



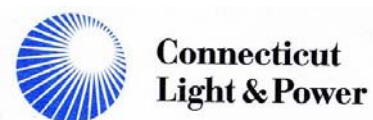
**Connecticut Siting Council
Docket No. 272**

**Development & Management Plan
for the
Middletown-Norwalk
345-kV Transmission Line Project**

**Segment 4c – Father Conlon Place to
Norwalk Substation in Norwalk**

Volume 3 of 3

April 2007





**TRAFFIC INVENTORY REPORT FOR
MAINTENANCE AND PROTECTION OF TRAFFIC**

**MIDDLETOWN TO NORWALK
345-kV TRANSMISSION PROJECT**

**SEGMENT 4C
CITY OF NORWALK, CONNECTICUT**

Prepared For:



Prepared By:

BL Companies

Engineers/Planners/Surveyors/Landscape Architects
Meriden, Connecticut

April 2007

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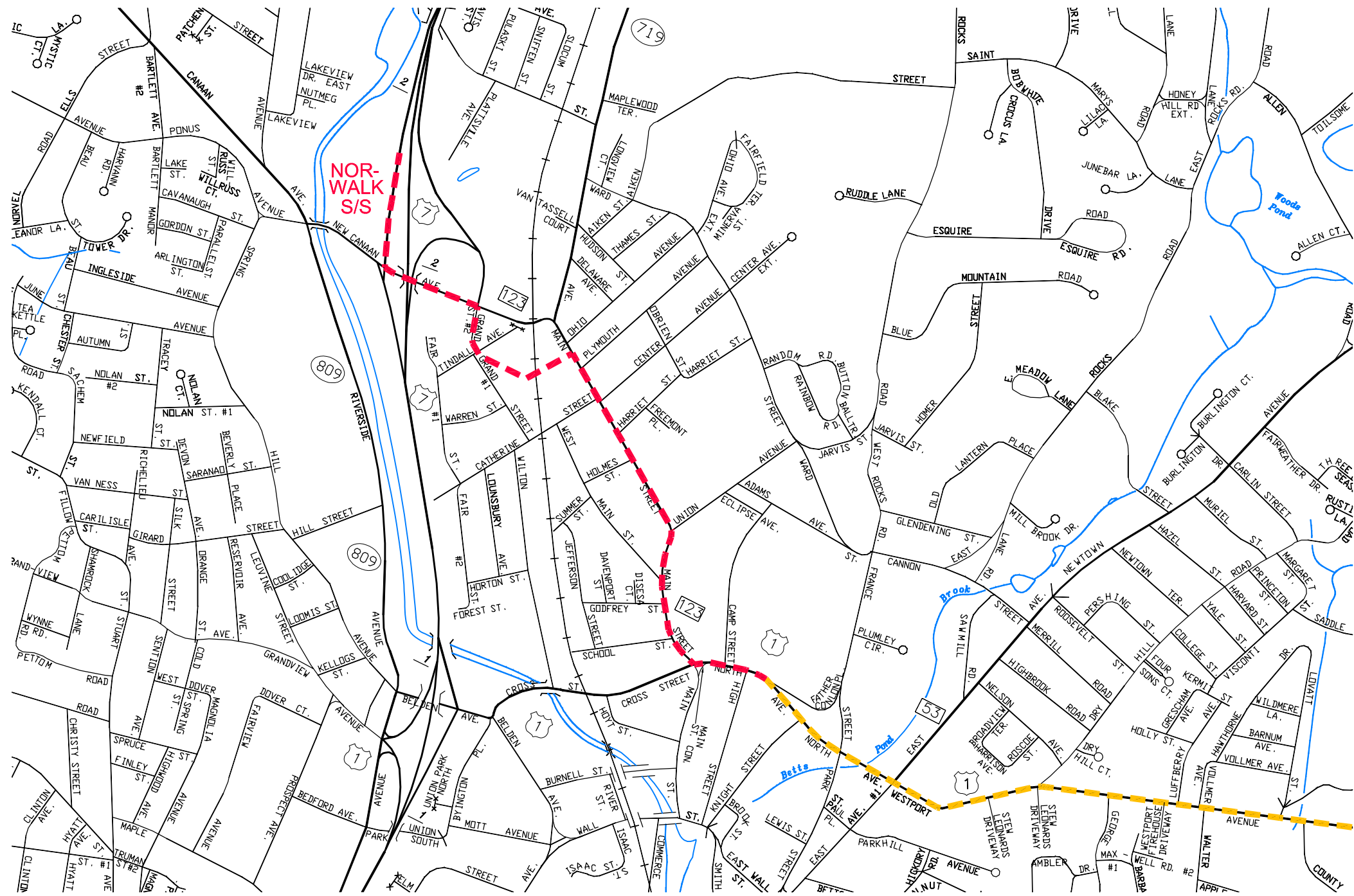
I. INTRODUCTION

Connecticut Light and Power (CL&P) in conjunction with the United Illuminating Company will be constructing approximately 23 miles of a 345-kV underground transmission line through Norwalk, Westport, Fairfield, Bridgeport, Stratford, and Milford. As approved by the Connecticut Siting Council, most of the route is in the public right-of-way, primarily along the State Highway System.

This report, prepared for CL&P, focuses on the 1.2 miles of transmission line located in the City of Norwalk, as illustrated in Figure N.1 from the Norwalk Substation to the intersection of U.S. Route 1 (North Avenue) and Father Conlon Place. The remaining portion of the selected route in Norwalk from the intersection of U.S. Route 1 (North Avenue) and Father Conlon Place to the Norwalk/Westport town line is covered in a separate document. The remaining municipalities are also addressed in separate documents. The portion of the selected route discussed in this report travels along Route 123 (New Canaan Avenue) from the Norwalk Substation to the intersection of Grand Street and Route 123 (New Canaan Avenue). The selected route then travels along Grand Street to the Tindall Avenue intersection, where the route then travels across two private properties, a CL&P property, and the Metro-North Commuter Railroad Danbury Branch to Route 123 (Main Street). The selected route then travels along Route 123 (Main Street) to the intersection of U.S. Route 1 (Cross Street and North Avenue) and continues along U.S. Route 1 (North Avenue) to the intersection with Father Conlon Place.

This report provides a recommended strategy for maintenance and protection of traffic. The strategy includes the locations where typical Connecticut Department of Transportation (ConnDOT) Maintenance Traffic Control Plans will be utilized; the locations where more specific maintenance and protection of traffic plans will be developed; and the recommended hours of operation. Recommendations are based on a detailed field inventory of the selected routes, traffic volumes, the type and duration of construction, and

the data compiled from local and State agencies. Specifically, local and state agencies were contacted for pertinent traffic data, roadway improvement projects, development projects, yearly local events, transit and bus routes and other data that may affect maintenance and protection of traffic planning. This report discusses the traffic/transportation environment along the route, the proposed construction, other construction projects such as public roadway improvement projects and major traffic generators, key locations, and traffic issues. Traffic issues include hours of operation, lane closures, need for detours, and areas where on-street parking will be affected. This report forms the basis for the development of detailed Traffic Control Plans (TCP) and a detailed maintenance and protection of traffic report to be implemented for construction of the underground transmission line segment through this portion of the City of Norwalk.



LEGEND

- - - - CL&P SELECTED ROUTE - NORWALK SEGMENT 4C
- - - - CL&P SELECTED ROUTE - NORWALK SEGMENT 4B (SEE SEPARATE REPORT)



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ENVIRONMENTAL SCIENCES

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

SELECTED ROUTE

MIDDLETOWN TO NORWALK
345-kV TRANSMISSION PROJECT
NORWALK, CONNECTICUT

Scale 1"=1000'
Project No. 05C1314
Date 12/06/06
CAD File 102_TRPT05C1314 FIG N1

FIGURE N.1

XREF(s): NONE

II. CORRIDOR INVENTORY AND DESCRIPTION

An investigation of the existing traffic/transportation conditions of the roadways along the selected transmission line route formed the basis for preparing a recommended strategy for maintenance and protection of traffic. This investigation included a detailed field reconnaissance and preliminary research of pertinent planning and traffic data at local and State agencies.

Selected Transmission Line Route

As illustrated in Figure N.1, the portion of the selected route addressed in this report travels along Route 123 (New Canaan Avenue) from the Norwalk Substation to the intersection of Route 123 (New Canaan Avenue) and Grand Street. The selected route then travels along Grand Street to the Tindall Avenue intersection, where the route then travels across two private properties, a CL&P property, and The Metro-North Commuter Railroad Danbury Branch to Route 123 (Main Street). The selected route then travels along Route 123 (Main Street) to the intersection of U.S. Route 1 (Cross Street and North Avenue) and continues along U.S. Route 1 (North Avenue) to the intersection with Father Conlon Place.

For description and maintenance and protection of traffic purposes, the route was divided into segments of generally uniform characteristics. The following graphic/charts are included in this report to aid in the understanding of these characteristics:

- Figure N.2, located in the body of the report, summarizes traffic signal locations along the selected route as well as Average Daily Traffic volumes (ADT's).
- A route inventory sheet is located in Appendix II. The sheet summarizes in tabular format items such as number of travel lanes, roadway widths, speed limit, sidewalk and on-street parking locations, illumination, bus routes, ADT's, peak hour volumes, traffic signal locations and abutting land use types.
- Figure N.4, located in Appendix II, pictorially summarizes land use classification along the route as well as typical roadway widths.
- Hourly traffic volume graphs for selected locations can be found in Appendix III.

- Aerial photographs of each signalized intersection are provided in Appendix IV.
- Aerial photographs of each vault location are provided in Appendix VI.

A. Route 123 (New Canaan Avenue) from the Norwalk Substation to Grand Street

This approximately 0.3 mile segment of Route 123 (New Canaan Avenue), from the Norwalk Substation to Grand Street is an east/west State-maintained facility with the following characteristics:

- Four travel lanes; two eastbound and two westbound.
- Curb-to-curb width in this segment averages 48'.
- Posted speed limit of 30 miles per hour.
- Illumination provided throughout on the south side of Route 123 (New Canaan Avenue)
- Sidewalk provided throughout on the south side of Route 123 (New Canaan Avenue).
- There is no parking along the north or south side of Route 123 (New Canaan Avenue).

Two signalized intersections are located along this portion of Route 123 (New Canaan Avenue) and include, in order, from west to east the following:

1. Route 123 (New Canaan Avenue) at the Route 7 Southbound on/off-ramps (State-maintained, Intersection #102-301)
2. Route 123 (New Canaan Avenue) at the Route 7 Northbound on/off-ramps/Grand Street (State-maintained, Intersection #102-202)



Photo 1: At the Route 7 Exit 2 Interchange southbound off-ramp, looking south at Route 123 (New Canaan Avenue).



Photo 2: Route 123 (New Canaan Avenue) at the Route 7 Exit 2 Interchange southbound off-ramp looking eastbound at the Route 7 overpasses.



Photo 3: Route 123 (New Canaan Avenue) at the Route 7 overpass looking eastbound.

The ADT along Route 123 (New Canaan Avenue) is about 22,200 vehicular trips west of Grand Street and about 24,100 vehicular trips east of Grand Street.

B. Grand Street from Route 123 (New Canaan Avenue) to Tindall Avenue

This approximately 0.07 mile segment of Grand Street, from Route 123 (New Canaan Avenue) to Tindall Avenue is a north/south City-maintained roadway with the following characteristics:

- Two travel lanes; one northbound and one southbound.
- Curb-to-curb width in this segment averages 26’.
- Illumination is not provided on either side of Grand Street.
- Sidewalk provided throughout on the west and east sides of Grand Street.
- There is no parking along the west or east sides of Grand Street.



Photo 4: From the Route 7 Exit 2 Interchange northbound on/off-ramp, looking south at the intersection of Route 123 (New Canaan Avenue) and Grand Street.

C. Tindall Avenue from Grand Street to Private and CL&P Property

This approximately 0.2 mile segment of Tindall Avenue from the Grand Street intersection to private and CL&P property is an east/west City-maintained roadway with the following characteristics:

- Two travel lanes; one eastbound and one westbound.
- Curb-to-curb width in this segment averages 30'.
- Illumination provided throughout on the north side of Tindall Avenue
- Sidewalk provided throughout on the north and south sides of Tindall Avenue.
- There is parking along the south side of Tindall Avenue.

Land uses along this portion of the route are a combination of commercial and residential.

Land uses of specific interest include:

- Clocktower Close Apartments at the intersection of Grand Street and Tindall Avenue



Photo 5: Grand Street looking south at intersection with Tindall Avenue.



Photo 6: Tindall Avenue, looking eastbound at intersection with Grand Street and proposed transmission line route from Grand Street to Private and CL&P property.

D. Route 123 (Main Street) from Ohio Avenue to U.S. Route 1 (Cross Street and North Avenue)

This 0.5 mile segment of Route 123 (Main Street), from Ohio Avenue to U.S. Route 1 (North Avenue) is a north/south State-maintained roadway with the following characteristics:

- Two travel lanes; one northbound and one southbound.
- Curb-to-curb width in this segment averages 40'.
- Posted speed limit is 30 miles per hour.
- Illumination provided throughout on the east side of Route 123 (Main Street).
- Sidewalk provided throughout along the east and west sides of Route 123 (Main Street).
- On-street parking is prohibited on the east and west sides of Route 123 (Main Street) from School Street to U.S. Route 1 (North Avenue).
- On-street parking is allowed on the east and west sides of Route 123 (Main Street) between Ohio Avenue and Union Avenue.
- The Norwalk Transit District bus route travels along the Route 123 (Main Street) corridor, Monday through Friday from 5:55 am to 8:50 pm and Saturday from 7:20 a.m. to 6:20 p.m. The bus stops along this route are:
 - In front of #155 Route 123 (Main Street) located on the west side of the roadway.
 - In front of #143 Route 123 (Main Street) located on the west side of the roadway.
 - On the corner of Route 123 (Main Street) and West Main Street on the west side of the roadway.
 - On the corner of Route 123 (Main Street) and School Street on the west side of the roadway.



Photo 7: From Route 123 (Main Street), looking west at the proposed transmission line route entrance onto Route 123.



Photo 8: Route 123 (Main Street) between Harriet Street and Center Avenue, looking northbound.



Photo 9: Route 123 (Main Street) between Catherine Street and Holmes Street, looking southbound.



Photo 10: Route 123 (Main Street) between Holmes Street and Union Avenue, looking southbound.



Photo 11: Route 123 (Main Street) between West Main Street and Godfrey Street, looking southbound.



Photo 12: Route 123 (Main Street) between Godfrey Street and School Street, looking southbound.



Photo 13: Route 123 (Main Street) at School Street, looking southbound at the intersection of Route 123 (Main Street) and U.S. Route 1 (Cross Street and North Avenue).

Land uses along Route 123 (Main Street) are a combination of retail, commercial and residential. Land uses of specific interest include the following:

- There are six residential condominium complexes along Route 123 (Main Street):
 - #152 Main Street, *Brickwalk Condominiums* (east side of the roadway).
 - #150 Main Street, *Provincial Arms Condominiums* (east side of the roadway).
 - #144 Main Street, *144 Main Condominiums* (east side of the roadway).
 - #142 and #140, *Windy Knolls Condominiums* (east side of the roadway).
 - #134 Main Street, *Lockwood Terrace Condominiums* (west side of the roadway).
 - #133 Main Street, *Heritage Condominiums* (west side of the roadway).
- The Church of the Nazarene is located on the east side of the road opposite the intersection with Holmes Street.

Three signalized intersections are located along this portion of Route 123 (Main Street) and include the following:

1. Route 123 (Main Street) at Catherine Street/Center Avenue (State-Maintained, Intersection #102-221)
2. Route 123 (Main Street) at Union Avenue (State-Maintained, Intersection #102-220)
3. Route 123 (Main Street) at Route 1 (Cross Street and North Avenue) (City-Maintained)

The ADT along Route 123 (Main Street) is 14,100 vehicular trips between Ohio Avenue and Union Avenue and 13,300 vehicular trips between Union Avenue and the U.S. Route 1 (Cross Street and North Avenue) intersection.



Photo 14: U.S. Route 1 (North Avenue) looking westbound at the intersection of Route 123 (Main Street) and U.S. Route 1 (Cross Street and North Avenue).

E. U.S. Route 1 (North Avenue) from Route 123 (Main Street) to Father Conlon Place

This 0.1-mile segment of U.S. Route 1 (North Avenue), from Route 123 (Main Street) to Father Conlon Place, is an east/west state maintained roadway with the following characteristics:

- Two travel lanes; one eastbound and one westbound
- Curb-to-curb width in this segment varies:
 - From Route 123 (Main Street) to High Street: width averages 30'
 - From High Street to Father Conlon Place: width varies from 32' to 50'
- Posted speed limit of 30 miles per hour
- Illumination provided throughout on the north side of U.S. Route 1 (North Avenue)
- Sidewalks provided throughout along the north side of U.S. Route 1 (North Avenue)
- Although there are no bus stop designations in this segment, the Norwalk Transit District "Coastal Link" route travels along the U.S. Route 1 corridor, 7 days a week from 5:45 a.m. to 9:45 p.m.
- On-street parking is prohibited on both sides of U.S. Route 1 (North Avenue) from Route 123 (Main Street) to Father Conlon Place

Land uses along U.S. Route 1 (North Avenue) are a combination of mostly retail and commercial properties with some residential. Specific land uses of concern include the following:

- Saint Philip's Catholic Church on Father Conlon Place directly north of U.S. Route 1 (North Avenue) between High Street and Knight Street

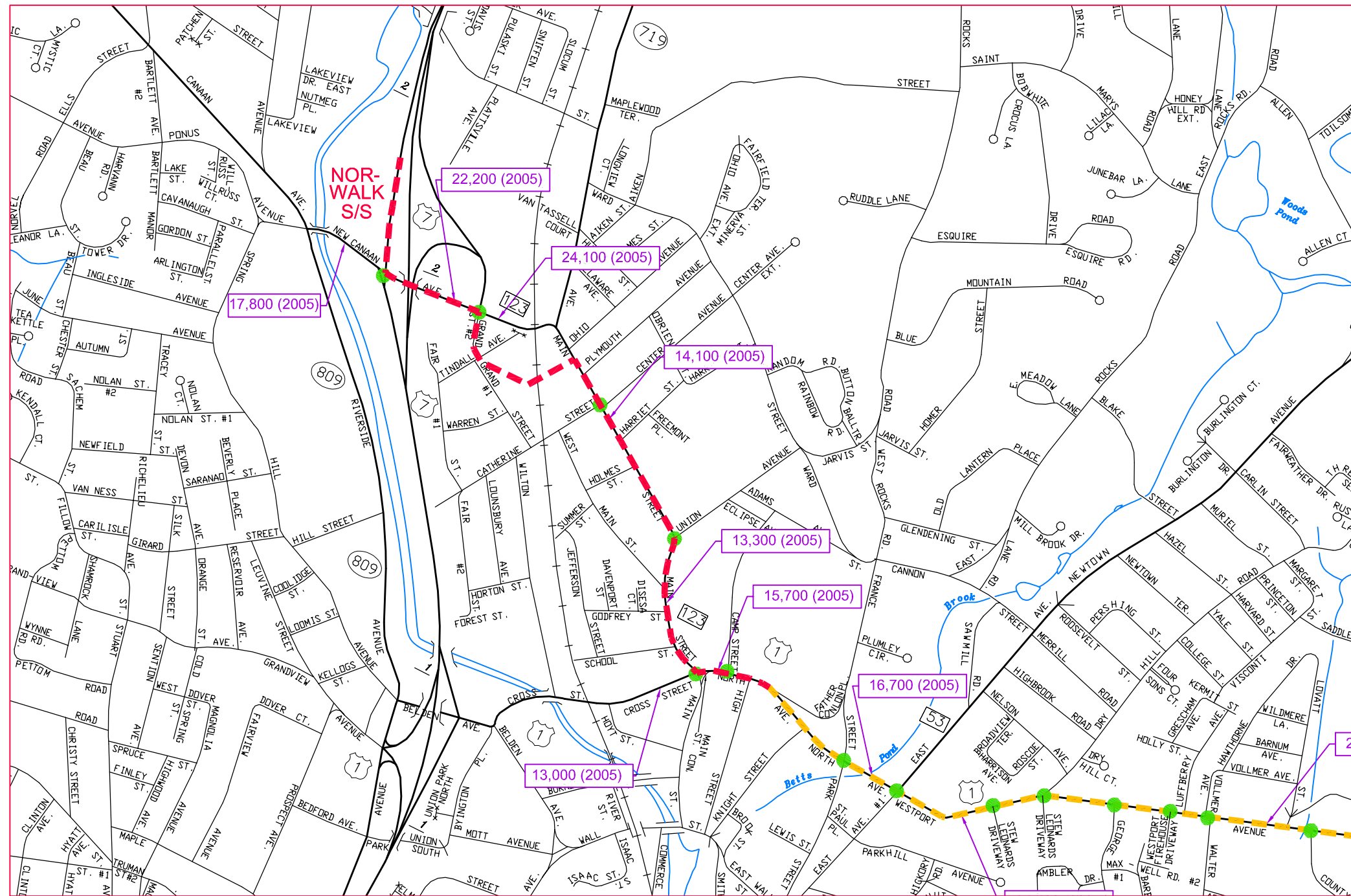
One signalized intersection (City maintained) is located along this portion of U.S. Route 1 (North Avenue):

- U.S. Route 1 (North Avenue) at Camp Street (Intersection #102-214)



Photo 15: U.S. Route 1 (North Avenue) looking westbound at the intersection with Camp Street

The ADT along this portion of U.S. Route 1 (North Avenue) is 15,700 vehicular trips.



LEGEND

- XX,XXX – ADT
- (XXXX) – YEAR
- – TRAFFIC SIGNAL
- (Red Dashed) – CL&P SELECTED ROUTE – NORWALK SEGMENT 4C
- (Yellow Dashed) – CL&P SELECTED ROUTE – NORWALK SEGMENT 4B (SEE SEPARATE REPORT)



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355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

ADT & TRAFFIC SIGNAL LOCATIONS

345-kV TRANSMISSION LINE
MIDDLETOWN-NORWALK
NORWALK, CONNECTICUT

Scale 1"=1000'
Project No. 05C1314
Date 12/06/06
CAD File 102_TRPT05C1314 FIG N2

FIGURE N.2

XREF(s): NONE

III. WORK BY OTHERS

Public Roadway Improvement Projects

The following are state projects that are proposed in the general vicinity of the Connecticut Siting Council approved CL&P 345-kV Transmission Line project area in Norwalk and the anticipated start dates:

- State Project #102-303, Route 123 – Bridge #1664 Replacement (Intersection of Route 7 Southbound Off-Ramp and Route 123 (New Canaan Avenue))
- State Project #102-309, Route 7 – Update Signs From I95 Ramps To Grist Mill Road (04/06)

IV. CONSTRUCTION SEQUENCE AND UNDERSTANDING

The construction of the 345-kV underground transmission line is a five (5) step process. The steps are performed sequentially, but not necessarily continuously. Therefore, periods of no visible construction activity or traffic disruption may occur between steps.

1. Splice Vault Excavation and Installation.

Large splice-vaults will be installed at intervals of approximately 1,650 feet. The vaults are installed in pairs, with 5 pairs anticipated in Norwalk for Segment 4C. ConnDOT has requested that wherever possible, vaults be located outside the travel way along the State roadways. Each vault measures 32' long, 9' wide and 10' high. An excavation pit of about 36' long, 14' deep and 13' wide is needed for each vault.

For any splice vaults in the roadway, the duration of construction for each pair is expected to be 7-14 days working nights only, or 2-4 days working 24 hours around the clock. Depending on the exact location and the task being performed, 2 or 3 traffic lanes will have to be closed for installation. The actual installation of the pre-cast concrete vault sections will require the use of a crane, which itself needs effectively two lanes for the outriggers and swing clearance. This installation will typically occur in the timeframe of one night. Backfilling, etc., may require a narrower work area. Should the excavation have to remain "open" when work is not in progress, protective barrier will be required if traffic is not maintained in the lane(s) of the excavation, and a special design for bridging the excavation if traffic is maintained in the lane(s) of the excavation.

2. Duct-bank Excavation and Installation.

The pavement will be saw cut to the width of the excavation. The excavation and duct bank will be approximately 4' wide with a minimum 30" deep cover. The depth of the trench will vary depending on underground conflicts but will have a typical depth of 5 feet. The duct bank will contain 10 conduits and will be encased in concrete, cast in place. The trench will

be backfilled and temporary pavement installed. In general, two travel lanes will be required for this work. Steel plates will be required if the trench cannot be backfilled at the end of the work day and the travel lanes must be opened. It is anticipated that 50-150 feet of duct-bank can be installed per day per crew.

3. Cable Pulling.

Cable reel carts and pulling machines will be set up over the vaults. Assuming a normal work shift, it is anticipated that six (6) work days will be required to pull cable between each pair of vaults. In general, one to two lanes of traffic will have to be closed for this activity.

4. Cable Splicing.

This is a time consuming activity requiring a controlled environment in the vaults. As such, a specially designed trailer is parked over the vault. Cable splicing will require 12 days per set of vaults, assuming a 24-hour work shift. For vault locations within the roadway, one to two traffic lanes will be occupied by this activity.

5. Pavement Restoration

The final task is the restoration of pavement. The trench will be temporarily repaired in accordance with temporary trench repair details (see Restoration and Maintenance and Protection of Traffic Plans, separate document). Typically two travel lanes will be occupied by this operation. At completion of the project, a mill and overlay will be constructed in accordance with ConnDOT standards to a width agreed to by CL&P and ConnDOT, within limits as set forth in the Encroachment Permit (see Restoration and Maintenance and Protection of Traffic Plans, separate document).

V. RECOMMENDATIONS FOR MAINTENANCE AND PROTECTION OF TRAFFIC

This project is a utility infrastructure improvement. However, from the perspective concerning the impact of construction on traffic, two of the construction elements, splice vault and duct-bank installation, are similar to major roadway corridor reconstruction and thus have the need for detailed maintenance and protection of traffic procedures. Although the cable pulling and cable splicing may be less intrusive than the duct bank and splice vault construction, the location and duration dictate the need to address maintenance and protection of traffic.

