

D & R

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DELAWARE – RARITAN ENGINEERING, INC.

200 DANIELS WAY, SUITE 230

FREEHOLD, NJ 07728

T (732)577-5547

F (732)577-5548

Tuesday, February 4, 2014

Police Department – Traffic Section

Township of Piscataway

555 Sidney Road

Piscataway, NJ 08854

Attn.: Lieutenant Scott Iannuzzo

Re: Red Light Running Automated Enforcement (RLRAE) System  
Township of Piscataway, Middlesex County, NJ

Dear Lt. Iannuzzo:

Attached please find current diagrams of the intersections that are equipped with the RLRAE system. We had prepared these for purpose of the bi-annual certification of the system at the respective intersections.

These diagrams show the measured 85th percentile speed through the respective intersections, the estimated 85th percentile speed for left turns through the intersections, the required amber phase duration, and the actual amber phase duration.

If you have any questions regarding this matter, please do not hesitate to contact me.

Very truly yours,

DELAWARE – RARITAN ENGINEERING, INC.



Charles Carley, PE, PP, CME

85TH PERCENTILE SPEED
≤40 MPH
AMBER PHASE DURATION REQUIRED
4.0 SECONDS
AMBER PHASE DURATION PROVIDED
4.5 SECONDS

85TH PERCENTILE SPEED
≤46 MPH
AMBER PHASE DURATION REQUIRED
4.5 SECONDS
AMBER PHASE DURATION PROVIDED
5.0 SECONDS

85TH PERCENTILE SPEED
≤31 MPH
AMBER PHASE DURATION REQUIRED
3.0 SECONDS
AMBER PHASE DURATION PROVIDED
3.0 SECONDS

ALL LEFT TURN MOVEMENTS
85TH PERCENTILE SPEED
≤30 MPH (ESTIMATED)
AMBER PHASE DURATION REQUIRED
3.0 SECONDS
AMBER PHASE DURATION PROVIDED
3.0 SECONDS

