CURB AND SIDEWALK CONSTRUCTION SPECIFICATIONS

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CONSTRUCTION DETAILS

References
Misc. Codes of the City of Lancaster
Chapter 202, Parking Lots, Surface
Chapter 260, Stormwater Management
Chapter 265, Subdivision and Land Development
Pennsylvania Department of Transportation Specifications Publication 408
Pennsylvania Department of Transportation Roadway Construction Standards Publication 72M

PART I: GENERAL REQUIREMENTS

Purpose and Intent

These specifications are supplemental to Chapter 262, Streets and Sidewalks, and Chapter 263, Right-of-Way Management, of the Code of the City of Lancaster, and establishes minimum standards and guidelines for the design and construction of curbs and sidewalks so as to provide for the public health, safety and welfare and improve the community aesthetically, economically and environmentally.

The purpose of these supplemental specifications is to provide minimum construction standards and guidelines for the construction, repair, replacement and maintenance of new and existing curbs and sidewalks. These supplemental specifications are not all inclusive but provide examples of details and specifications acceptable to the City for meeting the minimum requirements of City Ordinance.

The following standards and specifications should be used as guidance for the construction, repair, replacement, maintenance**,** and other applicable improvements of all new and existing curbs and sidewalks. In addition to the standards set forth herein, all curbs and sidewalks shall be designed and constructed or otherwise improved in accordance with all applicable City and state codes and regulations, including but not limited to, Chapter 260 (Stormwater Management), Chapter 265 (Subdivision and Land Development), Chapter 273 (Trees) and Chapter 300 (Zoning) of the City of Lancaster Code of Ordinances.

Innovation and best practices are encouraged. Where it can be shown that an alternative standard will provide equal or better results, that standard may be used in lieu of the standards and specifications provided herein; provided, however, that those alternative standards and specifications are acceptable to the Bureau of Engineering, and that such alternative will not have the effect of nullifying the intent and purpose of Chapter 262 or related chapters.

Prior to construction, repair, replacement, maintenance, or other improvement of any curb or sidewalk, the owner, tenant or other party in interest who proposes such improvement, shall first submit a Curb and Sidewalk Permit Application and/or Driveway Apron Permit Application, as applicable, and necessary construction documents to the Bureau of Engineering. See Appendix A for the permit application and instructions.

Minimum Standards and Applicability

All newly constructed, repaired, replaced or otherwise improved curbs and sidewalks shall conform to the minimum standards set forth in this supplement, in addition to all applicable construction standards and applicable manufacturer standards, as approved by the City.

Furthermore, all new and existing curbs and sidewalks shall meet applicable provisions in all local, state and federal codes, including but not limited to the Americans with Disabilities Act of 1990, ADA Accessibility Guidelines, (ADAAG), Public Right-of-Way Accessibility Guidelines (PROWAG), City of Lancaster Zoning Ordinance, Subdivision and Land Development Ordinance, Surface Parking Lots Ordinance, Trees Ordinance and Stormwater Management Ordinance.

Permits and Fees

Prior to any work performed within the public right-of-way within the City of Lancaster, the appropriate permit or permits shall be secured and all associated fees shall be paid.