This section of the report is divided into two parts; General Recommendations applicable to the entire project; and Specific Recommendations developed for the individual areas of work.

General Recommendations

1. All work within the ConnDOT Right-of-way shall be completed in accordance with the State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816 and the Supplemental Specifications dated January 2007.
2. Temporary traffic control plans shall be developed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), Part 6, and ConnDOT specifications.
3. Where appropriate, the ConnDOT typical Maintenance Traffic Control Plans shall be used (see Appendix VII). Non-standard traffic control plans shall be developed where the typical Maintenance Traffic Control Plans do not apply, and submitted for review and approval by ConnDOT. Any Contractor requested revisions must be submitted to ConnDOT for review and approval at least 30 days prior to implementation.
4. Traffic control devices shall meet the requirement of NCHRP Report 350, Recommended Procedures for the Safety Performance Evaluation of Highway Features.

5. All flaggers shall be in accordance with the requirements of the following Special Provisions: Item No. 0970005A – Trafficperson (State Police Officer), Item No. 0970006A – Trafficperson (Municipal Police Officer), and Item No. 0970007A – Trafficperson (Uniformed Flagger). The Contractor shall also have completed training through ATSSA (American Traffic Safety Services Association) or other organizations, as approved by ConnDOT.
6. The Contractor shall have at least one person trained as a work zone safety supervisor through ATSSA, or other organization approved by ConnDOT.
7. The Contractor shall maintain access for emergency vehicles through the work zone at all times.
8. Access accommodations shall be made for pedestrians at all times. Pedestrian access to businesses shall be maintained during those times when the businesses are open unless permission is granted from the business owner to close access.
9. The Contractor shall maintain vehicular access to and egress from all commercial and residential driveways. One access will be maintained or a temporary access will be provided. The Contractor will be allowed to close driveways to perform the required work during those periods when the businesses are closed unless permission is granted from the business owner to close the driveway during business hours. If a temporary closure of a residential driveway is necessary, the Contractor shall coordinate with the owner to determine the time period of the closure.
10. Roadway occupancy will be scheduled during off-peak hours where possible, and where necessary, at night. Local noise ordinances will be investigated for nighttime activities (see Appendix V).
11. The need to maintain traffic signal operation, including detection and interconnect is important, particularly along high volume routes. Temporary detection may require the use of means other than loops, such as microwave or video in areas of poor pavement. Use of a traffic signal contractor on stand-by duty during new construction activities should be provided.
12. During night work, existing roadway lighting must be maintained. Temporary lighting may have to be provided.
13. The contractor should only excavate a length of roadway that can be completed, including paving, in one work day (or work night) during the allowable work period as defined in the Specific Recommendations. If necessary, due to limited allowable work hours, steel plates may be used to bridge the excavation. See General Recommendation #14.

14. Steel plates will be required if the duct bank trench cannot be backfilled at the end of the allowable work period. No more than 300 feet of trench length shall be plated per the design waivers in the December 30, 2005 letter from Arthur Gruhn, PE, Chief Engineer Bureau of Engineering and Highway Operations for ConnDOT, to Anne Bartosewicz, Middletown-Norwalk Project Director (see Appendix VIII). Per the December 30, 2005 letter steel plates will be permitted for use from March 15 to the day before Thanksgiving in November. ConnDOT will permit the use of steel plates on weekends and holidays, within the above stated time period, however, no more than 40 feet of trench length shall be plated. If two safety inspections are conducted daily, up to 100 feet of trench length shall be plated. Plates at intersections are prohibited. Such plates shall meet the remaining ConnDOT requirements for steel plates as outlined in "Guidelines for Use of Steel Plates in State Highway Right of Way" and be inspected and maintained on a daily basis.
15. The Contractors work schedule should be coordinated on a daily basis, with at a minimum: ConnDOT inspection personnel, City of Norwalk Engineering Department and local police, fire departments, and EMT personnel.
16. The Contractors work schedule shall be made available on a weekly basis to other impacted road users and local officials, such as: local elected officials, public works personnel, emergency service providers, hospitals, public transit providers, Board of Education transportation coordinators, US Postal Service, etc.
17. For any local road closure, a construction sign should be installed in both directions in the vicinity of the closure two weeks prior to notify motorists of the date(s) of the construction.
18. If there is more than one alternating one-way traffic operation at one time on a roadway, then there shall be at least one mile between signing patterns.
19. No work shall be permitted on Sunday mornings between 8:00 a.m. and Noon within 1,000 feet of a place of worship.

Specific Recommendations

A. Route 123 (New Canaan Avenue) from Norwalk Substation to Grand Street

1. The Contractor will not be allowed to perform any work that will interfere with the existing number of lanes of traffic, including turning lanes at intersections, and sidewalks on:
 - Route 123 (New Canaan Avenue) EB and WB:
 - Monday – Friday: 6:00 a.m. to 8:00 p.m.
 - Saturday – Sunday: 10:00 a.m. to 8:00 p.m.

2. When actively working, during the following periods, the Contractor will be allowed to close one lane on Route 123 (New Canaan Avenue) and maintain one lane of traffic in that direction. The paved travel path for this one direction shall not be less than 12 feet in width. In the opposite direction of travel, no lane closures shall be permitted. The travel path for this direction shall not be less than 24 feet. This configuration shall be in accordance with a ConnDOT typical Maintenance Traffic Control Plan (see Appendix VII for ConnDOT typical Maintenance Traffic Control Plans).
 - Route 123 (New Canaan Avenue) EB and WB:
 - Monday – Friday: Midnight to 6:00 a.m.
8:00 p.m. to Midnight
 - Saturday – Sunday: Midnight to 10:00 a.m.
8:00 p.m. to Midnight

3. When actively working during the following periods, the contractor will be allowed to close two lanes on Route 123 (New Canaan Avenue) and maintain one lane of traffic in each direction. Each direction shall be on a paved travel way of not less than 12 feet in width. This configuration shall be in accordance with a ConnDOT typical Maintenance Traffic Control Plan (see Appendix VII for ConnDOT typical Maintenance Traffic Control Plans).
 - Route 123 (New Canaan Avenue) EB and WB:
 - Monday – Friday: Midnight to 6:00 a.m.
8:00 p.m. to Midnight
 - Saturday – Sunday: Midnight to 10:00 a.m.
8:00 p.m. to Midnight

4. When actively working, during the following periods, the Contractor will be allowed to maintain and protect at least an alternating one-way traffic operation on a paved travel path not less than 12 feet in width. The length of the alternating one-way traffic operation shall not exceed 300 feet, and shall require trafficpersons, uniformed flaggers, or Town Police. Alternating one-way traffic operation shall be in accordance with a ConnDOT typical Maintenance Traffic Control Plan (see Appendix VII for ConnDOT typical Maintenance Traffic Control Plans).
 - Route 123 (New Canaan Avenue) EB and WB:
 - Monday – Friday: Midnight to 6:00 a.m.
10:00 p.m. to Midnight
 - Saturday – Sunday: Midnight to 10:00 a.m.
10:00 p.m. to Midnight

5. The selected transmission line route runs between the Route 7 southbound off-ramp and the Route 7 northbound on-ramp. The Contractor shall provide access to and from both ramps at all times.

6. Traffic control signal equipment at the following locations will be impacted by construction activities. Disturbed “local” loop detectors shall be restored or temporary detection must be provided within 24 hours.
 - Route 123 (New Canaan Avenue) at the Route 7 Southbound on/off-ramps (Int. #102-301) – Potentially replace conduits and wiring located across Route 123 during duct bank installation. Replace all system detectors located across Route 123 during both the duct-bank construction and mill and overlay process.
 - Route 123 (New Canaan Avenue) at the Route 7 Northbound on/off-ramps/Grand Street (Int. #102-202) - Potentially replace conduits and wiring located across Route 123 during duct bank installation. Replace all system detectors located across Route 123 during both the duct-bank construction and mill and overlay process.

See Section D for vault recommendations.

See Figure N.3 for allowable work hours map.

B. Grand Street and Tindall Avenue

1. The Contractor will not be allowed to perform any work that will interfere with the existing number of lanes of traffic, including turning lanes at intersections, and sidewalks on:
 - Grand Street
 - Monday – Friday: 6:00 a.m. to 8:00 p.m.
 - Saturday – Sunday: 10:00 a.m. to 8:00 p.m.
 - Tindall Avenue
 - Monday – Friday: 6:00 a.m. to 8:00 p.m.
 - Saturday – Sunday: 10:00 a.m. to 8:00 p.m.
2. There is a condominium complex at the intersection of Grand Street and Tindall Avenue: *Clocktower Close Apartments*. Although it would be preferential to prohibit night work (8:00 p.m. to 7:00 a.m. Sunday through Thursday, 8:00 p.m. to 8:00 a.m. Friday, and 8:00 p.m. to 9:00 a.m. Saturday, see Appendix V for the City of Norwalk Noise Control Ordinance), due to traffic volumes, daytime work hours are limited and do not provide a sufficient work period. Thus it will not be feasible to restrict night work. Equipment to reduce noise shall be investigated by the contractor. A variance through the Director of Health will be required for such activities.
3. When actively working, during the following periods, the Contractor will be allowed to maintain and protect at least an alternating one-way traffic operation on a paved travel

path not less than 12 feet in width. The length of alternating one-way traffic operation shall not exceed 300 feet, and shall require trafficpersons, uniformed flaggers, or Town Police. Alternating one-way traffic operation shall be in accordance with a ConnDOT typical Maintenance Traffic Control Plan (see Appendix VII for ConnDOT typical Maintenance Traffic Control Plans).

- Grand Street:
 - Monday – Friday: Midnight to 6:00 a.m.
8:00 p.m. to Midnight
 - Saturday – Sunday: Midnight to 10:00 a.m.
8:00 p.m. to Midnight
- Tindall Avenue:
 - Monday – Friday: Midnight to 6:00 a.m.
8:00 p.m. to Midnight
 - Saturday – Sunday: Midnight to 10:00 a.m.
8:00 p.m. to Midnight

See Section D for vault recommendations.

See Figure N.3 for allowable work hours map.

C. Route 123 (Main Street) between Ohio Avenue and U.S. Route 1 (Cross Street and North Avenue)

1. The Contractor will not be allowed to perform any work that will interfere with the existing number of lanes of traffic, including turning lanes at intersections, and sidewalks on:
 - Route 123 (Main Street) NB and SB:
 - Monday – Friday: 6:00 a.m. to 8:00 p.m.
 - Saturday – Sunday: 10:00 a.m. to 8:00 p.m.
2. When actively working, during the following periods, the Contractor will be allowed to maintain and protect at least an alternating one-way traffic operation on a paved travel path not less than 12 feet in width. The length of the alternating one-way traffic operation shall not exceed 300 feet, and shall require trafficpersons, uniformed flaggers, or Town Police. Alternating one-way traffic operation shall be in accordance with a ConnDOT typical Maintenance Traffic Control Plan (see Appendix VII for ConnDOT typical Maintenance Traffic Control Plans).
 - Route 123 (Main Street) NB and SB:
 - Monday – Friday: Midnight to 6:00 a.m.
8:00 p.m. to Midnight
 - Saturday – Sunday: Midnight to 10:00 a.m.
8:00 p.m. to Midnight

3. Traffic control signal equipment at the following locations will be impacted by construction activities. Disturbed “local” loop detectors shall be restored or temporary detection must be provided within 24 hours.
 - Route 123 (Main Street) at Catherine Street/Center Avenue (Int. #102-221) - Potentially replace conduits and wiring located across Route 123 during duct bank installation. Replace all system detectors located across Route 123 during both the duct-bank construction and mill and overlay process.
 - Route 123 (Main Street) at Union Avenue (Int. #102-220) - Potentially replace conduits and wiring located across Route 123 during duct bank installation.
 - Route 123 (Main Street) at U.S. Route 1 (Cross Street and North Avenue) (City-Maintained) - Potentially replace conduits and wiring located across Route 123 during duct bank installation. Replace all system detectors located across Route 123 and U.S. Route 1 during both the duct-bank construction and mill and overlay process.
4. There are six condominium complexes along Route 123 (Main Street): *Brickwalk Condominiums, Provincial Arms Condominiums, 144 Main Condominiums, Windy Knolls Condominiums, Lockwood Terrace Condominiums, Heritage Condominiums*. Although it would be preferential to prohibit night work (8:00 p.m. to 7:00 a.m. Sunday through Thursday, 8:00 p.m. to 8:00 a.m. Friday, and 8:00 p.m. to 9:00 a.m. Saturday, see Appendix V for the City of Norwalk Noise Control Ordinance), due to traffic volumes, daytime work hours are limited and do not provide a sufficient work period. Thus it will not be feasible to restrict night work. Equipment to reduce noise shall be investigated by the contractor. A variance through the Director of Health will be required for such activities.

See Section D for vault recommendations.

See Figure N.3 for allowable work hours map.

D. U.S. Route 1 (North Avenue) From Route 123 (Main Street) to Father Conlon Place

1. The Contractor will not be allowed to perform any work that will interfere with the existing number of lanes of traffic, including turning lanes at intersections, and sidewalks on:
 - U.S. Route 1 (North Avenue) EB and WB:
 - Monday – Friday: 6:00 a.m. to 8:00 p.m.
 - Saturday – Sunday: 10:00 a.m. to 4:00 p.m.

2. There are several residences located between Route 123 (Main Street) and High Street on U.S. Route 1 (North Avenue). Although it would be preferential to prohibit night work (8:00 p.m. to 7:00 a.m. Sunday through Thursday, 8:00 p.m. to 8:00 a.m. Friday, and 8:00 p.m. to 9:00 a.m. Saturday, See Appendix V for the City of Norwalk’s Noise Control Ordinance), due to traffic volumes, daytime work hours are limited to and do not provide a sufficient work period. Thus it will not be feasible to restrict night work. Equipment to reduce noise shall be investigated by the contractor. A variance through the City of Norwalk’s Director of Health will be required for such activities.

3. When actively working during the following periods, the contractor will be allowed to maintain and protect at least an alternating one-way traffic operation on a paved travel path not less than 12 feet in width. The length of the alternating one-way traffic operation shall not exceed 300 feet, and shall require trafficpersons, uniformed flaggers, or Town Police. Alternating one –way traffic operation shall be in accordance with a ConnDOT typical Maintenance Traffic Control Plan (See Appendix VII for ConnDOT typical Maintenance Traffic Control Plans).
 - U.S. Route 1 (North Avenue) EB and WB:
 - Monday – Friday: Midnight to 6:00 a.m.
8:00 p.m. to Midnight
 - Saturday – Sunday: Midnight to 10:00 a.m.
8:00 p.m. to Midnight

4. Traffic control signal equipment at the following location will be impacted by construction activities. Disturbed “local” loop detectors shall be restored or temporary detection must be provided within 24 hours:
 - U.S. Route 1 (North Avenue) at Camp Street (Intersection #102-214) – Signal plan has been requested from the City but not yet received.

See Figure N.3 for allowable work hours map.

E. Vault Installation/Construction

The following are recommendations specific to vault installation and construction and are in addition to the previously listed recommendations. Aerial photographs of each vault location are provided in Appendix VI. In general, duct bank connections to off-street vaults will require special provisions to be addressed in Maintenance and Protection of Traffic Control Plans. From west to east along the selected route the following provides specific recommendations for each vault location:

Vaults 7500 and 6400 are located within the State’s Right Of Way, west of the Route 7 off-ramp and in front of existing fencing. There is no impact to the roadway and there is no adjacent sidewalk.

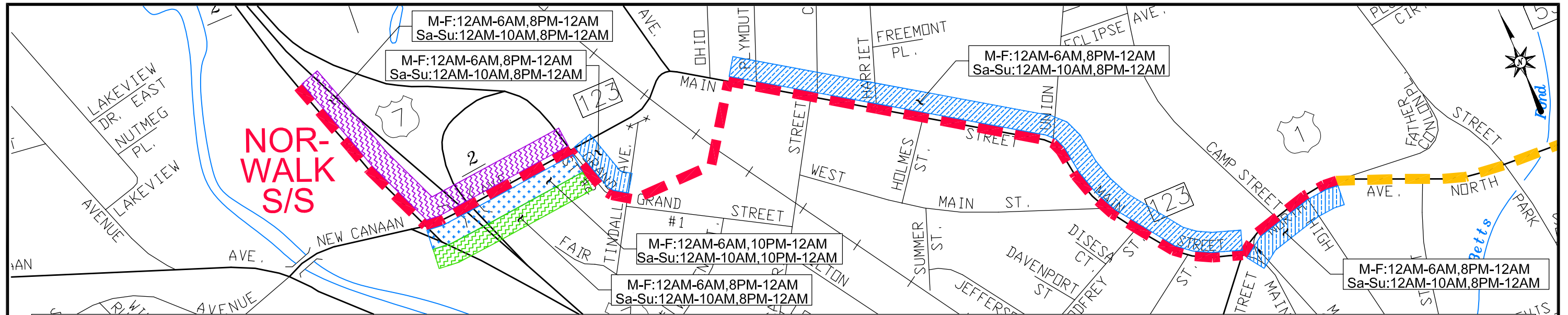
Vaults 7501 and 6401 are located north of Route 123 (New Canaan Avenue). There is no impact to the roadway and there is no adjacent sidewalk.

Vaults 7502 and 6402 are located on CL&P property. There is no impact to the roadway and there is no adjacent sidewalk.

Vaults 7503 and 6403 are located on private property along the west side of Route 123 (Main Street). Vault construction will impact the sidewalk located along the westerly side of Route 123 (Main Street). The duct-bank connection construction will impact Route 123 (Main Street) as well as the adjacent sidewalk.

- Due to the proximity of the vault construction zone to the roadway, temporary concrete barrier curbing shall be installed around the vault construction zone in accordance with the Maintenance and Protection of Traffic Plans.
- The Contractor will be allowed to maintain traffic operations on Route 123 (Main Street) during duct-bank connection construction as determined in Section C of the Specific Recommendations.
- Due to the proximity of the construction area to the adjacent sidewalk, the Contractor shall install fencing around the vault construction area.

Vaults 7504 and 6404 are located in the parking area of a retail development on the east side of Route 123 (Main Street). Although the vault construction will not impact Route 123 (Main Street), the duct-bank connection construction will impact the adjacent sidewalk.

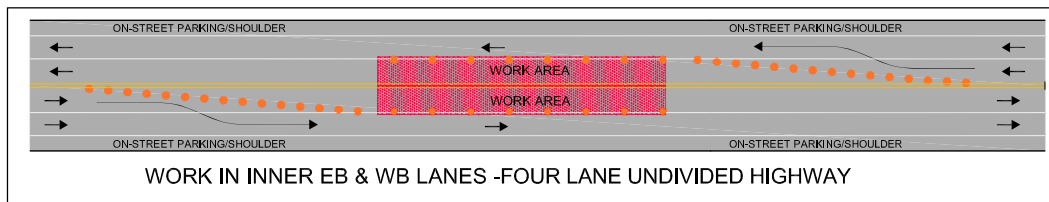


LEGEND

- CL&P SELECTED ROUTE - NORWALK SEGMENT 4C

- CL&P SELECTED ROUTE - NORWALK SEGMENT 4B (SEE SEPARATE REPORT)

ONE LANE - EACH DIRECTION



WORK HOURS:

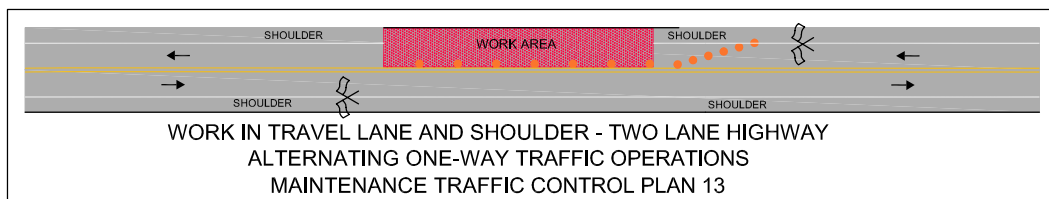
ROUTE 123 (NEW CANAAN AVENUE)
M-F: 12AM-6AM, 8PM-12AM
Sa-Su: 12AM-10AM, 8PM-12AM

RESTRICTIONS:

- 1) CONTRACTOR MUST MAINTAIN A MINIMUM 12' WIDE PAVED TRAVEL PATH IN EACH DIRECTION.
- 2) NORWALK TRANSIT DISTRICT "COASTAL LINK" TRAVELS ON ROUTE 123 (MAIN STREET). BUS STOPS ARE LOCATED AT:
 - #155 ROUTE 123 (MAIN STREET)
 - #143 ROUTE 123 (MAIN STREET)
 - THE INTERSECTION OF ROUTE 123 (MAIN STREET) AND WEST MAIN STREET
 - THE INTERSECTION OF ROUTE 123 (MAIN STREET) AND SCHOOL STREET
- 3) APARTMENT COMPLEXES ARE LOCATED AT:
 - #152 MAIN STREET, *BRICKWALK CONDOMINIUMS*
 - #150 MAIN STREET, *PROVINCIAL ARMS CONDOMINIUMS*
 - #144 MAIN STREET, *144 MAIN (CONDOMINIUMS)*
 - #142-140 MAIN STREET, *WINDY KNOLLS (CONDOMINIUMS)*
 - #134 MAIN STREET, *LOCKWOOD TERRACE CONDOMINIUMS*
 - #133 MAIN STREET, *HERITAGE CONDOMINIUMS*

THE CONTRACTOR SHOULD CHOOSE TO DO WORK THAT IS LESS DISRUPTIVE DURING NIGHTTIME HOURS. A VARIANCE THROUGH THE DIRECTOR OF HEALTH WILL BE SOUGHT FOR NIGHT CONSTRUCTION THAT EXCEEDS THE CITY NOISE ORDINANCE.

ONE LANE - ALTERNATING TRAFFIC



WORK HOURS:

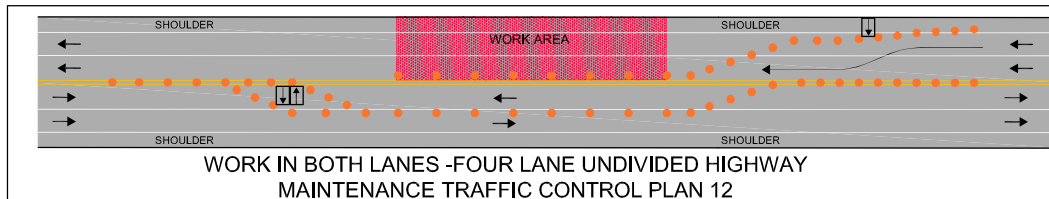
ROUTE 123 (NEW CANAAN AVENUE)
M-F: 12AM-6AM, 10PM-12AM
Sa-Su: 12AM-10AM, 10PM-12AM

ROUTE 123 (MAIN STREET)
M-F: 12AM-6AM, 8PM-12AM
Sa-Su: 12AM-10AM, 8PM-12AM

GRAND STREET AND TINDALL AVENUE
M-F: 12AM-6AM, 8PM-12AM
Sa-Su: 12AM-10AM, 8PM-12AM

U.S. ROUTE 1 (NORTH AVENUE)
M-F: 12AM-6AM, 8PM-12AM
Sa-Su: 12AM-10AM, 8PM-12AM

TWO LANES - ONE DIRECTION



WORK HOURS:

ROUTE 123 (NEW CANAAN AVENUE)
M-F: 12AM-6AM, 8PM-12AM
Sa-Su: 12AM-10AM, 8PM-12AM



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ENVIRONMENTAL SCIENCES

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

ALLOWABLE WORK HOURS MAP

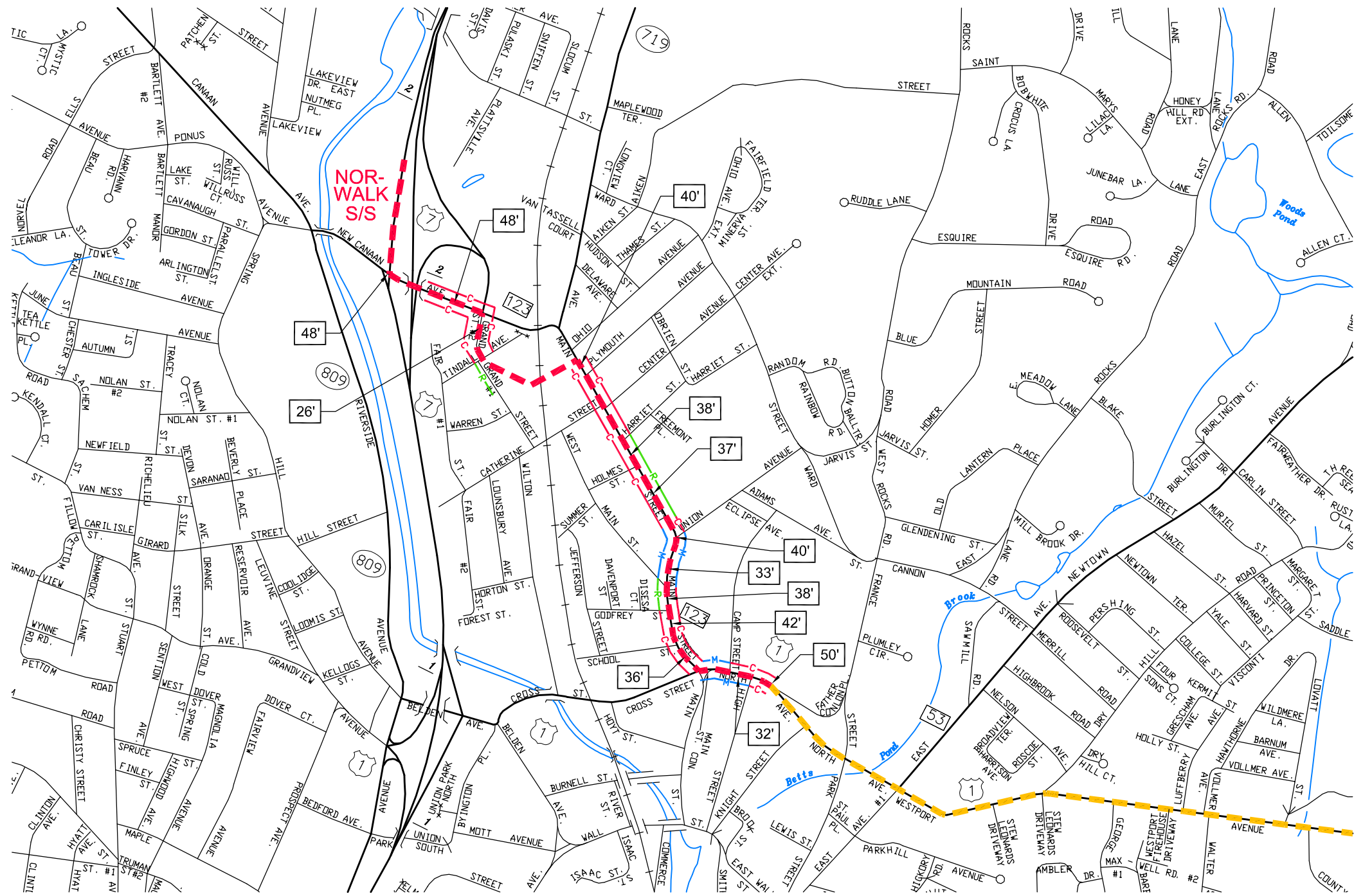
MIDDLETOWN TO NORWALK
345-kV TRANSMISSION LINE PROJECT
NORWALK, CONNECTICUT

Scale 1"=500'
Project No. 05C1314
Date 12/06/06
CAD File 102_TRPT05C1314 FIG N3

FIGURE N.3

XREF(s): NONE

APPENDIX II
ROUTE INVENTORY



LEGEND

- - - - CL&P SELECTED ROUTE - NORWALK SEGMENT 4C
- - - - CL&P SELECTED ROUTE - NORWALK SEGMENT 4B (SEE SEPARATE REPORT)
- - - - RES - RESIDENTIAL LAND USE
- - - - C - COMMERCIAL LAND USE
- - - - M - MIXED LAND USE (COMMERCIAL AND RESIDENTIAL)
- - LAND USE OF CONCERN
- XX - TYPICAL CURB-TO-CURB WIDTH