PISCATAWAY TOWNSHIP RLRAE SYSTEM DIAGRAM  
CENTENNIAL AVENUE & SOUTH RANDOLPHVILLE ROAD

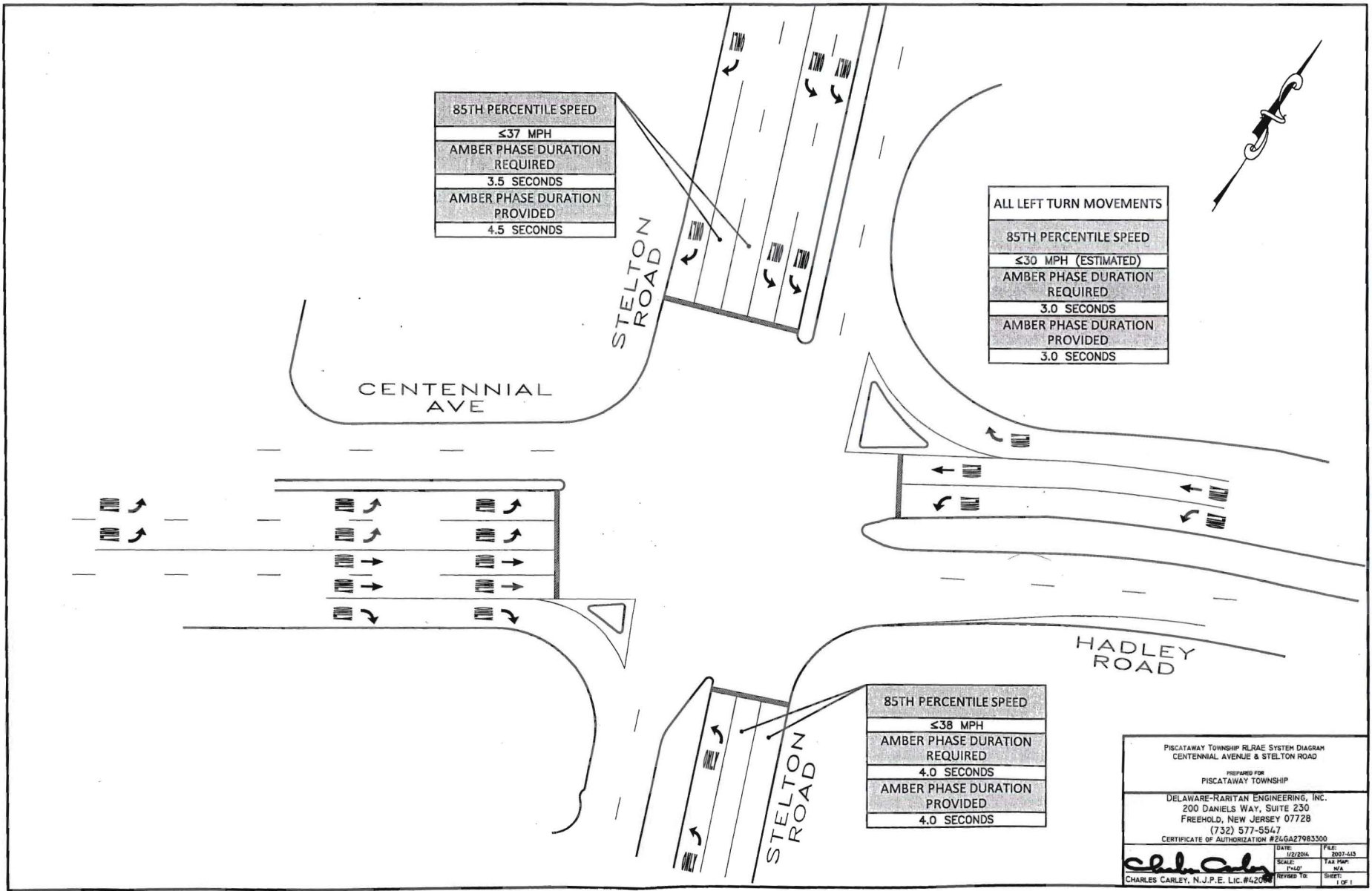
PREPARED FOR  
PISCATAWAY TOWNSHIP

DELAWARE-RARITAN ENGINEERING, INC.  
200 DANIELS WAY, SUITE 230  
FREEHOLD, NEW JERSEY 07728  
(732) 577-5547

CERTIFICATE OF AUTHORIZATION #24GA27983300

DATE	1/21/2014	FEE:	2007-415
SCALE	1"=50'	TAX YEAR	N/A
REVISED TO:		SHEET	1 OF 1

*Charles Carley*  
CHARLES CARLEY, N.J.P.E. L.I.C. #42068



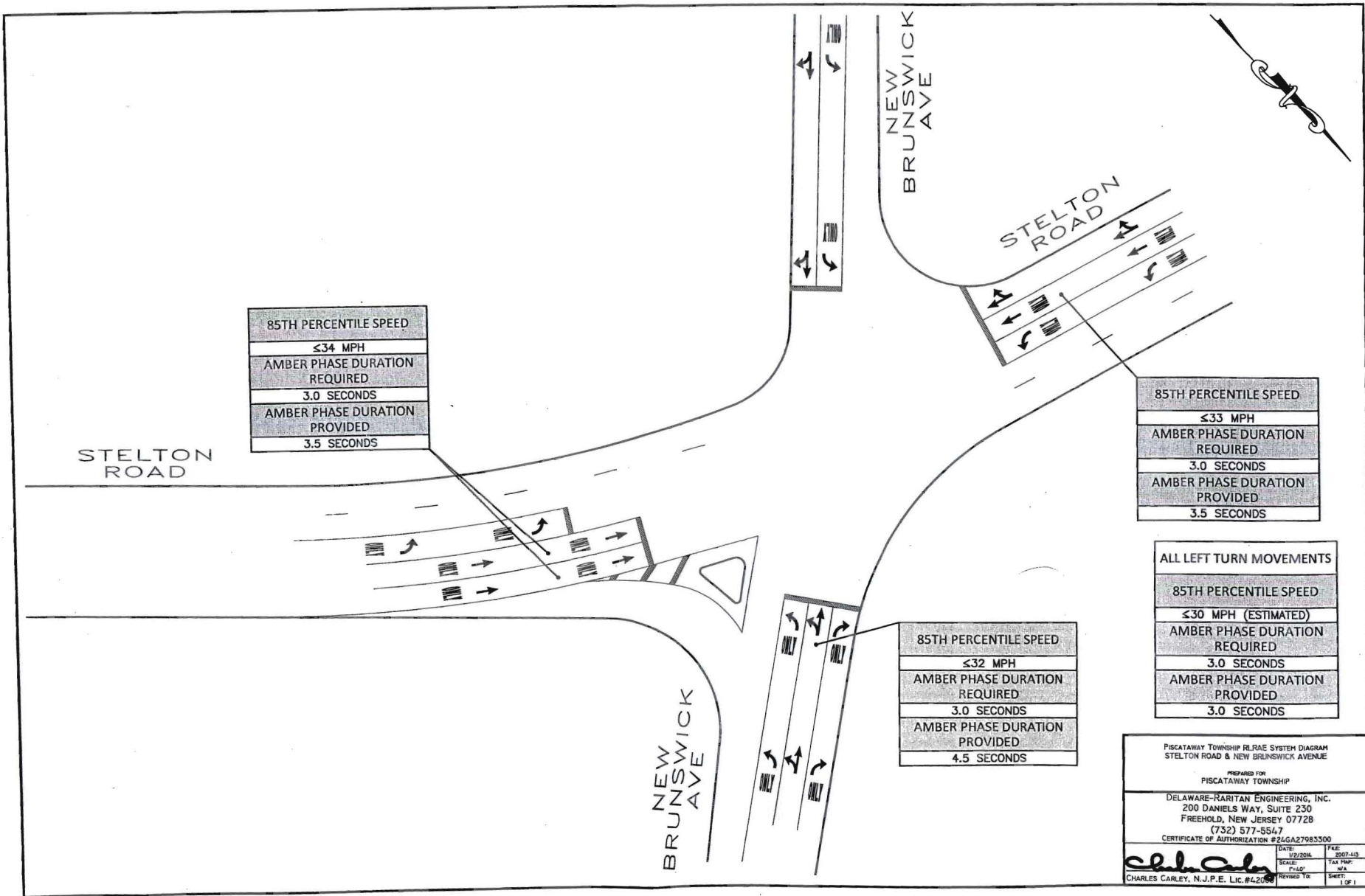
85TH PERCENTILE SPEED
≤37 MPH
AMBER PHASE DURATION REQUIRED
3.5 SECONDS
AMBER PHASE DURATION PROVIDED
4.5 SECONDS

