

# Bethlehem Pike Streetscape Master Plan



Prepared for Springfield Township

October 2008

By

Michael Baker Jr., Inc.

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## Introduction:

Springfield Township commissioned this Streetscape Master plan to further advance the concepts developed in the “Flourtown Erdenheim Vision Plan.” Bethlehem Pike between Gordon Lane and West Valley Green Road includes an interesting mix of many public and private uses, historic structures, shopping destinations and other businesses. The Villages of Flourtown and Erdenheim include two central business districts where a majority of the commercial activity takes place. However, there is little continuity of streetscape elements that one can associate with these two Villages. With the planning and construction of streetscape improvements within this corridor, the hope is to make “places” that people associate with the heart of Flourtown and Erdenheim.

The goals of this corridor master plan are as follows:

- Create a unified identity and sense of place in Flourtown and Erdenheim Villages.
- Improve the streetscape and public spaces to encourage pedestrian activity and improve commercial vitality within the corridor.
- Install enhancements to improve pedestrian safety and comfort.
- Provide a general blue print for improvements along Bethlehem Pike as future public and private projects are developed.
- Provide a reference guide for standard details and specifications for future projects to achieve high quality materials and construction.
- Be a resource for future grant and funding opportunities.

Please note that the recommendations included in this plan are intended as a general guideline for the Township to follow as they see fit. The intent is to give the Township a general blueprint for improvements within the corridor. The improvements can be adjusted as necessary to meet the present and future needs of the Township and adjacent property owners. The goal is to incorporate consistent streetscape elements, colors, materials and design features to create a cohesive, positive image that the community and visitors will come to associate with the important historic areas of Erdenheim and Flourtown.

## General Recommendations:

The following are general guidelines for future improvements along Bethlehem Pike:

- 30" Cobble Stone Amenity Strip with 5' Minimum Sidewalk – A 2.5' wide cobble stone edge treatment will be applied on both sides of the street throughout the corridor. This will identify the corridor has a unique area that is different from other areas along Bethlehem Pike. This treatment will help establish the historic nature and atmosphere of these communities. The five foot sidewalk will allow for two individuals to walk comfortably side by side. A sample photo of this material is shown.
- Street Trees- Street trees with a 10' planting area should be installed at 100' spacing within the village areas and at 150' spacing in the areas outside the villages. The planting details are included in Appendix 2. The sidewalk for 5' in both direction of each tree should be reinforced to mitigate damage by tree roots. The following measures should be considered to improve the durability of the sidewalk in this 10' zone near trees: add welded wire fabric in the bottom third of the sidewalk, increase the sidewalk slab thickness from 4" to 6", install a 1.5' deep root barrier of geotextile material along the edge of sidewalk nearest the tree, and adding additional porous gravel under the sidewalk to discourage the penetration of roots.
- Pedestrian Scale Ornamental Street Lighting - Ornamental street lighting will be installed at 100' spacing in the village areas and 150' spacing outside the villages. Prior to the start of this study, the Township had selected a Sun Valley light pole and luminaire to be used throughout the corridor. Several of these lights have already been installed on various commercial properties. The lights will help create an architectural edge to the streetscape and be a repetitive element that can reinforce the historic feel of Flourtown and Erdenheim. We recommend a light pole height of 11' (plus the fixture) to help create a pedestrian scale to the villages. Refer to Appendix 2 for the specifications.
- Consolidate, reduce size or relocate Driveways – Where possible, consider consolidating or closing driveways on properties with multiple driveways. If properties have large driveway openings, consider reducing the opening to the appropriate size for the current use of the property. Access points such as driveways create conflict points, reduce safety and reduce the capacity and efficiency of the roadway. They also reduce

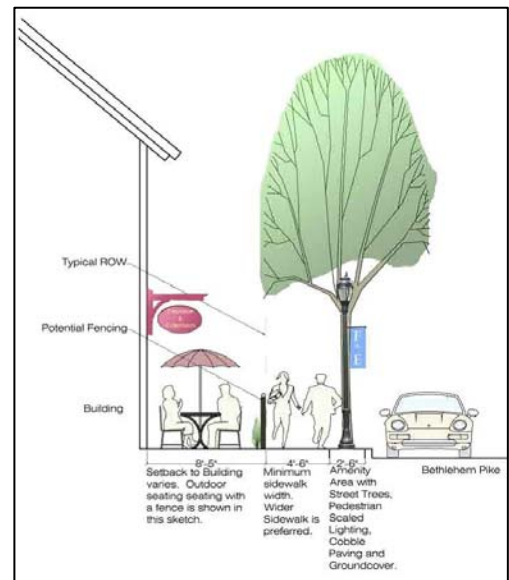




the available room for on-street parking. If driveways cannot be consolidated, consideration should be given to relocating the driveways to side streets if available. Recommendations for appropriate driveway sizes are included in the PennDOT Highway Occupancy Manual and the Township Ordinances.

- Shared Parking and Shared Driveways – To minimize the amount of impervious cover in the area as well as reduce the number of driveways on the Pike, shared parking and shared driveways between adjoining properties should be encouraged.
- Parking lot Landscape Improvements – Depressed landscape islands should be considered in future parking area installations or modifications. These stormwater best management practices will encourage infiltration and filtering of runoff.
- Rear Parking and Rear Access – Rear parking contributes to the “Main Street” atmosphere of a village and allows the buildings to be in the preferred location at the back of the sidewalk. Alley ways can be constructed to give access to the rear parking areas and can consolidate access points between multiple properties.

- Place front of buildings at the back of sidewalk in the Commercial Core of each Village - Placing buildings at this location creates the “Main Street” atmosphere that most people find attractive in commercial village communities. Having buildings abutting the street and sidewalk contributes to a community that is developed at the pedestrian scale versus automobile scale. It creates an architectural edge to the streetscape and public space. It also creates a more vibrant and interesting street environment that causes motorists to slow down and take notice of the area. This allows for the commercial signage to be at a more pedestrian scale on the store fronts. This building configuration also lends itself to terrace seating and garden frontage along the sidewalk. Refer to Appendix 1 for schematics of this configuration.



- Provide hedge rows and/or landscape walls in front of parking lots – These features create an architectural edge to the streetscape as well as mitigate the view of vehicles and asphalt parking areas. Walls and hedges can be used in combination to create variety along the roadway. The walls should use a grey colored, stone pattern to

emulate the Wissahickon Schist stone used in many of the walls and homes along the Pike.

- Decorative Traffic Signal Poles and Flashing Warning Sign Poles- Decorative traffic signal poles have been recommended to the Township for installation as part their on-going Signal upgrade project. All the signalized intersections in the corridor should utilize these poles to reinforce the historic theme of the corridor. The existing school zone signs and flashing warning signs should also be replaced within the corridor. Specifications for the recommended decorative signal pole are included in Appendix 2.



- Decorative Parking Meter covers – If parking meters are installed in the future, black meter heads and decorative meter pole covers should be used.
- Relocate utilities underground or to rear of properties – To enhance the general appearance of the streetscape, the relocation of utilities to the rear of each property or to be placed underground is recommended.
- Banner Poles – The Township has requested the future installation of decorative poles near the Black Horse Inn to be used for the display of community banners. The poles would match the appearance of the Sun Valley Pedestrian scale lighting that is being installed along the corridor.
- Interpretive Signing and Self Guided Walking Tour – A system of interpretive signs could be installed to better identify historic structures like the Black Horse Inn and provide the opportunity for the general public to gain a sense of the historic nature of Flourtown and Erdenheim. With a number of these signs in place and a simple map, a self guided walking tour could be created as healthy and educational activity within the community.
- Primary Gateways – The Township has acquired grants and completed the design of the three primary gateways to this Corridor. They are located on Bethlehem Pike south of



Gordon Lane, on Bethlehem Pike at Valley Green Road and at the intersection of Penn Oak Road and East Mill Road. The Gateways are scheduled to be constructed in the summer of 2009.



- Secondary Gateways –Smaller secondary gateways are planned at a number of side roads as you approach Bethlehem Pike. These gateways could include way finding and destination signage to direct you to local businesses and activities in the area.
- SEPTA Bus Stops – Several SEPTA bus stops are located on each side of the roadway on Bethlehem Pike. Additional seating should be considered near these transits stops. Transit maps, schedules and/or local maps can also be added at these locations. Pole mounted maps could be an inexpensive option to provide relevant information to transit users. Other amenities such as trash cans and ornamental lights could also be added to these locations. In the future when the lane configurations on Bethlehem Pike are completed, bus pull offs should be considered. Routing buses within the shopping centers should also be evaluated.
- Pocket Parks – These small sitting areas have been proposed at the Black Horse Inn, the Farmer’s Market and the future entrance to the Green Ribbon Trail near Mill Road. Conceptual sketches for the Farmer’s Market and the Green Ribbon Trail are included in Appendix 2.





- Bike Racks –In ground, inverted “u” style bike racks should be placed near businesses and other uses throughout the village centers to encourage bicycle use. With the nearby trails and parks, bicyclists will often come to the villages for food and other services. We suggest that these be powder coated black to match the other street furniture. The racks can be placed near the front doors of the businesses and in the cobblestone amenity strip. A construction detail for the bike loop is included with the plans in Appendix 1.

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- Stamped Asphalt Crosswalks – Textured and colorized asphalt treatments should be utilized in the crosswalks within the commercial section of the villages to enhance pedestrian safety and to emphasize to motorists that pedestrians will be more frequent in this area. This treatment will also contribute to traffic calming.



- Sign Posts/Street Name signs – To further enhance the aesthetics of the corridor, the existing galvanized, steel sign posts could be powder coated black or replaced with custom posts with finials as shown in this photo. More customized street name signs could also be installed.





### Specific Master Plan Recommendations for Erdenheim Village:

- Southern Gateway – The Township has completed design of this area and the proposed design from Gilmore and Associates is included in the detailed plan sheets in Appendix 1.
- Start ornamental light poles, street tree installation at the proposed Gateway at station 14+00. Place lights and trees at 100' spacing between the Gateway and Yeakel Avenue.
- In the core business area between Gordon Lane and Windsor Road, install 10-20' sidewalks with 30" cobble stone amenity strip as properties are re-developed or have major improvements. This treatment will be used on both sides of the street. This wide sidewalk area will allow for more outdoor seating, outdoor display of merchandise, street furniture and overall improved pedestrian atmosphere while maintaining a 5' walkway for other pedestrians. This is similar to the existing conditions in front of the Fairlane Grill and Morano Brothers Automotive which has approximately 20' wide sidewalk.
- If existing buildings remain at the rear of the properties, a minimum of 5' wide sidewalks with 30" cobble stone amenity strip should be installed throughout the village.
- Stamped asphalt crosswalks are recommended at Gordan Lane, Brookside Road and Windsor Road to add to the stamped asphalt crosswalks that will be installed at Montgomery Avenue.
- Bridge Improvements – At some point in the future, PennDOT will require the replacement of the small bridge located at station 18+75. We recommend that pillars and stone form liners be used to simulate a traditional stone structure. The stone should be stained to resemble real, local stone. The pillars will match the appearance of the milestones at the southern gateway. The structure should include 7.5' wide or larger sidewalks including the 30" cobble stone amenity strip on both sides to match the rest of the corridor.
- Consider closing the second driveway at station 20+50 (Rittenhouse Lumber) – Due to close proximity of the driveway for the Lukoil and that existing connection between the



parking areas for the Lumber yard and the Lukoil, this second driveway could be considered for removal. The elimination of the driveway will also allow for a hedge row or landscape wall to be install at this location.

- Add raised island at Lukoil to divide the public space of the sidewalk from the private space of the fuel pumps. This will also create a measure of safety for pedestrians in this area.
- Install Ornamental Signal Poles at Montgomery Avenue intersection. Replace flashing warning signs with ornamental poles on either side of Gordon Lane.



Specific Master Plan Recommendations for Flourtown Village:

- Pocket Park at Black Horse Inn –A small park has been designed in conjunction with the restoration of the Black Horse Inn.
- Start ornamental light poles and street tree installation at Wissahickon Avenue. Place lights and trees at 100’ spacing between the Wissahickon Avenue and Valley Green Road.
- Install Ornamental Traffic Signal Poles at Wissahickon Avenue, College Ave/Bysher Ave, Mill Road, Flourtown Shopping Center and West Valley Green Road intersections.
- Raised Island at Sunoco (station 74+00 left side). Add a raised island, with 6” cobble stone curbs at this gas station to divide the public space of the sidewalk from the private space of the fuel pumps. This will also create a measure of safety for pedestrians in this area.

- Consolidate driveway at Wawa (station 76+40 left side). – Due to close proximity of the driveway for Halligan’s Pub and the fact that Wawa has a two-way driveway nearby as well as driveway on the side street, this second driveway (below arrow in photo) could be considered for removal. The removal would also allow for a hedge row or landscape wall to be install at this location.



- Improve hedges at Walgreens parking lot (station 67+00 right side).
- Improve hedges at Acme parking lot (station 76+00 right side).

- Add benches at Fire Co. building (station 73+50). See photo.
- Improve lights on exterior of Halligan’s Pub (station 77+50 left side) to better match the ornamental street lights.



- Potential Pocket Park at entrance to the Green Ribbon Trail (station 81+00 left side) - This pocket park will serve as an entry way, gathering place and rest area for the future connection of the County’s Lower Wissahickon Green Ribbon Trail to Bethlehem Pike as well as provide a easy connection to the Mill Road Picnic area. A trail map kiosk, benches, bike racks, landscaping and other amenities are envisioned at this location. Information on local restaurants and other services could be provided at the kiosk which will have a positive impact on commercial activities in Flourtown. This location will provide excellent

exposure of the Green Ribbon Trail to vehicle and pedestrian pass-by traffic on Bethlehem Pike further drawing trail users to this recreational facility.

- Rear Access near Bank of America (station 87+00 to 90+00 left side) – Create a future two way roadway between Flourtown Commons and the traffic signal at the Flourtown Shopping Center. Currently, the roadway is one way out to the signal from Flourtown Commons. An aerial photo showing the general concept for the two way roadway which includes two new rear driveway connections to the proposed roadway is included in Appendix 2.

The proposed two way roadway has the following benefits:

- Remove left turns out from Flourtown Commons, Dunkin Donuts and Avant Apres on to Bethlehem Pike. (Relocate the left turns to the signalized intersection)
- This will enhance safety on Bethlehem Pike.
- This will also provide an additional access point to Flourtown Commons from Bethlehem Pike.
- Bridge treatment with lights, 7.5' sidewalk with 2.5 cobble stone strip (station 93+00 right and left) – As indicated previously, PennDOT will require the replacement of the bridge located at station 93+00 at some point in the future. We recommend that pillars and stone form liners be used to simulate a traditional stone structure. The pillars will be similar in appearance to those used at the primary gateways. The pillars could also include the ornamental light fixture that is being used throughout the corridor. The structure should include 7.5' wide or larger sidewalks including the 30" cobble stone amenity strip on both sides to match the rest of the corridor.
- Add 5' sidewalk and hedge at Jiffy lube (station 94+00 to 95+00 right).
- Add 5' sidewalk and hedge at Magarity Chevrolet (station 94+00 to 97+00 left side).
- Gateway treatment at West Valley Green Road - The Township has completed design of this area and the proposed design from Gilmore and Associates is included in the detailed plan sheets in Appendix 1.

#### Residential/Business Areas outside the Villages:

The following improvements are recommended along both sides of Bethlehem Pike outside the core commercial areas:

- Street trees and ornamental lights 150' on center
- 5' sidewalk with 2.5' cobble stone amenity strip on both sides of the roadway
- Install Ornamental Traffic Signal Poles at Haws Lane and replace all flashing warning signs with ornamental poles.
- Bridge Improvements – At some point in the future, PennDOT will require the replacement of the small bridge located at station 44+00 just south of Haws Lane. We recommend that pillars and stone form liners be used to simulate a traditional stone structure. The pillars will match the appearance of the milestones at the southern gateway. The structure should include 7.5' wide or larger sidewalks including the 30" cobble stone amenity strip on both sides to match the rest of the corridor.

### Construction Phasing and Preliminary Cost Estimates

The implementation of the improvements proposed in this master plan will take a significant amount of funding and will most likely need to be constructed in a phased manner. We have developed the following construction phases based on priority. We have prioritized the improvements in the village commercial sections of Flourtown and Erdenheim first with areas outside the villages to be completed in later phases. We have also developed preliminary cost estimates for the development of each phase which include the physical construction costs as well as engineering costs. The detailed cost estimates for each phase are included in Appendix 3. We have noted phases that already have funding allocated to them.

Phase #	Description	Preliminary Cost Estimate	Funded? (Source)
Phase 1	Flourtown – Erdenheim Gateways (SR 2018 Section MT3)	\$190,900	Yes (PennDOT)
Phase 2	Prominent intersections of Flourtown & Erdenheim (SR 2018 Section AYS)	\$800,000	Yes (PennDOT)
Phase 3	Wissahickon Ave to Springfield Ave	\$1,292,000	TBD
Phase 4	Springfield Ave to W. Valley Green Road	\$756,000	TBD
Phase 5	Southern Gateway to Rich Ave	\$887,000	TBD
Phase 6	Rich Ave to Wissahickon Ave	\$1,248,000	TBD
	Project Total	\$5,173,900	
	Project Total Unfunded	\$4,183,000	

The following assumptions were utilized in development of the cost estimate for each phase:

- The cost estimate for Phase one was provided by PennDOT.
- Full replacement of the 5’ concrete sidewalk up to the PennDOT right of way line. Installation of 30” cobble stone amenity strip on both sides of the road throughout the project area.
- No utility relocations are required. No right of way acquisition is required.

- 20% contingency factor to account for escalation of construction costs and unforeseen items.
- 10% construction inspection cost is assumed. Typically, PennDOT budgets 10-15% for inspection.
- Aesthetic improvements to the bridges will be completed as part of the replacement of the bridges at a future date. The cost for these treatments is not included in these estimates.
- The ornamental signal poles at Haws Lane, Wissahickon Avenue, College Ave, Bysher Avenue and Mill Road will be funded separately.
- Ornamental light poles on the Flourtown Shopping Center property (station 87+00 to 92+00 RT) will be provided by others and are not included in the cost estimate.






**Potential Funding Options:** Finding the funding for the design and construction of these types of projects can be a challenge, but the following is a list of possible funding sources for this project:

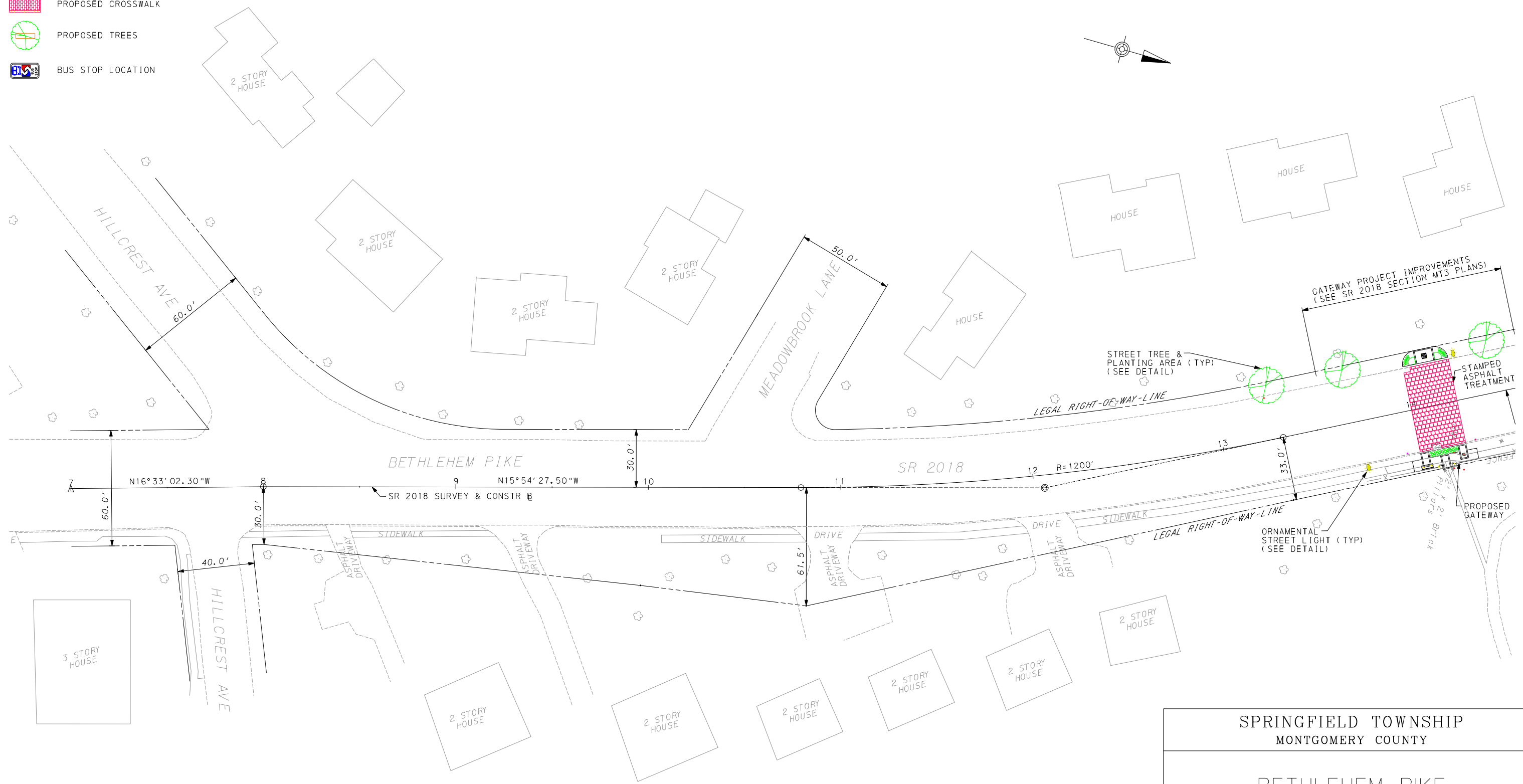
- PENNDOT – Transportation Enhancement Program
- PENNDOT – Safe Routes to Schools Program
- PENNDOT – Surface Transportation Program
- Robert Wood Johnson Foundation
- William Penn Foundation
- National Parks Service – Trails Assistance Program
- PA Department of Conservation and Natural Resources – Keystone Grant
- Dodge Foundation
- County and Township funds
- Private sponsorships, local fund raisers, etc.
- Montgomery County Open Space Fund



# Appendix 1 – Detailed Plans

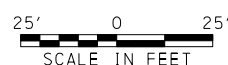


LEGEND:

-  PROPOSED STREET LIGHTING
-  PROPOSED CORNER TREATMENT (COBBLE)
-  PROPOSED CROSSWALK
-  PROPOSED TREES
-  BUS STOP LOCATION








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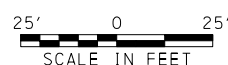
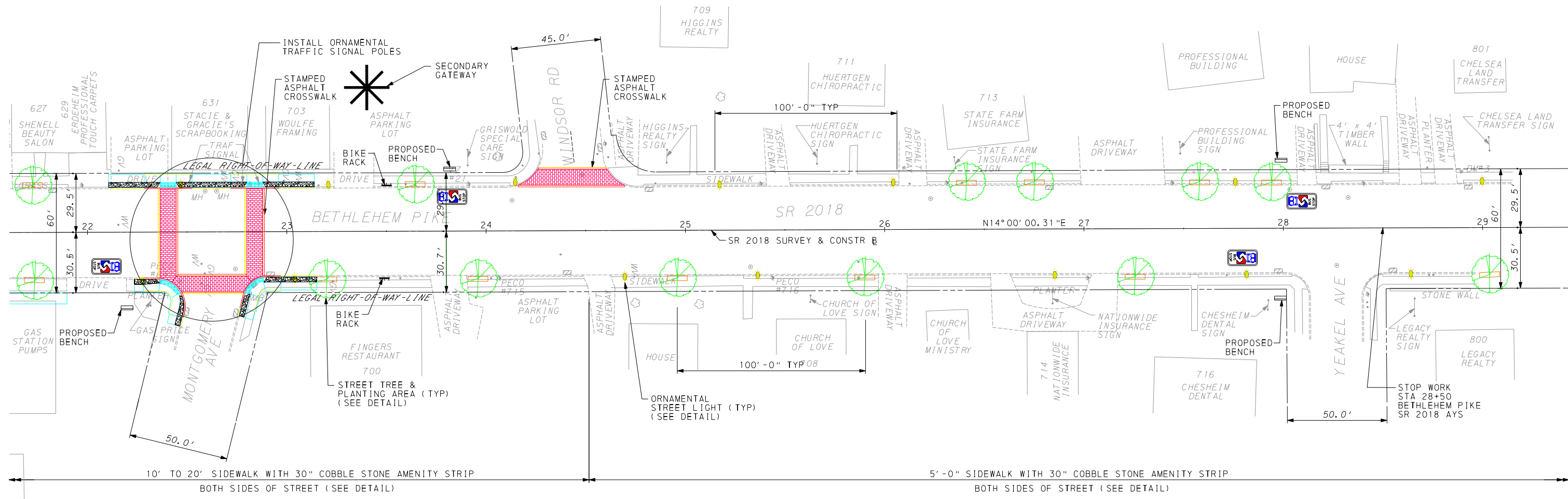
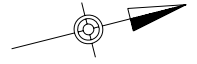




