

**CITY OF NEWARK**

Delaware

**SPECIFICATIONS FOR  
CONCRETE SIDEWALKS**

## CONCRETE SIDEWALKS

### DESCRIPTION:

Concrete sidewalks shall consist of certified Portland cement concrete laid on approved sub-base prepared in accordance with this specification or as directed by the city engineer.

### MATERIALS:

#### A. Composition of Mix

The certified concrete shall be proportioned to give compressive strength of 3500 pounds per square inch at the end of 28 days. The concrete shall be air entrained and the maximum size of the coarse aggregate shall be one inch.

#### Expansion Joints

Expansion joint material shall consist of preformed strips which have been formed from heavy granulated cork particles or a tightly woven fibre material bound together by a synthetic resin of any insoluble nature and shall be 1/2" thick.

### CONSTRUCTION METHODS

#### A. Sub-base

The foundation shall be formed at the required grade to accommodate the dimensions and design for the bottom of the sidewalk. The concrete shall be placed on existing undisturbed soil which is firm and unyielding. All soft, yielding or other unsuitable material shall be removed and replaced with quarry waste. All fill material shall be compacted with an approved tamper.

#### B. Concrete Thickness & Width

	Residential		Business	
	Thickness	Width	Thickness	Width
Sidewalk	4"	4'	4"	5' Min.
Driveway	6"	4'	6"*	5' Min.

\*Reinforced with wire mesh

#### C. Forms

Forms shall be wood, steel or other approved material. They shall be held rigidly to line and grade by stakes, pins, or braces. Wood forms shall be free from cracks, splits, twists, warps, and other objectionable defects. Steel forms shall be free from rust, dents, kinks, and twists. Forms shall be set to provide a uniform transverse sidewalk slope of 1/4 inch per foot to facilitate

drainage. All forms shall be completely cleaned, oiled, and approved by the inspector before placing any concrete against them.

#### **D. Placing and Finishing Concrete**

The concrete shall be placed immediately after mixing. It shall be spaded along all forms and struck off with an approved screed and shall be floated with a 3 foot wood or metal float until the surface is true and even. Care must be taken to avoid bringing too much water and fine material to the surface by overfinishing. As soon as the excess water has disappeared, the final finish shall be obtained by either a wood float or a hair broom.

#### **E. Marking**

The walk shall be marked into blocks forming true squares not exceeding six feet by scoring 1/2" minimum with approved edging tools. The surface edge of each slab shall be rounded to a 1/4" radius.

#### **F. Expansion Joints**

Expansion joints shall extend from the surface to the subbase and must be at right angles to the surface. One-half ((1/2) inch expansion joints, conforming to the requirements of these specifications shall be placed across the walk every twenty (20) feet and where the walk intersects a curb or another rigid structure.

#### **G. Curing**

As soon as the finishing is completed, the walk shall be covered with either polyethylene sheeting, waterproof paper or sprayed with liquid membrane curing compound. Concrete shall be cured for a period of three days.

