



CITY COUNCIL

**Monday, October 19, 2015
5:00 p.m.**

2016 Capital Improvement Plan

- I. **Presentation of the 2016 Capital Improvement Plan** (no more than 10 minutes)
- II. **Council Questions**
- III. **Public Comment**
- III. **Adjourn**

Zoning Amendment

Ordinance – amending the City Code Chapter 600 Zoning, by adopting a new Section §600-818 providing for a Riparian Buffer Overlay District and amending §600-2202 Definitions ***Introduced at the September 28 regular meeting; Advertisement scheduled for Oct 5th and 12th; Public Hearing scheduled for Oct 19th at 5 pm***

Ordinance – amending the City Code Chapter 600 Zoning by amending Part 8 Districts to add alternative energy systems as Accessory Uses, Part 10 Accessory Uses by renaming Section 1012 Wind Turbines to Alternative Energy Systems, and amending Section 2202 Definitions ***Introduced at the September 28 regular meeting; Advertisement scheduled for Oct 5th and 12th; Public Hearing scheduled for Oct 19th at 5 pm***

- I. **Overview of the proposed amendments by the EAC** (no more than 10 minutes)
- II. **Council Questions**
- III. **Public Comment**

All remarks must be directed to Council as a body and not to any individual Council member or public or elected official in attendance. Any person making personally offensive or impertinent remarks or any person becoming unruly while addressing Council may be called to order by the Presiding Officer and may be barred from speaking before Council, unless

*permission to continue speaking is granted by the majority vote of Council. All comments by the public shall be made from the speaker's podium. **Citizens attending the meeting may not cross into the area beyond the podium.** Any materials to be distributed to Council must be given to the City Clerk before the meeting is called to order.*

Those commenting shall speak at the beginning of the meeting and shall limit their remarks to 3 minutes. No comments shall be made from any other location except the podium, and anyone making "out of order" comments may be subject to removal. There will be no demonstration at the conclusion of anyone's remarks. Citizens may not ask questions of Council members or other elected or public officials in attendance

IV. Adjourn – to Budget Review in the Penn Room immediately following

CITY OF READING

CAPITAL IMPROVEMENT PROGRAM (CIP)

Summary

PER ORDINANCE:	98-2012	AMENDED 10-22-2012	5 YEAR TOTAL BUDGET	2015	2016	2017	2018	2019	2020	
Period	AREA									
SPENDING:										
2016 Plan Year	Public Works		2,579,000	N/A	937,000	1,142,000	500,000	0	0	
2016 Plan Year	Fire/EMS		7,715,367	N/A	808,611	1,622,878	1,736,878	1,442,000	2,105,000	
2016 Plan Year	Police		75,000	N/A	0	75,000	0	0	0	
2016 Plan Year	Administration		0	N/A	0	0	0	0	0	
Total 2016 Capital Plan Year Spending			10,369,367		1,745,611	2,839,878	2,236,878	1,442,000	2,105,000	
FUNDING SOURCE:										
ASSUMPTIONS:										
Earned Income Tax	PER BUDGETED EIT		16,438,356	N/A	1,761,466	2,959,826	3,522,932	4,721,294	3,472,838	
2016 CDBG	UNKNOW AS OF THIS TIME				0		N/A	0	0	
2016 Grants	UNKNOW AS OF THIS TIME				0		N/A	0	0	
2016 Other	UNKNOW AS OF THIS TIME				0		N/A	0	0	
Total 2016 Capital Plan Year Funding Source			16,438,356		1,761,466	2,959,826	3,522,932	4,721,294	3,472,838	
SURPLUS/(DEFICIIT) 2016 CAPITAL PLAN						15,855	119,948	1,286,054	3,279,294	1,367,838
SPENDING:										
Prior Years			870,000		870,000	0	0	0	0	
CARRYOVER BALANCE IN CAPITAL FUND 34 BANK ACCOUNT							#####	65,855	185,803	1,4

Drafted by	Deputy City Clerk
Sponsored by/Referred by	EAC
Introduced on	September 28, 2015
Advertised on	October 5 and 10, 2015

