



STATE OF CONNECTICUT

DEPARTMENT OF TRANSPORTATION

2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546



Office of the
Commissioner

An Equal Opportunity Employer

Public Hearing – February 13, 2013
Transportation Committee

Testimony Submitted by Commissioner Jim Redeker
Department of Transportation

Proposed H.B. 5544 – An Act Requiring Notice to the Public of Structurally Deficient and Functionally Obsolete Bridges.

The Department of Transportation (ConnDOT) has several concerns with Proposed 5544. The primary concern is the implication that the public is being allowed to travel over unsafe bridges. A secondary concern is the cost involved in installing and maintaining signs at all required bridges, given the Department's limited resources and the speculative benefits that might accrue to the public by so posting deficient bridges.

As drafted, the bill appears to apply to both State-owned and municipally-owned bridges. There are, as of this writing, approximately 2,000 bridges in the State of Connecticut which would meet the posting requirement by being either structurally deficient or functionally obsolete. About half of that number are owned by the State, with the other half owned by municipalities. It is estimated that it would cost roughly \$1,000 to produce and install 2 signs at each bridge, so the initial cost to post all deficient bridges in the State would be in the vicinity of \$2 million. Once installed, the signs will have to be checked and maintained, and replaced when missing or no longer legible, so there will be on-going maintenance costs as well.

Attached is *The 2012 Bridge Report* which outlines the entire bridge program but more specific to this discussion provides details regarding the bridge inspection program as well as the maintenance efforts and the capital construction program that flows from that inspection process.

The purpose of a bridge inspection program is to identify issues which, if not addressed in a timely manner, could potentially result in a bridge needing to be restricted or closed to ensure the safety of the public. The bridge inspection results in a numerical rating (0-9) for the bridge. A rating of 4 or less in any one element of the bridge (deck, superstructure, substructure, etc.) results in a "poor" rating and it is then considered "structurally deficient." A bridge which is determined to be structurally deficient is NOT necessarily inherently unsafe, which every State DOT takes pains to point out whenever a story on deficient bridges appears in the media. Another term used in the bridge arena is "functionally obsolete" which refers to the appropriateness of the physical characteristics. That is, is there sufficient clearance under the bridge? Are the shoulders sufficiently wide enough, etc? Some functionally obsolete bridges may represent a slight increase in risk to the travelling public, but such bridges are already posted on a case-by-case basis, and motorists tend to compensate for the increase in perceived risk by slowing down.

ConnDOT's bridge inspection program is driven by federal bridge inspection standards, which are the basis of every state's bridge inspection program. The posting of structurally deficient or functionally obsolete bridges, for those reasons alone, is not part of the national standards, and the Department is not aware of any other state which post notices at a bridge just because they are structurally deficient or functionally obsolete. A bridge which is structurally deficient or functionally obsolete will be programmed for repair or replacement, but as long as it is safe, it will be allowed to remain open pending corrective action.

If a bridge is determined to be safe, it will remain open. A bridge which is determined to be unsafe will be closed. Therefore, the Department can see no safety benefit to posting bridges just because they are structurally deficient or functionally obsolete. While such posting may raise public awareness of the condition of the State's bridge inventory, there would also have to be a massive public education program to prevent panic over widespread appearance of new signs which seem to indicate that large numbers of dangerous bridges exist. Such a campaign is beyond the present resources of the Department.

The Department appreciates the intent of this bill, but for the reasons noted above, we respectfully oppose.

For further information or questions, please contact Pam Sucato, Legislative Program Manager for the Department of Transportation, at (860) 594-3013.

The 2012 Bridge Report

(March 2012)

Executive Summary

The 2012 Bridge Report is a story of guarded optimism. Many positive things are happening from the perspective of construction activities, funding and results. However, as noted herein there are still challenges to future funding at the state and federal levels as well as a need to address the condition of locally owned structures.

The Department of Transportation (Department) owns, maintains and inspects 3,968 bridges. It also inspects 1,282 additional structures, mostly town owned, on a biennial basis. There are currently 318 state bridges in "poor" condition (8%) and an outstanding backlog of approximately 4183 bridge maintenance issues identified as a result of the inspection process. For perspective, in 1998 after a 14 year sustained Bridge investment program, the number of bridges in poor condition had been reduced to 148 (under 4%). The number of structurally deficient state bridges has been rising steadily since that time. Deficient bridges often require special inspections and as such, the number and cost of those inspections continues to rise also.

Bridges are also evaluated in terms of their functional adequacy (i.e. is it wide enough, is it high enough, etc.). An additional 26% of the state's inventory of bridges is considered functionally obsolete. These deficiencies are not typically acted upon by the Department except in conjunction with a capital investment driven by the structural deficiency.

Bridge conditions are addressed in two general ways, through maintenance or preservation efforts and through its capital investment program. In 2010 the Department refocused its efforts on preservation of all infrastructure assets; bridges, pavements, signage, etc. With bridge performance metrics lagging, the Department focused on maintenance activities and state of good repair operations to reduce a growing backlog of bridge maintenance needs identified in the biennial inspection program. Utilizing appropriated monies (Pay As You Go, PAYGO), the Department set aside other priorities and expanded short term maintenance activities. There are already signs of having stemmed the rising backlog of Bridge Maintenance Memos (BMMs) in one construction season. With the recent increase in PAYGO budgets for 2012 and 2013, we expect substantial results going forward.

