

CHAPTER 21

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## Part 1

## Street Excavations

§101. Definitions and Interpretation. The following words, when used in this Part, shall have the meanings ascribed to them in this section, except in those instances where the context clearly indicates otherwise:

**EXCAVATION** - any activity within the right-of-way of any street, alley, or cartway which involves cutting, breaking, or disturbing the surface thereof. In this Part, the term **OPENING** shall have essentially the same meaning as excavation.

**STREET** - any public street, avenue, road, square, alley, highway, or other public place located in the Borough and established for the use of vehicles, but shall not include State highways.

**PERSON** - any natural person, partnership, firm, association, corporation or municipal authority.

In this Part, the singular shall include the plural and the masculine shall include the feminine and the neuter.

(Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§102. Permit Required to Make Opening or Excavation. It shall be unlawful for any person to open or to make any excavation of any kind in any of the streets in the Borough without first securing a permit therefor, as hereinafter provided. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§103. Application for Permit. Any person who shall desire to make any opening or excavation in any of the streets in the Borough shall make application to the Manager in writing for that purpose. Such application shall be made upon blanks to be furnished by the Borough and shall set forth the name of the applicant, the exact location of the proposed opening or excavation, and the approximate size or depth thereof, and shall contain an agreement on the part of the applicant that the work shall be done in full compliance with the ordinances of the Borough and the laws of the Commonwealth in relation thereto, and that the applicant shall well and truly save, defend and keep harmless the Borough from and indemnify it against any and all actions, suits, demands, payments, costs and charges for or by reason of the proposed opening or excavation, and all damages to persons or property resulting in any manner therefrom, or occurring in the prosecution of the work connected therewith, or from any other matter, cause or thing relating thereto. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§104. Permit Fee. Before any permit shall be issued to open or excavate any street in the Borough the applicant shall pay a permit fee in such minimum amount as fixed by resolution of Council to cover the cost of inspection and other incidental services in connection therewith. When application shall be made to open or excavate any longitudinal opening or excavation in excess of ten feet (10'), before any permit shall be issued so to open or excavate, the applicant shall pay in addition to such minimum fee, an additional fee at such rate as may be fixed by Council for each one hundred feet (100') or fraction thereof to be opened or excavated upon such street. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§105. Issuance of Permits Restricted. Permits shall be issued only to persons furnishing public utility services or the owner or owners of the real property adjoining the location where such opening or excavation is to be made. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§106. Information Contained on Permit. Any permit issued hereunder shall specify the exact location where the opening or excavation is to be made, the approximate permitted size or depth thereof and the time within which the work for which the permit is granted to be completed. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§107. Permit Approval/Disapproval. A permit may be issued to the applicant after all the requirements therefor have been filed. If the application is disapproved, written notice of disapproval together with reasons therefor shall be given to the applicant. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§108. Responsibility to Contact Utilities. The work authorized by the permit is subject to all the provisions of the Act of December 10, 1974, P.L. 852, No. 287, §1 et seq., as amended or supplemented from time to time. It shall be the permittee's responsibility to contact the utilities that have recorded their facilities in compliance with said Act. A partial list of utilities providing services in the Borough and their office addresses may be obtained from the County Recorder of Deeds. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§109. Refilling of Opening or Excavation; Restoration of Surface; Responsibility for Defects Occurring Within 2 Years. Any person who shall open or excavate any street in the Borough shall thoroughly and completely refill the opening or excavation in such a manner as to prevent any settling thereafter, and shall restore the surface to the same condition as it was before the opening or excavation, and such restoration shall be in accordance with the specifications of the Department of Transportation of the Commonwealth of Pennsylvania which are hereby adopted as specifications of the Borough for restoration of surfaces of streets in the Borough, as restored, the surface shall conform to the proper grade and be of the same surface covering as the part of the thoroughfare immediately adjoining the opening. If within two (2) years after the restoration of the surface as herein provided, defects shall appear therein resulting from defective backfilling by the applicant, the applicant shall reimburse the Borough for the cost of all necessary repairs to the permanent paving. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§110. Responsibility of Permit Holder for Certain Work; Right of Borough to Do Certain Work; Charges Therefor. All other work in connection with openings in any street, including excavation, protection, refilling and temporary paving, shall be done by or for the person to whom or which the permit has been issued at his or its expense, and all such work shall be subject to the provisions of this Part and to the supervision and approval of the Public Works Inspector, provided that the Public Works Inspector may if he deems it necessary to the proper performance of the work, require that cutting of the surface of streets and the backfilling of all excavations therein shall be done by the Borough, in which event the applicant shall pay the actual cost of the work performed by the Borough. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§111. Requirements for Work; Correction of Unsatisfactory Work; Completion of Incomplete Work.

1. No opening or excavation in any street shall extend from the curb line into the highway a distance greater than one foot (1') beyond the center line of the street before being refilled and the surface of the highway restored to a condition safe and convenient for travel.

2. No more than five hundred feet (500') longitudinally shall be opened in any street at any one time.

3. The work of excavation shall be so conducted as not to interfere with the water mains, sewers or their connections with the houses, or any other subsurface lines or constructions, until permission of the proper authorities in connection with such subsurface lines or constructions shall have been obtained.

4. No tunneling shall be allowed without the express approval of the Public Works Inspector and permission therefor endorsed upon the permit. The backfilling of a tunnel excavation shall be made only in the presence of the Mayor or an inspector designated by him, and shall be done only in a method approved by him.

5. All openings or excavations shall be backfilled promptly with modified 2A stones and thoroughly compacted in layers, each of which layers shall not exceed eight inches (8") in depth. Backfilling shall be placed to within ten inches (10") of the surface.

6. A temporary paving of coldpatch premix, thoroughly bound and compacted, shall be installed flush with the surface of the adjoining paving and maintained for a period of ninety (90) days.

7. On concrete base streets, such base shall be replaced with concrete and the minimum size of the opening or excavation shall be sixteen (16) square feet.

8. During the making of any excavation in the street, every necessary and reasonable precaution shall be taken by the applicant and the parties making the same to keep the street in a safe and passible condition both day and night by guards, barriers, lanterns and other devices, and all excavating permits granted hereunder are granted under and subject to the express condition that the person to whom the same is issued shall indemnify, save and keep harmless the Borough from any loss in damages, or otherwise whatsoever, which may or shall be occasioned at any time by the said excavation, or by any leak, explosion or other injury from any pipe, apparatus, conduit, or any other matter placed in the said excavation.

9. The applicant shall notify the Public Works Inspector when the opening or excavation is ready for backfilling before any backfilling is done, when backfilling work is completed, when the temporary paving has been installed and when the street has been permanently restored so that inspections may be made.

10. In the event that any work performed by or for a permit holder shall, in the opinion of the Public Works Inspector be unsatisfactory and the same shall not be corrected in accordance with his instructions within the time fixed by him, or in the event that the work for which the permit was granted is not completed within the time fixed by the Public Works

Inspector, the Borough may proceed to correct such unsatisfactory work or complete any such work not completed, and charge the cost thereof, plus twenty percent (20%) to the applicant.

(Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§112. Emergency Openings. In the case of any leak, explosion or other accident in any subsurface pipe, line, construction or apparatus, it shall be lawful for the person owning or responsible for such pipe, line, construction or apparatus, to commence an excavation to remedy such condition before securing a permit, provided that application for a permit shall be made immediately and not later than the next business day thereafter, and that all other provisions of this Part are fully complied with. If any such emergency condition shall not be immediately attended to by the owner or person responsible for such pipe, line, construction, or apparatus, the Borough Manager, after such notice as he shall deem necessary under the circumstances of the particular case, shall proceed to do the work necessary and required by such emergency, and charge the same on the basis of cost plus twenty percent (20%) to such owner or person. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§113. Restrictions Regarding Trees and Shrubbery. The permission herein granted does not confer upon the permittee or its contractors the right to cut, remove or destroy trees or shrubbery within the legal right-of-way except under specifications, regulations and conditions as the Borough may prescribe. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§114. Work Necessitating Opening or Excavation to be Done Prior to Street Improvement and Not Until 5 Years Thereafter; Exception. The Borough Manager shall give timely notice to all persons owning property abutting on any street within the Borough about to be paved or improved, and to all public utility companies operating in the Borough, and all such persons and utility companies shall make all water, gas or sewer connections, as well as any repairs thereto which would necessitate excavation of the said street within thirty (30) days from the giving of such notice, unless such time is extended in writing for cause shown by the Borough Manager. New paving shall not be opened or excavated for a period of five (5) years after the completion thereof, except in case of emergency, the existence of which emergency and the necessity for the opening or excavating of such paving to be determined by the Borough Manager. If it is sought to excavate upon or open a sewer within five (5) years after the completion of the paving applicant shall make written application to the Borough Council, and a permit for such opening shall be issued only after express approval of the Borough Council. (Ord. 467, 5/18/1970; as amended by Ord. 604, 10/15/1979; and as revised by Ord. 675, 11/17/1986)

§115. Permittee Responsibilities for Future Relocation of Work. If at any time in the future the roadway is widened, reconstructed or the alignment or grades are changed, the permittee further agrees to change or relocate all or any part of the structures covered by this permit which interfere with the improvement of the roadway at its own cost and expense. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§116. Conditions for Laying and Extending Utility Lines. No new water, sewer, steam or gas main or electric, telephone or other utility line shall hereafter be laid or constructed, and no such existing main or line shall be extended, in any of the streets of the Borough until the plan therefor shall have been first filed with the Borough Manager and such plan, and the exact location of such main or line, approved by him. The Borough Manager shall not approve the locating of any such main or line at a depth of less than thirty inches (30") from the surface of the street unless he shall be convinced that locating the same at a depth of more than thirty inches (30") from the surface is impossible or impractical. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§117. Bond Required. No company, corporation or association shall dig up any street or alley without first giving to the Borough a bond with some acceptable trust or surety company as surety in the sum of ten thousand dollars (\$10,000.00), conditioned for the faithful performance of these provisions and also for any and all damages, claims, demands, suits, costs and counsel fees occasioned or arising from the digging up, opening or closing of said streets and alleys. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§118. Payment for Work Done by Borough. Payment for all work done by the Borough under the provisions hereof shall be made by the person made liable therefor under the provisions hereof within thirty (30) days after a bill therefor is sent to such person by the Borough. Upon failure to pay such charges within such time, the same shall be collectible by the Borough by an action in assumpsit or in the manner provided by law for the collection of municipal claims. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)

§119. Penalties. Any person, firm or corporation who shall violate any provision of this Part shall, upon conviction thereof, be sentenced to pay a fine of not more than three hundred dollars (\$300.00); and/or to imprisonment for a term not to exceed ninety (90) days. Every day that a violation of this Part continues shall constitute a separate offense. (Ord. 467, 5/18/1970; as amended by Ord. 604, 10/15/1979; and as revised by Ord. 675, 11/17/1986)

§120. Applicability. The provisions of this Part shall not apply to laying sidewalks or curbs. (Ord. 467, 5/18/1970; as revised by Ord. 675, 11/17/1986)



## Part 2

## Right-of-Way Obstructions

§201. Definitions.