ALL LEFT TURN MOVEMENTS
85TH PERCENTILE SPEED
≤30 MPH (ESTIMATED)
AMBER PHASE DURATION REQUIRED
3.0 SECONDS
AMBER PHASE DURATION PROVIDED
3.0 SECONDS

85TH PERCENTILE SPEED
≤38 MPH
AMBER PHASE DURATION REQUIRED
4.0 SECONDS
AMBER PHASE DURATION PROVIDED
4.0 SECONDS

PISCATAWAY TOWNSHIP RLRAE SYSTEM DIAGRAM CENTENNIAL AVENUE & STELTON ROAD			
PREPARED FOR PISCATAWAY TOWNSHIP			
DELAWARE-HARITAN ENGINEERING, INC. 200 DANIELS WAY, SUITE 230 FREEHOLD, NEW JERSEY 07728 (732) 577-5547			
CERTIFICATE OF AUTHORIZATION #Z4GA27983300			
DATE	1/27/2014	FILE	2007-413
SCALE	1"=50'	TAX PMP	N/A
REVISED TO		SHEET	1 OF 1

*Charles Carley*  
CHARLES CARLEY, N.J.P.E. LIC. #4206



85TH PERCENTILE SPEED
≤34 MPH
AMBER PHASE DURATION REQUIRED
3.0 SECONDS
AMBER PHASE DURATION PROVIDED
3.5 SECONDS

85TH PERCENTILE SPEED
≤33 MPH
AMBER PHASE DURATION REQUIRED
3.0 SECONDS
AMBER PHASE DURATION PROVIDED
3.5 SECONDS

85TH PERCENTILE SPEED
≤32 MPH
AMBER PHASE DURATION REQUIRED
3.0 SECONDS
AMBER PHASE DURATION PROVIDED
4.5 SECONDS

ALL LEFT TURN MOVEMENTS
85TH PERCENTILE SPEED
≤30 MPH (ESTIMATED)
AMBER PHASE DURATION REQUIRED
3.0 SECONDS
AMBER PHASE DURATION PROVIDED
3.0 SECONDS

