Doylestown Community Pedestrian-Transit Linkage Plan

Prepared for:

Borough of Doylestown

June 2007

Prepared By: Gilmore & Associates, Inc. 350 E. Butler Avenue New Britain, PA 18901

DOYLESTOWN BOROUGH CULTURAL LINK

<u>ACKNOWLEDGEMENTS</u>

<u>Doylestown Revitalization Board</u> <u>Design Committee</u>

John Davis, Borough Manager

Bill Bolla

Rick Brown

Roman Fitzmartin

Andy Happ

Jim Litts

Dick Patterson

Mike Raphael

Karen J. Young

Doylestown Borough Council

John "Chip" Thome, President

Lou White, Vice President

Mark Douple

David Bull

Jennifer Corr

Det Ansinn

Lori Clipner

Melissa Bond

Darrin Hoffman

Libby White, Mayor

This plan was made possible through a TCDI (Transportation & Community Development Initiative) planning grant awarded by the Delaware Valley Regional Planning Commission (DVRPC)

TABLE OF CONTENTS

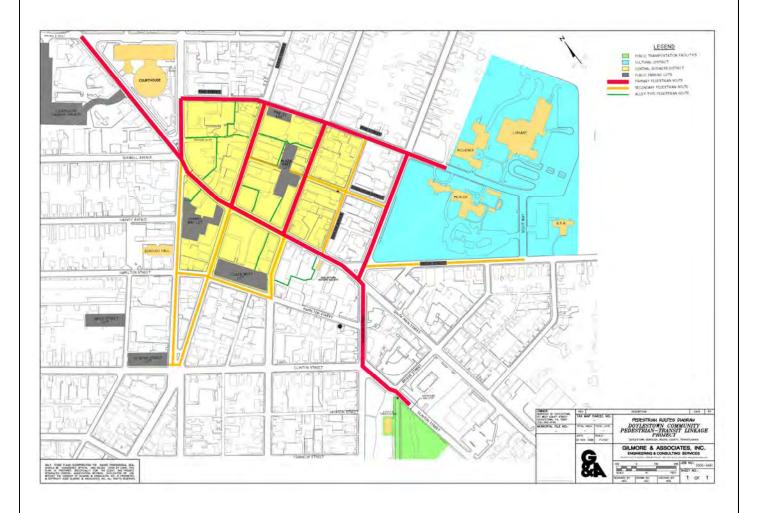
Purpose and Goals4
Doylestown Borough's Existing Resources
Transportation Opportunities6
Cultural Destinations6
Commercial Destinations6
Justice Center6
Wayfinding Concepts
Wayfinding Pillars / Directional Markers7
Overhead Signage8
Other Improvements9
Special Study Areas
Vehicular Circulation and Pedestrian Safety10
Exhibits
Pedestrian Route Diagram
Parking Signage Diagram
Wayfinding Signage and Directional Marker Diagram
Signage Key
Signage Details
Pillar Details
Kiosk Details
Concentual Traffic Realignment Plan for Ashland and Main Street Intersection

Cost Opinion

PURPOSE AND GOALS

The purpose of the Doylestown Community Pedestrian-Transit Linkage Project is to provide accessible pedestrian routes in conjunction with wayfinding signage to facilitate and enhance the pedestrian experience. Creative use of signage, directional markers, and lighting will be implemented to provide the link between the Borough's public transportation facilities, cultural district, business district and county courthouse complex.

The goal of this Doylestown Community Pedestrian-Transit Linkage Project is to invite and direct pedestrians to the available resources, while maintaining and enhancing the aesthetic qualities and historic character of the Borough.



BOROUGH RESOURCES

TRANSPORATION OPPORTUNITIES

The Borough of Doylestown is easily accessible by train, bus, automobile and foot. Rail access is provided by SEPTA's northern end of the R-5 line. The R-5 line extends from Doylestown to Philadelphia and Thorndale with approximately 30 stops in between. A Greyhound bus stop is located in close proximity to the train station. Vehicular access to Doylestown Borough is available through multiple major thoroughfares. PennDOT state Routes 202, 611 and 313 are major vehicular arteries that provide access to and from the Borough. The PA Turnpike is nearby as well. Doylestown Borough's mix of residential and commercial land uses in a limited amount of space also creates a "walkable" component of transportation resources for the residents of the Borough. An extensive network of sidewalks exists as a framework for pedestrian circulation.



Vehicular access to Doylestown is accessible via major thoroughfares and state highways



SEPTA R-5 Rail Line



Greyhound Bus Stop located on Clinton Street near Doylestown Train Station



Doylestown possesses a unique mix of residential and commercial uses, creating a walkable community

BOROUGH RESOURCES

CULTURAL DESTINATIONS

Doylestown Borough possesses a rich mix of cultural resources. Its cultural district is composed of the Bucks County Free Library, James A. Michener Art Museum, Mercer Museum, and the Bucks County Boy Scout Council Service Center. These resources provide a variety of services and experiences for both residents and tourists.

COMMERCIAL DESTINATIONS

Serving as the county seat for Bucks County, Doylestown Borough has become a desirable location for businesses, including offices, restaurants and shops. The variety of available experiences and character of the Borough are inviting and memorable to those who visit.

JUSTICE CENTER

Since 1813, Doylestown Borough has served as the county seat of Bucks County. The current facility, located at Court and Main Streets, is home to the County Courthouse and administrative offices. A public parking garage is also a major component of the existing complex. Plans for a new facility are currently underway to meet the growing needs of the county. Doylestown's professional offices and retail establishments thrive in the presence of this important resource.



Existing cultural district gateway at Pine and Ashland Streets



Doylestown possesses unique secondary and alleyway pedestrian routes.