PAVEMENT OR SIDEWALK - that area extending from the curblineline to the property line which is generally used by pedestrians.

PERMANENT OBSTRUCTIONS - any type of structure that cannot be moved without demolishing or destroying it.

PERSON - any individual, firm, partnership, association or corporation.

PROPERTY LINE - that line which is coincident to and identical with the line marking the extremity of the right-of-way.

RIGHT-OF-WAY - that area extending from property line to property line which includes the pavement, street and pavement between two opposite property lines.

STREET - that area from curblineline to curblineline which is generally used by vehicular traffic.

TEMPORARY OBSTRUCTIONS - any type of structure or obstruction that can be readily and easily moved, including, but not limited to displays of merchandise or produce simply setting on pavement area.

(Ord. 451, 2/3/1969, §1)

§202. Permanent Obstructions. It shall be unlawful for any person to put, place, erect or cause to be put, placed or erected any permanent obstruction in the right-of-way of any public thoroughfare, except as hereinafter allowed and provided for:

1. Permanent obstructions such as steps and/or open porches now in existence and essential for ingress and egress to property abutting the pavement or sidewalk area providing such obstruction does not extend beyond the property line into the pavement or sidewalk area a distance of more than five feet (5') along streets having a right-of-way width of fifty-seven feet (57') or more, and on all other streets of less width not more than one-third (1/3) the width of the sidewalk or pavement area except that no permanent obstructions may extend beyond the property line on streets with a right-of-way width of thirty feet (30') or less. Permanent awnings may be erected over such steps and/or open porches providing such awning does not extend further into the area over the sidewalk or pavement than does the steps and/or open porch.

(Ord. 451, 3/3/1969, §2)

§203. Temporary Obstructions. Temporary obstructions on the right-of-way area may be allowed upon the obtaining of a "Temporary Use Permit" to be issued by the Assistant Manager/Code Enforcement Officer upon the following conditions:

1. That such temporary obstruction must be one that can be readily removed from the right-of-way area.

2. That such temporary obstruction extend into the sidewalk or pavement area no more than five feet (5') along streets having a right-of-way width of fifty-seven feet (57') or more, and on all other streets of less width not more than one-third (1/3) the width of the sidewalk or pavement area except that no temporary obstruction shall be allowed along streets with a right-of-way width of thirty feet (30') or less.

3. A temporary obstruction must be constructed and maintained so that it will not be a hazard to the public using the sidewalk or pavement area.

4. The temporary obstruction must be removed from the pavement or sidewalk area one (1) hour after sunset if in the judgment of the Assistant Manager/Code Enforcement Officer such temporary obstruction represents a hazard to the public safety during the hours between sunset and sunrise.

5. Plans and specifications for the construction of all temporary obstructions must accompany application for "Temporary Use Permit" and be approved by the Assistant Manager/Code Enforcement Officer.

6. No "Temporary Use Permit" shall be issued by the Assistant Manager/Code Enforcement Officer if in his opinion such temporary obstruction will create a safety hazard to the use of the sidewalk or pavement area by pedestrians.

7. No "Temporary Use Permit" shall be issued for locations which are in districts zoned as R-L Residence Districts or R-M Residence Districts by the Zoning Chapter of the Borough of Emmaus or its amendments. [Ord. 598] (Ord. 451, 3/3/1969, §3; as amended by Ord. 598, 5/7/1979; and by Ord. 675, 11/17/1986)

§204. Fees. In all cases where "Temporary Use Permits" are issued, a fee shall be paid to the Borough of Emmaus by the applicant. The amount of this fee shall be determined by resolution of the Borough Council of the Borough of Emmaus. (Ord. 451, 3/3/1969, §4)

§205. Form of Permit. The "Temporary Use Permit" shall contain the following information:

1. Borough of Emmaus, Lehigh County, Pennsylvania
2. Name and address of applicant
3. Name and address of business
4. Area of temporary obstruction in square feet
5. Reason for "Temporary Use Permit"
6. Date of issue
7. Date of expiration
8. Signature of Assistant Borough Manager/Code Enforcement Officer

(Ord. 451, 3/3/1969, §5)

§206. Posting of Permit. Upon the issuance of the "Temporary Use Permit" by the Building Official, the applicant must post said permit at a conspicuous place on the premises for which it has been issued. (Ord. 451, 3/3/1969, §6)

§207. Duration of Permit.

1. The "Temporary Use Permit" shall be issued annually for the twelve (12) month period beginning July 1st and ending June 30th of each year.

2. The Building Official of the Borough of Emmaus shall have the power to revoke a "Temporary Use Permit" for failure to comply with the provisions of this Part. Notice of such revocation shall be in writing and include reasons for such revocation.

(Ord. 451, 3/3/1969, §7)

§208. Penalties. Any person, firm or corporation who shall violate any provision of this Part 2 shall, upon conviction thereof, be sentenced to pay a fine of not more than three hundred dollars (\$300.00); and/or to imprisonment for a term not to exceed ninety (90) days. Every day that a violation of this Part 2 continues shall constitute a separate offense. (Ord. 451, 3/3/1969, §8; as amended by Ord. 675, 11/17/1986)

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Part 3

Snow and Ice and Mud Removal

§301. Removal of Snow and Ice From Sidewalks.

1. No person owning or occupying any property that adjoins a street in the Borough of Emmaus shall permit snow or ice to accumulate or remain upon adjacent sidewalks, pavements, gutters or other walking surfaces for a period of time in excess of twenty-four (24) hours after precipitation ends.

2. Anyone who fails or neglects to remove snow or ice within twenty-four (24) hours after the end of precipitation shall be served a notice to remove by an authorized officer of the Borough or as directed by the Mayor. Following service of such notice, should such person fail or neglect to comply with the notice to remove within twenty-four (24) hours, that person shall be liable to the Borough for the costs of remediation and fines.

3. Anyone who violates the provisions of this Section during a calendar year shall, upon conviction thereof, be required to pay a fine of:

\$25.00 for the first offense;

\$50.00 for the second offense; and

\$100 for each subsequent offense;

together with the costs of remediation expended by the Borough and the administrative costs and legal fees incurred by the Borough in the enforcement of these provisions. The costs of remediation may be placed upon that individual's property as a municipal lien through appropriate proceedings, if not paid within thirty (30) days.

(Ord. 992, 7/18/2005)

§302. Prohibition of Depositing Snow and Ice Into Roadways.

1. No person shall remove snow or ice from any sidewalk, pavement or private property in the Borough of Emmaus, and put, place or deposit or cause to put, place or deposit any snow or ice into any portion of the public right-of-way designated for vehicular travel. The portion of the public right-of-way designated for vehicular travel shall be defined as the area on each side of the center line of the roadway, whether marked or unmarked, that is used for vehicular movement of travel.

2. Where reasonably possible, all accumulated snow or ice shall be placed into the area behind the sidewalks where possible. At locations where there is no area that exists to place the accumulated snow or ice, it shall be permissible to place the accumulated snow or ice into small piles along the curb line of the roadway, provided that the placement of the snow or ice does not present a safety hazard or a drainage problem, or some other unacceptable condition, as determined by a designated representative of the Borough.

3. Anyone who violates the provisions of this Section during a calendar year shall, upon conviction thereof, be required to pay a fine of:

\$25.00 for the first offense;  
\$50.00 for the second offense; and  
\$100 for each subsequent offense;

together with the costs of remediation expended by the Borough and the administrative costs and legal fees incurred by the Borough in the enforcement of these provisions. The costs of remediation may be placed upon that individual's property as a municipal lien through appropriate proceedings, if not paid within thirty (30) days.

(Ord. 992, 7/18/2005)

§303. Prohibition of Depositing Foreign Debris on Roadways.

1. No one shall deposit, place, spill or spread mud, dirt or any foreign debris of any kind on any portion of any public roadway in accordance with 75 Pa.C.S.A. §4903(a) and (b).

2. Anyone who violates any provision of this Section shall be served a notice to remove by an authorized officer of the Borough or as directed by the Mayor, requiring immediate compliance. Should the person fail to comply with the notice to remove, the Borough, its workforce or designated agents, may perform the necessary work to eliminate the foreign debris from the roadway.

3. Anyone who violates any provision of this Section shall, upon conviction thereof, be fined in accordance with the provisions of 75 Pa. C.S.A. §4903(f).

(Ord. 992, 7/18/2005)

Part 4

Sidewalk and Curb Construction

§401. Duty to Construct Sidewalks, Curbs, Ramps for Handicap and Driveway Crossovers.

1. Definitions.

ADAAG - acronym for Americans with Disabilities Act Accessibility Guidelines.

BOROUGH ENGINEER - the Borough Engineer for the Borough of Emmaus.

CARTWAY - the portion of the public right-of-way designated for vehicular use, including opened and unopened streets.

CONTRACTOR - any person, corporation, association or partnership or other form of organization which constructs or attempts to construct curbing, sidewalks, driveway crossovers and handicap ramps on any street or alley in the Borough of Emmaus.

CROSSOVER - the portion of a driveway extending from the back line of the sidewalk to the curb, including the planting area between the curb and sidewalk, if any exists, for the full width of the driveway, including flared edges at the radii.

PEDESTRIAN CONNECTIVITY - the intent or expectation to connect by pedestrian walkability areas involving a main thoroughfare, schools and/or parks to provide access to a destination, either inside or outside the Borough, in accordance with engineering safety standards.

PERSON - any natural person, partnership, firm, association, utility or corporation.

PROPERTY LINE - that line which is coincident to and identical with the line marking the extremity of the right-of-way boundary.

PUBLIC WORKS INSPECTOR - the code enforcement officer, public works director, or assistant public works deductible or other Borough officials designated by the Emmaus Borough Council to act as the Public Works Inspector. This term shall also include any of the aforesaid individual's agents or designees.

RECONSTRUCTION - any construction, paving, surfacing, repaving, resurfacing, repair or maintenance work which removes or disturbs any portion of the existing structure of any right-of-way.

RIGHT-OF-WAY - the width of a strip of land between property lines set for public use or ownership as a street, alley, crosswalk, easement or other facility.