1. Curb and Sidewalk. A permit for construction, replacement or repair of curbs and sidewalks shall be obtained from the Bureau of Engineering before work is started upon payment of a permit fee.
2. Street Opening. The opening of the surface of any City street is prohibited unless a permit is obtained for that purpose in the manner hereinafter described. Such permit shall be granted through the Department of Public Works of the City when the person applying for such permit files an application with the Department in compliance with the provisions of this article and pays into the City Treasury the amounts hereinafter stated. Any person working in the vicinity of a City street who in any manner disturbs such street or who in any manner causes damage to a street shall be required by this article to obtain a permit and correct this damage in accordance with the standards of the Department. Street opening permits shall not be required for persons excavating adjacent to the curb for the express purpose of installing or replacing curbs and/or sidewalks, provided that a curb and sidewalk permit has been obtained prior to such work. The obtaining of street opening permits by City departments and corporate authorities shall be waived when work to be performed is completed by their own personnel. All contractors performing work under contract for the City shall obtain the street opening permit for street opening work. Public utilities shall obtain the street opening permit for street excavations performed by their own forces or by contractors.
3. Emergency Openings. In the event that street openings are necessitated by emergencies, street opening permits shall be obtained on the first regular business day on which the office of the City is open for business and such permit shall be retroactive to the date when the work was begun. A person performing street openings for an emergency must verify the emergency nature of the circumstance in writing to the Director within five days after such emergency.
4. Driveway Aprons. A permit for construction, replacement or repair of driveways shall be obtained from the Bureau of Engineering before work is started upon payment of a permit fee.
5. Fees. The Council of the City of Lancaster, by resolution adopted from time to time shall establish any and all such fees that are assessable by the City for the administration and enforcement undertaken pursuant to this Chapter.

Definitions

1. The following words and phrases, when used in these specifications, shall have the meanings ascribed to them in this section, except in those instances where the context clearly indicates otherwise:

   Bureau - The Bureau of Engineering of the Department of Public Works of the City of Lancaster.

   Cartway - The paved surface of a street or alley available for use by vehicular traffic.

   City - The City of Lancaster, Lancaster County, Commonwealth of Pennsylvania.

City Engineer - A professional engineer registered by the Commonwealth of Pennsylvania and employed or retained by the City and designated as the City Engineer. This term shall include an authorized designee acting on behalf of the City Engineer.

City Plan - The official plan of the streets of the City of Lancaster. The Plan can be viewed in the Bureau of Engineering.

City Arborist – The Arborist/Horticulturist of the City of Lancaster, as supervised by the Director of Public Works or designee, or any urban tree professional employed or contracted by the City within the Bureau of Operations.

City Inspector - City staff or contractor's responsible for inspection, testing and monitoring activities as they relate to this Chapter.

Covering - Concealment by placement of materials over a monument or other feature.

Curb Return – A section of curved curb, usually of consistent radius connecting the curbs or edges of intersecting streets or driveways.

Destruction - Damaged to the extent of being unusable.

Dislocation - Any horizontal and/or vertical displacement.

Disturbance - Dislocation, removal, destruction or damage.

Emergency - Any unforeseen circumstance which calls for immediate action to protect or safeguard life and/or property.

Engineer - See City Engineer.

Engineering Details - The details, specifications and standards for the construction, reconstruction and repair and improvements of streets, sidewalks, curbs and all related and associated appurtenances.

Monument - Any physical marker set to establish or reference the City boundary line or the right-of-way of a City street.

Permittee - Any person who has been issued a City Curb and Sidewalk Permit. Permittee shall also mean property owner and contractor.

Person - Any natural person, partnership, firm, association, utility or corporation.

Physical Marker - Concrete monument, iron pin, spike, crosscut, P.K. nail, or tack in wooden stake.

Porous, pervious and permeable paving, pavers, etc. - An alternative to standard impervious asphalt, concrete or masonry surfaces that allows stormwater to drain through the porous surface to a stone reservoir underneath.

Removal - Complete change in location.

Reconstruction - The replacement of the entire existing pavement structure by the placement of a similar, equivalent, increased or alternative pavement structure.

Resurfacing, - Structural enhancements that extend the service life of the existing pavement and/or improve its load carrying capacity by removing and replacing the wearing surface.

PART 1. GENERAL REQUIREMENTS

Sidewalk Area - That portion of the City street right-of-way reserved for sidewalks. Generally it is the area between the curb or edge of paving of the street and the legal right of way.

Street Right-of-Way - The entire right-of-way of a public street, public highway, public alley or public road including the designated sidewalk areas. Area as defined on the City (Street) Plan.

