pay the costs to construct a road or street to facilitate the abandonment of an existing bridge determined by the commissioner to be deficient if the commissioner determines that construction of the road or street is more cost efficient than replacing the existing bridge. A town bridge is eligible for replacement, reconstruction, or abandonment 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. Except as otherwise provided by law, payment to the counties is limited to the cost of the bridge and must be made in accordance with part 8820.2300, subpart 7.

Subp. 3. **Plan approval and construction requirements.** Plans for county or municipal state-aid turnback or town bridge projects must be submitted to the commissioner and be approved before reconstruction or improvement work is undertaken, except when the commissioner makes a lump-sum payment under part 8820.2300, subpart 6a. State-aid rules consistent with the turnback regulations apply to projects to be financed from the county or municipal turnback accounts or the town bridge account.

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.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041; 23 SR 1455*

8820.3000 ADDITIONAL CONTROLS ON EXPENDITURES.

Subpart 1. **Conformity.** In addition to those provisions previously mentioned, expenditures of state-aid funds by a county or urban municipality must conform to the following rules in subparts 2 to 7.

Subp. 2. **Legal requirements.** State-aid construction projects must comply with federal, state, and local laws, together with ordinances, rules, and regulations applicable to the work. Responsibility for compliance rests entirely with the local unit of government.

Subp. 3. **Bridge plans.** Plans for bridge construction or bridge reconstruction projects must be approved by the bridge engineer of the Minnesota Department of Transportation prior to the approval by the state-aid engineer.

Subp. 4. **Reports and records.** Annual reports, status maps, and maintenance and construction reports and records must be filed at the time and in the form specifically requested by the commissioner or authorized representatives of the commissioner.

Subp. 5. **Noncompliance.** The commissioner, upon determination that a county or urban municipality has failed to comply with the established state-aid requirements other than for unsatisfactory maintenance, or has failed to fulfill an obligation entered into for the maintenance or improvement of a portion of a state trunk highway or interstate route, shall determine the extent of the failure and the amount of the county's or urban municipality's apportionment that must be retained until a time when suitable compliance is accomplished or the obligation fulfilled, as the case may be. The amount withheld must reasonably approximate the extent of the noncompliance or the value of the unfulfilled obligation.

Subp. 6. **Defective work.** When unsatisfactory conditions are found to exist on an approved construction project, the district state-aid engineer may, if necessary, order the suspension of all work affected until the unsatisfactory condition is satisfactorily corrected. Failure to conform with the suspension order must be considered willful noncompliance. Work or materials which fail to conform to the requirements of the contract or force account agreement must be considered as defective. Unless the work is satisfactorily remedied or repaired before final acceptance is requested, the commissioner shall either withhold funds in accordance with subpart 5, or shall establish the reasonable value of the defective work as the basis for settlement with the county or urban municipality.

Subp. 7. **Engineering and technical assistance.** The commissioner may, as authorized by law, execute agreements with a county or urban municipality or other governmental unit for technical assistance from the Department of Transportation. These services, if

furnished, must be paid for by the governmental subdivision at the rates established by the Department of Transportation.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 17 SR 1279*

8820.3100 GENERAL STATE-AID LIMITATIONS.

Subpart 1. **Extent of state aid.** The extent of state-aid participation on special items is limited as follows in subparts 2 to 10.

Subp. 2. **Lighting hazardous areas.** The cost of roadway and bridge 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:

(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. [Repealed, 20 SR 1041]

Subp. 4. [Repealed, 20 SR 1041]

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. [Repealed, 20 SR 1041]

Subp. 7a. **Bicycle paths and sidewalks.** Payment for a bicycle path or sidewalk must be made when requested by urban municipalities, but only if the bicycle path or sidewalk 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 or sidewalks as a match to federal-aid funds or on bicycle paths or sidewalks that are both a part of an adopted 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. County municipal state-aid funds may be spent on bicycle paths or sidewalks 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. [Repealed, 20 SR 1041]

Subp. 9a. [Repealed, 36 SR 925]

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, and aesthetic surface treatments. Excess cost is the cost in excess of a functional, standard item. Seeding, with mulch and fertilizer, and sodding are considered normal grading items.

Statutory Authority: *MS s 14.389; 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041; 24 SR 1885; 29 SR 449; 36 SR 925*

8820.3150 LOCAL ROAD RESEARCH.

Within the law, the respective screening boards shall annually determine and recommend the amount that the commissioner shall set aside from the county state-aid highway fund or the municipal state-aid street fund, for the purpose of local road research. These funds, along with federal funds as may be provided, must be used for conducting research as provided by law.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; L 1983 c 17*

History: *8 SR 2146*

8820.3200 LOCAL ROAD RESEARCH BOARD.

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

A. four county highway engineers, only one of whom may be from a county containing a city of the first class;

B. two city engineers, only one of whom may be from a city of the first class;

C. two Department of Transportation staff engineers, one of whom must be the department's state-aid engineer;

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 four years. The other members shall serve at the will of the commissioner.

Subp. 3. **Operating procedure.** The board shall initially meet on call from the commissioner, at which time they shall elect a chair and establish their own procedure for the selection of research projects to be recommended to the commissioner. Final determination on research projects must be made by the commissioner, and the cost must be paid out of the state-aid research accounts provided for by law.

If the board recommends a project covering research in methods of and materials for the construction and maintenance of both the county state-aid highway system and the municipal state-aid street system, the board shall also recommend to the commissioner the proportionate share of the cost of the project to be borne by the respective county state-aid highway research account and the municipal state-aid street research account, based on the benefits to be realized by each system from such research project.

Statutory Authority: *MS s 14.389; 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 17 SR 1279; 20 SR 1041; 36 SR 925*

8820.3300 VARIANCE.

Subpart 1. **Written requests.** A formal request by a political subdivision for a variance from this chapter must:

A. be submitted to the commissioner in writing in the form of a resolution;

B. identify the project by location and termini; and

C. cite the specific part or standard for which the variance is requested and describe the modification proposed.

Subp. 1a. **Additional information.** Additional information needed:

A. index map;

B. typical section:

(1) inplace section;

(2) proposed section;

C. reasons for the request;

D. the economic, social, safety, and environmental impacts which may result from the requested variance;

E. effectiveness of the project in eliminating an existing and projected deficiency in the transportation system;

F. effect on adjacent lands;

G. number of persons affected; and

H. safety considerations as they apply to:

(1) pedestrians;

(2) bicyclists;

(3) motoring public; and

(4) fire, police, and emergency units.