WAYFINDING CONCEPTS

WAYFINDING PILLARS / DIRECTIONAL MARKERS

In an effort to present directional information in an aesthetic way, wayfinding pillars were designed part of the Doylestown Community Pedestrian-Transit Linkage Project. Historic concrete gateway pillars located at Fonthill provided inspiration for the pillar design. The same historic structures also served as a model for the gateway walls installed in the cultural district. The re-occurring theme of the Mercer-style concrete forms will create visual connections and reminders throughout the community. Simple icons representing the shopping district, cultural district, train station and justice center are incorporated into the pillars with directional arrows. The use of this non-traditional signage is to reduce the amount of "sign pollution" that is becoming evident. Traditional signs and sign posts inhibit the views and historic character of the Borough.



Existing historic pillars provided inspiration for the cultural district gateway and wayfinding pillars.



Newly installed gateway at cultural district



Scale model of proposed pillar at Train Station on Clinton Street



Scale model of proposed pillar on Green Street at Mercer Museum

WAYFINDING CONCEPTS

OVERHEAD SIGNAGE

Overhead signage also was developed supplement and compliment the wayfinding pillars. With the overabundance of existing signage, a non-traditional means was explored. The result is a custom bracket that will attach to the existing historic lamp posts. This bracket will allow incorporated signage to be without installing additional sign posts. The bracket will be designed to replace the existing ladder rack, which is a separate piece of the lamp post. The bracket will have the same character as ladder rack, providing an aesthetic solution. The brackets will accept standard metal signs. They will provide parking information on the street-side and directional information on the sidewalk-side of the lamp post. Directional signage utilizes the same icons developed for the well wayfinding pillars, as as text directional arrows to provide clear information to users.



Existing parking signage to be replaced with simple, directional parking signage, installed on existing lamp posts, where possible.



Proposed custom bracket to accept parking signage and directional signage.

WAYFINDING CONCEPTS

OTHER IMPROVEMENTS

addition to historic street lighting and signage, there are several other improvements that link throughout а strong Borough. Decorative crosswalks are proposed to enhance the visual connection, as well as increase pedestrian safety. Several curb ramps and sidewalk improvements were identified. improvements are necessary to meet the Americans with Disabilities Act (ADA) requirements for accessibility. Information kiosks containing maps, community information and trash receptacles are proposed in three highly visible locations. A pocket park location has also been identified near the train station on the overall plan.





Sidewalk needed to complete connection in Taylor Avenue



ADA curb ramps shall be installed to allow unimpeded access to existing sidewalks

Existing kiosk structure to be replicated at train station pocket park.

SPECIAL STUDY AREAS

VEHICULAR CIRCULATION AND PEDESTRIAN SAFETY

The intersection of Main Street (S.R. 1001), Ashland Street and Green Street (S.R. 2113) experiences problems including vehicular backups and pedestrian safety. A preliminary study of this intersection was conducted to identify possible solutions to create a safer, more efficient flow for both vehicles and pedestrians.

Upon completion of the preliminary study and concept preparation, it was determined that further detailed study would be necessary to develop a final recommendation. The vehicular traffic patterns may change due the implementation of Main Street the closed-loop traffic signal project, currently under current most way. traffic information should be used in conjunction with other factors such as budget determine the most effective solution to the issues at this location.



Looking East across Main Street, down Ashland Street



Looking East on Ashland Street, across Main Street



Looking East across Main Street, down Green Street

SPECIAL STUDY AREAS

Concept A (see Exhibit section for diagram)

The first concept for the intersection was designed with the primary goal to increase pedestrian safety at the intersection, without considering the problem of vehicular congestion and delays. Crosswalks were designed to be perpendicular to the travel lanes, with additional markings to ensure higher visibility for the drivers. This concept would be relatively low cost, but would require modifications to the traffic signal, without including Green Street as part of the signalized intersection. Green Street would continue to operate as a two-way stop controlled intersection with Ashland Street. This concept depicts two additional crosswalks at the intersections.

Positive aspects of this concept include:

- Increased pedestrian safety due to reduced distance and higher visibility
- Low cost to implement

Negative aspects of this concept include:

 Does not address traffic congestion, delays and confusing traffic patterns

Concept B (see Exhibit section for diagram)

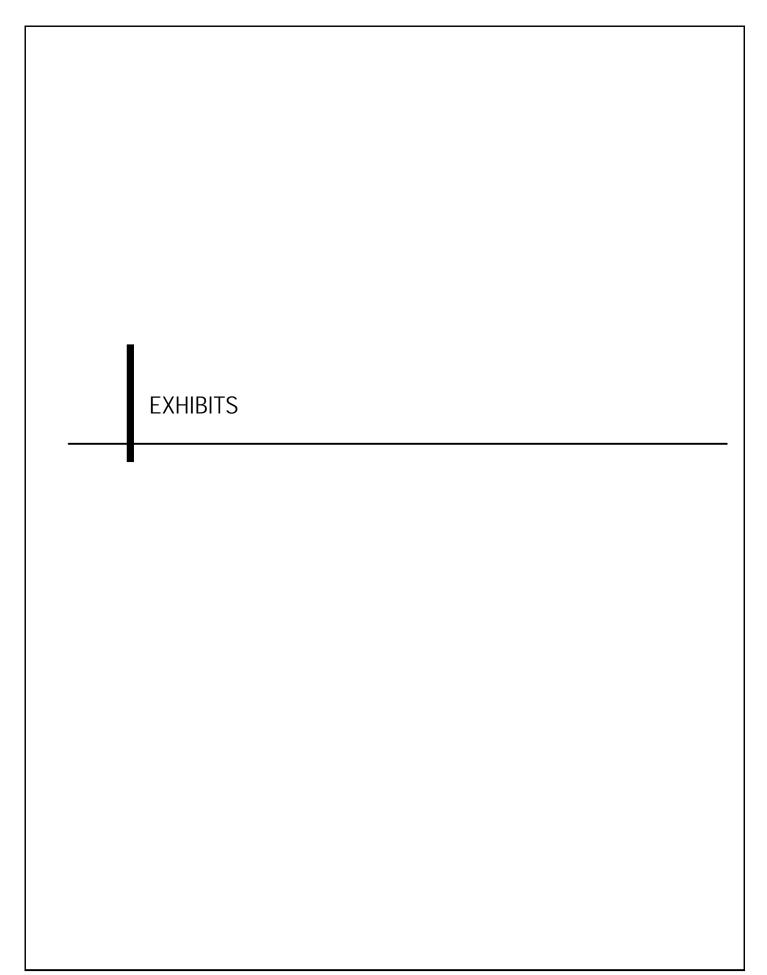
The second concept for the intersection was to completely re-align the intersection to include Green Street as a fifth leg of the signalized intersection. Relief of vehicular congestion is the primary goal of this concept. Key points of this concept include: addition of left-turn lanes both north and south bound on Main Street and removal of the stop-controlled intersection at Green and Ashland Streets.