White Cement - White Portland Cement conforming to the requirements of Standard Specification for Portland Cement, ASTM C 150, except that it shall contain no more than 0.50% by weight Ferric Oxide, (Fe_2O_3), or equivalent.

Work Day – The prescribed hours when construction is allowed per City codes and regulations.

2. The language set forth in the text of this Chapter shall be interpreted in accordance with the following rules of construction:
   a. Words used or defined in one tense or form shall include other tenses or derivative forms.
   b. Words in the singular number shall include the plural number, and words in the plural number shall include the singular number.
   c. The masculine gender shall include the feminine and neuter. The feminine gender shall include the masculine and neuter. The neuter gender shall include the masculine and feminine.
   d. The word "person" includes individuals, firms, partnerships, joint ventures, trusts, trustees, estates, corporations, associations and any other similar entities.
   e. The word "Lot" includes the words "plot", “Tract”, and "Parcel".
   f. The words “shall,” “must” and “will” are mandatory in nature and establish an obligation or duty to comply with the particular provision. The words “may” and “should” are permissive.
   g. The time, within which any act required by this Ordinance is to be performed, shall be computed by excluding the first day and including the last day. However, if the last day is a Saturday or Sunday or a holiday declared by the United States Congress or the Pennsylvania General Assembly, it shall also be excluded. The word "day" shall mean a calendar day, unless otherwise indicated.
   h. Any words not defined in this document or Chapter 262 – Streets and Sidewalks Ordinance shall be construed as defined in standard dictionary usage.
   i. References to officially adopted regulations, standards, or publications of PENNDOT or other governmental agencies shall mean to include the regulation, publication, or standard in effect on the date when this Chapter was adopted.

General Requirements

1. Required Permits and Bonds

Applications for curb and sidewalk permits shall be obtained from the Bureau of Engineering. Applications must be submitted by a duly authorized bonded contractor or the property owner. Completed applications shall be submitted to the Bureau at least two work days prior to the anticipated date for starting work. The Bureau shall review applications and grant or deny the applicant a permit upon completion of the review.

All curb and sidewalk permits shall be signed by the Bureau of Engineering and, if necessary, the Bureau of Engineering shall provide the line and grade. Permits must be kept on the job site for examination by the Bureau of Police and/or the Bureau of Engineering.

When proposed curb and sidewalk work involves the construction of depressed curb and sidewalk at non-existent driveway locations, a driveway permit shall be obtained from the Bureau of Engineering. New driveways or depressed curbs may require prior approval of the City Traffic Commission as per Chapter 285, Vehicles and Traffic of the City Code of the City of Lancaster.

Any property owners or contractors doing curb and sidewalk work without a curb and sidewalk permit will be required to obtain a permit and subject to re-work or additional inspection requirements and/or fees as determined by the Bureau of Engineering. All such work performed without a permit will be subject to correction or removal and reconstruction at the discretion of the Bureau of Engineering. The Owner and the Contractor shall be jointly and severally responsible for the correction and/or replacement of all work performed without permits.

Any applicant for a curb and sidewalk permit, before receiving the same, shall provide a properly executed surety bond and file with the Bureau of Engineering in accordance with the provisions of Chapter 262 of the City of Lancaster Codified Ordinances. Any property owners desiring to construct, repair, replace and/or maintain curbs and sidewalks in front of their own property, personally or with their unbonded authorized agent, are not required to post a surety bond, provided that they first obtain a curb and sidewalk permit from the Bureau. Only the property owner or a bonded contractor may obtain a curb and sidewalk permit.

2. Establishing Line and Grade for Curbs and Sidewalks

Curbs shall be constructed to the City Plan, specifications, and lines and grades as established by the Bureau of Engineering. Forms shall be straight and to grade. Before starting work, the permittee shall stretch lines and check the line and grade given; where the permittee has reason to doubt the correctness of the line and/or grade he shall notify the Bureau of Engineering before using them. Stakes for building line shall not be used for line or grade of curb.