Subp. 2. **Notice of request.** The commissioner shall publish notice of variance request in the State Register and shall request comments from interested parties be directed to the commissioner within seven calendar days from date of publication.

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 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.

Subp. 4. **Contested case hearing.** Any variance objected to in writing or denied by the commissioner is subject to a contested case hearing as required by law.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041; L 2005 1Sp6 s 107*

8820.3400 ADVISORY COMMITTEE ON VARIANCES.

Subpart 1. **Appointment.** The commissioner may appoint a committee to serve as required to investigate and determine a recommendation for each variance. No elected or appointed official that represents a political subdivision requesting a variance may serve on the committee.

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; factors considered.** 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:

A. economic, social, safety, and environmental impacts which may result from the requested variance;

B. effectiveness of the project in eliminating an existing and projected deficiency in the transportation system;

C. effect on adjacent lands;

D. number of persons affected;

E. effect on future maintenance;

F. safety considerations as they apply to pedestrians, bicyclists, motoring public, and fire, police, and emergency units; and

G. effect that the rule and standards may have in imposing an undue burden on a political subdivision.

Subp. 4. **Recommendation.** The committee after considering all data pertinent to the requested variance shall recommend to the commissioner approval or disapproval of the request.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 15 SR 2596; 20 SR 1041*

8820.3500 BOARD OR COMMITTEE MEMBER'S PERSONAL EXPENSES.

The commissioner will authorize the payment of necessary personal expenses in connection with meetings of board and committee members, appointed for state-aid purposes.

These expenses must be reported on forms furnished by the commissioner and paid from the state-aid administrative fund.

Statutory Authority: *MS s 161.082; 161.083; 162.02; 162.09; 162.155; L 1983 c 17*

History: *8 SR 2146; 17 SR 1279*

NATURAL PRESERVATION ROUTES

8820.4000 REQUEST TO DESIGNATE NATURAL PRESERVATION ROUTE.

Any person may make a written request to designate a county state-aid highway as a natural preservation route. The request must be directed to the county board having jurisdiction over the route. A county board is not required to propose designation for the entire length of a county state-aid highway. The county board shall act on the request within 60 days. In order to designate a county state-aid highway as a natural preservation route, the commissioner must receive a board resolution from the county having jurisdiction over the road.

The county board shall use the descriptions in part 8820.4010 as a guide for determining which designation type best fits a particular route. All of the descriptors may be used in combination. No single descriptor, including ADT, may be used to eliminate a route type from consideration.

Statutory Authority: *MS s 162.02; 162.021; 162.09*

History: *18 SR 32*

8820.4010 NATURAL PRESERVATION ROUTE CHARACTERISTICS.

Subpart 1. **Selection criteria generally.** To be considered for designation as a natural preservation route, a route must be on the county state-aid highway system. It may be selected if it possesses particular scenic, environmental, pastoral, or historical characteristics such as, but not exclusively, routes along lakes, rivers, wetlands, or floodplains or through forests or hilly, rocky, or bluff terrain.

Subp. 2. **Type I natural preservation route.** A type I natural preservation route is best characterized as one in which the natural surroundings convey a feeling of intimacy with nature. This type of route carries local passenger vehicles with occasional commercial vehicles. This route has very low volumes with leisurely driving speeds and may be used by pleasure drivers. The roadway alignment follows the terrain, which may be hilly or curving around lakes and wetlands, and can be described as lying lightly on the land. There are few reported accidents related to the geometric design of the roadway or accidents can be minimized without realignment. The operating speeds are generally lower than on regular county state-aid highway routes.

Subp. 3. **Type II natural preservation route.** A type II natural preservation route creates a feeling similar to the feeling created by a type I natural preservation route, but the surroundings and vistas may be more distant from the roadway. It carries local traffic with moderate amounts of commercial vehicles. This route generally has low volumes but may have seasonal peaks greater than 300 vehicles per day. It has leisurely driving speeds and may be used by some commuters and pleasure drivers. The roadway alignment follows the terrain, which may be hilly or curving around lakes and wetlands. Some modifications may be made to the land surface. There are few reported accidents related to the geometric design of the roadway or accidents can be minimized with mitigation as referred to in part 8820.4060. The operating speeds may be lower than regular county state-aid highway routes.

Subp. 4. **Type III natural preservation route.** A type III natural preservation route goes through an environment similar to the types I and II natural preservation routes, but the surroundings and vistas may be more distant from the roadway. It may function as a minor or major collector and may be used by general commercial traffic. It generally has volumes less than 750 vehicles per day but may have seasonal peaks. This type of roadway passes

through diverse terrain features and the alignment is consistent with the traffic mix. It may have required some modifications to the land surface. The safety problems that may exist are related to the traffic volumes and to the geometric design of the roadway. The problems can be corrected with mitigation as referred to in part 8820.4060 or with reconstruction. The operating speeds may be lower than a comparable county state-aid highway route that is not on the natural preservation route system.

Statutory Authority: *MS s 162.02; 162.021; 162.09*

History: *18 SR 32*

8820.4020 NATURAL PRESERVATION ROUTE PROPOSALS.

Subpart 1. **County board resolution.** The county board shall submit a formal request to the commissioner in the form of a resolution.

Subp. 2. **Required information.** The request must be accompanied by:

A. an index map that identifies the proposed natural preservation route by county state-aid highway number and termini;

B. a narrative describing the history of the route, any controversy surrounding it, the inplace cross section, the particular scenic, environmental, or historical characteristics considered desirable to preserve, and which designation category (type I, II, or III) of natural preservation route being requested;

C. photographs of the route;

D. a listing of parks, rivers, or other designated natural or historical resource areas that the highway corridor passes through or adjoins and that are considered desirable to preserve;

E. a description of any safety hazards existing along the route and a discussion of the accident record over the past five years;

F. a transportation plan that considers alternate routes, or traffic management plan for the area including compatibility with the existing roadway network, as well as the existing and projected ADT;

G. a description of the function of the route including the functional classification, the type of traffic using the route, and a discussion of seasonal variations and trip purposes;

H. a comparison of the current operating speed, the legal speed limit, and the rationale for the selection of the planned design speed;

I. a preliminary description of the planned design if construction or reconstruction is proposed, including a discussion of:

(1) what natural or historical elements might be affected by different construction alternatives;

(2) which safety features might be affected by different construction alternatives; and

(3) how any changes in the continuity of design will be mitigated;

J. preliminary cost estimates of the various alternatives considered;

K. environmental documentation that may have been completed, including public notices and public meetings that have occurred;

L. a description of existing and projected land uses, any zoning in effect, and compatibility with the natural preservation route characteristics; and

M. a description of any provisions to address bicycles, pedestrians, and equestrians.

Statutory Authority: *MS s 162.02; 162.021; 162.09*

History: *18 SR 32*

8820.4040 NATURAL PRESERVATION ROUTE CONSIDERATION.

Subpart 1. **Commissioner approval or denial.** Following receipt of the formal request, the commissioner shall approve or deny the request to designate the roadway as a natural preservation route. The commissioner shall base the decision on the criteria in subpart 2 and shall notify the political subdivision in writing of the decision. If the request is denied, a written explanation will be included with this notification.