PISCATAWAY TOWNSHIP RLRAE SYSTEM DIAGRAM  
STELTON ROAD & NEW BRUNSWICK AVENUE

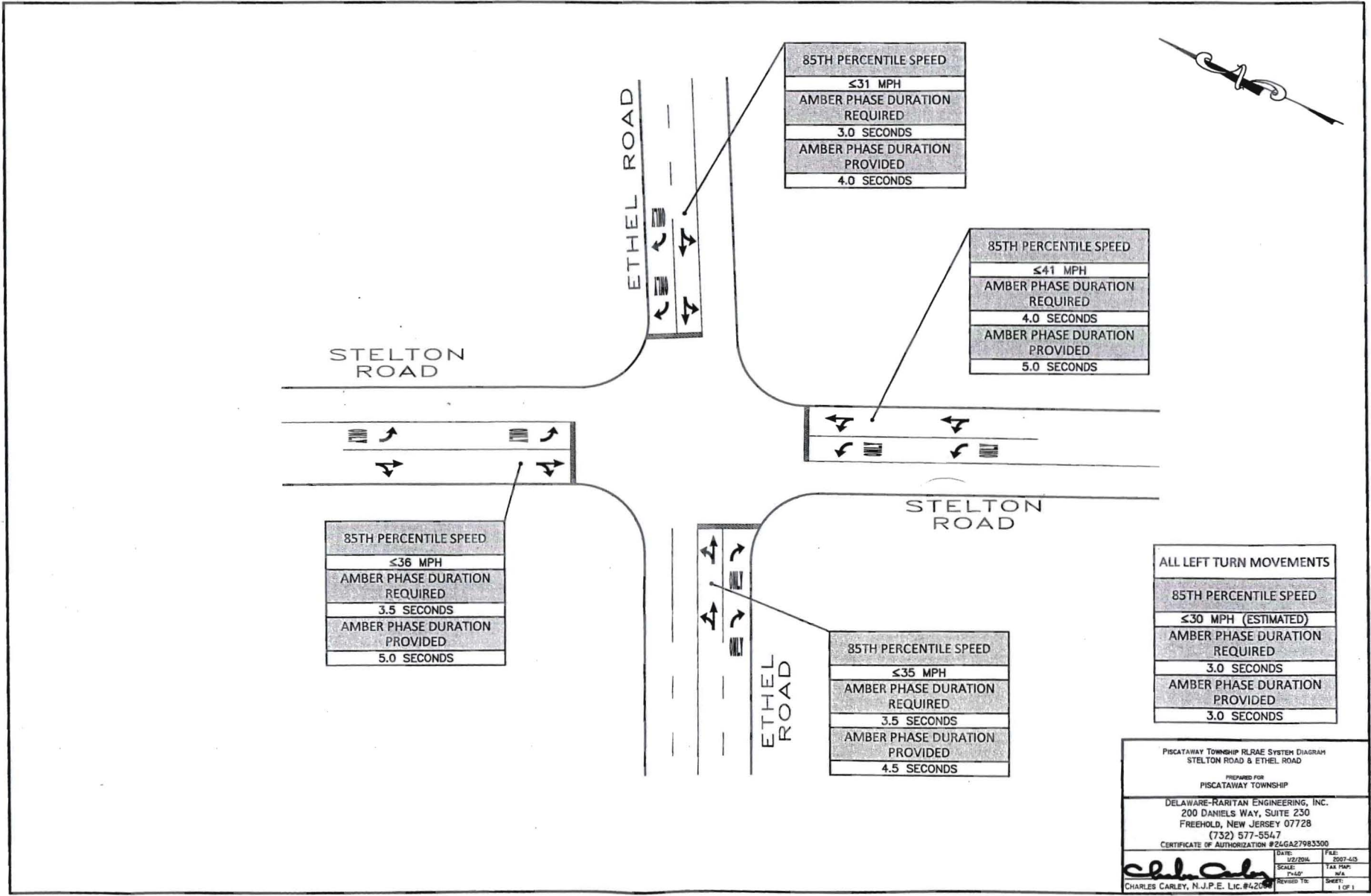
PREPARED FOR  
PISCATAWAY TOWNSHIP

DELAWARE-RARITAN ENGINEERING, INC.  
200 DANIELS WAY, SUITE 250  
FREEHOLD, NEW JERSEY 07728  
(732) 577-5547

CERTIFICATE OF AUTHORIZATION #24GA27983300

*Charles Carley*  
CHARLES CARLEY, N.J.P.E. LIC. #4206

DATE	1/21/2014	FILE	2007-410
SCALE	1"=40'	TAX MAP	NO
REVISED TO		SHEET	1 OF 1



85TH PERCENTILE SPEED
≤31 MPH
AMBER PHASE DURATION REQUIRED
3.0 SECONDS
AMBER PHASE DURATION PROVIDED
4.0 SECONDS

85TH PERCENTILE SPEED
≤41 MPH
AMBER PHASE DURATION REQUIRED
4.0 SECONDS
AMBER PHASE DURATION PROVIDED
5.0 SECONDS

85TH PERCENTILE SPEED
≤36 MPH
AMBER PHASE DURATION REQUIRED
3.5 SECONDS
AMBER PHASE DURATION PROVIDED
5.0 SECONDS

85TH PERCENTILE SPEED
≤35 MPH
AMBER PHASE DURATION REQUIRED
3.5 SECONDS
AMBER PHASE DURATION PROVIDED
4.5 SECONDS

ALL LEFT TURN MOVEMENTS
85TH PERCENTILE SPEED
≤30 MPH (ESTIMATED)
AMBER PHASE DURATION REQUIRED
3.0 SECONDS
AMBER PHASE DURATION PROVIDED
3.0 SECONDS

