



# Preliminary Streetscape Plan & Guidelines

Doe Run Road and North Penryn Road  
Penn Township

Prepared by:

**ELA Group, Inc.**

September 2009

# PRELIMINARY STREETSCAPE PLAN AND GUIDELINES

for

## DOE RUN ROAD AND NORTH PENRYN ROAD PENN TOWNSHIP

Located in  
Penn Township  
Lancaster County, Pennsylvania

September 2009



**ELA Project No. 318-134**

Prepared by:  
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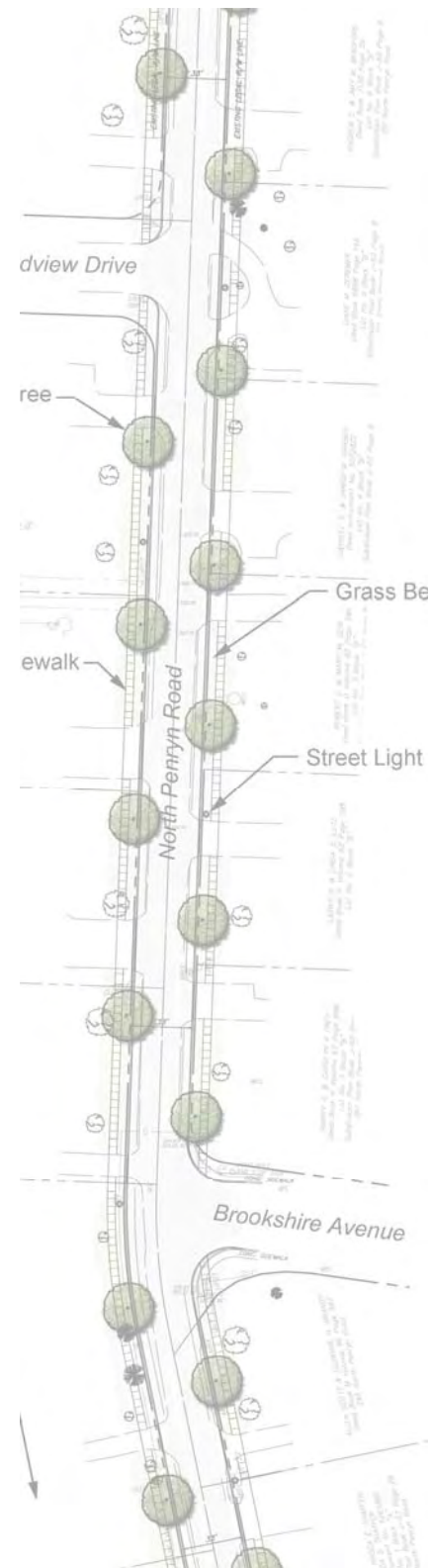
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# PRELIMINARY STREETSCAPE GUIDELINES

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## INTRODUCTION

The following Preliminary Streetscape Guidelines are intended to identify a standard for the street environment of Penn Township along Doe Run Road and North Penryn Road. The project goal is to design a long-lasting, attractive streetscape to instill a sense of place and community while providing multiple modes of accessible, safe, effective transportation for pedestrians, bicyclists, and motorized vehicles also known as “Complete Streets”. The intent is to transform Doe Run Road and North Penryn Road into an inviting place to live, shop and work.

## FINDING OF FACTS

### **Doe Run Road (SR-4040) Corridor:**

**Study Area:** From intersection of North Penryn Road, westward to Bridge at Chicques Creek, approximately 3800 L.F. (0.72 mile). Information obtained from prior land survey base mapping, GIS Aerial base mapping and on-site field observations and photographs taken on April 17, 2009. Posted speed limit for roadway study area is 35 MPH.

1. Existing Doe Run Road right-of-way (R.O.W.) is thirty feet (30') wide. Actual improved roadway centerline appears to be the same as the R.O.W. centerline.
2. Existing pavement width and edges vary but delineated lane markings average 11' wide lanes or a 22' cartway travel width and a total pavement width of 30' wide with shoulders.



3. The Zoning Classification of the study area is mostly **Community Commercial** on both sides of the roadway except for some **Industrial** at Southwest corner near Chicques Creek.

4. Roadway Classification: Per ZO (Section 315) Doe Run Road is an “**Arterial Road**”.

5. Required Right-Of-Way and Cartway Width: (Per SLDO 602.02.D.)

“Arterial street design,- The design standards for arterial streets shall be as specified by PennDOT for state highways, and as specified by

Township standards for Township streets classified as arterial streets under the Federal Aid System.”

6. Straight curb on Doe Run Road mainly occurs around the intersection of White Oak Road, otherwise mostly much non-existent except for small sections at sporadic business driveways and on the north side corner property at the intersection of Penryn Road.

7. Utilities:

- A water main appears to be located on the south-side edge of the cartway, distance from centerline unknown. The main appears to terminate opposite on the eastern edge of the Manheim Shopping Center. Two (2) fire hydrants are evident on the south side near existing retail businesses and one (1) fire hydrant is located at Molly's convenient store on the north side, west of the White Oak Road intersection.

- Sanitary Sewer mains and manholes exist within the entire study area east from Penryn Road intersection west to White Oak Road intersection. The locations of the mains generally occur within the cartway, 7'-8' north of the existing centerline, within the lane of travel.



- Storm Sewer pipes and inlets predominately occur at the White Oak Road intersection area. Existing storm water discharge from this area occurs on the south side, east of the railroad at the frontage of the new storage facility. There are also some inlets on the north side of the Penryn Road intersection. Storm water drainage between these areas flows in gutter line. On the south side it appears that surface drainage flows south westward into existing service driveways.

- Electric, Telephone and Cable TV run in overhead lines along the entire study area. Corresponding utility poles exist on both sides of the roadway and are generally spaced 130'-150' apart and vary in their offset distance from the roadway, between 16' to 24' from the existing centerline. PPL and D&E appear to own the utility poles on opposing sides.



- It is unclear with current data whether gas mains are present. However, Ferrellgas (Propane Dealer) exists along the north side

against the railroad and a gas valve was evident between the business and the tracts near Doe Run Road.

8. Mail boxes occur sporadically on the south-side only of the roadway edge.

9. Sidewalks:  
No sidewalks occur along the study area of the Doe Run Road corridor.

10. Street Trees and Landscaping:  
Probably the most consistent landscaping occurs along the Manheim Shopping Center frontage. Some mature trees are evident sporadically with varying types and off-sets on both north and south sides. For the most part the existing trees do not conflict with the roadway corridor.



11. Street Lighting:  
No street lighting exists along the corridor except at the Doe Run Road and White Oak Road intersections. Various businesses do have parking lot lighting along the roadway.

12. Signs:  
Typical road signs exist along the roadway. A few business signs appear to be within the existing right-of-way.



13. Slope and grades:  
The road corridor linearly falls from East to West toward the railroad and Chicques Creek. Existing road crown and shoulder cross-slope appear relatively gentle and side swale and shoulders appear the same.

### **North Penryn Road (T-560) corridor:**

**Study Area:** From intersection of Doe Run Road to intersection of Hickory Lane, approximately 3600 L.F. (0.68 mile). Information obtained from prior land survey base mapping, GIS Aerial base mapping and on-site field observations and photographs taken on April 17, 2009. Posted speed limit for roadway study area is 35 MPH.

1. Existing North Penryn Road right-of-way (R.O.W.) is thirty-three feet (33') wide. Actual improved roadway centerline appears to be the same as the R.O.W. centerline.
2. Existing pavement width and edges vary but delineated lane markings average a 10' lane width or a 20' total cartway travel width.
3. There is little to no paved shoulders, especially north of Stiegel Valley Road intersection.



4. The Zoning Classification of the study area is R-2 Residential north of Stiegel Valley Road and Community Commercial south of Stiegel Valley on west side only, at the BIC Church.
5. Roadway Classification: Per ZO (Section 315) Penryn Road is a "Collector Road".
6. Minimum roadway improvement requirements: (Per SLDO 602.03.A. - Table 1)  
Collector: 60' R.O.W.  
36' Cartway with on-street parking or non-motorized lane  
28' Cartway without on-street parking or non-motorized lane  
  
Local Access: 50' R.O.W.  
34' Cartway with on-street parking or non-motorized lane  
28' Cartway without on-street parking or non-motorized lane

7. Straight curb is present south of Stiegel Valley Rd., otherwise non-existent north of intersection except at two new intersections of Brookshire Estates and Hickory Road intersection at Pleasant View Retirement Community.

8. Utilities:

- Water mains are located and Fire Hydrants appear along the entire study corridor length. The mains are generally located on the west side edge of cartway, 10' off centerline and within the existing R.O.W. There is a jog to the east side of the road in front of the Township maintenance building at the Stiegel Valley intersection but then crosses back to east side in front of BIC Church and is generally 20' off the centerline in that area.
- Sanitary Sewer mains and manholes exist within the entire study area north from Pleasant View Retirement to Stiegel Valley Road intersection and again just south of the high point in front of BIC Church. The locations of the mains generally occur within the cartway, 7'-8' east of the existing centerline and an observation was made that the manholes are in alignment to the northbound vehicular wheel line.
- Storm Sewer pipes and inlets periodically cross the roadway at three (3) locations from Stiegel Valley road intersection and northward. The northern most storm crossing flows eastward while the mid and Stiegel valley Road intersection crossings flow westward. Storm pipes with Type C inlets are located on both sides of the road in front of the Township and BIC Activity Center and flow northward to junction with storm improvements along Stiegel Valley Road. Type C inlets and storm piping also occur south of high point in front of BIC Church and flow southward toward and junction with Doe Run Road intersection improvements.
- Gas mains are evident in the survey drawings south of the Stiegel Valley Road intersection. An on-site gas main marking was observed crossing Brandt Street in the northern corridor. Further investigation and additional survey to the gas main limits in the northern area may be required.
- Electric, Telephone and Cable TV run in overhead lines along the entire study area. Corresponding utility poles exist on both sides of the roadway and are generally spaced 150'-200' apart and are located just within or outside the existing R.O.W. PPL and D&E appear to own the utility poles on opposing sides.



9. Mail boxes are clustered on the east side only of the roadway edge and generally occur in the residential area north of Stiegel Valley Road.



10. Sidewalks:  
In the north, sidewalk stubs only exist at the intersections of Cambridge, Brookshire and Stiegel Valley Road intersections. South of Stiegel Valley, an existing 5' sidewalk extends along the road on the east side, 7' off curb face to the access drive of the new bank at the Doe Run Road. New sidewalk is planned along the entire BIC Church frontage on the west side.



11. Street Trees and Landscaping:  
Mature trees generally occur north of the Stiegel Valley Rd. in the residential area. Types of trees and offsets vary. A few areas pose conflicts with potential road widening due to low-branched evergreen trees and shrubs.

12. Street Lighting:  
No lighting exists along the corridor except at the new Brookshire Development intersections and parking lights at the Township buildings and BIC Church. There are also two (2) light standards at the Doe Run Road intersection.

13. Signs:  
Typical road signs exist along the roadway.
14. Slope and grades:  
The road corridor generally falls from North to South in its overall grade elevation with a few depressions along the way. Stiegel Valley Road intersection is a low-point which continues to fall in grade toward the west. The intersection of Penryn Road at Doe Run Road is also lower and continues to fall in grade to the South and west. Road crown and shoulder cross-slope appear relatively gentle with a few steeper embankments on both sides near the Brandt Street intersection.

## **STREETSCAPE DEFINITION AND ELEMENTS**

Streetscape as defined throughout the Preliminary Streetscape Guidelines generally refers to the exterior pedestrian oriented spaces located from the curb line of the street to either the edge of sidewalk or the street tree line, whichever is closer to the building line. The streetscape will also include the pedestrian crosswalks located at street intersections.

The Preliminary Streetscape guidelines do not address individual home facades or items on individual property owners parcels.

### **Typical Streetscape Elements include the following:**

- **Plantings Elements**
  - Existing Trees
  - Proposed Trees
  - Supplemental Plantings
- **Hardscaping Elements**
  - Sidewalks
  - Brick / Concrete Paver Beauty Strips
  - Grass Beauty Strips
  - Brick / Concrete Paver
  - Curbing
  - Crosswalks – Painted, Inlaid Brick, or DuraTherm
  - ADA Truncated Domes
- **Streetscape Furnishing Elements**
  - Benches
  - Trash Receptacles
  - Sign Posts
  - Lighting
  - Mailboxes

The above Streetscape Elements will be discussed in further detail in the Streetscape Materials and Elements portion of the Preliminary Streetscape Guidelines.

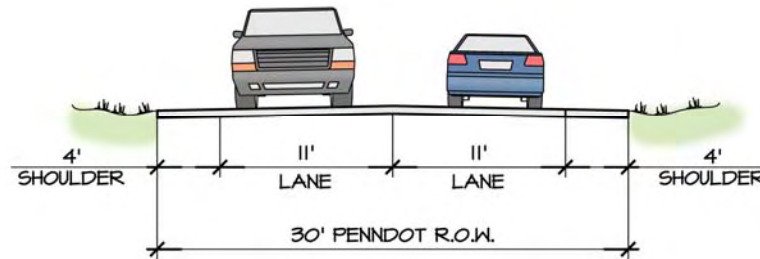
## **RECOMMENDED IMPROVEMENTS**

For the purposes of the Proposed Streetscape Guidelines, Doe Run Road and North Penryn Road have been classified into three (3) separate corridors. Most proposed improvements will require some right-of-way acquisition. (Refer to the Appendix for a plan showing the limits of the proposed Corridors and for the Right-of-Way Acquisition Area Plan).

