

# MUNICIPAL STATE AID STREETS (MSAS)

## I. Overview

Each year city engineers must submit the necessary information that explains their road, structure, and railroad crossing funding needs to the Commissioner of Transportation via the State Aid system. The municipal screening board uses this information to make recommendations to the Commissioner regarding the money needs of each urban municipality.

An urban municipality is a city having a population of 5,000 or over, based on the latest federal census, State Demographer's or Metropolitan Council's population estimates or in the case of a new municipality, the Articles of Incorporation.

An urban municipality's MSAS system is comprised of 20 percent of a city's county road and local improved mileage. County and CSAH roads that have reverted back to the municipality may be included above the 20 percent mileage limitation.

A screening board, appointed by the Commissioner of Transportation is composed of one city engineer from each of the eight MnDOT districts, two engineers from the Metro Division, and one engineer from each of the first class cities (100,000 or more population), shall annually review all information as to the money needs of the MSAS system and shall submit to the Commissioner on or before the first day of November of each year, its recommendations as to each urban municipality's money needs.

The screening board directs State Aid as to the desirable contents of the needs studies within the limits of the law, and determines the methods or procedures and limitations to be used in the measurement of need. Each engineer is furnished with a current copy of the Screening Board Resolutions.

## II. Needs

It should be emphasized that the resulting needs study is maintained for the primary purpose of apportioning State Aid funds and deals with the measurement of needs only. It is not to be taken literally as a guide for actual design or construction of projects.

The purpose of this portion of the State Aid Manual is to furnish the city engineers with the means to comply with Minnesota Law.

Each city engineer shall report the data required to determine the 25-year money needs estimate of its MSAS system. The reporting shall be completed according to the MSAS User Manual for Needs Updating and shall be maintained in current status by an annual update to reflect construction changes and/or system revisions.

[Minnesota Statutes 162.09](#) defines money needs as the estimated cost of constructing and maintaining the MSAS system over a period of 25 years.

### III. Allocation

The formula for the distribution of the funds dictates that 50 percent of the monies be allocated according to the money needs of the respective State Aid systems in the urban municipalities. The remaining 50 percent of the monies are allocated based on population.

No later than February 1 of each year, the Commissioner shall certify the annual apportionment to each of the 87 counties.

Some of the items requested are not currently approved as needs items for the determination of the money needs apportionment. These items are included in summaries and listings of Total Needs but are specifically excluded from the Apportionment Needs until such time as the respective screening board approves inclusion of said item or items in the Apportionment Needs

Apportionment money needs of each urban municipality are defined as the money needs of the municipality from which the Commissioner, in response to the recommendations of the Municipal Screening Board, has made deductions or additions.

The Total Needs concept provides the Engineer with an estimate of the total cost of constructing his State Aid system to State Aid standards. It also provides the State Aid Needs Unit with more complete data for use in various summaries, estimates or studies that are required by the Federal Highway Administration (FHWA), the State Legislature and other state departments.

Communications from State Aid or the District State Aid Engineer inform the city engineer of the time element and the requirements of the needs studies.

Because the methods of measuring needs are constantly undergoing changes, the needs study procedures are not included in this Manual but are described in the individual instructions that are furnished at the time of making the needs studies. Please see the [SALT website, MSAS section](#).

The State Statute limits the mileage of MSAS within each urban municipality to a total equal to or less than 20 percent of its total improved street mileage of county roads, county road turnbacks and local streets plus 100 percent of TH and CSAH and county road turnbacks.

At the request of the screening board, the engineer of each urban municipality shall submit a completed Annual Certification of Mileage form on or before January 15 of each year.

The reverse side of the Annual Certification of Mileage form shall be completed to show details of revisions in the State Aid systems for the reported year.

Because the methods of certifying mileages are constantly undergoing changes, the Certification of Mileage instructions are not included in this Manual but are described in the individual manuals that are furnished at the time of making the needs studies. Please see Certification of Mileage located on the [SALT website, MSAS section](#).

#### IV. Requests for Additional Mileage

On the basis of the mileage computed on the Annual Certification of Mileage form, requests for additional designations may be made to the DSAE.