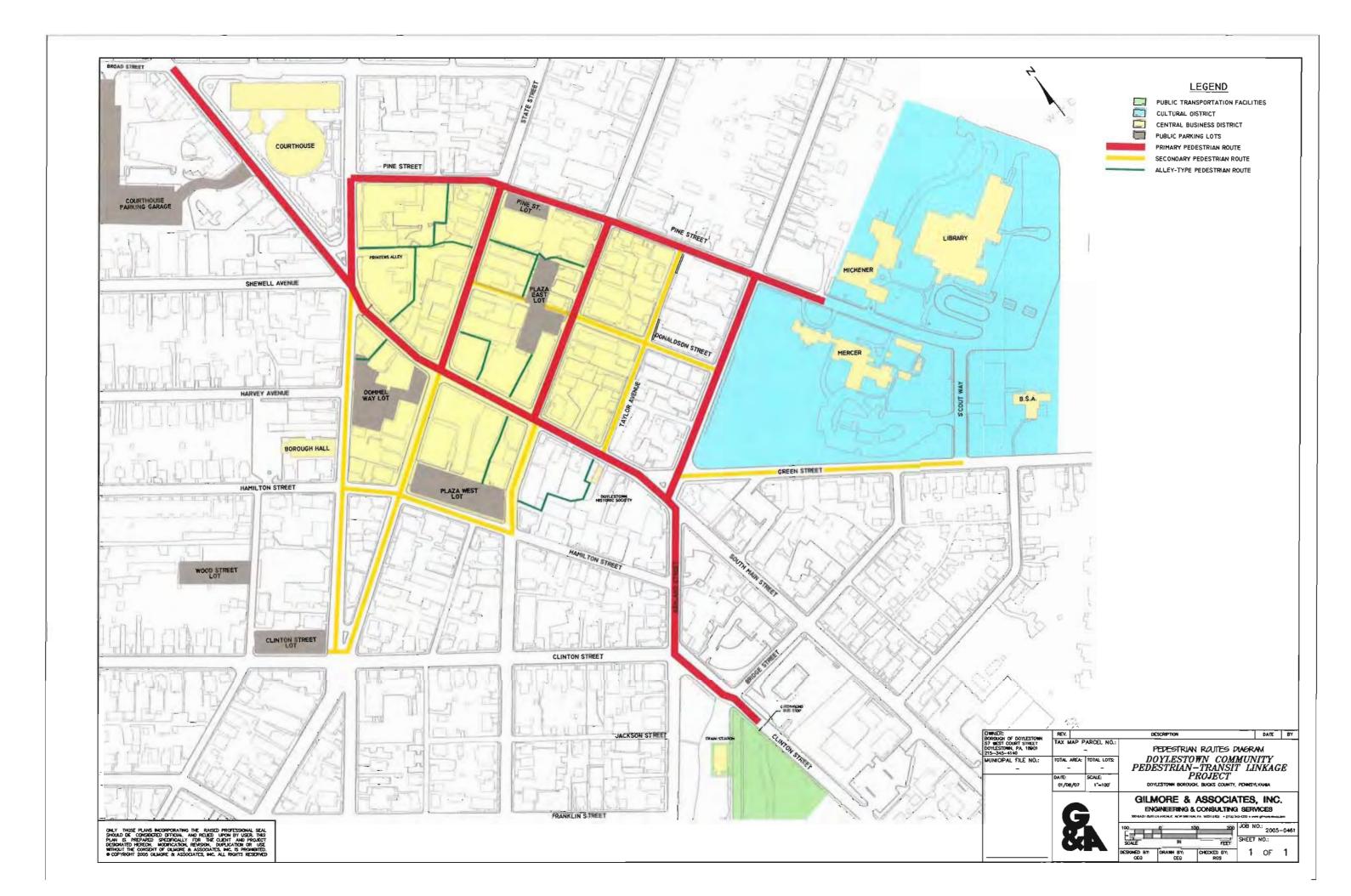
Positive aspects of this concept include:

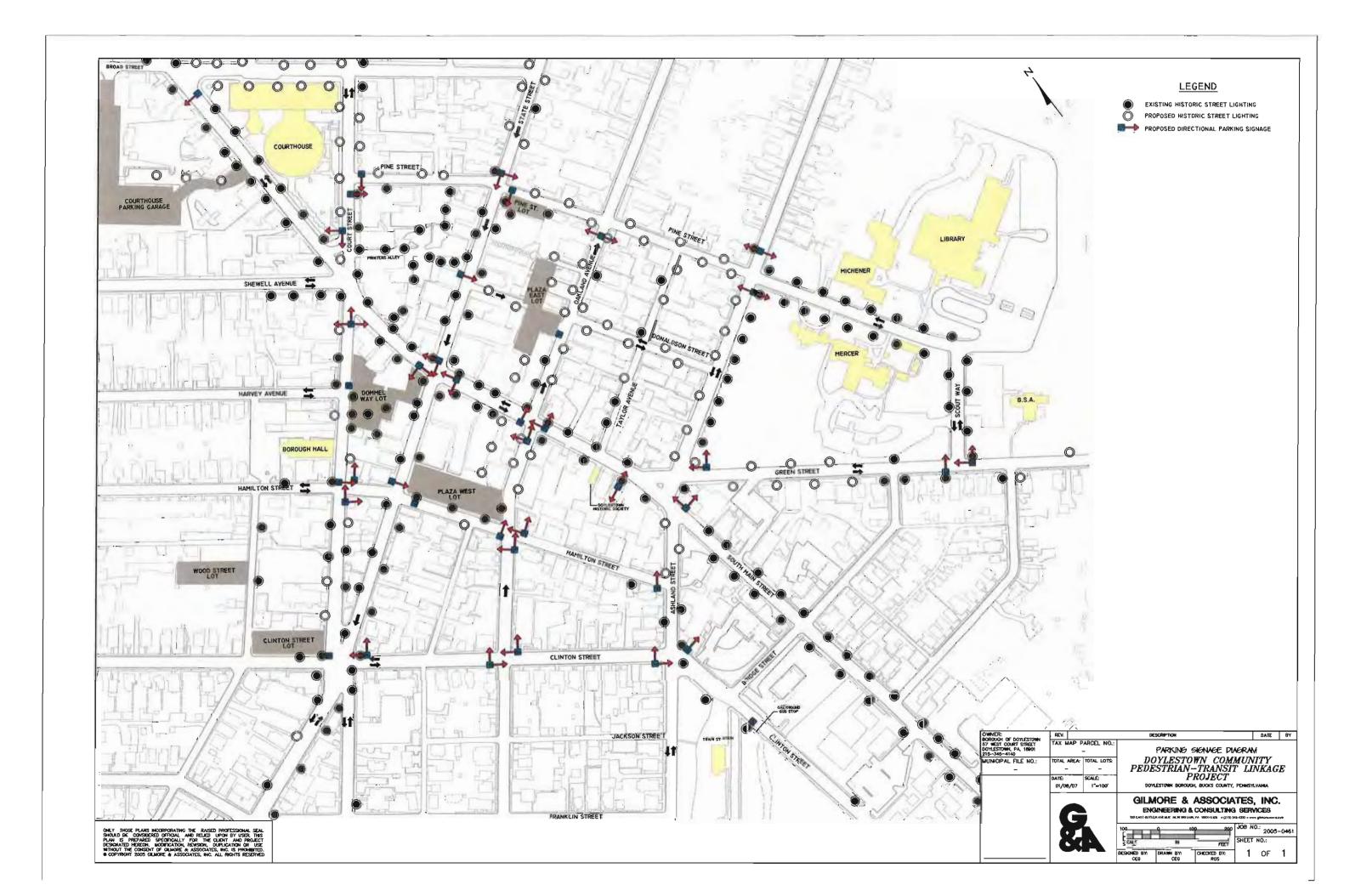
- Increased pedestrian safety due to reduced number of crossings
- · Greatly reduced vehicular delays