The Capital infrastructure program is funded with federal funds and state bond programs. Since 2008 there has been a marked increase to the capital program funds. In 2012 the capital program exceeds \$1 billion buoyed by significant Fix it First fund increases over previous years. A long term commitment to a state bonded Capital Program is still needed as historically funding levels can be erratic. A review of the current 5 year Capital Plan provides evidence of the uncertainty of funding. In 2014-2016, the plan is funded at just roughly \$650 million, almost entirely reliant on federal transportation funding and the minimum state matching requirements. A more consistent and sustained state program would allow for a better planned approach to system preservation efforts. At the federal level, the last long term transportation funding program expired in 2009 and has been intermittently extended at previous funding levels. The future federal funding level is anything but secure. To date, there has not been a reduction in the yearly appropriations that come with those short term extensions and the 5 year Capital Plan assumes a level appropriation going forward. This may be optimistic given the current language in legislation making its way through Congress.

The good news is the recent expansion in the State infrastructure investment program may already be showing results as the backlog of bridge maintenance issues identified in the inspections

would appear to have been stemmed. A continuation of the existing state bridge funding levels (remember they are not currently budgeted) would result in a higher sustained programming level and would be expected to achieve measureable progress in the years to come.

A challenge moving forward involves funding for major state owned structures which individually are difficult to program within a sustained (ongoing and consistent) funding program. Structures such as the Aetna Viaduct (I-84 in Hartford) will require as much as \$2 billion dollars to replace. Other examples include the bridges carrying I-84 through the Waterbury "mix master" with Route 8; the I-95 bridge over West River in West Haven; eventual replacement of the Putnam Bridge, and a number of others. Yet another challenge involves the condition of locally owned bridge assets. Of 1243 locally owned bridges over 20 feet in length, 189 are rated poor, 15%. The Department of Transportation inspects these larger locally owned structures on behalf of the Municipalities. We would anticipate similar if not worse conditions on the smaller and often less travelled municipal bridges.

Inspections - Bridge Safety and Evaluation Program

In compliance with the Code of Federal Regulations, Title 23, Chapter 1, Part 650, the Department inspects all highway bridges in excess of 20 feet in span length located on public roads, regardless of ownership, at least once every two years and maintains an inventory of those structures as part of the National Bridge Inventory System (NBIS). We also inspect bridges and culverts on State highways between 6 feet and 20 feet in span length often referred to as non-NBI structures. This effort is performed by the Department's Office of Bridge Safety and Evaluation (BS&E) with approximately 40 staff members and six (6) Consulting Engineers under contract to the Department, at a combined annual cost of approximately \$ 20 million per year.

In total, the Department inspects 5,250 structures on a biennial basis. Of these structures, 3968 are maintained by the state and 1282 are maintained by others (mostly towns, Conn DEEP and other privately owned structures). The aggregation of data from the inspection reports is stored in a database maintained by the Department, which is queried in the spring of each year to formulate a report of the Connecticut Bridge Inventory and Condition Ratings. This annual report is shared with Washington DC for the purpose of proportioning the federal share of bridge rehabilitation funds to the various State Highway Agencies based on the identified needs of the state. The latest published data for the condition of the State's bridges, dated April 14, 2011, indicates that of the 3968 state maintained structures, 1,287 are in good condition, 2,363 are in fair condition and 318 are in poor condition. Additionally, it has been determined that 1,031 bridges are considered to be functionally obsolete, which is a measure of the level of service a structure provides on the highway system of which it is a part. These functional ratings relate to the underside vertical and horizontal clearance of the bridge, the width of the bridge as related to the volume of traffic carried, the adequacy of the waterway opening to convey flow under the bridge or the structural adequacy of the bridge in terms of the maximum load able to be carried. Although it is often stated that almost 34% of the state maintained bridges are structurally deficient or functionally obsolete, it should be noted that only 8% of the state maintained bridges are actually in poor structural condition.

The average age of a bridge in this inventory of bridges is approximately 53 years old and since many of these bridges predate the post war development of the 1950's, the traffic demand on many of the State's bridges is significantly greater than what they were originally designed for. This results in an increasing number of structures requiring routine maintenance or structural attention.

On the municipal side, the Department inspects 1,243 locally maintained bridges with span lengths greater than 20 feet on a biennial basis. The Department performs these inspections to ensure

compliance with federal reporting requirements and thus eligibility for federal bridge funding. Of the 1243 local bridges 187 are rated poor, 15%. Pursuant to state legislation in 1987, the Department conducted a one-time study of municipal bridges with span lengths between 6 feet and 20 feet. The purpose of this study was to determine the physical condition of town bridges and the costs associated with their repair or replacement. This study, which involved the collection of inventory data on an additional 2,203 local bridges, was completed on April 30, 1992 and a final report was forwarded to the General Assembly in June of 1993. At that time, 10 % of those local bridges between 6 and 20 feet were found to be rated poor or below. Overall, 34% of the state maintained bridges are structurally deficient or functionally obsolete, whereas, 28% of the municipally owned bridges are structurally deficient or functionally obsolete. However it should be noted that only 8% of the state maintained bridges are actually in poor condition, compared to 12% of the municipally maintained bridges considered to be in poor condition.

Certain bridges (both state and municipally owned) with acute structural deficiencies are inspected at a more frequent interval (12, 6, 3 and every month) depending on the severity of the defects, until the condition(s) are corrected. Since 2007 the number of bridges requiring special inspections has steadily increased from 169 in 2007 to 260 in 2011. When extending out the number of special inspections per bridge, the actual number of inspections remains relatively constant at approximately 400 inspections per year with associated annual cost of over \$600,000. These trends indicate that there is no overall growth or reduction of annual special inspection needs perpetuating this financial burden indefinitely. The reduction of special inspections is a goal of this agency.

Bridge Maintenance Memo (BMM)

Bridge Maintenance Memos (BMMs) are intra-agency directives to repair or maintain specific bridge elements resulting from the periodic inspection program.

