## SECTION 02502 - STANDARDS OF ROADWAY CONSTRUCTION

#### PART 1 - GENERAL

# 1.1 ROAD CONSTRUCTION SHALL CONFORM TO THE FOLLOWING REQUIREMENTS AND STANDARDS:

### A. Streets, General

- Streets and alleys shall be graded, surfaced, and improved to the dimensions required by the cross-sections and the work shall be performed in the manner prescribed in Section 2500 and applicable sections of INDOTSS.
- 2. Prior to placing the street and alley surfaces, adequate subsurface drainage (underdrains) for the street shall be provided. Underdrain pipe shall conform to these Standards and applicable sections of INDOTSS.
- 3. Concrete and bituminous asphalt paving mixes shall comply with specifications contained in Section 02500.
- 4. Before any bond covering a street installation is released, the Town Superintendent or duly authorized representative may request that core borings of the street be provided, at the Contractor's or Developers expense, for thickness determination.
- 5. Prior to the acceptance of asphalt streets, the Contractor or Developer shall employ and pay for the services of an independent testing labor to take cores at selected locations. Marshall stability, flow and density tests, and percent of compaction determination shall be performed on completed asphalt work upon request of the Town's Superintendent or duly authorized representative.
- 6. Prior to acceptance of concrete streets, satisfactory test results from an independent testing laboratory must be provided to the Town Superintendent or duly authorized representative.
- 7. A developer may request permission from the Town Superintendent to delay the installation of the 1-inch surface layer of asphalt until the binder layer of asphalt has had sufficient time to prove its durability under the stress of heavy construction traffic. This delay shall not exceed one (1) year. The developer shall be required to submit a separate performance bond to cover the cost of the installation of the 1-inch surface layer of asphalt.

8. All traffic control devices shall comply with guidelines and requirements of the current edition of the Indiana Manual on Uniform Traffic Control Devices.

## B. Subgrade for Street Pavements

## 1. Preparation

- a. After all earth work is substantially complete and all drains installed, the subgrade shall be brought to the lines and grades shown on the plans.
- b. Unless otherwise provided, the upper six (6) inches of all subgrade shall be uniformly compacted to at least 95 percent standard density as determined by the provisions of AASHTO, T99, "Compaction and Density of Soils". During subgrade preparation and after its completion, adequate drainage shall be provided at all times to prevent water from standing on the subgrade. Subgrades shall be so constructed that it will have uniform density throughout. After compaction and final grading, the subgrade shall be finished with a three-wheel roller weighting not less than ten (10) tons. For areas not accessible to the roller, the required compaction shall be obtained by using mechanical tampers.
- c. All soft yielding or otherwise unsuitable material which will not compact properly shall be removed. All rock encountered shall either be removed or broken off to conform with required cross sections. Any holes or depressions resulting from the removal of such unsuitable material shall be filled with approved material and compacted to conform with the surrounding subgrade surface. No placement of pavement shall be permitted on uninspected or unapproved subgrade and, at no time, when the subgrade is frozen or muddy. No hauling shall be done nor equipment moved over the subgrade when its condition is such that undue distortion results. If these conditions are present, the subgrade shall be protected with adequate plank runways, mats, or other satisfactory means if hauling is to be done thereon.
- d. The subgrade shall be prepared sufficiently in advance to facilitate proper inspection of final elevations and compactions by the Town Superintendent or duly authorized representative.
- e. All utility and drainage excavations under pavement shall be backfilled with sand around pipes, and #53 stone compacted to street level. These locations shall be illustrated on construction drawings submitted to the Town.

- 2. Rigid Pavement Construction When concrete is placed, the subgrade shall be properly dampened. Concrete pavement shall be constructed in accordance with Section 02500 and INDOTSS.
- C. Pavement Section Typical pavement sections shall conform to the cross sections shown by Figures 2500C through E. The use of alternative cross sections must be approved by the Town Superintendent prior to installation.

