February 12, 2016

Honorable Members of the West Hartford Town Council
Town of West Hartford
Town Hall
50 South Main Street
West Hartford, CT 06107

RE: Modification of SDD #94; 511 New Park Avenue, West Hartford, Connecticut

Dear Mayor Slifka and Honorable Members of the Town Council:

Application is hereby filed on behalf of Chick-fil-A, Inc. ("CFA"), proposed lessee and intended developer, and Aldi, Inc. ("Aldi"), owner of 511 New Park Avenue, West Hartford, Connecticut (the "Property") (collectively, "Applicants"). The Applicants propose to modify the existing approved SDD by modifying minimally the use and footprint of the smaller building approved on the Aldi property to allow for a 4,779 SF restaurant with drive-thru and to modify the site layout and landscaping in connection with the same. The new building will be a single story building of 4,779 SF with 126 seats of inside dining and 22 seats of outside dining and with a children's play area, together with all attendant parking, landscaping, lighting and signage. This letter, together with the accompanying plans and reports, constitute the Applicants' request to modify SDD #94 as shown on the attached plans ("Application").

A legal description of the boundary of the property that is the subject of the Application is attached to this letter as Enclosure B, which, together with Enclosures A - M described at the end of this letter, should be deemed incorporated as part of the Application.

In accordance with Section 177-44C.(1)(b), the unit owners' association was notified of the submittal of this application and written authorization was requested. As of the date of this application, we have not received the letter from the unit owner's association. As a result, we have sent by first class mail, postage prepaid, a copy of this application to each owner listed on the Affidavit of Interest and we are requesting that the requirements set forth in Section 177-44C.(1)(a) that all owners sign the application be waived in accordance with the provisions thereof.

Planning for this development began in early 2015 and, since that time, CFA and its consultants have been meeting with Town staff, the Design Review Advisory Committee ("DRAC") and interested individuals in West Hartford. CFA has gone through several iterations of proposed plans, attempting to address therein all concerns raised by DRAC and Town staff. We believe that the plans presented to the Town Council as part of the Application and the implementation of those plans will be consistent with the design on the existing development on the Property,

will constitute a significant draw for this Property and the surrounding areas and will be an asset to the West Hartford community.

## OVERVIEW OF PROPOSAL:

As mentioned above, the Applicant proposes to construct a 4,779 SF building that will include 126 seats of indoor dining, 22 seats of outdoor patio dining, a children's play area, restrooms, a kitchen, offices and storage areas. Outside the building, the Applicant intends to reconstruct the parking area to provide for a double drive-thru, to provide for enclosed recycling and trash disposal, to provide additional landscaping, both along the perimeter of the area to be developed (including the entrance drive from New Park Avenue) and within the internal islands in the development area.

The Applicants request that the following substitute standards become applicable to this SDD in lieu of those set forth in the IR and other zoning regulations:

1. Minimum Front Yard – Building: Reduce required building setback as shown on the plan.

2. Minimum Front Yard Landscaping: Allow landscaping in front yard as shown on the plan

3. Minimum Side Yard Landscaping: Allow landscaping on side yard as shown on the plan.

4. Parking Spaces: Reduce required parking from 114 spaces to 110 spaces.

5. Parking Lot Landscaping and Screening: Allow the parking lot landscaping and screening as shown on the plans.

6. Signs: Substitute standards for number, size, location, type and height as shown on the plans.

## TRAFFIC AND PARKING CONSIDERATIONS:

McMahon Associates has prepared a Traffic Impact Study with respect to the activities and uses included with in the Application (the "TIS"). The TIS is attached hereto as Enclosure G. The traffic analysis performed shows that the project is not expected to have any significant impact to the existing signalized intersection operations during the weekday afternoon peak hour. Minor signal timing adjustments may be required to offset project impacts during the Saturday midday peak hour. Additionally, some minor improvements are proposed to the unsignalized intersections internal to the site including the addition of some striping and signage in order to improve operations internal to the site.

## DESIGN AND LANDSCAPING ELEMENTS:

The design and layout of the site were dictated by the desire to bring as much activity to the street as possible and to provide an aesthetically pleasing location while also ensuring visibility and interaction with and encouragement of pedestrian traffic. The building was designed to fit well with the design aesthetic of the surrounding neighborhood, without being cookie cutter or

boring. Significant time was spent with staff and DRAC designing all four sides of the building, since even the sides and rear of the building are very prominent within the development.

The landscape design on the site was planned to accomplish several goals, which included compliance, to the extent possible, with the existing zoning requirements, provision of appropriate screening and aesthetically pleasing design that complements both the proposed building and the existing site design.

## WATER, SEWER AND STORMWATER CONSIDERATIONS:

Bohler Engineering ("BE") has prepared a Stormwater Drainage Analysis that is attached hereto as Enclosure H. In addition, BE has also contacted The Metropolitan District and the Health Director regarding availability of water and sewer to serve the project. Letters from each are attached hereto as Enclosures I and J and indicate that both water and sewer are available to service the proposed development of the Property. The Stormwater Drainage Analysis indicates both that the peak rates of stormwater runoff discharging to neighboring properties for the 2-, 5-, 10-, 25- and 100-year storm events will be the same or less after development than prior to development. The report concludes that the proposed stormwater management design as presented in the Application will not pose any significant detrimental impacts to the environment surrounding the site.

## NEIGHBORHOOD CONSIDERATIONS AND COMMUNITY OUTREACH:

The Applicant has retained Coursey & Company ("CC") to perform community outreach in conjunction with this project. As of the date hereof, CC has met with individual property owners and other interested parties in West Hartford. These individual and group meetings will continue as the application process goes forward until all public hearings on the application shave been closed. A copy of a preliminary report is attached hereto as Enclosure F.

## PURPOSE AND COMPLIANCE WITH POCD:

The Application is consistent with the goals and objectives of the Town's Plan of Conservation and Development, a discussion of which follows below.

Economic Development: The goal for economic development is to promote economic growth while retaining existing businesses and protecting the character of the surrounding neighborhoods. The proposed development will certainly promote economic development along the New Park Avenue neighborhood, bringing hundreds of new customers into the neighborhood on a daily basis who will presumably also patronize the existing businesses in the area. In addition, the modifications requested will allow for a development that will bring visible economic vitality right up to the street and, while further serving the business in the area, provide additional "feet on the street" as employees in the area walk to a fairly popular restaurant.

Traffic and Transportation: The goal for traffic and transportation is to promote a system that provides the best possible service, mobility, convenience and safety while reinforcing positive influences on the Town. The proposed development is ideally situated to provide both easy and convenient highway access without adversely impacting Town streets, traffic and circulation and is served by excellent access to public transportation, with a CT FastTrack literally right outside the project's front door.

FINDINGS:

The modification of the existing SDD to allow the Applicants to develop a proposed Chick-fil-A restaurant at the Property, together with all attendant parking, landscaping, lighting and signage is deemed appropriate for the following reasons as set forth in the Zoning Code Section 177-44B:

1. The proposed modifications as set forth in the Application are in harmony with the overall objectives of the Comprehensive Plan as they provide a high level of design while encouraging a variety of uses and cross uses. In addition, the orientation of the building will present a more active and vibrant face to the neighborhood and will encourage pedestrian traffic.

2. The proposed SDD is superior to a plan possible under the regular standards of the Regulations because of the additional scrutiny allowed in the building design and layout process. In addition, the minimal substitute standards in the design standards presented in the application will benefit the design and use of the Property by allowing for a development that brings activity and vitality to the street, further strengthening the walkability factor of the area and promoting interaction between the uses in the New Park Avenue neighborhood.

3. The proposed improvements are clearly in harmony with the neighborhood. CFA has worked closely with Town staff and DRAC to ensure that the materials used in and the elevations of the new building will be appropriate for this area. The proposed improvements will not have a deleterious impact on the character of this area or on the orderly permitted development of the adjacent commercial properties.

4. The total density of the development in terms of floor area and land coverage is not greater than permitted in the district in which the premises is located.

The proposed Ordinance, application fee and information required pursuant to Section 177-44 of the Zoning Ordinance are enclosed.

Respectfully submitted,
Chick-fil-A, Inc

By: Susan A Hays
Susan A. Hays
Updike, Kelly & Spellacy, P.C.
Its Attorney and Authorized Agent

Enclosures:

ENCLOSURE A – Application Letter signed by Owner
ENCLOSURE B – Description of property subject to SDD
ENCLOSURE C – Proposed Ordinance
ENCLOSURE D - Affidavit of Interest
ENCLOSURE E – Description of Proposed Uses
ENCLOSURE F – Community Outreach Report
ENCLOSURE G – Traffic Impact Study
ENCLOSURE H – Stormwater Drainage Analysis
ENCLOSURE I – Letter from The Metropolitan District
ENCLOSURE J – Letter from West Hartford Director of Health
ENCLOSURE K – Application Fee Check made payable to Town of West Hartford
ENCLOSURE L – Sign Package and Building Elevations
ENCLOSURE M – Plan set entitled "Site Development Plans for Proposed Chick-fil-A" prepared by Bohler Engineering, Inc., et. al. dated February 12, 2016

ENCLOSURE A
Application Letter signed by Owner

**SOUTH WINDSOR DIVISION**

295 RYE STREET
SOUTH WINDSOR, CT 06074

P: 860.290.2900
F: 860.291.0263
E: swn@aldi.us

January 25, 2016

Honorable Members of the West Hartford Town Council
Town of West Hartford
Town Hall
50 South Main Street
West Hartford, CT 06107

RE: Modification to SDD #94; 503-511 New Park Avenue, West Hartford, Connecticut
for a Proposed Chick-fil-A Restaurant

Dear Mayor Slifka and Honorable Members of the Town Council:

Aldi, Inc. is the owner of the unit commonly known as 511 New Park Avenue, which is the subject of an SDD Modification Application submitted to the Town Council as described above and on which the proposed Chick-fil-A restaurant will be located.

This letter is provided to indicate (a) the property owner's consent to the submittal of the SDD Modification Application submitted by Chick-fil-A, Inc. and (b) the property owner's participation in that process.

If there is any further information that we can provide, please do not hesitate to let us know.

Respectfully submitted,
Aldi Inc. (Connecticut)

By: Bruno Lourenco

Bruno Lourenco
Director of Real Estate
Aldi - South Windsor Division

ENCLOSURE B
Property Description

**LIMITS OF SDD #94**

A certain piece or parcel of land with buildings and improvements thereon, situated in the Town of West Hartford, County of Hartford and State of Connecticut, known as 503-51 1 New Park Avenue and shown on a map entitled "WEST HARTFORD PLACE NEW PARK & OAKWOOD AVE. WEST HARTFORD, CONN. SITE PLAN Anthony V. Giordano & Associates Consulting Engineers 541 Washington Ave. West Haven, Conn. 06516 Dwg. No. 9239-4 Scale 1" = 80' Date 4-30-93 Revisions 11/5/93 1/12/94 3/3/94 4/14/94 12/12/94" filed in the Office of the West Hartford Town Clerk as Map No. 5624, and being more particularly bounded and described as follows:

COMMENCING at the southwest corner of Flatbush Avenue and Oakwood Avenue;

THENCE S 08°-35'-07" E a distance of 705.82 feet along Oakwood Avenue;

THENCE S 88°-52'-14" E a distance of 418.21 feet along Jefferson Avenue;

THENCE along curve of radius 25.00 feet, a distance of 52.18 feet, having an included angle of 119°-35'-52" along Jefferson Avenue and New Park Avenue;

THENCE S 30°-43'-38" W a distance of 699.01 feet along New Park Avenue;

THENCE S 31°-23'-38" W a distance of 73.04 feet along New Park Avenue;

THENCE N 61°-46'-44" W a distance of 308.70 feet along land now or formerly of Coltec Industries, Inc.;

THENCE N 44°-76'-39" W a distance of 243.00 feet along land now or formerly of Coltec Industries, Inc.;

THENCE N 86°-45'-33" W a distance of 831.86 feet along land now or formerly of Coltec Industries, Inc.;

THENCE N 3°-18'-34" E a distance of 1122.82 feet along land now or formerly of Coltec Industries, Inc.;

THENCE S 86°-41'-45" E a distance of 1036.58 feet along Flatbush Avenue;

THENCE along curve having a radius of 25.00 feet, a distance of 34.07' having an included angle of 78°-06'-30" along Flatbush Avenue and Oakwood Avenue, to the point of beginning;

said parcel containing 1,547,852 SF (35.53AC).

ENCLOSURE C
Proposed Ordinance

An Ordinance Amending the Zoning Regulations
of the Town of West Hartford

BE IT ORDAINED BY THE TOWN COUNCIL OF WEST HARTFORD:

That the boundaries and districts shown on the Building Zone Map entitled "REVISED ZONING MAP, TOWN OF WEST HARTFORD, CONNECTICUT," which map is on file in the Town Clerk's Office of the Town of West Hartford, Connecticut, be and is hereby amended as follows:

The SDD #94 zoning district designation for 503-511 New Park Avenue "SDD Area" adopted on April 12, 1994 and subsequently amended on January 23, 1996, June 11, 1996, October 22, 1996, July 29, 1997 and January 22, 2008 be modified and amended all in accordance with a set of plans entitled "Site Development Plans for Proposed Chick-fil-A" per the cover sheet, being sheet #1 , which set of plans consists of 21 sheets, including the cover sheet, to allow construction of a 4,779 SF restaurant with drive through with attendant parking, landscaping, lighting and signage all as set forth in the plans filed with this Application as those plans may be changed, approved by the West Hartford Town Council and filed on the West Hartford Land Records. The property for which this SDD #94 modification is requested is 503-511 New Park Avenue and is more particularly bounded and described below.

The SDD Area is described as follows:

A certain piece or parcel of land with buildings and improvements thereon, situated in the Town of West Hartford, County of Hartford and State of Connecticut, known as 503-51 1 New Park Avenue and shown on a map entitled "WEST HARTFORD PLACE NEW PARK & OAKWOOD AVE. WEST HARTFORD, CONN. SITE PLAN Anthony V. Giordano & Associates Consulting Engineers 541 Washington Ave. West Haven, Conn. 06516 Dwg. No. 9239-4 Scale 1" = 80' Date 4-30-93 Revisions 11/5/93 1/12/94 3/3/94 4/14/94 12/12/94" filed in the Office of the West Hartford Town Clerk as Map No. 5624, and being more particularly bounded and described as follows:

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THENCE N 61°-46'-44" W a distance of 308.70 feet along land now or formerly of Coltec Industries, Inc.;

THENCE N 44°-76'-39" W a distance of 243.00 feet along land now or formerly of Coltec Industries, Inc.;

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THENCE along curve having a radius of 25.00 feet, a distance of 34.07' having an included angle of 78°-06'-30" along Flatbush Avenue and Oakwood Avenue, to the point of beginning;

said parcel containing 1,547,852 SF (35.53AC).

ENCLOSURE D
Affidavit of Interest

AFFIDAVIT OF INTEREST

The undersigned, being duly sworn, hereby deposes and says that, to the best of his ability:

The names and addresses of any persons firms or corporations having a direct or indirect interest in a personal or financial sense in the request by Chick-fil-A, Inc. to modify SDD # 94 as it applies to 511 New Park Avenue (the "Property") to provide for the construction of a Chick-fil-A restaurant are as follows:

Chick-fil-A, Inc., 5200 Buffington Road, Atlanta, GA 30349;

Aldi Inc. (Connecticut), 295 Rye Street, South Windsor, CT 06074;

West Hartford Place Condominium Owner's Association, Inc., 1 Gorham Island, 3rd Floor, Westport, CT 06880;

Home Depot U.S.A., Inc.2455 Paces Ferry Road, Atlanta, GA 30339;

BJ's Wholesale Club, Inc., 25 Research Drive, Westborough, MA 01581; and

National Retail Properties, Inc., 450 S. Orange Avenue, Suite 900, Orlando, FL 32801.

In Witness Whereof, the undersigned has executed this Affidavit on the 3rd day of February, 2016.

Printed Name: Scott Thisgen

STATE OF GEORGIA )
) ss: _____
COUNTY OF Fulton )

Subscribed and sworn to before me this 3rd day of February, 2016.

Notary Public
My Commission Expires:

BRITTANY THOMPSON
NOTARY PUBLIC
EXP. OCT. 7, 2019
COWETA COUNTY, GA

Coursey & Company

Public Affairs Communications

PO Box 271834 * West Hartford, CT 06127
860 232-9800 * chuck@courseyco.com

February 10, 2016

TO: West Hartford Town Planning and Zoning Commission
West Hartford Town Council

FROM: Chuck Coursey

RE: Chick-fil-A Neighborhood and Stakeholder Outreach Report
Modification of SDD #94
511 New Park Avenue

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Please find a preliminary outreach summary of contacts with stakeholders and neighbors of Special Development District #94 and the proposed Chick-fil-A restaurant. Outreach is a daily activity and will continue until all Town public hearings and meetings have been closed. Updated outreach reports will be provided at each public hearing.

The outreach area extends to 32 neighboring property owners/abutters within 500 feet of the property (please see the attached list), as well as abutting businesses (please also see outreach map). In addition, the following stakeholders have also been approached as part of outreach efforts:

- State Senator Beth Bye
- Kristin Stoller, The Hartford Courant
- Ronni Newton, we-ha.com
- West Hartford Chamber of Commerce – Economic Development Committee
- Elmwood Business Association
- West Hartford Design Review Commission

Again, this report will be updated prior to each public hearing to provide the most up to date information. Please feel free to contact me with any questions at 860 232-9800

500 OAKWOOD AVENUE LLC
or Current Property Owner
C/O NEW ENGLAND MANAGEMENT
56 ARBOR STREET
HARTFORD, CT 06106

500 OAKWOOD AVENUE LLC
or Current Property Owner
C/O NEW ENGLAND MANAGEMENT
56 ARBOR STREET
HARTFORD, CT 06106

AGUILERA, JULIO + RUTH
or Current Property Owner
684 FLATBUSH AVENUE
WEST HARTFORD, CT 06110

BERGLUND ROBERT W + WANDA M
or Current Property Owner
671 FLATBUSH AVENUE
WEST HARTFORD, CT 06110

BREEN GERALD
or Current Property Owner
528 NEW PARK AVENUE
WEST HARTFORD, CT 06110

CABRAL, EUZEBIO F EST + MARIA B
or Current Property Owner
675 FLATBUSH AVENUE
W HARTFORD, CT 06110

CONNECTICUT VETERINARY CENTER INC
or Current Property Owner
470 OAKWOOD AVENUE
WEST HARTFORD, CT 06110

CONNECTICUT VETERINARY CENTER, INC
or Current Property Owner
470 OAKWOOD AVENUE
W HARTFORD, CT 06110

DESOUSA, NICOLAU EST + ANGELICA VIEIRA D
or Current Property Owner
19 DARCY STREET
W HARTFORD, CT 06110

DIFAZIO JOSEPH R TR + AMY E TR
or Current Property Owner
1 KORY LANE
BRISTOL, CT 06010

HAWTHORNE MBM LLC
or Current Property Owner
240 HARTFORD AVENUE
NEWINGTON, CT 06111

HOPKINSON, HUBERT L JR
or Current Property Owner
470 OAKWOOD AVENUE
WEST HARTFORD, CT 06110

INTERLANDI, MARIO
or Current Property Owner
436 OAKWOOD AVENUE
WEST HARTFORD, CT 06110

KULAS DAVID M
or Current Property Owner
136 BARKLEDGE DRIVE
NEWINGTON, CT 06111

LIMA LLC
or Current Property Owner
PO BOX 654
HARTFORD, CT 06142

MORRILL PAUL A
or Current Property Owner
15 GOODSELL STREET
WEST HARTFORD, CT 06110

NEWMAN FAMILY LIMITED PARTNERSHIP
or Current Property Owner
4101 NORTH OCEAN BLVD D-1101
BOCA RATON, FL 33431

NPA HARTFORD LLC
or Current Property Owner
C/O COLT DEFENSE LLC ATTN A/P
PO BOX 118
HARTFORD, CT 06141

PAULGIANNA LLC
or Current Property Owner
522 NEW PARK AVENUE
W HARTFORD, CT 06110

PAULGIANNA LLC
or Current Property Owner
522 NEW PARK AVENUE
W HARTFORD, CT 06110

PAULGIANNA LLC
or Current Property Owner
522 NEW PARK AVENUE
W HARTFORD, CT 06110

REDS HOUSE LLC
or Current Property Owner
608 PARK ROAD
WEST HARTFORD, CT 06107

SCHATZ, FANNY
or Current Property Owner
428 OAKWOOD AVENUE
W HARTFORD, CT 06110

SERRANO GABRIEL R
or Current Property Owner
690 FLATBUSH AVENUE
WEST HARTFORD, CT 06110

SIDARA MANOLA
or Current Property Owner
526 NEW PARK AVENUE
WEST HARTFORD, CT 06110

TOWN OF WEST HARTFORD
or Current Property Owner
50 SOUTH MAIN STREET
WEST HARTFORD, CT 06107

TOWN OF WEST HARTFORD
or Current Property Owner
50 SOUTH MAIN STREET
WEST HARTFORD, CT 06107

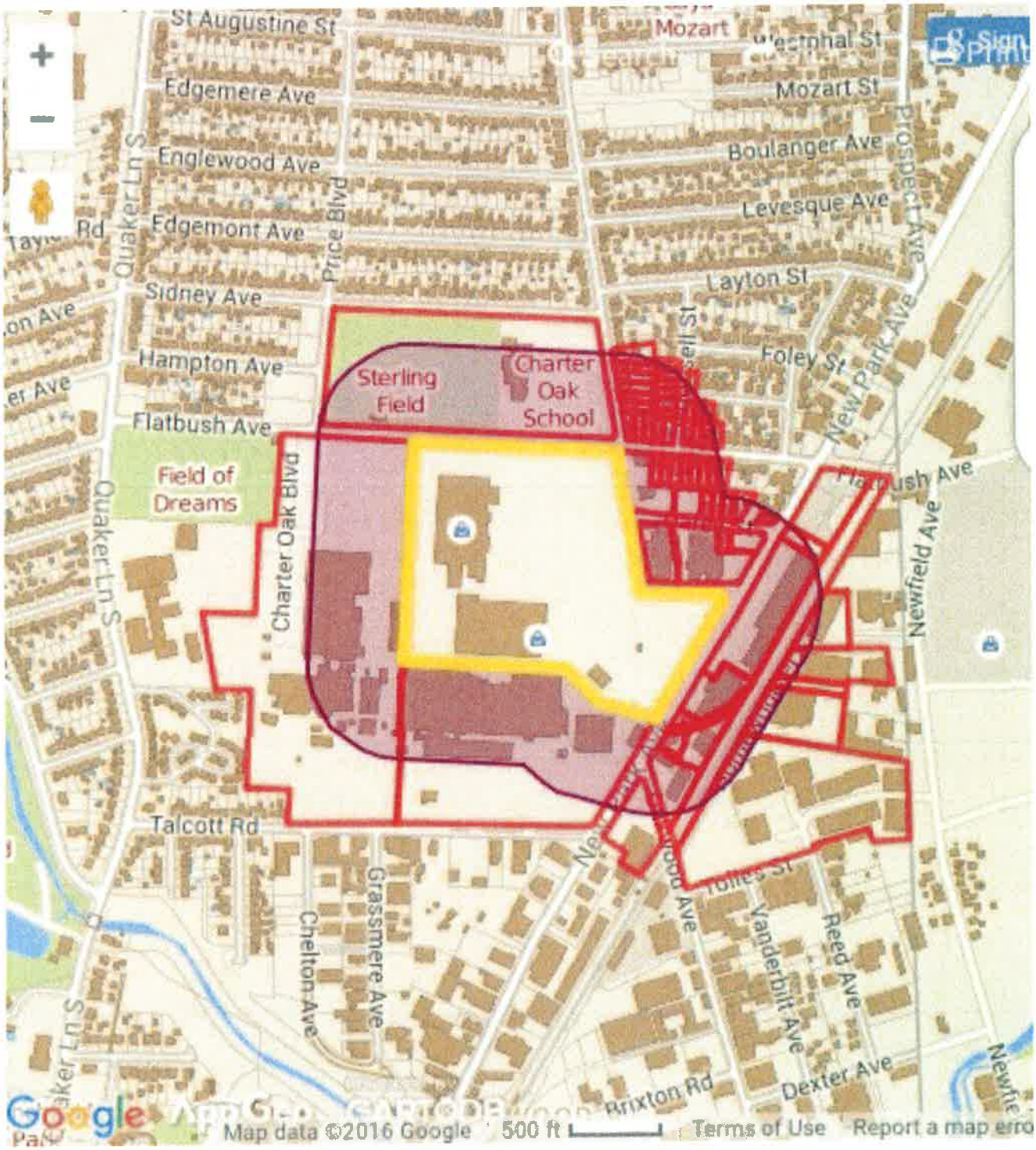
TOWN OF WEST HARTFORD EXEMPT
or Current Property Owner
50 SOUTH MAIN ST
WEST HARTFORD, CT 06107

TRAN VICTORIA + HANH
or Current Property Owner
31 MADSEN RD
W HARTFORD, CT 06110

TRIUMPH ENGINE CONTROL SYSTEMS LLC
or Current Property Owner
SUITE 210
899 CASSATT ROAD
BERWYN, PA 19312

West Hartford Interfaith Coalition INC
Or Current Property Owner
18 Chimney Hill Drive
Farmington, CT 06032

West Hartford Property LLC
or Current Property Owner
7248 Morgan Road
Liverpool, NY 13088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Boulanger Ave
Levesque Ave
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Price Blvd
Prospect Ave
Layton St
Sidney Ave
Hampton Ave
Foley St
New Park Ave
Sterling Field
Charter Oak School
Flatbush Ave
Field of Dreams
Charter Oak Blvd
Newfield Ave
Talcott Rd
Grassmere Ave
Chelton Ave
Vanderbilt Ave
Reed Ave
Dexter Ave
Brixton Rd
Google
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ENCLOSURE G

Traffic Impact Study

McMAHON
TRANSPORTATION ENGINEERS & PLANNERS

McMAHON ASSOCIATES
45 Bromfield Street | 6th Floor | Boston, MA 02108
p 617-556-0020 | f 617-556-0025
mcmahonassociates.com

PRINCIPALS
Joseph W. McMahon, P.E.
Joseph J. DeSantis, P.E., PTOE
John S. DePalma
William T. Steffens
Casey A. Moore, P.E.
Gary R. McNaughton, P.E., PTOE

ASSOCIATES
John J. Mitchell, P.E.
Christopher J. Williams, P.E.
R. Trent Ebersole, P.E.
Matthew M. Kozsuch. P.E.
Maureen Chlebek, P.E., PTOE

# MEMORANDUM

**To:** Duane J. Martin, P.E. - Town Engineer, Town of West Hartford

**From:** Jason Adams, P.E. PTOE – McMahon Associates

**Date:** February 11, 2016

**Re:** OSTA Trip Generation Comparison
Chick-fil-A Restaurant
West Hartford, CT

As part of the review for the proposed Chick-fil-A Restaurant to be located at 511 New Park Avenue in West Hartford, Connecticut, McMahon Associates has completed a trip generation comparison. The comparison evaluates the expected trip generation associated with the proposed Chick-fil-A Restaurant and the trip generation approved by the Town of West Hartford and the State Traffic Commission, which is now known as the Office of the State Traffic Administration (OSTA), for the Aldi project at this site. The purpose of this memorandum is to document how the existing Aldi and proposed Chick-fil-A Restaurant compares to the previously approved traffic volumes. The comparison methodology is outlined below.

A traffic study completed by BL Companies in November 2007, documents the number of new external roadway trips associated with a 16,800 square foot Aldi grocery store and a 4,300 square foot restaurant. The trip generation analysis included data from an Aldi trip generation study, data from the Institute of Transportation Engineer's (ITE) *Trip Generation* publication, internal capture rates and pass-by rates. The resulting new external trips calculated in that study are summarized in the table below. The peak hour trip generation approved for the then proposed Aldi and Restaurant land uses was expected to result in an increase of approximately 195 new external vehicle trips (109 entering vehicles and 86 exiting vehicles) during the weekday afternoon peak hour and an increase of approximately 280 new external vehicles trips (160 entering vehicles and 120 exiting vehicles) during the Saturday midday peak hour.

Due to the larger building size and slightly more intense land use of the proposed Chick-fil-A, McMahon completed a comparison between the previously approved trip generation documented in the November 2007 study and a combination of the existing Aldi site traffic and the expected trip generation of the proposed Chick-fil-A Restaurant. Existing traffic volumes associated with the existing Aldi are based on manual turning movement counts conducted on Friday, June 26, 2015 from 4:00 PM to 6:00 PM and on Saturday, June 13, 2015 from 11:00 AM to

2:00 PM. Vehicle trip estimates for the proposed Chick-fil-A were developed based on data presented in Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 9th Edition* for Land Use Code 943 (Fast-Food Restaurant with Drive-Through Window). The number of vehicle trips expected to be generated by the proposed Chick-fil-A was determined utilizing the Land Use Code 943 for the proposed, approximately 4,800 square foot restaurant with drive-through.

To determine the number of new external trips associated with the existing Aldi and the proposed Chick-fil-A, both internal capture rates and pass-by rates were applied to the total number of trips. An internal capture rate of 10% and a pass-by rate of 20% was used for the weekday afternoon and Saturday midday trips. The resulting number of external trips is summarized in the table below.

The table below shows a comparison between the trip generation of the previously approved project and the trip generation of the existing Aldi and the proposed Chick-fil-A.

| | **Project Trips** | | | | | |
|---|---|---|---|---|---|---|
| | PM Peak Hour | | | Saturday Peak Hour | | |
| | In | Out | Total | In | Out | Total |
| Approved Aldi Development Roadway Trips[1] | 109 | 86 | 195 | 160 | 120 | 280 |
| Existing Aldi + Proposed Chick-fil-A Roadway Trips[2] | 114 | 109 | 223 | 181 | 169 | 350 |
| Increase in Roadway Trips[3] | 5 | 23 | 28 | 21 | 49 | 70 |

1. Traffic Impact Study, Aldi, BL Companies, November 2007
2. Aldi turning movement counts from June 2015 and Chick-fil-A estimated trip generation based on ITE LUC 934 (Fast Food Restaurant with Drive-Through Window) for a 4,800± s.f. restaurant
3. Difference between OSTA approved Aldi trips from November 2007 and expected combination of Aldi and Chick-fil-A trips

As shown in the table above, the combination of the existing Aldi and the proposed Chick-fil-A restaurant is expected to result in an increase of approximately 28 new external vehicle trips (5 entering vehicles and 23 exiting vehicles) during the weekday afternoon peak hour and approximately 70 new external vehicle trips (21 entering vehicles and 49 exiting vehicles) during the Saturday midday peak hour over what was previously approved for this site. The impact of the additional vehicles has been analyzed as part of the Traffic Impact Study prepared for this project and attached under separate cover. The trip generation presented in this letter will be shared with OSTA so that they can complete a review of the project impacts compared to what was previously approved for this site.

# TRAFFIC IMPACT STUDY

for the

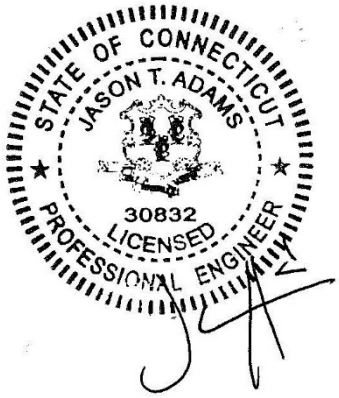
## CHICK-FIL-A
## RESTAURANT

511 New Park Avenue
West Hartford, Connecticut

**Prepared by:**
**McMahon Associates, Inc.**

**Prepared for:**
Chick-fil-A Restaurant

**February 2016**




McMAHON
TRANSPORTATION ENGINEERS & PLANNERS

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## INTRODUCTION

McMahon Associates has reviewed the potential traffic impacts associated with the proposed Chick-fil-A Restaurant to be located at 511 New Park Avenue in West Hartford, Connecticut, shown in Figure 1. The purpose of this study is to evaluate existing and projected traffic operational and safety conditions in the vicinity of the site and identify mitigating measures to offset potential project-related traffic impacts on the surrounding roadways, if necessary.

The assessment is based on a review of current traffic volumes and crash data collected for this study, and the anticipated traffic generating characteristics of the proposed development. This study examines existing and projected traffic operations (both with and without the proposed development) at key intersections in the vicinity of the project site. The study area was chosen based on a review of the surrounding roadway network and the anticipated traffic generating characteristics of the proposed development. This study provides a detailed analysis of traffic operations during the weekday afternoon and Saturday midday peak hours, when the combination of adjacent roadway volumes and potential traffic increases associated with the project would be greatest.

Based on the analysis presented in this study, McMahon concludes that the projected traffic increases expected to be generated by the proposed Chick-fil-A Restaurant will have a minimal impact on the operation of area roadways and intersections. The following report documents the conclusions of the analysis.

### *Project Description*

The project site is located on New Park Avenue in West Hartford, Connecticut. The existing site is an outparcel within a larger retail development, bounded by New Park Avenue to the east, an internal drive to the west, West Hartford Place to the north, and an Aldi grocery store and parking lot to the south. In the vicinity of the site, there are primarily retail and commercial land uses.

The project calls for the construction of a new, approximately 4,800 square-foot (148 seat) Chick-fil-A Restaurant with drive-through window. Access to the proposed Chick-fil-A site will be provided via one unsignalized full-access driveway, which currently provides access between the Aldi grocery store and the adjacent West Hartford Place.

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Figure 1
Site Location Map
Chick-Fil-A Restaurant
West Hartford, Connecticut

***Study Methodology***

This study evaluates existing and projected traffic operations at study area intersections for the weekday afternoon and Saturday midday peak hour traffic conditions when the combination of adjacent roadway volumes and potential traffic increases associated with the project would be greatest.

The study was conducted in three steps. The first step involved an inventory of existing traffic conditions in the vicinity of the site. As part of this inventory, traffic counts were collected at key intersections during the weekday afternoon and Saturday midday peak hours. Additionally, crash data and signal timing plans for the study area intersections were obtained from the Connecticut Department of Transportation (ConnDOT) to evaluate existing traffic operations and safety within the study area.

The second step of the study builds upon data collected in the first step and establishes the basis for evaluating the transportation impacts associated with future conditions. In this step, Existing 2015 traffic volumes were projected to 2017 No Build (without project) conditions and 2017 Build (with project) conditions. The projected traffic demands of other future developments that could influence traffic volumes at the study area intersections were also assessed during this step.

The final step identified measures to improve existing and future traffic operations and safety, minimize potential traffic impacts, and provide safe and efficient access to the project site.

***Study Area Intersections***

The area identified for detailed analysis in this study was determined based on a review of the anticipated traffic generating characteristics of the proposed project. The study area intersections include:

- New Park Avenue at West Hartford Place and Coastal Tool Driveway
- Circulation Drive at West Hartford Place
- Circulation Drive at Aldi/Site Driveway

## EXISTING CONDITIONS

Effective evaluation of potential traffic impacts associated with the proposed Chick-fil-A Restaurant requires a thorough understanding of the existing traffic conditions on the roadways and intersections serving the project site. The assessment of existing conditions consists of an inventory of the roadway and intersection geometries and traffic control devices, the collection of peak-period traffic volumes, and a review of recent crash history.

### *Roadway Network*

The project site benefits from excellent access via the local and regional roadway systems. A brief description of the principal roadways serving the project site is presented below.

**New Park Avenue**
New Park Avenue generally extends in a north-south direction through the Town of West Hartford. In the vicinity of the project site, New Park Avenue is classified as a local road under Town of West Hartford jurisdiction. Within the study area, New Park Avenue is a four-lane, two-way roadway providing two travel lanes in each direction. Auxiliary left-turn and right-turn lanes are provided in the southbound direction and an auxiliary left-turn lane is provided in the northbound direction at the intersection of New Park Avenue with West Hartford Place and the Coastal Tool Driveway. The roadway primarily provides access to adjacent commercial and retail land uses. The posted speed limit along New Park Avenue within the vicinity of the project site is 35 miles per hour.

**West Hartford Place**
West Hartford Place is classified as a local road and primarily extends in an east-west direction. The roadway provides access between New Park Avenue and the Circulation Drive which accesses the existing Home Depot, BJ's Wholesale Club, and an Aldi grocery store.

### *Existing Traffic Volumes*

Traffic volumes were collected manually at key locations within the study area during the weekday afternoon and Saturday midday peak periods.

<u>Existing Peak Hour Traffic Volumes</u>
To assess peak hour traffic conditions, Manual Turning Movement (MTM) counts were conducted at the study area intersections. These counts were completed on Friday, June 26, 2015 from 4:00 PM to 6:00 PM and on Saturday, June 13, 2015 from 11:00 AM to 2:00 PM. The results of the MTM counts are tabulated by 15-minute periods in Appendix A. The four highest consecutive 15-minute intervals during each of these count periods constitute the peak hours that are the basis of this traffic analysis.

Seasonal Variation

According to traffic volume data collected by ConnDOT, traffic volumes observed during the month of June are typically higher than traffic volumes for the average month. In order to present a conservative analysis, the existing peak hour traffic volumes were not seasonally adjusted downward to reflect the average month traffic conditions. The 2015 Existing peak hourly traffic flows are depicted in Figures 2 and 3 for the weekday afternoon and Saturday midday peak hours, respectively. Traffic volumes data from the ConnDOT permanent count stations is provided in Appendix B.

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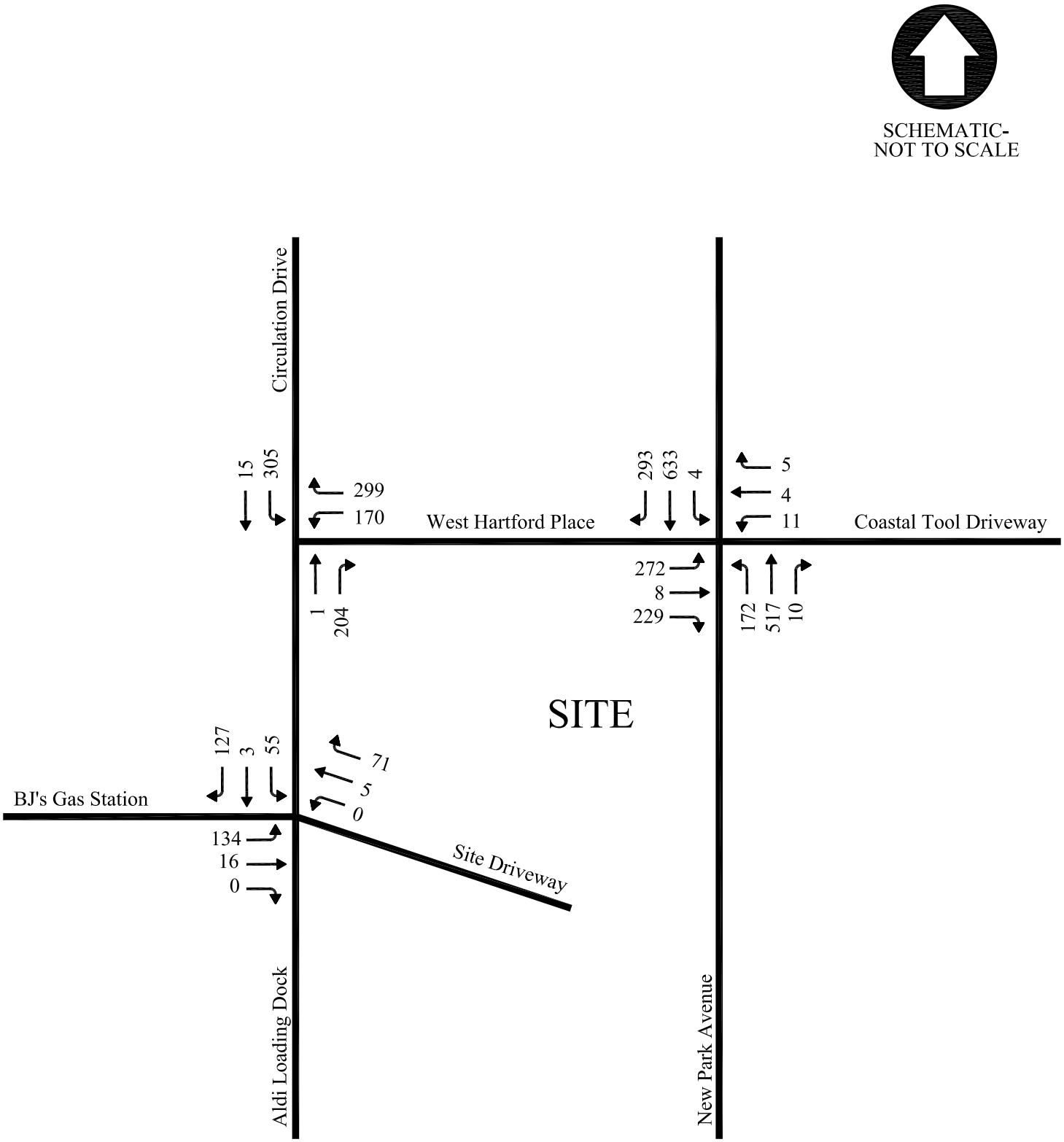


Figure 2
2015 Existing Weekday Afternoon
Peak Hour Traffic Volumes
Chick-Fil-A Restaurant
West Hartford, Connecticut

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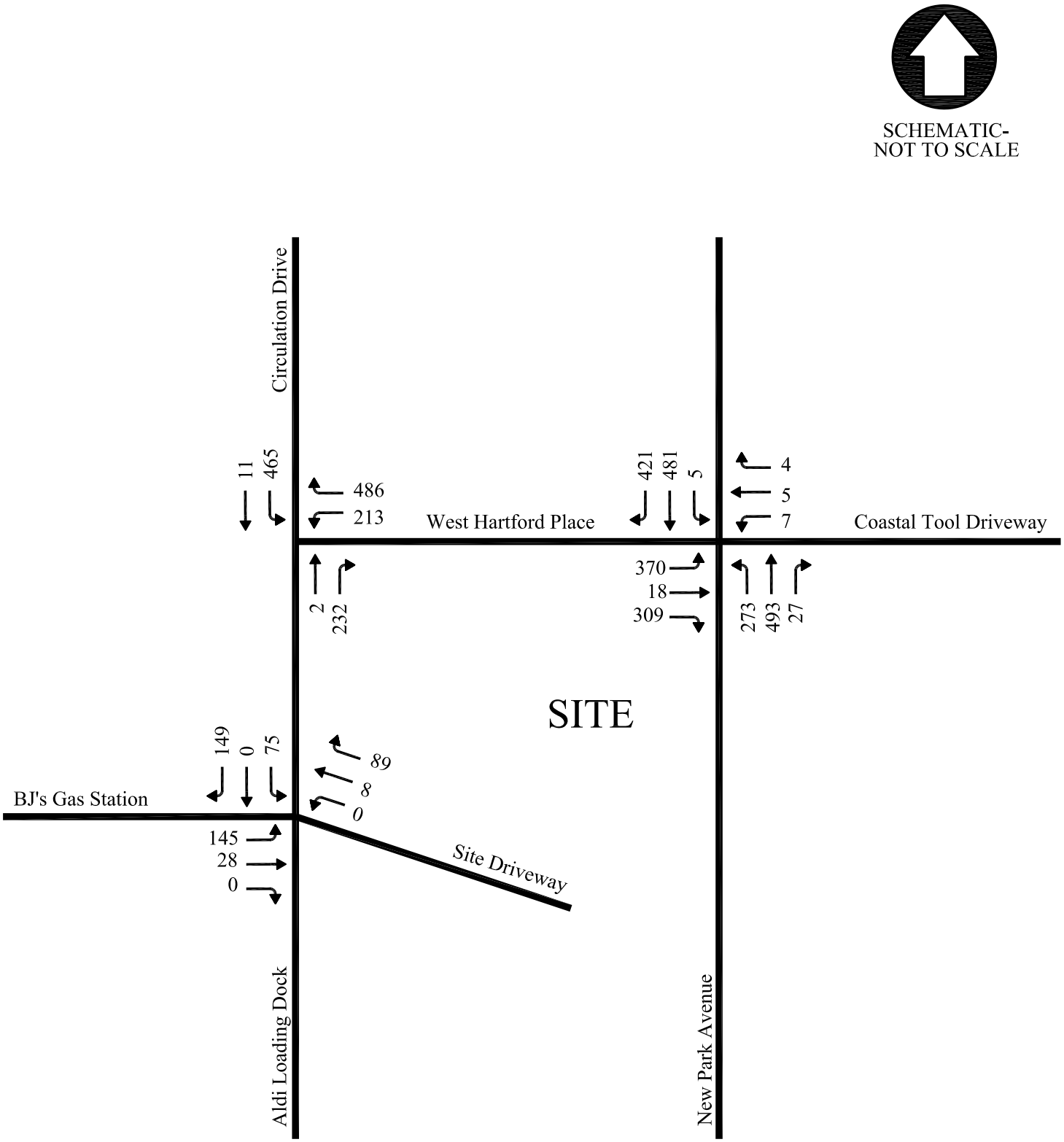


Figure 3
2015 Existing Saturday Midday
Peak Hour Traffic Volumes
Chick-Fil-A Restaurant
West Hartford, Connecticut

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***Crash Summary***

Crash data for the study area intersections was obtained from ConnDOT for the most recent three-year period available. This data includes complete yearly crash summaries from 2011 to 2013. A summary of the crash data is presented in Table 1.

As shown in Table 1, the intersection of New Park Avenue at West Hartford Place and the Coastal Tool Driveway was shown to experience a total of four crashes over the most recent available three year period (2011-2013). Of the reported crashes, there were two turning collisions and one sideswipe collision, resulting in property damage, and one rear-end collision resulting in personal injury. No fatal crashes were shown to occur within the study area during the three-year period. Crash data provided by ConnDOT is included in Appendix C of this report.

**Table 1: Crash Summary**

| | New Park Avenue at West Hartford Place |
|---|---|
| **Year** | |
| 2011 | 0 |
| 2012 | 0 |
| 2013 | 4 |
| **Total** | 4 |
| **Type** | |
| Angle | 0 |
| Rear-end | 1 |
| Sideswipe | 1 |
| Turning | 2 |
| Single Vehicle | 0 |
| Other | 0 |
| **Total** | 4 |
| **Severity** | |
| Property Damage | 3 |
| Personal Injury | 1 |
| Fatality | 0 |
| Unknown | 0 |
| **Total** | 4 |
| **Weather** | |
| Clear | 3 |
| Cloudy | 0 |
| Rain | 1 |
| Snow | 0 |
| Ice | 0 |
| Sleet | 0 |
| Fog | 0 |
| Unknown | 0 |
| **Total** | 4 |
| **Time** | |
| 7:00 AM to 9:00 AM | 2 |
| 9:00 AM to 4:00 PM | 2 |
| 4:00 PM to 6:00 PM | 0 |
| 6:00 PM to 7:00 AM | 0 |
| **Total** | 4 |

**Source: ConnDOT**

## FUTURE CONDITIONS

To determine future traffic demands on the study area roadways, the 2015 Existing traffic volumes were projected to the future-year 2017, when the proposed development is expected to be fully built and occupied. Independent of the proposed project, traffic volumes on the roadways in 2017 are assumed to include all existing traffic, as well as new traffic resulting from general growth in the study area and from other planned development projects. The potential background traffic growth unrelated to the proposed project was considered in the development of the 2017 No Build (without project) peak hour traffic volume networks. The anticipated traffic increases associated with the proposed development were then added to the 2017 No Build volumes to reflect the 2017 Build (with project) traffic conditions. A more detailed description of the development of the 2017 No Build and 2017 Build traffic volume networks follows.

### *Future Roadway Improvements*

Planned roadway improvement projects can affect area travel patterns and future traffic operations. To develop a clearer understanding of future area roadway operations, the Town of West Hartford was consulted. Based on the communications with the Town, there are no planned roadway improvement projects in the vicinity of the study area expected to impact future-year, 2017 traffic volumes.

### *Background Traffic Growth*

Traffic growth is primarily a function of changes in motor vehicle use and expected land development in the region. To predict a rate at which traffic on the roadways in the vicinity of the project site can be expected to grow during the two-year forecast period (2015 to 2017), both planned area developments and historic traffic growth were examined.

<u>Site-Specific Growth</u>

Based on conversations with the West Hartford Town Planner, three planned developments were identified in the vicinity of the project area. The first project that is expected to add new trips to the study area roadways and intersections is the development of a mixed-use building by the West Hartford Housing Authority to be located at 612-620 New Park Avenue. The proposed building is to be comprised of 54 residential housing units and 3,300 square feet of retail space. The second development expected to have an impact on the roadways in the vicinity of the project site is a proposed 4,650 square foot Cumberland Farms convenience store with gas pumps located on New Park Avenue approximately 0.25 miles to the north. The third project is the Charter Oak International Academy expansion. The peak hours associated with the school do not coincide with the expected peak hours of the project. Therefore, specific trips associated with the school expansion were not included in the site specific background growth. Vehicle trips associated with the Cumberland Farms and mixed use development were included in the future 2017 No Build traffic volumes. The specific trip generation information

for the Cumberland Farms and the mixed-use development is included in the traffic projection model in Appendix D of this report.

Historic Traffic Growth

Based on traffic volume data collected by ConnDOT, traffic volumes in the vicinity of the study area appear to be decreasing. A comparison of traffic volume data collected on New Park Avenue in West Hartford in 2009 and 2012 indicates a decrease in traffic volumes. To capture growth associated with general changes in population, a conservative background growth rate of one-half percent (0.5%) per year was used to forecast increases in traffic volumes on the study area roadways and intersections. Traffic volume data utilized for these calculations is provided in Appendix E of this report.

***2017 No Build Traffic Volumes***

The 2015 Existing peak hour traffic volumes were grown by one-half percent per year over the two-year study horizon (2015 to 2017) to establish the 2017 base future traffic volumes. The expected traffic volume increases associated with the proposed developments in the study area were then added to the 2017 base future traffic volumes. The resulting 2017 No Build weekday afternoon and Saturday midday peak hour traffic volume networks are illustrated in Figures 4 and 5, respectively, and are documented in the traffic projection model presented in Appendix D of this report.

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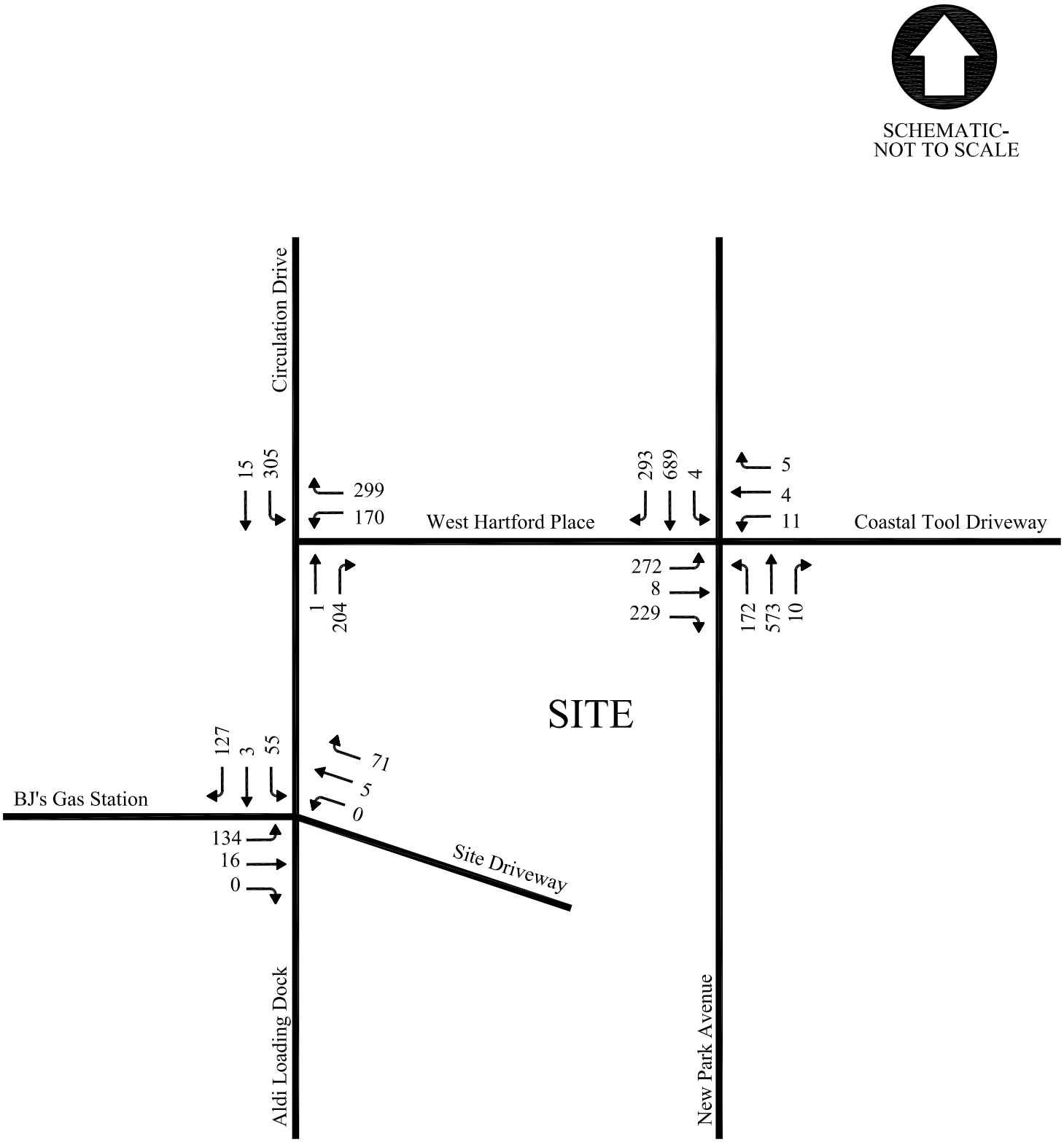


Figure 4
2017 No Build Weekday Afternoon
Peak Hour Traffic Volumes
Chick-Fil-A Restaurant
West Hartford, Connecticut

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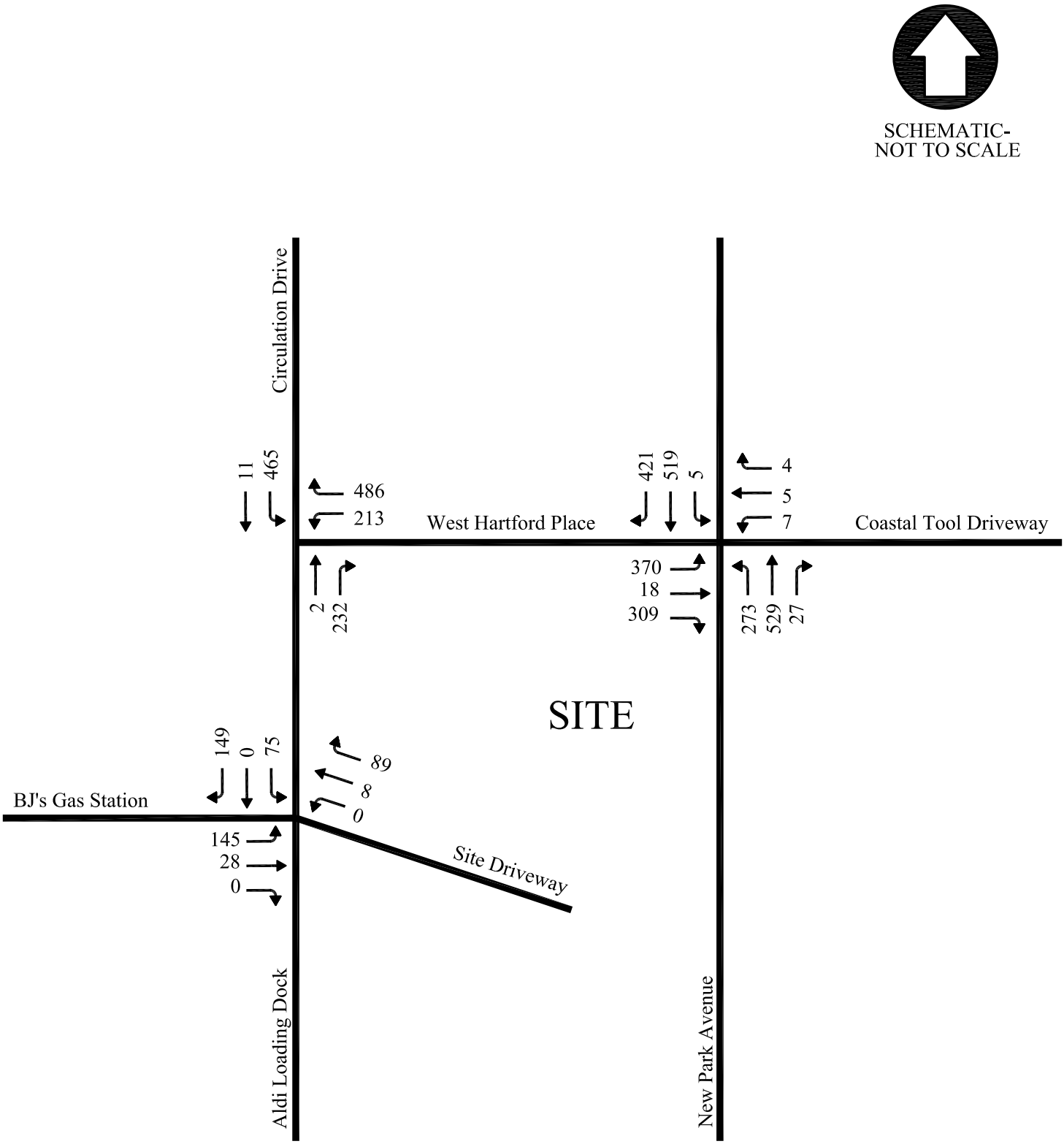


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Figure 5
2017 No Build Saturday Midday
Peak Hour Traffic Volumes
Chick-Fil-A Restaurant
West Hartford, Connecticut

***Site-Generated Traffic***

The Institute of Transportation Engineers (ITE) is a national research organization of transportation professionals. Their publication, *Trip Generation Manual, 9th Edition* provides traffic generation information for various land uses compiled from studies conducted by members nationwide. Vehicle trip estimates for the proposed Chick-fil-A were developed based on data presented in this publication for Land Use Code 943 (Fast-Food Restaurant with Drive-Through Window), based on a trip generation rate per thousand square feet. The number of vehicle trips expected to be generated by the proposed development was determined utilizing the Land Use Code 943 for the proposed, approximately 4,800 square foot restaurant with drive-through.

Not all trips to a fast food restaurant with a drive through window are "new" trips. In fact, a significant portion of the total trips attracted to such retail uses are "internal" and "pass-by" trips. Shared vehicle trips between restaurant and retail land uses are known as "internal trips". According to ITE, the internal capture rate for a trip originating from a retail land use and traveling to a restaurant land use is approximately 29% during the weekday afternoon peak hour. To provide a conservative analysis, an internal capture rate of 10% was used for the weekday afternoon and Saturday midday trips. ITE's *Trip Generation Manual* also specifies that for the land use category "Fast-Food Restaurant with Drive-Through Window," approximately 50 percent of the total weekday afternoon trips attracted to this type of land use are attributed to pass-by trips. However, based on the Connecticut State Traffic Commission Standards, a pass-by rate of 20% was used for the weekday afternoon and Saturday midday trips. The vehicle trips expected to be generated by the proposed development are separated into internal trips, pass-by vehicle trips and new vehicles trips, as shown in Table 2.

**Table 2: Summary of New, Pass-By, and Internal Capture Trips**

| | | Weekday PM Peak Hour | | | Saturday Midday Peak Hour | | |
|---|---|---|---|---|---|---|---|
| **Description** | **Size** | **In** | **Out** | **Total** | **In** | **Out** | **Total** |
| **Proposed Chick-fil-A**(1) | 4,800± s.f. | 82 | 75 | 157 | 145 | 139 | 284 |
| Internal Capture Trips(2) | | 8 | 8 | 16 | 14 | 14 | 28 |
| Pass-By Trips(3) | | 14 | 14 | 28 | 26 | 26 | 52 |
| New Project Trips | | 60 | 53 | 113 | 105 | 99 | 204 |

(1) Based on 4,800± sq. ft. restaurant using LUC (Fast Food with Drive-Through Window)

(2) 10% of the peak hour trips are attributed to "internal capture" trips.

(3) Based on Connecticut State Traffic Commission Standard, 20% of the peak hour trips are attributed to "pass-by" trips.

Since internal capture and pass-by traffic are already on the adjacent roadways, this portion of the total development traffic is reflected in the existing traffic volumes, and does not represent

additional traffic on the roadway network. Therefore, the total proposed development traffic volume is reduced by the internal capture and pass-by volumes to estimate the "new" traffic volume expected to be generated by the proposed development (i.e., that traffic which will be added to the study area roadways and intersections).

As shown in Table 2, the peak hour trip generation of the proposed Chick-fil-A Restaurant is expected to result in an increase of approximately 113 "new" vehicle trips (60 entering vehicles and 53 exiting vehicles) during the weekday afternoon peak hour and an increase of approximately 204 "new" vehicles trips (105 entering vehicles and 99 exiting vehicles) during the Saturday midday peak hour.

***Project Trip Distribution and Assignment***

The additional traffic expected to be generated by the proposed Chick-Fil-A project was distributed onto the study area roadways and intersections based on the existing travel patterns of the adjacent roadways. All new vehicle trips are to access the project site via the existing Aldi driveway through the West Hartford Place Plaza. Figure 6 presents the anticipated directions of arrival and departure for the new trips associated with the proposed Chick-fil-A project during the weekday afternoon and Saturday midday peak hours.

The project-related traffic was then assigned to the surrounding roadway network based on the project trip distribution patterns. The resulting distributed new project trips are shown in Figure 7 and Figure 8 for the weekday afternoon and Saturday midday peak hours, respectively.

