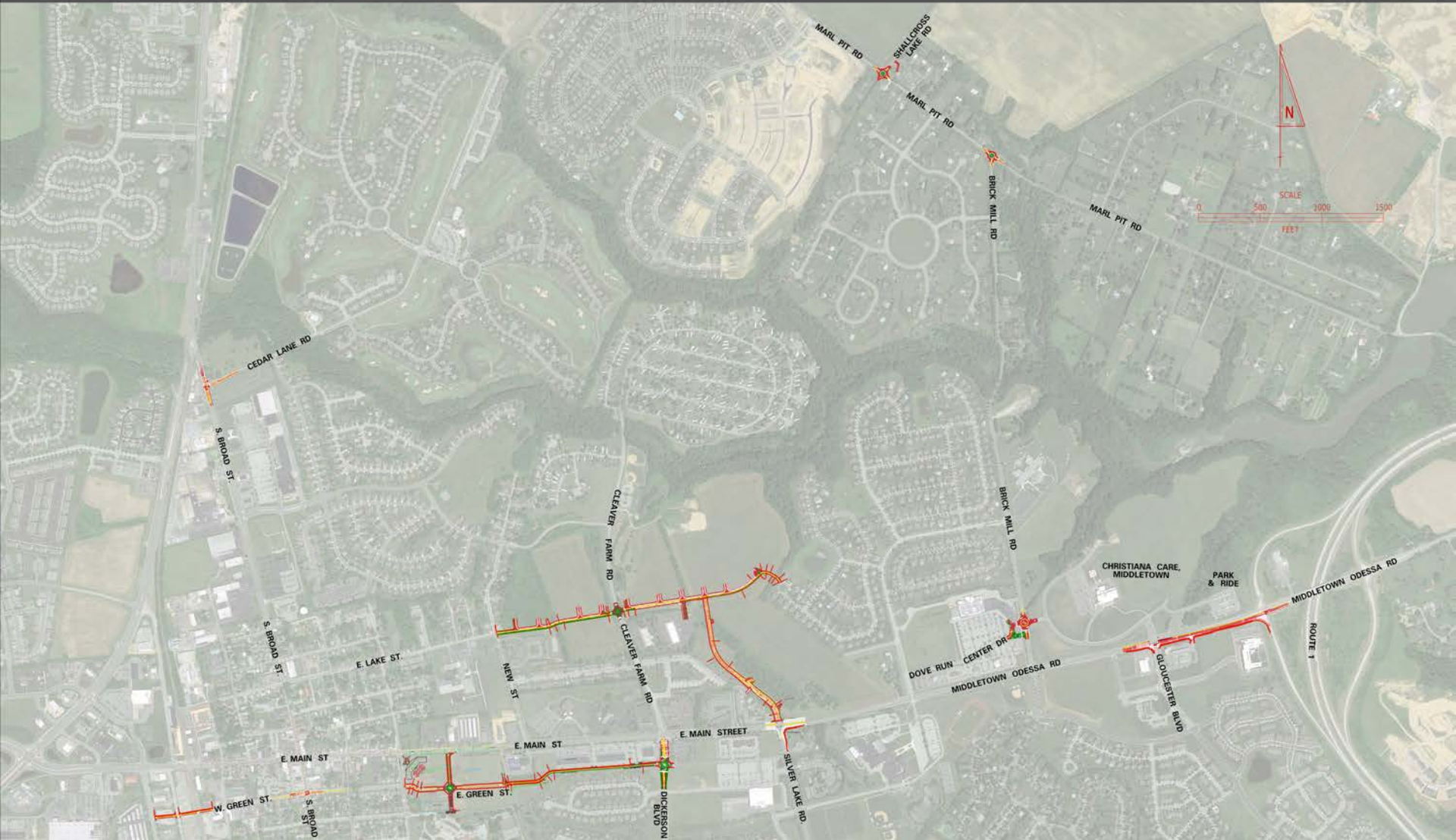


Eastown TID – Proposed Improvements



Eastown TID – Proposed Improvement



East Lake Street Extension

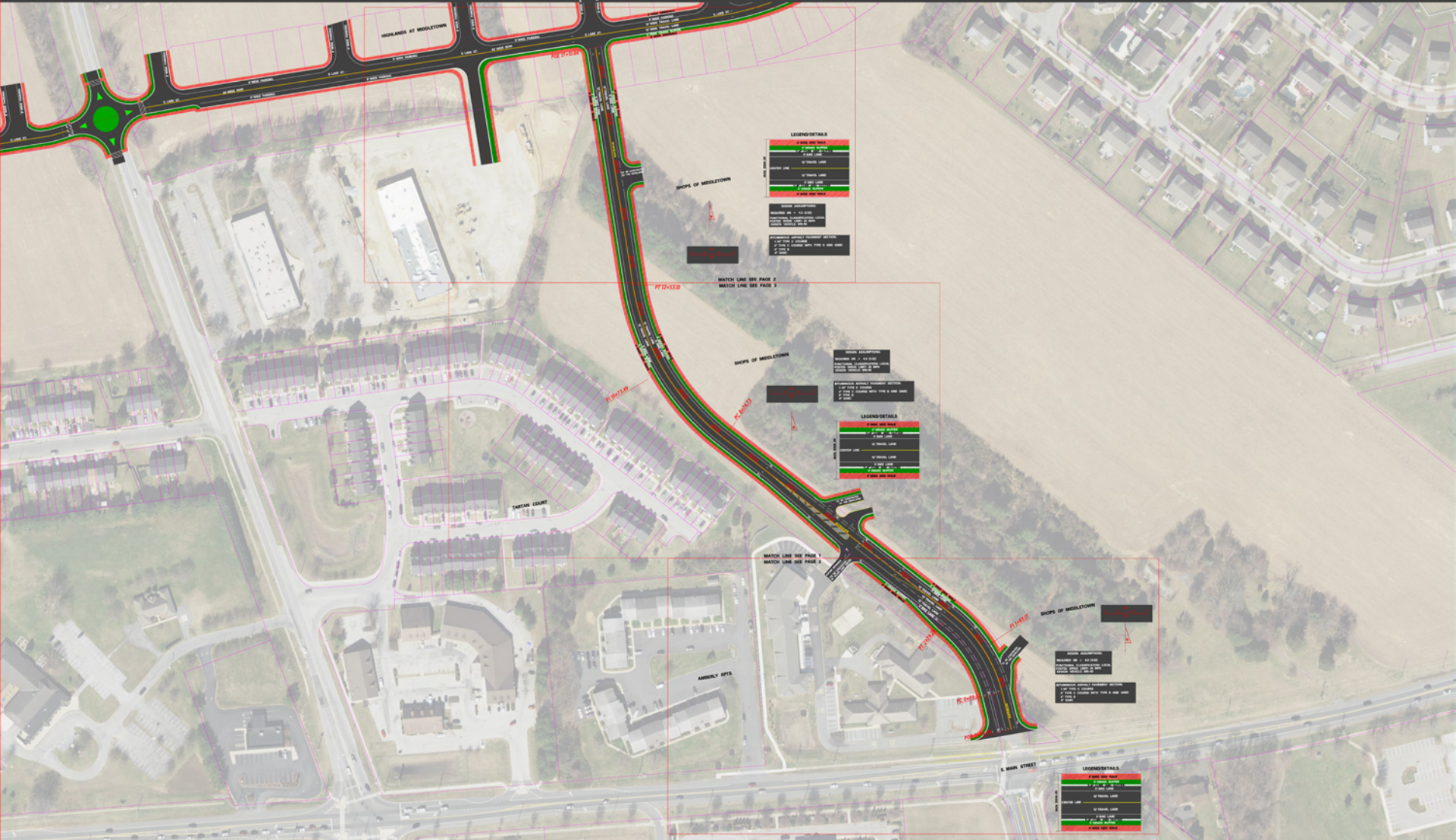


Easttown TID – Proposed Improvement



Silver Lake Road Extension

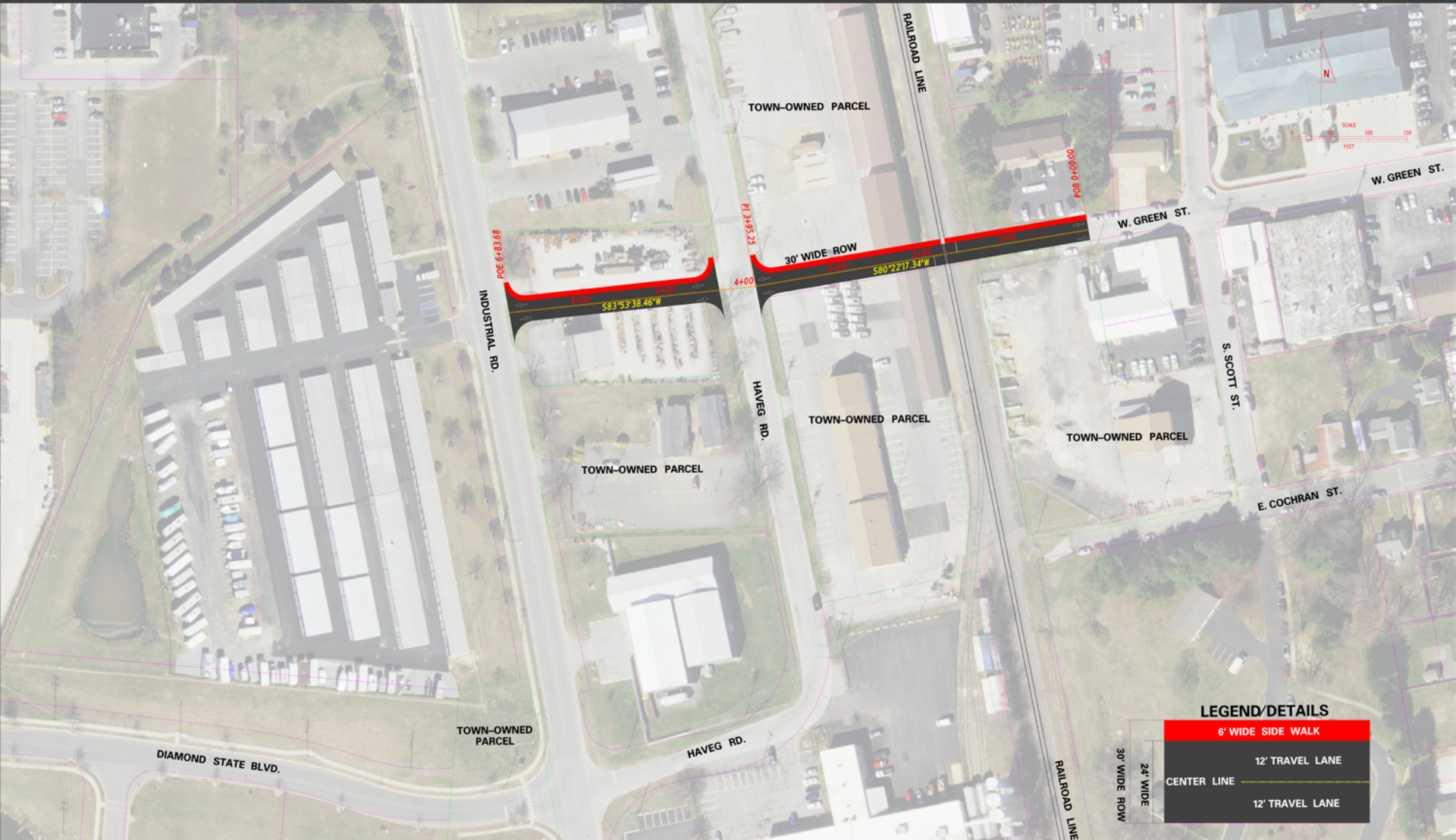
SHEET INDEX



Easttown TID – Proposed Improvement



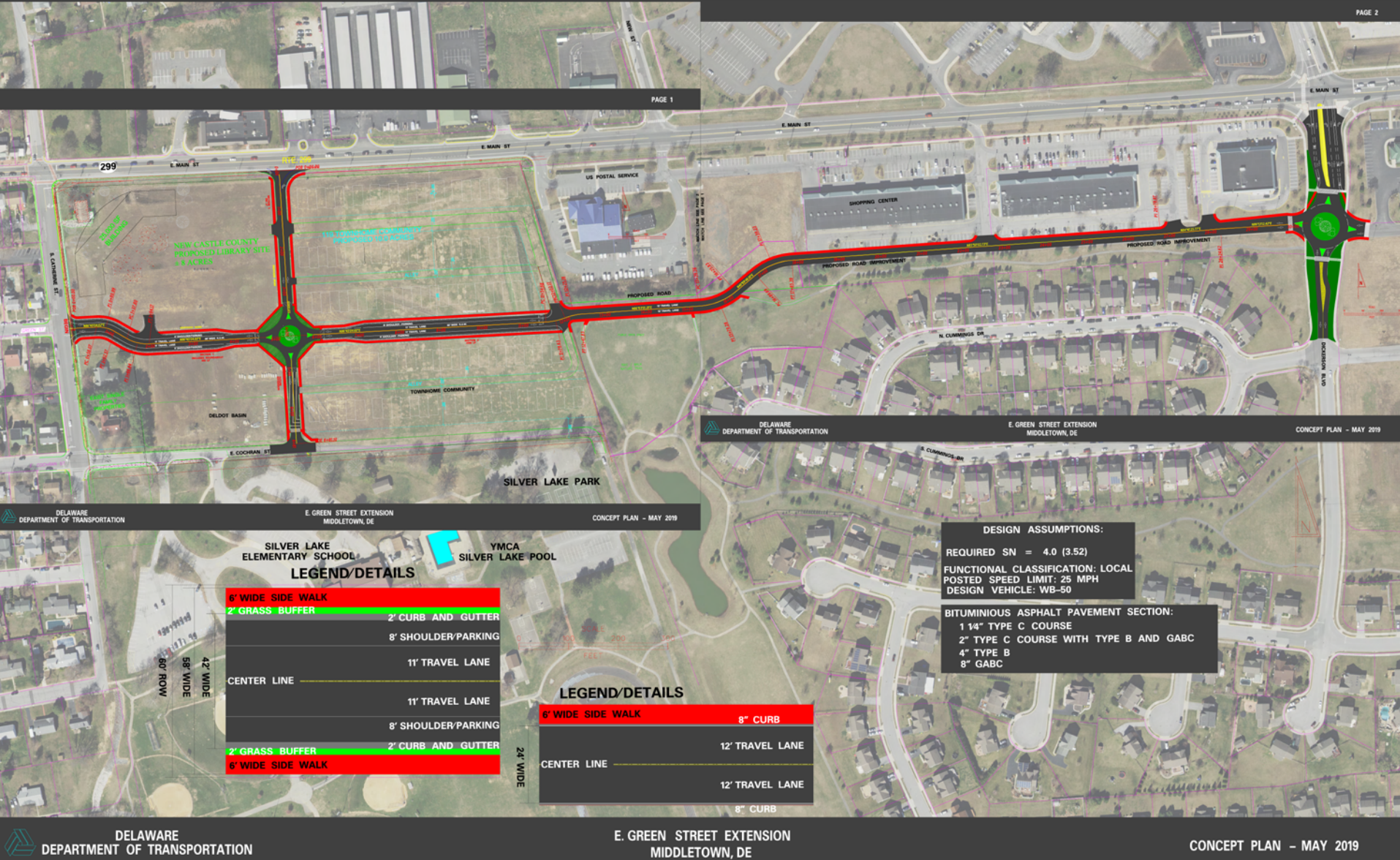
West Green Street Extension



Easttown TID – Proposed Improvement



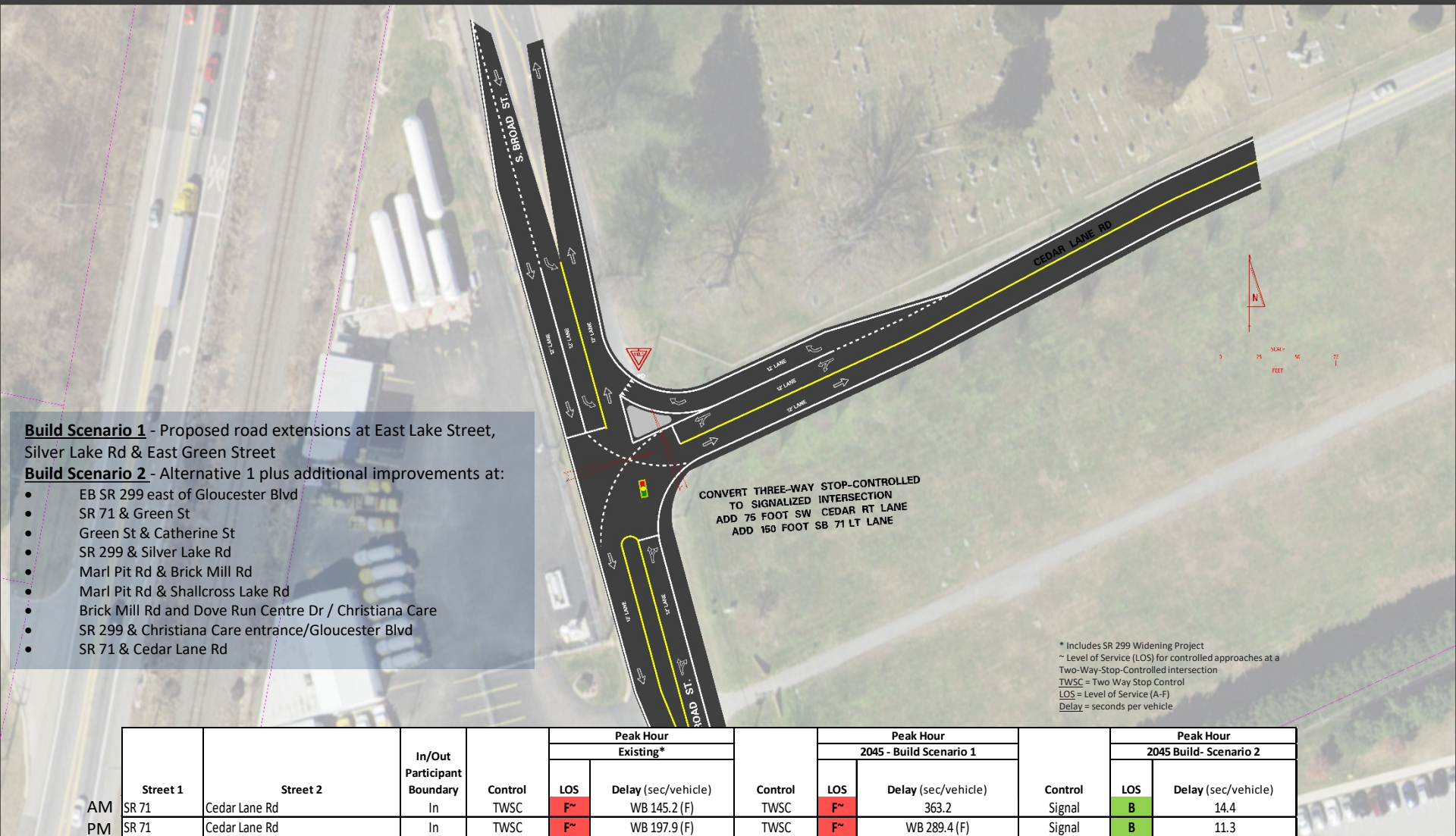
East Green Street Extension



Eastown TID – Proposed Improvement



SR 71 and Cedar Lane Rd

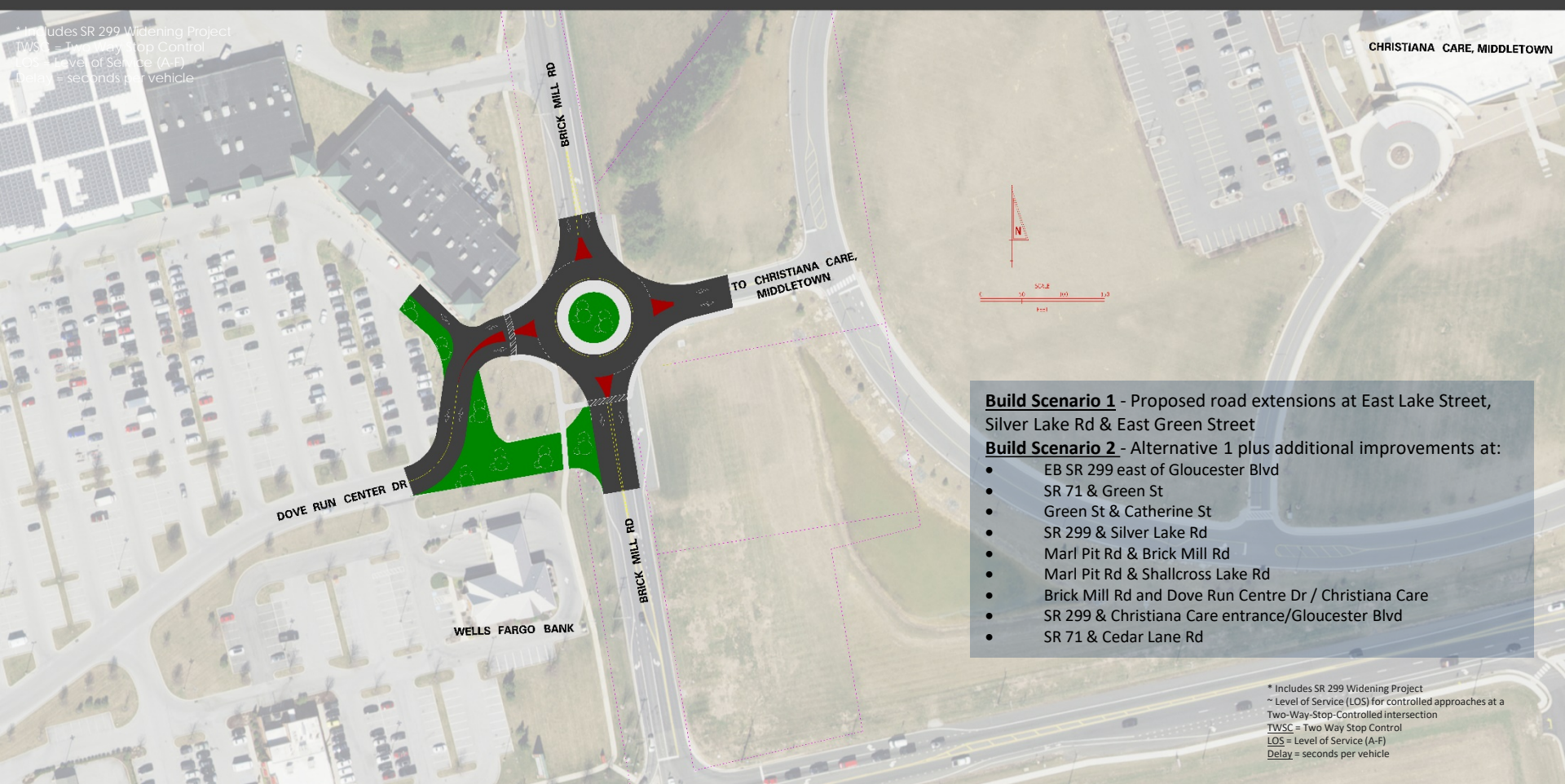