BILL NO. _____-2015
AN ORDINANCE

AMENDING THE CITY OF READING CODE OF ORDINANCES CHAPTER 600, BY ADOPTING A NEW SECTION §600-818 PROVIDING FOR A RIPARIAN BUFFER OVERLAY DISTRICT AND AMENDING §600-2202 DEFINITIONS

WHEREAS, Riparian buffers adjacent to Watercourses and Impoundments provide numerous environmental and resource management benefits including without limitation:

- 1) Restoring and maintaining chemical, physical and biological integrity of water resources;
- 2) Removing pollutants from urban storm water;
- 3) Reducing erosion and controlling sedimentation;
- 4) Stabilizing stream banks;
- 5) Providing a natural impediment to floods;
- 6) Contributing organic material that is a source of nutrients and energy for aquatic ecosystems;
- 7) Maintaining tree canopies that serve to stabilize stream temperatures and therefore aquatic ecosystems;
- 8) Providing riparian wildlife habitat; and
- 9) Furnishing scenic value and recreational opportunities.

WHEREAS, Because of the benefits identified above, as well as others which may not be listed, the City of Reading Zoning Ordinance shall be amended to include a Riparian Buffer Overlay District that will accomplish the following objectives:

- 1) Prevent the further loss of the benefits to property and the community provided by protecting existing riparian buffers along water courses and impoundments by requiring new development to take place in such a manner so as to preserve and enhance the beneficial functions of the areas within the Riparian Buffer Setbacks;
- 2) Reduce the ongoing damage to public and private property and the community from the presence of buildings and structures and other impervious surfaces within the Riparian Buffer Setback by encouraging redevelopment in a manner designed to reduce or limit the extent of buildings, structures and impervious surfaces within the Riparian Buffer Setback;
- 3) Educate owners of properties that include Riparian Buffers Setbacks regarding the benefits of restoring the important functions of these areas by identifying desirable maintenance practices

that could be voluntarily employed within Riparian Buffer Setbacks by any landowner.;

SECTION 1: This Ordinance amends the City of Reading Code of Ordinances Chapter 600 Zoning by adding section 600-818 Riparian Buffer Overlay District in order to regulate development and redevelopment near Watercourses and Impoundments and mitigate issues that accompany such development and redevelopment and section 600-2202 Definitions.

SECTION 2: All relevant ordinances, regulations and policies of the City of Reading, Pennsylvania not amended per the attached exhibit shall remain in full force and effect.

SECTION 3: If any section, subsection, sentence or clause of this ordinance is held for any reason to be invalid such decision shall not affect the validity of the remaining portions of the Ordinance.

SECTION 4: This Ordinance shall be effective in ten (10) days in accordance with Charter Section 219 after passage.

Enacted _____, 2015

President of Council

Attest:

City Clerk

Submitted to Mayor: _____

Date: _____

Received by the Mayor's Office: _____

Date: _____

Approved by Mayor: _____

Date: _____

Vetoed by Mayor: _____

Date: _____

§600-818: Riparian Buffer Overlay District

A. Applicability

This Ordinance is intended to modify the location of certain development in relation to Watercourses and Impoundments but not to modify the overall density of such development. The regulatory provisions apply to development and redevelopment of property located within the Riparian Buffer Setback, and make recommendations for the maintenance of any other properties within the Riparian Buffer Setback, to protect both water resources and property from stormwater damage, flash flooding, erosion and sedimentation, and pollution.

B. Creation of Riparian Buffer Setbacks

A Riparian Buffer Setback is an area extending alongside and adjacent to watercourses and impoundments which must be designed, managed and maintained as a Riparian Buffer to protect stability of banks and edges, improve water quality, reduce the effects of erosion, flash flooding and contaminated runoff, and to act as a transitional zone between upland and aquatic habitat.