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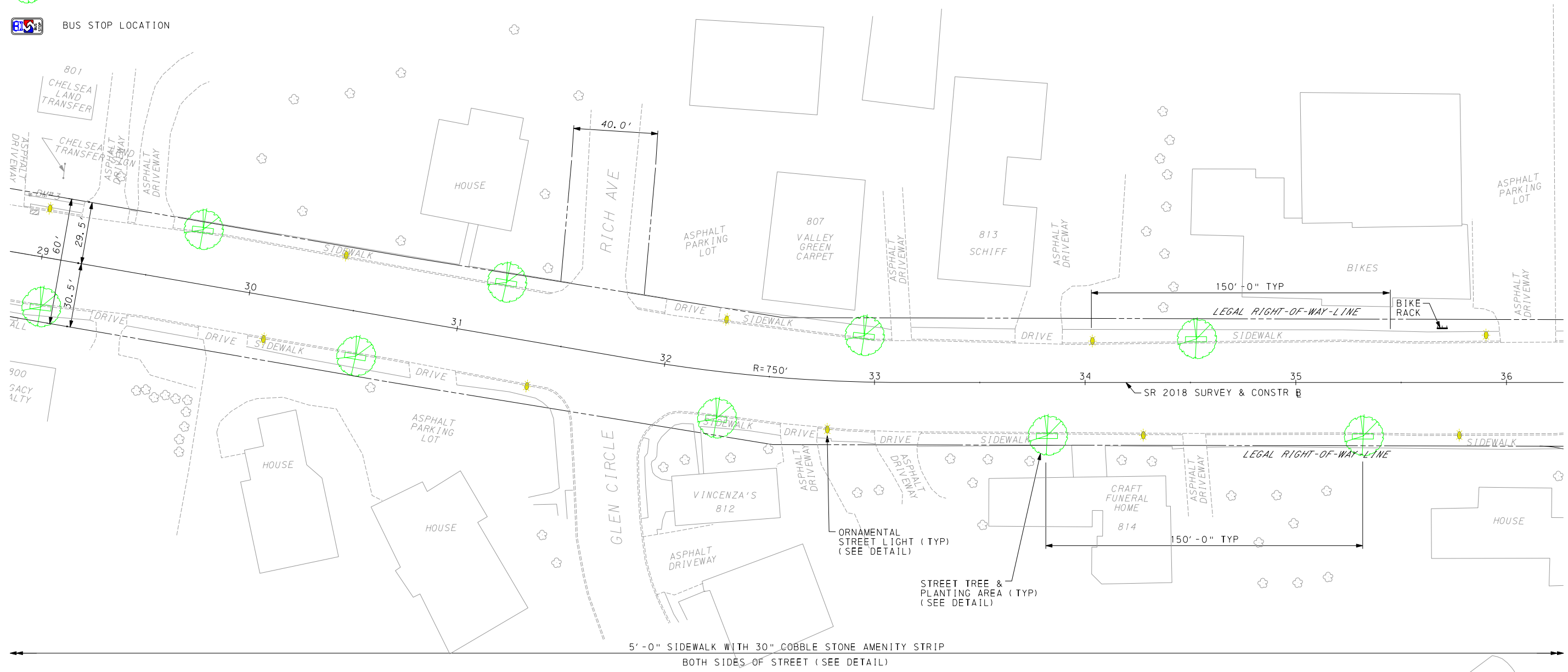
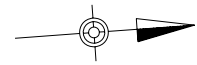
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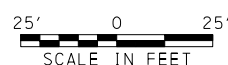
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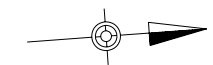
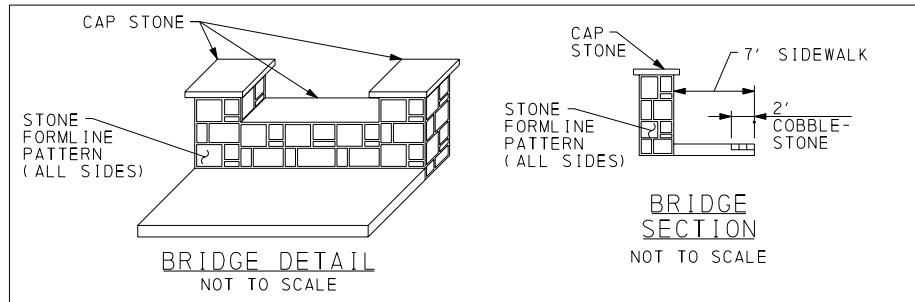
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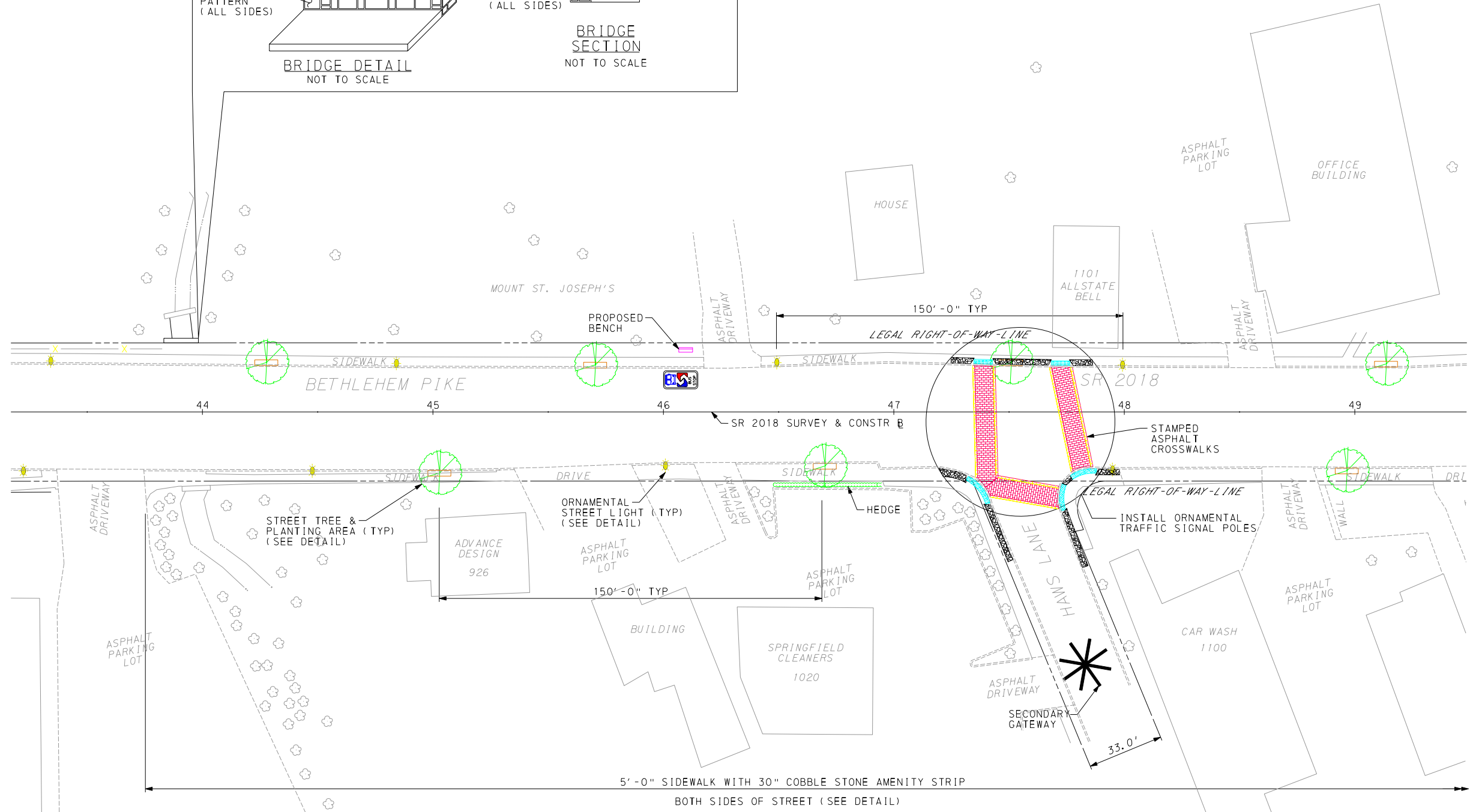
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SPRINGFIELD TOWNSHIP  
MONTGOMERY COUNTY

BETHLEHEM PIKE  
CORRIDOR

MASTER PLAN - 6

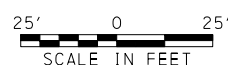
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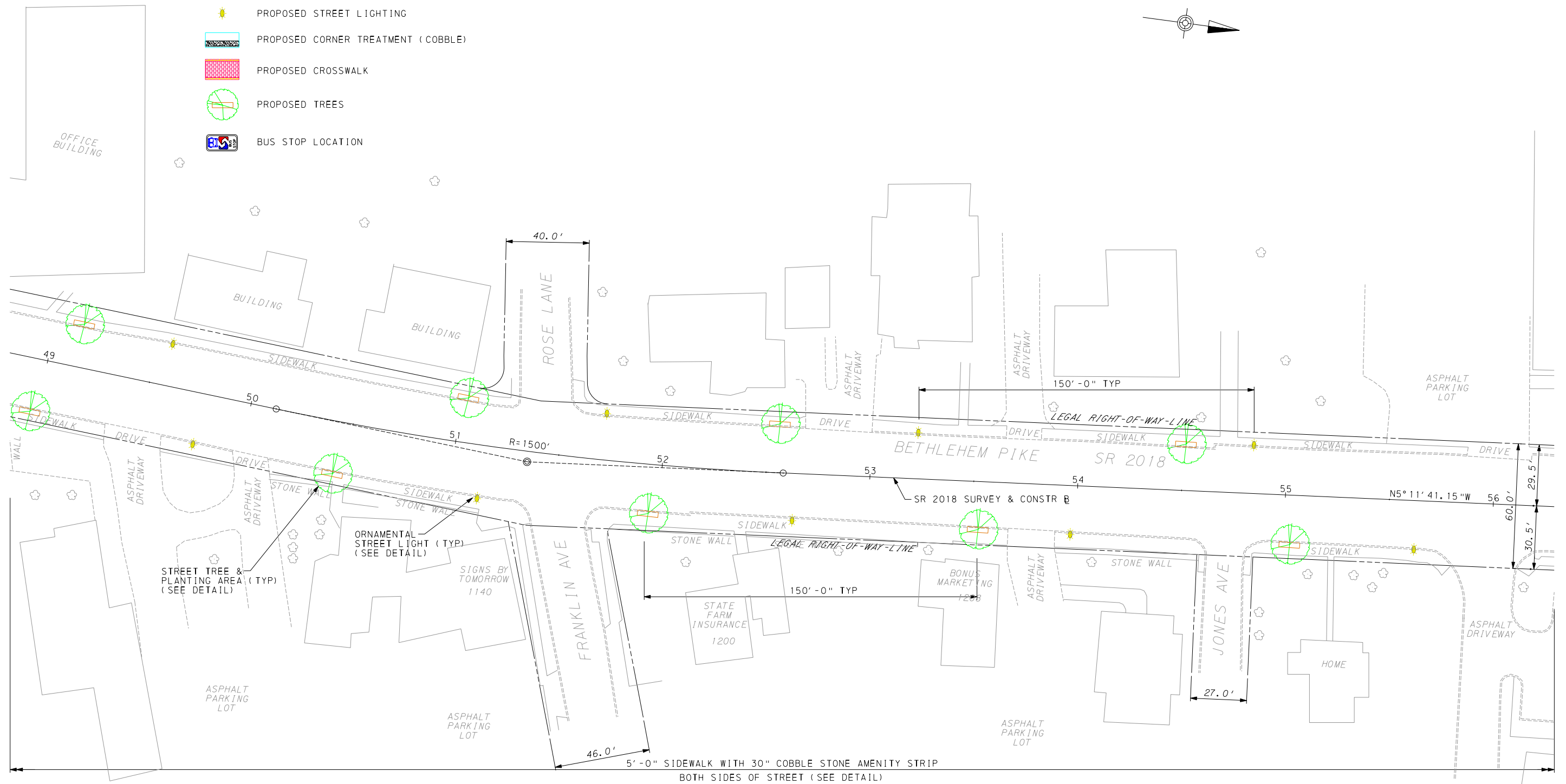
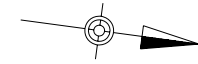




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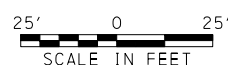


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





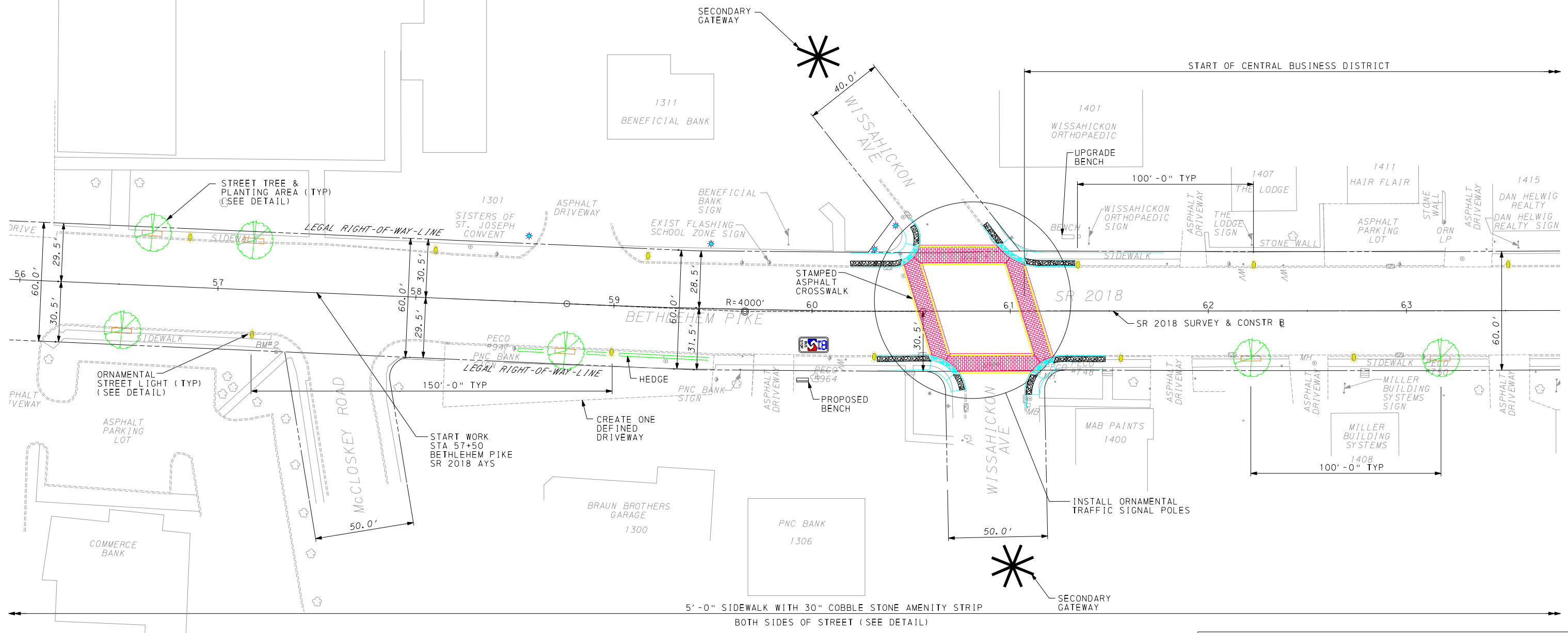
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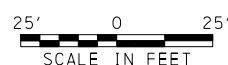
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





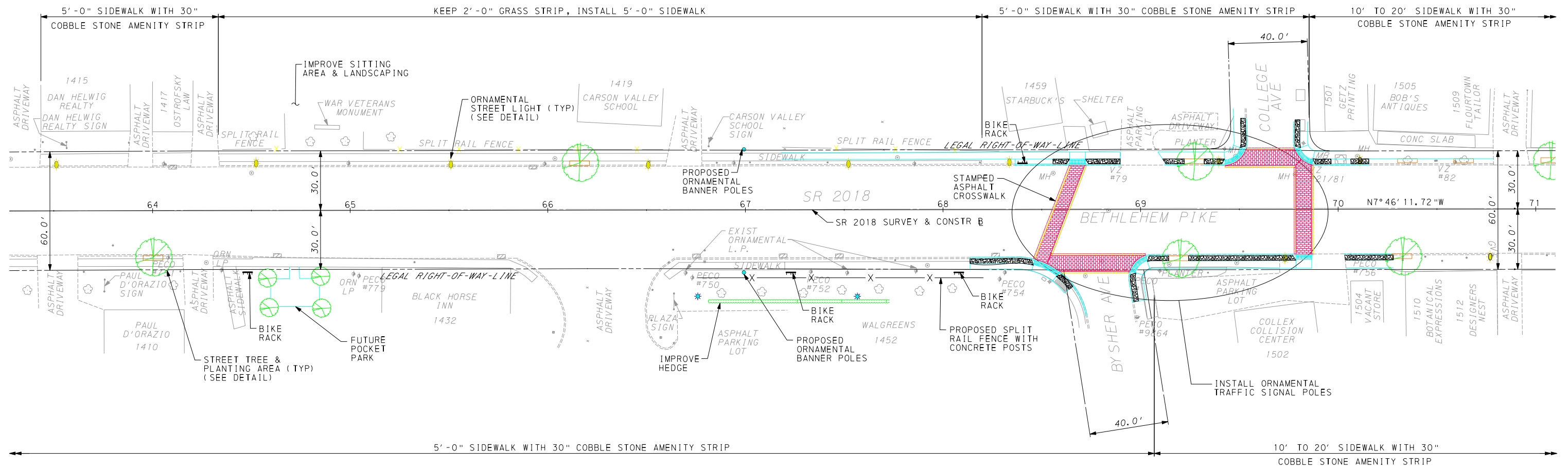
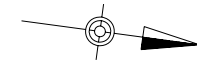
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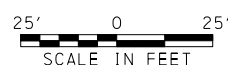
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**LEGEND:**

-  PROPOSED STREET LIGHTING
-  PROPOSED CORNER TREATMENT (COBBLE)
-  PROPOSED CROSSWALK
-  PROPOSED TREES
-  BUS STOP LOCATION








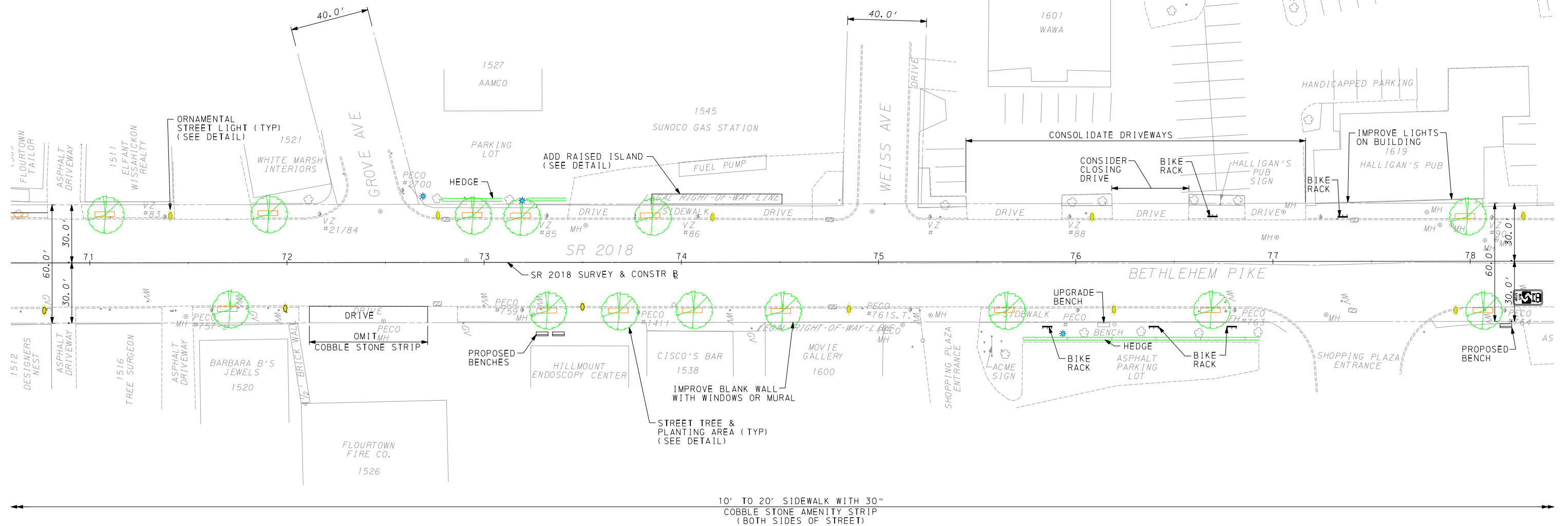
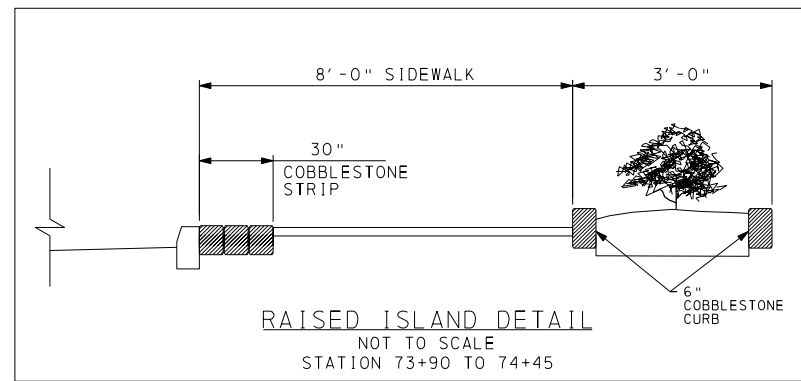
SPRINGFIELD TOWNSHIP MONTGOMERY COUNTY		
BETHLEHEM PIKE CORRIDOR		
MASTER PLAN - 9		
PLANS PREPARED BY <b>MICHAEL BAKER JR., INC.</b> HORSHAM, PENNSYLVANIA	DATE 10/14/08	SHEET 9 OF 16
		



\$\$\$ LABEL \$\$\$

LEGEND:

-  PROPOSED STREET LIGHTING
-  PROPOSED CORNER TREATMENT ( COBBLE)
-  PROPOSED CROSSWALK
-  PROPOSED TREES
-  BUS STOP LOCATION



SPRINGFIELD TOWNSHIP  
MONTGOMERY COUNTY

BETHLEHEM PIKE  
CORRIDOR

MASTER PLAN - 10

PLANS PREPARED BY  
MICHAEL BAKER JR., INC.  
HORSHAM, PENNSYLVANIA

Baker

DATE 10/14/08

SHEET 10 OF 16

CVDA








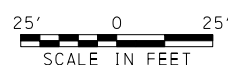
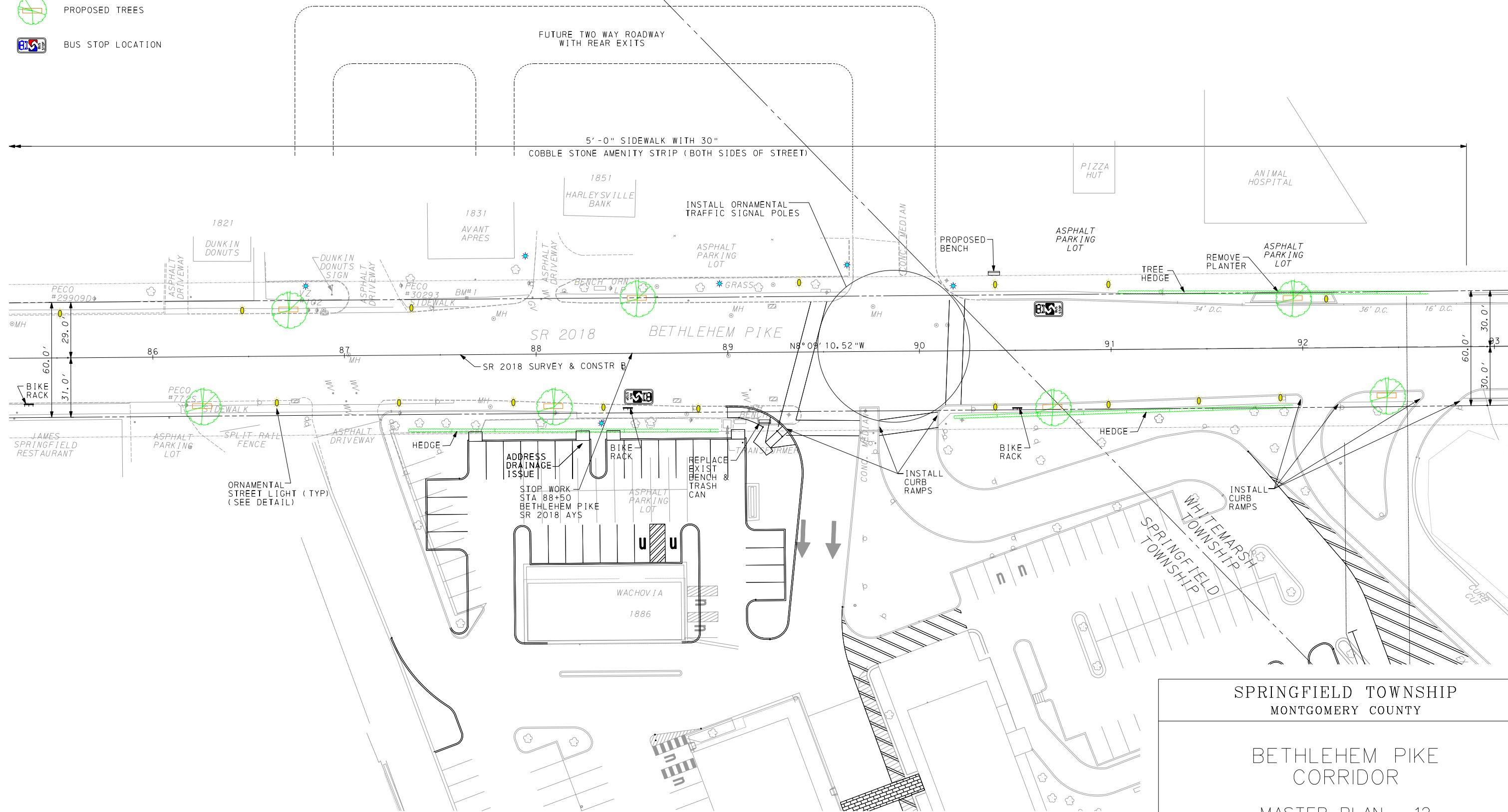
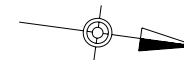
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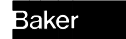
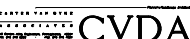




LEGEND:

-  PROPOSED STREET LIGHTING
-  PROPOSED CORNER TREATMENT (COBBLE)
-  PROPOSED CROSSWALK
-  PROPOSED TREES
-  BUS STOP LOCATION