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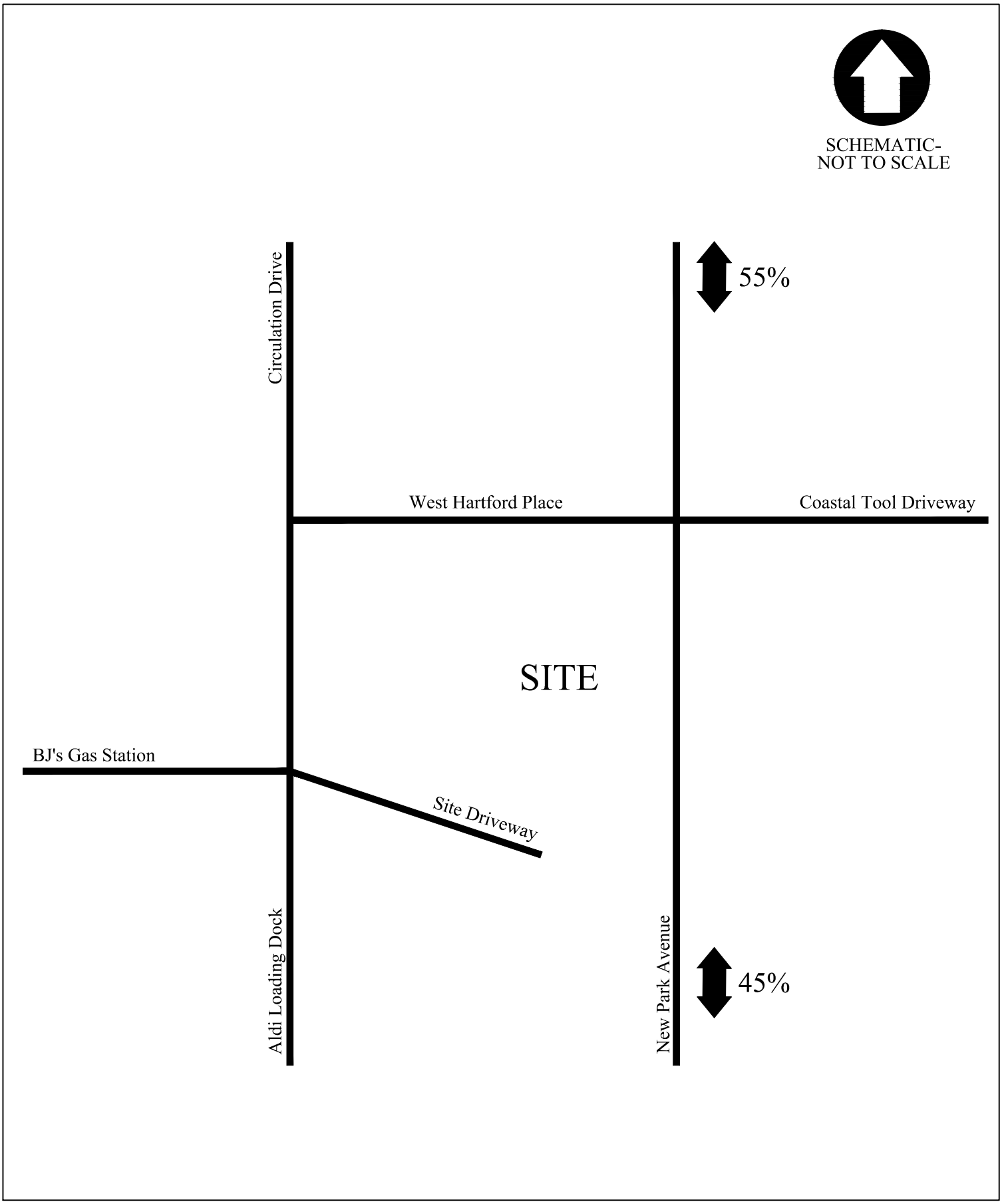


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Figure 6
Directions of Arrival and Departure
Peak Hour Traffic Volumes
Chick-Fil-A Restaurant
West Hartford, Connecticut

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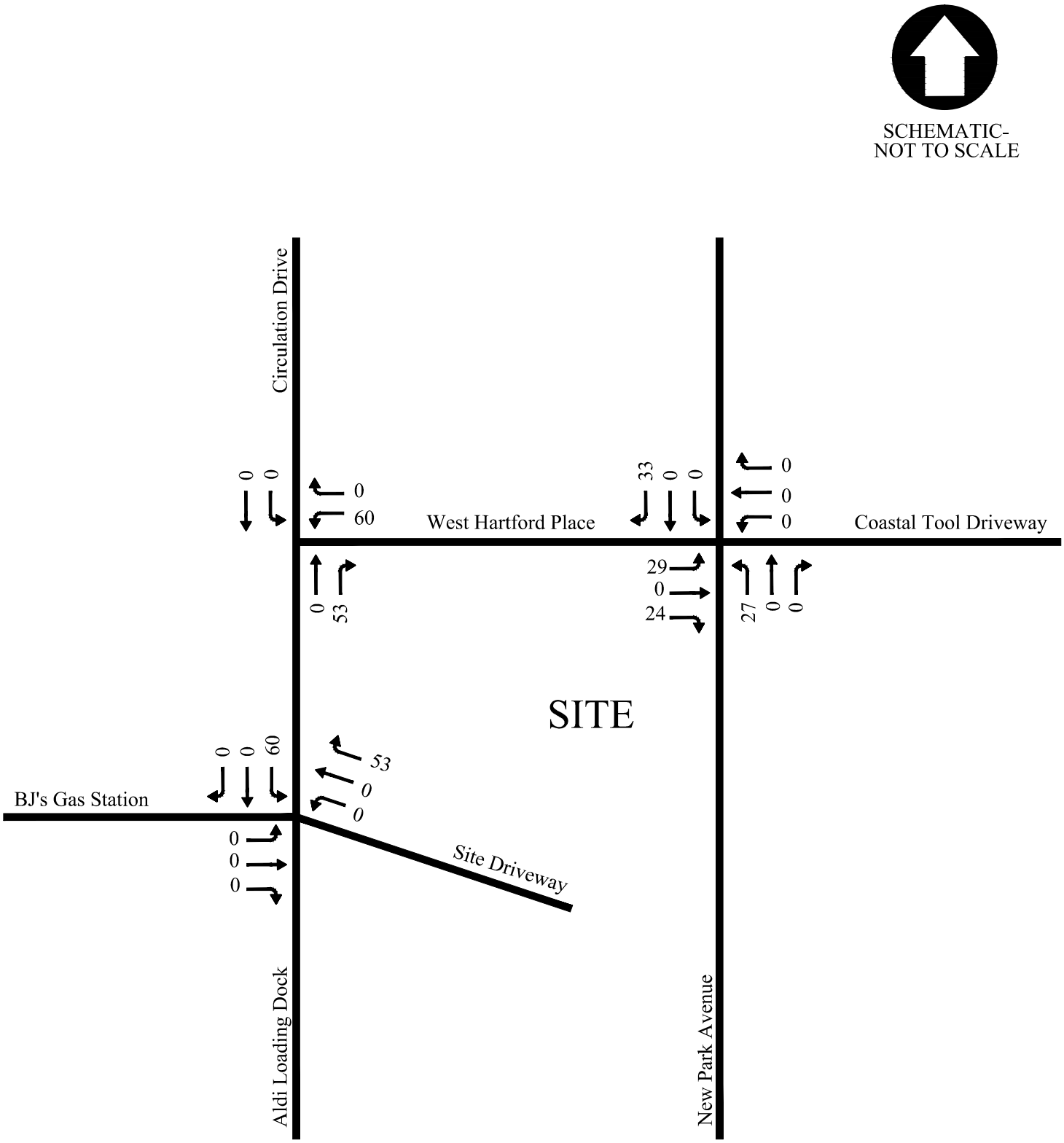


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Figure 7
Weekday Afternoon
New Peak Hour Project Trips
Chick-Fil-A Restaurant
West Hartford, Connecticut

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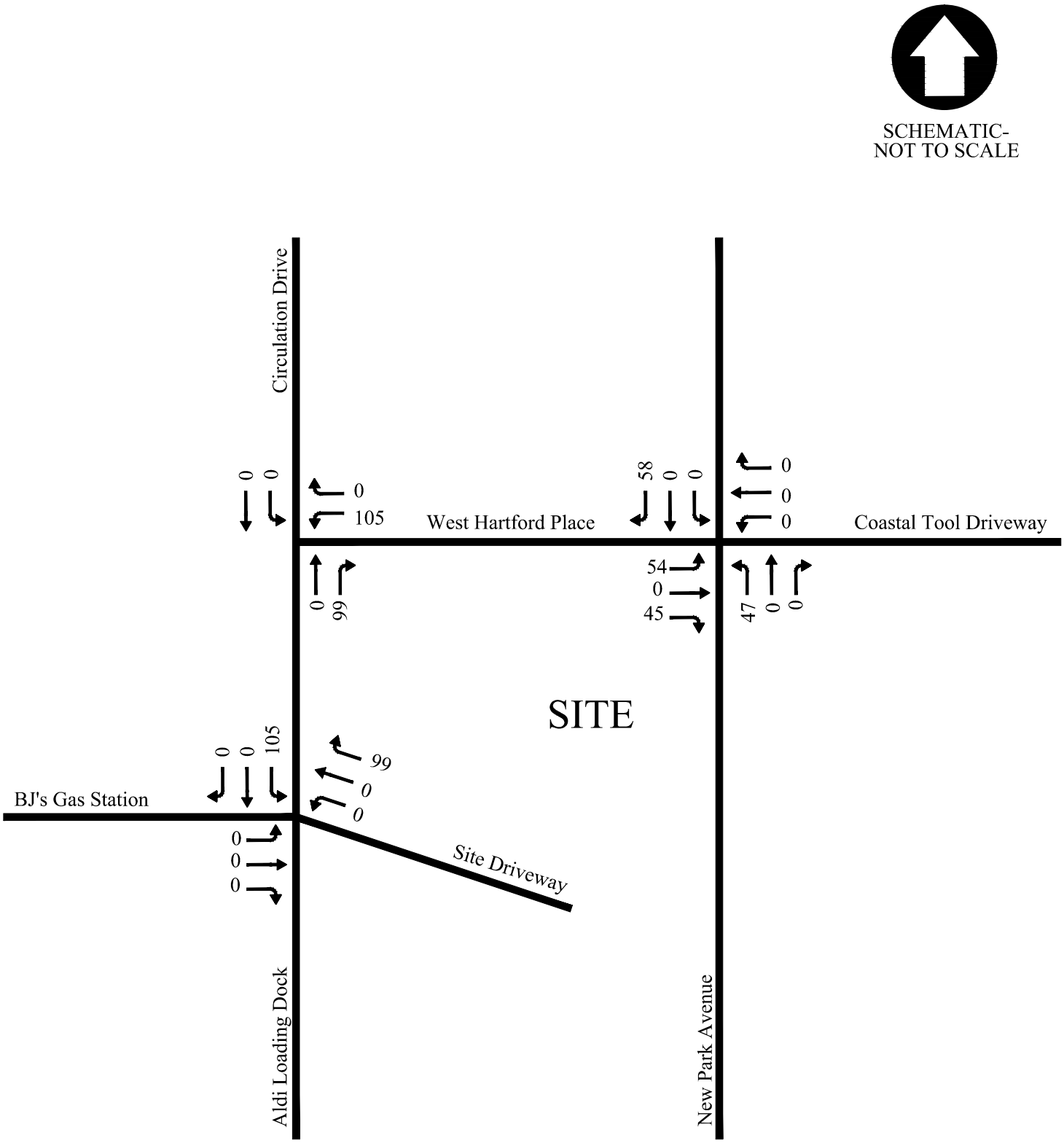


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Figure 8
Saturday Midday
New Peak Hour Project Trips
Chick-Fil-A Restaurant
West Hartford, Connecticut

***2017 Future Build Peak Hour Traffic Volumes***

To establish the 2017 Build peak hour traffic volumes the distributed project trips were then added to the 2017 No Build peak hour traffic volumes to reflect the 2017 Build peak hour traffic volumes. The resulting 2017 Build weekday afternoon and Saturday midday peak hour traffic volumes are presented in Figures 9 and 10, respectively.

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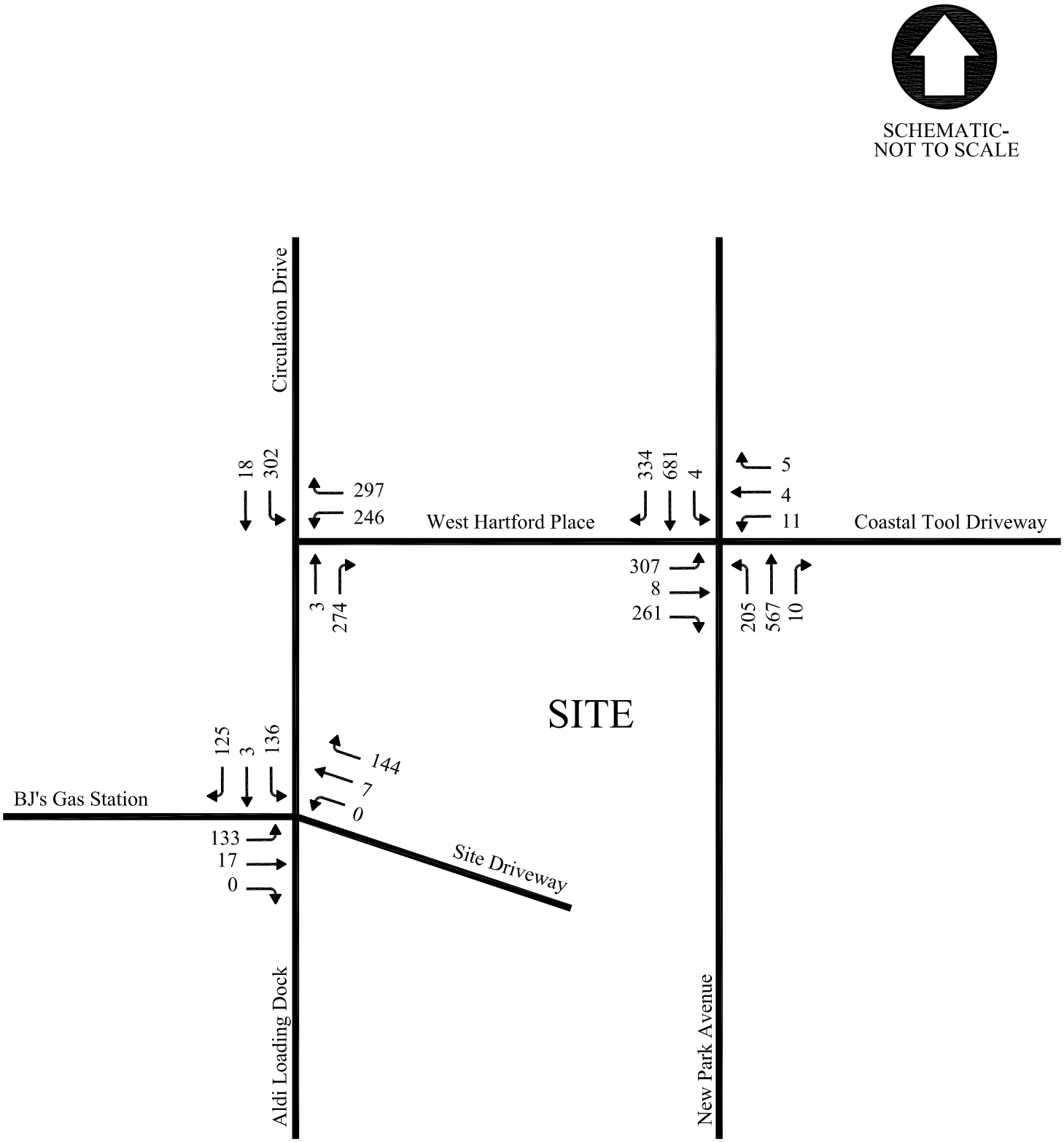


Figure 9
2017 Build Weekday Afternoon
Peak Hour Traffic Volumes
Chick-Fil-A Restaurant
West Hartford, Connecticut

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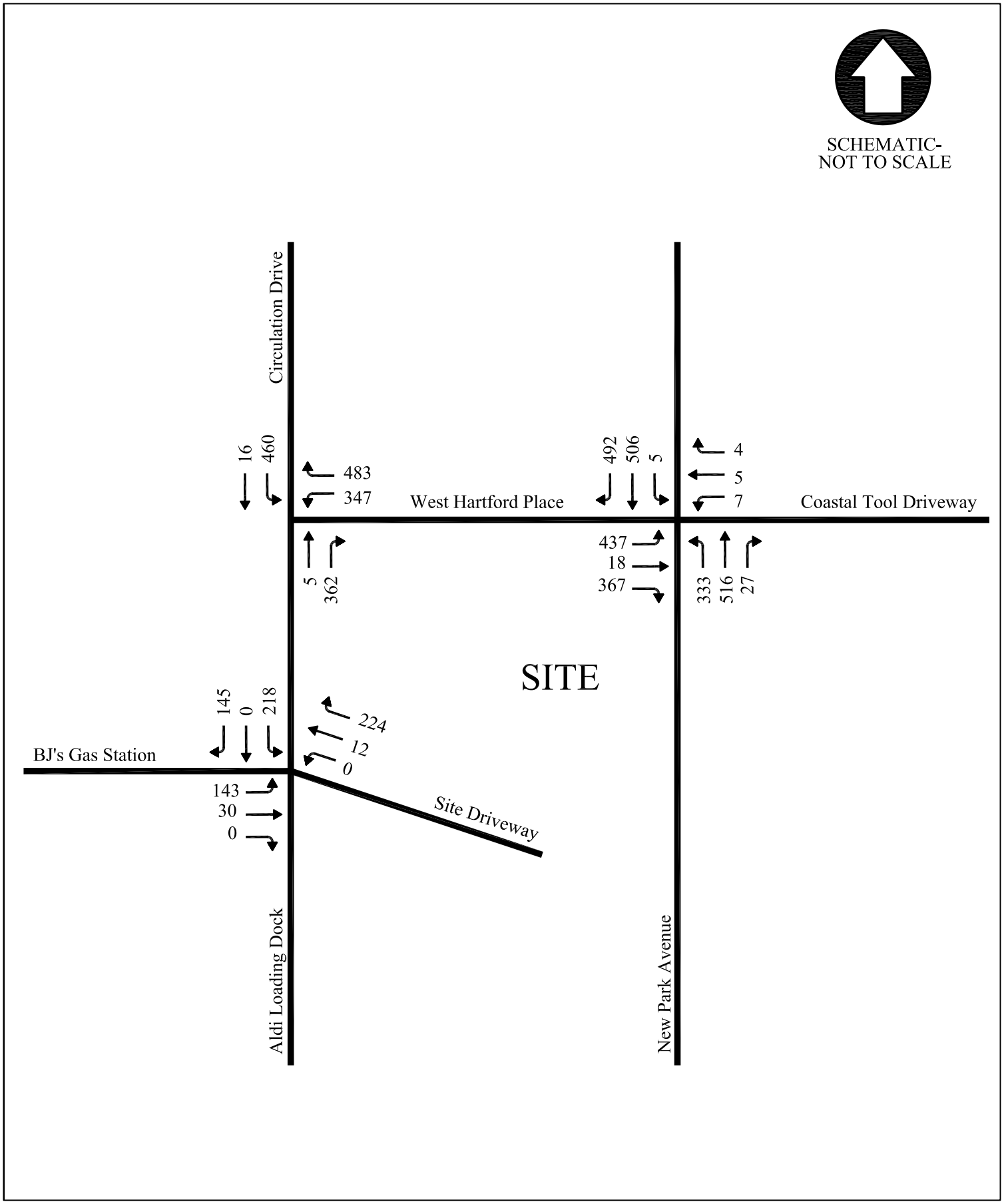


Figure 10
2017 Build Saturday Midday
Peak Hour Traffic Volumes
Chick-FIl-A Restaurant
West Hartford, Connecticut

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## TRAFFIC OPERATIONS ANALYSIS

In previous sections of this report, the quantity of traffic on the study area roadways was described. The following section describes the quality of traffic flow at the study area intersections for the given travel demands. As a basis for this assessment, intersection capacity analyses were conducted using Synchro capacity analysis software for the study area intersections under the 2015 Existing, 2017 No Build and 2017 Build peak hour traffic conditions. This analysis is based on procedures contained in the 2010 Highway Capacity Manual (HCM) which are summarized in Appendix F. A discussion of the evaluation criteria and a summary of the results of the capacity analyses are presented below.

### *Level-of-Service Criteria*

Operating levels of service (LOS) are reported on a scale of A to F with A representing the best conditions (with little or no delay) and F representing the worst operating conditions (long delays). Typically in developed area, LOS D is considered an adequate level-of-service during peak hours.

### *Capacity Analysis Results*

Intersection capacity analyses were conducted for the study area intersections to evaluate the 2015 Existing, 2017 No Build and 2017 Build peak hour traffic conditions. Based on the traffic volume data, the weekday afternoon peak hour of the adjacent street traffic occurs between 4:00 PM and 5:00 PM. The Saturday midday peak hour of the adjacent street traffic is shown to be between 11:45 PM and 12:45 PM.

The capacity analysis results for the 2015 Existing, 2017 No Build and 2017 Build conditions are presented in Appendix G, Appendix H, and Appendix I, respectively. The results of the intersection capacity analyses are presented in Table 3 for the signalized intersection and Table 4 for the unsignalized intersections.

Table 3 reports the overall level-of-service for the signalized intersection of New Park Avenue at West Hartford Place and Coastal Tool Driveway during the weekday afternoon and Saturday midday peak hours. A more detailed level-of-service and queue summary can also be found in Appendix J of this report. The specific capacity analysis results of the signalized intersection are discussed below.

**Table 3: Signalized Intersection Peak Hour Capacity Analysis**

| Location | Peak Hour | 2015 Existing | | | 2017 No Build | | | 2017 Build | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | LOS(1) | Delay(2) | V/C(3) | LOS | Delay | V/C | LOS | Delay | V/C |
| New Park Avenue at West Hartford Place and Coastal Tool Driveway | PM | B | 19.6 | 0.61 | B | 19.7 | 0.61 | C | 20.6 | 0.65 |
| | SAT | C | 20.6 | 0.70 | C | 21.1 | 0.70 | C | 23.4 | 0.88 |

(1) Level-of-Service
(2) Average delay in seconds per vehicle
(3) Volume to capacity ratio

New Park Avenue at West Hartford Place and Coastal Tool Driveway

The capacity analysis indicates that the signalized intersection of New Park Avenue at West Hartford Place and Coastal Tool Driveway currently operates at overall LOS B during the weekday afternoon peak hour and at overall LOS C during the Saturday midday peak hour. Under the 2017 No Build conditions, the signalized intersection is shown to continue to operate at overall LOS B during the weekday afternoon peak hour and at overall LOS C during the Saturday midday peak hour.

With the addition of the proposed project trips, the signalized intersection is expected to operate at overall LOS C during both the weekday afternoon and Saturday midday peak hours. Under the 2017 Build condition, each of the movements at the intersection is shown to operate at LOS E or better and under capacity during both peak hours studied. A more detailed level-of-service and queue summary can be found in Appendix J of this report.

Table 4, below, reports the operations for the unsignalized intersections within the study area. The table displays the overall level-of-service as well as the critical side street movement for each unsignalized intersection, which can also be found in Appendix J. The specific capacity analysis results of the unsignalized intersections are discussed below.

**Table 4: Unsignalized Intersection Peak Hour Capacity Analysis**

| Location | Peak Hour | | 2015 Existing | | | 2017 No Build | | | 2017 Build | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LOS[1] | Delay[2] | V/C[3] | LOS | Delay | V/C | LOS | Delay | V/C |
| Circulation Drive at West Hartford Place | PM | SB | B | 14.8 | 0.52 | B | 14.8 | 0.52 | B | 13.0 | 0.48 |
| | | Overall | B | 13.0 | 0.52 | B | 13.0 | 0.52 | B | 12.1 | 0.48 |
| | SAT | SB | E | 44.1 | 0.91 | E | 44.1 | 0.91 | E | 36.7 | 0.86 |
| | | Overall | D | 33.1 | 0.91 | D | 33.1 | 0.91 | D | 26.7 | 0.86 |
| Circulation Drive at Aldi/Site Driveway | PM | EB | B | 13.0 | 0.27 | B | 13.0 | 0.27 | A | 9.8 | 0.24 |
| | | Overall | A | 7.3 | 0.27 | A | 7.3 | 0.27 | A | 9.4 | 0.27 |
| | SAT | EB | C | 16.3 | 0.40 | C | 16.3 | 0.40 | B | 11.5 | 0.33 |
| | | Overall | A | 8.5 | 0.40 | A | 8.5 | 0.40 | B | 11.9 | 0.48 |

(1) Level-of-Service
(2) Average delay in seconds per vehicle
(3) Volume to capacity ratio

Circulation Drive at West Hartford Place

As shown in Table 4, the intersection of Circulation Drive and West Hartford Place is shown to operate at overall LOS B during the weekday afternoon peak hour and overall LOS D during the Saturday midday peak hour under the 2015 Existing and 2017 No Build conditions. The critical southbound Circulation Drive movement is shown to operate at LOS B during the weekday afternoon peak hour and at LOS E during the Saturday midday peak hour. As part of the project, improvements are proposed at the intersection of Circulation Drive and West Hartford Place and are detailed later in this report. With the proposed project and improvements in place, the intersection is expected to operate at overall LOS B during the weekday afternoon peak hour and overall LOS D during the Saturday midday peak hour. The level-of-service for the critical southbound movement is expected to be maintained from the 2015 Existing condition to the 2017 Build condition. The intersection improvements at this location are expected to reduce the vehicle queue for the westbound approach that extends towards the New Park Avenue traffic signal.

Circulation Drive at Aldi/Site Driveway

The intersection of Circulation Drive at the Aldi/Site Driveway is shown to operate at overall LOS A during the weekday afternoon and Saturday midday peak hours under the 2015 Existing condition. The critical eastbound movement is shown to currently operate at LOS B during the weekday afternoon peak hour and LOS C during the Saturday midday peak hour. As part of the project, improvements are proposed at the intersection of Circulation Drive and the Aldi/Site Driveway and are detailed later in this report. Under the 2017 Build condition, the intersection is shown to operate at overall LOS A during the weekday afternoon peak hour and at overall LOS B during the Saturday midday peak hour. With the proposed project and improvements in place, the level-of-service for the critical eastbound

movement improves to LOS A during the weekday afternoon peak hour and to LOS B in the Saturday midday peak hour due to proposed improvements at the intersection.

***Site Access and Site Circulation***

Under the proposed plan, access to the project site will be provided through the existing Aldi parking lot via a shared unsignalized driveway onto Circulation Drive. The site driveway will continue to provide full access to the site with one lane entering and one lane exiting the site and as part of the project minor improvements (described below) are proposed. The project site has been designed to provide safe and efficient movement throughout the site for patrons and delivery vehicles. The project site driveway is expected to operate with minimal vehicle queues that are not expected to impact site operations or the operations on the adjacent roadways. As part of the proposed project, improvements are to be proposed within the West Hartford Place Plaza to improve overall internal circulation within the plaza.

Under the proposed condition, modifications to the intersection of Circulation Drive and Aldi/Site Driveway are to include restriping of the intersection approaches and placing each of the intersection approaches under stop control to create an all way stop controlled intersection. In order to provide improved operations for Circulation Drive, the southbound approach is to be striped as two lanes, a left turn lane providing access to the Aldi and proposed Chick-fil-A and a right turn lane providing access to BJ's Wholesale Club.

Improvements are also proposed at the intersection of Circulation Drive and West Hartford Place. Under the No Build condition, the westbound queue is shown to nearly extend to the signal at New Park Avenue. In order to help alleviate this queuing, the project proposes to restripe the westbound West Hartford Place approach to Circulation Drive intersection to include a left turn lane under stop control and a separate, channelized right turn land under yield control. Placing the right turn lane under yield control is expected to improve the existing westbound queuing at the intersection and is expected to operate safely due to the very low volume of vehicles traveling northbound through the intersection. With these improvements in place, the queue length for the westbound approach is expected to be accommodated within the existing storage space for both the weekday afternoon and Saturday midday peak hours.

**CONCLUSION**

The proposed Chick-fil-A Restaurant project consists of the construction of a new, approximately 4,800 square-foot (148 seat) restaurant with drive-through. Access to the site will be provided via one unsignalized driveway shared with the existing Aldi grocery store, providing full access with one lane entering and one lane exiting onto Circulation Drive. Access between the site and New Park Avenue is provided via Circulation Drive and internal West Hartford Place.

Based on a review of the Institute of Transportation Engineers' trip generation data, the peak hour trip generation of the proposed Chick-fil-A Restaurant is expected to result in an increase of approximately 113 "new" vehicle trips (60 entering vehicles and 53 exiting vehicles) during the weekday afternoon peak hour and an increase of approximately 204 "new" vehicles trips (105 entering vehicles and 99 exiting vehicles) during the Saturday midday peak hour.

The capacity analysis performed as part of this study indicates that the proposed development will not have a significant impact on the operations of the study area intersections. The overall level-of-service at the signalized study area intersection of New Park Avenue and West Hartford Place is shown to be maintained from the 2017 No Build conditions to the 2017 Build traffic conditions during both the weekday afternoon and Saturday midday peak hours. All movements at the signalized intersection are shown to operate at LOS E or better and under capacity during both peak hours studied with the proposed project in place.

As part of the proposed project, improvements to the internal West Hartford Place intersections are proposed. Improvements include restriping intersection approaches and the modification of traffic control to better manage queuing and delay expected to be experienced within the West Hartford Plaza. With the proposed Chick-fil-A Restaurant and intersection improvements in place, the unsignalized intersection of Circulation Drive and West Hartford Place is expected to operate at overall LOS B during the weekday afternoon peak hour and at overall LOS D during the Saturday midday peak hour. The intersection improvements at this location are expected to reduce vehicle queuing that is present under existing conditions. The intersection of Circulation Drive at the Aldi/Site Driveway is shown to operate at overall LOS B or better during both the weekday afternoon peak and Saturday midday peak hours with the proposed project in place.

Based on the analysis results presented in this report, the proposed Chick-fil-A Restaurant project is expected to have a minimal impact on the operations of the study area roadways.

# APPENDIX A

# Traffic Count Data

# New Park Ave. at West Hartford Place/Driveway

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

ALL VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-1f
Site Code : 00000001
Start Date : 6/26/2015
Page No : 1

## Groups Printed- CARS - HEAVY VEHICLES - BICYCLES

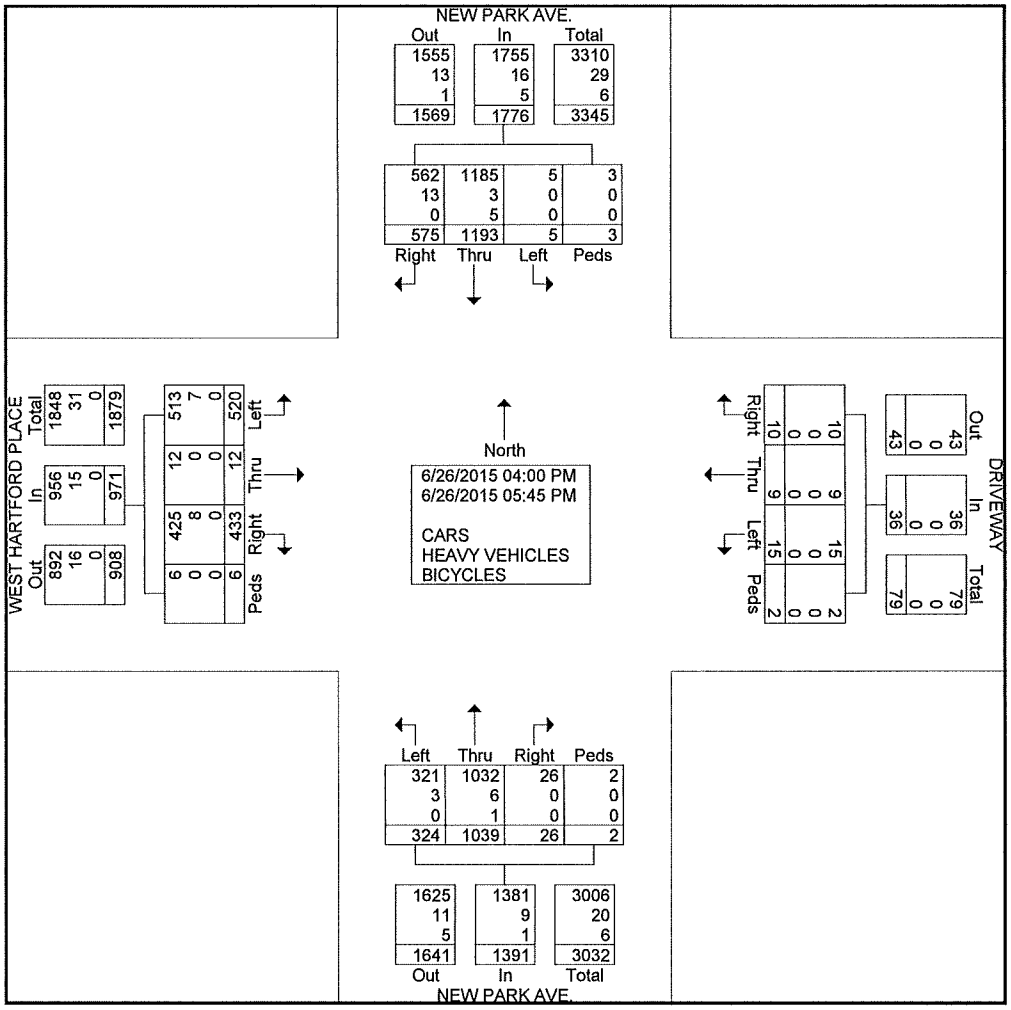
| | NEW PARK AVE. Southbound | | | | | DRIVEWAY Westbound | | | | | NEW PARK AVE. Northbound | | | | | WEST HARTFORD PLACE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 73 | 155 | 2 | 0 | 230 | 2 | 1 | 4 | 0 | 7 | 2 | 119 | 42 | 1 | 164 | 58 | 1 | 69 | 3 | 131 | 532 |
| 04:15 PM | 73 | 155 | 0 | 0 | 228 | 3 | 1 | 2 | 2 | 8 | 4 | 133 | 39 | 0 | 176 | 65 | 1 | 62 | 0 | 128 | 540 |
| 04:30 PM | 63 | 171 | 2 | 0 | 236 | 0 | 1 | 1 | 0 | 2 | 2 | 132 | 53 | 0 | 187 | 44 | 3 | 63 | 0 | 110 | 535 |
| 04:45 PM | 84 | 152 | 0 | 0 | 236 | 0 | 1 | 4 | 0 | 5 | 2 | 133 | 38 | 0 | 173 | 54 | 3 | 69 | 0 | 126 | 540 |
| Total | 293 | 633 | 4 | 0 | 930 | 5 | 4 | 11 | 2 | 22 | 10 | 517 | 172 | 1 | 700 | 221 | 8 | 263 | 3 | 495 | 2147 |
| 05:00 PM | 73 | 143 | 1 | 1 | 218 | 0 | 1 | 0 | 0 | 1 | 2 | 156 | 32 | 1 | 191 | 51 | 1 | 59 | 3 | 114 | 524 |
| 05:15 PM | 69 | 145 | 0 | 0 | 214 | 1 | 1 | 0 | 0 | 2 | 2 | 116 | 45 | 0 | 163 | 48 | 2 | 72 | 0 | 122 | 501 |
| 05:30 PM | 70 | 137 | 0 | 0 | 207 | 2 | 2 | 3 | 0 | 7 | 10 | 132 | 39 | 0 | 181 | 55 | 0 | 62 | 0 | 117 | 512 |
| 05:45 PM | 70 | 135 | 0 | 2 | 207 | 2 | 1 | 1 | 0 | 4 | 2 | 118 | 36 | 0 | 156 | 58 | 1 | 64 | 0 | 123 | 490 |
| Total | 282 | 560 | 1 | 3 | 846 | 5 | 5 | 4 | 0 | 14 | 16 | 522 | 152 | 1 | 691 | 212 | 4 | 257 | 3 | 476 | 2027 |
| Grand Total | 575 | 1193 | 5 | 3 | 1776 | 10 | 9 | 15 | 2 | 36 | 26 | 1039 | 324 | 2 | 1391 | 433 | 12 | 520 | 6 | 971 | 4174 |
| Apprch % | 32.4 | 67.2 | 0.3 | 0.2 | | 27.8 | 25 | 41.7 | 5.6 | | 1.9 | 74.7 | 23.3 | 0.1 | | 44.6 | 1.2 | 53.6 | 0.6 | | |
| Total % | 13.8 | 28.6 | 0.1 | 0.1 | 42.5 | 0.2 | 0.2 | 0.4 | 0 | 0.9 | 0.6 | 24.9 | 7.8 | 0 | 33.3 | 10.4 | 0.3 | 12.5 | 0.1 | 23.3 | |
| CARS | 562 | 1185 | 5 | 3 | 1755 | 10 | 9 | 15 | 2 | 36 | 26 | 1032 | 321 | 2 | 1381 | 425 | 12 | 513 | 6 | 956 | 4128 |
| % CARS | 97.7 | 99.3 | 100 | 100 | 98.8 | 100 | 100 | 100 | 100 | 100 | 100 | 99.3 | 99.1 | 100 | 99.3 | 98.2 | 100 | 98.7 | 100 | 98.5 | 98.9 |
| HEAVY VEHICLES | 13 | 3 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 0 | 9 | 8 | 0 | 7 | 0 | 15 | 40 |
| % HEAVY VEHICLES | 2.3 | 0.3 | 0 | 0 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0.9 | 0 | 0.6 | 1.8 | 0 | 1.3 | 0 | 1.5 | 1 |
| BICYCLES | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 6 |
| % BICYCLES | 0 | 0.4 | 0 | 0 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.1 |

# New Park Ave. at West Hartford Place/Driveway

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

ALL VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-1f
Site Code : 00000001
Start Date : 6/26/2015
Page No : 2



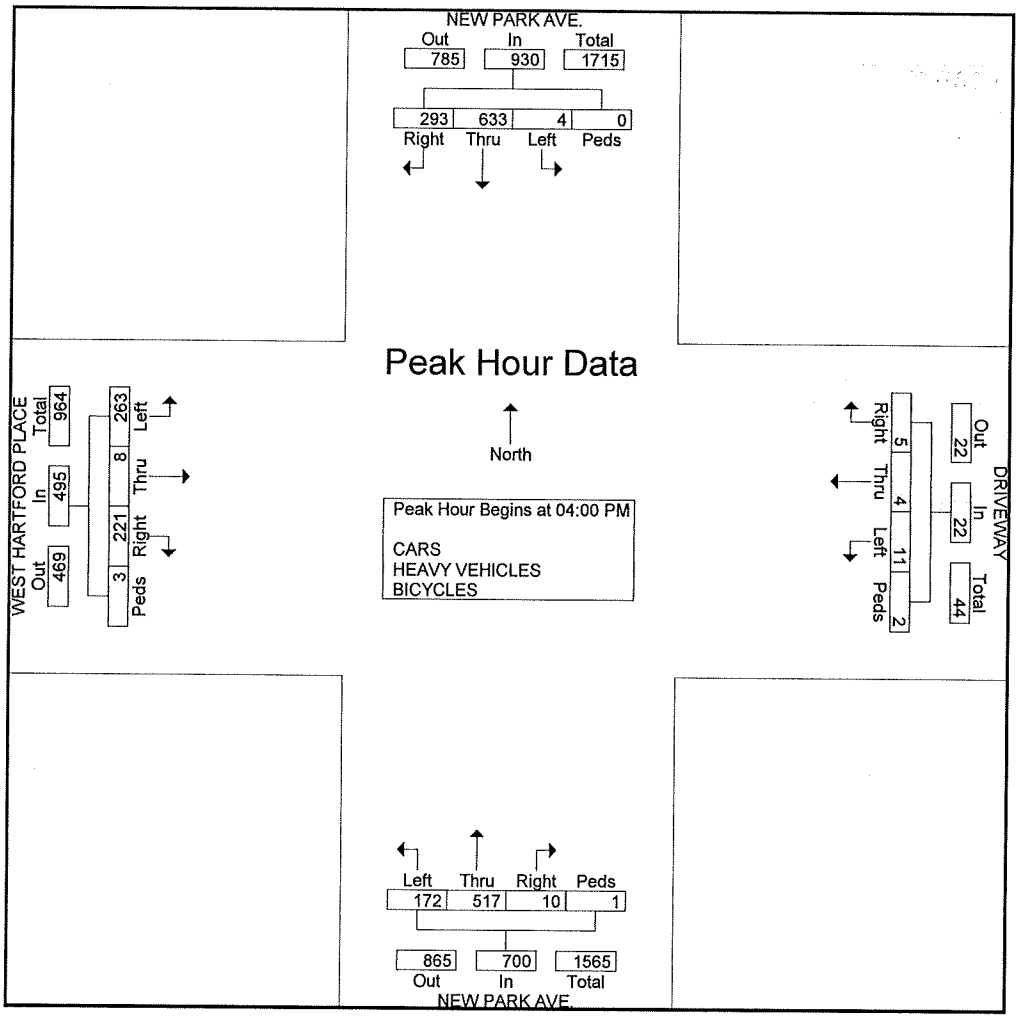
# New Park Ave. at West Hartford Place/Driveway

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

ALL VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-1f
Site Code : 00000001
Start Date : 6/26/2015
Page No : 3

| | NEW PARK AVE. Southbound | | | | | DRIVEWAY Westbound | | | | | NEW PARK AVE. Northbound | | | | | WEST HARTFORD PLACE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:00 PM | 73 | 155 | **2** | 0 | 230 | 2 | **1** | **4** | 0 | 7 | 2 | 119 | 42 | **1** | 164 | 58 | 1 | **69** | **3** | **131** | 532 |
| 04:15 PM | 73 | 155 | 0 | 0 | 228 | **3** | 1 | 2 | **2** | **8** | **4** | **133** | 39 | 0 | 176 | **65** | 1 | 62 | 0 | 128 | **540** |
| 04:30 PM | 63 | **171** | 2 | 0 | **236** | 0 | 1 | 1 | 0 | 2 | 2 | 132 | **53** | 0 | **187** | 44 | **3** | 63 | 0 | 110 | 535 |
| 04:45 PM | **84** | 152 | 0 | 0 | 236 | 0 | 1 | 4 | 0 | 5 | 2 | 133 | 38 | 0 | 173 | 54 | 3 | 69 | 0 | 126 | 540 |
| Total Volume | 293 | 633 | 4 | 0 | 930 | 5 | 4 | 11 | 2 | 22 | 10 | 517 | 172 | 1 | 700 | 221 | 8 | 263 | 3 | 495 | 2147 |
| % App. Total | 31.5 | 68.1 | 0.4 | 0 | | 22.7 | 18.2 | 50 | 9.1 | | 1.4 | 73.9 | 24.6 | 0.1 | | 44.6 | 1.6 | 53.1 | 0.6 | | |
| PHF | .872 | .925 | .500 | .000 | .985 | .417 | 1.000 | | | | | | | | | | | | | | |

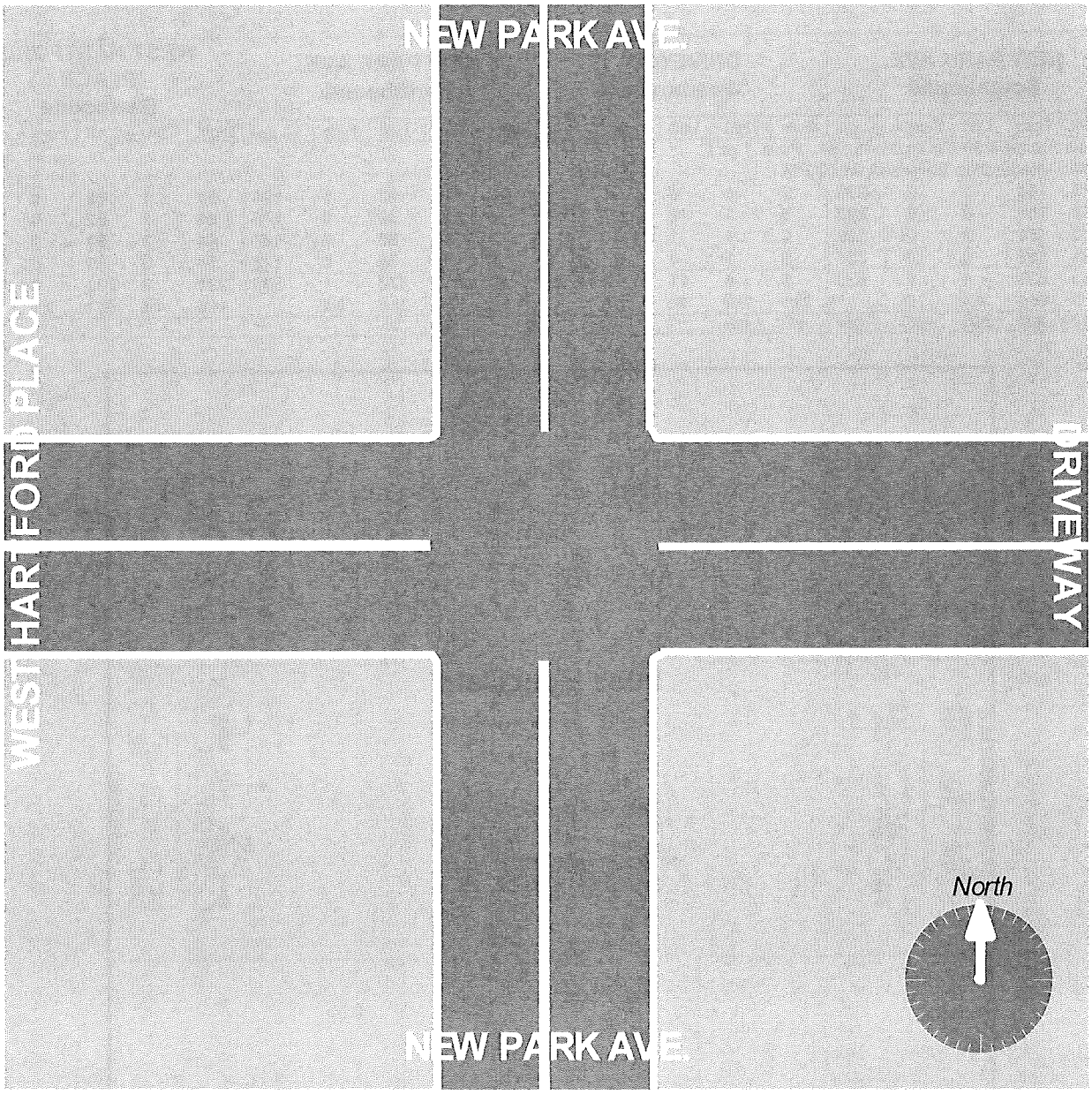


# New Park Ave. at West Hartford Place/Driveway

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

ALL VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-1f
Site Code : 00000001
Start Date : 6/26/2015
Page No : 4



# New Park Ave. at West Hartford Place/Driveway

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

CARS
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-1f
Site Code : 00000001
Start Date : 6/26/2015
Page No : 5

## Groups Printed- CARS

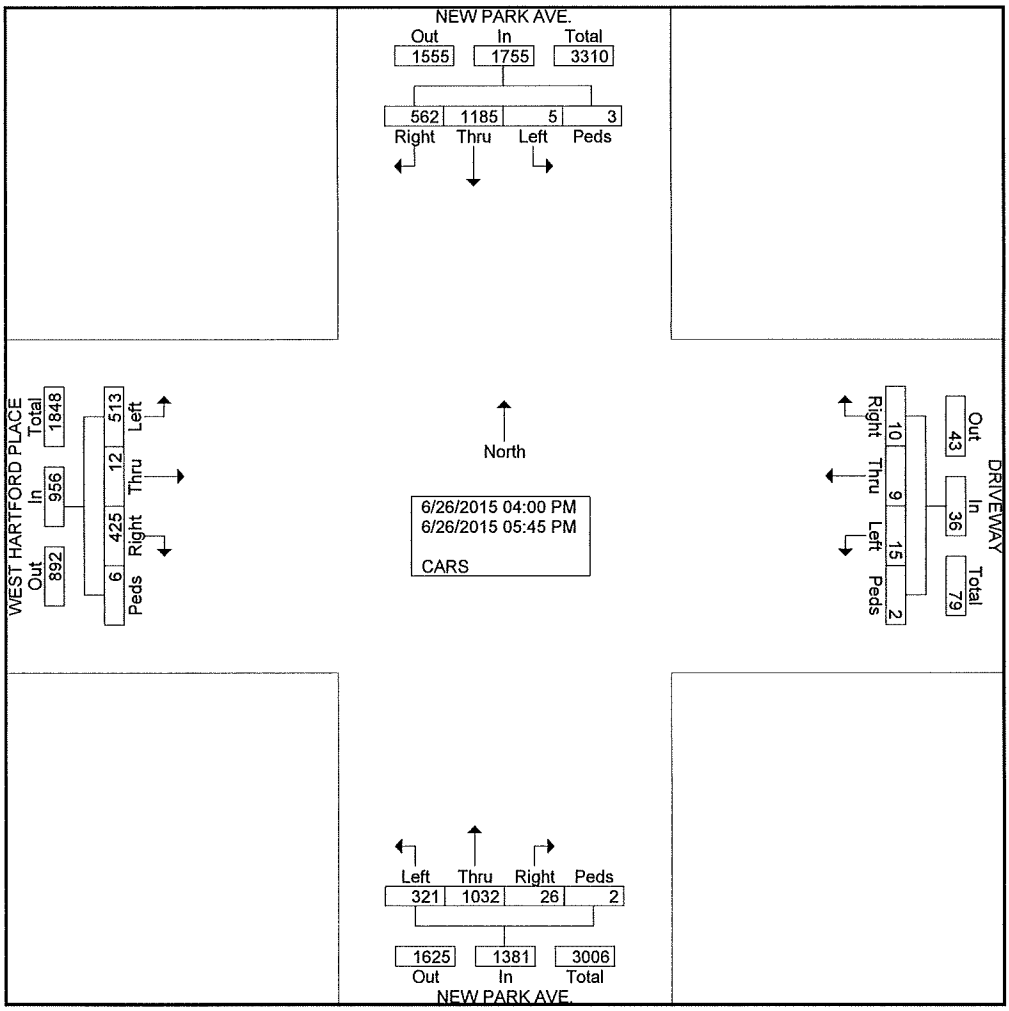
| | NEW PARK AVE. Southbound | | | | | DRIVEWAY Westbound | | | | | NEW PARK AVE. Northbound | | | | | WEST HARTFORD PLACE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 72 | 154 | 2 | 0 | 228 | 2 | 1 | 4 | 0 | 7 | 2 | 119 | 42 | 1 | 164 | 57 | 1 | 69 | 3 | 130 | 529 |
| 04:15 PM | 71 | 152 | 0 | 0 | 223 | 3 | 1 | 2 | 2 | 8 | 4 | 132 | 38 | 0 | 174 | 63 | 1 | 61 | 0 | 125 | 530 |
| 04:30 PM | 62 | 170 | 2 | 0 | 234 | 0 | 1 | 1 | 0 | 2 | 2 | 129 | 53 | 0 | 184 | 42 | 3 | 61 | 0 | 106 | 526 |
| 04:45 PM | 81 | 152 | 0 | 0 | 233 | 0 | 1 | 4 | 0 | 5 | 2 | 131 | 37 | 0 | 170 | 54 | 3 | 68 | 0 | 125 | 533 |
| Total | 286 | 628 | 4 | 0 | 918 | 5 | 4 | 11 | 2 | 22 | 10 | 511 | 170 | 1 | 692 | 216 | 8 | 259 | 3 | 486 | 2118 |
| 05:00 PM | 71 | 142 | 1 | 1 | 215 | 0 | 1 | 0 | 0 | 1 | 2 | 155 | 32 | 1 | 190 | 50 | 1 | 58 | 3 | 112 | 518 |
| 05:15 PM | 68 | 145 | 0 | 0 | 213 | 1 | 1 | 0 | 0 | 2 | 2 | 116 | 44 | 0 | 162 | 48 | 2 | 71 | 0 | 121 | 498 |
| 05:30 PM | 69 | 137 | 0 | 0 | 206 | 2 | 2 | 3 | 0 | 7 | 10 | 132 | 39 | 0 | 181 | 54 | 0 | 62 | 0 | 116 | 510 |
| 05:45 PM | 68 | 133 | 0 | 2 | 203 | 2 | 1 | 1 | 0 | 4 | 2 | 118 | 36 | 0 | 156 | 57 | 1 | 63 | 0 | 121 | 484 |
| Total | 276 | 557 | 1 | 3 | 837 | 5 | 5 | 4 | 0 | 14 | 16 | 521 | 151 | 1 | 689 | 209 | 4 | 254 | 3 | 470 | 2010 |
| Grand Total | 562 | 1185 | 5 | 3 | 1755 | 10 | 9 | 15 | 2 | 36 | 26 | 1032 | 321 | 2 | 1381 | 425 | 12 | 513 | 6 | 956 | 4128 |
| Apprch % | 32 | 67.5 | 0.3 | 0.2 | | 27.8 | 25 | 41.7 | 5.6 | | 1.9 | 74.7 | 23.2 | 0.1 | | 44.5 | 1.3 | 53.7 | 0.6 | | |
| Total % | 13.6 | 28.7 | 0.1 | 0.1 | 42.5 | 0.2 | 0.2 | 0.4 | 0 | 0.9 | 0.6 | 25 | 7.8 | 0 | 33.5 | 10.3 | 0.3 | 12.4 | 0.1 | 23.2 | |

# New Park Ave. at West Hartford Place/Driveway

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

CARS
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-1f
Site Code : 00000001
Start Date : 6/26/2015
Page No : 6



# New Park Ave. at West Hartford Place/Driveway

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

HEAVY VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-1f
Site Code : 00000001
Start Date : 6/26/2015
Page No : 7

## Groups Printed- HEAVY VEHICLES

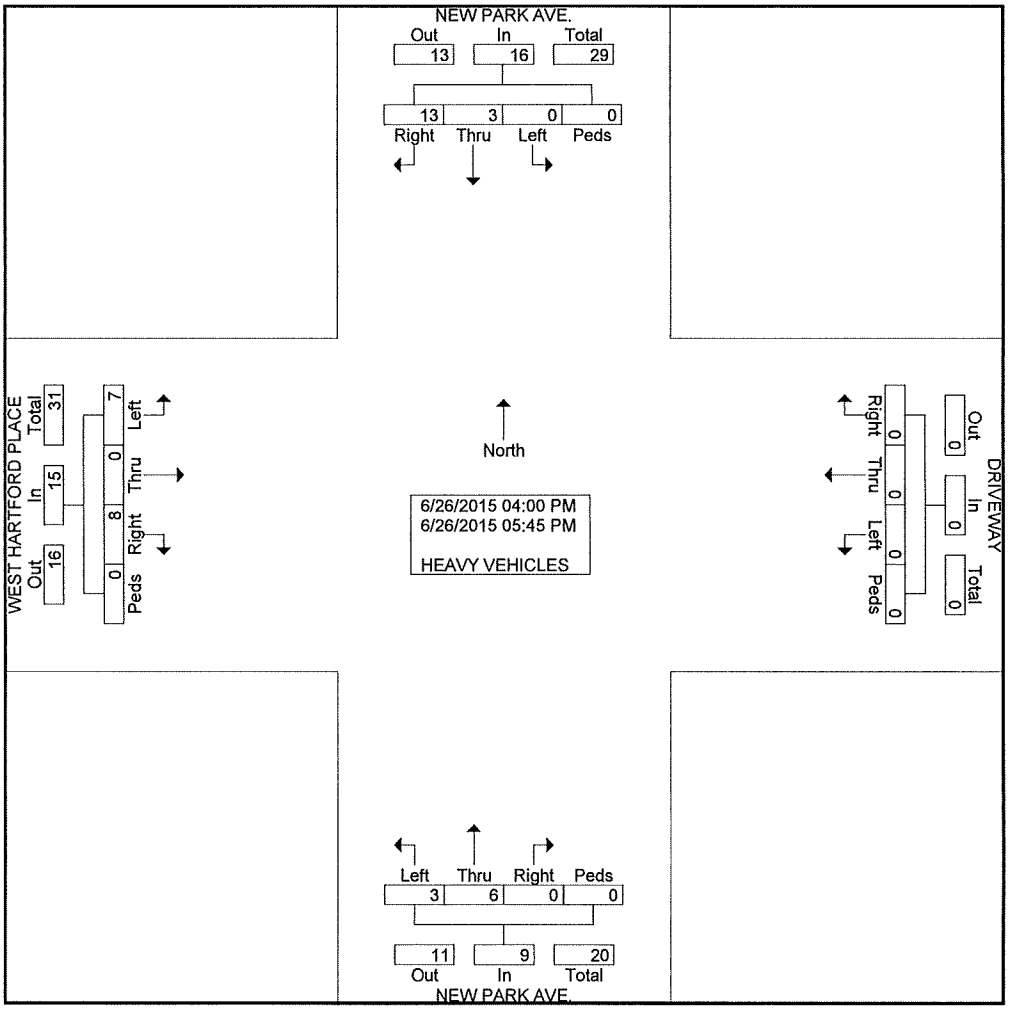
| | NEW PARK AVE. Southbound | | | | | DRIVEWAY Westbound | | | | | NEW PARK AVE. Northbound | | | | | WEST HARTFORD PLACE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| 04:15 PM | 2 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 2 | 0 | 1 | 0 | 3 | 9 |
| 04:30 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 2 | 0 | 2 | 0 | 4 | 8 |
| 04:45 PM | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 6 |
| Total | 7 | 2 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 0 | 7 | 5 | 0 | 4 | 0 | 9 | 25 |
| 05:00 PM | 2 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 2 | 6 |
| 05:15 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 3 |
| 05:30 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| 05:45 PM | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 4 |
| Total | 6 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 3 | 0 | 3 | 0 | 6 | 15 |
| Grand Total | 13 | 3 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 0 | 9 | 8 | 0 | 7 | 0 | 15 | 40 |
| Apprch % | 81.2 | 18.8 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 66.7 | 33.3 | 0 | | 53.3 | 0 | 46.7 | 0 | | |
| Total % | 32.5 | 7.5 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 7.5 | 0 | 22.5 | 20 | 0 | 17.5 | 0 | 37.5 | |

# New Park Ave. at West Hartford Place/Driveway

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

HEAVY VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-1f
Site Code : 00000001
Start Date : 6/26/2015
Page No : 8



# New Park Ave. at West Hartford Place/Driveway

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

BICYCLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-1f
Site Code : 00000001
Start Date : 6/26/2015
Page No : 9

**Groups Printed- BICYCLES**

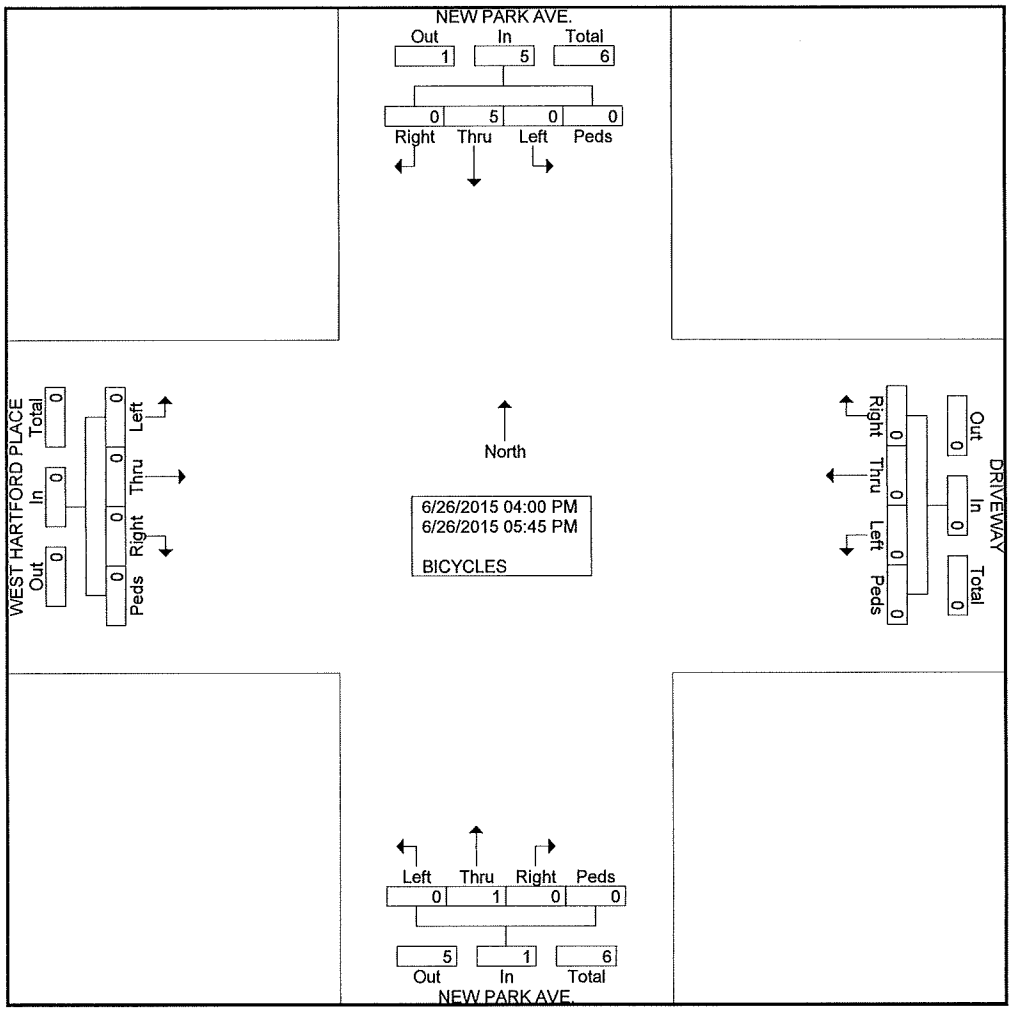
| | NEW PARK AVE. Southbound | | | | | DRIVEWAY Westbound | | | | | NEW PARK AVE. Northbound | | | | | WEST HARTFORD PLACE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Grand Total | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 6 |
| Apprch % | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 83.3 | 0 | 0 | 83.3 | 0 | 0 | 0 | 0 | 0 | 0 | 16.7 | 0 | 0 | 16.7 | 0 | 0 | 0 | 0 | 0 | |

# New Park Ave. at West Hartford Place/Driveway

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

BICYCLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-1f
Site Code : 00000001
Start Date : 6/26/2015
Page No : 10



# Circulation Drive at West Hartford Place

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

ALL VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-2F
Site Code : 00000002
Start Date : 6/26/2015
Page No : 1