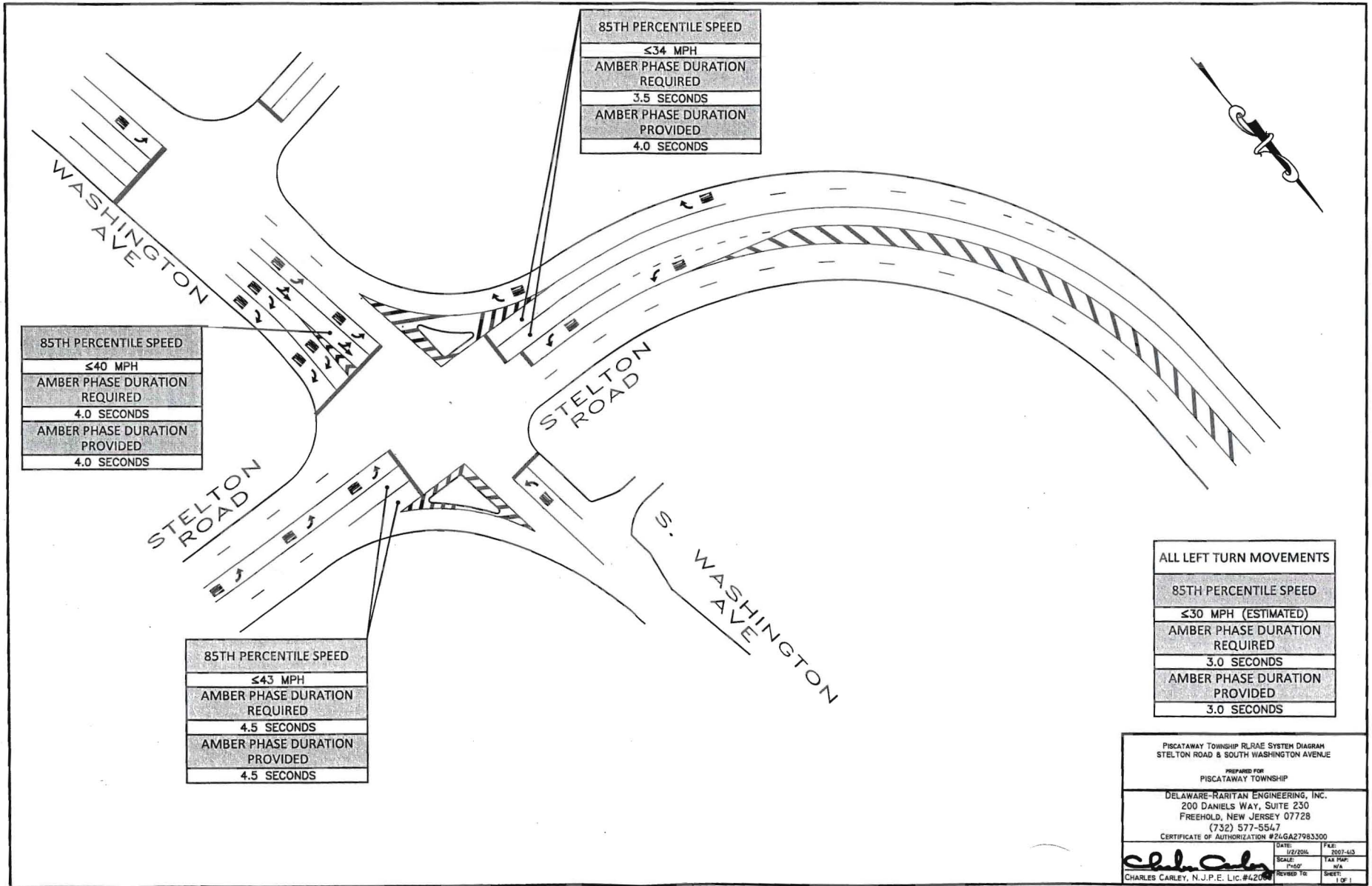
PISCATAWAY TOWNSHIP RLRAE SYSTEM DIAGRAM  
STELTON ROAD & ETHEL ROAD

PREPARED FOR  
PISCATAWAY TOWNSHIP

DELAWARE-RARITAN ENGINEERING, INC.  
200 DANIELS WAY, SUITE 230  
FREEHOLD, NEW JERSEY 07728  
(732) 577-5547  
CERTIFICATE OF AUTHORIZATION #246A27983300

	DATE:	FILE:
	1/27/2014	2007-415
SCALE:	TAX MAP:	
1"=40'	N/A	
REVISED TO:	SHEET:	
	1 OF 1	

CHARLES CARLEY, N.J.P.E. LIC.#42094



85TH PERCENTILE SPEED
≤34 MPH
AMBER PHASE DURATION REQUIRED
3.5 SECONDS
AMBER PHASE DURATION PROVIDED
