

DEPARTMENT OF TRANSPORTATION P.O. Box 600 Trenton, New Jersey 08625-0600

CHRIS CHRISTIE

Governor

KIM GUADAGNO Lt. Governor RICHARD T. HAMMER

Commissioner

MAY 31, 2017

IN THE MATTER OF REVIEW OF RAILROAD)	MEMORANDUM OF RECORD
WARNING DEVICES, TRAFFIC CONTROL)	WEWORANDOW OF RECORD
DEVICES, ROADWAY APPROACHES AND PEDESTRIAN TRAFFIC AT THE HIGHWAY-RAIL AT-GRADE CROSSING OF NEW JERSEY TRANSIT RAIL OPERATIONS MAINLINE AND WARREN AVENUE (BROOKSIDE AVE) IN THE MUNICIPALITY OF THE BOROUGH OF HO-HO-KUS, COUNTY OF BERGEN USDOT INVENTORY NO. 263193C.)))))	WARREN AVENUE (BROOKSIDE AVENUE) DOT DOCKET NO. 06-2017CM
)	

The Commissioner of the New Jersey Department of Transportation herby initiated a review of the above captioned public highway-rail at-grade crossing on his own motion in order to review and determine if revisions to the railroad warning devices and roadway traffic control devices would better serve the public.

New Jersey Transit Rail Operations made an initial request for consideration of closure of the atgrade crossing due to the number of occurrences of motor vehicles fouling the three-track atgrade crossing. The roadway configuration and steep incline on each approach to the railroad tracks create dangerous scenarios.

November 2, 2016 - Representatives from the Borough of Ho-Ho-Kus, Village of Ridgewood, and NJDOT Railroad Engineering Service held a Pre-Diagnostic Team informative meeting. The discussion involved consideration of closure or designating Warren Avenue (Brookside Avenue) "One Way" in the easterly direction. The significant factor for the proposal is vehicles consistently fouling the tracks.

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- a. Tractor-trailers/trucks inadvertently traveling west on Warren Avenue (Brookside Avenue) attempt to make a U-turn on the tracks to avoid the steep incline.
- b. Vehicles making a U-turn on the at-grade crossing have become disabled on the railroad track.
- c. Vehicles back up in both directions on the hill and tracks, due to turning clearance of opposing traffic.
- d. NJ Transit receives complaints/reports of vehicles fouling the tracks.

Wyckoff Avenue grade separated	MP 23.08
Warren Avenue (Brookside Avenue) at-grade	MP 22.20
Glen Avenue grade separated	MP 21.60

- The at-grade crossing is located in the Borough of Ho-Ho-Kus in close proximity to the Ho-Ho-Kus Train Station. Residents of the neighboring community, conveniently access the train station via Glenwood Road (Ridgewood side of Warren Avenue (Brookside Ave)). Closure greatly affects the Village of Ridgewood. Designating Warren Avenue as One-Way (eastbound) potentially reduces fouling occurrences and maintains access to Ho-Ho-Kus from Ridgewood.
- The Borough of Ho-Ho-Kus and the Village of Ridgewood were to present the "One Way" concept to their respective council.
- February 2017 The Engineer for the Borough of Ho-Ho-Kus, via email, informed Railroad Engineering that the Ho-Ho-Kus Council had no objection to designated one –way.
- March 2017 The Engineer for the Village of Ridgewood, via email, informed Railroad Engineering "The Village would consider making Glenwood Road one way east bound only to keep the crossing open."