**Groups Printed- CARS - HEAVY VEHICLES - BICYCLES**

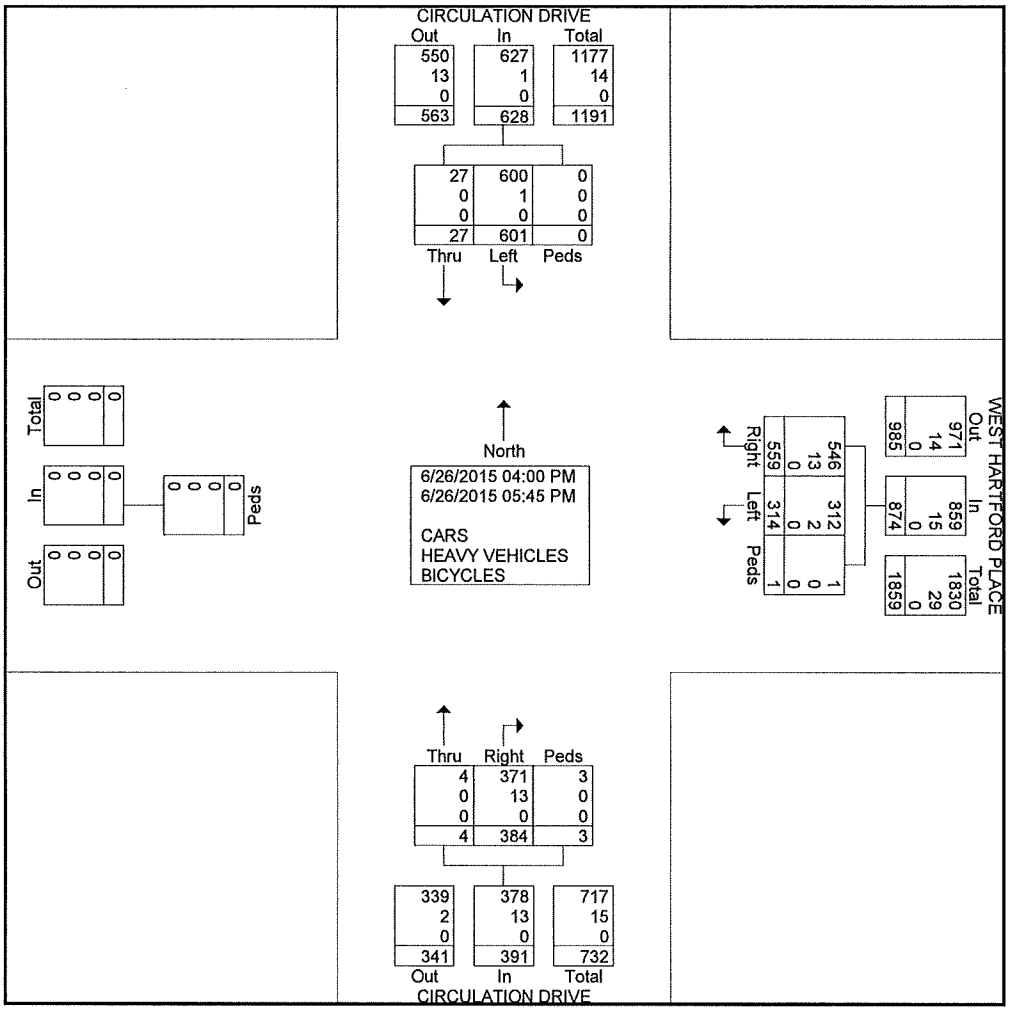
| | CIRCULATION DRIVE Southbound | | | | WEST HARTFORD PLACE Westbound | | | | CIRCULATION DRIVE Northbound | | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds | App. Total | Right | Left | Peds | App. Total | Right | Thru | Peds | App. Total | Peds | App. Total | Int. Total |
| 04:00 PM | 0 | 80 | 0 | 80 | 73 | 47 | 0 | 120 | 51 | 0 | 1 | 52 | 0 | 0 | 252 |
| 04:15 PM | 5 | 75 | 0 | 80 | 59 | 44 | 0 | 103 | 47 | 1 | 1 | 49 | 0 | 0 | 232 |
| 04:30 PM | 7 | 75 | 0 | 82 | 77 | 23 | 0 | 100 | 49 | 0 | 1 | 50 | 0 | 0 | 232 |
| 04:45 PM | 3 | 75 | 0 | 78 | 63 | 41 | 0 | 104 | 46 | 0 | 0 | 46 | 0 | 0 | 228 |
| Total | 15 | 305 | 0 | 320 | 272 | 155 | 0 | 427 | 193 | 1 | 3 | 197 | 0 | 0 | 944 |
| 05:00 PM | 3 | 68 | 0 | 71 | 68 | 42 | 0 | 110 | 52 | 0 | 0 | 52 | 0 | 0 | 233 |
| 05:15 PM | 4 | 79 | 0 | 83 | 75 | 46 | 1 | 122 | 43 | 1 | 0 | 44 | 0 | 0 | 249 |
| 05:30 PM | 2 | 72 | 0 | 74 | 74 | 31 | 0 | 105 | 45 | 0 | 0 | 45 | 0 | 0 | 224 |
| 05:45 PM | 3 | 77 | 0 | 80 | 70 | 40 | 0 | 110 | 51 | 2 | 0 | 53 | 0 | 0 | 243 |
| Total | 12 | 296 | 0 | 308 | 287 | 159 | 1 | 447 | 191 | 3 | 0 | 194 | 0 | 0 | 949 |
| Grand Total | 27 | 601 | 0 | 628 | 559 | 314 | 1 | 874 | 384 | 4 | 3 | 391 | 0 | 0 | 1893 |
| Apprch % | 4.3 | 95.7 | 0 | | 64 | 35.9 | 0.1 | | 98.2 | 1 | 0.8 | | 0 | | |
| Total % | 1.4 | 31.7 | 0 | 33.2 | 29.5 | 16.6 | 0.1 | 46.2 | 20.3 | 0.2 | 0.2 | 20.7 | 0 | 0 | |
| CARS | 27 | 600 | 0 | 627 | 546 | 312 | 1 | 859 | 371 | 4 | 3 | 378 | 0 | 0 | 1864 |
| % CARS | 100 | 99.8 | 0 | 99.8 | 97.7 | 99.4 | 100 | 98.3 | 96.6 | 100 | 100 | 96.7 | 0 | 0 | 98.5 |
| HEAVY VEHICLES | 0 | 1 | 0 | 1 | 13 | 2 | 0 | 15 | 13 | 0 | 0 | 13 | 0 | 0 | 29 |
| % HEAVY VEHICLES | 0 | 0.2 | 0 | 0.2 | 2.3 | 0.6 | 0 | 1.7 | 3.4 | 0 | 0 | 3.3 | 0 | 0 | 1.5 |
| BICYCLES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % BICYCLES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Circulation Drive at West Hartford Place

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

ALL VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-2F
Site Code : 00000002
Start Date : 6/26/2015
Page No : 2



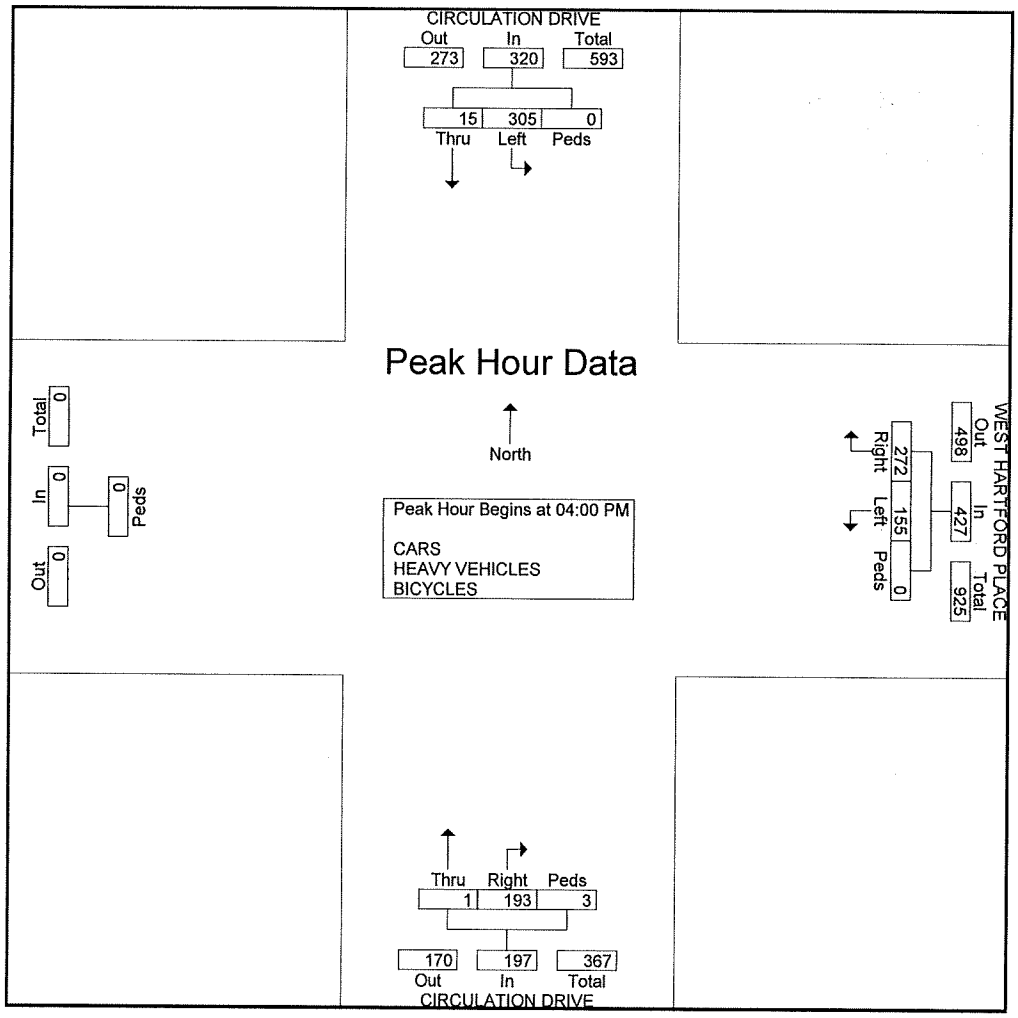
# Circulation Drive at West Hartford Place

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

ALL VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-2F
Site Code : 00000002
Start Date : 6/26/2015
Page No : 3

| | CIRCULATION DRIVE Southbound | | | | WEST HARTFORD PLACE Westbound | | | | CIRCULATION DRIVE Northbound | | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds | App. Total | Right | Left | Peds | App. Total | Right | Thru | Peds | App. Total | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | **80** | 0 | 80 | 73 | **47** | 0 | **120** | **51** | 0 | **1** | **52** | 0 | 0 | **252** |
| 04:15 PM | 5 | 75 | 0 | 80 | 59 | 44 | 0 | 103 | 47 | **1** | 1 | 49 | 0 | 0 | 232 |
| 04:30 PM | **7** | 75 | 0 | **82** | **77** | 23 | 0 | 100 | 49 | 0 | 1 | 50 | 0 | 0 | 232 |
| 04:45 PM | 3 | 75 | 0 | 78 | 63 | 41 | 0 | 104 | 46 | 0 | 0 | 46 | 0 | 0 | 228 |
| Total Volume | 15 | 305 | 0 | 320 | 272 | 155 | 0 | 427 | 193 | 1 | 3 | 197 | 0 | 0 | 944 |
| % App. Total | 4.7 | 95.3 | 0 | | 63.7 | 36.3 | 0 | | 98 | 0.5 | 1.5 | | 0 | | |
| PHF | .536 | .953 | .000 | .976 | .883 | .824 | .000 | .890 | .946 | .250 | .750 | .947 | .000 | .000 | .937 |

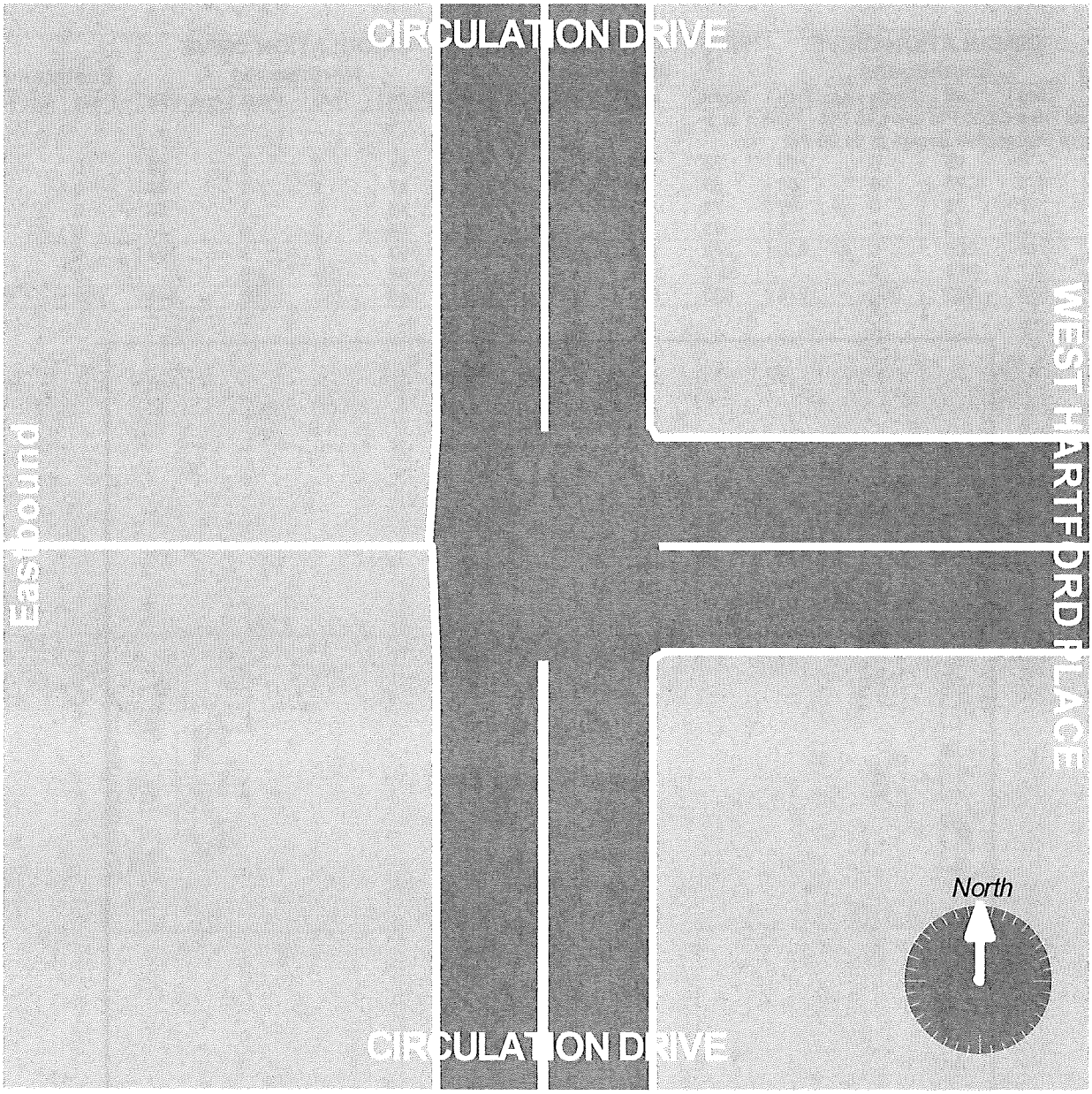


# Circulation Drive at West Hartford Place

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

ALL VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-2F
Site Code : 00000002
Start Date : 6/26/2015
Page No : 4



# Circulation Drive at West Hartford Place

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

CARS
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-2F
Site Code : 00000002
Start Date : 6/26/2015
Page No : 5

## Groups Printed- CARS

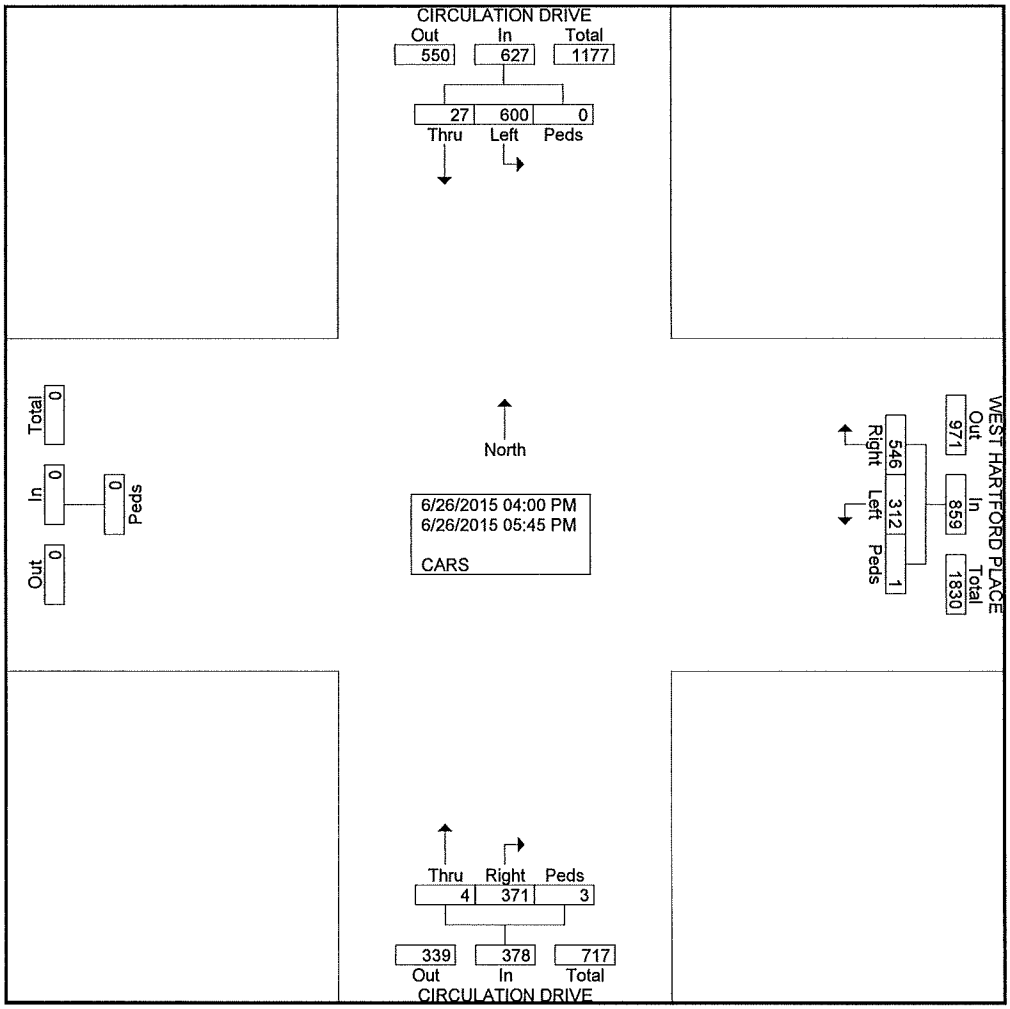
| | CIRCULATION DRIVE Southbound | | | | WEST HARTFORD PLACE Westbound | | | | CIRCULATION DRIVE Northbound | | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds | App. Total | Right | Left | Peds | App. Total | Right | Thru | Peds | App. Total | Peds | App. Total | Int. Total |
| 04:00 PM | 0 | 80 | 0 | 80 | 72 | 47 | 0 | 119 | 50 | 0 | 1 | 51 | 0 | 0 | 250 |
| 04:15 PM | 5 | 74 | 0 | 79 | 56 | 44 | 0 | 100 | 45 | 1 | 1 | 47 | 0 | 0 | 226 |
| 04:30 PM | 7 | 75 | 0 | 82 | 76 | 23 | 0 | 99 | 46 | 0 | 1 | 47 | 0 | 0 | 228 |
| 04:45 PM | 3 | 75 | 0 | 78 | 61 | 40 | 0 | 101 | 45 | 0 | 0 | 45 | 0 | 0 | 224 |
| Total | 15 | 304 | 0 | 319 | 265 | 154 | 0 | 419 | 186 | 1 | 3 | 190 | 0 | 0 | 928 |
| 05:00 PM | 3 | 68 | 0 | 71 | 67 | 41 | 0 | 108 | 51 | 0 | 0 | 51 | 0 | 0 | 230 |
| 05:15 PM | 4 | 79 | 0 | 83 | 73 | 46 | 1 | 120 | 41 | 1 | 0 | 42 | 0 | 0 | 245 |
| 05:30 PM | 2 | 72 | 0 | 74 | 73 | 31 | 0 | 104 | 44 | 0 | 0 | 44 | 0 | 0 | 222 |
| 05:45 PM | 3 | 77 | 0 | 80 | 68 | 40 | 0 | 108 | 49 | 2 | 0 | 51 | 0 | 0 | 239 |
| Total | 12 | 296 | 0 | 308 | 281 | 158 | 1 | 440 | 185 | 3 | 0 | 188 | 0 | 0 | 936 |
| Grand Total | 27 | 600 | 0 | 627 | 546 | 312 | 1 | 859 | 371 | 4 | 3 | 378 | 0 | 0 | 1864 |
| Apprch % | 4.3 | 95.7 | 0 | | 63.6 | 36.3 | 0.1 | | 98.1 | 1.1 | 0.8 | | 0 | | |
| Total % | 1.4 | 32.2 | 0 | 33.6 | 29.3 | 16.7 | 0.1 | 46.1 | 19.9 | 0.2 | 0.2 | 20.3 | 0 | 0 | |

# Circulation Drive at West Hartford Place

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

CARS
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-2F
Site Code : 00000002
Start Date : 6/26/2015
Page No : 6



# Circulation Drive at West Hartford Place

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

HEAVY VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-2F
Site Code : 00000002
Start Date : 6/26/2015
Page No : 7

**Groups Printed- HEAVY VEHICLES**

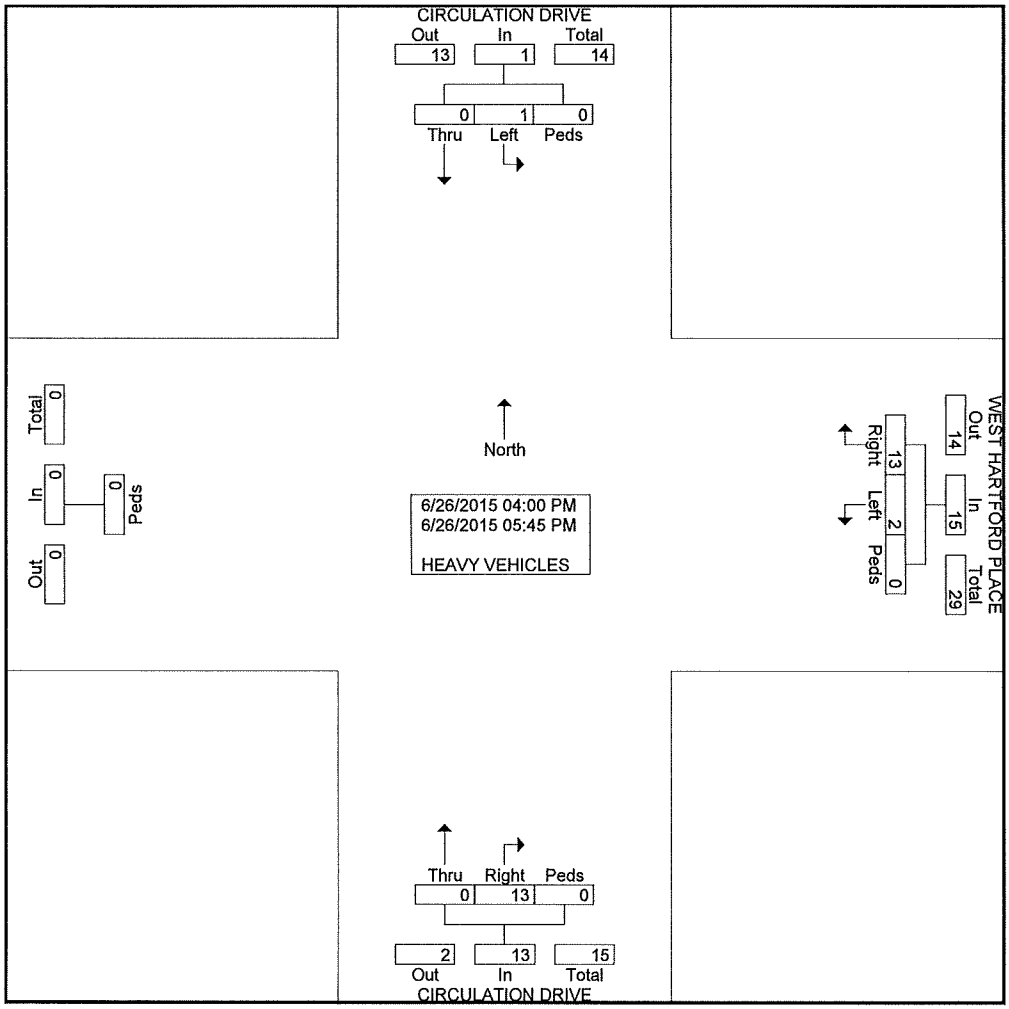
| | CIRCULATION DRIVE Southbound | | | | WEST HARTFORD PLACE Westbound | | | | CIRCULATION DRIVE Northbound | | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds | App. Total | Right | Left | Peds | App. Total | Right | Thru | Peds | App. Total | Peds | App. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| 04:15 PM | 0 | 1 | 0 | 1 | 3 | 0 | 0 | 3 | 2 | 0 | 0 | 2 | 0 | 0 | 6 |
| 04:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 0 | 0 | 3 | 0 | 0 | 4 |
| 04:45 PM | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 4 |
| Total | 0 | 1 | 0 | 1 | 7 | 1 | 0 | 8 | 7 | 0 | 0 | 7 | 0 | 0 | 16 |
| 05:00 PM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 3 |
| 05:15 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 4 |
| 05:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| 05:45 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 4 |
| Total | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 7 | 6 | 0 | 0 | 6 | 0 | 0 | 13 |
| Grand Total | 0 | 1 | 0 | 1 | 13 | 2 | 0 | 15 | 13 | 0 | 0 | 13 | 0 | 0 | 29 |
| Apprch % | 0 | 100 | 0 | | 86.7 | 13.3 | 0 | | 100 | 0 | 0 | | 0 | | |
| Total % | 0 | 3.4 | 0 | 3.4 | 44.8 | 6.9 | 0 | 51.7 | 44.8 | 0 | 0 | 44.8 | 0 | 0 | |

# Circulation Drive at West Hartford Place

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

HEAVY VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-2F
Site Code : 00000002
Start Date : 6/26/2015
Page No : 8



# Circulation Drive at West Hartford Place

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

BICYCLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-2F
Site Code : 00000002
Start Date : 6/26/2015
Page No : 9

**Groups Printed- BICYCLES**

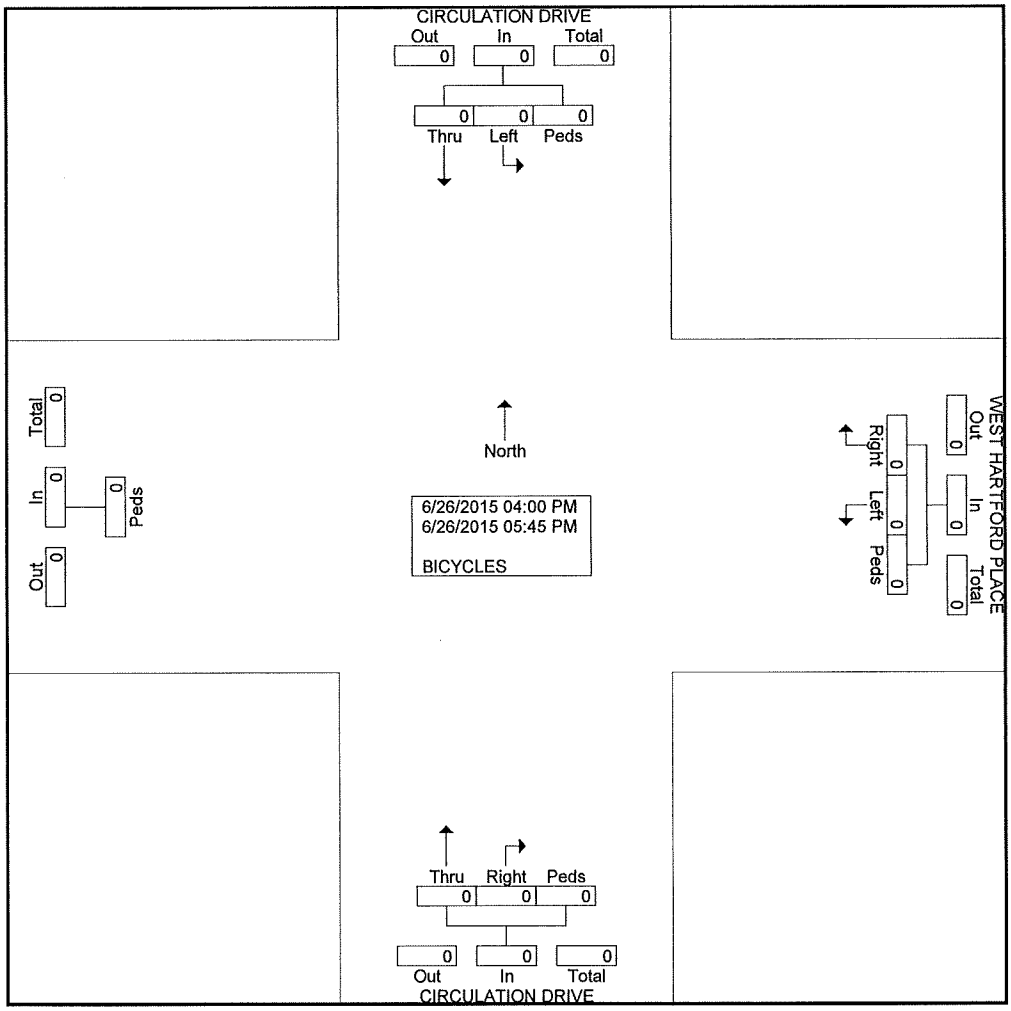
| | CIRCULATION DRIVE Southbound | | | | WEST HARTFORD PLACE Westbound | | | | CIRCULATION DRIVE Northbound | | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds | App. Total | Right | Left | Peds | App. Total | Right | Thru | Peds | App. Total | Peds | App. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Apprch % | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Total % | | | | | | | | | | | | | | | |

# Circulation Drive at West Hartford Place

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

BICYCLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-2F
Site Code : 00000002
Start Date : 6/26/2015
Page No : 10



# Circulation Drive at Aldi/Home Depot/BJs Gas Station

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

ALL VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-3F
Site Code : 00000003
Start Date : 6/26/2015
Page No : 1

## Groups Printed- CARS - HEAVY VEHICLES - BICYCLES

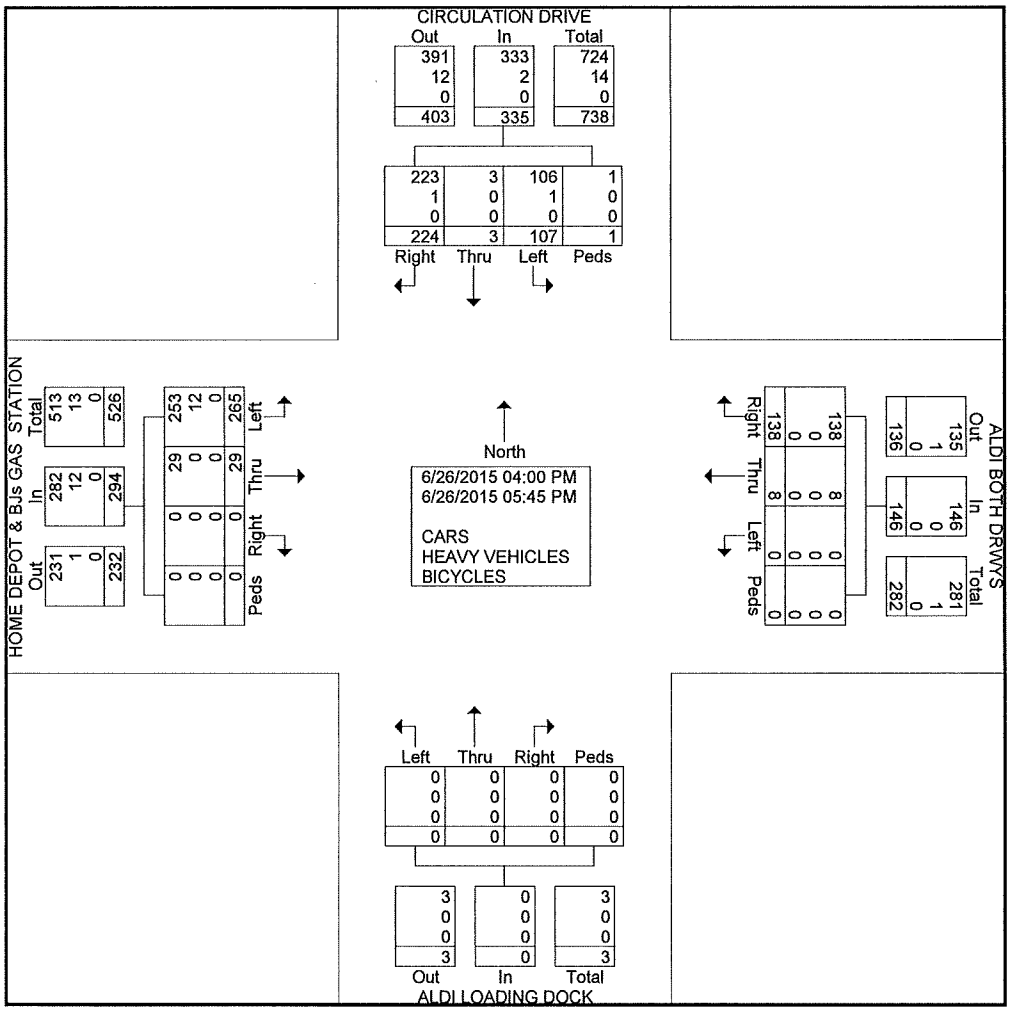
| | CIRCULATION DRIVE Southbound | | | | | ALDI BOTH DRWYS Westbound | | | | | ALDI LOADING DOCK Northbound | | | | | HOME DEPOT & BJs GAS STATION Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 31 | 3 | 10 | 0 | 44 | 15 | 1 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 35 | 0 | 40 | 100 |
| 04:15 PM | 29 | 0 | 19 | 0 | 48 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 37 | 0 | 42 | 107 |
| 04:30 PM | 18 | 0 | 11 | 0 | 29 | 18 | 2 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 32 | 0 | 35 | 84 |
| 04:45 PM | 27 | 0 | 15 | 0 | 42 | 21 | 2 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 30 | 0 | 33 | 98 |
| Total | 105 | 3 | 55 | 0 | 163 | 71 | 5 | 0 | 0 | 76 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 134 | 0 | 150 | 389 |
| 05:00 PM | 30 | 0 | 14 | 1 | 45 | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 0 | 38 | 99 |
| 05:15 PM | 26 | 0 | 20 | 0 | 46 | 16 | 1 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 28 | 0 | 34 | 97 |
| 05:30 PM | 27 | 0 | 10 | 0 | 37 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 26 | 0 | 29 | 83 |
| 05:45 PM | 36 | 0 | 8 | 0 | 44 | 18 | 2 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 39 | 0 | 43 | 107 |
| Total | 119 | 0 | 52 | 1 | 172 | 67 | 3 | 0 | 0 | 70 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 131 | 0 | 144 | 386 |
| Grand Total | 224 | 3 | 107 | 1 | 335 | 138 | 8 | 0 | 0 | 146 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 265 | 0 | 294 | 775 |
| Apprch % | 66.9 | 0.9 | 31.9 | 0.3 | | 94.5 | 5.5 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 9.9 | 90.1 | 0 | | |
| Total % | 28.9 | 0.4 | 13.8 | 0.1 | 43.2 | 17.8 | 1 | 0 | 0 | 18.8 | 0 | 0 | 0 | 0 | 0 | 0 | 3.7 | 34.2 | 0 | 37.9 | |
| CARS | 223 | 3 | 106 | 1 | 333 | 138 | 8 | 0 | 0 | 146 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 253 | 0 | 282 | 761 |
| % CARS | 99.6 | 100 | 99.1 | 100 | 99.4 | 100 | 100 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 95.5 | 0 | 95.9 | 98.2 |
| HEAVY VEHICLES | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 12 | 14 |
| % HEAVY VEHICLES | 0.4 | 0 | 0.9 | 0 | 0.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4.5 | 0 | 4.1 | 1.8 |
| BICYCLES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % BICYCLES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Circulation Drive at Aldi/Home Depot/BJs Gas Station

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

ALL VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-3F
Site Code : 00000003
Start Date : 6/26/2015
Page No : 2



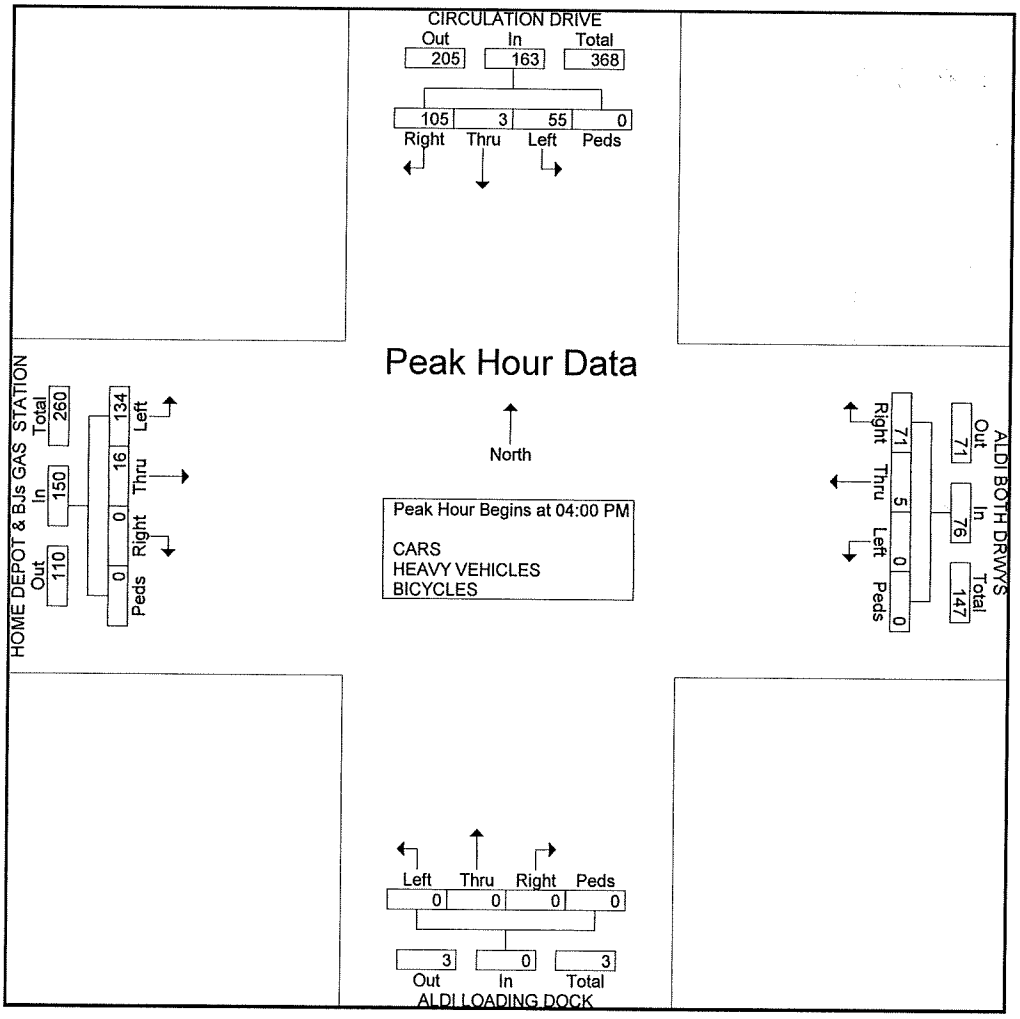
# Circulation Drive at Aldi/Home Depot/BJs Gas Station

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

ALL VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-3F
Site Code : 00000003
Start Date : 6/26/2015
Page No : 3

| | CIRCULATION DRIVE Southbound | | | | | ALDI BOTH DRWYS Westbound | | | | | ALDI LOADING DOCK Northbound | | | | | HOME DEPOT & BJs GAS STATION Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:00 PM | **31** | **3** | 10 | 0 | 44 | 15 | 1 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 35 | 0 | 40 | 100 |
| 04:15 PM | 29 | 0 | **19** | 0 | **48** | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | **37** | 0 | **42** | **107** |
| 04:30 PM | 18 | 0 | 11 | 0 | 29 | 18 | **2** | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 32 | 0 | 35 | 84 |
| 04:45 PM | 27 | 0 | 15 | 0 | 42 | **21** | 2 | 0 | 0 | **23** | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 30 | 0 | 33 | 98 |
| Total Volume | 105 | 3 | 55 | 0 | 163 | 71 | 5 | 0 | 0 | 76 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 134 | 0 | 150 | 389 |
| % App. Total | 64.4 | 1.8 | 33.7 | 0 | | 93.4 | 6.6 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 10.7 | 89.3 | 0 | | |
| PHF | .847 | .250 | .724 | .000 | .849 | .845 | .625 | .000 | .000 | .826 | .000 | .000 | .000 | .000 | .000 | .000 | .800 | .905 | .000 | .893 | .909 |

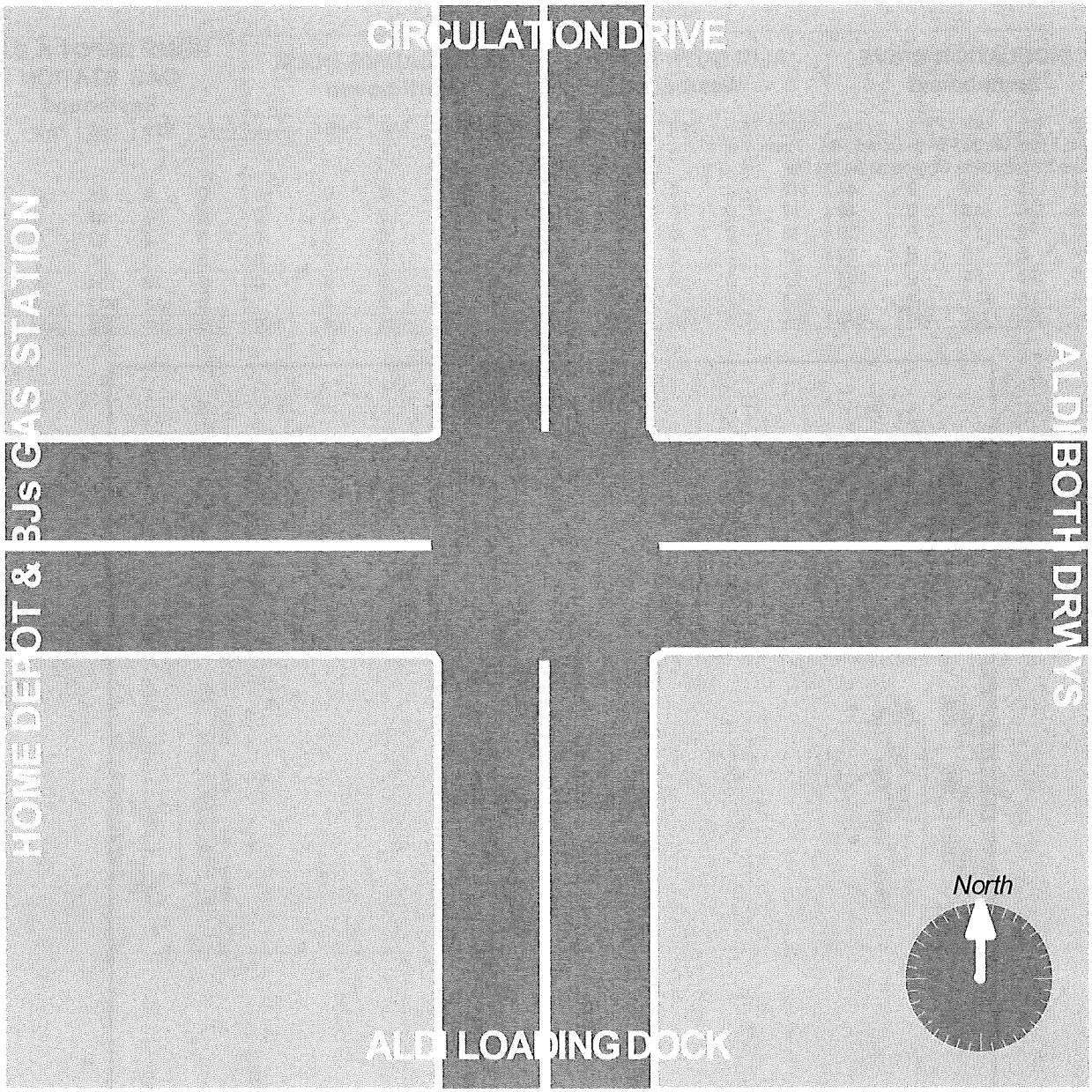


# Circulation Drive at Aldi/Home Depot/BJs Gas Station

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

ALL VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-3F
Site Code : 00000003
Start Date : 6/26/2015
Page No : 4



# Circulation Drive at Aldi/Home Depot/BJs Gas Station

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

CARS
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-3F
Site Code : 00000003
Start Date : 6/26/2015
Page No : 5

## Groups Printed- CARS

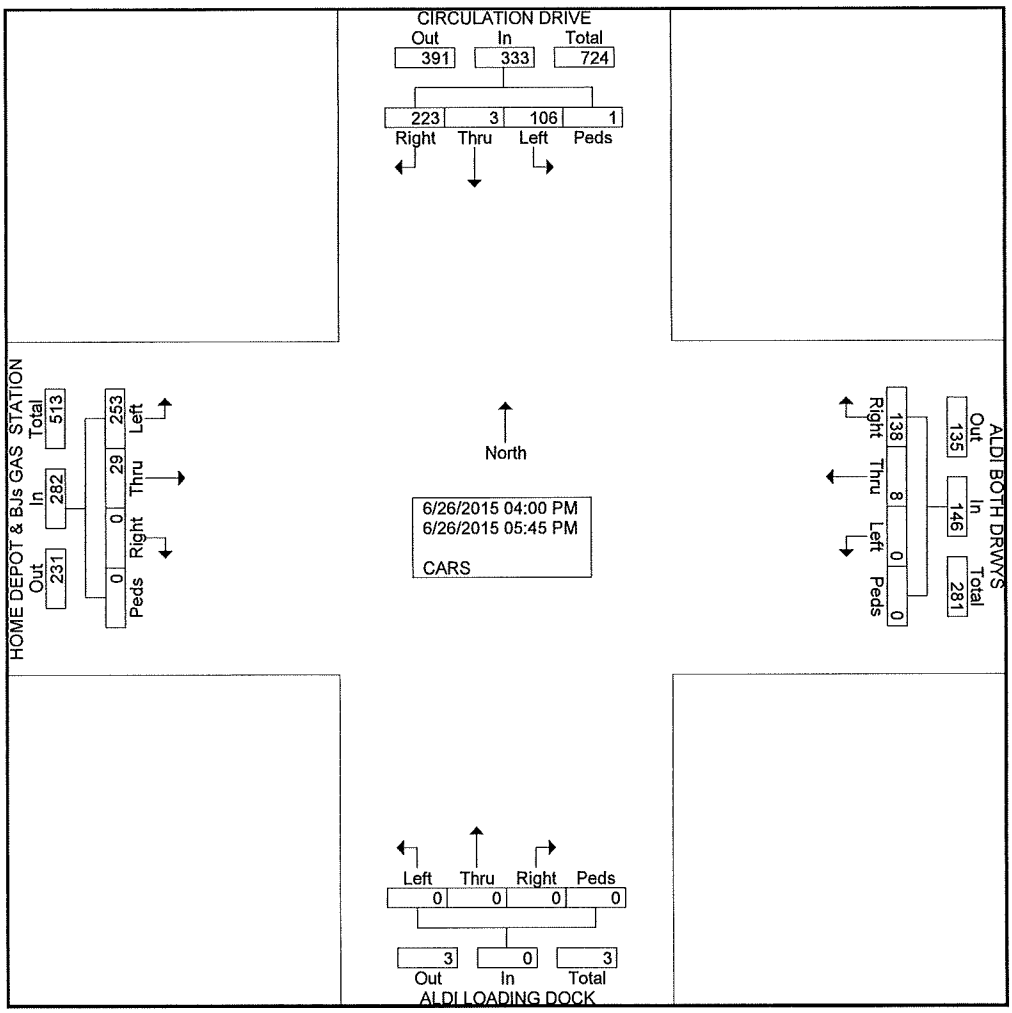
| | CIRCULATION DRIVE Southbound | | | | | ALDI BOTH DRWYS Westbound | | | | | ALDI LOADING DOCK Northbound | | | | | HOME DEPOT & BJs GAS STATION Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 31 | 3 | 10 | 0 | 44 | 15 | 1 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 34 | 0 | 39 | 99 |
| 04:15 PM | 29 | 0 | 19 | 0 | 48 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 36 | 0 | 41 | 106 |
| 04:30 PM | 18 | 0 | 11 | 0 | 29 | 18 | 2 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 30 | 0 | 33 | 82 |
| 04:45 PM | 27 | 0 | 14 | 0 | 41 | 21 | 2 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 29 | 0 | 32 | 96 |
| Total | 105 | 3 | 54 | 0 | 162 | 71 | 5 | 0 | 0 | 76 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 129 | 0 | 145 | 383 |
| 05:00 PM | 29 | 0 | 14 | 1 | 44 | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 37 | 97 |
| 05:15 PM | 26 | 0 | 20 | 0 | 46 | 16 | 1 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 25 | 0 | 31 | 94 |
| 05:30 PM | 27 | 0 | 10 | 0 | 37 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 26 | 0 | 29 | 83 |
| 05:45 PM | 36 | 0 | 8 | 0 | 44 | 18 | 2 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 36 | 0 | 40 | 104 |
| Total | 118 | 0 | 52 | 1 | 171 | 67 | 3 | 0 | 0 | 70 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 124 | 0 | 137 | 378 |
| Grand Total | 223 | 3 | 106 | 1 | 333 | 138 | 8 | 0 | 0 | 146 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 253 | 0 | 282 | 761 |
| Apprch % | 67 | 0.9 | 31.8 | 0.3 | | 94.5 | 5.5 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 10.3 | 89.7 | 0 | | |
| Total % | 29.3 | 0.4 | 13.9 | 0.1 | 43.8 | 18.1 | 1.1 | 0 | 0 | 19.2 | 0 | 0 | 0 | 0 | 0 | 0 | 3.8 | 33.2 | 0 | 37.1 | |

# Circulation Drive at Aldi/Home Depot/BJs Gas Station

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

CARS
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-3F
Site Code : 00000003
Start Date : 6/26/2015
Page No : 6



# Circulation Drive at Aldi/Home Depot/BJs Gas Station

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

HEAVY VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-3F
Site Code : 00000003
Start Date : 6/26/2015
Page No : 7

**Groups Printed- HEAVY VEHICLES**

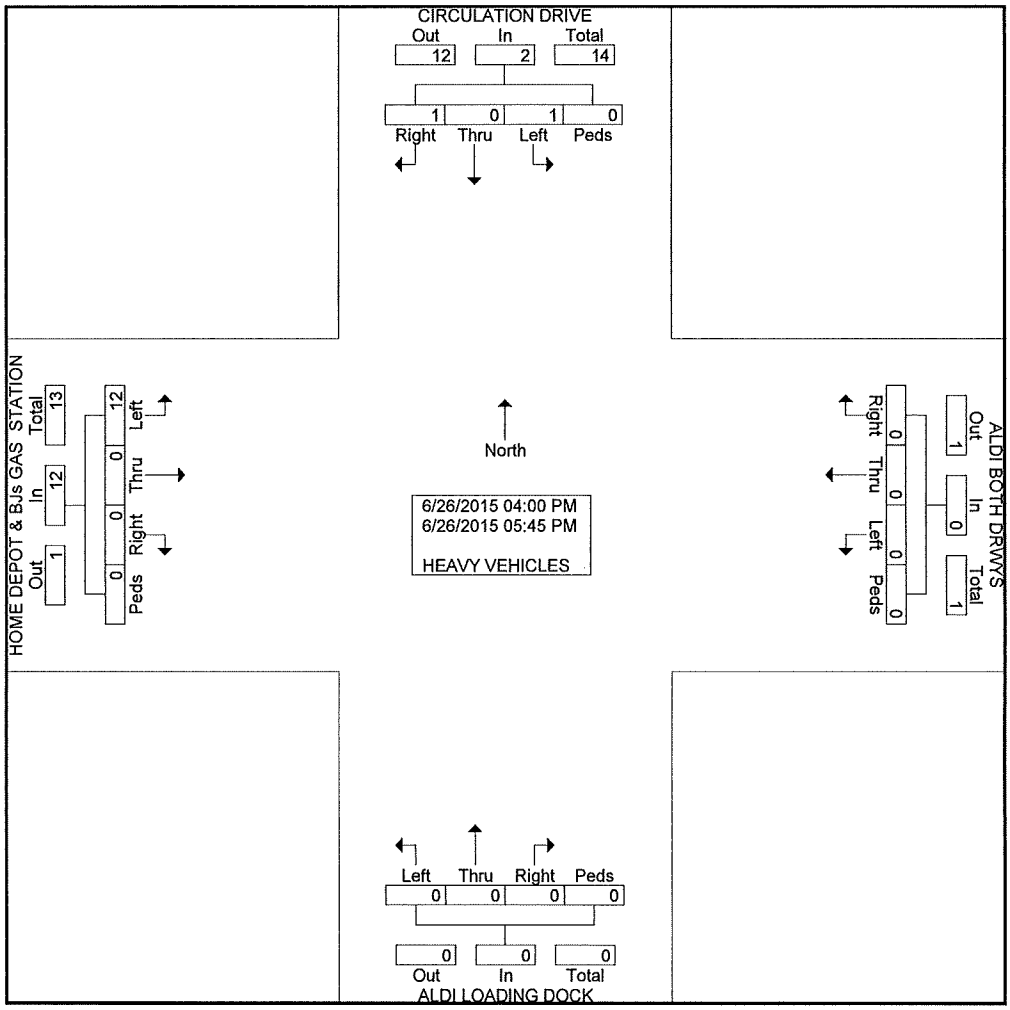
| | CIRCULATION DRIVE Southbound | | | | | ALDI BOTH DRWYS Westbound | | | | | ALDI LOADING DOCK Northbound | | | | | HOME DEPOT & BJs GAS STATION Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| 04:45 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Total | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 6 |
| 05:00 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 3 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 3 |
| Total | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 8 |
| Grand Total | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 12 | 14 |
| Apprch % | 50 | 0 | 50 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 100 | 0 | | |
| Total % | 7.1 | 0 | 7.1 | 0 | 14.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85.7 | 0 | 85.7 | |

# Circulation Drive at Aldi/Home Depot/BJs Gas Station

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

HEAVY VEHICLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-3F
Site Code : 00000003
Start Date : 6/26/2015
Page No : 8



# Circulation Drive at Aldi/Home Depot/BJs Gas Station

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

BICYCLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-3F
Site Code : 00000003
Start Date : 6/26/2015
Page No : 9

**Groups Printed- BICYCLES**

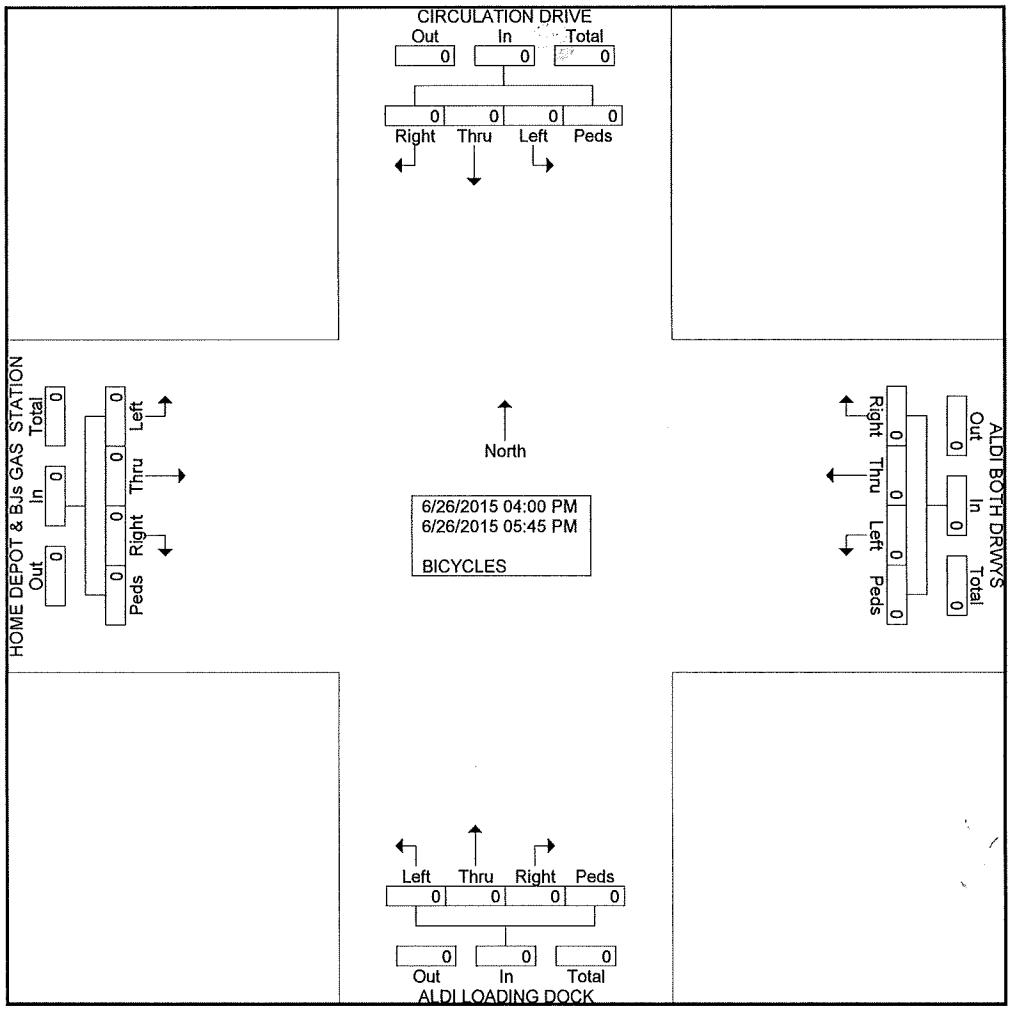
| | CIRCULATION DRIVE Southbound | | | | | ALDI BOTH DRWYS Westbound | | | | | ALDI LOADING DOCK Northbound | | | | | HOME DEPOT & BJs GAS STATION Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Apprch % | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | | | | | | | | | | | | | | | | | | | | | |

# Circulation Drive at Aldi/Home Depot/BJs Gas Station

P.M. TRAFFIC COUNTS 4:00 to 6:00
West Hartford, CT
prepared by Reliable Traffic Counts, LLC
Weather Cldy.75 degrees

BICYCLES
PEAK HOUR
4:00 TO 5:00 P.M.

