

National Highway Functional Classification and
Needs Study Manual (1970 to 1990)

Errata Sheet

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P-1 Add the following paragraph to the beginning of the Preface:

"This manual is the highway portion of a comprehensive set of transportation manuals which the U. S. Department of Transportation has prepared to assess the current conditions and future needs in all domestic modes. Manual A describes the purpose, scope and organization of the overall study and provides data and definitions common to this and other manuals in the set. Manual A also requests capital improvement program information for highways and other domestic modes. The work required in this manual can generally be performed independently of other parts of the transportation needs study, although close cooperation will be necessary among those working on each manual to assure consistent, complementary results. The Governor's office of each State is being requested to coordinate the entire study. The Governor's office is also being requested to assume responsibility for preparing final capital improvement programs. Most of the work of developing program data, however, will undoubtedly be assigned to State highway departments and other appropriate agencies and will be based largely on the data to be prepared according to this and other manuals."

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II-27 The second sentence of the last paragraph should read:
"Item 7 is to be prepared for each urbanized area (or
portion thereof) within the State..."
- II-30 The reference to an example of a route log in the last
paragraph under "General instructions" is in error and
should be deleted
- III-1 Add the following paragraph to major element 2.
In this study any Federal aid work authorized prior to
January 1, 1970 should not be included as a need.
Work authorized since January 1, 1970 should be reported
as a need. For non-Federal-aid work, an appropriate
event, such as advertising for bids, should be used
as the basis for determining whether a need existed on
January 1, 1970.
- III-27 The graded shoulder width for design standard number
9 should be 6 feet.
- III-31 The last subheading under "Rural Minor Arterials" should
be Major (not minor) widening.
- IV-2 The directional factor is to be completed for new sections;
therefore, change the items not needed for new sections
to 11-14, 16-20, 22-23, 27-33, 35-41, and 54-58.
- IV-4 The next to last line on the "Worksheet for Calculating
Average Highway Speed (AHS)" should be:
"Average Highway Speed = $\frac{\text{Section length} \text{----mi.}}{\text{Total travel time} \text{---min.}} \times 60 = \text{mph}$ "
- IV-8 Item 13 - Eliminate the reference to footnote 1/. The
total number of lanes should be entered.
- IV-11 Item 20 - This item refers to the number of intersections
controlled by signals and/or stop signs rather than the number
of signals and stop signs.
- IV-12 The example for capacity calculations (item 27) should read:
"...rolling terrain with 11-foot lanes, 4-foot unpaved
shoulders, ..."
- IV-15 Item 31 - Add the following paragraph:
Where the pavement condition is based solely on the verbal
rating shown on the following page, the worksheet should
be coded as follows:

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- IV-15 cont'd Very Good - - - - - -4.5
 Good - - - - - - 3.5
 Fair (On rural minor arterials with an ADT of <6,000,
 on all urban minor arterials, and on all collectors)
 - - - - - - 2.5
 Fair (On rural minor arterials with an ADT of 6,000 and
 over, and on all principal arterials):
 If better than average in this group - - - 2.7
 If less than average in this group - - - -2.5
 Poor or very poor (Intolerable) - - - - - 1.5
- IV-17 Item 33 - Drainage adequacy, should have a "70" placed
 under the "columns" heading.
- IV-19 Item 36 - This should read "Percent of length with
 intolerable safe speed."
- V-3 The table under item 9, "1990 Functional Classification,"
 should be changed as follows:

Urban Code ('68 and '90)					Functional System	Rural Code ('68)
Pop.	5-10	10-25	25-50	50+		
	11	21	31	41	Interstate	01
	12	22	32	42	Other Freeway & Expressway	--
	13	23	33	43	Other Principal Arterial	02
	14	24	34	44	Minor Arterial	03
	15	25	35	45	Collector:	--
	--	--	--	--	Major	04
	--	--	--	--	Minor	05
	16	26	36	46	Local ('68 only)	06
	AA	BB	CC	DD	Did not exist ('68 only)	EE

- V-4 The next to last line on the "Worksheet for Calculating
 Average Highway Speed (AHS)" should be:
 "Average Highway Speed = $\frac{\text{Section length---mi.}}{\text{Total travel time---min.}} \times 60 = \text{mph}$ "
- V-4 Under "Capacity of Urban Arterial Streets", worksheet for
 calculating capacity of Urban highways, the third
 multiplier should be "Adjustment for location within
 metro-area."