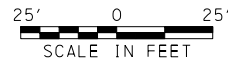
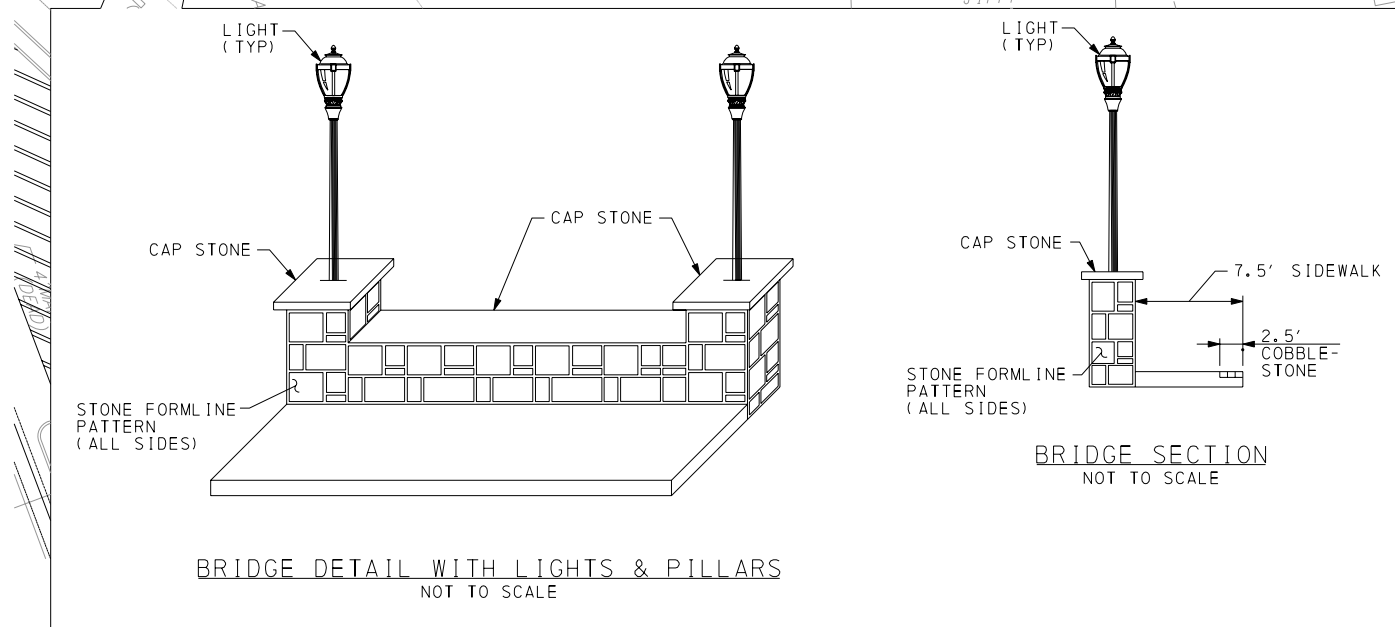
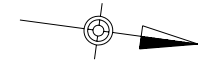
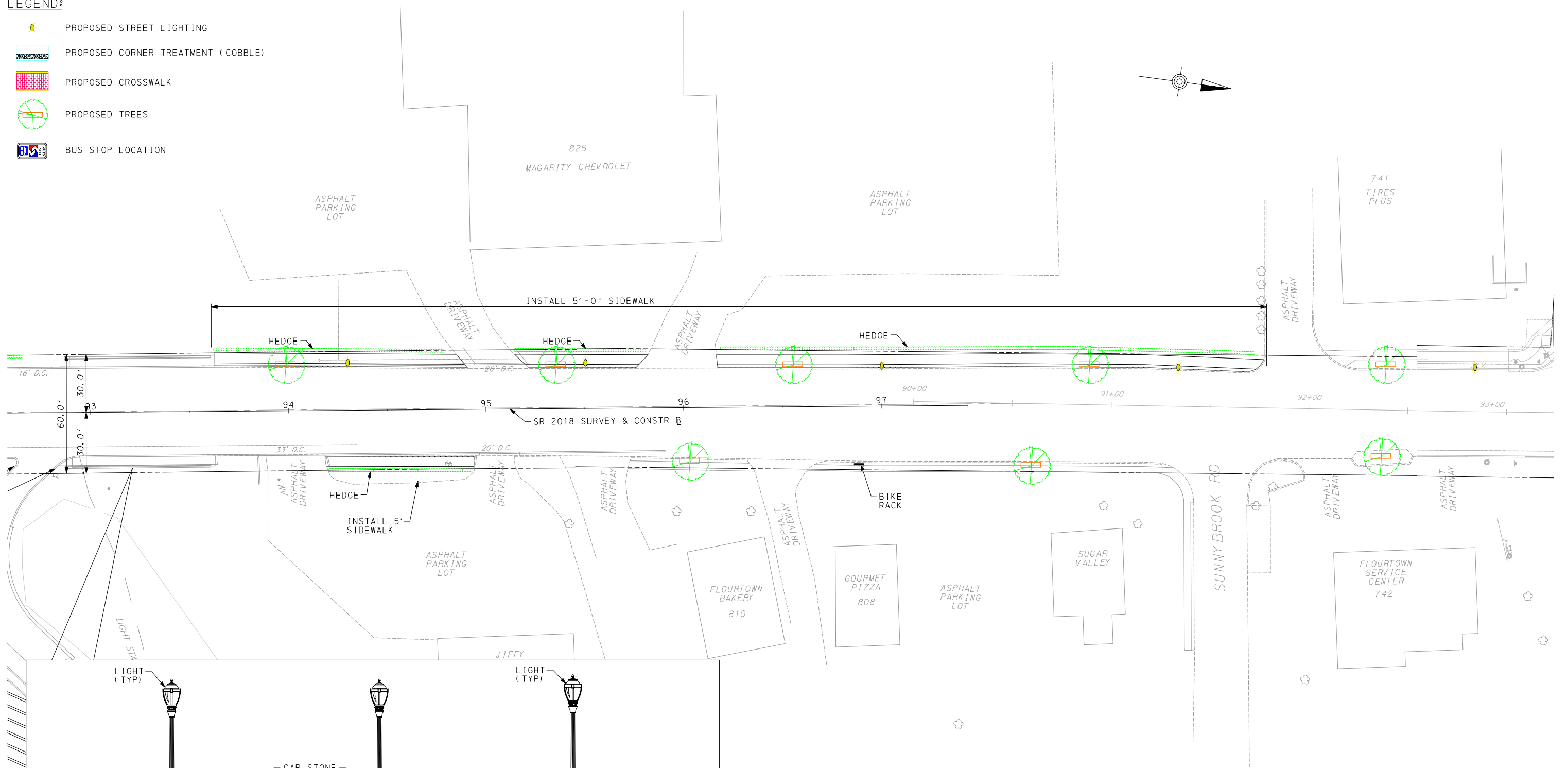
SPRINGFIELD TOWNSHIP MONTGOMERY COUNTY	
BETHLEHEM PIKE CORRIDOR	
MASTER PLAN - 12	
PLANS PREPARED BY <b>MICHAEL BAKER JR., INC.</b> HORSHAM, PENNSYLVANIA 	DATE 10/14/08 SHEET 12 OF 16 



\$\$\$ LABEL \$\$\$



LEGEND:






-  PROPOSED STREET LIGHTING
-  PROPOSED CORNER TREATMENT (COBBLE)
-  PROPOSED CROSSWALK
-  PROPOSED TREES
-  BUS STOP LOCATION

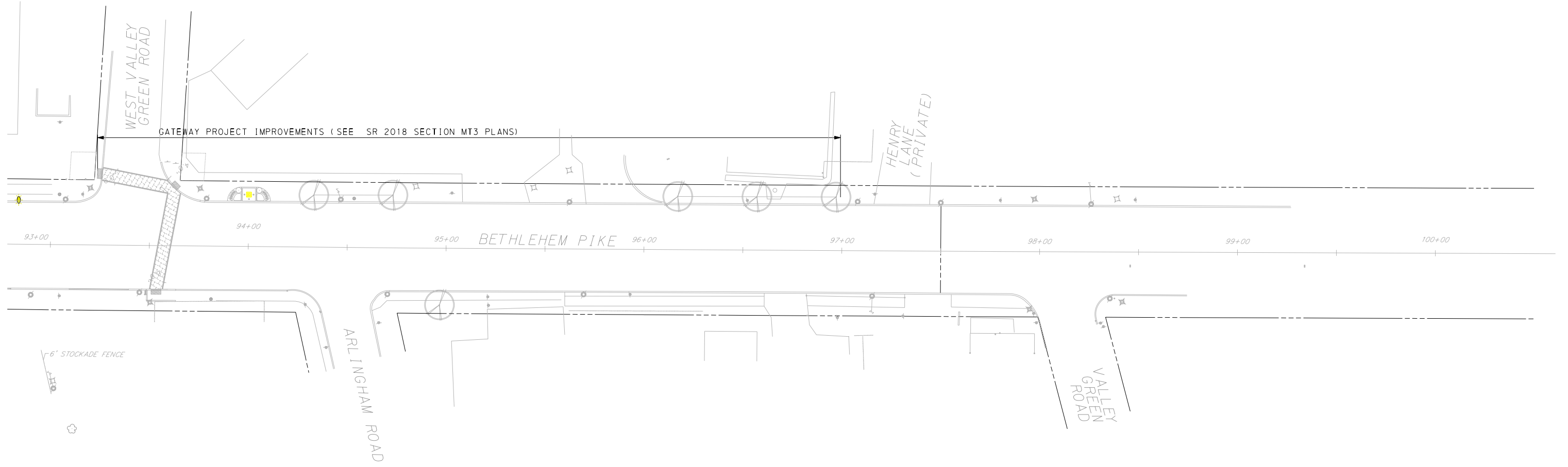


SPRINGFIELD TOWNSHIP MONTGOMERY COUNTY	
BETHLEHEM PIKE CORRIDOR	
MASTER PLAN - 13	
PLANS PREPARED BY <b>MICHAEL BAKER JR., INC.</b> HORSHAM, PENNSYLVANIA 	DATE 10/14/08 SHEET 13 OF 16 

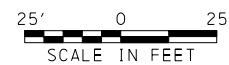
\$\$\$ LABEL \$\$\$

LEGEND:

-  PROPOSED STREET LIGHTING
-  PROPOSED CORNER TREATMENT ( COBBLE)
-  PROPOSED CROSSWALK
-  PROPOSED TREES
-  BUS STOP LOCATION



\$\$\$ LABEL \$\$\$



SPRINGFIELD TOWNSHIP  
MONTGOMERY COUNTY

BETHLEHEM PIKE  
CORRIDOR

MASTER PLAN - 14

PLANS PREPARED BY  
MICHAEL BAKER JR., INC.  
HORSHAM, PENNSYLVANIA

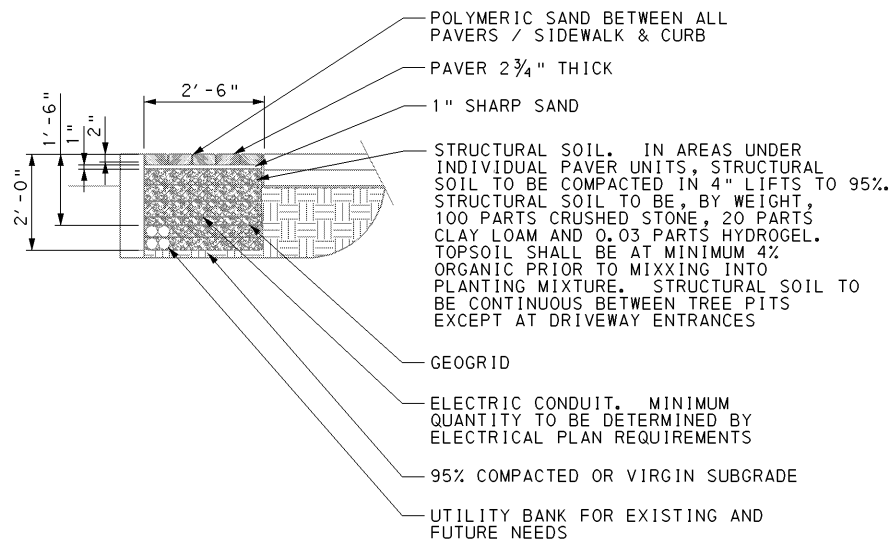
Baker

DATE 10/14/08

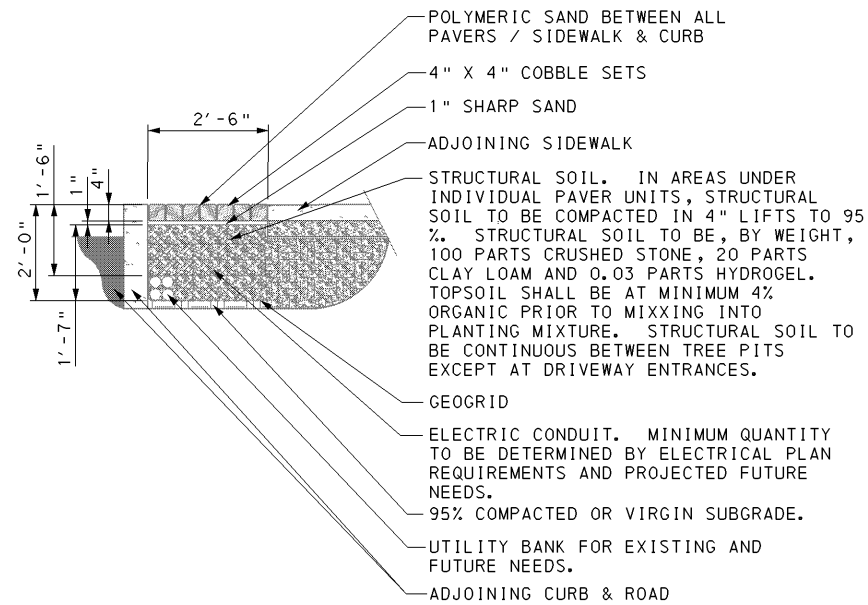
SHEET 14 OF 16

CVDA

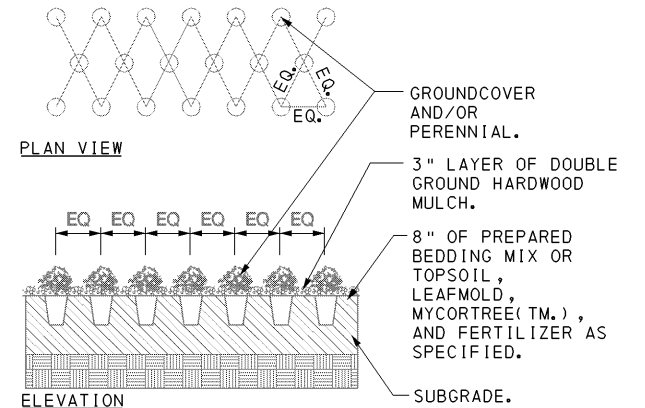
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**PAVERS STRUCTURAL SOIL**  
NOT TO SCALE

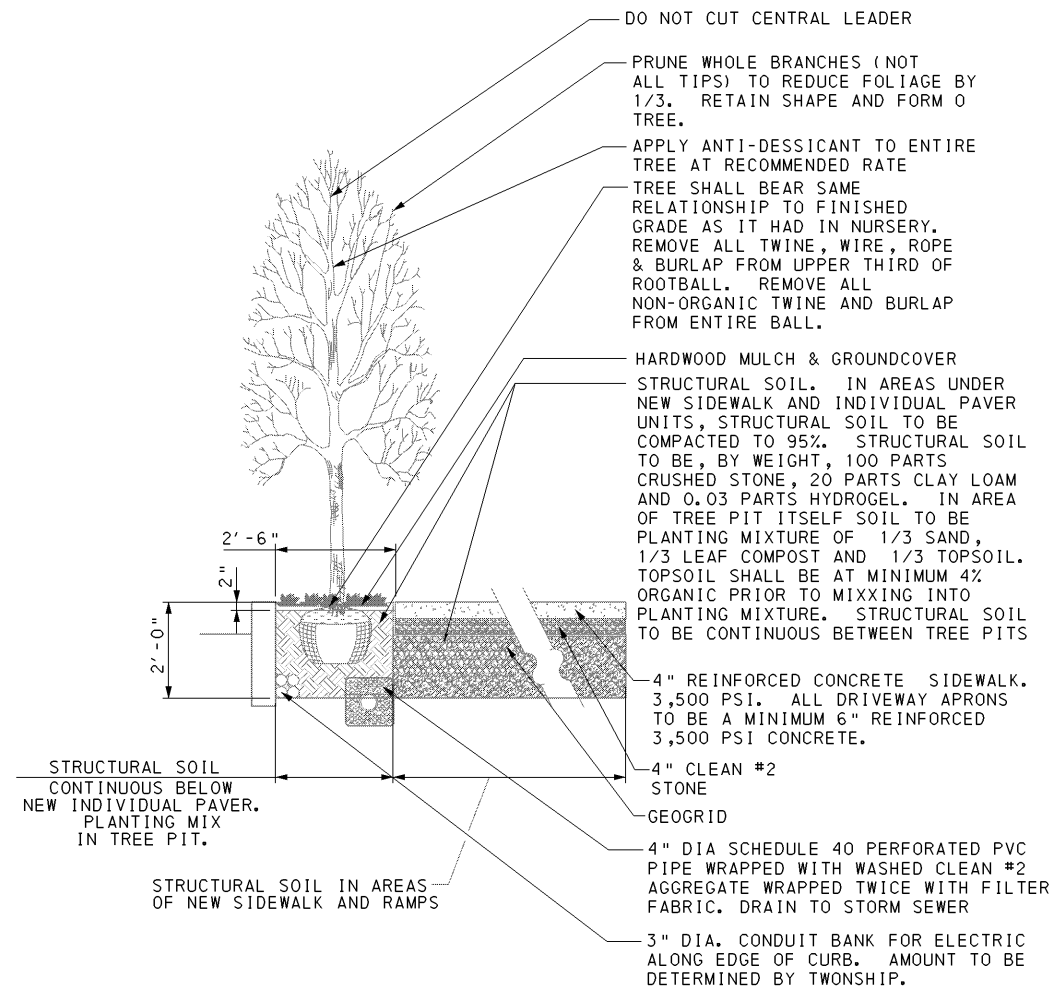


**COBBLES STRUCTURAL SOIL**  
NOT TO SCALE

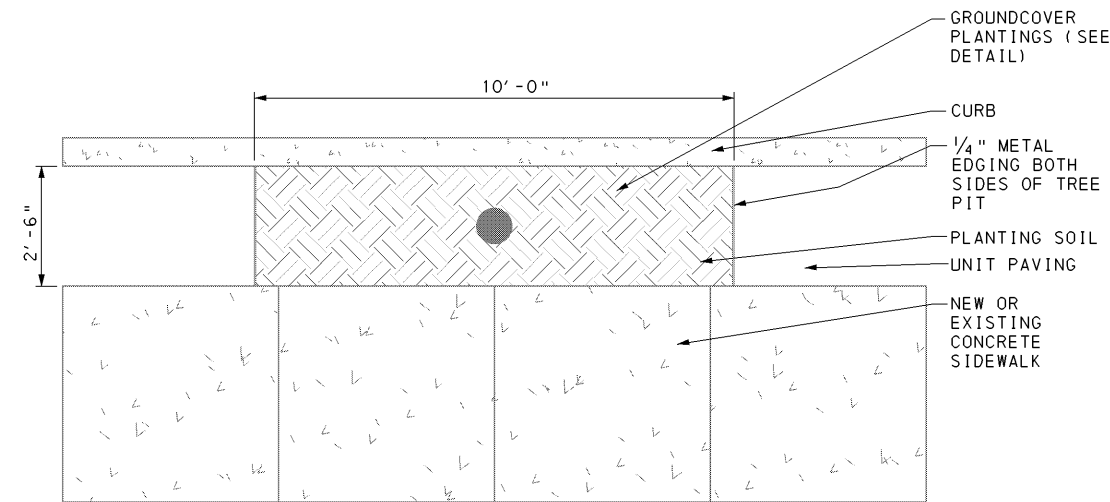


NOTE:  
\* PLANTS MUST BE PLANTED IN BEDDING MIX OR TOPSOIL NOT MULCH.  
\* ON-CENTER SPACING IS INDICATED ON PLANT LIST.

**PLANTING**  
NOT TO SCALE



**TREEPIT STRUCTURAL SOIL- ELEVATION**  
NOT TO SCALE



**TREEPIT STRUCTURAL SOIL- PLAN VIEW**  
NOT TO SCALE

**SPRINGFIELD TOWNSHIP**  
**MONTGOMERY COUNTY**

**BETHLEHEM PIKE**  
**CORRIDOR**  
**MASTER PLAN DETAILS - 1**

PLANS PREPARED BY  
**MICHAEL BAKER JR., INC.**  
HORSHAM, PENNSYLVANIA

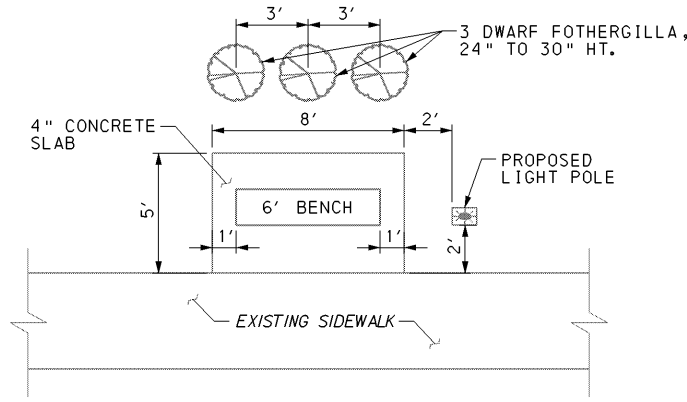
**Baker**

DATE 10/14/08

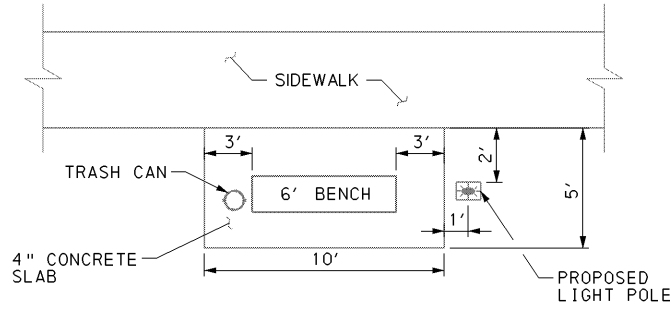
SHEET 15 OF 16

CVDA

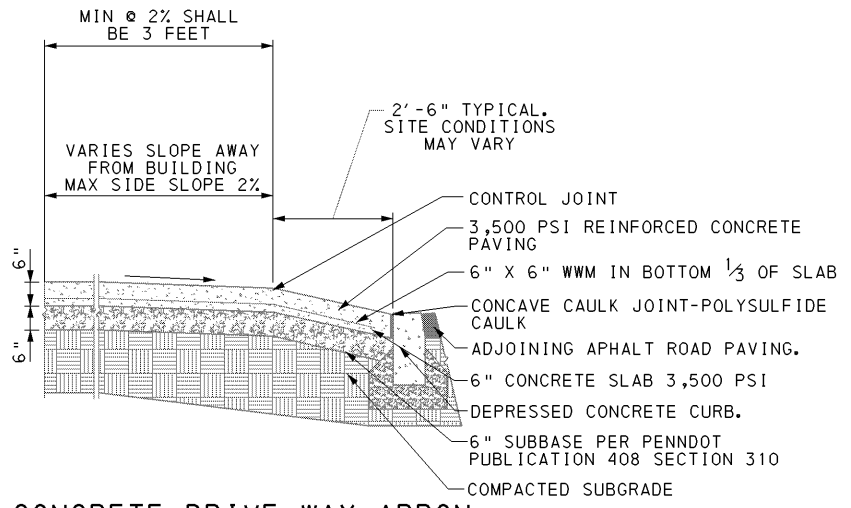
E:\BETH\_P\_KE\PIKE\DETAILS\MASTER\_DETAILS\_02.PRF 10/30/2008 E:\BETH\_P\_KE\PIKE\DETAILS\MASTER\_DETAILS\_02.DGN



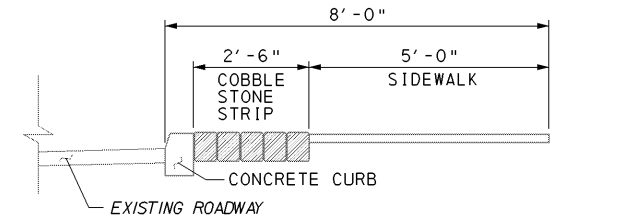
**PROPOSED BENCH AREA AT HARLEYSVILLE NATIONAL BANK**  
NOT TO SCALE



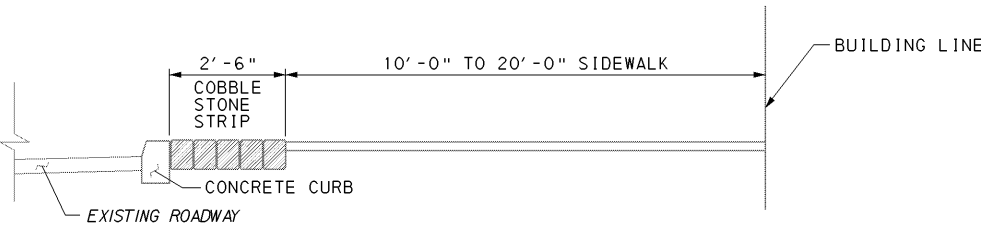
**PROPOSED BENCH AREA AT BANK OF AMERICA**  
NOT TO SCALE



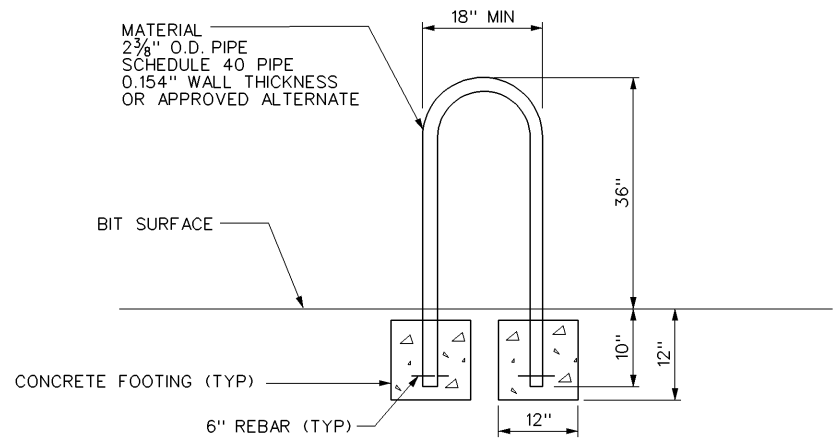
**CONCRETE DRIVE WAY APRON**  
NOT TO SCALE



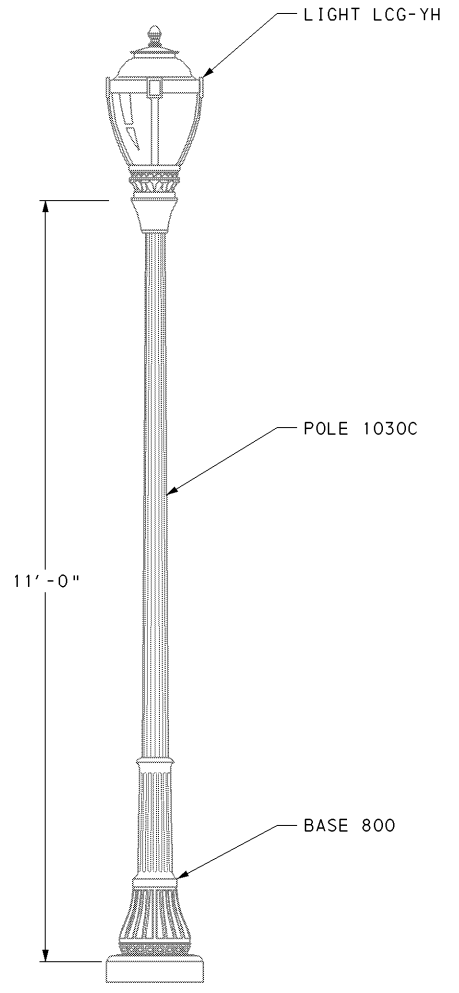
**5' SIDEWALK WITH 30" COBBLE STONE AMENITY STRIP**  
NOT TO SCALE