NJDOT Railroad Engineering personnel conducted observations on four occasions. The summary of the observations are as follows:

						av. Vehicles/ hour	Trucks	School Bus	Ped. rdwy at- grade crossing	Ped access Train St - ridgewood via Warren Ave	Ped access Train St from HoHoKus	Ped walk along platform to rdwy at- grade Crossing	Tress- passers
Wed	9/7/17	6	am	6	pm	150	2	1	13				1
Thurs	11/10/17	6	am	6	pm	143				123			2
Thurs	4/13/17	6	am	11:30	pm	114				69	227		
Wed	4/19/17	3	pm	7:30	pm	172				4	23	24	
	*greater number of Vehicles EB direction								*7+ pedestrian	dangerously	crossed the	ped crossing	
	*2 trucks over weight restriction traveling WB												
	1-Truck K-turn on crossing - traffic back												
	*Cars drop off commuters at the roadway at-grade c							g					
	*consistent back up of WB traffic waiting for EB traff							lear turn					
	multiple vehicles fouling tracks												

After notice, a Diagnostic Team Meeting took place on Wednesday, April 26, 2017 at the highway-rail at-grade crossing of New Jersey Transit Rail Operations Mainline with Warren Avenue (Brookside Avenue) in the Borough of Ho-Ho-Kus, Bergen County. The following parties were present at the Diagnostic Team Meeting.

ATTENDEES

Barbara Foran Diagnostic Team Leader NJDOT –Railroad Engineering Services **Todd Hirt Supervising Engineer** NJDOT –Railroad Engineering Services Paul Pawelzik **Assistant Engineer** NJDOT -Railroad Engineering Services Joseph Haddad **Chief Engineer** NJ Transit Jeff Wakstein Senior Safety Officer **NJ Transit** Manager Signal Maint. **Kevin Quigley** NJ Transit **Brendan Stuk** Safety Officer NJ Transit Sean Kushnir **Assistant Supervisor** NJ Transit - Hoboken Patrick Leake **Road Forman** NJ Transit - Hoboken Paul Montalbano Senior Trainmaster NJ Transit - Hoboken William Jones **Borough Administrator** Borough of Ho-Ho-Kus Chief Minchin Police Department Borough of Ho-Ho-Kus David Biswurm Fire Department Borough of Ho-Ho-Kus **Dave Hals** Engineer Borough of Ho-Ho-Kus Sgt John Chuck Police Department Village of Ridgewood **Christopher Rutishauser** Engineer Village of Ridgewood

The Diagnostic Team, comprised of those in attendance, reviewed the conditions of the highway-rail at-grade crossing at the intersection of New Jersey Transit Rail Operations Mainline and Warren Avenue (Brookside Ave) as pertaining to railroad warning devices, traffic control devices, vehicular movements, pedestrian movements, roadway configuration, one-way designation and consolidation of the pedestrian crossing with the highway-rail at-grade crossing.

For purposes of discussions and comments pertaining to this memorandum, the New Jersey Transit Rail Operations Mainline runs in a north/south direction and Warren Avenue (Brookside Ave) runs in an east/west direction.

The Diagnostic Team Findings:

- 1. New Jersey Transit Rail Operations owns, operates and maintains the railroad tracks.
- 2. New Jersey Transit Rail Operations requested a Diagnostic Meeting to review the highway-rail at-grade crossing. New Jersey Transit Rail Operations stated vehicular traffic consistently foul the tracks due to roadway configuration and tractor-trailers inadvertently traveling Warren Avenue (Brookside Avenue).
- 3. Three (3) tracks of New Jersey Transit Rail Operations Mainline cross Warren Avenue (Brookside Avenue) perpendicularly, with a vertical alignment flat with the roadway.
- 4. The current crossing surface is asphalt flange and considered to be in fair condition. The width of the at-grade crossing is approximately forty-five (45) feet.