Subp. 2. **Factors considered.** The commissioner shall consider:

A. the economic, social, safety, and environmental impacts that may result from the designation or denial of the designation;

B. the magnitude of the effects on adjacent lands and the value of the characteristics identified in part 8820.4020, subpart 2;

C. the number of persons, either residents or the traveling public, affected by designation or denial of designation;

D. the present and future use of adjacent lands;

E. safety considerations as they apply to pedestrians; bicyclists; the motoring public; and fire, police, and emergency units; and

F. other related issues as may be pertinent to the roadway that have been identified from information submitted in part 8820.4020, subpart 2.

Statutory Authority: *MS s 162.02; 162.021; 162.09*

History: *18 SR 32; 32 SR 608*

8820.4050 NATURAL PRESERVATION ROUTE STATE AID.

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.

Statutory Authority: *MS s 162.02; 162.021; 162.09*

History: *18 SR 32; 20 SR 1041*

8820.4060 NATURAL PRESERVATION ROUTE DESIGN STANDARDS.

The standards in parts 8820.9980 and 8820.9986 apply to designated natural preservation routes. In the case of reconstruction, the designer shall preserve, to the greatest extent possible, the existing profile, alignment, and cross section. In doing so, the designer shall consider the use of guardrails, retaining walls, and curb sections to protect natural amenities. To the extent practical, the designer shall include in the design landscaping, including native species, curving alignments, variable back slopes, variable ditch bottoms, limited clearing, and other means available to limit the impacts on the environment while still addressing public safety.

Statutory Authority: *MS s 162.02; 162.021; 162.09*

History: *18 SR 32; 20 SR 1041*

8820.4070 NATURAL PRESERVATION ROUTE RECONSTRUCTION.

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.

Statutory Authority: *MS s 162.02; 162.021; 162.09*

History: *18 SR 32; 20 SR 1041*

8820.4080 NATURAL PRESERVATION ROUTE SIGNS.

Route markers must be posted at public road entry points to and at regular intervals along natural preservation routes. Signs posted must conform to the Minnesota Manual on Uniform Traffic Control Devices adopted under Minnesota Statutes, section 169.06. Properly posted signs are prima facie evidence that adequate notice of a natural preservation route has been given to the motoring public. Signs must conform to the requirements in part 8820.9990.

Statutory Authority: *MS s 162.02; 162.021; 162.09*

History: *18 SR 32*

8820.4090 NATURAL PRESERVATION ROUTE DESIGNATION REMOVAL.

A county board, after notice and a public hearing, may petition the commissioner by resolution to remove the natural preservation route designation if the board believes the characteristics on which the natural preservation route designation was approved have substantially been lost. The petition for removing the designation must be based on such items as loss of aesthetic qualities, changes in land use, changes in road function, or significant increases in accidents. After receipt of the county board resolution, the commissioner shall approve or deny the petition to remove the natural preservation route designation from the roadway. The commissioner shall base the decision on the criteria in part 8820.4040, subpart 2, notify the political subdivision in writing of the decision and include a written explanation with the notification.

Statutory Authority: *MS s 162.02; 162.021; 162.09*

History: *18 SR 32; 32 SR 608*

EXHIBITS, FIGURES, AND TABLES

8820.9920 MINIMUM DESIGN STANDARDS; RURAL AND SUBURBAN UNDIVIDED; NEW OR RECONSTRUCTION PROJECTS.

When the road authority has determined that the roadway will be specifically designed to include on-road bicycle facilities, and only if the roadway surface is paved, the appropriate design criteria in the current MnDOT Bikeway Facility Design Manual are recommended for design purposes.

New or reconstruction projects for rural and suburban undivided roadways must meet or exceed the minimum dimensions indicated in the following design chart.

Projected ADT (a)	Lane Width	Shoulder Width	In-slope (b)	Clear Zone (c)	Design Speed (d)	Surfacing	Structural Design Strength	Bridges to Remain (e) Width Curb to Curb
	feet	feet	rise: run	feet	mph		tons	feet
0-49	11	1	1:3	7	30-60	Agg.		22
50-149	11	3	1:4	9	40-60	Agg.		22
150-299	12	4	1:4	15	40-60	Agg./ Paved	7-ton/ 10-ton Staged (g)	28
300-749	12	4	1:4	15	40-60	Paved	10-ton Staged (g)	28
750-1499	12	4	1:4	25	40-60	Paved	10-ton Staged (g)	28
1500 and over	12	6(f)	1:4	30	40-60	Paved	10	30

Engineering judgment should be used to choose a lane-width, on-road bicycle facility, or shoulder-width dimension other than the widths indicated in the chart for roadways. Factors to consider include safety, speed, population/land use, benefit/cost analysis, traffic mix, peak hourly traffic, farm equipment, environmental impacts, terrain limitations, bicycle traffic, pedestrian traffic, on-street parking, intersection and driveway spacing, rights-of-way constraints, vehicle turn lane configuration, sight distance, sight lines, bus routes, other nonmotorized uses, functional classification, or other factors. Dimensions less than those indicated in the chart require a variance in accordance with parts 8820.3300 and 8820.3400.

For rural divided roadways, use the geometric design standards of the Mn/DOT Road Design Manual, with a minimum ten tons structural design and minimum 40 mph design speed.

(a) Use the existing traffic for highways not on the state-aid system.

(b) Applies to slope within the clear zone only.

(c) Culverts with less than 30-inch vertical height allowed without protection in the clear zone.

Guardrail is required to be installed at all bridges where the design speed exceeds 40 mph, and either the existing ADT exceeds 400 or the bridge clear width is less than the sum of the lane and shoulder widths.

Mailbox supports must be in accordance with chapter 8818.

For roadways in suburban areas as defined in part 8820.0200, the clear zone may be reduced to a width of ten feet for projected ADT under 1,000 and to 20 feet for projected ADT of 1,000 or over. Wherever the legal posted speed limit is 40 mph or less, the clear zone may be reduced to a width of ten feet.

