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ENGINEERING INSTRUCTION

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

SUBJECT: Explanation of Headings for Level #2
Rating Summary Listings

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For *Robert M. Kemp*

E.V. HOURIGAN, Deputy Chief Engineer (Structures)

This EI transmits the Explanation of Headings For Level #2 Rating Summary Listings. This EI and the Explanation of Headings For Level #2 Rating Summary Listings sheets should accompany all distributions of Level #2 Summary Listings.

EXPLANATION OF HEADINGS FOR LEVEL #2 RATING SUMMARY LISTINGS

X-BIN-X	This is a seven digit <u>bridge identification number (BIN)</u> which is unique identifier for each individual bridge. The numbers have no significance in themselves and are only used for identification purposes.
FEATURE-CARRIED	This is the name of the <u>feature carried</u> by the bridge. Usually this will be the name of a road or a route number.
FEATURE-CROSSED	This is the name of the <u>feature passing under</u> the bridge. It might be the name of a body of water or a highway.
O W	This is a code indicating the <u>owner</u> of the bridge. See the attached sheet titled "Owner Codes" for an interpretation of the codes.
TOWN	This is a code stating the name of the local political unit in which the bridge is located. Refer to the inventory manual for an interpretation of these codes. Regions should supply the localities with the appropriate codes for interpretation.
LENGTH	This states the <u>length</u> of the bridge in feet.
ID	This states the year in which the bridge was last inspected.
COND	This is a computed number called the <u>condition rating</u> . This number is computed for numerous items on the bridge inspection report and gives an overall indication of the structural condition of a bridge. Condition rating numbers range in value from 7.000 which is the best, to 1.000, which is the worst.
GR	This is the <u>general recommendation</u> which is a number assigned to a bridge by the inspector indicating his overall opinion of the condition of the bridge. See the attachment titled "General Recommendation" for specific definitions.
T MS	This is a code that indicates the general <u>type of construction</u> of the main span of the bridge. See the attached sheet titled "Type of Main Span" for an interpretation of the codes.
Y-BLT	This states the <u>year</u> the bridge was built.
P	This indicates if the bridge is currently <u>posted</u> for load. If it is, the posting will be printed out. For example "5" means the bridge has a 5 ton posting. A "0" indicates no posting. A "99" indicates the bridge is closed.
H-INV	This indicates the level #2 inventory rating for an H Type load in tons. Refer to EI81-20.
HS-INV	This indicates the level #2 inventory rating for an HS type load in tons. Refer to EI81-20.

EXPLANATION OF HEADINGS FOR LEVEL #2 RATING SUMMARY LISTINGS (Cont'd)

H-OPR This indicates the level #2 operating rating for an H type vehicle in tons. Refer to EI81-20.

HS-OPR This indicates the level #2 operating rating for an HS type vehicle in tons. Refer to EI81-20.

F If an "Y" is printed in this column, the inspector observed something at the bridge that might control the load capacity of the bridge that was not reflected in the structural analysis of the bridge.

R-DATE This is the date on which the data used for computing the load rating was last updated in the field.

TYPE OF MAIN SPAN

FIRST DIGIT

MATERIAL AND CONTINUITY CODES

- 1 CONCRETE
- 2 CONCRETE CONTINUOUS
- 3 STEEL
- 4 STEEL CONTINUOUS
- 5 PRESTRESS CONCRETE
- 6 PRESTRESS CONCRETE CONTINUOUS
- 7 TIMBER
- 8 MASONRY
- 9 ALUMINUM, WROUGHT IRON OR CAST IRON
- 0 OTHER

SECOND AND THIRD DIGIT

STRUCTURAL CODES

- 01 SLAB
- 02 STRINGER/MULT-BEAM OR GIRDER
- 03 GIRDER AND FLOORBEAM SYSTEM
- 04 TEE BEAM
- 05 BOX BEAM OR BOX GIRDERS-MULTIPLE
- 06 BOX BEAM OR BOX GIRDER-SINGLE OR SPREAD
- 07 FRAME
- 08 ORTHOTROPIC
- 09 TRUSS - DECK
- 10 TRUSS - THRU
- 11 ARCH - DECK
- 12 ARCH - THRU
- 13 SUSPENSION
- 14 STAYED GIRDER
- 15 MOVABLE - LIFT
- 16 MOVABLE - BASCULE
- 17 MOVABLE - SWING
- 18 TUNNEL
- 19 CULVERT
- 20 NO TYPE IS DOMINANT
- 00 OTHER

GENERAL RECOMMENDATION

This is the item under which the Inspector notes what he feels is the condition of the structure as a whole. In making this overall assessment of the bridge, the Inspector does not take into account who will make necessary repairs (Maintenance forces or an outside Contractor).

There are seven general recommendation categories used to describe the overall condition of a bridge. One of those seven categories should be entered in Box 60 on Form TP 349, whenever a bridge is inspected. The only time the general recommendation would not appear on the inspection form is when the bridge is under major construction at the time the inspection is made.

Individual ratings of more important bridge elements, such as those given primary structural members, abutment stems, pier columns, etc., have a major influence on the general recommendation category chosen. The individual ratings of the less important bridge elements, such as those for paint, lighting fixtures, etc., have little influence on the general recommendation category chosen. The general recommendation should not be lower than any of the ratings given to individual bridge components (i.e. - abutments, decks, piers, etc.).

Ratings 8 (Not Applicable) and 9 (Unknown), which may be used when rating individual bridge components, are never used when making the general recommendation.

Listed below are brief narrative descriptions of the condition of bridges in each of the seven general recommendation categories.

