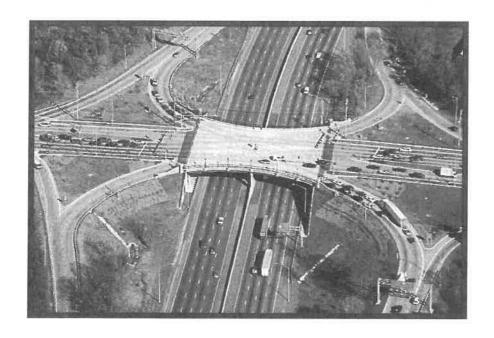


**Maryland Department of Transportation** 

#### GUIDE FOR COMPLETING STRUCTURE INVENTORY AND APPRAISAL INPUT FORMS



#### **OFFICE OF STRUCTURES**

For comments or questions regarding this coding guide contact the Senior Bridge Management Engineer at (410) 545-8379

Date Issued: June 2012 Revised:

#### Structure Inventory and Appraisal Sheet (Federal Form)

	NATIONAL BRIDGE INVENTORY		STRUCTURE INVENTORY AND APPRAISAL MM/DI	DIYY
******	**************************************		***************************************	*******
(1)	STATE NAME - CODE			
(8)	STATE NAME - CODE STRUCTURE NUMBER #		SUFFICIENCY RATING =	
(5)	INVENTORY ROUTE (ON/UNDER) - = =		STATUS =	
(2)	STATE HIGHWAY DEPARTMENT DISTRICT			-
(3)	COUNTY CODE (4) PLACE CODE		**************************************	CODE
(6)	FEATURES INTERSECTED -	(112)	NBIS BRIDGE LENGTH -	
(7)	FACILITY CARRIED -	(104)	HIGHWAY SYSTEM -	
(9)	LOCATION -	(26)	FUNCTIONAL CLASS -	
(11)	MILEPOINT	(100)	DEFENSE HIGHWAY -	
(12)	BASE HIGHWAY NETWORK - CODE	(101)	PARALLEL STRUCTURE -	
(13)	I DO INIVENTADO DALITE & CHRDALITE #	(102)	DIRECTION OF TRAFFIC -	
(16)	LATITUDE D' (17) LONGITUDE D'	(103)	TEMPORARY STRUCTURE -	
(98)	BORDER BRIDGE STATE CODE % SHARE %	(105)	FEDERAL LANDS HIGHWAYS - DESIGNATED NATIONAL NETWORK -	
(99)	BORDER BRIDGE STRUCTURE NO. #	(110)	DESIGNATED NATIONAL NETWORK -	
(55)	BONDEN BRIBGE GINGGI GILE NO. #	(20)	TOLL -	
******	********** STRUCTURE TYPE AND MATERIAL ************	(21)	MAINTAIN -	
		(22)		·
(43)	STRUCTURE TYPE MAIN: MATERIAL - CODE	(37)	HISTORICAL SIGNIFICANCE -	
74.45		(31)	TIIS TORICAL SIGNIFICANCE -	
(44)	STRUCTURE TYPE APPR: MATERIAL - TYPE - CODE		****** CONDITION ************************************	CODE
145		(58)	DECK	CODE
(45)	NUMBER OF SPANS IN MAIN UNIT	, ,	SUPERSTRUCTURE	
(46)	NUMBER OF APPROACH SPANS	(59) (60)	SUBSTRUCTURE	
(107)	DECK STRUCTURE TYPE - CODE	1		
(108)	WEARING SURFACE / PROTECTIVE SYSTEM:	(61)	CHANNEL & CHANNEL PROTECTION	
A)	TYPE OF WEARING SURFACE CODE	(62)	CULVERTS	
B)	TYPE OF MEMBRANE - CODE		THE PROPERTY OF THE PARTY OF TH	CODE