File Name : 908-3F
Site Code : 00000003
Start Date : 6/26/2015
Page No : 10



# New Park Ave. at West Hartford Place/Driveway

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

ALL VEHICLES
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-1S
Site Code : 00000001
Start Date : 6/13/2015
Page No : 1

## Groups Printed- CARS - HEAVY VEHICLES - BICYCLES

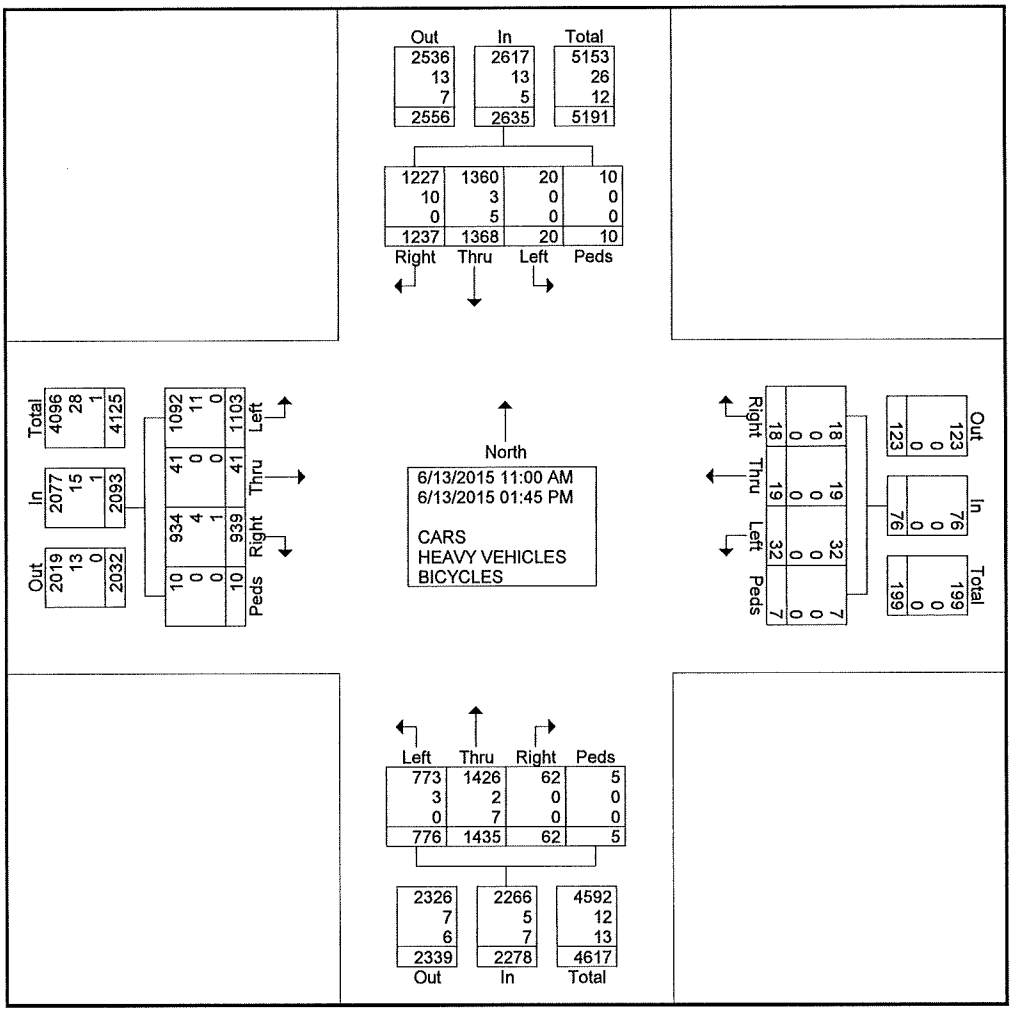
| | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 11:00 AM | 94 | 98 | 6 | 0 | 198 | 1 | 1 | 3 | 0 | 5 | 4 | 167 | 72 | 0 | 243 | 79 | 4 | 85 | 1 | 169 | 615 |
| 11:15 AM | 118 | 107 | 4 | 1 | 230 | 4 | 1 | 3 | 1 | 9 | 7 | 114 | 74 | 2 | 197 | 73 | 0 | 83 | 1 | 157 | 593 |
| 11:30 AM | 77 | 122 | 0 | 0 | 199 | 0 | 1 | 3 | 0 | 4 | 3 | 113 | 73 | 0 | 189 | 93 | 2 | 96 | 2 | 193 | 585 |
| 11:45 AM | 107 | 121 | 1 | 0 | 229 | 1 | 0 | 1 | 0 | 2 | 5 | 139 | 70 | 0 | 214 | 88 | 1 | 83 | 0 | 172 | 617 |
| Total | 396 | 448 | 11 | 1 | 856 | 6 | 3 | 10 | 1 | 20 | 19 | 533 | 289 | 2 | 843 | 333 | 7 | 347 | 4 | 691 | 2410 |
| 12:00 PM | 93 | 117 | 0 | 1 | 211 | 0 | 1 | 1 | 2 | 4 | 7 | 129 | 75 | 0 | 211 | 78 | 6 | 89 | 0 | 173 | 599 |
| 12:15 PM | 127 | 116 | 2 | 0 | 245 | 0 | 3 | 4 | 0 | 7 | 12 | 108 | 63 | 1 | 184 | 75 | 5 | 84 | 1 | 165 | 601 |
| 12:30 PM | 94 | 127 | 2 | 4 | 227 | 3 | 1 | 1 | 0 | 5 | 3 | 117 | 65 | 1 | 186 | 68 | 6 | 114 | 0 | 188 | 606 |
| 12:45 PM | 102 | 107 | 1 | 2 | 212 | 4 | 5 | 2 | 1 | 12 | 4 | 101 | 71 | 0 | 176 | 91 | 4 | 95 | 3 | 193 | 593 |
| Total | 416 | 467 | 5 | 7 | 895 | 7 | 10 | 8 | 3 | 28 | 26 | 455 | 274 | 2 | 757 | 312 | 21 | 382 | 4 | 719 | 2399 |
| 01:00 PM | 122 | 123 | 1 | 0 | 246 | 1 | 2 | 6 | 0 | 9 | 1 | 112 | 52 | 1 | 166 | 80 | 6 | 95 | 1 | 182 | 603 |
| 01:15 PM | 119 | 101 | 0 | 1 | 221 | 0 | 0 | 1 | 2 | 3 | 11 | 102 | 49 | 0 | 162 | 54 | 3 | 104 | 0 | 161 | 547 |
| 01:30 PM | 95 | 111 | 1 | 0 | 207 | 3 | 1 | 5 | 0 | 9 | 2 | 123 | 53 | 0 | 178 | 90 | 1 | 95 | 1 | 187 | 581 |
| 01:45 PM | 89 | 118 | 2 | 1 | 210 | 1 | 3 | 2 | 1 | 7 | 3 | 110 | 59 | 0 | 172 | 70 | 3 | 80 | 0 | 153 | 542 |
| Total | 425 | 453 | 4 | 2 | 884 | 5 | 6 | 14 | 3 | 28 | 17 | 447 | 213 | 1 | 678 | 294 | 13 | 374 | 2 | 683 | 2273 |
| Grand Total | 1237 | 1368 | 20 | 10 | 2635 | 18 | 19 | 32 | 7 | 76 | 62 | 1435 | 776 | 5 | 2278 | 939 | 41 | 1103 | 10 | 2093 | 7082 |
| Apprch % | 46.9 | 51.9 | 0.8 | 0.4 | | 23.7 | 25 | 42.1 | 9.2 | | 2.7 | 63 | 34.1 | 0.2 | | 44.9 | 2 | 52.7 | 0.5 | | |
| Total % | 17.5 | 19.3 | 0.3 | 0.1 | 37.2 | 0.3 | 0.3 | 0.5 | 0.1 | 1.1 | 0.9 | 20.3 | 11 | 0.1 | 32.2 | 13.3 | 0.6 | 15.6 | 0.1 | 29.6 | |
| CARS | 1227 | 1360 | 20 | 10 | 2617 | 18 | 19 | 32 | 7 | 76 | 62 | 1426 | 773 | 5 | 2266 | 934 | 41 | 1092 | 10 | 2077 | 7036 |
| % CARS | 99.2 | 99.4 | 100 | 100 | 99.3 | 100 | 100 | 100 | 100 | 100 | 100 | 99.4 | 99.6 | 100 | 99.5 | 99.5 | 100 | 99 | 100 | 99.2 | 99.4 |
| HEAVY VEHICLES | 10 | 3 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 5 | 4 | 0 | 11 | 0 | 15 | 33 |
| % HEAVY VEHICLES | 0.8 | 0.2 | 0 | 0 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.4 | 0 | 0.2 | 0.4 | 0 | 1 | 0 | 0.7 | 0.5 |
| BICYCLES | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 1 | 0 | 0 | 0 | 1 | 13 |
| % BICYCLES | 0 | 0.4 | 0 | 0 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0 | 0 | 0.3 | 0.1 | 0 | 0 | 0 | 0 | 0.2 |

# New Park Ave. at West Hartford Place/Driveway

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

ALL VEHICLES
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-1S
Site Code : 00000001
Start Date : 6/13/2015
Page No : 2



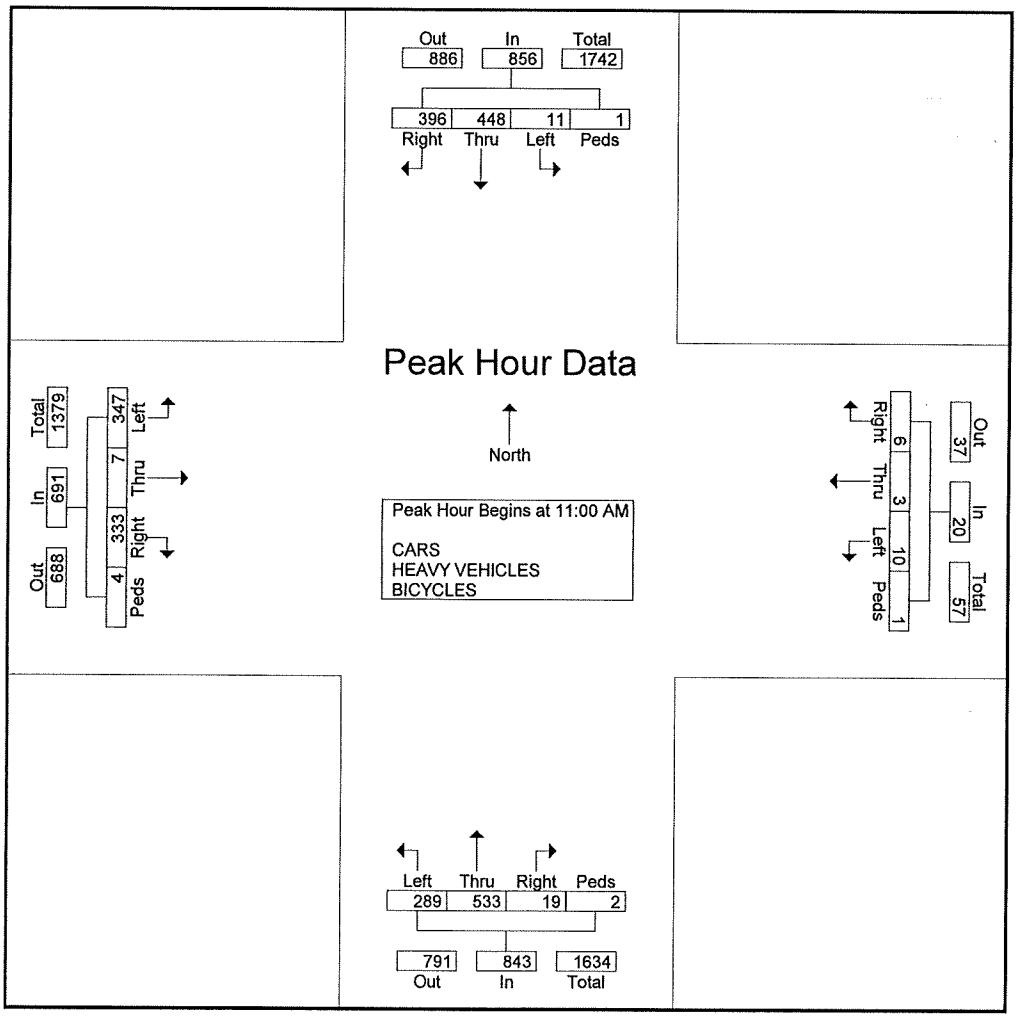
# New Park Ave. at West Hartford Place/Driveway

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

ALL VEHICLES
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-1S
Site Code : 00000001
Start Date : 6/13/2015
Page No : 3

| | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 11:00 AM to 11:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 11:00 AM | | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM | 94 | 98 | **6** | 0 | 198 | 1 | **1** | **3** | 0 | 5 | 4 | **167** | 72 | 0 | **243** | 79 | **4** | 85 | 1 | 169 | 615 |
| 11:15 AM | **118** | 107 | 4 | **1** | **230** | **4** | 1 | 3 | **1** | **9** | **7** | 114 | **74** | **2** | 197 | 73 | 0 | 83 | 1 | 157 | 593 |
| 11:30 AM | 77 | **122** | 0 | 0 | 199 | 0 | 1 | 3 | 0 | 4 | 3 | 113 | 73 | 0 | 189 | **93** | 2 | **96** | **2** | **193** | 585 |
| 11:45 AM | 107 | 121 | 1 | 0 | 229 | 1 | 0 | 1 | 0 | 2 | 5 | 139 | 70 | 0 | 214 | 88 | 1 | 83 | 0 | 172 | **617** |
| Total Volume | 396 | 448 | 11 | 1 | 856 | 6 | 3 | 10 | 1 | 20 | 19 | 533 | 289 | 2 | 843 | 333 | 7 | 347 | 4 | 691 | 2410 |
| % App. Total | 46.3 | 52.3 | 1.3 | 0.1 | | 30 | 15 | 50 | 5 | | 2.3 | 63.2 | 34.3 | 0.2 | | 48.2 | 1 | 50.2 | 0.6 | | |
| PHF | .839 | .918 | .458 | .250 | .930 | .375 | .750 | .833 | .250 | .556 | .679 | .798 | .976 | .250 | .867 | .895 | .438 | .904 | .500 | .895 | .976 |

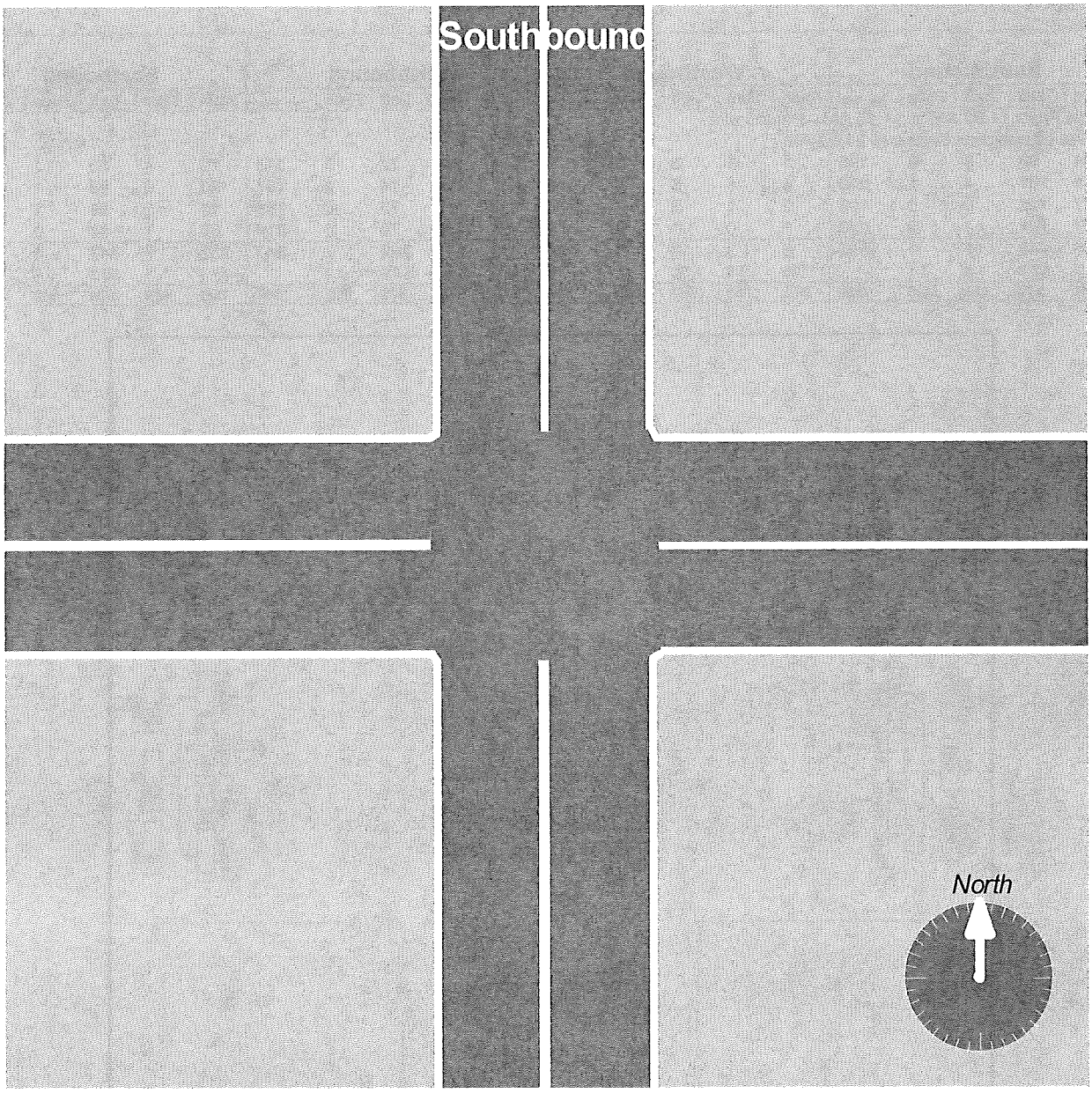


# New Park Ave. at West Hartford Place/Driveway

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

ALL VEHICLES
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-1S
Site Code : 00000001
Start Date : 6/13/2015
Page No : 4



# New Park Ave. at West Hartford Place/Driveway

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

CARS
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-1S
Site Code : 00000001
Start Date : 6/13/2015
Page No : 5

## Groups Printed- CARS

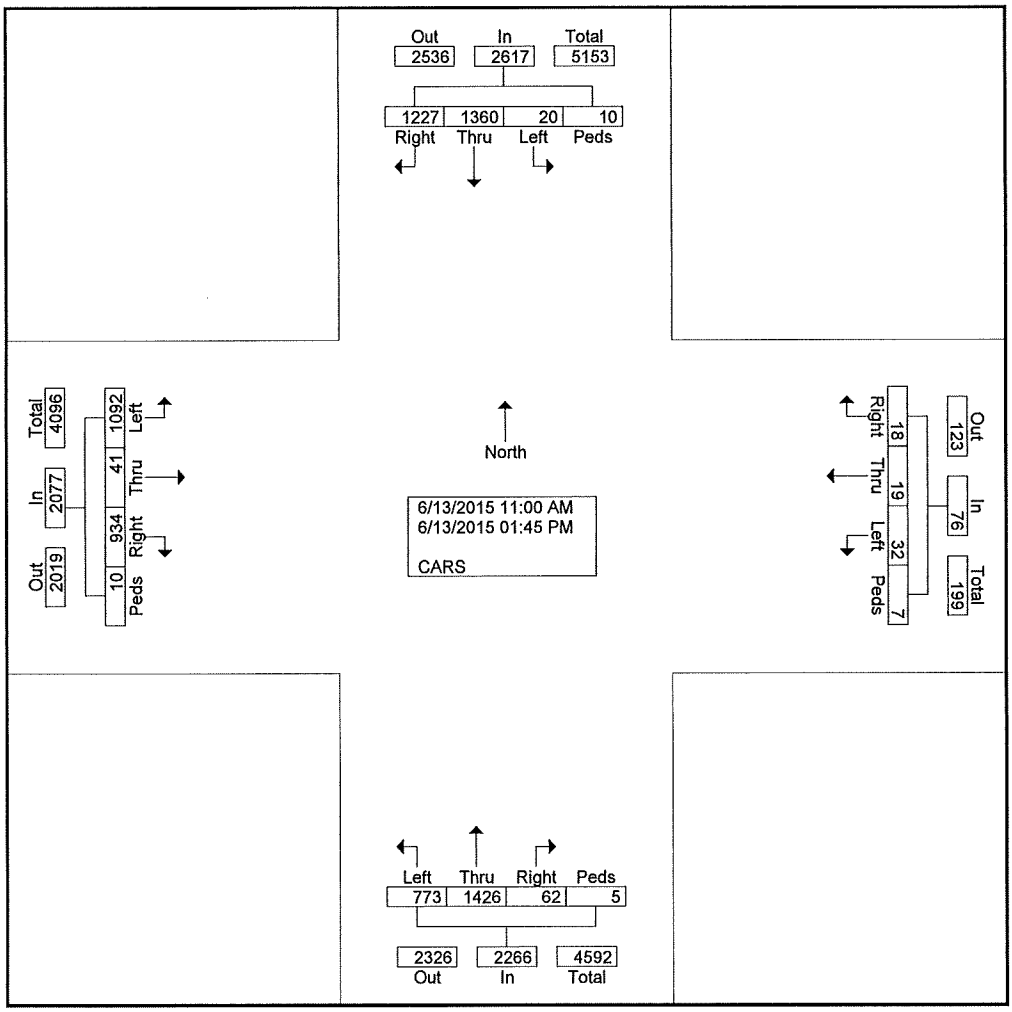
| | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 11:00 AM | 93 | 98 | 6 | 0 | 197 | 1 | 1 | 3 | 0 | 5 | 4 | 167 | 72 | 0 | 243 | 78 | 4 | 84 | 1 | 167 | 612 |
| 11:15 AM | 117 | 107 | 4 | 1 | 229 | 4 | 1 | 3 | 1 | 9 | 7 | 113 | 74 | 2 | 196 | 73 | 0 | 82 | 1 | 156 | 590 |
| 11:30 AM | 76 | 120 | 0 | 0 | 196 | 0 | 1 | 3 | 0 | 4 | 3 | 112 | 73 | 0 | 188 | 93 | 2 | 95 | 2 | 192 | 580 |
| 11:45 AM | 107 | 121 | 1 | 0 | 229 | 1 | 0 | 1 | 0 | 2 | 5 | 138 | 69 | 0 | 212 | 88 | 1 | 81 | 0 | 170 | 613 |
| Total | 393 | 446 | 11 | 1 | 851 | 6 | 3 | 10 | 1 | 20 | 19 | 530 | 288 | 2 | 839 | 332 | 7 | 342 | 4 | 685 | 2395 |
| 12:00 PM | 92 | 117 | 0 | 1 | 210 | 0 | 1 | 1 | 2 | 4 | 7 | 129 | 75 | 0 | 211 | 77 | 6 | 89 | 0 | 172 | 597 |
| 12:15 PM | 126 | 115 | 2 | 0 | 243 | 0 | 3 | 4 | 0 | 7 | 12 | 106 | 63 | 1 | 182 | 75 | 5 | 83 | 1 | 164 | 596 |
| 12:30 PM | 93 | 125 | 2 | 4 | 224 | 3 | 1 | 1 | 0 | 5 | 3 | 116 | 65 | 1 | 185 | 67 | 6 | 113 | 0 | 186 | 600 |
| 12:45 PM | 101 | 107 | 1 | 2 | 211 | 4 | 5 | 2 | 1 | 12 | 4 | 101 | 70 | 0 | 175 | 91 | 4 | 94 | 3 | 192 | 590 |
| Total | 412 | 464 | 5 | 7 | 888 | 7 | 10 | 8 | 3 | 28 | 26 | 452 | 273 | 2 | 753 | 310 | 21 | 379 | 4 | 714 | 2383 |
| 01:00 PM | 121 | 122 | 1 | 0 | 244 | 1 | 2 | 6 | 0 | 9 | 1 | 112 | 52 | 1 | 166 | 79 | 6 | 94 | 1 | 180 | 599 |
| 01:15 PM | 118 | 99 | 0 | 1 | 218 | 0 | 0 | 1 | 2 | 3 | 11 | 101 | 49 | 0 | 161 | 54 | 3 | 104 | 0 | 161 | 543 |
| 01:30 PM | 95 | 111 | 1 | 0 | 207 | 3 | 1 | 5 | 0 | 9 | 2 | 122 | 53 | 0 | 177 | 90 | 1 | 94 | 1 | 186 | 579 |
| 01:45 PM | 88 | 118 | 2 | 1 | 209 | 1 | 3 | 2 | 1 | 7 | 3 | 109 | 58 | 0 | 170 | 69 | 3 | 79 | 0 | 151 | 537 |
| Total | 422 | 450 | 4 | 2 | 878 | 5 | 6 | 14 | 3 | 28 | 17 | 444 | 212 | 1 | 674 | 292 | 13 | 371 | 2 | 678 | 2258 |
| Grand Total | 1227 | 1360 | 20 | 10 | 2617 | 18 | 19 | 32 | 7 | 76 | 62 | 1426 | 773 | 5 | 2266 | 934 | 41 | 1092 | 10 | 2077 | 7036 |
| Apprch % | 46.9 | 52 | 0.8 | 0.4 | | 23.7 | 25 | 42.1 | 9.2 | | 2.7 | 62.9 | 34.1 | 0.2 | | 45 | 2 | 52.6 | 0.5 | | |
| Total % | 17.4 | 19.3 | 0.3 | 0.1 | 37.2 | 0.3 | 0.3 | 0.5 | 0.1 | 1.1 | 0.9 | 20.3 | 11 | 0.1 | 32.2 | 13.3 | 0.6 | 15.5 | 0.1 | 29.5 | |

# New Park Ave. at West Hartford Place/Driveway

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

CARS
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-1S
Site Code : 00000001
Start Date : 6/13/2015
Page No : 6



# New Park Ave. at West Hartford Place/Driveway

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

**HEAVY VEHICLES**
**PEAK HOUR**
**11:00 TO 12:00 NOON**

**File Name : 908-1S**
**Site Code : 00000001**
**Start Date : 6/13/2015**


**Groups Printed- HEAVY VEHICLES**

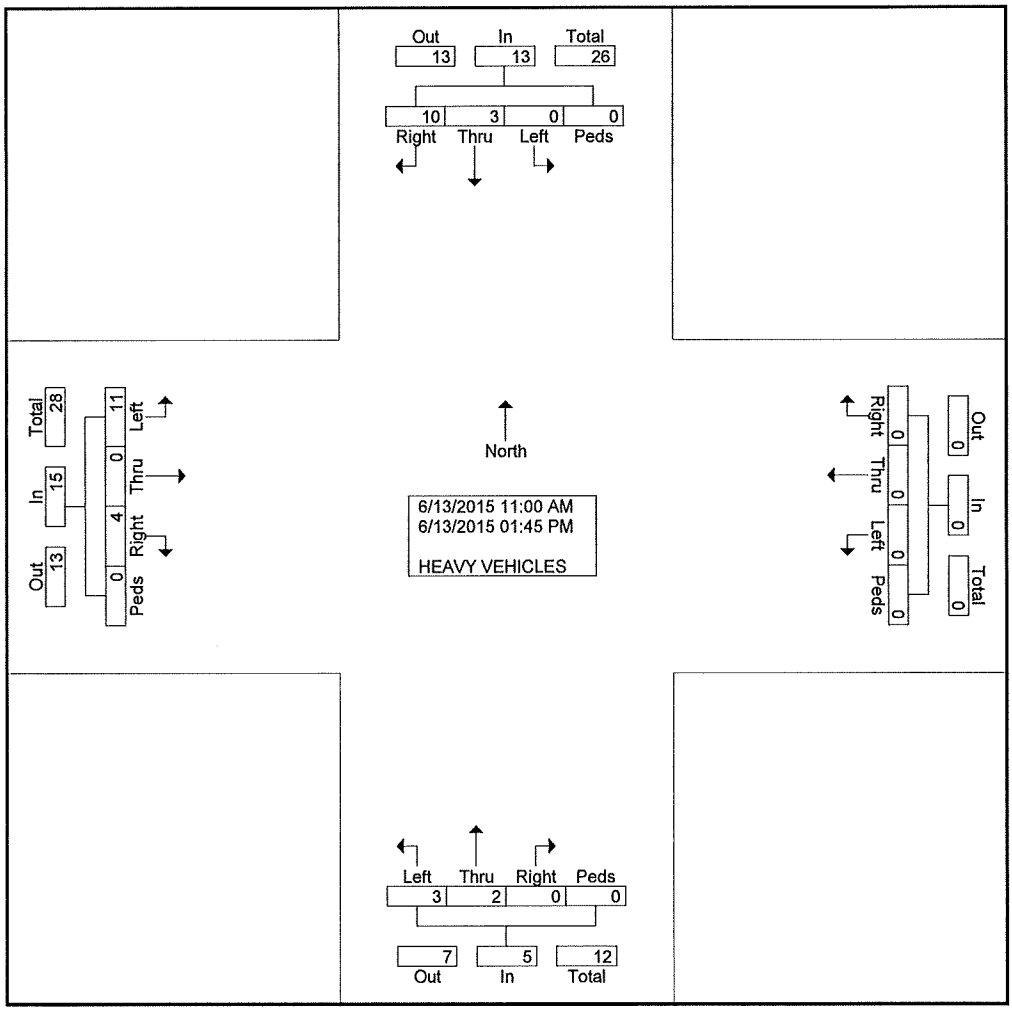
| | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 11:00 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 3 |
| 11:15 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 11:30 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 3 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 2 | 3 |
| Total | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 0 | 5 | 0 | 6 | 11 |
| 12:00 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| 12:15 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 3 |
| 12:30 PM | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 4 |
| 12:45 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 3 |
| Total | 4 | 2 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 0 | 3 | 0 | 4 | 12 |
| 01:00 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 3 |
| 01:15 PM | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 01:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 01:45 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 2 | 4 |
| Total | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 3 | 0 | 5 | 10 |
| Grand Total | 10 | 3 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 5 | 4 | 0 | 11 | 0 | 15 | 33 |
| Apprch % | 76.9 | 23.1 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 40 | 60 | 0 | | 26.7 | 0 | 73.3 | 0 | | |
| Total % | 30.3 | 9.1 | 0 | 0 | 39.4 | 0 | 0 | 0 | 0 | 0 | 0 | 6.1 | 9.1 | 0 | 15.2 | 12.1 | 0 | 33.3 | 0 | 45.5 | |

# New Park Ave. at West Hartford Place/Driveway

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

HEAVY VEHICLES
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-1S
Site Code : 00000001
Start Date : 6/13/2015
Page No : 8



# New Park Ave. at West Hartford Place/Driveway

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

**BICYCLES**
**PEAK HOUR**
**11:00 TO 12:00 NOON**

**File Name : 908-1S**
**Site Code : 00000001**
**Start Date : 6/13/2015**
**Page No : 9**

**Groups Printed- BICYCLES**

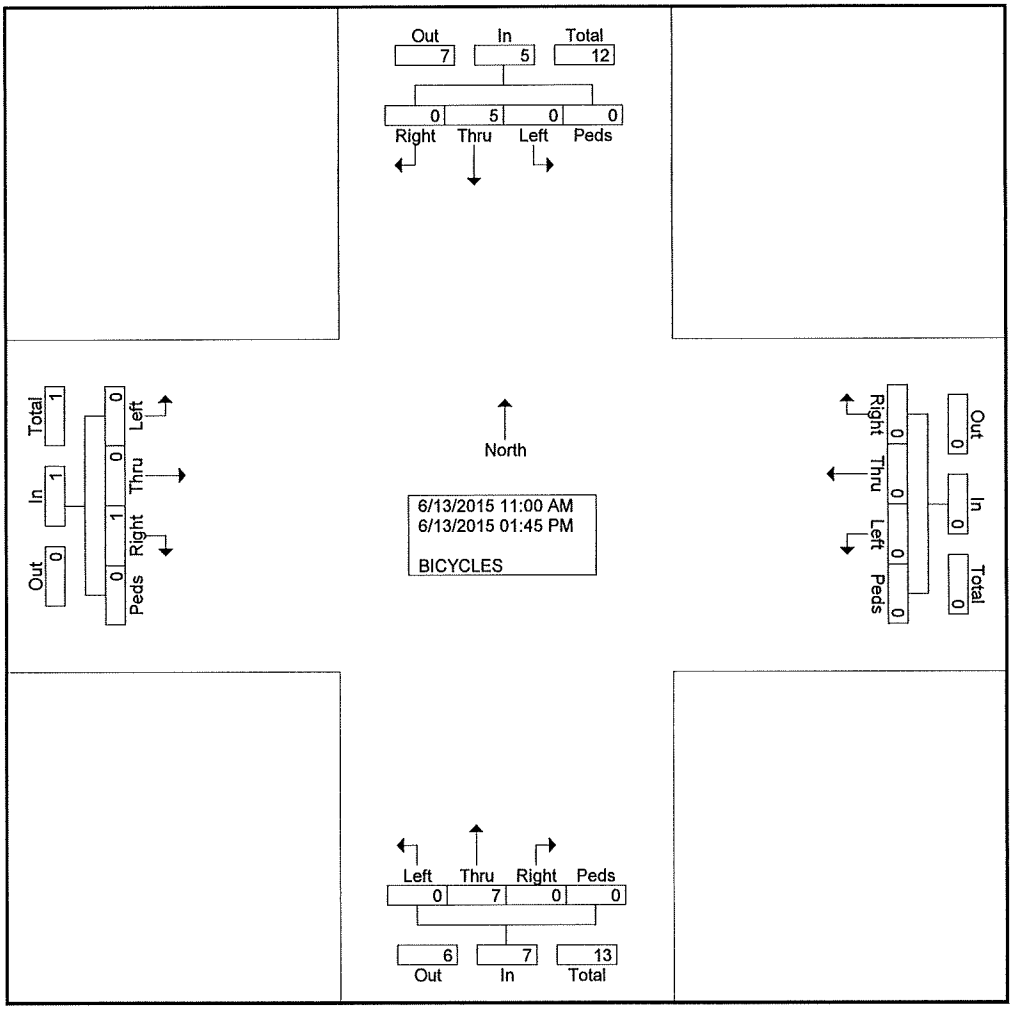
| | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:30 AM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 2 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 4 |
| 01:00 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 01:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 01:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 01:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 5 |
| Grand Total | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 1 | 0 | 0 | 0 | 1 | 13 |
| Apprch % | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 100 | 0 | 0 | 0 | | |
| Total % | 0 | 38.5 | 0 | 0 | 38.5 | 0 | 0 | 0 | 0 | 0 | 0 | 53.8 | 0 | 0 | 53.8 | 7.7 | 0 | 0 | 0 | 7.7 | |

# New Park Ave. at West Hartford Place/Driveway

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

BICYCLES
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-1S
Site Code : 00000001
Start Date : 6/13/2015
Page No : 10



# Circulation Drive at West Hartford Place

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

**ALL VEHICLES**
**PEAK HOUR**
**11:00 TO 12:00 NOON**

**File Name : 908-2S**
**Site Code : 00000002**
**Start Date : 6/13/2015**
**Page No : 1**

**Groups Printed- CARS - HEAVY VEHICLES - BICYCLES**

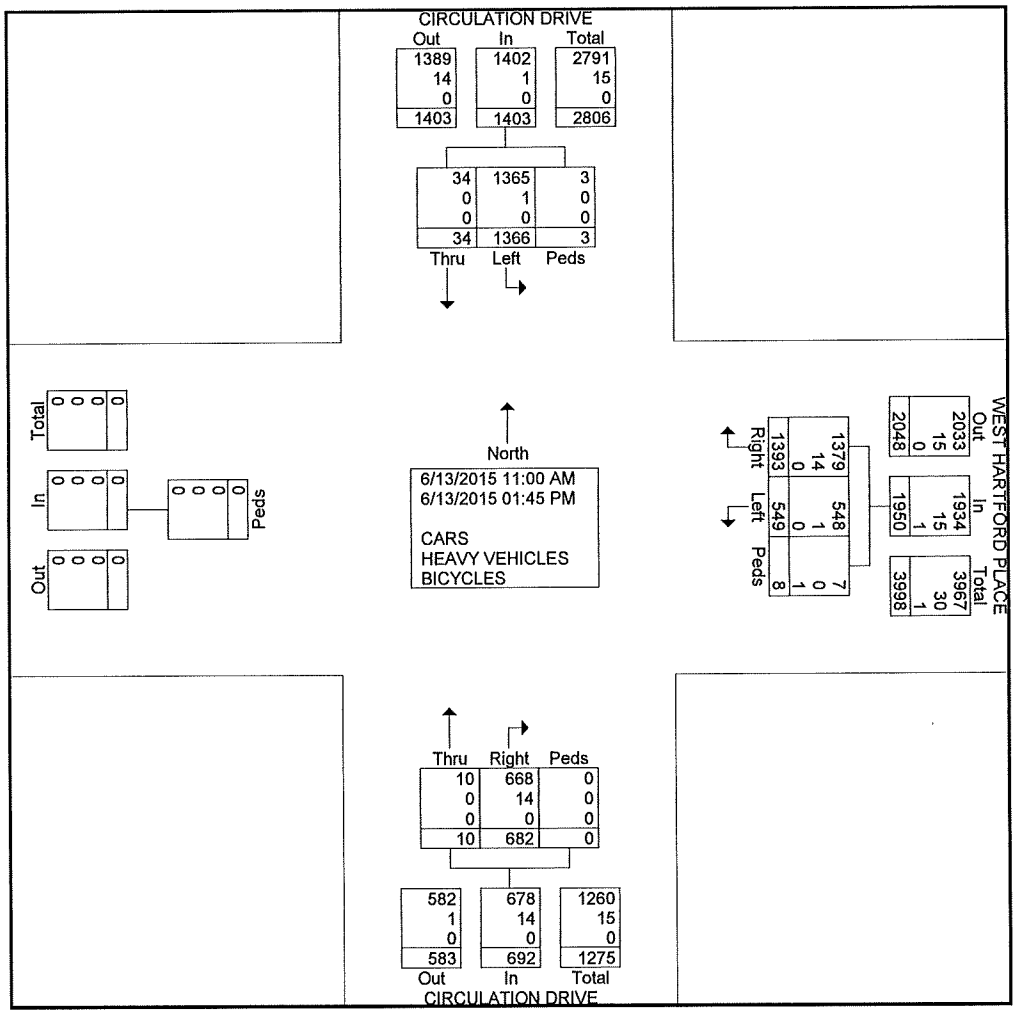
| | CIRCULATION DRIVE Southbound | | | | WEST HARTFORD PLACE Westbound | | | | CIRCULATION DRIVE Northbound | | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds | App. Total | Right | Left | Peds | App. Total | Right | Thru | Peds | App. Total | Peds | App. Total | Int. Total |
| 11:00 AM | 2 | 120 | 0 | 122 | 140 | 40 | 2 | 182 | 61 | 0 | 0 | 61 | 0 | 0 | 365 |
| 11:15 AM | 1 | 107 | 0 | 108 | 143 | 46 | 0 | 189 | 53 | 0 | 0 | 53 | 0 | 0 | 350 |
| 11:30 AM | 4 | 130 | 0 | 134 | 103 | 45 | 1 | 149 | 58 | 0 | 0 | 58 | 0 | 0 | 341 |
| 11:45 AM | 2 | 117 | 0 | 119 | 112 | 57 | 0 | 169 | 53 | 0 | 0 | 53 | 0 | 0 | 341 |
| Total | 9 | 474 | 0 | 483 | 498 | 188 | 3 | 689 | 225 | 0 | 0 | 225 | 0 | 0 | 1397 |
| 12:00 PM | 3 | 119 | 1 | 123 | 124 | 37 | 0 | 161 | 59 | 0 | 0 | 59 | 0 | 0 | 343 |
| 12:15 PM | 3 | 107 | 0 | 110 | 106 | 56 | 0 | 162 | 48 | 2 | 0 | 50 | 0 | 0 | 322 |
| 12:30 PM | 3 | 104 | 0 | 107 | 97 | 42 | 1 | 140 | 64 | 0 | 0 | 64 | 0 | 0 | 311 |
| 12:45 PM | 3 | 109 | 0 | 112 | 124 | 39 | 2 | 165 | 59 | 0 | 0 | 59 | 0 | 0 | 336 |
| Total | 12 | 439 | 1 | 452 | 451 | 174 | 3 | 628 | 230 | 2 | 0 | 232 | 0 | 0 | 1312 |
| 01:00 PM | 4 | 120 | 1 | 125 | 119 | 52 | 1 | 172 | 72 | 1 | 0 | 73 | 0 | 0 | 370 |
| 01:15 PM | 2 | 114 | 1 | 117 | 120 | 44 | 0 | 164 | 38 | 3 | 0 | 41 | 0 | 0 | 322 |
| 01:30 PM | 6 | 127 | 0 | 133 | 95 | 48 | 0 | 143 | 53 | 2 | 0 | 55 | 0 | 0 | 331 |
| 01:45 PM | 1 | 92 | 0 | 93 | 110 | 43 | 1 | 154 | 64 | 2 | 0 | 66 | 0 | 0 | 313 |
| Total | 13 | 453 | 2 | 468 | 444 | 187 | 2 | 633 | 227 | 8 | 0 | 235 | 0 | 0 | 1336 |
| Grand Total | 34 | 1366 | 3 | 1403 | 1393 | 549 | 8 | 1950 | 682 | 10 | 0 | 692 | 0 | 0 | 4045 |
| Apprch % | 2.4 | 97.4 | 0.2 | | 71.4 | 28.2 | 0.4 | | 98.6 | 1.4 | 0 | | 0 | | |
| Total % | 0.8 | 33.8 | 0.1 | 34.7 | 34.4 | 13.6 | 0.2 | 48.2 | 16.9 | 0.2 | 0 | 17.1 | 0 | 0 | |
| CARS | 34 | 1365 | 3 | 1402 | 1379 | 548 | 7 | 1934 | 668 | 10 | 0 | 678 | 0 | 0 | 4014 |
| % CARS | 100 | 99.9 | 100 | 99.9 | 99 | 99.8 | 87.5 | 99.2 | 97.9 | 100 | 0 | 98 | 0 | 0 | 99.2 |
| HEAVY VEHICLES | 0 | 1 | 0 | 1 | 14 | 1 | 0 | 15 | 14 | 0 | 0 | 14 | 0 | 0 | 30 |
| % HEAVY VEHICLES | 0 | 0.1 | 0 | 0.1 | 1 | 0.2 | 0 | 0.8 | 2.1 | 0 | 0 | 2 | 0 | 0 | 0.7 |
| BICYCLES | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| % BICYCLES | 0 | 0 | 0 | 0 | 0 | 0 | 12.5 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Circulation Drive at West Hartford Place

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

ALL VEHICLES
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-2S
Site Code : 00000002
Start Date : 6/13/2015
Page No : 2



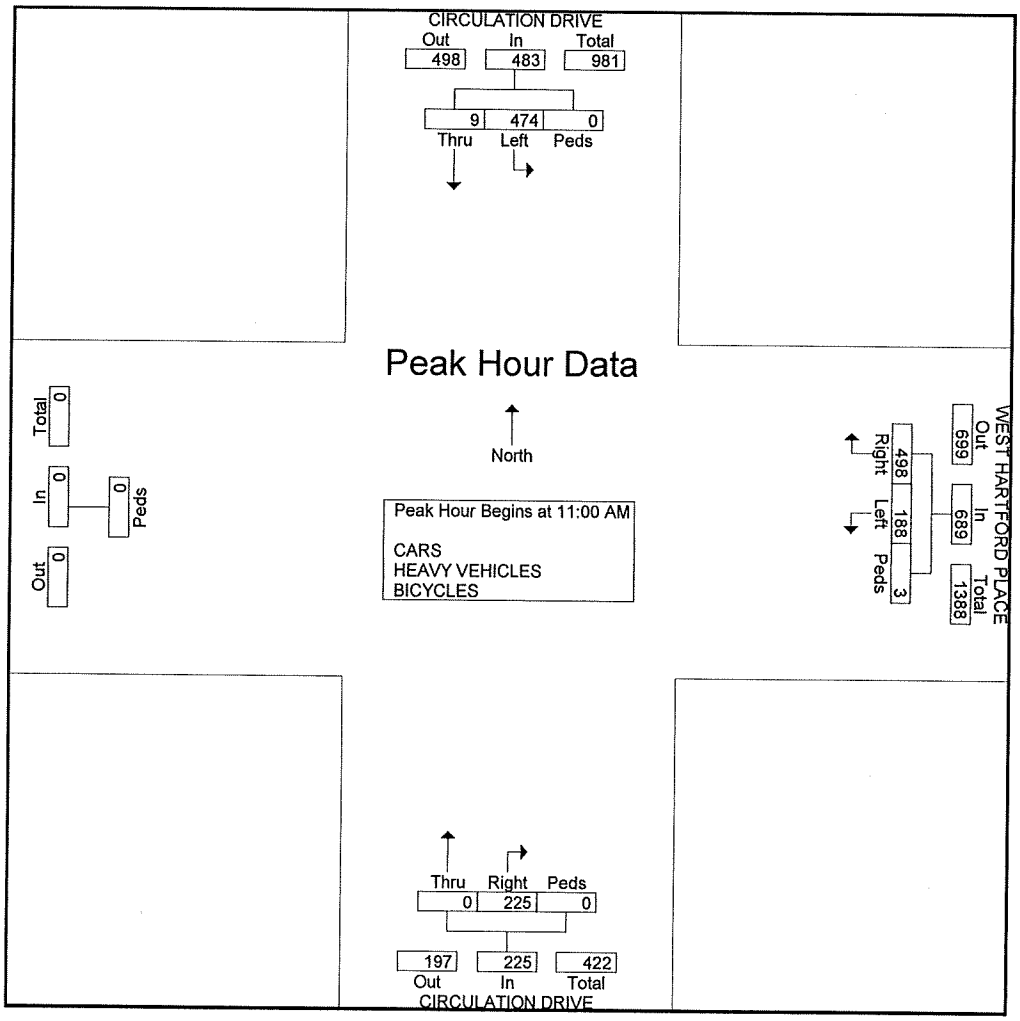
# Circulation Drive at West Hartford Place

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

ALL VEHICLES
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-2S
Site Code : 00000002
Start Date : 6/13/2015
Page No : 3

| | CIRCULATION DRIVE Southbound | | | | WEST HARTFORD PLACE Westbound | | | | CIRCULATION DRIVE Northbound | | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds | App. Total | Right | Left | Peds | App. Total | Right | Thru | Peds | App. Total | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 11:00 AM to 11:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 11:00 AM | | | | | | | | | | | | | | | |
| 11:00 AM | 2 | 120 | 0 | 122 | 140 | 40 | **2** | 182 | **61** | 0 | 0 | **61** | 0 | 0 | **365** |
| 11:15 AM | 1 | 107 | 0 | 108 | **143** | 46 | 0 | **189** | 53 | 0 | 0 | 53 | 0 | 0 | 350 |
| 11:30 AM | **4** | **130** | 0 | **134** | 103 | 45 | 1 | 149 | 58 | 0 | 0 | 58 | 0 | 0 | 341 |
| 11:45 AM | 2 | 117 | 0 | 119 | 112 | **57** | 0 | 169 | 53 | 0 | 0 | 53 | 0 | 0 | 341 |
| Total Volume | 9 | 474 | 0 | 483 | 498 | 188 | 3 | 689 | 225 | 0 | 0 | 225 | 0 | 0 | 1397 |
| % App. Total | 1.9 | 98.1 | 0 | | 72.3 | 27.3 | 0.4 | | 100 | 0 | 0 | | 0 | | |
| PHF | .563 | .912 | .000 | .901 | .871 | .825 | .375 | .911 | .922 | .000 | .000 | .922 | .000 | .000 | .957 |

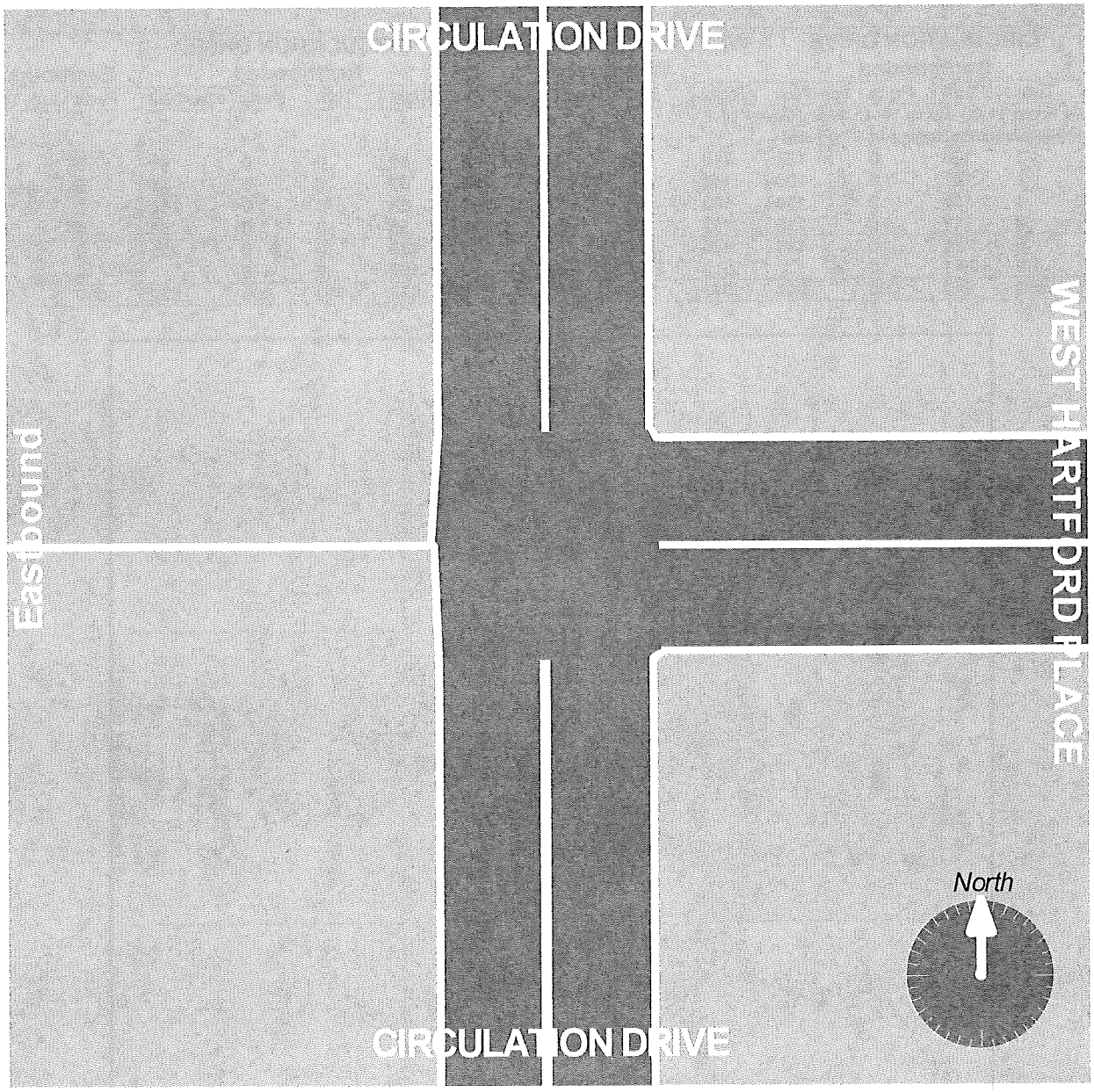


# Circulation Drive at West Hartford Place

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

ALL VEHICLES
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-2S
Site Code : 00000002
Start Date : 6/13/2015
Page No : 4



# Circulation Drive at West Hartford Place

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

**CARS**
**PEAK HOUR**
**11:00 TO 12:00 NOON**

**File Name : 908-2S**
**Site Code : 00000002**
**Start Date : 6/13/2015**
**Page No : 5**

**Groups Printed- CARS**

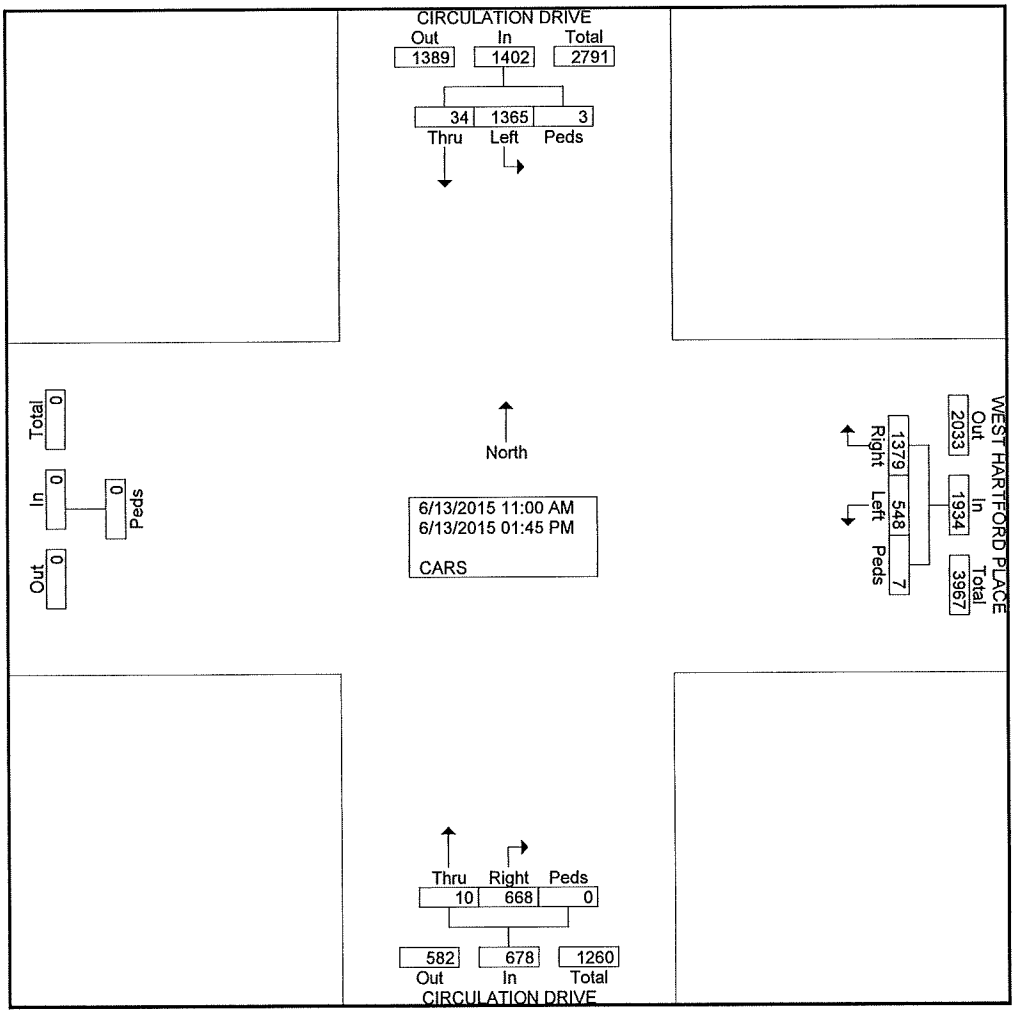
| | CIRCULATION DRIVE Southbound | | | | WEST HARTFORD PLACE Westbound | | | | CIRCULATION DRIVE Northbound | | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds | App. Total | Right | Left | Peds | App. Total | Right | Thru | Peds | App. Total | Peds | App. Total | Int. Total |
| 11:00 AM | 2 | 120 | 0 | 122 | 138 | 40 | 2 | 180 | 59 | 0 | 0 | 59 | 0 | 0 | 361 |
| 11:15 AM | 1 | 107 | 0 | 108 | 142 | 46 | 0 | 188 | 52 | 0 | 0 | 52 | 0 | 0 | 348 |
| 11:30 AM | 4 | 129 | 0 | 133 | 102 | 45 | 1 | 148 | 57 | 0 | 0 | 57 | 0 | 0 | 338 |
| 11:45 AM | 2 | 117 | 0 | 119 | 111 | 57 | 0 | 168 | 52 | 0 | 0 | 52 | 0 | 0 | 339 |
| Total | 9 | 473 | 0 | 482 | 493 | 188 | 3 | 684 | 220 | 0 | 0 | 220 | 0 | 0 | 1386 |
| 12:00 PM | 3 | 119 | 1 | 123 | 123 | 37 | 0 | 160 | 58 | 0 | 0 | 58 | 0 | 0 | 341 |
| 12:15 PM | 3 | 107 | 0 | 110 | 105 | 56 | 0 | 161 | 47 | 2 | 0 | 49 | 0 | 0 | 320 |
| 12:30 PM | 3 | 104 | 0 | 107 | 96 | 42 | 0 | 138 | 63 | 0 | 0 | 63 | 0 | 0 | 308 |
| 12:45 PM | 3 | 109 | 0 | 112 | 123 | 38 | 2 | 163 | 58 | 0 | 0 | 58 | 0 | 0 | 333 |
| Total | 12 | 439 | 1 | 452 | 447 | 173 | 2 | 622 | 226 | 2 | 0 | 228 | 0 | 0 | 1302 |
| 01:00 PM | 4 | 120 | 1 | 125 | 117 | 52 | 1 | 170 | 70 | 1 | 0 | 71 | 0 | 0 | 366 |
| 01:15 PM | 2 | 114 | 1 | 117 | 119 | 44 | 0 | 163 | 38 | 3 | 0 | 41 | 0 | 0 | 321 |
| 01:30 PM | 6 | 127 | 0 | 133 | 95 | 48 | 0 | 143 | 52 | 2 | 0 | 54 | 0 | 0 | 330 |
| 01:45 PM | 1 | 92 | 0 | 93 | 108 | 43 | 1 | 152 | 62 | 2 | 0 | 64 | 0 | 0 | 309 |
| Total | 13 | 453 | 2 | 468 | 439 | 187 | 2 | 628 | 222 | 8 | 0 | 230 | 0 | 0 | 1326 |
| Grand Total | 34 | 1365 | 3 | 1402 | 1379 | 548 | 7 | 1934 | 668 | 10 | 0 | 678 | 0 | 0 | 4014 |
| Apprch % | 2.4 | 97.4 | 0.2 | | 71.3 | 28.3 | 0.4 | | 98.5 | 1.5 | 0 | | 0 | | |
| Total % | 0.8 | 34 | 0.1 | 34.9 | 34.4 | 13.7 | 0.2 | 48.2 | 16.6 | 0.2 | 0 | 16.9 | 0 | 0 | |

# Circulation Drive at West Hartford Place

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

CARS
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-2S
Site Code : 00000002
Start Date : 6/13/2015
Page No : 6



# Circulation Drive at West Hartford Place

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

**HEAVY VEHICLES**
**PEAK HOUR**
**11:00 TO 12:00 NOON**

**File Name : 908-2S**
**Site Code : 00000002**
**Start Date : 6/13/2015**


**Groups Printed- HEAVY VEHICLES**

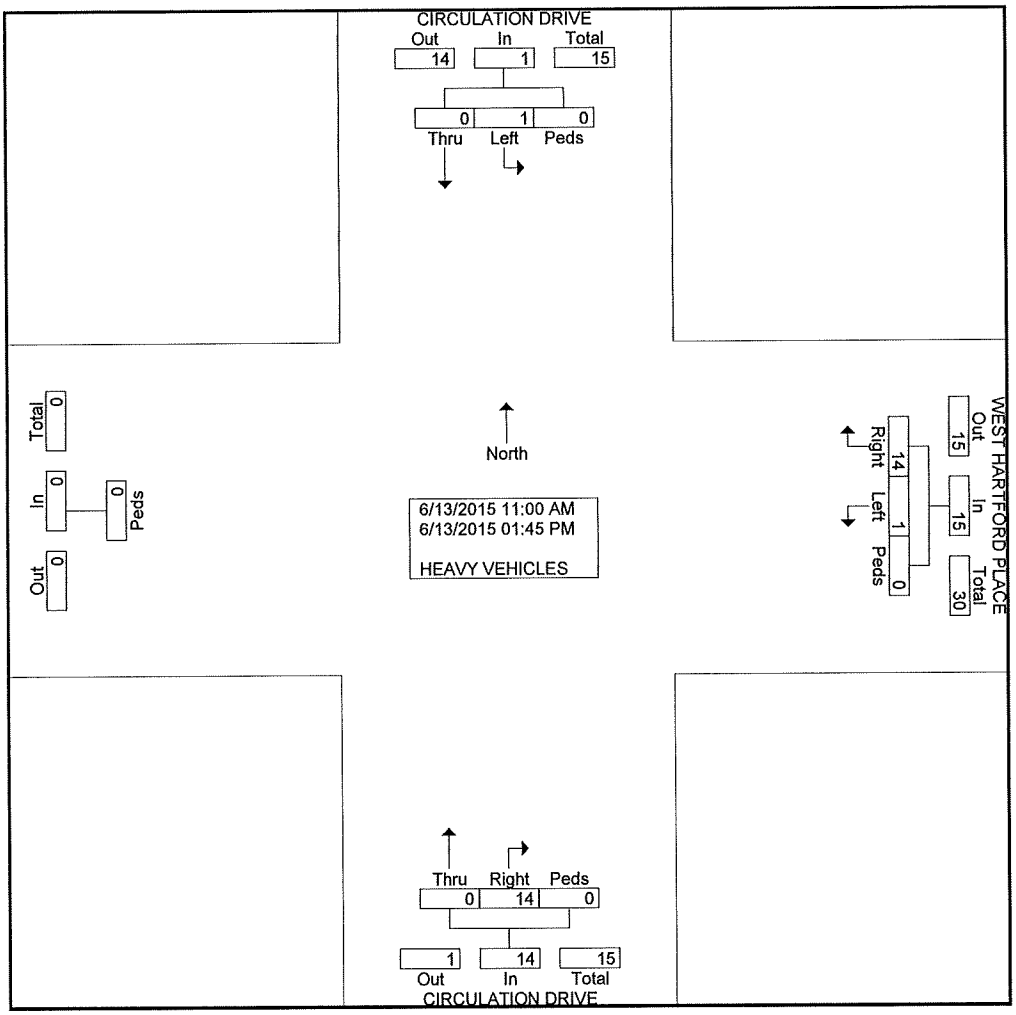
| | CIRCULATION DRIVE Southbound | | | | WEST HARTFORD PLACE Westbound | | | | CIRCULATION DRIVE Northbound | | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds | App. Total | Right | Left | Peds | App. Total | Right | Thru | Peds | App. Total | Peds | App. Total | Int. Total |
| 11:00 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 4 |
| 11:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| 11:30 AM | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 3 |
| 11:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Total | 0 | 1 | 0 | 1 | 5 | 0 | 0 | 5 | 5 | 0 | 0 | 5 | 0 | 0 | 11 |
| 12:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| 12:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| 12:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| 12:45 PM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 5 | 4 | 0 | 0 | 4 | 0 | 0 | 9 |
| 01:00 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 4 |
| 01:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 01:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| 01:45 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 4 |
| Total | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 5 | 0 | 0 | 5 | 0 | 0 | 10 |
| Grand Total | 0 | 1 | 0 | 1 | 14 | 1 | 0 | 15 | 14 | 0 | 0 | 14 | 0 | 0 | 30 |
| Apprch % | 0 | 100 | 0 | | 93.3 | 6.7 | 0 | | 100 | 0 | 0 | | 0 | | |
| Total % | 0 | 3.3 | 0 | 3.3 | 46.7 | 3.3 | 0 | 50 | 46.7 | 0 | 0 | 46.7 | 0 | 0 | |

# Circulation Drive at West Hartford Place

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

HEAVY VEHICLES
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-2S
Site Code : 00000002
Start Date : 6/13/2015
Page No : 8



# Circulation Drive at West Hartford Place

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

**BICYCLES**
**PEAK HOUR**
**11:00 TO 12:00 NOON**

**File Name : 908-2S**
**Site Code : 00000002**
**Start Date : 6/13/2015**
**Page No : 9**

**Groups Printed- BICYCLES**

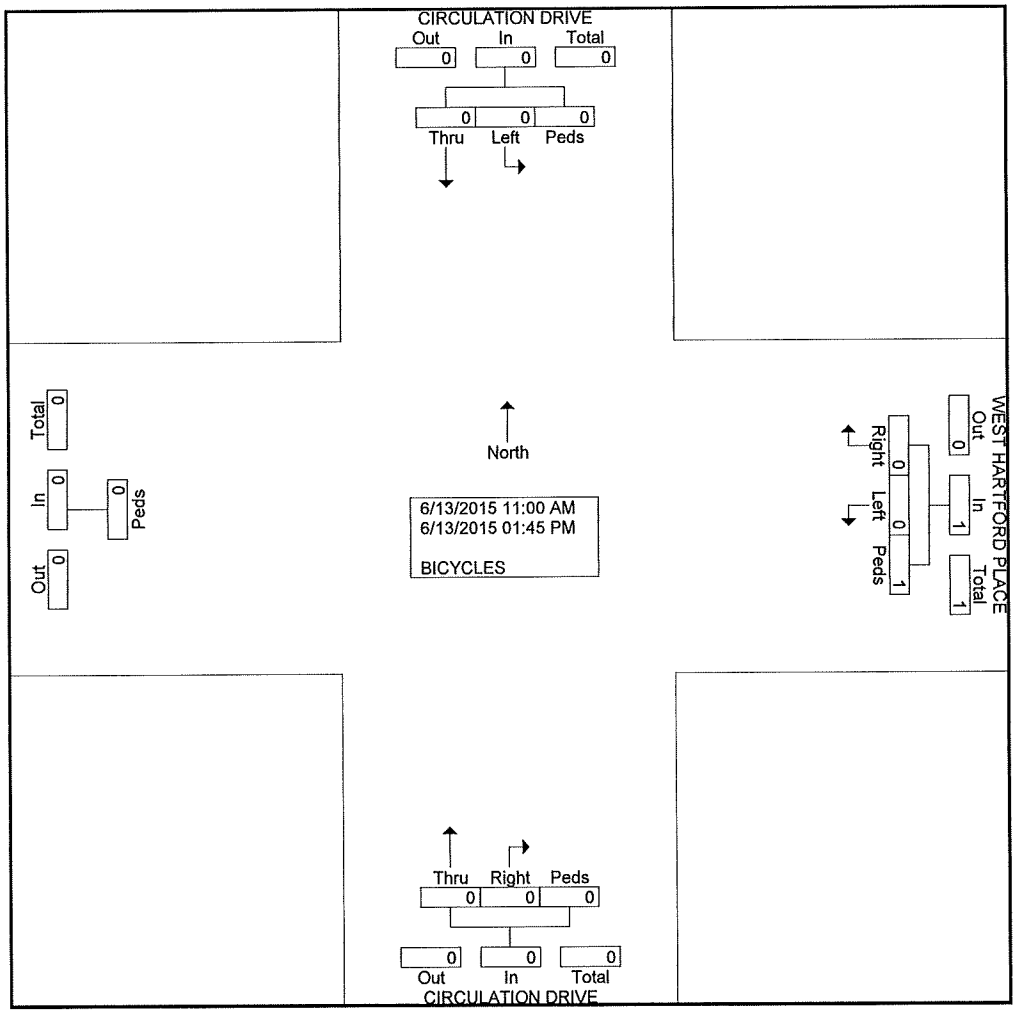
| | CIRCULATION DRIVE Southbound | | | | WEST HARTFORD PLACE Westbound | | | | CIRCULATION DRIVE Northbound | | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds | App. Total | Right | Left | Peds | App. Total | Right | Thru | Peds | App. Total | Peds | App. Total | Int. Total |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Apprch % | 0 | 0 | 0 | | 0 | 0 | 100 | | 0 | 0 | 0 | | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | |

# Circulation Drive at West Hartford Place

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

BICYCLES
PEAK HOUR
11:00 TO 12:00 NOON

File Name : 908-2S
Site Code : 00000002
Start Date : 6/13/2015
Page No : 10



# Circulation Drive at Aldi/Home Depot/BJs Gas Station

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

ALL VEHICLES
PEAK HOUR
12:15 TO 1:15 P.M.

