

BIGLERVILLE BOROUGH COUNCIL

BIGLERVILLE BOROUGH, ADAMS COUNTY, PENNSYLVANIA

CURB AND SIDEWALK CONSTRUCTION SPECIFICATIONS

August, 1998

Prepared by:

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BIGLERVILLE BOROUGH, ADAMS COUNTY, PA
CURB AND SIDEWALK CONSTRUCTION SPECIFICATIONS

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SPECIFICATIONS FOR CURB CONSTRUCTION

I. Description

Curbs to be provided pursuant to the provisions of the Biglerville Borough Subdivision and Land Development and Sidewalk and Curb Ordinances shall be in accordance with these specifications and within the lines, grades, and dimensions shown on the approved plans. Curbing shall conform to the details shown in these specifications.

II. General Provisions

All materials and construction requirements shall be governed by and subject to these specifications and to those referenced specifications of the Pennsylvania Department of Transportation's Specification Form 408 as most recently amended.

III. Materials

A. Cement Concrete

1. All curbs shall be constructed of PennDOT Class A Cement Concrete. For slip forming, concrete shall be designed with a maximum slump of one and one-half (1 ½) inches.

B. Expansion Joint Filler

1. Expansion joint filler shall include premolded fillers of cork, cork and rubber, or fiber types, meeting the requirements of PennDOT Publication 408. Molded expansion joint filler shall be 1/4 of an inch in thickness.

IV. Construction Requirements

A. Preparation of Foundation

1. Excavation shall be made to the required depth, including where indicated, removal of existing curb, pavement and sidewalk to neat lines. The material upon which the curb is to be constructed shall then be compacted to a firm, even surface.

B. Forms

1. Forms shall be of metal, except that wood forms may be used on sharp curves and short tangent sections when approved by the engineer.
2. Forms shall be straight, free from warp, and of sufficient strength when staked to resist the pressure of the concrete without springing.

3. Metal Forms shall be of the approved section; or if wood, they shall be nominal two (2) inch planks, finished on the inside and the top.
4. Forms shall be of a depth equal to the depth of the curb, designed to permit secure fastening of the face and back forms at the tops.
5. All forms and templates shall be thoroughly cleaned and treated with an approved materials, to prevent the concrete from adhering thereto.
6. Forms shall not discolor the concrete.

C. Depressed Curb / Driveways

1. Where a driveway enters a street, the curb shall be made lower for the width of the opening.
2. The height of a depressed curb at its face should not be more than two (2) inches. The height of the back shall be one (1) inch more than at the face.
3. Between a depressed curb and the adjacent curb of regular height, there shall be a sloping section as required to taper curb to existing or proposed gradeline. The length of the tapered section shall be 18" to 24".
4. Where curbing is to be removed to construct a driveway or access drive, the length of the curbing to be removed shall be carried to the nearest expansion joint or saw cut if the joint is located more than 5 feet from the end of the curb removal. Curb replacement shall be shaped and formed to the required driveway width.

D. Placing and Finishing Concrete

1. Concrete shall be placed in the forms in horizontal layers not to exceed five (5) inches, and spaded sufficiently to eliminate all voids. Place bars as indicated for depressed curb at drives.
2. The top surface of the curb shall be finished true to line and grade in a smooth, neat, and even manner, and the edges of the face and back shall be rounded to a radius of 3/4 of an inch and 1/4 of an inch, respectively, while the concrete is still plastic (prior to final "setting" of the concrete).

E. Joints

1. Contraction joints shall be spaced in uniform lengths of sections twenty feet (20') maximum, except where shorter sections are necessary for closures or curves, but no section shall be less than four (4) feet.

2. Contraction joints may be either hand-formed or sawed and shall be 3/16 inches wide and two (2) inches deep.
3. Premolded expansion joint material (3/4 inch) shall be cut to conform to the cross sectional area and be placed at structures and at the end of a days work.
4. If an existing utility pole is on a curb line, a construction joint shall be provided around pole.

F. Removal of Forms

1. The forms shall not be removed until such time that it will not be detrimental to the concrete.
2. Any irregular surface shall be corrected by rubbing with a carborundum stone; however, no rubbing will be permitted until the full curing period has elapsed.
3. After removal of the forms, minor honeycombed areas shall be filled with mortar composed of one (1) part cement and two (2) parts fine aggregate.
4. Major honeycombed area will be considered as defective work, and shall be removed and replaced.