- 5. The at-grade crossing is located on a sharp curve of Warren Avenue (Brookside Avenue) with steep inclines on both approaches.
- 6. Approximately, seven hundred fifty (750) feet south and approximately one thousand five hundred (1500) feet north of the at-grade crossing, the track undertakes a westerly curvature.
- 7. New Jersey Transit Operations Mainline operates twenty-four (24) hours a day. The current volume of trains on the New Jersey Transit Rail Operations Mainline for weekday movement is 135 trains; weekend movement is 89 trains. The maximum speed for passenger trains is 50 mph. Freight trains may operate across the Warren Avenue (Brookside Avenue) at-grade crossing. The maximum speed for freight trains is 30 mph. The warning time detection activation is 30 seconds.
- 8. Active railroad warning/traffic control devices currently control the Warren Avenue (Brookside Avenue) highway-rail at-grade crossing. The active warning devices consist of crossbucks (R15-1); twelve (12) inch mast mounted flashing lights, railroad roadway gates. There are faded and missing stop bars, missing or tree covered advance railroad warning signs (W10-1) and no grade crossing pavement markings.
- 9. Warren Avenue (Brookside Avenue) is a municipal roadway one (1) lane in each direction, under the jurisdiction of the Borough of Ho-Ho-Kus. The Borough line separating Ho-Ho-Kus and Ridgewood is west of the at-grade crossing. The posted speed limit is 25mph.
- 10. Warren Avenue (Brookside Avenue) is approximately twenty (20) feet in width. Warren Avenue (Brookside Avenue) has a steep incline. There is an approximate 8% grade decrease heading east from the at-grade crossing and an approximate 13% grade increase heading west from the at-grade crossing. Warren Avenue presents a sharp right turn, heading east, immediately after the at-grade crossing and a ninety-degree turn, heading west, approximately thirty (30) feet after the at-grade crossing.
- 11. There are no shoulders in close proximity to the at-grade crossing.
- 12. There is a concrete walk/stairway with railing, approximately fifty (50) feet west of the atgrade crossing, on the north side of Warren Avenue (Brookside Avenue). The stairway way terminates on Warren Avenue (Brookside Avenue).
- 13. In the southwest quadrant, there is damaged guide rail, approximately thirty (30) feet from the at-grade crossing. The guide rail runs along Warren Avenue (Brookside Avenue).
- 14. In the northeast quadrant, there is concrete curb and guide rail, approximately thirty (30) feet from the at-grade crossing, which runs along Warren Avenue (Brookside Avenue).
- 15. The northeast, northwest and southwest quadrants in close proximity to the highway-rail at-grade are densely wooded with low-lying perimeter vegetation, approximately one hundred-fifty (150) feet from the at-grade crossing. Scattered deciduous and conifer trees and pathways cover the southeast quadrant.

- 16. Residences are located over two hundred (200) feet away, east and west of the at-grade crossing.
- 17. There is a pedestrian at-grade crossing is approximately one hundred sixty (160) feet south of the Warren Avenue (Brookside Avenue) at-grade crossing. The New Jersey Transit Ho-Ho-Kus Train Station is approximately three hundred twenty (320) feet south of the highway-rail at-grade crossing of Warren Avenue (Brookside Avenue).
- 18. On the westerly side of the railroad tracks, south of the Warren Avenue (Brookside Avenue) at-grade crossing, is an asphalt walkway, leading to the NJ Transit platform. A fence separates the walkway from the railroad tracks
- 19. There is a double street lamp on Warren Avenue (Brookside Avenue) approximately thirty (30) feet west of the at-grade crossing (southwest quadrant). South of the at-grade crossing, street lamps run along each side of the railroad tracks for the pedestrian at-grade crossing and the train station platforms.
- 20. Trucks, automobiles, bicycles, and pedestrians all travel Warren Avenue (Brookside Avenue) and cross the at-grade crossing. The average traffic count based on recent NJDOT Railroad Engineering observations is an average of 145 vehicles per hour (6am-7:30pm).
- 21. Warren Avenue (Brookside Avenue) is weight restricted. Posted on each side of Warren Avenue (Brookside Avenue) off the main thoroughfare is a "TRUCKS OVER 4 TONS EXCLUDED" sign. Posted on the Ridgewood side of Warren Avenue (Brookside Avenue) is a "STEEP HILL NO TRUCKS" sign.
- 22. Eastbound and westbound vehicles approaching railroad-active warning devices have restricted sight distance lines to the active railroad traffic control devices due to roadway configuration, trees and vegetation.
- 23. Sight distance between a vehicle and a train is limited on both approaches due to roadway configuration, trees, vegetation and railroad track curvature.
- 24. Trees in the northeast quadrant obstruct sight distance for a vehicle at the stop bar for the westbound approach. Sight distance for a vehicle at the stop bar for the eastbound approach is limited due to roadway configuration, vegetation and railroad track curvature.
- 25. In the northeast quadrant there are mast-mounted single faced retro reflective crossbucks (R15-1) and mast-mounted back-to-back twelve (12) inch automatic flashing lights, facing eastbound and westbound Warren Avenue (Brookside Avenue) traffic. There is a mast mounted "3 Tracks" (R15-2P) sign. There is a mast mounted roadway gate. There is an audible signal (bell) atop the mast. The mast is located approximately twenty (20) feet from the nearest rail.