File Name : 908-3S
Site Code : 00000003
Start Date : 6/13/2015
Page No : 1

## Groups Printed- CARS - HEAVY VEHICLES - BICYCLES

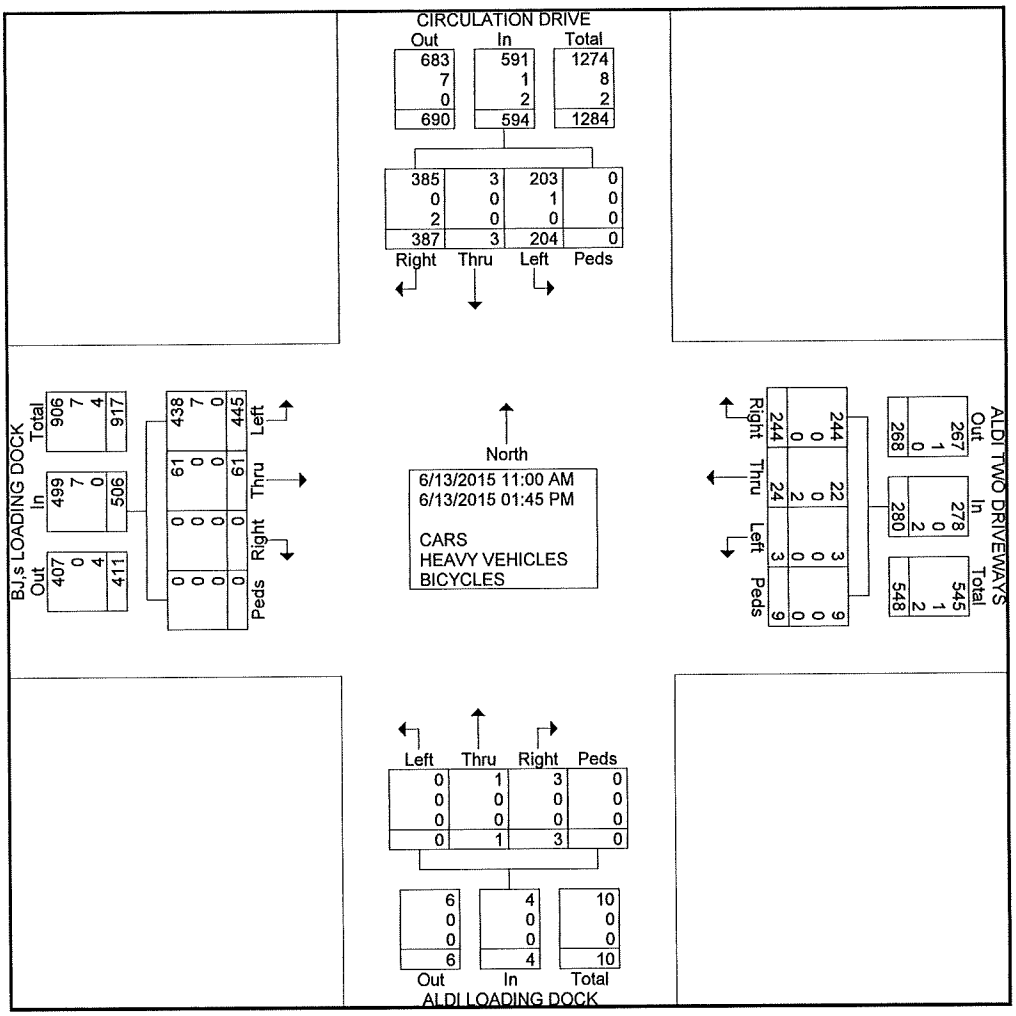
| | CIRCULATION DRIVE Southbound | | | | | ALDI TWO DRIVEWAYS Westbound | | | | | ALDI LOADING DOCK Northbound | | | | | BJ,s LOADING DOCK Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 11:00 AM | 30 | 2 | 9 | 0 | 41 | 20 | 2 | 0 | 1 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 44 | 0 | 52 | 116 |
| 11:15 AM | 36 | 0 | 13 | 0 | 49 | 16 | 2 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 39 | 0 | 40 | 107 |
| 11:30 AM | 28 | 0 | 20 | 0 | 48 | 18 | 1 | 0 | 3 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 39 | 0 | 43 | 113 |
| 11:45 AM | 34 | 0 | 25 | 0 | 59 | 17 | 2 | 0 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 38 | 0 | 44 | 123 |
| Total | 128 | 2 | 67 | 0 | 197 | 71 | 7 | 0 | 5 | 83 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 160 | 0 | 179 | 459 |
| 12:00 PM | 27 | 0 | 13 | 0 | 40 | 28 | 2 | 0 | 1 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 25 | 0 | 32 | 103 |
| 12:15 PM | 44 | 0 | 24 | 0 | 68 | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 31 | 0 | 38 | 127 |
| 12:30 PM | 35 | 0 | 13 | 0 | 48 | 23 | 4 | 0 | 1 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 41 | 0 | 49 | 125 |
| 12:45 PM | 27 | 0 | 15 | 0 | 42 | 16 | 3 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 43 | 0 | 47 | 108 |
| Total | 133 | 0 | 65 | 0 | 198 | 88 | 9 | 0 | 2 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 140 | 0 | 166 | 463 |
| 01:00 PM | 36 | 0 | 19 | 0 | 55 | 27 | 5 | 0 | 1 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 45 | 0 | 52 | 140 |
| 01:15 PM | 32 | 0 | 17 | 0 | 49 | 11 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 28 | 0 | 31 | 91 |
| 01:30 PM | 33 | 0 | 18 | 0 | 51 | 22 | 2 | 0 | 1 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 38 | 0 | 43 | 119 |
| 01:45 PM | 25 | 1 | 18 | 0 | 44 | 25 | 1 | 3 | 0 | 29 | 3 | 1 | 0 | 0 | 4 | 0 | 1 | 34 | 0 | 35 | 112 |
| Total | 126 | 1 | 72 | 0 | 199 | 85 | 8 | 3 | 2 | 98 | 3 | 1 | 0 | 0 | 4 | 0 | 16 | 145 | 0 | 161 | 462 |
| Grand Total | 387 | 3 | 204 | 0 | 594 | 244 | 24 | 3 | 9 | 280 | 3 | 1 | 0 | 0 | 4 | 0 | 61 | 445 | 0 | 506 | 1384 |
| Apprch % | 65.2 | 0.5 | 34.3 | 0 | | 87.1 | 8.6 | 1.1 | 3.2 | | 75 | 25 | 0 | 0 | | 0 | 12.1 | 87.9 | 0 | | |
| Total % | 28 | 0.2 | 14.7 | 0 | 42.9 | 17.6 | 1.7 | 0.2 | 0.7 | 20.2 | 0.2 | 0.1 | 0 | 0 | 0.3 | 0 | 4.4 | 32.2 | 0 | 36.6 | |
| CARS | 385 | 3 | 203 | 0 | 591 | 244 | 22 | 3 | 9 | 278 | 3 | 1 | 0 | 0 | 4 | 0 | 61 | 438 | 0 | 499 | 1372 |
| % CARS | 99.5 | 100 | 99.5 | 0 | 99.5 | 100 | 91.7 | 100 | 100 | 99.3 | 100 | 100 | 0 | 0 | 100 | 0 | 100 | 98.4 | 0 | 98.6 | 99.1 |
| HEAVY VEHICLES | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 8 |
| % HEAVY VEHICLES | 0 | 0 | 0.5 | 0 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 0 | 1.4 | 0.6 |
| BICYCLES | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| % BICYCLES | 0.5 | 0 | 0 | 0 | 0.3 | 0 | 8.3 | 0 | 0 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 |

# Circulation Drive at Aldi/Home Depot/BJs Gas Station

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

ALL VEHICLES
PEAK HOUR
12:15 TO 1:15 P.M.

File Name : 908-3S
Site Code : 00000003
Start Date : 6/13/2015
Page No : 2



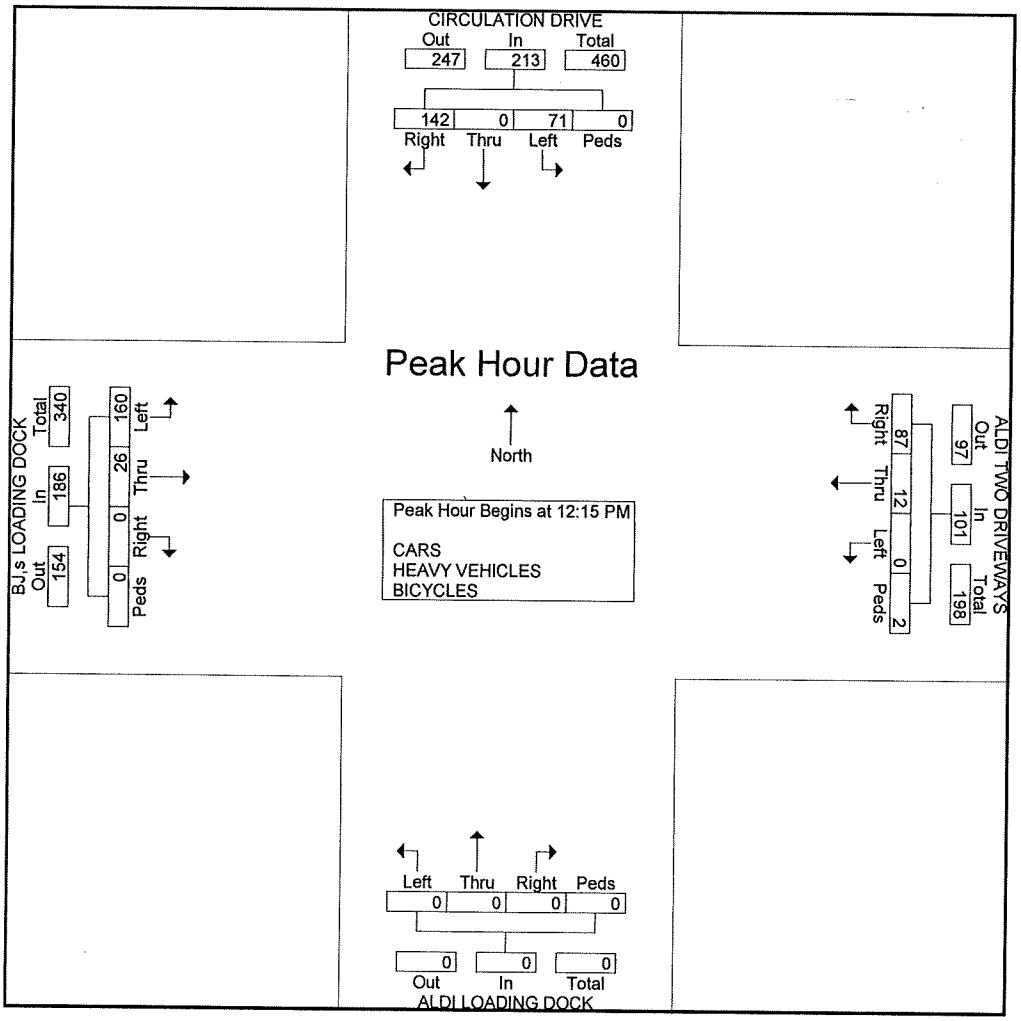
# Circulation Drive at Aldi/Home Depot/BJs Gas Station

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

ALL VEHICLES
PEAK HOUR
12:15 TO 1:15 P.M.

File Name : 908-3S
Site Code : 00000003
Start Date : 6/13/2015
Page No : 3

| | CIRCULATION DRIVE Southbound | | | | | ALDI TWO DRIVEWAYS Westbound | | | | | ALDI LOADING DOCK Northbound | | | | | BJ,s LOADING DOCK Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:15 PM to 01:00 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:15 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:15 PM | **44** | 0 | **24** | 0 | **68** | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 31 | 0 | 38 | 127 |
| 12:30 PM | 35 | 0 | 13 | 0 | 48 | 23 | 4 | 0 | **1** | 28 | 0 | 0 | 0 | 0 | 0 | 0 | **8** | 41 | 0 | 49 | 125 |
| 12:45 PM | 27 | 0 | 15 | 0 | 42 | 16 | 3 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 43 | 0 | 47 | 108 |
| 01:00 PM | 36 | 0 | 19 | 0 | 55 | **27** | **5** | 0 | 1 | **33** | 0 | 0 | 0 | 0 | 0 | 0 | 7 | **45** | 0 | **52** | **140** |
| Total Volume | 142 | 0 | 71 | 0 | 213 | 87 | 12 | 0 | 2 | 101 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 160 | 0 | 186 | 500 |
| % App. Total | 66.7 | 0 | 33.3 | 0 | | 86.1 | 11.9 | 0 | 2 | | 0 | 0 | 0 | 0 | | 0 | 14 | 86 | 0 | | |
| PHF | .807 | .000 | .740 | .000 | .783 | .806 | .600 | .000 | .500 | .765 | .000 | .000 | .000 | .000 | .000 | .000 | .813 | .889 | .000 | .894 | .893 |

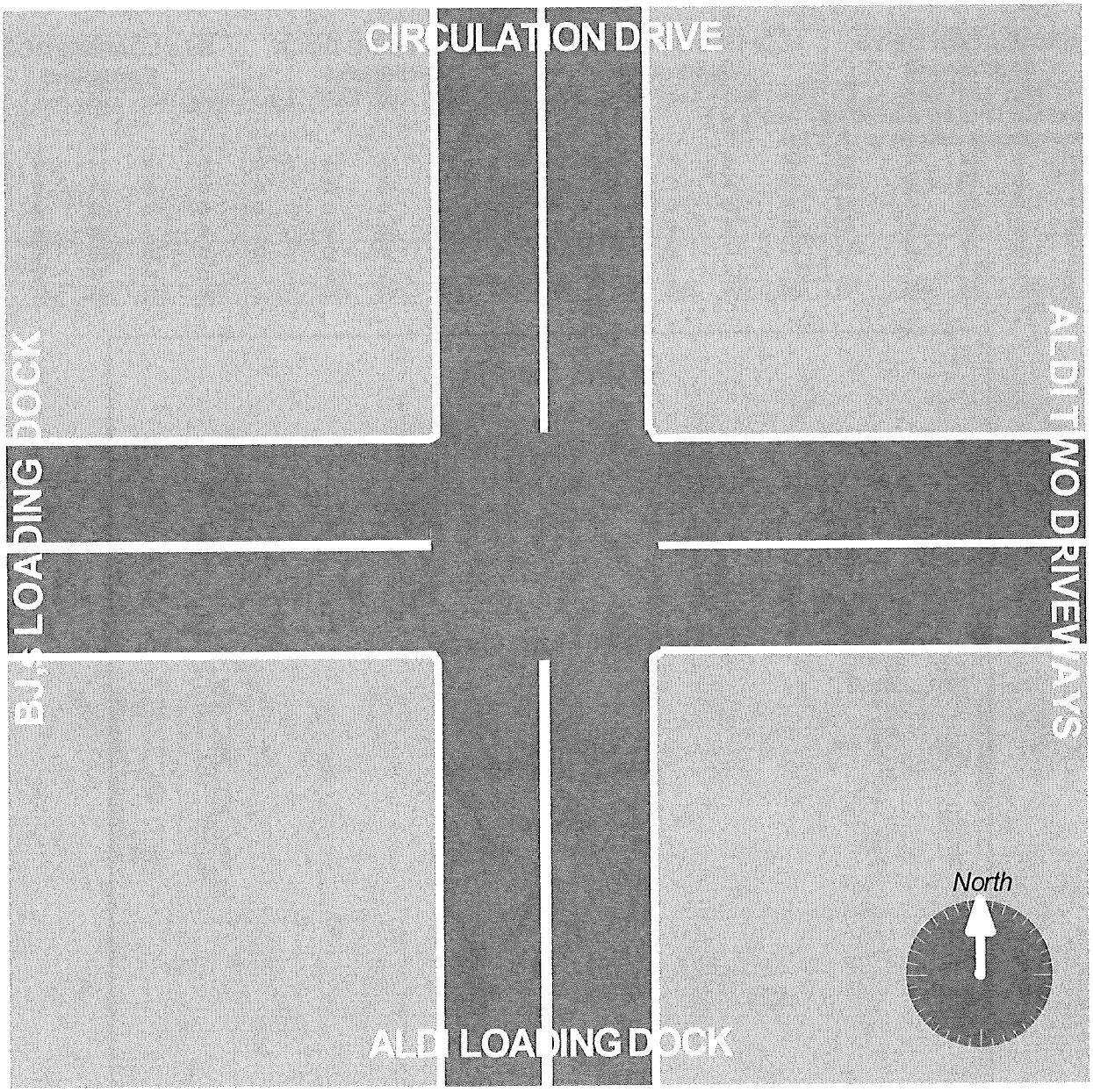


# Circulation Drive at Aldi/Home Depot/BJs Gas Station

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

ALL VEHICLES
PEAK HOUR
12:15 TO 1:15 P.M.

File Name : 908-3S
Site Code : 00000003
Start Date : 6/13/2015
Page No : 4



# Circulation Drive at Aldi/Home Depot/BJs Gas Station

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

CARS
PEAK HOUR
12:15 TO 1:15 P.M.

File Name : 908-3S
Site Code : 00000003
Start Date : 6/13/2015
Page No : 5

## Groups Printed- CARS

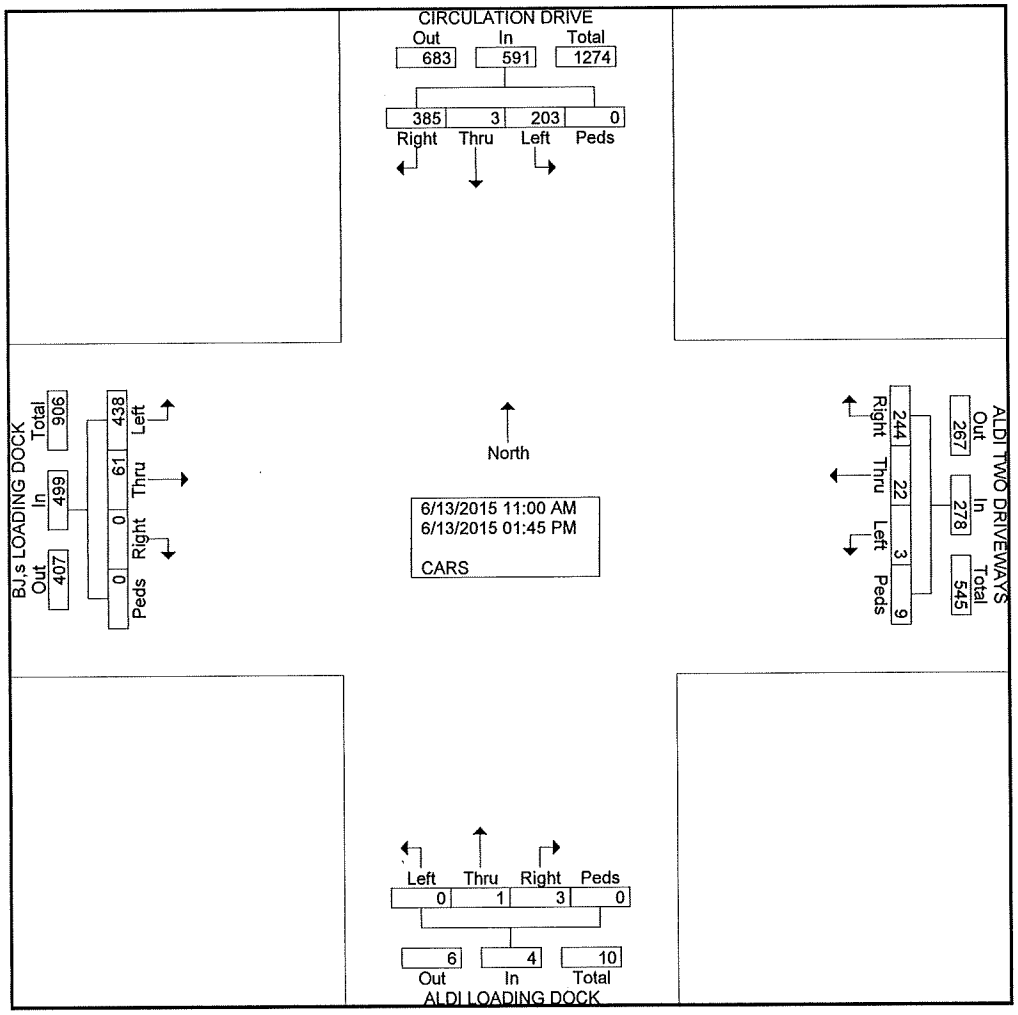
| | CIRCULATION DRIVE Southbound | | | | | ALDI TWO DRIVEWAYS Westbound | | | | | ALDI LOADING DOCK Northbound | | | | | BJ,s LOADING DOCK Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 11:00 AM | 30 | 2 | 9 | 0 | 41 | 20 | 2 | 0 | 1 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 43 | 0 | 51 | 115 |
| 11:15 AM | 36 | 0 | 13 | 0 | 49 | 16 | 2 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 38 | 0 | 39 | 106 |
| 11:30 AM | 28 | 0 | 20 | 0 | 48 | 18 | 1 | 0 | 3 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 38 | 0 | 42 | 112 |
| 11:45 AM | 34 | 0 | 25 | 0 | 59 | 17 | 2 | 0 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 38 | 0 | 44 | 123 |
| Total | 128 | 2 | 67 | 0 | 197 | 71 | 7 | 0 | 5 | 83 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 157 | 0 | 176 | 456 |
| 12:00 PM | 27 | 0 | 13 | 0 | 40 | 28 | 2 | 0 | 1 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 24 | 0 | 31 | 102 |
| 12:15 PM | 44 | 0 | 24 | 0 | 68 | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 31 | 0 | 38 | 127 |
| 12:30 PM | 35 | 0 | 13 | 0 | 48 | 23 | 4 | 0 | 1 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 40 | 0 | 48 | 124 |
| 12:45 PM | 27 | 0 | 15 | 0 | 42 | 16 | 3 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 43 | 0 | 47 | 108 |
| Total | 133 | 0 | 65 | 0 | 198 | 88 | 9 | 0 | 2 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 138 | 0 | 164 | 461 |
| 01:00 PM | 34 | 0 | 19 | 0 | 53 | 27 | 3 | 0 | 1 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 44 | 0 | 51 | 135 |
| 01:15 PM | 32 | 0 | 17 | 0 | 49 | 11 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 28 | 0 | 31 | 91 |
| 01:30 PM | 33 | 0 | 18 | 0 | 51 | 22 | 2 | 0 | 1 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 37 | 0 | 42 | 118 |
| 01:45 PM | 25 | 1 | 17 | 0 | 43 | 25 | 1 | 3 | 0 | 29 | 3 | 1 | 0 | 0 | 4 | 0 | 1 | 34 | 0 | 35 | 111 |
| Total | 124 | 1 | 71 | 0 | 196 | 85 | 6 | 3 | 2 | 96 | 3 | 1 | 0 | 0 | 4 | 0 | 16 | 143 | 0 | 159 | 455 |
| Grand Total | 385 | 3 | 203 | 0 | 591 | 244 | 22 | 3 | 9 | 278 | 3 | 1 | 0 | 0 | 4 | 0 | 61 | 438 | 0 | 499 | 1372 |
| Apprch % | 65.1 | 0.5 | 34.3 | 0 | | 87.8 | 7.9 | 1.1 | 3.2 | | 75 | 25 | 0 | 0 | | 0 | 12.2 | 87.8 | 0 | | |
| Total % | 28.1 | 0.2 | 14.8 | 0 | 43.1 | 17.8 | 1.6 | 0.2 | 0.7 | 20.3 | 0.2 | 0.1 | 0 | 0 | 0.3 | 0 | 4.4 | 31.9 | 0 | 36.4 | |

# Circulation Drive at Aldi/Home Depot/BJs Gas Station

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

CARS
PEAK HOUR
12:15 TO 1:15 P.M.

File Name : 908-3S
Site Code : 00000003
Start Date : 6/13/2015
Page No : 6



# Circulation Drive at Aldi/Home Depot/BJs Gas Station

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

**HEAVY VEHICLES**
**PEAK HOUR**
**12:15 TO 1:15 P.M.**

**File Name : 908-3S**
**Site Code : 00000003**
**Start Date : 6/13/2015**
**Page No : 7**

**Groups Printed- HEAVY VEHICLES**

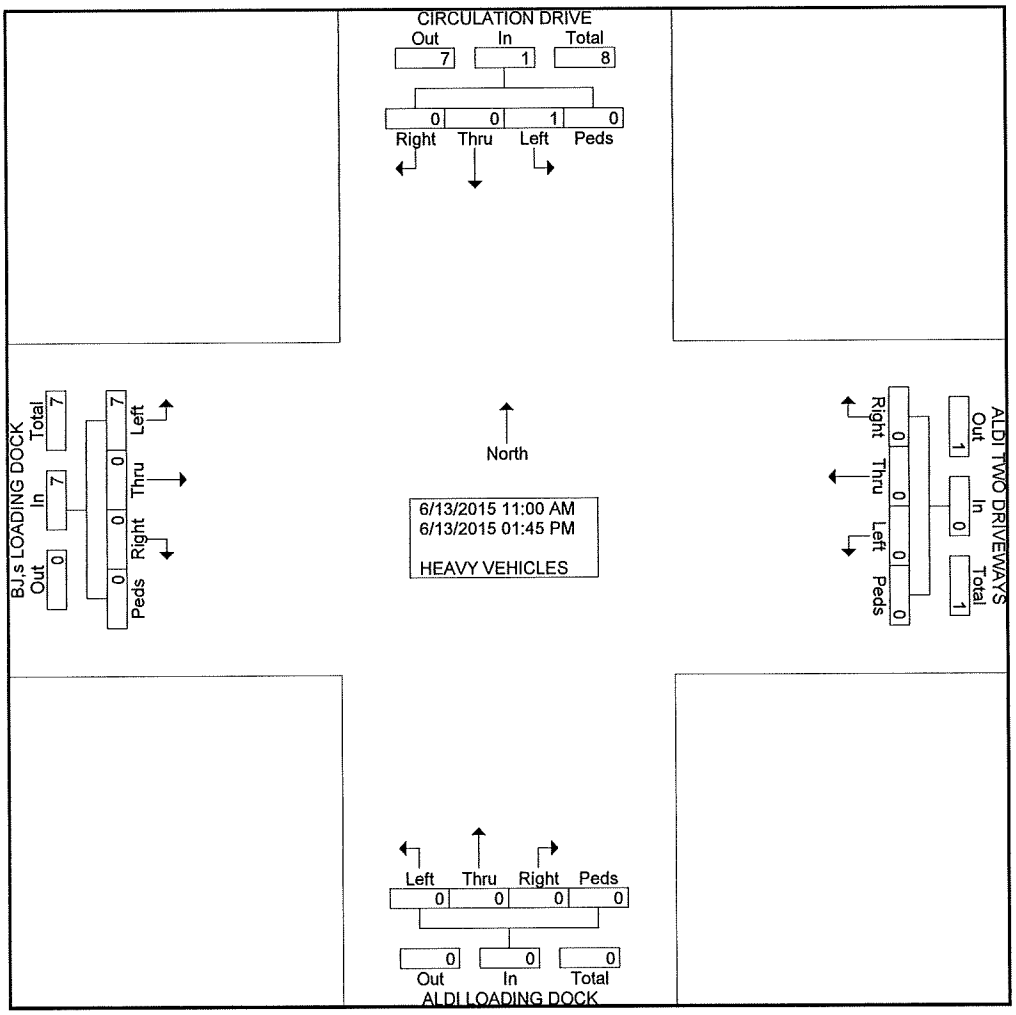
| | CIRCULATION DRIVE Southbound | | | | | ALDI TWO DRIVEWAYS Westbound | | | | | ALDI LOADING DOCK Northbound | | | | | BJ,s LOADING DOCK Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 3 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 01:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 01:45 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 3 |
| Grand Total | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 8 |
| Apprch % | 0 | 0 | 100 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 100 | 0 | | |
| Total % | 0 | 0 | 12.5 | 0 | 12.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 87.5 | 0 | 87.5 | |

# Circulation Drive at Aldi/Home Depot/BJs Gas Station

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

HEAVY VEHICLES
PEAK HOUR
12:15 TO 1:15 P.M.

File Name : 908-3S
Site Code : 00000003
Start Date : 6/13/2015
Page No : 8



# Circulation Drive at Aldi/Home Depot/BJs Gas Station

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

**BICYCLES**
**PEAK HOUR**
**12:15 TO 1:15 P.M.**

**File Name : 908-3S**
**Site Code : 00000003**
**Start Date : 6/13/2015**
**Page No : 9**

**Groups Printed- BICYCLES**

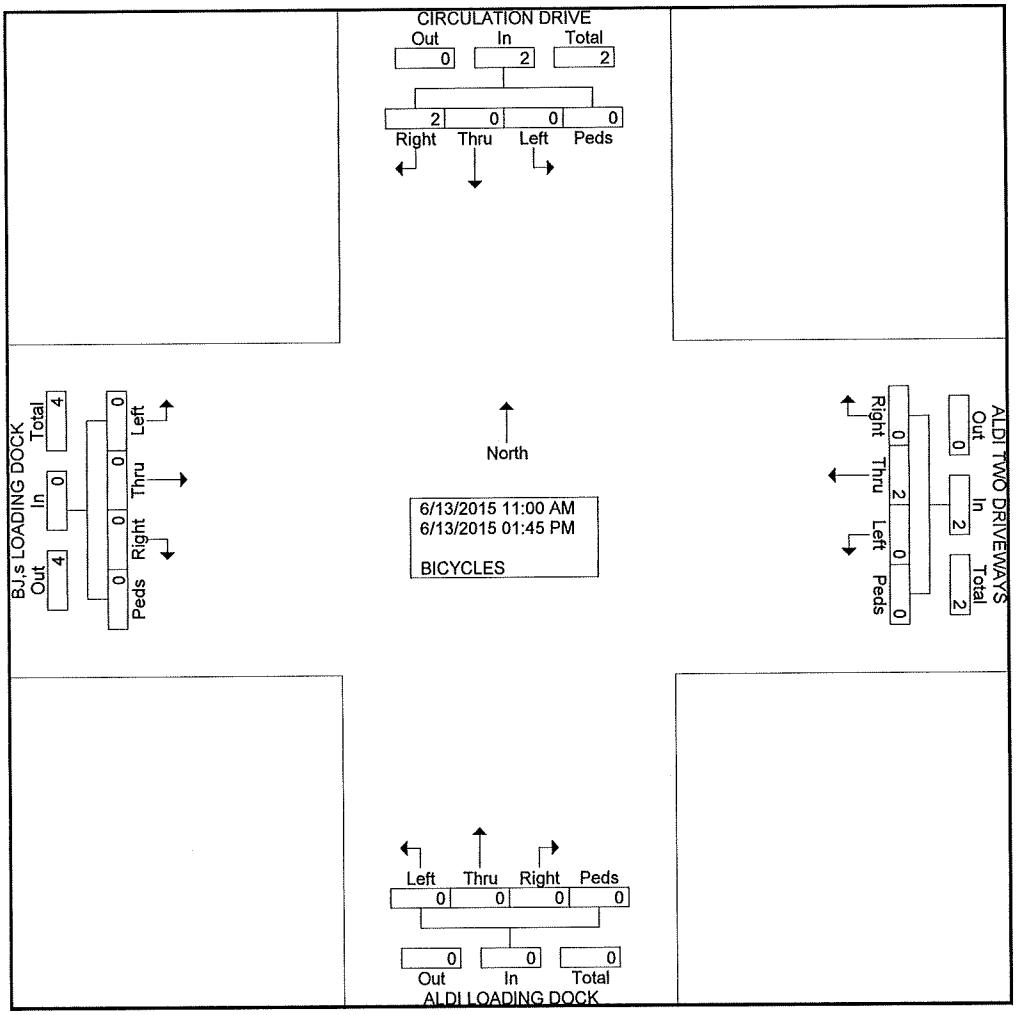
| | CIRCULATION DRIVE Southbound | | | | | ALDI TWO DRIVEWAYS Westbound | | | | | ALDI LOADING DOCK Northbound | | | | | BJ,s LOADING DOCK Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:00 PM | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 01:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Grand Total | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Apprch % | 100 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 50 | 0 | 0 | 0 | 50 | 0 | 50 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

# Circulation Drive at Aldi/Home Depot/BJs Gas Station

Saturday Mid-Day TRAFFIC COUNTS 11:00 to 2:00
West Haven, CT
prepared by Reliable Traffic Counts, LLC
Weather Clear 80 degrees

BICYCLES
PEAK HOUR
12:15 TO 1:15 P.M.

File Name : 908-3S
Site Code : 00000003
Start Date : 6/13/2015
Page No : 10



# APPENDIX B

## Seasonal Adjustment Data

Chick-fil-A Restaurant
West Hartford, Connecticut
Seasonal Adjustment Data

| | | June Data | | AADT | | Monthly Percent of Annual | |
|---|---|---|---|---|---|---|---|
| Station | Year | Avg Weekday | Avg Saturday | Avg Weekday | Avg Saturday | Avg Weekday | Avg Saturday |
| Route I-84 West Hartford | 2012 | 136200 | 116200 | 130900 | 114500 | 104% | 101% |
| Route 10 Simsbury | 2014 | 16700 | 14100 | 15800 | 14000 | 106% | 101% |

# APPENDIX C

# ConnDOT Crash Data

Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

Total of 4 accidents

# 1/1/2011 to 12/31/2013 Accident Experience Detail Report

## Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

Total of 4 accidents

| Date | Town | Road | Mile | Location Description | DOT # | Police Case # | Contributing Factor | Lighting | Surface Condition | Weather Condition | Collision Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fri Mar-29-13 8:48 | West Hartford | NEW PARK AV | 0.73 | at EXIT FR W HTFD SC | 2065744 | 1300014382 | Improper Lane Change | Daylight | Dry | No Adverse Condition | Sideswipe - Same Direction |

| Contrib. Factor | Direction | Veh Type | Maneuver Prefix | Maneuver Suffix | 1st/2nd Object Struck | 1st/2nd Object Location | Injuries K | A | B | C | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | North | Automobile | None Apply | Vehicle Going Straight | | | 0 | 0 | 0 | 0 | 0 |
| * | North | Single Unit Truck 2 Axle 4 Tires | None Apply | Vehicle Changing Lane(s) to Right | | | 0 | 0 | 0 | 0 | 0 |

| Date | Town | Road | Mile | Location Description | DOT # | Police Case # | Contributing Factor | Lighting | Surface Condition | Weather Condition | Collision Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fri Jun-07-13 7:42 | West Hartford | NEW PARK AV | 0.73 | 360 feet South of JEFFERSON AV | 2075990 | 1300026366 | Defective Equipment | Daylight | Wet | Rain | Rear-end |

| Contrib. Factor | Direction | Veh Type | Maneuver Prefix | Maneuver Suffix | 1st/2nd Object Struck | 1st/2nd Object Location | Injuries K | A | B | C | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | North | Single Unit Truck 2 Axle 4 Tires | Vehicle Skidded Slowing or Stopping For | Traffic | | | 0 | 0 | 0 | 0 | 0 |
| * | North | Automobile | Vehicle Stopped For | Traffic Signal | | | 0 | 0 | 0 | 1 | 1 |

| Date | Town | Road | Mile | Location Description | DOT # | Police Case # | Contributing Factor | Lighting | Surface Condition | Weather Condition | Collision Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Thu Feb-21-13 11:24 | West Hartford | NEW PARK AV | 0.74 | 1100 feet South of FLATBUSH AV | 2046253 | 1300008736 | Violated Traffic Control | Daylight | Dry | No Adverse Condition | Turning - Intersecting Paths |

| Contrib. Factor | Direction | Veh Type | Maneuver Prefix | Maneuver Suffix | 1st/2nd Object Struck | 1st/2nd Object Location | Injuries K | A | B | C | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | West | Passenger Van | None Apply | Vehicle Going Straight | | | 0 | 0 | 0 | 0 | 0 |
| * | South | Automobile | None Apply | Vehicle Turning Right from Proper Lane | | | 0 | 0 | 0 | 0 | 0 |

| Date | Town | Road | Mile | Location Description | DOT # | Police Case # | Contributing Factor | Lighting | Surface Condition | Weather Condition | Collision Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mon Dec-09-13 15:59 | West Hartford | NEW PARK AV | 0.74 | at ENT TO W HTFD SC | 2123616 | 1300060623 | Improper Turning Maneuver | Daylight | Wet | No Adverse Condition | Turning - Same Direction |

| Contrib. Factor | Direction | Veh Type | Maneuver Prefix | Maneuver Suffix | 1st/2nd Object Struck | 1st/2nd Object Location | Injuries K | A | B | C | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| * | South | Tractor Semi-Trailer | None Apply | Vehicle Turning Right on Red Light | | | 0 | 0 | 0 | 0 | 0 |
| | South | School Bus | Vehicle Stopped For | Traffic Signal | | | 0 | 0 | 0 | 0 | 0 |

Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

# 1/1/2011 to 12/31/2013 Accident Experience Summary Report

## Table 1 - Accident Severity

| Accident Severity | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| Fatal | 0 | 0 | 0 | 0 | 0.00 |
| A-Injury | 0 | 0 | 0 | 0 | 0.00 |
| B-Injury | 0 | 0 | 0 | 0 | 0.00 |
| C-Injury | 0 | 0 | 1 | 1 | 25.00 |
| Property Damage Only | 0 | 0 | 3 | 3 | 75.00 |
| TOTAL | 0 | 0 | 4 | 4 | 100.00% |

## Table 2 - Month and Year of Occurrence

| Month | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| January | 0 | 0 | 0 | 0 | 0.00 |
| February | 0 | 0 | 1 | 1 | 25.00 |
| March | 0 | 0 | 1 | 1 | 25.00 |
| April | 0 | 0 | 0 | 0 | 0.00 |
| May | 0 | 0 | 0 | 0 | 0.00 |
| June | 0 | 0 | 1 | 1 | 25.00 |
| July | 0 | 0 | 0 | 0 | 0.00 |
| August | 0 | 0 | 0 | 0 | 0.00 |
| September | 0 | 0 | 0 | 0 | 0.00 |
| October | 0 | 0 | 0 | 0 | 0.00 |
| November | 0 | 0 | 0 | 0 | 0.00 |
| December | 0 | 0 | 1 | 1 | 25.00 |
| TOTAL | 0 | 0 | 4 | 4 | 100.00% |

Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

**Table 3 - Hour and Day of Week**

| Hour and Day of Week | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Total | % |
|---|---|---|---|---|---|---|---|---|---|
| **Midnight to 12:59 AM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **1:00 AM to 1:59 AM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **2:00 AM to 2:59 AM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **3:00 AM to 3:59 AM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **4:00 AM to 4:59 AM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **5:00 AM to 5:59 AM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **6:00 AM to 6:59 AM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **7:00 AM to 7:59 AM** | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 25.00 |
| **8:00 AM to 8:59 AM** | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 25.00 |
| **9:00 AM to 9:59 AM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **10:00 AM to 10:59 AM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **11:00 AM to 11:59 AM** | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 25.00 |
| **Noon to 12:59 PM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **1:00 PM to 1:59 PM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **2:00 PM to 2:59 PM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **3:00 PM to 3:59 PM** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 25.00 |
| **4:00 PM to 4:59 PM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **5:00 PM to 5:59 PM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **6:00 PM to 6:59 PM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **7:00 PM to 7:59 PM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **8:00 PM to 8:59 PM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **9:00 PM to 9:59 PM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **10:00 PM to 10:59 PM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **11:00 PM to 11:59 PM** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **Unknown Time** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| **TOTAL** | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 4 | 100.00% |

Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

**Table 4 - Hour of Occurrence**

| Hour of Occurrence | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| Midnight to 12:59 AM | 0 | 0 | 0 | 0 | 0.00 |
| 1:00 AM to 1:59 AM | 0 | 0 | 0 | 0 | 0.00 |
| 2:00 AM to 2:59 AM | 0 | 0 | 0 | 0 | 0.00 |
| 3:00 AM to 3:59 AM | 0 | 0 | 0 | 0 | 0.00 |
| 4:00 AM to 4:59 AM | 0 | 0 | 0 | 0 | 0.00 |
| 5:00 AM to 5:59 AM | 0 | 0 | 0 | 0 | 0.00 |
| 6:00 AM to 6:59 AM | 0 | 0 | 0 | 0 | 0.00 |
| 7:00 AM to 7:59 AM | 0 | 0 | 1 | 1 | 25.00 |
| 8:00 AM to 8:59 AM | 0 | 0 | 1 | 1 | 25.00 |
| 9:00 AM to 9:59 AM | 0 | 0 | 0 | 0 | 0.00 |
| 10:00 AM to 10:59 AM | 0 | 0 | 0 | 0 | 0.00 |
| 11:00 AM to 11:59 AM | 0 | 0 | 1 | 1 | 25.00 |
| Noon to 12:59 PM | 0 | 0 | 0 | 0 | 0.00 |
| 1:00 PM to 1:59 PM | 0 | 0 | 0 | 0 | 0.00 |
| 2:00 PM to 2:59 PM | 0 | 0 | 0 | 0 | 0.00 |
| 3:00 PM to 3:59 PM | 0 | 0 | 1 | 1 | 25.00 |
| 4:00 PM to 4:59 PM | 0 | 0 | 0 | 0 | 0.00 |
| 5:00 PM to 5:59 PM | 0 | 0 | 0 | 0 | 0.00 |
| 6:00 PM to 6:59 PM | 0 | 0 | 0 | 0 | 0.00 |
| 7:00 PM to 7:59 PM | 0 | 0 | 0 | 0 | 0.00 |
| 8:00 PM to 8:59 PM | 0 | 0 | 0 | 0 | 0.00 |
| 9:00 PM to 9:59 PM | 0 | 0 | 0 | 0 | 0.00 |
| 10:00 PM to 10:59 PM | 0 | 0 | 0 | 0 | 0.00 |
| 11:00 PM to 11:59 PM | 0 | 0 | 0 | 0 | 0.00 |
| Unknown Time | 0 | 0 | 0 | 0 | 0.00 |
| TOTAL | 0 | 0 | 4 | 4 | 100.00% |

Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

**Table 5 - Weather Condition**

| Weather Condition | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| No Adverse Condition | 0 | 0 | 3 | 3 | 75.00 |
| Rain | 0 | 0 | 1 | 1 | 25.00 |
| TOTAL | 0 | 0 | 4 | 4 | 100.00% |

**Table 6 - Road Surface Condition**

| Road Surface Condition | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| Dry | 0 | 0 | 2 | 2 | 50.00 |
| Wet | 0 | 0 | 2 | 2 | 50.00 |
| TOTAL | 0 | 0 | 4 | 4 | 100.00% |

**Table 7 - Light Condition**

| Light Condition | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| Daylight | 0 | 0 | 4 | 4 | 100.00 |
| TOTAL | 0 | 0 | 4 | 4 | 100.00% |

Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

**Table 8- Other Roadway Feature**

| Other Roadway Feature | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| Intersection with Public Roadway | 0 | 0 | 1 | 1 | 25.00 |
| Intersection with Commercial Drive | 0 | 0 | 3 | 3 | 75.00 |
| TOTAL | 0 | 0 | 4 | 4 | 100.00% |

**Table 9- Construction or Maintenance Related**

| Construction or Maintenance | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| Yes | 0 | 0 | 0 | 0 | 0.00 |
| No | 0 | 0 | 4 | 4 | 100.00 |
| TOTAL | 0 | 0 | 4 | 4 | 100.00% |

**Table 10 - Median Barrier Penetration**

| Median Barrier Penetration | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| Full Penetration | 0 | 0 | 0 | 0 | 0.00 |
| Partial Penetration | 0 | 0 | 0 | 0 | 0.00 |
| No Penetration | 0 | 0 | 2 | 2 | 50.00 |
| Not Applicable | 0 | 0 | 2 | 2 | 50.00 |
| TOTAL | 0 | 0 | 4 | 4 | 100.00% |

Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

**Table 11 - Contributing Factor**

| Contributing Factor | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| **Violated Traffic Control** | 0 | 0 | 1 | 1 | 25.00 |
| **Improper Lane Change** | 0 | 0 | 1 | 1 | 25.00 |
| **Defective Equipment** | 0 | 0 | 1 | 1 | 25.00 |
| **Improper Turning Maneuver** | 0 | 0 | 1 | 1 | 25.00 |
| **TOTAL** | 0 | 0 | 4 | 4 | 100.00% |

Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

**Table 12 - Type of Collision**

| Type of Collision | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| **Turning - Same Direction** | 0 | 0 | 1 | 1 | 25.00 |
| **Turning - Intersecting Paths** | 0 | 0 | 1 | 1 | 25.00 |
| **Sideswipe - Same Direction** | 0 | 0 | 1 | 1 | 25.00 |
| **Rear-end** | 0 | 0 | 1 | 1 | 25.00 |
| **TOTAL** | 0 | 0 | 4 | 4 | 100.00% |

Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

**Table 13 - Vehicle Type**

| Vehicle Type | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| **Automobile** | 0 | 0 | 3 | 3 | 37.50 |
| **School Bus** | 0 | 0 | 1 | 1 | 12.50 |
| **Passenger Van** | 0 | 0 | 1 | 1 | 12.50 |
| **Single Unit Truck 2 Axle 4 Tires** | 0 | 0 | 2 | 2 | 25.00 |
| **Tractor Semi-Trailer** | 0 | 0 | 1 | 1 | 12.50 |
| **TOTAL** | 0 | 0 | 8 | 8 | 100.00% |

Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

**Table 14 - Direction of All Vehicles**

| Direction of All Vehicles | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| **North** | 0 | 0 | 4 | 4 | 50.00 |
| **South** | 0 | 0 | 3 | 3 | 37.50 |
| **East** | 0 | 0 | 0 | 0 | 0.00 |
| **West** | 0 | 0 | 1 | 1 | 12.50 |
| **Unknown** | 0 | 0 | 0 | 0 | 0.00 |
| **TOTAL** | 0 | 0 | 8 | 8 | 100.00% |

**Table 15 - Offending Vehicle Direction**

| Offending Vehicle Direction | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| **North** | 0 | 0 | 2 | 2 | 50.00 |
| **South** | 0 | 0 | 2 | 2 | 50.00 |
| **East** | 0 | 0 | 0 | 0 | 0.00 |
| **West** | 0 | 0 | 0 | 0 | 0.00 |
| **Unknown** | 0 | 0 | 0 | 0 | 0.00 |
| **TOTAL** | 0 | 0 | 4 | 4 | 100.00% |

Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

**Table 16 - Objects Struck and Location**

| Objects Struck and Location | 2011 | 2012 | 2013 | Total | Off Road and Shoulder Ahead | In Roadway | On Shoulder, Right | On Shoulder, Left | Off Road and Shoulder, Right | Off Road and Shoulder, Left | On Median Divider | Gore Area, Ramp Nose | Over Roadway |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TOTAL** | | | | | | | | | | | | | |

Town of West Hartford Road/Route # 342 NEW PARK AV from .73 to .74

**Table 17- Total Injuries by Severity**

| Total Injuries by Severity | 2011 | 2012 | 2013 | Total | % |
|---|---|---|---|---|---|
| **Total Fatal** | 0 | 0 | 0 | 0 | 0.00 |
| **Total A-Injury** | 0 | 0 | 0 | 0 | 0.00 |
| **Total B-Injury** | 0 | 0 | 0 | 0 | 0.00 |
| **Total C-Injury** | 0 | 0 | 1 | 1 | 100.00 |
| **TOTAL** | 0 | 0 | 1 | 1 | 100.00% |

# APPENDIX D

# Traffic Projection Model

# TRAFFIC PROJECTION MODEL

**Chick-Fil-A**

**Weekday Afternoon Peak Hour**

**West Hartford, CT**

| Intersection | Dir. | Turn | 2015 Counted Volumes | Balancing Volumes | 2015 Existing Balanced Volumes | Background Growth 2 yrs (at 0.5 % per year) | New Project Trips Retail/ Residential | New Project Trips Cumberland Farms | 2017 No-Build Volumes | New Project PERCENT ENTER | New Project Trips ENTER | New Project PERCENT EXIT | New Project Trips EXIT | New Project Trips TOTAL | Pass-By Trips | Internal Capture | Total Project Trips | 2017 Build Volumes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| New Park Avenue at | EB | L | 263 | 9 | 272 | | | | 272 | | 0 | 55% | 29 | 29 | 6 | | 35 | 307 |
| West Hartford Place and | | T | 8 | | 8 | | | | 8 | | 0 | | 0 | 0 | | | 0 | 8 |
| Coastal Tool Driveway | | R | 221 | 8 | 229 | | | | 229 | | 0 | 45% | 24 | 24 | 8 | | 32 | 261 |
| | WB | L | 11 | | 11 | | | | 11 | | 0 | | 0 | 0 | | | 0 | 11 |
| | | T | 4 | | 4 | | | | 4 | | 0 | | 0 | 0 | | | 0 | 4 |
| | | R | 5 | | 5 | | | | 5 | | 0 | | 0 | 0 | | | 0 | 5 |
| | NB | L | 172 | | 172 | | | | 172 | 45% | 27 | | 0 | 27 | 6 | | 33 | 205 |
| | | T | 517 | | 517 | 5 | 30 | 21 | 573 | | 0 | | 0 | 0 | -6 | | -6 | 567 |
| | | R | 10 | | 10 | | | | 10 | | 0 | | 0 | 0 | | | 0 | 10 |
| | SB | L | 4 | | 4 | | | | 4 | | 0 | | 0 | 0 | | | 0 | 4 |
| | | T | 633 | | 633 | 6 | 29 | 21 | 689 | | 0 | | 0 | 0 | -8 | | -8 | 681 |
| | | R | 293 | | 293 | | | | 293 | 55% | 33 | | 0 | 33 | 8 | | 41 | 334 |
| Circulation Drive at | WB | L | 155 | 15 | 170 | | | | 170 | 100% | 60 | | 0 | 60 | 14 | 2 | 76 | 246 |
| West Hartford Place | | R | 272 | 27 | 299 | | | | 299 | | 0 | | 0 | 0 | | -2 | -2 | 297 |
| | NB | T | 1 | | 1 | | | | 1 | | 0 | | 0 | 0 | | 2 | 2 | 3 |
| | | R | 193 | 11 | 204 | | | | 204 | | 0 | 100% | 53 | 53 | 14 | 3 | 70 | 274 |
| | SB | L | 305 | | 305 | | | | 305 | | 0 | | 0 | 0 | | -3 | -3 | 302 |
| | | T | 15 | | 15 | | | | 15 | | 0 | | 0 | 0 | | 3 | 3 | 18 |
| Circulation Drive at | EB | L | 134 | | 134 | | | | 134 | | 0 | | 0 | 0 | | -1 | -1 | 133 |
| Aldi and BJ's Gas Station | | T | 16 | | 16 | | | | 16 | | 0 | | 0 | 0 | | 1 | 1 | 17 |
| | | R | 0 | | 0 | | | | 0 | | 0 | | 0 | 0 | | | 0 | 0 |
| | WB | L | 0 | | 0 | | | | 0 | | 0 | | 0 | 0 | | | 0 | 0 |
| | | T | 5 | | 5 | | | | 5 | | 0 | | 0 | 0 | | 2 | 2 | 7 |
| | | R | 71 | | 71 | | | | 71 | | 0 | 100% | 53 | 53 | 14 | 6 | 73 | 144 |
| | NB | L | 0 | | 0 | | | | 0 | | 0 | | 0 | 0 | | | 0 | 0 |
| | | T | 0 | | 0 | | | | 0 | | 0 | | 0 | 0 | | | 0 | 0 |
| | | R | 0 | | 0 | | | | 0 | | 0 | | 0 | 0 | | | 0 | 0 |
| | SB | L | 55 | | 55 | | | | 55 | 100% | 60 | | 0 | 60 | 14 | 7 | 81 | 136 |
| | | T | 3 | | 3 | | | | 3 | | 0 | | 0 | 0 | | | 0 | 3 |
| | | R | 105 | 22 | 127 | | | | 127 | | 0 | | 0 | 0 | | -2 | -2 | 125 |

Peak Hour: 4:00 - 5:00

# TRAFFIC PROJECTION MODEL

**Chick-Fil-A**

**Saturday Midday Peak Hour**

**West Hartford, CT**

| Intersection | Dir. | Turn | 2015 Counted Volumes | Balancing Volumes | 2015 Existing Balanced Volumes | Background Growth 2 yrs (at 0.5 % per year) | New Project Trips Retail/ Residential | New Project Trips Cumberland Farms | 2017 No-Build Volumes | New Project PERCENT ENTER | New Project Trips ENTER | New Project PERCENT EXIT | New Project Trips EXIT | New Project Trips TOTAL | Pass-By Trips | Internal Capture | Total Project Trips | 2017 Build Volumes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| New Park Avenue at | EB | L | 370 | | 370 | | | | 370 | | 0 | 55% | 54 | 54 | 13 | | 67 | 437 |
| West Hartford Place and | | T | 18 | | 18 | | | | 18 | | 0 | | 0 | 0 | | | 0 | 18 |
| Coastal Tool Driveway | | R | 309 | | 309 | | | | 309 | | 0 | 45% | 45 | 45 | 13 | | 58 | 367 |
| | WB | L | 7 | | 7 | | | | 7 | | 0 | | 0 | 0 | | | 0 | 7 |
| | | T | 5 | | 5 | | | | 5 | | 0 | | 0 | 0 | | | 0 | 5 |
| | | R | 4 | | 4 | | | | 4 | | 0 | | 0 | 0 | | | 0 | 4 |
| | NB | L | 273 | | 273 | | | | 273 | 45% | 47 | | 0 | 47 | 13 | | 60 | 333 |
| | | T | 493 | | 493 | 5 | 12 | 19 | 529 | | 0 | | 0 | 0 | -13 | | -13 | 516 |
| | | R | 27 | | 27 | | | | 27 | | 0 | | 0 | 0 | | | 0 | 27 |
| | SB | L | 5 | | 5 | | | | 5 | | 0 | | 0 | 0 | | | 0 | 5 |
| | | T | 481 | | 481 | 5 | 15 | 18 | 519 | | 0 | | 0 | 0 | -13 | | -13 | 506 |
| | | R | 421 | | 421 | | | | 421 | 55% | 58 | | 0 | 58 | 13 | | 71 | 492 |
| Circulation Drive at | WB | L | 192 | 21 | 213 | | | | 213 | 100% | 105 | | 0 | 105 | 26 | 3 | 134 | 347 |
| West Hartford Place | | R | 439 | 47 | 486 | | | | 486 | | 0 | | 0 | 0 | | -3 | -3 | 483 |
| | NB | T | 2 | | 2 | | | | 2 | | 0 | | 0 | 0 | | 3 | 3 | 5 |
| | | R | 224 | 8 | 232 | | | | 232 | | 0 | 100% | 99 | 99 | 26 | 5 | 130 | 362 |
| | SB | L | 447 | 18 | 465 | | | | 465 | | 0 | | 0 | 0 | | -5 | -5 | 460 |
| | | T | 11 | | 11 | | | | 11 | | 0 | | 0 | 0 | | 5 | 5 | 16 |
| Circulation Drive at | EB | L | 135 | 10 | 145 | | | | 145 | | 0 | | 0 | 0 | | -2 | -2 | 143 |
| Aldi and BJ's Gas Station | | T | 28 | | 28 | | | | 28 | | 0 | | 0 | 0 | | 2 | 2 | 30 |
| | | R | 0 | | 0 | | | | 0 | | 0 | | 0 | 0 | | | 0 | 0 |
| | WB | L | 0 | | 0 | | | | 0 | | 0 | | 0 | 0 | | | 0 | 0 |
| | | T | 8 | | 8 | | | | 8 | | 0 | | 0 | 0 | | 4 | 4 | 12 |
| | | R | 89 | | 89 | | | | 89 | | 0 | 100% | 99 | 99 | 26 | 10 | 135 | 224 |
| | NB | L | 0 | | 0 | | | | 0 | | 0 | | 0 | 0 | | | 0 | 0 |
| | | T | 0 | | 0 | | | | 0 | | 0 | | 0 | 0 | | | 0 | 0 |
| | | R | 0 | | 0 | | | | 0 | | 0 | | 0 | 0 | | | 0 | 0 |
| | SB | L | 75 | | 75 | | | | 75 | 100% | 105 | | 0 | 105 | 26 | 12 | 143 | 218 |
| | | T | 0 | | 0 | | | | 0 | | 0 | | 0 | 0 | | | 0 | 0 |
| | | R | 140 | 9 | 149 | | | | 149 | | 0 | | 0 | 0 | | -4 | -4 | 145 |

Peak Hour: 11:45 - 12:45

# APPENDIX E

# Background Traffic Growth Data

Chick-Fil-A Restaurant
West Hartford, Connecticut
Annual Background Growth Rate

| | |
|---|---|
| **Location ID** | 177 |
| **Located On** | New Park Avenue |
| | South of Talcott Road |
| | West Hartford, CT |

| Year | AADT | Annual Growth Rate |
|---|---|---|
| 2012 | 13,100 | -2.6% |
| 2009 | 15,700 | |
| 2006 | 15,300 | |

# APPENDIX F

# Highway Capacity Manual Methodologies

## CAPACITY/LEVEL-OF-SERVICE ANALYSES METHODOLOGY

The detailed capacity/level-of-service analysis contained in this traffic impact study was performed in accordance with the standard techniques contained in the *Highway Capacity Manual*.(1) By definition, capacity represents "the maximum rate of flow that can reasonably be expected to pass a point on a uniform section of a lane or roadway under prevailing roadway, traffic, and control conditions." The level of functioning of an intersection or a uniform section of a lane or roadway can be expressed in terms of levels of service. Level of service (LOS) is defined as "a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers". Such measures include "speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety."

At unsignalized intersections, a methodology for evaluating the relative functioning of intersections controlled by stop or yield signs has been developed, and is based on several assumptions, including:

- Major street flows are not affected by the minor (stop-sign controlled) street movements.
- Left turns from the major street to the minor street are influenced only by opposing major street through flow.
- Minor street left turns are impeded by all major street traffic plus opposing minor street traffic.
- Minor street through traffic is impeded by all major street traffic.
- Minor street right turns are impeded only by the major street traffic coming from the left.

