

George Washington Bridge (GWB) & Bus Station (GWBBS)

MAJOR CONSTRUCTION PROJECTS SINCE 1993

Seismic Retrofit of New York Approach Structures

GWBBS Redevelopment Project (under Construction)

POST CONSTRUCTION ASSESSMENTS

LEGEND:	
Code	Code Required Assessments
Non-Code	PA Assessments that are not required by code
NYC Only	Façade Assessments required by code in NYC only
NJ Only	Assessments required by code in New Jersey only

VERTICAL TRANSPORTATION, BOILER & REFRIGERATION INVENTORY

Elevators		Escalators		Moving Walks		Boilers	Refrigeration Systems	
PA	Tenant	PA	Tenant	PA	Tenant	PA	PA	Tenant
9		14				12	7	

FACILITY CONDITION SURVEY PROGRAM INVENTORY

BUILDINGS	BRIDGES				TUNNELS		SIGN & LIGHT STRUCTURES	LIGHT/CATENARY POLES
	VEHICULAR	PEDESTRIAN	LIGHT RAIL SYSTEM	RAIL	VEHICULAR	RAIL		
14	5.0 mi. (1,870,800 s.f.)	2					454	104
FAÇADE								
1								
Structural items other than façade								
14								

FAÇADE ASSESSMENT SCHEDULE

BUILDING NAME	HEIGHT (Ft.)	LAST FAÇADE ASSESSMENT	NEXT FAÇADE ASSESSMENT
Bus Station Nervi Truss (part)	>72	2013	2018

MANDATED INSPECTIONS

FACILITY	DESCRIPTION	ACTION TAKEN	YEAR COMPLETED
GWB	GWB - Lower Level Tunnels, Loose Tiles	Removed loose bricks and performed a study	1999
GWB	Damaged Sign Structures PP 1E	Repaired sign structure	1999
GWB	East Bus Ramp Loose Concrete on bottom of slab	East & West Bus Ramp sounded and loose material Removed	2000
GWB	Wadsworth Ave. Bridge deteriorated expansion joint	Repaired expansion joint	2000
GWB	Upper level crack in secondary floor beam west of PP8	Repair secondary floor beam	2001
GWB	UX ramp cracks in 2 stringers	Holes drilled at the end of cracks	2001
GWB	West bus ramp broken expansion joint at Pier 29	Steel plate installed over joint, repaired expansion joint	2001

GWB	South Marginal St Bridge & GWBBS Depot loose concrete	Removed loose concrete from underside of deck	2001
GWB	NY approach - Ramp 4 deteriorated bearing	Repaired beams	2001
GWB	GWB 50 Marginal St. spalled exp. Joint	Repaired exp. Joint	2002
GWB	178th Street Bridge impact damage to floor beams flange	Repaired beam	2002
GWB	Broken handrail cable on Cable C	Removed broken cable. Installed bypass system for all back spun handrail cables.	2003
GWB	Ramp 178 cover concrete fell from underside of deck	Temporary repair; shored up deteriorated area	2003
GWB	Broadway Br. Damaged expansion joint	Repaired expansion joint	2003
GWB	Loose concrete at LX Ramp. HR 8 HH Pway	Loose concrete removed	2003
GWB	Lemoine Ave. Br. Deteriorated concrete deck	Removed deteriorated concrete from underside of deck	2003
GWB	Bridges over Transmanhattan expressway deteriorated concrete	Removed deteriorated concrete	2003
GWB	Linwood Ave. bridge & Lemoine Ave. bridge deteriorated concrete	Removed deteriorated concrete	2003
GWB	Center Ave. bridge wooden pole has cracked detached bracket	Replaced wooden pole	2003
GWB	NY approaches Hollow concrete on 9 bridge	Removed concrete	2003
GWB	NJ approaches hollow concrete	Removed hollow sounding concrete	2003
GWB	Lower level cracks in web stringer	Repaired stringers	2003
GWB	178th street ramp deteriorated south sidewalk slab	Repaired sidewalk in kind	2004
GWB	Upper level NJ side span finger joint deterioration	Repaired finger joint	2004
GWB	U.L. PP119W deteriorated deck ribs	Replaced south channel & broken rib connections	2004
GWB	Deteriorated finger joint assembly hold down plate	Installed new hold down bolts	2004
GWB	178th ramp between strings; deteriorated deck	Shored up deck slab	2004
GWB	Upper level sidewalk deterioration	Removed deteriorated sidewalk	2004
GWB	Broken welds at PP1E between cracked orthotropic deck & cover plate	Welded plates	2004
GWB	PP/E upper level westbound, broken welds on temp. plate	Repaired welds	2005
GWB	PP/E upper level west bound plate welds broken	Installed thicker welds	2005
GWB	NJ back span main cable band rope deteriorated rope	Removed north hand rope of Cable B	2005
GWB	Upper level south sidewalk deteriorated concrete	Removed deteriorated sidewalk	2005
GWB	Upper level FB-12 at Stringer S-3 deteriorated web flange	Repaired floor beam	2005
GWB	Ramp F deteriorated joint nos. 1-6	Repaired expansion joints	2005
GWB	Upper level cracked column	Repaired column	2005
GWB	NY Anchorage PP1E deteriorated concrete	Removed deteriorated concrete	2005
GWB	Upper level 8 risers were broken or cracked	Repaired risers	2005
GWB	Upper level: cracked ribs at PP7W, 14W, 19W, 11E	Drilled hole at PP7W and temporary support P8, 14W, 19W, 11E	2005
GWB	NY Approach Broadway bridge: deteriorated concrete patches	Removed loose concrete patches	2006