	Street 1	Street 2	In/Out Participant Boundary	Control	Peak Hour Existing*		Control	Peak Hour 2045 - Build Scenario 1		Control	Peak Hour 2045 Build- Scenario 2	
					LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)
AM	SR 71	Cedar Lane Rd	In	TWSC	F~	WB 145.2 (F)	TWSC	F~	363.2	Signal	B	14.4
PM	SR 71	Cedar Lane Rd	In	TWSC	F~	WB 197.9 (F)	TWSC	F~	WB 289.4 (F)	Signal	B	11.3

Eastown TID – Proposed Improvement



Brick Mill Rd and Dove Run Centre Dr



	Street 1	Street 2	In/Out Participant Boundary	Control	Peak Hour Existing*		Control	Peak Hour 2045 - Build Scenario 1		Control	Peak Hour 2045 Build- Scenario 2	
					LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)
AM	Brick Mill Rd	Dove Run Dr / Christiana Care	IN	TWSC	B~	EB 14.7 (B) / WB 0.0 (A)	TWSC	F/B~	EB 200.8 (F) / WB 13.3 (B)	Roundabout	C	18.8
PM	Brick Mill Rd	Dove Run Dr / Christiana Care	In	TWSC	F~	EB 69.7 (F) / WB 0.0 (A)	TWSC	F/C~	EB 111.2 (F) / WB 15.2 (C)	Roundabout	A	8.9

Easttown TID – Proposed Improvement



Marl Pit Rd and Brick Mill Rd

Build Scenario 1 - Proposed road extensions at East Lake Street, Silver Lake Rd & East Green Street

Build Scenario 2 - Alternative 1 plus additional improvements at:

- EB SR 299 east of Gloucester Blvd
- SR 71 & Green St
- Green St & Catherine St
- SR 299 & Silver Lake Rd
- Marl Pit Rd & Brick Mill Rd
- Marl Pit Rd & Shallcross Lake Rd
- Brick Mill Rd and Dove Run Centre Dr / Christiana Care
- SR 299 & Christiana Care entrance/Gloucester Blvd
- SR 71 & Cedar Lane Rd



* Includes SR 299 Widening Project
~ Level of Service (LOS) for controlled approaches at a
Two-Way-Stop-Controlled intersection
TWSC = Two Way Stop Control
LOS = Level of Service (A-F)
Delay = seconds per vehicle

	Street 1	Street 2	In/Out Participant Boundary	Control	Peak Hour Existing*		Control	Peak Hour 2045 - Build Scenario 1		Control	Peak Hour 2045 Build- Scenario 2	
					LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)
AM	Brick Mill Rd	Marl Pit Rd	Out	AWSC	A	9.2	AWSC	D	31.6	Roundabout	A	7.1
PM	Brick Mill Rd	Marl Pit Rd	Out	AWSC	B	10.5	AWSC	F	120.2	Roundabout	B	12.9