3. Pedestrian Protection

Flashing warning lights, barricades, cones, fencing, barrels, and/or yellow construction ribbon must be maintained during all non-working hours at the construction site adjacent to all open excavations and on all materials stored within the street right-of-way. It shall be the sole responsibility of the permittee to provide, erect and maintain under the direction of the

Bureau of Engineering and/or Bureau of Police any temporary barricades, signs and lights for the protection of pedestrian and vehicular traffic.

The Bureau of Engineering may cause such devices to be installed by the City's forces in case of emergency or failure by permittee to correct a deficiency upon notification. The City will invoice the permittee for rental and installation costs incurred from the date of installation until the date of removal. Payment not made by the permittee within 30 days of the invoice date will be chargeable against the posted bond, including all fees and costs involved in the collection of this payment.

When sidewalk restriction or closure is necessary, a Traffic Control Permit will be required from the Bureau of Engineering. A permit application shall include, at a minimum, a description of the work (scope of work, address, dates, times, and responsible parties), and shall accompany a scaled sketch, with dimensioning, of the proposed restriction or closure. Pedestrian detours shall be provided when feasible, and pedestrian protection may be required at the discretion of Bureau of Engineering.

Alternate pedestrian paths may be required as necessary and may be required to conform to the following:

a. Contractors shall provide alternate paths when the ordinary pedestrian accessible route, such as the sidewalk, is obstructed by a temporary work zone. At minimum, the path shall be 4 feet wide with firm, detectable and continuous barricades or other channeling devices. Clearances in the Downtown Investment/Business District may be required to be greater than 4 feet clear at the Bureau's discretion.

b. All pedestrian paths around or through work zones must be accessible and compliant with federal, state and local laws, including the MUTCD, PROWAG, and the Americans with Disabilities Act (ADA).

c. A continuous accessible path with proper barriers shall be maintained at all times through or around the entire work zone.

d. Access to the immediate surrounding facilities, residences, and businesses shall be provided, including the furnishing of temporary ramps, steps, or handrails.

e. Curb ramps and/or temporary ramps clear of debris and accessible to all pedestrians shall be maintained at all times.

f. Advance notice within ample distance of work zone that allows pedestrians to make appropriate travel decisions and helps manage pedestrian flow through the temporary facility.

g. Appropriate signage shall be provided at curbs, crosswalks, intersections or any other area affected by work zone. Signage and warning signs must be located to minimize backtracking.

h. All surfaces of pedestrian access routes must be firm, stable and slip resistant.

i. Temporary walkways and/or crosswalks may be required to provide an accessible route around the project area, this may require temporary ramps to/from curb lines and sidewalks constructed of wood, asphalt, or concrete; parking areas may be required to be designated as pedestrian areas at the permittee's expense; jersey

barriers (concrete or water-filled) may be required for pedestrian protection when adjacent to vehicular traffic.

j. Walk-through style pedestrian scaffolding may be required to be provided and maintained in a clear, clean, well-lit and well-ventilated condition. Scaffolding may require the seal of a Professional Engineer as directed by the Bureau of Engineering. Pedestrian scaffolding shall be open to the street for visibility and shall be lit internally with string lights or other means.

k. All barricades must be firm, detectable, and securely in place. Contractors must place barricades as directed:

- Between pedestrian routes and adjacent construction sites.
- Between pedestrian paths and vehicular traffic.
- At the bottom of a pedestrian ramp when an opposite ramp is blocked.
- In front of hazardous objects protruding into pedestrian paths.

l. Six-foot (6') high chain link fence may be required at any location adjacent to the work zone as directed by the Bureau of Engineering, with keys to be provided to city bureaus for emergency access.