STREET - a right-of-way dedicated to the public for the movement of traffic with space for utilities and providing access to abutting properties. "Street" may also be referred to as an "avenue," "road," "boulevard," "expressway," "court" or land with right-of-way width greater than twenty (20) feet.

2. Duty of Property Owners. It shall be the duty of all property owners having frontage on a dedicated and open street to construct sidewalk,

curbs, handicap ramps and driveway crossovers in accordance with the technical specifications herein provided.

3. Required Maintenance. Sidewalks, curbs, handicap ramps and driveway crossovers installed prior to the adoption of this Part shall be required to be maintained in good repair as hereinafter specified.

4. Removal of Sidewalks. Should any property owner desire to remove any sidewalk previously installed in an area, the property owner may apply to the Public Works Inspector for approval to remove such sidewalk. Property owners shall have the right to appeal any determination by the Public Works Inspector to the Emmaus Borough Council.

5. Optional Installation. Any owner of property abutting a public street in the Borough of Emmaus may, at their discretion, construct and install sidewalks on the public right-of-way at their option. Should sidewalks be installed, the property owner shall maintain said sidewalk in accordance with the technical specifications herein provided.

6. Required Installation. In the event that the Borough determines that any street or streets are to be reconstructed or repaved, or that a major public improvement is needed in the right-of-way, after the adoption of this Part, then after review and any recommendation by an appropriate committee, the Borough may require the installation of sidewalks, curbs, handicap ramps and driveway crossovers along or adjacent to those streets within the time limit specified in the official notice provided by the Public Works Inspector. Failure to install and construct sidewalks in accordance with this provision will necessitate the construction of such sidewalks, curbs, handicap ramps and driveway crossovers by the Borough at the property owner's expense plus a ten percent (10%) administrative fee. A property owner's failure to pay for the Borough's construction of sidewalks, curbs, handicap ramps and driveway crossovers in accordance with this provision shall result in the filing of a municipal lien by the Borough of Emmaus.

7. Legislative Intent. The preamble paragraphs to this Part are incorporated herein by reference as a substantive part hereof.<sup>1</sup>

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<sup>1</sup>Editor's Note: The preamble paragraphs to Ord. 1046 provide:

"WHEREAS, the Borough Council of the Borough of Emmaus has determined the need for a new comprehensive community-wide policy to govern the requirement, installation, construction and maintenance of sidewalks, curbs, handicap ramps and driveway crossovers throughout the Borough of Emmaus; and

"WHEREAS, a new Sidewalk Ordinance No. 989 was previously enacted by Borough Council on January 17, 2005; and

"WHEREAS, certain sections of the Borough are recognized as not conducive to the installation and construction of sidewalk for various topographical and logistical reasons; and

"WHEREAS, it is the stated legislative policy of the Borough of Emmaus to establish pedestrian connectivity throughout the Borough; and

"WHEREAS, to implement the aforesaid policy, the Borough Council intends to connect certain areas of the Borough with concrete sidewalks in accordance with the grant of legislative power set forth by the Pa. Borough Code, 53 P.S. §§46801 and 46802; and

(Ord. 989, 1/17/2005; as amended by Ord. 1046, 3/16/2009)

§402. Failure to Comply. Property owners shall receive at least thirty (30) days notice from the Public Works Inspector requiring construction or repair of sidewalks, curbs, handicap ramps and/or driveway crossovers. If a property owner fails to construct and/or repair sidewalks, curbs, handicap ramps and/or driveway crossovers by the date specified in the notice, the Borough will perform the necessary work, at the property owner's expense plus a ten (10) percent administrative fee. (Ord. 989, 1/17/2005; as amended by Ord. 1046, 3/16/2009)

§403. Slope and Width of Sidewalk. Sidewalks shall be constructed or reconstructed to slope towards the street at the rate of one-quarter (1/4) inch to one (1) foot. If the grades of intersecting conditions make compliance herewith impractical then the slope shall be determined by the Borough. All sidewalk widths shall be five (5) feet six (6) inches measured from the rear face of the curb. Space for grass plot shall be one and one half (1 1/2) feet, with the sidewalk in these areas being a minimum of four and one half (4 1/2) feet. Where trees may encroach in the required sidewalk width, width of sidewalk will be determined by the Public Works Inspector. Sidewalk width shall not be less than three (3) feet. (Ord. 989, 1/17/2005; as amended by Ord. 1046, 3/16/2009)

§404. Specifications for Construction.

1. Curb Excavation and Street Cuts. Before excavating to install or replace curb adjoining an improved Borough street, the existing pavement shall be neatly cut at a minimum distance from, and parallel to, the curblines. This distance is not to exceed eighteen (18) inches.

2. Sidewalk Exceptions. Excavation for sidewalks shall be a minimum of nine (9) inches below the top of the sidewalks. The excavation must be evenly spread crushed stone to a depth of at least four (4) inches, wetted thoroughly and tamped or rolled to an even surface. Concrete, as hereinafter specified, of a thickness of not less than five (5) inches shall be placed on said surface or base.

3. Typical Curb Section. All curbs shall consist of concrete and shall be a minimum of twenty-two (22) inches in depth, six (6) inches in width at the top and eight (8) inches in width at the bottom, the front face having a batter and the back thereof to be vertical. The front face of the curb shall have a seven (7) inch exposed vertical face (reveal) from the gutter line to the top of the curb.

4. Curb Radius Construction. A radius curb shall be constructed at the intersection of all streets or alleys. The minimum radius of a curb at street intersection shall be ten (10) feet where feasible. The minimum radius of a curb at an alley intersection shall be the same as the width of the ordained sidewalk area along the street. The radius shall be of the standard cross-section for the entire length. All curbs at the intersection

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"WHEREAS, the Borough Council determines it is in the best interest of the health, safety and welfare of the citizens of the Borough of Emmaus to enact the following:"

of public alleys shall extend along the alleys for the full width of the sidewalks.

5. Areas Where Utilities Are Prohibited. No utility poles or other utility facilities shall be placed within the radius curb or radius sidewalk.

6. Areas Where Driveways Are Prohibited. No driveway shall be constructed across or through any radius curb or radius sidewalk.

7. Monolithic Construction Not Permitted. Curb and sidewalk must be constructed separately. Monolithic construction is prohibited.

8. Roof Drains.

A. Roof drains shall not discharge over newly constructed or reconstructed curb and sidewalk. All new and existing downspouts must outlet into the street gutter by means of a three (3) inch diameter plastic (or approved equal) pipe placed within the new sidewalk and at least three (3) inches beneath the top surface of the new sidewalk. The plastic pipe shall be placed through the new curb, with the outlet end of the pipe being a minimum of one (1) inch above the gutter or flow line. A coupling sleeve shall be placed in the curb to accept the three (3) inch pipe. All joints shall be sealed with pipe joint compound. Galvanized wire mesh is to be placed over the plastic pipe for the full width of the sidewalk and at least two (2) feet in length and weighing the equivalent of fifty-seven (57) pounds per one hundred (100) square feet. The wire mesh shall be placed one (1) inch below the top surface of the sidewalk.

B. If a suitable outlet cannot be achieved with a three (3) inch pipe, the Borough may authorize an alternate means of discharge. In lieu of placing plastic pipe through the sidewalk, the use of a diamond plate trough or an acceptable equivalent will be allowed. The steel plate shall be one-quarter (1/4) inch thick and properly anchored. The trough shall extend vertically downward for a variable depth to meet the existing conditions. Final approval for the use of diamond plate troughs shall be granted by the Public Works Inspector.

9. Handicap Ramps. Owners of property abutting a street shall construct concrete ramps and crosswalks to make the transition from street to sidewalk easily negotiable for handicapped persons. All ramps must be a minimum of three (3) feet in width at the street gutter line, exclusive of curb and sidewalk tapers. Ramps shall be sloped flush with the street surface. All such ramps shall be constructed or installed in accordance with ADAAG Manual, Chapter 4.7, and PennDOT design specifications, most recent edition.

10. Crossovers.

A. Crossovers for residences shall have a minimum thickness of six (6) inches of plain concrete. Crossovers for businesses and industries shall have a minimum thickness of eight (8) inches of concrete reinforced with galvanized wire mesh weighing the equivalent of fifty-seven (57) pounds per one hundred (100) square feet. The top edge of the curb along the crossover shall be one and one-half inches (1 1/2) above the gutter line and five and one-half (5 1/2) inches below the top of the adjacent curb.

B. The maximum width of any residential crossover shall not exceed twenty-five (25) feet, including curb tapers. The maximum width of any commercial crossover shall not exceed forty (40) feet, including curb tapers. Borough Council may authorize crossovers exceeding the widths specified in this paragraph.

C. Where more than one (1) crossover is constructed on the same property, they shall be at least twenty (20) feet apart.

11. Tree Plates. When sufficient space cannot be provided for installation of curb due to existing trees, steel curb plates shall be used. The plates shall extend a minimum of seven (7) inches below the street surface. The outside face (street side) shall be flush with the outside face of the adjacent curb. The ends of the top of the plate must be flush with and anchored into the concrete curb.

12. Openings in Sidewalks. Square openings shall be formed around all utility poles, fire hydrants, light standards, curb boxes or any other major structure within the sidewalk. These openings shall provide a minimum clearance of six (6) inches outside of the structure within the opening. Three-eighths (3/8) inch pre-molded expansion joint material shall be placed around the entire opening for the full depth of the concrete. The remaining opening shall be filled with concrete cast as a separate block. The minimum openings shall be twenty-four (24) inches x twenty-four (24) inches, except for gas and water curb boxes, which shall be eighteen (18) inches x eighteen (18) inches. Utility poles shall be wrapped in styrofoam seal water curb boxes, which shall be eighteen (18) inches x eighteen (18) inches. Utility poles shall be wrapped in styrofoam seal a minimum of one-quarter (1/4) inch thick for the full depth of the concrete. All curb boxes shall be protected, flush and free of concrete.

13. Contraction and Construction Joints. Contraction joints shall be made in the sidewalk at right angles to the curb at intervals of no more than five (5) feet. These contraction joints shall be a depth of one (1) inch. Construction joints shall be provided in all curbs at ten (10) foot intervals and extending the full depth of the curb. No construction joints may be placed in the curb radius portion of any curbs.

14. Expansion Joints. Joints shall be placed in the sidewalk at right angles to the curb not exceeding thirty (30) feet, at all points of fixed restraint, at the ends of all radii returns, at the intersection of two (2) sidewalks, along the entire curb, where a crossover joins the sidewalk and/or depressed curb and as otherwise specified. An expansion joint shall be provided where the sidewalk meets existing porches, steps, walls, walkways, slabs or permanent buildings. Unless otherwise specified, three-eighth (3/8) inch pre-molded bituminous expansion joint materials shall be used throughout. The approved joint material, cut to the shape of the finished cross-sections, shall extend from the surface thereof to the sub-grade for the full width of the concrete.