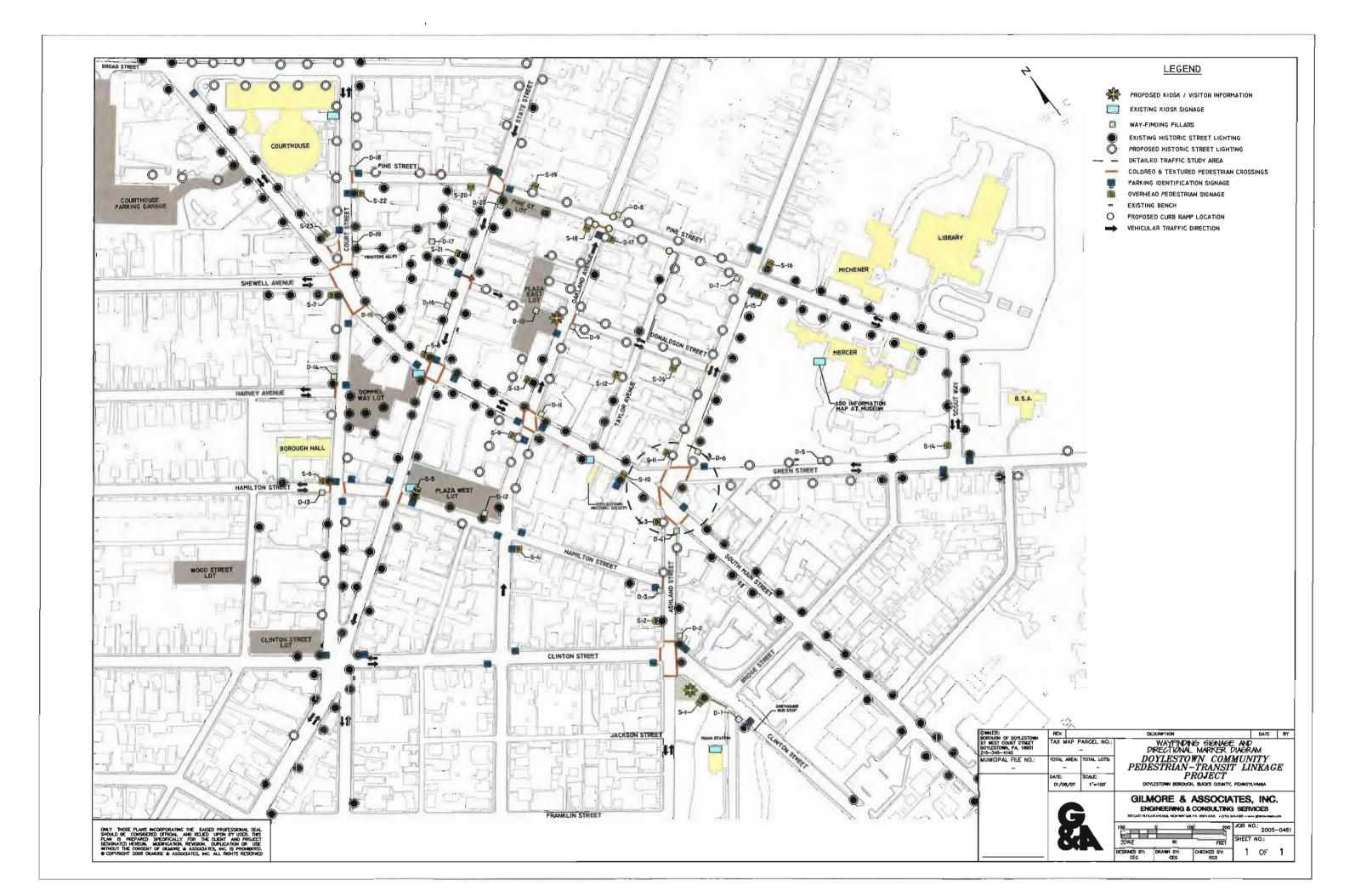
Negative aspects of this concept include:

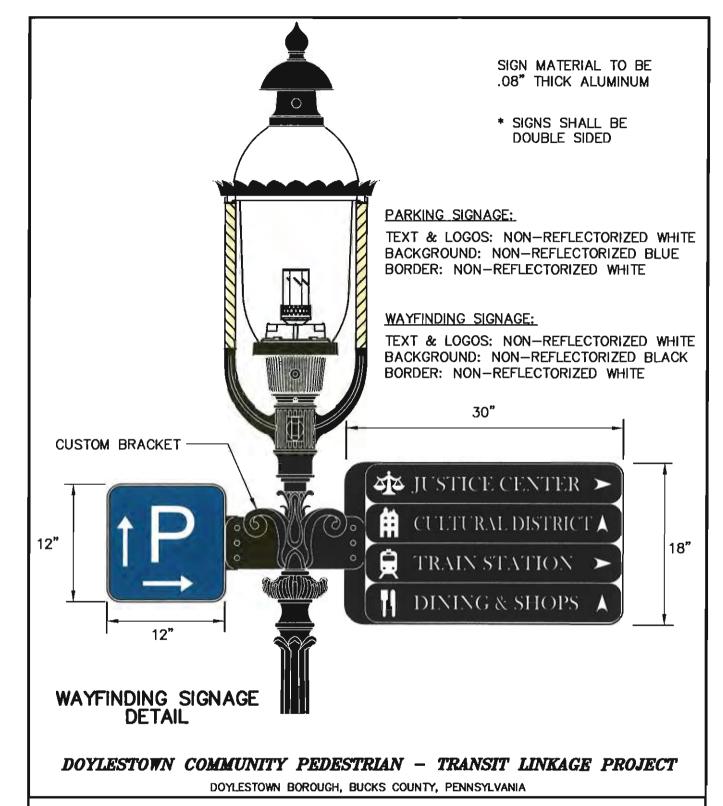
- Required right-of-way and property acquisition on the southeast corner of the intersection, resulting in the removal of almost all parking from this business.
- Removal of approximately 36 total on-street parking spots along Main Street and Ashland Street.
- Costly to implement











5

GILMORE & ASSOCIATES, INC.

ENGINEERING & CONSULTING SERVICES

350 EAST BUTLER AVENUE NEW BRITAIN, PA 18901-5106 ● (215) 345-4330 ● www.gilmore-assoc.com

JOB NO.:

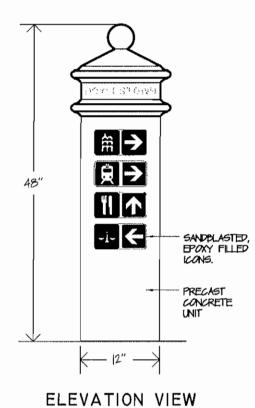
2005-0461

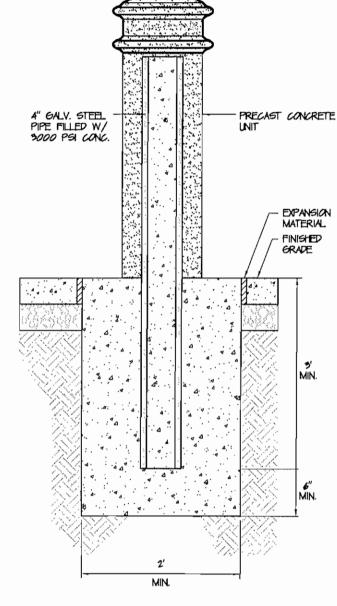
DATE:

NOVEMBER 2006

SCALE:

NOT TO SCALE





WAYFINDING PILLAR DETAIL

DETAIL SECTION VIEW

DOYLESTOWN COMMUNITY PEDESTRIAN - TRANSIT LINKAGE PROJECT

DOYLESTOWN BOROUGH, BUCKS COUNTY, PENNSYLVANIA



GILMORE & ASSOCIATES, INC.