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LAND USE AND ROADWAY WIDTHS

345-kV TRANSMISSION LINE
MIDDLETOWN-NORWALK
NORWALK, CONNECTICUT

Scale 1"=1000'
Project No. 05C1314
Date 12/06/06
CAD File 102_TRPT05C1314 FIG N4

FIGURE N.4

XREF(s): NONE

**CL&P - MIDDLETOWN TO NORWALK
ROUTE INVENTORY**

Town/City: Norwalk

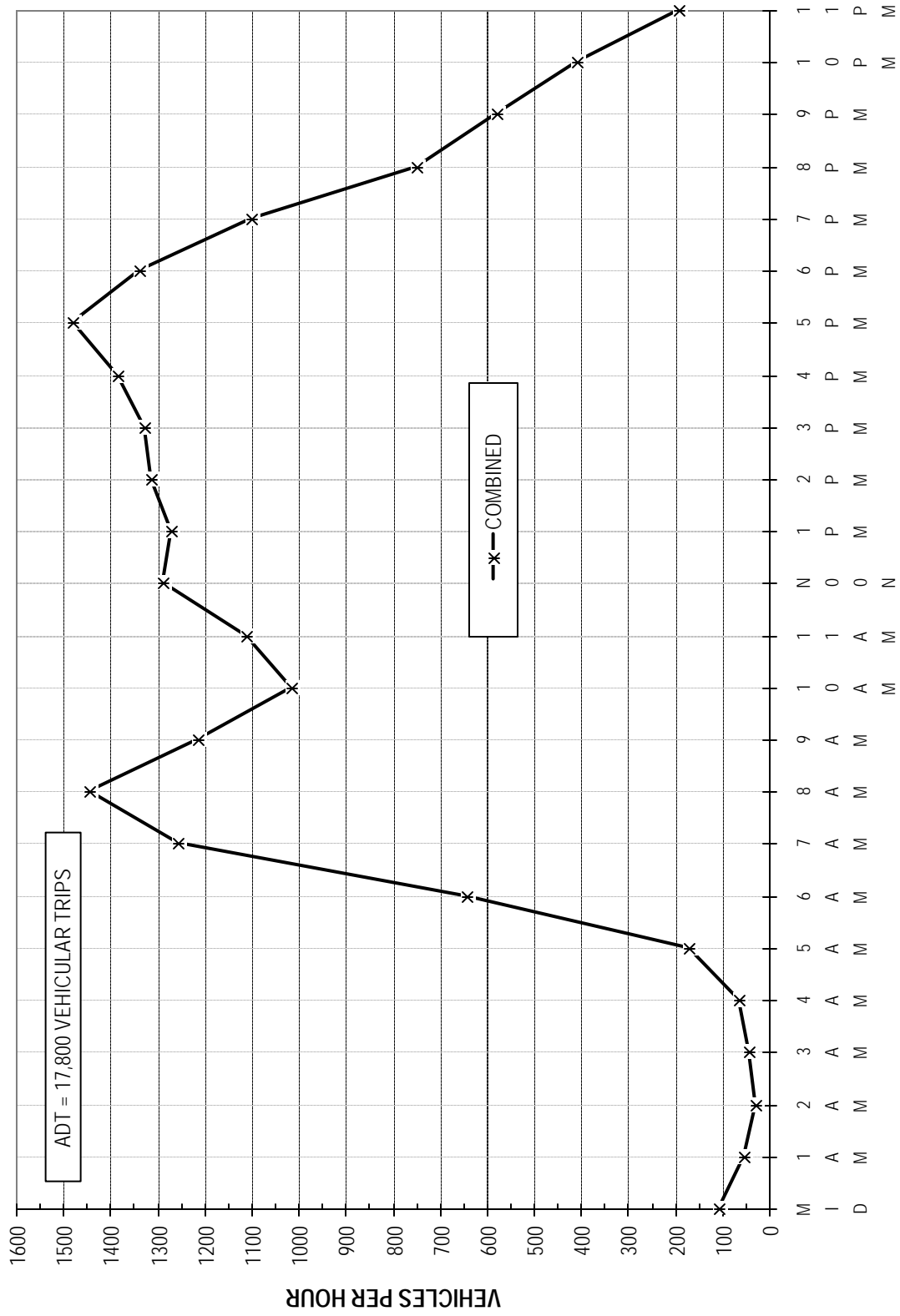
Roadway Name	From	To	Distance (feet)	# Travel Lanes	Avg.Width (c-c)	Speed Limit	Sidewalks Location	Parking Location	Illum. Y/N	Bus Route	ADT	PK. Hr. Volume	Traffic Signals at:	Comments	Abutting Commercial	Abutting Residential	Land Uses Of Concern
CL&P Selected Route:																	
Route 123 (New Canaan Ave.)	Norwalk Substation	Route 7 SB on/off-ramps	110'	4	48'	30	S	No Parking (N & S)	Y	N	N/A	N/A	Route 123 (New Canaan Ave.) & Route 7 SB on/off-ramps (#102-301)		N	N	
	Route 7 SB on/off-ramps	Route 7 NB on/off-ramps/ Grand Street	880'	4	48'	30	S	No Parking (N & S)	Y	N	20,700	8 AM	Route 123 (New Canaan Ave.) & Route 7 NB on/off-ramps (#102-202)		Y	N	
Grand Street	Route 123 (New Canaan Ave.)	Tindall Avenue	305'	2	26'	not posted	W & E	No Parking (W & E)	N	N	N/A	N/A			Y	Y	
Tindall Avenue	Grand Street	CL&P property	85'	2	30'	not posted	N & S	S	Y	N	N/A	N/A			Y	Y	Clocktower Close Apartments
Route 123 (Main Street)	Ohio Avenue	Catherine St./Center Ave.	565'	2	40'	30	W & E	W & E	Y	Y	13,900	5 PM			Y	N	
	Catherine St./Center Ave.	Holmes Street	540'	2	38'	30	W & E	W & E (1 hour parking)	Y	Y	13,900	5 PM	Route 123 (Main Street) & Catherine St./Center Ave. (#102-221)	Norwalk Transit District bus stop at #155 Main Street	Y	Y	
	Holmes Street	Union Avenue	600'	2	37'	30	W & E	W & E	Y	Y	13,900	5 PM		Norwalk Transit District bus stop at #143 Main Street	Y	Y	Church of the Nazarene
	Union Avenue	West Main Street	380'	2	varies 33-40'	30	W & E	not seen/not prohibited	Y	Y	14,000	1 PM	Route 123 (Main St.) & Union Avenue (#102-220)	Norwalk Transit District bus stop on the corner of Route 123 and West Main Street	Y	Y	
	West Main Street	School Street	515'	2	varies 38-42'	30	W & E	seen/not signed	Y	Y	14,000	1 PM		Norwalk Transit District bus stop on the corner of Route 123 and School Street	Y	Y	
	School Street	U.S. Route 1 (North Avenue)	275'	2	36'	30	W & E	No Parking (W & E)	Y	Y	14,000	1 PM	City of Norwalk signal at Route 123 (Main St.) & U.S. Route 1 (North Ave.)		Y	N	
U.S. Route 1 (North Avenue)	Route 123 (Main Street)	Camp Street	255'	2	30'	30	N	No Parking (N)	Y	Y	15,700	5 PM	City of Norwalk Signal at U.S. Route 1 (North Avenue) & Camp Street (#102-214)		Y	Y	
	Camp Street	High Street	180'	2	32'	30	N	No Parking (N)	Y	Y	15,700	5 PM			Y	Y	
	High Street	Father Conlon Place	215'	2	32'-50'	30	N	No Parking (N)	Y	Y	15,700	5 PM			Y	Y	

APPENDIX III

**SELECTED HOURLY TRAFFIC
VOLUME GRAPHS**

Route 123 (New Canaan Avenue)

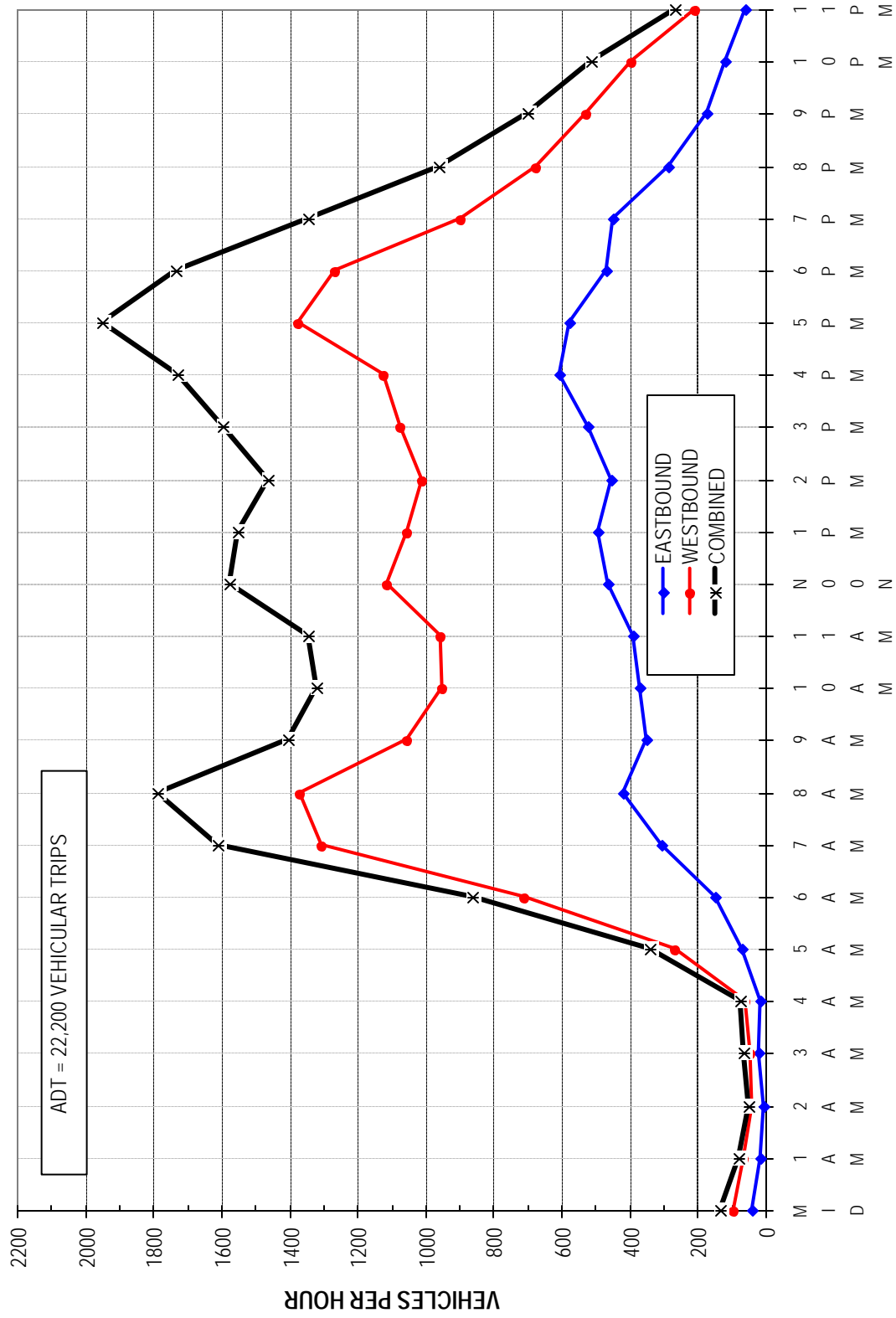
**HOURLY TRAFFIC VOLUMES - ROUTE 123 (NEW CANAAN AVENUE) (E/O ROUTE 809(RIVERSIDE AVENUE))
NORWALK, CT**



HOUR BEGINNING

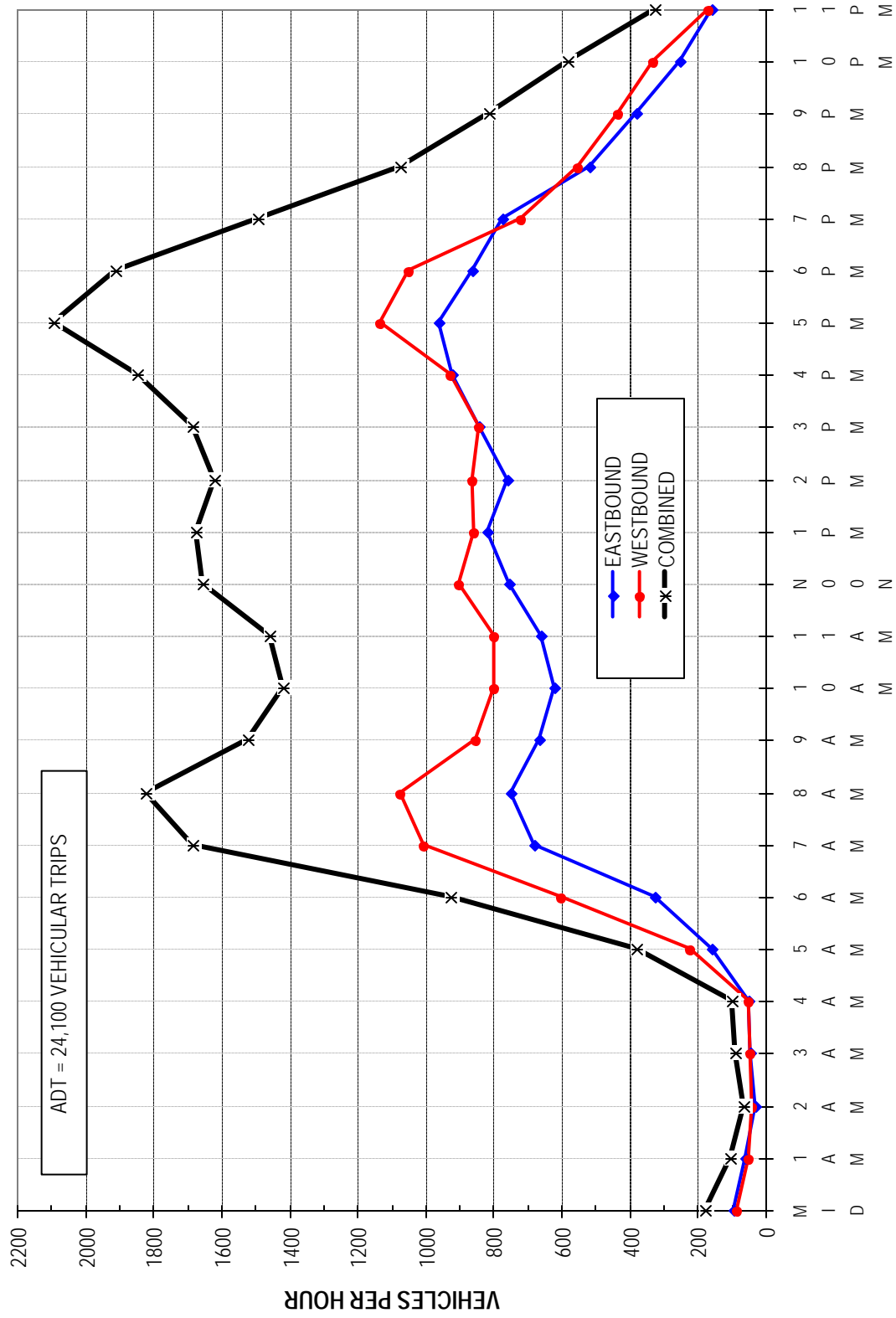
REF: CONNECTICUT DEPARTMENT OF TRANSPORTATION, YEAR 2005

**HOURLY TRAFFIC VOLUMES - ROUTE 123 (NEW CANAAN AVENUE) (W/O ROUTE 7 N.B. OFF-RAMP)
NORWALK, CT**



REF: CONNECTICUT DEPARTMENT OF TRANSPORTATION, YEAR 2005

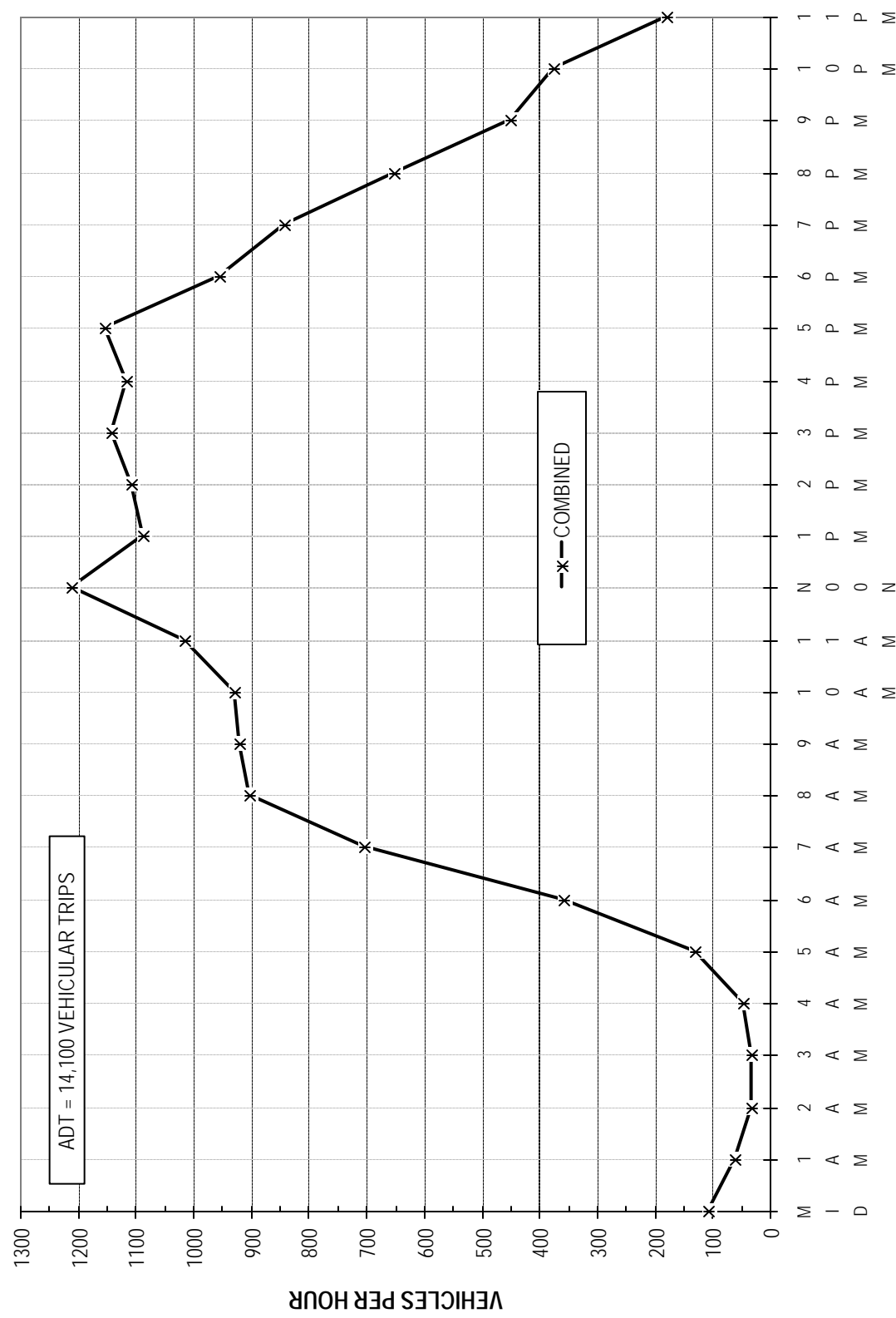
**HOURLY TRAFFIC VOLUMES - ROUTE 123 (NEW CANAAN AVENUE) (E/O ROUTE 7 N.B. ON-RAMP)
NORWALK, CT**



REF: CONNECTICUT DEPARTMENT OF TRANSPORTATION, YEAR 2005

Route 123 (Main Street)

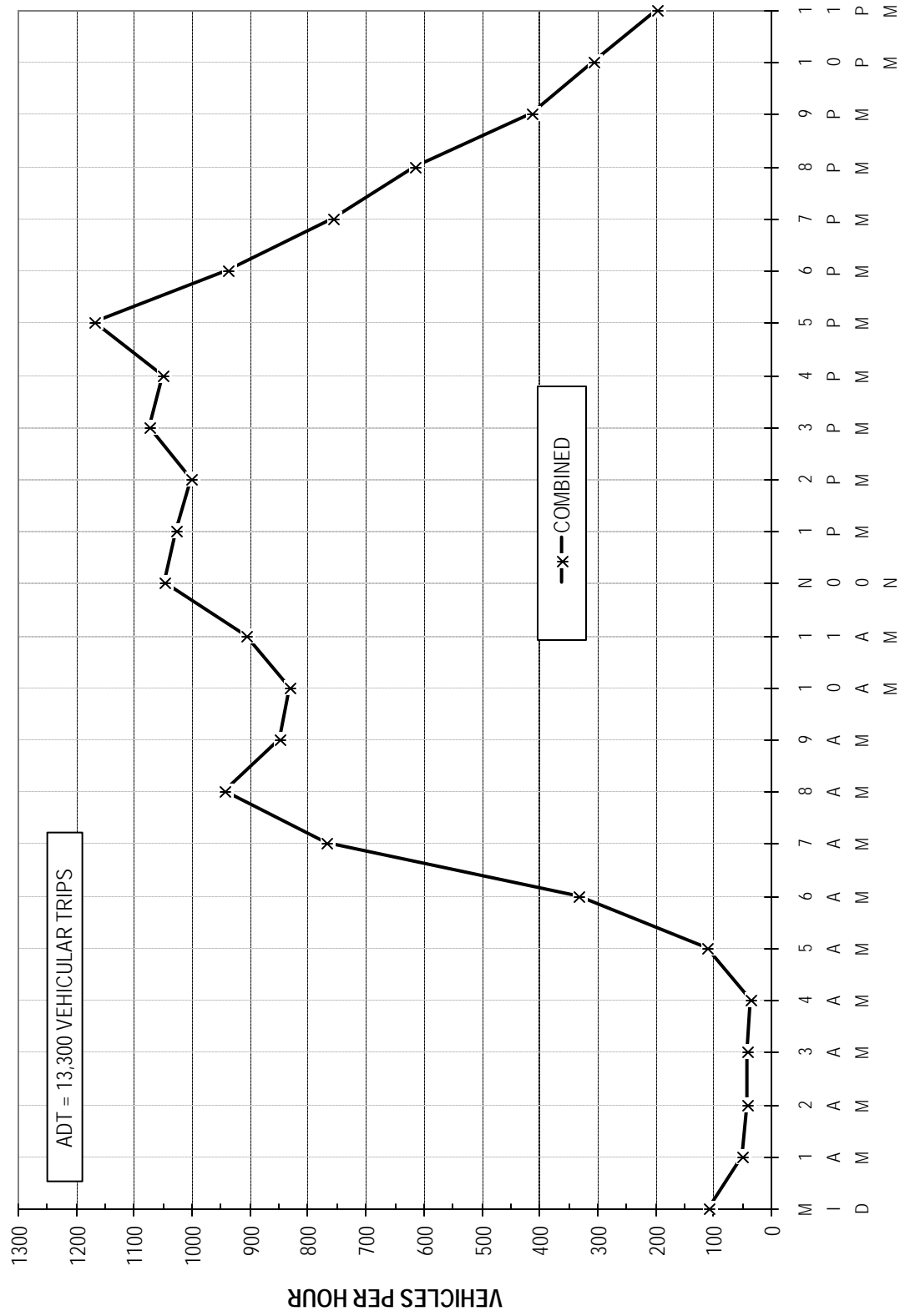
**HOURLY TRAFFIC VOLUMES - ROUTE 123 (MAIN STREET) (SE/O ROUTE 719 (MAIN AVENUE))
NORWALK, CT**