GWB	Upper Level PP/E loose temporary steel plate	Steel plate was resecured	2006
GWB	West bus ramp deteriorated concrete	Removed deteriorated concrete	2006
GWB	Ramp 178th St. PP14: Crack in Stringer web	Repaired cracked stringer web	2007
GWB	EB Lower Roadway, Bus Depot, Air Rights soffits & bridges across Trans Manh. Exp: hollow & delaminated concrete	Removed delaminated concrete	2007
GWB	Ramp HR2: Crack in weld between vertical stiffener and web of bottom flanges at Pier 7	Repaired stiffener plate	2007
GWB	Upper level: two cracked stringers	Drilled hole at end of cracks	2007
GWB	178th St. Ramp: deteriorated stringer	Repaired stringer	2007
GWB	Main Span Upper Level cracks in secondary floor beam "B12" at stringer 6 between PP 8E&7E, 4E&5E	Repaired cracked floor beam	2007
GWB	Main Span South & North sidewalk concrete fascia: deteriorated concrete	Removed all deteriorated concrete	2007
GWB	Main Span Upper Level crack in secondary floor beam "B12" at stringer 6 between 10E&9E	Repaired cracked floor beam	2007
GWB	Upper Level cracked light standards welds	Repaired cracked welds	2007
GWB	Secondary floor beam B12 between PP 22E&21E: cracks at connection	Repaired floor beam	2007
GWB	Center aver. spalled concrete header at Pier 1	Removed deteriorated concrete & patch with asphalt	2007
GWB	PIP/ Hudson Terr. Hollow sounding & deteriorated concrete	Removed deteriorated concrete	2007
GWB	PIP/ I-95 Northbound deteriorated concrete wearing surface	Removed deteriorated concrete & replaced in kind	2007
GWB	178th St. ramp; deteriorated expansion joint	Repair expansion joint	2008
GWB	Upper Level - PP11E deteriorated orthotropic deck	Repaired shim plates and clamp plates	2009
GWB	HR Ramp 6 and 11 - deteriorated expansion joint	Replaced the expansion joint angle	2009
GWB	Upper Level south sidewalk fascia - loose concrete	Removed loose concrete	2009
GWB	PIP Ramp Over I-95 - deteriorated wearing surface	Repaired deteriorated wearing surface	2009
GWB	Upper Level Panel Points 1E to 2E- Deteriorated bracing connection	Replace cracked gusset plate and angle	2009
GWB	Hudson Terrace EB & WB- Three deteriorated expansion joints	Removed loose concrete and patched with asphalt	2009
GWB	Upper Level Sidewalk - loose concrete	Removed loose concrete	2009
GWB	Lower Level at Henry Hudson Pky- Deteriorated Stringer welds	Repaired Stringer	2009
GWB	Upper level - Main Span - PP22W	Repaired Deck Plate and Ribs	2010