ENGINEERING & CONSULTING SERVICES

350 EAST BUTLER AVENUE NEW BRITAIN, PA 18901-5106 • (215) 345-4330 • www.gilmore-assoc.com

JOB NO .:

2005-0461

DATE:

NOVEMBER 2006

SCALE:

NOT TO SCALE

DOYLESTOWN BOROUGH CULTURAL LINK SIGNAGE KEY

DESTINATION / ARROW DIRECTION









SIGN LOCATION

	SIGN LOCATION			I	
	LOOKING NORTH		Î		Ţ.
	LOOKING SOUTH				
Abandula viii van	S-2 LOOKING NORTHEAST	* * * * * * * * * * * * * * * * * * *	Î		
Action in the second se	LOOKING SOUTHWEST			←	
	S-3 LOOKING NORTHEAST	—			· · · · · · · · · · · · · · · · · · ·
	LOOKING SOUTHWEST				
	S-4LOOKING NORTHEAST				
	LOOKING SOUTHWEST	>	<		
	S-5 LOOKING NORTHEAST	<			\Longrightarrow
	LOOKING SOUTHWEST	## 1.5 % 1000 pm 400 pm			\
	S-6 LOOKING NORTHEAST				
	LOOKING SOUTHWEST		. , , , , , , , , , , , , , , , , , , ,		









SIGN LOCATION

ļ	S-7				
	LOOKING NORTHEAST	□	□		
to be been the former of the fire	LOOKING SOUTHWEST	<	<		
	S-8				
	LOOKING EAST	←	>		←
	LOOKING WEST	<>	<	├ ├	□
:	S-9			waller and the state of the sta	
:	LOOKING EAST	<⇒>	□⇒	\Longrightarrow	<
	LOOKING WEST	<>	←	←	
in r	S-10			na dia 11.1 managan di	* * * * * * * * * * * * * * * * * * * *
o de la companya de l	LOOKING SOUTH		←		
:			Π	Π	· • · · · · · · · ·
:	LOOKING NORTH		Ĥ	₩	
	S-11		^	П	
	LOOKING EAST	←		Ų.	
:	LOOKING WEST				
	S-12				
	LOOKING EAST	\Leftrightarrow	─ ⇒	Ų	<
:	LOOKING WEST		\		□⇒
} · · · · · · · · · · · · · · · · · · ·	S-13				
:	LOOKING EAST	\Leftrightarrow	\Longrightarrow		
	LOOKING WEST	\Longrightarrow	\(\)	<	\Longrightarrow
ļ . v.	<u> </u>				









S-14				
LOOKING NORTHEAST			←	<
LOOKING SOUTHWEST	\Longrightarrow			
S-15			Π	
LOOKING NORTHEAST				\
LOOKING SOUTHWEST		←		
S-16				
LOOKING NORTHWEST				
LOOKING SOUTHEAST				
S-17			П	
LOOKING NORTHEAST				←
LOOKING SOUTHWEST		<		
S-18				
LOOKING NORTHWEST				
LOOKING SOUTHEAST				
S-19			-	
LOOKING NORTHWEST	←		W 1/4	
LOOKING SOUTHEAST				
S-20				
LOOKING NORTH	100 mm m m m m m m m m m m m m m m m m m			









SIGN LOCATION

S-21 LOOKING WEST		<		
LOOKING EAST	The Age Age Age Age Age Age Age Age Age Ag		\implies	<
S-22 LOOKING NORTHEAST		>		→ 1
LOOKING SOUTHWEST		<		
S-23		Π	Π	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
LOOKING NORTH			Ų .	
LOOKING SOUTH		Î		
S-24	Δ	Π	Π	Δ
LOOKING NORTH		Ŭ Ų	\downarrow	
LOOKING SOUTH	J		⇒	









PILLAR LOCATION	·· ··	1	<u></u>	V
D-1.			←	
LOOKING SOUTH				- I
D-2 LOOKING NORTHEAST	<u> </u>	<u> </u>		<u> </u>
LOOKING SOUTHEAST	□	<u> </u>		,
LOOKING SOUTHWEST				
D-3 LOOKING NORTHEAST				
LOOKING SOUTHEAST	→ · · · · · · · · · · · · · · · · · · ·			<
LOOKING SOUTHWEST				
D-4 LOOKING NORTHEAST	←			\
LOOKING SOUTHWEST				>
D-5 LOOKING NORTHWEST	\uparrow	ĵ	\uparrow	<u> </u>
LOOKING SOUTHEAST		1		
D-6	· · · · · · · · · · · · · · · · · · ·			
LOOKING NORTHWEST		\Longrightarrow	<	
LOOKING NORTHEAST	——————————————————————————————————————			
LOOKING SOUTHWEST	>	<u> </u>		\Longrightarrow









PILLAR LOCATION

PILLAR LOCATION	.)	J	y	·k··· (
D-7	\uparrow			\uparrow
LOOKING NORTH	<u> </u>		\	
LOOKING SOUTH			<u></u>	
LOOKING EAST		>		
			·	
LOOKING WEST	\Longrightarrow	←		
D-8				
LOOKING NORTH		\downarrow	←	
LOOKING SOUTH		\uparrow		
		<u> </u>	<u> </u>	· · · · · · · · · · · · · · · · · · ·
LOOKING EAST	←			
LOOKING WEST		←	←	
D-9			· · · · · · · · · · · · · · · · · · ·	
LOOKING NORTH			\Leftrightarrow	
		·		<u> </u>
LOOKING SOUTH	\	<u> </u>		Ĥ
LOOKING EAST	₩	=⇒	\Longrightarrow	←
LOOKING WEST		···	<u> </u>	
D-10			<u> </u>	
LOOKING NORTH	\bigcap		~ · · · · · · · · · · · · · · · · · · ·	<u> </u>
		··· ··· ··· · · · · · · · · · · · · ·		. [
LOOKING SOUTH	←→		\Longrightarrow	Ŭ
LOOKING WEST		←		
			Ш	1170 ALII ALA A