4.0 SECONDS

85TH PERCENTILE SPEED
≤40 MPH
AMBER PHASE DURATION REQUIRED
4.0 SECONDS
AMBER PHASE DURATION PROVIDED
4.0 SECONDS

85TH PERCENTILE SPEED
≤43 MPH
AMBER PHASE DURATION REQUIRED
4.5 SECONDS
AMBER PHASE DURATION PROVIDED
4.5 SECONDS

ALL LEFT TURN MOVEMENTS
85TH PERCENTILE SPEED
≤30 MPH (ESTIMATED)
AMBER PHASE DURATION REQUIRED
3.0 SECONDS
AMBER PHASE DURATION PROVIDED
3.0 SECONDS

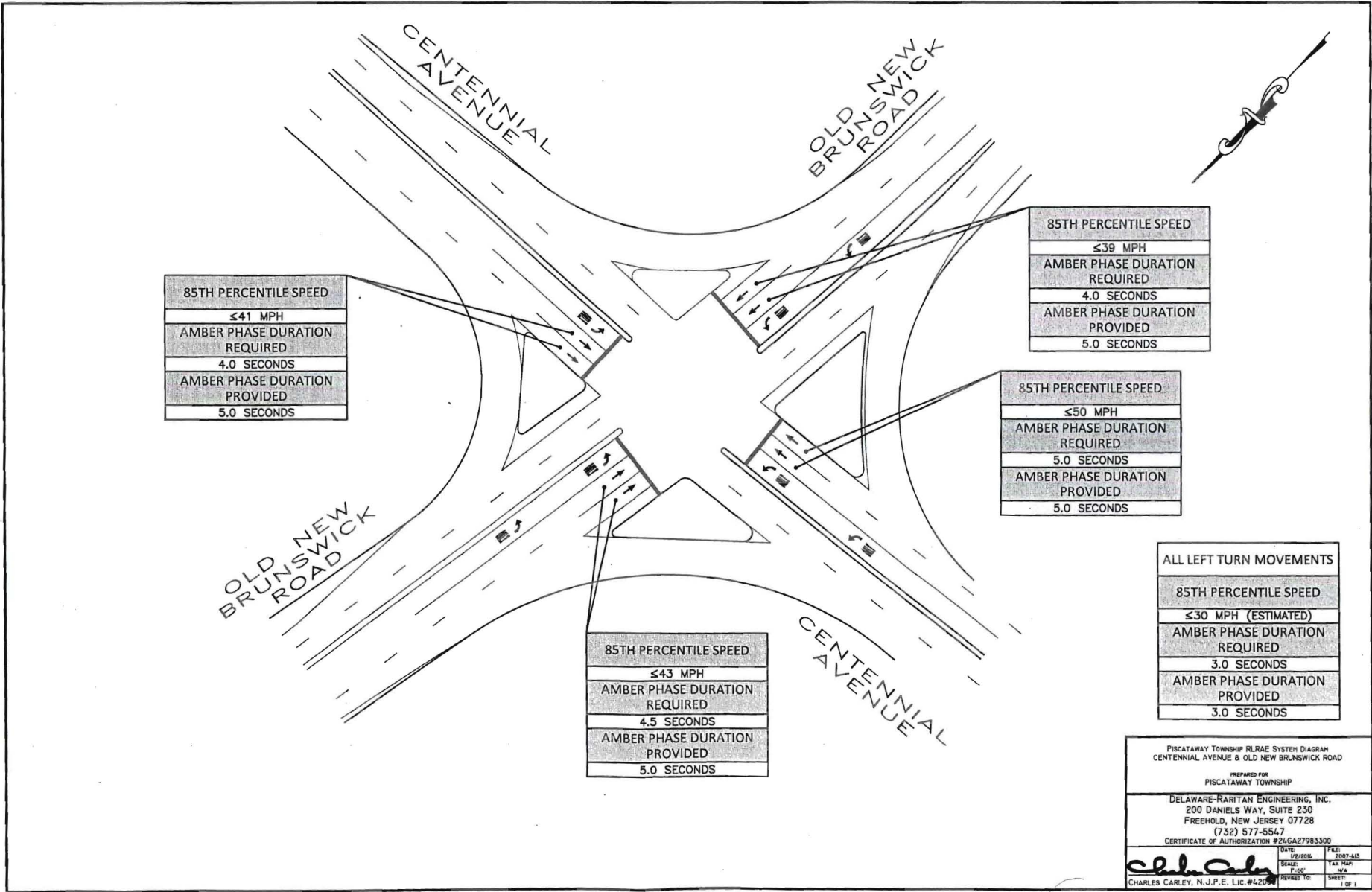
PISCATAWAY TOWNSHIP RLRAE SYSTEM DIAGRAM  
STELTON ROAD & SOUTH WASHINGTON AVENUE