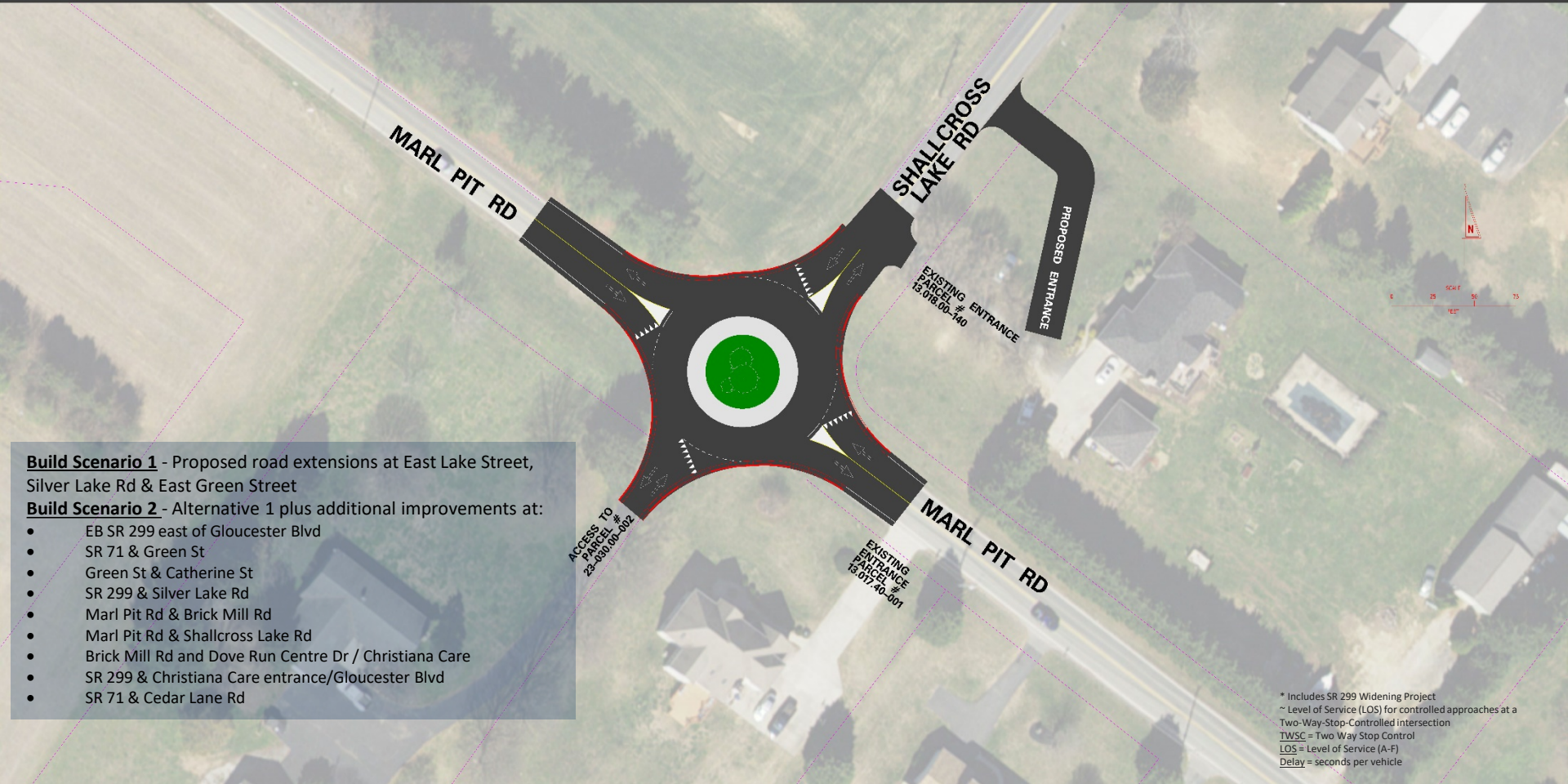
ROUNDABOUT AT THE INTERSECTION OF
MARL PIT RD & BRICK MILL RD
MIDDLETOWN, DE

CONCEPT PLAN – JULY 2019

Eastown TID – Proposed Improvement



Marl Pit Rd and Shallcross Lake Rd

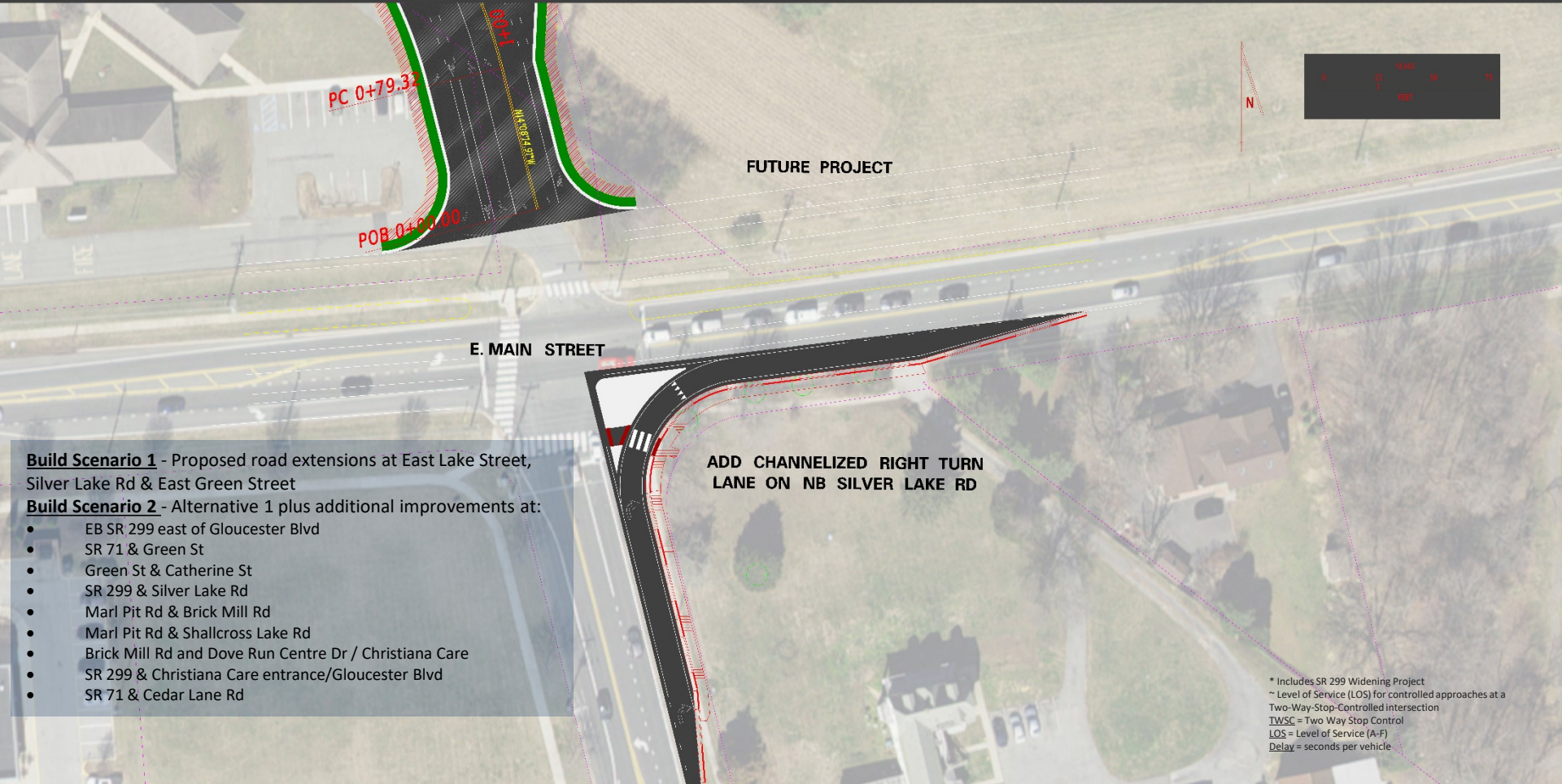


	Street 1	Street 2	In/Out Participant Boundary	Control	Peak Hour Existing*		Control	Peak Hour 2045 - Build Scenario 1		Control	Peak Hour 2045 Build- Scenario 2	
					LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)
AM	Marl Pit Rd	Shallcross Lake Rd	Out	TWSC	C~	SW 15.0 (C)	TWSC	F~	SW 65.8 (F)	Roundabout	A	7.3
PM	Marl Pit Rd	Shallcross Lake Rd	Out	TWSC	C~	SW 17.2 (C)	TWSC	F~	137.5 (F)	Roundabout	B	11.8

Eastown TID – Proposed Improvement



SR 299 and Silver Lake Rd



Build Scenario 1 - Proposed road extensions at East Lake Street, Silver Lake Rd & East Green Street

Build Scenario 2 - Alternative 1 plus additional improvements at:

- EB SR 299 east of Gloucester Blvd
- SR 71 & Green St
- Green St & Catherine St
- SR 299 & Silver Lake Rd
- Marl Pit Rd & Brick Mill Rd
- Marl Pit Rd & Shallcross Lake Rd
- Brick Mill Rd and Dove Run Centre Dr / Christiana Care
- SR 299 & Christiana Care entrance/Gloucester Blvd
- SR 71 & Cedar Lane Rd

* Includes SR 299 Widening Project
~ Level of Service (LOS) for controlled approaches at a
Two-Way-Stop-Controlled intersection
TWSC = Two Way Stop Control
LOS = Level of Service (A-F)
Delay = seconds per vehicle

	Street 1	Street 2	In/Out Participant Boundary	Control	Peak Hour Existing*		Control	Peak Hour 2045 - Build Scenario 1		Control	Peak Hour 2045 Build- Scenario 2	
					LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)
AM	SR 299	Silver Lake Rd /Lake Street Ext.	In	Signal	E	72.0	Signal	F	100.6	Signal	E	55.2
PM	SR 299	Silver Lake Rd /Lake Street Ext.	In	Signal	C	22.3	Signal	F	106.6	Signal	D	36.5

Easttown TID – Proposed Improvement



SR 71 and Green St



AM
PM