C)	TYPE OF DECK PROTECTION - CODE	(0.4)	**************************************	CODE
	t	(31)	DESIGN LOAD -	
		(63)	OPERATING RATING METHOD -	
		(64)	OPERATING RATING -	
(27)	YEAR BUILT	(65)	INVENTORY RATING METHOD -	
(106)	YEAR RECONSTRUCTED	(66)	INVENTORY RATING -	
(42)	TYPE OF SERVICE: ON -	(70)	BRIDGE POSTING -	
	UNDER - CODE	(41)	STRUCTURE OPEN, POSTED OR CLOSED -	
(28)	LANES: ON STRUCTURE UNDER STRUCTURE		DESCRIPTION -	
(29)	AVERAGE DAILY TRAFFIC			
(30)	YEAR OF ADT (109) TRUCK ADT %		**************************************	CODE
(19)	BYPASS, DETOUR LENGTH MI	(67)	STRUCTURAL EVALUATION	
		(68)	DECK GEOMETRY	
******	**************************************	(69)	UNDERCLEARANCES, VERTICAL & HORIZONTAL	
(48)	LENGTH OF MAXIMUM SPAN FT	(71)	WATERWAY ADEQUACY	
(49)	LENGTH OF MAXIMUM SPAN FT STRUCTURE LENGTH FT	(72)	APPROACH ROADWAY ALIGNMENT	
(50)	CURB OR SIDEWALK: LEFT RIGHT FT	(36)	TRAFFIC SAFETY FEATURES	
(51)	BRIDGE ROADWAY WIDTH CURB TO CURB FT	(113)	SCOUR CRITICAL BRIDGES	
(52)	DECK WIDTH OUT TO OUT FT			
(32)	APPROACH ROADWAY WIDTH (W/SHLDRS) FT		**************************************	*****
(33)	BRIDGE MEDIAN - CODE	. (75)	TYPE OF WORK - COD	E
(34)	SKEW DEG (35) STRUCTURE FLARED	(76)	LENGTH OF STRUCTURE IMPROVEMENT	FT
(10)	INVENTORY ROUTE MIN VERT CLEAR FTIN	(94)	BRIDGE IMPROVEMENT COST \$	_,,000
(47)	INVENTORY ROUTE TOTAL HORIZ CLEAR FT	(95)	ROADWAY IMPROVEMENT COST \$	_,,000
(53)	MIN VERT CLEAR OVER BRIDGE RDWY FTIN	(96)	TOTAL PROJECT COST \$	_,,000
(54)	MIN VERT UNDERCLEAR REF FT IN	(97)	YEAR OF IMPROVEMENT COST ESTIMATE	
(55)	MIN LAT UNDERCLEAR RT REF - FT	(114)	FUTURE ADT	
(56)	MIN LAT UNDERCLEAR LT FT	(115)	YEAR OF FUTURE ADT	
		, ,		
*****	**************************************		**************************************	
(38)	NAVIGATION CONTROL - CODE	(90)	INSPECTION DATE/ (91) FREQUENCY	MO
(111)	PIER PROTECTION - CODE	(92)	CRITICAL FEATURE INSPECTION: (93)	CFI DATE
(39)	NAVIGATION VERTICAL CLEARANCE FT	A)	FRACTURE CRIT DETAIL MO A)	/
(116)	VERT-LIFT BRIDGE NAV MIN VERT CLEAR FT	В)	UNDERWATER INSP MO B)	/
(40)	NAVIGATION HORIZONTAL CLEARANCE FT	C)	OTHER SPECIAL INSP MO C)	_/_