4. Maintenance and Protection of Traffic

If at any time during the course of this work it becomes necessary to disrupt traffic and/or to partially or completely close a street, the contractor shall notify the Bureau of Engineering and file a Traffic Control Permit Application for review and approval. No restrictions shall be implemented without the express written consent of the Bureau of Engineering. In the event of an emergency, permittee shall immediately notify Police so that the necessary arrangements and safe accommodations can be made. No streets shall be closed (partially or completely) without the permission of the Bureau of Engineering and subsequent notifications as required on a Traffic Control Permit.

5. Work at Street Intersections

At all street intersections a curb return shall be constructed of such a radius as shown on the plans or as the Bureau of Engineering shall direct. Under no circumstances shall such return be depressed to form a driveway. The permittee shall consult the Bureau of Engineering concerning the location of required pedestrian ramps.

6. Monuments

All monuments and markers shall be placed in accordance with Chapter 265, Subdivision and Land Development, of the Code of the City of Lancaster.

No monuments shall be covered, disturbed, or removed during the demolition, repair, or laying of any sidewalk. The permittee is responsible for securing all monument information before sidewalk construction work commences with a licensed surveyor. This information shall be provided to the Bureau of Engineering.

Where monuments or markers fall within a paved (or sidewalk) area, they shall be set below grade and have a lidded monument pot or box set over them. The pot or box shall be set flush with the paving and the monument inside shall be free from contact with the surrounding

paving to prevent disturbance by future digging or demolition activities. If the paved area is likely to bear vehicular traffic, the monument pot/box shall comply with AASHTO H-20 loading requirements.

Where a monument is below the grade of the walk, a box will be furnished by the Department of Public Works for the protection and free access to such monument. Where a monument is above the finished surface, or is in any way disturbed, the permittee shall hire a State of Pennsylvania licensed surveyor so that the monument can be reset to conform to the proper grade and offset to the right-of way line. All work on the monument shall be under the direct supervision of a licensed surveyor. Upon completion of the work the surveyor shall provide a survey or surveyed data to the Bureau of Engineering for review.

Where a monument is shown on the City plan and it cannot be found on the job by the permittee, they shall hire a State of Pennsylvania licensed surveyor so that the monument can be located before demolition or pouring concrete in that location. The surveyor will need to reset a new monument if it is not found. Upon completion of the work the surveyor shall provide a survey or surveyed data to the Bureau of Engineering for review.

When a monument is disturbed, removed, or covered all construction work, within an area of two feet in all directions from the monument, shall be terminated. Barricades equipped with flashers shall be maintained around this area. The permittee shall hire a State of Pennsylvania licensed surveyor so that the monument can be reset if necessary and certified by the surveyor. The Bureau of Engineering shall be notified by the permittee as to the nature and extent of the disturbance and as to the proposed method of monument correction. The Bureau of Engineering shall notify the property owner in writing as to the approval or disapproval of proposed correction procedures and schedules in accordance with this specification and upon review of the survey.

Should the permittee fail to notify the Bureau of Engineering before construction work has been completed, and upon notification by the Bureau of Engineering, the permittee shall submit a schedule of procedures for correction work to the Bureau of Engineering for approval. Upon receipt of written approval from the Bureau of Engineering, the property owner shall proceed with correction work in accordance with the provisions herein.

In the case of monument covering, the property owner shall remove concrete from the monument area, install a box over the monument, and complete concrete work within a period of 15 days from the receipt of written notification from the Bureau of Engineering. The box will be furnished by the Department of Public Works without fee. Boxes not provided by the Department of Public Works will not be accepted without prior written approval.

In the case of monument removal or disturbance, the property owner shall be responsible for the resetting and/or replacement of the monument within a period of 15 days from the receipt of written notification from the Bureau of Engineering. This work shall be performed by a registered surveyor as directed by the Bureau of Engineering. A letter of certification stating that the monument has been placed in accordance with the directions of the Bureau of Engineering and also the new elevation of the monument determined as directed shall be forwarded to the City Engineer. When requested, the surveyor shall also supply a drawing for clarification. The Bureau of Engineering shall approve all monument correction procedures and schedules before the correction is made.