(d) Subject to terrain. In suburban areas, the minimum design speed may be equal to the current legal posted speed where the legal posted speed is 30 mph or greater.

(e) Inventory rating of H 15 is required. A bridge narrower than these widths may remain in place if the bridge is not deficient structurally or hydraulically.

(f) Shoulders are required to be a minimum width of eight feet for highways classified as minor arterials and principal arterials with greater than 1,500 ADT projected, at least two feet of which must be paved. If the roadway is designated as a bicycle facility by the road authority, at least four feet of the shoulder shall be paved.

(g) Except within municipal corporate limits, ten-ton staged structural design must be able to carry ten-ton axle loads except during spring load-restriction periods, or year-round if needed for system continuity. Roadbed width must accommodate ultimate ten-ton pavement overlay thickness and ultimate 1:4 sideslope. Within municipal corporate limits, minimum structural design must support nine-ton axle strength.

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

HS 25 loading with AASHTO Standard Specifications or HL-93 loading with load and resistance factor design (LRFD) is required for new or reconstructed bridges. HS 18 loading is required for all rehabilitated bridges. The curb-to-curb minimum width for new or reconstructed bridges must be no less than either the minimum required lane plus shoulder widths or the proposed lane plus shoulder widths, whichever is greater, but in no case less than the minimum lane widths plus four feet, and in no case less than required per Minnesota Statutes, section 165.04.

Vehicular roadway bridge and underpass structures when two-way bicycle traffic is accommodated: on bridge or underpass sidewalks, the sidewalk clear width shall be no less than eight feet, but preferably ten feet. Whenever practicable, the shoulder/clear zone of an off-road shared use path should be carried across bridges and through underpasses and the minimum structure clear width must be 12 feet. When the full width of the approach shared use path (surface width plus shoulder/clear zone) is greater than the proposed clear width of the structure, then lead-in bicycle safety railing is required at each end of the bridge or underpass. As an alternative to lead-in bicycle safety railing, the surface width of the approach shared use path may be narrowed at a 1:50 taper while maintaining minimum surface width and shoulder/clear zone through the structure.

Statutory Authority: *MS s 14.386; 14.389; 162.02; 162.09*

History: *20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449; 32 SR 608; 36 SR 925; 37 SR 697*

8820.9922 MINIMUM DESIGN STANDARDS; NEW BRIDGE, BRIDGE REPLACEMENT, OR BRIDGE REHABILITATION PROJECTS AND APPROACH ROADWAYS ON RURAL OR SUBURBAN UNDIVIDED ROADWAYS THAT ARE NOT ON THE STATE-AID SYSTEM.

New bridge, bridge replacement, or bridge rehabilitation projects and approach roadways on rural or suburban undivided roadways that are not on the state-aid system must meet or exceed the minimum dimensions indicated in the following design chart.

Existing ADT (a)	Lane Width	Shoulder Width	Inslope (b)	Clear Zone (c)	Design Speed (d)
	(feet)	(feet)	(rise: run)	(feet)	(mph)
0-49	11	1	1:3	7	30-60
50-149	11	3	1:4	9	30-60
150-400	12	4	1:4	15(e)	30-60

Engineering judgment may be used to choose a lane-width or shoulder-width dimension other than the widths indicated in the chart for roadways. Factors to consider may be safety, speed, population, land use, benefit/cost analysis, traffic mix, farm equipment,

environmental impacts, terrain limitations, bicycle traffic, pedestrian traffic, other nonmotorized uses, functional classification, or other factors. Widths less than those indicated in the chart require a variance in accordance with parts 8820.3300 and 8820.3400.

(a) For existing ADT greater than 400, part 8820.9920 standards apply.

(b) Applies to slope within the clear zone only.

(c) Culverts with less than 30-inch vertical height allowed without protection in the clear zone.

(d) Subject to terrain.

(e) For roadways in suburban areas, the clear zone may be reduced to a width of ten feet for projected ADT under 1,000 and to 20 feet for projected ADT of 1,000 or over. Wherever the legal posted speed limit is 40 miles per hour or less, the clear zone may be reduced to a width of ten feet.

HS 25 loading with AASHTO Standard Specifications or HL-93 loading with load and resistance factor design (LRFD) is required for new or reconstructed bridges. HS 18 loading is required for all rehabilitated bridges. The curb-to-curb minimum width for new or reconstructed bridges must be equal to the proposed lane plus shoulder widths, but in no case less than the minimum lane width plus four feet, and in no case less than required per Minnesota Statutes, section 165.04.

Bridge structures of minimum 20-foot clear width may be constructed where existing ADT is less than 50, potential for increasing ADT is low, and the local government agency finds that the bridge width can operate effectively at that width for the expected life of the bridge.

Statutory Authority: *MS s 14.389; 162.02; 162.09*

History: *29 SR 449; 36 SR 925*

8820.9926 MINIMUM DESIGN STANDARDS: RURAL AND SUBURBAN UNDIVIDED; RECONDITIONING PROJECTS.

Subpart 1. **Minimum reconditioning standards.** Reconditioning projects for rural or suburban undivided roadways must meet or exceed the minimum dimensions indicated in the following design chart. See part 8820.0200, subpart 30, for the description of activities allowed.

Existing ADT	Statutory or Regulatory Posted Speed	Lane Width (Paved)	Combined Lane (Paved) and Shoulder Width
1-749	Under 50 mph	10 feet	11 feet
1-749	50 mph or over	10 feet	12 feet
750 and over	Under 50 mph	10 feet	12 feet
750 and over	50 mph & over	11 feet	14 feet

When the road authority has determined that the roadway will be specifically designed to include on-road bicycle facilities, and only if the roadway surface is paved, the appropriate design criteria in the current MnDOT Bikeway Facility Design Manual are recommended for design purposes.

Engineering judgment should be used to choose a lane-width, on-road bicycle facility, or shoulder width dimension other than the widths indicated in the chart. Factors to consider include safety, speed, population/land use, benefit/cost analysis, traffic mix, peak hourly traffic, farm equipment, environmental impacts, terrain limitations, bicycle traffic,

pedestrian traffic, on-street parking, intersection and driveway spacing, rights-of-way constraints, vehicle turn lane configuration, sight distance, sight lines, bus routes, other nonmotorized uses, functional classification, or other factors. Dimensions less than those indicated in the chart require a variance in accordance with parts 8820.3300 and 8820.3400.

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. H 15 inventory rating is required.