STRUCTURE # \_\_\_\_\_

#### **IDENTIFICATION**

(8) STRUCTURE N	UMBER [_][_		][		_][_]		
(7) FACILITY CAR			1				
(6) FEATURE(S) IN	TERSECTED			1			
(255) FEDERAL SU							
(262) NAME OF ST							
(27) YEAR BUILT [							]
(263) ADDITIONAL	RECONSTRUC	TION YEARS	S [	JL	]		
(1) STATE CODE [2	243]	(2)	HIGHWAY	AGENCY	DISTRI	CT []	
(3) COUNTY (PARI	SH) CODE [	] (4)]	PLACE COE	DE [	]		
(5) INVENTORY RO	OUTE [][]	_](	][_]				
(9) LOCATION [						1	
(11) MILEPOINT [_						TWORK [_	1
(266) GIS ROUTE II	)						
(267) GIS MILEPOII							
(13) LRS INVENTO	RY ROUTE, SU	BROUTE NU	MBER [	<u>.</u>			١
(16) LATITUDE	(A) [D_ (C) [D_	M M	S] S]	(B) [ (D) [	_D_ _D_	M	S] S]
(17) LONGITUDE	(A) [D_ (C) [D_	M M	S] S]	(B) [ (D) [	_D	M	S] S]
(28) LANES [][ on u	] nder	(42) TYPE	OF SERVIC	Е [_][_ј			
(98) BORDER BRID	GE []	SHARE % [	]				
(99) BORDER BRID	GE STRUCTUR	E NUMBER [			,		
			4 2				

STRUCTURE #

#### CLASSIFICATION OF THE INVENTORY ROUTE

(104) HIGHWAY SYSTEM OF THE INVENT	ORY ROUTE []
(105) FEDERAL LANDS HIGHWAYS []	
(26) FUNCTIONAL CLASSIFICATION OF I	NVENTORY ROUTE []
(100) STRAHNET HIGHWAY DESIGNATIO	N [_]
(101) PARALLEL STRUCTURE DESIGNAT	ION [_]
(102) DIRECTION OF TRAFFIC DESIGNAT	ION [_]
(103) TEMPORARY STRUCTURE DESIGNA	ATION []
(110) DESIGNATED NATIONAL NETWORK	
(20) TOLL []	(21) MAINTENANCE RESPONSIBILITY []
(22) OWNER [ ]	(37) HISTORICAL SIGNIFICANCE [ ]

STRUCTURE #		
TRA	AFFIC	
(19)FEDERAL BYPASS DETOUR LENGTH []	(29) ADT []	
(30) YEAR OF ADT []	(109) ADTT [] PERCENT	
(114) FUTURE ADT []	(115) YEAR OF FUTURE ADT [	

STRUCTURE#\_\_\_\_

#### STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE - MAIN SPANS [][]	
(44) STRUCTURE TYPE – APPROACH SPANS [][]	
(206) STRUCTURE SUBTYPE - MAIN SPANS []	
(207) STRUCTURE SUBTYPE - APPROACH SPANS [	]
(208) STRUCTURE TYPE - WIDENED AND/OR EXTENDE	ED PORTION [][]
(228) ABUTMENT FOOTING [_][_]	(229) ABUTMENT TYPE[_][_]
(219) SLOPE PROTECTION - TYPE []	(230) PIER FOOTING [_][_]
(231) PIER TYPE [_][_]	(232) B OX CULVERT ON PILES []
(257) SCOUR PROTECTION []	(242) BEARING TYPE [][]
(221) STRUCTURAL STEEL GRADE []	
(233) DECK – COMPOSITE/NON-COMPOSITE []	
(107) DECK STRUCTURE TYPE []	(259) STAY-IN-PLACE FORMS []
(108) WEARING SURFACE/PROTECTIVE SYSTEM [][_	J[_]
(270) CONCRETE DECK SPECIAL TYPE []	(243) JOINT TYPE [_][_]
(235) PARAPET []	(236) RAILING [_][_][_]
(237) FENCING [_][_]	(278) PAINT SYSTEM [][]
(344) PAINT COLOR [][]	
(345) YEAR PAINTED []	