Street 1	Street 2	In/Out Participant Boundary	Control	Peak Hour Existing*		Control	Peak Hour 2045 - Build Scenario 1		Control	Peak Hour 2045 Build- Scenario 2	
				LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)
SR 71	Green St	In	TWSC	B~	EB 11.6 (B) / WB 11.8 (B)	TWSC	C/F~	EB 19.8 (C) / WB 135.0 (F)	Signal	B	17.5
SR 71	Green St	In	TWSC	B/C~	EB 12.6 (B) / WB 20.3 (C)	TWSC	F~	EB 52.6 (F) / WB +300 sec (F)	Signal	C	34.5

Easttown TID – Proposed Improvement



SR 299 and Gloucester Blvd / Christiana Care

PAGE 1

CHRISTIANA CARE, MIDDLETOWN

Build Scenario 1 - Proposed road extensions at East Lake Street, Silver Lake Rd & East Green Street

Build Scenario 2 - Alternative 1 plus additional improvements at:

- EB SR 299 east of Gloucester Blvd
- SR 71 & Green St
- Green St & Catherine St
- SR 299 & Silver Lake Rd
- Marl Pit Rd & Brick Mill Rd
- Marl Pit Rd & Shallcross Lake Rd
- Brick Mill Rd and Dove Run Centre Dr / Christiana Care
- SR 299 & Christiana Care entrance/Gloucester Blvd
- SR 71 & Cedar Lane Rd

* Includes SR 299 Widening Project
TWSC = Two Way Stop Control
LOS = Level of Service (A-F)
Delay = seconds per vehicle

* Includes SR 299 Widening Project
~ Level of Service (LOS) for controlled approaches at a
Two-Way-Stop-Controlled Intersection
TWSC = Two Way Stop Control
LOS = Level of Service (A-F)
Delay = seconds per vehicle

	Street 1	Street 2	In/Out Participant Boundary	Control	Peak Hour Existing*		Control	Peak Hour 2045 - Build Scenario 1		Control	Peak Hour 2045 Build- Scenario 2	
					LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)
AM	SR 299	Gloucester Blvd / Christiana Care	In	Signal	C	30.4	Signal	D	47.1	Signal	C	24.3
PM	SR 299	Gloucester Blvd / Christiana Care	In	Signal	C	17.5	Signal	F	95.0	Signal	E	58.3

LEFT LANE ADDITION ON SR 299 & GLOUCESTER BLVD
ADD EB THRU LANE FROM INTERSECTION TO WEST OF SR1 RAMPS
MIDDLETOWN, DE

CONCEPT PLAN – JULY 2019

MATCH LINE (SEE PAGE 2)

Eastown TID – Proposed Improvement



SR 299 - East of Gloucester Blvd / Christiana Care

PAGE 2



MATCH LINE (SEE PAGE 1)