Any highway that was previously built to state-aid or state standards, that was granted a variance to standards in effect at the time of construction or reconstruction, or that is a trunk highway turnback, may be reconditioned.

The proposed structural design strength must accommodate a minimum of seven tons per axle.

Subp. 2. [Repealed, 23 SR 1455]

Statutory Authority: *MS s 14.386; 162.02; 162.09*

History: *20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449; 37 SR 697*

8820.9936 MINIMUM DESIGN STANDARDS, URBAN; NEW OR RECONSTRUCTION PROJECTS.

New or reconstruction projects for urban roadways must meet or exceed the minimum dimensions indicated in the following design chart.

Functional Classification and Projected Traffic Volume	Design Speed mph	Lane Width (a) feet	Curb Reaction Distance (e) feet	Parking Lane Width feet
Collectors or Locals with ADT < 10000	30-40	(b) 11	2	8
	over 40	12	2	10
Collectors or Locals with ADT ≥ 10000 and Arterials	30-40	(b) 11	(c) 4	10
	over 40	12	(c) 4	(d) 10

Engineering judgment may be used to choose a lane-width dimension other than the widths indicated in the chart for roadways. Factors to consider include safety, speed, population/land use, benefit/cost analysis, traffic mix, peak hourly traffic, farm equipment, environmental impacts, terrain limitations, bicycle traffic, pedestrian traffic, other nonmotorized uses, functional classification, or other factors. Widths less than those indicated in the chart require a variance in accordance with parts 8820.3300 and 8820.3400.

(a) One-way turn lanes must be at least ten feet wide, except 11 feet is required if the design speed is over 40 mph.

(b) Wherever possible, lane widths of 12 feet, rather than 11 feet, should be used.

(c) May be reduced to two feet 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 45 mph.

(e) Curb reaction must be provided only where parking is not provided.

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 one-foot reaction distance to the median is required on either side of the median. Minimum median width is four feet.

Urban design roadways must be a minimum nine tons structural axle load design.

Roadways not on the state-aid system are not subject to the minimum structural design strength requirements.

The minimum curb-to-curb width of a new bridge must be the required street width, but in no case less than required per Minnesota Statutes, section 165.04. HS 25 loading with AASHTO Standard Specifications or HL-93 loading with load and resistance factor design (LRFD) is required for new or reconstructed bridges and a minimum of HS 18 loading is required for all rehabilitated bridges. Where the new bridge approach roadway includes elements for the accommodation of pedestrians or bicycles, the new bridge width must also provide for pedestrians or bicycles unless pedestrians or bicycles are otherwise accommodated.

For ADT less than 150, the widths of bridges to remain must be at least the sum of the lanes. For ADT greater than or equal to 150, the widths of bridges to remain must be at least the sum of the lanes plus half the sum of the shoulders, parking lane, and curb reaction distance.

Clearance of 1.5 feet from the face of the curb to fixed objects must be provided when the posted speed is 40 to 45 mph. A ten-foot clear zone measured from the driving lane must be provided when the posted speed exceeds 45 mph.

For volumes greater than 15,000 projected ADT, at least four through-traffic lanes are required, unless a capacity analysis demonstrates that a different lane configuration achieves level of service D or better.

Statutory Authority: *MS s 14.386; 14.389; 162.02; 162.09*

History: *20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449; 32 SR 608; 36 SR 925; 37 SR 697*

8820.9941 MINIMUM DESIGN STANDARDS: ON-ROAD BICYCLE FACILITY FOR URBAN; NEW OR RECONSTRUCTION PROJECTS.

The bicycle facility design standard in this part applies when the road authority has determined that the roadway will be specifically designed to include an on-road bicycle facility and only if the roadway surface is paved.

New or reconstruction projects for urban roadways must meet or exceed the dimensions indicated in the following design chart.

Functional Classification and Projected Traffic Volume	Design Speed	Lane Width (a)	Curb Reaction Distance (d)	Parking Lane Width (f)	Bikeway Design Roadways with Two Travel Lanes Urban Curb and Gutter		Bikeway Design Roadways with Four or more Travel Lanes Urban Curb and Gutter
	(mph)	(feet)	(feet)	(feet)	(ADT)	(feet)	(feet)
Collectors or Locals with ADT <2,000	25-30	10-12 (e)	2	7-10	<500	SL	N/A
					500-2,000	WOL 14-16 or BL 5-6	
	35-40	11-12	2	8-10	<500	SL	BL 5-6
					500-2,000	WOL 14-16 or BL 5-6	
	over 40	12	2	10		BL 5-6	BL 5-6
Collectors or Locals With ADT 2,000-5,000	25-30	10-12 (e)	2	7-10		WOL 14-16 or BL 5-6	WOL 14-16 or BL 5-6
	35-40	11-12	2	8-10		BL 5-6	BL 5-6
	over 40	12	2	10		BL-6	BL 6
Collectors or Locals with ADT 5,000-10,000	25-30	10-12 (e)	2	7-10		BL 5-6	BL 5-6
	35-40	11-12	2	8-10		BL 5-6	BL 5-6
	over 40	12	2	10		BL 6 or PS 8 or SUP	BL 6 or PS 8 or SUP
Collectors or Locals with ADT >10,000 and Arterials	30-40	11-12	4 (b)	10		BL 6 or PS 8 or SUP	BL 6 or PS 8 or SUP
	over 40	12	4 (b)	10 (c)		BL 6 or PS 8 or SUP	PS 8 or SUP

(SL = shared lane; BL = bicycle lane; WOL = wide outside lane; PS = paved shoulder; SUP = shared use path)

Engineering judgment should be used to choose a lane-width, on-road bicycle facility, or shoulder width dimension other than the widths indicated in the chart. Factors to consider include safety, speed, population/land use, benefit/cost analysis, traffic mix, peak hourly traffic, farm equipment, environmental impacts, terrain limitations, bicycle traffic, pedestrian traffic, on-street parking, intersection and driveway spacing, rights-of-way constraints, vehicle turn lane configuration, sight distance, sight lines, bus routes, other nonmotorized uses, functional classification, or other factors. Dimensions less than those indicated in the chart require a variance in accordance with parts 8820.3300 and 8820.3400.

(a) One-way turn lanes must be at least ten feet wide, except 11 feet is required if the design speed is over 40 mph.

(b) Curb reaction distance may be reduced to two feet if there are four or more traffic lanes and on one-way streets.

(c) No parking is allowed on streets with six or more traffic lanes or when the posted speed limit exceeds 45 mph.