The following Riparian Buffer Setback is required within the following zoning districts:

- 1) R -1 – 35 feet
- 2) R-1 A – 35 feet
- 3) R-2 – 25 feet
- 4) R-3 – 15 feet
- 5) R-PO – 25 feet
- 6) C-C – 15 feet
- 7) C-R – 15 feet
- 8) C-H – 25 feet
- 9) M-C – 35 feet
- 10) H-M – 35 feet
- 11) P – 35 feet

C. Regulations that Apply to Areas that Contain Riparian Buffer Setbacks

- 1) The regulations in this section shall apply to all lots, regardless of size, that include Watercourses and Impoundments. In lots which qualify for development in the Riverfront Redevelopment Overlay District, those optional regulations shall take precedence.
- 2) Areas within the Riparian Buffer Setback along watercourses and impoundments must be used as a Riparian Buffer; they must be properly graded and stabilized, and managed as open space with permanent vegetation consisting of at least 20% shrub or tree cover.
- 3) Development. Development shall be designed to preserve the integrity and function of any existing Riparian Buffer. All areas within the Riparian Buffer Setback shall be designed and managed as a Riparian Buffer, except as specifically provided in this section. In an application for development, the applicant shall design the development without encroaching upon the Riparian Buffer Setback, in accordance with the following limitations:
 - a) The principal building and use shall not be located on the area of the lot within the Riparian Buffer Setback;

b) Other structures, accessory uses and equipment shall also, to the extent feasible, not be located on or extend into the Riparian Buffer Setback;

c) Other impervious coverage shall not extend into the Riparian Buffer Setback, unless the City Engineer finds that:

1) constraints unique to the property prevent the reasonable development of the property without encroaching upon the Riparian Buffer Setback, and

2) the development plan minimizes the encroachment and provides compensating mitigation to reduce the impacts of the encroachment into the Riparian Buffer Setback.

4) Redevelopment. For the purposes of this section, redevelopment shall mean any physical improvement that involves earth moving, removal, or addition of impervious surfaces to a lot which contains pre-existing development within the overlay district. In an application for development of property, the applicant shall design the land development plan in a manner that maintains and restores riparian buffer functions to areas in the Riparian Buffer Setback to the extent feasible, including the following:

a) No new buildings or structures shall be added in the portion of the lot located within the Riparian Buffer Setback;

b) Restoration and improvement of existing buildings and structures located within the Riparian Buffer Setback shall not be expanded beyond their existing footprint;

c) Accessory uses and equipment should be located or relocated, to the extent feasible, so as not to encroach upon the Riparian Buffer Setback;

d) Impervious coverage shall not be added in the Riparian Buffer Setback, and, except for access roads and necessary parking areas, redevelopment plans shall, to the extent feasible, remove existing impervious surfaces from the Riparian Buffer Setback and grade and revegetate the Riparian Buffer Setback Area as a Riparian Buffer.

5) Application Information. In order to determine compliance with the applicable Riparian Buffer Setback requirements, an application for land development shall include the following information with respect to the portion of the lot within a Riparian Buffer Setback:

a) Maps and schematic plans identifying the location of watercourses and impoundments on and adjacent to the property under development;

b) Location, dimensions and footprint of any proposed or existing building or structure, equipment and impervious coverage;

c) Slopes and grading plan;

d) A Planting Plan that includes plant species, locations and coverage of shrubs and trees;

e) A Riparian Buffer Maintenance Plan providing for the maintenance of permanent vegetation, stable slopes and grading, and integrity of the Riparian Buffer.

D. Permitted Land Disturbances in Riparian Buffer Setback

- 1) The area within the Riparian Buffer Setback established in this ordinance for each zoning district shall be managed as a Riparian Buffer.
- 2) The following land disturbances shall be permitted without limitation when located within a Riparian Buffer Setback:
 - a) Implementation of an approved Riparian Buffer Maintenance Plan, which may include vegetation and open space management and which provides for the maintenance of permanent vegetation, Watercourse and Impoundment banks, edges and water quality.
 - b) Activities regulated by the Commonwealth of Pennsylvania, such as permitted stream or wetland crossings or other obstructions and encroachments, in accordance with a valid permit.
 - c) Installation of pervious-surfaced trails along or providing access to a Watercourse or Impoundment, or an impervious-surfaced trail providing access when required or authorized by federal, state or local regulations.
 - d) Gardening and exterior yard maintenance, not including mowing or tilling, unless done in accordance with an approved Riparian Buffer Maintenance Plan.