All mileage shall be reported as the total distance between terminal points. This distance shall be measured from the centerline of the intersecting street. No deduction is made for intersection duplication. If the corporate limit street is common with an adjoining municipality however, only half of the mileage shall be reported by each municipality.

On the SALT website, see [instructions for system revisions](#) (PDF).

#### V. Maintenance Requests

If an urban municipality wishes to adjust the amount of its total allocation deposited into its maintenance account, it must submit a written request to the Commissioner before December 16 preceding the annual allocation requesting the amount of its Total Allocation to disburse into its maintenance account. The maintenance allocation can range from a minimum of \$1,500 per improved mile or 25 percent of the total allocation to a maximum of 35 percent of the total allocation. Any local agency bond interest is paid out of the maintenance account. The remaining amount of the city's total allocation is placed into its construction account.

Instructions for Maintenance Request revisions are posted annually on the [SALT website, MSAS section](#).

## VI. Annual Status Reporting

Each city engineer shall, on or before December 31, submit to the Commissioner of Transportation the annual status reports for his local road system or local streets system made current as of December 31.

Data to be reported in this status report are essential to the Department in keeping various map series and statistical data current and also in supplying the essential information on construction activities performed by the urban municipality for which the Department is required to assemble in annual statistical reports to the FHWA.

As these various map series and statistical data are used for reference by many governmental agencies, it is mutually advantageous that they be as accurate and up to date as possible. Therefore, the Department requests the cooperation of the city engineers in furnishing this essential information.

The annual status report will consist of delineation of data on the MSAS map and computer printout for railroad grade crossing data, prints of which will be furnished prior to the cutoff date for which reports are to be prepared. The MSAS map furnished shows the corporate boundaries and existing streets by system designations.

At the time of transmittal, the street map and the computer printout will be as nearly current as our records indicate. However, the time element may dictate transmittal of maps and data which are somewhat behind in delineation of pertinent data or our records may not be complete. We regret that this may be necessary and would appreciate identification by the city engineer of any inaccuracies or omissions in these data.

The most important information requested is the reporting of all data relative to construction performed during the past year. All construction is to be reported, regardless of the source of funds, participating agencies, or manner of performing the work.

Construction completed during the reporting year should be delineated on the map furnished by coloring in green, the location of the construction performed. The limits of the construction should be as accurately plotted as the scale of the map permits. Whenever possible we employ plat maps, construction plans, aerial photography and field survey observations to achieve this accuracy. To this end we largely rely on experts, such as you, as the local map information source. In addition to the accurate plotting, a distance tie should be made from at least one

terminus of a project to an important road intersection, either external or internal, with relation to the project. If the project involves some modification of road alignment, the green color band should show, as nearly as possible, the road alignment resulting from the construction.

Along the colored band on CSAHs and county roads, should be shown the length and type of the construction, and the roadway and surface width resulting from the construction. If, during your maintenance and construction operations, you or members of your crew have noted that construction has taken place on township roads, please indicate in green the location on the status map. If you cannot furnish us with the lengths, width and surface information, our field crews will pick up that data on periodic field inspections.

The Department has various sources of information as to system designations, street locations, surface types, boundaries, etc., including the status report covered by this Manual. These sources are not infallible; therefore, it would be desirable for the city engineer to make a cursory review of the map submitted for preparation of the annual status report to detect any obvious errors. If any CSAH or county road designations are improperly shown, please indicate change in red and furnish us with a copy of the county board's resolutions designating such roads so that our documentation is complete.

Errors discovered in the map and the computer printout should be indicated for correction by showing the correct data in red color.

Errors in road location should be indicated by showing the correct location in red and x-ing out the incorrect location. Errors in surface type should be identified by red pencil note.

Errors in incorporation boundaries should be identified by x-ing out the improper boundary and roughly sketching in the correct boundary.