(d) Curb reaction shall be provided unless on-street parking, a bicycle facility, or a wide outside lane are provided adjacent to the curb. The dimensions for wide outside lanes include the curb reaction distance.

(e) When creating a multimodal design with a combination of vehicle lane, parking lane, and bikeway lane widths, if a vehicle lane width of less than 11 feet is used, the parking and bikeway lanes shall be at least one foot wider than the minimum widths. Engineering judgment should be used to choose a vehicle lane width of less than 11 feet. Additional factors to consider include the types of vehicles (buses, trucks, etc.), peak hour counts, turning movements, population/land use, crash history/analysis, terrain limitations, bicycle traffic, pedestrian traffic, other nonmotorized uses, and snow storage.

(f) In determining the parking lane width, the roadway ADT and the vehicle mix shall be taken into consideration for residential, commercial and/or industrial areas, or for a mixed use thereof.

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

When a raised median is included in the design of the two-way roadway, a one-foot reaction distance to the median is required on either side of the median. Minimum median width is four feet.

Urban design roadways must accommodate a minimum nine tons structural axle load design.

Roadways not on the state-aid system are not subject to the minimum structural design strength requirements.

The minimum curb-to-curb width of a new bridge must be the required street width, but in no case less than required per Minnesota Statutes, section 165.04. HS 25 loading with AASHTO Standards Specifications or HL-93 loading with load and resistance factor design (LRFD) is required for new or reconstructed bridges and a minimum of HS 18 loading is required for all rehabilitated bridges. When the new bridge approach roadway includes elements for the accommodation of pedestrians or bicycles, the new bridge width must also provide for pedestrians or bicycles unless pedestrians or bicycles are otherwise accommodated.

For ADT less than 150, the widths of bridges to remain must be at least the sum of the lanes. For ADT greater than or equal to 150, the widths of bridges to remain must be at least the sum of the lanes plus one-half the sum of the shoulders, parking lane, and curb reaction distance.

Clearance of 1.5 feet from the face of the curb to fixed objects must be provided when the posted speed is 40 to 45 mph. A ten foot clear zone measured from the driving lane must be provided when the posted speed exceeds 45 mph.

For volumes greater than 15,000 projected ADT, at least four through-traffic lanes are required, unless a capacity analysis demonstrates that a different lane configuration achieves level of service D or better.

Structures: Vehicular roadway bridge and underpass structures when two-way bicycle traffic is accommodated: on bridge or underpass sidewalks, the sidewalk clear width shall be no less than eight feet, but preferably ten feet. Whenever practicable, the shoulder/clear zone of an off-road shared use path should be carried across bridges and through underpasses. The minimum structure clear width must be 12 feet. When the surface width plus shoulder/clear zone full width of the approach shared use path is greater than the proposed clear width of the structure, a lead-in bicycle safety railing is required at each end of the bridge or underpass. As an alternative to lead-in bicycle safety railing, the surface width of the approach shared use path may be narrowed at a 1:50 taper while maintaining minimum surface width and shoulder/clear zone through the structure.

Statutory Authority: *MS s 14.386*

History: *37 SR 697*

8820.9946 MINIMUM DESIGN STANDARDS, URBAN; RECONDITIONING PROJECTS.

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

Reconditioning projects for two-way urban roadways must meet or exceed the minimum dimensions indicated in the chart.

Number of Through Lanes, Functional Class, and Present Traffic Volume	Total Width with No Parking (feet)	Total Width with Parking on One Side (feet)	Total Width with Parking on Both Sides (feet)	Proposed Structural Design Strength (tons)
2-Lane Collector or Local with ADT < 10000	26	32	38	(b) 9
4-Lane Collector or Local with ADT < 10000	44	52	60	(b) 9
2-Lane Collector or Local with ADT ≥ 10000 or 2-Lane Arterial (a)	26	32	42	9
4-Lane Collector or Local with ADT ≥ 10000 or 4-Lane Arterial	44	54	64	9
6-Lane Collectors or Arterials	66	(c)	(c)	9

Engineering judgment may be used to choose a lane-width or shoulder-width dimension other than the widths indicated in the chart for roadways. Factors to consider include safety, speed, population/land use, benefit/cost analysis, traffic mix, peak hourly traffic, farm equipment, environmental impacts, terrain limitations, bicycle traffic, pedestrian traffic, other nonmotorized uses, functional classification, or other factors. Widths less than

those indicated in the chart require a variance in accordance with parts 8820.3300 and 8820.3400.

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

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

(c) No parking is allowed.

When a median is included in the design of the two-way roadway, a one-foot reaction distance to the median is required on either side of the median. Minimum median width is four feet.

For ADT less than 150, the widths of bridges to remain must be at least the sum of the lanes. For ADT greater than or equal to 150, the widths of bridges to remain must be at least the sum of the lanes plus half the sum of the shoulders, parking lane, and curb reaction distance.

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

Reconditioning projects for one-way urban roadways must meet or exceed the minimum dimensions indicated in the chart.

Number of Through Lanes and Functional Class	Present ADT	Total Width with No Parking (feet)	Total Width with Parking on One Side (feet)	Total Width with Parking on Both Sides (feet)	Proposed Structural Design Strength (tons)
2-Lane Collector or Local with ADT < 10000	< 5000	21	29	37	7
	5000-10000	23	31	39	9
2-Lane Collector or Local with ADT ≥ 10000 or 2-lane Arterial	< 15000	23	31	39	9
	≥ 15000	24	32	40	9
3-Lane Arterial or Collector	All	34	42	50	9

For ADT less than 150, the widths of bridges to remain must be at least the sum of the lanes. For ADT greater than or equal to 150, the widths of bridges to remain must be at least the sum of the lanes plus half the sum of the shoulders, parking lane, and curb reaction distance.

Subp. 3. **Exception.** Any street that was previously built to state-aid or state standards, that was granted a variance to standards in effect at the time of construction or reconstruction, or that is a trunk highway turnback, but does not meet current standards, may be reconditioned regardless of subparts 1 and 2.

Statutory Authority: *MS s 14.386; 14.389; 162.02; 162.09*

History: *20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449; 36 SR 925; 37 SR 697*

8820.9951 MINIMUM DESIGN STANDARDS, ON-ROAD BICYCLE FACILITIES FOR URBAN; RECONDITIONING PROJECTS.

The bicycle facility design standard in this part applies when the road authority has determined that the roadway will be specifically designed to include an on-road bicycle facility, and only if the roadway surface is paved.

Reconditioning projects for urban roadways must meet or exceed the minimum dimensions indicated in the following design chart.