E. Maintenance and Protection of Riparian Setback Areas

All owners of property that includes a Riparian Buffer Setback are encouraged to develop and implement a Riparian Buffer Maintenance Plan and are encouraged to use best management practices within the Riparian Buffer Setback area to maximize the functions and benefits for their property and downstream properties to restore the functions of the Riparian Buffer area over time.

Such practices include, without limitation:

- proper grading to reduce erosion of banks
- mulching of exposed soils
- establishing permanent vegetative cover including shrubs and trees
- the use of native plants adapted to the edge of waterway habitat
- removal of invasive plants
- limiting mowing and restoring the natural habitat
- protection and stabilization of banks and impoundment edges
- water quality protection, including regular cleanup and spill prevention
- reduction of runoff volumes and velocity to prevent downstream damages and flooding
 - installation of rain barrels and other rain water harvesting
 - encouraging rain water infiltration with rain gardens or terraces
- voluntary removal of obstructions, unused equipment, and accessory uses
- removal of impervious surface cover
- use of porous paving materials
- responsible storage of fuels and chemicals and other potential pollutants

F. Boundary Determination – The applicant is responsible for the measurement of the applicable Riparian

Buffer Setback established in 600-818B along any watercourses or impoundments located on the lot, and delineation of such Riparian Buffer Setbacks on any plans for land development. Measurement is from the edge of bank at the time of a permit application.

The Zoning Administrator, in consultation with the City Engineer, shall be responsible for reviewing the location of the Riparian Buffer Setback, as applicable to any specific permit or approval. An applicant shall provide all plans, maps, and other information that may be necessary to make such a determination.

G. Violations and Penalties

Any person who or partnership or corporation that has violated or permitted the violation of the provisions of this chapter shall be subject to zoning enforcement remedies as described in Section 600-201.

§600-2202 Definitions

By adding the following definitions:

Impoundments – any body of surface water formed by the construction or excavation of a basin or the obstruction of stream flow in such a manner as to cause the collection of a body of water which would not have formed under natural conditions.

Riparian Buffer - a permanently vegetated open space, including at least 20% trees and shrub cover, on graded and stabilized slopes, extending along and adjacent to a watercourse or impoundment that is managed to protect stability of banks and edges; improve water quality; to reduce the effects of erosion, flash flooding and contaminated runoff; and to act as a transitional zone between upland and aquatic habitat.

Riparian Buffer Maintenance Plan – A landscape management and maintenance plan that provides best management practices for the establishment of permanent vegetation and property maintenance in Riparian Buffers, including mulching, mowing, weed control, selection and restoration of herbs, shrubs and trees, and protection of stability and integrity of banks and edges of the watercourse or impoundment.

Riparian Buffer Setback – The measured distance from the edge of the banks of a watercourse or impoundment which is required to be maintained as a Riparian Buffer, as required for the zoning district in which said watercourse is located.

Watercourses -A channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow, including, without limitation, streams and stream systems, brooks, ponds, waterways, creeks and any other such channel or collection point for flowing or standing water.

Drafted by	Deputy City Clerk
Sponsored by/Referred by	EAC
Introduced on	September 28, 2015
Advertised on	October 5 and 10, 2015

BILL NO. _____ - 2015

**AN ORDINANCE OF THE CITY OF READING
 AMENDING THE CODE OF ORDINANCES CHAPTER 600 ZONING
 BY AMENDING PART 8 DISTRICTS TO ADD ALTERNATIVE ENERGY SYSTEMS AS
 ACCESSORY USES, PART 10 ACCESSORY USES BY RENAMING SECTION 1012 WIND
 TURBINES TO ALTERNATIVE ENERGY SYSTEMS, AND AMENDING SECTION 2202
 DEFINITIONS**

THE COUNCIL OF THE CITY OF READING HEREBY ORDAINS AS FOLLOWS:

WHEREAS, The City of Reading seeks to provide opportunities for Alternative Energy Systems while regulating the use of potentially intrusive facilities, equipment and machinery; and

WHEREAS, City Council desires to provide for, promote and regulate the use of alternative energy sources in the City of Reading; and

WHEREAS, The purpose of this Ordinance is to establish provisions for the design, permitting, construction and operation of Alternative Energy Systems within the City of Reading, subject to reasonable conditions that will protect the public health, safety and/or general welfare of the City’s residents and environment.