### Doe Run Road – Commercial Corridor

The existing Doe Run Commercial Corridor is comprised typically of the following:

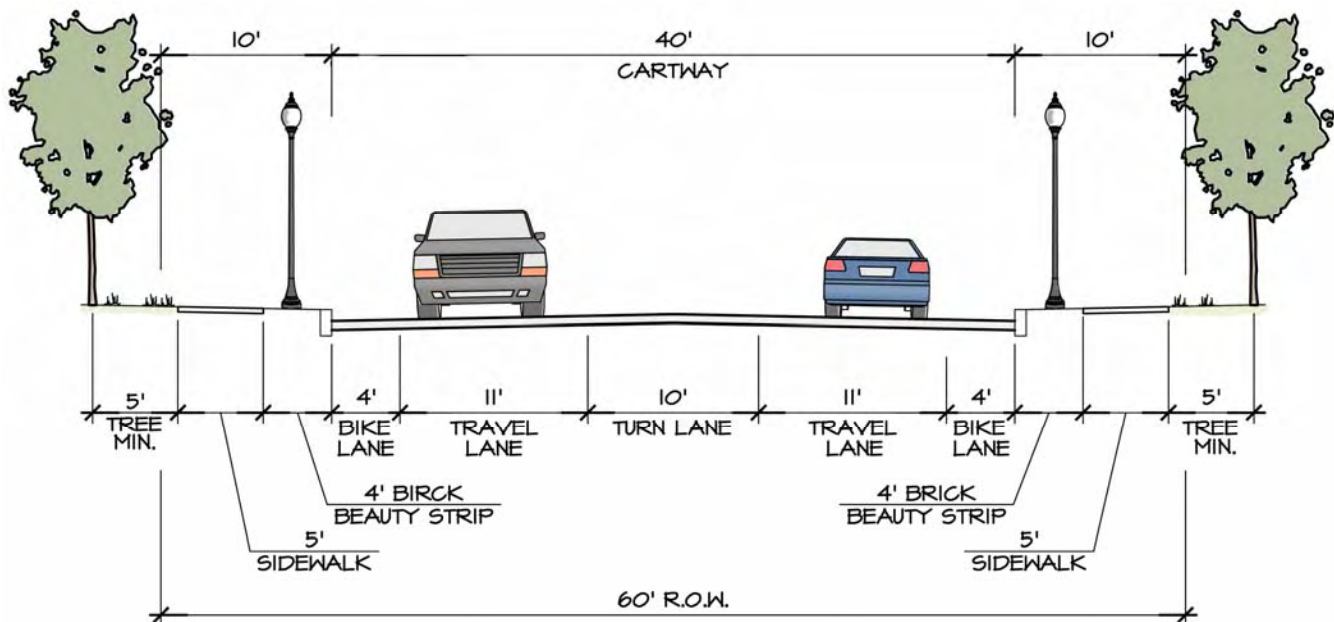
- Thirty (30) foot existing right-of-way
- Eleven (11) foot wide travel lanes
- Four (4) foot wide shoulders



The proposed Doe Run Commercial Corridor is comprised typically of the following:

- Sixty (60) foot proposed right-of-way
- Ten (10) foot wide turn lane
- Eleven (11) foot wide travel lanes
- Four (4) foot wide shoulder or bike lane
- Four (4) foot wide clay brick or concrete paver beauty strip with street light
- Five (5) foot wide concrete sidewalk
- Street tree located five (5) from edge of sidewalk to allow overhead utility lines and large vehicular traffic movement.

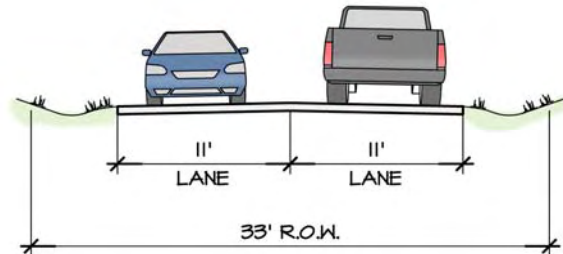
Due to the higher speeds and large amount of large truck traffic the proposed street trees have been moved outside of the right-of-way and placed five (5) feet from the edge of the sidewalk along the Doe Run Corridor.



### North Penryn Road – Community Collector Corridor

The existing North Penryn Road - Community Collector Corridor is comprised typically of the following:

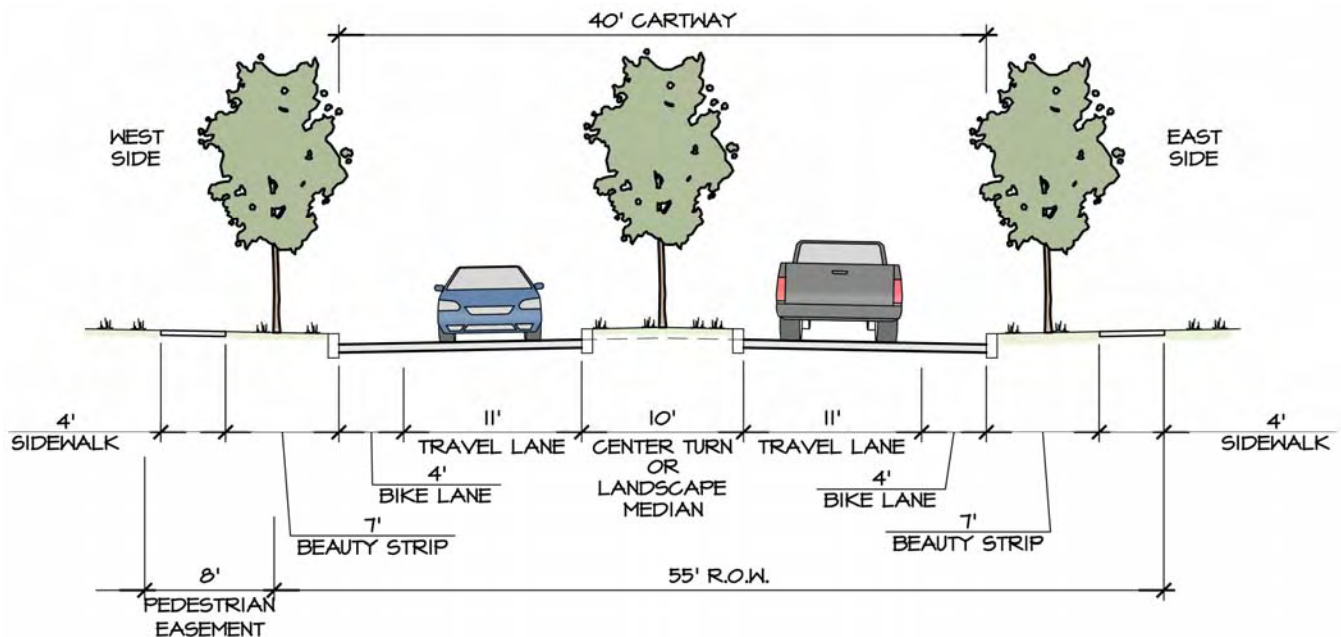
- Thirty-three (33) foot existing right-of-way
- Eleven (11) foot wide travel lanes
- Shoulders of varying width



The proposed North Penryn Road - Community Collector Corridor is comprised typically of the following:

- Fifty-five (55) foot proposed right-of-way
- Eight (8) foot wide pedestrian easement located along the west side of the road
- Ten (10) foot wide turn lane or landscape median
- Eleven (11) foot wide travel lanes
- Four (4) foot wide shoulder or bike lane
- Seven (7) foot wide grass beauty strip with street trees and street lights
- Four (4) foot wide concrete sidewalk

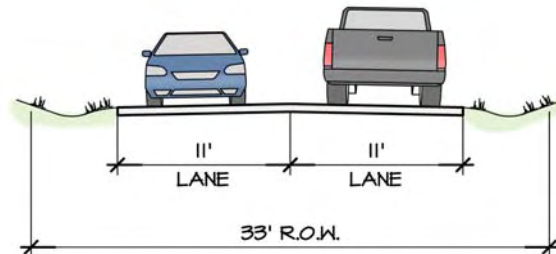
Due to the slower traffic and decreased amount of large truck traffic the street trees along the North Penryn Road Corridor have been moved to the grass beauty strip and placed within the right-of-way.



### North Penryn Road – Neighborhood Collector Corridor

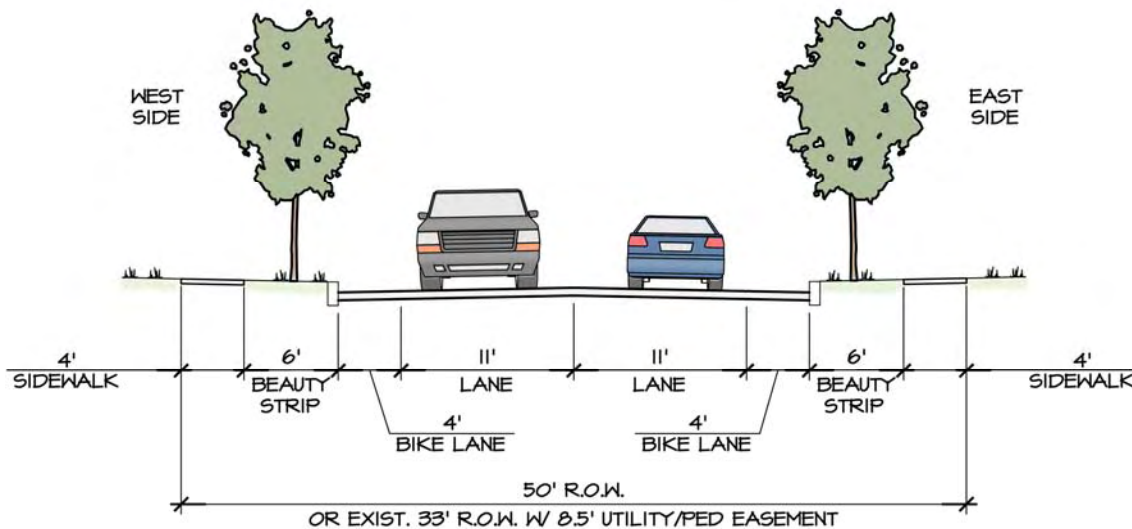
The existing North Penryn Road – Neighborhood Collector Corridor is comprised typically of the following:

- Thirty-three (33) foot existing right-of-way
- Eleven (11) foot wide travel lanes
- Shoulders of varying width



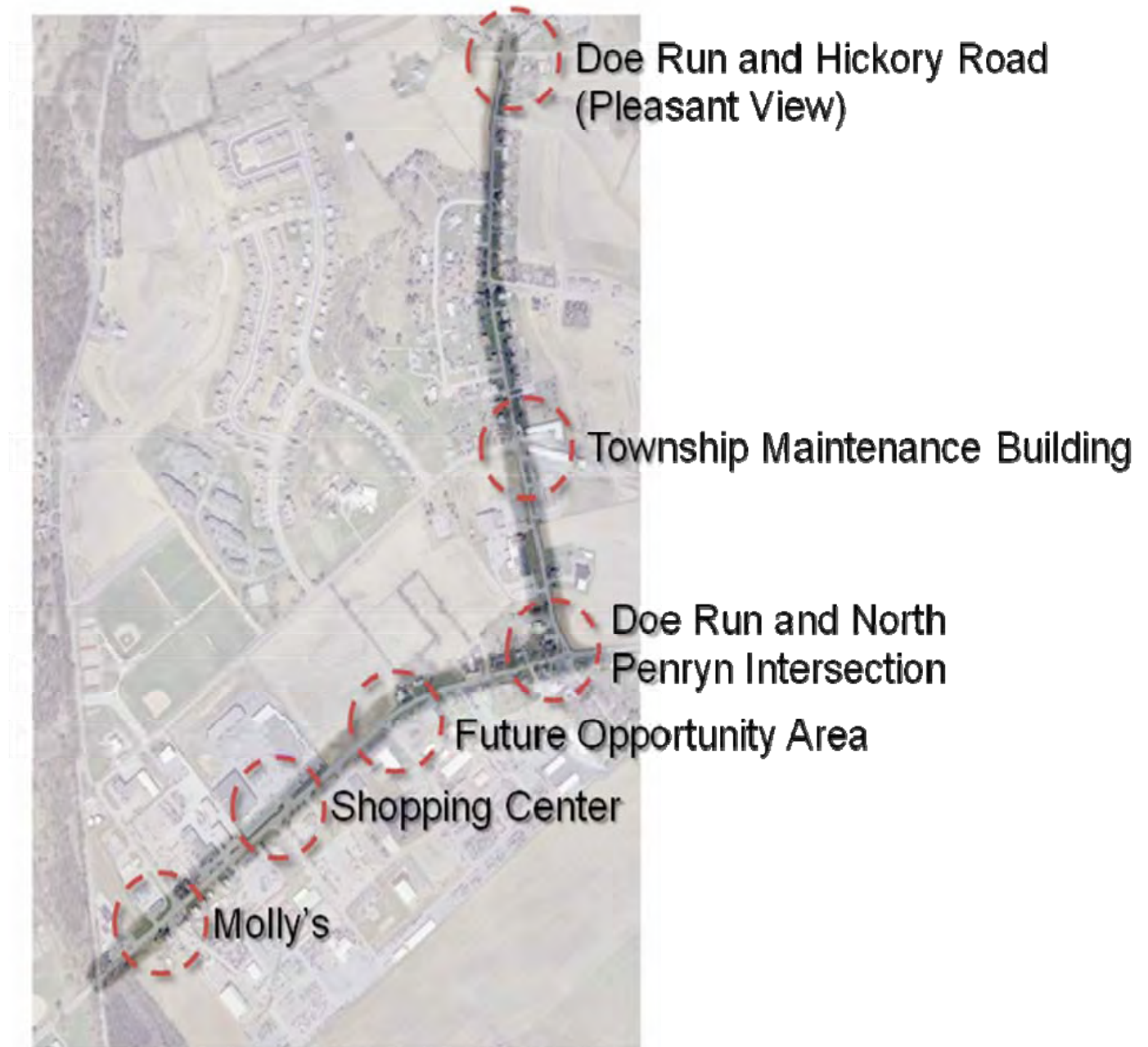
The proposed North Penryn Road - Neighborhood Collector Corridor is comprised typically of the following:

- Fifty (50) foot proposed right-of-way or existing thirty-three (33) foot right-of-way with an eight and one half (8.5) foot pedestrian easement on both sides
- Eleven (11) foot wide travel lanes
- Four (4) foot wide shoulder or bike lane
- Six (6) foot wide grass beauty strip for street trees and street light
- Four (4) foot wide concrete sidewalk