Number of Through Lanes, Functional Class, and Present Traffic Volume	Design Speed	Lane Width	Parking Lane Width (e)	Proposed Structural Design Strength	Bikeway Design	
	(mph)	(feet)	(feet)	(tons)	(ADT)	(feet)
Two-Lane Collectors or Locals with ADT <10,000	25-30	10-12 (d)	7-10	9 (b)	<1,000	SL
					1,000-5,000	WOL 14-16 or BL 5-6
					5,000-10,000	BL 5-6
	35-40	11-12	8-10	9 (b)	<500	SL or BL 5-6
					500-10,000	BL 5-6
	over 40	11-12	10	9 (b)	<10,000	BL 5-6
Two-Lane Collectors or Locals With ADT >10,000 or Two-Lane Arterials (a)	25-30	10-12 (d)	7-10	9	>10,000	BL 5-6
	35-40	11-12	8-10	9	>10,000	BL 5-6 or PS 8
	over 40	11-12	10	9	>10,000	PS 8 or SUP
Four-Lane Collectors or Locals with ADT <10,000	25-30	10-12 (d)	7-10	9 (b)	<10,000	WOL 14-16 or BL 5-6
	35-40	11-12	8-10	9 (b)	<10,000	BL 5-6
	over 40	11-12	10	9 (b)	<10,000	BL 6
Four-Lane Collectors or Locals with ADT >10,000	30-40	11-12	10	9	>10,000	BL 6 or PS 8 or SUP

	over 40	11-12	10	9	>10,000	BL 6 or PS 8 or SUP
Six-Lane Collectors or Arterials		12	(c)	9	Not Allowed	SUP

(SL = shared lane; BL = bicycle lane; WOL = wide outside lane; PS = paved shoulder; SUP = shared use path)

Engineering judgment should be used to choose a lane-width, on-road bicycle facility, or shoulder width dimension other than the widths indicated in the chart. Factors to consider include safety, speed, population/land use, benefit/cost analysis, traffic mix, peak hourly traffic, farm equipment, environmental impacts, terrain limitations, bicycle traffic, pedestrian traffic, on-street parking, intersection and driveway spacing, rights-of-way constraints, vehicle turn lane configuration, sight distance, sight lines, bus routes, other nonmotorized uses, functional classification, or other factors. Dimensions less than those indicated in the chart require a variance in accordance with parts 8820.3300 and 8820.3400.

(a) A road may be reconditioned under this part if present traffic volumes are less than 15,000 ADT.

(b) When ADT is less than 5,000, seven-ton axle load structural design strength is allowable.

(c) No parking is allowed for six-lane collectors or arterials.

(d) When creating a multimodal design with a combination of vehicle lane, parking lane, and bikeway lane widths, if a vehicle lane width of less than 11 feet is used, the parking and bikeway lanes shall be at least one foot wider than the minimum widths. Engineering judgment should be used to choose a vehicle lane width of less than 11 feet. Additional factors to consider include the types of vehicles (buses, trucks, etc.), peak hour counts, turning movements, population/land use, crash history/analysis, terrain limitations, bicycle traffic, pedestrian traffic, other nonmotorized uses, and snow storage.

(e) In determining the parking lane width, the roadway ADT and the vehicle mix shall be taken into consideration for residential, commercial and/or industrial areas, or for a mixed use thereof.

A minimum curb reaction of one foot shall be provided unless on-street parking, a bicycle facility, or a wide outside lane are provided adjacent to the curb. The dimensions for wide outside lanes include the curb reaction distance. When a raised median is included in the design of the two-way roadway, a one-foot reaction distance to the median is required on either side of the median. Minimum median width is four feet.

For ADT less than 150, the widths of bridges to remain must be at least the sum of the lanes. For ADT greater than or equal to 150, the widths of bridges to remain must be at least the sum of the lanes plus one-half the sum of the shoulders, parking lane, and curb reaction distance.

Statutory Authority: *MS s 14.386*

History: *37 SR 697*

8820.9956 MINIMUM VERTICAL CLEARANCES FOR UNDERPASSES.

Underpass projects must meet or exceed the minimum dimensions indicated in the following design chart.

	Rural-Suburban Design, Vertical Clearance (feet-inches)	Urban Design, Vertical Clearance (feet-inches)
Highway under Roadway Bridge	16-4	14-6
Highway under Railroad Bridge	16-4	14-6
Highway under Pedestrian Bridge	17-4	15-6 (a)
Highway under Sign Structure	17-4	15-6 (a)
Railroad under Roadway Bridge (b)	22-0	22-0

(a) For replacement of skyway structures, the minimum clearance over traveled way is the existing structure clear height.

(b) Variances to the required minimum may be granted by the commissioner of transportation. That approval eliminates the need for a state-aid variance.

Statutory Authority: *MS s 162.02; 162.09*

History: *20 SR 1041; 23 SR 1455; L 1998 c 403 s 29; 24 SR 1885; 29 SR 449*

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

Diagonal parking projects must meet or exceed the minimum dimensions indicated in the following design chart.

Parking Angle	Present ADT	Parking Stall Width (feet)	Parking Stall Depth (feet)	Distance Between Traffic Lane and Parking Stall (feet)	Length Along Curb (feet)
45 degrees	< 3000	9	20	2	12.7
60 degrees	< 3000	9	21	7	10.4
45 degrees	≥ 3000	9	20	14	12.7
60 degrees	≥ 3000	9	21	19	10.4

Maximum legal speed limit must be 30 mph.

At least two through-traffic lanes must be provided.

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

The cooperative agreement must show the angle of parking and provide for pavement marking of the parking lanes.

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

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

Statutory Authority: *MS s 162.02; 162.09*

History: *20 SR 1041; 23 SR 1455; 24 SR 1885*

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

Subpart 1. **Type I route.** New or reconstruction projects for type I natural preservation routes, designated national forest highways within national forests, and state park access roads within state parks must meet or exceed the minimum dimensions indicated in the following design chart.

Surface Type	Design Speed (mph)	Lane Width (feet)	Shoulder Width (feet) (a)	Inslope (rise: run) (b)	Clear Zone (feet) (c)	Design Strength (tons)	Bridge to Remain (feet) (d)
Aggregate	30	11	1	1:3	3		22
Paved	30	11	2	1:3	9	9	22

(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 four-foot paved shoulder if the route is a popular bicycle route.

(b) Applies to slope within the clear zone 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) Guardrail is required to be installed at all bridges where the design speed exceeds 40 mph, and either the existing 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 chapter 8818.