## VII. Definitions of General Highway Construction Types for Annual State Maps

In this section:

- A. [Primitive Road](#)
- B. [Unimproved Road](#)
- C. [Graded and Drained Earth Road](#)
- D. [Soil-Surfaced Road](#)
- E. [Gravel or Stone Road](#)
- F. [Bituminous Surface –Treated Road](#)
- G. [Mixed-Bituminous Road](#)

- H. [Bituminous Penetration Road](#)
- I. [Bituminous Concrete, Sheet Asphalt or Rock Asphalt Road](#)
- J. [Portland Cement Concrete Road](#)
- K. [Brick Road](#)
- L. [Block Road](#)
- M. [Combination Type Road](#)
- N. [Divided Highways](#)

#### **A. Primitive Road**

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An unimproved route (on which there is no public maintenance) useable by 4-wheel vehicles and publicly traveled by small numbers of vehicles.

#### **B. Unimproved Road**

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A road using the natural surface and maintained to permit bare passability for motor vehicles, but not conforming to the requirements for a graded and drained earth road. The road may have been bladed and minor improvements may have been made locally.

#### **C. Graded and Drained Earth Road**

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A road of natural earth aligned and graded to permit reasonably convenient use by motor vehicles and drained by longitudinal and transverse drainage systems (natural or artificial) sufficiently to prevent serious impairment of the road by normal surface water with or without dust palliative treatment or a continuous course of special borrow material to protect the new roadbed temporarily and to facilitate immediate traffic service.

#### **D. Soil-Surfaced Road**

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A road of natural soil, the surface of which has been improved to provide more adequate traffic service by the addition of: (1) a course of mixed soil having A-1 or A-2 characteristics, such as sand-clay, soft shale or topsoil, or (2) an admixture such as bituminous material, portland cement, calcium chloride, sodium chloride or fine granular material (sand or similar material).

#### **E. Gravel or Stone Road**

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A road, the surface of which consists of gravel, broken stone, slag, chert, caliche, iron ore, shale, chat, disintegrated rock or granite, or other similar fragmental material (coarser than sand) with or without sand-clay, bituminous, chemical or portland cement stabilizing admixture or light penetrations of oil or chemical to serve as a dust palliative.

Minnesota Specification 2118, Aggregate Surfacing, falls in this classification.

#### **F. Bituminous Surface-Treated Road**

An earth road, a soil-surfaced road, or a gravel or stone road to which has been added, by any process, a bituminous surface course with or without a seal coat, the total compacted thickness of which is less than one inch. Seal coats include those known as chip seals, drag seals, plant-mix seals and rock asphalt seals. Minnesota Specification 2321, Road-Mixed Bituminous Surface, falls into this classification.

#### **G. Mixed-Bituminous Road**

A road, the surface course of which is one inch or more in compacted thickness composed of gravel, stone, sand, or similar material, mixed with bituminous material under partial control as to grading and proportions.

#### **H. Bituminous Penetration Road**

A road, the surface course of which is one inch or more in compacted thickness composed of gravel, stone, sand, or similar material bound with bituminous material introduced by downward or upward penetration.

#### **I. Bituminous Concrete, Sheet Asphalt or Rock Asphalt Road**

A road on which has been constructed a surface course one inch or more in compacted thickness consisting of bituminous concrete or sheet asphalt, prepared in accordance with precise specifications controlling gradation, proportions and consistency of composition, or of rock asphalt. The surface course may consist of combinations of two or more layers such as bottom and top course, or a binder and a wearing course.

#### **J. Portland Cement Concrete Road**

A road consisting of portland cement concrete with or without a bituminous wearing surface less than one inch in compacted thickness.

#### **K. Brick Road**

A road consisting of paving brick with or without a bituminous wearing surface less than one inch in compacted thickness.

#### **L. Block Road**

A road consisting of stone block, wood block, asphalt block or other form of block, except paving brick, with or without bituminous wearing surface less than one inch in compacted thickness.

### M. Combination Type Road

A road, the wearing course of which consists of two or more individual types each being of such depth as to be classed logically as a part of the traffic bearing road surface rather than as surfaced shoulders.

### N. Divided Highway

Adjacent roadways carrying traffic in opposite directions and separated by a dividing or non-traffic bearing strip shall be classed as a divided highway and coded as type "N" as per sample.