SECTION 1: The Code of Ordinances of the City of Reading Chapter 600 Zoning is hereby amended to address Alternative Energy Systems.

SECTION 2: All relevant ordinances, regulations and policies of the City of Reading, Pennsylvania not amended per the attached shall remain in full force and effect.

SECTION 3: If any section, subsection, sentence or clause of this ordinance is held for any reason to be invalid such decision shall not affect the validity of the remaining portions of the Ordinance.

SECTION 4: This Ordinance shall become effective in ten (10) days in accordance with Charter Section 219 after passage.

Enacted _____, 2015

 Council President

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Vetoed by Mayor: _____

Date: _____

Chapter 600 – Zoning

Part 8 Districts

§600-801. R-1-A Residential District.

B. (2) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (g) Geothermal Heat Pumps
- (h) Solar Energy Systems
- (i) Water Powered Energy Systems

§600-802. R-1 Residential District.

B. (2) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (g) Geothermal Heat Pumps
- (h) Solar Energy Systems
- (i) Water Powered Energy Systems

§600-803. R-2 Residential District.

B. (2) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (g) Geothermal Heat Pumps
- (h) Solar Energy Systems
- (i) Water Powered Energy Systems

§600-804. R-3 Residential District.

B. (2) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (g) Geothermal Heat Pumps
- (h) Solar Energy Systems
- (i) Water Powered Energy Systems

§600-805. (Reserved).

§600-806. R-PO Residential/Professional Office District.

B. (2) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (c) Geothermal Heat Pumps
- (d) Solar Energy Systems
- (e) Water Powered Energy Systems
- (f) Roof Mounted Wind Turbines

§600-807. C-C Commercial Core District.

B. (2) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (e) Roof Mounted Wind Turbines
- (f) Geothermal Heat Pumps
- (g) Solar Energy Systems
- (h) Water Powered Energy Systems

Also delete C (6)

§600-808. C-R Commercial Residential District.

B. (2) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (d) Geothermal Heat Pumps
- (e) Solar Energy Systems
- (f) Water Powered Energy Systems

§600-809. C-N Commercial Neighborhood District.

B. (2) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (d) Geothermal Heat Pumps
- (e) Solar Energy Systems
- (f) Water Powered Energy Systems

Conditional Uses current (2) shall become (3) and Special Exception Uses current (3) shall become (4)

§600-810. C-H Commercial Highway District.

B. (2) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (g) Geothermal Heat Pumps
- (h) Solar Energy Systems
- (i) Water Powered Energy Systems
- (j) Roof Mounted Wind Turbines

§600-811. M-C Manufacturing Commercial District.

B. (2) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (f) Geothermal Heat Pumps
- (g) Solar Energy Systems
- (h) Water Powered Energy Systems
- (i) Free Standing or Roof Mounted Wind Turbines

Also delete C (8)

§600-812. H-M Heavy Manufacturing District.

B. (4) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (a) Free Standing or Roof Mounted Wind Turbines
- (b) Geothermal Heat Pumps
- (c) Solar Energy Systems
- (d) Water Powered Energy Systems

Also delete B. (1) (s)

§600-813. P Preservation District.

B. (2) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (d) Geothermal Heat Pumps
- (e) Solar Energy Systems
- (f) Water Powered Energy Systems

§600-816. MU Municipal District.