Connecticut experienced an exponential growth in outstanding BMM's from 750 in 2001 to approximately 2000 in 2011 containing 3500 line items of work. This increase was caused in part by:

- Most importantly, a long term shortage of appropriated funds (PAYGO) limiting the type and level of maintenance efforts that can be performed on any of our assets. Bond monies have been and continue to be the primary source of funding for infrastructure improvements. With their 20 year commitment, these monies can only be spent on longer term capital improvements.
- An aging infrastructure (average State bridge is 53 years old) will logically require a greater level of maintenance needs as time goes on.
- Increased focus of the State's inventory of truss bridges as a result of the Minnesota I-35W bridge collapse resulting in more intensive inspections and suggested repairs of fracture critical bridges with gusset plates.

These BMM's primarily include deck patching, joint replacement and repair, repair and painting of steel beam ends, bearing replacement, scour and stream remediation and substructure repair work. In 2010, the Bureau of Highway Operations implemented a work plan to address the outstanding bridge memos. Additional appropriated (PAYGO) funding was used to contract for more, larger repairs to bridges. This effort resulted in the leveling off of outstanding BMM work but did not start a downward trend. This work plan included;

- Dedicating \$20 million per year for 5 years toward Bridge Preservation efforts including BMM reduction

- Evaluate BMM's by line item and categorize by eligibility - Federally qualifying work verses State qualifying work
- Evaluate methods to accomplish bridge preservation work - Design, Bid, Build with combination of federal/state funding, DAS contract with Maintenance Bridge Repair Unit, Work by State Forces
- Hiring 25 Bridge Maintainers

Structurally Deficient Bridges

The collapse of the Mianus River Bridge in June of 1983 gave the legislature the impetus to establish a Special Transportation Fund, to which all motor vehicle related revenue will be dedicated thus assuring that dollars collected in motor vehicle taxes will be used for the repair of our transportation system. The Transportation Infrastructure Renewal Program outlined the funding needs, the supporting taxing requirements and the proposed improvements to Connecticut's roads, bridges, transit system and related facilities.

In 1983 Connecticut was faced with a backlog of 520 poor bridges with the expectation that an additional 110 bridges will become deficient in each year following. Because of the potential emergency condition that these bridges presented, there was a general consensus that the necessary repairs should be expedited utilizing simultaneous design efforts, to the extent affordable, to extinguish the backlog as quickly as possible.

As predicted, the deficient bridge list grew in the years following hitting an all-time high of 685 poor bridges in 1988. However, the benefits of the Infrastructure Renewal Program soon became apparent in the following years with a steady decrease in the number of poor bridges, reaching a historic low in 1998 of 148 poor bridges.

Since then we have been experiencing a slow but steady rise in the population of poor bridges and as of the last reporting period, April 14, 2011, Connecticut has a total of 318 state maintained poor bridges. This increase may be due to a combination of factors including but not limited to:

- Connecticut's aging infrastructure network and increased traffic demands
- Decreased Maintenance funding, staff and resultant activities
- Increased focus on inspection efforts and staffing as a result of the I-35W bridge collapse (rate of defect recognition exceeding rate of defect correction)
- Assigning financial priority to other major initiatives (I-95 corridor improvement projects, Q-Bridge replacement, I-91/I-95 interchange reconstruction, replacement of the Moses Wheeler Bridge) out of limited capital program funds
- Lack of a long term Federal Transportation Bill and sustained funding levels
- Reduced Engineering and support staff

The average number of newly categorized deficient bridges over the last 10 years remains relatively constant at approximately 30 bridges per year. However our inability to decrease or at least arrest the growth of deficient bridges is disconcerting. *The trend over the last decade has been that for every bridge removed from the deficient list, approximately two more bridges in our inventory become so.* More disturbing is the fact that many of Connecticut's major structures are approaching the end of their service life with a replacement cost that is severely beyond our financial means to address. The

need to improve our efficiency in this regard is paramount (see New Initiatives below).

The Department is additionally concerned with the increasing duration of project engineering efforts and the delay of project delivery on structurally deficient bridges. This results in poor bridges remaining in poor condition for a greater period of time. Our inspection records indicate that approximately 30% of the State maintained structurally deficient bridges are in "serious" or "critical" condition. Almost 50% of serious or critical structures are culverts necessitating increased inspection frequency and associated cost.

State of Good Repair efforts, Preservation and Capital Investment

In 2010 the Department refocused its efforts on preservation of all infrastructure assets; bridges, pavements, signage, etc. Assets conditions are addressed in two general ways, through maintenance or preservation efforts and through its capital investment program.

Preservation: Appropriated Pay-As-You-Go (PAYGO) funding is typically utilized for maintenance level activities. For many years, PAYGO appropriations had been very low approximately \$12.5 million annually. These non-bonded monies provide for work performed by state forces and contract services. The demands for this funding are significant and include bridge inspection activities, pavement maintenance, line striping, tree cutting, culvert maintenance, grass cutting and property management. In a typical year, over \$4 million is expended to match federal funds for bridge inspections alone. For 2011, the Department set aside other priorities for the PAYGO funds, freed up \$3.5 million, and expanded short term bridge maintenance activities. There are already signs of having stemmed the rising backlog of Bridge Maintenance Memos (BMMs) in one construction season. In 2012, the budget included a PAYGO funding level of \$27.7 million, a substantial increase that allowed the Department to allocate \$7.0 million for preventative bridge maintenance. Governor Malloy's 2013 budget proposes similar levels of PAYGO funding. With the recent increase in PAYGO budgets for 2012 and 2013, we expect substantial results going forward.