**10' TO 20' SIDEWALK WITH 30" COBBLE STONE AMENITY STRIP**  
NOT TO SCALE

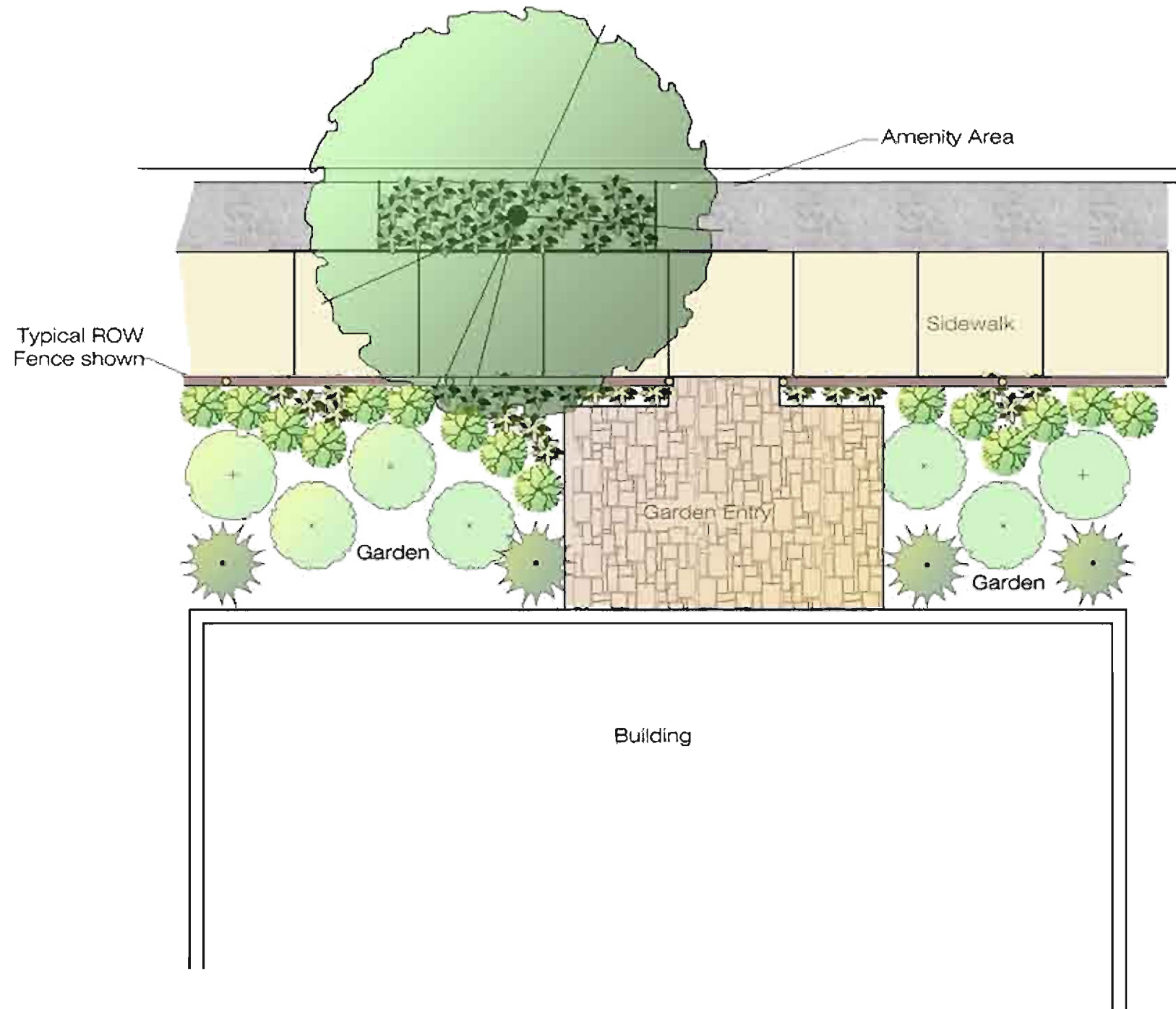
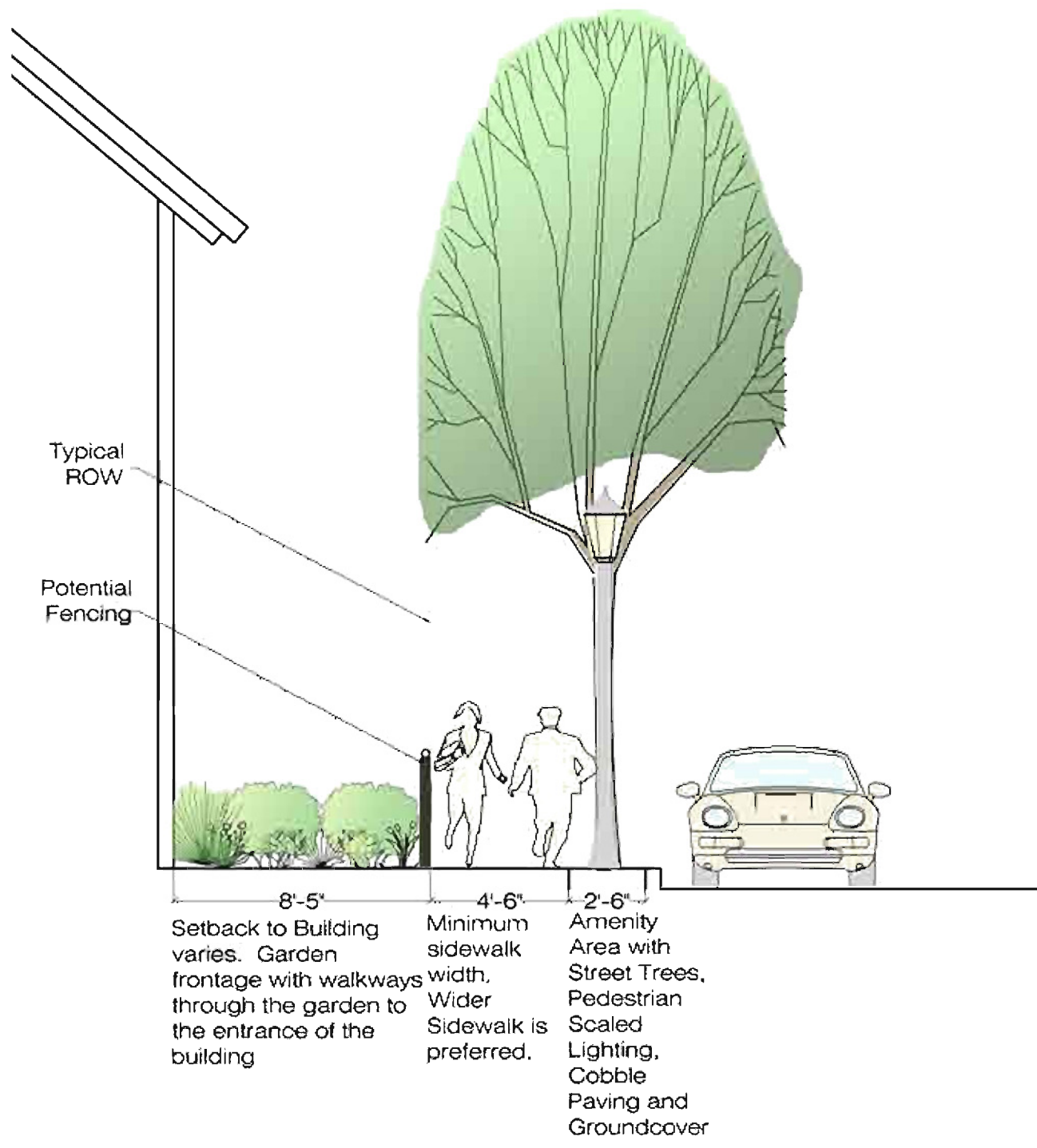


**BIKE RACK DETAIL (ITEM # 9999-1002)**  
NOT TO SCALE



**ORNAMENTAL STREET LIGHT**  
NOT TO SCALE

<b>SPRINGFIELD TOWNSHIP MONTGOMERY COUNTY</b>	
<b>BETHLEHEM PIKE CORRIDOR</b>	
<b>MASTER PLAN DETAILS - 2</b>	
PLANS PREPARED BY <b>MICHAEL BAKER JR., INC.</b> HORSHAM, PENNSYLVANIA	DATE <u>10/14/08</u>
<b>Baker</b>	<b>CVDA</b>
	SHEET <u>16</u> OF <u>16</u>



**Cross Section of Garden Frontage**  
 outside Bethlehem Pike Right of Way

**Bethlehem Pike Streetscape**  
 Springfield Township, PA

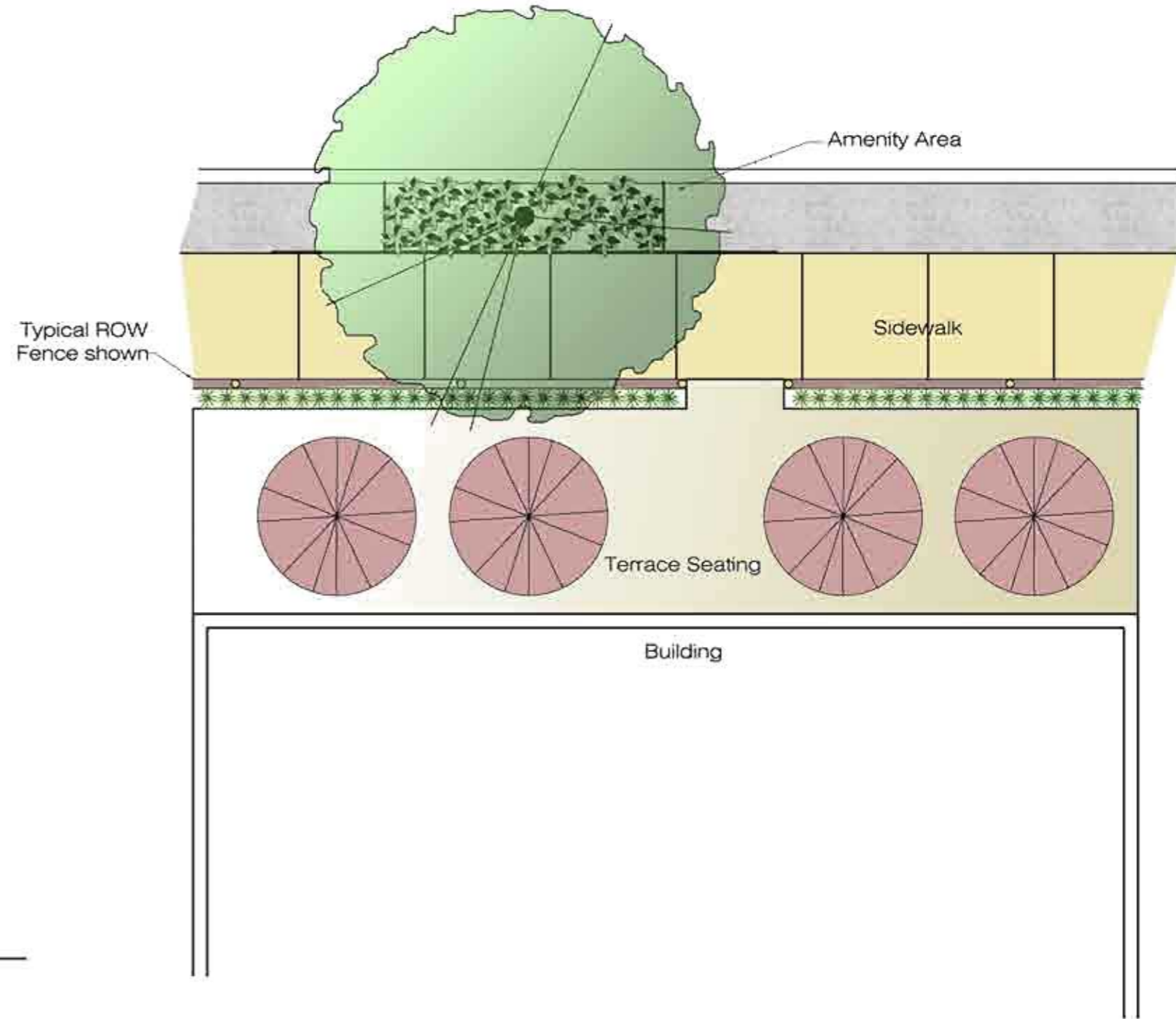
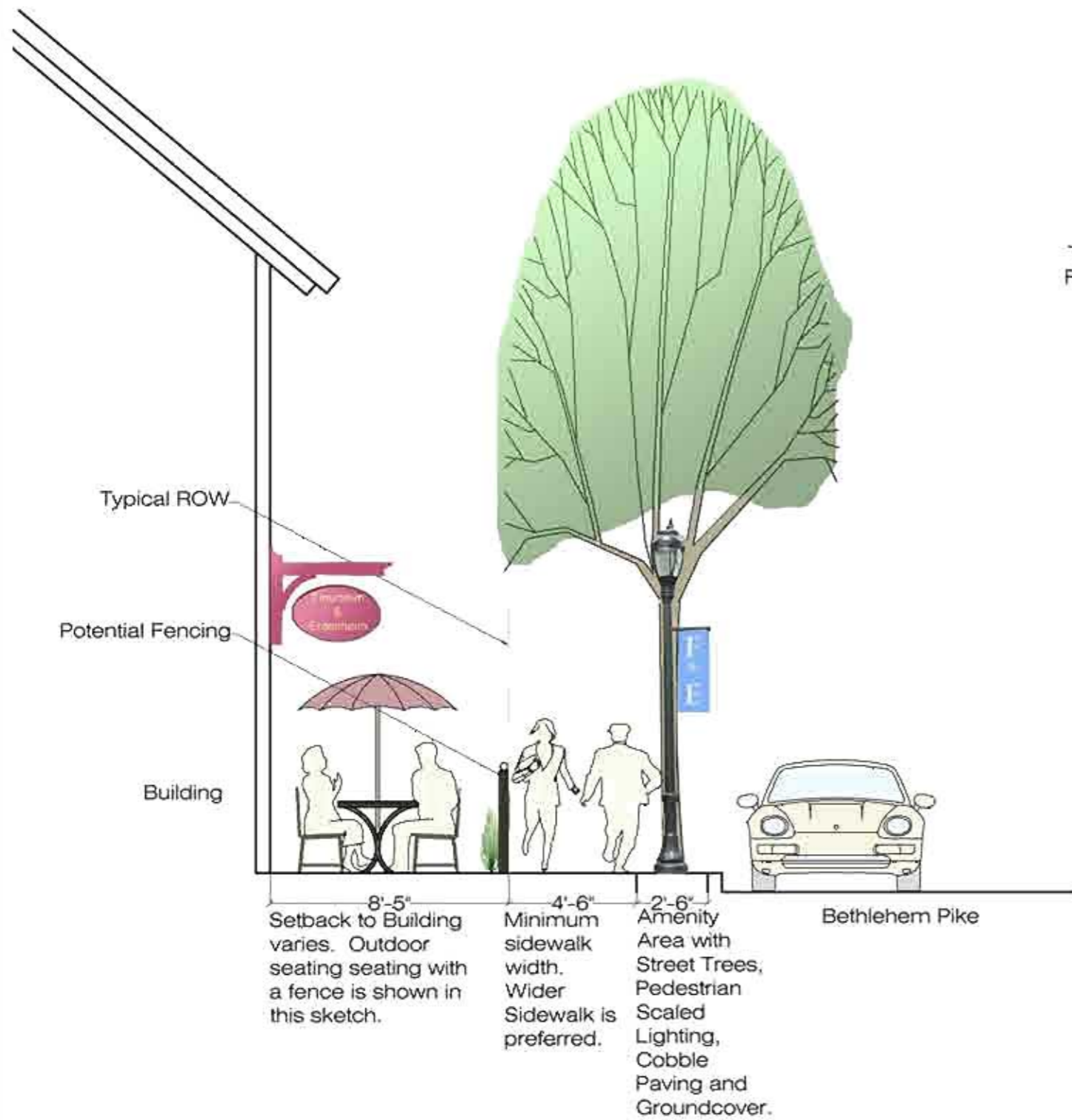
Scale: NTS  
 Date: February 28, 2008

CARTER VAN DYKE  
 ASSOCIATES  
 40 Garden Alley, Doylestown, Pennsylvania 18020  
 Tel: 215 345 3652 Fax: 215 345 4324  
 E-mail: CVDA@CVDA.COM

Planners/Landscapers #006616

**CVDA**  
 with Michael Baker Engineering, Inc.





**Cross Section of Terrace seating  
in front of structure outside Bethlehem Pike  
Right of Way**

**Bethlehem Pike Streetscape  
Springfield Township, PA**

Scale: NTS  
Date: February 28, 2008

FEDERAL PROJECT NUMBER																	
DISTRICT	COUNTY	TOWNSHIP	BOROUGH	ROUTE	SECTION	TOTAL SHEETS											
NHS	6-0	MONTGOMERY	SPRINGFIELD	-	2018	MT3	23										
STATE PROJECT NUMBER																	
SYS	SR	OR	WO	SPUR	PHA	SECTION	DISTRICT	CO									
0	7	1	2	0	3	0	7	F	E	G	0	6	4	0	3	7	5

MPMS NO. 71203  
ECMS NO. 71203

# COMMONWEALTH OF PENNSYLVANIA



## DEPARTMENT OF TRANSPORTATION

DRAWINGS  
FOR  
CONSTRUCTION  
OF

### FLOURTOWN—ERDENHEIM COMMUNITY GATEWAYS PROJECT

SPRINGFIELD & WHITEMARSH TOWNSHIPS

JANUARY 3, 2007

ERDENHEIM GATEWAY: FROM STA 6+00 TO STA 8+00 LENGTH 200 FT  
 VALLEY GREEN GATEWAY: FROM STA 93+00 TO STA 97+50 LENGTH 450 FT  
 FLOURTOWN GATEWAY: FROM STA 201+00 TO STA 203+50 LENGTH 250 FT

#### BETHLEHEM PIKE (S.R. 2018) DESIGN DESIGNATION

##### ERDENHEIM GATEWAY— TRAFFIC DATA FOR S.R. 2018

HIGHWAY CLASSIFICATION	- PRINCIPAL ARTERIAL	CURRENT YEAR ADT - 19,387
DESIGN SPEED	- 40 MPH	DESIGN YEAR ADT - 23,918
PAVEMENT WIDTH	- 44 FT	DHV - 2390
SHOULDER WIDTH	- 0 FT	D - 51
MEDIAN WIDTH	- 0 FT	T - 3

##### VALLEY GREEN GATEWAY— TRAFFIC DATA FOR S.R. 2018

HIGHWAY CLASSIFICATION	- PRINCIPAL ARTERIAL	CURRENT YEAR ADT - 17,983
DESIGN SPEED	- 50 MPH	DESIGN YEAR ADT - 22,185
PAVEMENT WIDTH	- 44 FT	DHV - 2220
SHOULDER WIDTH	- 0 FT	D - 51
MEDIAN WIDTH	- 0 FT	T - 3

#### EAST MILL ROAD DESIGN DESIGNATION

##### FLOURTOWN GATEWAY— TRAFFIC DATA FOR EAST MILL ROAD

HIGHWAY CLASSIFICATION	- COLLECTOR	CURRENT YEAR ADT - 9,013
DESIGN SPEED	- 30 MPH	DESIGN YEAR ADT - 11,120
PAVEMENT WIDTH	- 26 FT (AVERAGE)	DHV - 1110
SHOULDER WIDTH	- 0 FT	D - 50
MEDIAN WIDTH	- 0 FT	T - 2

PENNSYLVANIA ONE CALL SYSTEM, INC.

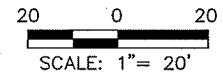
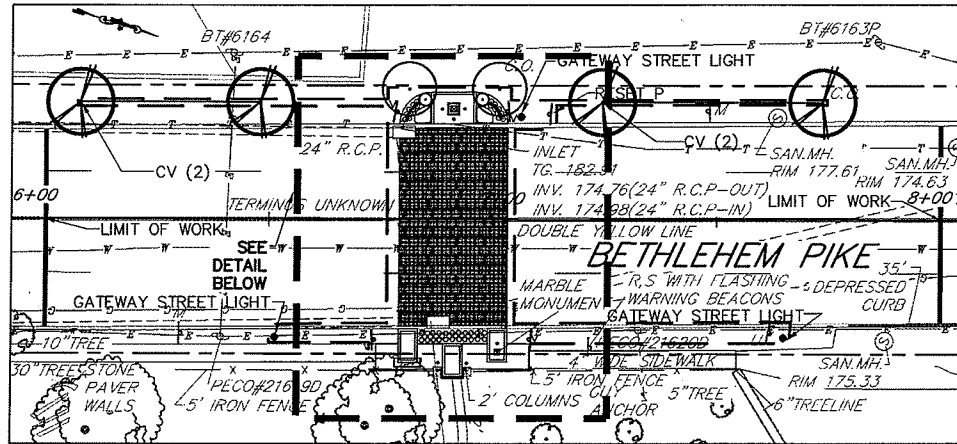


BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA! CALL 1-800-242-1776  
 PA LAW REQUIRES THESE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH  
 SERIAL NO. 2095895  
 SERIAL NO. 2095911  
 SERIAL NO. 2946320

	PLANS PREPARED BY <b>GILMORE &amp; ASSOCIATES, INC.</b> NEW BRITAIN, PENNSYLVANIA	RECOMMENDED _____ 20
		DISTRICT EXECUTIVE _____
		RECOMMENDED _____ 20
		DEPUTY SECRETARY _____
		APPROVED _____ 20
		SECRETARY OF TRANSPORTATION _____
		(ON BEHALF OF THE GOVERNOR AS WELL AS HIMSELF)

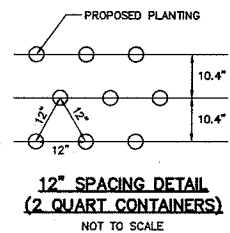


DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	MONTGOMERY	2018	MT3	18 OF 23
FLOURTOWN-ERDENHEIM GATEWAYS				
REVISION NUMBER	REVISIONS	DATE	BY	



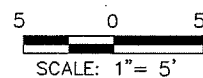
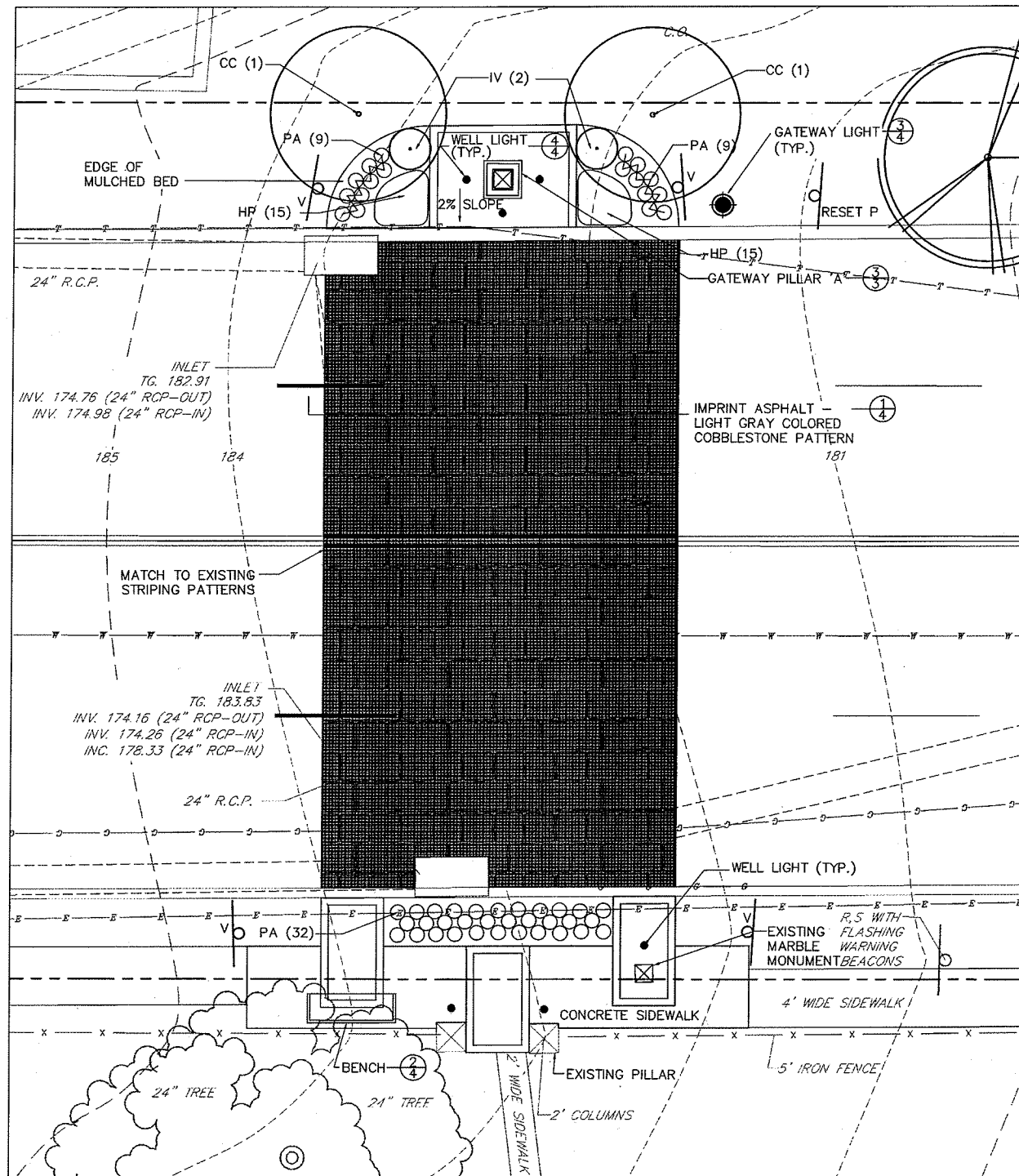
**LANDSCAPE PLANT SCHEDULE**