GWB	Upper level - WB over Hudson Terrace	Repaired Deteriorated Deck	2010
GWB	Amsterdam Ave Bridge	Repaired Deteriorated Utility Duct Bank	2010
GWB	Upper Level - EB - PP11W	Repaired Stringer	2010
GWB	NY Approach - HR6 Retaining Wall	Repaired Retaining Wall	2010
GWB	Upper Level - EB - PP8W	Repaired Orthotropic Deck	2010
GWB	Upper level - NY Anchorage -west of bent 7-cracked seat angle under S19	Repaired Stringer	2010
GWB	NY Approach - Broadway Bridge (BIN 5522590) – Deteriorated Joint Header	Temporary steel plate was installed over the deteriorated area	2011
GWB	NY Approach - ST. Nicholas Ave. Bridge (BIN 5522610) – Deteriorated Joint	Temporary steel plate was installed over the deteriorated area	2011
GWB	178 St Ramp- Deteriorated Concrete	install timber shielding under the catch basin to protect the vehicular traffic below from any falling debris	2011
GWB	UL-EB- Panel point 11w- Broken Stringer to secondary floor beam connection	Replace missing bolts	2011
GWB	NJ Approach Bridges- Deteriorated Expansion Joint At Center Ave. Bridge Over I-95 (Bin 3800005)	Remove Loose concrete and temporarily Patch the spalled area with bituminous concrete.	2011
GWB	Ramp HR8- Standing water in box beam	Pump out water and remove debris from the east box beam of span 6&10	2011
GWB	HT Overpass- Upper Departure- Deteriorated wearing Surface	Patch spalled wearing surface	2011
GWB	NJ Approaches - Ramp F - Deteriorated Joints	Repair spalled joint header	2011
GWB	NJ Approaches-Bridge 3800015- deteriorated joint	Repair spalled joint header	2011
GWB	GWB- UL- Cracked Riser Beams , Cracked Secondary Floor beams, loose Secondary Floor beams and Cracked Orthotropic Deck Rib.	Repair Riser Beams - Replace Missing Bolts- Drill Arrest Holes- at 13 locations	2011
GWB	NJ Approach- Deteriorated Concrete overlay at PIP Ramp over I-95(BIN 3800079)	Remove Loose Concrete and repair the area in kind	2011
GWB	UL-WB - Cracked Orthotropic Deck plate ribs between PP38W-PP39W	Drill 1"arrestor holes at end of cracks and install 7"x2.5"x5/8" thick plate over deck rib R45 and 7"x3"x5/8 thick over the deck rib R46	2011
GWB	NY Approach roadways- Delaminated and hollow concrete over trans Manhattan expressway.	Remove deteriorated concrete	2011
GWB	NY Approach- Henry Hudson Ramp HR8 - loose sign panel.	Secure the sign panel	2011
GWB	Fort Washington Avenue Bridge - Deteriorated Concrete	Remove deteriorated concrete	2011
GWB	UL - Cracked and delaminated concrete along south sidewalk fascia.	Remove the loose, cracked and delaminated concrete	2011

GWB	UL- Cracked web of riser beams, loose stringer connection to main floor beam and cracked lateral connection plate.	Repair Deficiencies	2011
GWB	UL- Cracked Web of secondary Floor beams between panel points 2W	Drill 1"arrestor holes at end of crack	2011
GWB	NY Approach Roadways- Cracked and delaminated concrete on five structures	Remove loose/cracked and delaminated concrete	2011
GWB	178 St Ramp- Cracked web of 2 stringers	Grind out cracks and drill arrestor holes at the tip of the cracks.	2011
GWB	NY Approach roadway-179 St ramp- Cracks at the base of LP GW3530. and loose Junction box	Remove the LP and secure the junction box.	2011
GWB	NY App.HH Ramps - Deteriorated concrete median curb and protruding rebars at HR10 (BIN 5522542)	it is recommended to remove the deteriorated concrete curb section and the protruding rebars	2011
GWB	UL- Finger Joints at panel Points 11W and PP14E	Replace the tie down bolts and shim the finger joint plates as needed at the above locations	2011
GWB	NJ approach - Ramp "c" over lower level WB (BIN 3800013) - tilted parapet	Secure the Damage parapet	2012
GWB	Main Span - Cable D south safety hand rope at PP 20W - Broken Wire	Repair the south safety hand rope on a routine basis	2012
GWB	Main Span UL - Missing curb steel plate at north sidewalk between PP 10E and 11E	Reinstall the disconnected steel curb plate with new bolts and to secure the curb plate at the remaining locations.	2012
GWB	Bus Depot - Deteriorated and loose concrete at underside of deck over lower level expressway westbound	Remove Deteriorated concrete	2012
GWB	GWB bus station plaza bridge over fort Washington ave and lower level west bound - vehicular impact to north metal railing	Remove damage section of the railing, remove loose concrete, repair Bridge railing on a priority basis.	2012
GWB	HHR Parapet wall between HR11 & HR7 at south end	Remove Loose stones and install temp. timber shoring to support the capstone. Remove heavy vegetation.	2012
GWB	bus turn around Bin 5522250E over upper level expressway EB - Vehicular impact	Grind smooth the gouges to prevent future cracks development	2012
GWB	Ramp 178 Bin 552250G - Deteriorated deck joint at bent 29	Repair the 20 Ft long deteriorated joint section in kind	2012
GWB	NY approach roadway - Henry Hudson ramp HR6&HR11 (BIN 5522510) - Deteriorated east abutment deck joint.	Repair the deteriorated section of the east abutment deck joint	2012
GWB	NY Approach - Deteriorated concrete at GWB bus station and loose Masonry stones at 178 st ramp	Repair Bulging Stones on a priority Basis. also Repair leaking Deck joint on a priority basis	2012
GWB	NY approach - Henry Hudson ramp HR17 (BIN 5522490) - loose masonry at east abutment wall.	Reset the bulging stones, replace all missing stones at top northwest corner of the stem wall and repair the east abutment deck joint seal in kind	2012
GWB	Bus Station - Subway Access Tunnel - Water Leakage	Install Temp. drain system under the leaking joint	2013

