# Concrete Specifications for curb, gutter, sidewalk, and driveway approach

## Material:

Cement Concrete – PennDOT Class AA or High Early Strength (HES). Entrained air design value shall be 6.5% based on field test to be not less than 5% (6.25 min. bag mix, 3000 psi/7 days – 3,750 psi compressive/28 days.

Aggregate Subbase – PennDOT No. 2A, Type C, coarse aggregate, clean or washed AASHTO #57 (washed 2B stone)

Reinforcement – 6 inch by 6 inch (6" x 6") W2.9 x W2.9 welded wire fabric

Premolded Expansion Joint Filler – ½" asphalt impregnated felt or fabric approved type. 4" wide (6" wide at aprons and sidewalks crossing driveways)

Concrete Curing Compound – Liquid membrane-forming curing compound, Clear. AASHTO-M148, type 1-D.

## Construction – as shown on the Standard Detail and as follows:

a) Permits & Notifications – You must obtain a permit from the City of Warren and notify the Pennsylvania One Call System prior to initiation of work.

b) Unless otherwise specified herein, cement concrete shall be completed in accordance with the methods and materials contained in the PennDOT Publication 408, Sections 676 and 704. All construction of cement concrete sidewalks and aprons shall be in accordance with the most current ADA requirements.

c) If driveway approach depressed curbing is broken, heaved, missing, in poor condition, or does not meet the minimum required elevation of 1 ½ inches above the finished road grade per the latest PennDOT specification, replacement will be required. Contact the City (DPW) for further instruction and assistance at 814-723-6300 ext. 144 or CODES at ext. 118

d) Preparing Foundation – Excavate as required and form the foundation at a depth of 8 inches (10" for aprons and sidewalks installed across driveways) below and parallel with the finished surface foundation of the sidewalk. When necessary, removed unsuitable material. Thoroughly compact the foundation, finish to a firm, even surface, moisten if necessary.

e) Placing aggregate for Bed – Spread aggregate subbed material on the prepared foundation to form a thoroughly compacted bed 4 inches minimum compacted depth.

f) Forms – Use acceptable wood or metal forms extending the full depth of the concrete.

g) Concrete – Place concrete immediately and it shall be tamped and struck off with a template and shall be floated with a wood or magnesium float until surface has a true contour. A slip resistance texture shall be achieved by course brooming the finished surface in a transverse direction.

Form outside edges with ¼" radius tool

Tooled or saw cut transverse joints shall be approximately 1/8" wide, minimum depth of ¼"

Transverse joints shall have equal spacing the width of the walk, no more than 5 feet maximum

Sidewalks greater than 10' in width shall have a longitudinal contraction joint along centerline

Where required construct cement sidewalk curb ramps in compliance with ADA requirements

h) Reinforcement – Place and secure Woven wire mesh approximately 1 ½" below the surface of a 4" thick sidewalk, or 2" below the surface of a 6" thick sidewalk and apron.

i)  Expansion Joints – Place ½" premolded, expansion joint material for the full depth of the sidewalk at a maximum of 100' intervals, opposite expansion joints in adjacent curb, between the sidewalk and curb, and between the sidewalk and all structures and surface obstructions. Install expansion joint material between new sidewalk and existing sidewalk.

k)  Backfilling & Restoration – After concrete has cured for at least 72 hours, backfill spaces adjacent to sidewalk using acceptable topsoil material, rake, seed, or mulch as required. Repair or replace existing pavement, curb, and sidewalk damage due to construction. Dispose of surplus material.
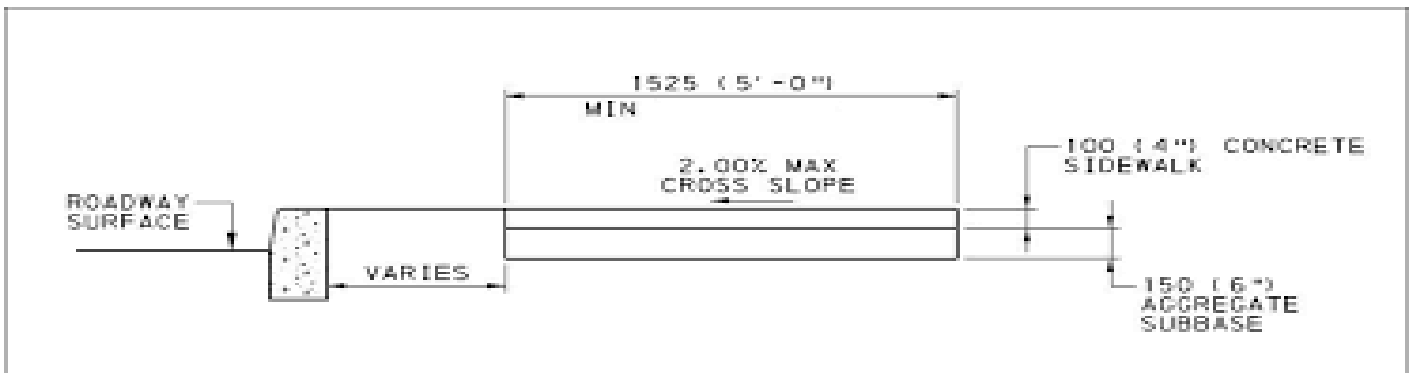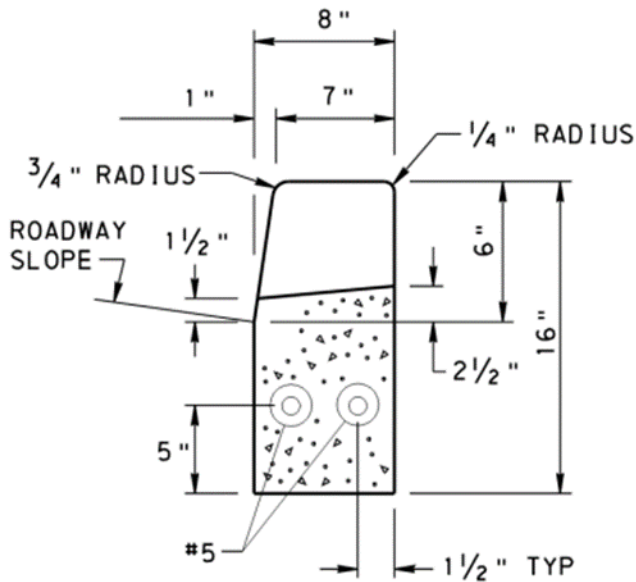
Driveway aprons to specifications above, 6" concrete with welded wire on 6" aggregate after compaction

Sidewalk crossing a driveway, 6" concrete with welded wire on 6" aggregate after compaction

Sidewalk is 4" concrete with welded wire on 4" aggregate after compaction

All new concrete is to be pinned in multiple locations to existing concrete

10-12-2022