ITEM #	QUANTITY	SYMBOL	KEY	COMMON NAME	SCIENTIFIC NAME	SIZE & ROOT	REMARKS
9808-9001	2	CC	CC	EASTERN REDBUD	CERIS CANADENSIS	10' HEIGHT 8 & 8	MULTI-STEMMED
9808-9002	4	CV	CV	HAWTHORN	CRATAEGUS VIRIDIS "WINTER KING"	3" CALIPER 8 & 8	
9808-9003	30	-HP	-HP	CORAL BELLS	HEUCHERA X PALACE PASSION	2 QUART CONTAINER	12" SPACING
9808-9004	2	IV	IV	DWARF SWEETSPICE	ITEA VIRGINICA "LITTLE HENRY"	24" HEIGHT CONTAINER	
9808-9005	50	PA	PA	DWARF FOUNTAIN GRASS	PENNISETUM ALOPECUROIDES "LITTLE BUNNY"	1 GALLON CONTAINER	



**SIGN TABULATION**

PLAN SYMBOL	SERIES	SIZE	MESSAGE
M	-	-	NO PARKING SIGN
P	R2-1	24"x30"	35 MPH SPEED LIMIT SIGN
R	W1-1R	30"x30"	RIGHT TURN SIGN
S	W13-1	-	25 MPH ADVISORY SPEED SIGN
U	W11-19	30"x30"	DRIVEWAY
V	R9-3A	18"x18"	NO PEDESTRIAN CROSSING SIGN



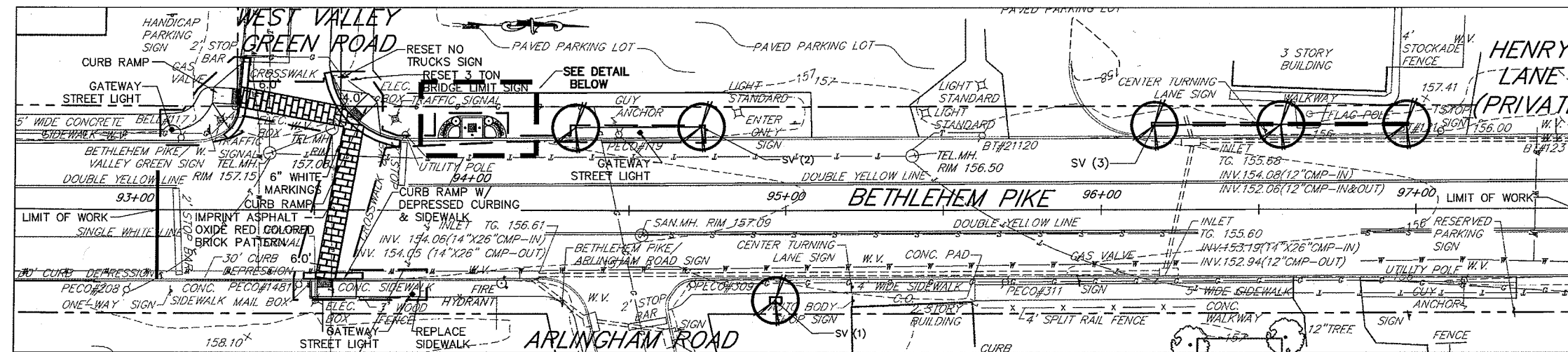
**LEGEND**

- ⊗ EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING CATCH BASIN
- ⊙ EXISTING CURB STOP
- EXISTING CURB STOP
- ⊘ EXISTING GAS VALVE
- ⊕ EXISTING FIRE HYDRANT
- A ⊙ EXISTING STREET SIGN W/ IDENTIFYING LETTER
- ⊙ EXISTING MANHOLE
- EXISTING GAS LINE
- s— EXISTING SANITARY LINE
- e— EXISTING ELECTRIC LINE
- t— EXISTING TELEPHONE LINE
- ||— EXISTING STORM LINE
- 4"/DY FEATURE TO BE REMOVED
- — — PROPOSED LIMIT OF DISTURBANCE
- A ⊙ PROPOSED STREET SIGN W/ IDENTIFIER
- ▭ PROPOSED CURB RAMP
- ▨ PROPOSED IMPRINT BAND
- ▧ PROPOSED IMPRINT CROSSWALK
- ① DETAIL NUMBER
- ② SHEET NUMBER

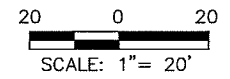
**ROADSIDE DEVELOPMENT PLAN**

PLANS PREPARED BY  
GILMORE & ASSOC., INC.  
NEW BRITAIN, PA

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	MONTGOMERY	2018	MT3	19 OF 23
FLOURTOWN-ERDENHEIM GATEWAYS				
REVISION NUMBER	REVISIONS	DATE	BY	



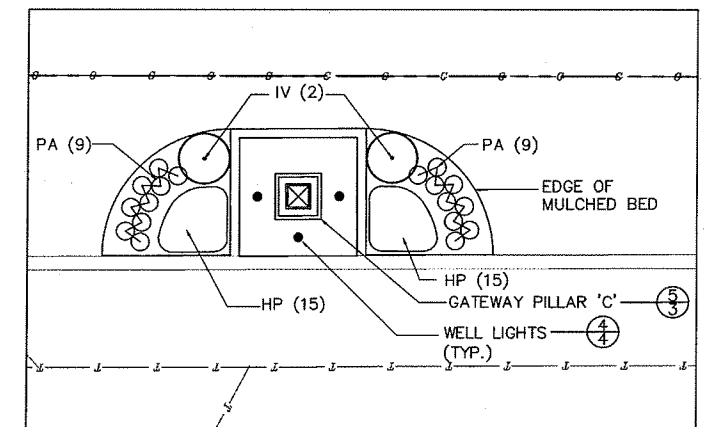
**VALLEY GREEN GATEWAY DESIGN**  
SCALE: 1"=20'



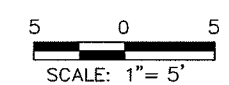
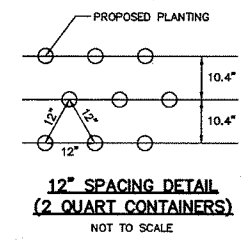
**LANDSCAPE PLANT SCHEDULE**

ITEM #	QUANTITY	SYMBOL	KEY	COMMON NAME	SCIENTIFIC NAME	SIZE & ROOT	REMARKS
9808-9003	30	HP	HP	CORAL BELLS	HEUCHERA X PALACE PASSION	2 QUART CONTAINER	12" SPACING
9808-9004	2	IV	IV	DWARF SWEETSPICE	ITEA VIRGINICA 'LITTLE HENRY'	24" HEIGHT CONTAINER	—
9808-9005	18	PA	PA	DWARF FOUNTAIN GRASS	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	1 GALLON CONTAINER	—
9808-9006	6	SV	SV	TREE LILAC	SYRINGA VULGARIS 'IVORY SILK'	3" CALIPER B & B	—

- LEGEND**
- ⊗ EXISTING WATER VALVE
  - EXISTING UTILITY POLE
  - EXISTING CATCH BASIN
  - EXISTING CURB STOP
  - EXISTING CURB STOP
  - EXISTING GAS VALVE
  - EXISTING FIRE HYDRANT
  - A- EXISTING STREET SIGN W/ IDENTIFYING LETTER
  - ⊙ EXISTING MANHOLE
  - EXISTING GAS LINE
  - EXISTING SANITARY LINE
  - EXISTING ELECTRIC LINE
  - EXISTING TELEPHONE LINE
  - EXISTING STORM LINE
  - 4"/DY FEATURE TO BE REMOVED
  - PROPOSED LIMIT OF DISTURBANCE
  - A- PROPOSED STREET SIGN W/ IDENTIFIER
  - ▭ PROPOSED CURB RAMP
  - ▭ PROPOSED IMPRINT BAND
  - ▭ PROPOSED IMPRINT CROSSWALK
  - ① DETAIL NUMBER
  - ② SHEET NUMBER



**DETAIL: LANDSCAPE DESIGN**  
SCALE: 1"=5'



**ROADSIDE DEVELOPMENT PLAN**

PLANS PREPARED BY  
GILMORE & ASSOC., INC.  
NEW BRITAIN, PA

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	MONTGOMERY	2018	MT3	20 OF 23
FLOURTOWN-ERDENHEIM GATEWAYS				
REVISION NUMBER	REVISIONS	DATE	BY	

**LEGEND**

- ⊗ EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING CATCH BASIN
- ⊙ EXISTING CURB STOP
- EXISTING CURB STOP
- ◇ EXISTING GAS VALVE
- ⊕ EXISTING FIRE HYDRANT
- A- EXISTING STREET SIGN W/ IDENTIFYING LETTER
- Ⓢ EXISTING MANHOLE
- EXISTING GAS LINE
- EXISTING SANITARY LINE
- EXISTING ELECTRIC LINE
- EXISTING TELEPHONE LINE
- EXISTING STORM LINE
- 4"/DY FEATURE TO BE REMOVED
- PROPOSED LIMIT OF DISTURBANCE
- A- PROPOSED STREET SIGN W/ IDENTIFIER
- ▭ PROPOSED CURB RAMP
- ▨ PROPOSED IMPRINT BAND
- ▧ PROPOSED IMPRINT CROSSWALK
- ① DETAIL NUMBER
- ② SHEET NUMBER

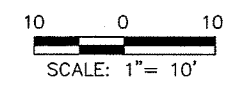
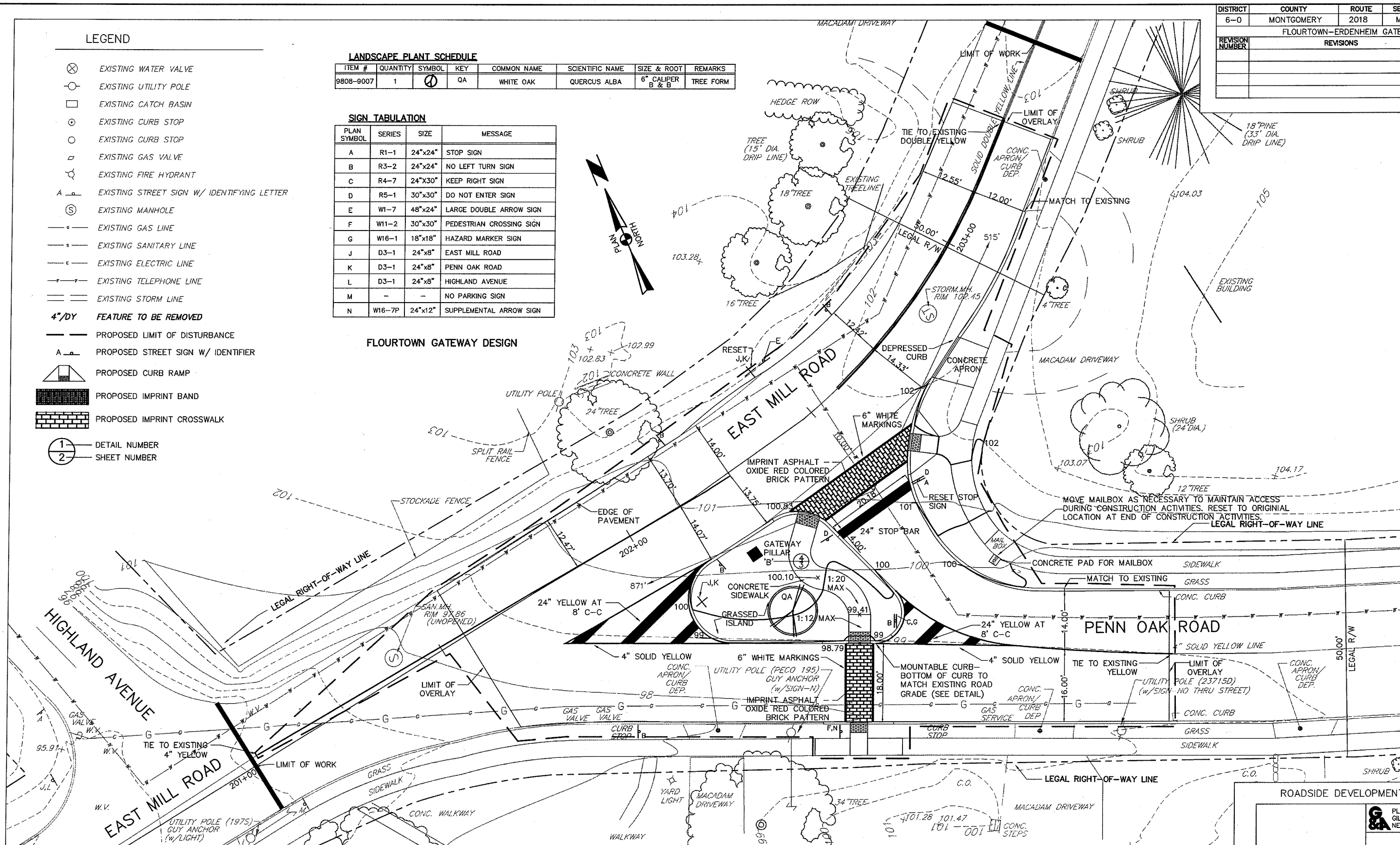
**LANDSCAPE PLANT SCHEDULE**

ITEM #	QUANTITY	SYMBOL	KEY	COMMON NAME	SCIENTIFIC NAME	SIZE & ROOT	REMARKS
9808-9007	1	⊗	QA	WHITE OAK	QUERCUS ALBA	6" CALIPER B & B	TREE FORM

**SIGN TABULATION**

PLAN SYMBOL	SERIES	SIZE	MESSAGE
A	R1-1	24"x24"	STOP SIGN
B	R3-2	24"x24"	NO LEFT TURN SIGN
C	R4-7	24"x30"	KEEP RIGHT SIGN
D	R5-1	30"x30"	DO NOT ENTER SIGN
E	W1-7	48"x24"	LARGE DOUBLE ARROW SIGN
F	W11-2	30"x30"	PEDESTRIAN CROSSING SIGN
G	W16-1	18"x18"	HAZARD MARKER SIGN
J	D3-1	24"x8"	EAST MILL ROAD
K	D3-1	24"x8"	PENN OAK ROAD
L	D3-1	24"x8"	HIGHLAND AVENUE
M	-	-	NO PARKING SIGN
N	W16-7P	24"x12"	SUPPLEMENTAL ARROW SIGN

**FLOURTOWN GATEWAY DESIGN**



**ROADSIDE DEVELOPMENT PLAN**

PLANS PREPARED BY  
GILMORE & ASSOC., INC.  
NEW BRITAIN, PA

# Appendix 2 – Design Details/Specifications

Ornamental Street Lights: Sun Valley Lighting

Ornamental Traffic Signal Poles: Valmont Structures

Benches and Trash Receptacles: Dumor

Pocket Park Sketches

Design Details

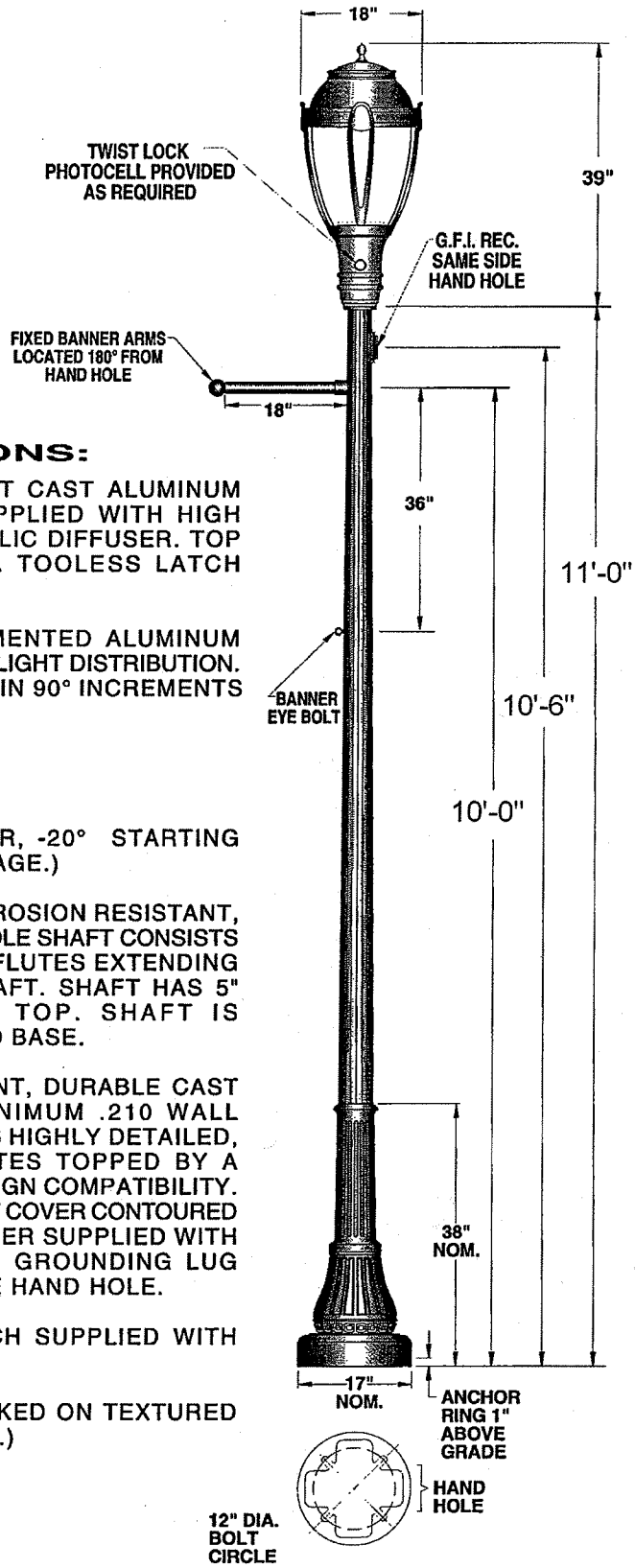
**sun valley**  
LIGHTING



The Lighting Tradition

CUSTOMER APPROVAL:	
X _____	DATE: _____
A signed approval will be required with the released order	

**CS-4600**



**SPECIFICATIONS:**

- LUMINAIRE:** DURABLE CORROSION RESISTANT CAST ALUMINUM CONSTRUCTION. LUMINAIRE SUPPLIED WITH HIGH IMPACT CLEAR PATTERNED ACRYLIC DIFFUSER. TOP HINGES FOR EASY RELAMPING. TOOLES LATCH PAINTED TO MATCH LUMINAIRE.
- OPTICS:** LUMINAIRE HOOD HOUSES SEGMENTED ALUMINUM REFLECTOR, TYPE III (ASYMMETRIC) LIGHT DISTRIBUTION. REFLECTOR IS FIELD ROTATABLE IN 90° INCREMENTS
- LAMP HOLDER:** MEDIUM BASE PORCELAIN
- LAMP:** 175 W. M.H. (BY OTHERS)
- BALLAST:** H.P.F./C.W.A. AUTOTRANSFORMER, -20° STARTING TEMPERATURE. (MULTI-TAP VOLTAGE.)
- SHAFT:** ONE PIECE ROUND TAPERED, CORROSION RESISTANT, CAST ALUMINUM CONSTRUCTION. POLE SHAFT CONSISTS OF 16 EVENLY SPACED VERTICAL FLUTES EXTENDING THE ENTIRE LENGTH OF THE SHAFT. SHAFT HAS 5" BUTT, TAPERING TO 3 1/2" TOP. SHAFT IS CIRCUMFERENTIALLY WELDED TO BASE.
- BASE:** ONE PIECE CORROSION RESISTANT, DURABLE CAST ALUMINUM CONSTRUCTION, MINIMUM .210 WALL THICKNESS. BASE CONSISTS OF 16 HIGHLY DETAILED, EVENLY SPACED VERTICAL FLUTES TOPPED BY A SIMILARLY FLUTED RISER FOR DESIGN COMPATIBILITY. BASE CONTAINS A FLUTED HAND HOLE COVER CONTOURED TO BASE DESIGN. HAND HOLE COVER SUPPLIED WITH TAMPER RESISTANT HARDWARE. GROUNDING LUG PROVIDED INSIDE BASE OPPOSITE HAND HOLE.
- ANCHORAGE:** (4) 3/4"X24" ANCHOR BOLTS, EACH SUPPLIED WITH TWO NUTS AND TWO WASHERS.
- FINISH:** ELECTROSTATICALLY APPLIED BAKED ON TEXTURED ACRYLIC ENAMEL. (COLOR: BLACK.)

SCALE: 1/2" = 1'-0"



800

## BASE

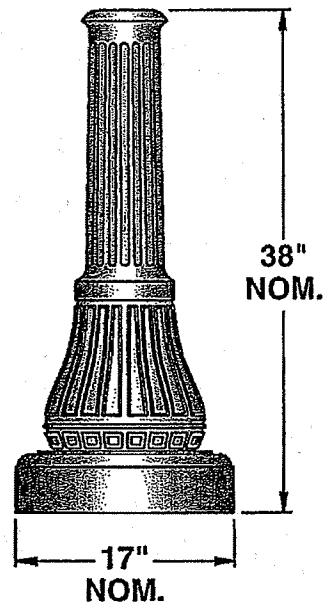
ONE PIECE CORROSION RESISTANT, DURABLE CAST ALUMINUM CONSTRUCTION, MINIMUM .210 WALL THICKNESS. BASE CONSISTS OF 16 HIGHLY DETAILED, EVENLY SPACED VERTICAL FLUTES TOPPED BY A SIMILARLY FLUTED RISER FOR DESIGN COMPATIBILITY. BASE CONTAINS A FLUTED HAND HOLE COVER CONTOURED TO BASE DESIGN. HAND HOLE COVER SUPPLIED WITH TAMPER RESISTANT HARDWARE. GROUNDING LUG PROVIDED INSIDE BASE OPPOSITE HAND HOLE.

## ANCHORAGE

A 3/4" CAST ALUMINUM ANCHOR RING IS WELDED 1" ABOVE BOTTOM OF BASE TO ACCEPT (4) FULLY GALVANIZED ANCHOR BOLTS. EACH BOLT SUPPLIED WITH TWO NUTS AND TWO WASHERS. ANCHORAGE IS FASTENED THROUGH HAND HOLE.

## FINISH

ELECTROSTATICALLY APPLIED BAKED ON TEXTURED ACRYLIC ENAMEL. (SEE PAGE 5 FOR OPTIONAL FINISH AND COLOR SELECTION)



**sun valley**  
LIGHTING

860 WEST AVENUE O, PALMDALE, CA 93551  
(661) 233-2000  
FAX (661) 233-2001  
[www.sunvalleylighting.com](http://www.sunvalleylighting.com)

B-33



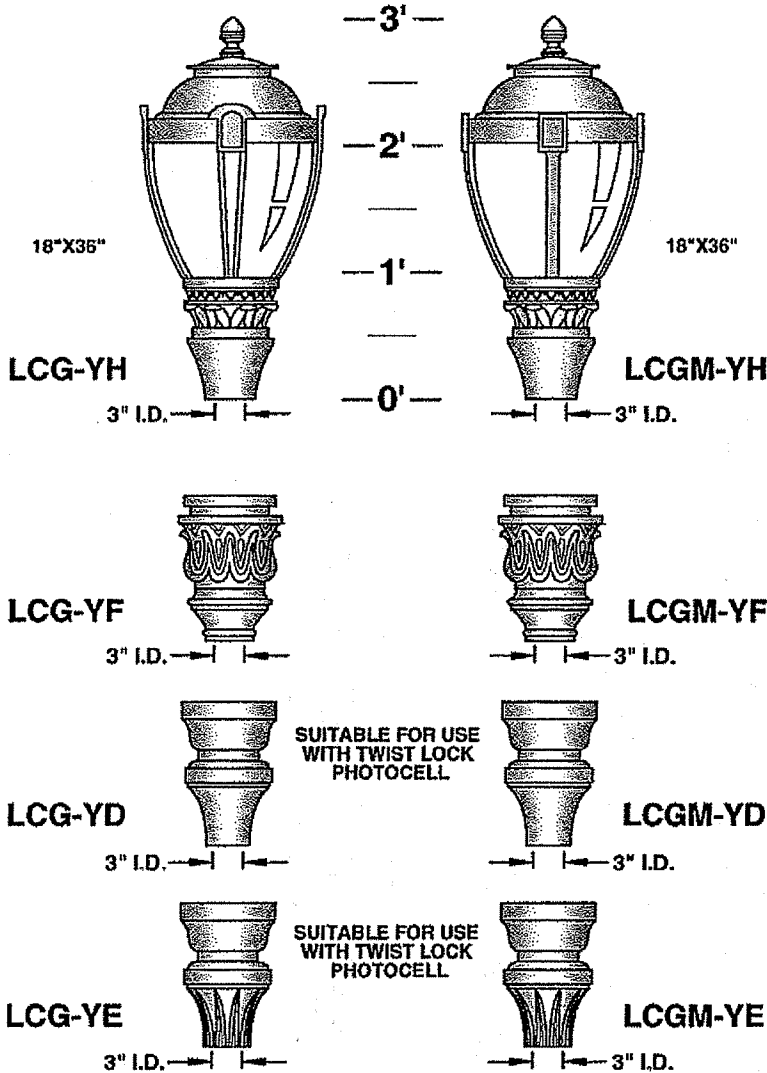


# LUMINAIRE ACCESSORIES

(SPECIFY AS SUFFIX TO LUMINAIRE NO.)

LUMINAIRE

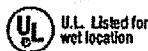
**PATTERNED POLYCARBONATE DIFFUSER PROVIDED WITH DECORATIVE CAST ALUMINUM ENCLOSURE, TOP AND FITTER**



**BALLASTS ARE H.P.F. / C.W.A. AUTOTRANSFORMER, -20° STARTING TEMPERATURE**

METAL HALIDE	HIGH PRESSURE SODIUM	MERCURY VAPOR	FOR FLUOR. LAMPS CONSULT TO FACTORY
50W.	50W.	50W.	INC.
70W.	70W.	75W.	TO
100W.	100W.	100W.	200W.
175W.	150W.	175W.	
250W.	250W.	250W.	