Capital Program: The Capital infrastructure program is funded with federal funds and state bond programs. Historically the state has been very reliant on federal highway funds. Most federal funding comes with a match requirement of 20% representing the minimum required state participation. The entire capital program had been typically 30 to 40% state funded. However, beginning in 2006 additional state bond programs have added to the Department's capital program and in 2012, the participation ratio has reached approximately 50% state with several notable short term bond programs.

In State Fiscal Year 2008, the Legislature approved a new category of bond funding called Fix It First (FIF) which specifically allocated \$135 million for bridges over 3 years (\$45 mill for 2008, 2009 and 2010). In the 2012 and 2013 biennial budget the Malloy administration renewed the FIF Program for bridges at \$ 66 million and \$ 64 million respectively. An additional \$50 million in bridge FIF funding was legislated in the October 2011 special session (SFY2012). In 2012 the overall capital program exceeds \$1 billion buoyed by these significant Fix it First bond fund authorizations. At the time of this writing, the Governor's mid-term budget adjustment calls for an additional \$90 million in state bridge bonds for SFY 2013 which could bring the 2013 capital program well over \$900 million (combined federal and state).

The 6 year Federal Transportation Bill expired September 2009. Fortunately that legislation continues to provide funding at existing levels by a series of continuing resolutions. Therefore federal

bridge funding has been relatively steady over a long period of time. Future spending levels for the new federal transportation bill continue to be discussed in Washington, the outcome of which is still unknown. Current proposals tend to reduce the targeted “pots” of funding while allowing states more flexibility to allocate their federal funding to their priority needs. We support that particular aspect of the proposed bills though most proposals call for reductions in the overall funding nationally and specifically for Connecticut.

Connecticut’s highway and bridge capital programming effort would benefit significantly from a long term, sustained state funding commitment beyond the two year budget cycle. Evidence of the uncertainty of state funding can be found in the 5 Year Capital Plan summary (attached). In 2014-2016, the plan is funded at just roughly \$650 million, almost entirely reliant on federal transportation funding and the minimum state matching requirements. A more consistent and sustained state program would allow for a better planned approach to system preservation efforts. Adding to the uncertainty of the Capital Plan is that it assumes continued federal funding levels as we have seen for the past 9 years. However, this may be optimistic given the funding levels of the various proposals in Congress.

New Initiatives

Faced with the uncertainty of sustained funding levels, both on the State and Federal level, along with decreasing engineering, maintenance and administrative supportive staff, the Department faces new challenges with regard to maintaining a safe and serviceable transportation system. Preventative maintenance and preservation of the system will be paramount along with developing more efficient and expeditious project delivery systems. The rehabilitation or replacement of bridges on our major expressways will need to be coordinated with future corridor improvements to ensure that the service life of the repaired structure is consistent with the future needs of the corridor.

To this end, in 2011, the Department reorganized its engineering staff to realign the bridge design and inspection units into one division under one Transportation Division Chief. The purpose of this organizational change was to streamline the overall management responsibility for the bridge program, and to facilitate communication and coordination between the various bridge units. The new organization will foster a closer relationship between bridge inspection and design services. Further, the new Division of Bridges and Facilities was internally re-organized resulting in;

- Modifications to the Bridge Safety and Evaluation Unit inspection assignments and regions between staff and consultant inspectors thereby building efficiencies in the State wide bridge inspection effort.
- Creation of a new “Bridge Management Group” for the purpose of working on improving and streamlining the overall bridge management and decision making process, as well as to improve on design project delivery.
- The creation of a Major Bridge Unit within the Bridge Consultant Design Section with responsibility for the 60 identified major bridge structures for the purpose of developing individual action plans for the State’s major bridges, to include preservation, rehabilitation and replacement requirements for each major bridge.

The Division of Bridges and Facilities also released solicitation for two bridge task order based contracts in order to have bridge engineering consultants available on an “on-call” basis to perform bridge design and support activities. Legislative initiatives were also created in order to re-fund the State Local Bridge Program which provides funding to municipalities for local bridge rehabilitation and

replacement projects.

Further, the Department proposes to instill infrastructure renewal initiatives in an effort to stem the growth and reduce over time the number of poor bridges. Part and parcel of this initiative will be to find ways of expediting the project delivery process. Some of the initiatives in the Department's Bridge Plan include:

- Making repairs and/or programming interim rehabilitation to Major Structures in an effort to extend their service life postponing replacement
- Development of a General Permit for construction of minor structures that will expedite the project delivery process
- Making more use of Task Based On-Call consultant engineering services to increase engineering production
- Employing "Accelerated Bridge Construction" (ABC) techniques to bridge design projects in an effort to reduce construction cost and duration
- Gain Legislative approval of alternate project delivery systems such as "Design Build" or "Construction Manager at Risk" in an effort to expedite project delivery
- Develop or Invest in a Systematic Bridge Preventative Maintenance program that makes effective use of limited financial assets
- Develop and receive DEEP approval of a Bridge washing program that cleanses bridges of corrosive de-icing chemicals decreasing the rate of decay
- Re-prioritize the 5 year Capital Plan to move unfunded bridge projects into the fundable category as bridge program dollars become available
- Strive to develop a "bin" of bridge projects to justify additional "end of the year" federal funding requests
- Develop a "culvert program" with a streamline project delivery process that fosters in-situ rehabilitation under live traffic conditions (re-lining) rather than disruptive open cut trench culvert replacement

It is expected that an annual review/update of this Bridge Report will measure the effectiveness of the initiatives stated within, allowing the Bridge Program to make adjustments as necessary to affect quantitative improvements to the State's infrastructure.