All costs shall be borne by the permittee except as otherwise herein provided.

7. Drainage

Whenever a complete sidewalk is to be replaced (from right-of-way line to curb line) and where runoff water from spouting had been permitted to run across pedestrian sidewalks, such water shall be channeled under the sidewalk and into the street gutter by means of a medium weight cast iron or Schedule 40 PVC pipe, a minimum of four inches in diameter projecting thru the face of curb or through an ADA approved trench drain when sufficient curb reveal exists. If sufficient curb reveal does not exist, permittee shall attempt other methods of conveyance to prevent stormwater from crossing sidewalks and entering the roadway. If, at the sole discretion of the Bureau of Engineering, insufficient curb reveal or obstructions preclude the installation of under-sidewalk drainage, the Bureau may waive this requirement. Under no circumstances shall such water be discharged directly to either the sanitary or the combined sewer systems without first receiving approval by the City. The application of "Green" solutions for the treatment of stormwater is strongly encouraged. The Bureau of Engineering will be able to provide to the permittee resources that can assist in design. Any proposed increase in impervious area outside of the right-of-way may require a Small Project Stormwater permit and shall be submitted to the Bureau of Stormwater for review.

8. Temperature Requirements

The Bureau of Engineering implements a winter moratorium on concrete work, and no work shall be performed between November 15th and April 1st, without prior written approval from the Bureau of Engineering. Regardless of date, concrete shall not be placed when the ground shows evidence of frost or freeze, or overnight temperatures had been below freezing the night prior to the work. Concrete can be placed when the ground temperature is 40 degrees and rising, as determined by a probe thermometer, and when air temperature is 40 degrees and rising as determined by an air thermometer and reliable weather forecast. Temperature recordings shall be witnessed by an inspector of the Bureau of Engineering at all times during the winter moratorium, if work has been permitted due to emergent or exigent circumstances. In these cases, winter curing procedures will apply between all concrete pours between November 1st and April 1st, and any other times of the year when temperatures are marginal as determined by the Bureau of Engineering. Heat and Frost Protection procedures must be submitted in writing for the Bureau of Engineering's approval prior to commencement of the work. The Bureau of Engineering will require frost blankets, heat blankets, and high-low thermometers at its discretion, and reserves the right to access the work and check protection and thermometers at any time. If the forecasted air temperature during concrete curing (7 days) is expected to drop to below 50 degrees but not below 35 degrees, or if concrete is placed at an air temperature below 50 degrees but above 35 degrees frost and/or heat blankets will be required. A 7-day minimum curing period will be required with temperatures 40 degrees and rising. If concrete temperatures as indicated on the thermometer hit 35 degrees, removal and replacement will be required. Additional inspection fees for winter or cold-weather concrete work will be collected at the discretion of the Bureau of Engineering and according to the Fee Schedule. Any work deemed to fail inspection due to low temperatures or inadequate protection will be removed and replaced at the permittee's or owner's expense.

9. Expansion Joints

All expansion joints in curb, sidewalk or driveway aprons (i.e., "flat work") shall be full-depth pre-molded rubber, Nomaflex, or have a removable top or "zip-strip" that is removed and subsequently caulked with Sikaflex 1A "Limestone" or approved equal. In cases where a removable strip is provided and the joint is caulked, asphalt or fiber expansion joints shall be acceptable. At no times shall foam, wood, PVC, decking, or other materials serve as an expansion material in any concrete application, unless approved in writing by the Bureau of Engineering. All such approvals shall be on a case-by-case basis and not constitute a permanent, ongoing approval.

Expansion joints are to be straight with minimal deformation. Joints that are not straight and/or square shall be subject to corrective action at the discretion of the Bureau at no further cost to the City.