- 26. In the northwest quadrant, there are mast-mounted single faced retro reflective crossbucks (R15-1) and mast-mounted single faced twelve (12) inch automatic flashing lights, facing eastbound Warren Avenue (Brookside Avenue) traffic. There is a mast mounted "3 Tracks" (R15-2P) sign. The active railroad traffic control device mast acts as additional visual warning of the at-grade crossing for vehicular and pedestrian traffic, due to the roadway configuration. The location is approximately twenty-five (25) feet from the nearest rail.
- 27. The southwest quadrant houses mast-mounted single faced retro reflective crossbucks (R15-1) and mast-mounted back-to-back twelve (12) inch automatic flashing lights, facing eastbound and westbound Warren Avenue (Brookside Avenue) traffic. There is a mast mounted "3 Tracks" (R15-2P) sign. There is a mast mounted roadway gate. There is an audible signal (bell) atop the mast. The mast is located approximately ten (10) feet from the nearest rail.
- 28. The southeast quadrant is absent of active railroad traffic control devices.
- 29. There is a telephone pole mounted "DO NOT STOP ON TRACKS" (R8-8) sign in the southwest quadrant and no "DO NOT STOP ON TRACKS" (R8-8) sign in the northeast quadrant.
- 30. There is a damaged railroad advance railroad warning signs (W10-1) on the westbound approach and no railroad advance warning sign (W10-1) on the eastbound approach. There are no railroad advance warning pavement markings on any approach. There is a faded stop bar on the westbound approach and no stop bar on the eastbound approach.
- 31. Revisions to the highway–rail at-grade railroad crossing, surface approaches, railroad warning devices, highway traffic control devices, at the above captioned crossing may better serve the judicious motorist

Discussion

- 1. The Borough of Ho-Ho-Kus requested concrete curb be installed along the northeast side of Warren Avenue (Brookside Avenue) to reduce the roadway width for traffic exiting onto Warren Avenue/1st Street, due to Warren Avenue (Brookside Avenue) designation as a "One Way".
- 2. The repair and installation of guide rail in the southwest and northeast quadrants will benefit and safeguard vehicular and pedestrian traffic flow.
- 3. Due to the roadway profile, law enforcement personnel from Ho-Ho-Kus and Ridgewood discussed swing gate installation at the exit of Warren Avenue (Brookside Avenue) onto Warren Avenue/1st Street and the entrance at Glenwood Road and Upper Boulevard. The swing gates will assist during crossing construction phase as well a preventive measure from vehicle fouling the tracks during inclement weather.
- 4. NJ Transit requested consideration of closure of Pedestrian crossing.

5. When closing the current Pedestrian crossing NJ Transit will enhance pedestrian features at the roadway at-grade crossing with pedestrian gates, street lamp, fencing, and crosswalks.

RECOMMENDATIONS OF THE DIAGNOSTIC TEAM MEETING ARE:

THE DIAGNOSTIC TEAM, BASED ON ROADWAY CONFIGURATION AND RAILROAD TRACK CONFIGURATION, REPORTS OF FOULING OF RAILROAD TRACKS, AND OBSERVATIONS, DETERMINED TO CHANGE TO WARREN AVENUE (BROOKSIDE AVENUE) FROM A TWO-WAY VEHICULAR TRAFFIC PATTERN TO A ONE-WAY EASTBOUND VEHICULAR TRAFFIC PATTERN.