HOUR BEGINNING

REF: CONNECTICUT DEPARTMENT OF TRANSPORTATION, YEAR 2005

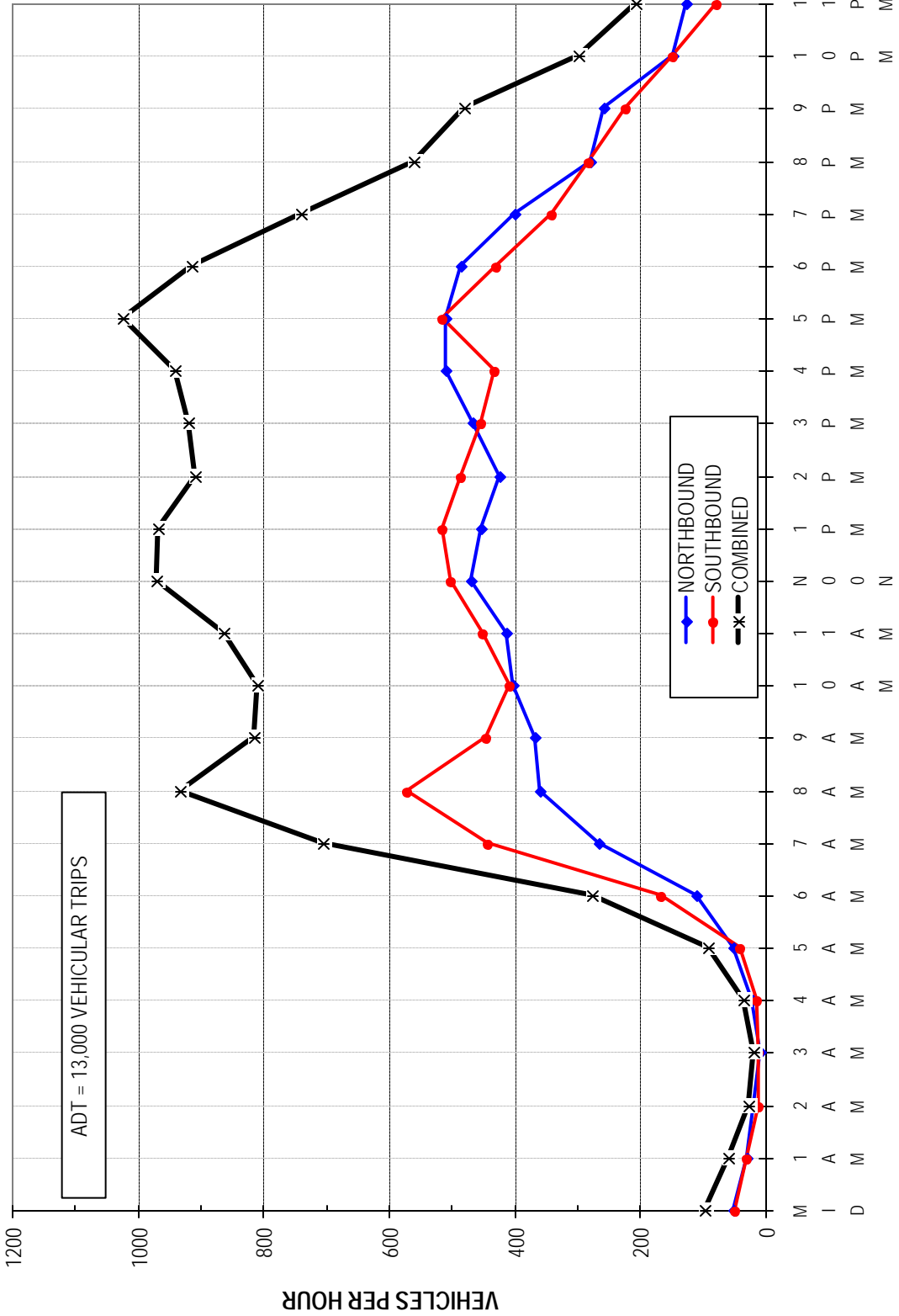
HOURLY TRAFFIC VOLUMES - ROUTE 123 (MAIN STREET) (NW/O SCHOOL STREET)
NORWALK, CT



REF: CONNECTICUT DEPARTMENT OF TRANSPORTATION, YEAR 2005

U.S. Route 1 (Cross Street)

HOURLY TRAFFIC VOLUMES - U.S. ROUTE 1 (CROSS STREET) (SW/O ROUTE 123) NORWALK, CT

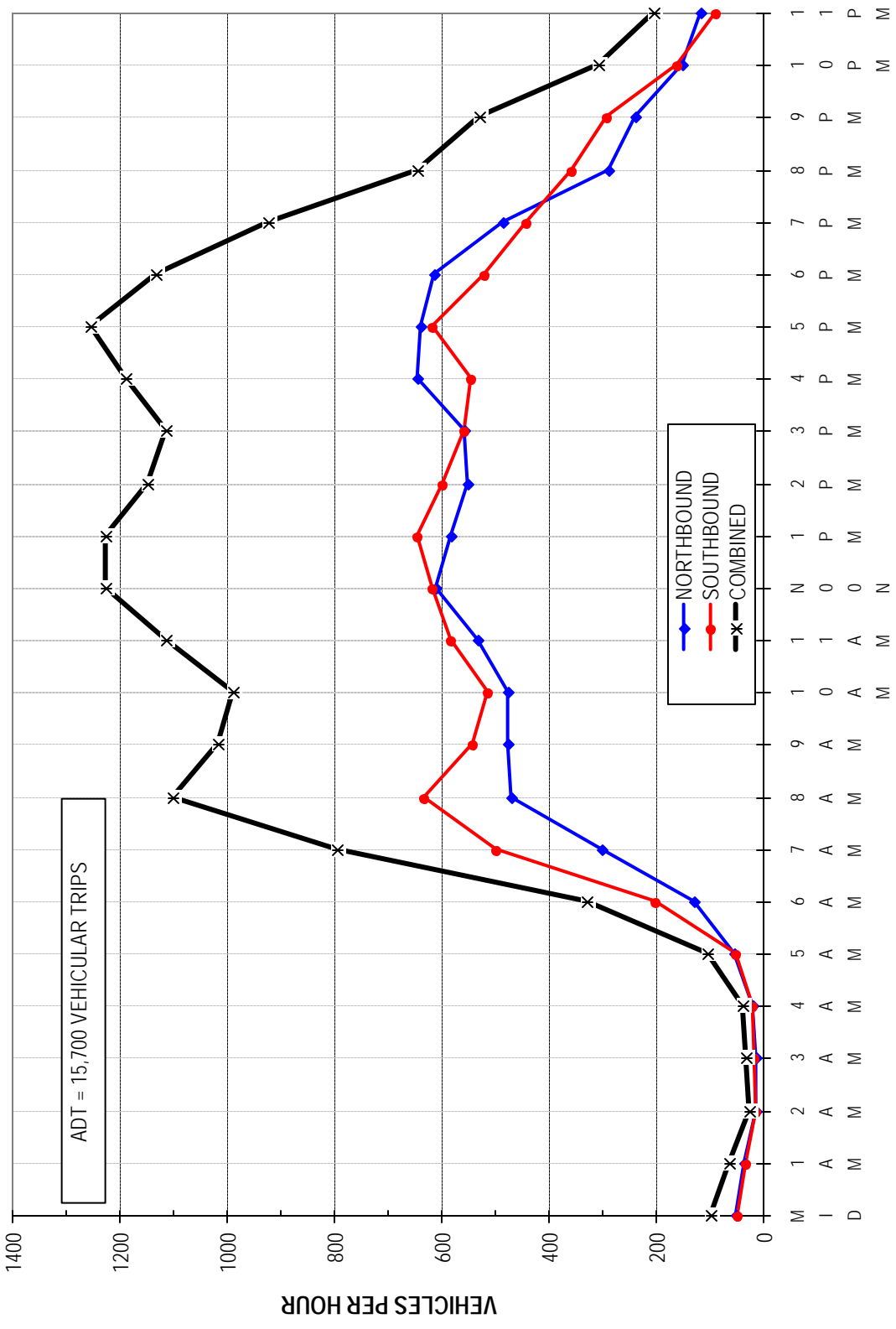


HOUR BEGINNING

REF: CONNECTICUT DEPARTMENT OF TRANSPORTATION, YEAR 2005

U.S. Route 1 (North Avenue)

HOURLY TRAFFIC VOLUMES - U.S. ROUTE 1 (NORTH AVENUE) (E/O ROUTE 123) NORWALK, CT



HOUR BEGINNING

REF: CONNECTICUT DEPARTMENT OF TRANSPORTATION, YEAR 2005

APPENDIX IV

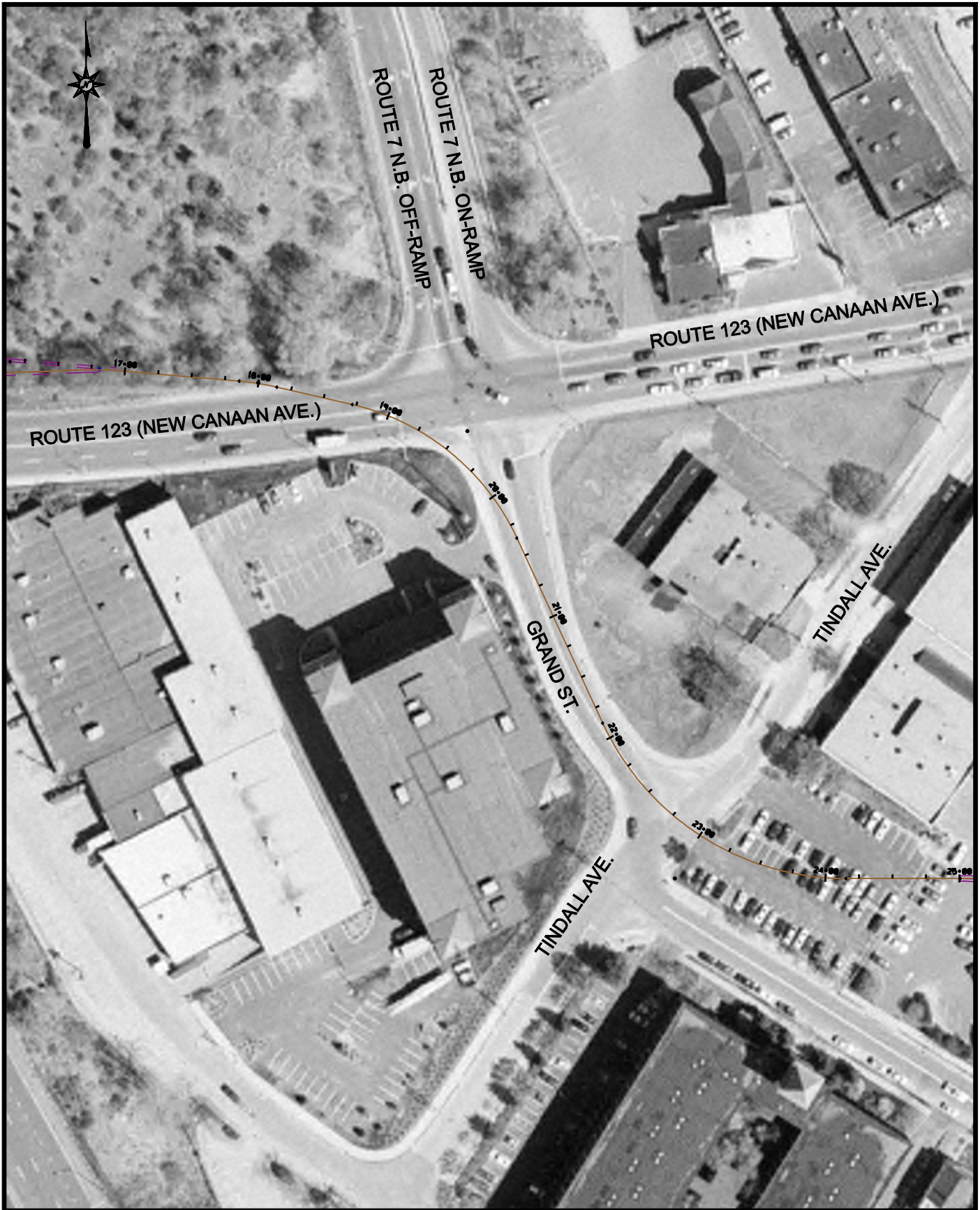
SIGNALIZED INTERSECTIONS
AERIAL PHOTOGRAPHS



**SIGNALIZED INTERSECTION #102-301
RTE. 123 (NEW CANAAN AVE.) AT RTE. 7 S.B. RAMPS
NORWALK, CONNECTICUT**

SCHEMATIC, NOT TO SCALE

FIGURE NI-1



**SIGNALIZED INTERSECTION #102-202
 RTE. 123 (NEW CANAAN AVE.) AT GRAND ST.
 NORWALK, CONNECTICUT**

SCHEMATIC, NOT TO SCALE

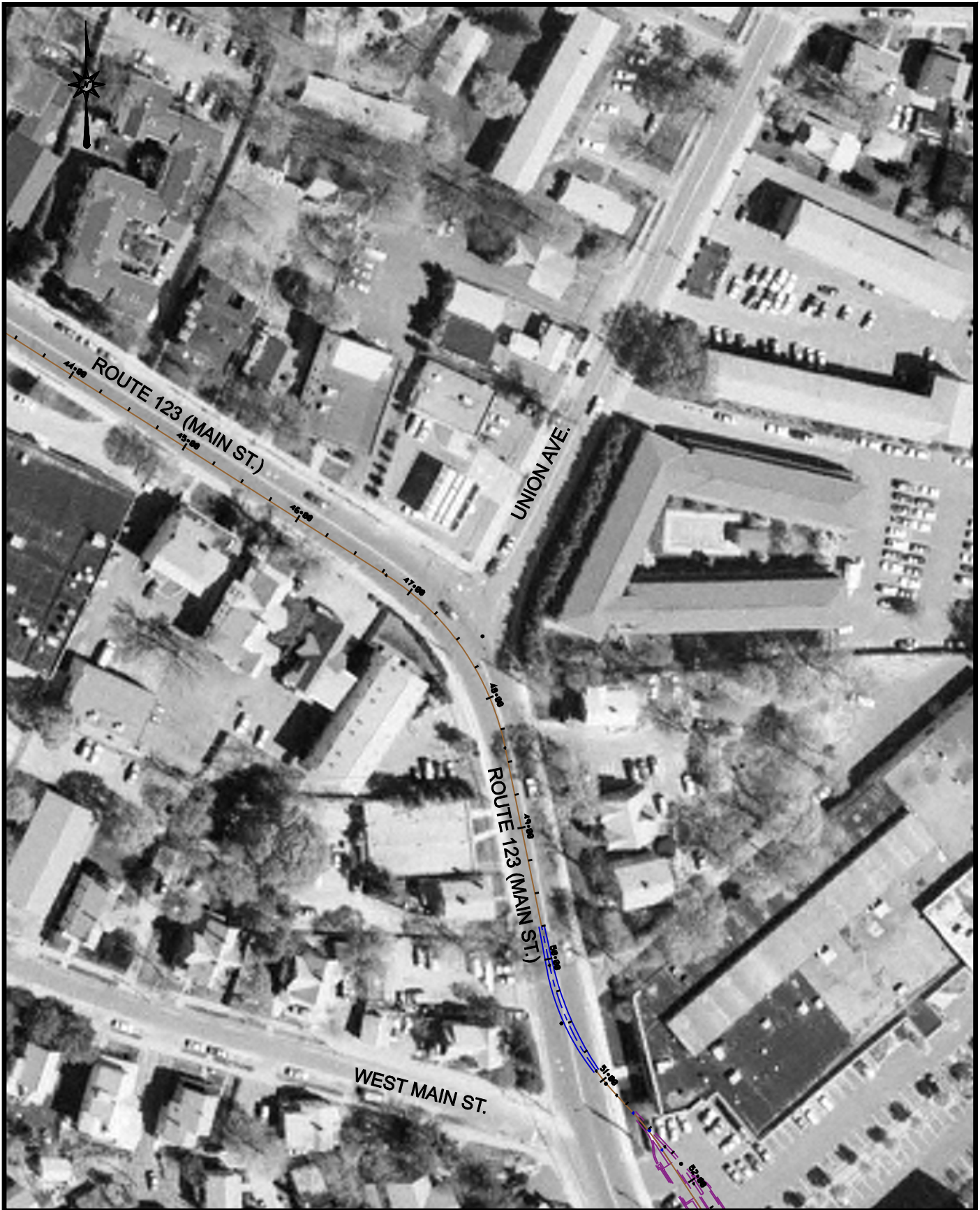
FIGURE NI-2



**SIGNALIZED INTERSECTION #102-221
 RTE. 123 (MAIN ST.) AT CATHERINE ST./CENTER AVE.
 NORWALK, CONNECTICUT**

SCHEMATIC, NOT TO SCALE

FIGURE NI-3



**SIGNALIZED INTERSECTION #102-220
RTE. 123 (MAIN ST.) AT UNION AVE.
NORWALK, CONNECTICUT**

SCHEMATIC, NOT TO SCALE

FIGURE NI-4



**SIGNALIZED INTERSECTION (CITY-MAINTAINED)
RTE. 123 (MAIN ST.) AT U.S. RTE. 1 (CROSS ST./NORTH AVE.)
NORWALK, CONNECTICUT**

SCHEMATIC, NOT TO SCALE

FIGURE NI-5



**SIGNALIZED INTERSECTION #102-214
U.S. RTE. 1 (NORTH AVE.) AT CAMP STREET
NORWALK, CONNECTICUT**

SCHEMATIC, NOT TO SCALE

FIGURE NI-6

APPENDIX V

CITY OF NORWALK SELECTED ORDINANCES

CODE OF THE CITY OF NORWALK, CONNECTICUT, v161 Updated 08-25-2005

ORDINANCES

Chapter 68, NOISE

Chapter 68, NOISE

GENERAL REFERENCES

**Alarm Systems -- See Ch. 11A,
Explosives – See Ch. 38,
Fire-alarm systems: institutions – See Ch. 40,
Nuisances – See Ch. 71,
Excavating and filling of land – See Ch. 97,
Zoning – See Ch. 118,**

Section 68-1. Short title.

This chapter shall be known as the “City of Norwalk Noise Control Ordinance.”

Section 68-2. Purpose.

It is recognized that people have a right to and should be ensured an environment free from excessive sound and vibration that may jeopardize their health or safety or welfare or degrade the quality of life. This chapter is enacted to protect, preserve and promote the health, safety, welfare and quality of life for the citizens of Norwalk through the reduction, control and prevention of noise

Section 68-3. Definitions.

The following definitions shall apply in the interpretation and enforcement of this chapter:

AMBIENT NOISE or BACKGROUND NOISE – Noise of a measurable intensity which exists at a point as a result of a combination of many distant sources individually indistinguishable.

COMMERCIAL ZONE -- All commercial districts, business districts, as defined in the Zoning Regulations of the City of Norwalk, and all uses associated therewith, either permitted as a right or as a special use.

COMMON COUNCIL -- The Common Council of the City of Norwalk.

CONSTRUCTION -- Any site preparation, assembly, erection, substantial repair, alteration or similar action, for or of public or private rights-of-way, structures, utilities or similar property.

CONSTRUCTION EQUIPMENT -- Any equipment or device operated by fuel pneumatically or electric power used in construction or demolition work.

CONSTRUCTION SITE -- Site where construction or demolition takes place.

DAYTIME HOURS -- The hours between 7:00 a.m. and 8:00 p.m., Monday through Friday, the hours between 8:00 a.m. and 8:00 p.m. on Saturday and the hours 9:00 a.m. through 8:00 p.m. on Sundays and federal and state holidays.

DECIBEL -- A logarithmic unit of measure used in measuring magnitudes of sound. The symbol is dB. SPL (sound pressure level) is defined as:

$$\text{SPL} = 20 \log \frac{P}{P_0} \text{ -- in dB}$$

Where

$$P_0 = 0.0002 \text{ microbar}$$

DEMOLITION -- Any dismantling, intentional destruction or removal of structures, utilities, public or private right-of-way surfaces or similar property.

DIRECTOR OF HEALTH -- The Health Director of the City of Norwalk.

DOMESTIC POWER EQUIPMENT -- Not limited to, power saws, drills, grinders, lawn and garden tools and other domestic power equipment intended for use in residential areas by a home owner.

EMERGENCY -- Any occurrence or set of circumstances involving actual or imminent physical trauma or property damage which demands immediate action.

EMERGENCY VEHICLE -- Any motor vehicle authorized by the City of Norwalk to have sound warning devices such as sirens and bells which can lawfully be used when responding to an emergency.

EMERGENCY WORK -- Work made necessary to restore property to a safe condition following an emergency, or work required to protect persons or property from exposure to imminent danger.

HEALTH BOARD -- As defined in Chapter 57 in the City Code.

IMPULSE NOISE -- Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.

INDUSTRIAL ZONE -- All industrial districts as defined by the Zoning Regulations of the City of Norwalk.

MOTOR VEHICLE -- Per Section 14-1(26) of the Connecticut General Statutes, as amended.

MUFFLER -- A device for abating sounds, such as those produced by escaping gases.

NIGHTTIME HOURS -- The hours between 8:00 p.m. and 7:00 a.m., Sunday evening through Friday morning, Friday evening 8:00 p.m. through 8:00 a.m. Saturday morning and Saturday evening 8:00 p.m. through 9:00 a.m. Sunday morning. Saturday nighttime hours apply to state and federal holidays.

NOISE -- Any sound, the intensity of which exceeds the standards set forth in § 68-5B or C of this chapter.

NOISE DISTURBANCE -- Any sound which unreasonably annoys, disturbs, injures or endangers the comfort, repose, health, peace or safety of a person, or which causes injury or damage to property or business.

NOISE LEVEL -- The sound pressure level in decibels as measured with a sound level meter using the A-weighting network. The level so read is designated "dB(A)" or "dBA."

NOISE SENSITIVE ZONE -- Any area designated by the Norwalk Board of Health as a "noise-sensitive zone" where noise problems are likely to occur or known to exist. As a minimum requirement, said zone must include within its boundaries a school, hospital, house of worship, day-care center, nursing home, public library, senior citizen center, residence or court.

PERSON -- Any individual, firm, partnership, association, syndicate, company, trust, corporation, municipality, agency or political or administrative subdivision of the state or other legal entity of any kind.

PREMISES -- Any buildings, structure, land, or portion thereof, including all appurtenances, and shall include yards, lots, courts, inner yards and real properties without buildings or improvements owned or controlled by a person. The emitter's premises includes contiguous publicly dedicated street and highway rights-of-way, all road rights-of-way and waters of the state.

PROPERTY LINE -- That real or imaginary line along the ground surface and its vertical extension which separates real property owned or controlled by any person from contiguous real property owned or controlled by another person, and separates real property from the public right-of-way.

PUBLIC RIGHT-OF-WAY -- Any street, avenue, boulevard, highway, sidewalk, alley, park, waterway, railroad or similar place which is owned or controlled by a governmental entity.

RECREATIONAL VEHICLE -- Any internal combustion-engine powered vehicle which is being used for recreational purposes.

RESIDENTIAL ZONE -- All city-owned property used for recreational or educational purposes and all residential districts and any commercial district when used for residential purposes, as defined in the Zoning Regulations of the City of Norwalk, and all uses permitted therewith either as a right or as a special use.

SOUND -- A transmission of energy through solid, liquid or gaseous media in the form of vibrations which constitute alterations in pressure or position of the particles in the medium and which, in air, evoke physiological sensations, including, but not limited to, an auditory response when impinging on the ear.

SOUND LEVEL METER -- An instrument used to take sound level measurements and which should conform, as a minimum, to the operational specifications of the American National Standards Institute for Sound Level Meters S1.4-1971 (Type S2A).

SOUND PRESSURE LEVEL -- Twenty times the logarithm to the base 10 of the ratio of the pressure of a sound to the reference pressure of 20 micronewtons per square meter (20×10^{-6} Newtons/meter²), and is expressed in decibels (dB).

Section 68-4. Noise level measurement procedures.

For the purpose of determining noise level as set forth in this chapter, the following guidelines shall be applicable:

- A. All personnel conducting sound measurements shall be trained in the current techniques and principles of sound measuring equipment and instrumentation.
- B. Instruments used to determine sound level measurements shall conform to the sound level meters as defined by this chapter.
- C. The general steps listed below shall be followed when preparing to take sound level measurements:
 - 1) The instrument manufacturer's specific instructions for the preparation and use of the instrument shall be followed.
 - 2) The sound level meter shall be calibrated before and after each set of measurements.

- 3) When measurements are taken out of doors, a wind screen shall be placed over the microphone of the sound level meter as per the manufacturer's instructions.
- 4) The sound level meter shall be placed at an angle to the sound source as specified by the manufacturer's instructions and at least four feet above the ground. It shall be so placed as not to be interfered with by individuals conducting the measurements.
- 5) Measurements shall be taken at a point that is located about one foot beyond the boundary of the emitter's premises within the receptor's premises. The emitter's premises includes his/her individual unit of land or ground of contiguous parcels under the same ownership as indicated by public land records.

D. Multiple uses. Where multiple uses exist within a given noise zone, the least restrictive land use category for the emitter and receptor shall apply regarding the noise standards.

Section 68-5. Noise levels.

