

**BOROUGH OF SWARTHMORE (2014 update)**

Applicant \_\_\_\_\_  
Project Address \_\_\_\_\_  
Contact Name/Phone \_\_\_\_\_ / \_\_\_\_\_

For Office Use Only  
Points Received \_\_\_\_\_  
Reviewer \_\_\_\_\_

New Construction     Remodel     Addition

**Green Points Worksheet**

PLEASE NOTE THAT GREEN POINTS WILL BE GIVEN **ONLY** FOR ITEMS THAT ARE IN EXCESS OF THE PENNSYLVANIA UNIFORM CONSTRUCTION CODE AND/OR SWARTHMORE BOROUGH SUBDIVISION AND LAND DEVELOPMENT REGULATIONS

**1 CONSTRUCTION • DEMOLITION • USE OF RECYCLED MATERIALS**

*Deconstruction Plan Submitted with Permit Application*

1 Point..... \_\_\_\_\_

*Deconstructed Materials Donated to a Reseller*

1 Point..... \_\_\_\_\_

*Use of Reclaimed Lumber*

5 Points..... \_\_\_\_\_

*Construction Debris Recycled (75% + or complete demolition)*

3 Points..... \_\_\_\_\_

*Recycled Content Carpeting*

2 Points..... \_\_\_\_\_

*Recycled Plastic in Deck Material*

2 Points..... \_\_\_\_\_

*Recycled Content Sheathing*

1 Point..... \_\_\_\_\_

*Recycled Content or Fiber Cement Siding*

3 Points..... \_\_\_\_\_

*Recycled Content Roofing*

3 Points..... \_\_\_\_\_

**2 COMPACT LAND USE • WATER CONSERVATION**

*Compact Building Footprint (New Construction)*

*Lot coverage 10% less than zoning maximum*

3 Points..... \_\_\_\_\_

*Lot coverage 5% less than zoning maximum*

2 Points..... \_\_\_\_\_

*Landscaping (New Construction)*

*Reduction of turf areas and lawns kept to a minimum*

3 Points..... \_\_\_\_\_

*Appropriate use of low water demanding plants*

2 Points..... \_\_\_\_\_

*Zoned irrigation system separating turf from shrub areas and low water demand areas from high water demand areas that includes drip irrigation zones.*

3 Points..... \_\_\_\_\_

*Water Conservation by Performance Procedure (1-6 Points)*

1 Point: 10,000 gallons of annual water saving..... \_\_\_\_\_

2 Points: 20,000 gallons of annual water saving..... \_\_\_\_\_

3 Points: 30,000 gallons of annual water saving..... \_\_\_\_\_

4 Points: 40,000 gallons of annual water saving..... \_\_\_\_\_

5 Points: 50,000 gallons of annual water saving..... \_\_\_\_\_

6 Points: 60,000 gallons of annual water saving..... \_\_\_\_\_

*Use of Engineered Swales to Filter Storm Water Runoff (only applicable if not required by Stormwater Permit)*

3 Points..... \_\_\_\_\_

*Planting Two Trees beyond Required Street Trees (up to 6 points)(New Construction/Land Development)*

1 point for each additional tree planted (up to 6 trees)

Total number of trees \_\_\_\_\_=total points

\_\_\_\_\_Points..... \_\_\_\_\_

**3 FRAMING**

*Incorporate Optimal Value Engineering (OVE) Framing Techniques*

2 Points..... \_\_\_\_\_

*Oriented Strand Board (OSB) Subfloors*

1 Point..... \_\_\_\_\_

*Oriented Strand Board (OSB) Wall Sheathing*

1 Point..... \_\_\_\_\_

*Finger-Jointed Studs Used for Wall Framing*

2 Points..... \_\_\_\_\_

*Forest Stewardship Council (FSC) Certified Harvested Lumber Used for Framing*

5 Points..... \_\_\_\_\_

*Engineered Lumber Used (Floors)*

1 Point..... \_\_\_\_\_

*Engineered Lumber Used to Replace 2x10s or 2x12s for Structural Applications*

1 Point..... \_\_\_\_\_

*Structural Alternatives to Wood*

5 Points..... \_\_\_\_\_

*Structural Insulated Panels Used for Exterior Walls*

4 Points..... \_\_\_\_\_

**4 ENERGY CODE MEASURES**

The Pennsylvania Uniform Construction Code requires certain minimum measures of energy conservation for new buildings, additions, and remodels. These can be calculated using prescriptive methods for each assembly or item, or performance standards for the overall structure, or a combination. **This subsection specifies how points are to be awarded under this section for incremental increase in energy efficiency above the required minimum in each of the categories specified in the table.** The applicant shall complete a form to calculate the points awarded for such incremental increases.