## VIII. Examples of Input for Annual Status Maps

The letter designation indicated for the surface type of a road section should be shown as the numerator of a fraction; the widths of the roadway and surface to be shown as the denominator, separated by a hyphen.

The first figure to be shown is for: Roadway Width - the width in feet between shoulders or curb lines.

The second figure to be shown is for: Surface Width - that portion of a road which is surfaced to carry traveling vehicles.

Figure 1: Undivided Roadways

3.5	C	3.5 miles	Graded & Drained Earth	of
	24 * 0		24' Roadway Width - No Surface Course	
1.2	G	Means 1.2	Mixed Bituminous	miles of
	32 - 24		24' Roadway Width - No Surface 32' Roadway Width - 24' Surface Width	

Figure 2: Divided Roadways

1.2	N	Means 0.07	Mixed Bituminous	miles of
	G - G		36' Roadway Width - 24'	
	36 - 24 - 26 - 20		Surface Width	

## IX. Forms

Links to other forms used by the cities.



- Annual Summary of Street Information, Municipality ([PDF](#)) ([Word](#))
- [Approval for System Changes](#) (PDF)
- Resolution Establishing State Aid Highways
  - [CSAH – Resolution Establishing State Aid Highways](#) (Word)
  - [MSAS – Resolution Establishing State Aid Highways](#) (Word)
- [Sample Municipal Concurring Resolution \(New CSAH Designation\)](#) (Word)
- [Sample Municipal Concurring Resolution \(Revised CSAH Designation\)](#) (Word)
- Sample Resolution to Revoke State Aid Designations
  - [CSAH – Sample Resolution to Revoke State Aid Designations](#) (Word)
  - [MSAS – Sample Resolution to Revoke State Aid Designations](#) (Word)
- [Agency Agreement](#) (PDF)
- [Sample Resolution for Agency Agreement](#) (PDF)
- [State Aid Finance forms](#)
- [MSAS City List](#)
- [MSAS Urban ADT Groups for Needs Purposes](#) (PDF)

# COUNTY STATE AID HIGHWAYS (CSAH)

## I. Overview

The 1957 legislature, in response to a constitutional amendment passed during the November 1956 election, authorized the establishment of a CSAH system not to exceed 30,000 miles notwithstanding TH turnback mileage. Recently, the 30,000 mile restriction was eliminated. Designation of the system was made in accordance with Rules and Regulations for State Aid Operations under chapter 943, Laws of 1957 (State Aid Rules are now identified as [Minnesota Rules 8820](#)).

## II. County Screening Board

A screening board, appointed by the Commissioner of Transportation, is composed of one county engineer from each out state district, two county engineers from the Metro Division and one county engineer from each urban county (175,000 population and over), shall review all information as to the mileage, lane miles and money needs of the CSAH system and shall submit to the Commissioner, on or before the first day of November each year, its findings and recommendations as to each county's mileage, lane miles and money needs.

## III. Designations-Additions, Revisions and Revocations

Any change to the CSAH system which is contemplated must first be presented to the District State Aid Engineer for review and comment and then, if appropriate, the request will be forwarded to the State Aid Division for preliminary approval along with a copy of [Approval for System Changes](#) (PDF).

Upon receipt of preliminary approval a resolution for designation [Resolution Establishing CSAH](#) (Word) detailing the proposed changes shall be submitted by the county board to the State Aid Division and formal designation will be by official order of the MnDOT Commissioner of Transportation.

Any addition, revision, or revocation of the CSAH system within the corporate limits of a municipality must be approved by resolution of the governing body of the municipality. See [Concurring Resolution by Municipality New Designation](#) (Word), [Concurring Resolution by Municipality](#) (Word) and [Resolution for Revocation](#) (Word).

If circumstances require the revocation of a route that had State Aid monies expended for its improvement, then an adjustment will be imposed that will require an evaluation by the DSAE as to the value of the remaining life of the improvements that were made.

The adjustment will be made on the next authorized construction contract by withholding the value determined.