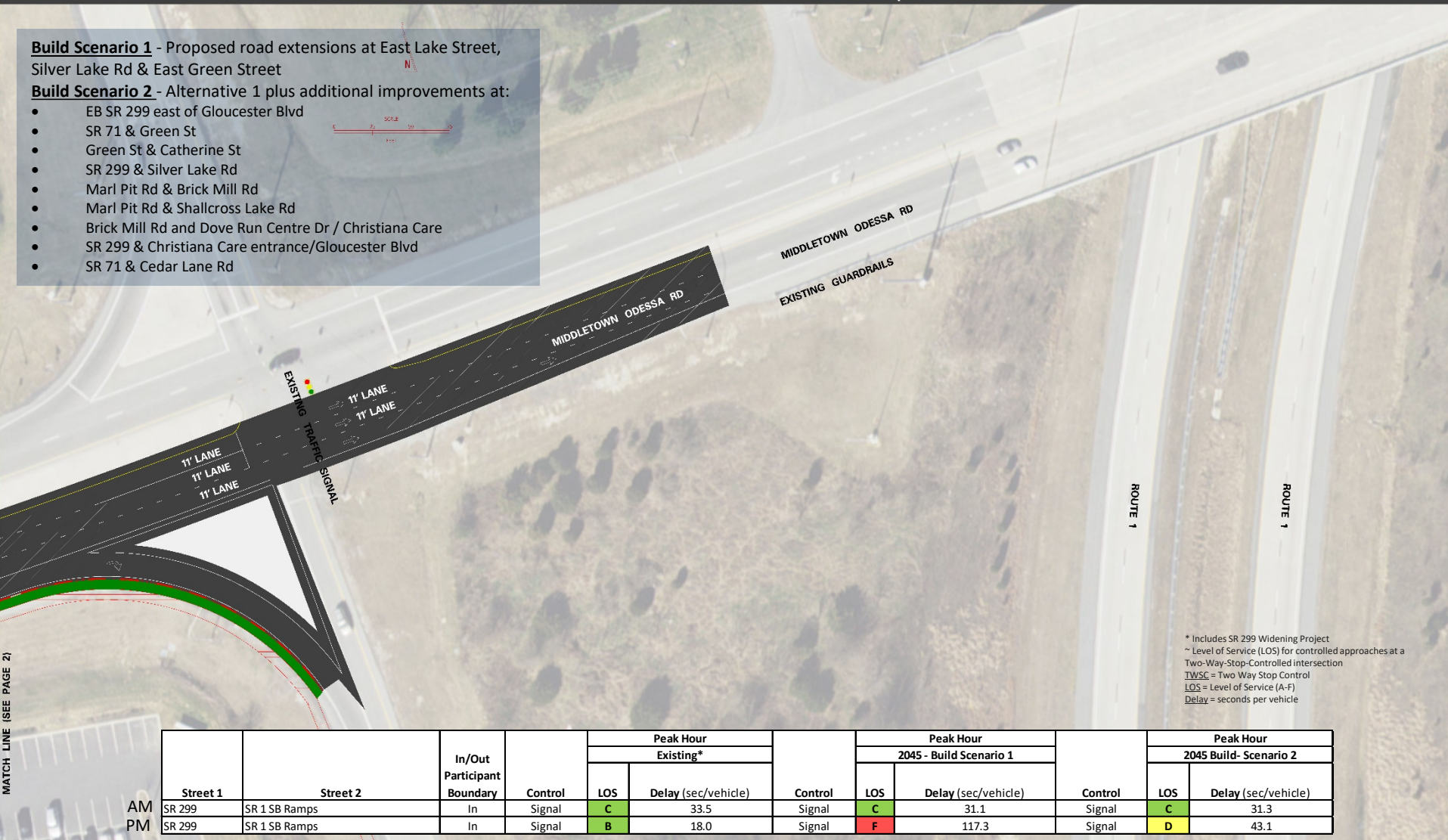
AM
PM

MATCH LINE (SEE PAGE 3)

Build Scenario 1 - Proposed road extensions at East Lake Street, Silver Lake Rd & East Green Street

Build Scenario 2 - Alternative 1 plus additional improvements at:

- EB SR 299 east of Gloucester Blvd
- SR 71 & Green St
- Green St & Catherine St
- SR 299 & Silver Lake Rd
- Marl Pit Rd & Brick Mill Rd
- Marl Pit Rd & Shallcross Lake Rd
- Brick Mill Rd and Dove Run Centre Dr / Christiana Care
- SR 299 & Christiana Care entrance/Gloucester Blvd
- SR 71 & Cedar Lane Rd



* Includes SR 299 Widening Project
 ~ Level of Service (LOS) for controlled approaches at a Two-Way-Stop-Controlled intersection
 TWSC = Two Way Stop Control
 LOS = Level of Service (A-F)
 Delay = seconds per vehicle