GWB	NY approach - Ramps HR6 & HR 11- deteriorated deck and south sidewalk joint at East Abutment	Repair the south sidewalk expansion joint and concrete header at the east abutment on an immediate basis. Also repair in kind the separated and protruding steel curb plate adjacent to the joint	2013
GWB	Impact Damage to Toll Booth #6	Repair fire hydrant , the attenuators, and the traffic light before the toll lane can be opened.	2013
GWB	NY App. Air Rights Building No. 1 West soffit -Deteriorated concrete	Remove deteriorated concrete on immediate basis.	2013
GWB	NJ App. - BIN 3800014 Deteriorated Joint	Patch spalled header and weld joint angels	2013
GWB	UL Framing - Secondary Floor beam 2 Web Crack adjacent to Stringer S4 connection near Panel Points 11W	Drill 1" Dia. hole at the end of the web crack	2013
GWB	UL- Stringer S4 Coping at the connection to FB 8 - 1/2" crack	Drill 1" Dia. hole at the end of the web crack	2013
GWB	GWB Bus station- Fire damage to metal soffit over lower level Expressway Westbound	Repair the damaged metal Soffit in-kind	2013
GWB	NY approach - Ramp UX over LL BIN 552250K - Deteriorated concrete wearing surface.	Remove deteriorated concrete and repair spalls	2013
GWB	Main Span UL- Deteriorated orthotropic deck ribs between stringers S1 & S2 near PP 11W	Repair deteriorated deck	2013
GWB	LL- Stringer S18 at PP 36E - 1/2" Web Crack	Drill 1" Dia. hole at the end of the web crack on an immediate basis	2013
GWB	NJ APP- Linwood Ave - Deteriorated Concrete	Remove Deteriorated Concrete on an immediate basis	2013
GWB	Main Span UL- Deteriorated orthotropic deck ribs near PP 14W and 14E	Repair deteriorated deck ribs	2013
GWB	Main Span UL- Deteriorated orthotropic deck ribs Between stringers S5 & S6 west of PP 11E	Repair deteriorated deck ribs	2013
GWB	NY approach -Ramp 178 Bin 552250G - Deteriorated concrete wearing surface	Remove deteriorated concrete and repair spalls	2013
GWB	NY Approach- Ramp UX BIN 552250K - Crack in Stringer Web	Drill 1" Dia. hole at the end of the web crack	2013
GWB	Main Span UL- Deteriorated orthotropic deck ribs between S1 & S8 west of PP 11W	Repair the deteriorated Deck ribs	2013
GWB	Main Span - UL - Cracked and delaminated concrete along south sidewalk fascia	Remove Cracked an delaminated concrete	2013
GWB	NJ APP - West Bound Tunnel over I-95 LL - Cracked Stones at East Portal	Repair the cracked stone on an immediate basis.	2013
GWB	NJ APP- Center Ave Bridge Over I95 Westbound (BIN 3800005) - Severely deteriorated deck	Remove Delaminated concrete and Repair the deteriorated deck	2013
GWB	Main Span -LL -Severely Deteriorated Fascia Stringer S1 Between PP 7E* and 8E	Repair the deteriorated fascia stringer S1	2013