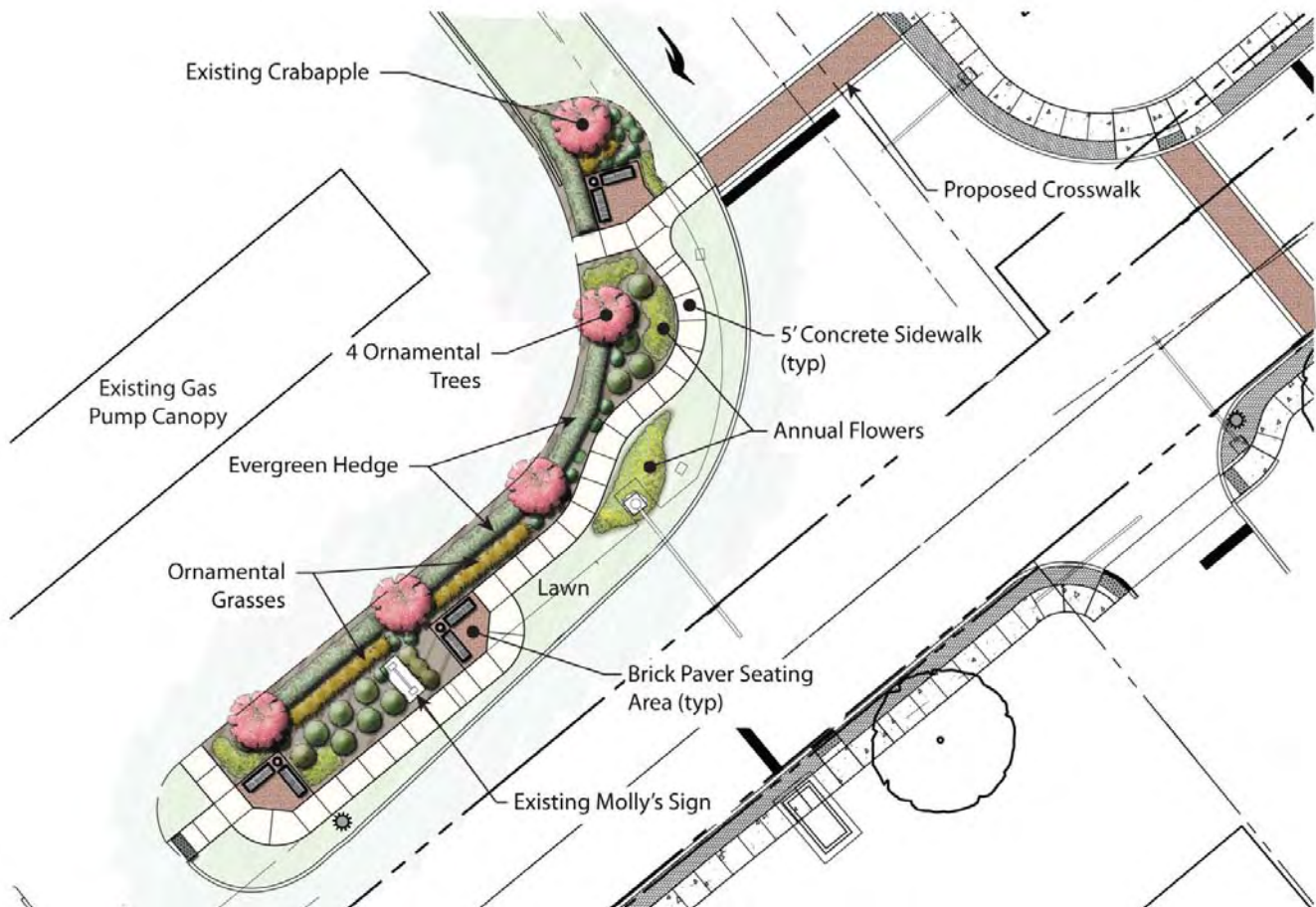
## **OPPORTUNITY IMPROVEMENT AREAS**

Within the Doe Run Road and North Penryn Road Corridor five (5) Opportunity Improvement Areas were identified as indicated on the plan below. A brief description of each area follows along with a proposed site plan, as well as before pictures, and conceptual improvement images.



## Molly's

The objective at this Opportunity Improvement Area is to create an area of interest and multiple pedestrian sitting areas. The existing Molly's sign and flag pole have been maintained and incorporated into the overall design. By utilizing the correct landscape materials the façade of the store will remain visible and be enhanced and yet make the space more inviting.



## Shopping Center

The Shopping Center access drive has been re-aligned with West End Drive, creating a signalized intersection. The parking areas to the northeast and northwest of the new access point have been reconfigured to maintain as many parking spaces as possible. Four deciduous trees have been proposed along the southern façade of Weis Market to soften the expansive blank wall. Other landscaping along with sidewalks has been incorporated to make the space more pedestrian friendly. Turning movements have been provided for truck deliveries and a future bus stop within the northwest parking area of the new access point.



### Future Development Area

This area has been designated a Future Opportunity Improvement Area. At this point in time no design concept has been done until future land development plans are proposed. (See page 11 for location).

### Doe Run Road and Penryn Road Northwest Intersection

Some time ago the intersection at Doe Run Road and North Penryn Road was re-aligned leaving the Township with a grass parcel located at the northwest corner of the intersection. This parcel will serve as another Opportunity Improvement Area. The existing curb line will be realigned to allow for larger truck movements and the crosswalks will be pulled to the north so they are out of the intersection. A twenty-two (22) inch high seat wall is proposed to provide a backdrop to the brick area. This will allow pedestrians a continuous sitting area in which to gather. A more formal seating area is proposed to the north portion of the Improvement Area. This smaller, more intimate space will include three (3) benches oriented at 90 degrees to each other and a trash receptacle. A large shade tree is proposed within the paving area. A circular bench is proposed around the shade tree to allow for additional seating. Various planting beds are proposed behind the seat wall which will include annual display beds, flowering shrubs, and evergreens.

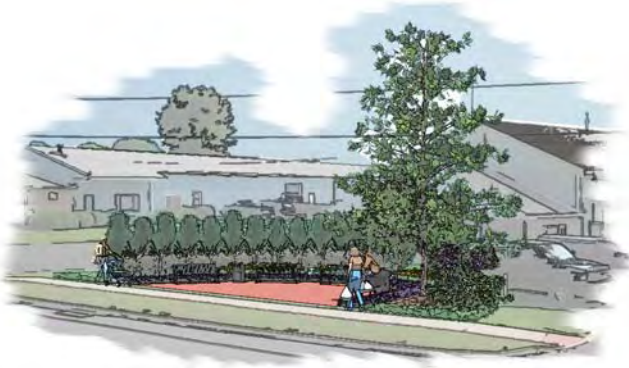


### Preliminary Streetscape Plan & Guidelines

Doe Run Road and North Penryn Road  
Penn Township September 2009

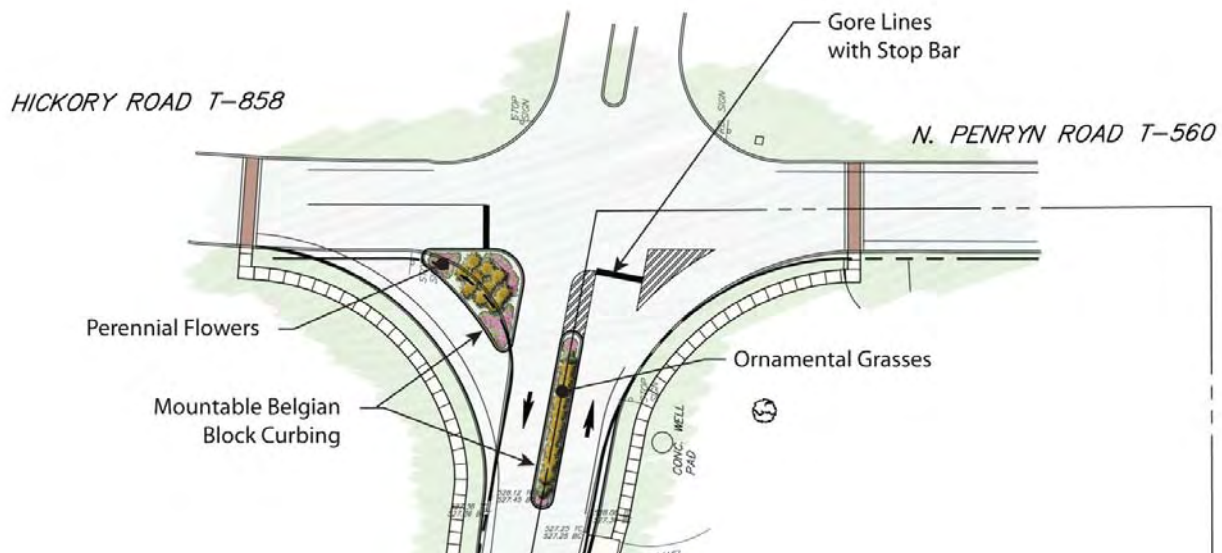
## Township Maintenance Building

A grass area located west of the Township Maintenance Building provides an excellent Improvement Opportunity Area. The area would be a focal point for pedestrian, bicyclist, and motorist traveling east on Steigel Valley Road. The design incorporates five (5) benches and two (2) trash receptacles situated along a semi-circular brick seating area. A large deciduous tree is proposed for shade, a low maintenance evergreen hedge will be used to screen views of the existing machine shop, flowering trees will provide seasonal color, and low maintenance ornamental grasses and perennials will provide various texture and variety throughout the seasons.



### North Penryn Road and Hickory Road at Pleasant View

The final Opportunity Improvement Area has been created to create easier turning movements along North Penryn Road at Hickory Road. Pleasant View has an existing planted median at the entrance to the community. A similar median is proposed directly south of the existing intersection. This median will be planted with low growing, low maintenance plant material. Gore line have been proposed to alert motorist of the median as they travel west along North Penryn Road and begin the turn to the south. The southwest corner of the intersection would be expanded to allow a wider turning movement from vehicles traveling east along Hickory road and making the turn south onto North Penryn Road. A raised planted island is also proposed.



## **STREETSCAPE MATERIALS AND ELEMENTS**

### **Plant Materials**

Plant material is a critical part of any well planned streetscape. Trees and other plantings unify the proposed streetscape by softening the built environment, buffer unwanted views, offer shade, introduce a pedestrian scale, and provide natural seasonal variation along the streetscape.

#### **Existing Trees:**

As the Preliminary Streetscape Guidelines are implemented or new development occurs, all existing street trees should be evaluated for size, species, appropriateness for street tree character, and overall health. After the evaluation it should be determined if the existing trees will remain or be removed. When feasible and practical, existing streets trees should be protected and preserved if the tree character warrants.

#### **Proposed Trees:**

Proposed Street Trees should be selected on their ability to tolerate growth within a road side environment and possible confined spaces. Trees that produce litter and have low branching patterns should be avoided. Where proposed trees may conflict with overhead power lines, street trees should have a mature height of less than thirty-five (35) feet. Lower branches should be maintained above nine (9) feet so as not to interfere with pedestrian, bicycle, or vehicular circulation. Street trees should typically be staggered on opposite sides of the street. The actual location of the street tree will vary depending on the corridor it is located in. Refer to the previous corridor cross-sections for proposed location. Trees planted within a brick / concrete paver beauty strip or within a paved Opportunity Improvement Area should be installed in an engineered soil. This will provide un-compacted soil for root growth and a compacted sub-grade base for pavements. Consideration should be given to utilize root barrier systems in these areas to protect adjacent sidewalk. All street trees should be located outside of any required clear sight distance.

#### **Supplemental Plantings:**

Supplemental Plantings will be introduced in the Opportunity Improvement Areas. The supplemental plantings should enhance the street trees, hardscape elements and site furnishing and unify the landscape. The supplemental plantings should consist of species that are low maintenance and require no irrigation after the grow in period. Final plant height should be considered when selecting supplemental plantings. Plants should not block any required pedestrian or vehicular sight distance.

### **Hardscape Elements:**

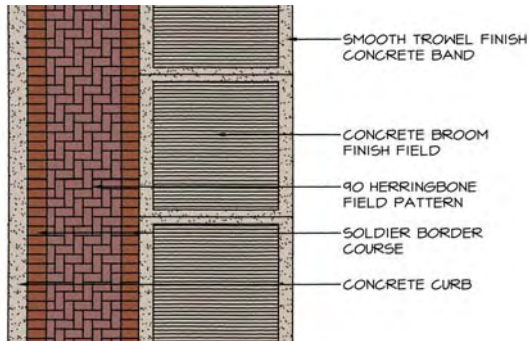
#### **Sidewalks:**

Standard concrete should be used for sidewalk construction along the Doe Run Road and North Penryn Road Corridor. The width of the proposed sidewalk will vary depending on the corridor it is located in. The Doe Run Commercial Corridor will have a five (5) foot wide sidewalk while the North Penryn Community Collector and Neighborhood Collector Corridors will have a four (4) foot wide sidewalk. Attention to installation detail should be addressed by providing a broom finish perpendicular to the direction of pedestrian circulation while providing a trowel frame finish. Scoring patterns should match the width of the concrete sidewalk.



### Brick / Concrete Paver Beauty Strips:

All proposed beauty strips located within the Doe Run Commercial Collector Corridor should be uniform in color, installation pattern and material. Both clay brick pavers and concrete pavers will provide a



natural warm material which will blend seamlessly with the other streetscape elements. The clay or concrete pavers will create a more urban, commercial feel along the more commercially zoned Doe Run Road. The clay or concrete paver beauty strip will be installed four (4) feet wide. The pavers will be installed in a herringbone pattern set 90 degrees to the curb line and lined with a soldier border course.

### Grass Beauty Strips:

Beauty strips located along North Penryn Road will be grass. This will create a more residential feel along the proposed Corridors. The proposed grass beauty strip will be between six (6) and seven (7) feet wide. The width will vary to allow for a constant four (4) foot wide shoulder / bike lane along all Corridors. The proposed street trees and site lighting will be located within the grass beauty strip along the Community and Neighborhood Collectors.