All curbs shall have a 1/2 inch pre-molded expansion joint no further than every 30 lineal feet. This joint is to be integral to the curb and included at the time of pouring the concrete. Permanently installed pre-molded expansion strips shall be used.

When sidewalks abut curbs, a 1/2 inch pre-molded expansion strip shall be used to separate the structures. When the sidewalk abuts structures, such as buildings, a 1/2 inch pre-molded expansion strip with a removable top or "zip-strip" (rubber, asphalt, or fiber) is to be used between the sidewalk and the permanent structure, and caulking shall be applied over to prevent water infiltration into the adjacent structure. Caulk shall be Sikaflex 1A, "Limestone", or approved equal. Caulk shall be treated with sand or otherwise protected from traffic until fully cured.

Each 15 to 20 foot length of sidewalk, depending on proposed scoring of control joints, shall be separated by a 1/2 inch pre-molded expansion strip unless otherwise directed by the Bureau of Engineering. New construction abutting existing work is to be separated by a 1/2 inch pre-molded expansion strip. Expansion joints shall be wrapped around all utility poles, utility connections and fire hydrants as directed by the Bureau of Engineering.

All expansion joints shall be constructed to fully separate the adjoining pieces of concrete.

10. Traffic Signs and Meter Posts

The permittee shall notify the Bureau of Engineering's office of scheduled sidewalk work in which City or State traffic signs or parking meter posts are located. The permittee shall then remove the signs or meter posts, taking all precautions as not to damage them during removal operations. The permittee shall be responsible for replacing traffic signs or meter posts during the installation of new sidewalk under the supervision and instruction of the Bureau of Engineering. The City of Lancaster may provide the permittee with new or additional sign standards to be placed in new concrete sidewalk at no expense to the City. PVC sleeves are to be provided around all sign posts within the work area.

11. Traffic Signal Junction Boxes

Prior to any sidewalk work adjacent to traffic signal junction boxes, etc., the permittee shall notify the Bureau of Engineering. If necessary, the permittee shall make any and all adjustments to the boxes in accordance with the instructions of the Bureau of Engineering. The property owner or contractor shall coordinate this work with the City's Traffic Bureau.

12. Water Services, Sewer Vents and Laterals

Any and all water services from meter to curb, regardless of size, type or condition that are disturbed, broken or in any way caused to leak by work being performed by the permittee shall be replaced in accordance with provisions of the Lancaster City Plumbing Code, by the permittee at the permittee's expense. Similarly, any and all sewer vents or sewer laterals disturbed, broken, blocked or partially blocked because of work being performed by the permittee, or uncovered by the permittee, shall be replaced, cleaned or repaired in accordance with the provisions of the City of Lancaster Plumbing Code by the permittee at the permittee's expense. The City of Lancaster shall be held harmless in any and all cases involving disrupted water services or water damage related to broken services. The property owner shall also be held harmless when work is performed by a bonded contractor. All valve boxes shall be reset as needed to ensure that they are flush with the surrounding grade and provide a smooth walking surface. All utility boxes, valves, frames, covers and lids must be within 1/4" reveal of a flush condition to meet ADA requirements and will require re-work when not compliant. Concrete sidewalks shall be replaced in full sections based on the pre-existing or predominant spacing of scoring. “Boxing out” of utilities in the sidewalk (utility boxes, utility poles, hydrants, etc) is prohibited. All work on water services from the curb stop to the building shall be done by a master plumber per City Code and after obtaining a permit for the work from the Bureau of Code Compliance and Inspections.

13. Castings at Curbs

Curb set adjacent to inlets shall be square on the ends through the full depth of the block and the castings for all inlets, stop boxes and other structures shall be cut into the curb flush with the top. All inlet walls that are disturbed shall be inspected by the Bureau of Engineering, and rebuilt in a thorough workman-like manner with Portland cement mortar, and any castings or sidewalk blocks broken or disturbed by the permittee shall be replaced by that permittee, at the expense of the permittee. Any castings covered by the permittee shall, upon written notification from the Bureau of Engineering, be uncovered and/or adjusted by the permittee within 10 days of receipt of notification at the permittee's expense.