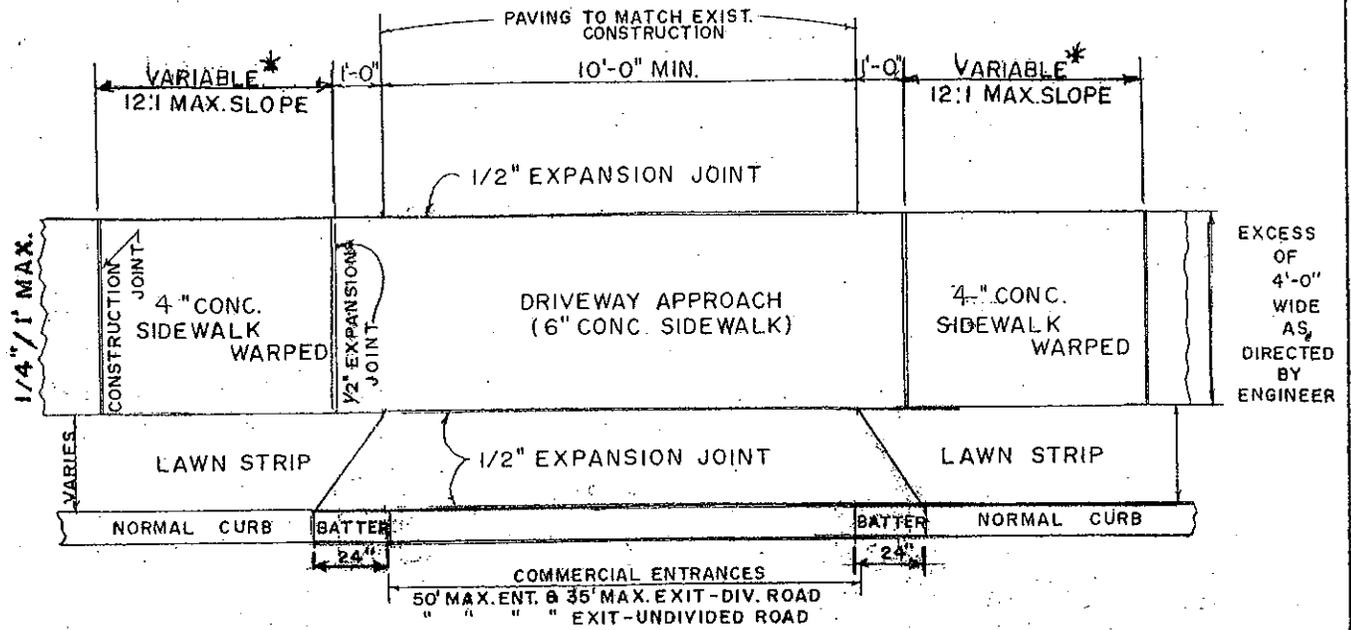
#### **H. Backfill**

Where the sidewalk is not adjacent to curb or other structures, suitable approved material shall be used to form a shoulder for the sidewalk for a width of eighteen (18) inches. This material shall be placed immediately at the end of the curing period.

#### **WINTER POURING**

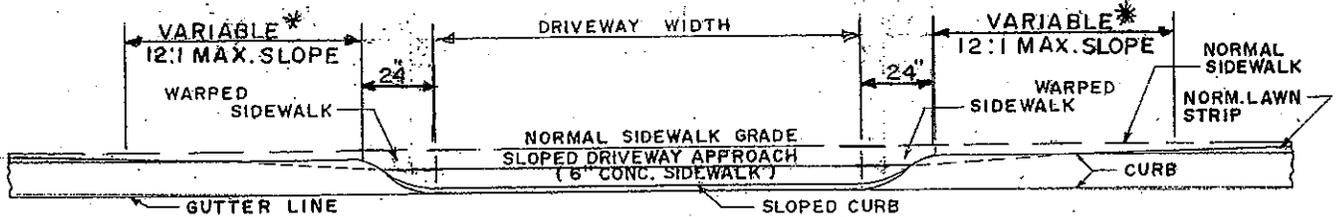
Concrete can be poured only if air temperature is 35 degrees fahrenheit and rising.

Concrete must be cured by covering the concrete with insulating blankets or polyethylene sheeting covered by straw or hay. Then placing polyethylene ovetop to form a blanket for when temperatures are to fall below 32 degrees fahrenheit.



**NOTE:**

WHEN SIDEWALK ABUTS CURB, THE BATTER IN THE CURB MUST BE OF SUFFICIENT LENGTH TO PROVIDE  $\leq 8\%$  SLOPE IN THE TRANSITION