The concept of stop-controlled or yield-controlled intersection analysis is based on the estimate of average total delay on minor streets. The methodology of analysis relies on three elements: the size and distribution of gaps in the major traffic stream, the usefulness of these gaps to the minor stream drivers, and the relative priority of the various traffic streams at the intersection. The results of the analysis provide an estimate of average total delay for the various critical movements at the unsignalized intersections. Correlation between average total delay and the respective levels of service are provided for unsignalized intersections as follows:

---

(1) *Transportation Research Board, Highway Capacity Manual 2010, published by the Transportation Research Board, Washington, DC, 2010.*

*Unsignalized Intersections*

| Level of Service | Control Delay Per Vehicle (seconds) |
|---|---|
| A | 0 – 10 |
| B | >10 – 15 |
| C | >15 – 25 |
| D | >25 – 35 |
| E | >35 – 50 |
| F | > 50 |

At signalized intersections, an additional element must be considered: time allocation. Level of service is based on the average control delay per vehicle for various movements within the intersection. Volume/capacity relationships also affect the operations of signalized intersections. Thus, both volume/capacity and delay must be considered to evaluate the overall operation of a signalized intersection. Correlation between average delay per vehicle and the respective levels of service are provided for signalized intersections as follows:

*Signalized Intersections*

| Level of Service | Control Delay Per Vehicle (seconds) |
|---|---|
| A | ≤ 10 |
| B | >10 – 20 |
| C | >20 – 35 |
| D | >35 – 55 |
| E | >55 – 80 |
| F | > 80 |

# APPENDIX G

# 2015 Existing Capacity/Level-of-Service Analysis

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 272 | 8 | 229 | 11 | 4 | 5 | 172 | 517 | 10 | 4 | 633 | 293 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 350 | | 0 | 200 | | 250 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1681 | 1692 | 1583 | 0 | 1790 | 0 | 1787 | 3564 | 0 | 1805 | 3610 | 1583 |
| Flt Permitted | 0.950 | 0.955 | | | 0.973 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1681 | 1692 | 1583 | 0 | 1790 | 0 | 1787 | 3564 | 0 | 1805 | 3610 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 239 | | 6 | | | 2 | | | | 296 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 248 | | | 175 | | | 557 | | | 526 | |
| Travel Time (s) | | 5.6 | | | 4.0 | | | 12.7 | | | 12.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.80 | 0.80 | 0.80 | 0.93 | 0.93 | 0.93 | 0.99 | 0.99 | 0.99 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 0% | 2% | 0% | 0% | 0% | 1% | 1% | 0% | 0% | 0% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | 49% | | | | | | | | | | | |
| Lane Group Flow (vph) | 144 | 147 | 239 | 0 | 25 | 0 | 185 | 567 | 0 | 4 | 639 | 296 |
| Turn Type | Split | NA | pt+ov | Split | NA | | Prot | NA | | Prot | NA | pm+ov |
| Protected Phases | 8 | 8 | 1 8 | 7 | 7 | | 1 | 6 | | 5 | 2 | 8 |
| Permitted Phases | | | | | | | | | | | | 2 |
| Detector Phase | 8 | 8 | 1 8 | 7 | 7 | | 1 | 6 | | 5 | 2 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | | 4.0 | 4.0 | | 4.0 | 15.0 | | 4.0 | 15.0 | 6.0 |
| Minimum Split (s) | 10.0 | 10.0 | | 8.0 | 8.0 | | 7.0 | 21.0 | | 7.0 | 21.0 | 10.0 |
| Total Split (s) | 26.0 | 26.0 | | 11.0 | 11.0 | | 20.0 | 46.0 | | 7.0 | 33.0 | 26.0 |
| Total Split (%) | 22.6% | 22.6% | | 9.6% | 9.6% | | 17.4% | 40.0% | | 6.1% | 28.7% | 22.6% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 4.0 | | | 4.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | 4.0 |
| Lead/Lag | Lag | Lag | | Lead | Lead | | Lead | Lag | | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes |
| Recall Mode | None | None | | None | None | | None | Max | | None | Max | None |
| Act Effct Green (s) | 13.4 | 13.4 | 30.6 | | 5.6 | | 12.9 | 44.5 | | 4.3 | 29.4 | 47.9 |
| Actuated g/C Ratio | 0.18 | 0.18 | 0.40 | | 0.07 | | 0.17 | 0.58 | | 0.06 | 0.39 | 0.63 |
| v/c Ratio | 0.49 | 0.49 | 0.31 | | 0.18 | | 0.61 | 0.27 | | 0.04 | 0.46 | 0.27 |
| Control Delay | 37.4 | 37.5 | 4.1 | | 38.4 | | 42.7 | 12.9 | | 46.2 | 23.8 | 1.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.4 | 37.5 | 4.1 | | 38.4 | | 42.7 | 12.9 | | 46.2 | 23.8 | 1.7 |
| LOS | D | D | A | | D | | D | B | | D | C | A |

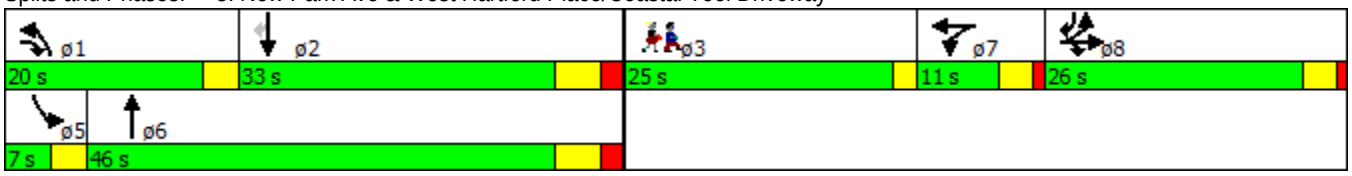
| Lane Group | ø3 |
|---|---|
| Lane Configurations | |
| Volume (vph) | |
| Ideal Flow (vphpl) | |
| Lane Width (ft) | |
| Grade (%) | |
| Storage Length (ft) | |
| Storage Lanes | |
| Taper Length (ft) | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Right Turn on Red | |
| Satd. Flow (RTOR) | |
| Link Speed (mph) | |
| Link Distance (ft) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | |
| Confl. Bikes (#/hr) | |
| Peak Hour Factor | |
| Growth Factor | |
| Heavy Vehicles (%) | |
| Bus Blockages (#/hr) | |
| Parking (#/hr) | |
| Mid-Block Traffic (%) | |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | |
| Turn Type | |
| Protected Phases | 3 |
| Permitted Phases | |
| Detector Phase | |
| Switch Phase | |
| Minimum Initial (s) | 4.0 |
| Minimum Split (s) | 25.0 |
| Total Split (s) | 25.0 |
| Total Split (%) | 22% |
| Yellow Time (s) | 2.0 |
| All-Red Time (s) | 0.0 |
| Lost Time Adjust (s) | |
| Total Lost Time (s) | |
| Lead/Lag | |
| Lead-Lag Optimize? | |
| Recall Mode | None |
| Act Effct Green (s) | |
| Actuated g/C Ratio | |
| v/c Ratio | |
| Control Delay | |
| Queue Delay | |
| Total Delay | |
| LOS | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach Delay | | 22.4 | | | 38.4 | | | 20.2 | | | 16.9 | |
| Approach LOS | | C | | | D | | | C | | | B | |
| Queue Length 50th (ft) | 54 | 55 | 0 | | 7 | | 68 | 43 | | 2 | 95 | 0 |
| Queue Length 95th (ft) | 168 | 171 | 51 | | 37 | | #227 | 221 | | 15 | 300 | 29 |
| Internal Link Dist (ft) | | 168 | | | 95 | | | 477 | | | 446 | |
| Turn Bay Length (ft) | | | | | | | 350 | | | 200 | | 250 |
| Base Capacity (vph) | 517 | 521 | 871 | | 180 | | 425 | 2084 | | 101 | 1391 | 1274 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.28 | 0.27 | | 0.14 | | 0.44 | 0.27 | | 0.04 | 0.46 | 0.23 |

## Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 76.2
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 19.6 Intersection LOS: B
Intersection Capacity Utilization 51.1% ICU Level of Service A
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Park Ave & West Hartford Place/Coastal Tool Driveway



| Lane Group | ø3 |
|---|---|
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (ft) | |
| Queue Length 95th (ft) | |
| Internal Link Dist (ft) | |
| Turn Bay Length (ft) | |
| Base Capacity (vph) | |
| Starvation Cap Reductn | |
| Spillback Cap Reductn | |
| Storage Cap Reductn | |
| Reduced v/c Ratio | |

Intersection Summary

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 13 |
| Intersection LOS | B |

| Movement | WBU | WBL | WBR | NBU | NBT | NBR | SBU | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Vol, veh/h | 0 | 170 | 299 | 0 | 1 | 204 | 0 | 305 | 15 |
| Peak Hour Factor | 0.92 | 0.89 | 0.89 | 0.92 | 0.95 | 0.95 | 0.92 | 0.98 | 0.98 |
| Heavy Vehicles, % | 2 | 1 | 3 | 2 | 0 | 4 | 2 | 1 | 0 |
| Mvmt Flow | 0 | 191 | 336 | 0 | 1 | 215 | 0 | 311 | 15 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |

| Approach | WB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 1 | 0 | 2 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 1 | 2 | 0 |
| HCM Control Delay | 13 | 10.5 | 14.8 |
| HCM LOS | B | B | B |

| Lane | NBLn1 | WBLn1 | WBLn2 | SBLn1 |
|---|---|---|---|---|
| Vol Left, % | 0% | 100% | 0% | 95% |
| Vol Thru, % | 0% | 0% | 0% | 5% |
| Vol Right, % | 100% | 0% | 100% | 0% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 205 | 170 | 299 | 320 |
| LT Vol | 1 | 0 | 0 | 15 |
| Through Vol | 204 | 0 | 299 | 0 |
| RT Vol | 0 | 170 | 0 | 305 |
| Lane Flow Rate | 216 | 191 | 336 | 327 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util (X) | 0.309 | 0.345 | 0.497 | 0.52 |
| Departure Headway (Hd) | 5.151 | 6.508 | 5.328 | 5.733 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 697 | 554 | 675 | 630 |
| Service Time | 3.189 | 4.241 | 3.06 | 3.768 |
| HCM Lane V/C Ratio | 0.31 | 0.345 | 0.498 | 0.519 |
| HCM Control Delay | 10.5 | 12.6 | 13.2 | 14.8 |
| HCM Lane LOS | B | B | B | B |
| HCM 95th-tile Q | 1.3 | 1.5 | 2.8 | 3 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|---|---|
| Vol, veh/h | 134 | 16 | 0 | 0 | 5 | 71 | 0 | 0 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 83 | 83 | 83 | 92 | 92 | 92 |
| Heavy Vehicles, % | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 151 | 18 | 0 | 0 | 6 | 86 | 0 | 0 | 1 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 254 | 209 | 78 | 218 | 283 | 1 | 153 | 0 | 0 |
| Stage 1 | 208 | 208 | - | 1 | 1 | - | - | - | - |
| Stage 2 | 46 | 1 | - | 217 | 282 | - | - | - | - |
| Critical Hdwy | 7.14 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.14 | 5.5 | - | 6.1 | 5.5 | - | - | - | - |
| Critical Hdwy Stg 2 | 6.14 | 5.5 | - | 6.1 | 5.5 | - | - | - | - |
| Follow-up Hdwy | 3.536 | 4 | 3.3 | 3.5 | 4 | 3.3 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 695 | 692 | 988 | 743 | 629 | 1090 | 1440 | - | - |
| Stage 1 | 789 | 734 | - | 1027 | 899 | - | - | - | - |
| Stage 2 | 963 | 899 | - | 790 | 681 | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - |
| Mov Cap-1 Maneuver | 614 | 661 | 988 | 703 | 601 | 1090 | 1440 | - | - |
| Mov Cap-2 Maneuver | 614 | 661 | - | 703 | 601 | - | - | - | - |
| Stage 1 | 789 | 701 | - | 1027 | 899 | - | - | - | - |
| Stage 2 | 881 | 899 | - | 735 | 650 | - | - | - | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 13 | 8.8 | 0 |
| HCM LOS | B | A | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1440 | - | - | 619 | 1035 | 1622 | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.272 | 0.088 | 0.04 | - | - |
| HCM Control Delay (s) | 0 | - | - | 13 | 8.8 | 7.3 | 0 | - |
| HCM Lane LOS | A | - | - | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 1.1 | 0.3 | 0.1 | - | - |

| Intersection | | | |
|---|---|---|---|
| Int Delay, s/veh | | | |

| Movement | SBL | SBT | SBR |
|---|---|---|---|
| Vol, veh/h | 55 | 3 | 127 |
| Conflicting Peds, #/hr | 0 | 0 | 0 |
| Sign Control | Free | Free | Free |
| RT Channelized | - | - | None |
| Storage Length | - | - | - |
| Veh in Median Storage, # | - | 0 | - |
| Grade, % | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 0 | 0 |
| Mvmt Flow | 65 | 4 | 149 |

| Major/Minor | Major2 | | |
|---|---|---|---|
| Conflicting Flow All | 1 | 0 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | 2.218 | - | - |
| Pot Cap-1 Maneuver | 1622 | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Platoon blocked, % | | - | - |
| Mov Cap-1 Maneuver | 1622 | - | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | SB |
|---|---|
| HCM Control Delay, s | 2.2 |
| HCM LOS | |

| Minor Lane/Major Mvmt |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 370 | 18 | 309 | 7 | 5 | 4 | 273 | 493 | 27 | 5 | 481 | 421 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 350 | | 0 | 200 | | 250 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1715 | 1727 | 1599 | 0 | 1795 | 0 | 1787 | 3547 | 0 | 1805 | 3610 | 1599 |
| Flt Permitted | 0.950 | 0.957 | | | 0.978 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1715 | 1727 | 1599 | 0 | 1795 | 0 | 1787 | 3547 | 0 | 1805 | 3610 | 1599 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 332 | | 5 | | | 5 | | | | 453 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 248 | | | 175 | | | 557 | | | 526 | |
| Travel Time (s) | | 5.6 | | | 4.0 | | | 12.7 | | | 12.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.80 | 0.80 | 0.80 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 1% | 0% | 0% | 0% | 1% | 1% | 0% | 0% | 0% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | 48% | | | | | | | | | | | |
| Lane Group Flow (vph) | 207 | 210 | 332 | 0 | 20 | 0 | 294 | 559 | 0 | 5 | 517 | 453 |
| Turn Type | Split | NA | pt+ov | Split | NA | | Prot | NA | | Prot | NA | pm+ov |
| Protected Phases | 8 | 8 | 1 8 | 7 | 7 | | 1 | 6 | | 5 | 2 | 8 |
| Permitted Phases | | | | | | | | | | | | 2 |
| Detector Phase | 8 | 8 | 1 8 | 7 | 7 | | 1 | 6 | | 5 | 2 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | | 4.0 | 4.0 | | 4.0 | 15.0 | | 4.0 | 15.0 | 6.0 |
| Minimum Split (s) | 10.5 | 10.5 | | 8.0 | 8.0 | | 7.0 | 21.0 | | 7.0 | 21.0 | 10.5 |
| Total Split (s) | 26.0 | 26.0 | | 11.0 | 11.0 | | 22.0 | 46.0 | | 7.0 | 31.0 | 26.0 |
| Total Split (%) | 22.6% | 22.6% | | 9.6% | 9.6% | | 19.1% | 40.0% | | 6.1% | 27.0% | 22.6% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 4.0 | | | 4.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | 4.0 |
| Lead/Lag | Lag | Lag | | Lead | Lead | | Lead | Lag | | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes |
| Recall Mode | None | None | | None | None | | None | Max | | None | Max | None |
| Act Effct Green (s) | 17.6 | 17.6 | 41.4 | | 4.4 | | 19.7 | 47.6 | | 4.1 | 25.9 | 48.4 |
| Actuated g/C Ratio | 0.21 | 0.21 | 0.50 | | 0.05 | | 0.24 | 0.57 | | 0.05 | 0.31 | 0.58 |
| v/c Ratio | 0.57 | 0.58 | 0.35 | | 0.20 | | 0.70 | 0.28 | | 0.06 | 0.46 | 0.41 |
| Control Delay | 38.4 | 38.5 | 3.3 | | 42.7 | | 42.8 | 13.4 | | 47.6 | 27.8 | 2.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.4 | 38.5 | 3.3 | | 42.7 | | 42.8 | 13.4 | | 47.6 | 27.8 | 2.0 |
| LOS | D | D | A | | D | | D | B | | D | C | A |

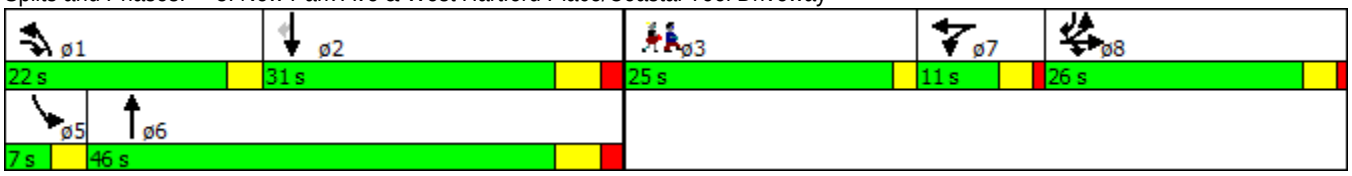
| Lane Group | ø3 |
|---|---|
| Lane Configurations | |
| Volume (vph) | |
| Ideal Flow (vphpl) | |
| Lane Width (ft) | |
| Grade (%) | |
| Storage Length (ft) | |
| Storage Lanes | |
| Taper Length (ft) | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Right Turn on Red | |
| Satd. Flow (RTOR) | |
| Link Speed (mph) | |
| Link Distance (ft) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | |
| Confl. Bikes (#/hr) | |
| Peak Hour Factor | |
| Growth Factor | |
| Heavy Vehicles (%) | |
| Bus Blockages (#/hr) | |
| Parking (#/hr) | |
| Mid-Block Traffic (%) | |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | |
| Turn Type | |
| Protected Phases | 3 |
| Permitted Phases | |
| Detector Phase | |
| Switch Phase | |
| Minimum Initial (s) | 4.0 |
| Minimum Split (s) | 25.0 |
| Total Split (s) | 25.0 |
| Total Split (%) | 22% |
| Yellow Time (s) | 2.0 |
| All-Red Time (s) | 0.0 |
| Lost Time Adjust (s) | |
| Total Lost Time (s) | |
| Lead/Lag | |
| Lead-Lag Optimize? | |
| Recall Mode | None |
| Act Effct Green (s) | |
| Actuated g/C Ratio | |
| v/c Ratio | |
| Control Delay | |
| Queue Delay | |
| Total Delay | |
| LOS | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach Delay | | 22.8 | | | 42.7 | | | 23.6 | | | 15.9 | |
| Approach LOS | | C | | | D | | | C | | | B | |
| Queue Length 50th (ft) | 87 | 89 | 0 | | 7 | | 123 | 53 | | 2 | 97 | 0 |
| Queue Length 95th (ft) | 232 | 236 | 56 | | 32 | | #394 | 213 | | 17 | 241 | 33 |
| Internal Link Dist (ft) | | 168 | | | 95 | | | 477 | | | 446 | |
| Turn Bay Length (ft) | | | | | | | 350 | | | 200 | | 250 |
| Base Capacity (vph) | 469 | 472 | 962 | | 160 | | 422 | 2031 | | 89 | 1122 | 1189 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.44 | 0.44 | 0.35 | | 0.13 | | 0.70 | 0.28 | | 0.06 | 0.46 | 0.38 |

## Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 83.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 20.6 Intersection LOS: C
Intersection Capacity Utilization 57.5% ICU Level of Service B
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Park Ave & West Hartford Place/Coastal Tool Driveway



| Lane Group | ø3 |
|---|---|
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (ft) | |
| Queue Length 95th (ft) | |
| Internal Link Dist (ft) | |
| Turn Bay Length (ft) | |
| Base Capacity (vph) | |
| Starvation Cap Reductn | |
| Spillback Cap Reductn | |
| Storage Cap Reductn | |
| Reduced v/c Ratio | |

| Intersection Summary |
|---|

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 33.1 |
| Intersection LOS | D |

| Movement | WBU | WBL | WBR | NBU | NBT | NBR | SBU | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Vol, veh/h | 0 | 213 | 486 | 0 | 2 | 232 | 0 | 465 | 11 |
| Peak Hour Factor | 0.92 | 0.93 | 0.93 | 0.92 | 0.88 | 0.88 | 0.92 | 0.94 | 0.94 |
| Heavy Vehicles, % | 2 | 0 | 1 | 2 | 0 | 2 | 2 | 1 | 0 |
| Mvmt Flow | 0 | 229 | 523 | 0 | 2 | 264 | 0 | 495 | 12 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |

| Approach | WB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 1 | 0 | 2 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 1 | 2 | 0 |
| HCM Control Delay | 32.3 | 14.4 | 44.1 |
| HCM LOS | D | B | E |

| Lane | NBLn1 | WBLn1 | WBLn2 | SBLn1 |
|---|---|---|---|---|
| Vol Left, % | 0% | 100% | 0% | 98% |
| Vol Thru, % | 1% | 0% | 0% | 2% |
| Vol Right, % | 99% | 0% | 100% | 0% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 234 | 213 | 486 | 476 |
| LT Vol | 2 | 0 | 0 | 11 |
| Through Vol | 232 | 0 | 486 | 0 |
| RT Vol | 0 | 213 | 0 | 465 |
| Lane Flow Rate | 266 | 229 | 523 | 506 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util (X) | 0.455 | 0.465 | 0.886 | 0.906 |
| Departure Headway (Hd) | 6.161 | 7.314 | 6.107 | 6.443 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 580 | 490 | 591 | 562 |
| Service Time | 4.256 | 5.1 | 3.892 | 4.519 |
| HCM Lane V/C Ratio | 0.459 | 0.467 | 0.885 | 0.9 |
| HCM Control Delay | 14.4 | 16.4 | 39.2 | 44.1 |
| HCM Lane LOS | B | C | E | E |
| HCM 95th-tile Q | 2.4 | 2.4 | 10.4 | 10.8 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 8.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|---|---|
| Vol, veh/h | 145 | 28 | 0 | 0 | 8 | 89 | 0 | 0 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 81 | 81 | 81 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 175 | 34 | 0 | 0 | 10 | 110 | 0 | 0 | 1 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 341 | 282 | 93 | 298 | 375 | 1 | 186 | 0 | 0 |
| Stage 1 | 281 | 281 | - | 1 | 1 | - | - | - | - |
| Stage 2 | 60 | 1 | - | 297 | 374 | - | - | - | - |
| Critical Hdwy | 7.12 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.5 | - | 6.1 | 5.5 | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.5 | - | 6.1 | 5.5 | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4 | 3.3 | 3.5 | 4 | 3.3 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 613 | 630 | 970 | 658 | 559 | 1090 | 1401 | - | - |
| Stage 1 | 726 | 682 | - | 1027 | 899 | - | - | - | - |
| Stage 2 | 951 | 899 | - | 716 | 621 | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - |
| Mov Cap-1 Maneuver | 516 | 588 | 970 | 598 | 522 | 1090 | 1401 | - | - |
| Mov Cap-2 Maneuver | 516 | 588 | - | 598 | 522 | - | - | - | - |
| Stage 1 | 726 | 637 | - | 1027 | 899 | - | - | - | - |
| Stage 2 | 846 | 899 | - | 633 | 580 | - | - | - | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 16.3 | 9.1 | 0 |
| HCM LOS | C | A | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1401 | - | - | 526 | 1000 | 1635 | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.396 | 0.12 | 0.057 | - | - |
| HCM Control Delay (s) | 0 | - | - | 16.3 | 9.1 | 7.3 | 0 | - |
| HCM Lane LOS | A | - | - | C | A | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 1.9 | 0.4 | 0.2 | - | - |

| Intersection | | | |
|---|---|---|---|
| Int Delay, s/veh | | | |

| Movement | SBL | SBT | SBR |
|---|---|---|---|
| Vol, veh/h | 75 | 0 | 149 |
| Conflicting Peds, #/hr | 0 | 0 | 0 |
| Sign Control | Free | Free | Free |
| RT Channelized | - | - | None |
| Storage Length | - | - | - |
| Veh in Median Storage, # | - | 0 | - |
| Grade, % | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 0 | 0 |
| Mvmt Flow | 94 | 0 | 186 |

| Major/Minor | Major2 | | |
|---|---|---|---|
| Conflicting Flow All | 1 | 0 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | 4.1 | - | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | 2.2 | - | - |
| Pot Cap-1 Maneuver | 1635 | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Platoon blocked, % | | - | - |
| Mov Cap-1 Maneuver | 1635 | - | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | SB |
|---|---|
| HCM Control Delay, s | 2.5 |
| HCM LOS | |

| Minor Lane/Major Mvmt |
|---|

# APPENDIX H

# 2017 No Build Capacity/Level-of-Service Analysis

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 272 | 8 | 229 | 11 | 4 | 5 | 172 | 573 | 10 | 4 | 689 | 293 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 350 | | 0 | 200 | | 250 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1681 | 1692 | 1583 | 0 | 1790 | 0 | 1787 | 3564 | 0 | 1805 | 3610 | 1583 |
| Flt Permitted | 0.950 | 0.955 | | | 0.973 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1681 | 1692 | 1583 | 0 | 1790 | 0 | 1787 | 3564 | 0 | 1805 | 3610 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 239 | | 6 | | | 2 | | | | 296 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 248 | | | 175 | | | 557 | | | 526 | |
| Travel Time (s) | | 5.6 | | | 4.0 | | | 12.7 | | | 12.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.80 | 0.80 | 0.80 | 0.93 | 0.93 | 0.93 | 0.99 | 0.99 | 0.99 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 0% | 2% | 0% | 0% | 0% | 1% | 1% | 0% | 0% | 0% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | 49% | | | | | | | | | | | |
| Lane Group Flow (vph) | 144 | 147 | 239 | 0 | 25 | 0 | 185 | 627 | 0 | 4 | 696 | 296 |
| Turn Type | Split | NA | custom | Split | NA | | Prot | NA | | Prot | NA | pm+ov |
| Protected Phases | 8 | 8 | 1 8 | 7 | 7 | | 1 | 6 | | 5 | 2 | 8 |
| Permitted Phases | | | 8 | | | | | | | | | 2 |
| Detector Phase | 8 | 8 | 1 8 | 7 | 7 | | 1 | 6 | | 5 | 2 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | | 4.0 | 4.0 | | 4.0 | 15.0 | | 4.0 | 15.0 | 6.0 |
| Minimum Split (s) | 10.0 | 10.0 | | 8.0 | 8.0 | | 7.0 | 21.0 | | 7.0 | 21.0 | 10.0 |
| Total Split (s) | 26.0 | 26.0 | | 11.0 | 11.0 | | 20.0 | 46.0 | | 7.0 | 33.0 | 26.0 |
| Total Split (%) | 22.6% | 22.6% | | 9.6% | 9.6% | | 17.4% | 40.0% | | 6.1% | 28.7% | 22.6% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 4.0 | | | 4.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | 4.0 |
| Lead/Lag | Lag | Lag | | Lead | Lead | | Lead | Lag | | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes |
| Recall Mode | None | None | | None | None | | None | Max | | None | Max | None |
| Act Effct Green (s) | 13.4 | 13.4 | 30.6 | | 5.6 | | 12.9 | 44.5 | | 4.3 | 29.4 | 47.9 |
| Actuated g/C Ratio | 0.18 | 0.18 | 0.40 | | 0.07 | | 0.17 | 0.58 | | 0.06 | 0.39 | 0.63 |
| v/c Ratio | 0.49 | 0.49 | 0.31 | | 0.18 | | 0.61 | 0.30 | | 0.04 | 0.50 | 0.27 |
| Control Delay | 37.4 | 37.5 | 4.1 | | 38.4 | | 42.7 | 13.1 | | 46.2 | 24.4 | 1.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.4 | 37.5 | 4.1 | | 38.4 | | 42.7 | 13.1 | | 46.2 | 24.4 | 1.7 |
| LOS | D | D | A | | D | | D | B | | D | C | A |

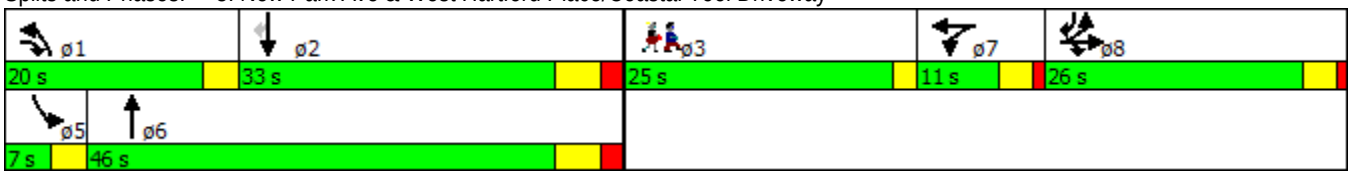
| Lane Group | ø3 |
|---|---|
| Lane Configurations | |
| Volume (vph) | |
| Ideal Flow (vphpl) | |
| Lane Width (ft) | |
| Grade (%) | |
| Storage Length (ft) | |
| Storage Lanes | |
| Taper Length (ft) | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Right Turn on Red | |
| Satd. Flow (RTOR) | |
| Link Speed (mph) | |
| Link Distance (ft) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | |
| Confl. Bikes (#/hr) | |
| Peak Hour Factor | |
| Growth Factor | |
| Heavy Vehicles (%) | |
| Bus Blockages (#/hr) | |
| Parking (#/hr) | |
| Mid-Block Traffic (%) | |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | |
| Turn Type | |
| Protected Phases | 3 |
| Permitted Phases | |
| Detector Phase | |
| Switch Phase | |
| Minimum Initial (s) | 4.0 |
| Minimum Split (s) | 25.0 |
| Total Split (s) | 25.0 |
| Total Split (%) | 22% |
| Yellow Time (s) | 2.0 |
| All-Red Time (s) | 0.0 |
| Lost Time Adjust (s) | |
| Total Lost Time (s) | |
| Lead/Lag | |
| Lead-Lag Optimize? | |
| Recall Mode | None |
| Act Effct Green (s) | |
| Actuated g/C Ratio | |
| v/c Ratio | |
| Control Delay | |
| Queue Delay | |
| Total Delay | |
| LOS | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach Delay | | 22.4 | | | 38.4 | | | 19.9 | | | 17.7 | |
| Approach LOS | | C | | | D | | | B | | | B | |
| Queue Length 50th (ft) | 54 | 55 | 0 | | 7 | | 68 | 48 | | 2 | 106 | 0 |
| Queue Length 95th (ft) | 168 | 171 | 51 | | 37 | | #227 | 247 | | 15 | 330 | 29 |
| Internal Link Dist (ft) | | 168 | | | 95 | | | 477 | | | 446 | |
| Turn Bay Length (ft) | | | | | | | 350 | | | 200 | | 250 |
| Base Capacity (vph) | 517 | 521 | 871 | | 180 | | 425 | 2084 | | 101 | 1391 | 1274 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.28 | 0.27 | | 0.14 | | 0.44 | 0.30 | | 0.04 | 0.50 | 0.23 |

## Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 76.2
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 19.7 Intersection LOS: B
Intersection Capacity Utilization 52.6% ICU Level of Service A
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Park Ave & West Hartford Place/Coastal Tool Driveway



| Lane Group | ø3 |
|---|---|
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (ft) | |
| Queue Length 95th (ft) | |
| Internal Link Dist (ft) | |
| Turn Bay Length (ft) | |
| Base Capacity (vph) | |
| Starvation Cap Reductn | |
| Spillback Cap Reductn | |
| Storage Cap Reductn | |
| Reduced v/c Ratio | |

Intersection Summary

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 13 |
| Intersection LOS | B |

| Movement | WBU | WBL | WBR | NBU | NBT | NBR | SBU | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Vol, veh/h | 0 | 170 | 299 | 0 | 1 | 204 | 0 | 305 | 15 |
| Peak Hour Factor | 0.92 | 0.89 | 0.89 | 0.92 | 0.95 | 0.95 | 0.92 | 0.98 | 0.98 |
| Heavy Vehicles, % | 2 | 1 | 3 | 2 | 0 | 4 | 2 | 1 | 0 |
| Mvmt Flow | 0 | 191 | 336 | 0 | 1 | 215 | 0 | 311 | 15 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |

| Approach | WB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 1 | 0 | 2 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 1 | 2 | 0 |
| HCM Control Delay | 13 | 10.5 | 14.8 |
| HCM LOS | B | B | B |

| Lane | NBLn1 | WBLn1 | WBLn2 | SBLn1 |
|---|---|---|---|---|
| Vol Left, % | 0% | 100% | 0% | 95% |
| Vol Thru, % | 0% | 0% | 0% | 5% |
| Vol Right, % | 100% | 0% | 100% | 0% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 205 | 170 | 299 | 320 |
| LT Vol | 1 | 0 | 0 | 15 |
| Through Vol | 204 | 0 | 299 | 0 |
| RT Vol | 0 | 170 | 0 | 305 |
| Lane Flow Rate | 216 | 191 | 336 | 327 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util (X) | 0.309 | 0.345 | 0.497 | 0.52 |
| Departure Headway (Hd) | 5.151 | 6.508 | 5.328 | 5.733 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 697 | 554 | 675 | 630 |
| Service Time | 3.189 | 4.241 | 3.06 | 3.768 |
| HCM Lane V/C Ratio | 0.31 | 0.345 | 0.498 | 0.519 |
| HCM Control Delay | 10.5 | 12.6 | 13.2 | 14.8 |
| HCM Lane LOS | B | B | B | B |
| HCM 95th-tile Q | 1.3 | 1.5 | 2.8 | 3 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|---|---|
| Vol, veh/h | 134 | 16 | 0 | 0 | 5 | 71 | 0 | 0 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 83 | 83 | 83 | 92 | 92 | 92 |
| Heavy Vehicles, % | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 151 | 18 | 0 | 0 | 6 | 86 | 0 | 0 | 1 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 254 | 209 | 78 | 218 | 283 | 1 | 153 | 0 | 0 |
| Stage 1 | 208 | 208 | - | 1 | 1 | - | - | - | - |
| Stage 2 | 46 | 1 | - | 217 | 282 | - | - | - | - |
| Critical Hdwy | 7.14 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.14 | 5.5 | - | 6.1 | 5.5 | - | - | - | - |
| Critical Hdwy Stg 2 | 6.14 | 5.5 | - | 6.1 | 5.5 | - | - | - | - |
| Follow-up Hdwy | 3.536 | 4 | 3.3 | 3.5 | 4 | 3.3 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 695 | 692 | 988 | 743 | 629 | 1090 | 1440 | - | - |
| Stage 1 | 789 | 734 | - | 1027 | 899 | - | - | - | - |
| Stage 2 | 963 | 899 | - | 790 | 681 | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - |
| Mov Cap-1 Maneuver | 614 | 661 | 988 | 703 | 601 | 1090 | 1440 | - | - |
| Mov Cap-2 Maneuver | 614 | 661 | - | 703 | 601 | - | - | - | - |
| Stage 1 | 789 | 701 | - | 1027 | 899 | - | - | - | - |
| Stage 2 | 881 | 899 | - | 735 | 650 | - | - | - | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 13 | 8.8 | 0 |
| HCM LOS | B | A | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1440 | - | - | 619 | 1035 | 1622 | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.272 | 0.088 | 0.04 | - | - |
| HCM Control Delay (s) | 0 | - | - | 13 | 8.8 | 7.3 | 0 | - |
| HCM Lane LOS | A | - | - | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 1.1 | 0.3 | 0.1 | - | - |

| Intersection | | | |
|---|---|---|---|
| Int Delay, s/veh | | | |

| Movement | SBL | SBT | SBR |
|---|---|---|---|
| Vol, veh/h | 55 | 3 | 127 |
| Conflicting Peds, #/hr | 0 | 0 | 0 |
| Sign Control | Free | Free | Free |
| RT Channelized | - | - | None |
| Storage Length | - | - | - |
| Veh in Median Storage, # | - | 0 | - |
| Grade, % | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 0 | 0 |
| Mvmt Flow | 65 | 4 | 149 |

| Major/Minor | Major2 | | |
|---|---|---|---|
| Conflicting Flow All | 1 | 0 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | 2.218 | - | - |
| Pot Cap-1 Maneuver | 1622 | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Platoon blocked, % | | - | - |
| Mov Cap-1 Maneuver | 1622 | - | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | SB |
|---|---|
| HCM Control Delay, s | 2.2 |
| HCM LOS | |

| Minor Lane/Major Mvmt |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 370 | 18 | 309 | 7 | 5 | 4 | 273 | 529 | 27 | 5 | 519 | 421 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 350 | | 0 | 200 | | 250 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1715 | 1727 | 1599 | 0 | 1795 | 0 | 1787 | 3551 | 0 | 1805 | 3610 | 1599 |
| Flt Permitted | 0.950 | 0.957 | | | 0.978 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1715 | 1727 | 1599 | 0 | 1795 | 0 | 1787 | 3551 | 0 | 1805 | 3610 | 1599 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 332 | | 5 | | | 5 | | | | 453 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 248 | | | 175 | | | 557 | | | 526 | |
| Travel Time (s) | | 5.6 | | | 4.0 | | | 12.7 | | | 12.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.80 | 0.80 | 0.80 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 1% | 0% | 0% | 0% | 1% | 1% | 0% | 0% | 0% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | 48% | | | | | | | | | | | |
| Lane Group Flow (vph) | 207 | 210 | 332 | 0 | 20 | 0 | 294 | 598 | 0 | 5 | 558 | 453 |
| Turn Type | Split | NA | pt+ov | Split | NA | | Prot | NA | | Prot | NA | pm+ov |
| Protected Phases | 8 | 8 | 1 8 | 7 | 7 | | 1 | 6 | | 5 | 2 | 8 |
| Permitted Phases | | | | | | | | | | | | 2 |
| Detector Phase | 8 | 8 | 1 8 | 7 | 7 | | 1 | 6 | | 5 | 2 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | | 4.0 | 4.0 | | 4.0 | 15.0 | | 4.0 | 15.0 | 6.0 |
| Minimum Split (s) | 10.0 | 10.0 | | 8.0 | 8.0 | | 7.0 | 21.0 | | 7.0 | 21.0 | 10.0 |
| Total Split (s) | 26.0 | 26.0 | | 11.0 | 11.0 | | 22.0 | 46.0 | | 7.0 | 31.0 | 26.0 |
| Total Split (%) | 22.6% | 22.6% | | 9.6% | 9.6% | | 19.1% | 40.0% | | 6.1% | 27.0% | 22.6% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 4.0 | | | 4.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | 4.0 |
| Lead/Lag | Lag | Lag | | Lead | Lead | | Lead | Lag | | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes |
| Recall Mode | None | None | | None | None | | None | Max | | None | Max | None |
| Act Effct Green (s) | 17.6 | 17.6 | 41.5 | | 5.4 | | 19.7 | 47.7 | | 4.1 | 25.9 | 48.4 |
| Actuated g/C Ratio | 0.21 | 0.21 | 0.50 | | 0.06 | | 0.24 | 0.57 | | 0.05 | 0.31 | 0.58 |
| v/c Ratio | 0.57 | 0.58 | 0.35 | | 0.17 | | 0.70 | 0.30 | | 0.06 | 0.50 | 0.41 |
| Control Delay | 39.0 | 39.1 | 3.3 | | 40.5 | | 43.4 | 14.0 | | 48.4 | 28.8 | 2.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 39.0 | 39.1 | 3.3 | | 40.5 | | 43.4 | 14.0 | | 48.4 | 28.8 | 2.1 |
| LOS | D | D | A | | D | | D | B | | D | C | A |

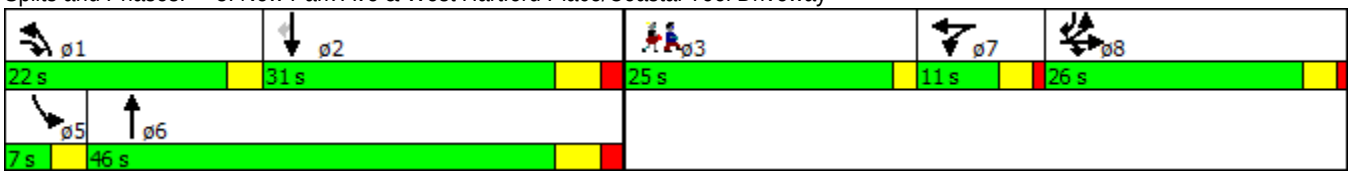
| Lane Group | ø3 |
|---|---|
| Lane Configurations | |
| Volume (vph) | |
| Ideal Flow (vphpl) | |
| Lane Width (ft) | |
| Grade (%) | |
| Storage Length (ft) | |
| Storage Lanes | |
| Taper Length (ft) | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Right Turn on Red | |
| Satd. Flow (RTOR) | |
| Link Speed (mph) | |
| Link Distance (ft) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | |
| Confl. Bikes (#/hr) | |
| Peak Hour Factor | |
| Growth Factor | |
| Heavy Vehicles (%) | |
| Bus Blockages (#/hr) | |
| Parking (#/hr) | |
| Mid-Block Traffic (%) | |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | |
| Turn Type | |
| Protected Phases | 3 |
| Permitted Phases | |
| Detector Phase | |
| Switch Phase | |
| Minimum Initial (s) | 4.0 |
| Minimum Split (s) | 25.0 |
| Total Split (s) | 25.0 |
| Total Split (%) | 22% |
| Yellow Time (s) | 2.0 |
| All-Red Time (s) | 0.0 |
| Lost Time Adjust (s) | |
| Total Lost Time (s) | |
| Lead/Lag | |
| Lead-Lag Optimize? | |
| Recall Mode | None |
| Act Effct Green (s) | |
| Actuated g/C Ratio | |
| v/c Ratio | |
| Control Delay | |
| Queue Delay | |
| Total Delay | |
| LOS | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach Delay | | 23.2 | | | 40.5 | | | 23.7 | | | 17.0 | |
| Approach LOS | | C | | | D | | | C | | | B | |
| Queue Length 50th (ft) | 87 | 89 | 0 | | 7 | | 123 | 57 | | 2 | 106 | 0 |
| Queue Length 95th (ft) | 235 | 238 | 57 | | 32 | | #400 | 234 | | 17 | 265 | 34 |
| Internal Link Dist (ft) | | 168 | | | 95 | | | 477 | | | 446 | |
| Turn Bay Length (ft) | | | | | | | 350 | | | 200 | | 250 |
| Base Capacity (vph) | 466 | 469 | 959 | | 159 | | 419 | 2023 | | 89 | 1116 | 1185 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.44 | 0.45 | 0.35 | | 0.13 | | 0.70 | 0.30 | | 0.06 | 0.50 | 0.38 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 115 | |
| Actuated Cycle Length: 83.8 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.70 | |
| Intersection Signal Delay: 21.1 | Intersection LOS: C |
| Intersection Capacity Utilization 58.5% | ICU Level of Service B |
| Analysis Period (min) 15 | |

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Park Ave & West Hartford Place/Coastal Tool Driveway



| Lane Group | ø3 |
|---|---|
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (ft) | |
| Queue Length 95th (ft) | |
| Internal Link Dist (ft) | |
| Turn Bay Length (ft) | |
| Base Capacity (vph) | |
| Starvation Cap Reductn | |
| Spillback Cap Reductn | |
| Storage Cap Reductn | |
| Reduced v/c Ratio | |

Intersection Summary

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 33.1 |
| Intersection LOS | D |

| Movement | WBU | WBL | WBR | NBU | NBT | NBR | SBU | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Vol, veh/h | 0 | 213 | 486 | 0 | 2 | 232 | 0 | 465 | 11 |
| Peak Hour Factor | 0.92 | 0.93 | 0.93 | 0.92 | 0.88 | 0.88 | 0.92 | 0.94 | 0.94 |
| Heavy Vehicles, % | 2 | 0 | 1 | 2 | 0 | 2 | 2 | 1 | 0 |
| Mvmt Flow | 0 | 229 | 523 | 0 | 2 | 264 | 0 | 495 | 12 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |

| Approach | WB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 1 | 0 | 2 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 1 | 2 | 0 |
| HCM Control Delay | 32.3 | 14.4 | 44.1 |
| HCM LOS | D | B | E |

| Lane | NBLn1 | WBLn1 | WBLn2 | SBLn1 |
|---|---|---|---|---|
| Vol Left, % | 0% | 100% | 0% | 98% |
| Vol Thru, % | 1% | 0% | 0% | 2% |
| Vol Right, % | 99% | 0% | 100% | 0% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 234 | 213 | 486 | 476 |
| LT Vol | 2 | 0 | 0 | 11 |
| Through Vol | 232 | 0 | 486 | 0 |
| RT Vol | 0 | 213 | 0 | 465 |
| Lane Flow Rate | 266 | 229 | 523 | 506 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util (X) | 0.455 | 0.465 | 0.886 | 0.906 |
| Departure Headway (Hd) | 6.161 | 7.314 | 6.107 | 6.443 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 580 | 490 | 591 | 562 |
| Service Time | 4.256 | 5.1 | 3.892 | 4.519 |
| HCM Lane V/C Ratio | 0.459 | 0.467 | 0.885 | 0.9 |
| HCM Control Delay | 14.4 | 16.4 | 39.2 | 44.1 |
| HCM Lane LOS | B | C | E | E |
| HCM 95th-tile Q | 2.4 | 2.4 | 10.4 | 10.8 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 8.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|---|---|
| Vol, veh/h | 145 | 28 | 0 | 0 | 8 | 89 | 0 | 0 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 81 | 81 | 81 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 175 | 34 | 0 | 0 | 10 | 110 | 0 | 0 | 1 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 341 | 282 | 93 | 298 | 375 | 1 | 186 | 0 | 0 |
| Stage 1 | 281 | 281 | - | 1 | 1 | - | - | - | - |
| Stage 2 | 60 | 1 | - | 297 | 374 | - | - | - | - |
| Critical Hdwy | 7.12 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.5 | - | 6.1 | 5.5 | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.5 | - | 6.1 | 5.5 | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4 | 3.3 | 3.5 | 4 | 3.3 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 613 | 630 | 970 | 658 | 559 | 1090 | 1401 | - | - |
| Stage 1 | 726 | 682 | - | 1027 | 899 | - | - | - | - |
| Stage 2 | 951 | 899 | - | 716 | 621 | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - |
| Mov Cap-1 Maneuver | 516 | 588 | 970 | 598 | 522 | 1090 | 1401 | - | - |
| Mov Cap-2 Maneuver | 516 | 588 | - | 598 | 522 | - | - | - | - |
| Stage 1 | 726 | 637 | - | 1027 | 899 | - | - | - | - |
| Stage 2 | 846 | 899 | - | 633 | 580 | - | - | - | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 16.3 | 9.1 | 0 |
| HCM LOS | C | A | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1401 | - | - | 526 | 1000 | 1635 | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.396 | 0.12 | 0.057 | - | - |
| HCM Control Delay (s) | 0 | - | - | 16.3 | 9.1 | 7.3 | 0 | - |
| HCM Lane LOS | A | - | - | C | A | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 1.9 | 0.4 | 0.2 | - | - |

| Intersection | | | |
|---|---|---|---|
| Int Delay, s/veh | | | |

| Movement | SBL | SBT | SBR |
|---|---|---|---|
| Vol, veh/h | 75 | 0 | 149 |
| Conflicting Peds, #/hr | 0 | 0 | 0 |
| Sign Control | Free | Free | Free |
| RT Channelized | - | - | None |
| Storage Length | - | - | - |
| Veh in Median Storage, # | - | 0 | - |
| Grade, % | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 0 | 0 |
| Mvmt Flow | 94 | 0 | 186 |

| Major/Minor | Major2 | | |
|---|---|---|---|
| Conflicting Flow All | 1 | 0 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | 4.1 | - | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | 2.2 | - | - |
| Pot Cap-1 Maneuver | 1635 | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Platoon blocked, % | | - | - |
| Mov Cap-1 Maneuver | 1635 | - | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | SB |
|---|---|
| HCM Control Delay, s | 2.5 |
| HCM LOS | |

| Minor Lane/Major Mvmt |
|---|

# APPENDIX I

# 2017 Build Capacity/Level-of-Service Analysis

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 307 | 8 | 261 | 11 | 4 | 5 | 205 | 567 | 10 | 4 | 681 | 334 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 350 | | 0 | 200 | | 250 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1681 | 1692 | 1583 | 0 | 1790 | 0 | 1787 | 3564 | 0 | 1805 | 3610 | 1583 |
| Flt Permitted | 0.950 | 0.955 | | | 0.973 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1681 | 1692 | 1583 | 0 | 1790 | 0 | 1787 | 3564 | 0 | 1805 | 3610 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 272 | | 6 | | | 2 | | | | 337 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 248 | | | 175 | | | 557 | | | 526 | |
| Travel Time (s) | | 5.6 | | | 4.0 | | | 12.7 | | | 12.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.80 | 0.80 | 0.80 | 0.93 | 0.93 | 0.93 | 0.99 | 0.99 | 0.99 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 0% | 2% | 0% | 0% | 0% | 1% | 1% | 0% | 0% | 0% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | 49% | | | | | | | | | | | |
| Lane Group Flow (vph) | 163 | 165 | 272 | 0 | 25 | 0 | 220 | 621 | 0 | 4 | 688 | 337 |
| Turn Type | Split | NA | pt+ov | Split | NA | | Prot | NA | | Prot | NA | pm+ov |
| Protected Phases | 8 | 8 | 1 8 | 7 | 7 | | 1 | 6 | | 5 | 2 | 8 |
| Permitted Phases | | | | | | | | | | | | 2 |
| Detector Phase | 8 | 8 | 1 8 | 7 | 7 | | 1 | 6 | | 5 | 2 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | | 4.0 | 4.0 | | 4.0 | 15.0 | | 4.0 | 15.0 | 6.0 |
| Minimum Split (s) | 10.0 | 10.0 | | 8.0 | 8.0 | | 7.0 | 21.0 | | 7.0 | 21.0 | 10.0 |
| Total Split (s) | 26.0 | 26.0 | | 11.0 | 11.0 | | 20.0 | 46.0 | | 7.0 | 33.0 | 26.0 |
| Total Split (%) | 22.6% | 22.6% | | 9.6% | 9.6% | | 17.4% | 40.0% | | 6.1% | 28.7% | 22.6% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 4.0 | | | 4.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | 4.0 |
| Lead/Lag | Lag | Lag | | Lead | Lead | | Lead | Lag | | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes |
| Recall Mode | None | None | | None | None | | None | Max | | None | Max | None |
| Act Effct Green (s) | 14.9 | 14.9 | 34.1 | | 5.6 | | 14.9 | 45.8 | | 4.2 | 28.7 | 48.7 |
| Actuated g/C Ratio | 0.19 | 0.19 | 0.43 | | 0.07 | | 0.19 | 0.58 | | 0.05 | 0.36 | 0.62 |
| v/c Ratio | 0.51 | 0.52 | 0.33 | | 0.19 | | 0.65 | 0.30 | | 0.04 | 0.53 | 0.31 |
| Control Delay | 38.0 | 38.0 | 3.8 | | 39.5 | | 43.9 | 13.6 | | 47.5 | 26.2 | 1.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.0 | 38.0 | 3.8 | | 39.5 | | 43.9 | 13.6 | | 47.5 | 26.2 | 1.8 |
| LOS | D | D | A | | D | | D | B | | D | C | A |

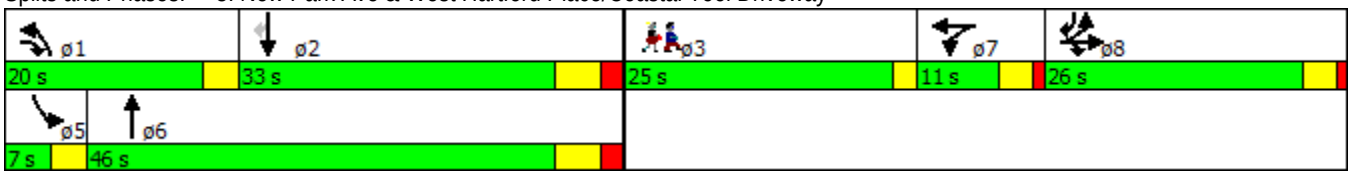
| Lane Group | ø3 |
|---|---|
| Lane Configurations | |
| Volume (vph) | |
| Ideal Flow (vphpl) | |
| Lane Width (ft) | |
| Grade (%) | |
| Storage Length (ft) | |
| Storage Lanes | |
| Taper Length (ft) | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Right Turn on Red | |
| Satd. Flow (RTOR) | |
| Link Speed (mph) | |
| Link Distance (ft) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | |
| Confl. Bikes (#/hr) | |
| Peak Hour Factor | |
| Growth Factor | |
| Heavy Vehicles (%) | |
| Bus Blockages (#/hr) | |
| Parking (#/hr) | |
| Mid-Block Traffic (%) | |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | |
| Turn Type | |
| Protected Phases | 3 |
| Permitted Phases | |
| Detector Phase | |
| Switch Phase | |
| Minimum Initial (s) | 4.0 |
| Minimum Split (s) | 25.0 |
| Total Split (s) | 25.0 |
| Total Split (%) | 22% |
| Yellow Time (s) | 2.0 |
| All-Red Time (s) | 0.0 |
| Lost Time Adjust (s) | |
| Total Lost Time (s) | |
| Lead/Lag | |
| Lead-Lag Optimize? | |
| Recall Mode | None |
| Act Effct Green (s) | |
| Actuated g/C Ratio | |
| v/c Ratio | |
| Control Delay | |
| Queue Delay | |
| Total Delay | |
| LOS | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach Delay | | 22.5 | | | 39.5 | | | 21.5 | | | 18.3 | |
| Approach LOS | | C | | | D | | | C | | | B | |
| Queue Length 50th (ft) | 66 | 67 | 0 | | 8 | | 86 | 53 | | 2 | 120 | 0 |
| Queue Length 95th (ft) | 189 | 190 | 54 | | 37 | | #291 | 245 | | 15 | 326 | 30 |
| Internal Link Dist (ft) | | 168 | | | 95 | | | 477 | | | 446 | |
| Turn Bay Length (ft) | | | | | | | 350 | | | 200 | | 250 |
| Base Capacity (vph) | 496 | 499 | 887 | | 173 | | 407 | 2063 | | 96 | 1308 | 1236 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.33 | 0.33 | 0.31 | | 0.14 | | 0.54 | 0.30 | | 0.04 | 0.53 | 0.27 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 115 | |
| Actuated Cycle Length: 79.1 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.65 | |
| Intersection Signal Delay: 20.6 | Intersection LOS: C |
| Intersection Capacity Utilization 55.8% | ICU Level of Service B |
| Analysis Period (min) 15 | |

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Park Ave & West Hartford Place/Coastal Tool Driveway



| Lane Group | ø3 |
|---|---|
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (ft) | |
| Queue Length 95th (ft) | |
| Internal Link Dist (ft) | |
| Turn Bay Length (ft) | |
| Base Capacity (vph) | |
| Starvation Cap Reductn | |
| Spillback Cap Reductn | |
| Storage Cap Reductn | |
| Reduced v/c Ratio | |

Intersection Summary

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 12.1 |
| Intersection LOS | B |

| Movement | WBU | WBL | WBR | NBU | NBT | NBR | SBU | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Vol, veh/h | 0 | 246 | 0 | 0 | 3 | 274 | 0 | 302 | 18 |
| Peak Hour Factor | 0.92 | 0.89 | 0.89 | 0.92 | 0.95 | 0.95 | 0.92 | 0.98 | 0.98 |
| Heavy Vehicles, % | 2 | 1 | 3 | 2 | 0 | 4 | 2 | 1 | 0 |
| Mvmt Flow | 0 | 276 | 0 | 0 | 3 | 288 | 0 | 308 | 18 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

| Approach | WB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 1 | 0 | 1 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 1 | 1 | 0 |
| HCM Control Delay | 12.9 | 10.3 | 13 |
| HCM LOS | B | B | B |

| Lane | NBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|
| Vol Left, % | 0% | 100% | 94% |
| Vol Thru, % | 1% | 0% | 6% |
| Vol Right, % | 99% | 0% | 0% |
| Sign Control | Stop | Stop | Stop |
| Traffic Vol by Lane | 277 | 246 | 320 |
| LT Vol | 3 | 0 | 18 |
| Through Vol | 274 | 0 | 0 |
| RT Vol | 0 | 246 | 302 |
| Lane Flow Rate | 292 | 276 | 327 |
| Geometry Grp | 1 | 1 | 1 |
| Degree of Util (X) | 0.366 | 0.433 | 0.473 |
| Departure Headway (Hd) | 4.634 | 5.64 | 5.335 |
| Convergence, Y/N | Yes | Yes | Yes |
| Cap | 781 | 641 | 679 |
| Service Time | 2.634 | 3.64 | 3.335 |
| HCM Lane V/C Ratio | 0.374 | 0.431 | 0.482 |
| HCM Control Delay | 10.3 | 12.9 | 13 |
| HCM Lane LOS | B | B | B |
| HCM 95th-tile Q | 1.7 | 2.2 | 2.5 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.4 |
| Intersection LOS | A |

| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBU | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol, veh/h | 0 | 133 | 17 | 0 | 0 | 0 | 7 | 144 | 0 | 0 | 0 | 1 |
| Peak Hour Factor | 0.92 | 0.89 | 0.89 | 0.89 | 0.92 | 0.83 | 0.83 | 0.83 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 149 | 19 | 0 | 0 | 0 | 8 | 173 | 0 | 0 | 0 | 1 |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB |
|---|---|---|---|
| Opposing Approach | WB | EB | SB |
| Opposing Lanes | 1 | 1 | 2 |
| Conflicting Approach Left | SB | NB | EB |
| Conflicting Lanes Left | 2 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB |
| Conflicting Lanes Right | 1 | 2 | 1 |
| HCM Control Delay | 9.8 | 8.6 | 7.7 |
| HCM LOS | A | A | A |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Vol Left, % | 0% | 89% | 0% | 98% | 0% |
| Vol Thru, % | 0% | 11% | 5% | 2% | 0% |
| Vol Right, % | 100% | 0% | 95% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 1 | 150 | 151 | 139 | 125 |
| LT Vol | 0 | 17 | 7 | 3 | 0 |
| Through Vol | 1 | 0 | 144 | 0 | 125 |
| RT Vol | 0 | 133 | 0 | 136 | 0 |
| Lane Flow Rate | 1 | 169 | 182 | 164 | 147 |
| Geometry Grp | 5 | 2 | 2 | 7 | 7 |
| Degree of Util (X) | 0.001 | 0.239 | 0.218 | 0.265 | 0.188 |
| Departure Headway (Hd) | 4.612 | 5.106 | 4.307 | 5.834 | 4.602 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes |
| Cap | 767 | 701 | 831 | 613 | 775 |
| Service Time | 2.692 | 3.151 | 2.348 | 3.592 | 2.36 |
| HCM Lane V/C Ratio | 0.001 | 0.241 | 0.219 | 0.268 | 0.19 |
| HCM Control Delay | 7.7 | 9.8 | 8.6 | 10.7 | 8.4 |
| HCM Lane LOS | A | A | A | B | A |
| HCM 95th-tile Q | 0 | 0.9 | 0.8 | 1.1 | 0.7 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | |
| Intersection LOS | |

| Movement | SBU | SBL | SBT | SBR |
|---|---|---|---|---|
| Vol, veh/h | 0 | 136 | 3 | 125 |
| Peak Hour Factor | 0.92 | 0.85 | 0.85 | 0.85 |
| Heavy Vehicles, % | 2 | 2 | 0 | 0 |
| Mvmt Flow | 0 | 160 | 4 | 147 |
| Number of Lanes | 0 | 0 | 1 | 1 |

| Approach | SB |
|---|---|
| Opposing Approach | NB |
| Opposing Lanes | 1 |
| Conflicting Approach Left | WB |
| Conflicting Lanes Left | 1 |
| Conflicting Approach Right | EB |
| Conflicting Lanes Right | 1 |
| HCM Control Delay | 9.6 |
| HCM LOS | A |

| Lane |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 437 | 18 | 367 | 7 | 5 | 4 | 333 | 516 | 27 | 5 | 506 | 492 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 350 | | 0 | 200 | | 250 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1715 | 1726 | 1599 | 0 | 1795 | 0 | 1787 | 3551 | 0 | 1805 | 3610 | 1599 |
| Flt Permitted | 0.950 | 0.956 | | | 0.978 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1715 | 1726 | 1599 | 0 | 1795 | 0 | 1787 | 3551 | 0 | 1805 | 3610 | 1599 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 395 | | 5 | | | 5 | | | | 529 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 248 | | | 175 | | | 557 | | | 526 | |
| Travel Time (s) | | 5.6 | | | 4.0 | | | 12.7 | | | 12.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.80 | 0.80 | 0.80 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 1% | 0% | 0% | 0% | 1% | 1% | 0% | 0% | 0% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | 48% | | | | | | | | | | | |
| Lane Group Flow (vph) | 244 | 245 | 395 | 0 | 20 | 0 | 358 | 584 | 0 | 5 | 544 | 529 |
| Turn Type | Split | NA | pt+ov | Split | NA | | Prot | NA | | Prot | NA | pm+ov |
| Protected Phases | 8 | 8 | 1 8 | 7 | 7 | | 1 | 6 | | 5 | 2 | 8 |
| Permitted Phases | | | | | | | | | | | | 2 |
| Detector Phase | 8 | 8 | 1 8 | 7 | 7 | | 1 | 6 | | 5 | 2 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | | 4.0 | 4.0 | | 4.0 | 15.0 | | 4.0 | 15.0 | 6.0 |
| Minimum Split (s) | 10.0 | 10.0 | | 8.0 | 8.0 | | 7.0 | 21.0 | | 7.0 | 21.0 | 10.0 |
| Total Split (s) | 26.0 | 26.0 | | 11.0 | 11.0 | | 22.0 | 46.0 | | 7.0 | 31.0 | 26.0 |
| Total Split (%) | 22.6% | 22.6% | | 9.6% | 9.6% | | 19.1% | 40.0% | | 6.1% | 27.0% | 22.6% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 4.0 | | | 4.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | 4.0 |
| Lead/Lag | Lag | Lag | | Lead | Lead | | Lead | Lag | | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes |
| Recall Mode | None | None | | None | None | | None | Max | | None | Max | None |
| Act Effct Green (s) | 19.7 | 19.7 | 43.4 | | 5.4 | | 19.6 | 47.4 | | 4.1 | 25.8 | 50.3 |
| Actuated g/C Ratio | 0.23 | 0.23 | 0.51 | | 0.06 | | 0.23 | 0.55 | | 0.05 | 0.30 | 0.59 |
| v/c Ratio | 0.62 | 0.62 | 0.39 | | 0.17 | | 0.88 | 0.30 | | 0.06 | 0.50 | 0.46 |
| Control Delay | 39.9 | 39.8 | 3.3 | | 40.6 | | 58.6 | 14.5 | | 48.8 | 29.5 | 2.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 39.9 | 39.8 | 3.3 | | 40.6 | | 58.6 | 14.5 | | 48.8 | 29.5 | 2.2 |
| LOS | D | D | A | | D | | E | B | | D | C | A |

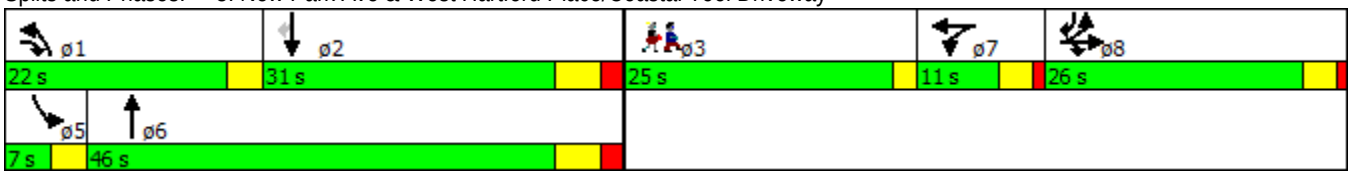
| Lane Group | ø3 |
|---|---|
| Lane Configurations | |
| Volume (vph) | |
| Ideal Flow (vphpl) | |
| Lane Width (ft) | |
| Grade (%) | |
| Storage Length (ft) | |
| Storage Lanes | |
| Taper Length (ft) | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Right Turn on Red | |
| Satd. Flow (RTOR) | |
| Link Speed (mph) | |
| Link Distance (ft) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | |
| Confl. Bikes (#/hr) | |
| Peak Hour Factor | |
| Growth Factor | |
| Heavy Vehicles (%) | |
| Bus Blockages (#/hr) | |
| Parking (#/hr) | |
| Mid-Block Traffic (%) | |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | |
| Turn Type | |
| Protected Phases | 3 |
| Permitted Phases | |
| Detector Phase | |
| Switch Phase | |
| Minimum Initial (s) | 4.0 |
| Minimum Split (s) | 25.0 |
| Total Split (s) | 25.0 |
| Total Split (%) | 22% |
| Yellow Time (s) | 2.0 |
| All-Red Time (s) | 0.0 |
| Lost Time Adjust (s) | |
| Total Lost Time (s) | |
| Lead/Lag | |
| Lead-Lag Optimize? | |
| Recall Mode | None |
| Act Effct Green (s) | |
| Actuated g/C Ratio | |
| v/c Ratio | |
| Control Delay | |
| Queue Delay | |
| Total Delay | |
| LOS | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach Delay | | 23.5 | | | 40.6 | | | 31.2 | | | 16.2 | |
| Approach LOS | | C | | | D | | | C | | | B | |
| Queue Length 50th (ft) | 106 | 106 | 0 | | 7 | | 168 | 65 | | 2 | 112 | 0 |
| Queue Length 95th (ft) | #300 | #300 | 60 | | 32 | | #511 | 228 | | 17 | 258 | 36 |
| Internal Link Dist (ft) | | 168 | | | 95 | | | 477 | | | 446 | |
| Turn Bay Length (ft) | | | | | | | 350 | | | 200 | | 250 |
| Base Capacity (vph) | 453 | 456 | 1004 | | 155 | | 408 | 1965 | | 86 | 1085 | 1193 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.54 | 0.54 | 0.39 | | 0.13 | | 0.88 | 0.30 | | 0.06 | 0.50 | 0.44 |

## Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 85.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 23.4 — Intersection LOS: C
Intersection Capacity Utilization 63.3% — ICU Level of Service B
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Park Ave & West Hartford Place/Coastal Tool Driveway



| Lane Group | ø3 |
|---|---|
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (ft) | |
| Queue Length 95th (ft) | |
| Internal Link Dist (ft) | |
| Turn Bay Length (ft) | |
| Base Capacity (vph) | |
| Starvation Cap Reductn | |
| Spillback Cap Reductn | |
| Storage Cap Reductn | |
| Reduced v/c Ratio | |

Intersection Summary

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 26.7 |
| Intersection LOS | D |

| Movement | WBU | WBL | WBR | NBU | NBT | NBR | SBU | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Vol, veh/h | 0 | 347 | 0 | 0 | 5 | 362 | 0 | 460 | 16 |
| Peak Hour Factor | 0.92 | 0.93 | 0.93 | 0.92 | 0.88 | 0.88 | 0.92 | 0.94 | 0.94 |
| Heavy Vehicles, % | 2 | 0 | 1 | 2 | 0 | 2 | 2 | 1 | 0 |
| Mvmt Flow | 0 | 373 | 0 | 0 | 6 | 411 | 0 | 489 | 17 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

| Approach | WB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 1 | 0 | 1 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 1 | 1 | 0 |
| HCM Control Delay | 22.6 | 18.3 | 36.7 |
| HCM LOS | C | C | E |

| Lane | NBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|
| Vol Left, % | 0% | 100% | 97% |
| Vol Thru, % | 1% | 0% | 3% |
| Vol Right, % | 99% | 0% | 0% |
| Sign Control | Stop | Stop | Stop |
| Traffic Vol by Lane | 367 | 347 | 476 |
| LT Vol | 5 | 0 | 16 |
| Through Vol | 362 | 0 | 0 |
| RT Vol | 0 | 347 | 460 |
| Lane Flow Rate | 417 | 373 | 506 |
| Geometry Grp | 1 | 1 | 1 |
| Degree of Util (X) | 0.647 | 0.678 | 0.867 |
| Departure Headway (Hd) | 5.588 | 6.678 | 6.164 |
| Convergence, Y/N | Yes | Yes | Yes |
| Cap | 651 | 545 | 592 |
| Service Time | 3.604 | 4.678 | 4.178 |
| HCM Lane V/C Ratio | 0.641 | 0.684 | 0.855 |
| HCM Control Delay | 18.3 | 22.6 | 36.7 |
| HCM Lane LOS | C | C | E |
| HCM 95th-tile Q | 4.7 | 5.1 | 9.7 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 11.9 |
| Intersection LOS | B |

| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBU | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol, veh/h | 0 | 143 | 30 | 0 | 0 | 0 | 12 | 224 | 0 | 0 | 0 | 1 |
| Peak Hour Factor | 0.92 | 0.83 | 0.83 | 0.83 | 0.92 | 0.81 | 0.81 | 0.81 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 172 | 36 | 0 | 0 | 0 | 15 | 277 | 0 | 0 | 0 | 1 |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB |
|---|---|---|---|
| Opposing Approach | WB | EB | SB |
| Opposing Lanes | 1 | 1 | 2 |
| Conflicting Approach Left | SB | NB | EB |
| Conflicting Lanes Left | 2 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB |
| Conflicting Lanes Right | 1 | 2 | 1 |
| HCM Control Delay | 11.5 | 10.9 | 8.5 |
| HCM LOS | B | B | A |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Vol Left, % | 0% | 83% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 17% | 5% | 0% | 0% |
| Vol Right, % | 100% | 0% | 95% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 1 | 173 | 236 | 218 | 145 |
| LT Vol | 0 | 30 | 12 | 0 | 0 |
| Through Vol | 1 | 0 | 224 | 0 | 145 |
| RT Vol | 0 | 143 | 0 | 218 | 0 |
| Lane Flow Rate | 1 | 208 | 291 | 272 | 181 |
| Geometry Grp | 5 | 2 | 2 | 7 | 7 |
| Degree of Util (X) | 0.002 | 0.33 | 0.385 | 0.478 | 0.257 |
| Departure Headway (Hd) | 5.456 | 5.696 | 4.879 | 6.317 | 5.102 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes |
| Cap | 656 | 634 | 743 | 572 | 707 |
| Service Time | 3.485 | 3.719 | 2.879 | 4.029 | 2.814 |
| HCM Lane V/C Ratio | 0.002 | 0.328 | 0.392 | 0.476 | 0.256 |
| HCM Control Delay | 8.5 | 11.5 | 10.9 | 14.7 | 9.6 |
| HCM Lane LOS | A | B | B | B | A |
| HCM 95th-tile Q | 0 | 1.4 | 1.8 | 2.6 | 1 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | |
| Intersection LOS | |

| Movement | SBU | SBL | SBT | SBR |
|---|---|---|---|---|
| Vol, veh/h | 0 | 218 | 0 | 145 |
| Peak Hour Factor | 0.92 | 0.80 | 0.80 | 0.80 |
| Heavy Vehicles, % | 2 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 272 | 0 | 181 |
| Number of Lanes | 0 | 0 | 1 | 1 |

| Approach | SB |
|---|---|
| Opposing Approach | NB |
| Opposing Lanes | 1 |
| Conflicting Approach Left | WB |
| Conflicting Lanes Left | 1 |
| Conflicting Approach Right | EB |
| Conflicting Lanes Right | 1 |
| HCM Control Delay | 12.7 |
| HCM LOS | B |

| Lane |
|---|

# APPENDIX J

# Capacity / Level-of-Service Analysis

**Capacity Analysis Summary**
**Chick-fil-A Restaurant Development**
**West Hartford, CT**

| | | | Weekday Afternoon Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2015 Existing | | | 2017 No Build | | | 2017 Build | | |
| **Intersection** | **Movement** | | **LOS[1]** | **Delay[2]** | **V/C[3]** | **LOS** | **Delay** | **V/C** | **LOS** | **Delay** | **V/C** |
| New Park Avenue at | EB | L | D | 37.4 | 0.49 | D | 37.4 | 0.49 | D | 38.0 | 0.51 |
| West Hartford Place and | | T | D | 37.5 | 0.49 | D | 37.5 | 0.49 | D | 38.0 | 0.52 |
| Coastal Tool Driveway | | R | A | 4.1 | 0.31 | A | 4.1 | 0.31 | A | 3.8 | 0.33 |
| | WB | LTR | D | 38.4 | 0.18 | D | 38.4 | 0.18 | D | 39.5 | 0.19 |
| | NB | L | D | 42.7 | 0.61 | D | 42.7 | 0.61 | D | 43.9 | 0.65 |
| | | TR | B | 12.9 | 0.27 | B | 13.1 | 0.30 | B | 13.6 | 0.30 |
| | SB | L | D | 46.2 | 0.04 | D | 46.2 | 0.04 | D | 47.5 | 0.04 |
| | | T | C | 23.8 | 0.46 | C | 24.4 | 0.50 | C | 26.2 | 0.53 |
| | | R | A | 1.7 | 0.27 | A | 1.7 | 0.27 | A | 1.8 | 0.31 |
| | *Overall* | | *B* | *19.6* | *0.61* | *B* | *19.7* | *0.61* | *C* | *20.6* | *0.65* |
| Circulation Drive at | WB | L | B | 12.6 | 0.35 | B | 12.6 | 0.35 | B | 12.9 | 0.43 |
| West Hartford Place | | R | B | 13.2 | 0.50 | B | 13.2 | 0.50 | n/a | n/a | n/a |
| | NB | TR | B | 10.5 | 0.31 | B | 10.5 | 0.31 | B | 10.3 | 0.37 |
| | SB | LT | B | 14.8 | 0.52 | B | 14.8 | 0.52 | B | 13.0 | 0.48 |
| | *Overall* | | *B* | *13.0* | *0.52* | *B* | *13.0* | *0.52* | *B* | *12.1* | *0.48* |
| Circulation Drive at | EB | LTR | B | 13.0 | 0.27 | B | 13.0 | 0.27 | A | 9.8 | 0.24 |
| Aldi/Site Driveway | WB | LTR | A | 8.8 | 0.09 | A | 8.8 | 0.09 | A | 8.6 | 0.22 |
| | SB | LT | n/a | n/a | n/a | n/a | n/a | n/a | B | 10.7 | 0.27 |
| | | R | n/a | n/a | n/a | n/a | n/a | n/a | A | 8.4 | 0.19 |
| | | LTR | A | 2.2 | 0.04 | A | 2.2 | 0.04 | n/a | n/a | n/a |
| | *Overall* | | *A* | *7.3* | *0.27* | *A* | *7.3* | *0.27* | *A* | *9.4* | *0.27* |