PILLAR LOCATION D-11 LOOKING NORTH LOOKING SOUTH LOOKING EAST LOOKING WEST LOOKING NORTH LOOKING SOUTH D-13 LOOKING NORTHEAST LOOKING SOUTHWEST LOOKING NORTHEAST LOOKING SOUTHWEST D-15 LOOKING NORTH LOOKING SOUTH LOOKING EAST

LOOKING WEST





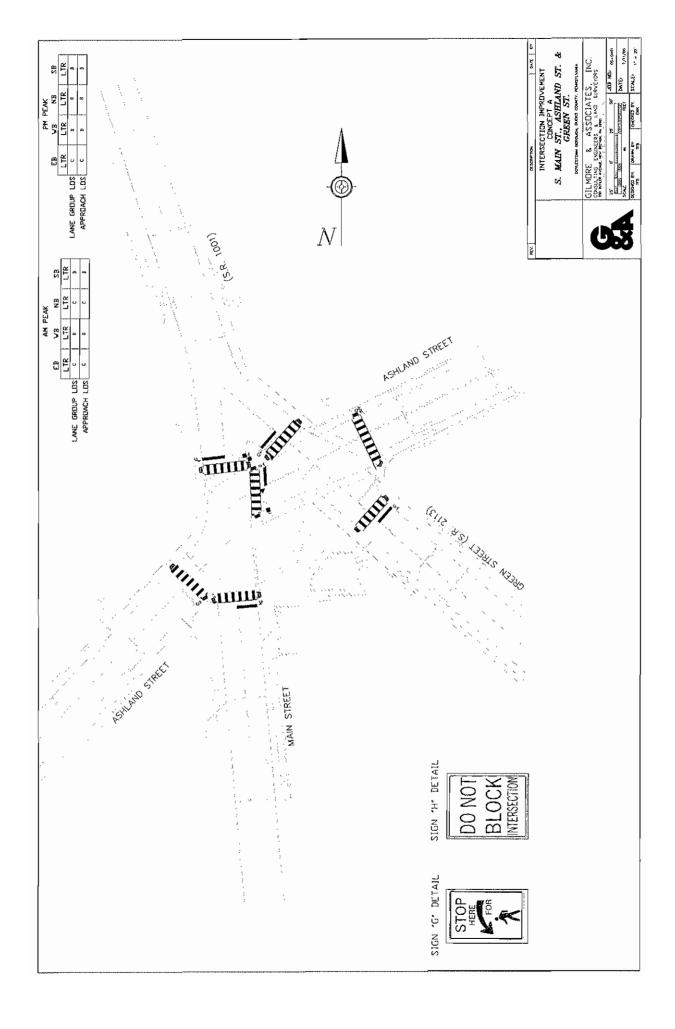


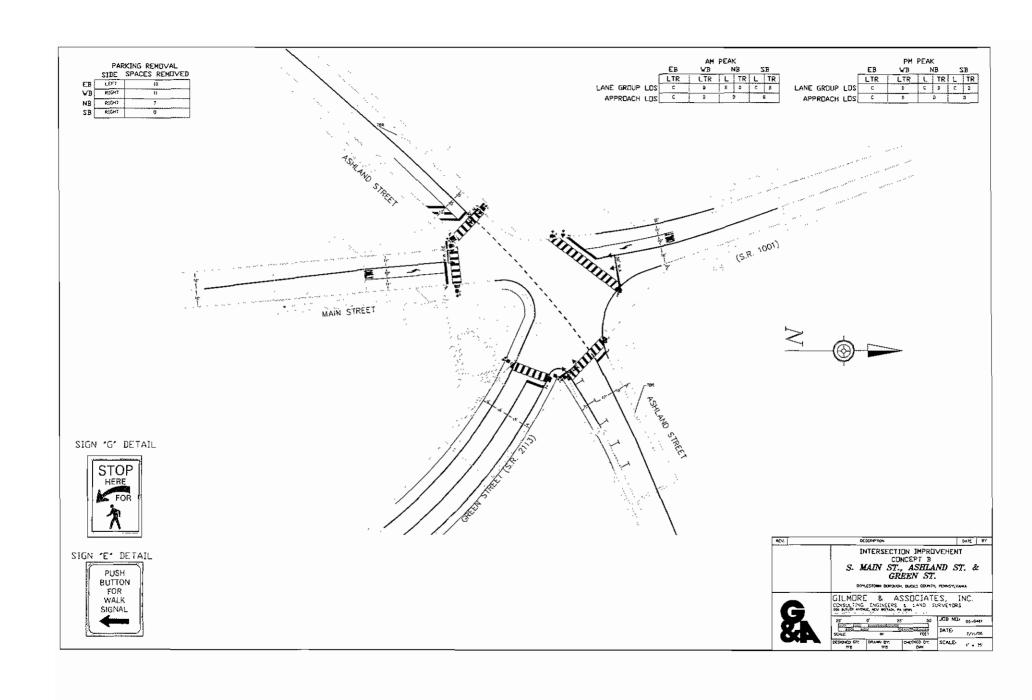


	PILLAR LOCATION				
	LOOKING NORTH			A STANDARD CONTRACTOR	Î
	LOOKING SOUTH	<u></u>	Î		
	D-18 LOOKING NORTHEAST				
2	LOOKING NORTHWEST	<		←	
:	LOOKING SOUTHWEST				
	LOOKING SOUTHEAST				
-	D-19 LOOKING NORTHEAST				<
	LOOKING NORTHWEST	<		←	
	LOOKING SOUTHWEST	\bigcap	<		
	LOOKING SOUTHEAST				
	D-20 LOOKING EAST				
;	LOOKING WEST			<u> </u>	