- A. It shall be unlawful for any person to emit or cause to be emitted any noise beyond the boundaries of his/her premises in excess of the noise levels established in this chapter.
- B. Noise level standards.
 - 1) No person in a residential zone shall emit noise beyond the boundaries of his/her premises exceeding the levels stated herein and applicable to adjacent residential, commercial or industrial zones:

Receptor's Zone				
Emitter's Zone	Industrial (day)	Industrial (night)	Commercial	Residential
Residential	62 dBA's	55 dBA's	55 dBA's	45 dBA's

- 2) No person in a commercial zone shall emit noise beyond the boundary of his/her premises exceeding the levels stated herein and applicable to adjacent residential, commercial or industrial zones:

Receptor's Zone

Emitter's Zone	Industrial		Commercial	Residential
	(day)	(night)		
Commercial	62 dBA's	62 dBA's	55 dBA's	45 dBA's

- 3) No person in an industrial zone shall emit noise beyond the boundary of his/her premises exceeding the levels stated herein and applicable to adjacent residential, commercial or industrial zones:

Receptor's Zone

Emitter's Zone	Industrial		Commercial	Residential
	(day)	(night)		
Industrial	70 dBA's	66 dBA's	61 dBA's	51 dBA's

C. High background noise levels and impulse noise.

- 1) In those individual cases where the background noise levels caused by sources not subject to this chapter exceed the standards contained herein, a source shall be considered to cause excessive noise if the noise emitted by such source exceeds the background noise levels by five dBA's, provided that no source subject to the provisions of this chapter shall emit noise in excess of 80 dBA's at any time, and provided that this section does not decrease the permissible levels of other sections of this chapter.
- 2) No person shall cause or allow the emission of impulse noise in excess of 80 dB's peak sound pressure level during the nighttime to any residential noise zone.
- 3) No person shall cause or allow the emission of impulse noise in excess of 100 dB's peak sound pressure level at any time to any zone.

D. Exclusions. These levels shall not apply to noise emitted by or related to:

- 1) Natural phenomena.
- 2) Any bell or chime from any building clock, school or church.
- 3) Any siren, whistle or bell lawfully used by emergency vehicles or any other alarm systems used in an emergency situation.

- 4) Warning devices required by OSHA or other state or federal safety regulations.
- 5) Farming equipment or farming activity.

E. Exemptions. The following shall be exempt from this chapter these regulations subject to special conditions as spelled out and to the general prohibition of § 68-6:

- 1) Noise generated by any construction equipment which is operated during daytime hours.
- 2) Noise created as a result of, or relating to, an emergency.
- 3) Noise from domestic power equipment, such as, but not limited to, power saws, sanders, grinders, lawn and garden tools or similar devices operated during daytime hours, provided that noise discharged from exhausts is adequately muffled to prevent loud and/or explosive noises that result therefrom.
- 4) Noise from snow removal equipment at any time shall be exempted provided that such equipment shall be maintained in good repair so as to minimize noise, and noise discharged from exhausts shall be adequately muffled to prevent loud and/or explosive noises therefrom.
- 5) Noise from demolition work conducted during daytime hours.
- 6) Noise created by any aircraft flight operations which are specifically preempted by the Federal Aviation Administration.
- 7) Noise created by any recreational activities which are permitted by law and for which a license or permit has been granted by the City, including, but not limited to, parades, sporting events, concerts and firework displays.
- 8) Noise created by refuse and solid waste collection, provided that the activity is conducted during daytime hours.
- 9) Noise created by the normal and ordinary activities of the Department of Public Works or any taxing district utility, including but not limited to the following: street sweeping, snow and ice control, maintenance of the sanitary sewer collection system, maintenance of storm drainage systems, solid waste collection and disposal, maintenance of traffic control devices and operation of off-street parking facilities.
- 10) Noise created by public school construction.

Section 68-6. Prohibited activities.

- A. General prohibition. It shall be unlawful for any person to make, continue or cause to be made or continued any loud, unnecessary and unreasonable noise.
- B. The following activities are prohibited:
 - 1) Vehicle horns. No person shall at any time sound any horn or audible signal device of a motor vehicle unless it is necessary as a warning to prevent or avoid a traffic accident.
 - 2) Emissions from stationary or idling mobile sources. No mobile source engine shall be allowed to operate for more than three consecutive minutes when the mobile source is not in motion except as follows:
 - a. When a mobile source is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control;
 - b. When it is necessary to operate heating, cooling or auxiliary equipment installed on the mobile source when such equipment is necessary to accomplish the intended use of the mobile source;
 - c. To bring the mobile source to the manufacturer's recommended operating temperature;
 - d. When the outdoor temperature is below 20° F;
 - e. When the mobile source is being repaired.
 - 3) Exhaust discharge. No person shall discharge into the ambient air the blow-down of any steam vent of the exhaust of any stationary internal combustion engine or air compressor equipment, unless such discharge is through a muffler as defined by § 68-3 of this chapter or through an apparatus providing equal noise reduction and that meet noise level requirements identified in § 68-5B.
 - 4) Construction. No person shall at any time operate construction equipment on the construction or demolition site or carry on any construction or demolition during nighttime hours, except in an emergency in the interest of public safety and then only with a permit from the Director of Health or his designee and subject to all other applicable rules and regulations provided by state and local law, and said permit may not exceed a period of three days.
 - 5) Blasting. No person shall at any time carry on blasting between the hours of 5:00 p.m. and 8:00 a.m. except in an emergency in the interest of public safety and then only with a permit from the

Director of Health or his designee and subject to all other applicable rules and regulations provided by state and local law and the permit may not exceed a period of three days.

- 6) Leaf blowers. No person shall at any time operate a leaf blower during nighttime hours in a residential zone.
- 7) Nighttime. In-house construction. No person shall carry on nighttime in-house construction unless that construction activity takes place solely within the structure and emits no sound or noise outside of the structure.

Section 68-7. Motor vehicles.

- A. All motor vehicles operated within the limits of the City of Norwalk shall be subject to the noise standards and decibel levels set forth in the regulations authorized in Sections 14-80a-1a through 14-80a-10a, inclusive, of the Regulations of Connecticut State Agencies.
- B. No sound-amplifying devices on or within motor vehicles shall emit noise in excess of the noise levels as specified in § 68-5B or C.
- C. This section dealing with motor vehicle noise shall be enforced by the Chief of Police and/or his designated subordinates.

Section 68-8. Recreational vehicles; loudspeakers; sound reproduction systems.

- A. No person shall create or cause to be created any unreasonably loud or disturbing noise due to the operation of a recreational vehicle. A noise shall be deemed to be unreasonably loud and a violation of this chapter when the noise so generated exceeds the noise level standards set forth in § 68-5B or C.
- B. The Norwalk Board of Health may designate noise-sensitive zones where noise problems are particularly likely to occur and likely to cause unusual problems. Loudspeakers and public address systems may be prohibited in such noise-sensitive zones by the Norwalk Board of Health.
- C. Operating, playing or permitting the operation or playing of any radio, television, phonograph or similar device which reproduces or amplifies sounds in such a manner as to create a noise disturbance is prohibited.

Section 68-9. Inspections.

- A. For the purpose of determining compliance with the provisions of this chapter, the Chief of Police or his designated representative is hereby authorized to make inspections of all noise sources and to take measurements and make

tests whenever necessary to determine the quantity and character of noise. In the event that any person refuses or restricts entry and free access to any part of a premises or refuses inspection, testing or noise measurement of any activity, device, facility or process where inspection is sought, the Chief of Police and/or designated representative may seek from the appropriate court a warrant without interference, restriction or obstruction, at a reasonable time, for the purpose of inspecting, testing or measuring noise.

- B. It shall be unlawful for any person to refuse to allow or permit the Chief of Police or his designated representative free access to any premises when the Chief of Police or his designated representative is acting in compliance with a warrant for inspection and order issued by the appropriate court.
- C. It shall be unlawful for any person to violate the provisions of any warrant or court order requiring inspection, testing or measurement of noise sources.
- D. No person shall hinder, obstruct, delay, resist, prevent in any way, interfere or attempt to interfere with any authorized person while in the performance of his/her duties under this chapter.

Section 68-10. Violations and penalties.

- A. Any person who violates any provision of this chapter or any rule or regulation in force pursuant thereto shall be subject to a fine of no more than \$99. Each violation shall constitute a separate offense.
- B. Action pursuant to Subsection A of this section shall not be a bar to enforcement of this chapter, rules and regulations in force pursuant thereto and orders made pursuant to this chapter, by injunction or other appropriate remedy, and the Department of Health shall have the power to institute and maintain in the name of the City of Norwalk any and all such enforcement proceedings.
- C. Nothing in this chapter shall be construed to abridge, limit or otherwise impair the right of any person to damages or other relief on account of injuries to persons or property, and to maintain any action or other appropriate proceeding therefore.

Section 68-11. Variances; promulgation of regulations; contracts.

- A. Variances.
 - 1) Any person living or doing business in Norwalk may apply to the Director of Health for a variance from one or more of the provisions

of the chapter, which are more stringent than the Connecticut Department of Environmental Protection regulations for the control of noise, provided that the applicant supplies all of the following information to the Director of Health:

- a. Location and nature of activity.
 - b. The time period and hours of operation of said activity.
 - c. The nature and intensity of the noise that will be generated.
 - d. Any other information required by the Director of Health.
- 2) No variance from these regulations shall be issued unless it has been demonstrated that:
- a. The proposed activity will not violate any provisions of the Connecticut Department of Environmental Protection regulations.
 - b. The noise levels generated by the proposed activity will not constitute a danger to the public health.
 - c. Compliance with the regulations constitutes an unreasonable hardship on the applicant.
- 3) Following receipt and review of an application for a variance, the Director of Health shall fix a date, time and location for a hearing on such application.
- 4) The Director of Health shall cause the applicant to publish at his/her own expense all notices of hearings and other notices required by law, including, but not limited to, notification of all abutters of record and property owners within 200 feet.
- 5) Within 65 days of the receipt of the record of the hearings on a variance application, the Director of Health shall issue his/her determination regarding such application. All such decisions shall briefly set forth the reasons for the decision.
- 6) The Director of Health may, at his/her discretion, limit the duration of any variance granted under this chapter. Any person holding a variance and needing an extension of time may apply for a new variance under the provisions of this chapter. Any such application shall include a certification of compliance with any condition imposed under the proposed variance.

- 7) The Director of Health may attach to any variance any reasonable conditions he/she deems necessary and desirable, including, but not limited to:
 - a. Requirements for the best practical noise control measures to be taken by the owner or operator of the source to minimize noise during the period of the variance.
 - b. Requirements for periodic reports submitted by the applicant relating to noise, to compliance with any other conditions under which the variance was granted or to any other information the Director of Health deems necessary.
 - 8) The filing of an application for a variance shall operate as a stay of prosecution, except that such stay may be terminated by the Director of Health upon application of any party if the Director of Health finds that protection of the public health so requires.
 - 9) In any case where a person seeking a variance contends that compliance with any provision of these regulations is not practical or possible because of the cost involved either in installing noise control equipment or changing or curtailing the operation in any manner, he/she shall make available to the Director of Health such financial records as the Director of Health may require.
 - 10) A variance may include a compliance schedule and requirements for periodic reporting on increments of achievement of compliance.
 - 11) Failure to rule on the application in the designated time shall constitute approval of the variance.
- B. Any person aggrieved by the decision of the Director of Health with respect to any variance may appeal to the Common Council within a period of 10 days of the reception of the Health Director's decision.
- C. The Director of Health is herewith authorized to recommend regulations from time to time not inconsistent with the State Public Health Code and/or the regulations of the State Department of Environmental Protection regarding noise which shall, upon approval by the Common Council and State of Connecticut Department of Environmental Protection, become effective therewith.
- D. Contracts. Any written agreement, purchase order or contract whereby the City of Norwalk is committed to an expenditure of funds in return for work, labor, services, supplies, equipment, materials, or any combination thereof, shall not be entered into unless such agreement, purchase order or

instrument contains provisions that any equipment or activities which are subject to the provisions of this chapter will be operated, constructed, conducted or manufactured without violating the provisions of the chapter.

Section 68-12. Severability.

If any clause, sentence, paragraph or part of this chapter, or the application thereof to any person, firm, corporation or circumstances, shall for any reason be adjudged by a court of competent jurisdiction to be unconstitutional or invalid, said judgment shall not affect, impair or invalidate the remainder of this chapter and the application of such provision to other persons, firms, corporation or circumstances, but shall be confined in its operation to the clause, paragraph or part thereof directly involved in the controversy in which said judgment shall have been rendered and to the person, firm, corporation or circumstances involved. It is hereby declared to be the legislative intent of this body that this chapter would have been adopted had such invalid provisions not been included.

Section 68-13. Conflict with other regulations.

In the event that provisions or standards of this chapter or adopted under this chapter shall conflict with regulations or standards set by the State of Connecticut Department of Environmental Protection, the more strict standard shall apply.

Section 68-14. Word Usage.

In construing this chapter, masculine or neuter pronouns shall be substituted for those of feminine form and vice versa, and the plural of the singular and the singular of the plural, shall be substituted in any case which the context may require.

Section 68-15. When effective.

This chapter shall be effective 10 days from its passage.

CODE OF THE CITY OF NORWALK, CONNECTICUT, v161 Updated 08-25-2005

ORDINANCES

**Chapter 96, EXCAVATIONS AND ENCROACHMENTS IN PUBLIC
STREETS AND GROUNDS**

**Chapter 96, EXCAVATIONS AND ENCROACHMENTS IN PUBLIC STREETS AND
GROUNDS**

[HISTORY: Adopted City of Norwalk Common Council 5-10-1988. Amendments noted where applicable.]

GENERAL REFERENCES

**Streets and sidewalks -- See Ch. 95,
Excavating and filling of land – See Ch. 97,**

Section 96-1. Purpose.

In order to establish a uniform procedure for excavations and encroachments in public streets and grounds, the following chapter is hereby enacted.

Section 96-2. Permit required; exception.

- A. It shall be unlawful for any person to excavate or encroach or cause, create, place or maintain any excavation or encroachment in, on, over or under any street or any portion thereof for any purpose whatsoever without having obtained a permit as herein required or in violation of the provisions of this chapter or in violation of or in variance from the terms of any such permit, all except as otherwise provided or permitted by law.
- B. This section shall not apply to the short-term use of a ladder for the immediate purpose of window washing or for immediate inconsequential repair or use for a time not to exceed one hour; the depositing of merchandise or other goods outside of the traveled way preparatory to delivery, for a time not to exceed one hour; or the use of appropriate barriers and warning devices by a public utility company or taxing district performing emergency work not involving an excavation; provided, however, that any such activity shall be performed in a manner providing for the safety and least inconvenience to the public, and provided that no sidewalk is thereby reduced to less than 1/2 of its usable width.

Section 96-3. Permit Application.

- A. The applicant for a permit shall be that person doing or performing the actual excavating or encroaching work or activity.

- B. Application for such permit shall be made to the Director on a form provided by the Department of Public Works, and such application shall be complete in furnishing the information requested.
- C. The issuance of a permit does not excuse compliance with any other applicable regulation, ordinance or law.
- D. In the event that additional work, encroachment or repairs not designated in the original permit must be done in the same location, the permittee shall make application to the Director for an extension of the permit, authorizing such additional work, encroachment or repairs.
- E. Emergency excavation work requires a written permit as set forth in § 96-10, Emergency excavation and encroachment.
- F. Any person maintaining, making or causing or intending to maintain, make or cause an encroachment or use of a street for purposes other than traveling has the responsibility and obligation to determine from the Director whether or not such encroachment or use requires a permit under this chapter.
- G. Any person maintaining, making or causing to be maintained or made any excavation or encroachment has the responsibility and obligation to determine whether or not all or any part of such excavation or encroachment is within any portion of a street. The determination of the Director as to this matter shall be final.
- H. The Director shall establish a fee for each permit issued under this chapter in accordance with § 90-4, Approval of rates and fees.

Section 96-4. Posting of permit; commencement of work; term of permit.

- A. All permits and written authorizations shall be posted on the job while the work or activity is in progress and must be displayed to all authorized persons upon request.
- B. Work under an excavation permit must commence within 30 days of the date of issuance of such permit, or such permit shall expire and terminate at 12:00 midnight of the 30th day after the date of issuance. If work under such permit has been commenced in a timely manner, all work shall be completed in a manner satisfactory to the Director before the expiration date shown on such permit. For good cause, a permittee may request, in writing, an extension of time, and the Director, at his discretion, may extend such permit date for an additional period or periods.
- C. An encroachment permit is valid for a period of 14 days from the date of issuance, unless a shorter period is designated thereon by the Director. For

good cause, upon request, the Director, at his discretion, may renew such permit for an additional period not to exceed 14 additional days and thereafter, upon request, may issue subsequent like renewals for like periods. All encroachments shall be removed and the area restored to its original condition with any improvements made thereto prior to the expiration date of such permit or renewal(s).

- D. A permit to construct a driveway shall be valid in accordance with the applicable provisions of Chapter 95, Streets and Sidewalks.

Section 96-5. Issuance of permit.

The director may issue permits for excavation in, on or under any street and/or for permitting encroachments in, on, over or under any street when, in his opinion, the following conditions are met:

- A. The use requested by the applicant will not unduly interfere with needs for street purposes, will not cause needless damage to the street, will not interfere with municipal operations, will not create a substantial traffic or pedestrian hazard, will not create excessive disturbance to traffic or pedestrians, will not unduly interfere with the safe and free flow of traffic or pedestrians and will not create dangerous conditions.
- B. Compliance can be obtained with all the provisions of this chapter, all rules and regulations of the Director and all requirements as to fees.
- C. A written agreement and acknowledgment in a form acceptable to the Director is executed by the applicant or a representative of the applicant duly authorized to do so, to the effect that:
 - 1) In consideration of the permission given by the issuance of the permit, the applicant covenants and agrees to comply with and be bound by the terms of each permit, the provisions of this chapter and all rules and regulations.
 - 2) The work covered by the permit shall be subject to inspection and restoration by the city, as set forth in this chapter.
 - 3) Each permit is revocable in accordance with the provisions of this chapter.
- D. If a driveway is involved in the permitted work, an additional written agreement and acknowledgment shall be required in a form acceptable to the Director and executed by the owner of the premises having such driveway that, as a condition of the city permitting such driveway to remain over, across

or upon any part of the right-of-way, he or it covenants and agrees to comply with and be bound by the terms of Chapter 95, Streets and Sidewalks.

E. The power to grant the permit is authorized by law.

F. The Director deems that the permit or permits are warranted.

Section 96-6. Excavations and restoration.

A. Methods.

- 1) All excavations, including temporary and permanent work, within any street shall be performed in accordance with the City of Norwalk Department of Public Works Standard Specifications, as amended, or in a manner as prescribed by the Director for circumstances not covered by the Standard Specifications.
- 2) The permittee shall make every effort to keep the amount of pavement damage to a minimum. The pavement damaged in the course of performing the work shall be restored by the city at the expense of the permittee. Backfilling of excavations shall be performed by the permittee so that the least possible subsequent settling will occur and as soon as practicable. Before backfilling, the permittee shall notify the Director, allowing adequate time as determined by the Director for inspection, particularly in the area of existing underground utilities. If, after permanent pavement restoration, settlement occurs due to failure of the backfill, the city shall again restore the damaged areas at the expense of the permittee.
- 3) Immediately upon the completion of proper backfilling, the permittee shall construct temporary pavement. All temporary pavement shall be installed at a thickness of three inches. The surface of the temporary pavement shall not extend above or lie below the surface of the adjacent permanent pavement and shall be reasonably smooth. The permittee shall be responsible for the proper placement and maintenance of the temporary pavement and shall keep the temporary pavement level with the surface of the surrounding permanent pavement and in proper repair and condition until such time as the city completes the permanent pavement restoration.
- 4) In any case, upon notice from the Director, the permittee, at his expense, shall immediately make such temporary repairs and take such corrective and protective measures to the work as directed by the Director.

- B. The Director shall establish a pavement restoration fee in accordance with the provisions of § 90-4, Approval of rates and fees, based on the following criteria: actual cost of pavement repair to the level required by the Standard Specifications, a surcharge of 15% for administration and inspection expenses and a damage factor relating to the condition of the existing pavement at the time of the excavation. The moneys collected shall be deposited in a special account and utilized to cover expenses incurred by the city for the restoration work caused by the issuance of permits under this chapter and for similar pavement repairs.
- C. Responsibilities of permittee.
- 1) It shall be the responsibility of the permittee to perform the necessary restoration beyond the limits of the pavement, which shall include but not be limited to restoration of lawns, shrubs, gardens, curbing, sidewalks, fences, walls, etc.
 - 2) Upon completion of the permanent repairs outside the limits of the pavement, the permittee shall notify the Director, in writing, that the permanent repair or replacement has been completed, setting forth the date of completion. The permittee shall and has the duty and responsibility to maintain the replacement area for a period of two years after completion. In any case, upon notice from the Director within said two-year period, the permittee, at his expense, shall immediately make such repair or replacement and take such protective measures to the work as ordered by the Director.

Section 96-7. Bond requirements.

- A. No permit shall be issued under this chapter unless and until the applicant has deposited with the Director a bond, in a form prescribed by him, duly executed and acknowledged by the applicant as principal and by a qualified surety satisfactory to the Director. Such bond shall be in an amount determined by the Director adequate to protect the city against loss in the event of the failure of the applicant to do or complete the work or remove any encroachment as and when required or make the repairs, restorations and cleanup as and when required, but in no event less than \$2,000. The amount of the bond shall be established separately for each permit and shall remain in effect for a period of two years after completion of all permanent repairs carried out by the permittee. The bond shall run to the city and shall be conditioned upon faithful and proper restoration; and faithful and proper care, maintenance, repair or replacement of all permanent repairs for a period of two years after completion of installation, all in accordance with the terms of the permit and the provisions of this chapter. For permits in which only pavement restoration is required, the bond shall be in an amount determined by the Director adequate to protect the city against loss in the event of the

- failure of the applicant to do or maintain the temporary pavement until such time as permanent repairs can be completed by the city, but in no event less than \$1,000. The amount of the bond shall be established separately for each permit and shall remain in effect for a period of one year from the date of completion of the temporary repair. The Director shall notify the permittee, in writing, upon completion of the permanent repair.
- B. An applicant or proposed applicant may deposit with the Director a blanket performance, maintenance and payment bond in an amount determined by the Director adequate to properly protect the city but not less than the amount of \$50,000. Said bond shall be in a form acceptable to the Director and meet the requirements set forth above and shall cover all permits issued to said applicant within a twelve-month period.
 - C. The Director may accept, at his discretion, with the approval of the Corporation Counsel, in lieu of said surety bond, an alternative form of security meeting said requirements and providing good and sufficient security to the city.
 - D. A public utility need not deposit a bond in those instances where it shall have filed a timely statement of solvency acceptable to the Secretary of State pursuant to the Connecticut General Statutes, as amended.

Section 96-8. Insurance requirements.

- A. Before any permit shall be issued under this chapter or before any emergency work covered by § 96-10, Emergency excavation and encroachment, is performed, each applicant shall file with the Director a certificate of insurance and shall thereafter provide renewal certificates, as appropriate, executed by an insurance company satisfactory to the Corporation Counsel and in a form and to the dollar value limits acceptable to the Corporation Counsel and the Director, stating that the applicant carries the necessary insurance coverages.
- B. The city shall be named as an additional insured party.
- C. All required insurance coverage shall be maintained in full force and effect for the periods required. A representation binding upon the insurer shall be furnished to the Director that the insurance coverage cannot be canceled or amended by the insurer less than 30 days after the Director has received written notice of cancellation or amendment by certified or registered mail, along with a binding representation that the insurer will notify the Director immediately of any such cancellation or lapse in coverage.
- D. No insurance coverage required or furnished shall in any way relieve the applicant or person performing excavation or encroachment work of any of his

or its responsibilities, obligations or liabilities under this chapter or under any other applicable ordinances, laws and regulations.

- E. An applicant may file blanket insurance with the Director in a form and in amounts acceptable to the Director and the Corporation Counsel, meeting the above requirements, to cover all permits issued said applicant within a twelve-month period.

Section 96-9. Responsibilities, agreements and indemnifications.

- A. The applicant agrees and is deemed to agree, as a condition of the issuance of each permit, that he shall have complete responsibility for:
 - 1) Supervising all aspects of the excavation or encroachment work, activity, intrusion or use; the protection thereof; and the prevention of injuries to persons and damage to property, facilities and utilities on or about the work, activity, intrusion or use.
 - 2) Properly maintaining in a good and safe condition, which may include replacement as provided in this chapter, any and all temporary pavement installed under the permit and preventing injuries to persons and damage to property which might be caused by or arise out of the condition of any such temporary pavement.
 - 3) Promptly submitting to the Director any notice of and copies of all claims or potential claims by third parties for property damage or personal injury alleged to have resulted from the work.
 - 4) Conducting all aspects of the work connected with the permit in a safe and orderly manner. The permittee shall in no way be relieved of the foregoing responsibilities by any permission or permit given nor by any failure of the Director to give permission, permits, orders or directives.
- B. The applicant further agrees and is deemed to agree, as a condition of the issuance of a permit under this chapter, that he shall indemnify, protect and hold harmless the city, its officers, agents and employees from and against any and all liabilities, claims, demands, suits or actions, including all costs and expenses of defense and otherwise, including attorneys' fees, on account of bodily injury, sickness, disease or death sustained by any person or persons or injury or damage to or destruction of any property:
 - 1) Directly or indirectly arising out of the work, activity, encroachment or use or from any negligence or omission in guarding it or maintaining it and its immediate area in a safe condition.

- 2) From any negligence or omission in failing to properly maintain or replace, as provided in this chapter, and keep in a good and safe condition all temporary pavement installed in connection with the permit, excluding therefrom injury or damages caused solely by or arising solely out of ice or snow, whether or not such liabilities, claims, demands, suits or actions are just, unjust, groundless, false or fraudulent, excepting therefrom liability caused by or resulting solely from the negligence of agents or employees of the city acting in the discharge of their duties.
- C. The applicant shall assume and agrees to indemnify and reimburse the city for all costs and expenses the city may incur in providing for the protection of and the safe and convenient passage of the public at the location of the excavation or encroachment should the applicant fail to do so as required by the conditions of the permit or by this chapter.
- D. The applicant shall assume and agrees to indemnify and reimburse the city for all costs and expenses the city may incur in connection with the issuance of the permit, including but not limited to correcting and bringing into compliance with the provisions of this chapter the excavation and/or encroachment, the location and surrounding area thereof and all temporary paving should the applicant fail to do so; all costs and expenses incurred or arising out of any act or omission of the applicant, his servant or agents in obstructing or damaging any part of the city drainage or sewer system; and, upon revocation of a permit as provided in this chapter, all costs and expenses incurred in removing any encroachment or filling, repairing or resurfacing any excavation and in restoring and cleaning up the site and surrounding area to its original condition.