**Connecticut Department of Transportation
Bridge Inventory and Condition Ratings**

2010 Inventory Reported April 14, 2011

Structure Inventory	Number of Bridges or Structures	ConnDOT Rating			Functionally Obsolete (5)
		Good (1)	Fair (2)	Poor (3)	
Total Structures Maintained by ConnDOT	3,988	1,287	2,363	318	1,031
Total Structures Maintained by Others	1,282	484	607	191	239
TOTAL	5,270	1,771	2,970	509	1,270

Highway Bridges Maintained by ConnDOT (Inspected by ConnDOT)	Number of Bridges	Good (1)	Fair (2)	Poor (3)	Structurally Deficient (4)	Functionally Obsolete (5)
State NBI	2,802	889	1,724	189	189	780
State Non-NBI	1,009	316	576	117	119	152
Adopted	58	27	21	10	10	41
Orphan	81	44	36	1	1	58
Subtotal	3,950	1,276	2,357	317	319	1,031

Special Structures Maintained by ConnDOT (Inspected by ConnDOT)	Number of Structures	Good (1)	Fair (2)	Poor (3)
Pedestrian - State	17	11	6	0
Tunnel - State	1	0	0	1
Subtotal	18	11	6	1

Highway Bridges Maintained by Others (Inspected by ConnDOT)	Number of Bridges or Structures	Good (1)	Fair (2)	Poor (3)	Structurally Deficient (4)	Functionally Obsolete (5)
Town NBI	1,243	471	585	187	189	234
Town Non-NBI (05905)	1	1	0	0	0	0
ConnDEP	13	4	8	1	1	2
Private	9	6	2	1	1	3
MDC (06810)	1	0	1	0	0	0
Subtotal	1,267	482	596	189	191	239

Special Structures Maintained by Others (Inspected by ConnDOT)	Number of Structures	Good (1)	Fair (2)	Poor (3)
Pedestrian - Town	6	1	4	1
Pedestrian - ConnDEP	2	1	1	0
Pedestrian - Private	3	0	2	1
Building - Town	3	0	3	0
Railroad - Private	1	0	1	0
Subtotal	15	2	11	2

(1) ConnDOT Rating of "Good" includes Federal Rating Values of 7 or above

(2) ConnDOT Rating of "Fair" includes Federal Rating Values of 5 & 6

(3) ConnDOT Rating of "Poor" includes Federal Rating Values of 4 or less

(4) Structurally Deficient includes "poor" rated bridges & structures, bridges with "very low" load ratings (less than 12 Tons capacity) which require replacement, and bridges with an insufficient waterway opening causing frequent flooding with severe traffic delays.

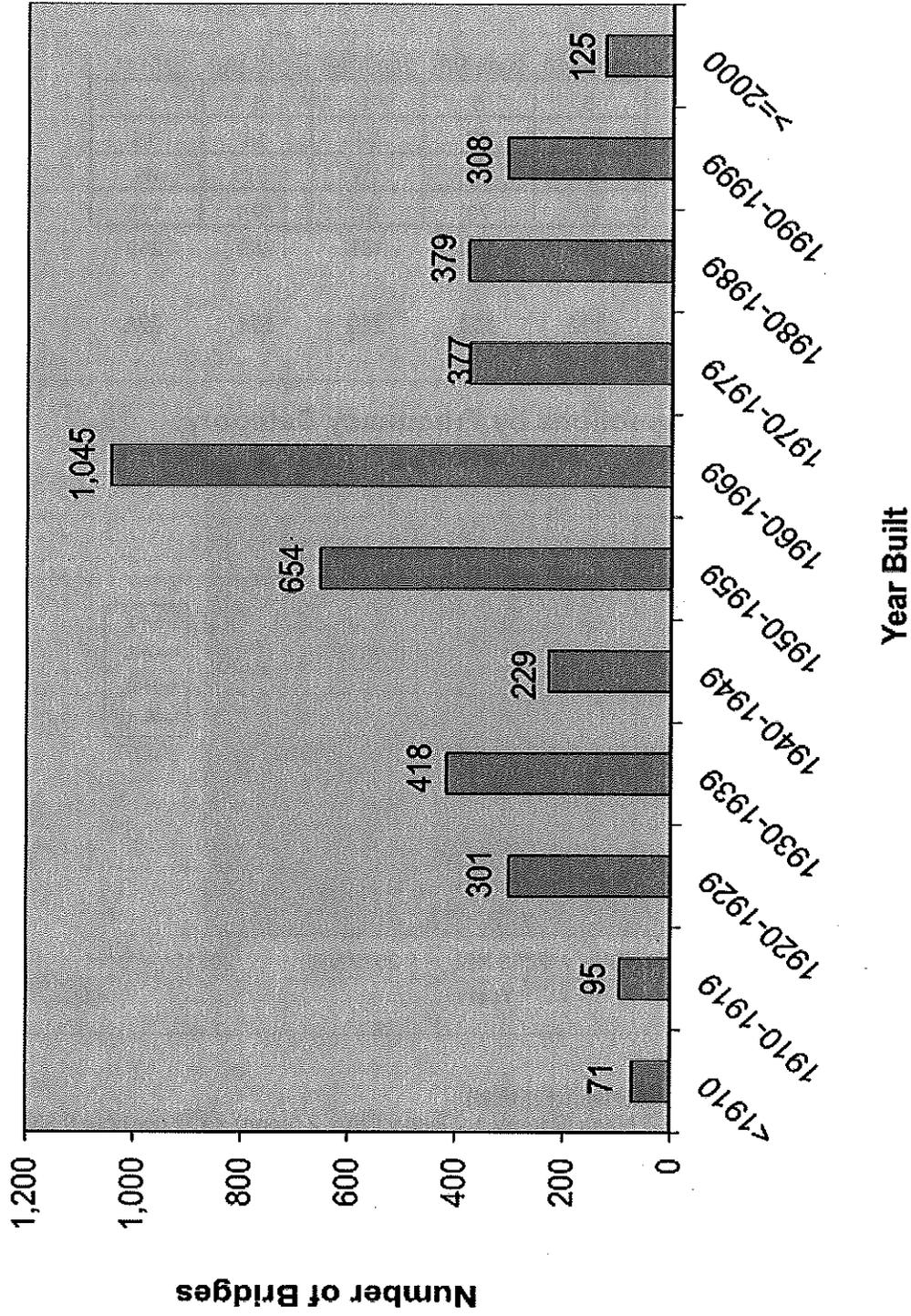
(5) Functionally Obsolete includes bridges with appraisals of 3 or less for the deck geometry, underclearances, approach roadway alignment, structural condition or waterway adequacy.

