Section 2.01 Definitions

**Shoreline bluff:** The dominant geologic land form consisting of a promontory, cliff, or palisade having a broad steep face, which, more or less, parallels the shoreline of Lake Michigan.

Section 22.10 Shoreline Bluff Protection

22.10.1 Intent

The Shoreline Bluff regulations are established with the following intent:

A. To protect the natural environment and the integrity of the Shoreline Bluff, which is a distinctive and valuable natural feature of Emmet County’s Lake Michigan shoreline.

B. To recognize the potential for hazards to health and safety to persons and property from Bluff development.

C. To protect the stability of the Shoreline Bluff, and thereby reduce the risks of erosion, undermining, slumping, or collapse of the Bluff, and to protect the waters of Lake Michigan from unnatural sedimentation.

D. To promote the recommendations of the Emmet County/City of Petoskey Comprehensive Plan relative to the constraints that should be considered in developments that impact hillside environments.

22.10.2 Regulation of Shoreline Bluff Protection Zone

A. Except as otherwise provided in this Section, excavation or construction activity is prohibited within the Shoreline Bluff Protection Zone. The Shoreline Bluff Protection Zone includes an area within fifteen (15) feet of the top of the bluff, the face of the Shoreline Bluff as it extends lakeward from the top of the bluff to the toe of the bluff and the area extending lakeward fifteen (15) feet from the toe of the bluff. For purposes of this Section, the following terms shall mean:

1. **Top of the Bluff** is the point where the slope toward Lake Michigan first exceeds a grade of 33%.

2. **Toe of the Bluff** is the point where the slope toward Lake Michigan first decreases to a grade of less than 33%.

B. This Section shall not apply to:

1. **Stairways.** The installation, repair and maintenance of open stairways, open landings of 200 square feet and under, pathways and trams, all intended to access the areas below the bluff.
2. **Remodeling.** Interior remodeling, changed floor plans, re-roofing, re-siding, replaced walls and the like, if no footing or foundation work within the Bluff Protection Zone is involved.

3. **Existing driveways.** The reconstruction of existing driveways including the replacement of existing surface materials and maintaining the existing driveway width or otherwise where no new excavation work would be needed.

4. **Utilities.** The repair, replacement or reconstruction of utility services to include all elements of sanitary sewage systems, wells and water services and other existing accessory service utilities.

22.10.3 Regulated Shoreline Bluff

The regulated Shoreline Bluff, for purposes of this Section, is the single continuous and highest bluff feature that generally parallels the west side of Highway M-119 and where applicable, N. Shore Drive and only on the west side of the roads. Any shoreline bluff feature that is regulated as a Critical Dune is not subject to the Shoreline Bluff regulation in this Section. Where the Shoreline Bluff is within a Critical Dune area, but is not regulated as a critical dune, it shall be subject to this Section.

Excavation and construction activity in the Shoreline Bluff is further subject to regulations related to soil erosion and sedimentation control, stormwater management, endangered species, and other pertinent environmental regulations, and regulations related to construction, sanitation, access and the like.

22.10.4 Shoreline Bluff Identification

The Shoreline Bluff feature is best determined by on-site surveys, but is discernable on aerial photographs and on topographic maps published by the US Geological Survey (USGS). The extent of the Shoreline Bluff for purposes of this Section begins at the south 1/8th line in Section 30, T36N-R6W, Friendship Township and extends north through Friendship, Readmond and Cross Village Townships, (T37N-R6W) to a point on Chippewa Drive that is approximately 700 feet westerly of Shore Drive in the NE 1/4 of the NE 1/4 of Section 34, T38N-R6W, Cross Village Township. The Shoreline Bluff is illustrated on the Zoning Map.

22.10.5 Site Plan Review

Site plan approval by the Emmet County Planning Commission, in accordance with this Section, is required before any excavation or construction in the Shoreline Bluff Protection Zone.

A. **Site Plan Content**

In addition to the graphic requirements for site plans set forth in **Section 20.03** of this Ordinance, site plans required under this Section shall contain the following information:
1. All lake shorelines, streams, wetlands, groundwater seeps, springs, soil types, soil strata and groundwater table on the disturbed area at the site.

2. All existing roads, driveways, structures, culverts, and other pertinent features on the site or within 100' of the site area to be disturbed.

3. Existing ground contour lines and proposed ground contour lines at 5-foot intervals encompassing the area to be disturbed and in the immediate area of influence of the disturbed areas, e.g. within 15 feet.