"YF", "YD" AND "YE" FITTERS ONLY



**STANDARD:**  
SOLID TOP



LT

**OPTION:**  
CLEAR ACRYLIC TOP  
(FOR UPLIGHT)

INTERNAL LOUVER



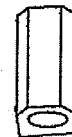
IL

PRISMATIC GLASS REFRACTOR  
TYPE III  
TYPE V



PG-III  
PG-V

HOUSE SIDE SHIELD  
90°, 135°, 180°



HS90°  
HS135°  
HS180°

CLEAR POLYCARBONATE.....CP

OPAL POLYCARBONATE.....WP

PHOTO CELL + VOLTAGE  
(EXAMPLE: PC120V).....PC+V

TWIST LOCK  
PHOTO CELL + VOLTAGE  
(EXAMPLE: TPC120V).....TPC+V  
(YD & YE FITTERS ONLY)

SINGLE FUSE (120V., 277V.).....SF

DOUBLE FUSE (208V., 240V., 480V.).....DF



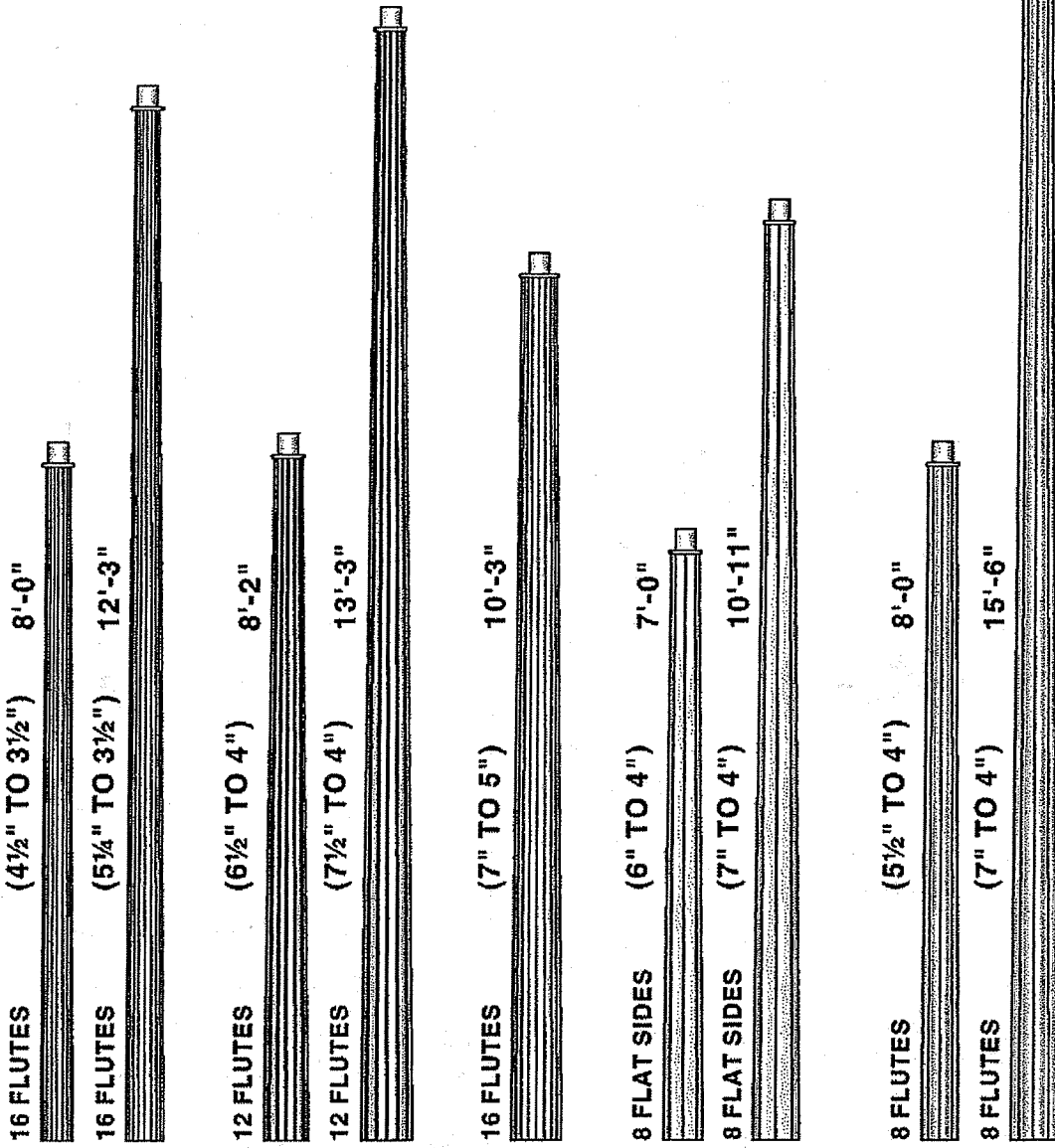
**sun valley**  
LIGHTING

600 WEST AVENUE O, PALMDALE, CA 93551  
(661) 233-2000  
FAX (661) 233-2001  
www.sunvalleylighting.com

LA-23

# CAST, FLUTED, TAPERED

CAST, FLUTED, TAPERED, CORROSION RESISTANT  
 CAST ALUMINUM CONSTRUCTION. SHAFTS CONSIST  
 OF EVENLY SPACED VERTICAL FLUTES.

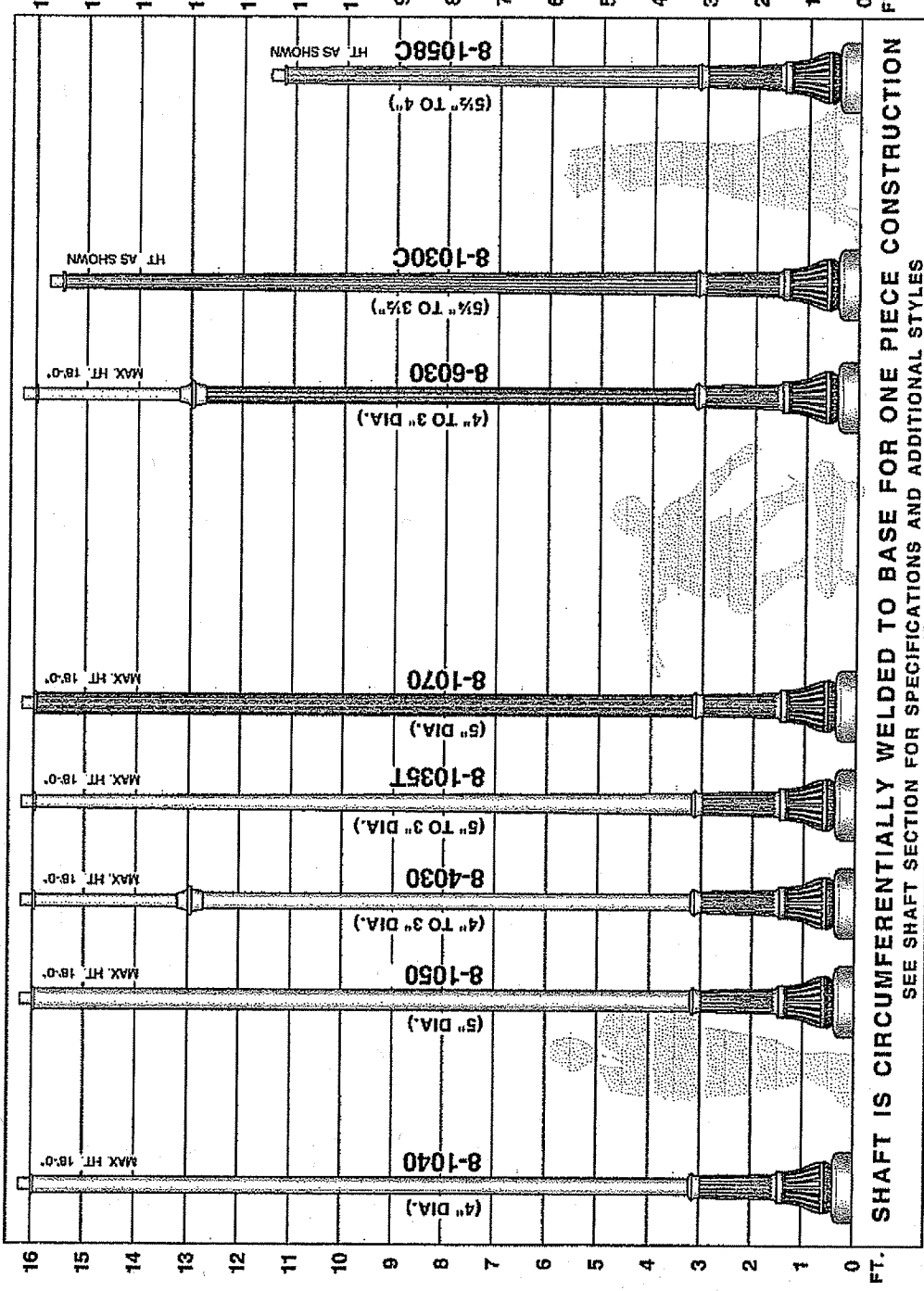
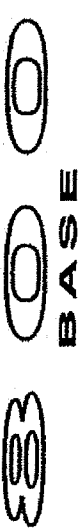
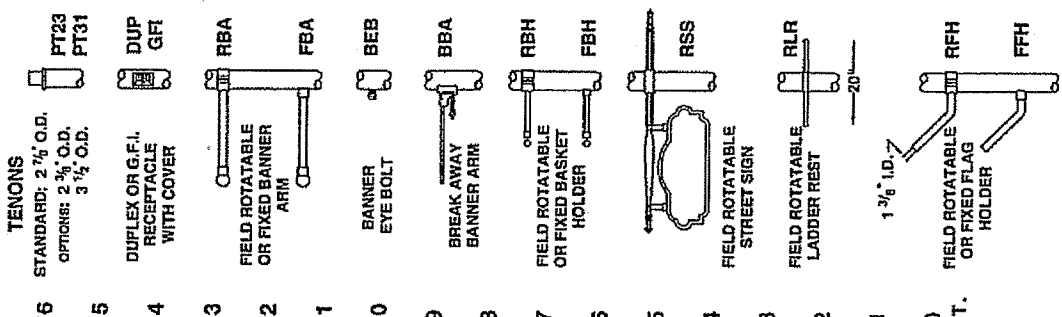


**1030C      1050C      1075C      1080C      1058C**  
 (CAST, FLUTED, TAPERED ALUMINUM SHAFTS)

POLES PROVIDED WITH TENON TOP  
 POST TOP (PT): 2 7/8" O.D. X 3"  
 MULTIPLE LUMINAIRES: 2 7/8" O.D. X 6"



**POLE ACCESSORIES**  
(SPECIFY AS SUFFIX TO CAT. NO.)



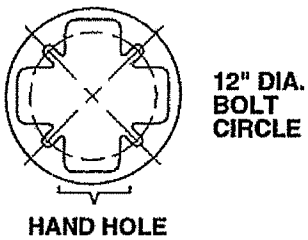
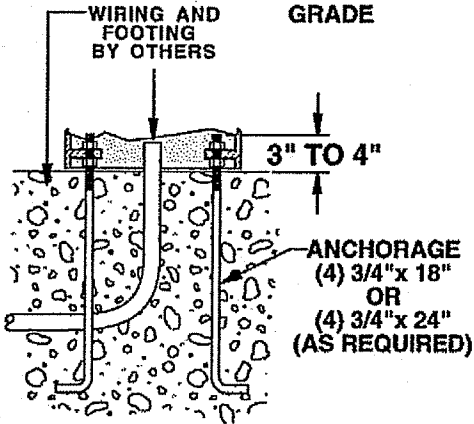
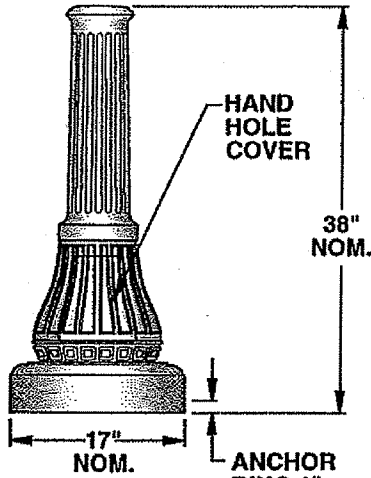
**SHAFT IS CIRCUMFERENTIALLY WELDED TO BASE FOR ONE PIECE CONSTRUCTION**  
 SEE SHAFT SECTION FOR SPECIFICATIONS AND ADDITIONAL STYLES

**sun valley**  
LIGHTING

180 WEST AVENUE G, RINDALE, CA 92511  
 (951) 233-2000  
 FAX (951) 232-2521  
 www.sunvalleylighting.com

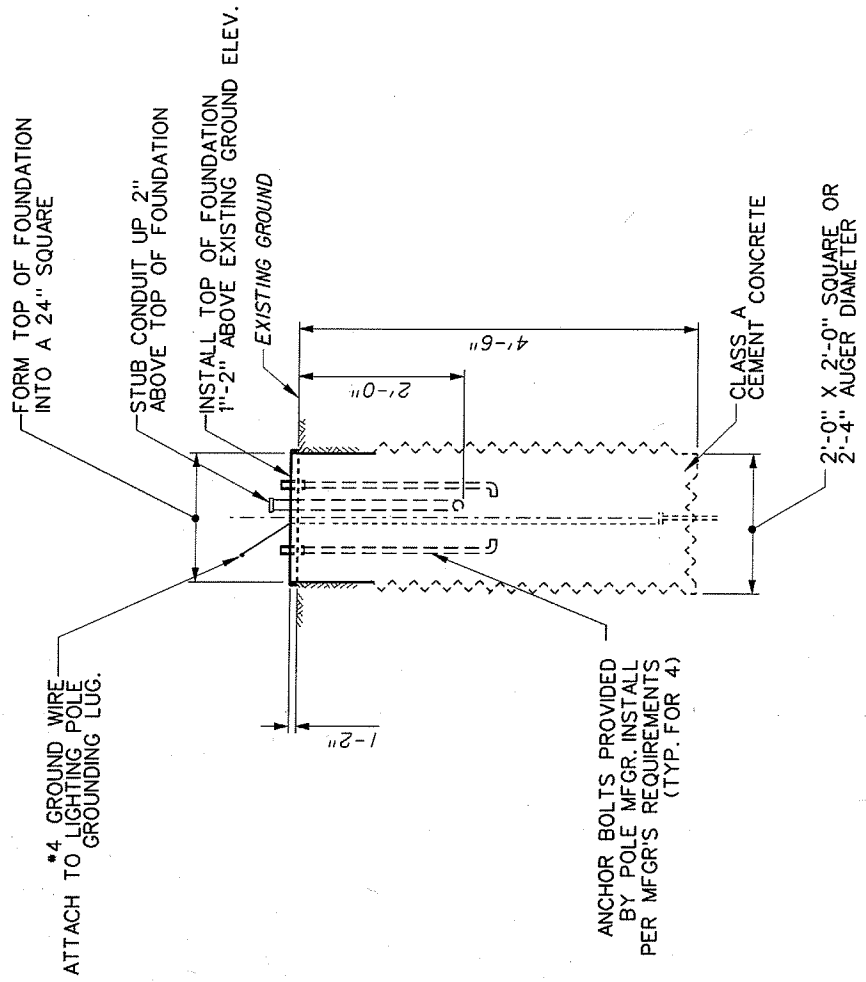


**SUGGESTED LUMINAIRES**



		4
		3
		2
LCGR-YH	LCF	1
		0
		4
		3
		2
LCW	LCAC	1
		0
		4
		3
		2
		1
DSH1	RCGN18	0
		4
		3
		2
		1
		0
		FT.

**SEE LUMINAIRE SECTION FOR ADDITIONAL STYLES**

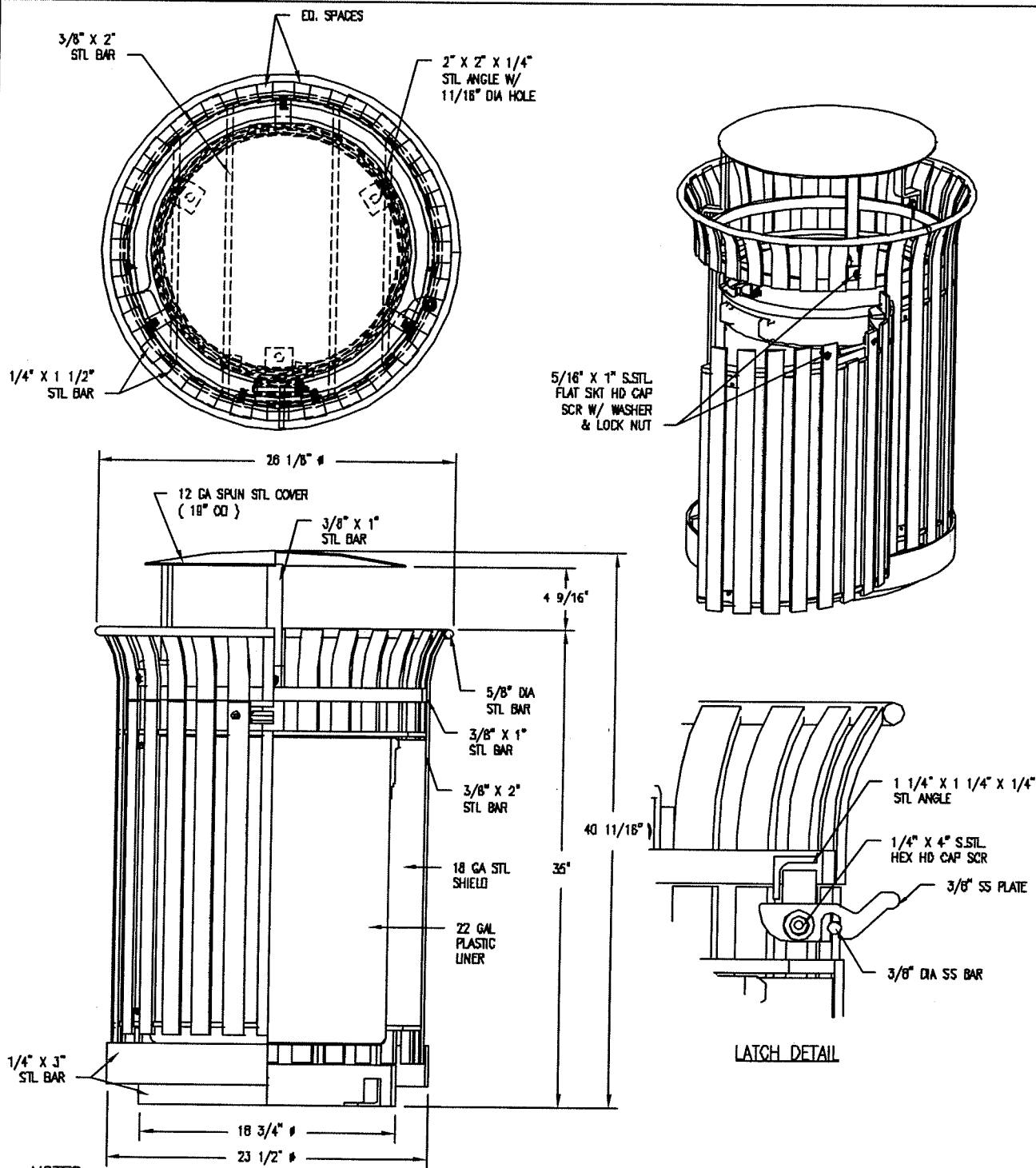


# POLE FOUNDATION TYPE P

NTS

## GENERAL NOTES

1. REFER TO SPECIAL PROVISIONS FOR DETAILS OF LIGHT POLE AND LUMINAIRE.
2. FOR ADDITIONAL DETAILS SEE PENNDOT DRAWING RC-80M.

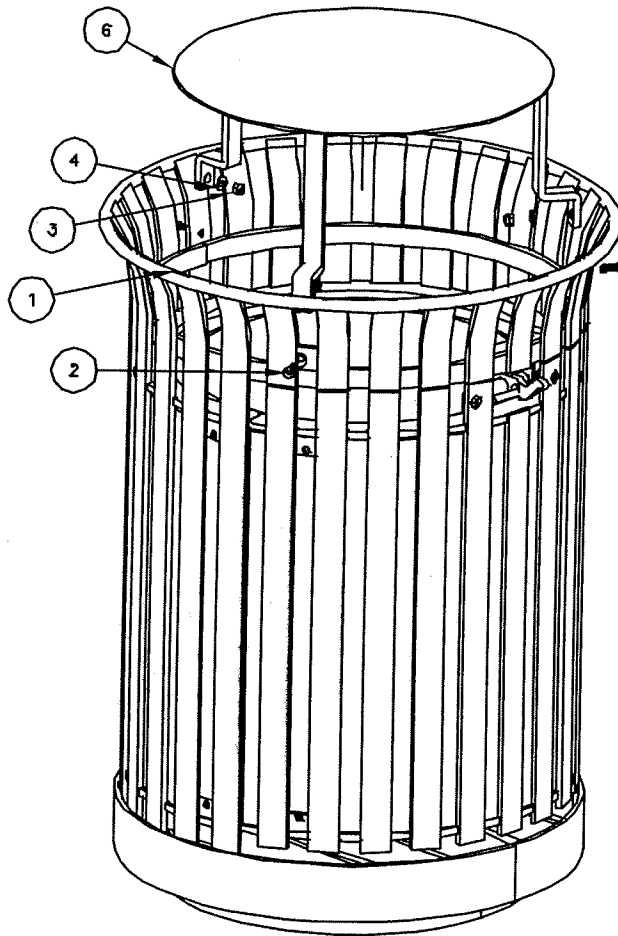


**NOTES**

- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.

<p><b>DuMor, inc.</b> P.O. Box 142 Mifflintown, PA 17059-0142</p>	SCALE :	NONE	TITLE :		RECEPTACLE
	DATE DRAWN :	11/14/03	REV.	DRAWING NUMBER	157-22-25BT
	DRAWN BY :	JSB	C		
	DATE REV. :	6/8/04			
	REV. BY :	JSB			SHEET 1 OF 2





**STEP 1:**

- USE 1 - PC. 20 GAL ALL STL RECEPTACLE ASSEMBLY ( 1 )
- 1 - PC. 25" SPUN STL BOLTED BONNET TOP CVR ( 6 )
- 3 - PCS. 5/16" X 1" SS FLT SKT HD CAP SCR ( 2 )
- 3 - PCS. 5/16" SS NYLON LOCK NUT ( 3 )
- 3 - PCS. 5/16" SS FLAT WASHER ( 4 )

ATTACH 25" SPUN STL BOLTED BONNET TOP CVR ( 6 ) TO 30 GAL ALL STL RECEPTACLE ASSEMBLY ( 1 ). USING HARDWARE ( 2, 3, & 4 ). TIGHTEN TO SNUG FIT.


**NOTE:**

- 1.) THE ACTUAL PARTS WILL NOT BE NUMBERED: NUMBERS ONLY APPLY TO DRAWING.
- 2.) SEE SPEC. SHEET 1 FOR MOUNTING OPTIONS.

**STEP 2:**

MOUNT & ANCHOR AS SPECIFIED.

ITEM	QTY	PART NO	DESCRIPTION
1	1	0-157-20	20 GAL ALL STL RECEPTACLE ASSEMBLY
2	3	1-12-023	5/16" X 1" SS FLT SKT HD CAP SCR
3	3	1-20-016	5/16" SS NYLON LOCKNUT
4	3	1-22-017	5/16" SS FLAT WASHER
5	1	49-22	22 GAL PL LNR W/HANDLES & HDWE, BLK
6	1	CVB-20-25BT	25" SPUN STL BOLTED BONNET TOP CVR



**DuMor, inc.**  
P.O. Box 142 Mifflintown, PA 17059-0142

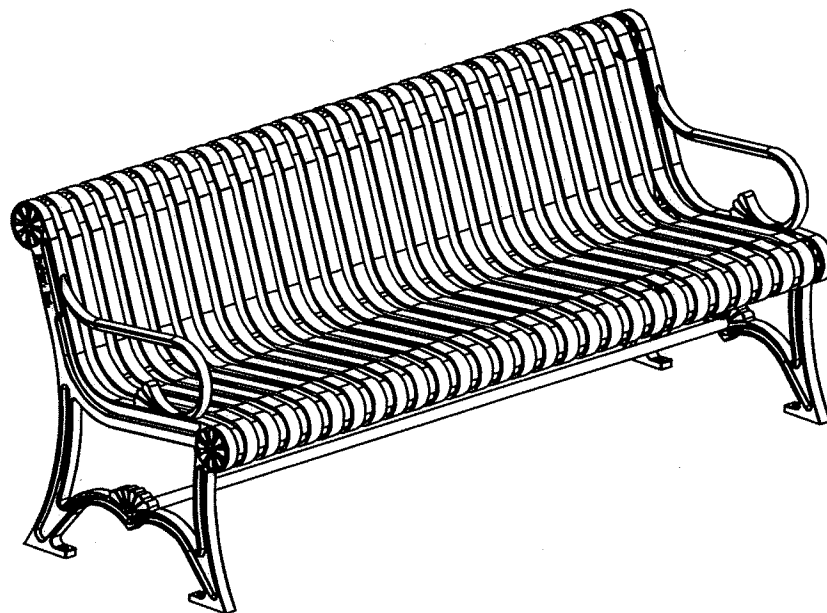
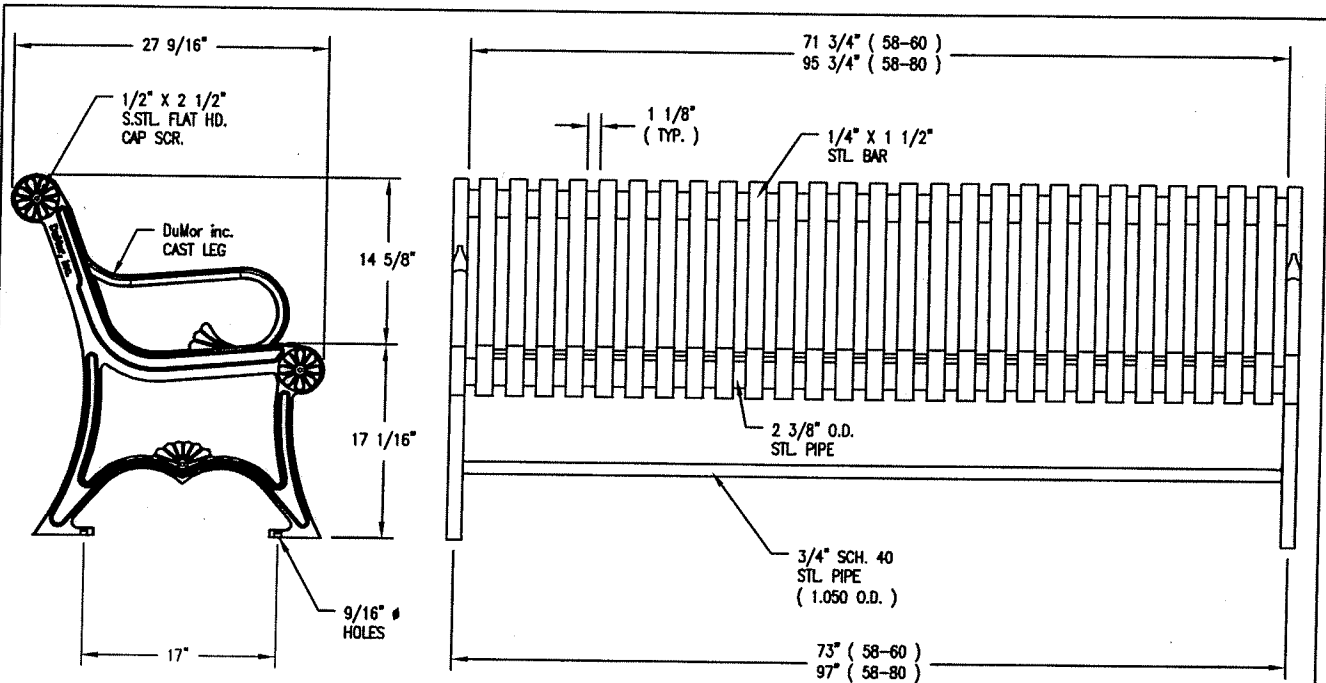
SCALE : NONE  
DATE DRAWN : 11/14/03  
DRAWN BY : JSB  
DATE REV. : 6/8/04  
REV. BY : JSB