Prepared by:
Connecticut Department of Transportation
Bridge Safety and Evaluation Section

Connecticut's Aging Infrastructure

(State Maintained)

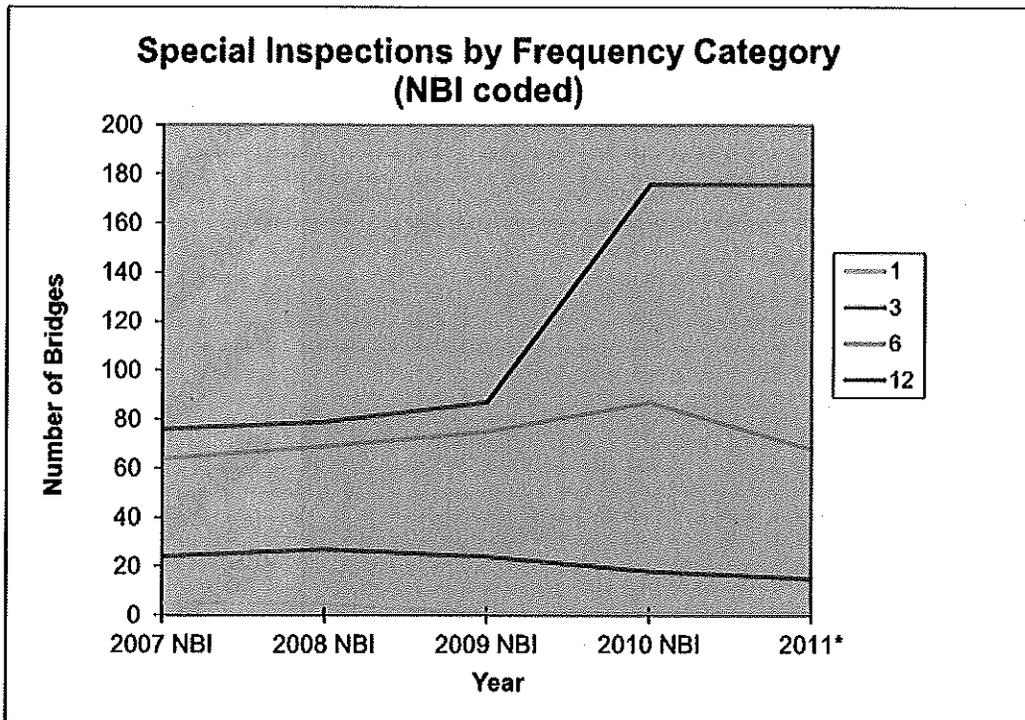
Updated per 2010 NBI



BRIDGE TRENDS - SPECIAL INSPECTIONS

Special Frequency	2007 NBI	2008 NBI	2009 NBI	2010 NBI	2011*
1 month	5	5	1	1	1
3 month	24	27	24	18	15
6 month	64	69	75	87	68
12 month	76	79	87	176	176
Sum	169	180	187	282	260

Total Special Inspections	<u>360</u>	<u>385</u>	<u>345</u>	<u>434</u>	<u>384</u>
----------------------------------	-------------------	-------------------	-------------------	-------------------	-------------------



Estimated Labor Cost Per Special Inspection:

Inspectors: 2 Inspectors x 6 hours (2 travel + 2 inspection + 2 report) x \$32 per hour = \$384