B. (2) Accessory uses. In compliance with Part 10, unless otherwise noted.

- (a) Geothermal Heat Pumps
- (b) Solar Energy Systems
- (c) Water Powered Energy Systems
- (d) Free Standing or Roof Mounted Wind Turbines

§600-1012. Alternative Energy Systems

- A. **Applicability.** This Section of the Zoning Ordinance shall apply to all Alternative Energy Systems that are proposed to be constructed after the effective date of this Zoning Ordinance. Alternative Energy Systems constructed prior to the effective date of this Ordinance shall not be required to meet the requirements specified under this Ordinance, except for the maintenance and removal provisions found in section 1012 J 2-5. Any physical modification to an existing Alternative Energy System that alters the size, type or generating capacities of the facilities shall require a permit and shall comply with the applicable provisions specified under this Ordinance.
- B. **Permitted as Accessory Use.** Alternative Energy Systems designed and utilized as an accessory use, which may include Geothermal Heat Pumps, Solar Energy Systems, Wind Turbines, and Water Powered Energy, shall be permitted as an accessory use as described in Part 8, subject to the applicable provisions specified under this Zoning Ordinance.
- C. **Authorized as Primary or Supplemental Energy Source.** Alternative Energy Systems as an accessory use may be utilized as the primary or supplemental energy source for the principal use on the lot where it is located in accordance with Zoning Ordinance Part 8 Districts. Surplus energy may be exchanged, transferred and/or sold to a public utility company, provided that such surplus energy is exchanged, transferred and/or sold in accordance with the provisions established by the Public Utility Commission and Public Utility Code.
- D. **General Requirements.** The following provisions shall apply to all types of Alternative Energy Systems:
1. Alternative Energy Systems shall be permitted provided that such facilities are located on a lot with a permitted use in accordance with the applicable provisions of the Zoning Ordinance.
 2. Alternative Energy Systems shall be located, designed and installed as per the manufacturer's specifications as well as all zoning, building code and utility requirements.
 3. Alternative Energy Systems shall be setback from all property lines a distance of not less than the normal setback requirements for accessory buildings/structures in that zoning district. All Alternative Energy Systems shall comply with the building and lot coverage requirements of the zoning district in which they are located.
 4. Alternative Energy Systems shall emit no noise, glare, odor, vibration, electrical disturbance, electromagnetic interference, dust, smoke, fumes, toxic gas, radiation, heat that unreasonably impacts or affects neighboring properties or creates a nuisance. The burden of proof shall be upon the property owner if a claim of nuisance arises.
 5. All Alternative Energy Systems and/or any appurtenant structures shall be set back from all public roads a distance of not less than 1.1 times the Alternative Energy System's height, as measured from the nearest edge of the Alternative Energy System and/or any appurtenant structure to the right-of-way line of all public roads.
 6. No Alternative Energy System shall be located, modified or constructed within the City of Reading unless a permit has been issued to the Facility Owner in accordance with the provisions of this Section of the Zoning Ordinance.

7. All new exterior Alternative Energy Systems within Historic and Conservation Districts must receive their Certificate of Appropriateness from the Historical Architectural Review Board prior to application for a permit.

8. All Alternative Energy Systems shall comply with all City of Reading noise regulations.

E. Special requirements for Wind Turbines

1. All wind turbines shall meet the following additional requirement:

a. All Wind Turbines shall include automatic devices to address high-speed winds, such as mechanical brakes and over-speed controls and be equipped with a redundant braking system, which shall include both aerodynamic over-speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for over-speed protection.

2. Free Standing Wind Turbines will also meet these requirements:

- a. All Free standing wind turbines shall be set back from all lot lines and street rights-of-way a minimum distance equal to the total maximum height to the top of the extended blade. All wind turbine setbacks shall be measured from the center of the base of the turbine at ground level.
- b. If support wires are used, and they are not within a fence, they shall be marked near their base with reflectors, reflective tape or similar method.
- c. All installations shall coordinate with the Federal Aviation Administration and PennDOT's Bureau of Aviation regarding airport hazard zoning.
- d. The maximum total height above the ground level to the tip of the extended blade shall be 150 feet.
- e. New electrical wiring to the wind turbine shall be placed underground, to the maximum extent feasible.
- f. Wind Turbines shall not be climbable up to twelve (12) feet above ground surface. All access doors to wind turbines and electrical equipment may be fenced, as appropriate. All shall be locked to prevent entry by non-authorized persons.
- g. The minimum height of a Wind Turbine shall be fifteen (15) feet, as measured from the ground surface to the tip of the blade at its lowest turning movement.