1 Level-of-Service
2 Average vehicle delay in seconds
3 Volume to capacity ratio
n/a Not Applicable

**Queue Summary**
**Chick-fil-A Restaurant Development**
**West Hartford, CT**

| | | | Weekday Afternoon Peak Hour | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2015 Existing | | 2017 No Build | | 2017 Build | |
| **Intersection** | **Movement** | | **50th Queue[1]** | **95th Queue[2]** | **50th Queue** | **95th Queue** | **50th Queue** | **95th Queue** |
| New Park Avenue at | EB | L | 54 | 168 | 54 | 168 | 66 | 189 |
| West Hartford Place and | | T | 55 | 171 | 55 | 171 | 67 | 190 |
| Coastal Tool Driveway | | R | 0 | 51 | 0 | 51 | 0 | 54 |
| | WB | LTR | 7 | 37 | 7 | 37 | 8 | 37 |
| | NB | L | 68 | #227 | 68 | #227 | 86 | #291 |
| | | TR | 43 | 221 | 48 | 247 | 53 | 245 |
| | SB | L | 2 | 15 | 2 | 15 | 2 | 15 |
| | | T | 95 | 300 | 106 | 330 | 120 | 326 |
| | | R | 0 | 29 | 0 | 29 | 0 | 30 |
| Circulation Drive at | WB | L | n/a | 38 | n/a | 38 | n/a | 55 |
| West Hartford Place | | R | n/a | 70 | n/a | 70 | n/a | n/a |
| | NB | TR | n/a | 33 | n/a | 33 | n/a | 43 |
| | SB | LT | n/a | 75 | n/a | 75 | n/a | 63 |
| Circulation Drive at | EB | LTR | n/a | 28 | n/a | 28 | n/a | 23 |
| Aldi/Site Driveway | WB | LTR | n/a | 8 | n/a | 8 | n/a | 20 |
| | SB | LT | n/a | n/a | n/a | n/a | n/a | 28 |
| | | R | n/a | n/a | n/a | n/a | n/a | 18 |
| | | LTR | n/a | 3 | n/a | 3 | n/a | n/a |

1 50th Percentile Queue Length, in vehicles
2 95th Percentile Queue Length, in vehicles
n/a Not Applicable

**Capacity Analysis Summary**
**Chick-fil-A Restaurant Development**
**West Hartford, CT**

| | | | Saturday Midday Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2015 Existing | | | 2017 No Build | | | 2017 Build | | |
| **Intersection** | **Movement** | | **LOS[1]** | **Delay[2]** | **V/C[3]** | **LOS** | **Delay** | **V/C** | **LOS** | **Delay** | **V/C** |
| New Park Avenue at | EB | L | D | 38.4 | 0.57 | D | 39.0 | 0.57 | D | 39.9 | 0.62 |
| West Hartford Place and | | T | D | 38.5 | 0.58 | D | 39.1 | 0.58 | D | 39.8 | 0.62 |
| Coastal Tool Driveway | | R | A | 3.3 | 0.35 | A | 3.3 | 0.35 | A | 3.3 | 0.39 |
| | WB | LTR | D | 42.7 | 0.20 | D | 40.5 | 0.17 | D | 40.6 | 0.17 |
| | NB | L | D | 42.8 | 0.70 | D | 43.4 | 0.70 | E | 58.6 | 0.88 |
| | | TR | B | 13.4 | 0.28 | B | 14.0 | 0.30 | B | 14.5 | 0.30 |
| | SB | L | D | 47.6 | 0.06 | D | 48.4 | 0.06 | D | 48.8 | 0.06 |
| | | T | C | 27.8 | 0.46 | C | 28.8 | 0.50 | C | 29.5 | 0.50 |
| | | R | A | 2.0 | 0.41 | A | 2.1 | 0.41 | A | 2.2 | 0.46 |
| | *Overall* | | *C* | *20.6* | *0.70* | *C* | *21.1* | *0.70* | *C* | *23.4* | *0.88* |
| Circulation Drive at | WB | L | C | 16.4 | 0.47 | C | 16.4 | 0.47 | C | 22.6 | 0.68 |
| West Hartford Place | | R | E | 39.2 | 0.89 | E | 39.2 | 0.89 | n/a | n/a | n/a |
| | NB | TR | B | 14.4 | 0.46 | B | 14.4 | 0.46 | C | 18.3 | 0.64 |
| | SB | LT | E | 44.1 | 0.91 | E | 44.1 | 0.91 | E | 36.7 | 0.86 |
| | *Overall* | | *D* | *33.1* | *0.91* | *D* | *33.1* | *0.91* | *D* | *26.7* | *0.86* |
| Circulation Drive at | EB | LTR | C | 16.3 | 0.40 | C | 16.3 | 0.40 | B | 11.5 | 0.33 |
| Aldi/Site Driveway | WB | LTR | A | 9.1 | 0.12 | A | 9.1 | 0.12 | B | 10.9 | 0.39 |
| | SB | LT | n/a | n/a | n/a | n/a | n/a | n/a | B | 14.7 | 0.48 |
| | | R | n/a | n/a | n/a | n/a | n/a | n/a | A | 9.6 | 0.26 |
| | | LTR | A | 2.5 | 0.06 | A | 2.5 | 0.06 | n/a | n/a | n/a |
| | *Overall* | | *A* | *8.5* | *0.40* | A | *8.5* | *0.40* | *B* | *11.9* | *0.48* |

1 Level-of-Service
2 Average vehicle delay in seconds
3 Volume to capacity ratio

**Queue Summary**
**Chick-fil-A Restaurant Development**
**West Hartford, CT**

| | | | Saturday Midday Peak Hour | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2015 Existing | | 2017 No Build | | 2017 Build | |
| **Intersection** | **Movement** | | **50th Queue[1]** | **95th Queue[2]** | **50th Queue** | **95th Queue** | **50th Queue** | **95th Queue** |
| New Park Avenue at | EB | L | 87 | 232 | 87 | 235 | 106 | #300 |
| West Hartford Place and | | T | 89 | 236 | 89 | 238 | 106 | #300 |
| Coastal Tool Driveway | | R | 0 | 56 | 0 | 57 | 0 | 60 |
| | WB | LTR | 7 | 32 | 7 | 32 | 7 | 32 |
| | NB | L | 123 | #394 | 123 | #400 | 168 | #511 |
| | | TR | 53 | 213 | 57 | 234 | 65 | 228 |
| | SB | L | 2 | 17 | 2 | 17 | 2 | 17 |
| | | T | 97 | 241 | 106 | 265 | 112 | 258 |
| | | R | 0 | 33 | 0 | 34 | 0 | 36 |
| Circulation Drive at | WB | L | n/a | 60 | n/a | 60 | n/a | 128 |
| West Hartford Place | | R | n/a | 260 | n/a | 260 | n/a | n/a |
| | NB | TR | n/a | 60 | n/a | 60 | n/a | 118 |
| | SB | LT | n/a | 270 | n/a | 270 | n/a | 243 |
| Circulation Drive at | EB | LTR | n/a | 48 | n/a | 48 | n/a | 35 |
| Aldi /Site Driveway | WB | LTR | n/a | 10 | n/a | 10 | n/a | 45 |
| | SB | LT | n/a | n/a | n/a | n/a | n/a | 65 |
| | | R | n/a | n/a | n/a | n/a | n/a | 25 |
| | | LTR | n/a | 5 | n/a | 5 | n/a | n/a |

1 50th Percentile Queue Length, in vehicles
2 95th Percentile Queue Length, in vehicles
n/a Not Applicable

ENCLOSURE H
Stormwater Drainage Analysis

# *STORMWATER DRAINAGE ANALYSIS*

***FOR***

## *PROPOSED*

**511 NEW PARK AVENUE**
**Town of West Hartford, Connecticut**
**Hartford County**

**Prepared by:**

**BOHLER ENGINEERING**
**352 Turnpike Road**
**Southborough, MA 01772**
**Tel: (508) 480-9900**
**Fax: (508) 480-9080**

STATE OF CONNECTICUT
JOSHUA G. SWERLING
No. 30785
LICENSED
PROFESSIONAL ENGINEER

Joshua G. Swerling, P.E.
Connecticut P.E. License #30785

**February 12, 2016**
BEPC #W151028

# APPENDICES

A. STORMWATER ATTENUATION CALCULATIONS (USING RATIONAL METHOD)

B. PIPE SIZING CALCULATIONS

C. OPERATION & MAINTENANCE PLAN

D. BORING LOGS

## INTRODUCTION

The proposed project involves the construction of a Chick-Fil-A restaurant on 511 New Park Avenue in West Hartford, CT. This site contains approximately 2.44 acres of land with is part of a larger 35.53 acre Commercial Condominium consisting of three units: Home Depot, BJ's Wholesale Club, BJ's Gas Station and Aldi Supermarket.

## DRAINAGE PATTERNS

The project area is a previously developed pad site and is relatively flat with grades ranging from elevation 72-feet to 75-feet. There are currently four catch basins located at low points within the existing parking area. The catch basins convey runoff to the onsite storm sewer system which includes the BJ's buildings, Home Depot and Aldi Supermarket and continues through to the abutting Cold Manufacturing site.

## DRAINAGE ANALYSIS

The 2.44 acre site was previously approved in 2008 for the construction of an Aldi Food Market and a Restaurant. The Aldi Food Market was constructed and the Restaurant site was not. The proposed Chick-fil-A restaurant is general located within the previously approved restaurant building location. The stormwater management system for the proposed Chick-fil-A development includes deep-sump hooded catch basins and a bio-retention basin that convey stormwater to the existing onsite storm sewer system. The below bullets highlight the stormwater management system's improvements as illustrated on the enclosed drawings prepared by Bohler Engineering.

- A portion of the newly redeveloped areas will be collected via deep sump catch basins with water quality hoods and conveyed through a series of pipe networks before being routed to the existing onsite storm sewer system.
- Groundwater recharge will be improved through the pervious / landscape areas and the bio-retention basin under post-redevelopment conditions.
- Existing drainage patterns have been maintained under post-redevelopment conditions and no new outfalls or stormwater conveyances are being proposed.
- Stormwater Quality will be improved through the increase in pervious / landscaped areas along with the new deep sump hooded catch basins and bio-retention basin.

## CONCLUSIONS

An Engineering Report entitled "Proposed Retail Development" prepared by BL Companies in February 17, 2008 was prepared for the previously approved development. The report references a previous Petsmart development having a total building footprint area of 26,040 s.f. The previously approved Aldi and Restaurant building footprint areas totaled 21,045 s.f. (16,800 for Aldi and 4,245 sf for the Restaurant) having a reduction of 4,995 s.f. over the previous Petsmart development. The proposed Chick-fil-A building will have a footprint area of 4,800 s.f. which still results in a net decrease of 4,440 s.f. over the Petsmart development. As stated in the report, this reduction will reduce the demand that the existing storm sewer system was previously designed to convey.

An Operation and Maintenance plan was previously developed for the site and is located in Appendix C.

# APPENDIX A

## STORMWATER ATTENTUATION CALCULATIONS (USING RATIONAL METHOD)

# SUMMARY OF DRAINAGE CALCULATIONS

**"C" BEFORE: EXISTING SITE (PREVIOUS PETSMART BUILDING)**

| CONDITION | AREA (SF) | % | COEFF. | FRACT. COMP. |
|---|---|---|---|---|
| BUILDING (PETSMART) | 26,040 | 100.0% | 0.9 | 0.9 |
| TOTAL | 26,040 | 100.0% | "C" COMPOS. | =0.9 |

**"C" AFTER: (EXISTING ALDI BUILDING & PROPOSED CFA BUILDING)**

| CONDITION | AREA (SF) | % | COEFF. | FRACT. COMP. |
|---|---|---|---|---|
| ALDI BUILDING | 16,800 | 78.0% | 0.9 | 0.70 |
| CHICK-FIL-A BUILDING | 4,800 | 22.0% | 0.9 | 0.20 |
| TOTAL | 21,600 | 100.00% | "C" COMPOS. | =0.90 |

**APPROXIMATE TIME OF CONCENTRATIONS & STORM INTENSITIES**

TC =5 MIN.(TIME OF CONCENTRATION - EXISTING)
TC =5 MIN.(TIME OF CONCENTRATION - PROPOSED)
I =3.3 IN./HR.(2 YR STORM INTENSITY)
I =4.4 IN./HR.(5 YR STORM INTENSITY)
I =5.3 IN./HR.(10 YR STORM INTENSITY)
I =6.5 IN./HR.(25 YR STORM INTENSITY)
I =7.5 IN./HR.(50 YR STORM INTENSITY)
I =8.5 IN./HR.(100 YR STORM INTENSITY)

**DETERMINE OFF-SITE BUILDING RUNOFF:**

| | 2 YR | 5YR | 10 YR | 25YR | 50YR | 100 YR | |
|---|---|---|---|---|---|---|---|
| "Q" EXISTING = "C" COMP. X I X AREA = | 1.79 | 2.39 | 2.88 | 3.53 | 4.07 | 4.61 | CFS |
| "Q" PROP. = "C" COMP. X I X AREA = | 1.49 | 1.98 | 2.39 | 2.93 | 3.38 | 3.83 | CFS |
| **NET DECREASE IN RUNOFF =** | **-0.31** | **-0.41** | **-0.49** | **-0.60** | **-0.69** | **-0.79** | **CFS** |

NOTE: NO INCREASE IN RUNOFF DUE TO DECREASE IN IMPERVIOUS BUILDING SURFACES (4,440 SF).

**NOAA Atlas 14, Volume 10, Version 2 WEST**
**HARTFORD**
**Station ID: 06-9162**
**Location name: Farmington, Connecticut, US***
**Latitude: 41.7500°, Longitude: -72.7833°**
**Elevation:**
**Elevation (station metadata): 275 ft***
* source: Google Maps

## POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

## PF tabular

**PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]**

| Duration | Average recurrence interval (years) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 5 | 10 | 25 | 50 | 100 | 200 | 500 | 1000 |
| 5-min | 0.343 (0.265-0.443) | 0.414 (0.319-0.535) | 0.529 (0.407-0.687) | 0.625 (0.478-0.817) | 0.757 (0.562-1.04) | 0.859 (0.625-1.20) | 0.961 (0.680-1.40) | 1.09 (0.730-1.62) | 1.25 (0.812-1.94) | 1.38 (0.874-2.18) |
| 10-min | 0.486 (0.375-0.628) | 0.586 (0.452-0.758) | 0.750 (0.576-0.974) | 0.886 (0.677-1.16) | 1.07 (0.796-1.47) | 1.22 (0.885-1.70) | 1.36 (0.963-1.98) | 1.54 (1.03-2.30) | 1.78 (1.15-2.75) | 1.96 (1.24-3.09) |
| 15-min | 0.571 (0.441-0.738) | 0.689 (0.532-0.892) | 0.882 (0.678-1.15) | 1.04 (0.797-1.36) | 1.26 (0.936-1.73) | 1.43 (1.04-2.00) | 1.60 (1.13-2.33) | 1.81 (1.22-2.70) | 2.09 (1.35-3.23) | 2.30 (1.46-3.63) |
| 30-min | 0.773 (0.597-0.999) | 0.933 (0.720-1.21) | 1.20 (0.919-1.55) | 1.41 (1.08-1.85) | 1.71 (1.27-2.34) | 1.94 (1.41-2.72) | 2.17 (1.54-3.16) | 2.46 (1.65-3.67) | 2.84 (1.84-4.39) | 3.13 (1.98-4.94) |
| 60-min | 0.975 (0.753-1.26) | 1.18 (0.908-1.52) | 1.51 (1.16-1.96) | 1.78 (1.36-2.33) | 2.16 (1.60-2.96) | 2.46 (1.78-3.44) | 2.75 (1.94-3.99) | 3.11 (2.09-4.63) | 3.59 (2.32-5.55) | 3.95 (2.50-6.24) |
| 2-hr | 1.26 (0.979-1.62) | 1.52 (1.18-1.95) | 1.94 (1.50-2.50) | 2.29 (1.76-2.97) | 2.77 (2.07-3.78) | 3.14 (2.31-4.39) | 3.51 (2.51-5.13) | 4.03 (2.71-5.98) | 4.70 (3.05-7.25) | 5.22 (3.31-8.21) |
| 3-hr | 1.45 (1.13-1.86) | 1.75 (1.37-2.24) | 2.24 (1.74-2.88) | 2.65 (2.04-3.42) | 3.21 (2.41-4.37) | 3.64 (2.68-5.08) | 4.07 (2.93-5.94) | 4.69 (3.17-6.96) | 5.52 (3.59-8.49) | 6.14 (3.90-9.65) |
| 6-hr | 1.83 (1.44-2.33) | 2.23 (1.75-2.83) | 2.87 (2.24-3.66) | 3.40 (2.64-4.36) | 4.13 (3.12-5.60) | 4.69 (3.48-6.53) | 5.25 (3.81-7.67) | 6.11 (4.14-9.02) | 7.23 (4.72-11.1) | 8.08 (5.16-12.7) |
| 12-hr | 2.26 (1.78-2.85) | 2.77 (2.19-3.51) | 3.62 (2.85-4.59) | 4.32 (3.38-5.51) | 5.28 (4.02-7.13) | 6.02 (4.50-8.36) | 6.77 (4.94-9.86) | 7.91 (5.38-11.6) | 9.42 (6.17-14.4) | 10.6 (6.76-16.5) |
| 24-hr | 2.64 (2.10-3.31) | 3.30 (2.63-4.15) | 4.39 (3.48-5.54) | 5.30 (4.17-6.72) | 6.54 (5.01-8.82) | 7.50 (5.65-10.4) | 8.46 (6.24-12.4) | 10.0 (6.85-14.7) | 12.1 (7.96-18.5) | 13.7 (8.80-21.3) |
| 2-day | 2.94 (2.36-3.66) | 3.77 (3.02-4.70) | 5.12 (4.08-6.41) | 6.24 (4.95-7.87) | 7.79 (6.02-10.5) | 8.98 (6.83-12.5) | 10.2 (7.61-15.0) | 12.3 (8.43-18.0) | 15.2 (9.99-23.1) | 17.3 (11.2-26.9) |
| 3-day | 3.19 (2.57-3.96) | 4.11 (3.30-5.10) | 5.60 (4.48-6.98) | 6.83 (5.44-8.58) | 8.54 (6.63-11.5) | 9.85 (7.54-13.7) | 11.2 (8.40-16.4) | 13.6 (9.33-19.9) | 16.8 (11.1-25.5) | 19.3 (12.4-29.8) |
| 4-day | 3.43 (2.77-4.24) | 4.40 (3.54-5.45) | 5.99 (4.81-7.45) | 7.31 (5.83-9.15) | 9.12 (7.10-12.2) | 10.5 (8.06-14.6) | 11.9 (8.98-17.5) | 14.5 (9.97-21.1) | 18.0 (11.9-27.2) | 20.6 (13.3-31.8) |
| 7-day | 4.09 (3.32-5.03) | 5.18 (4.19-6.38) | 6.95 (5.61-8.60) | 8.42 (6.75-10.5) | 10.4 (8.16-13.9) | 12.0 (9.23-16.5) | 13.6 (10.2-19.8) | 16.4 (11.3-23.8) | 20.1 (13.3-30.3) | 22.9 (14.8-35.3) |
| 10-day | 4.76 (3.88-5.84) | 5.91 (4.80-7.25) | 7.77 (6.29-9.58) | 9.32 (7.50-11.6) | 11.5 (8.96-15.2) | 13.1 (10.1-17.9) | 14.7 (11.1-21.3) | 17.6 (12.2-25.4) | 21.3 (14.2-32.2) | 24.2 (15.7-37.2) |
| 20-day | 6.88 (5.64-8.38) | 8.08 (6.61-9.85) | 10.0 (8.18-12.3) | 11.7 (9.45-14.4) | 13.9 (10.9-18.2) | 15.6 (12.0-21.0) | 17.4 (13.0-24.5) | 20.0 (13.9-28.8) | 23.5 (15.7-35.3) | 26.2 (17.0-40.2) |
| 30-day | 8.67 (7.13-10.5) | 9.89 (8.12-12.0) | 11.9 (9.73-14.5) | 13.5 (11.0-16.6) | 15.8 (12.4-20.5) | 17.6 (13.5-23.4) | 19.3 (14.4-27.0) | 21.8 (15.2-31.2) | 25.0 (16.7-37.3) | 27.4 (17.8-41.9) |
| 45-day | 10.9 (8.98-13.1) | 12.1 (10.0-14.7) | 14.2 (11.7-17.2) | 15.9 (13.0-19.5) | 18.3 (14.4-23.4) | 20.1 (15.4-26.5) | 21.9 (16.2-30.1) | 24.0 (16.9-34.2) | 26.8 (18.0-39.8) | 28.9 (18.8-44.1) |
| 60-day | 12.7 (10.5-15.3) | 14.0 (11.6-16.9) | 16.2 (13.3-19.6) | 18.0 (14.7-21.9) | 20.4 (16.1-26.0) | 22.3 (17.1-29.1) | 24.2 (17.8-32.8) | 26.0 (18.3-37.0) | 28.4 (19.1-42.2) | 30.2 (19.8-46.1) |

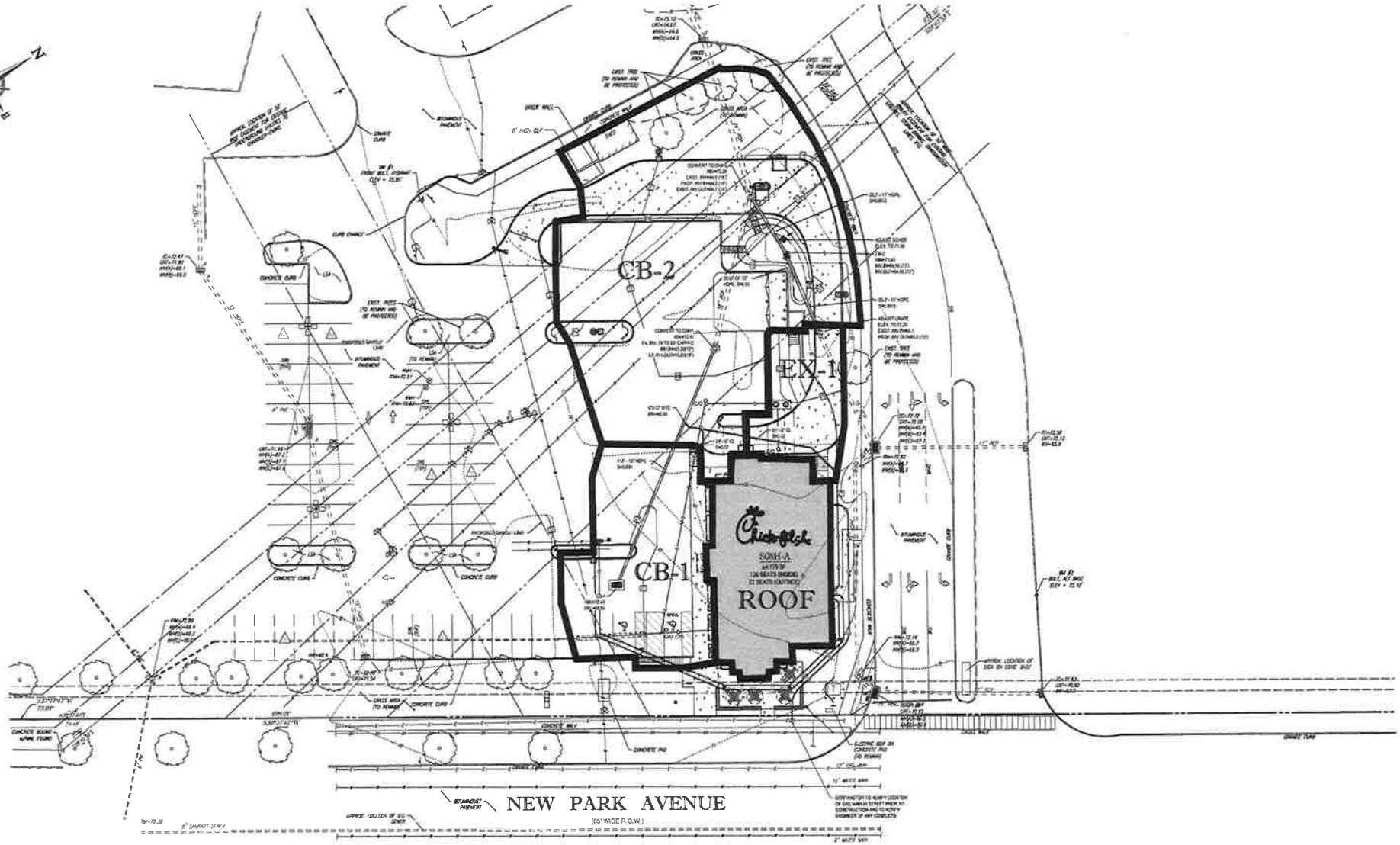
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

# APPENDIX B

## PIPE SIZING CALCULATIONS




811
Know what's below.
Call before you dig.

# PROPOSED DRAINAGE TRIBUTARY MAP

PREPARED BY
BOHLER
ENGINEERING

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DRAINAGE COMPUTATIONS FOR 25-YEAR STORM EVENT | | | | | | | | | | | | | | | | |
| 2 | LOCATION | | IMPERVIOUS AREA | | | OTHER | | | SUM | | | Q | | | | Q | V |
| 3 | FROM | TO | A | C | CA | A | C | CA | CA | Tc | I | IxCA | D | S | n | full | full |
| 4 | | | (Ac) | | | (Ac) | | | | (Min) | in/hr | (cfs) | (in) | (ft/ft) | | (cfs) | (fps) |
| 5 | ROOF | DMH-1 | 0.110 | 0.9 | 0.10 | 0.000 | 0.3 | 0.00 | 0.10 | 5 | 6.5 | 0.64 | 6 | 0.020 | 0.013 | 0.79 | 4.04 |
| 6 | | | | | | | | | | | | | | | | | |
| 7 | CB-1 | DMH-1 | 0.120 | 0.9 | 0.11 | 0.005 | 0.3 | 0.00 | 0.11 | 5 | 6.5 | 0.71 | 12 | 0.030 | 0.013 | 6.17 | 7.86 |
| 8 | | | | | | | | | | | | | | | | | |
| 9 | DMH-1 | DMH-2 | 0.230 | 0.9 | 0.21 | 0.005 | 0.3 | 0.00 | 0.21 | 5 | 6.5 | 1.36 | 18 | 0.002 | 0.013 | 4.07 | 2.30 |
| 10 | | | | | | | | | | | | | | | | | |
| 11 | EX-1 | CB-2 | 0.040 | 0.9 | 0.04 | 0.020 | 0.3 | 0.01 | 0.04 | 5 | 6.5 | 0.27 | 15 | 0.002 | 0.013 | 2.50 | 2.04 |
| 12 | | | | | | | | | | | | | | | | | |
| 13 | CB-2 | DMH-2 | 0.330 | 0.9 | 0.30 | 0.130 | 0.3 | 0.04 | 0.34 | 5 | 6.5 | 2.18 | 15 | 0.002 | 0.013 | 2.50 | 2.04 |
| 14 | | | | | | | | | | | | | | | | | |
| 15 | DMH-2 | OFF-SITE DMH | 0.600 | 0.9 | 0.54 | 0.155 | 0.3 | 0.05 | 0.59 | 5 | 6.5 | 3.81 | 24 | 0.001 | 0.013 | 8.16 | 2.60 |
| 16 | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | |

# APPENDIX C

# OPERATION & MAINTENANCE PLAN

Exhibit G

## MAINTENANCE PLAN FOR WEST HARTFORD PLACE CONDOMINIUM

The following establishes the maintenance objectives for West Hartford Place Condominium. Scheduling of the various functions is on a daily, weekly, monthly, quarterly, annually and as required basis. Subject to the terms and conditions of the Declaration of Condominium to be filed in the land records of the City of West Hartford, a copy of which is attached hereto, the primary responsibility for the maintenance of all common areas, facilities and buildings (not including the units), structures and other improvements shall belong to West Hartford Place Condominium Owner's Association, Inc. (the "Owner").

The Owner's representatives will be available to meet with town and neighborhood representatives at any time, and more specifically, on a quarterly basis to review maintenance and other issues that may surface.

General Maintenance Objectives:

Daily:
- Inspect and remove trash as necessary from landscaped areas, sidewalks, parking areas and loading areas

Weekly:
- Mow all grass areas (seasonal)
- Weed all planted areas (seasonal)
- Air sweep of all sidewalks
- Sweeping of parking lot

Monthly:
- Weed all planted areas (seasonal)

Quarterly:
- Preventative monitoring by owners of individual units and/or Condominium Association, as applicable:
  - -Roof
  - -Parking lot lights
  - -Paving, stripping, traffic control
  - -Painting of all exterior areas

Annually:

Spring:
- Clean up all winter sand and accumulated debris
- Inspect and clean storm drainage structures
- Repair pavement and curbing damaged during plowing operations as required
- Repaint parking stalls and pavement markings as required
- Clean-up all plant beds and replenish mulch
- Replace all winter damaged landscaping
- Start up irrigation system

**Annually:** Fall:
- Clean-up all plant beds, remove all leaves and debris
- Replace summer damaged landscaping
- Shut down irrigation system

**As Required:**
- Snow removal from sidewalks, parking areas, driveways and fire lanes of all snow deposits greater than four (4) inches in depth. Accumulated snow which is stored on site shall be located in a designated snow storage area where such storage will not encroach onto or damage required landscaped areas or parking spaces.
- Sanding
- Any of the above on an emergency basis

**Specific Maintenance Details:**

(a) Solid Waster Removal: The Owner will arrange for and supervise solid waste collection from West Hartford Place. Special attention will be paid to the following items:

- Insuring that on-site solid waste containers, including recyclable containers, be maintained and operated in a neat and orderly manner.
- Discarded tires associated with the tire service operation will be stored in an enclosed area at all times.
- On-site trash compactor(s) will be operated in a neat and orderly manner. The compactor(s) will be installed to provide maximum noise abatement, with the motor on the inside of the building and all outside parts concealed by a masonry screen constructed of a material compatible with the proposed store's design.
- Sold waste collection shall be permitted only between 7:00 a.m. and 6:00 p.m. weekdays and between 8:00 a.m. and 5:00 p.m. Saturdays. Solid waste collection shall not be permitted on a regular basis on Sundays, but shall be permitted between 8:00 a.m. and 5:00 p.m. during holiday periods.

(b) Security: Owner will provide a minimum of one (1) uniformed guard and one (1) adequately marked security vehicle for the purpose of patrolling the parking areas from one half hour before dusk through midnight daily.

(c) Snow Removal: Owner will arrange and supervise the removal of snow, ice and sand from all parking areas, private roads, access driveways and fire lanes for West Hartford Place. Snow and ice shall not be allowed to accumulate in an amount greater than four (4) inches. Snow removal shall be completed in a manner so that no parking areas, driveways or fire lanes are impeded. All snow and ice shall be stored in an approved designated area. All snow and ice shall be removed from sidewalks. Damage to sidewalks, curbs, pavement or landscaping shall be repaired or replaced in a timely manner. Sand will be removed on an "as needed" basis. Parking lot sweeping will not occur before 7:00 a.m. weekdays, 8:00 a.m. Saturdays, 8:00 a.m. holidays and will never be done on Sundays.

(d) Landscaping: Owner will maintain all landscaped areas including mowing, weeding, trash removal and replacement of any dead/damaged shrubs or trees.

(e) Site Lighting: Owner will maintain all site lighting so that no light will be out for a period longer than 72 hours. The site lighting will be inspected on a daily basis by the on-site maintenance person.

(f) Site Drainage: Owner will clean the catch basins every six months, or sooner if necessary and clean the oil/grit separator.

(g) Signage: All signage shall be repaired or replaced as needed.

(h) On-Site Personnel: Owner shall provide one (1) staff person on-site on a daily basis to maintain the site. Their responsibilities shall include, but not be limited to, refuse, inspection of building exteriors and parking areas.

Owner's Representative: Robert Craig
55 Federal Road
Danbury, CT 06810
Robert S. Craig - (203) 226-6272
Kathy Santos - (203) 797-0124 (24 hours)

In the event of a change in the identity of the Owner's Representative, the undersigned shall notify the Town Manager of West Hartford of the name, address and the phone numbers of such replacement representative by certified mail, return receipt requested within seven (7) days of any such change.

WEST HARTFORD PLACE CONDOMINIUM
OWNER'S ASSOCIATION, INC.

By: _____

Duly Authorized

Reviewed and approved as consistent with the requirements of the Town Council per SDD #94 Condition #11.

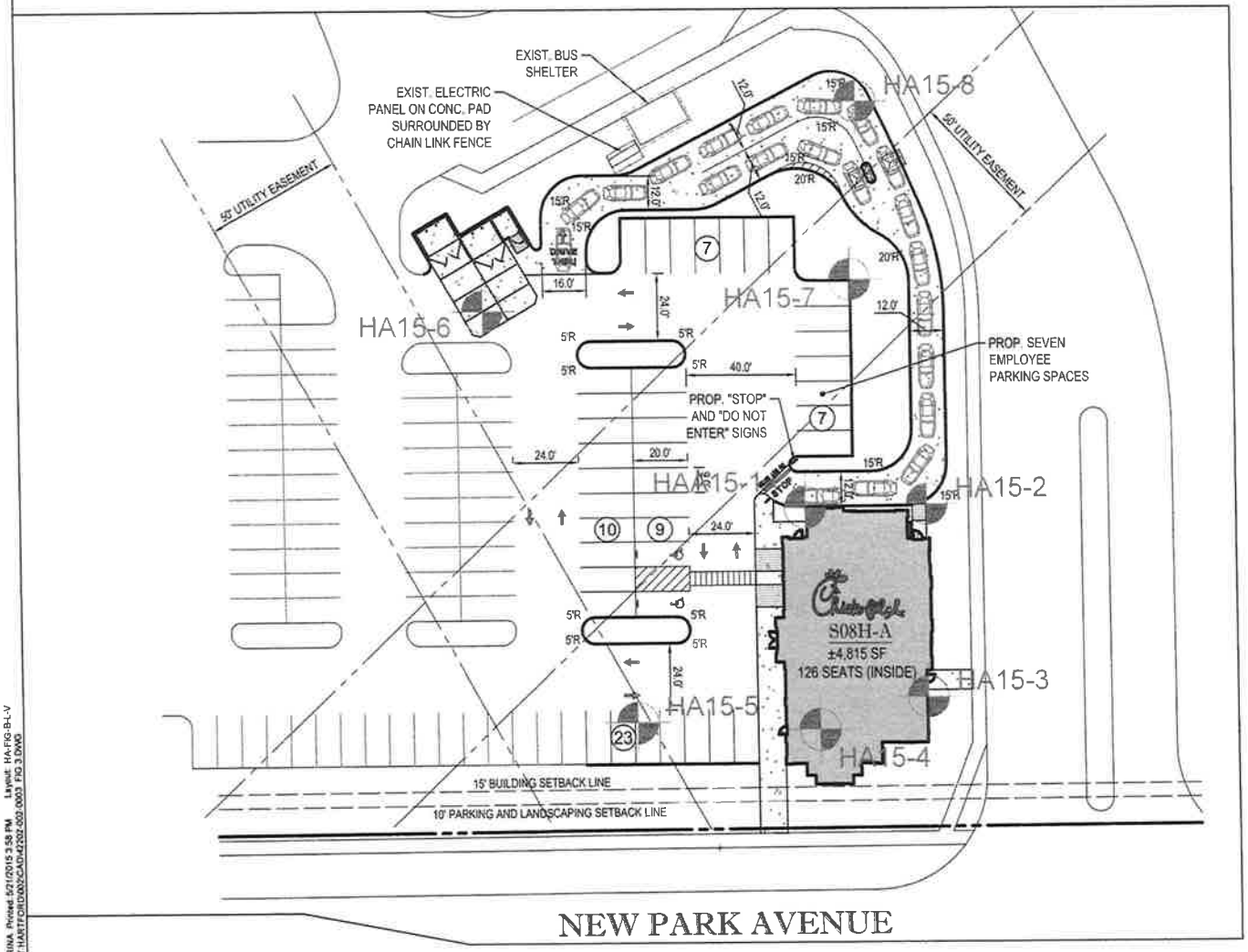
_____

_____

ksb\cee96\maint2.wh

# APPENDIX D

BORING LOGS




**LEGEND:**

HA15-1 DESIGNATION AND APPROXIMATE LOCATION OF TEST BORINGS DRILLED ON 15 MAY 2015 BY SEABORD DRILLING, INC. OF CHICOPEE, MASSACHUSETTS.

**NOTE:**

1. BASE MAP IS DRAWING ENTITLED "CONCEPT A" PREPARED BY BOHLER ENGINEERING DATED 20 APRIL 2015

0 40 80
SCALE IN FEET

HALEY ALDRICH

PROPOSED CHICK-FIL-A STORE#03673
511 NEW PARK AVE
WEST HARTFORD, CONNECTICUT

EXPLORATION LOCATION PLAN

SCALE: AS SHOWN
MAY 2015

FIGURE 3

PEREZ MEJIA, KATRINA Printed: 5/21/2015 3:58 PM Layout: HA-FIG-B-L-V
G:\42203-CFA WEST HARTFORD\02\CAD\42202-003-0003 FIG 3.DWG

HALEY ALDRICH

# TEST BORING REPORT DRAFT

**Boring No. HA15-1**

| | |
|---|---|
| Project | Proposed Chick-fil-A #03673, West Hartford, Connecticut |
| Client | Chick-fil-A, Inc. |
| Contractor | Seaboard Drilling, Inc. |

| | |
|---|---|
| File No. | 42202-002 |
| Sheet No. | 1 of 1 |
| Start | 15 May 2015 |
| Finish | 15 May 2015 |
| Driller | M. Glynn |
| H&A Rep. | K. Perez Mejia |
| Elevation | 73.0 (est.) |
| Datum | Unknown |
| Location | See Plan |

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | HSA | S | - | Rig Make & Model: Truck-mounted Mobile Drill B-53 |
| Inside Diameter (in.) | 2.25 | 1 3/8 | - | Bit Type: Cutting Head |
| Hammer Weight (lb) | - | 140 | - | Drill Mud: None |
| Hammer Fall (in.) | - | 30 | - | Casing: Spun |
| | | | | Hoist/Hammer: Winch Safety Hammer |
| | | | | PID Make & Model: MiniRAE 2000 10.6 eV |

| Depth (ft) | Sampler Blows per 6 in. | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size†, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | Gravel % Coarse | Gravel % Fine | Sand % Coarse | Sand % Medium | Sand % Fine | % Fines | Field Test Dilatancy | Field Test Toughness | Field Test Plasticity | Field Test Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | 72.5 | SM | -TOPSOIL- PID = 4.7 ppm | - | - | - | 10 | 60 | 30 | | | | |
| | 6 16 29 30 | S1 18 | 0.0 2.0 | 0.5 | SM | Dense brown silty SAND with gravel, no odor, dry PID = 4.7 ppm | - | 15 | 10 | 30 | 30 | 15 | | | | |
| | 30 22 18 19 | S2 17 | 2.0 4.0 | | SP-SM | Dense gray to orange-brown poorly-graded SAND with silt, no odor, moist PID = 6.6 ppm | - | - | - | 10 | 80 | 10 | | | | |
| | 22 21 20 19 | S3 19 | 4.0 6.0 | 68.0 | SM | Dense dark brown silty SAND, trace brick, no odor, dry -FILL- PID = 10 ppm | - | 10 | 10 | 30 | 35 | 15 | | | | |
| 5 | | | | 5.0 | SP-SM | Dense gray to orange-brown poorly-graded SAND with silt, no odor, moist, stratified PID = 10 ppm | - | - | 10 | 10 | 70 | 10 | | | | |
| 10 | 7 7 11 12 | S4 4 | 9.0 11.0 | | SP | Medium dense brown poorly-graded SAND, no odor, wet PID = 15 ppm | - | - | - | 10 | 85 | 5 | | | | |
| | | | | 59.0 | | -GLACIOFLUVIAL DEPOSITS- | | | | | | | | | | |
| 15 | 1 2 1 2 | S5 24 | 14.0 16.0 | 14.0 | ML-CL | Soft gray SILT with clay, varved, trace fine sand, no odor, wet PID = 1.9 ppm | - | - | - | - | 5 | 95 | | | | |
| | | | | 57.0 | | -GLACIOLACUSTRINE DEPOSITS- | | | | | | | | | | |
| | | | | 16.0 | | BOTTOM OF EXPLORATION AT 16.0 FT | | | | | | | | | | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| 05/15/2015 | | | | 12.0 | 8.0 |

**Sample ID**

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

**Well Diagram**

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 16.0 |
| Rock Cored (ft) | 0.0 |
| Samples | 5S |

**Boring No. HA15-1**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-09 HA-LIB09-BOS.GLB HA-TB+CORE+WELL-07-1.GDT G:\42202-CFA-WEST HARTFORD\002\GINT\2015-0517-HAI_42202_LOGS.GPJ 29 May 15

HALEY ALDRICH

# TEST BORING REPORT DRAFT

**Boring No. HA15-2**

| | |
|---|---|
| Project | Proposed Chick-fil-A #03673, West Hartford, Connecticut |
| Client | Chick-fil-A, Inc. |
| Contractor | Seaboard Drilling, Inc. |

File No. 42202-002
Sheet No. 1 of 1
Start 15 May 2015
Finish 15 May 2015
Driller M. Glynn
H&A Rep. K. Perez Mejia
Elevation 74.0 (est.)
Datum Unknown
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | HSA | S | - | Rig Make & Model: Truck-mounted Mobile Drill B-53 |
| Inside Diameter (in.) | 2.25 | 1 3/8 | - | Bit Type: Cutting Head<br>Drill Mud: None |
| Hammer Weight (lb) | - | 140 | - | Casing: Spun |
| Hammer Fall (in.) | - | 30 | - | Hoist/Hammer: Winch Safety Hammer<br>PID Make & Model: MiniRAE 2000 10.6 eV |

| Depth (ft) | Sampler Blows per 6 in. | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size†, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | % Coarse | % Fine | % Coarse | % Medium | % Fine | % Fines | Dilatancy | Toughness | Plasticity | Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | 73.5 | SM | -TOPSOIL- | - | - | - | - | 70 | 30 | | | | |
| | 12 20 18 15 | S1 12 | 0.0 2.0 | 0.5 | SM | PID = 1.1 ppm<br>Dense dark brown silty SAND with gravel, trace brick, no odor, dry<br>PID = 1.1 ppm | - | 15 | 15 | 25 | 30 | 15 | | | | |
| | 15 11 8 9 | S2 12 | 2.0 4.0 | | SM | Medium dense brown to red-brown silty SAND with gravel, no odor, dry<br>PID = 3.4 ppm | - | 15 | 15 | 25 | 30 | 15 | | | | |
| | 8 6 5 6 | S3 12 | 4.0 6.0 | | SM | Medium dense brown silty SAND, no odor, moist<br>PID = 2.6 ppm | - | - | 10 | 20 | 30 | 50 | | | | |
| 5 | | | | 68.5 | | -FILL- | | | | | | | | | | |
| | 4 6 3 3 | S4 23 | 6.0 8.0 | 5.5 | ML/OL | Stiff black SILT, organic odor, moist, trace wood fibers (resembles peat)<br>PID = 2.6 ppm | - | - | - | - | 5 | 95 | | | | |
| | | | | | ML/OL | Similar to S3, below 5.5 ft, except gray-black, no odor<br>PID = 2 ppm | - | - | - | - | 5 | 95 | | | | |
| | | | | 66.0 | | -ORGANIC DEPOSITS- | | | | | | | | | | |
| | 3 5 7 13 | S5 10 | 8.0 10.0 | 8.0 | ML | Medium dense gray SILT with sand, no odor, moist<br>PID = 1.2 ppm | - | - | - | - | 30 | 70 | | | | |
| 10 | | | | | | | | | | | | | | | | |
| | 5 6 8 7 | S6 24 | 14.0 16.0 | | ML-CL | Medium dense gray SILT with clay, varved, some fine sand, no odor, moist<br>PID = 0.7 ppm | - | - | - | - | 20 | 80 | | | | |
| 15 | | | | 58.0 | | -GLACIOLACUSTRINE DEPOSITS- | | | | | | | | | | |
| | | | | 16.0 | | -BOTTOM OF EXPLORATION AT 16.0 FT | | | | | | | | | | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| 05/15/2015 | NOT ENCOUNTERED | | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**
Overburden (ft) 16.0
Rock Cored (ft) 0.0
Samples 6S

**Boring No. HA15-2**

**Field Tests:** Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.
Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-09 HA-LIB09-BOS.GLB HA-TB+CORE+WELL-07-1.GDT G:\42202-CFA-WEST HARTFORD\002\GINT\2015-0517-HAI_42202_LOGS.GPJ 29 May 15

HALEY ALDRICH

# TEST BORING REPORT DRAFT

**Boring No. HA15-3**

| | |
|---|---|
| Project | Proposed Chick-fil-A #03673, West Hartford, Connecticut |
| Client | Chick-fil-A, Inc. |
| Contractor | Seaboard Drilling, Inc. |

File No. 42202-002
Sheet No. 1 of 1
Start 15 May 2015
Finish 15 May 2015
Driller M. Glynn
H&A Rep. K. Perez Mejia
Elevation 74.0 (est.)
Datum Unknown
Location See Plan

| | Casing | Sampler | Barrel |
|---|---|---|---|
| Type | HSA | S | - |
| Inside Diameter (in.) | 2.25 | 1 3/8 | - |
| Hammer Weight (lb) | - | 140 | - |
| Hammer Fall (in.) | - | 30 | - |

**Drilling Equipment and Procedures**

Rig Make & Model: Truck-mounted Mobile Drill B-53
Bit Type: Cutting Head
Drill Mud: None
Casing: Spun
Hoist/Hammer: Winch Safety Hammer
PID Make & Model: MiniRAE 2000 10.6 eV

| Depth (ft) | Sampler Blows per 6 in. | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size†, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | Gravel % Coarse | Gravel % Fine | Sand % Coarse | Sand % Medium | Sand % Fine | % Fines | Field Test Dilatancy | Field Test Toughness | Field Test Plasticity | Field Test Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | 73.5 | SM | -TOPSOIL- | - | - | - | - | 70 | 30 | | | | |
| | 11 25 33 30 | S1 18 | 0.0 2.0 | 0.5 | SM | PID = 19.6 ppm<br>Very dense brown silty SAND with gravel, trace asphalt, no odor, dry<br>PID = 19.6 ppm | 5 | 15 | 10 | 25 | 30 | 15 | | | | |
| | 24 16 15 16 | S2 18 | 2.0 4.0 | | SM | Dense brown to red-brown to orange-brown silty SAND, no odor, dry<br>PID = 17.7 ppm | - | - | - | - | 80 | 20 | | | | |
| | | | | 70.0 | | -FILL- | | | | | | | | | | |
| 5 | 12 11 9 8 | S3 16 | 4.0 6.0 | 4.0 | SM | Medium dense red-brown silty SAND, no odor, dry<br>PID = 9.8 ppm | - | - | 10 | 40 | 30 | 20 | | | | |
| 10 | 8 9 9 8 | S4 8 | 9.0 11.0 | | SM | Similar to S3, except gray, moist<br>PID = 0.4 ppm | - | - | - | - | 60 | 40 | | | | |
| | | | | 60.0 | | -GLACIOFLUVIAL DEPOSITS- | | | | | | | | | | |
| 15 | 2 3 3 3 | S5 24 | 14.0 16.0 | 14.0 | ML-CL | Loose gray SILT with clay, varved, some fine sand, no odor, wet<br>PID = 0.2 ppm | - | - | - | - | 20 | 80 | | | | |
| | | | | 58.0 | | -GLACIOLACUSTRINE DEPOSITS- | | | | | | | | | | |
| | | | | 16.0 | | BOTTOM OF EXPLORATION AT 16.0 FT | | | | | | | | | | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| 05/15/2015 | NOT ENCOUNTERED | | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**
Overburden (ft) 16.0
Rock Cored (ft) 0.0
Samples 5S

**Boring No. HA15-3**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.
Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-09 HA-LIB09-BOS.GLB HA-TB+CORE+WELL-07-1.GDT G:\42202-CFA-WEST HARTFORD\002\GINT\2015-0517-HAI_42202_LOGS.GPJ 29 May 15

HALEY ALDRICH

# TEST BORING REPORT DRAFT

**Boring No. HA15-4**

| | |
|---|---|
| Project | Proposed Chick-fil-A #03673, West Hartford, Connecticut |
| Client | Chick-fil-A, Inc. |
| Contractor | Seaboard Drilling, Inc. |

File No. 42202-002
Sheet No. 1 of 1
Start 15 May 2015
Finish 15 May 2015
Driller M. Glynn
H&A Rep. K. Perez Mejia
Elevation 74.0 (est.)
Datum Unknown
Location See Plan

| | Casing | Sampler | Barrel |
|---|---|---|---|
| Type | HSA | S | - |
| Inside Diameter (in.) | 2.25 | 1 3/8 | - |
| Hammer Weight (lb) | - | 140 | - |
| Hammer Fall (in.) | - | 30 | - |

**Drilling Equipment and Procedures**
Rig Make & Model: Truck-mounted Mobile Drill B-53
Bit Type: Cutting Head
Drill Mud: None
Casing: Spun
Hoist/Hammer: Winch Safety Hammer
PID Make & Model: MiniRAE 2000 10.6 eV

| Depth (ft) | Sampler Blows per 6 in. | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size†, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | Gravel % Coarse | Gravel % Fine | Sand % Coarse | Sand % Medium | Sand % Fine | % Fines | Field Test Dilatancy | Toughness | Plasticity | Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 6 11 21 35 | S1 18 | 0.0 2.0 | 73.5 0.5 | SM | -TOPSOIL- PID = 2.1 ppm | - | - | - | 20 | 50 | 30 | | | | |
| | | | | | SM | Dense brown silty SAND with gravel, no odor, dry -FILL- PID = 2.1 ppm | - | 15 | 10 | 25 | 30 | 20 | | | | |
| | 23 22 24 21 | S2 16 | 2.0 4.0 | 72.0 2.0 | SP-SM | Dense gray poorly-graded SAND with silt, no odor, dry PID = 1.7 ppm | - | - | - | 5 | 85 | 10 | | | | |
| 5 | 17 15 15 17 | S3 18 | 4.0 6.0 | | SM | Dense red-brown silty SAND, no odor, moist PID = 0 ppm | - | - | - | 30 | 50 | 20 | | | | |
| 10 | 3 5 5 5 | S4 12 | 9.0 11.0 | | SM | Loose gray silty SAND, no odor, moist PID = 0 ppm | - | - | - | - | 60 | 40 | | | | |
| 15 | 3 5 5 8 | S5 22 | 14.0 16.0 | | SM | Similar to S4 PID = 0 ppm | - | - | - | - | 60 | 40 | | | | |
| | | | | 58.0 16.0 | | -GLACIOFLUVIAL DEPOSITS- BOTTOM OF EXPLORATION AT 16.0 FT | | | | | | | | | | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| 05/15/2015 | NOT ENCOUNTERED | | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**
Overburden (ft) 16.0
Rock Cored (ft) 0.0
Samples 5S
**Boring No. HA15-4**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.
Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-09 HA-LIB09-BOS.GLB HA-TB+CORE+WELL-07-1.GDT G:\42202-CFA-WEST HARTFORD\002\GINT\2015-0517-HAI_42202_LOGS.GPJ 29 May 15

HALEY ALDRICH

# TEST BORING REPORT DRAFT

**Boring No. HA15-5**

| | |
|---|---|
| Project | Proposed Chick-fil-A #03673, West Hartford, Connecticut |
| Client | Chick-fil-A, Inc. |
| Contractor | Seaboard Drilling, Inc. |

File No. 42202 002
Sheet No. 1 of 1
Start 15 May 2015
Finish 15 May 2015
Driller M. Glynn
H&A Rep. K. Perez Mejia
Elevation 74.0 (est.)
Datum Unknown
Location See Plan

| | Casing | Sampler | Barrel |
|---|---|---|---|
| Type | - | S | - |
| Inside Diameter (in.) | - | 1 3/8 | - |
| Hammer Weight (lb) | - | 140 | - |
| Hammer Fall (in.) | - | 30 | - |

**Drilling Equipment and Procedures**

Rig Make & Model: Truck-mounted Mobile Drill B-53
Bit Type: None
Drill Mud: None
Casing: Spun
Hoist/Hammer: Winch Safety Hammer
PID Make & Model: MiniRAE 2000 10.6 eV

| Depth (ft) | Sampler Blows per 6 in. | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size†, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | Gravel % Coarse | Gravel % Fine | Sand % Coarse | Sand % Medium | Sand % Fine | % Fines | Field Test Dilatancy | Field Test Toughness | Field Test Plasticity | Field Test Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 24 34 29 27 | S1 18 | 0.0 2.0 | 73.5 0.5 | SM | -TOPSOIL- PID = 0 ppm | - | - | - | 10 | 60 | 30 | | | | |
| | | | | | SM | Very dense red-brown silty SAND with gravel, no odor, dry, trace asphalt PID = 0 ppm | 15 | 15 | 10 | 15 | 30 | 15 | | | | |
| | 27 25 17 15 | S2 10 | 2.0 4.0 | | SM | Similar to S1, below 0.5 ft, except dense PID = 0.5 ppm | - | 20 | 15 | 20 | 30 | 15 | | | | |
| | | | | 70.0 4.0 | | -FILL- | | | | | | | | | | |
| | 15 14 12 9 | S3 10 | 4.0 6.0 | | SM | Medium dense red-brown silty SAND, no odor, moist PID = 0 ppm | - | - | 10 | 15 | 60 | 15 | | | | |
| 5 | | | | 68.0 6.0 | | -GLACIOFLUVIAL DEPOSITS- BOTTOM OF EXPLORATION AT 6.0 FT | | | | | | | | | | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| 05/15/2015 | NOT ENCOUNTERED | | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**
Overburden (ft) 6.0
Rock Cored (ft) 0.0
Samples 3S

**Boring No. HA15-5**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-09 HA-LIB09-BOS.GLB HA-TB+CORE+WELL-07-1.GDT G:\42202-CFA-WEST HARTFORD\002\GINT\2015-0517-HAI_42202_LOGS.GPJ 29 May 15

HALEY ALDRICH

# TEST BORING REPORT DRAFT

**Boring No. HA15-6**

| | |
|---|---|
| Project | Proposed Chick-fil-A #03673, West Hartford, Connecticut |
| Client | Chick-fil-A, Inc. |
| Contractor | Seaboard Drilling, Inc. |

| | |
|---|---|
| File No. | 42202-002 |
| Sheet No. | 1 of 1 |
| Start | 15 May 2015 |
| Finish | 15 May 2015 |
| Driller | M. Glynn |
| H&A Rep. | K. Perez Mejia |
| Elevation | 74.0 (est.) |
| Datum | Unknown |
| Location | See Plan |

| | Casing | Sampler | Barrel |
|---|---|---|---|
| Type | HSA | S | - |
| Inside Diameter (in.) | 2.25 | 1 3/8 | - |
| Hammer Weight (lb) | - | 140 | - |
| Hammer Fall (in.) | - | 30 | - |

**Drilling Equipment and Procedures**

Rig Make & Model: Truck-mounted Mobile Drill B-53
Bit Type: Cutting Head
Drill Mud: None
Casing: Spun
Hoist/Hammer: Winch Safety Hammer
PID Make & Model: MiniRAE 2000 10.6 eV

| Depth (ft) | Sampler Blows per 6 in. | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size†, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | Gravel % Coarse | Gravel % Fine | Sand % Coarse | Sand % Medium | Sand % Fine | % Fines | Field Test Dilatancy | Field Test Toughness | Field Test Plasticity | Field Test Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | 73.5 / 0.5 | SM | -BITUMINOUS CONCRETE- | - | - | - | - | - | - | | | | |
| | 16 39 43 46 | S1 18 | 0.5 2.5 | 73.0 / 1.0 | SW | Very dense light brown well-graded SAND with gravel, no odor, dry | 20 | 20 | 15 | 20 | 20 | 5 | | | | |
| | | | | | SM | -BASE COURSE- PID = 0 ppm | - | 10 | 10 | 25 | 35 | 20 | | | | |
| | | | | 72.0 / 2.0 | SM | Very dense dark brown silty SAND, no odor, dry -FILL- PID = 0 ppm | - | - | - | - | 75 | 25 | | | | |
| | 58 31 35 39 | S2 17 | 2.5 4.5 | | | Very dense gray to orange-brown silty SAND, no odor, dry PID = 0 ppm | | | | | | | | | | |
| | | | | | SM | Medium dense orange-brown to light brown silty SAND, no odor, wet PID = 0 ppm | - | - | - | - | 75 | 25 | | | | |
| 5 | 26 16 10 12 | S3 18 | 4.5 6.5 | | | | | | | | | | | | | |
| | | | | 67.5 / 6.5 | | -GLACIOFLUVIAL DEPOSITS- BOTTOM OF EXPLORATION AT 6.5 FT | | | | | | | | | | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| 05/15/2015 | NOT ENCOUNTERED | | | | |

**Sample ID**

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

**Well Diagram**

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 6.5 |
| Rock Cored (ft) | 0.0 |
| Samples | 3S |

**Boring No. HA15-6**

**Field Tests:** Dilatancy: R - Rapid S - Slow N - None; Toughness: L - Low M - Medium H - High; Plasticity: N - Nonplastic L - Low M - Medium H - High; Dry Strength: N - None L - Low M - Medium H - High V - Very High

†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-09 HA-LIB09-BOS.GLB HA-TB+CORE+WELL-07-1.GDT G:\42202-CFA-WEST HARTFORD\002\GINT\2015-0517-HAI_42202_LOGS.GPJ 29 May 15

HALEY ALDRICH

# TEST BORING REPORT DRAFT

**Boring No. HA15-7**

| | |
|---|---|
| Project | Proposed Chick-fil-A #03673, West Hartford, Connecticut |
| Client | Chick-fil-A, Inc. |
| Contractor | Seaboard Drilling, Inc. |

File No. 42202-002
Sheet No. 1 of 1
Start 15 May 2015
Finish 15 May 2015
Driller M. Glynn
H&A Rep. K. Perez Mejia
Elevation 73.0 (est.)
Datum Unknown
Location See Plan

| | Casing | Sampler | Barrel |
|---|---|---|---|
| Type | HSA | S | - |
| Inside Diameter (in.) | 2.25 | 1 3/8 | - |
| Hammer Weight (lb) | - | 140 | - |
| Hammer Fall (in.) | - | 30 | - |

**Drilling Equipment and Procedures**

Rig Make & Model: Truck-mounted Mobile Drill B-53
Bit Type: Cutting Head
Drill Mud: None
Casing: Spun
Hoist/Hammer: Winch Safety Hammer
PID Make & Model: MiniRAE 2000 10.6 eV

| Depth (ft) | Sampler Blows per 6 in. | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size†, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | Gravel % Coarse | Gravel % Fine | Sand % Coarse | Sand % Medium | Sand % Fine | % Fines | Field Test Dilatancy | Field Test Toughness | Field Test Plasticity | Field Test Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | 72.5 | SM | -BITUMINOUS CONCRETE- | - | - | - | - | - | - | | | | |
| | | | | 0.5 | SP | Very dense light brown poorly-graded SAND with gravel, no odor, dry | 20 | 20 | 10 | 20 | 25 | 5 | | | | |
| | 32 41 32 35 | S1 16 | 0.5 2.5 | 72.0 1.0 | SM | -BASE COURSE- PID = 0 ppm | 20 | 15 | 15 | 15 | 20 | 15 | | | | |
| | | | | | | Very dense dark brown silty SAND with gravel, no odor, dry PID = 0 ppm | | | | | | | | | | |
| | 35 34 50/1" | S2 12 | 2.5 3.6 | | SP-SM | Very dense brown poorly-graded SAND with silt and gravel, no odor, dry | 10 | 10 | 10 | 30 | 30 | 10 | | | | |
| | | | | | | Note: Split spoon bouncing on probable cobbles/boulders. PID = 0 ppm | | | | | | | | | | |
| | 38 16 16 20 | S3 17 | 4.0 6.0 | 68.5 4.5 | | -FILL- | - | - | - | 30 | 60 | 10 | | | | |
| 5 | | | | | SP-SM | Dense gray-brown poorly-graded SAND with silt, no odor, moist PID = 0 ppm | | | | | | | | | | |
| | | | | 67.0 6.0 | | -GLACIOFLUVIAL DEPOSITS- | | | | | | | | | | |
| | | | | | | BOTTOM OF EXPLORATION AT 6.0 FT | | | | | | | | | | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| 05/15/2015 | NOT ENCOUNTERED | | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 6.0 |
| Rock Cored (ft) | 0.0 |
| Samples | 3S |

**Boring No. HA15-7**

**Field Tests:** Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-09 HA-UB09-BOS.GLB HA-TB+CORE+WELL-07-1.GDT G:\42202-CFA-WEST HARTFORD\002\GINT\2015-0517-HAI_42202_LOGS.GPJ 29 May 15

HALEY ALDRICH

# TEST BORING REPORT DRAFT

**Boring No.** HA15-8

| | |
|---|---|
| Project | Proposed Chick-fil-A #03673, West Hartford, Connecticut |
| Client | Chick-fil-A, Inc. |
| Contractor | Seaboard Drilling, Inc. |

| | |
|---|---|
| File No. | 42202-002 |
| Sheet No. | 1 of 1 |
| Start | 15 May 2015 |
| Finish | 15 May 2015 |
| Driller | M. Glynn |
| H&A Rep. | K. Perez Mejia |
| Elevation | 76.0 (est.) |
| Datum | Unknown |
| Location | See Plan |

| | Casing | Sampler | Barrel |
|---|---|---|---|
| Type | - | S | - |
| Inside Diameter (in.) | - | 1 3/8 | - |
| Hammer Weight (lb) | - | 140 | - |
| Hammer Fall (in.) | - | 30 | - |

**Drilling Equipment and Procedures**

Rig Make & Model: Truck-mounted Mobile Drill B-53
Bit Type: None
Drill Mud: None
Casing: Spun
Hoist/Hammer: Winch Safety Hammer
PID Make & Model: MiniRAE 2000 10.6 eV

| Depth (ft) | Sampler Blows per 6 in. | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size†, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | Gravel % Coarse | Gravel % Fine | Sand % Coarse | Sand % Medium | Sand % Fine | % Fines | Field Test Dilatancy | Field Test Toughness | Field Test Plasticity | Field Test Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 8 16 12 20 | S1 17 | 0.0 2.0 | 75.5 0.5 | SM | -TOPSOIL- PID = 0 ppm | - | - | - | 25 | 60 | 15 | | | | |
| | | | | | SM | Medium dense tan to red-brown silty SAND, no odor, dry PID = 0 ppm | - | 10 | 5 | 25 | 40 | 20 | | | | |
| | 24 16 14 33 | S2 16 | 2.0 4.0 | 74.0 2.0 | SM | -FILL- Dense tan to orange-brown silty SAND, no odor, dry PID = 0 ppm | - | - | - | 20 | 60 | 20 | | | | |
| | 25 27 20 27 | S3 16 | 4.0 6.0 | | SM | Similar to S3, except gray to red-brown PID = 0 ppm | - | - | - | 10 | 60 | 30 | | | | |
| 5 | | | | 70.0 6.0 | | -GLACIOFLUVIAL DEPOSITS- BOTTOM OF EXPLORATION AT 6.0 FT | | | | | | | | | | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| 05/15/2015 | NOT ENCOUNTERED | | | | |

**Sample ID**

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

**Well Diagram**

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 6.0 |
| Rock Cored (ft) | 0.0 |
| Samples | 3S |

**Boring No.** HA15-8

**Field Tests:** Dilatancy: R - Rapid S - Slow N - None; Toughness: L - Low M - Medium H - High; Plasticity: N - Nonplastic L - Low M - Medium H - High; Dry Strength: N - None L - Low M - Medium H - High V - Very High

†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-09 HA-LIB09-BOS.GLB HA-TB+CORE+WELL-07-1.GDT G:\42202-CFA-WEST HARTFORD\002\GINT\2015-0517-HAI_42202_LOGS.GPJ 29 May 15

ENCLOSURE I
Letter from The Metropolitan District

MDC

The Metropolitan District

water supply • environmental services • geographic information

February 10, 2016

Mr. Peter Rebuck
Bohler Engineering
352 Turnpike Road
Southborough, MA 01772

Re: Water & Sewer Availability for Chick-fil-A property located at 511 New Park Avenue, West Hartford

Dear Mr. Rebuck:

In response to your request, we are confirming the availability of public water and sewer mains located in New Park Avenue, which may be used to service the above referenced property. There exists a 10-inch water main in New Park Avenue and an 8-inch water main on site, and an 8-inch sewer main in New Park Avenue. We are currently processing your request for a capacity analysis based on information submitted to us on Wednesday, February 3, 2016. Please contact Diane Lessard, MDC Project Manager at 860-278-7850, Ext 3387 to submit required supplemental information needed to complete the analysis.