STRUCTURE # \_\_\_\_\_

#### GEOMETRICS

(112) NBIS BRIDGE LENGTH [_]	(49) STRUCTURE LENGTH []
(210) TOTAL NUMBER OF SPANS []	(45) NUMBER OF SPANS MAIN UNIT []
(46) NUMBER OF APPROACH SPANS [	] (209) CONTINUOUS SPANS []
(48) LENGTH OF MAXIMUM SPAN [	
(264) TYPE AND SPAN [	<del></del>
	2
(238) NUMBER OF STRINGERS OR GIRDERS M	MAIN SPAN(S) OF ORIGINAL STRUCTURE []
(239) NUMBER OF STRINGERS OR GIRDERS M	MAIN SPAN(S) OF WIDENED STRUCTURE []
(240) SPACING OF STRINGERS OR GIRDERS M	MAIN SPAN(S) OF ORIGINAL STRUCTURE []
(241) SPACING OF STRINGERS OR GIRDERS M	MAIN SPAN(S) OF WIDENED STRUCTURE []
(51) BRIDGE ROADWAY WIDTH, CURB-TO-C	URB []
(52) DECK WIDTH, OUT -TO- OUT [	]
(50) CURB OR SIDEWALK WIDTHS [][	
(223) SHOULDER WIDTHS ON STRUCTURE [_	'"]['"]['"]
(33) BRIDGE MEDIAN []	
(205) BRIDGE MEDIAN WIDTH []	
(32) APPROACH ROADWAY WIDTH [][	][]
(35) STRUCTURE FLARED []	
(10) INVENTORY ROUTE, MINIMUM VERTICA	AL CLEARANCE ['"]
(47) INVENTORY ROUTE, TOTAL HORIZONTA	AL CLEARANCE []
(53) MINIMUM VERTICAL CLEARANCE OVER	R BRIDGE ROADWAY ['"]
(54) MINIMUM VERTICAL UNDERCLEARANC	E []['']

(55) MINIMUM LATERAL UNDERCLEARANCE ON RIGHT (OUTSIDE) [][]
(56) MINIMUM LATERAL UNDERCLEARANCE ON LEFT (INSIDE) [,]
(342) HORIZONTAL CLEARANCE (ON) [][]
(280) HORIZONTAL CLEARANCE (UNDER) []
(34) SKEW ANGLE [] (253) NUMBER OF CELLS []
(254) MINIMUM RISE ['"] (256) MINIMUM SPAN OF CELL(S) ['"]
(258) MINIMUM FILL HEIGHT []
(343) CENTERLINE LENGTH - CULVERTS, PIPES OR ARCHES AND RIGID FRAMES WITH FILL [ ]

STRUCTURE #

#### LOAD RATINGS AND POSTING

(41) STRUCTURE OPEN, POSTED OR CLOSED TO TRAFFIC []
(31) DESIGN LOAD [] (224) WEIGHT POSTED []
(398) PEDESTRIAN LOADING [] (399) RAILROAD LOADING []
(70) BRIDGE POSTING [_] (66) INVENTORY RATING HS VEHICLE [
(65) METHOD USED TO DETERMINE INVENTORY RATING [_]
(64) OPERATING RATING HS VEHICLE []
(63) METHOD USED TO DETERMINE OPERATING RATING []
(400) DATE OF RATING [] []
(402) INVENTORY RATING HL-93 VEHICLE []
(401) OPERATING RATING HL-93 VEHICLE []
(404) INVENTORY RATING H-15 VEHICLE []
(403) OPERATING RATING H-15 VEHICLE []
(406) INVENTORY RATING T3 (DUMP TRUCK) VEHICLE []
(405) OPERATING RATING T3 (DUMP TRUCK) VEHICLE []
(408) INVENTORY RATING T4 REDUCED LIFT AXEL VEHICLE (69,999LBS) []
(407) OPERATING RATING T4 REDUCED LIFT AXEL VEHICLE (69,999LBS) []
(410) INVENTORY RATING HS VEHICLE []
(409) OPERATING RATING HS VEHICLE []
(412) INVENTORY RATING 3S2 VEHICLE []
(411) OPERATING RATING 3S2 VEHICLE []
(414) INVENTORY RATING 150K. VEHICLE []
(413) OPERATING RATING 150K. VEHICLE []
(416) INVENTORY RATING 90K. PERMIT COMBINATION VEHICLE [
(415) OPERATING RATING 90K PERMIT COMBINATION. VEHICLE []