#### D. Curbs and Gutters

- 1. Wherever a proposed subdivision lies adjacent to or in proximity of other developed areas currently provided with curbs and gutters or that have more than three (3) lots per acre of land plotted into lots, the subdivider shall provide curb and gutter on each side of the street surface in the proposed subdivision.
- 2. Curbs and gutters shall comply with standard details shown by Figures 2500I through 2500K. As an alternate, curb sections which comply with INDOT standard details will be permitted upon approval by the Fortville Superintendent.
- 2. All curb and gutter sections placed on Primary Arterials, Secondary Arterials, or Collectors shall be of the barrier type. Roll-type curb and gutter sections will be permitted for Local Roads and Streets.
- 4. Curbs and gutters shall be constructed according to Section 02500:
  - a. The minimum grade of any street gutter shall be not less than three-tenths percent (0.3%).
  - b. Inlet grates shall be heavy duty type recommended for bicycle traffic. Reference Section 02721.
- E. Sidewalks, Pedestrian Paths, Jogging Paths, and Bicycle Paths.
  - 1. Sidewalk shall be at least six (6) inches thick at drives and at least four (4) inches thick at all other locations. Sidewalks shall be at least five (5) feet wide adjacent to Primary Arterials, Secondary Arterials, Collectors and commercial, industrial or mutli-family developments. Sidewalks shall be at least four (4) feet wide at all other locations. Sidewalks shall be concrete in accordance with Section 02500. Expansion joints shall be located every 48 feet and control joints every six (6) feet. Reference Detail 2500X.
  - 2. Curb ramps shall comply with Standard Detail 2500N.

- 3. Pedestrian paths, other than sidewalks, shall be constructed to a minimum width of five (5) feet, The paths shall be constructed of asphalt, crushed stone, bark chips, paving stones, or other similar surface materials.
- 4. Bicycle ways/jogging paths shall be constructed to a minimum width of eight (8) feet with a maximum grade of eight percent (8%). The ways/paths shall be constructed of concrete or asphalt. Concrete ways/paths shall be at least four (4) inches thick and shall include wire fabric reinforcing of a size "6 x 6 W2 x W2". Asphalt ways/paths shall be constructed using the following as a minimum requirement:
  - a. Four (4) inches Compacted Aggregate Size No. 53, stone base
  - b. Two (2) inches Bituminous Binder No. 8 or 9
  - c. One (1) inch Bituminous Surface No. 11
- 5. All ways/paths shall be placed on properly prepared and compacted subgrades. Materials shall be furnished and installed in accordance with Section 02500 and INDOTSS.
- 6. When sidewalks or pathways cross major street intersections within or adjacent to a subdivision, necessary traffic control devices such as painted crosswalks and signs shall be installed at the subdivider's expense.
- 7. If not located within public rights-of-way, easements of at least ten (10) feet in width shall be provided for sidewalks, pedestrian paths, or bicycle paths.
- F. Easements Whenever possible, easements for poles or underground conduits for electrical power, or telephone lines shall be provided along rear lot lines.
- G. Plans Construction plans for improvements to be installed shall be furnished in accordance with the specifications of the Town and/or, when appropriate, to the Hancock County Highway Department. Such plans must receive all appropriate approvals before improvements are installed. Upon completion of streets and alleys improvements, as-built plans shall be filed with the Town and when appropriate, to the proper governing body of Hancock County. All construction plans shall include the following:
  - 1. Horizontal geometry of each proposed street, with centerline and curb radii shown.
  - 2. The profile of each proposed street, with grades indicated, and lengths of vertical curves.

- 3. The cross-section of each proposed street, showing the width of pavement, the location and width of sidewalks, and the location and size of utility mains.
- H. Inspection Prior to starting any construction, arrangements shall be made for inspection of work to ensure compliance with plans and specifications approved by the Town or, when appropriate, the Hancock County Highway Department.
- I. All construction must be approved by the Town. Notice of construction must be given to the Town Superintendent, or duly authorized representative, a minimum of 48 hours prior to beginning work.
- J. Allowable Modifications Where unusual or exceptional factors or conditions exist, the Town may allow minor modifications of any provision of this Section. When such modifications are allowed, a detailed written statement of the reasons for such modifications shall be attached to all copies of construction plans.

PART 2 - PRODUCT

2.1 Not Applicable

**PART 3 - EXECUTION** 

3.1 Not Applicable

END OF SECTION 02502