2. All proposed construction activities on the site, including, but not limited to, the installation of the sanitary sewage disposal system, the storm water management system, including outflow and outlet facilities, and other areas proposed to be disturbed.

3. An inventory of existing vegetation and individual trees measuring three inches (3") or more in diameter (caliper) proposed to be disturbed/removed.


5. Construction staging and progress schedule.

6. Additional information if determined necessary or helpful by the Planning Commission in reaching a decision.

B. **Certification**

   All site plans required under this Section shall be signed and sealed by a Michigan Registered Professional Engineer.

   In addition, upon the completion of construction, a Michigan Registered Professional Engineer shall certify that all work has been done in accordance with the approved site plan. Such certification shall be provided within forty-five (45) days of the completion of the work.

C. **Impact Statement and Environmental Assessment**

   All site plans required under this Section shall meet the impact statement requirements for site plans set forth in Section 20.04 of this Ordinance.

   In addition, an environmental assessment shall be provided, and it shall include the following information concerning the site of the proposed use:

   1. The name and address of the applicant

   2. A description of the applicant’s proprietary interest in the site.
3. The name, address, and professional qualifications of the person preparing the environmental assessment and his or her opinion as to whether the proposed development of the site is consistent with protecting features of environmental sensitivity and archaeological or historical significance that may be located on the site.

4. The description of the proposed use.

5. The location of existing utilities and drainage ways.

6. The general location and approximate dimensions of proposed structures.

7. Major proposed change of land forms such as new lakes or ponds, terracing, fills or berms, or excavating.

8. Sketches showing the scale, character, and relationship of structures, streets, or driveways, and open spaces.

9. Approximate location and type of proposed drainage, water, and sewage facilities.

10. Legal description or clear identification of the property.

11. A physical description of the site, including its dominant characteristics, its vegetative character, its present use, and other relevant information.

12. A natural hazards review consisting of a list of natural hazards such as periodic flooding, poor soil bearing conditions, and any other hazards peculiar to the site.

13. An erosion review showing how erosion control will be achieved, and illustrating plans or programs that may be required by any existing soil erosion and sedimentation ordinance.

Additionally the following environmental impact statement may be required if determined to be necessary or helpful in reaching a decision, it shall include all of the information of the previous 13 items, in addition to the following:

A. Six (6) copies of a schematic use plan of the proposed site showing the general location of the proposed use and major existing physical and natural features on the site, including, but not limited to, watercourses, rock outcropping, wetlands, and wooded areas. One (1) reproducible transparency may be requested or more copies requested if necessary for proper review.

B. Specific location and dimensions as applicable of the following existing and/or proposed features: utilities, drainage ways, public streets, parks, railroads, utility rights-of-way, driveways, sidewalks, pedestrian ways, trails, off-street parking, loading areas, existing structures and proposed structures.
C. Approximate existing and proposed contours and drainage patterns, showing at least 5-foot contour intervals.

D. Sketches showing the scale, character, and relationship of structures, streets or driveways, and open space.

E. Approximate location and type of proposed drainage, water and sewage treatment and disposal facilities.

F. A short description of the soil types found on the site and whether the soils hold limitations for construction and/or for on-site sanitary sewage treatment.

G. At a minimum, plans for compliance with all of the following standards shall be required for construction and post construction periods:

1. Surface drainage systems designed to prevent erosion through control of the direction, volume, and velocities of storm water runoff.

2. The design shall provide for debris collection devices when handling street and parking drainage.

3. Water courses designed to control volumes, and velocities of water to prevent bottom and bank erosion.

4. If vegetation has been removed or has not been able to occur on exposed surface areas, stabilization measures shall be taken to prevent wind erosion and the blowing of surface material.

D. Procedure
The Emmet County Planning Commission shall review a site plan required under this Section, with due notice given to all owners of record within 300 feet of the subject property, and shall:

1. Determine whether or not the requirements of this Ordinance have been met.

2. Require an independent engineering review of the site plan, if determined to be necessary or helpful in reaching a decision.

3. Recommend alterations of the plan to minimize adverse effects on the natural environment and/or neighboring properties as a condition of approval.

4. Seek the assistance of the Natural Resource Conservation (NRCS) and/or Soil Erosion/Stormwater Management Officer relative to issues of soil erosion or stormwater runoff control, if determined to be necessary or helpful in reaching a
decision.

5. Within forty (40) days of the filing of a complete application, render a decision to approve, reject or conditionally approve the plan, however, a decision may be postponed for up to an additional sixty (60) days to allow for an independent engineering review of a site plan, or with the consent of the applicant, establish a different schedule.