15. Forms. All concrete installations shall be formed. Constructing curbs and/or sidewalks without forms is prohibited. All forms shall be made of steel or wood, and shall be smooth, free from warp and sufficiently rigid to resist springing out of shape. All forms shall extend for the full depth of the curb or sidewalk to be installed. Forms shall be firmly held in place by stakes or rods and braces adequate in dimension and sufficient in number

to prevent movement and to withstand the pressure of the concrete. All forms shall be thoroughly cleaned and oiled prior to pouring concrete, and forms shall remain in place at least twelve (12) hours after completion of the pouring.

16. Replacing of Concrete. No concrete curb and/or sidewalk shall be installed between October 31 and April 1. Any concrete poured when the atmospheric temperature is less than forty (40) degrees Fahrenheit shall be in accordance with PennDOT specifications, latest revision.

17. Proportioning of Concrete. All concrete shall be Class A concrete in accordance with current PennDOT specifications. Concrete shall have compressive strength of three thousand five hundred (3,500) PSI after twenty-eight (28) days of curing. Concrete delivery slips are to be initialed by the Public Works Inspector and attached to his copy of the permit.

18. Mixing of Concrete. All concrete shall be ready-mixed and shall meet the current requirements of PennDOT specifications for "Ready-Mixed Concrete."

19. Curing of Concrete. All concrete shall be cured by a method acceptable to the Public Works Inspector and/or Borough Engineer.

20. Sidewalk Finish. All walking surfaces shall have a broom finish applied transversely to the normal walking direction. The broom finish shall provide a scoring of the concrete of not less than one-sixteenth (1/16) inch in depth. Steel or wood trowel finishes are not permitted. All sidewalk edges shall be worked with an approved edging tool. Bituminous material of any kind shall not be used as finished sidewalks or to patch, repair or seal existing concrete sidewalks or crossovers.

21. Obstruction of Surface Drainage. No person shall fill the gutter flow line, generally known as the gutter area, with any materials that will block or divert the normal flow of surface water along established grades and/or cause an obstruction or hazard.

22. Backfill. After the removal of forms, the curb and/or sidewalk shall be backfilled completely.

A. The contractor shall place backfill behind the curb, consisting of select soil material having no stones larger than two (2) inches in diameter. Backfill shall be brought to the top of the curb unless the area is to be used as a sidewalk. If no sidewalk is to be placed adjacent to the curb, the top four (4) inches of backfill shall be free of stones larger than one-half (1/2) inch in diameter. The surface shall be raked free of stones and seeded with approved grass seed.

B. The contractor shall place backfill in front of the curb using 2A modified crushed stone, placed and compacted in six (6) inch layers to the proposed street grade.

C. The Borough shall remove the top two and one-half (2 1/2) inches of backfill and replace it with asphalt pavement material thoroughly compacted, conforming to the street grade. The Borough shall be reimbursed by the contractor for work performed.

D. Any material used for backfill shall not be placed or stockpiled on the street or public right-of-way. Stockpiling of stone will only be allowed on streets scheduled for reconstruction.

23. Advance Notice for Inspection. Notice for any inspection shall be given to the Public Works Inspector not less than twenty-four (24) hours in advance. The Public Works Inspector may order the removal of any work that is not in accordance with the specifications herein.

24. Barricades.

A. The contractor shall adequately protect the work during construction, as well as protect the public from accidents to themselves or their property and/or unnecessary inconvenience throughout the duration of the project. The contractor shall furnish, erect and maintain at each work site, a minimum of two (2) approved warning devices and such additional warning devices as directed by the Public Works Inspector or the Emmaus Police Department. These devices shall consist of barricades, flashing warning lights, steady burn lights, reflectors, and/or signs in approved combinations. All barricades and signs shall be reflectorized. Steady burn lights or flashing warning lights shall be kept in operation from sunset until sunrise. Final approval of all warning devices shall be the responsibility of the Public Works Inspector. Approval of the devices does not absolve the contractor of his responsibility if any vehicular or pedestrian accidents occur while these devices are in service. All warning devices shall conform to current PennDOT specifications.

B. If the contractor fails to place adequate work safety devices, the Borough will charge the contractor for all costs associated with the placement of safety devices.

25. Brick Sidewalk. Where brick sidewalk is approved, requirements for excavation and base shall be as specified for concrete sidewalks herein. Brick shall be wire cut and of good quality, tightly laid, with all interstices filled with mortar. Lugged paving brick, cored brick, or brick having recesses or openings shall not be used. Brick sidewalks shall provide a uniform, smooth walking surface. All brick shall be laid evenly in mortar and in a single course on a concrete base.

26. Signs. All street signs or similar signs located in the sidewalk area shall have four (4) inch SCHD 40 PVC pipe sleeves, the diameter of which shall be able to accept the pole or the sign. The sleeves shall be a minimum of nine (9) inches long, flush with the concrete surface. Any sign that is not installed as specified above will be reinstalled by the Borough of Emmaus and all associated costs will be billed to the contractor in accordance with the Borough fee schedule.

27. Utility Facilities in Sidewalk Areas.

A. No utility facility shall be placed in any sidewalk until a sidewalk excavation permit is obtained from the Borough. Application for such permit shall be made by the utility company in accordance with the rules and regulations of this Part. Application shall be made at least five (5) days prior to the date of starting any work. There shall be appended to each application a plan showing the outlines of the property affected, existing culverts, existing driveways and the location of the proposed facility. The Borough may specify any changes or modification of any kind, which it deems necessary. The Borough may approve the permit subject to any such alteration, changes or modifications. Work shall commence within sixty (60) days of issuance of the permit and shall be completed within a reasonable time.

B. When a new utility facility is installed in a sidewalk, the sidewalk shall be repaired to the satisfaction of the Public Works Inspector in accordance with the provisions of this Part. Concrete shall be in accordance with specifications of this Part.

C. The utility or its contractor shall repair or replace any sidewalk or curb damaged as a result of the work.

D. The utility company making application shall provide the Borough with a bond in the amount of one thousand (\$1,000.00) dollars guaranteeing compliance with the provisions of this Part. Said bond shall contain a warrant of attorney authorizing the entry of judgment in the event said utility does not comply. One (1) bond shall be sufficient for one (1) calendar year.

(Ord. 989, 1/17/2005; as amended by Ord. 1046, 3/16/2009)

§405. Duties, Responsibilities and Disagreements. All work shall be governed by and conform to the directions and instructions of the Public Works Inspector. Any conflict or dispute that arises over the interpretation or application of this Part shall be referred to the Borough Engineer for a decision. The Borough Engineer's fees shall be paid one-half (1/2) by the property owner and/or contractor, and one-half (1/2) by the Borough. (Ord. 989, 1/17/2005; as amended by Ord. 1046, 3/16/2009)

§406. Permits Required. It shall be the duty of every property owner or duly authorized representative to make application to the Public Works Inspector's Office for a curb or sidewalk permit, which may require a warrant of survey. The application shall be delivered to the Borough Engineer, who shall be required within twenty-one (21) days, not including Saturdays, Sunday and holidays, from the time of application to calculate the line and grade for the construction. Work shall not commence until a warrant of survey (if required) has been completed. Any misrepresentation or false statement on any application for construction shall void said permit and no work shall proceed until a new application for permit is applied for by the contractor or property owner. If work is performed pursuant to a permit obtained fraudulently, or by misrepresentation, the Public Works Inspector may direct that the work be dismantled, and order that the applicant effect an installation or work consistent with this Part. (Ord. 989, 1/17/2005; as amended by Ord. 1046, 3/16/2009)

§407. Inspection. All work done in accordance with this Part shall be subject to inspection and approval of the Public Works Inspector. All handicap ramps are to be constructed in accordance with the specifications of the most recent ADAAG Manual for curb cut ramps or the most recent PennDOT specifications for handicap ramps. In addition, recent specifications are attached hereto and incorporated herein by reference (see diagram at end of this Part). The Public Works Inspector and/or the Borough Engineer are hereby empowered to order cessation of work in the event that it is being done in violation of this Part. All owners subject to the provisions of this Part shall cease work immediately upon receipt of oral or written notice by the Public Works Inspector and/or the Borough Engineer. (Ord. 989, 1/17/2005; as amended by Ord. 1046, 3/16/2009)

§408. Penalties. Any person who violates any provision of this Part shall, upon conviction thereof, be sentenced to pay a fine of not more than one thousand (\$1,000.00) dollars. Each day that a violation continues constitutes a separate offense. (Ord. 989, 1/17/2005; as amended by Ord. 1046, 3/16/2009)

§409. Additional Regulations for Installation, Preservation and Maintenance. Emmaus Borough Council may by resolution set forth a plan for the further development of the installation, preservation and maintenance of curb and sidewalk within the Borough of Emmaus. (Ord. 989, 1/17/2005; as amended by Ord. 1046, 3/16/2009)

§410. Guidelines/Criteria for Replacement of Curb and/or Sidewalk. The factors that can be considered by the Public Works Inspector for replacement of curb, sidewalk, handicap ramps and driveway crossovers shall include, but are not limited to, the following:

A. Curb.

(1) One (1) inch or more out of matching alignment with the adjacent curb.

(2) One (1) inch or more out of matching plumb or leaning curb face.

(3) Severe cracks or advanced deterioration of material as determined by the Public Works Inspector.

(4) Improper depth of curb, less than fifteen (15) inches below street grade when a public street is being rebuilt or overlaid.

B. Sidewalk.

(1) One (1) inch or more out of matching elevation to an adjacent curb.

(2) One (1) inch or more out of matching elevation with the adjacent block.

(3) Roof drains discharging onto sidewalk.

(4) Severe cracks or advanced deterioration of materials as determined by the Public Works Inspector.