(418) INVENTORY RATING 90K MOBILE CRANE VEHICLE []
(417) OPERATING RATING 90K MOBILE CRANE. VEHICLE []
(420) INVENTORY RATING 90K CARGO VEHICLE []
(419) OPERATING RATING 90K CARGO. VEHICLE []
(422) INVENTORY RATING 80K CARGO VEHICLE []
(421) OPERATING RATING 80K CARGO. VEHICLE [
(424) INVENTORY RATING 120K VEHICLE []
(423) OPERATING RATING 120K. VEHICLE []
(426) INVENTORY RATING 108K MOBILE CRANE VEHICLE []
(425) OPERATING RATING 108K MOBILE CRANE. VEHICLE [
(428) INVENTORY RATING 120K MOBILE CRANE VEHICLE [
(427) OPERATING RATING 120K MOBILE CRANE. VEHICLE []
(225) SPEED LIMIT ON STRUCTURE []
(226) MINIMUM VERTICAL CLEARANCE OVER STRUCTURE ROADWAY SIGNED []
(227) MINIMUM VERTICAL UNDERCLEARANCE ON ROADWAY UNDER STRUCTURE SIGNED [ ]

STRUCTURE # CONDITION INSPECTION (90) ROUTINE INSPECTION DATE [\_\_\_][\_\_\_] (290) ROUTINE INSPECTION COMPLETION DATE [\_\_\_\_\_\_\_\_] (91) ROUTINE INSPECTION FREQUENCY [ } (291) ROUTINE INSPECTION MONTH [ (92) CRITICAL FEATURE INSPECTION (93) CRITICAL FEATURE INSPECTION DATE (59) SUPERSTRUCTURE [ ] (58) DECK [ ] (60) SUBSTRUCTURE [\_\_] (61) CHANNEL AND CHANNEL PROTECTION [ ] (310) INSPECTION DATA UPDATE DATE [\_\_\_\_\_\_\_] (62) CULVERTS [ ] (311) INSPECTION TEAM [\_\_\_\_\_] (312) INSPECTOR [ \_\_\_ ] (313) REVIEWER [ \_\_\_ ] (314) HOURS TO INSPECT [ ] (315) DECK PUNCTURES [ ] (316) DECK PLANKING [\_\_\_] (317) DECK PATCHING [\_\_\_] (318) BLOCKING [ ] (319) POWER WASHING [ ] (320) IDENTIFICATION NUMBER [\_] (321) INVENTORY DIRECTION [\_\_\_\_] (322) LOOKING TOWARD \_\_\_\_\_\_ (323) PERMIT [ ] (324) NIGHT WORK [ ] (325) WEEKEND WORK [ ] (326) MAINTENANCE OF TRAFFIC STANDARD(S)

(327) MOT COMMENTS

(328) LOCATION OF MINIMUM VERTICAL UNDERCLEARANCE		
	<del></del>	
(329) CRITICAL FINDING(S) []		
(330) CRITICAL FINDINGS COMMENTS	]	
(331) CAUTION COMMENTS	]	*:
(332) POSTING SIGNS [_] (340) INSPECTION EQUIPMENT [		]
(333) MODIFIED HANDS-ON-INSPECTION (MHOI) []		
(334) MHOI LOCATIONS		
(335) ADVANCE NOTIFICATION [_]		

STRUCTURE #				
APPRAISAL				
(67) STRUCTURAL EVALUATION [_]	(68) DECK GEOMETRY []			
(69) UNDERCLEARANCE, VERTICAL AND HORIZ	ZONTAL [_]			
(71) WATERWAY ADEQUACY [_] (72) A	PPROACH ROADWAY ALIGNMENT []			
(36) TRAFFIC SAFETY FEATURES [_][_][_]	(SR) SUFFICIENCY RATING []			
(DT) DEDUCT CODE [_][_]	(STAT) STATUS [_]			
(113) SCOUR CRITICAL BRIDGES [][]				