RATING

1. *Very Poor Condition:* Primary structural members and/or substructure have deteriorated, settled, etc. to such an extent that there is serious doubt whether the bridge can carry the loads for which it was originally designed. The bridge may be closed to traffic. If open to traffic, it would normally be posted for less than its original design loading. In some cases, temporary shoring or other protective measures may be required to allow for the safe movement of traffic over the bridge. Bridges in this category will require complete replacement in the very near future.
2. *Poor Condition:* Serious deterioration or settlement of the primary structural members and/or substructure. The bridge may not be able to carry the loads for which it was originally designed. This bridge would normally be posted for less than its original design loading, yet still be kept open to traffic. Temporary shoring or bracing may be necessary. Major repairs or complete replacement will be required in the near future.
3. *Major Structural Repairs Required:* Some deterioration or settlement of primary structural members and/or substructure. Secondary members or deck may have serious deterioration. The bridge is in need of extensive reconditioning. May be posted for less than its original design loading. Replacement may be a better long term option than rehabilitation.
4. *Structural Repairs Required:* Some deterioration of primary or secondary structural members, deck, or substructure. Load-carrying capacity of bridge not seriously affected. Considerable structure reconditioning of bridge required. However, repairs do not involve the extensive reconditioning of primary structural members.

GENERAL RECOMMENDATION (Cont'd)

5. *Repairs Required:* Primary structural members and substructure in relatively good condition. However, other parts of the bridges, such as the deck, curb, sidewalk, or railing require repairs, some of which may be quite extensive. Load carrying capacity of the bridge not affected. Minor repairs of primary structural members and substructure may be required. Paint could be in poor shape resulting in some corrosion of steel members.
6. *Minor Repairs Required:* Work required may include minor repairs to the deck, sidewalks, curbs, fascia, and railing. Also, minor cracks or minor spalls in substructure, simple adjustments of bearings, etc.
7. *Good Condition:* Virtually no repairs required. Paint in good condition, although some isolated areas may need to be touched up.

NOTE:

The descriptions for each Recommendation category listed above touch on the more serious problems that might be encountered. Obviously, a bridge that is in poor condition (Category 1 or 2, for example) may need extensive deck, sidewalk, curb, etc., repairs in addition to those needed to fix the primary structural members or substructure.

OWNER CODES

10 STATE-DEPARTMENT OF TRANSPORTATION
2A GENESEE STATE PARKS AND REC COMM
2B INTERSTATE BRIDGE COMMISSION
2D LAKE CHAMPLAIN BRIDGE COMMISSION
2E LAKE GEORGE PARK COMMISSION
2F LONG ISL STATE PARKS AND REC COMM
2G METROPOLITAN TRANSPORTATION AUTH
2H MONROE COUNTY WATER AUTHORITY
2I NIAGARA FALLS BRIDGE COMMISSION
2J NIAGARA FRONTIER STATE PARK COMM
2K NYS BRIDGE AUTHORITY
2L NYS THRUWAY AUTHORITY
2M OGDENSBURG BRIDGE AND PORT AUTH
2N PALISADES INTERSTATE PARK COMM
2O PORT ON NEW YORK AUTHORITY
2P POWER AUTHORITY
2Q SEAWAY INTERNATIONAL BRIDGE AUTHORITY
2R TACONIC STATE PARK COMMISSION
2S THOUSAND ISLANDS BRIDGE AUTHORITY
2T TRANSIT AUTHORITY
2U TRIBOROUGH BRIDGE AND TUNNEL AUTH
2V TRI-STATE TRANSPORTATION COMM
20 OTHER STATE DEPARTMENT
21 AUTHORITY OR COMMISSION
22 ALLEGANY STATE PARK AUTHORITY
23 NASSAU COUNTY BRIDGE AUTHORITY
24 BUFFALO AND FT ERIE PUB BR AUTHORITY
25 CAPITAL DISTRICT STATE PARK COMM
26 CENTRAL NYS PARK COMMISSION
27 CITY OF NY STATE PARK COMMISSION
28 EAST HUDSON PARKWAY AUTHORITY
29 FINGER LAKES PARKS AND REC COMM
30 COUNTY
40 TOWN
41 VILLAGE
42 CITY
43 NYC DEPT OF WATER SUPPLY, GAS AND ELECTRIC
50 FEDERAL
60 RAILROAD
61 LONG ISLAND RAILROAD
62 CONRAIL (FORMER PENN CENTRAL)
70 PRIVATE-INDUSTRIAL
71 PRIVATE-UTILITY
72 OTHER
99 ONE AGENCY - LISTED IN FIRST SUBFIELD

ORIGINAL DESIGN LOAD

CODING:

10	H 10
20	H 15
30	HS 15
40	H 20
50	HS 20
60	HS 20+MOD
70	LESS THAN 60 LB/SQ FT. (PEDESTRIAN LOADG)
71	60 THRU 70 LB/SQ FT. (PEDESTRIAN LOADG)
72	71 THRU 80 LB/SQ FT. (PEDESTRIAN LOADG)
73	81 THRU 90 LB/SQ FT. (PEDESTRIAN LOADG)
74	91 THRU 100 LB/SQ FT. (PED OR PLAT LOADG)
75	OVER 100 LB/SQ FT. (PED OR PLAT LOADG)
80	LESS THAN E50 (RR)
81	E50 (RR)
82	E60 (RR)
83	E72 (RR)
84	E80 (RR)
85	GREATER THAN E80 (RR)
90	OTHER
91	THRUWAY (HS20-44 AT 30 FT. CENTERS)
00	UNKNOWN