(d) Inventory rating of HS 15 is required. A bridge narrower than these widths may remain in place if the bridge is not deficient structurally or hydraulically.

HS 20 loading with AASHTO Standard Specifications or HL-93 loading with load and resistance factor design (LRFD) is required for new bridges. HS 18 loading is required for all rehabilitated bridges. The curb-to-curb minimum width for new or reconstructed bridges is the sum of the lane and shoulder widths plus four feet.

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 clear zone 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.

For roundabout design, the design criteria of the current edition of the Minnesota State Aid Roundabout Guide are recommended.

Subp. 2. **Type II route.** New or reconstruction projects for type II natural preservation routes, designated national forest highways within national forests, and state park access roads within state parks must meet or exceed the minimum dimensions indicated in the following design chart.

Surface Type	Design Speed (mph)	Lane Width (feet)	Shoulder Width (feet) (a)	Inslope (rise: run) (b)	Clear Zone (feet) (c)	Design Strength (tons)	Bridge to Remain (feet) (d)
Aggregate	30	11	2	1:3	9		22
Paved (e)	30	11	3	1:4	9	9	22
Paved	40	11	3	1:4	9	9	22

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

(b) Applies to slope within clear zone 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 clear zone when the ADT exceeds 400.

(c) Guardrail is required to be installed at all bridges where the design speed exceeds 40 mph, and either the existing 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 chapter 8818.

(d) This standard may be applied only when the project is located in a subdivided area.

(e) Inventory rating of HS 15 is required. A bridge narrower than these widths may remain in place if the bridge does not qualify for federal-aid bridge funds.

HS 20 loading with AASHTO Standard Specifications or HL-93 loading with load and resistance factor design (LRFD) is required for new bridges. HS 18 loading is required for all rehabilitated bridges. The curb-to-curb minimum width for new or reconstructed bridges is the sum of the lane and shoulder widths, but may not be less than 30 feet.

Ditch depths and widths must be kept to the minimum required to function hydraulically, to be traversable if within the clear zone, 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.

For roundabout design, the design criteria of the current edition of the Minnesota State Aid Roundabout Guide are recommended.

Subp. 3. **Type III route.** New or reconstruction projects for type III natural preservation routes, designated national forest highways within national forests, and state park

access roads within state parks must meet or exceed the minimum dimensions indicated in the following design chart.

Surface Type	Design Speed (mph)	Lane Width (feet)	Shoulder Width (feet) (a)	Inslope (rise: run) (b)	Clear Zone (feet) (c)	Design Strength (tons)	Bridge to Remain (feet) (d)
Aggregate	30	12	3	1:4	10		24
Paved (e)	30	12	4	1:4	10	9	24
Paved	40	12	4	1:4	15	9	24

(a) The designer will provide a six-foot 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 the clear zone 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 clear zone when the ADT exceeds 400.

(c) Guardrail is required to be installed at all bridges where the design speed exceeds 40 mph, and either the existing 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 chapter 8818.

(d) Inventory rating of HS 15 is required. 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.

HS 25 loading with AASHTO Standard Specifications or HL-93 loading with load and resistance factor design (LRFD) is required for new bridges. HS 18 loading is required for all rehabilitated bridges. The curb-to-curb minimum width for new or reconstructed bridges is the sum of the lane and shoulder widths, but may not be less than 32 feet.

Ditch depths and widths must be kept to the minimum required to function hydraulically, to be traversable if within the clear zone, 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.

For roundabout design, the design criteria of the current edition of the Minnesota State Aid Roundabout Guide are recommended.

Statutory Authority: *MS s 14.389; 162.02; 162.09*

History: *20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449; 32 SR 608; 36 SR 925*

8820.9986 MINIMUM DESIGN STANDARDS: NATURAL RESERVATION ROUTES, DESIGNATED NATIONAL FOREST HIGHWAYS WITHIN NATIONAL FORESTS, AND STATE PARK ACCESS ROADS WITHIN STATE PARKS; RECONDITIONING PROJECTS.

Reconditioning projects for natural preservation routes, designated national forest highways within national forests, and state park access roads within state parks must meet or exceed the minimum dimensions indicated in the following design chart.

TYPE I, II, OR III ROUTE

Proposed Design Strength	Pavement Width	Shoulder-to-Shoulder Width
(tons)	(feet)	(feet)
7	22 (a)	26 (a)

(a) Natural preservation routes may be reconditioned to existing pavement and shoulder widths.

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. H 15 loading is required.

Statutory Authority: *MS s 162.02; 162.09*

History: *20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449*

8820.9990 ROUTE MARKER.

2 ft by 2 ft

Green legend; white reflectorized background

Statutory Authority: *MS s 162.02; 162.021; 162.09*

History: *18 SR 32; 20 SR 1041; 23 SR 1455; 24 SR 1885*

8820.9995 MINIMUM BICYCLE PATH STANDARDS.

Minimum Bicycle Path Standards[(a)]

For Off-Road Bike Path Design, the following shall apply:	
Minimum Surface Width (two-way)	8 ft (b)
Shoulder/Clear Zone	2 ft (c) (d)
Inslope	Maximum 1:2 (rise:run)
Design Speed	20 mph (e)
Vertical Clearance over lane and shoulder	9 ft-9 in (7 ft-9 in if passage of emergency or maintenance vehicles is not required)

(a) For on-road bicycle facilities, the current Minnesota Department of Transportation bicycle design guidelines are recommended for design purposes.

(b) Ten feet is desired for a combined bicycle/pedestrian path. Five feet is required for a one-way bicycle path.

(c) Whenever practicable, the shoulder/clear zone of an off-road bike path should be carried across bridges and through underpasses. Minimum structure clear width must be 12 feet. When the full width of the approach bike path (surface width plus shoulder/clear zone) is greater than the proposed clear width of the structure, then lead-in bicycle safety railing is required at each end of the bridge or underpass. As an alternative to lead-in bicycle safety railing, the surface width of the approach bike path may be narrowed at a 1:50 taper while maintaining minimum surface width and shoulder/clear zone through the structure.

(d) Clear zone is measured from the edge of the bicycle travel lane.

(e) Use a 30 mph design speed for grades longer than 500 feet and greater than four percent, from the uphill point where the grade equals four percent to 500 feet beyond the downhill point where the grade becomes less than four percent. The maximum allowable grade is 8.3 percent.

Statutory Authority: *MS s 14.389; 162.02; 162.09*

History: *20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449; 32 SR 608; 36 SR 925*