(Ord. 989, 1/17/2005; as amended by Ord. 1046, 3/16/2009)

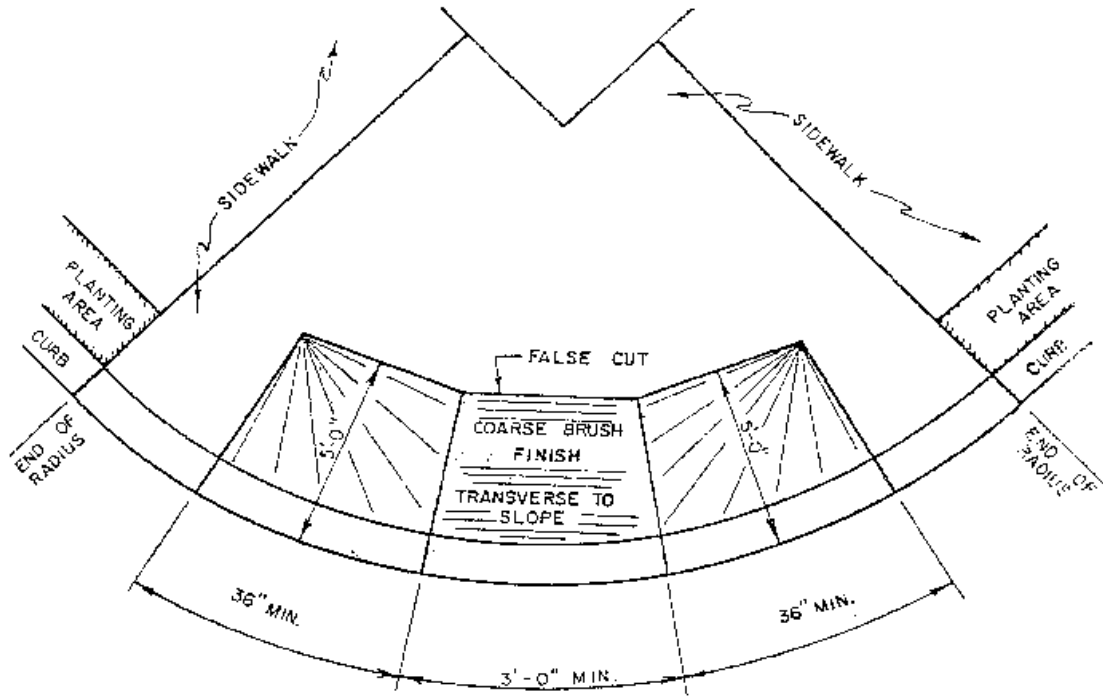
§411. Appendix. The following sketches pictorially describe certain portions of the foregoing and are incorporated as part of this Part and are attached to the appendix hereto:

- A. Guidelines for handicap ramps.
- B. Plastic pipe drain in sidewalk area.
- C. Diamond plate covered drainage in sidewalk area.
- D. Steel tree plate details.
- E. Typical section curb and sidewalk.

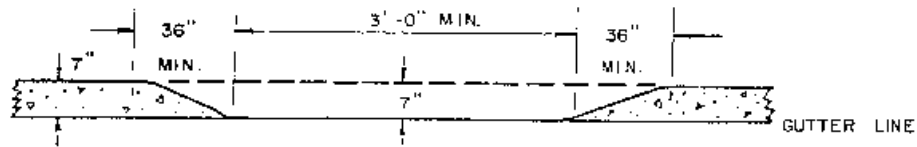
- F. Expansion and contraction joint details.
- G. Driveway entrance and apron details.
- H. Curb cut ramps.

(Diagrams follow)

(Ord. 989, 1/17/2005; as amended by Ord. 1046, 3/16/2009)

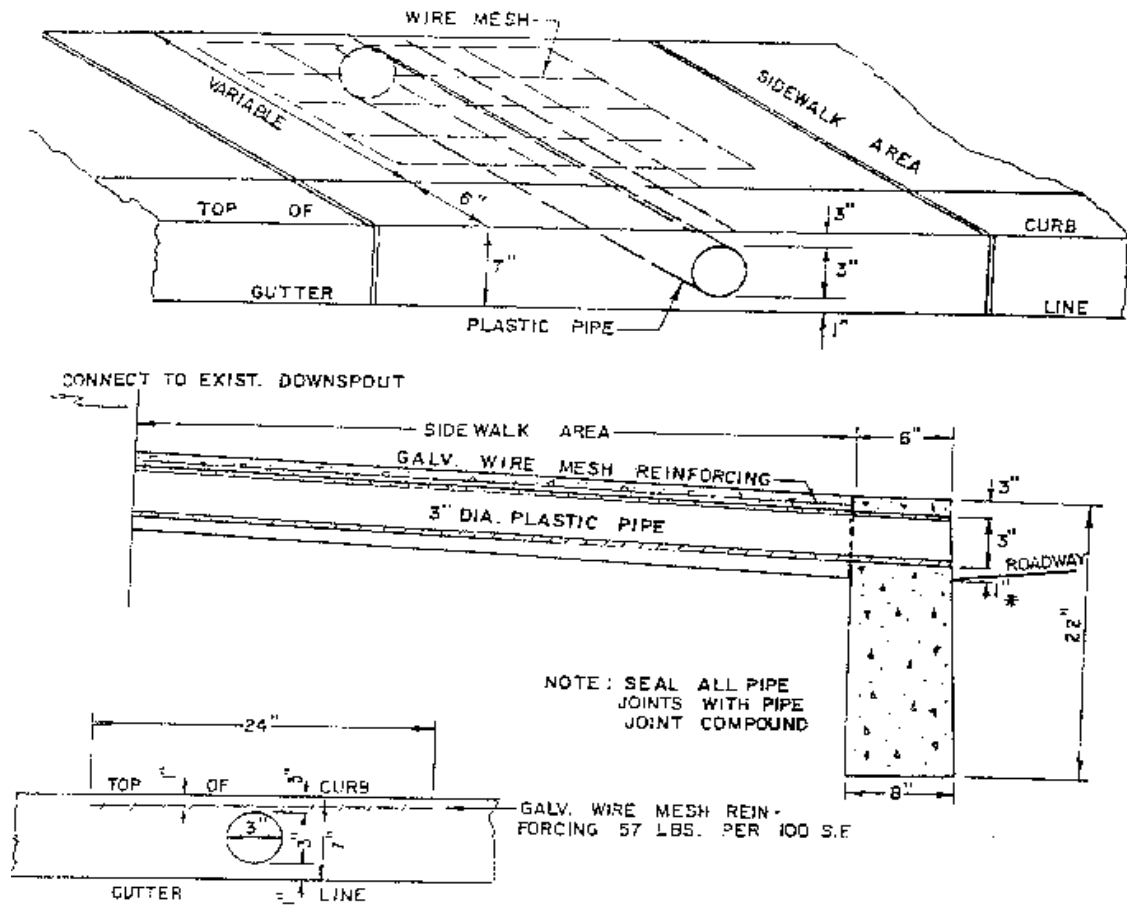


(See Note)



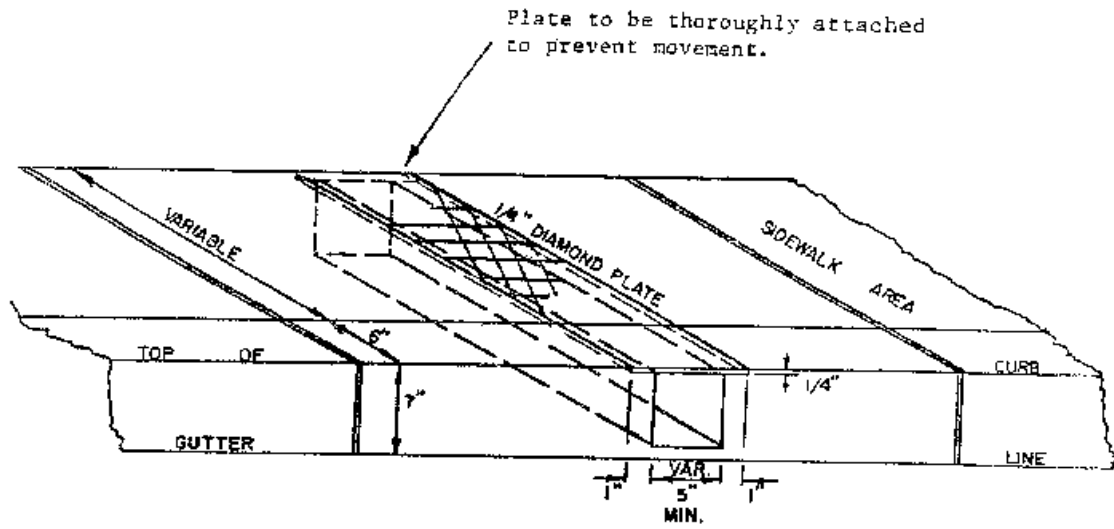
NOTE: Circumstances may require variations to the dimensions shown, in order to meet existing or proposed conditions. The final dimensions shall be verified by the designated Borough Official at the time of construction.