ALL RECCOMMENDATIONS ARE BASED ON THE ONE-WAY EASTBOUND VEHICULAR TRAFFIC PATTERN DESIGNATION OF WARREN AVENUE (BROOKSIDE AVENUE).

A. New Jersey Transit Rail Operations Shall:

Southeast Quadrant

- 1. Install additional light pole, in line with existing railroad station lighting.
- 2. Install minimum five (5) feet wide asphalt walkway from existing platform walkway to new pedestrian walkway located in conjunction with the highway-rail at grade crossing.
- 3. Install fencing along the railroad platform. (Connect to existing platform fence to provide continuous barrier)
- 4. Install approximately 80' of fencing along the outer perimeter of the new asphalt walkway.
- 5. Install fencing parallel to roadway, channel pedestrians across designated pedestrian crossing, at the Warren Avenue (Brookside Avenue) at-grade crossing.
- 6. Install new foundation for a railroad pedestrian gate.
- 7. Install single faced retro-reflective crossbuck (R15-1) facing Warren Avenue (Brookside Avenue) westbound pedestrian traffic.
- 8. Install single faced twelve (12) inch light emitting diode (LED) automatic flashing light signals facing Warren Avenue (Brookside Avenue) westbound pedestrian traffic.
- 9. Install railroad pedestrian gate.
- 10. Install mast mounted "3 Tracks" (R15-2P) sign.
- 11. Install mast-mounted "DO NOT STOP ON TRACKS" (R8-8) sign.
- 12. Install audible bell.

Northeast Quadrant

- 13. Maintain existing active railroad traffic control mast for an analysis period of six (6) months after establishment of Warren Avenue (Brookside Avenue) "One Way" designation. Review of the Warren Avenue (Brookside Avenue) at-grade crossing after the analysis period will determine the necessity for the active railroad warning devices/traffic control device and mast.
- 14. Upon review, if the device is found to be no long necessary, it may be removed.

Northwest Quadrant

- 15. Remove existing active railroad traffic control assembly and foundation.
- 16. Install new active railroad traffic control assembly foundation.
- 17. Install mast mounted single faced retro-reflective railroad crossing crossbuck (R15-1) signs. Align single faced retro-reflective crossbucks (R15-1) to face Warren Avenue (Brookside Avenue) eastbound traffic.
- 18. Install mast mounted single faced twelve (12) inch light emitting diode (LED) automatic flashing light signals. Align single faced twelve (12) inch automatic flashing lights to face eastbound Warren Avenue (Brookside Avenue) traffic.
- 19. Install jury arm mounted single faced twelve (12) inch light emitting diode (LED) automatic flashing light signals. Align automatic flashing light signals towards the upper bend of Glenwood Avenue for Warren Avenue (Brookside Drive) eastbound traffic.
- 20. Install new railroad roadway gate. The railroad roadway gate in the northwest quadrant, in conjunction with the railroad roadway gate in the southwest quadrant, when in the down position, shall cover enough of the roadway to deter motorist from going around the gates.
- 21. Install mast mounted "3 Tracks" (R15-2P) sign.
- 22. Install mast-mounted "DO NOT STOP ON TRACKS" (R8-8) sign.

Southwest Quadrant

- 23. Maintain existing active railroad traffic control device assembly foundation.
- 24. Install new mast of greater height to accommodate additional twelve (12) inch light emitting diode (LED) automatic flashing lights.
- 25. Install new mast mounted single faced retro-reflective railroad crossing crossbuck (R15-1) signs, facing Warren Avenue (Brookside Drive) eastbound traffic.

- 26. Install new mast mounted back-to-back twelve (12) inch light emitting diode (LED) automatic flashing light signals, facing Warren Avenue (Brookside Drive) eastbound traffic and westbound pedestrian traffic.
- 27. Install additional set of mast mounted single faced twelve (12) inch light emitting diode (LED) automatic flashing light signals. Mount at a sufficient height and align automatic flashing light signals towards the upper bend of Glenwood Avenue for Warren Avenue (Brookside Drive) eastbound traffic.
- 28. Install mast mounted "3 Tracks" (R15-2P) sign.
- 29. Install new mast-mounted "DO NOT STOP ON TRACKS" (R8-8) sign
- 30. Install new railroad roadway gate. The railroad roadway gate in the southwest quadrant, in conjunction with the railroad roadway gate in the northwest quadrant, when in the down position, shall cover enough of the roadway to deter motorist from going around the gates.