TITLE : RECEPTACLE ASSEMBLY

REV. C

DRAWING NUMBER 157-22-25BT

SHEET 2 OF 2




**NOTES**

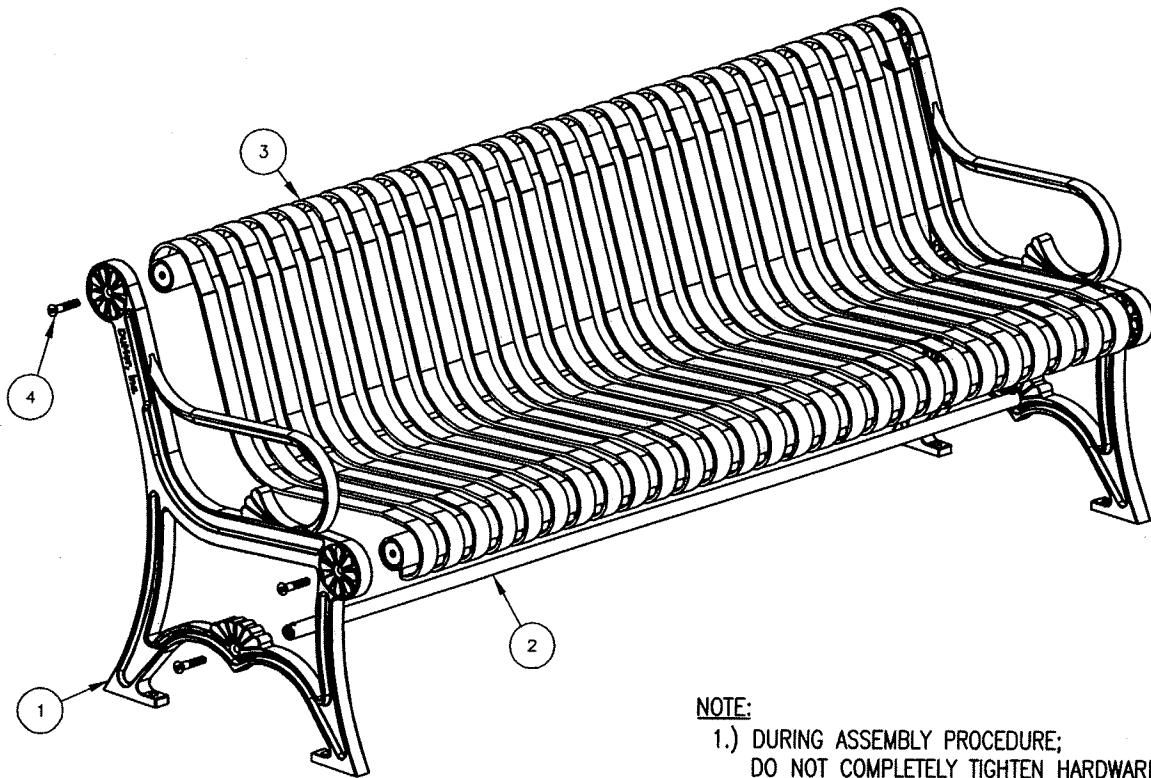
- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2.)  $\frac{1}{2}'' \times 3 \frac{3}{4}''$  EXPANSION ANCHOR BOLTS PROVIDED.
- 3.) CUSTOM LETTERING AVAILABLE FOR RECESSED SIDE PANELS ( TOTAL OF 37 SPACES )

**LENGTH OPTIONS**

- 6' BENCH
- 8' BENCH

CUSTOM LETTERING ( 37 SPACES )

 <b>DuMor, inc.</b> P.O. Box 142 Mifflintown, PA 17059-0142	SCALE : NONE	TITLE : BENCH	
	DATE DRAWN : 3/22/94	REV. D	DRAWING NUMBER 58 SERIES
	DRAWN BY : AH		SHEET 1 OF 2
	DATE REV. : 11/21/99		
	REV. BY : JSB		



**NOTE:**

- 1.) DURING ASSEMBLY PROCEDURE;  
DO NOT COMPLETELY TIGHTEN HARDWARE.
- 2.) THE ACTUAL PARTS WILL NOT BE NUMBERED;  
NUMBERS ONLY APPLY TO DRAWING.

**STEP 1:**

USE 2 - PCS. CAST IRON BENCH SUPPORT ( 1 )  
 1 - PC. 6' ALL STL. SEAT ASSEMBLY ( 3 )  
 4 - PC. 1/2" X 2 1/2" FLT. SKT. HD. CAP SCR. ( 4 )  
 ATTACH CAST IRON BENCH SUPPORT ( 1 ) TO 6' ALL STL.  
 SEAT ASSEMBLY ( 3 ) USING HARDWARE ( 4 ).  
 TIGHTEN TO SNUG FIT.

**STEP 2:**

USE 1 - PC. 71 3/4" PIPE BRACE ( 2 )  
 2 - PCS. 1/2" X 2 1/2" FLT. SKT. HD. CAP SCR. ( 4 )  
 ATTACH 71 3/4" PIPE BRACE ( 2 ) TO STEP 1 ASSEMBLY  
 USING HARDWARE ( 4 ). TIGHTEN TO SNUG FIT.


**STEP 3:**

UPON COMPLETION OF BENCH ASSEMBLY SQUARE ALL  
 COMPONENTS THEN TIGHTEN ALL HARDWARE.

**STEP 4:**

MOUNT AND ANCHOR AS SPECIFIED.

ITEM	QTY	PART NO	DESCRIPTION
1	2	0-57-00-02	CAST IRON BENCH SUPPORT
2	1	0-57-60-04	71 3/4" PIPE BRACE
3	1	0-58-60-01	6' STL SEAT
4	6	1-12-065	1/2" X 2 1/2" FLT SKT HD CAP SCR

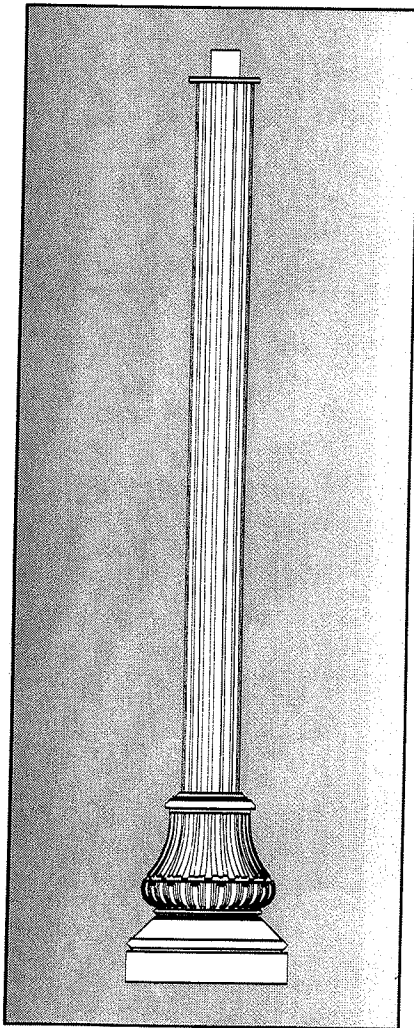
  
**DuMor, inc.**  
 P.O. Box 142 Mifflintown, PA 17059-0142

SCALE : NONE  
 DATE DRAWN : 3/22/94  
 DRAWN BY : AH  
 DATE REV. : 11/21/99  
 REV. BY : JSB

TITLE : BENCH ASSEMBLY

REV. D	DRAWING NUMBER 58 SERIES	SHEET 2 OF 2
--------	--------------------------	--------------

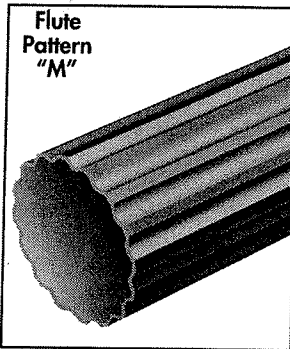
**WASHINGTON WA17-AS**  
**STRUCTURAL 8' TO 18' FLUTED STRAIGHT ROUND 16 FLAT**



**SPECIFICATIONS**

**Pole**

The Washington pole is available in 8' to 18' including a cast aluminum structural base with a fluted straight round aluminum shaft. The pole is designed to accommodate a twin arm assembly up to a 36" overall span.



Flute Pattern "M"

**Shaft**

The fluted shaft is seamlessly extruded from 6063 aluminum alloy. The shaft is inserted and welded into the decorative structural base casting.

**Structural Base**

The structural base is cast from A356 aluminum alloy. A continuous circumferential weld at the top and inside of the base joins the structural base casting and shaft. The anchor bolts are located inside the base. The completed assembly is heat-treated to T6 temper after all structural welding is completed.

**Access Door**

An access door is provided to install and service the ground connector and circuit wiring. The door is 6.00" in height and 4.00" in width and fits to the base with stainless steel hardware.

**Anchor Bolts**

Anchor bolts are fabricated from carbon steel bar conforming to the requirements of ASTM F1554 Grade 55. The upper 12" of the bolts are hot dip galvanized per ASTM A153. Each anchor bolt is supplied with two hex nuts and two flat washers.

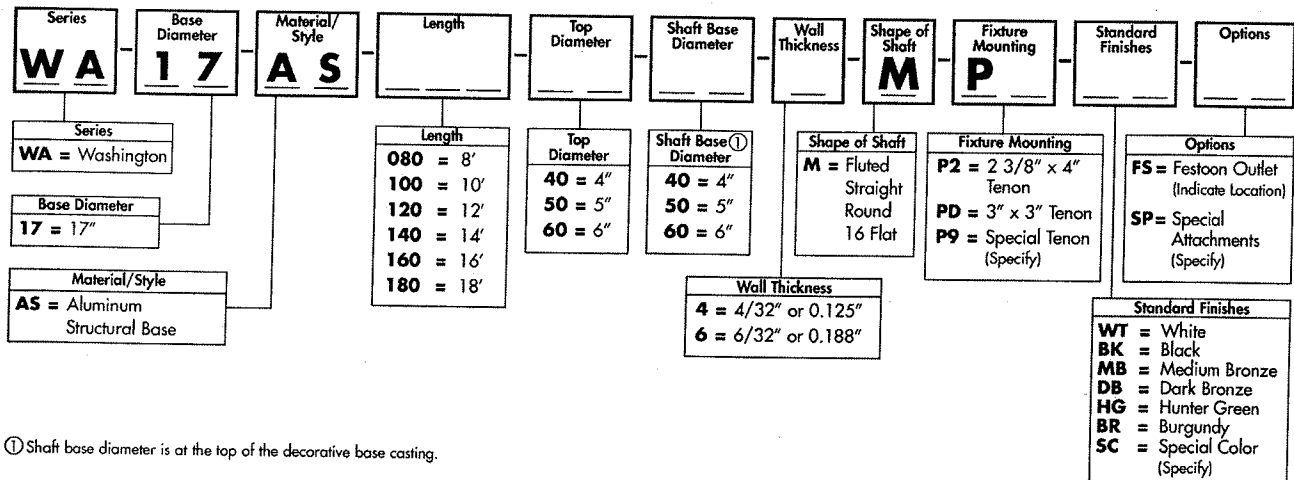
**Electrical Ground Connector**

A nut holder is provided in the base and accessible from the access door. The nut holder includes a tapped 3/8"-16 UNC bolt.

**Finish**

The finish for the pole is polyester powder coating applied over chromate pre-treatment in accordance with Valmont Industries' Specifications.

**CATALOG LOGIC**



① Shaft base diameter is at the top of the decorative base casting.

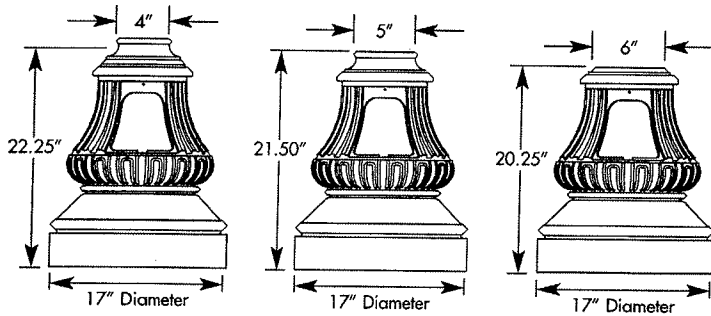
**1-WA-2A**

# WASHINGTON WA17-AS STRUCTURAL 8' TO 18' FLUTED STRAIGHT ROUND 16 FLAT

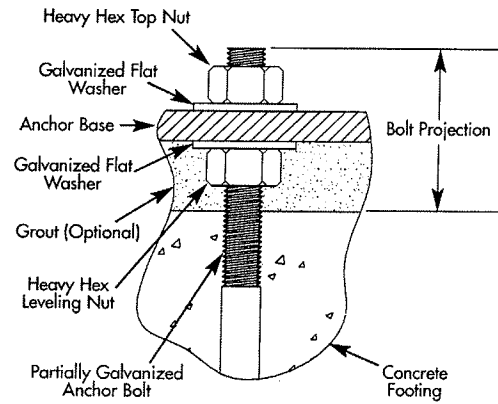


## ANCHOR BASE AND BOLT DIMENSIONS

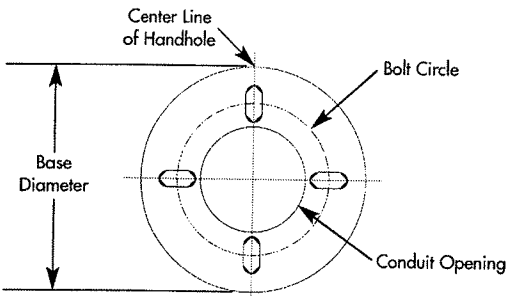
### Base Dimensions



### Bolt Projection Detail



### Anchor Base Detail



BASE DESCRIPTION	BOLT CIRCLE		ANCHOR BOLT		
	DIA. (IN)	± (IN)	DIA. X LENGTH X HOOK (IN)	PROJECTION (IN)	± (IN)
WA17-AS	11.50	1.50	0.75 x 17.00 x 3.00	3.50	0.25

## STANDARD AND DIMENSIONAL DATA TABLE

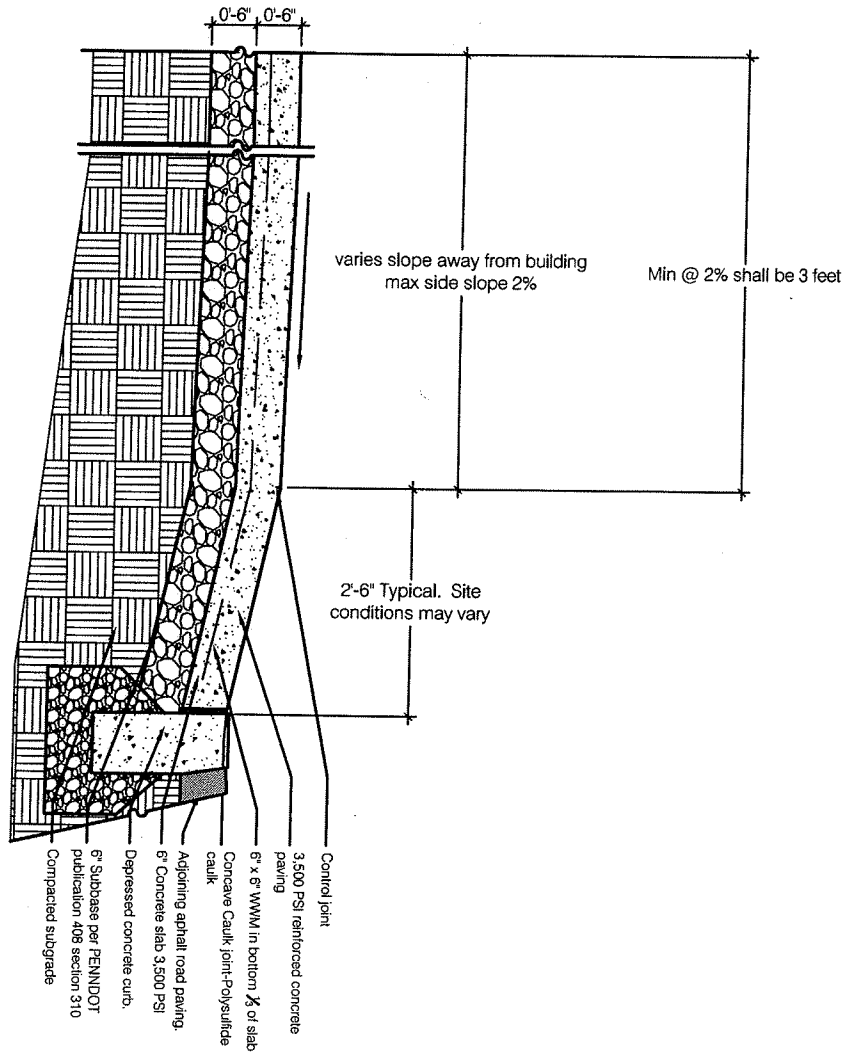
POLE HEIGHT (FT)	CATALOG NUMBER	SHAFT				80 MPH Ⓐ		90 MPH Ⓐ		100 MPH Ⓐ	
		TOP O.D. (IN)	BASE O.D. (IN)	WALL THK. (IN)	STRUCTURAL WEIGHT (LBS)	MAX EPA (SQ FT)	MAX WEIGHT (LBS)	MAX EPA (SQ FT)	MAX WEIGHT (LBS)	MAX EPA (SQ FT)	MAX WEIGHT (LBS)
8	WA17AS-080-40404M	4.00	4.00	0.125	67	13.3	300	10.2	300	8.0	300
8	WA17AS-080-50504M	5.00	5.00	0.125	69	21.9	300	17.0	300	13.4	300
10	WA17AS-100-40404M	4.00	4.00	0.125	70	9.1	300	6.8	300	5.2	300
10	WA17AS-100-50504M	5.00	5.00	0.125	73	15.5	300	11.8	300	9.1	300
12	WA17AS-120-40404M	4.00	4.00	0.125	74	6.3	300	4.5	300	3.2	300
12	WA17AS-120-50504M	5.00	5.00	0.125	78	11.2	300	8.3	300	6.2	300
12	WA17AS-120-60604M	6.00	6.00	0.125	82	17.4	300	13.1	300	10.0	300
14	WA17AS-140-50504M	5.00	5.00	0.125	82	8.1	300	5.7	300	4.0	300
14	WA17AS-140-60604M	6.00	6.00	0.125	87	13.1	300	9.5	300	6.9	300
16	WA17AS-160-50504M	5.00	5.00	0.125	87	5.7	300	3.7	300	2.2	300
16	WA17AS-160-60604M	6.00	6.00	0.125	93	9.7	300	6.7	300	4.5	300
16	WA17AS-160-50506M	5.00	5.00	0.188	103	10.3	300	7.3	300	5.2	300
18	WA17AS-180-50504M	5.00	5.00	0.125	91	3.7	300	1.9	300	-	300
18	WA17AS-180-60604M	6.00	6.00	0.125	98	7.0	300	4.4	300	2.5	300
18	WA17AS-180-60606M	6.00	6.00	0.188	120	12.9	300	9.1	300	6.3	300

Ⓐ EPA values are calculated in accordance with AASHTO Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 1994. EPA calculations allow for 1.3 Wind Gust Factor. Variations from standard sizes listed above, are available upon inquiry at the factory. Satisfactory performance of lighting standard is dependent upon the pole(s) being properly attached to a supporting foundation of adequate design. Valmont Industries does not design or offer recommendations for foundations.

### 1-WA-2B

Valmont Industries, Inc., 7002 N. 288th St., P.O. Box 358 ~ Valley, Nebraska 68064-0358 (402) 359-2201 ~ www.valmont.com

SPC7189 05/05



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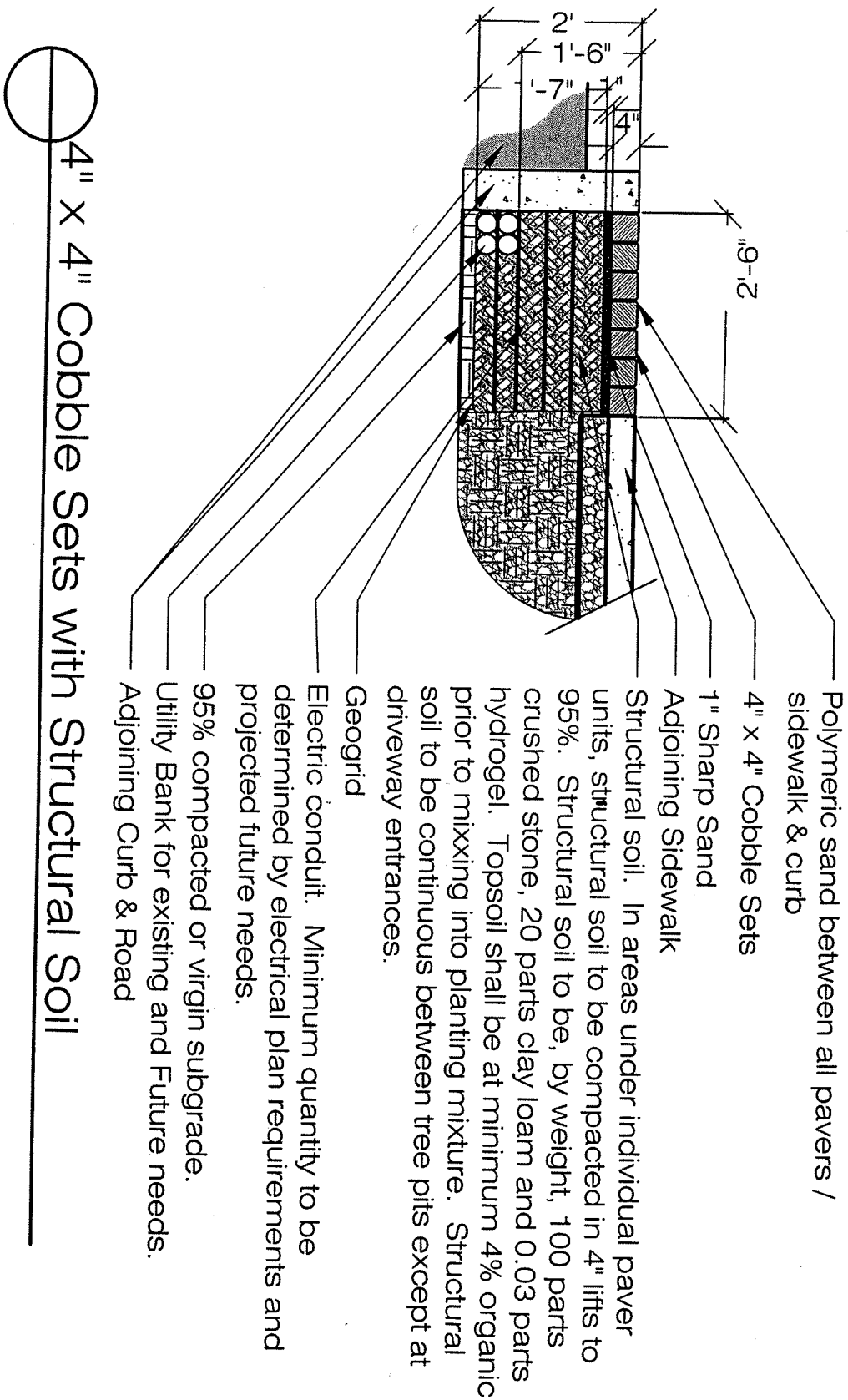
40 Gordon Alley, Doylestown, Pennsylvania 18001  
Tel. 215 345 5553 Fax. 215 345 4324  
E-mail: CVDA@CVDA.COM

Driveway Aprons  
Bethlehem Pike Streetscape

Date: 11-07

Scale: 1/2"=1'-0"





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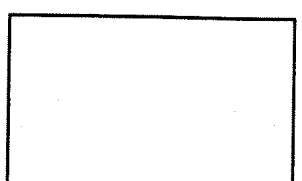
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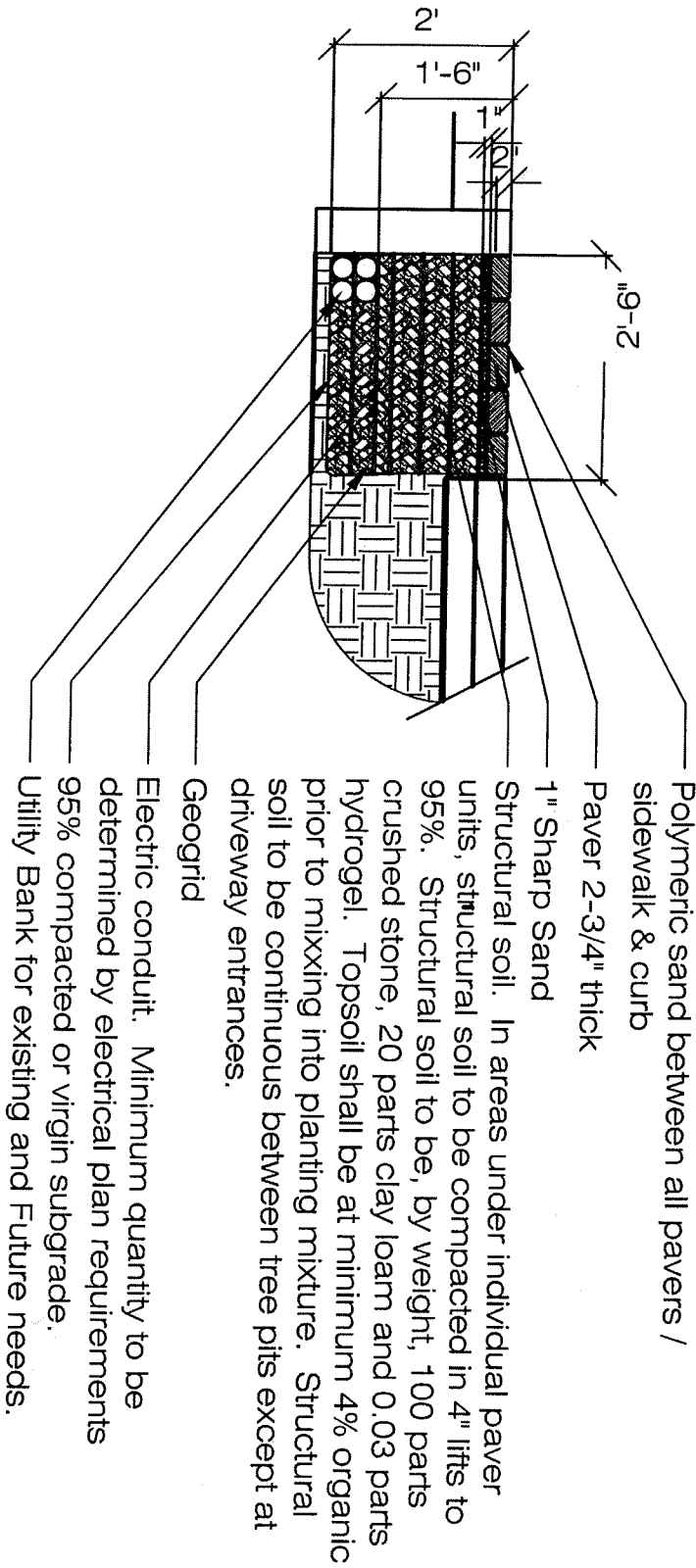
**CVDA**