Permits will be issued after plans are submitted and approved by the District. There will be no water and sewer connection charges due for the proposed property. Encroachment permit may be required for any new utility crossings and grade changes in excess of on foot over the existing on-site water main.

If you have any additional questions, please feel free to contact me at (860) 278-7850 extension 3445.

**THE METROPOLITAN DISTRICT**

Very Truly Yours,

Michael T. Curley, P.E.
Manager of Technical Services

p.c. Jennifer Ottalagana, MDC
Dianna-Jo Lessard, MDC

555 Main Street Post Office Box 800 Hartford, Connecticut 06142-0800 telephone: 860-278-7850 fax: 860-251-7287

An Affirmative Action and Equal Opportunity Employer

ENCLOSURE J
Letter from West Hartford Director of Health

WHBHD

February 8, 2016

Anthony Donato
Bohler Engineering
352 Turnpike Road
Southborough, MA 01772

**Re: Sewage Disposal Adequacy**
**Chick-Fill-A Restaurant**
**511 New Park Avenue**
**West Hartford, CT 06110**

Dear Mr. Donato,

The sanitary sewer line that services the above-referenced property appears adequate under normal conditions to accept the peak flow expected to result from the proposed use of this property described in your February 3, 2016 correspondence to this office.

It is our understanding that the Chick-Fill-A restaurant is proposed to essentially consist of a 4,779 SF building with 126 seats inside and 22 seats for outside dining. The typical sewer usage for this type of building is on average 1,500 gpd, with 775 gpd being non-greasee and 725 gpd being grease waste.

Contingent upon an acceptable sewer discharge plan by the MDC and an acceptable storm water discharge plan by the Town Engineer, please consider this letter as our statement of adequacy under Section 177-44.C.(1)(e) of the Code of the Town of West Hartford.

Sincerely,

Steven J. Huleatt, MPH, RS
Director of Health

Cc: Todd Dumais, Town Planner

West Hartford-Bloomfield Health District
580 Cottage Grove Road, Suite 100, Bloomfield, CT 06002
(860) 561-7900 • Fax: (860) 561-7918

ENCLOSURE K

Application Fee Check made payable to Town of West Hartford

BOHLER ENGINEERING MA, LLC

▼ PLEASE DETACH AND RETAIN FOR YOUR RECORDS ▼

| INVOICE NUMBER | DATE | | VOUCHER NO. | AMOUNT |
|---|---|---|---|---|
| BOHLER JOB # W151028 | | PLANNING BOARD FILING FEE | | $813.00 |

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**BOHLER ENGINEERING MA, LLC**
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
(508) 480-9900

TD Bank
America's Most Convenient Bank®
55-136/312

02/09/16

NO. 003198

PAY EIGHT HUNDRED THIRTEEN DOLLARS AND .00 CENTS $ 813.00

VOID AFTER 180 DAYS

TO THE ORDER OF TOWN OF WEST HARTFORD

PER

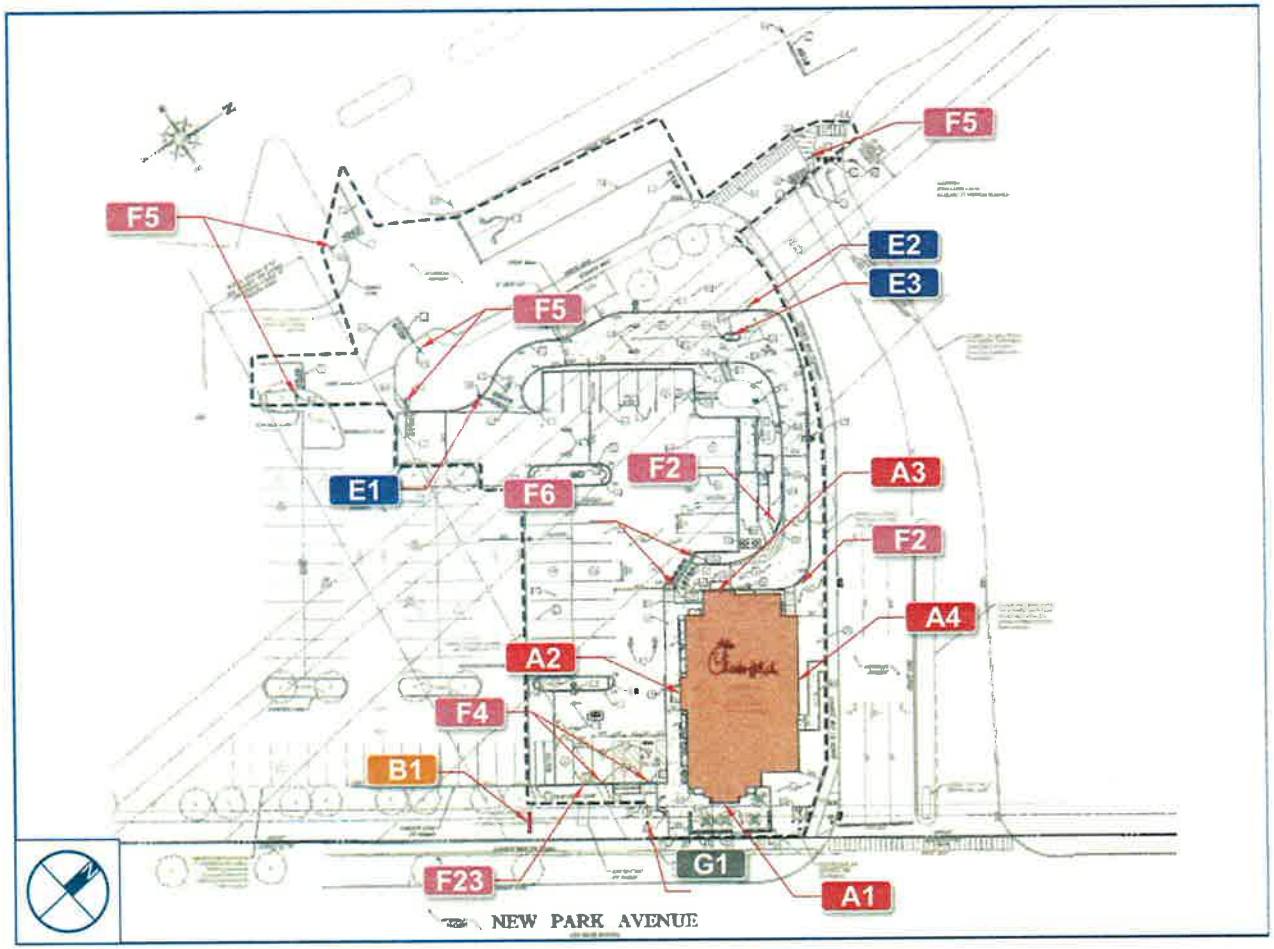
⑈003198⑈ ⑆031201360⑆ 4283545180⑈

ENCLOSURE L

Sign Package and Building Elevations

# West Hartford FSU

| | |
|---|---|
| A1 | 60" Channel Letters |
| A2 | 60" Channel Letters |
| A3 | 48" Channel Letters |
| A4 | 60" Channel Letters |
| B1 | Monument Sign |
| E1 | Drive Thru Clearance Bar |
| E2 | Drive Thru Menu Board/ Canopy |
| E3 | Drive Thru Menu Board/ Canopy |
| F2 | Post/ Panel - Pedestrian Crosswalk |
| F4 | DOT- Handicapped Parking |
| F5 | DOT- Stop Sign |
| F6 | DOT- Do Not Enter/ Stop |
| F23 | Post/ Panel - Curbside Delivery |
| G1 | Flag Pole |




Client: Chick-Fil-A
Site #: CF-3673
Address: 511 New Park Avenue
West Hartford, CT 06110
West Hartford FSU

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
| 08/26/2015 | Removed "B1" monument | AW |
| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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AnchorSign.
1.800.213.3331

| A1 | 60" Chick-fil-A |
|---|---|
| Type: | Individual channel letters |
| Illumination: | Internally illuminated LED |
| Square Footage: | 36.50 |
| To Grade: | Top of sign to grade = 20'-9"<br>Bottom of sign to grade = 15'-9" |

## Front Elevation (East)

Scale: 1/8" = 1'-0"

| | |
|---|---|
| Over-All Allowable Square Footage: | 150.00 |
| Formula: 1.5:1 all wall signs and freestanding signs | |
| Over-All Actual Square Footage: | 132.54 |

Chick-fil-A

| | |
|---|---|
| Client: | Chick-Fil-A |
| Site #: | CF-3673 |
| Address: | 511 New Park Avenue |
| | West Hartford, CT 06110 |
| | West Hartford FSU |

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
| 08/26/2015 | Removed "B1" monument | AW |
| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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AnchorSign
1.800.213.3331

| A2 | 60" Chick-fil-A |
|---|---|
| Type: | Individual channel letters |
| Illumination: | Internally Illuminated LED |
| Square Footage: | 36.50 |
| To Grade: | Top of sign to grade = 20'-1"<br>Bottom of sign to grade = 15'-1" |

## Side Elevation (South)

Scale: 3/32" = 1'-0"

| Over-All Allowable Square Footage: | 150.00 |
|---|---|
| Formula: 1.5:1 all wall signs and freestanding signs | |
| Over-All Actual Square Footage: | 132.54 |

Chick-fil-A

| | |
|---|---|
| Client: | Chick-Fil-A |
| Site #: | CF-3673 |
| Address: | 511 New Park Avenue<br>West Hartford, CT 06110<br>West Hartford FSU |

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
| 08/26/2015 | Removed "B1" monument | AW |
| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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AnchorSign.
1.800.213.3331

| A3 | 48" Chick-fil-A |
|---|---|
| Type: | Individual channel letters |
| Illumination: | Internally Illuminated LED |
| Square Footage: | 23.04 |
| To Grade: | Top of sign to grade = 18'-8"<br>Bottom of sign to grade = 14'-8" |

## Rear Elevation (West)

Scale: 1/8" = 1'-0"

| Over-All Allowable Square Footage: | 150.00 |
|---|---|
| Formula: 1.5:1 all wall signs and freestanding signs | |
| Over-All Actual Square Footage: | 132.54 |

Chick-fil-A

| | |
|---|---|
| Client: | Chick-Fil-A |
| Site #: | CF-3673 |
| Address: | 511 New Park Avenue<br>West Hartford, CT 06110<br>West Hartford FSU |

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
| 08/26/2015 | Removed "B1" monument | AW |
| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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AnchorSign
1.800.213.3331

| A4 | 60" Chick-fil-A |
|---|---|
| Type: | Individual channel letters |
| Illumination: | Internally Illuminated LED |
| Square Footage: | 36.50 |
| To Grade: | Top of sign to grade = 20'-7"<br>Bottom of sign to grade = 15'-7" |

## Side Elevation (North)

Scale: 3/32" = 1'-0"

| Over-All Allowable Square Footage: | 150.00 |
|---|---|
| Formula: 1.5:1 all wall signs and freestanding signs | |
| Over-All Actual Square Footage: | 132.54 |

Chick-fil-A

| | |
|---|---|
| Client: | Chick-Fil-A |
| Site #: | CF-3673 |
| Address: | 511 New Park Avenue |
| | West Hartford, CT 06110 |
| | West Hartford FSU |

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
| 08/26/2015 | Removed "B1" monument | AW |
| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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AnchorSign
1.800.213.3331

| A1 | |
|---|---|
| | 60" Chick-fil-A |
| Type: | Individual channel letters |
| Illumination: | Internally Illuminated LED |
| Square Footage: | 36.50 |
| To Grade: | Top of sign to grade = 20'-9"<br>Bottom of sign to grade = 15'-9" |

A1 **Sign Layout Detail**
Scale: 1/2" = 1'-0"

This Product is Listed by UNDERWRITERS LABORATORIES, INC. and Bears the Mark:

## Electrical Detail:

White LEDs
(X) 60w Transformer
Total Amps: X.XX
(1) 20 amp 120V Circuit Req.

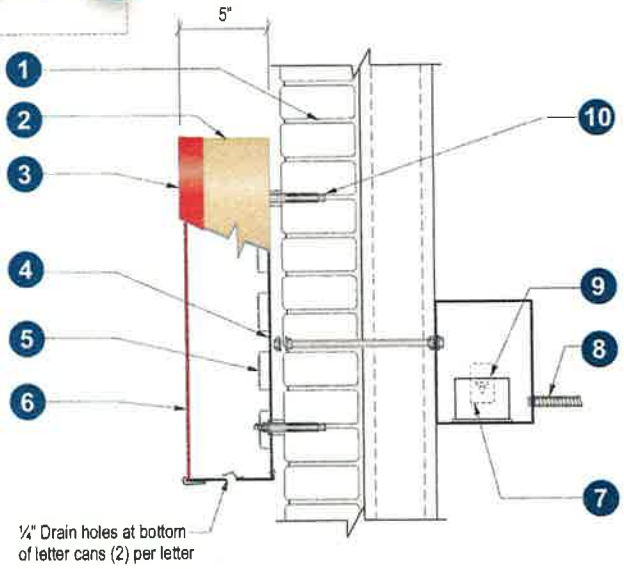
## General Notes:

This sign is to be installed in accordance with the requirements of Article 600 of the National Electrical Code.

1) Grounded and bonded per NEC 600.7/NEC 250
2) Existing branch circuit in compliance with NEC 600.5, not to exceed 20 amps
3) Sign is to be UL listed per NEC 600.3
4) UL disconnect switch per NEC 600.6- required per sign component before leaving manufacturer*
*For multiple signs, a disconnect is permitted but not required for each section

## Specifications: Channel Letters

1. Existing Facade: Brick
2. .040 Aluminum letter returns painted to match SW #6108 "Latte"
3. .125" x 1" trim cap to match red
4. 0.080" aluminum backs (interior of sign can painted white for maximum illumination)
5. Red LEDs
6. 3/16" Red Acrylic faces
7. Waterproof disconnect switch per NEC 600-6
8. Primary electrical feed
9. Transformers
10. 3/8" Sleeve anchors w/ ½" Aluminum spacers




**Section @ LED Channel Letter**
**Front-Lit (Remote)**
Scale: N.T.S.

| | |
|---|---|
| Client: | Chick-Fil-A |
| Site #: | CF-3673 |
| Address: | 511 New Park Avenue |
| | West Hartford, CT 06110 |
| | West Hartford FSU |

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
| 08/26/2015 | Removed "B1" monument | AW |
| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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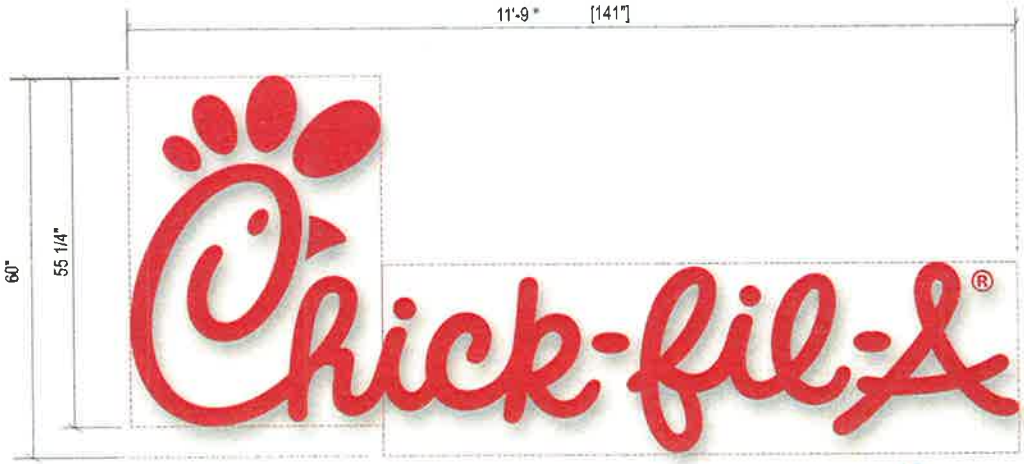
| A2 | |
|---|---|
| | 60" Chick-fil-A |
| Type: | Individual channel letters |
| Illumination: | Internally Illuminated LED |
| Square Footage: | 36.50 |
| To Grade: | Top of sign to grade = 20'-1"<br>Bottom of sign to grade = 15'-1" |




A2 **Sign Layout Detail**
Scale: 1/2" = 1'-0"

This Product is Listed by UNDERWRITERS LABORATORIES, INC. and Bears the Mark:

## Electrical Detail:

White LEDs
(X) 60w Transformer
Total Amps: X.XX
(1) 20 amp 120V Circuit Req.

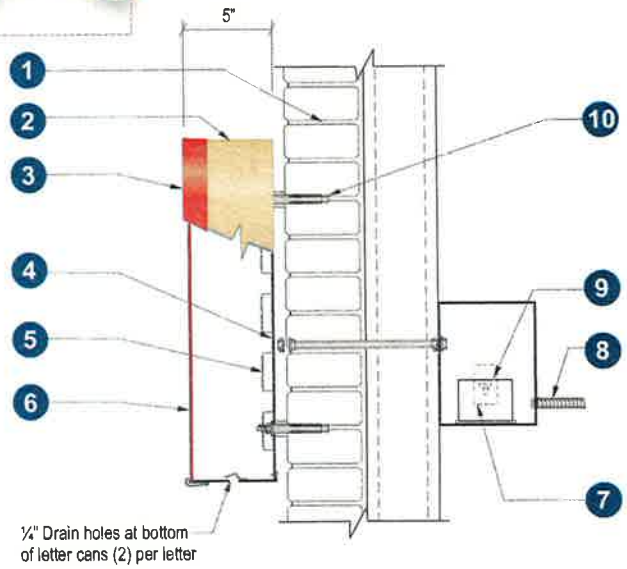
## General Notes:

This sign is to be installed in accordance with the requirements of Article 600 of the National Electrical Code.

1) Grounded and bonded per NEC 600.7/NEC 250
2) Existing branch circuit in compliance with NEC 600.5, not to exceed 20 amps
3) Sign is to be UL listed per NEC 600.3
4) UL disconnect switch per NEC 600.6- required per sign component before leaving manufacturer*
*For multiple signs, a disconnect is permitted but not required for each section

## Specifications: Channel Letters

1. Existing Facade: Brick
2. .040 Aluminum letter returns painted to match SW #6108 "Latte"
3. .125" x 1" trim cap to match red
4. 0.080" aluminum backs (interior of sign can painted white for maximum illumination)
5. Red LEDs
6. 3/16" Red Acrylic faces
7. Waterproof disconnect switch per NEC 600-6
8. Primary electrical feed
9. Transformers
10. 3/8" Sleeve anchors w/ ½" Aluminum spacers




**Section @ LED Channel Letter**
**Front-Lit (Remote)**
Scale: N.T.S.

| | |
|---|---|
| Client: | Chick-Fil-A |
| Site #: | CF-3673 |
| Address: | 511 New Park Avenue |
| | West Hartford, CT 06110 |
| | West Hartford FSU |

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
| 08/26/2015 | Removed "B1" monument | AW |
| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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1.800.213.3331

| A3 | 48" Chick-fil-A |
|---|---|
| Type: | Individual channel letters |
| Illumination: | Internally Illuminated LED |
| Square Footage: | 23.04 |
| To Grade: | Top of sign to grade = 18'-8"<br>Bottom of sign to grade = 14'-8" |

## A3 Sign Layout Detail

Scale: 1/2" = 1'-0"

This Product is Listed by UNDERWRITERS LABORATORIES, INC. and Bears the Mark:

### Electrical Detail:

White LEDs
(X) 60w Transformer
Total Amps: X.XX
(1) 20 amp 120V Circuit Req.

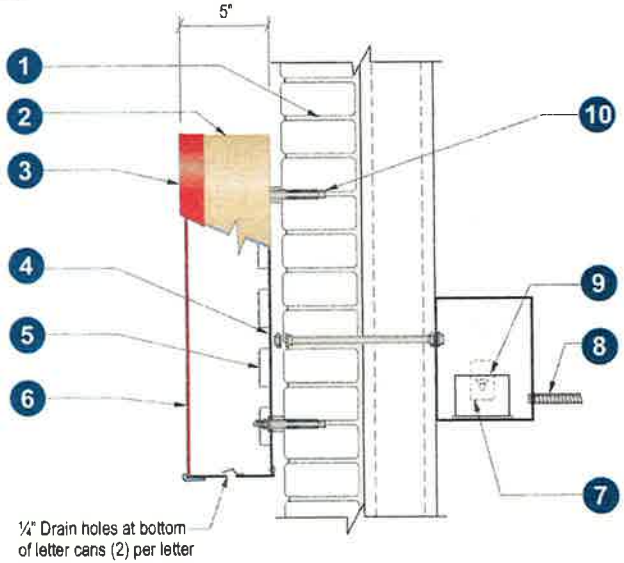
### General Notes:

This sign is to be installed in accordance with the requirements of Article 600 of the National Electrical Code.

1) Grounded and bonded per NEC 600.7/NEC 250
2) Existing branch circuit in compliance with NEC 600.5, not to exceed 20 amps
3) Sign is to be UL listed per NEC 600.3
4) UL disconnect switch per NEC 600.6- required per sign component before leaving manufacturer*
*For multiple signs, a disconnect is permitted but not required for each section

### Specifications: Channel Letters

1. Existing Facade: Brick
2. .040 Aluminum letter returns painted to match SW #6108 "Latte"
3. .125" x 1" trim cap to match red
4. 0.080" aluminum backs (interior of sign can painted white for maximum illumination)
5. Red LEDs
6. 3/16" Red Acrylic faces
7. Waterproof disconnect switch per NEC 600-6
8. Primary electrical feed
9. Transformers
10. 3/8" Sleeve anchors w/ ½" Aluminum spacers




## Section @ LED Channel Letter
**Front-Lit (Remote)**

Scale: N.T.S.

| | |
|---|---|
| Client: | Chick-Fil-A |
| Site #: | CF-3673 |
| Address: | 511 New Park Avenue<br>West Hartford, CT 06110<br>West Hartford FSU |

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
| 08/26/2015 | Removed "B1" monument | AW |
| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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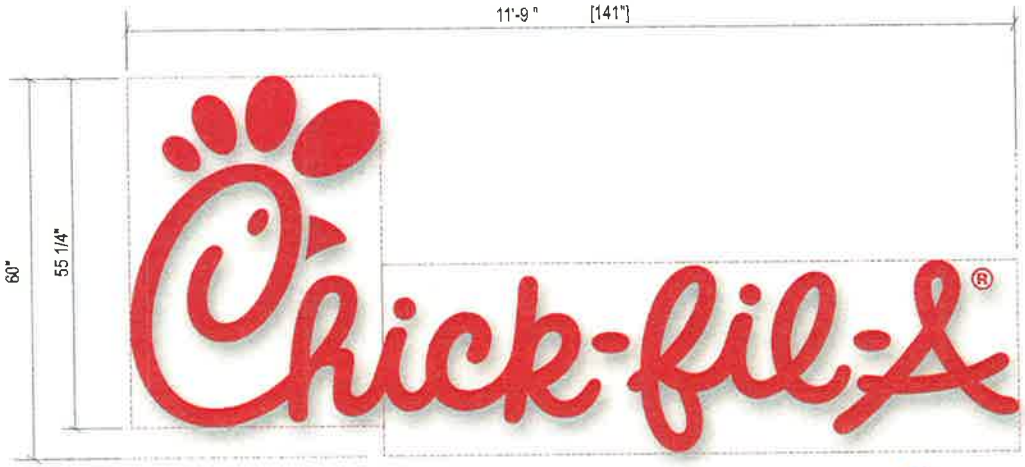
| A4 | |
|---|---|
| | 60" Chick-fil-A |
| Type: | Individual channel letters |
| Illumination: | Internally Illuminated LED |
| Square Footage: | 36.50 |
| To Grade: | Top of sign to grade = 20'-7"<br>Bottom of sign to grade = 15'-7" |




A4 **Sign Layout Detail**
Scale: 1/2" = 1'-0"

This Product is Listed by UNDERWRITERS LABORATORIES, INC. and Bears the Mark:

## Electrical Detail:

White LEDs
(X) 60w Transformer
Total Amps: X.XX
(1) 20 amp 120V Circuit Req.

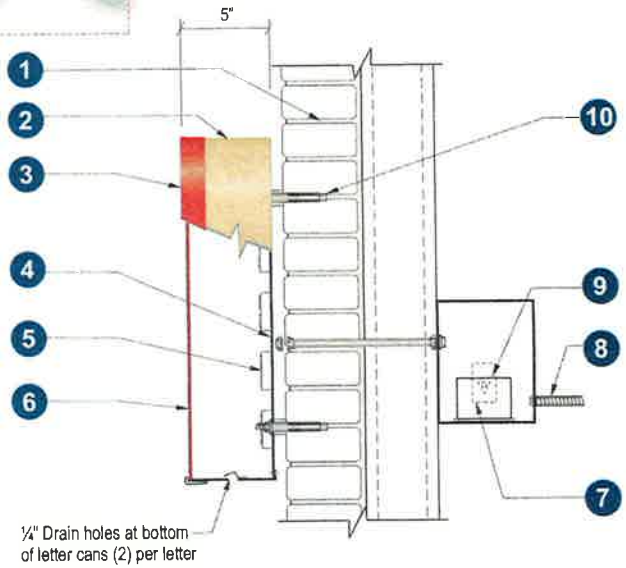
## General Notes:

This sign is to be installed in accordance with the requirements of Article 600 of the National Electrical Code.

1) Grounded and bonded per NEC 600.7/NEC 250
2) Existing branch circuit in compliance with NEC 600.5, not to exceed 20 amps
3) Sign is to be UL listed per NEC 600.3
4) UL disconnect switch per NEC 600.6- required per sign component before leaving manufacturer*
*For multiple signs, a disconnect is permitted but not required for each section

## Specifications: Channel Letters

1. Existing Facade: Brick
2. .040 Aluminum letter returns painted to match SW #6108 "Latte"
3. .125" x 1" trim cap to match red
4. 0.080" aluminum backs (interior of sign can painted white for maximum illumination)
5. Red LEDs
6. 3/16" Red Acrylic faces
7. Waterproof disconnect switch per NEC 600-6
8. Primary electrical feed
9. Transformers
10. 3/8" Sleeve anchors w/ ½" Aluminum spacers




**Section @ LED Channel Letter**
**Front-Lit (Remote)**
Scale: N.T.S.

| | |
|---|---|
| Client: | Chick-Fil-A |
| Site #: | CF-3673 |
| Address: | 511 New Park Avenue |
| | West Hartford, CT 06110 |
| | West Hartford FSU |

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
| 08/26/2015 | Removed "B1" monument | AW |
| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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| B1 | Chick-fil-A |
|---|---|
| Type: | Monument Sign |
| Illumination: | Internally Illuminated w/ fluorescent bulbs |
| Square Footage: | 33.05 square feet |

This Product is Listed by UNDERWRITERS LABORATORIES, INC. and Bears the Mark:

## Electrical Detail: Cabinet

(8) F48T8CWHO
(2) EESB 832-16L T8 @ 2.8 amps
TOTAL AMPS = 5.6

## General Notes:

This sign is to be installed in accordance with the requirements of Article 600 of the National Electrical Code.

1) Grounded and bonded per NEC 600.7/NEC 250
2) Existing branch circuit in compliance with NEC 600.5, not to exceed 20 amps
3) Sign is to be UL listed per NEC 600.3
4) UL disconnect switch per NEC 600.6- required per sign component before leaving manufacturer*
*For multiple signs, a disconnect is permitted but not required for each section

**B1** Monument Sign Elevation
Scale: 1/2" = 1'-0"

Side View
Scale: 1/2" = 1'-0"

| | |
|---|---|
| Client: | Chick-Fil-A |
| Site #: | CF-3673 |
| Address: | 511 New Park Avenue |
| | West Hartford, CT 06110 |
| | West Hartford FSU |

| REVISION INFO | | |
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| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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## Specifications: Clearance Bar

**Support pole**

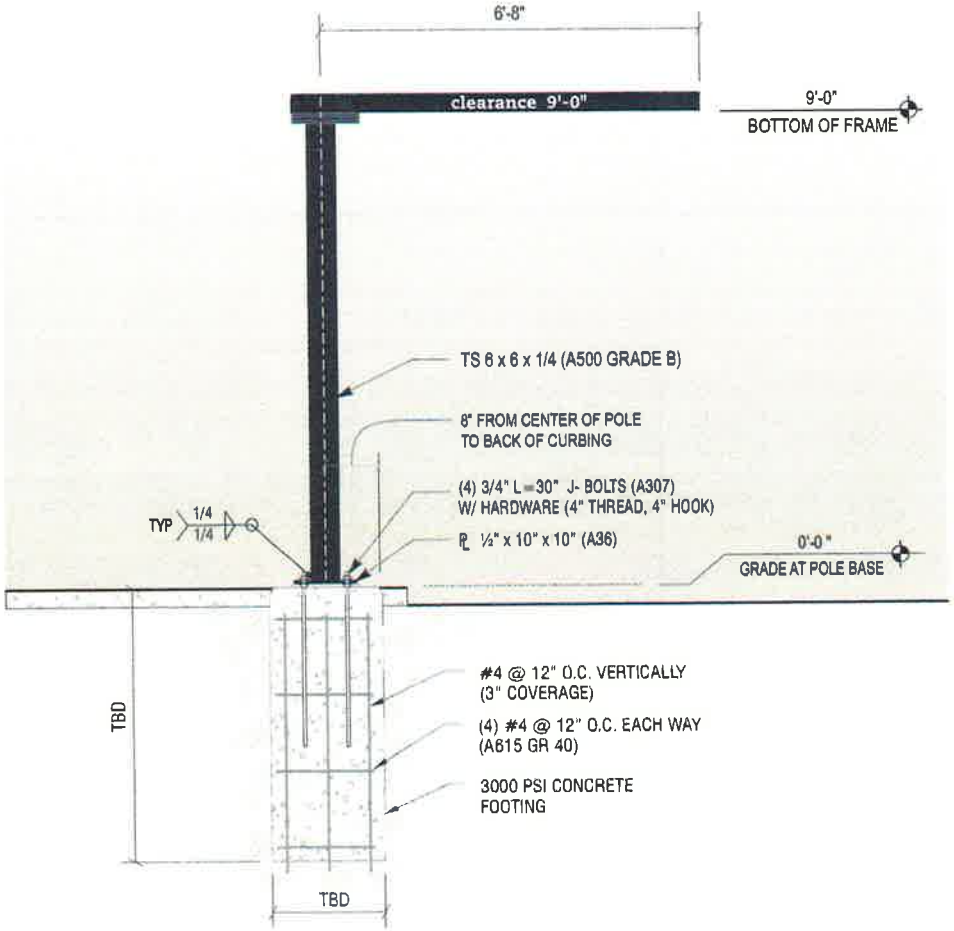
Pole has 13" x 13" x 3/4" thick steel plate with four (4) 1" dia. Holes in each corner 2" from each end and four (4) anchor bolts

**Metal Surfaces**

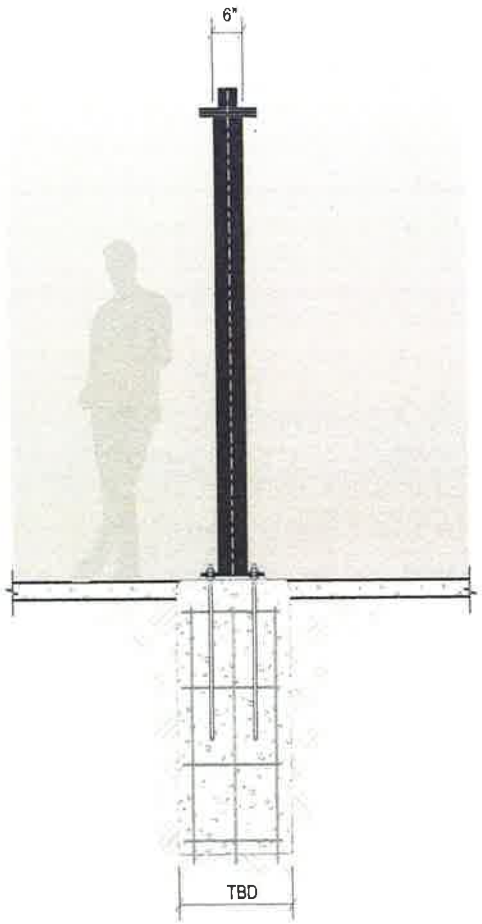
■ Painted MATTE BLACK TEXTURED

**Graphics**

☐ White high performance Vinyl film graphics




**E1** **Clearance Bar Detail**
Qty 1 Scale: 3/8" = 1'-0"




**Side View Detail**
Scale: 3/8" = 1'-0"

Chick-fil-A

| | |
|---|---|
| Client: | Chick-Fil-A |
| Site #: | CF-3673 |
| Address: | 511 New Park Avenue |
| | West Hartford, CT 06110 |
| | West Hartford FSU |

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
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| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
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## Electrical Detail:

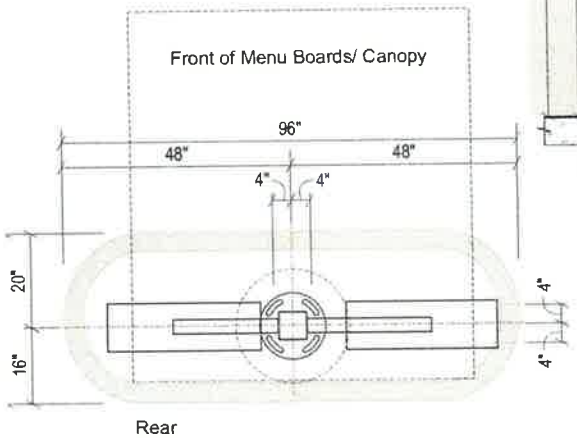
Bitro Lattice White LEDs LAT60-24S-W (6500K)
(X) 60w Transformer
Total Amps: X.XX
(1) 20 amp 120V Circuit Req.

UL LISTED

## General Notes:

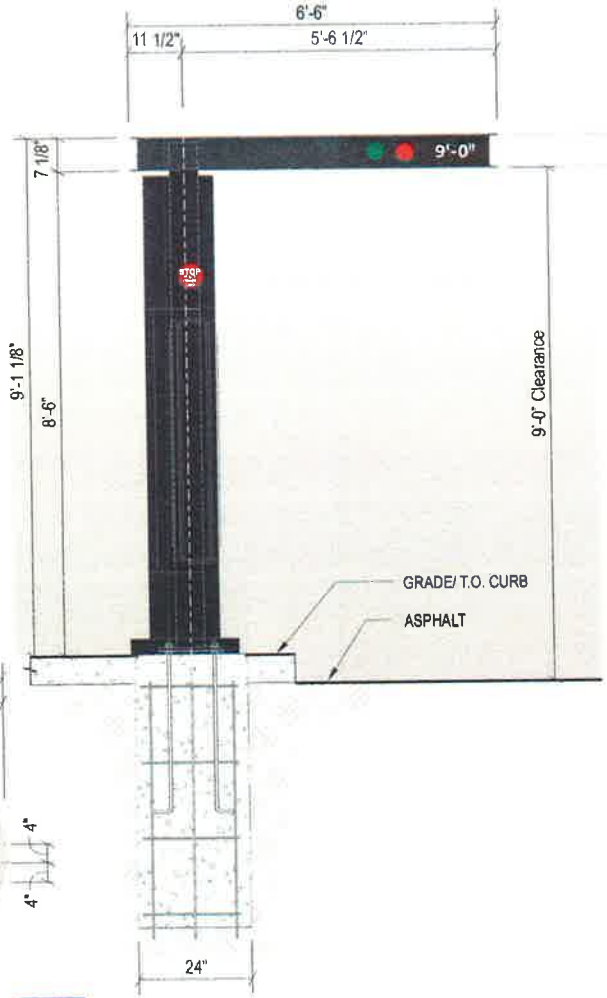
This sign is to be installed in accordance with the requirements of Article 600 of the National Electrical Code.

1) Grounded and bonded per NEC 600.7/NEC 250
2) Existing branch circuit in compliance with NEC 600.5, not to exceed 20 amps
3) Sign is to be UL listed per NEC 600.3
4) UL disconnect switch per NEC 600.6- required per sign component before leaving manufacturer*
*For multiple signs, a disconnect is permitted but not required for each section




## Outer Lane Island - Plan View

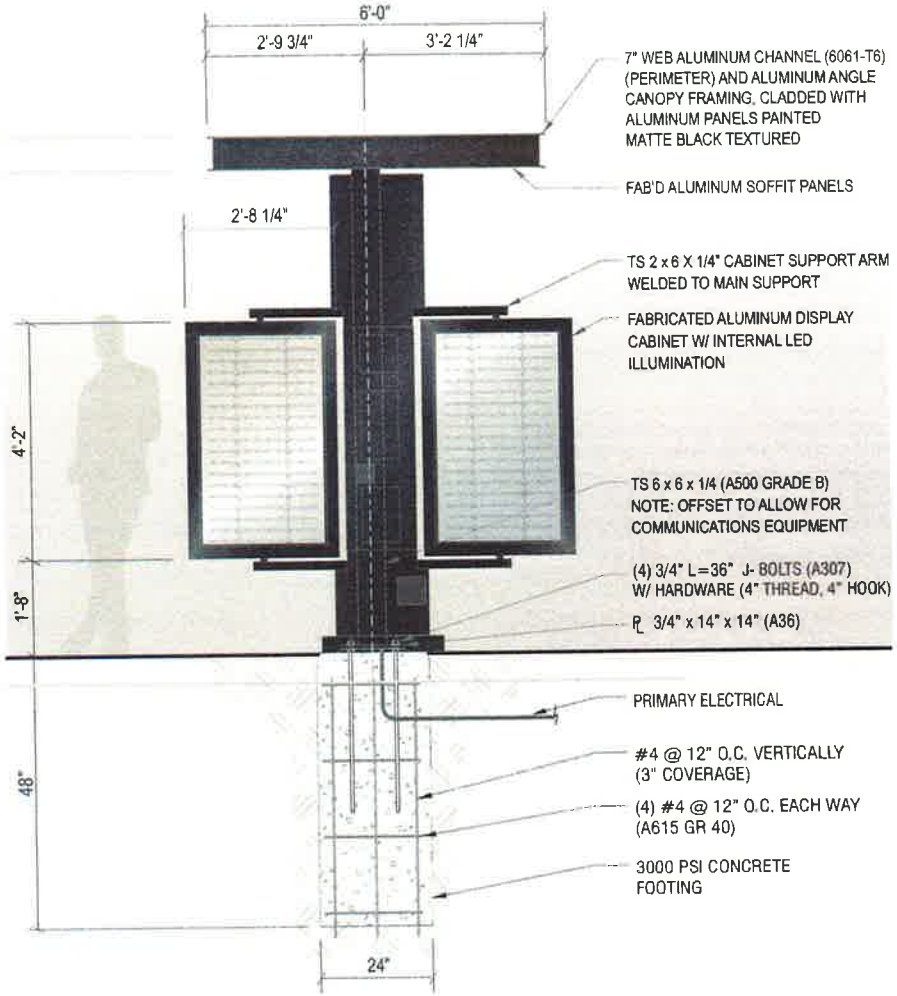
Scale: 3/8" = 1'-0"




E2
E3

## Side View Detail

Qty 2 Scale: 3/8" = 1'-0"




## Drive Thru Canopy Detail

Scale: 3/8" = 1'-0"

Chick-fil-A

Client: Chick-Fil-A
Site #: CF-3673
Address: 511 New Park Avenue
West Hartford, CT 06110
West Hartford FSU

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
| 08/26/2015 | Removed "B1" monument | AW |
| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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**Specifications:**

**SIGN POSTS**

Posts are 2" x 2" x .125 square aluminum tubing capped on top

Painted Matthews #741550 "Dark Bronze"

**SIGN PANELS**

Panels are .080 aluminum with 3M #3290 Reflective White and 3M #3272 Reflective Red background and graphics.

to match PMS #186c Red

3M #3290 Reflective White

**Mounting**

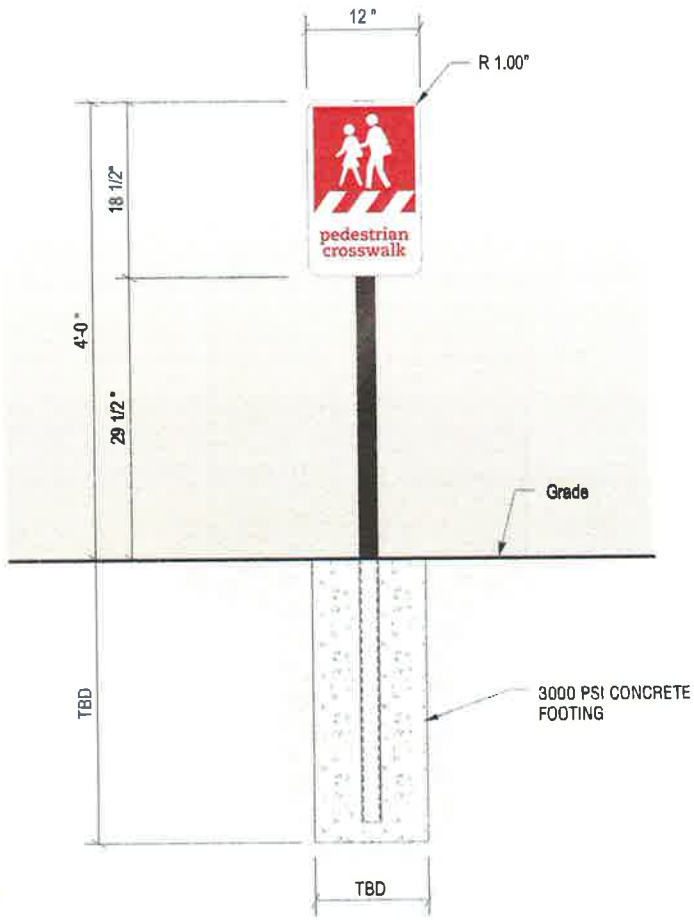
Panels are to be mounted w/ 3/8"Ø thru bolts w/ washer and nut

F2

## Post/ Panel - Pedestrian Crosswalk

**Qty 2**

Scale: 3/4" = 1'-0"



## Panel Layout Detail

Scale: 1 1/2" = 1'-0"

Chick-fil-A

Client: Chick-Fil-A
Site #: CF-3673
Address: 511 New Park Avenue
West Hartford, CT 06110
West Hartford FSU

| REVISION INFO | | | |
|---|---|---|---|
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| 09/09/2015 | Update site plan | CC | |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH | |
| 02/04/2016 | Revised F2 | JL | |
| 02/08/2016 | Updated Site Plan | JH | |

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**Specifications:**

**SIGN POST**

Posts are 2" x 2" x .125 square aluminum tubing capped on top

- Painted Matthews #741550 "Dark Bronze"

**SIGN PANELS**

.080 aluminum with 3M #3290 Reflective White background and graphics.

- Reflex blue (Verify)
- Green
- 3M #3290 Reflective White

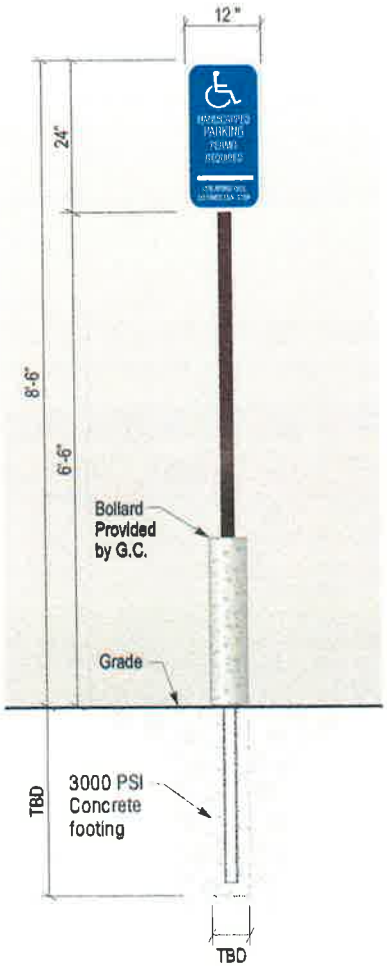
**Mounting**

Panels are to be mounted w/ 3/8"Ø thru bolts w/ washer and nut

F4

## DOT Signage - HP

**Qty 2** Scale: 1/2" = 1'-0"



## Panel Layout Detail

Scale: 1 1/2" = 1'-0"

Chick-fil-A

Client: Chick-Fil-A
Site #: CF-3673
Address: 511 New Park Avenue
West Hartford, CT 06110
West Hartford FSU

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
| 08/26/2015 | Removed "B1" monument | AW |
| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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**Specifications:**

**SIGN POSTS**

Posts are 2" x 2" x .125 square aluminum tubing capped on top

Painted Matthews MP 74155 "Custom Black"

**SIGN PANELS**

Panels are .080 aluminum with 3M #3290 Reflective White and 3M #3272 Reflective Red background and graphics.

to match PMS #186c Red

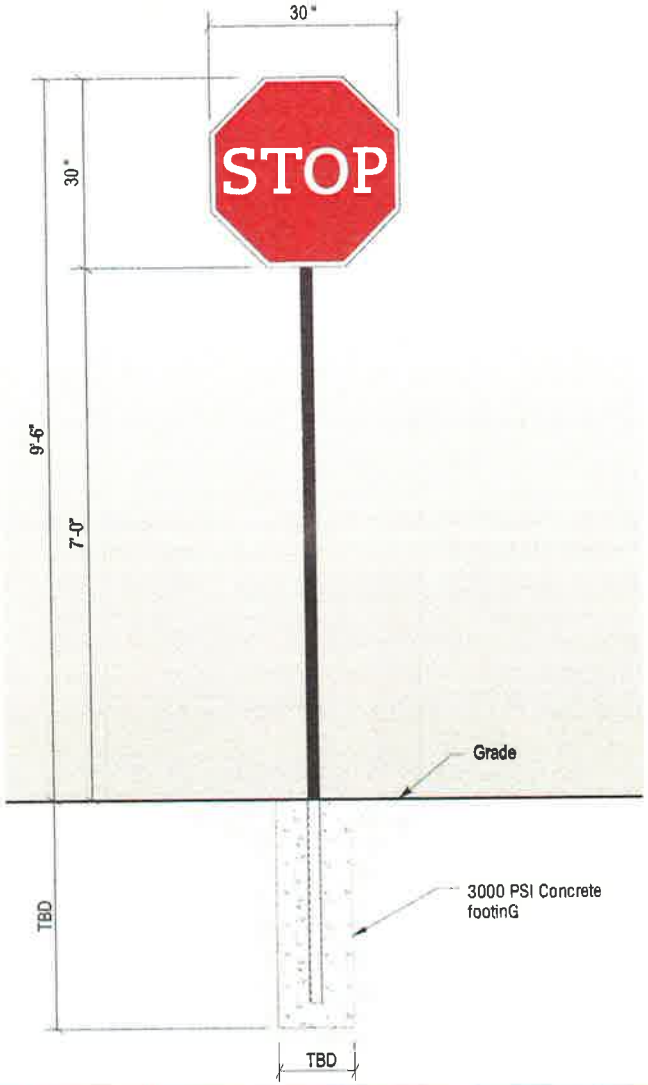
3M #3290 Reflective White

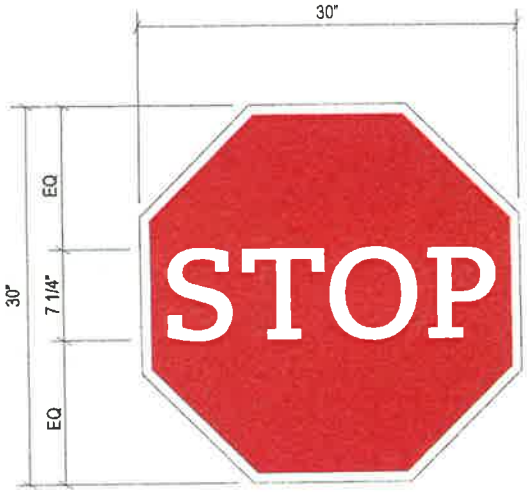
**Mounting**

Panels are to be mounted w/ 3/8"Ø thru bolts w/ washer and nut

**F5** **DOT Signage - Stop Sign**

**Qty 5** Scale: 1/2" = 1'-0"




**Panel Layout Detail**

Scale: 1" = 1'-0"

Chick-fil-A

Client: Chick-Fil-A
Site #: CF-3673
Address: 511 New Park Avenue
West Hartford, CT 06110
West Hartford FSU

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
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| 09/03/2015 | Update site plan | CC |
| 09/09/2015 | Update site plan | CC |
| 02/03/2016 | Revised F4, Added Monument, Added F23 | JH |
| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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1.800.213.3331

**Specifications:**

**SIGN POSTS**

Posts are 2" x 2" x .125 square aluminum tubing capped on top

Painted Matthews #741550 "Dark Bronze"

**SIGN PANELS**

Panels are .080 aluminum with 3M #3290 Reflective White and 3M #3272 Reflective Red background and graphics.

to match PMS #186c Red

3M #3290 Reflective White

**Mounting**

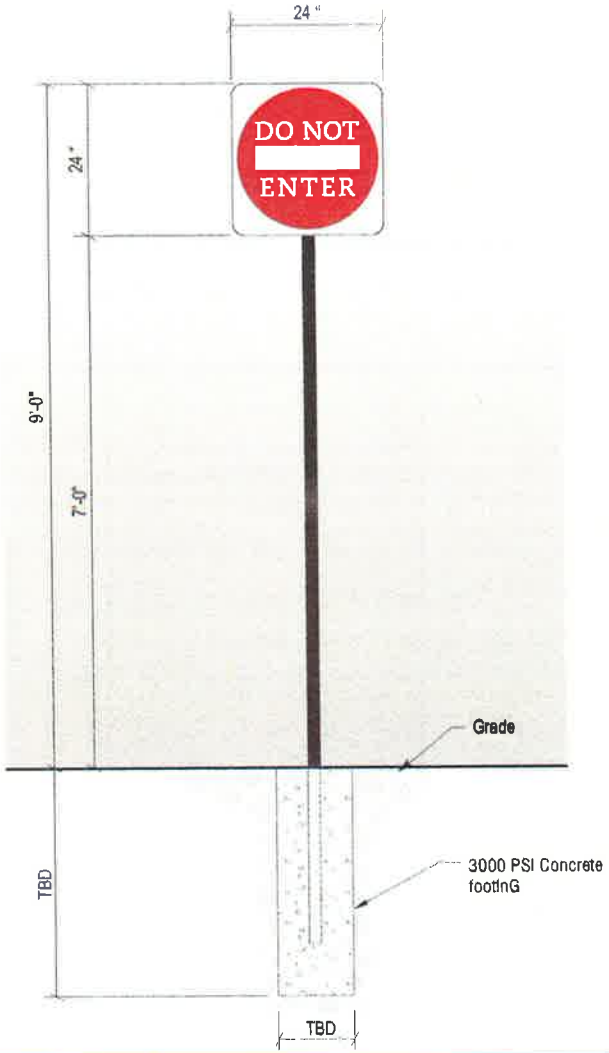
Panels are to be mounted w/ 3/8"Ø thru bolts w/ washer and nut

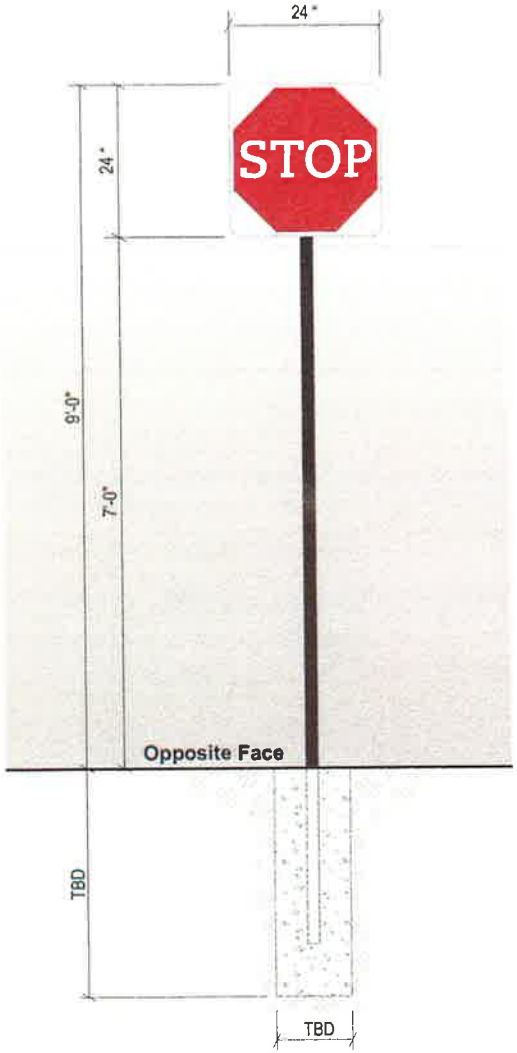
F6

## DOT Signage - Do Not Enter/ Stop

**Qty 2**

Scale: 1/2" = 1'-0"




Chick-fil-A

Client: Chick-Fil-A
Site #: CF-3673
Address: 511 New Park Avenue
West Hartford, CT 06110
West Hartford FSU

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
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| 02/04/2016 | Revised F2 | JL |
| 02/08/2016 | Updated Site Plan | JH |

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**Specifications:**

**SIGN POSTS**

Posts are 2" x 2" x .125 square aluminum tubing capped on top

Painted Matthews MP 74155 "Custom Black"

**SIGN PANELS**

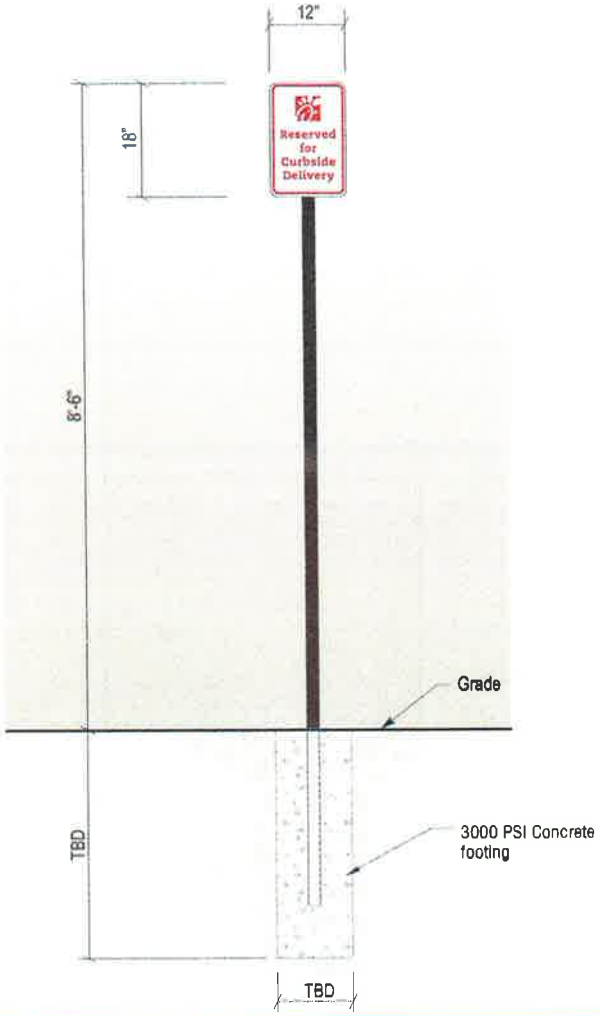
Panels are .080 aluminum with 3M #3290 Reflective White and 3M #3272 Reflective Red background and graphics.

to match PMS #186c Red

3M #3290 Reflective White

**Mounting**

Panels are to be mounted w/ 3/8"Ø thru bolts w/ washer and nut




## F23 Post / Panel Sign- Curbside Delivery

**Qty 1**

Scale: 1/2" = 1'-0"

## Panel Layout Detail

Scale: 1 1/2" = 1'-0"

Chick-fil-A

| | |
|---|---|
| Client: | Chick-Fil-A |
| Site #: | CF-3673 |
| Address: | 511 New Park Avenue |
| | West Hartford, CT 06110 |
| | West Hartford FSU |

| REVISION INFO | | |
|---|---|---|
| 05/29/2015 | Update square footage calculation to footprint, update allowable square foot | CC |
| 08/26/2015 | Removed "B1" monument | AW |
| 09/03/2015 | Update site plan | CC |
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## Flag

| HEIGHT | A | B | C |
|---|---|---|---|
| 20' | 3'-6" | 30" | 24" |
| 25' | 3'-6" | 30" | 24" |
| 30' | 3'-6" | 30" | 24" |
| 35' | 4'-0" | 36" | 30" |
| 40' | 4'-6" | 42" | 36" |
| 45' | 5'-0" | 48" | 42" |
| 50' | 5'-6" | 48" | 42" |

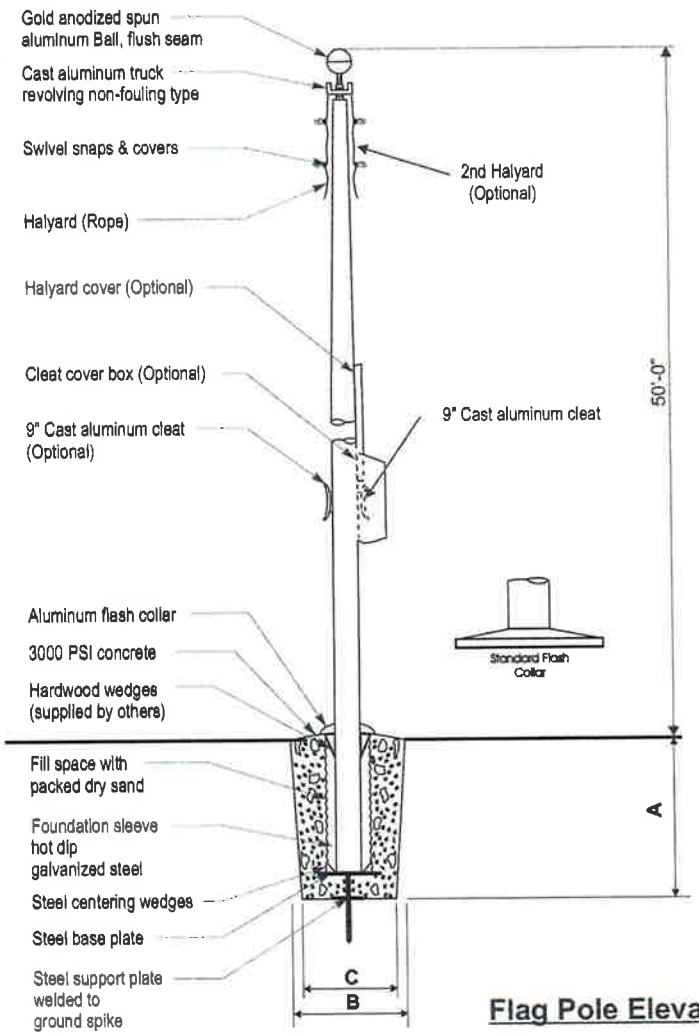
## Size Chart

G1

## Flag Pole

Ground sleeve and concrete installed by the general contractor

Pole installed on pre-installed ground sleeve by sign contractor




## Flag Pole Elevation

Chick-fil-A

Client: Chick-Fil-A
Site #: CF-3673
Address: 511 New Park Avenue
West Hartford, CT 06110
West Hartford FSU

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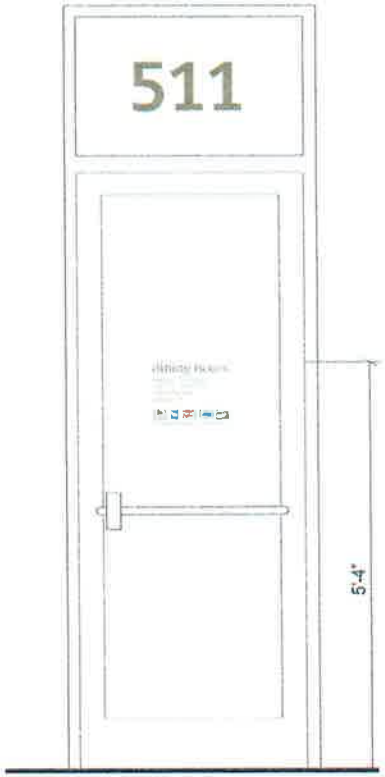
**Door Vinyl Elevation Detail**
**Double Door** Scale: 1/2" = 1'-0"




**Door Vinyl Elevation Detail**
**Single Door** Scale: 1/2" = 1'-0"

**Transom Address Vinyl**
**Qty 2 Sets** Scale: 1 1/2" = 1'-0"

**Std**

**Window Dining Hours**
**Qty 2 Sets** Scale: 3" = 1'-0"

Chick-fil-A

| | |
|---|---|
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**Banner Layout Detail**
Scale: 1" = 1'-0"

| | |
|---|---|
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| Site #: | CF-3673 |
| Address: | 511 New Park Avenue |
| | West Hartford, CT 06110 |
| | West Hartford FSU |

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ENCLOSURE M

Plan set entitled "Site Development Plans for Proposed Chick-fil-A" prepared by Bohler Engineering, Inc., et. al. dated February 12, 2016