G. Curb Machine

1. Concrete may be placed with an acceptable self-propelled machine.
2. Concrete shall be uniformly fed to the machine; after extrusion, the firmly compacted, high-density curb shall stand complete, strong and ready for curing.
3. The finished curb shall have a surface free from voids and honeycombed areas. Any minor surface finishing required shall be performed immediately after extrusion.

H. Curing

1. The curb shall be cured and protected as specified in PennDOT Publication 408, with either membrane or water curing.

I. Backfilling

1. As soon as possible, but no longer than 48 hours following the removal of forms, the spaces in front and back of the curb shall be backfilled with approved material in layers of not more than four (4) inches in depth, which shall be thoroughly compacted to the required elevation and cross section.

2. The layers shall be placed by alternating between the front and back of the curb.

J. Inspection

1. Curbs shall be inspected by the Borough at a minimum after forms have been placed, prior to pouring of concrete and after completion of all work.

K. Curb Ramps

1. Curb ramps shall be provided at street intersections. Curbing in ramp area shall be per PennDOT Publication 408 and RC Standards, and shall be in accordance with the Americans with Disabilities Act (ADA).

SPECIFICATIONS FOR SIDEWALK CONSTRUCTION

I. Description

Sidewalks to be provided pursuant to the provisions of the Biglerville Borough Subdivision and Land Development and Sidewalk and Curb Ordinances shall be in accordance with these specifications and within the lines, grades, and dimensions shown on the approved plans.

II. General Provisions

All materials and construction requirements shall be governed by and subject to these specifications and to those referenced specifications of the Pennsylvania Department of Transportation's Specification Form 408 as most recently amended.

III. Materials

A. Cement Concrete

1. All sidewalks shall be constructed of PennDOT Class A Cement Concrete.

B. Aggregate

1. Aggregate shall be stone, gravel, or slag meeting the requirements for PennDOT Type C, or better, No. 2B material.

C. Expansion Joint Filler

1. Expansion joint filler shall include remolded fillers of cork, cork and rubber, of fiber, types meeting the requirements of Section PennDOT. Remolded expansion joint filler shall be 1/4 of an inch in thickness.

IV. Construction Requirements

A. Preparation of Foundation

1. The foundation for the bed shall be formed at a depth of ten (10) inches below and parallel with the finished surface of the sidewalk. This depth shall be twelve (12) inches at driveways.
2. Unsuitable material shall be removed and replaced with approved material.
3. The foundation shall be thoroughly compacted and finished to a firm, even surface.

B. Placing of Aggregate for Bed

1. The approved aggregate shall be spread on the prepared foundation to form a compacted bed six (6) inches in depth.

C. Forms

1. Forms shall be of wood or metal, straight, free from warp, and of sufficient strength when staked to resist the pressure of the concrete without springing.
2. If wood is issued for forms, they shall be nominal 2-inch planks finished on the inside and the top; or if metal, they shall be of approved section.
3. Forms shall have a depth equal to the depth of the concrete, and shall be thoroughly cleaned and treated with an approved material, to prevent the concrete from adhering thereto.

D. Joints

1. Transverse Dummy joints shall be spaced in uniform lengths of not more than five (5) feet and shall be 1/8 inches wide and one (1) inch deep and may be either hand-formed or sawed joints.
2. One - half inch premolded expansion joint material shall be cut to conform to the cross sectional area and be placed at structures and at uniform intervals of not more than twenty (20) feet.
3. Where an existing utility pole, valve box, or hydrant is within the sidewalk area, a 18 inch X 18 inch square expansion joint shall be provided around structure.
4. Sidewalks be sloped towards the street at a uniform slope of 1/4 inch per foot.

E. Placing Concrete

1. Concrete shall be four (4) inches in depth unless otherwise specified, and spaded sufficiently to eliminate all voids. Concrete thickness at all driveways shall be six (6) inches in depth. Welded wire fabric or approved equal shall be installed in sidewalk and driveway construction.
2. An edger having a 1/4 inch radius shall be used for edging.

F. Removal of Forms

1. Side forms shall not be removed within twelve (12) hours after the concrete has been placed.

2. After removal of the forms, minor honeycombed areas shall be filled with mortar composed of one (1) part cement and two (2) parts fine aggregate.
3. Major honeycombed areas will be considered as defective work, and shall be removed and replaced.