### Brick / Concrete Pavers:

The paving material for the Opportunity Improvements Areas should be clay brick or concrete pavers. The material should match what is ultimately selected for the brick / paver beauty strip located in the Doe Run Commercial Corridor to encourage unity. The installation pattern of each Opportunity Improvement Area should be selected upon what complements the shape of each unique area and not on a standard installation pattern.

### Curbing:

All proposed curbing located within the Township Right-of-Way should conform to the Penn Township Subdivision and Land Development Ordinance; all proposed curb located within the State right-of-way should conform to current PennDOT Standards. The proposed divided median located along North Penryn Road in the Community Collector Corridor should be constructed of slant concrete curb. The proposed median and raised island located near the intersection of North Penryn Road and Hickory Road should also be constructed of slant concrete curb.

### Crosswalks:

Crosswalks located at prominent intersections should be constructed of inlaid vehicle rated clay brick or concrete pavers bordered by a 12" wide flush concrete curb. The inlaid clay brick or concrete paver option will create a cohesive material palette throughout the proposed streetscape allowing for a pedestrian connection from one side of the street to the other.



Crosswalks at Major Intersections

Clay brick or concrete pavers should be set in a 45 degree herringbone pattern with a flush concrete curb edging. This option should be thoroughly reviewed with PennDOT prior to implementation within the PennDOT right-of-way. Secondary crosswalks should be line striped with two (2) foot wide thermoplastic paint bars spaced four (4) feet on center.



Crosswalks at Minor Intersections

### **ADA Truncated Domes:**

All street intersections are to incorporate curb ramps that meet the requirements of the Americans with Disabilities Act and PennDOT RC Standards. All curb ramps are to include raised truncated domes that contrast visually with the adjoin pavement surface. The truncated domes shall be made of cast iron that has been powdered coated black.



ADA Crosswalk with Truncated Domes

### **Streetscape Furnishings:**

Proposed Streetscape Furnishings are to be black, powder-coated metal. Installing streetscape furnishing that are complementary with each other and that have the same color and style of material will unify the overall cohesive appearance along the Doe Run Road and North Penryn Road corridor.

### **Benches:**



Bench

Benches provided along the Doe Run and North Penryn Road corridors will provide pedestrians resting points and create points of interest. The well thought out location of benches will encourage meeting areas and gathering spots. Benches will typically be oriented toward the sidewalk and vehicular travel lanes. Benches will be placed within the Opportunity Improvements Areas and at various mid-block locations that may require a resting area. It is preferred that benches be located within close proximity to shade trees. All benches should have backs. Benches should be permanently affixed to concrete pads located off the main sidewalk allowing pedestrian through traffic. In areas where the sidewalk slopes, leveling pads or hardware should be used.

### **Trash Receptacles:**

Trash receptacles should be complementary in style, color and material to the benches. The trash receptacles and benches will typically be located in close proximity to each other. As with the benches the trash receptacles should be permanently mounted to the sidewalk. Where existing street intersections are not located in Opportunity Improvement Areas, two (2) trash receptacles should be located on opposite corners. At the Opportunity Improvement Areas the trash receptacles should be installed with a dual trash and co-mingled plastic and glass recycle lid.

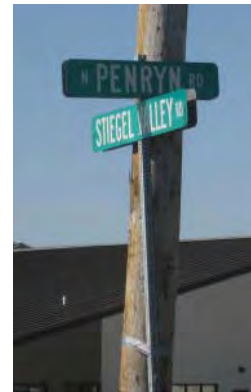


Receptacle



### Sign Posts:

It is recommended that all traffic sign posts be upgraded to a decorative street sign system. This would also include smaller sign post installed by the Township. These posts should be painted black by the Maintenance Department. The proposed sign posts should be approved by the U.S Department of Transportation Federal Highway Administration. It is also recommended that all proposed sign posts located with the PennDOT right-of-way be reviewed by PennDOT for compliance. When possible, multiple street signs should be combined into a two blade sign configuration along with any required stop signs. All proposed traffic signal should also complement the color, style and material of the other proposed street furnishings.



Existing



Proposed

### Lighting:

The goal of the proposed street lighting is two-fold. First it should provide a safe and secure environment for pedestrians, bicyclists, and motorists. Second, the street lighting will provide an improved aesthetic value along the entire Doe Run Road and North Penryn Road corridor. The intent is to establish a pedestrian scale lighting system. This includes the use of lower, more closely spaced lamps, with a softer light, while recognizing taller more intensive lights may be required at intersections. The proposed street lighting will be one of the more visible additions to the proposed streetscape improving the appearance of the corridors both during the day and night. The proposed street lights will be placed between the concrete curbing and the sidewalk either in the grass beauty strip or the brick / concrete paver beauty strip. The proposed street lights will be a period style, post mounted, acorn style fixture. The spacing should generally be between one-hundred (100) to one-hundred fifty (150) feet. The pole height should not exceed twelve (12) feet. All proposed period style lights shall conform to current PPL standards. If possible the use of LED luminaires should be reviewed with PPL.



### Mailboxes:

The Township may wish to investigate the possibility of unifying the mailbox style located along the eastern edge of North Penryn Road and the south side of Doe Run Road. If the same color and style of mailbox were introduced it would enhance to overall sense of place and unify the neighborhood along the North Penryn Road corridor. The style and material of any proposed mailbox should be complementary to the benches, trash receptacles, sign posts and street lights. The unit cost per mailbox is estimated to be \$300.00



Existing



Proposed

## **FUNDING SOURCES**

The following represents a preliminary, initial list of funding sources for the improvements outlines in the Streetscape Guidelines. The Township should work with Federal, State, and County representative to stay abreast of these programs and to identify possible additional sources of funding. The Township should also explore private grants and foundations for further sources of funding.

- Growing Greener II  
<http://www.growinggreener2.org/>
- The Pennsylvania Infrastructure Bank (PIB)  
<http://www.dot.state.pa.us/penndot/bureaus/PIB.nsf/HomePagePIB?OpenForm>
- PENNVEST (water, wastewater, and stormwater)  
<http://www.pennvest.state.pa.us/pennvest/cwp/browse.asp?A=4>
- PA Business in Our Sites  
<http://www.newpa.com/index.aspx>
- Utility Companies  
<http://www.pplweb.com>
- Developer contributions and improvements required by developers

## **IMPLEMENTATION**

The Preliminary Streetscape Guidelines are suggested to be used for all land development plans, changes of use, and for buildings reconstructed or rehabilitated by fifty (50) percent or more within the boundaries of the corridor, where feasible.

All Streetscape designs should be reviewed by the Penn Township Planning Commission and the Board of Supervisors for compliance with these Preliminary Streetscape Guidelines. The Potential Streetscape Products and Suppliers listed in the Appendix are provided as a description of suggested elements. They are not meant to be a single source provider. Other manufactures may be utilized if reviewed and approved by Penn Township Planning Commission and Board of Supervisors.

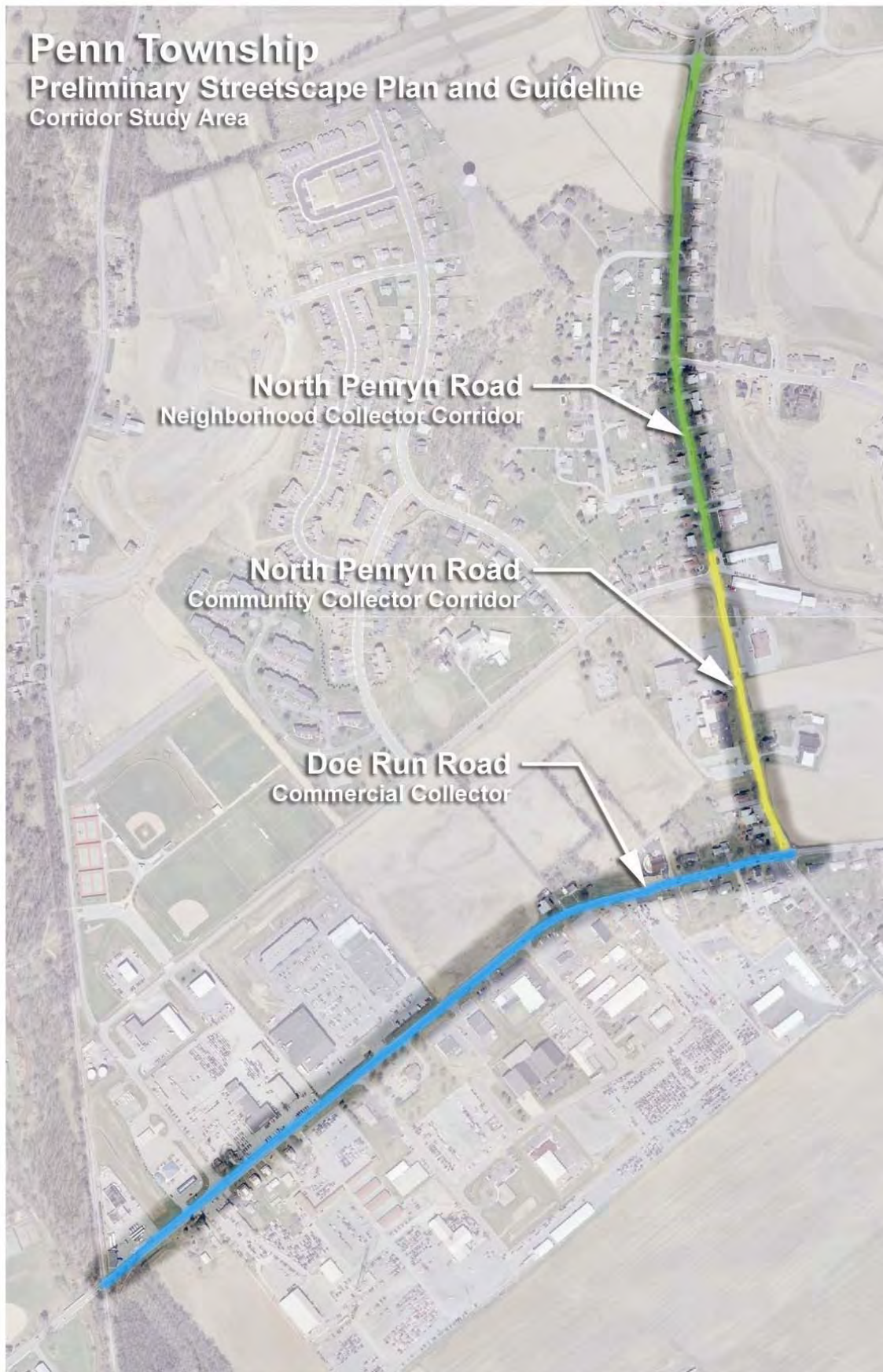
## **CONCLUSION**

The Preliminary Streetscape Guidelines have been developed to create a long-lasting, attractive streetscape to instill a sense of place and community along the Doe Run Road and North Penryn Road corridor. The key to the success of the Preliminary Streetscape Guidelines will be attentive implementation along with a combination of public and private input throughout the design and review process.

## Appendix

## **A.1 Corridor Study Areas**

**Penn Township**  
**Preliminary Streetscape Plan and Guideline**  
Corridor Study Area



## **A.2 Right-of-Way Acquisition**

# Doe Run Road

## Right-of-Way Exhibit

May 2009



Doe Run Road  
Right-of-Way Exhibit  
May 2009



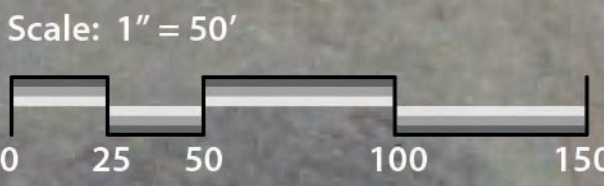
Scale: 1" = 50'

0 25 50 100 150

# North Penryn Road

## Right-of-Way Exhibit

May 2009





HICKORY ROAD T-858

N. PENRYN ROAD T-560

N. PENRYN ROAD T-560

GRANDVIEW DRIVE T-714

N. PENRYN ROAD T-560

GRANDVIEW DRIVE T-714

BROOKSHIRE AVENUE

BRANDT STREET T-579

# North Penryn Road Right-of-Way Exhibit May 2009

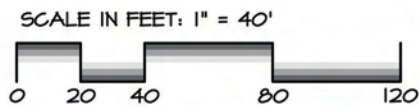
Scale: 1" = 50'

0 25 50 100 150



## **A.3 Preliminary Streetscape Plans**

DRAWING: N:\310\310-134 Streetscape\Rendering Base.dwg - PLOTTED: Sep 30, 2009 11:04 pm



REVISIONS PER:	DATE:	BY:
1. -	-	-
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-



Offices in Lititz & State College, Pennsylvania  
(717) 626.7271 (814) 961.6328  
www.eagroup.com

PRELIMINARY STREETScape PLAN

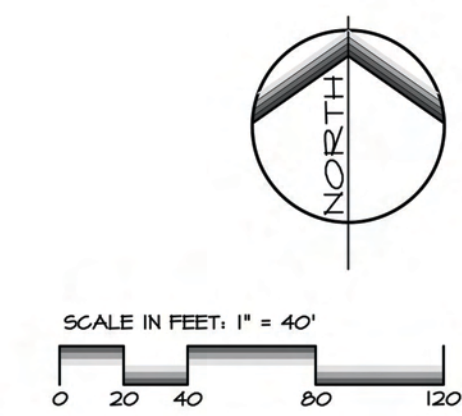
SUBJECT:  
**DOE RUN ROAD IMPROVEMENTS**  
PENN TOWNSHIP STREETScape  
PENN TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA  
CLIENT:  
**PENN TOWNSHIP**  
97 NORTH PENRYN ROAD  
MANHEIM, PA 17545  
(717) 665-4508

MANAGER:	BMD	DATE:	SEPT. 16, 2009
DESIGNER:	BMD	PROJECT NO.	318-134
DRAWN BY:	BLM	SCALE:	1" = 40'

DRAWING NO.