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- V-8 Item 14 - The instructions should read "Enter the approach width (curb-to-curb for one-way streets or curb-to-division line for two-way streets), including parking lanes but excluding separate turn lanes 1/ for a typical intersection on urban arterial and collector streets. Enter the lane width . . . " etc.
- V-15 Item 36 - add the following paragraph:
Where the pavement condition is based solely on the verbal rating shown on the following page, the worksheet should be coded as follows:
Very good - - -4.5
Good - - - - - 3.5
Fair - (on rural minor arterials with an ADT of under 6,000, on all urban minor arterials, and on all collectors)- - 2.5
Fair - (on rural minor arterials with an ADT of 6,000 and over, and on all principal arterials):
If better than average in this group - - - 2.7
It less than average in this group - - - - 2.5
Poor or very poor (intolerable) - - - - - 1.5
- VI-23 Table VI-5 - Add "Presently low to be replaced by high . . . 43.90"
- VI-25 The heading under column D should be "Structures"
- VI-26, 27, 28 The status codes (column 9) are missing. They should be:
"1" - Presently tolerable
"2" - Presently intolerable
"3" - New
"0" - For the "all streets" total
- VII-3 Under "Urban Study Systems", the first line should read:
"6 or more lanes - fwy and exp".
- VII-8 Delete the first paragraph and insert the following:
"In general, administration costs described in chapter V of the "Manual of Uniform Highway Accounting Procedures" are items of cost that cannot be charged to identifiable capital outlay projects or specific maintenance operations. These include (with the exception of the planning and research item which is an engineering cost in the aforementioned manual) in part:"

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- A-4 Footnote 3 (Aurura and Joliet) should read:
"To be included in the Chicago-Northwestern Indiana urbanized area." Also, the urbanized area codes for these two cities should be changed to correspond with that of Chicago; 060
- A-12 Delete the listing for Port Arthur and change the listing for Beaumont to:
- | | | | |
|-----------------------|------|-----------|-----------|
| "Beaumont-Port Arthur | Code | 1960 Pop. | 1990 Pop. |
| | 183 | 235 | 314" |
- G-2 Delete instruction 6 and insert: "Sum all entries in total travel time column. Divide the length of section of highway by the total travel time and then multiply by 60(min./hr.) to obtain the average highway speed (AHS) in miles per hour."
- G-3 The next to last line on the example should be:
- $$\text{"Average highway speed} = \frac{\text{section length } 4.20 \text{ mi.} \times 60 \text{ min.}}{\text{Total travel time } 4.26 \text{ min}} = 59 \text{ mph}$$
- G-5 Delete the next to last sentence of the first paragraph ("This value, when divided...") and insert:
"The total section length divided by this value (4.26 min.) and multiplied by 60 (min/hr) yields an average highway speed of 59 mph."
- H-4 Paragraph 3 - The percent total trucks required for determining remaining pavement life includes panels, pickups, and light 2-axle single-tired trucks, (as reported in the annual truck weight studies) and is therefore different from the percent trucks reported on the arterial and collector worksheets. If it is desired to use the percent trucks shown on the study worksheet in the determination of remaining pavement life, the 18-kip axle-load equivalent constant must be adjusted to exclude panels, pickups, and light 2-axle single-tired trucks.

Miscellaneous

Those copies of worksheet TI-1, shown on page VI-14, which were sent to the field do not have a Bureau of the Budget identification number. This was a printing error. The form was approved and should bear the following number in the upper right-hand corner "BOB No. 04-S69053".

Column 23 on card 2, figure IV-1 and column 24 on card 5, figure V-1 are to be left blank. This is not an error.

All errors on worksheets, schedules etc. which are to be used in the field, have been corrected on those forms (i.e. pages IV-4, V-3, V-4, and VI-25-28.)