40 Gordon Alley Doylestown, Pennsylvania 18901  
Tel. 215 345 5353 Fax. 215 345 4324  
E-mail CVDA@CVDA.COM

Cobble Setts on Structural Soil  
Bethlehem Pike Streetscape

Date: 11-07 Scale: 1/2"=1'-0"



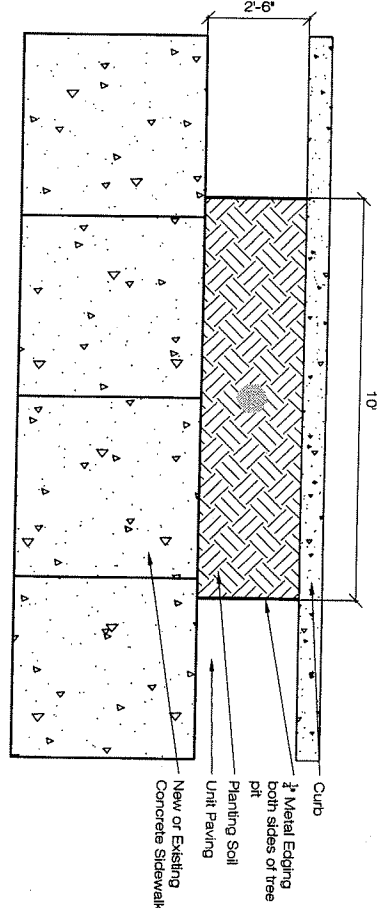
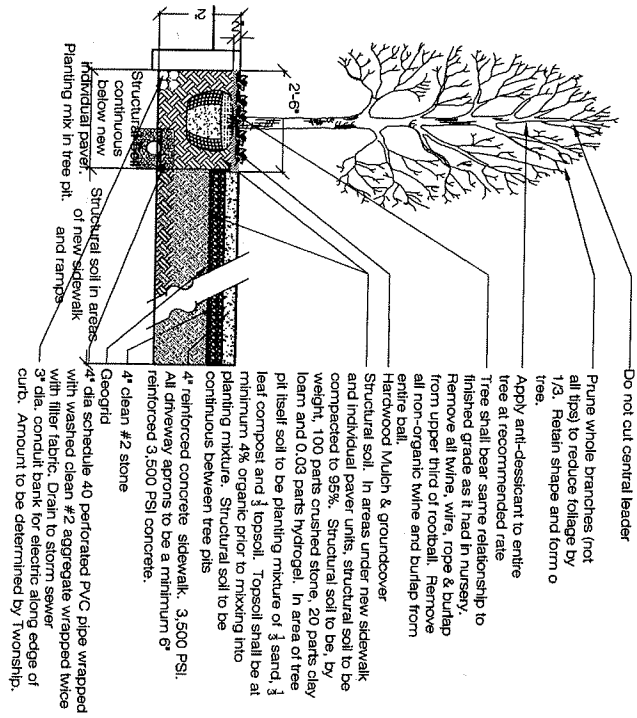


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E-mail: CVDA@CVDA.COM

Continuous Tree Pit  
Bethlehem Pike Streetscape

Date: 11-07 Scale: 1/2"=1'-0"

Tree Pit Detail  
Bethlehem Pike Streetscape

Scale: NTS  
Date: 11-07

Drawn By: -  
Checked By: -

Planners/Landscape Architects

CARTER VAN DYKE ASSOCIATES

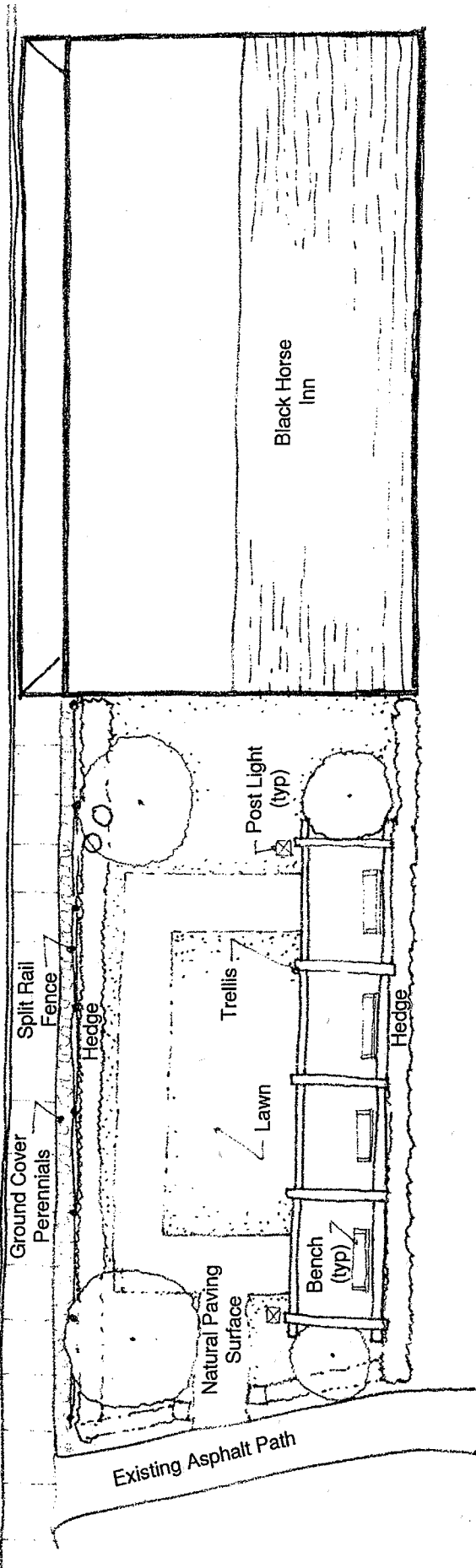
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Visual Connectivity to the  
Veterans Memorial Park

Bethlehem Pike



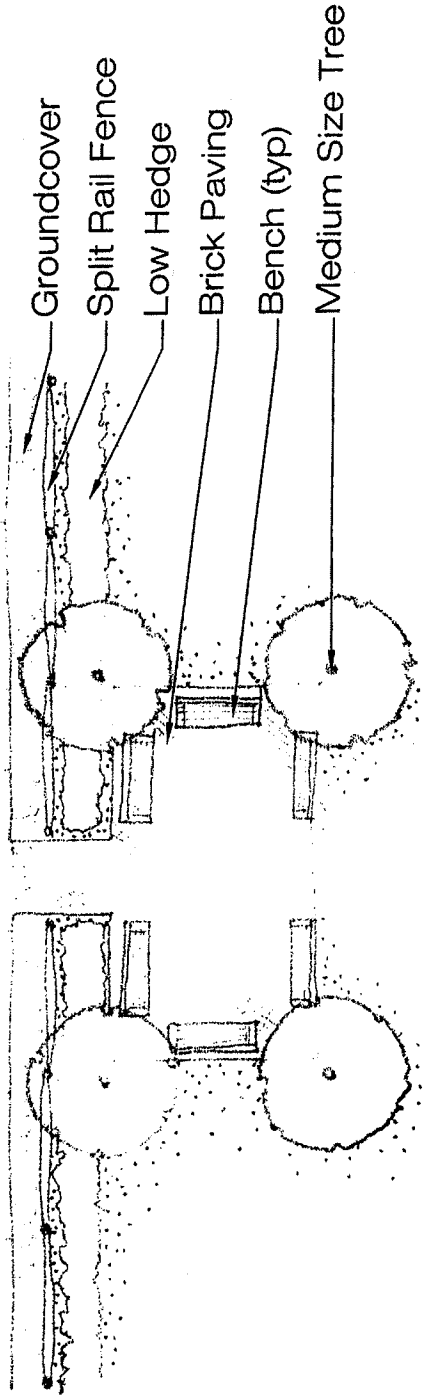
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Date: November, 2007

**Black Horse Inn Pocket Park**  
**Bethlehem Pike Pocket Parks**  
Springfield Township, Pennsylvania

CARTER VAN DYKE  
ARCHITECTS  
1000 North 10th Street, Philadelphia, PA 19107  
Phone: (215) 625-1000

**CVDA**

Bethlehem Pike



Farmers Market



Scale: 1"=8'-0"  
Date: November, 2007



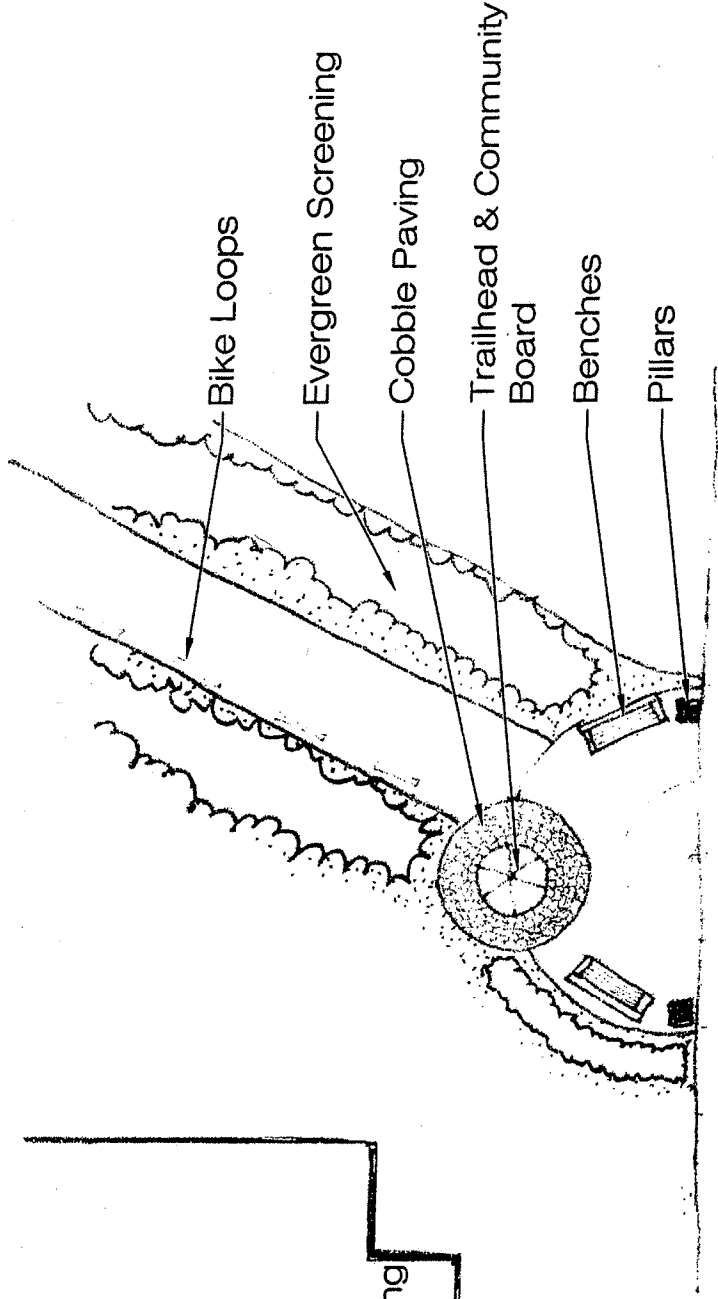
Farmers Market Frontage

Bethlehem Pike Pocket Parks  
Springfield Township, Pennsylvania

CARTER VAN DYKE  
ASSOCIATES  
2400 Walnut Street, Suite 1000  
Philadelphia, PA 19104  
Phone: 215-381-1000  
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PROJECT NO. 07-001  
DATE: 11/15/07  
DRAWN BY: JLD  
CHECKED BY: JLD  
APPROVED BY: JLD  
CARTER VAN DYKE  
ASSOCIATES  
2400 Walnut Street, Suite 1000  
Philadelphia, PA 19104  
Phone: 215-381-1000  
Fax: 215-381-1001

CVDA



Bethlehem Pike



Scale: 1"=8'-0"  
Date: November, 2007



**Green Ribbon Trail Entrance**

**Bethlehem Pike Pocket Parks  
Springfield Township, Pennsylvania**

**CARTER VAN DYKE**  
ASSOCIATES  
44 Cambridge Avenue, Philadelphia, PA 19104  
Phone: 215-381-1000  
Fax: 215-381-1001  
E-mail: cvan@cvd.com

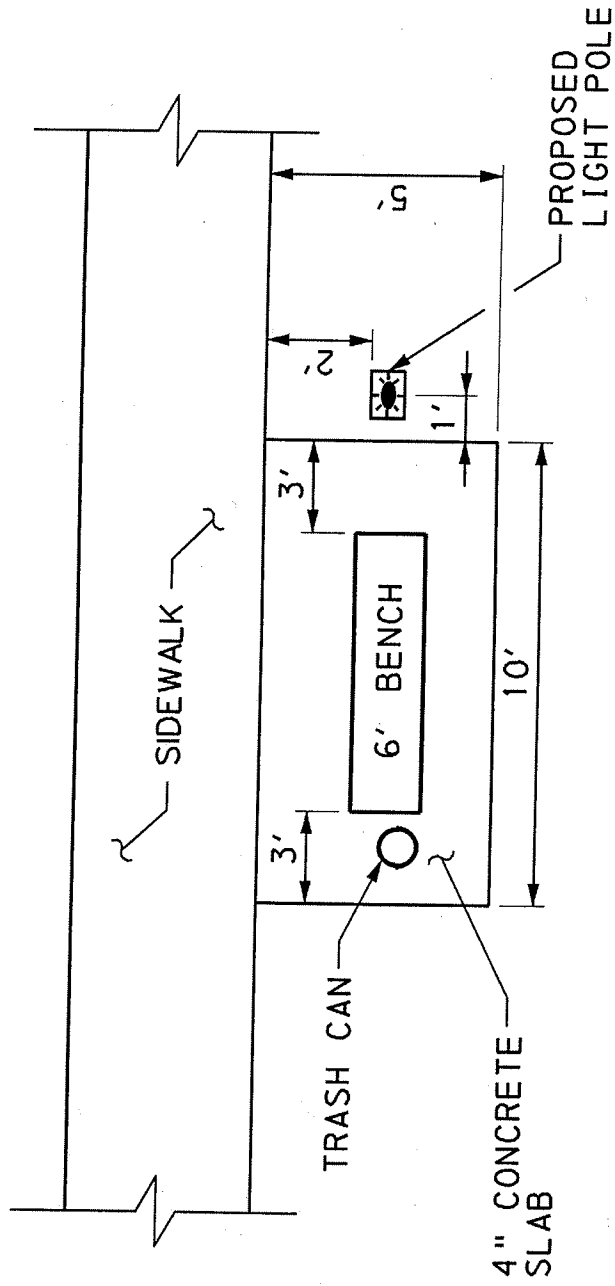
**CVDA**











PROPOSED BENCH AREA AT  
BANK OF AMERICA

NOT TO SCALE

**Bethlehem Pike Streetscape Master Plan -  
Street Tree Recommendations**

Scientific Name	Common Name			Height	Width	Open Space	Under Wires	Commercial	Comments
<b>Large Trees</b>									
<i>Acer rubrum</i>	Red Maple	75'	35'	•			•		Fall color: orange; red; yellow
<i>Acer saccharum</i>	Sugar Maple	60'	40'	•			•		Fall color: orange; red; yellow Fruit: long brown pods, most cultivars have little to no fruit Bark: attractive, dark gray-brown, develops scaly platy ridges and deep furrows with age
<i>Gleditsia tricanthos v. inermis</i>	Thornless Honeylocust	80'	70'	•					fruit, twigs, or foliage cause significant litter; showy trunk
<i>Platanus occidentalis</i>	Sycamore	100'	100'	•					fruit, twigs, or foliage cause significant litter; showy
<i>Quercus acutissima</i>	Sawtooth Oak	60'	50'	•					fruit, twigs, or foliage cause significant litter; showy fall color: copper; yellow
<i>Quercus macrocarpa</i>	Bur Oak	80'	80'	•					fruit, twigs, or foliage cause significant litter; showy fall color:red
<i>Quercus cocinea</i>	Scarlet Oak	70'	50'	•					
<i>Zelkova serrata</i>	Jap. Zelkova	80'	60'	•			•		Fall color: copper; orange; red; yellow, showy trunk
<b>Small Trees</b>									
<i>Acer buergerianum</i>	Trident Maple	30'	30'						Fall color: copper; orange; red; yellow
<i>Acer campestre</i>	Hedge Maple	35'	30'	•			•		Fall color: yellow Fruit: showy clusters, bright red, berry-like, persist into late fall and sometimes winter
<i>Crataegus crusgalli var. inermis</i>	Thornless Cocksbur Hawthorn	18'	25'				•		Seasonal Foliage Color: glossy dark green in summer, orange in fall
<i>Maackia amurensis</i>	Maackia	30'	25'	•			•		showy, summer flowering
<i>Syringa reticulata</i>	Jap. Tree Lilac	30'	25'	•			•		summer flowering; very showy

# Appendix 3 – Preliminary Construction Cost Estimates

Bethlehem Pike Streetscape Master Plan -  
Preliminary Construction Cost Estimate  
March 2008

Phase			<b>3</b>	
Segment Name			<b>WISSAHICKON TO SPRINGFIELD AVE</b>	
Stationing			<b>60+00 TO 84+50</b>	
Item	Unit	Cost/Unit	Quantity	Cost
Stamped Asphalt Crosswalk	SY	\$150.00	0	0
Bench	Each	\$2,500.00	3	7,500
5 FT Concrete Sidewalk	SY	\$100.00	2,400	240,000
30" Cobble Strip	SY	\$125.00	1,200	150,000
Ornamental Banner Pole	Each	\$8,000.00	2	16,000
Ornamental Signal Pole	Each	\$20,000.00	0	0
Ornamental Street Light	Each	\$8,500.00	30	255,000
Raised Island Detail Unit	LF	\$35.00	65	2,275
Split Rail Fence	LF	\$15.00	0	0
Split Rail Fence w/Conc. Post	LF	\$32.00	145	4,640
Farmers Market Pocket Park	LS	\$45,000.00	0	0
BlackHorse Pocket Park	LS	\$70,000.00	1	70,000
Mill Road Trailhead	LS	\$45,000.00	1	45,000
Remove Planter		\$500.00	0	0
Bike Loops	LS	\$900.00	7	6,300
Hedge	LF	\$25.00	260	6,500
Tree Pit Detail Unit, includes:				
a) 20 groundcover plantings	Each	\$125.00	26	3,250
b) planting soil & excav. (0.6 CY)	CY	\$80.00	16	1,280
c) mulch	SY	\$4.00	75	300
Structural Soil	CY	\$35.00	387	13,545
Street Tree	LS	\$450.00	26	11,700
Driveway Repairs	LF	\$12.35	465	5,743
Curb Ramps	LS	\$1,000.00	0	0
Subtotal				<b>\$839,033</b>
Mobilization (3%)				<b>\$25,171</b>
Engineering/Environmental Approvals (15%)				<b>\$125,855</b>
Inspection (10%)				<b>\$83,903</b>
Erosion control (1%)				<b>\$8,390</b>
Traffic control (5%)				<b>\$41,952</b>
Escalation/Contingency (20%)				<b>\$167,807</b>
Grand Total				<b>\$1,292,110</b>

Bethlehem Pike Streetscape Master Plan -  
Preliminary Construction Cost Estimate  
March 2008

Phase				4	
				<b>MILL RD TO</b>	
Segment Name				<b>W. VALLEY GREEN RD</b>	
Stationing				<b>84+50 to 99+00</b>	
Item	Unit	Cost/Unit	Quantity	Cost	
					0
Stamped Asphalt Crosswalk	SY	\$150.00	0		0
Bench	Each	\$2,500.00	2		5,000
5 FT Concrete Sidewalk	SY	\$100.00	1,612		161,200
30" Cobble Strip	SY	\$125.00	187		23,375
Ornamental Banner Pole	Each	\$8,000.00	0		0
Ornamental Signal Pole	Each	\$20,000.00	4		80,000
Ornamental Street Light	Each	\$8,500.00	20		170,000
Raised Island Detail Unit	LF	\$35.00	0		0
Split Rail Fence	LF	\$15.00	0		0
Split Rail Fence w/Conc. Post	LF	\$32.00	0		0
Farmers Market Pocket Park	LS	\$45,000.00	0		0
BlackHorse Pocket Park	LS	\$70,000.00	0		0
Mill Road Trailhead	LS	\$45,000.00	0		0
Remove Planter		\$500.00	1		500
Bike Loops	LS	\$900.00	2		1,800
Hedge	LF	\$25.00	1,000		25,000
Tree Pit Detail Unit, includes:					
a) 20 groundcover plantings	Each	\$125.00	20		2,500
b) planting soil & excav. (0.6 CY)	CY	\$80.00	12		0
c) mulch	SY	\$4.00	36		144
Structural Soil	CY	\$35.00	94		3,290
Street Tree	LS	\$450.00	20		9,000
Driveway Repairs	LF	\$12.35	185		2,285
Curb Ramps	LS	\$1,000.00	7		7,000
Subtotal					<b>\$491,094</b>
Mobilization (3%)					<b>\$14,733</b>
Engineering/Environmental Approvals (15%)					<b>\$73,664</b>
Inspection (10%)					<b>\$49,109</b>
Erosion control (1%)					<b>\$4,911</b>
Traffic control (5%)					<b>\$24,555</b>
Escalation/Contingency (20%)					<b>\$98,219</b>
Grand Total					<b>\$756,284</b>

Bethlehem Pike Streetscape Master Plan -  
Preliminary Construction Cost Estimate  
March 2008

Phase			5	
Segment Name			SOUTH GATEWAY TO RICH AVE	
Stationing			12+00 TO 32+00	
Item	Unit	Cost/Unit	Quantity	Cost
Stamped Asphalt Crosswalk	SY	\$150.00	101	\$15,150
Bench	Each	\$2,500.00	4	\$10,000
5 FT Concrete Sidewalk	SY	\$100.00	1,100	\$110,000
30" Cobble Strip	SY	\$125.00	550	\$68,750
Ornamental Banner Pole	Each	\$8,000.00	0	\$0
Ornamental Signal Pole	Each	\$20,000.00	4	\$80,000
Ornamental Street Light	Each	\$8,500.00	29	\$246,500
Raised Island Detail Unit	LF	\$35.00	55	\$1,925
Split Rail Fence	LF	\$15.00	0	\$0
Split Rail Fence w/Conc. Post	LF	\$32.00	0	\$0
Farmers Market Pocket Park	LS	\$45,000.00	0	\$0
BlackHorse Pocket Park	LS	\$70,000.00	0	\$0
Mill Road Trailhead	LS	\$45,000.00	0	\$0
Remove Planter		\$500.00	0	\$0
Bike Loops	LS	\$900.00	4	\$3,600
Hedge	LF	\$25.00	85	\$2,125
Tree Pit Detail Unit, includes:				
a) 20 groundcover plantings	Each	\$125.00	30	\$3,750
b) planting soil & excav. (0.6 CY)	CY	\$80.00	19	\$1,520
c) mulch	SY	\$4.00	85	\$340
Structural Soil	CY	\$35.00	358	\$12,530
Street Tree	LS	\$450.00	30	\$13,500
Driveway Repairs	LF	\$12.35	525	\$6,484
Curb Ramps	LS	\$1,000.00	0	\$0
Subtotal				\$576,174
Mobilization (3%)				\$17,285
Engineering/Environmental Approvals (15%)				\$86,426
Inspection (10%)				\$57,617
Erosion control (1%)				\$5,762
Traffic control (5%)				\$28,809
Escalation/Contingency (20%)				\$115,235
Grand Total				\$887,308



Bethlehem Pike Streetscape Master Plan -  
Preliminary Construction Cost Estimate  
March 2008

Phase			6	
			<b>RICH AVE TO</b>	
Segment Name			<b>WISSAHICKON AVE</b>	
Stationing			<b>32+00 TO 60+00</b>	
Item	Unit	Cost/Unit	Quantity	Cost
Stamped Asphalt Crosswalk	SY	\$150.00	116	17,400
Bench	Each	\$2,500.00	4	10,000
5 FT Concrete Sidewalk	SY	\$100.00	2,325	232,500
30" Cobble Strip	SY	\$125.00	1,162	145,250
Ornamental Banner Pole	Each	\$8,000.00	0	0
Ornamental Signal Pole	Each	\$20,000.00	0	0
Ornamental Street Light	Each	\$8,500.00	35	297,500
Raised Island Detail Unit	LF	\$35.00	0	0
Split Rail Fence	LF	\$15.00	180	2,700
Split Rail Fence w/Conc. Post	LF	\$32.00	0	0
Farmers Market Pocket Park	LS	\$45,000.00	1	45,000
BlackHorse Pocket Park	LS	\$70,000.00	0	0
Mill Road Trailhead	LS	\$45,000.00	0	0
Remove Planter		\$500.00	0	0
Bike Loops	LS	\$900.00	2	1,800
Hedge	LF	\$25.00	215	5,375
Tree Pit Detail Unit, includes:				
a) 20 groundcover plantings	Each	\$125.00	32	4,000
b) planting soil & excav. (0.6 CY)	CY	\$80.00	20	1,600
c) mulch	SY	\$4.00	90	360
Structural Soil	CY	\$35.00	669	23,415
Street Tree	LS	\$450.00	32	14,400
Driveway Repairs	LF	\$12.35	716	8,843
Curb Ramps	LS	\$1,000.00	0	0
Subtotal				<b>\$810,143</b>
Mobilization (3%)				<b>\$24,304</b>
Engineering/Environmental Approvals (15%)				<b>\$121,521</b>
Inspection (10%)				<b>\$81,014</b>
Erosion control (1%)				<b>\$8,101</b>
Traffic control (5%)				<b>\$40,507</b>
Escalation/Contingency (20%)				<b>\$162,029</b>
Grand Total				<b>\$1,247,620</b>