G. Curing

1. The sidewalk shall be cured and protected as specified in PennDOT Publication 408, with either membrane or water curing.

H. Backfilling

1. After the concrete has cured for not less than seventy-two (72) hours, the spaces adjacent to the sidewalk shall be backfilled with approved material in layers of not more than four (4) inches in depth, which shall be thoroughly compacted to the required elevation and cross section in accordance with approved plans.

I. Curb Ramps

1. Curb ramps shall be provided at street intersections. Sidewalks in ramp area shall be per PennDOT Publication 408 and RC Standards, and shall be in accordance with the requirements of the Americans with Disabilities Act (ADA).

J. Inspection

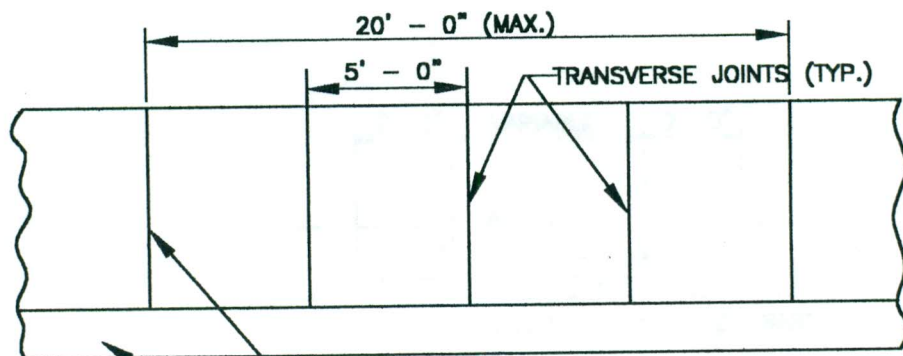
1. Sidewalks shall be inspected by the Borough at a minimum after forms have been placed, just prior to pouring concrete, and after completion of all work.

BOROUGH OF BIGLERVILLE
CURB AND SIDEWALK
JOINT DETAILS

WM. F. HILL & ASSOC.
GETTYSBURG, PA

SCALE: NOT TO SCALE

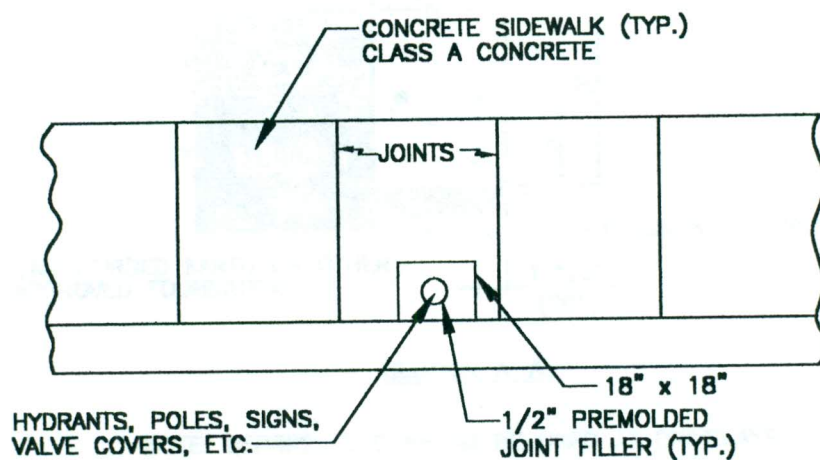
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PREMOLDED EXPANSION JOINT MATERIAL

CURB (A GRASS STRIP MAY BE PROVIDED BETWEEN CURB
AND SIDEWALK WHERE APPROVED BY THE BOROUGH)