Former THs turned back after July 1, 1965 that has been designated as State Aid routes may not be revoked and the mileage designated elsewhere. That mileage was authorized over and above the county's established allotment of State Aid mileage and, if the former TH does not meet the criteria for State Aid designation anymore, then that mileage will be relinquished (see [Minnesota Rules 8820](#)).

The county state aid mileage allowable in each county was determined in 1957 and no increase in size is permitted without approval of the county screening board except for TH (turnbacks) that revert back to local jurisdiction and become part of the State Aid system, and former MSAS in municipalities which have fallen below 5,000 population.

#### IV. Allocations

Allocation of State Aid monies to the counties and urban municipalities is made on the basis of a legislative formula (see [Minnesota Statutes 162.07](#) and [Minnesota Statutes 162.13](#)).

50 percent of the monies are allocated according to a needs study.

The remaining 50 percent, allocated to the counties, is divided according to the legislative formula. 10 percent equally, 10 percent based on vehicle registration, and 30 percent based on CSAH miles. The remaining 50 percent, allocated to the urban municipalities, is divided based on population.

Not later than February 1 of each year, the Commissioner shall certify the annual apportionment to each of the 87 counties.

The apportionment sum allocated to each county in accordance with the provisions of the law will set forth that amount which has been set aside for the Municipal Account to be used exclusively within municipalities of less than 5,000 populations. The remaining portion will be identified as the Regular Account. The normal maintenance allocation to the Municipal Account and the Regular Account will be 40 percent of the total sum within each of the two accounts. The balance of 60 percent in each account will be available for approved construction projects.

The Commissioner may, at the recommendation of the county Screening Board, or upon receipt of a resolution from a county board, and for good cause shown, increase or decrease a county's maintenance allocation. County board requests should clearly state the necessity or justification for the requested change.

## V. Needs

[Minnesota Statutes 162](#) provides that annually each county engineer must submit all necessary information regarding the needs for their State Aid System to the Commissioner of Transportation. This information is used by the county screening board in making its recommendations to the Commissioner as to the mileage, lane miles and money needs of each county or the money needs, populations and mileages of each urban municipality.

An urban municipality is a city having a population of 5,000 or over, based on the latest Federal census, State Demographer's or Metropolitan Council's population estimates or in the case of a new municipality, the Articles of Incorporation.

The screening board directs the State Aid Division as to the desirable contents of the needs studies within the limits of the Law, and determines the methods or procedures and limitations to be used in the measurement of need. Each engineer is furnished with a current copy of the Screening Board Resolutions.

It should be emphasized that the resulting needs study is maintained for the primary purpose of apportioning State Aid funds and deals with the measurement of needs only. It is not to be taken literally as a guide for actual design or construction of projects.

Each county engineer shall report the data required to determine the 25 year money needs estimate of the respective State Aid system. The reporting shall be completed according to this Manual or the client computer-training manual and shall be maintained in current status by an annual update to reflect construction changes and/or system revisions.

[Minnesota Statutes 162](#) defines money needs as the estimated total annual cost of constructing the CSAH system over a period of 25 years.

The formulas for the distribution of the funds dictate that 50 percent of the monies be allocated according to the money needs of the respective State Aid systems in the counties.

Some of the items requested are not currently approved as needs items for the determination of the money needs apportionment. These items are included in summaries and listings of Total Needs but are specifically excluded from the Apportionment Needs until such time as the

respective screening board approves inclusion of said item or items in the Apportionment Needs.

The Total Needs concept provides the engineer with an estimate of the total cost of constructing his State Aid system to State Aid standards. It also provides the State Aid Needs Unit with more complete data for use in various summaries, estimates or studies that are required by the FHWA, the State Legislature and other State Departments.

Communications from the State Aid Division or the DSAE inform the engineer of the time element and the requirements of the needs studies.

The needs study procedures are not included in the manual but are described in the individual manuals that are furnished at the time of making the needs studies updates. On our website please see the [SALT website, CSAH section](#) for the following:

- CSAH Needs Update
- CSAH User Manual for Needs Updating
- CSAH Segment Listing and Excel Data
- CSAH Training Manual for CSAH Updates
- CSAH New Box Culvert Calculator