6. In approving a site plan under this Section, the Planning Commission may impose reasonable conditions to ensure compliance with the standards, requirements and intent of this Section and this Ordinance.

A site plan shall be approved if it contains the information required by this Ordinance and is in compliance with this Ordinance, and any conditions imposed under this Ordinance. An approved site plan shall become part of the record of approval, and subsequent actions relating to the activity permitted shall be consistent with the approved site plan unless a change conforming to this Ordinance receives the mutual agreement of the owner of the land affected and the Planning Commission.

E. **Fees**
In addition to any other fees required under this Ordinance, a supplemental fee shall be required from the applicant to cover the actual costs of any independent engineering review before, during and after excavation or construction.

F. **Performance Guarantees**
An adequate performance guarantee in the form of a surety bond, cash, certified or cashier’s check, certificate of deposit, or irrevocable bank letter of credit, as selected by the applicant, may be required by the Planning Commission to insure faithful completion of construction/improvements in accordance with the plan required under this Section. The amount of the guarantee shall be set by the Planning Commission based upon reliable estimates of the costs of completing the work. The guarantee shall be refunded upon satisfactory completion of the work, per engineer’s certification as required in this Section

**22.10.6 Shoreline Bluff Standards**

A. The Planning Commission shall not approve a site plan for a property where the planned construction is in the Bluff Protection Zone where there exists a feasible and prudent alternative location on the owner’s lot of record, which shall include owner’s land lying east of Highway M-119.

B. The Zoning Board of Appeals may only hear and decide appeals from decisions of the Planning Commission regarding the existence of a feasible and prudent alternative location on the owner’s lot of record. In addition to meeting the applicable requirements of Article 25, the applicant must show that the lot of record was not created strictly for the purpose
of avoiding the consideration of alternative locations under this Section.

C. The necessity to prove a prudent/feasible alternative shall not apply to existing residential buildings within the Bluff Protection Zone that may be destroyed by fire or other means (even to 100%).

D. To be approved by the Planning Commission, a site plan must comply with the standards set forth in Section 20.05 of this Ordinance and with the following standards:

1. The amount of disturbed area shall be minimized at any one time.

2. The impact to wildlife and native vegetation shall be minimized by preserving the natural habitat.

3. Existing native vegetation shall be preserved to the maximum extent possible. Where feasible, the existing soil mat (topsoil, root structure, tree stumps, etc.) shall be maintained when trees and brush are removed. Vegetation shall be restored in areas affected by construction activities, and where feasible, native vegetation shall be used in such restoration.

4. The site plan shall, as appropriate in each case, include a Shoreline Greenbelt to: (a) act as a natural trap or barrier for soil/debris that slumps, falls or erodes from the bordering bluff slope, and (b) serve as a natural erosion control measure. The extent of the Shoreline Greenbelt shall be based on site plan information as pertinent to each specific property.

5. All driveways intersecting public roads shall intersect at an angle between 70 and 110 degrees with the public road.

6. The maximum longitudinal driveway entrance shall be no steeper than a 4% grade for a minimum of 30' from the edge of the traveled lane of a public road.

7. The maximum longitudinal driveway grade shall be 12%.

8. A vehicle safety barrier shall be installed along all driveway sections with parallel drop off grades steeper than 33% and greater than a 10-foot vertical height to level ground.

9. New driveways may be constructed down the bluff face in those cases where there is a nearly level natural shelf below the face of the bluff that is of sufficient length and width to site a residence (or two) that will meet the bluff toe setback standards and the 1986 record high water mark setback. Driveways in the Bluff Protection Zone shall also meet the side setback standards of the District. Any such access drive shall be essentially straight and not have a switch-back feature that impacts the bluff face.
E. The Planning Commission may waive or allow a modification of one or more of standards 1. through 8., but not 9., above, if supported by construction plans signed and sealed by a Michigan Registered Professional Engineer who shall take into account the concerns of affected road agencies, environmental protection agencies and public safety authorities.

22.10.7 Conflicting Regulations

The requirements of Section 27.10, Conflicting Regulations notwithstanding, the terms, conditions and standards of the Critical Dune Act (P.A. 451 of 1994, as amended) shall supersede the terms, requirements and conditions of the Shoreline Bluffs regulations.

22.10.8 Lot of Record

A lot of record shall not be created strictly for the purpose of avoiding consideration of alternative locations under this Section.