SECTION 20 STREET IMPROVEMENTS

The width of street rights-of-way to be required shall be as shown on the approved preliminary subdivision or site development plan in accordance with the system of street classification set forth in this ordinance. Street right-of-way improvement shall include the following:

A. Street Paving

All on-tract streets shall be paved in conformance with the improvement standards as defined on the preceding pages:

Gravel base course shall be constructed in accordance with the provisions of Article 3.1 of the Standard Specifications for Road and Bridge Construction of the New Jersey Department of Transportation, as amended. Gravel base course materials shall be soil aggregate, Type 2, Class A or Class B of said specifications.

Bituminous stabilized base course materials shall conform to the requirements specified in Article 3.10.2 of the Standard Specifications for Road and Bridge Construction of the New Jersey Department of Transportation, as amended by the 1980 supplement to the standard specifications and as amended hereafter. Before construction of the bituminous stabilized base course, the gravel base shall be in a properly finished condition, conforming to the proper line and grade, and free of soft spots or other deficiencies. The gravel base course shall be tested by running a roller of a weight as great or greater than that to be used in the paving operation over the entire pavement area within 24 hours prior to the commencement of paving. When, in the opinion of the municipal engineer or his representative, such testing results in excessive deformation, the developer will be required to stabilize the gravel base course in a manner satisfactory to the municipal engineer.

The method of construction of the bituminous stabilized base course shall conform to the same State of New Jersey specifications, referred to above, for base course materials. Upon completion, uniformly selected core samples, intact for full thickness of the base course, may be required at the rate of one (1) sample for every 1000 square yards of base course at the expense of the developer.

Where deficiencies in required thickness are noted, at least two (2) additional cores will be required to determine the extent of the deficiency.

The average thickness of the bituminous stabilized base course, as determined from the core samples, shall be not less than a thickness of 2 inches, or as specified by the municipal engineer.

When the pavement, as indicated by any core sample, shows a deficiency of one-quarter inch (1/4") or more from the required thickness, the municipal engineer, at his option, may direct the developer to:

- Remove and replace the bituminous stabilized base course to the correct thickness; or
- 2. Construct an overlay of bituminous concrete, suitable to the engineer to correct the thickness deficiency.

Materials for the surface course shall be FABC-1, Mix I-5, as specified in Division #, Section 10, of the aforementioned New Jersey Department of Transportation Standard Specifications, which shall be placed over a properly installed and, where needed, repaired base course. Prior to construction of the surface course, a tack coat, as specified in Division 3, Section 10, in the aforementioned New Jersey Department of Transportation Standard Specifications, shall be applied. A paving detail is included in SECTION 31 DETAILS.

Upon completion of the surface course, the developer may be required to provide core samples therefrom in accordance with the procedures outlined above for base course sampling. The average thickness of the FABC-1 surface course, as determined from the core samples, shall not be less than two (2") inches for the thickness specified by the municipal engineer. When the pavement, as indicated by any core sample, shall show a deficiency of one-quarter (1/4") inch or more from the required thickness, the municipal engineer, at his option, may direct the developer to:

- 1. Remove and replace FABC-1 surface course to the correct thickness; or
- 2. Construct an overlay of bituminous concrete suitable to the engineer to correct the thickness deficiency.

B. <u>Curbs and Gutters</u>

Standard monolithic concrete curb and gutter will be required along the pavement edge of streets in conformance with the improvement standards as specified by the municipal engineer. Concrete shall be Class B with Type I cement. There will be no waiver of curbs and concrete header curbs must be installed in lieu of standard concrete curbs.

Expansion joints shall be provided at intervals of 20 feet and when new construction abuts existing construction.

The expansion joints shall be filled with one-half (1/2") inch thick cellular material, conforming to the requirements therefor contained in the Standard Specifications of the New Jersey Department of Transportation, as amended to date, to within one-half (1/2") inch of the top and face of the curb and to within one quarter (1/4") inch of the top of the gutter. All joints shall extend to the full depth of the structure.

Finished curbs and gutters shall be true to applicable grades, lines, dimensions and curvatures. Exposed edges shall be neatly rounded to a one-half (1/2") inch radius. Completed work shall be protected from traffic and the elements and shall be kept moist for at least three (3) days. Damaged, broken or cracked work shall be renewed by the developer at his expense.

In those cases, where a developer requests a waiver from the requirements for standard curbing as set forth in this section, the Planning Board, in considering a request for such waiver, shall apply the following guidelines:

- Curbing should be required in the case of any development generating large volumes of vehicular traffic or lying in close proximity to such development.
- 2. Curbing should be required in conjunction with multi-family residential developments and in higher density single or two-family subdivisions having an average lot size of less than one-half (1/2) acre.
- 3. Curbing should be required in conjunction with single-family subdivisions, having average lot sizes of one (1) acre or less, unless it can be demonstrated to the satisfaction of the municipal engineer that all new surface run-off will be accommodated on-site; that shoulder construction or percolation characteristics of roadside soils are such that excessive rutting of shoulder areas will not occur; and that the existing or proposed topography is such that water ponding will not occur.

4. Curbing should be required along existing and proposed city streets or roads in conjunction with any proposed development which would otherwise contribute to an adverse drainage condition, soil erosion or stream or watercourse siltation.

C. Sidewalks

Except as provided below, sidewalks shall be required along all streets. All sidewalks shall be a minimum of four (4") feet wide and four (4") inches thick, except at driveway crossings, where they shall be six (6") inches thick. Sidewalks and concrete aprons shall be constructed in accordance with NJDOT Standard Specifications for Road and Bridge Construction (1989), Section 607 and Section 914, with Class B concrete, except that the 28 day compressive strength is to be 4000 psi. Sidewalks are to be provided with expansion joints 1/2 inch wide, at intervals of 20 feet, and where new paving abuts curbs or old work, and shall be filled with preformed expansion joint material. Contraction joints are to be provided at 4 feet intervals and shall be cut to a depth not less than one (1") inch deep and one-fourth (1/4") inch thick.

Finished sidewalks shall be true to specified lines, grades, dimensions and curvatures. Completed work shall be adequately protected from traffic and the elements.

In cases where a developer requests a waiver from the requirement of sidewalks, as set forth in this section, the Planning Board, in considering such waiver, shall apply the following guidelines.

- Sidewalks should be required in the case of any development or portion thereof where pedestrian movement to school sites and other pedestrian movement generators, including, but not limited to: recreational facilities, churches, clubs, eating establishments and retail shopping center.
- 2. In situations other than those listed in #1 above, sidewalks along both sides of a street should be required when:
 - a. permitted residential densities exceed four dwelling units per acre and no internal open space walkway system is provided;
 - along one side of a street only in cases where residential densities range between one dwelling unit and four dwelling units per acre and no open space walkway system is provided;

c. and no sidewalk should be required in cases where dwelling unit densities are less than one dwelling per acre or where adequate internal open space walkway systems are provided.

In all cases, the Planning Board shall take into account the nature and intensity of neighboring uses, as well as the peculiar size, use and character of the development proposed.