PREPARED FOR  
PISCATAWAY TOWNSHIP

DELAWARE-RARITAN ENGINEERING, INC.  
200 DANIELS WAY, SUITE 230  
FREEHOLD, NEW JERSEY 07728  
(732) 577-5547  
CERTIFICATE OF AUTHORIZATION #ZLGA27983300

DATE: 1/2/2014	PKG: 2007-410
SCALE: 1"=50'	TAX MAP: N/A
REVISED TO:	SHEET: 1 OF 1

**Charles Carley**  
CHARLES CARLEY, N.J.P.E. LIC.#42004



85TH PERCENTILE SPEED
≤41 MPH
AMBER PHASE DURATION REQUIRED
4.0 SECONDS
AMBER PHASE DURATION PROVIDED
5.0 SECONDS

85TH PERCENTILE SPEED
≤39 MPH
AMBER PHASE DURATION REQUIRED
4.0 SECONDS
AMBER PHASE DURATION PROVIDED
5.0 SECONDS

85TH PERCENTILE SPEED
≤50 MPH
AMBER PHASE DURATION REQUIRED
5.0 SECONDS
AMBER PHASE DURATION PROVIDED
5.0 SECONDS

85TH PERCENTILE SPEED
≤43 MPH
AMBER PHASE DURATION REQUIRED
4.5 SECONDS
AMBER PHASE DURATION PROVIDED
5.0 SECONDS

ALL LEFT TURN MOVEMENTS
85TH PERCENTILE SPEED
≤30 MPH (ESTIMATED)
AMBER PHASE DURATION REQUIRED
3.0 SECONDS
AMBER PHASE DURATION PROVIDED
3.0 SECONDS

PISCATAWAY TOWNSHIP RLRAE SYSTEM DIAGRAM CENTENNIAL AVENUE & OLD NEW BRUNSWICK ROAD		
PREPARED FOR PISCATAWAY TOWNSHIP		
DELAWARE-RARITAN ENGINEERING, INC. 200 DANIELS WAY, SUITE 230 FREEHOLD, NEW JERSEY 07728 (732) 577-5547 CERTIFICATE OF AUTHORIZATION #24GA27983300		
DATE: 1/21/2014	FILE: 2007-443	
SCALE: 1"=60'	TAX MAP: N/A	
REVISED TO:	SHEET: 1 OF 1	

*Charles Carley*  
CHARLES CARLEY, N.J.P.E. LIC.#4200