Eastown TID	Existing	Proposed	Proposed	ITE	Residential	Square	AM	AM	AM	PM	PM	PM	Proposed Fee Schedule: \$2,500 per Single Family Dwelling; \$1,250 per Multi Family Dwelling; \$3 per sqft commercial/office; \$1.75 per sqft industrial/institutional (Religious uses, hospitals, schools/daycares, utilities, library, and YMCA are institutional)
Development	Zoning	Zoning	Land Use	Code	Units	Footage	In	Out	Total	In	Out	Total	
218 West Main St	C-2	C-2	Commercial and Apartments	220 /820	4	2,244	95	60	155	17	18	35	\$11,732.00
410 Brick Mill Rd	R1-B	R-3	100-200 Unit Apartment Complex	220	120		13	44	57	43	26	69	\$150,000.00
Bayhealth Medical (Phase 2)	C-2	C-2	Professional Office	720		20,000	41	12	53	20	50	70	\$60,000.00
Brick Mill Early Childhood Center	None	R1-B	Early Childhood School	565		40,000	233	207	440	209	236	445	\$70,000.00
Christiana Care Middletown Campus - Phase 2	C-3	C-3	Hospital	610		727,500	452	213	665	228	484	712	\$1,273,125.00
Christiana Care Middletown Campus - Phase 2	C-3	C-3	Medical Office Buildings	720		430,000	523	148	671	327	841	1168	\$1,290,000.00
Christiana Care Middletown Campus - Phase 2	C-3	C-3	Utility Plant	170		40,000	74	18	92	11	42	53	\$70,000.00
Christiana Care Middletown Campus - Phase 2 - Total						1,197,500	1049	379	1428	566	1367	1933	\$2,633,125.00
Dove Run	C-3	C-3	Commercial*	820		109,966	128	78	206	278	301	579	\$329,898.00
Fusco Properties (Lots 2 & 5 and additional Lots)	C-2	C-2		820		105,000**	126	78	204	270	293	563	\$315,000.00
Greenlawn Village	C-3	C-3	Commercial*	820		18,420	100	61	161	73	80	153	\$55,260.00
Healthsouth - Phase 2		C-2	Medical Office Buildings			16,578	34	10	44	16	40	56	\$49,734.00
Highlands of Middletown	R-2 & R-3	R-3	Residential, athletic complex and open space	220	1,242		84	338	422	416	224	640	\$1,552,500.00
Highlands of Middletown	R-2 & R-3	R-3	Daycare	565		10,000	58	52	110	52	59	111	\$17,500.00
Highlands of Middletown - Total							530	390	532	468	283	751	\$1,570,000.00
Library			Institutional	590		35,000	33	14	47	148	161	309	\$61,250.00
Middletown Crossing	C-2	C-2	Apartments & Retail (Mixed-Use)	220 / 820	240	22,700	120	136	256	168	137	305	\$368,100.00
Middletown Square Greenlawn Office Park***	C-3	C-3	First floor retail with offices on floors 2-4	710 / 820		70,852	164	72	236	80	128	208	\$212,556.00
Promenade			Residential	220	119		13	43	56	43	26	69	\$148,750.00
Shops of Middletown	C-3	C-3	Shopping Center and Apartments	220 / 820	347	91,000	148	180	328	363	328	691	\$706,750.00
St Joseph's Church (Commercial re-use)			Commercial re-use of Church	879		4,000	9	10	19	12	13	25	\$12,000.00
St Joseph's Parish (extension off main building)	R1-A	R1-A	church building expansion	495		4,000	21	11	32	10	11	21	\$7,000.00
St Joseph's Parish (Educational building)	R1-A	R1-A	educational building	495		9,066	33	17	50	18	21	39	\$15,865.50
St Joseph's Parish (Multi-Use Building)	R1-A	R1-A	multi-use building	495		4,920	24	12	36	12	13	25	\$8,610.00
St Joseph's Parish (Preschool)	R1-A	R1-A	preschool	565		3,636	21	19	40	19	21	40	\$6,363.00
St. Joseph's Parish - Total							99	59	158	59	66	125	\$37,838.50
Tax Parcel 2300300005 - Quaker City Motor Parts Co	Commercial	Commercial	Assumed light industrial	110		209,781	142	21	163	8	53	61	\$367,116.75
Tax Parcel 2302500023	Residential	Residential	Assumed single-detached homes	210	16		4	12	16	11	6	17	\$40,000.00
Tax Parcel 2300700368	Commercial	Commercial	Assumed Shopping Center	820		2,030	95	58	153	14	16	30	\$6,090.00
Tax Parcel 2300700372	Commercial	Commercial	Assumed Shopping Center	820		3,600	95	59	154	22	24	46	\$10,800.00
Tax Parcel 2300600629	Commercial	Commercial	Assumed Shopping Center	820		17,000	99	61	160	70	76	146	\$51,000.00
Tax Parcel 2300600642	Commercial	Commercial	Assumed Shopping Center	820		20,500	100	62	162	81	87	168	\$61,500.00
YMCA****				491		31,000	21	20	41	66	49	115	\$54,250.00
SUB-TOTAL FUTURE DEVELOPMENTS							3,103	2,126	5,229	3,105	3,864	6,969	\$7,382,750.25
CVS	C-2	C-2	Pharmacy			13,281	Already Built						\$39,843.00
Healthsouth - Phase 1	C-2	C-2	Rehabilitation Hospital			48,206	Already Built						\$84,360.50
Silver Lake Center	C-2	C-2	Treatment Center			14,871	Already Built						\$26,024.25
SUB-TOTAL EXISTING DEVELOPMENTS WITH TID COMMITMENTS													\$150,227.75
TOTAL DEVELOPMENT CONTRIBUTIONS													\$7,532,978.00
Project Title			Project Description										Project Cost Estimate
East Lake St Extension			Extension of E. Lake Street from N. New Street to connect Bucktail Drive right on the existing roundabout. The project includes roundabout at the intersection of Cleaver Farm Road.										\$5,352,650.00
Silver Lake Rd Extension			Extension of Silver Lake Road that connects E. Main Street (SR 299) and the new E. Lake Street Extension.										\$2,886,410.00
East Green St Extension			Extension of E. Green Street to connect to Dickenson Blvd. Also includes installing roundabout at Dickenson Blvd										\$4,648,130.00
EB SR299 east of Gloucester Blvd			Add one eastbound thru lane on SR 299 from Gloucester Blvd to West of SR 1 Ramps.										\$3,548,500.00
SR71 and Green St			Convert two-way stop-controlled to signalized intersection by adding 75 foot left turn lanes from both E. Green and W. Green Streets to S. Broad St. (SR 71).										\$602,310.00
Green St and Catherine St			Remove Stop Sign and Stop Bar on eastbound Green St. (intersection will be two-way stop controlled on Catherine St only)										negligible, include in East Green St Extension project
SR299 and Silver Lake Rd			Add channelized right turn on Silver Lake Rd (NB). It also includes modification of existing traffic signal.										
Marl Pit Rd and Brick Mill Rd			Convert the three-way stop-controlled intersection to single-lane roundabout at the intersection of Marl Pit Rd and Brickmill Rd.										\$821,510.00
Marl Pit Rd and Shallcross Lake Rd			Convert the three-way stop-controlled intersection to single-lane roundabout at the intersection of Marl Pit Rd and Shallcross Lake Rd.										\$951,100.00
Brick Mill Rd and Dove Run Centre Dr/Christiana Care			Install roundabout at the intersection of Brick Mill Rd and Dove Run Centre Dr.										\$936,340.00
SR299 and Christiana Care Entrance/Gloucester Blvd			Add one left turn lane to Christiana hospital at the intersection of SR 299 and Gloucester Blvd.										\$1,222,340.00
SR71 and Cedar Lane			Convert three-way stop-controlled to signalized intersection by adding 75 foot right turn lane from Cedar Lane Road to S. Broad St. (SR 71) and 150 foot left turn lane from S. Broad St. to Cedar Lane Rd.										\$1,424,210.00
TOTAL PROJECT COSTS													\$23,890,520.00
Development Share of Project Costs													~ 30%

Source: ITE 10th Edition

* Several unbuilt retail pads. Used ITE Code 820 (Shopping Center).
** Building coverage not provided. Used similar commercially developed lots to estimate.
****Square footage not provided. Estimated from other mid-sized YMCAs.
*****Assumed 2.0 lots per acre - Based on adjacent housing developments.