Section 96-10. Emergency excavation and encroachment.

- A. Upon application of any public utility or taxing district, the Director may issue a blanket emergency excavation permit to such utility or taxing district to perform emergency repair work, such as broken gas or water mains, within any street.
1. Application for such blanket emergency excavation permit shall be made to the Director in the manner prescribed by him and shall include such information as the Director may reasonably require.
 2. Each such application shall contain an agreement that, in consideration for the issuance of an emergency excavation permit, the applicant acknowledges, covenants and agrees to comply with and to be bound by the terms of the permit, rules and regulations issued by the Director and all of the provisions of this chapter,

including but not limited to § 96-9, Responsibilities, agreements and indemnification.

3. No such permit shall be issued unless and until § 96-7, Bond requirements, and § 96-8, Insurance requirements, of this chapter have been complied with.
 4. Within 24 hours of the commencement of any emergency repair work under a blanket emergency excavation permit, a public utility or taxing district shall give notice to the Director giving all details, including but not limited to the reason, extent and specific location thereof. The Department of Public Works will maintain a log for the purpose of recording each such notice.
 5. Blanket emergency excavation permits may be renewed annually, subject to compliance with all rules and regulations issued by the Director and all provisions of this chapter.
- B.** Where an emergency exists which does not allow time for the submission of an application for an emergency excavation permit under this chapter and which emergency requires immediate repair to provide utility connections or requires an emergency excavation or encroachment for the preservation of life or property, any public utility or taxing district may be given verbal permission by the Director upon receipt of all details thereof, as required by this section. Such permission shall be given to the person who will actually perform the emergency work. Such person shall have on deposit with the Director the bond and insurance certificates required by §§ 96-7 and 96-8 prior to the performance of such emergency work. On the first working day after verbal permission has been granted to perform emergency work, such person shall submit to the Director a written application as required under this chapter. Subsequent permits may be refused to any such person if the Director determines an emergency did not exist and permission was requested upon inaccurate or bad-faith information.
- C.** All work performed under emergency excavation permits shall comply with the provisions of this chapter and with all rules and regulations issued by the Director.

Section 96-11. Rules and regulations.

The Director shall have the authority to promulgate and cause to be enforced rules and regulations and standards to enforce and carry out the purpose and intent of this chapter, which shall take effect no less than three days after posting at the Department of Public Works offices.

Sections 96-12. Correction by city at expense of permittee.

In any case where the permittee does not timely and properly maintain or repair any temporary pavement as provided in § 96-6, Excavations and restoration, or does not timely and properly maintain, repair or replace, restore or reestablish any nonpaved area disturbed by the excavation work or take such protective measures with respect to any temporary pavement as required by the Director, the Director may perform said maintenance or make said repairs or replacements or take such protective measures. The cost thereof shall be charged to the permission by the city, with a minimum charge of \$100 per incident.

Section 96-13. General performance conditions.

- A. The issuance of a permit does not obligate the Director or the city to issue any further permit or extend the initial permit.
- B. After work is commenced, the permittee shall prosecute with diligence and expedition all work and activities covered by a permit during the times allowed and shall promptly complete such work and restore the street to its original condition, or as near as may be, so as not to obstruct or hinder public travel and use more than is necessary.
- C. When traffic conditions, the safety of the traveling public or the public interest and welfare require that the work or activity be performed quickly, the Director shall have power to order that a crew and adequate facilities be employed by the permittee up to 24 hours a day, to the end that such work or activity may be completed as soon as possible.
- D. When permitted work is to be accomplished or performed within an area where, at any time during the permit period, the city is performing work or has a contractor performing work, the permittee shall arrange his work and shall place and dispose of materials so as not to interfere with the operations of the city or its contractor. The permittee shall coordinate his operations with those of the city or its contractor and shall cooperate in every way possible to avoid interfering with the city or its contractor. The permittee shall hold the city and its contractor free and harmless of all costs or liability resulting from delays, rescheduling, redesign or for whatever cause necessary for him to comply with this requirement.
- E. Delays or costs incurred by the permitted as a result of any adjustment, abandonment, redesign, rescheduling or redoing of permitted work or activity so as to comply with a permit or the provisions of this chapter shall be totally at the expense of the permittee.

Section 96-14. Protective measures.

- A. It shall be the duty of the permittee under this chapter to safeguard the security of the general public, to protect the public from injury or harm, to ensure that their rights are not unreasonably curtailed and to place and maintain adequate and proper barriers, warning devices, traffic cones and signs necessary for the safety of the general public. Additional barriers, warning devices, traffic cones and signs shall be placed and maintained by the permittee at the locations and in the amounts ordered by the Director. Barriers, devices, lights, signs and similar devices shall conform to city and State of Connecticut requirements. From sunset to sunrise an adequate number of amber flashing lights and reflective barricades shall be used. All such barriers, lights, signs and devices shall be supplied by the permittee at his own expense. Pedestrians shall be prevented from walking beneath any ladder, staging, scaffolding or like encroachment unless overhead protection is provided.
- B. The permittee shall advise the Director of its plans regarding excavation prior to performing the initial excavation or any subsequent excavation and will cooperate with the Director to ensure that excavation, construction, filling and paving are performed in the least disruptive manner practicable.
- C. Unless specifically stated by the permit, only 1/2 of the traveled way of a street may be excavated or encroached upon at one time, and the same shall be properly restored for the safe passage of vehicular and pedestrian traffic before the remaining half of the traveled way of said street is excavated or encroached upon.
- D. Where an excavation or encroachment involves or affects a public sidewalk, the adjacent street may not be excavated or encroached upon concurrently. Where a sidewalk is excavated, encroached, blocked or impeded by any such work, a temporary sidewalk shall be constructed or provided which shall be safe for pedestrian travel and convenient for users and which shall be barricaded and otherwise protected from vehicular traffic. Where a portion of any street other than the sidewalk is excavated or encroached, the sidewalk must be made safe and passable.
- E. The permittee shall take appropriate measures to assure that, during the performance of the work, traffic and pedestrian conditions can be maintained as near to normal as possible at all times so as to minimize inconvenience to the occupants of adjoining property and to the general public.
- F. When portions of the traveled way are made hazardous for the movement of vehicles or pedestrians, a sufficient number of traffic control persons shall be employed by the permittee to direct traffic safely through the area. If such conditions exist at the close of the working day, a watchman and a sufficient number of traffic control persons shall be employed and assigned by the

permittee to direct traffic at night. The work shall be planned to avoid such conditions whenever possible.

- G. The traveled way of any street shall not be closed without prior approval of the Director. The period of time and all other conditions specified in any such approval must be adhered to strictly. The proposed detour route and relevant details must be submitted to and approved by the Director prior to the closing of any street.
- H. Upon failure of the permittee to comply with the requirements of this section or upon failure to immediately make all corrections, changes, alterations or additions ordered by the Director as provided herein for the safety and convenience of the general public, the Director may take such measures as he deems necessary to bring the work or activity into conformance with this section and with his directives, and the cost thereof shall be charged to the permittee.

Section 96-15. Causes for permit revocation.

- A. If, at any time, a permittee violates any provision of this chapter or other law or regulation relating to the excavation or encroachment work being done or violates the terms of the permit and refuses or neglects to correct the same, as required by the Director, or refuses or neglects to continue the work or to furnish material, as required by the Director, the Director may stop the work immediately. He may direct the permittee to arrange for a change of workmen, materials or methods. If the permittee refuses to comply with the instructions of the Director, the Director shall revoke the permit and restore the street to its original condition, and the permittee shall be liable for all costs, direct and indirect, of this work.
- B. If, at any time, a permittee shall be indebted to the city for any expense that the city may have incurred under the provisions of this chapter due to or arising out of the noncompliance, failure or neglect of the permittee, which indebtedness remains unpaid for a period of seven days after demand made upon the permittee for payment of the same, the Director may revoke the permit and restore the area to its original condition, and the permittee, in addition, shall be liable for all costs, direct and indirect, of said restoration work.

Section 96-16. Permits to be immediately revocable.

Any permit is revocable immediately upon written notification to the permittee by the Director.

Section 96-17. Refusal to issue permits and permission.

The director may refuse to issue a permit or permission to any person who, in the opinion of the Director:

- A. Executed or performed work illegally without a permit or proper permission in the past.
- B. Executed or performed work improperly or illegally under a previously issued permit or permission.
- C. Failed to faithfully and properly restore any part of a street as required in this chapter.
- D. Failed to faithfully and properly care for, maintain, repair or replace any permanent repair as required in this chapter.
- E. Violated any provision of this chapter and failed to immediately correct the same after having been notified to do so by the Director.
- F. Is indebted to the city for any sums due under a previously issued permit or has failed to reimburse the city for charges billed under a previously issued permit or permission.

Section 96-18. Nuisances.

- A. An excavation or encroachment, as defined in Chapter 95, in, under, on or over any portion of a street without proper permit or permission as provided in this chapter shall constitute a public nuisance. The Director may perform such work and take such measures as he deems necessary to safeguard the public or to abate or remove such nuisance and properly restore the street. The person or persons making, causing or causing to be made said illegal excavation or encroachment shall be jointly and severally liable for the cost of such measures, and said amount may be recovered from said person or persons in a civil action by the city.
- B. Any temporary pavement installed under a permit and not properly installed, maintained, replaced or kept in a good and safe condition, as provided by this chapter, and any work or activity performed under a permit and not properly protected and safe or not conducted in compliance with the permit or this chapter shall constitute a public nuisance created and maintained by the applicant.

Section 96-19. Parking restrictions.

The issuance of a permit does not give the permittee, his agents, servants or employees the right to use any portion of the street as a parking area for the benefit of the permittee, except as authorized by the Director at his discretion. No equipment used

in connection with a permitted encroachment shall remain in the traveled way between the hours of sunset and sunrise.

Section 96-20. Use of metered parking space or sidewalk.

Upon request of a permittee, the Director may, at his discretion, issue written authorization to such permittee to use, occupy or block one or more metered parking spaces or a specific portion of a sidewalk if necessary to accommodate construction or demolition adjacent to such parking spaces or to such specific portion of a sidewalk. Receipt of an excavation or encroachment permit is a condition precedent to the issuance of such authorization. The permittee uses said space or spaces or portion of the sidewalk subject to all terms of such authorization, all terms of such permit and the provisions of this chapter to the same extent as if the parking space or spaces or portion of the sidewalk were included within the area covered by such permit. Unless revoked as provided in this chapter, such authorization shall be valid only for the period of time specified in the authorization or, if no such time period has been specified, then for a period of 14 days. The Director, at his discretion, may grant an extension or extensions of time to a date certain. The permittee shall restore the parking space or spaces or portion of the sidewalk to its or their original condition within the foregoing time period, unless otherwise directed by the Director. The Director shall establish a fee in accordance with the provisions of § 90-4, Approval of rates and fees, for the authorization to use metered parking spaces.

Section 96-21. Violations and penalties.

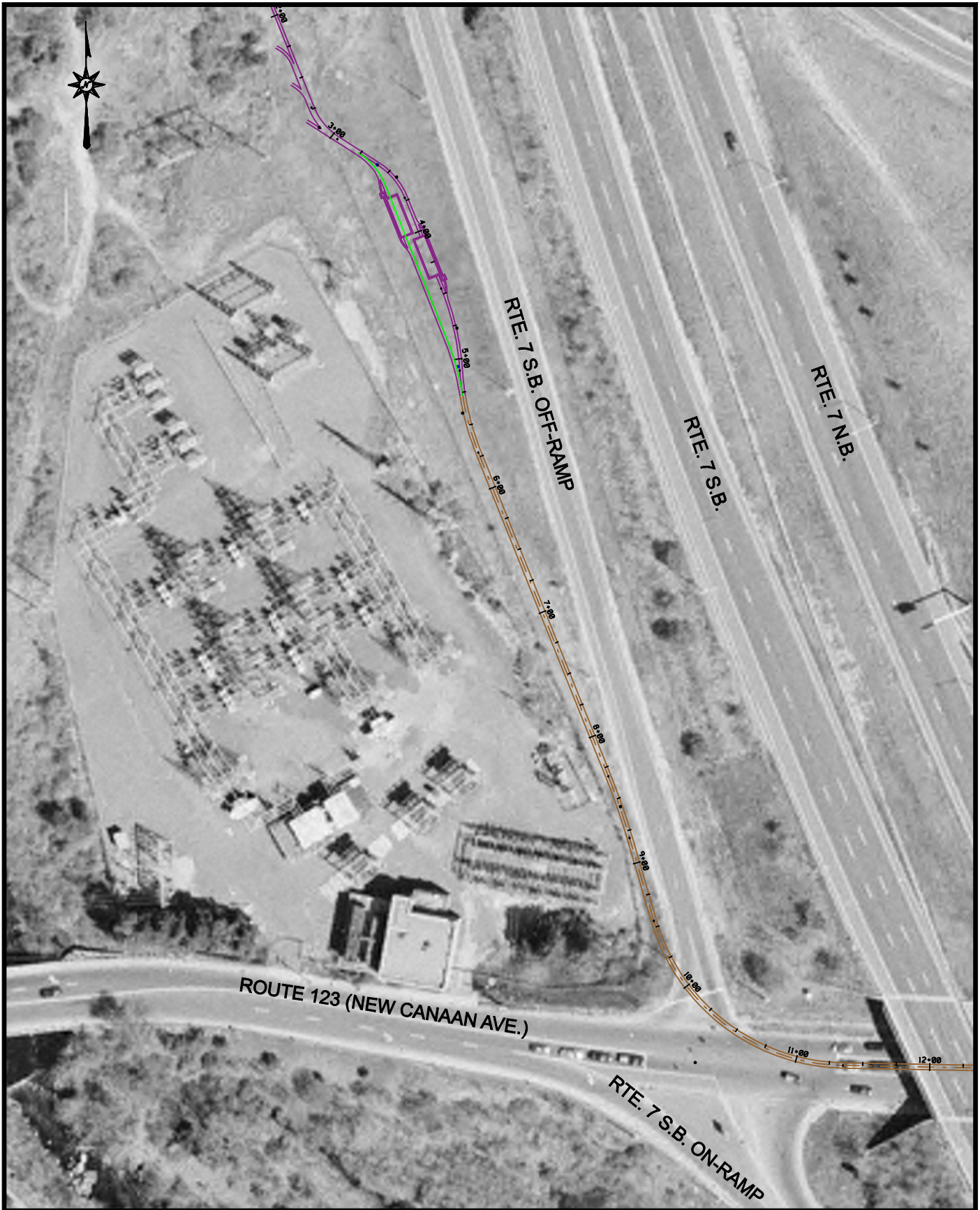
- A. The penalty provided herein is in addition to and not in lieu of any requirements provided in this chapter for the payment of fees, costs, expenses, etc.
- B. Any requirements provided in this chapter for the payment of fees, costs, expenses, etc., or any other penalty shall not affect or be deemed to limit any other remedy available to the city or any other penalty provided by law.
- C. Any person violating any provision of this chapter shall be fined an amount established in accordance with the provisions of § 90-4, Approval of rates and fees. Each day's continuance of the violation shall be considered a separate offense.

Section 96-22. Severability.

If any provision, clause or phrase of this Chapter 96 is adjudged by any court of competent jurisdiction to be invalid or if the applicability thereof to any persons or circumstances is held invalid, such judgment shall not invalidate the remainder, and the applicability thereof to other persons or circumstances shall not be affected thereby.

APPENDIX VI

VAULT LOCATIONS AERIAL PHOTOGRAPHS



**VAULTS 7500 and 6400
NORWALK SUBSTATION
NORWALK, CONNECTICUT**

SCHEMATIC, NOT TO SCALE

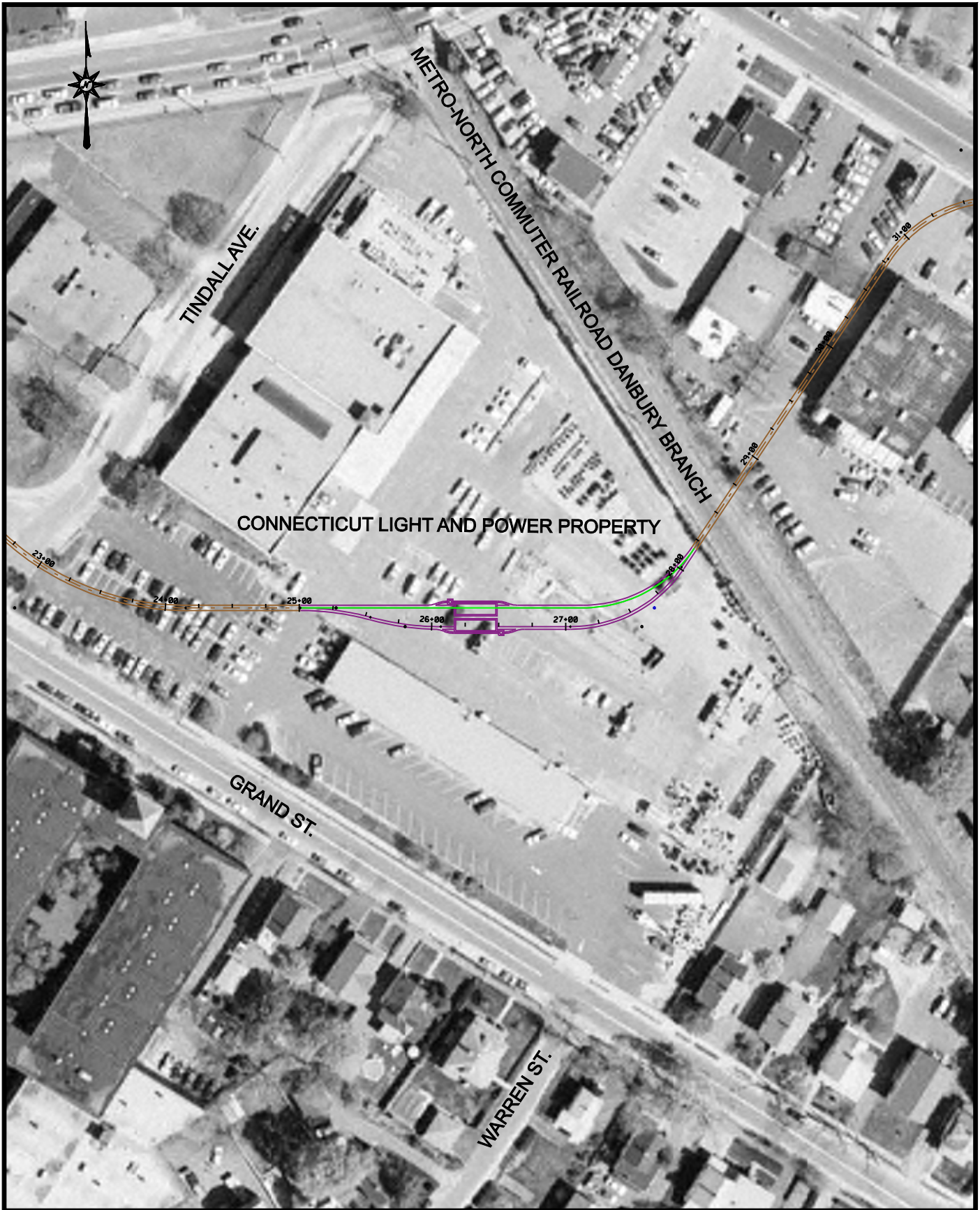
FIGURE NV-1



**VAULTS 7501 and 6401
RTE. 123 (NEW CANAAN AVE.)
NORWALK, CONNECTICUT**

SCHMATIC, NOT TO SCALE

FIGURE NV-2



**VAULTS 7502 and 6402
CONNECTICUT LIGHT AND POWER PROPERTY
NORWALK, CONNECTICUT**

SCHEMATIC, NOT TO SCALE

FIGURE NV-3

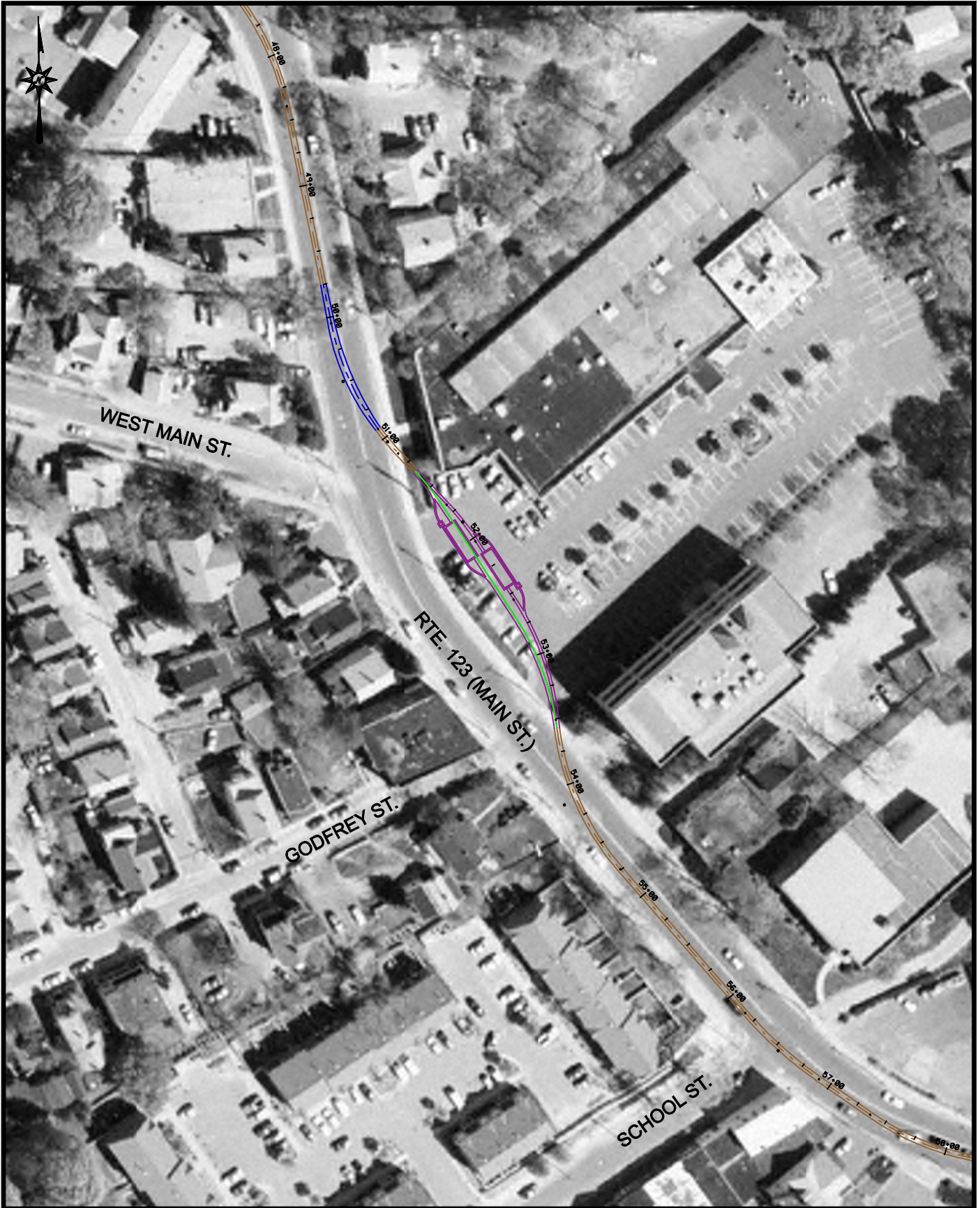




**VAULTS 7503 and 6403
RTE. 123 (MAIN ST.)
NORWALK, CONNECTICUT**

SCHEMATIC, NOT TO SCALE

FIGURE NV-4



**VAULTS 7504 and 6404
RTE. 123 (MAIN ST.)
NORWALK, CONNECTICUT**

SCHEMATIC, NOT TO SCALE

FIGURE NV-5

APPENDIX VII

RELEVANT ConnDOT TYPICAL MAINTENANCE TRAFFIC CONTROL PLANS

TRAFFIC CONTROL DURING MAINTENANCE OPERATIONS (English Version)

The following guidelines shall assist field personnel in determining when and what type of traffic control patterns to use for various situations. These guidelines shall provide for the safe and efficient movement of traffic through work zones and enhance the safety of work forces in the work area.

TRAFFIC CONTROL PATTERNS: Traffic control patterns shall be used when a work operation requires that all or part of any vehicle protrudes onto any part of a travel lane or shoulder. For each situation, the installation of traffic control devices shall be based on the following:

1. Speed and volume of traffic.
2. Duration of operation.
3. Exposure to hazards.

Traffic control patterns shall be uniform, neat and orderly so as to command respect from the motorist.

In the case of a horizontal or vertical sight restriction in advance of the work area, the traffic control pattern shall be extended to provide adequate sight distance for approaching traffic.

If a lane reduction taper is required to shift traffic, the entire length of the taper should be installed on a tangent section of roadway so that the entire taper area can be seen by the motorist.

Any existing signs that are in conflict with the traffic control patterns shall be removed, covered, or turned so that they are not readable by oncoming traffic.

When installing a traffic control pattern, a Buffer Area should be provided and this area shall be free of equipment, workers, materials and parked vehicles.

Typical traffic control plans 20 through 25 may be used for moving operations such as painting, pot hole patching, mowing, or sweeping when it is necessary for equipment to occupy a travel lane.

Traffic control patterns will not be required when vehicles are on an emergency patrol type activity or when a short duration stop is made and the equipment can be contained within the shoulder. Flashing lights and flaggers shall be used when required.