<b>Insulated Assembly</b>	<b>Points (circle)</b>	
<b>Glass R / U Value</b> (As determined by the National Fenestration Rating Council)		
2 / 0.5	0	
2.2 / .45	2	
2.5 / 0.4	4	
2.8 / 0.35	6	
3.3 / 0.3	8	
U-0.25 or less	10	
<b>Wall Insulation</b>		
R-19	1	
R-24	2	
R-25 or greater	4	
<b>Ceiling Insulation</b>		
R-30	0	

R-34	1
R-38	2
R-42	3
R-43 or greater	5
<b>Floor Insulation</b>	
R-19	1
R-24	2
R-25 or greater	3
<b>Basement Insulation</b>	
R-10	0
R-13	1
R-19	2
R-24	3
R-25 or greater	4
<b>Slab Insulation</b>	
R-5	0
R-7	1
R-10	2
R-15	0
<b>Crawl Space Insulation</b>	
R-15	0
R-19	1
R-24	2
<b>Heating Equipment</b>	
<b>Furnaces and Boilers</b>	
78% AFUE	0
84% AFUE	2
90% AFUE	4
94% AFUE	6
<b>Air Conditioning</b>	
11 SEER	0
12 SEER	2
13 SEER	4
14 SEER	6
15 SEER or greater	8
<b>Total Insulation Points =</b>	

**5 PLUMBING**

*Tankless Domestic Hot Water Heaters*

1 Point .....

*“On Demand” Hot Water Switch*

1 Point .....

**6 ELECTRICAL**

*Efficient Appliances*

*Energy Star Dishwasher Installed (Provide Manufacturers Spec Sheet)*

1 Point .....

*Energy Star Clothes Washer Installed (Provide Manufacturers Spec Sheet)*

1 Point .....

*Energy Star Refrigerator Installed (Provide Manufacturers Spec Sheet)*

1 Point .....

*Energy Star Freezer Installed (Provide Manufacturers Spec Sheet)*

1 Point .....

*Clothesline Installed*

1 Point .....

*LEDs Installed (1-3 points)(show on Lighting Plan)*

1 Point: 4 LED bulbs.....

2 Points: 8 LED bulbs.....

3 Points: 12 LED bulbs.....

*Energy Efficient Lighting Controls Installed (provide documentation)*

2 Points.....

**7 INSULATION**

*Wall Insulation is 80% Recycled Material and/or Wet-Spray Insulation*

2 Points.....

*Ceiling Insulation is 80% Recycled Material and/or Wet-Spray Insulation*

2 Points.....

*Windows (only one of the following three may be used)*

- *Single-pane Windows Changed out for Double-pane (up to maximum 10 points)*

0.5 points per window for additions and remodels

Calculate: total number of windows \_\_\_\_\_ x 0.5 = total points \_\_\_\_\_

\_\_\_\_\_ Points.....

- *Single-pane Windows Changed out for Low Emissivity Window (up to maximum 10 points)*

1 point per window for additions and remodels

Calculate: total number of windows \_\_\_\_\_ = total points \_\_\_\_\_

\_\_\_\_\_ Points.....

- *Single-pane Windows Changed out with argon/HM Windows (up to maximum 10 points)*

1.5 points per window for additions and remodels

Calculate: total number of windows \_\_\_\_\_ x 1.5 = total points \_\_\_\_\_

\_\_\_\_\_ Points.....

*Existing Ceiling Insulated to R-38 (or to capacity for fixed space – not to be combined with Section 4)*

2 points for additions and remodels

5 Points.....

*Existing Walls Insulated to Capacity (not to be combined with Section 4)*

3 points for additions and remodels

7 Points.....

*Install Recycled-Content, Formaldehyde-Free Fiberglass Insulation*

2 Points.....

**8 HEATING AND COOLING**

*Air Destratification Systems*

1 Point .....

*Natural Cooling (provide design schematics)*

2 Points.....

*Evaporative Cooling Installed*

6 Points.....

*Vapor Permeable Infiltration Barrier*

1 Point.....

*Whole House Fan*

2 Points.....

*Convert Electric Heat to Gas Heat (addition and remodels only)*

5 Points.....

*Replace Electric Water Heater with Gas Water Heater (additions and remodels only)*

3 Points.....

*Hydronic Baseboard Heat*

3 Points.....

*Radiant Floor Heat*

3 Points.....

*Geothermal Heat or Air to Air Heat Exchanger (Heat Recovery Ventilation)*

8 Points.....

**9 SOLAR**

*Passive Solar Potential Preservation and Solar Space Heating*

*5 Points for the Following Items:*

- (i) *A wall surface is provided equal to 10% of the unit's floor area or 150 square feet—whichever is greater*
- (ii) *Which is located on the more southerly side of the unit*
- (iii) *Which is oriented within thirty degrees of a true east-west direction*
- (iv) *Which is immediately adjacent to a heated space*
- (v) *Which is not shaded between 10:00am and 2:00pm on the winter solstice; and is totally shaded between 10:00am and 2:00pm on the summer solstice*
- (vi) *Which has unimpeded solar access*  
(The Building Official shall be authorized to make determinations as to compliance with the above criteria)

5 Points each.....

*Glazing of the south wall surface adequate to provide at least 20% Passive Solar Heating*

6 Points.....

*Glazing of the south wall surface adequate to provide at least 40% Passive Solar Heating, but only if designed in conjunction with an appropriately sized thermal mass so as not to affect adversely cooling loads*

12 Points.....

*Glazing of the south wall surface adequate to provide at least a 60% Passive Solar Heating, but only if designed in conjunction with an appropriately sized thermal mass so as not to affect adversely cooling loads*

20 Points.....

*Solar Hot Water Heating*

10 Points.....

*Active Solar Space Heating with a calculated savings fraction of*

8 Points: 30%.....

12 Points: 40%.....

16 Points: 50%.....

20 Points: 60%.....

*Active Solar Pre-Plumbing*

2 Points.....

*Solar Generated Electricity with a Savings Fraction of at Least 25%*

20 Points.....

**10 INNOVATION POINTS**

*Install Infrastructure to Support Current or Future Alternative Fuel Vehicle Use*

1 Point.....

*Innovative Product or Design Points (up to 10 points)*

(to be awarded based on demonstrated energy or resource conservation savings)

\_\_\_\_\_ Points.....