1 of 3

DRAWING: N13101310-134 Streetscape Rendering Base.dwg - PLOTTED: Oct 01, 2009 9:04 am



REVISIONS PER:	DATE:	BY:
1. -	-	-
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

**EVA**  
group, inc.  
ENGINEERS • LANDSCAPE ARCHITECTS

Offices in Lititz & State College, Pennsylvania  
(717) 626.7273 (814) 861.6328  
www.evagroup.com



**PRELIMINARY STREETScape PLAN**  
SUBJECT:  
**DOE RUN ROAD AND  
PENRYN ROAD IMPROVEMENTS**  
PENN TOWNSHIP STREETScape  
PENN TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA  
CLIENT:  
**PENN TOWNSHIP**  
97 NORTH PENRYN ROAD  
MANHEIM, PA 17545  
(717) 665-4508

MANAGER:	BMD	DATE:	SEPT. 16, 2009
DESIGNER:	BMD	PROJECT NO.	318-134
DRAWN BY:	BLM	SCALE:	1" = 40'



REVISIONS PER:	DATE:	BY:
1.		
2.		
3.		
4.		
5.		

**EVA**  
group, inc.  
ENGINEERS • LANDSCAPE ARCHITECTS

Offices in Lutz & State College, Pennsylvania  
(717) 626.7271 (814) 961.6328  
www.evagroup.com


**PRELIMINARY STREETSCAPE PLAN**  
SUBJECT:  
**PENRYN ROAD IMPROVEMENTS**  
PENN TOWNSHIP STREETSCAPE  
PENN TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA  
CLIENT:  
**PENN TOWNSHIP**  
97 NORTH PENRYN ROAD  
MANHEIM, PA 17545  
(717) 665-4508

MANAGER: BMD DATE: SEPT. 16, 2009

DESIGNER: BMD PROJECT NO. 318-134

DRAWN BY: BLM SCALE: 1" = 40'

DRAWING NO.  
**3 of 3**

## **A.4 Opinion of Probable Costs**



### Preliminary Streetscape Plan

#### Opinion of Probable Cost - Doe Run Road

#### Detail Estimate

Preliminary Streetscape Plan dated September 15, 2009

Item	Description	Quantity	Unit	Unit Price	Total Cost
01-51-36	Mobilization	1.00	LS	25,000.00	\$25,000.00
01-55-26	Temporary Traffic Control	1.00	LS	25,000.00	\$25,000.00
<b>Subtotal Temporary</b>					<b>\$50,000.00</b>
02-40-10	Remove Existing Shoulder and Pavement	3537.00	SY	25.00	\$88,425.00
02-40-24	Remove Existing Concrete Curb	5280.00	LF	4.50	\$23,760.00
02-40-86	Misc. Demolition	1.00	LS	10,000.00	\$10,000.00
02-40-88	Utility Relocations	1.00	LS	80,000.00	\$80,000.00
<b>Subtotal Removal</b>					<b>\$202,185.00</b>
12-93-08	Benches 7' Long	9.00	EA	900.00	\$8,100.00
12-93-12	Trash Receptacles	8.00	EA	600.00	\$4,800.00
<b>Subtotal Furnishings</b>					<b>\$12,900.00</b>
26-53-06	Decorative Light, Circuit and Base	21.00	EA	8,000.00	\$168,000.00
<b>Subtotal Electrical</b>					<b>\$168,000.00</b>
31-23-04	Earthwork (Prepare Subbase)	3537.00	SY	5.00	\$17,685.00
<b>Subtotal Earthwork</b>					<b>\$17,685.00</b>
32-12-40	PaDOT Pavement Leveling and Overlay	16752.00	SY	20.00	\$335,040.00
32-12-42	Full Depth PaDOT Paving w/o Overlay	3537.00	SY	26.00	\$91,962.00
32-13-02	Plain Cement Concrete Sidewalks	30403.00	SF	8.00	\$243,224.00
32-13-10	Concrete Handicap Ramp	76.00	EA	275.00	\$20,900.00
32-14-12	Clay Paver or equal	18975.00	SF	15.00	\$284,625.00
32-16-06	18" Vertical Slip Form Concrete Curb	2598.00	LF	18.00	\$46,764.00
32-16-10	Depressed Curbing	242.00	LF	18.00	\$4,356.00
32-17-04	Inlaid Clay or Concrete Paver Crosswalk	9.00	EA	10,000.00	\$90,000.00
32-17-06	Thermoplastic Crosswalk	600.00	LF	9.00	\$5,400.00
32-17-08	24" Plastic Stop Bars	10.00	LF	195.00	\$1,950.00
<b>Subtotal Paving</b>					<b>\$1,124,221.00</b>
32-91-10	Spread Topsoil, Fine Grade, Fertilize, Seed	1.00	LS	15,000.00	\$15,000.00
32-93-10	Groundcover	1.00	LS	10,000.00	\$10,000.00
32-93-20	Perennials	2531.00	EA	15.00	\$37,965.00
32-93-30	Shrub	166.00	EA	75.00	\$12,450.00
32-93-40	Ornamental Tree	5.00	EA	250.00	\$1,250.00
32-93-50	Evergreen Tree	56.00	EA	300.00	\$16,800.00
32-93-60	Shade Tree	81.00	EA	325.00	\$26,325.00
<b>Subtotal Planting</b>					<b>\$119,790.00</b>

33-44-04	Storm drainage improvements	1.00	LS	200,000.00	\$200,000.00
<b>Subtotal Storm</b>					<b>\$200,000.00</b>
34-40-20	Traffic Signage	1.00	LS	12,000.00	\$12,000.00
34-40-30	Traffic Signal light, Controller and Detectors	2.00	EA	140,000.00	\$280,000.00
<b>Subtotal General</b>					<b>\$292,000.00</b>
<b>Estimate Subtotal</b>					<b>\$2,186,781.00</b>
<b>Other Costs</b>					
<b>Right-of-Way Acquisition Drawings</b>					<b>\$32,000.00</b>
<b>PennDOT HOP and Construction</b>					<b>\$100,000.00</b>
<b>Documentation</b>					
<b>Total</b>					<b>\$2,318,781.00</b>
<b>Project Contingency 15.00%</b>					<b>\$347,817.15</b>

**Project Total****\$2,666,598.15**

ELA Group, Inc. is not a construction cost estimator nor a construction contractor, nor should ELA Group's Inc. rendering an opinion of probable construction costs be considered equivalent to the nature and extent of service a construction estimator or construction contractor would provide. ELA Group's, Inc. opinion will based solely upon his or her own experience with construction. This requires ELA Group, Inc. to make a number of assumptions to actual conditions that will be encountered on site; the specific decisions of other design professionals engaged; the means and methods of construction the contractor will employ; contractors techniques in determining prices and marker conditions at the time; and other factors over which ELA Group, Inc. has no control. Given these assumptions which must be made, ELA Group, Inc., states that the above probable construction cost opinion is a fair and reasonable estimate for construction costs of the required site improvements in accordance with the applicable rules and regulations.

**Note:**

Land and/or right-of-way acquisition costs are not included above



# Preliminary Streetscape Plan

## Opinion of Probable Cost - North Penryn Road

## Detail Estimate

Preliminary Streetscape Plan dated September 15, 2009

Item	Description	Quantity	Unit	Unit Price	Total Cost
01-51-36	Mobilization	1.00	LS	25,000.00	\$25,000.00
01-55-26	Temporary Traffic Control	1.00	LS	25,000.00	\$25,000.00
	<b>Subtotal Temporary</b>				<b>\$50,000.00</b>
02-40-10	Remove Existing Shoulder and Pavement	2467.00	SY	25.00	\$61,675.00
02-40-86	Misc. Demolition	1.00	LS	10,000.00	\$10,000.00
02-40-88	Utility Relocations	1.00	LS	80,000.00	\$80,000.00
	<b>Subtotal Removal</b>				<b>\$151,675.00</b>
12-93-08	Benches 7' Long	8.00	EA	900.00	\$7,200.00
12-93-12	Trash Receptacles	10.00	EA	600.00	\$6,000.00
	<b>Subtotal Furnishings</b>				<b>\$13,200.00</b>
26-53-06	Decorative Light, Circuit and Base	21.00	EA	8,000.00	\$168,000.00
	<b>Subtotal Electrical</b>				<b>\$168,000.00</b>
31-23-04	Earthwork (Prepare Subbase)	2467.00	SY	5.00	\$12,335.00
	<b>Subtotal Earthwork</b>				<b>\$12,335.00</b>
32-12-40	PaDOT Pavement Leveling and Overlay	14750.00	SY	20.00	\$295,000.00
32-12-42	Full Depth PaDOT Paving w/o Overlay	2467.00	SY	26.00	\$64,142.00
32-13-02	Plain Cement Concrete Sidewalks	21182.00	SF	8.00	\$169,456.00
32-13-10	Concrete Handicap Ramp	77.00	EA	275.00	\$21,175.00
32-14-12	Clay Paver or equal	1500.00	SF	15.00	\$22,500.00
32-16-06	18" Vertical Slip Form Concrete Curb	4233.00	LF	18.00	\$76,194.00
32-16-10	Depressed Curbing	242.00	LF	18.00	\$4,356.00
32-16-12	Slant Curb	1000.00	LF	16.00	\$16,000.00
32-17-04	Inlaid Clay or Concrete Paver Crosswalk	5.00	EA	10,000.00	\$50,000.00
32-17-06	Thermoplastic Crosswalk	400.00	LF	9.00	\$3,600.00
32-17-08	24" Plastic Stop Bars	10.00	LF	195.00	\$1,950.00
	<b>Subtotal Paving</b>				<b>\$724,373.00</b>
32-32-04	Seat wall and cap	100.00	LF	200.00	\$20,000.00
	<b>Subtotal Improvements</b>				<b>\$20,000.00</b>
32-91-10	Spread Topsoil, Fine Grade, Fertilize, Seed	1.00	LS	15,000.00	\$15,000.00
32-93-10	Groundcover	1.00	LS	10,000.00	\$10,000.00
32-93-20	Perennials	1200.00	EA	15.00	\$18,000.00
32-93-30	Shrub	50.00	EA	75.00	\$3,750.00
32-93-40	Ornamental Tree	3.00	EA	250.00	\$750.00
32-93-50	Evergreen Tree	52.00	EA	300.00	\$15,600.00
32-93-60	Shade Tree	65.00	EA	325.00	\$21,125.00
	<b>Subtotal Planting</b>				<b>\$84,225.00</b>

33-44-04	Storm drainage improvements	1.00	LS	100,000.00	\$100,000.00
	<b>Subtotal Storm</b>				<b>\$100,000.00</b>
34-40-20	Traffic Signage	1.00	LS	12,000.00	\$12,000.00
	<b>Subtotal General</b>				<b>\$12,000.00</b>
	<b>Estimate Subtotal</b>				<b>\$1,335,808.00</b>
	<b>Other Costs</b>				
	<b>Right-of-Way Acquisition Drawings</b>				<b>\$22,000.00</b>
	<b>PennDOT HOP and Construction</b>				<b>\$50,000.00</b>
	<b>Documentation</b>				
	<b>Total</b>				<b>\$1,407,808.00</b>
	<b>Project Contingency 15.00%</b>				<b>\$211,171.20</b>
<b>Project Total</b>					<b>\$1,618,979.20</b>

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**Note:**

Land and/or right-of-way acquisition costs are not included above

## **A.5 Potential Streetscape Products and Suppliers**

## **POTENTIAL STREETSCAPE PRODUCTS AND SUPPLIERS**

---

### **Pavers:**

#### **McAvoy Brick**

McAvoy Lane  
P.O. Box 468  
Phoenixville, PA 19460  
Phone: (610) 933-2932  
[www.mcavoybrick.com](http://www.mcavoybrick.com)  
Model: to be determined  
Color: To be determined

### **Truncated Domes:**

#### **Neenah Foundry Company**

2121 Brooks Avenue  
Neenah, WI 54956  
Phone: 1 (800) 558-5075  
[www.nfco.com](http://www.nfco.com)  
Model: R-4984  
Color: Powder Coated Black

### **Benches:**

#### **DuMor Site Furnishings**

P.O. Box 142  
Mifflintown, PA 17059  
Phone: 1 (800) 598-4018  
[www.dumor.com](http://www.dumor.com)  
Model: Bench 57PL  
Color: Metal, Black, Recycled Plastic, Redwood

### **Trash Receptacles:**

#### **DuMor Site Furnishings**

P.O. Box 142  
Mifflintown, PA 17059  
Phone: 1 (800) 598-4018  
[www.dumor.com](http://www.dumor.com)  
Model: Receptacle 102-32SH-FTO  
Color: Black

### **Sign Posts:**

#### **Special Lite Products Company, Inc.**

1634 Latrobe-Derry Road  
Loyalhanna, PA 15661  
Phone: 1 (800) 365-0511  
[www.specialliteproducts.com](http://www.specialliteproducts.com)  
Model: MP-410, TRO, DBL, TSB-3  
Color: Black

### **Lighting:**

#### **The Stresscrete Group**

840 Walkers Line  
Burlington, ON, L7R 3X9  
Phone: 1 (800) 268-7809  
[www.stresscrete.com/king-luminaire-product](http://www.stresscrete.com/king-luminaire-product)  
Model: K118  
Color: Black

### **Mail Boxes:**

#### **Whitehall Products, LLC**

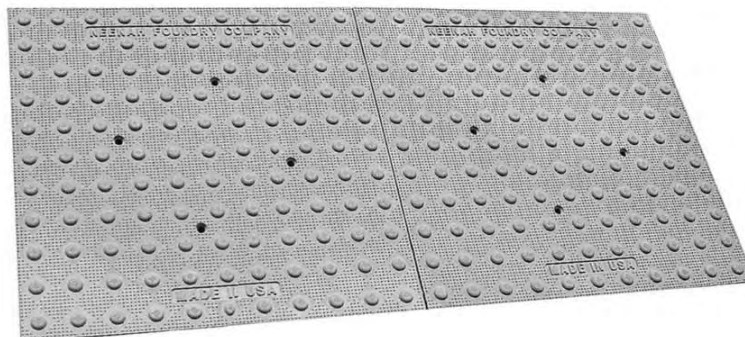
8786 Water Street  
Montague, MI 49437  
Phone: 1 (800) 728-5449  
[www.whitehallproducts.com](http://www.whitehallproducts.com)  
Model: Side Mount Double Mailbox  
Color: Black

## R-4984 Detectable Warning Plate

Neenah Detectable Warning Plates provide a durable cast iron solution for warning visually impaired people of pedestrian obstructions and hazards.