	Sil	TRUCTURE	.#	
	N.	AVIGATIO	N/HYDRAULIC	
(38) NAVIGA	TION CONTROL [_] (39)	) NAVIGATI	TION VERTICAL CLEARANCE []	
(40) NAVIGATION HORIZONTAL CLEARANCE []				
(111) PIER OR	ABUTMENT PROTECTION	N (FOR NA	VIGATION) []	
	IM NAVIGATION VERTICA NCE, VERTICAL LIFT BRI			
(247) DESIGN	YEAR STORM []	1	(248) RUN-OFF-Q []	
(249) DRAINA	GE AREA [	_]	(250) STRUCTURE IN TIDAL AREA []	
(251) HIGH W	ATER ELEVATION [	]		
(252) YEAR H	IGH WATER ELEVATION	- LATEST [		
NOTE:	Do not code Items (67), (6 the Edit/Update Program a		SR), (DT) or (STAT). These items are calculated by in italics.	

STRUCTURE # \_\_\_\_\_

#### HISTORY AND PROPOSED IMPROVEMENTS

(201) CONTRACT NUMBER	][	]
	][	
(203) SHA SPECIFICATIONS [		]
(204) AASHTO SPECIFICATIONS	· 	
(75) TYPE OF PROPOSED WORK		
(76) LENGTH OF PROPOSED STR	UCTURE IMPROVEMENT [	]
(94) PROPOSED BRIDGE CONSTR	RUCTION IMPROVEMENT COST [	
(95) PROPOSED ROADWAY CON	STRUCTION IMPROVEMENT COST [_	
(96) TOTAL PROPOSED PROJECT	COST []	
(97) YEAR OF PROPOSED IMPRO	VEMENT COST ESTIMATE [	]

STRUCTURE # \_\_\_\_\_

#### **MISCELLANEOUS**

(244) SIGNS ON STRUCTURE []
(245) STRUCTURE ROADWAY LIGHTING []
(246) PROVISION FOR ROADWAY LIGHTING []
(260) UTILITIES ON STRUCTURE [_][_][_][_]
(261) UTILITIES UNDER, OVER OR ADJACENT TO THE STRUCTURE [_][_][_]
REMARKS (VARIABLE CHARACTER LENGTH)

STRUCTURE # \_\_\_\_\_

NOISE BARRIER			
501) TYPE [] [] []	(502) ALIGNMENT [_] [_] [_]		
503) LENGTH []	(504) MAXIMUM HEIGHT []		
505) FOUNDATION TYPES [_] [_] [_]			
506) FOUNDATION LENGTH [] [	][]		
507) PANEL WIDTH []	(508) NUMBER OF SPECIAL PANEL(S) []		
509) PANEL MATERIAL [] [] [] [	]		
510) FACING (ACOUSTIC TREATMENT) []			
511) PANEL FINISH (AESTHETIC TREATMENT)	] (512) PANEL COLOR [] [		
513) FEDERAL COLOR [ ] [	1		

(514) STACKED PANELS [\_\_]

(516) ACCESS DOORS [\_\_\_]

(518) RETROFITS [\_\_]

(515) POST MATERIAL [\_]

(517) FIRE HYDRANTS [\_\_\_]

STRUCTUR	E#	
RETAINING WALL		
(550) TYPE [][][]	(551) ALIGNMENT [_][_][_]	
(552) SEGMENT LENGTH (S) [] [	][]	
(553) MAXIMUM EXPOSED HEIGHT []		
(554) FOUNDATION TYPES [_] [_] [_]	(555) TIEBACK [_]	
(556) FACING []	(557) WITH FENCE OR RAIL [ ]	
558) WITH NOISE BARRIER []	(559) PURPOSE []	