Although each situation must be dealt with individually, conformity with the typical traffic control plans contained herein is required. In a situation not adequately covered by the typical traffic control plans, the Engineer or Supervisor must contact both the District Traffic Representative and the District Safety Advisor for assistance prior to setting up a traffic control pattern.

PLACEMENT OF SIGNS: Signs must be placed in such a position to allow motorists the opportunity to reduce their speed prior to the work area. Signs shall be installed on the same side of the roadway as the work area. On multi-lane divided highways, advance warning signs may be installed on both sides of the highway. On directional roadways (on-ramps, off-ramps, one-way roads), where the sight distance to signs is restricted, these signs should be installed on both sides of the roadway.

Allowable Adjustment of Signs and Devices
Shown on the Traffic Control Plans

The traffic control plans contained herein show the location and spacing of signs and devices under ideal conditions. Signs and devices should be installed as shown on these plans whenever possible.

The proper application of the traffic control plans and installation of traffic control devices depends on actual field conditions.

Adjustments to the traffic control plans shall be made only at the direction of the Engineer or Supervisor to improve the visibility of the signs and devices and to better control traffic operations. Adjustments to the traffic control plans shall be based on safety of work forces and motorists, abutting property requirements, driveways, side roads, and the vertical and horizontal curvature of the roadway.

The Engineer or Supervisor may require that the signing pattern be located significantly in advance of the work area to provide better sight line to the signing and safer traffic operations through the work zone.

Table I indicates the minimum taper length required for a lane closure based on the posted speed limit of the roadway. These taper lengths shall only be used when the recommended taper lengths shown on the traffic control plans cannot be achieved.

TABLE I – MINIMUM TAPER LENGTHS

POSTED SPEED LIMIT MILES PER HOUR	MINIMUM TAPER LENGTH IN FEET FOR A SINGLE LANE CLOSURE
30 OR LESS	180
35	250
40	320
45	540
50	600
55	660
65	780

PAVING OPERATIONS ON HIGHWAYS – WORK BY CONTRACTOR:

The Engineer or Supervisor will be assigned to each project to coordinate the traffic control for paving operations and determine the number of traffic control personnel required.

The District Traffic Representative will determine the hours of the paving operations and will coordinate the paving operations with other construction activities in the immediate area. The District Traffic Representative will be available to assist field forces on traffic control issues and may contact the Division of Traffic Engineering for additional assistance.

When work hours on a particular project have been established, an on-site meeting between the Department and the Contractor will be held two weeks prior to the starting date. If the District Traffic Representative determines that it is necessary, a news release will be prepared and distributed to the local papers, radio stations, State Police, and municipalities.

MOVING OPERATIONS - WORK BY STATE FORCES:

The Engineer or Supervisor will be assigned to each project and will direct the entire moving operation. If the Engineer or Supervisor must leave the operation, a substitute shall be assigned to continue the operation.

All personnel involved in this work will be instructed by the Engineer or Supervisor regarding the proper application of traffic control patterns that will be used to complete the work.

The first advance warning to the motorist shall be vehicle #1 which shall be located considering ramps, grades, curves, volumes, and speed of the traffic. This vehicle shall not restrict any portion of the travelway on multilane highways, except as noted on plans.

All vehicles shall have the appropriate illuminated warning devices.

INSTALLING AND REMOVING TRAFFIC CONTROL PATTERNS

Lane Closures shall be installed beginning with the advanced warning signs and proceeding forward toward the work area.

Lane Closures shall be removed in the reverse order, beginning at the work area, or end of the traffic control pattern, and proceeding back toward the advanced warning signs.

USE OF TRUCK MOUNTED IMPACT ATTENUATOR VEHICLES (TMAs)

On limited access, high volume roadways, a TMA shall be placed prior to the first work area in the traffic control pattern. If there are multiple work areas within the same pattern, then additional TMAs may be positioned at each additional work area in the pattern as needed.

TMAs shall be positioned a sufficient distance prior to the workers or equipment being protected to allow for appropriate vehicle roll-ahead in the event that the TMA is hit, but not so far that an errant vehicle could travel around the TMA and into the work area.

TRAFFIC CONES

Traffic Cones shall be fluorescent orange PVC with 6" and 4" white retroreflective collars.
Traffic cones shall be 36" minimum in height and 12 lbs. minimum in weight with the following approximate dimensions: 14" square base, 2 ¼" top O.D., 10 ½" bottom O.D.

NOTES FOR TRAFFIC CONTROL PLANS

1. IF A TRAFFIC STOPPAGE OCCURS IN ADVANCE OF SIGN (A), THEN THE INSTALLATION OF AN ADDITIONAL SIGN (A) IN ADVANCE OF THE STOPPAGE SHOULD BE CONSIDERED.
2. SIGNS (AA), (A) AND (D) SHOULD BE OMITTED WHEN THESE SIGNS HAVE ALREADY BEEN INSTALLED TO DESIGNATE A LARGER WORK ZONE THAN THE WORK ZONE THAT IS ENCOMPASSED ON THIS PLAN.
3. SEE TABLE #1 FOR ADJUSTMENT OF TAPERS IF NECESSARY.
4. A CHANGEABLE MESSAGE SIGN MAY BE UTILIZED ONE HALF TO ONE MILE IN ADVANCE OF THE LANE CLOSURE TAPER.
5. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 72 HOURS, THEN TRAFFIC DRUMS SHALL BE USED IN PLACE OF TRAFFIC CONES.
6. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN ANY LEGAL SPEED LIMIT SIGNS WITHIN THE LIMITS OF A ROADWAY / LANE CLOSURE AREA WILL BE COVERED WITH AN OPAQUE MATERIAL WHILE THE CLOSURE IS IN EFFECT AND UNCOVERED WHEN THE ROADWAY / LANE CLOSURE IS REOPENED TO ALL LANES OF TRAFFIC.
7. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN THE EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE ERADICATED OR COVERED AND TEMPORARY PAVEMENT MARKINGS THAT DEPICT THE PROPER TRAVEL PATHS SHALL BE INSTALLED.
8. DISTANCES BETWEEN SIGNS IN THE ADVANCE WARNING AREA MAY BE REDUCED TO 200' ON LOW SPEED URBAN ROADS (SPEED LIMIT < 40 MPH).
9. FOR SHORT DURATION OPERATIONS, 4 TRUCK MOUNTED ATTENUATOR UNITS MAY BE USED TO CREATE THE TAPER IN LIEU OF TRAFFIC CONES/DRUMS.
10. FOR THE INSTALLATION OF PAVEMENT MARKINGS, VEHICLE 1 SHALL HAVE A SIGN WITH THE LEGEND "LINE PAINTING".

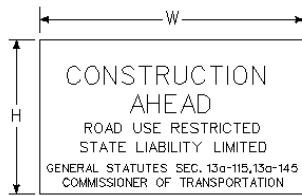


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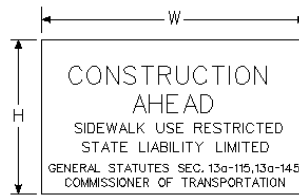
CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING &
HIGHWAY OPERATIONS
DIVISION OF TRAFFIC ENGINEERING

MAINTENANCE
TRAFFIC CONTROL PLAN
NOTES

SERIES 16 SIGNS



		W	H
16-E	80-1605	84" x 60"	
16-H	80-1608	60" x 42"	
16-M	80-1613	30" x 24"	



		W	H
16-S	80-1619	48" x 30"	

THE 16-S SIGN SHALL BE USED ON ALL PROJECTS THAT REQUIRE SIDEWALK RECONSTRUCTION OR RESTRICT PEDESTRIAN TRAVEL ON AN EXISTING SIDEWALK.

SERIES 16 SIGNS SHALL BE INSTALLED IN ADVANCE OF THE TRAFFIC CONTROL PATTERNS TO ALLOW MOTORISTS THE OPPORTUNITY TO AVOID A WORK ZONE. SERIES 16 SIGNS SHALL BE INSTALLED ON ANY MAJOR INTERSECTING ROADWAYS THAT APPROACH THE WORK ZONE. ON LIMITED- ACCESS HIGHWAYS, THESE SIGNS SHALL BE LOCATED IN ADVANCE OF THE NEAREST UPSTREAM EXIT RAMP AND ON ANY ENTRANCE RAMP PRIOR TO OR WITHIN THE WORK ZONE LIMITS.

THE LOCATION OF SERIES 16 SIGNS SHOULD BE INSTALLED AS DIRECTED BY THE ENGINEER OR SUPERVISOR, OR MAY BE FOUND ELSEWHERE IN THE PLANS.

IF SIGNS ARE TO BE POST MOUNTED THEN:

SIGN 16-E OR 16-H SHALL BE USED ON ALL EXPRESSWAYS.

SIGN 16-H OR 16-M SHALL BE USED ON ALL RAMP, OTHER STATE ROADWAYS, AND MAJOR TOWN/CITY ROADWAYS.

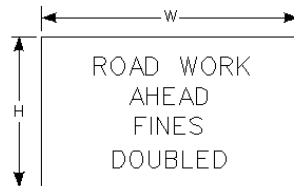
SIGN 16-M SHALL BE USED ON OTHER TOWN ROADWAYS.

IF SIGNS ARE TO BE MOUNTED ON PORTABLE SUPPORTS, THEN SIGN 16-M SHALL BE USED.

REGULATORY SIGN "ROAD WORK AHEAD, FINES DOUBLED"

THE REGULATORY SIGN "ROAD WORK AHEAD, FINES DOUBLED" SHALL BE INSTALLED FOR ALL WORK ZONES THAT OCCUR ON ANY STATE HIGHWAY IN CONNECTICUT WHEN THERE ARE WORKERS ON THE HIGHWAY OR WHEN THERE IS OTHER THAN EXISTING TRAFFIC OPERATIONS. THE "ROAD WORK AHEAD, FINES DOUBLED" REGULATORY SIGNS SHALL NOT BE INSTALLED ON TOWN ROADS.

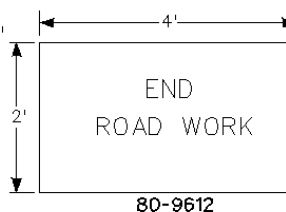
THE "ROAD WORK AHEAD FINES DOUBLED" REGULATORY SIGN SHALL BE PLACED AFTER THE SERIES 16 SIGN AND IN ADVANCE OF THE "ROAD WORK AHEAD" SIGN.



	W	H
31-1906	48" x 42"	

"END ROAD WORK" SIGN

THE LAST SIGN IN THE PATTERN MUST BE THE "END ROAD WORK" SIGN.



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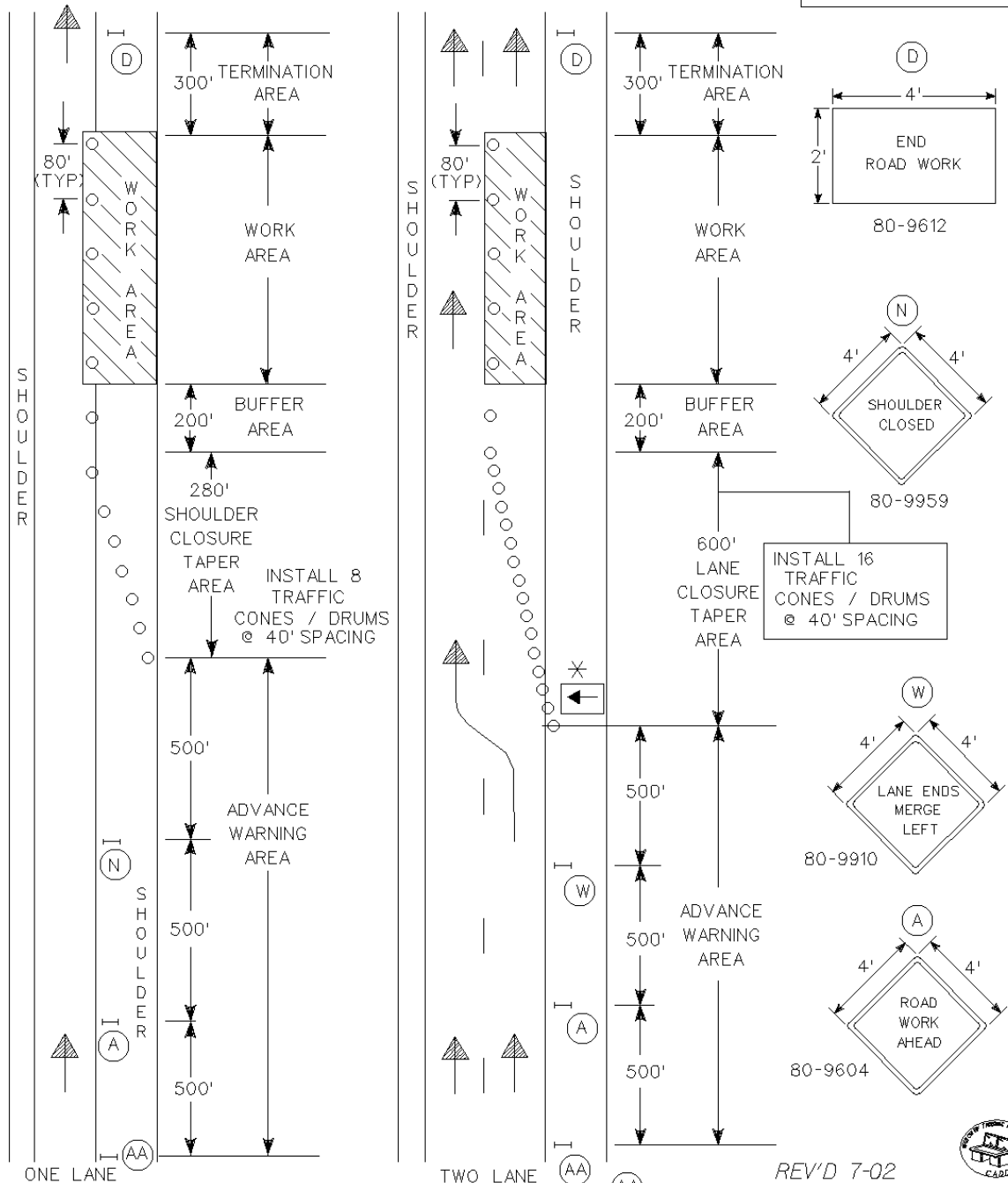
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BUREAU OF ENGINEERING &
HIGHWAY OPERATIONS
DIVISION OF TRAFFIC ENGINEERING

MAINTENANCE
TRAFFIC CONTROL PLAN

REQUIRED SIGNS

WORK ON TURNING ROADWAYS/RAMPS

SIGN FACE
54 SQ. FT. (MIN.)



- T — DENOTES PORTABLE SIGN SUPPORT
- DENOTES TRAFFIC CONE (36" MIN.) OR TRAFFIC DRUM
- ◀ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SEE NOTES 1, 2, 3, 4, 5, 7 & 9

✱ OPTIONAL

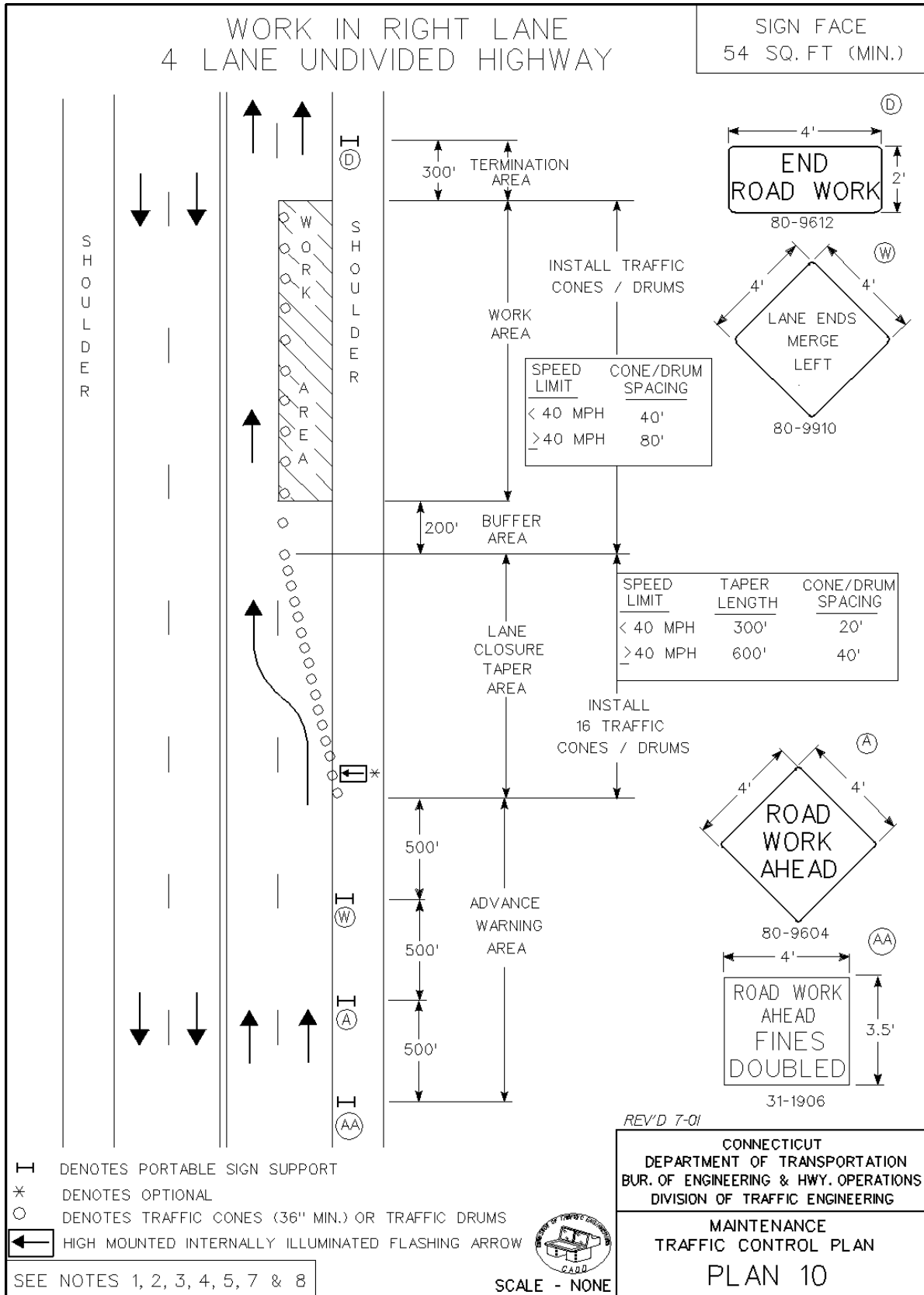
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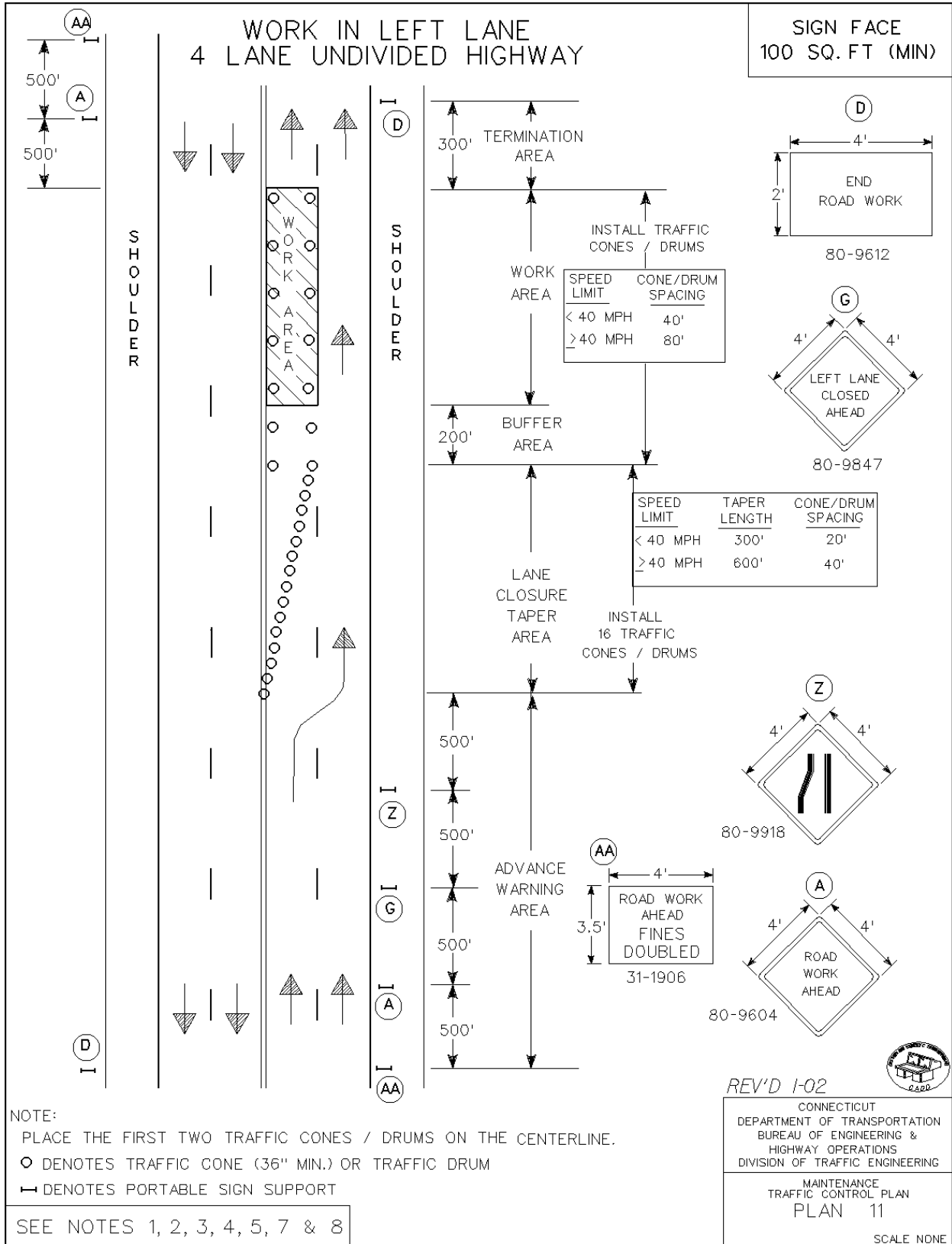
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BUREAU OF ENGINEERING &
HIGHWAY OPERATIONS
DIVISION OF TRAFFIC ENGINEERING