TE3: 6 hours (2 travel + 2 inspection + 2 review) x \$50 per hour = \$270

Supervisor: 1 hour x \$53 per hour = \$53

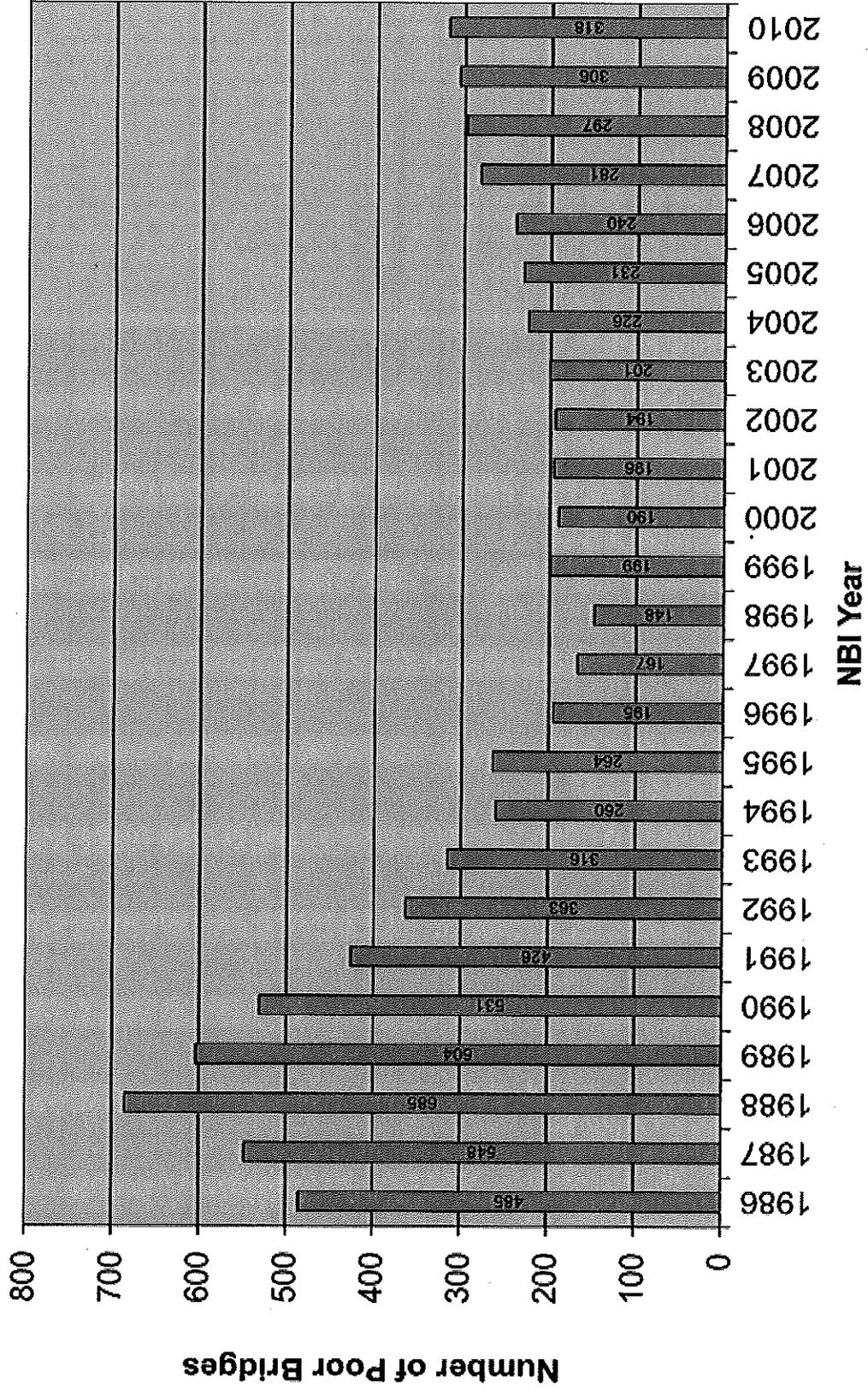
TOTAL: \$737 x 2.0 BFO = \$1,474 of estimated labor costs per inspection

434 inspections x \$1,474 per inspection = \$639,716 (2010)

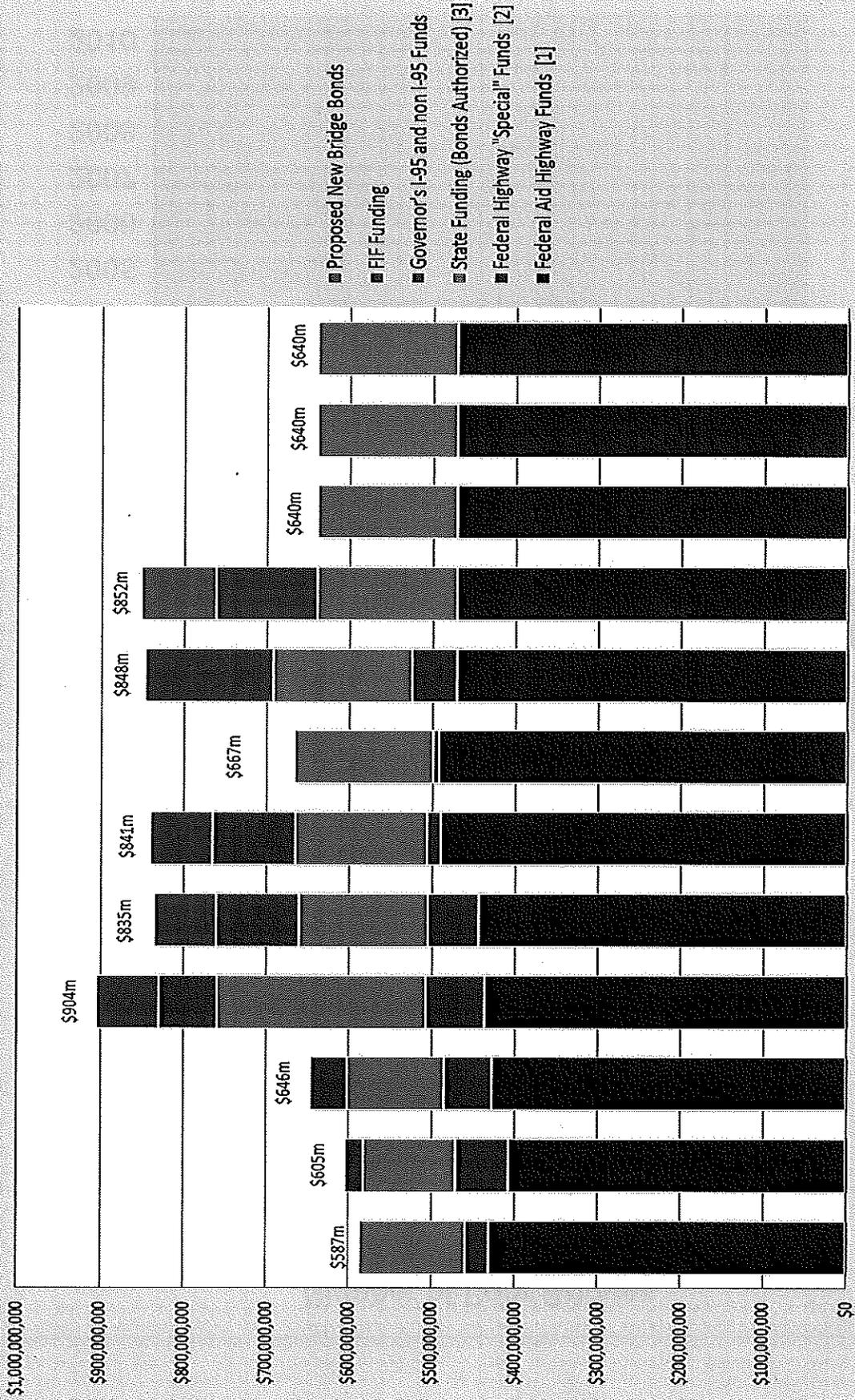
* Approximate figures until our 2011 NBI Inventory released on April 1, 2012.