**DRAWING NO. 1**  
**GUIDELINES FOR HANDICAP RAMPS**

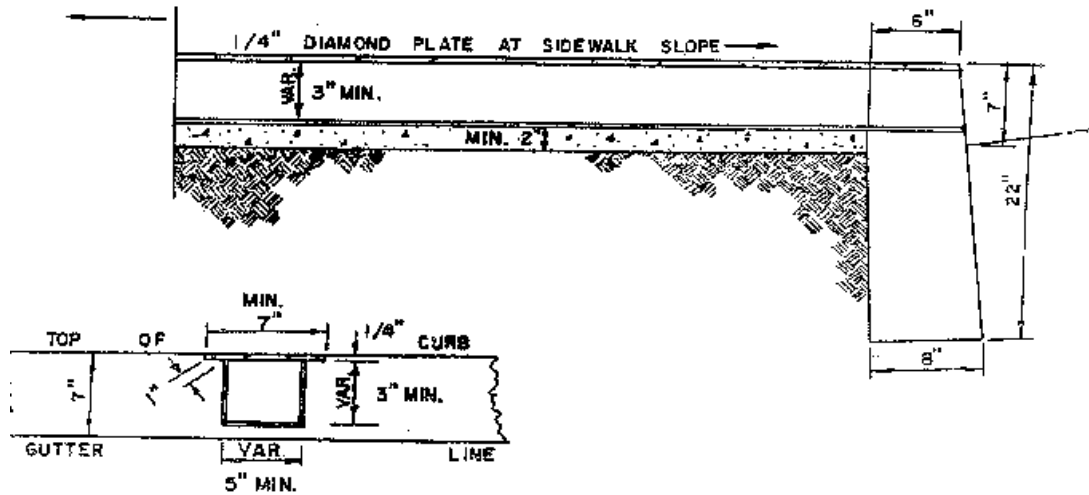


DRAWING NO. 2

PLASTIC PIPE DRAIN IN SIDEWALK AREA

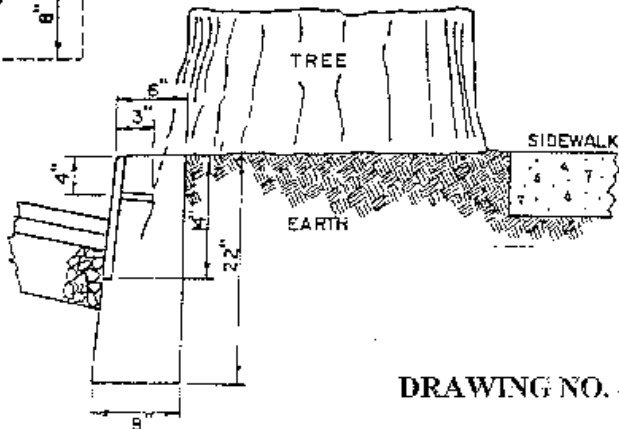
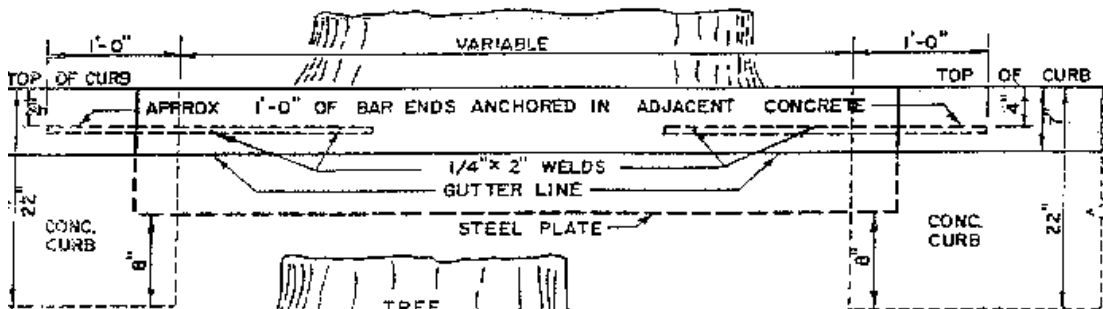
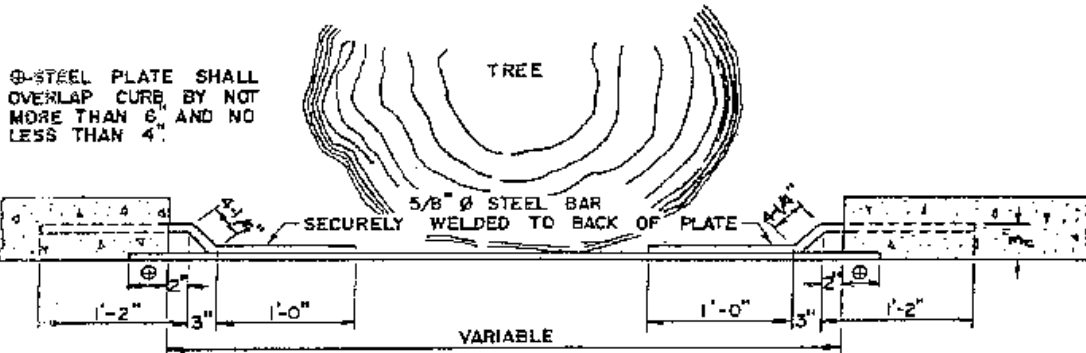
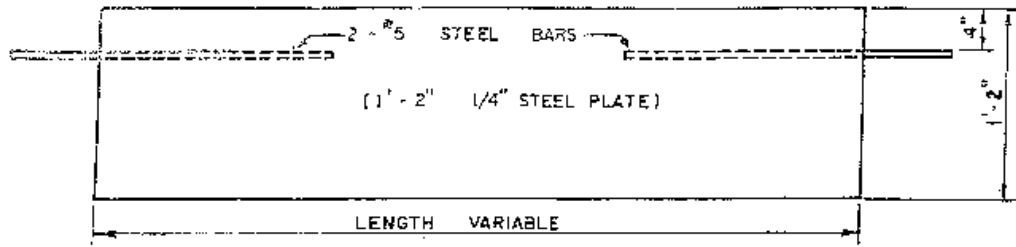


CONNECT TO EXIST. DOWNSPOUT  
OR EXIST. TROUGH.