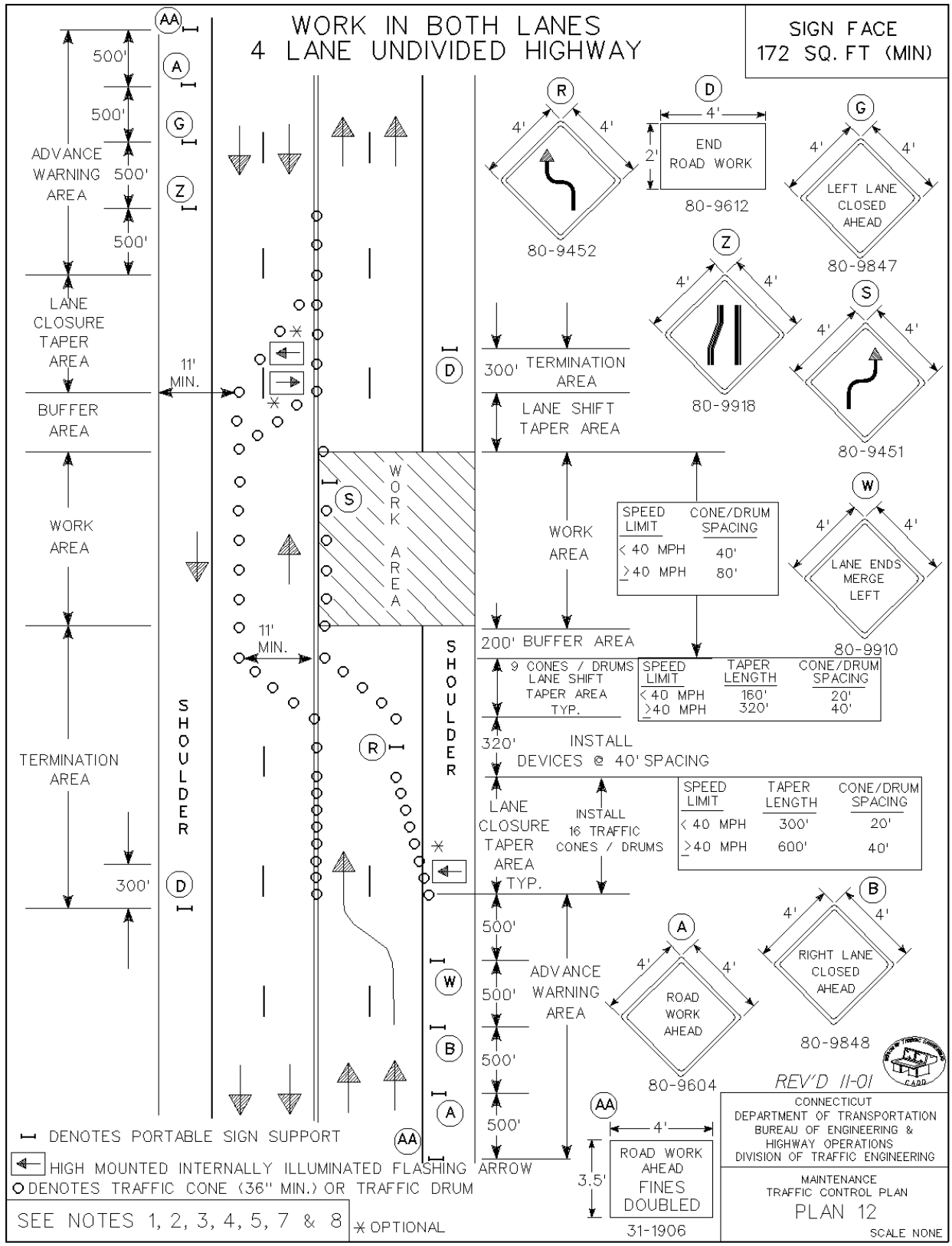
MAINTENANCE
TRAFFIC CONTROL PLAN
PLAN 9

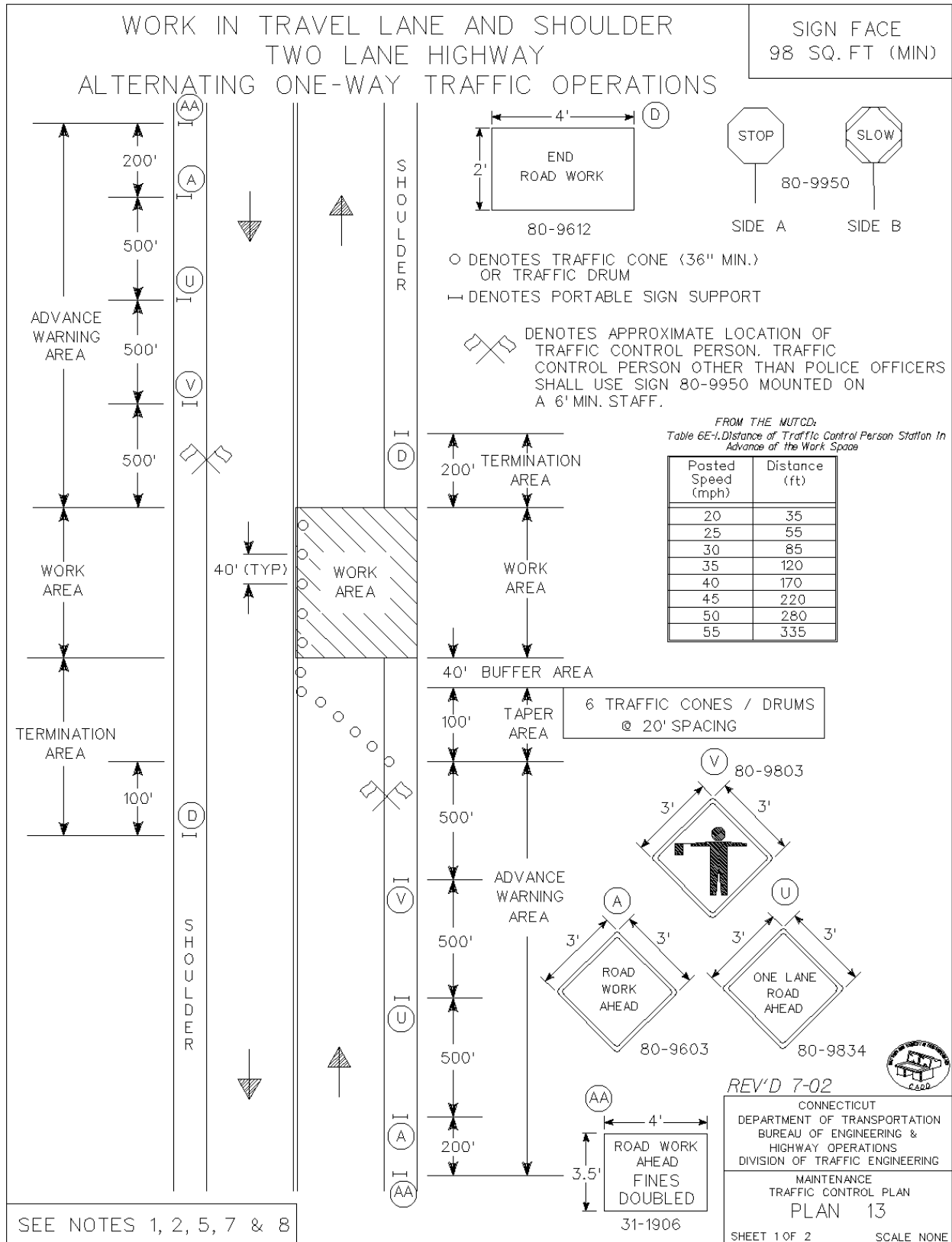
31-1906

SCALE NONE









SEE NOTES 1, 2, 5, 7 & 8

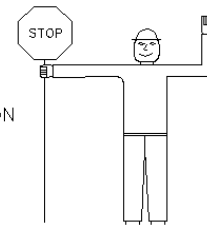
WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY ALTERNATING ONE-WAY TRAFFIC OPERATIONS

HAND SIGNAL METHODS TO BE USED BY TRAFFIC CONTROL PERSONS

THE FOLLOWING METHODS FROM SECTION 6E.04 TRAFFIC CONTROL PERSON PROCEDURES IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" SHALL BE USED BY TRAFFIC CONTROL PERSONS WHEN DIRECTING TRAFFIC THROUGH A WORK AREA. THE STOP/SLOW SIGN PADDLE (SIGN NO. 80-9950) SHOWN ON THE TYPICAL DETAIL SHEET ENTITLED "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" SHALL BE USED.

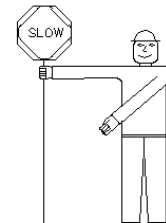
A. TO STOP TRAFFIC

TO STOP ROAD USERS, THE TRAFFIC CONTROL PERSON SHALL FACE ROAD USERS AND AIM THE STOP PADDLE FACE TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FREE ARM SHALL BE HELD WITH THE PALM OF THE HAND ABOVE SHOULDER LEVEL TOWARD APPROACHING TRAFFIC.



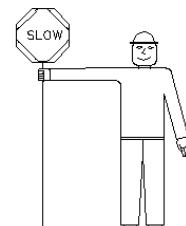
B. TO DIRECT TRAFFIC TO PROCEED

TO DIRECT STOPPED ROAD USERS TO PROCEED, THE TRAFFIC CONTROL PERSON SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE TRAFFIC CONTROL PERSON SHALL MOTION WITH THE FREE HAND FOR ROAD USERS TO PROCEED.



C. TO ALERT OR SLOW TRAFFIC

TO ALERT OR SLOW TRAFFIC, THE TRAFFIC CONTROL PERSON SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. TO FURTHER ALERT OR SLOW TRAFFIC, THE TRAFFIC CONTROL PERSON HOLDING THE SLOW PADDLE FACE TOWARD ROAD USERS MAY MOTION UP AND DOWN WITH THE FREE HAND, PALM DOWN.



SEE NOTES 1, 2, 5, 7 & 8

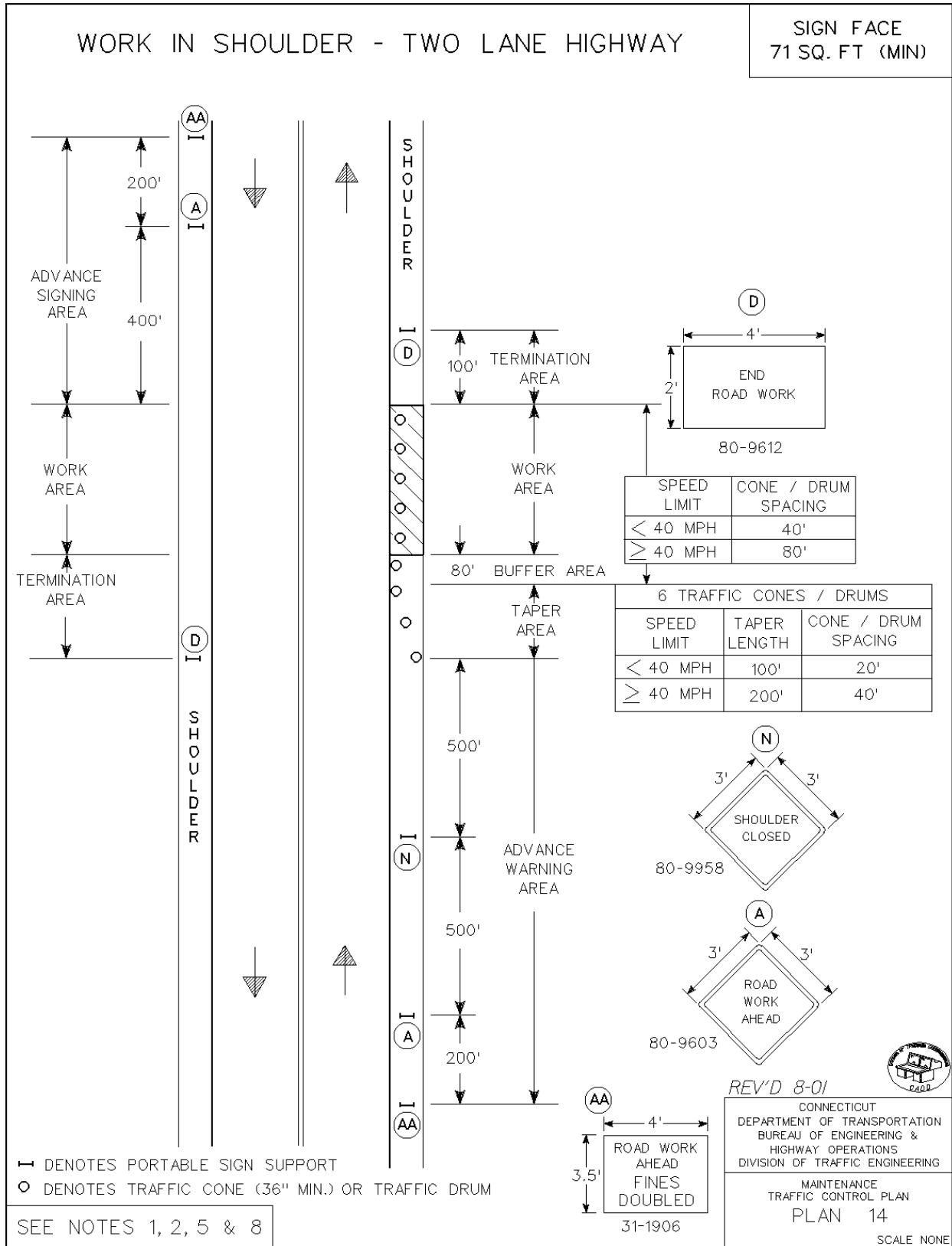
REV'D 7-02

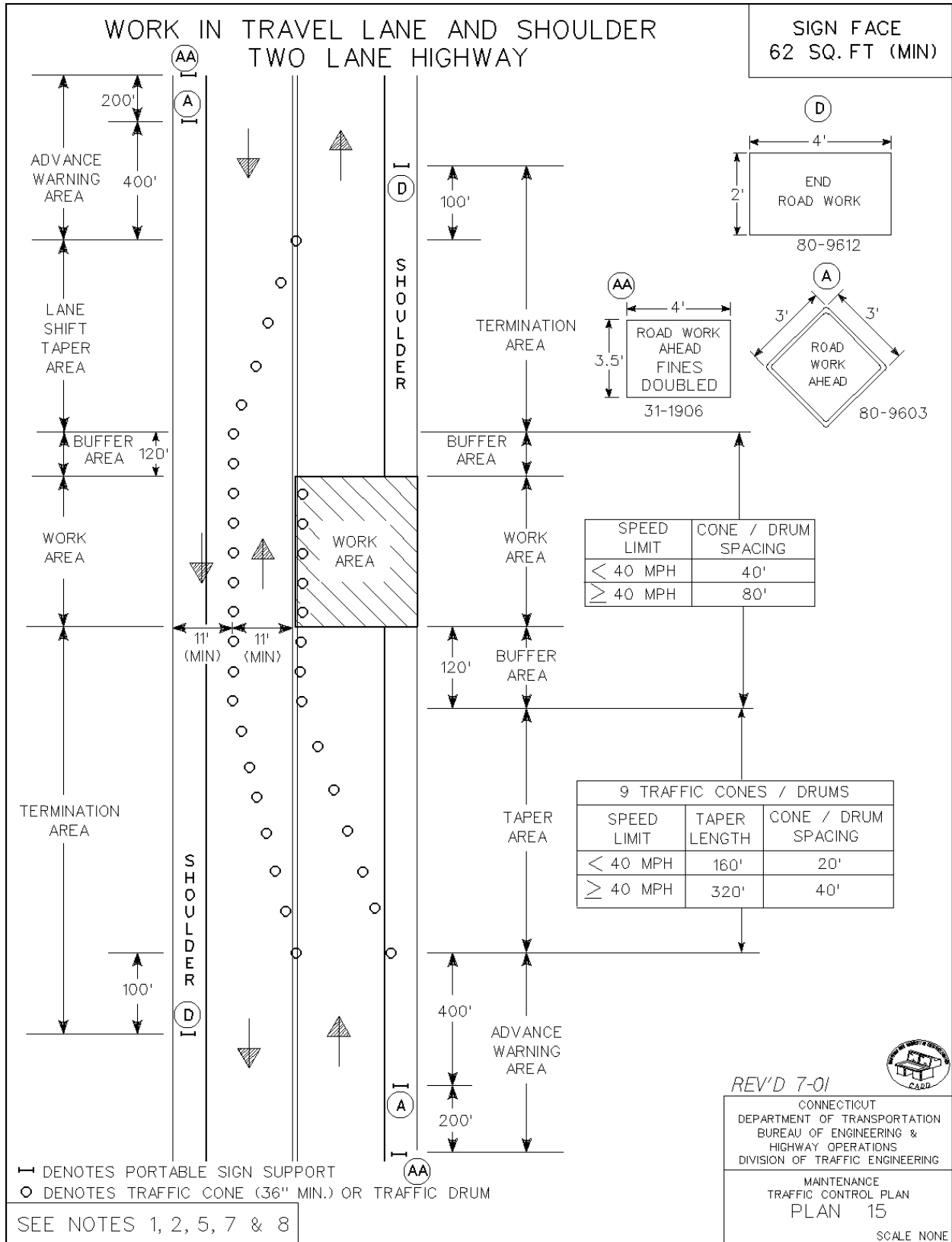


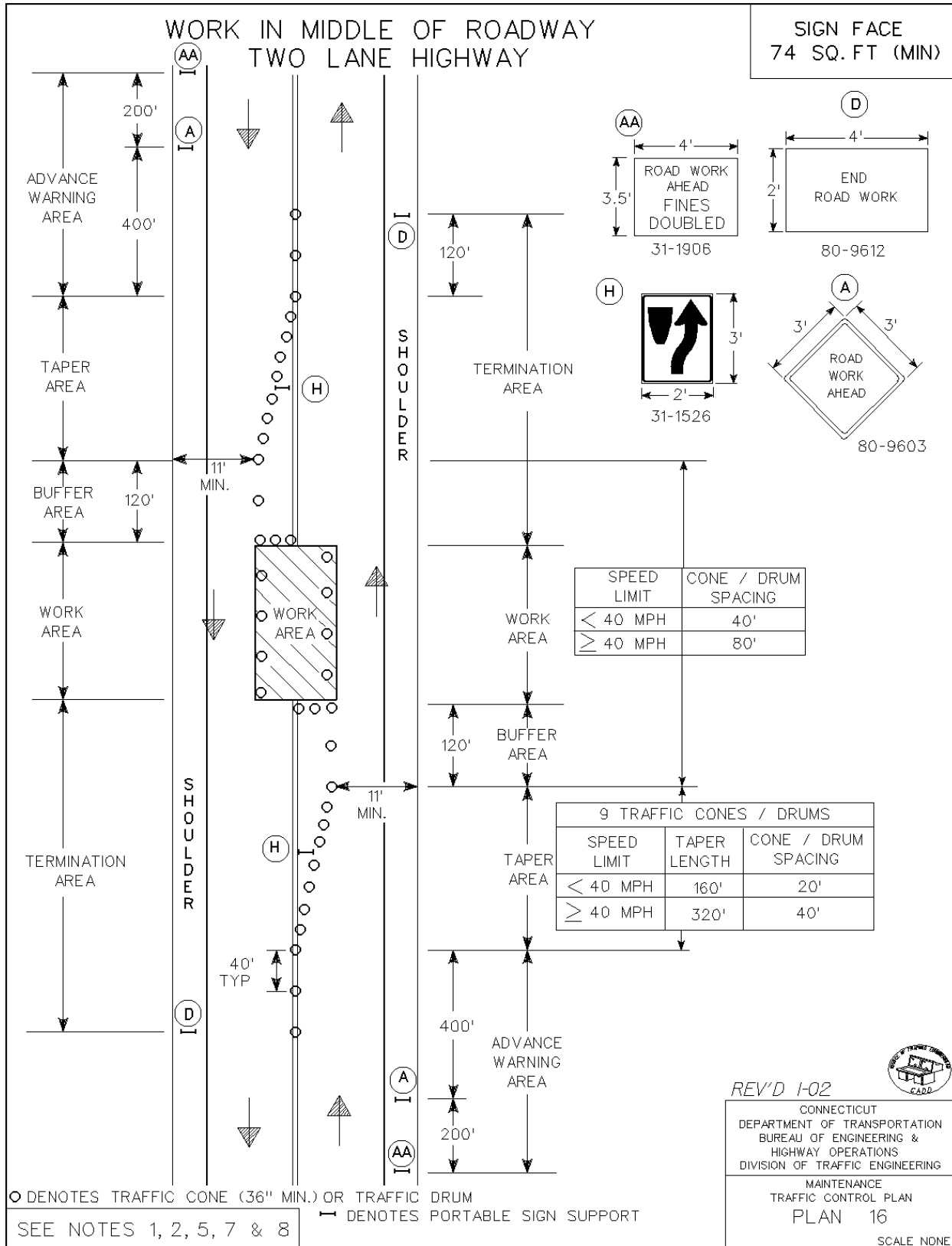
CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING &
HIGHWAY OPERATIONS
DIVISION OF TRAFFIC ENGINEERING

MAINTENANCE
TRAFFIC CONTROL PLAN
PLAN 13
SHEET 2 OF 2 SCALE NONE

APPROVED Charles S. Harlow DATE 7/19/02
PRINCIPAL ENGINEER





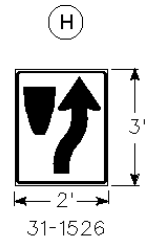
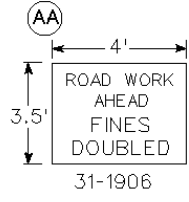
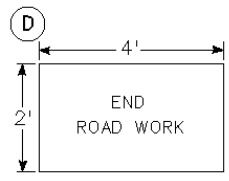
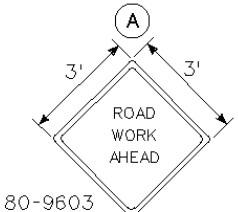
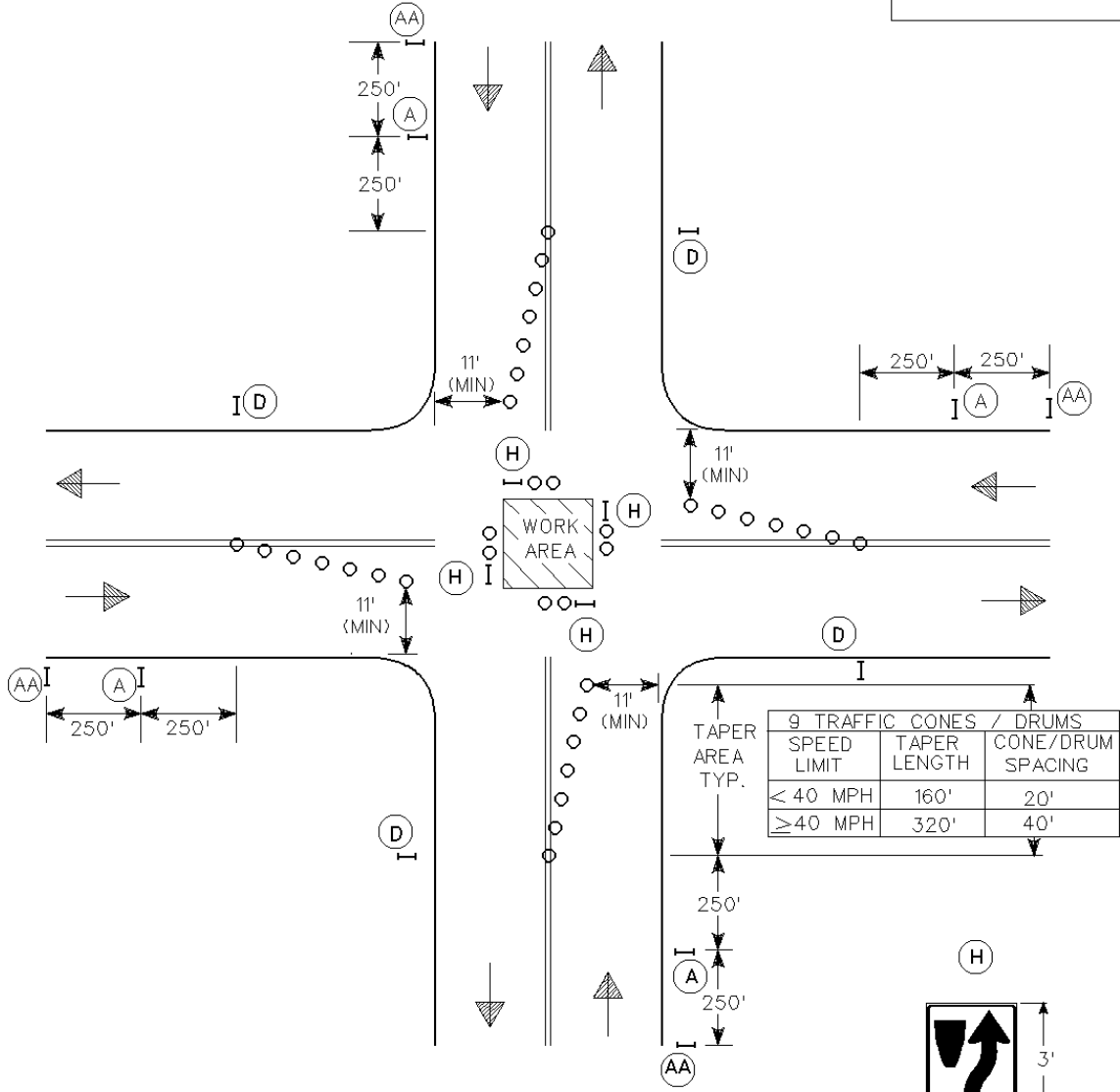


REV'D 1-02

CONNECTICUT
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF ENGINEERING &
 HIGHWAY OPERATIONS
 DIVISION OF TRAFFIC ENGINEERING
 MAINTENANCE
 TRAFFIC CONTROL PLAN
PLAN 16
 SCALE NDNE

WORK IN MIDDLE OF ROADWAY AT INTERSECTION

SIGN FACE
148 SQ. FT (MIN)



○ DENOTES TRAFFIC CONE (36" MIN.) OR TRAFFIC DRUM
 ↳ DENOTES PORTABLE SIGN SUPPORT

SEE NOTES 1, 2, 5 & 7

REV'D 11-01
 CONNECTICUT
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF ENGINEERING &
 HIGHWAY OPERATIONS
 DIVISION OF TRAFFIC ENGINEERING
 MAINTENANCE
 TRAFFIC CONTROL PLAN
 PLAN 17
 SCALE NONE

APPROVED John F. Carey DATE 11-15-01
 PRINCIPAL ENGINEER

APPENDIX VIII

ConnDOT CORRESPONDENCE



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



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

Phone:

December 30, 2005

Ms. Anne Bartosewicz
Middletown - Norwalk Project Director
Northeast Utilities Service Company
107 Selden Street
Berlin, Connecticut 06037

Dear Ms. Bartosewicz:

Subject: Middletown - Norwalk
345kV Transmission Project

On December 7, 2005, you sent two letters to me concerning several issues related to the subject project. The following is a response to each of your inquiries:

Eight (8) continuous daytime work hours at select locations on Routes 1 and 130:

Lane closures on these routes during the morning peak hours (6-9 am) and the evening peak hours (3-6 pm) cannot be approved. As you know, this area is subjected to heavy commuter traffic flows. Additionally, Route 1 is a designated diversion route for Interstate 95. The Department empathizes with your dilemma, but these are the same restrictions we would impose on our own contractors working on these routes.

Please note that if your engineers are able to configure a construction sequence that does not involve lane closures during the morning or evening peak hours, you may very well be able to accomplish your goal.

Eleven (11) continuous nighttime work hours:

(Same comments as above.)

Use of steel plates up to 300' in length:

The existing Department of Transportation (Department) guideline for the use of steel plates indicates a maximum length of 160'. On the Bethel-Norwalk 345kV project, the maximum length was increased to 300'. The 300' limit is approved for the Middletown - Norwalk 345kV project.

Use of steel plates from March 15 through December 23:

The existing Department guideline for the use of steel plates indicates that steel plates are not to be used from November 1 through April 30. The Department permitted Northeast Utilities (NU) to use steel plates from March 15 to the day before Thanksgiving on the Bethel-Norwalk 345kV project. Your current request is a further expansion of the Bethel-Norwalk waiver and cannot be approved. However, the waiver that was granted for the Bethel-Norwalk project is approved for the Middletown-Norwalk project. Therefore, NU will be permitted to utilize steel plates from March 15 through the day before Thanksgiving on the Middletown - Norwalk 345kV project. All other provisions of the Department's "Guidelines for Use of Steel Plates in State Highway Right of Way" remain in effect unless waived in writing by the Department.

Use of steel plates during holidays and weekends:

The Department is willing to permit the use of steel plates on weekends and holidays, subject to the following limitations:

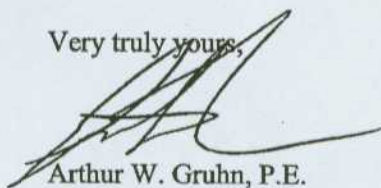
- Maximum length of 40'
- Maximum length of 100' if two safety inspections are conducted on a daily basis

Use of steel plates at intersections:

Since intersections are subjected to heavy amounts of braking and turning maneuvers, the Department cannot approve the use of steel plates at these locations.

If you have any questions, please feel free to call me.

Very truly yours,



Arthur W. Gruhn, P.E.
Chief Engineer
Bureau of Engineering
and Highway Operations