3. Roof Mounted Wind Turbines. Roof Mounted Wind Turbines may extend a maximum of 25 feet above the maximum height limit in the applicable zoning district.

F. Special requirements for Geothermal Heat Pumps:

1. The owner of any geothermal system shall be responsible for all remediation efforts and costs necessitated as a result of a release from the system that impacts or threatens to impact ground water

or surface water. If the owner refuses to take corrective action, the City may take corrective action in accordance with the property maintenance code and all State and Federal regulations. All costs incurred by the municipality in doing so will be borne by the owner.

2. Closed Loop Geothermal Heat Pump Systems must meet these requirements:

- a. Be self-contained having no contact with ground water, surface water or the water table under 100 year flood conditions.
- b. All heat exchanging fluids within any Geothermal Heat Pump must be comprised either of saline, water or other type of non-hazardous fluid, the release of which would not pose any risk of impact to groundwater in excess of standards set forth in all applicable State and Federal regulations.
- c. The Geothermal Heat Pump may not be in contact with an aquifer or be sited within any aquifer's recharge zone.

3. Open Loop Geothermal Heat Pump Systems shall be reviewed on a case by case basis and the owner bears the burden of demonstrating no significant adverse impacts upon land or water resources.

G. Special requirements for Solar Energy Systems:

The following provisions shall specifically apply to Solar Energy Systems and appurtenant structures and/or facilities associated with their operation:

1. There is no restriction regarding visibility of solar panels, except in historic and conservation districts.
2. Solar energy panels shall be designed and located to minimize glare that could affect any occupied adjacent properties and/or any street right-of-way.
3. In accordance with section 600-918 relating to Green Incentives, solar installations may exceed building height restrictions in the applicable district by 15 feet, and signs by 10 feet, and certain parking installations are exempt from building coverage requirements.
4. Surface area of ground mounted solar energy systems shall not be counted as impervious lot coverage.

H. Special Requirements for Water Power Energy Systems:

The following provisions shall specifically apply to Water Power Energy Systems and appurtenant structures and/or facilities associated with their operation:

1. No Water Powered Energy System shall endanger or threaten native local wildlife including fish, amphibians and reptiles.
2. No Water Powered Energy System affecting current, cross section or flow of a waterway shall be approved without a permit or approval of the PA Department of Environmental Protection. Installations that may significantly alter the stream bed or directional flow of a stream, such as small

dams and their upstream/downstream races or “ponds” for in-stream turbines and overshot/undershot wheels, may be approved if properly permitted under state and federal law.

3. All Water Powered Energy Systems shall have safety disconnects of their paddles, wheels or turbines in case of flood or heavy water flow beyond the anticipated capacity of the Alternative Energy Facility.

I. Application: The Facility Owner shall provide the following in connection with his/her application for an Alternative Energy Facility:

1. A full description of the proposed Alternative Energy System.
2. Architectural drawings of the system to be installed, all appurtenant structures and/or facilities associated with operation of the Alternative Energy System.
3. Dimensions and locations of all affected buildings and structures on the Applicant’s real property and adjacent properties and any applicable setbacks.
4. Photographs to establish baseline conditions at the time of the application.
5. A statement of the estimated output of the proposed Alternative Energy System and where the energy will be utilized.
6. A letter of agreement with a Private Energy Utility Provider if the energy to be generated by the Alternative Energy System is to be conveyed off the Applicant’s real property.
7. The application for any permit for an accessory solar or wind energy system shall include an acknowledgement that the issuing of said permit shall not, and does not, create in the property owner, its, his, her, or their successors and assigns in title or, create in the property itself: (a) the right to remain free of shadow and/or obstructions to solar or wind energy caused by development of adjoining or other property or the growth of any trees or vegetation on such property; or (b) the right to prohibit the development on or growth of any trees or vegetation on such property. Such acknowledgement shall be signed by the property owner.
8. All new exterior Alternative Energy Systems within Historic and Conservation Districts must submit their Certificate of Appropriateness from the Historical Architectural Review Board with their application.
9. Copies of any other permits that have been obtained from agencies with jurisdiction over the Alternative Energy System.