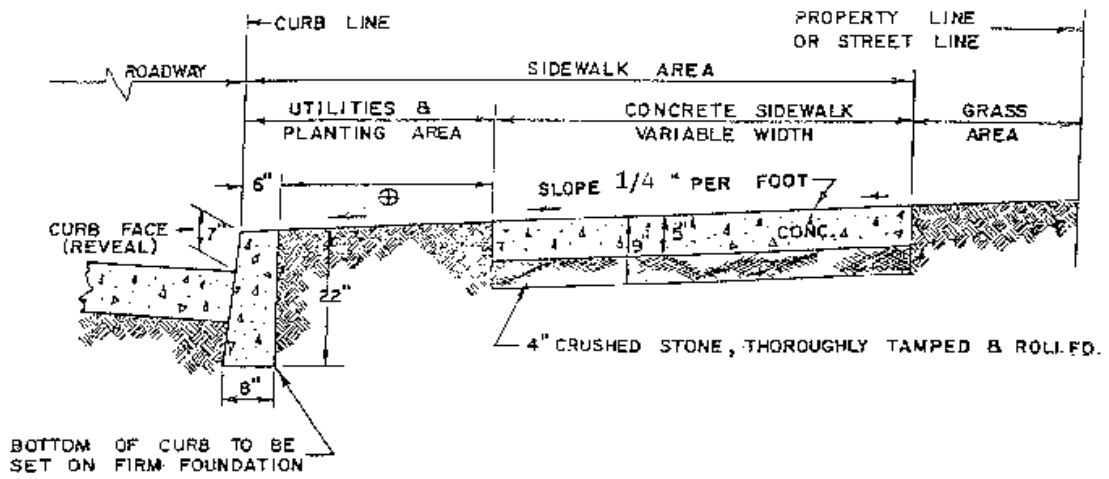
DRAWING NO. 3

DIAMOND PLATE COVERED DRAINAGE IN  
SIDEWALK AREA



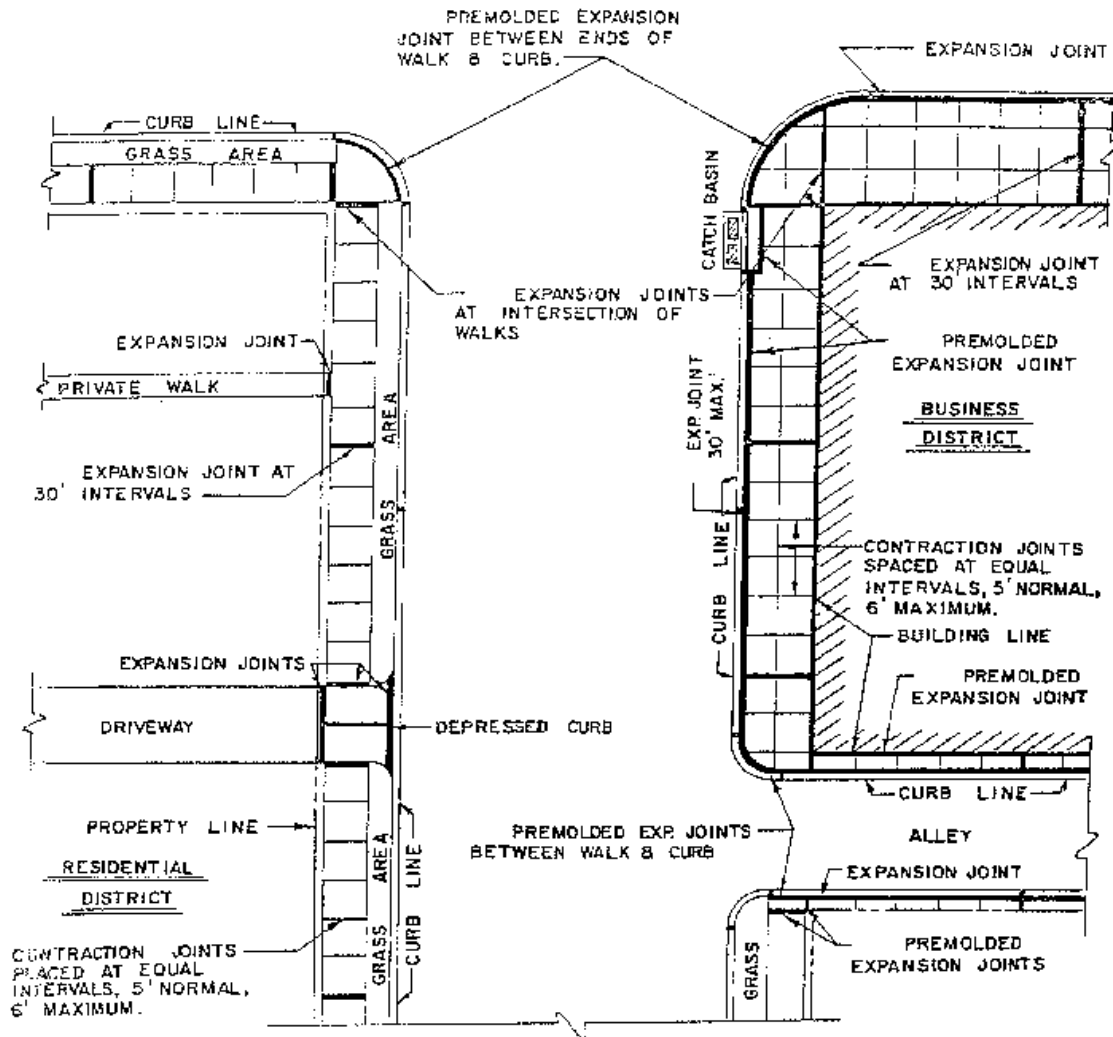
DRAWING NO. 4

STEEL TREE PLATE DETAIL



DRAWING NO. 5

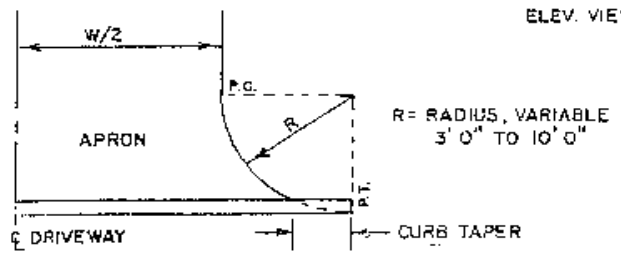
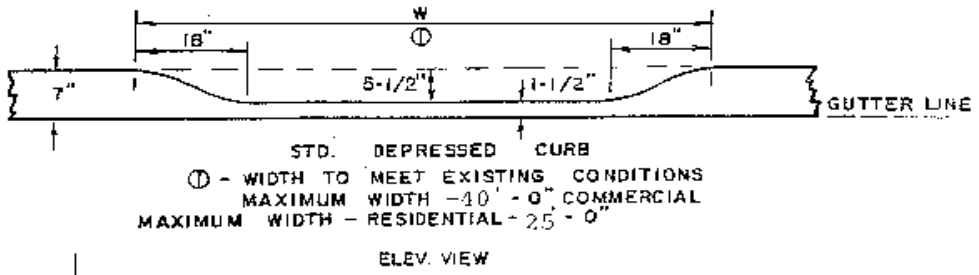
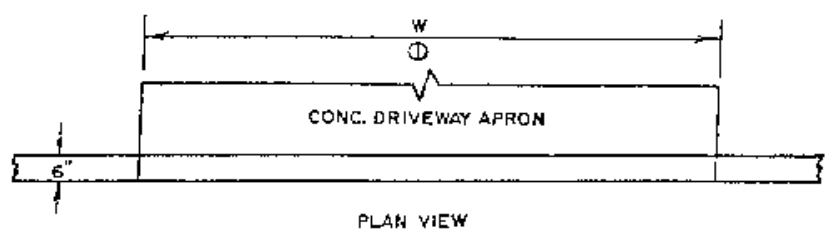
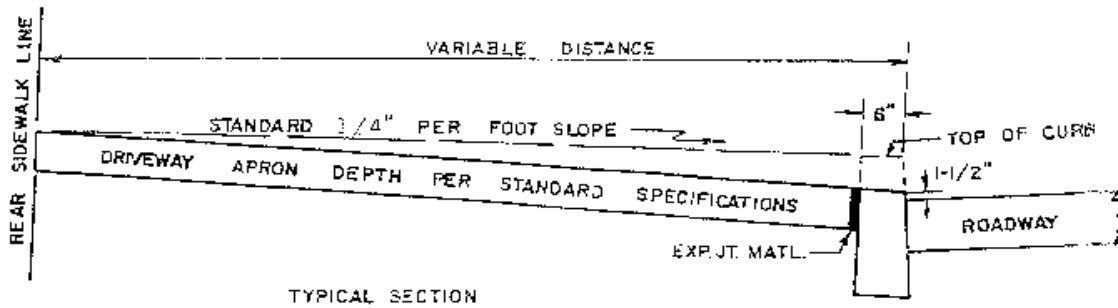
TYPICAL SECTION CURB & SIDEWALK



NOTE: PROVIDE CONSTRUCTION JOINTS IN CURBS AT 10' INTERVALS, FOR THE FULL DEPTH OF THE CURB. NO CONSTRUCTION JOINTS TO BE PLACED IN ANY CURB RADIUS. EXPANSION JOINTS SHALL BE PRE-MOLDED BITUMINOUS MATERIAL OF 3/8" THICKNESS, UNLESS OTHERWISE SPECIFIED.

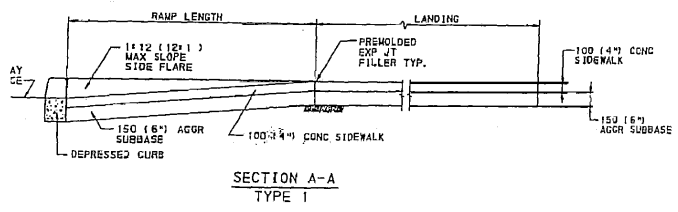
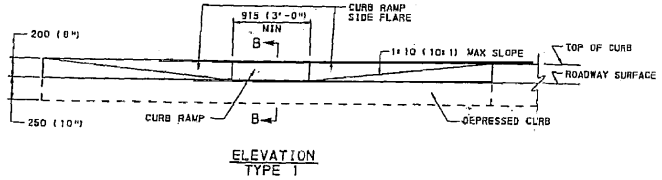
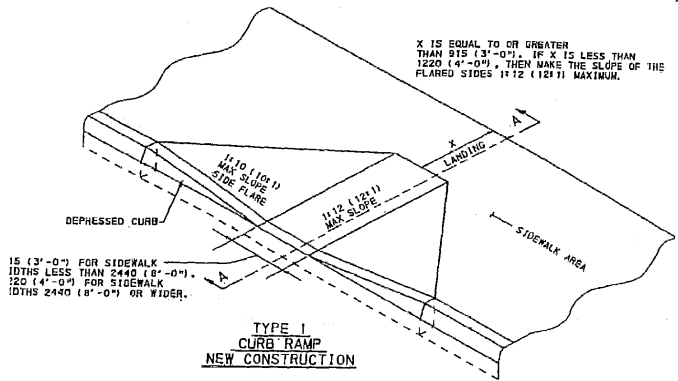
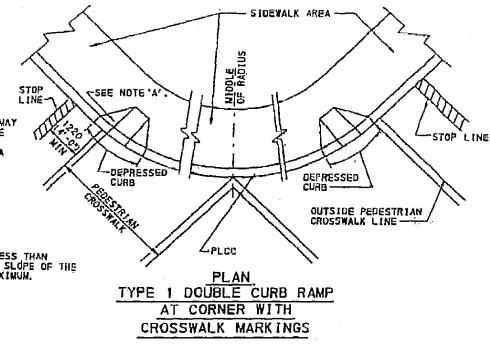
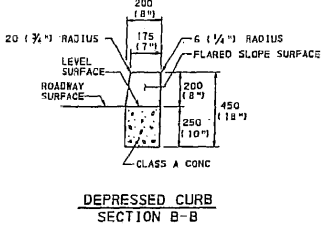
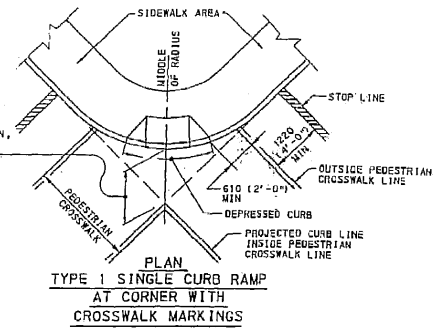
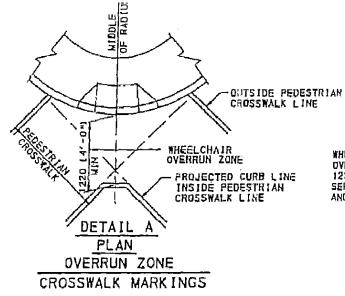
### DRAWING NO. 6

## EXPANSION & CONTRACTION JOINT DETAILS



DRAWING NO. 7

DRIVEWAY ENTRANCE AND APRON DETAILS



- NOTES**
1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIRE PUBLICATION 408/2000, SECTIONS 400, 421, 422, 630 AND 631.
  2. PROVIDE EXPANSION JOINT MATERIAL 13 (1/2") THICK WHERE ADJOINING ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
  3. IF PEDESTRIAN CROSSWALKS ARE NOT WIDE ENOUGH TO PROVIDE MINIMUM 1220 (4'-0") WIDE WHEELCHAIR OVERRUN ZONE AT J OF THE RAMP, POSITION CROSSWALKS AS INDICATED IN DETAIL A.
  4. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
  5. PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COURSE TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE 1 WIDTH AND LENGTH OF THE CURB RAMP INCLUDING FLARED SID.
  6. MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EX1 CURB ALTERATIONS WHERE THE CURB IS LESS THAN THE STAND 250 (8") HEIGHT.
  7. CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED CURB HEIGHT AND THE SIDEWALK PITCH. SEE TABLE A (SHEE FOR TYPICAL RAMP DIMENSIONS).
  8. MEASURE AND PAY FOR DEPRESSED CURB IN ACCORDANCE WITH 408/2000, SECTION 630-4.
  9. WHENEVER POSSIBLE, CONSTRUCT THE TRANSITION SLOPE FROM RAMP AND FLARE SIDES TO ADJOINING SURFACES WITH A GRAD RATHER THAN AN ABRUPT ANGLE.
  10. CONSTRUCT BUILT-UP CURB RAMP OF BITUMINOUS MATERIAL AS INCLUDING SURFACE PREPARATION AND TACK COAT, AS REQUI
  11. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE U.S. CUSTOMARY UNITS IN ( ) PARENTHESES.

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF DESIGN

CURB RAMPS

RECOMMENDED APR. 23, 2000 | REVISION APR. 24, 2000 | SHEET 1 OF 2

**DRAWING NO. 8**

**CURB CUT RAMPS**

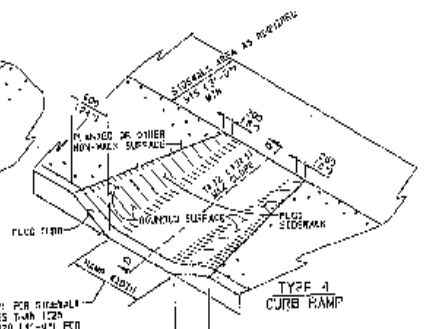
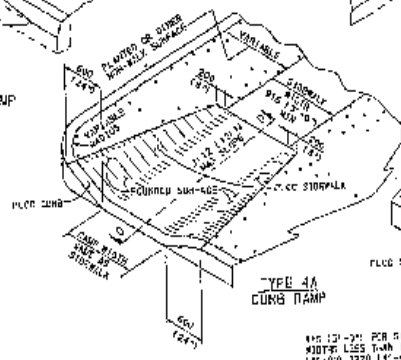
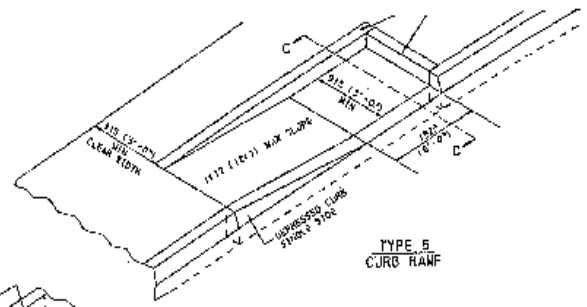
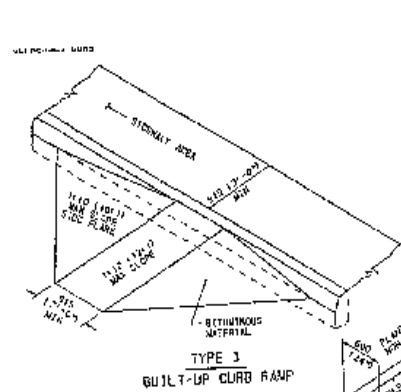
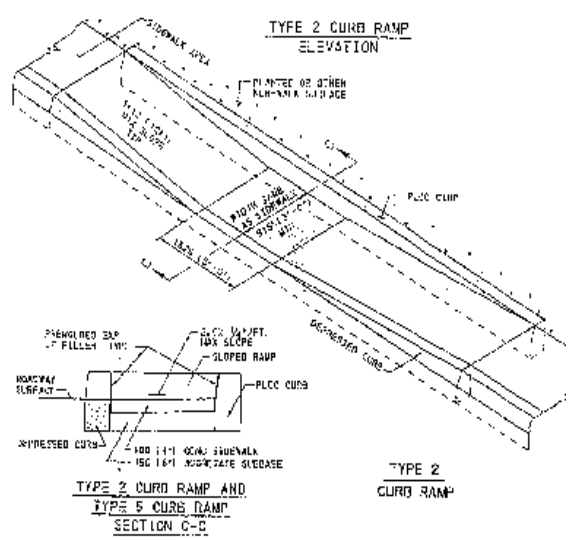
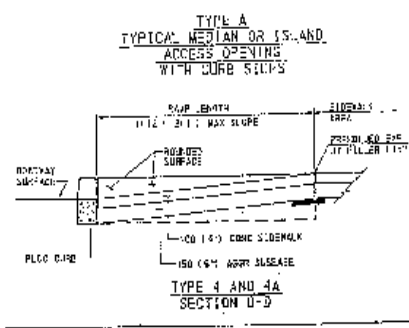
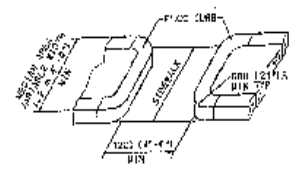