Surface

- 31. Install new crossing surface. The crossing surface shall extend a minimum of three (3) feet beyond the outer edge of pedestrian pathway. The new crossing surface shall include continuous welded running rail. The design of the crossing shall conform to railroad standards, and provide as uniform as practical vertical profile through the crossing area to minimize any discontinuity between the crossing surface and the roadway approach pavements leading up to the crossing confines and track structure. Recommended concrete crossing surface.
- 32. New Surface projects require a minimum ten (10) day roadway closure.
- 33. Retire railroad circuitry housing unit from the northwest quadrant.
- 34. Install new railroad circuitry-housing unit in the design specified quadrant. The railroad circuitry-housing unit should conform to a lateral clearance of 30 feet from the roadway. Circuitry-housing unit elevation based on any flood zone requirements. Anticipated location for new railroad circuitry housing unit is the northwest quadrant.
- 35. Install nameplates or tag-identifying railroad's name, street crossing name, USDOT number, and emergency telephone number (Emergency Notification Sign ENS I-13) on mast and circuitry housing unit.

Other

- 36. Install "NO TRESSPASSING: signs in northwest and northeast quadrants.
- 37. Install "ENTER PLATFORM" sign on fencing, southeast quadrant.

- 38. Install new Stop Bars.
- 39. Install railroad advance warning pavement markings Glenwood Road.
- 40. Install two (2) Railroad advance-warning signs (W10-1) on Glenwood Road.
- 41. Install edge of travelled way pavement striping.
- 42. Install ladder style pedestrian crosswalk pavement markings. (southwest quadrant to northwest quadrant)
- 43. Install two "Pedestrian" (W11-2 FYG) warning sign at each side of the crosswalk.
- 44. Install two (2) regulatory "One-Way" (R6-1/R6-2) signs at the intersection of Glenwood Road and Upper Boulevard.
- 45. Install two (2) "DO NOT ENTER" (R5-1) signs on each side of the intersection of Warren Avenue (Brookside Avenue) and Warren Avenue/1st Street. Install additional "DO NOT ENTER" (R5-1) sign midway along Warren Avenue (Brookside Avenue).
- 46. Install "DO NOT ENTER" pavement markings near the intersection of Warren Avenue (Brookside Avenue) and Warren Avenue/1st Street. The installation of the pavement markings shall be temporary as to aid in driver recognition of new "One Way" designation of Warren Avenue (Brookside Avenue).
- 47. Trim tree branches along Warren Avenue (Brookside Avenue) west of the at-grade crossing to maintain a clear view for vehicles approaching the active railroad traffic warning/control devices.
- 48. Purchase and deliver roadway swing gates. (Ho-Ho-Kus and Ridgewood Police Department recommended or approved equivalent)
- 49. Install guide rail in northeast quadrant.
- 50. Repair guide rail in southwest quadrant.
- 51. Install concrete curb along northeast side of Warren Avenue (Brookside Avenue) near the exit onto Warren Avenue/1st Street.

NOTE: THE BOROUGH OF HO-HO-KUS AND THE VILLAGE OF RIDGEWOOD SHALL HAVE ORDIANCES IN PLACE PRIOR TO THE RE-OPENNING OF WARREN AVENUE (BROOKSIDE AVENUE.)