J. Installation, Maintenance and Removal Requirements

1. Installation.

a. No Alternative Energy System shall be located, modified or constructed within the City of Reading unless a permit has been issued to the Facility Owner in accordance with the provisions of this Section of the Zoning Ordinance.

b. For alternative energy system categories in which installer certification exists a certified installer shall be required for more complex installations, non-residential installations, or if recommended by the manufacturer.

2. Maintenance Obligations. The accessory alternative energy system must be clean and properly maintained in good, working order, and kept free from all hazards and unsafe conditions that are detrimental to the public health, safety and welfare. To the extent that an accessory alternative energy system constitutes an immediate threat to the public health, safety and welfare, the City is authorized to take all necessary steps to mitigate such public health, safety or welfare threat. All costs incurred by the City in doing so will be borne by the owner.

3. Best Practices Required. All Alternative Energy Systems are to be installed and maintained using best practices.

4. Corrective Action. In the case of a breakdown, malfunction, misuse or other situation involving an Alternative Energy System, it is the obligation of the Facility Owner and Operator to immediately initiate corrective action. If the Facility Owner and Operator refuse or are incapable of doing so, the City has the right to take corrective action at the expense of the Facility Owner and Operator.

5. Removal.

a. The Facility Owner or Operator shall, at his/her expense, completely remove any Alternative Energy System within twelve (12) months after the end of its useful life. The Alternative Energy System will be presumed to be at the end of its useful life if no energy is generated for a continuous period of twelve (12) months.

b. If the Facility Owner or Operator fails to complete removal during the prescribed period of twelve (12) months, the City may take such measures as necessary to complete removal in accordance with this Zoning Ordinance at the expense of the Facility Owner and Operator.

6. Existing Systems. All Alternative Energy Systems in place at the time this Ordinance is adopted shall be kept in clean, working order and meet the Maintenance, Corrective Action and Removal responsibilities in sections 2-6.

§ 600-2202. Definitions.

By adding the following definitions:

Alternative Energy: A source of energy generated from solar, water, wind, geothermal or similar sources, which is capable of providing energy and utilities for a permitted use.

Alternative Energy System: A system capable of converting solar, water, wind, and/or geothermal energy into viable energy sources including utilities for a permitted use. Such facilities may include, without limitation, solar panels, wind turbines, geothermal heat pumps, water turbines and/or other compatible alternative energy systems.

Applicant: A person or entity filing an application under this Ordinance.

Best Practices: Current industry standards of construction and maintenance for a technology. Best Practices are not for purposes of this Ordinance defined as State of the Art, which is acknowledged to often be prohibitively expensive and to involve standards that are constantly changing.

Free Standing Alternative Energy System: A system that is not physically mounted, attached and/or connected (except utility and energy transfer connections) to a permitted principal building. All such facilities shall be considered a separate or accessory structure that has the ability to convert and convey energy to the principal use in accordance with all pertinent zoning, utility and building code requirements.

Geothermal Heat Pump: An energy system utilized for heating and cooling purposes through a series of heat-exchanging pipes or tubes integrated into the ground, groundwater or surface water with a heat-exchanging media that flows through a loop system.

Occupied Building: A building located on a parcel of land utilized as a permitted use in accordance with the provisions of the City of Reading Zoning Ordinance.

Private Energy and Utility Provider: A principal use owned, operated and/or maintained by a private or independent utility company for the purpose of providing energy within a defined service area or grid system in accordance with the provisions established by the Public Utility Commission and the Public Utility Code.

Solar Energy System: A system that converts solar energy into thermal or electrical energy, where the solar energy is collected through solar cells, film, modules and/or panels and then transferred to a battery or an inverter (DC to AC power), which can be utilized as an electrical source or transferred into the utility grid system.

Wind Turbine: A wind energy conversion system that converts wind energy into electricity through the use of a generator, which may include a nacelle (shroud/cover), rotor, tower, transformer pad, blades, spirals, helixes and/or supporting energy apparatus.

Water Power: The generation of electricity or mechanical energy by the use of water motion, which may include overshoot or undershot waterwheels, turbines, and other devices, including all associated equipment/facilities.