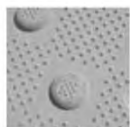
Detectable Warning Plates are available in three modular sizes: 24" x 24" square, 24" x 30", 24" x 36" and 36" x 24" rectangular. When bolted together, plates can be combined for various lengths...most commonly, 2'x4' and 2'x5' sections are installed.

Please specify finished installation size when ordering.



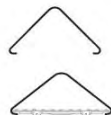
### Modular Flexibility

- Precision 2-foot square plates
- Allows easy, accurate tiling
- Cover large areas with smooth, even seams
- Radius sections also available



### Premium Material

- Low-maintenance cast gray iron
- Excellent wear resistance — virtually indestructible
- Cast iron far outlasts competitive substances
- Natural patina provides ample visual contrast



### Trouble-free Installation

- Plates easily set in wet concrete
- Integral lugs ensure solid attachment
- Cap head screws can be added for extra anchorage
- Reusable spring lifting clips included

### Lasting Form and Function

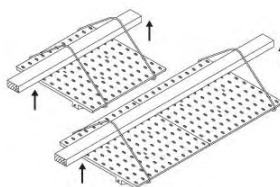
- Excellent non-skid characteristics (0.90 coefficient of friction)
- Highly resistant to snowplow damage
- Excellent adhesive properties to concrete
- Attractive natural finish requires no maintenance
- Optional powder-coated finishes available: federal yellow, optical white, brick red

■ NOTE: THE SUGGESTED FORMING PROCEDURES SHOWN IN THIS CATALOG ARE GENERAL SUGGESTIONS TO QUALIFIED PROFESSIONALS, AND MAY NOT BE APPROPRIATE FOR EVERY INSTALLATION.

### Installation Steps

1. If additional coverage is needed, bolt Detectable Warning Plates together
2. Use supplied lifting springs and 2x4 lumber to lift plates
3. Pour concrete
4. Set plates in wet concrete at final position
5. Remove lifting springs
6. Press assembly into wet concrete to final elevation
7. Finish concrete around assembly

Note: Keep wet concrete off of the top surface of the plates at all times



The reusable lifting springs supplied with each order simplify the installation process.



DETECTABLE  
WARNING  
PLATES  
8

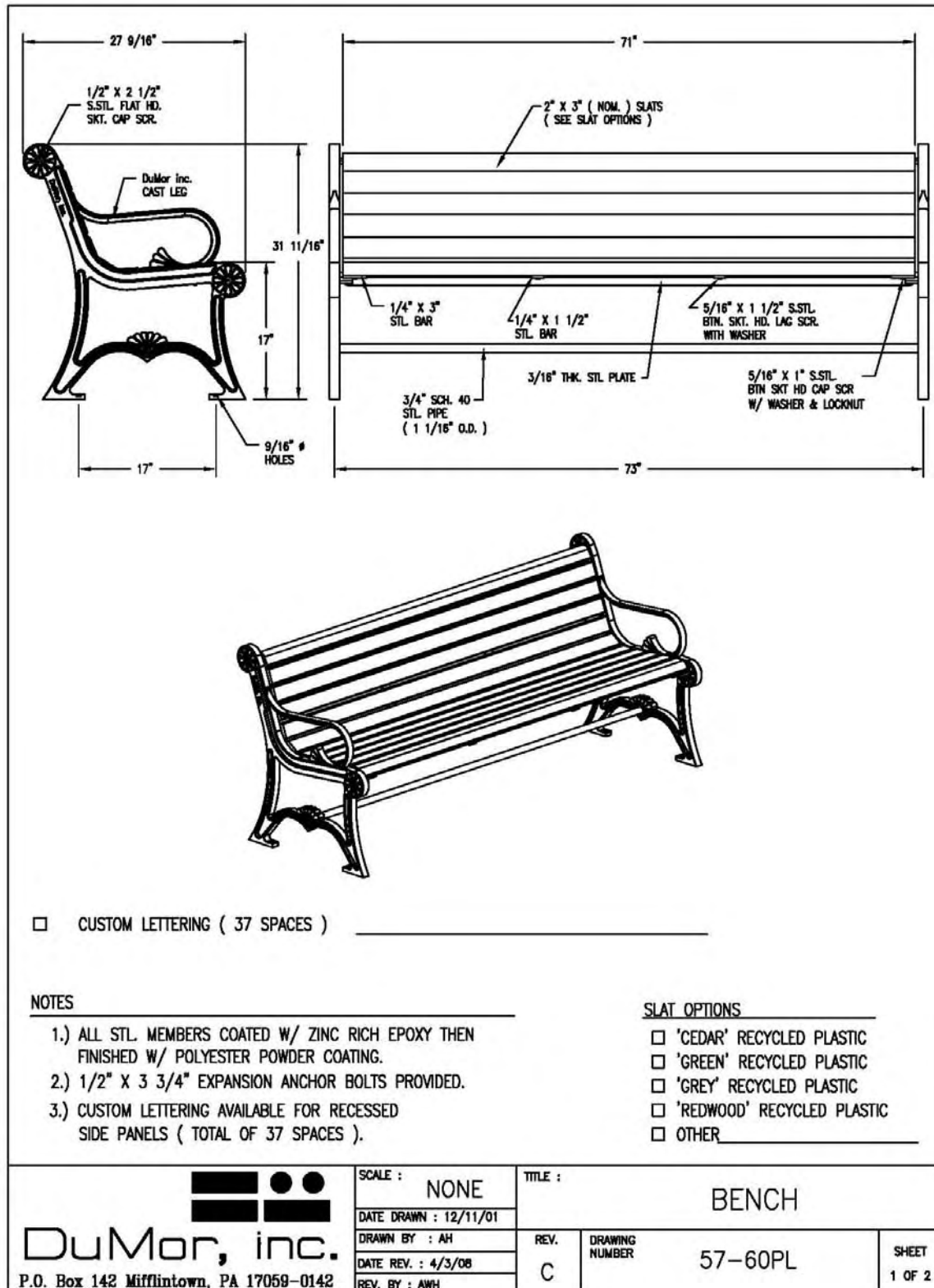
NEENAH **NF** FOUNDRY

263

## Preliminary Streetscape Plan & Guidelines

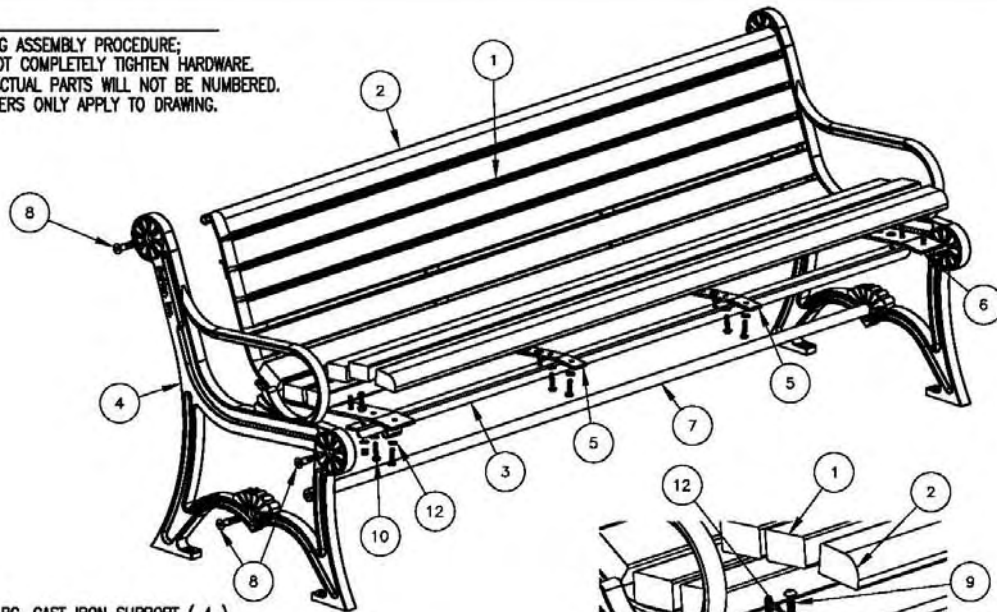
Doe Run Road and North Penryn Road  
Penn Township September 2009

A.5. 2



**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 SUPPORT ( 4 )  
1 - PCS. 71 3/4" PIPE BRACE ( 7 )  
2 - PCS. 1/2" X 2 1/2" FLT. SKT. HD. CAP SCR. ( 8 )  
ATTACH CAST IRON BENCH SUPPORT ( 4 ) TO 71 3/4" PIPE  
BRACE ( 7 ) USING HARDWARE ( 8 ). TIGHTEN TO SNUG FIT.

**STEP 2:**

- USE 2 - PCS. END CONTOUR STRAP ( 6 )  
4 - PCS. 1/2" X 2 1/2" FLT SKT. HD. CAP SCR. ( 8 )  
ATTACH END CONTOUR STRAPS ( 6 ) TO STEP 1 ASSEMBLY  
USING HARDWARE ( 8 ). TIGHTEN TO SNUG FIT.

**STEP 3:**

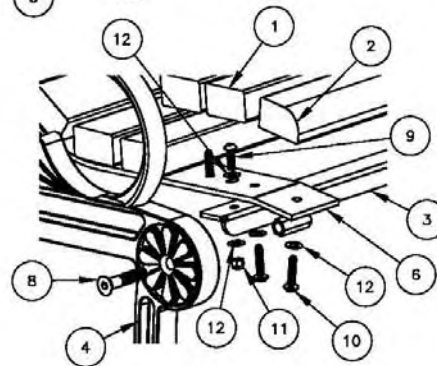
- USE 2 - PCS. 71" SEAT BRACE ( 3 )  
4 - PCS. 5/16" X 1" SS. BTN SKT HD CAP SCR ( 9 )  
4 - PCS. 5/16" SS. NYLON LOCKNUT ( 11 )  
8 - PCS. 5/16" SS. FLAT WASHER ( 12 )  
ATTACH 71" SEAT BRACE ( 3 ) TO STEP 2 ASSEMBLY  
USING HARDWARE ( 9, 11 & 12 ). TIGHTEN TO SNUG FIT.

**STEP 4:**

- USE 2 - PCS. CENTER CONTOUR STRAP ( 5 )  
4 - PCS. 5/16" X 1" SS. BTN SKT HD CAP SCR ( 9 )  
4 - PCS. 5/16" SS. NYLON LOCKNUT ( 11 )  
8 - PCS. 5/16" SS. FLAT WASHER ( 12 )  
ATTACH CENTER CONTOUR STRAP ( 5 ) TO STEP 3 ASSEMBLY  
USING HARDWARE ( 9, 11 & 12 ). TIGHTEN TO SNUG FIT.

**STEP 5:**

- USE 9 - PCS. 2" X 3" X 71" PLASTIC INT'R SLAT ( 1 )  
2 - PCS. 2" X 3" X 71" PLASTIC EDGE SLAT ( 2 )  
44 - PCS. 5/16" X 1 1/2" SS. BTN. SKT. HD. LAG ( 10 )  
44 - PCS. 5/16" SS. FLAT WASHER ( 12 )  
ATTACH 2" X 3" X 71" PLASTIC SLATS ( 1 & 2 ) TO STEP 4 ASSEMBLY  
USING HARDWARE ( 10 & 12 ). TIGHTEN TO SNUG FIT.  
REPEAT UNTIL ALL SLATS ARE ATTACHED.



**DETAIL A**

**STEP 6:**

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

**STEP 7:**

MOUNT AND ANCHOR AS SPECIFIED.