TABLE A  
CURB RAMP DIMENSIONS  
NEW CONSTRUCTION

MAX RAMP SLOPE	NOMINAL RAMP LENGTH AT 112% SLOPE	SIDE FLARE DIMENSION AT CURB	SIDE FLARE DIMENSION AT CURB
1:12 (12%)	900 (3.0')	750 (2.5')	500 (1.7')
1:12 (12%)	1200 (4.0')	1000 (3.3')	700 (2.3')
1:12 (12%)	1500 (5.0')	1250 (4.1')	900 (3.0')
1:12 (12%)	1800 (6.0')	1500 (5.0')	1100 (3.6')
1:12 (12%)	2100 (7.0')	1750 (5.8')	1300 (4.3')
1:12 (12%)	2400 (8.0')	2000 (6.6')	1500 (5.0')
1:12 (12%)	2700 (9.0')	2250 (7.4')	1700 (5.6')
1:12 (12%)	3000 (10.0')	2500 (8.2')	1900 (6.2')
1:12 (12%)	3300 (11.0')	2750 (9.0')	2100 (6.9')
1:12 (12%)	3600 (12.0')	3000 (9.8')	2300 (7.5')
1:12 (12%)	3900 (13.0')	3250 (10.6')	2500 (8.2')
1:12 (12%)	4200 (14.0')	3500 (11.5')	2700 (8.9')
1:12 (12%)	4500 (15.0')	3750 (12.3')	2900 (9.5')
1:12 (12%)	4800 (16.0')	4000 (13.1')	3100 (10.2')
1:12 (12%)	5100 (17.0')	4250 (14.0')	3300 (10.8')
1:12 (12%)	5400 (18.0')	4500 (14.8')	3500 (11.5')
1:12 (12%)	5700 (19.0')	4750 (15.6')	3700 (12.1')
1:12 (12%)	6000 (20.0')	5000 (16.4')	3900 (12.8')
1:12 (12%)	6300 (21.0')	5250 (17.3')	4100 (13.4')
1:12 (12%)	6600 (22.0')	5500 (18.1')	4300 (14.1')
1:12 (12%)	6900 (23.0')	5750 (18.9')	4500 (14.8')
1:12 (12%)	7200 (24.0')	6000 (19.7')	4700 (15.4')
1:12 (12%)	7500 (25.0')	6250 (20.5')	4900 (16.1')
1:12 (12%)	7800 (26.0')	6500 (21.3')	5100 (16.7')
1:12 (12%)	8100 (27.0')	6750 (22.1')	5300 (17.4')
1:12 (12%)	8400 (28.0')	7000 (22.9')	5500 (18.0')
1:12 (12%)	8700 (29.0')	7250 (23.7')	5700 (18.7')
1:12 (12%)	9000 (30.0')	7500 (24.6')	5900 (19.3')
1:12 (12%)	9300 (31.0')	7750 (25.4')	6100 (20.0')
1:12 (12%)	9600 (32.0')	8000 (26.2')	6300 (20.7')
1:12 (12%)	9900 (33.0')	8250 (27.0')	6500 (21.3')
1:12 (12%)	10200 (34.0')	8500 (27.9')	6700 (22.0')
1:12 (12%)	10500 (35.0')	8750 (28.7')	6900 (22.6')
1:12 (12%)	10800 (36.0')	9000 (29.5')	7100 (23.3')
1:12 (12%)	11100 (37.0')	9250 (30.3')	7300 (24.0')
1:12 (12%)	11400 (38.0')	9500 (31.1')	7500 (24.6')
1:12 (12%)	11700 (39.0')	9750 (31.9')	7700 (25.3')
1:12 (12%)	12000 (40.0')	10000 (32.7')	7900 (26.0')
1:12 (12%)	12300 (41.0')	10250 (33.5')	8100 (26.6')
1:12 (12%)	12600 (42.0')	10500 (34.3')	8300 (27.3')
1:12 (12%)	12900 (43.0')	10750 (35.1')	8500 (28.0')
1:12 (12%)	13200 (44.0')	11000 (35.9')	8700 (28.6')
1:12 (12%)	13500 (45.0')	11250 (36.7')	8900 (29.3')
1:12 (12%)	13800 (46.0')	11500 (37.5')	9100 (30.0')
1:12 (12%)	14100 (47.0')	11750 (38.3')	9300 (30.7')
1:12 (12%)	14400 (48.0')	12000 (39.1')	9500 (31.3')
1:12 (12%)	14700 (49.0')	12250 (39.9')	9700 (32.0')
1:12 (12%)	15000 (50.0')	12500 (40.7')	9900 (32.6')
1:12 (12%)	15300 (51.0')	12750 (41.5')	10100 (33.3')
1:12 (12%)	15600 (52.0')	13000 (42.3')	10300 (34.0')
1:12 (12%)	15900 (53.0')	13250 (43.1')	10500 (34.7')
1:12 (12%)	16200 (54.0')	13500 (43.9')	10700 (35.4')
1:12 (12%)	16500 (55.0')	13750 (44.7')	10900 (36.0')
1:12 (12%)	16800 (56.0')	14000 (45.5')	11100 (36.7')
1:12 (12%)	17100 (57.0')	14250 (46.3')	11300 (37.4')
1:12 (12%)	17400 (58.0')	14500 (47.1')	11500 (38.0')
1:12 (12%)	17700 (59.0')	14750 (47.9')	11700 (38.7')
1:12 (12%)	18000 (60.0')	15000 (48.7')	11900 (39.4')
1:12 (12%)	18300 (61.0')	15250 (49.5')	12100 (40.0')
1:12 (12%)	18600 (62.0')	15500 (50.3')	12300 (40.7')
1:12 (12%)	18900 (63.0')	15750 (51.1')	12500 (41.4')
1:12 (12%)	19200 (64.0')	16000 (51.9')	12700 (42.0')
1:12 (12%)	19500 (65.0')	16250 (52.7')	12900 (42.7')
1:12 (12%)	19800 (66.0')	16500 (53.5')	13100 (43.4')
1:12 (12%)	20100 (67.0')	16750 (54.3')	13300 (44.0')
1:12 (12%)	20400 (68.0')	17000 (55.1')	13500 (44.7')
1:12 (12%)	20700 (69.0')	17250 (55.9')	13700 (45.4')
1:12 (12%)	21000 (70.0')	17500 (56.7')	13900 (46.0')
1:12 (12%)	21300 (71.0')	17750 (57.5')	14100 (46.7')
1:12 (12%)	21600 (72.0')	18000 (58.3')	14300 (47.4')
1:12 (12%)	21900 (73.0')	18250 (59.1')	14500 (48.0')
1:12 (12%)	22200 (74.0')	18500 (59.9')	14700 (48.7')
1:12 (12%)	22500 (75.0')	18750 (60.7')	14900 (49.4')
1:12 (12%)	22800 (76.0')	19000 (61.5')	15100 (50.0')
1:12 (12%)	23100 (77.0')	19250 (62.3')	15300 (50.7')
1:12 (12%)	23400 (78.0')	19500 (63.1')	15500 (51.4')
1:12 (12%)	23700 (79.0')	19750 (63.9')	15700 (52.0')
1:12 (12%)	24000 (80.0')	20000 (64.7')	15900 (52.7')
1:12 (12%)	24300 (81.0')	20250 (65.5')	16100 (53.4')
1:12 (12%)	24600 (82.0')	20500 (66.3')	16300 (54.0')
1:12 (12%)	24900 (83.0')	20750 (67.1')	16500 (54.7')
1:12 (12%)	25200 (84.0')	21000 (67.9')	16700 (55.4')
1:12 (12%)	25500 (85.0')	21250 (68.7')	16900 (56.0')
1:12 (12%)	25800 (86.0')	21500 (69.5')	17100 (56.7')
1:12 (12%)	26100 (87.0')	21750 (70.3')	17300 (57.4')
1:12 (12%)	26400 (88.0')	22000 (71.1')	17500 (58.0')
1:12 (12%)	26700 (89.0')	22250 (71.9')	17700 (58.7')
1:12 (12%)	27000 (90.0')	22500 (72.7')	17900 (59.4')
1:12 (12%)	27300 (91.0')	22750 (73.5')	18100 (60.0')
1:12 (12%)	27600 (92.0')	23000 (74.3')	18300 (60.7')
1:12 (12%)	27900 (93.0')	23250 (75.1')	18500 (61.4')
1:12 (12%)	28200 (94.0')	23500 (75.9')	18700 (62.0')
1:12 (12%)	28500 (95.0')	23750 (76.7')	18900 (62.7')
1:12 (12%)	28800 (96.0')	24000 (77.5')	19100 (63.4')
1:12 (12%)	29100 (97.0')	24250 (78.3')	19300 (64.0')
1:12 (12%)	29400 (98.0')	24500 (79.1')	19500 (64.7')
1:12 (12%)	29700 (99.0')	24750 (79.9')	19700 (65.4')
1:12 (12%)	30000 (100.0')	25000 (80.7')	19900 (66.0')



NOTE: EITHER ALL METRIC OR ALL ENGLISH SHALL BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF DESIGN

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CURB RAMPS