February 21, 2012

Connecticut's Poor Bridge Graph (State Maintained)



Highway and Bridge Funding FFY 2007-2016



Department of Transportation FFY 2012-2016 Capital Plan

Highway and Bridge

	FFY 2012	FFY 2013	FFY 2014	FFY 2015	FFY 2016
Federal Funding	\$ 581,597,232	\$ 839,601,862	\$ 517,377,537	\$ 512,957,617	\$ 512,957,617
State Funding	\$ 139,913,535	\$ 116,850,000	\$ 116,200,000	\$ 115,900,000	\$ 112,400,000
Carryover Funding	\$ 179,962,195	\$ 73,803,651	\$ 29,543,998	\$ 16,152,518	\$ 2,569,760
Newly Authorized Additional State Funding	\$ 109,296,000	\$ 121,729,000			
Total Funding	\$ 1,006,768,962	\$ 851,884,513	\$ 663,121,535	\$ 645,010,135	\$ 627,927,377
PE/ROW/MODS Set-aside	\$ 109,910,545	\$ 120,070,545	\$ 120,070,545	\$ 120,070,545	\$ 120,070,545
Programmed for Committed Projects	\$ 233,075,509	\$ 244,190,188	\$ 206,272,894	\$ 139,805,787	\$ 100,470,000
Programmed for Current Year Projects	\$ 504,882,292	\$ 339,058,747	\$ 297,820,578	\$ 382,564,044	\$ 398,549,701
Programmed for Newly Authorized Additional State Funding	\$ 85,396,965	\$ 118,823,035	\$ 22,805,000		
Year-end Carryover	\$ 73,503,651	\$ 29,543,998	\$ 16,152,518	\$ 2,569,760	\$ 8,837,131

Transit

Federal Funding	\$ 468,070,019	\$ 252,925,922	\$ 196,695,923	\$ 211,104,904	\$ 133,620,000
State Funding	\$ 276,290,000	\$ 75,900,000	\$ 58,840,000	\$ 60,140,000	\$ 40,800,000
Carryover Funding					
Newly Authorized Additional State Funding	\$ 116,722,000	\$ 127,000,000			
Total Funding	\$ 858,082,019	\$ 455,825,922	\$ 253,235,923	\$ 271,244,904	\$ 174,420,000
Programmed for Committed Projects	\$ 546,358,981	\$ 87,868,981	\$ 31,668,981	\$ 74,618,981	\$ 39,668,981
Programmed for Current Year Projects	\$ 110,000,000	\$ 227,655,922	\$ 203,555,923	\$ 196,625,923	\$ 134,751,019
Programmed for Newly Authorized Additional State Funding	\$ 116,722,000	\$ 127,000,000			
Year-end Carryover	\$ 85,001,038	\$ 13,301,019	\$ 18,011,019	\$ -	\$ -

Maritime

Federal Funding	\$ 1,440,000	\$ 4,300,000			
State Funding					
Carryover Funding		\$ 401,260			
Newly Authorized Additional State Funding	\$ 6,760,000	\$ 28,000,000			
Total Funding	\$ 8,190,000	\$ 29,701,260			
Programmed for Committed Projects					
Programmed for Current Year Projects	\$ 1,440,000	\$ 4,300,000			
Programmed for Newly Authorized Additional State Funding	\$ 6,348,760	\$ 28,401,260			
Year-end Carryover	\$ 401,260	\$ -	\$ -	\$ -	\$ -

Note: For the Highways and Transit Federal funding amounts, it is assumed funding will be level with the FY 2011 amounts. For State funding it is assumed future year funding will be level with the actual SFY 2012 amounts. The FFY 2013 Highway and Bridge State funding amount is based on an actual \$1.95 m increase included in the 2013 budget. No additional Federal or State funding, beyond previously authorized amounts are assumed for the Maritime program.

Note: Any funding not fully utilized in a year is carried forward into the next fiscal year for programming. This carry forward of funds is why funding appears greater in some years than others, although level federal and state funding is assumed. Also of note is that while no additional federal earmark funds are assumed, those previously authorized are included in the year in which the project is anticipated to commence. This causes the Highway Federal Funding to fluctuate in the next couple of years.

Note: If federal funds were to receive a 35% reduction in FFY 2012 the Federal Funding for Highway and Bridge would decrease by an estimated \$167 million per year, and Transit by an estimated \$50 million per year.

Note: A designation of "committed" is meant to identify those projects for which the Department proposes that funding is non-discretionary in nature. Examples of such projects are projects specifically identified in federal legislation (earmarks), State legislated projects for which funds have been allocated by the State Bond Commission, projects for which previous phases of work have already begun, projects obligated in the Federal Highway Administration's federal aid system or under awarded Federal Transit Administration grants, or State or federally mandated programs.