ITEM	QTY	PART NO	DESCRIPTION
1	9	0-143-60PL-01	2" X 3" X 71" PLASTIC INT'R SLAT
2	2	0-143-60PL-02	2" X 3" X 71" PLASTIC EDGE SLATS
3	2	0-16-60-06	71" SEAT BRACE
4	2	0-57-00-02	CAST IRON BENCH SUPPORT
5	2	0-57-00-03	CENTER CONTOUR STRAP
6	2	0-57-00-05	END CONTOUR STRAP
7	1	0-57-60-04	71 3/4" PIPE BRACE
8	6	1-12-065	1/2" X 2 1/2" FLT SKT HD CAP SCR
9	8	1-12-116	5/16" X 1" SS BTN SKT HD CAP SCR
10	44	1-13-023	5/16" X 1 1/2" SS BTN SKT HD LAG
11	8	1-20-018	5/16" SS NYLON LOCKNUT
12	80	1-22-017	5/16" SS FLAT WASHER

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

SCALE : NONE  
DATE DRAWN : 12/11/01  
DRAWN BY : AWH  
DATE REV. : 4/3/08  
REV. BY : AWH

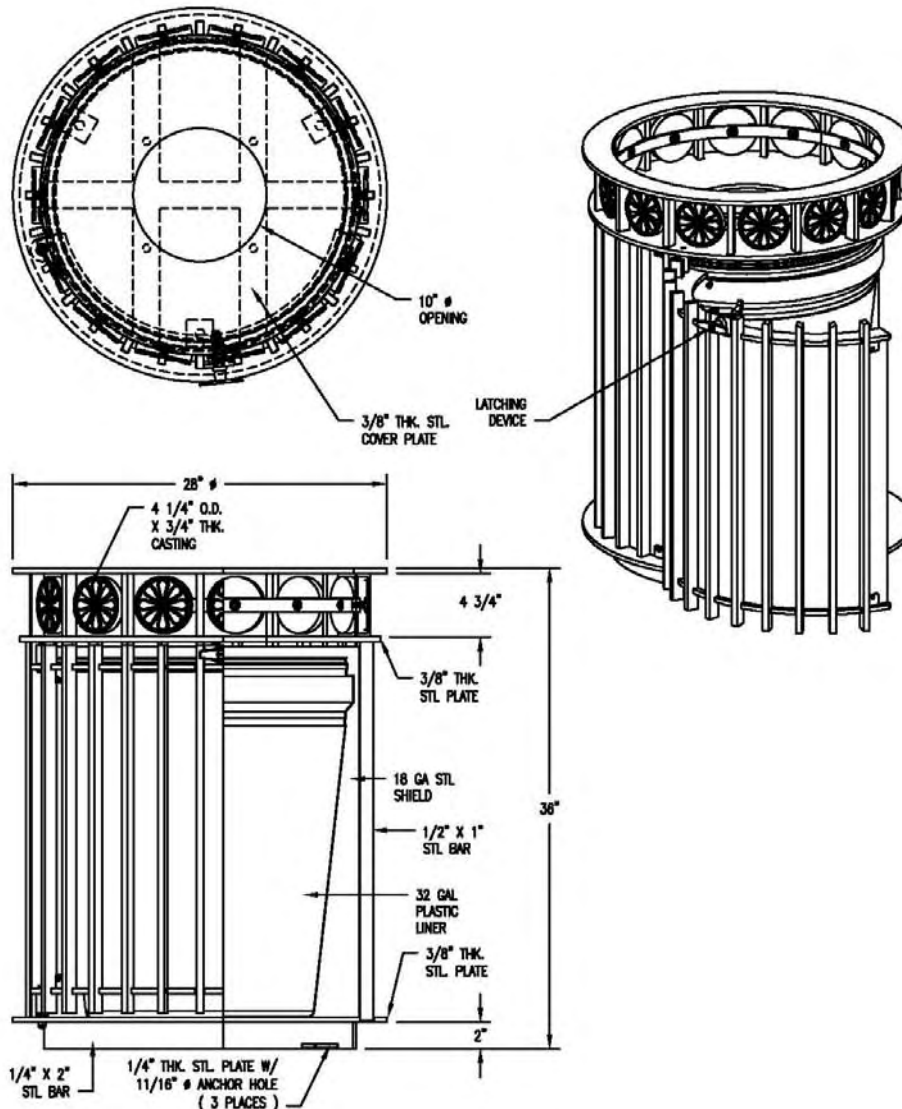
TITLE : BENCH ASSEMBLY

REV.  
C

DRAWING  
NUMBER

57-60PL

SHEET  
2 OF 2



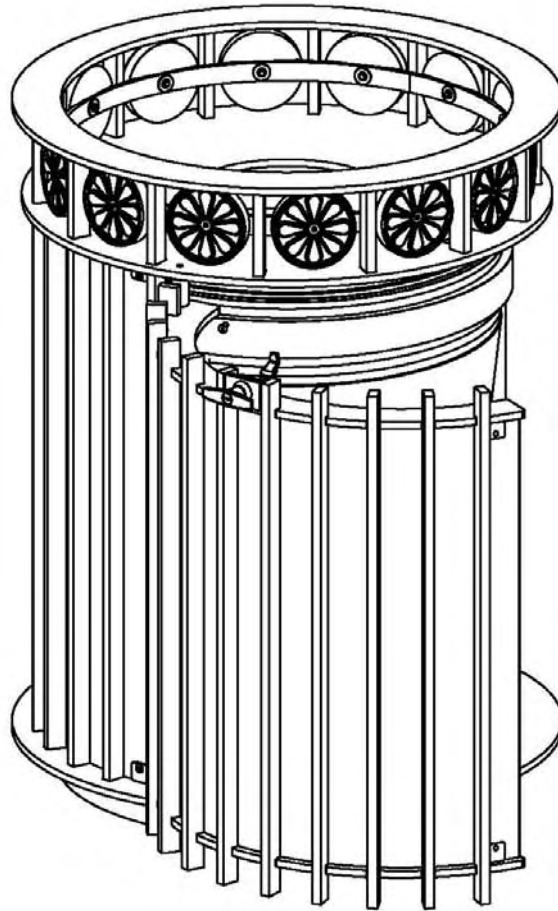
**NOTES:**

- 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.
- 3.) SIDE OF RECEPTACLE HINGES OPEN FOR REMOVAL OF LINER.
- 4.) LATCH PROVIDED W/ KEY, USE OF KEY OPTIONAL.
- 5.) RECEPTACLE FULLY ASSEMBLED AT FACTORY.

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

SCALE : NONE  
DATE DRAWN : 12/1/00  
DRAWN BY : HD  
DATE REV. : 09/12/08  
REV. BY : ESS

TITLE : RECEPTACLE		SHEET 1 OF 2
REV. D	DRAWING NUMBER 102-32SH-FT0	



**NOTE:**

- 1.) RECEPTACLE SHIPPED FULLY ASSEMBLED.
- 2.) MOUNT AND ANCHOR AS SPECIFIED.

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

SCALE : NONE  
 DATE DRAWN : 12/1/00  
 DRAWN BY : HD  
 DATE REV. : 09/12/08  
 REV. BY : ESS

TITLE : RECEPTACLE ASSEMBLY

REV.  
 D

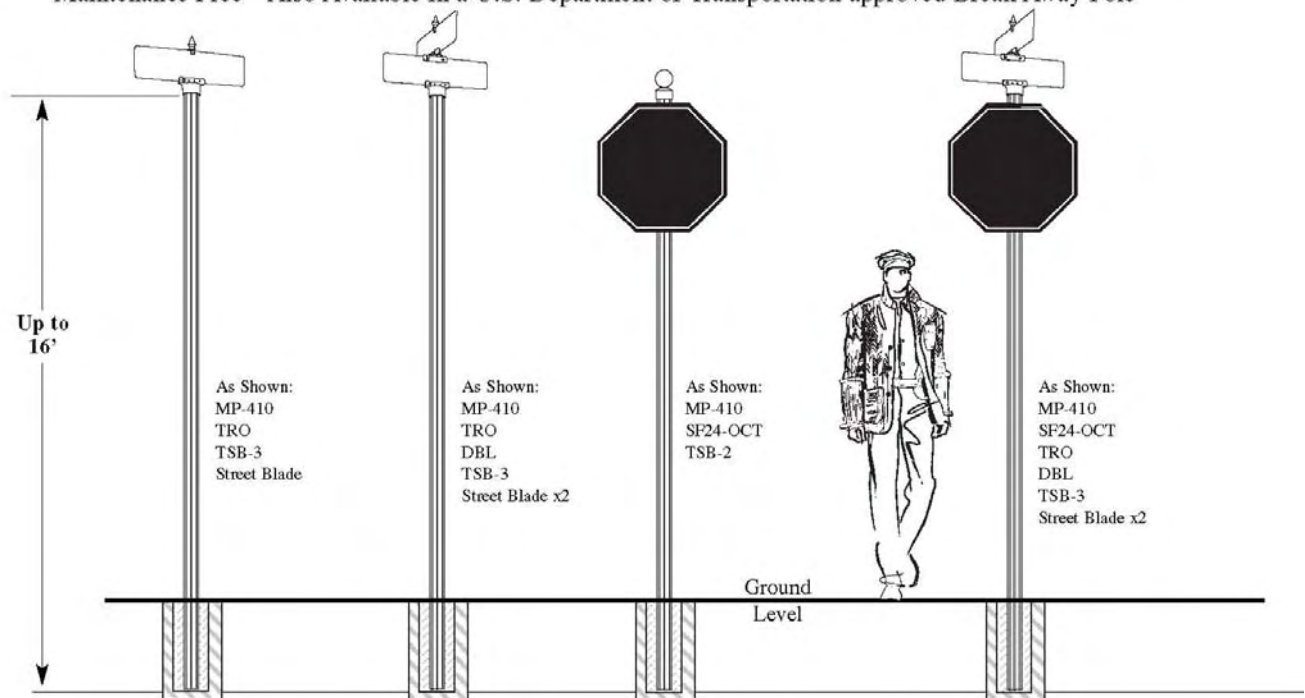
DRAWING  
 NUMBER 102-32SH-FT0

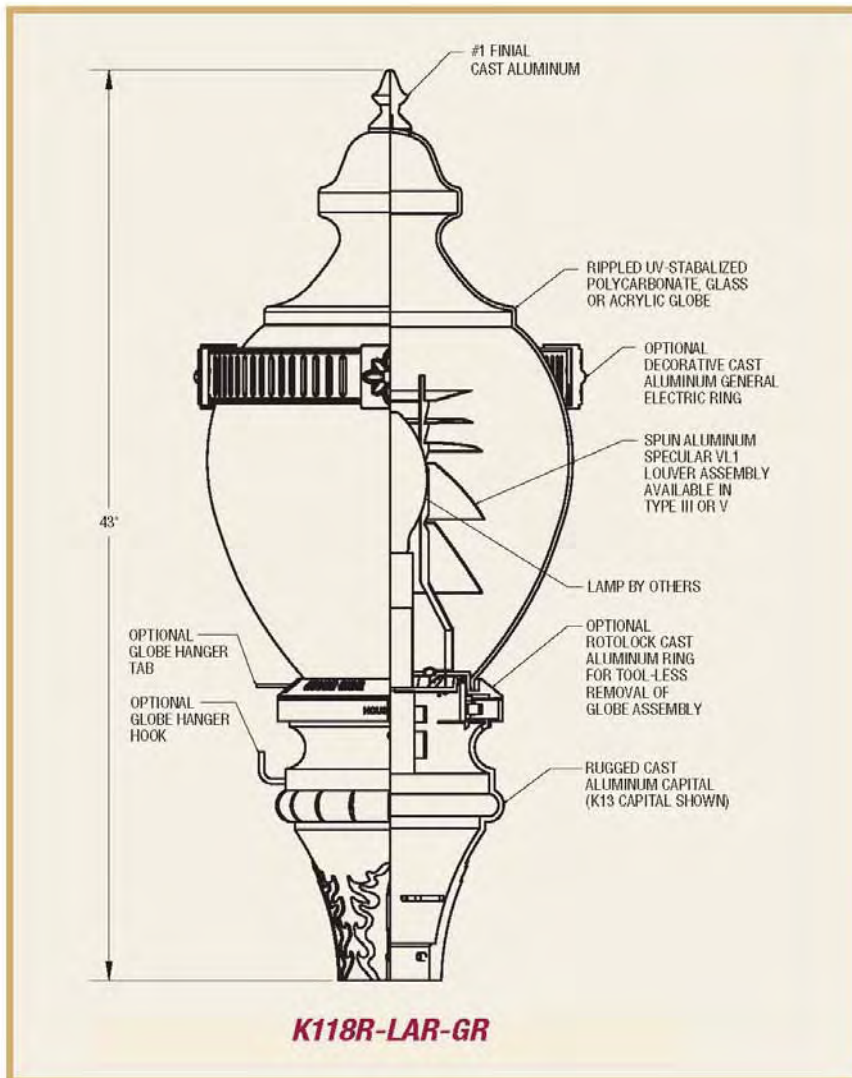
SHEET  
 2 OF 2

## Vista Series

3" O/D Round Fluted Pole • A low cost method to inspire sales by adding street appeal

• Maintenance Free • Also Available in a U.S. Department of Transportation approved Break Away Pole





### **K118-L VL1 Louvered Reflector**

Available in either cutoff or semi-cutoff classifications, the VL1 reflector system provides excellent performance in terms of both luminance and illuminance, with minimal uplight, low glare, and good light control.



### **Available Options for K118 Luminaire**



#### **GH - Globe Holder**

An innovative maintenance option that allows for easy servicing of the lamp and/or ballast module by enabling the globe to hang off the capital, allowing two-hand access for maintenance. (specify "GH" after capital type, eg. K16-GH)

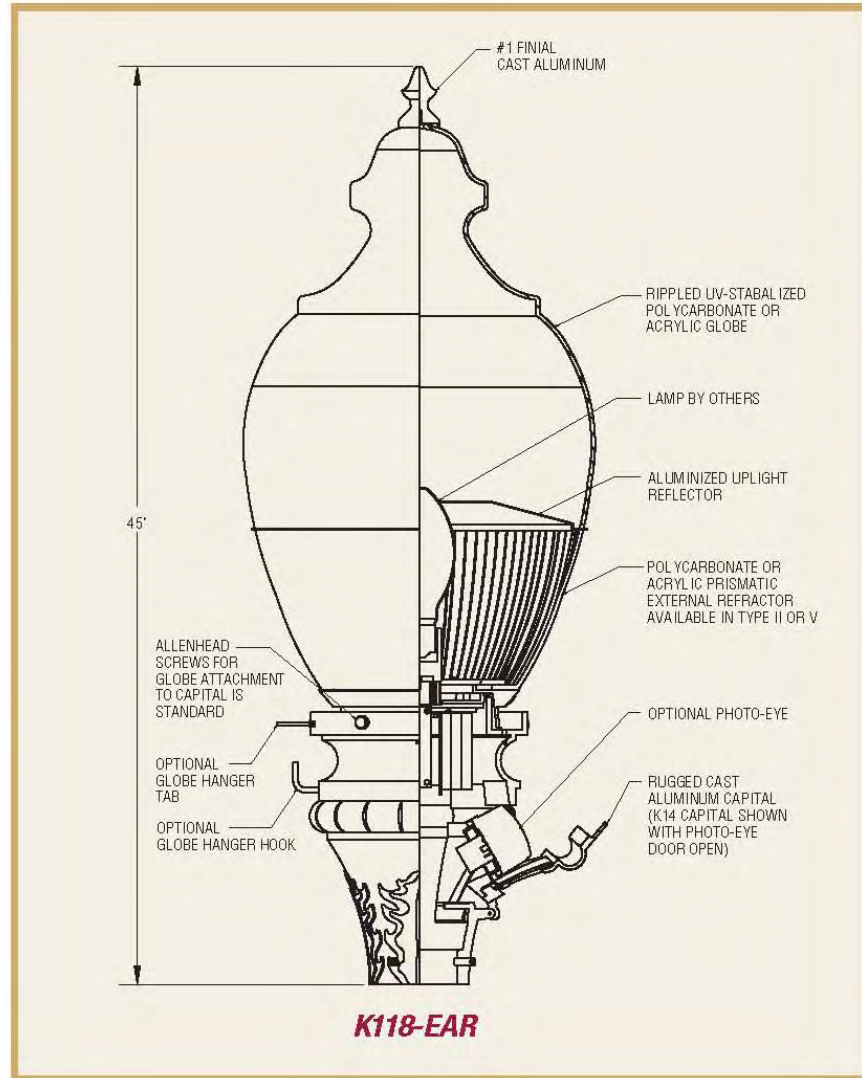


#### **R - Rotolock Globe Feature**

Ensures a precise bug/water seal of globe to capital as well as allowing easy twist turn access to lamp and ballast module. (specify "R" after luminaire style, eg. K118-R as allenhead screw mounting is standard)

### **K118-E Prismatic External Refractor**

The use of the K118-E external enclosure as a prismatic refractor ensures that the light goes where directed, resulting in maximum spacing and lower energy usage.