NOTE: EXACT FIELD LOCATIONS & DIRECTIONAL INFORMATION SHALL BE VERIFIED PRIOR TO CONSTRUCTION TO ENSURE PROPER PLACEMENT AND COORDINATION WITH CURRENT FIELD CONDITIONS AND ADEQUATE SIGHT DISTANCE.

Page 8 of 8 GA Form CS-1 (8/97)





G GILMORE & ASSOCIATES, INC.

&A OPINION OF PROBABLE COST

COST BREAKDOWN BY STREET

CLIENT:

Borough of Doylestown
PROJECT NAME:

CULTURAL LINK (Doylestown Community - Pedestrian - Transit Linkage Project)

										STREET					
	IMPROVEMENT	UNIT	TOTAL COST	INSTALLATION*	ASHLAND ST.	CLINTON ST.	COURT ST.	DONALDSON ST.	GREEN ST.	HAMILTON ST.	MAIN ST.	OAKLAND AVE.	PINE ST.	STATE ST.	TAYLOR AVE.
1	PARKING SIGNAGE	EA	\$150,00	-\$75.00	2	6	7	0	3	5	7	4	2	4	0
2	PEDESTRIAN SIGNAGE (ON EXISTING LIGHT)	EΑ	\$350.00	-\$100.00	2	1	3	0	0	1	2	1	1	2	0
3	SIGNAGE BRACKET (ON EXISTING LIGHT)	EA	\$1,400.00	\$200.00	2	1	3	0	0	1	2	1	1	2	0
4	VICTORIAN BENCHES	EΑ	\$1,500.00	-\$500.00	1	1	1	0	1	1	0	0	Ő	0	0
5	WAYFINDING PILLAR	EA	\$1,500.00	-\$650.00	4	1	4	1	1	1	1	2	2	3	0
6	HISTORIC STREET LIGHTS	EA	\$7,000.00	-\$4,500.00	10	0	6	8	7	1	0	13	12	0	3
7	KIOSK	EA	\$5,000.00	N/A	0	1	0	0	0	0	0	1	0	0	0
8	NEW SIDEWALK	SY	\$105.00	N/A	0	0	0	0	0	0	0	0	0	0	470
9	CURB RAMP	EA	\$1,500,00	N/A	0	0	0	0	O	0	0	0	4	0	0
10	PEDESTRIAN SIGNAGE (STAND ALONE)	EA	\$350.00	-\$100.00	0	0	0	- 0	1	0	0	1	1	0	, 0
11	PEDESTRIAN SIGNAGE (ON NEW LIGHT)	EA	\$350.00	-\$100.00	2	0	0	1	0	0	0	_ 2	2	0	1
12	SIGNAGE BRACKET (ON NEW LIGHT)	EA	\$1,400.00	\$200.00	2	0	0	1	0	0	0	2	2	0	1
13	DECORATIVE CROSSWALK	SF	\$18.00	N/A	1850	400	1420	0	300	0	2090	725	750	1250	0
14	COURTYARD / PLAZA	LS	\$20,000.00	N/A	0	1	0	0	0	0 .	0	0	0	0	0
÷							_								
ļ				<u> </u>											
L	TOTAL COST (PUBLIC BID)		\$744,780.00		\$118,100.00	\$37,850.00	\$81,360.00	\$59,250.00	\$58,200.00	\$12,500.00	\$43,670.00		\$112,400.00		\$72,100.00
*	LABOR COST (SAVINGS)		(286,700.00)		(47,850.00)	(1,500.00)	(30,325.00)	(36,550.00)	(32,975.00)	(5,925.00)	(975.00)		(55,250.00)		(13,400.00)
	TOTAL COST (INSTALLATION BY BOROUGH)		\$458,080.00		\$70,250.00	\$36,350.00	\$51,035.00	\$22,700.00	\$25,225.00	\$6,575.00	\$42,695.00	\$58,350.00	\$57,150.00	\$29,050.00	\$58,700,00

TOTAL	TOTAL COS
QUANTITY	(PUBLIC BIL
40	\$6,000.0
13	\$4,550.0
13	\$18,200.0
5	\$7,500.0
20	\$30,000.0
60	\$420,000.0
2	\$10,000.0
470	\$49,350.0
4	\$6,000.0
3	\$1,050.0
8	\$2,800.0
8	\$11,200.0
8785	\$158,130.0
1	\$20,000.0

¹⁾ SIGNAGE BRACKET COSTS INCLUDE A \$12,000 TOOLING COST DIVIDED INTO THE TOTAL QUANTITY OF PROPOSED BRACKETS. THE TOOLING COST IS TO CREATE THE MOLD FOR THE CUSTOM BRACKET.

2) WAYFINDING PILLAR COSTS INCLUDE A \$6,000 TOOLING COSTS DIVIDED INTO THE TOTAL QUANTITY OF PROPOSED PILLARS. THE TOOLING COST IS TO CREATE THE MOLD FOR THE CUSTOM PILLARS.

3) CROSS WALK QUANTITIES ASSUME A 5' WIDTH