B. The Borough of Ho-Ho-Kus should:

- 1. The adopt an ordinance designating Warren Avenue (Brookside Avenue) "One Way" in the eastbound direction. Ordinance adoption will take approximately sixty days from introduction to adoption. The Borough of Ho-Ho-Kus shall submit a record of the ordinance to the New Jersey Department of Transportation Structural and Railroad Engineering Services Unit.
- 2. Remove existing railroad advance warning sign (W10-1) on the westbound approach.
- 3. Maintain railroad stop bars.
- 4. Maintain edge of travelled way pavement markings.
- 5. Maintain two (2) "DO NOT ENTER SIGNS" (R5-1) at the intersection of Warren Avenue (Brookside Avenue) and Warren Avenue/1st street.
- 6. Maintain clearing along Warren Avenue (Brookside Avenue) west of the at-grade crossing to maintain a clear view for vehicles approaching the active railroad traffic control devices.
- 7. Install swing gate at exit of Warren Avenue (Brookside Avenue) onto Warren Avenue/1st street.
- 8. Maintain guide rail in northeast quadrant.
- 9. Maintain guide rail in southwest quadrant.
- 10. Maintain concrete curb along northeast side of Warren Avenue (Brookside Avenue) near the exit onto Warren Avenue/1st Street.
- MAINTAIN ALL roadway jurisdictional devices installed in controlling roadway vehicles and pedestrians in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

C. The Village of Ridgewood should:

1. Adopt an ordinance designating Warren Avenue (Glenwood road) "One Way" in the eastbound direction. Ordinance adoption will take approximately sixty days from introduction to adoption. The Village of Ridgewood shall submit a record of the ordinance to the New Jersey Department of Transportation Structural and Railroad Engineering Services Unit.

- 2. Maintain railroad advance warning pavement markings on Glenwood Road.
- 3. Maintain railroad advance warning signs (W10-1) on Glenwood Road.
- 4. Maintain regulatory "One-Way" (R6-1/R6-2) signs at the intersection of Glenwood Road and Upper Boulevard.
- 5. Install swing gate at entrance onto Glenwood Road, east of the y-intersection.
- MAINTAIN ALL roadway jurisdictional devices installed in controlling roadway vehicles and pedestrians in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

D. Inclusive:

- 1. ALL devices controlling roadway vehicles and pedestrians installation shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).
- 2. New Jersey Transit Rail Operations shall establish appropriate maintenance of traffic and traffic controls for trains, vehicles and pedestrians affected by work at the crossing <u>before</u> work begins.
- 3. Upon approval of the appropriate documents and associated funding, the State of New Jersey shall reimburse New Jersey Transit Rail Operations for costs incurred to implement the recommendation to the railroad warning devices. (Recommendations A 1-51)
- 4. New Jersey Transit Rail Operations shall notify the Department's Railroad Engineering & Safety Unit in <u>writing</u> when work is to commence and when work is complete, for scheduling of inspections and issuance of acceptance/approval.
- 5. <u>All</u> work associated with this matter shall be subject to final inspection and approval by NJDOT'S Railroad Engineering Services Unit.
- Completion of the work described herein should be within two (2) years of the issuance of the ORDER. The pending ORDER issued by The Department will included the date of completion.
- 7. The Diagnostic Team always reserves the right to reconvene if these railroad traffic control devices, advanced warning devices, roadway approaches, and crossing surfaces are not adequate for safety.

Distribution of this Memorandum of Record is to those invited in the Initiation of Proceedings and the Diagnostic Team Meeting attendees. Placement of Public Notice will be in local newspapers or publications. The New Jersey Department of Transportation Commissioner receives submission of the matter for final determination, unless a meritorious objection to the recommendations advances from any of the parties of interest or by members of the public at large. Anyone NOT in accord with these provisions MUST reply in writing within (30) days from the receipt of this Memorandum of Record. All submissions must include name or agency, atgrade crossing name and DOT Docket Number. Failure to respond qualifies as acceptance.

Meritorious objections received will warrant submission to the Department's Exception Review Committee to determine further action.

Direct, in writing, questions and/or objections concerning this matter to Barbara.Foran@dot.nj.gov.

Date: 4-5-2017

DEPARTMENT OF TRANSPORTATION Approved by:

Barbara Foran

Diagnostic Team Leader

Structural and Railroad Engineering Services