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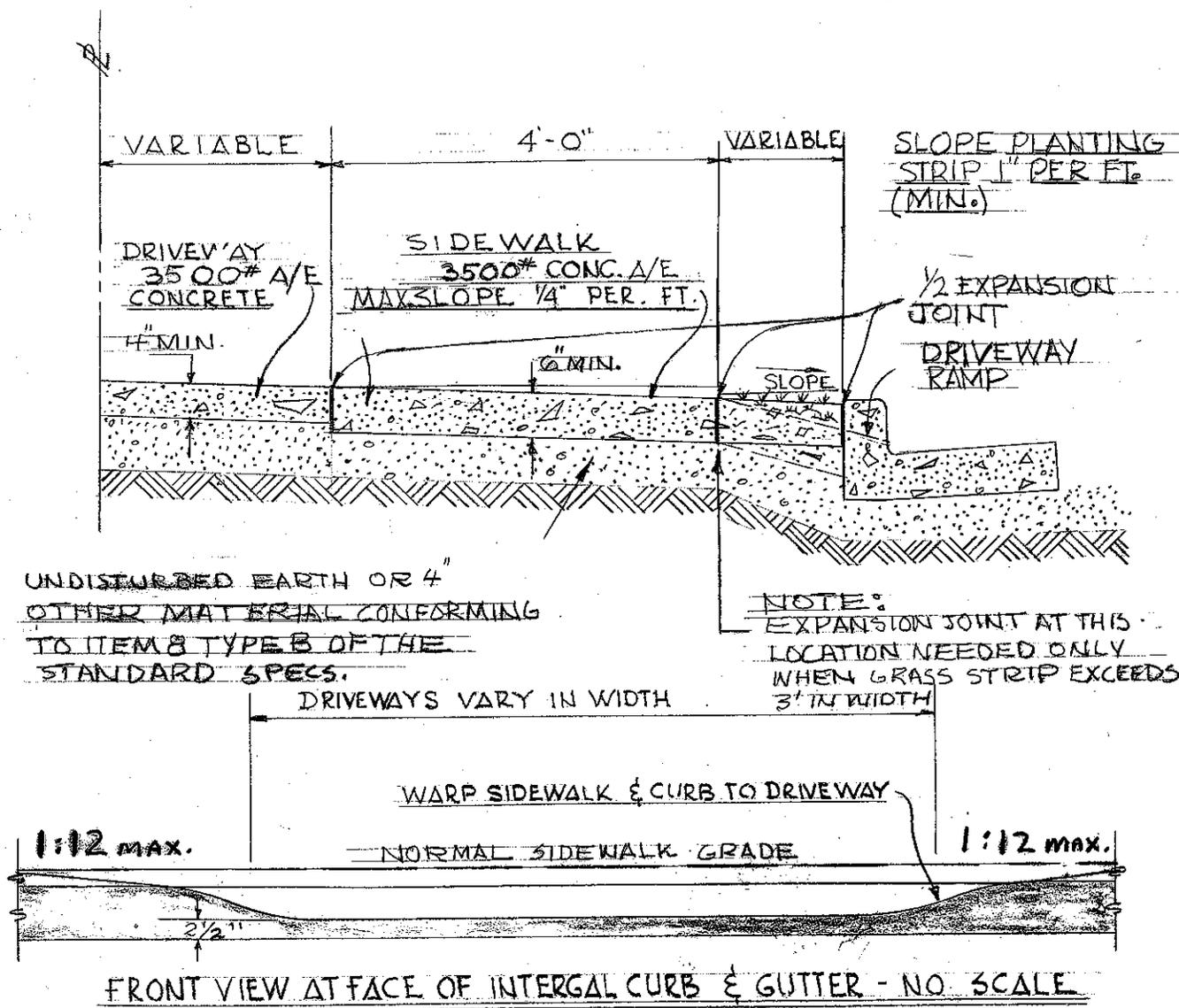
**NOTE:**

1). WHERE A 12:1 MAXIMUM SLOPE WILL NOT MEET THE SIDEWALK GRADE WITHIN A LENGTH OF 15', THE TRANSITION LENGTH MAY BE LIMITED TO 15', AND THE SLOPE ALLOWED TO EXCEED 12:1.

**CITY OF NEWARK**

DRIVEWAYS CONSTRUCTION LAYOUT

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## RESIDENTIAL AREA SIDEWALK (4') WIDE

### NOTES:

1. WALKWAYS:
1. EXPANSION JOINT, PROVIDED EVERY 20' FOR CONCRETE PAVEMENT.
  2. MIN. THICKNESS 4"

### 3. DRIVEWAYS:

- WIDTH - SINGLE 10 FT.
- DOUBLE 18 FT.
- EXPANSION JOINTS EVERY 20' MIN.

**CITY OF NEWARK**

TYPICAL SIDEWALK DRIVEWAY  
AND WALKWAY DETAIL