PLAN VIEW - CONC. SIDEWALK



PLAN VIEW

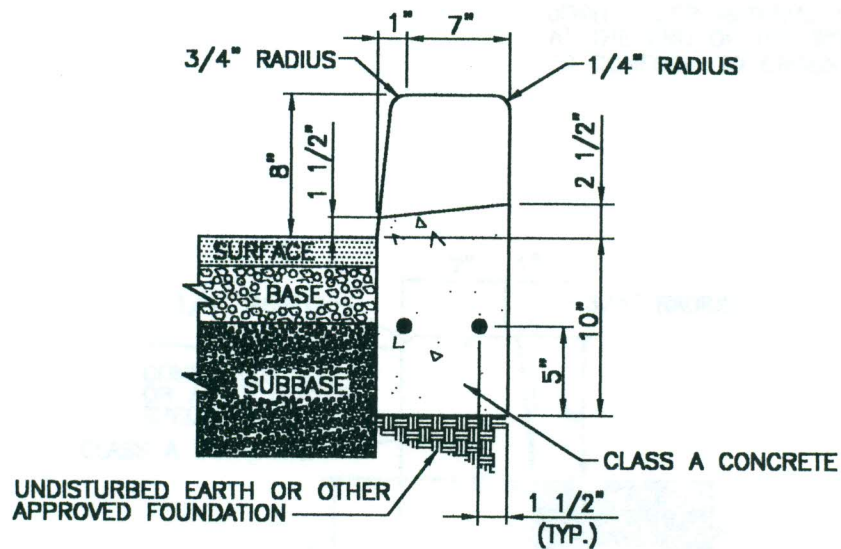
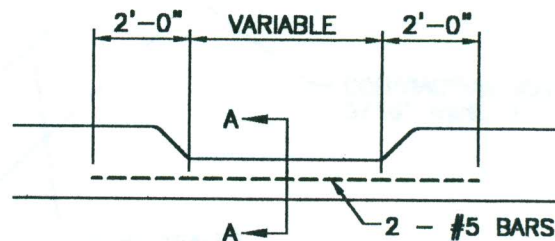
UTILITY PROTRUSION IN SIDEWALK

BOROUGH OF BIGLERVILLE DEPRESSED CURB DETAIL

WM. F. HILL & ASSOC.
GETTYSBURG, PA

SCALE: NOT TO SCALE

DATE: 4/27/98



SECTION A-A

NOTE: DEPRESSED CURB TO BE USED AT DRIVEWAYS

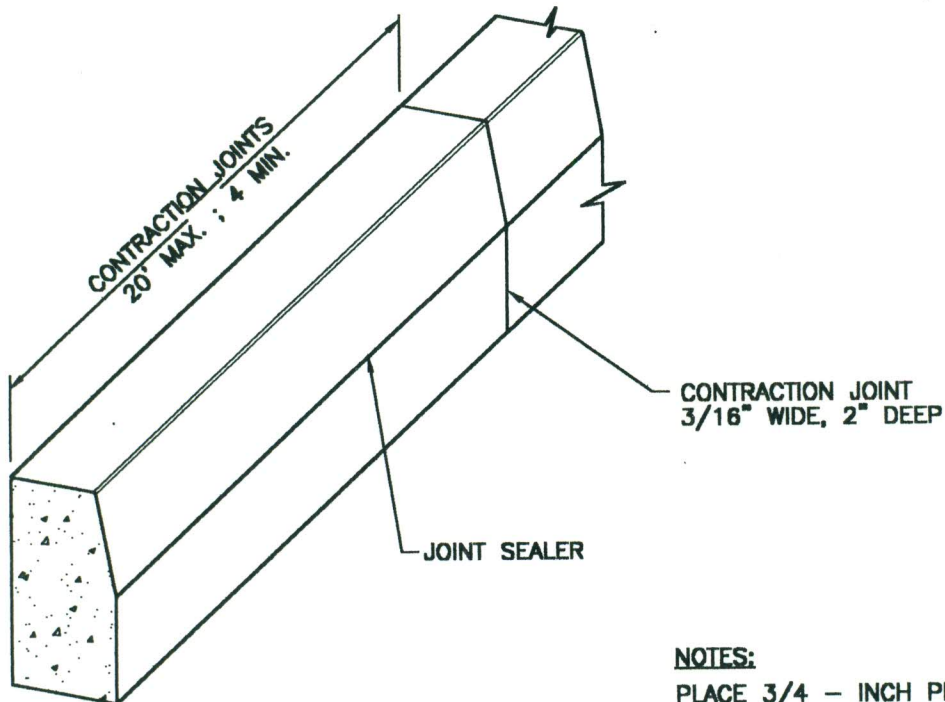
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BOROUGH OF BIGLERVILLE VERTICAL CURB DETAIL

WM. F. HILL & ASSOC.
GETTYSBURG, PA

SCALE: NOT TO SCALE

DATE: 4/27/98



NOTES:

PLACE 3/4 - INCH PRE-MOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO CROSS SECTIONAL AREA OF CURB.