### **Available Options for K118 Luminaire (cont'd)**



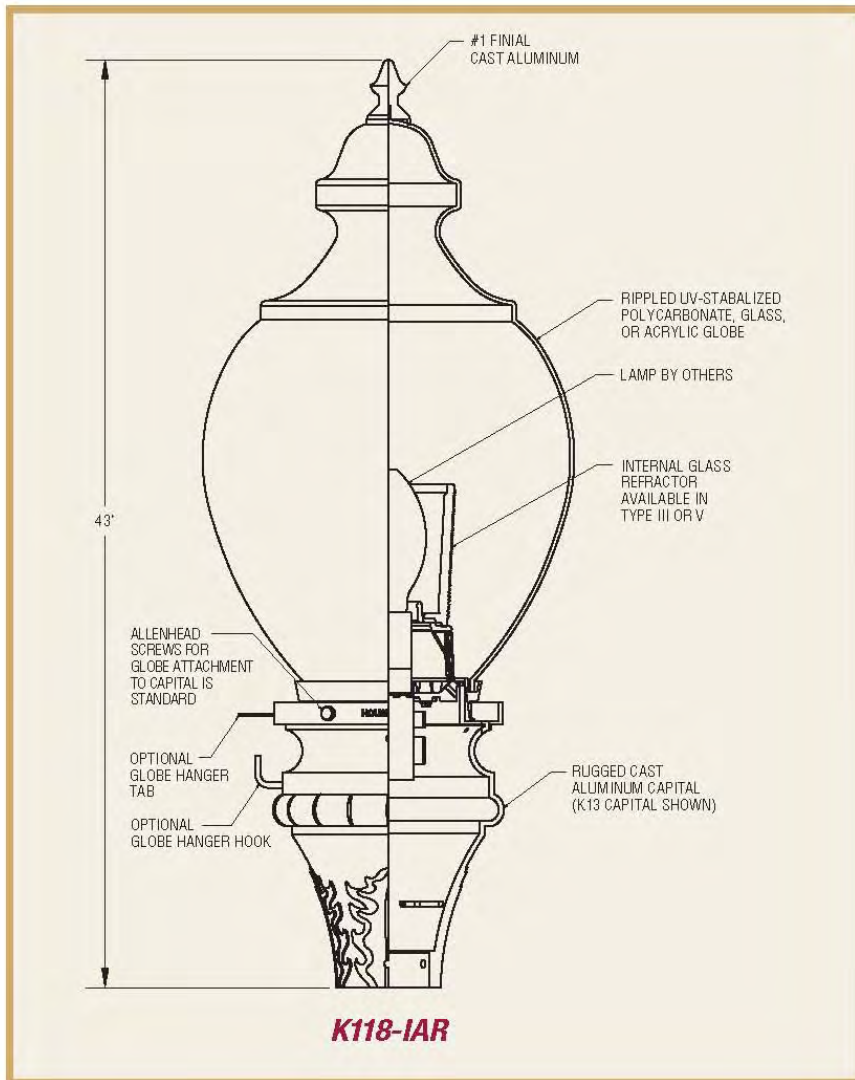
#### **GR - GE Decorative Ring**

An optional accessory that adds to the historical look of the traditional Washington Globe - available in all King Coat colors



#### **CR - Contempra Ring**

An optional accessory that gives a clean decorative look to the traditional Washington Globe - available in all King Coat colors



### **K118-I Internal Refractor**

Located inside a protective glass or plastic enclosure, the internal refractor of the K118-I redirects the light into the desired light pattern.



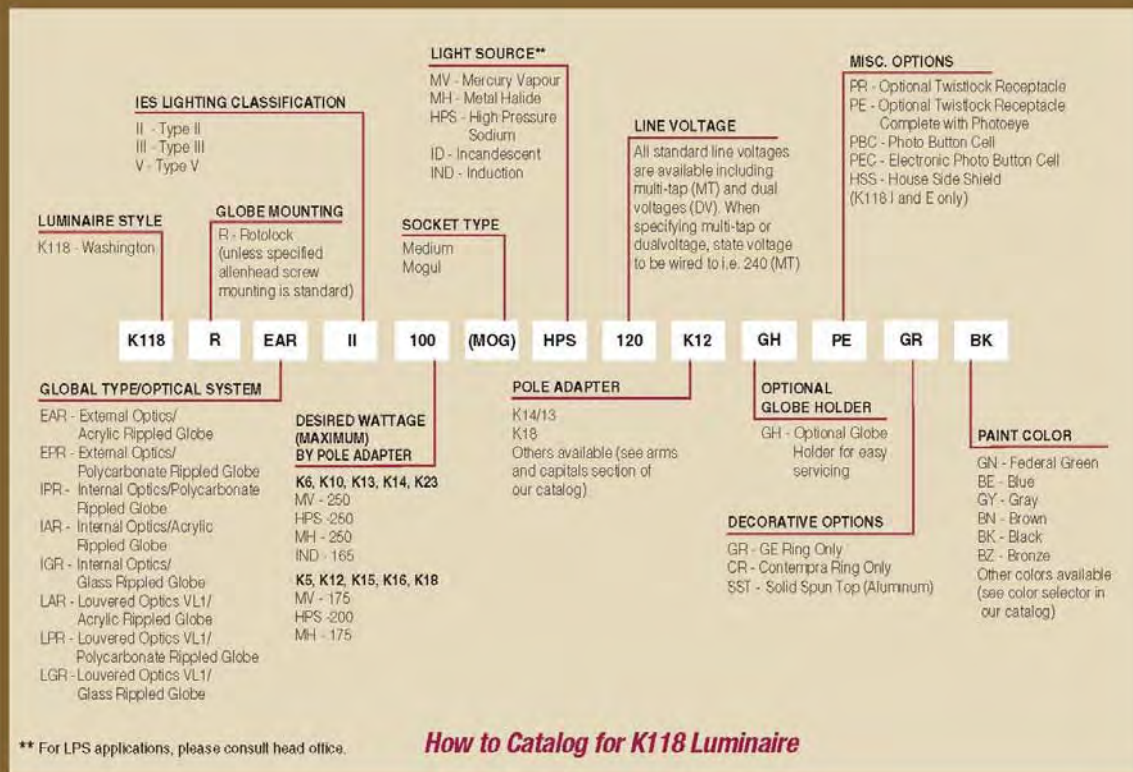
### **SST - Solid Spun Aluminum Top**

A third decorative option that, on its own or when combined with one of the decorative rings, adds to the traditional Washington Globe ambiance - available in all King Coat colors



### **Finials - F#1, F#2, F#3**

Many decorative finials are available to modify the look of the traditional Washington Globe. The F#1 finial is standard, but to view other options please visit page 12 of the arms and capital section of the catalog.



## KING LUMINAIRE™

A Member of The StressCrete Group of Companies.

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 Fax: (905) 632-8116

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### Preliminary Streetscape Plan & Guidelines

Doe Run Road and North Penryn Road  
 Penn Township September 2009

## **A.6 Potential Street Tree List**

## POTENTIAL STREET TREE LIST

Item	Scientific Name	Common Name	Size	Form
A.	Acer rubrum 'Armstrong'	Columnar Red Maple	50-60'	Columnar
B.	Acer rubrum 'October Glory'	October Glory Red Maple	50-60'	Pyramidal
C.	Acer truncatum x A.platanoides 'Norwegian Sunset'	Norwegian Sunset Maple	35-40'	Oval
D.	Celtis occidentalis	Common Hackberry	40-60'	Broad
E.	Craaeus punctata 'Ohio Pioneer'	Ohio Pioneer Hawthorn	20-30'	Broad to Rounded
F.	Fraxinus americana	White Ash	60-70'	Oval to Rounded
G.	Fraxinus pennsylvanica	Green Ash	60-70'	Oval, Upright
H.	Ginkgo biloba	Ginkgo (male only)	40-80'	Conical to Spreading
I.	Gleditsia triacanthos var. inermis 'Shademaster'	Shademaster Thornless Honeylocust	50-60'	Upright to Spreading
J.	Malus 'Prairifire'	Prairifire Flowering Crabapple	20'	Rounded
K.	Platanus x acerifolia 'Bloodgood'	Bloodgood London Planetree	70-80'	Upright to Spreading
L.	Quercus imbricaria	Shingle Oak	50-60'	Broad
M.	Ulmus parvifolia 'Frontier'	Frontier Hybrid Elm	30-40'	Rounded
N.	Zelkova serrata 'Green Vase'	Green Vase Zelkova	60-80'	Vase Shaded

## **A.7 Walkable Neighborhood Article**

## Homes in Walkable Neighborhoods Sell for More, Study Finds

By Amy Hoak

RISMEDIA, August 29, 2009-(MCT)-Homes located within walking distance of amenities such as schools, parks and shopping aren't only more convenient for their owners, often they're also worth more than homes in neighborhoods where driving is the rule, according to a new study.

The report looked at 94,000 real-estate transactions in 15 markets. In 13 of those markets, higher levels of "walkability" were directly linked to higher home values.

The report, "Walking the Walk: How Walkability Raises Housing Values in U.S. Cities," was commissioned by CEOs for Cities, a national network of urban leaders from the civic, business, academic and philanthropic sectors.

It's an important point for homebuyers who are trying to identify which homes will hold their value, said Joseph Cortright, the report's author and a senior policy adviser to CEOs for Cities. Cortright is an economist and president of Impresa, a Portland, Ore.-based consulting firm. Walkable places have some of the best chances of performing well in years ahead, he said.

The analysis used transaction information from ZipRealty. It calculated walkability of the homes using the Walk Score algorithm, which grades addresses based on amenities that are nearby, from restaurants and coffee shops to parks and libraries. Scores range from 0 to 100, with 100 being the most walkable; a score higher than 70 indicates it's possible to get around in the area without using a car.

Controlling for other factors including a home's size, the number of bathrooms and bedrooms, age, neighborhood income levels, distance from the Central Business District and access to jobs, the study found that a one-point increase in Walk Score is linked to an increase in home value between \$500 and \$3,000, depending on the market, according to the study. The premium for homes in neighborhoods with above-average Walk Scores ranged from \$4,000 to \$34,000.

But that premium wasn't found everywhere. In Las Vegas, walkability correlated with lower housing values. Bakersfield, Calif., showed no statistically significant connection between walkability and home prices, according to the study. The report didn't investigate why homes in walkable neighborhoods didn't bring a premium in those two places.

It's speculative, but in Las Vegas, "it may be that those neighborhoods that have the highest walkability are not the most attractive areas" in the metropolitan area, Cortright said. Matt Lerner, chief technology officer of Front Seat, the software company behind Walk Score, said Bakersfield is somewhat sprawling and perhaps never developed a healthy city center or clusters of walkable neighborhoods. Or it could be that the volume of foreclosures and the macroeconomic trends with which these cities are dealing are overwhelming any positive effects that walkability might have on home prices, said Pat Lashinsky, chief executive of ZipRealty.

Even in areas where walkability does statistically matter, the premium it affords isn't the same from place to place. Dense urban areas such as Chicago and San Francisco showed higher price gains based on higher Walk Scores; in less dense markets like Tucson and Fresno, home prices didn't jump as much due to higher walkability. Other metropolitan areas included in the study were: Arlington, Va.; Austin, Texas; Charlotte, N.C.; Dallas, Texas; Jacksonville, Fla.; Phoenix, Ariz.; Sacramento, Calif.; Seattle, Wash.; and Stockton, Calif.

There are environmental and health benefits from living in a place where the car can stay parked. In promoting Walk Score, Lerner said his firm emphasizes how walking rather than driving can play a part in preventing global warming and how people who live in walkable areas weigh seven pounds less, on average, than those who don't. Places with higher Walk Scores also often have better mass transit services, according to the report. "I don't know of any other study that has put a dollar value on walkability," he said.

Consider two neighborhoods in Charlotte, N.C. In Ashley Park, with a typical Walk Score of 54, the median home price was \$280,000. In Wilmore, where the average score was 71, a similar home would be valued at \$314,000, according to the report. While convenience does play a roll in the desirability of walkable neighborhoods, consumers still haven't forgotten the days of \$4-a-gallon gas-and that scar is influencing where they want to buy a home, Lashinsky said.

"When people are looking to buy a house now, they know in the back of their mind that there is a risk that gas prices can be higher than they are right now," Cortright said.

"This is not about people having to live without cars." Rather, it's about giving people the option to use them less often. "They don't need to use them for every single trip, and when they do have to, they don't have to drive as far," he said.

The findings are also important for policy makers, said Carol Coletta, president of CEOs for Cities, in a news release. "They tell us that if urban leaders are intentional about developing and redeveloping their cities to make them more walkable," she said, "it will not only enhance the local tax base but will also contribute to individual wealth by increasing the value of what is, for most people, their biggest asset."

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Read more: <http://rismedia.com/2009-08-22/homes-in-walkable-neighborhoods-sell-for-more-study-finds/#ixzz0Qo0n6aLN>