14. Armored Concrete Curbs

Armored concrete curbs shall not be allowed unless special permission is granted in writing by the Bureau of Engineering. Existing armored curbs shall be replaced when deemed a public hazard by the Bureau of Engineering. When armored curbs need replaced, they may not be re-installed without written approval of the Bureau of Engineering.

15. Completion Requirements; Cleaning Up

The permittee shall clean and remove from the project and adjacent property all surplus and discarded materials, equipment and temporary structures and shall have the project in a presentable condition throughout, within 48 hours after completion and acceptance of the work.

16. Guarantee

Concrete curbs and sidewalks installed by a bonded contractor shall be guaranteed by the permittee for a period of three years from date of completion of work. Under the guarantee, the permittee shall replace broken and disintegrating concrete, as determined by the Bureau of Engineering, within 60 days of receipt of notification from the Bureau of Engineering.

Also to be replaced under this guarantee are blocks that have settled, shifted, or heaved beyond a 1/4" tolerance as required to meet ADA.

The City of Lancaster strongly recommends that property owners refrain from the use of deicing chemicals on new concrete (curbs and sidewalks) for 12 months after the concrete is installed. The use of deicing chemicals can negatively impact the lifespan of concrete, especially relatively new concrete.

PART 2. MATERIAL REQUIREMENTS

17. Fine Aggregate for Cement Concrete

Fine aggregate shall consist of sand, clean and free from lumps of clay and all vegetable and harmful substances. It shall be composed of hard, durable grains. Stone dust is not considered as a suitable material for fine aggregate. In order to avoid misunderstanding, no stone dust will be allowed on the job during construction of curb. All fine aggregate material shall meet the requirements specified in PennDOT Form 408, Section 703, for natural sand, Type A.

18. Coarse Aggregate for Cement Concrete

Stone shall be tough, durable rock, free from slaty texture or cleavage planes, and shall be reasonably free from coatings of clay, silt or crusher dust. Coarse aggregate shall be clean, washed stone and conform to the requirements of AASHTO Number 57, as specified in Form 408, Section 703.

19. Coarse Aggregate for Curb and Sidewalk Sub-Base and Backfill

All stone backfill on the roadway side of a curb shall be PennDOT 2A/2A Modified compacted in lifts. Material certificates shall be provided to the Bureau of Engineering by the permittee for all stone placed as part of the work under a valid permit.

All stone backfill on the backside (sidewalk, yard, or similar layout) of a curb shall be PennDOT 2A/2A Modified compacted in lifts, or AASHTO Number 57 stone. Material certificates shall be provided to the Bureau of Engineering by the permittee for all stone placed as part of the work under a valid permit.

All stone subbase and backfill for sidewalk work shall be PennDOT 2A/2A modified or AASHTO Number 57 stone. All stone depths under sidewalk shall be a minimum of 4” as verified by an inspector prior to concrete placement. Any thickness or material failure of stone, upon inspection, will require the entire area to be excavated and re-stoned at the permittee’s expense.

All geotextile fabric placed under a sidewalk sub-base shall be submitted to the Bureau of Engineering for approval prior to placement. Geotextile fabric is recommended but not required by the Bureau of Engineering. Material shall be exposed and available for inspection during the first site inspection.

20. Plant Mixed Cement Concrete

All concrete shall conform to Pennsylvania Department of Transportation Form 408 requirements for air-entrained Class AA concrete and shall have a minimum compressive strength of 3,750 psi after 28 days. PennDOT Class AA Concrete Mix Designs for the current year shall be acceptable for all curb and sidewalk installations. Other concrete mix designs may be submitted for pre-approval by the Bureau of Engineering, such as 4000 psi, 5000 psi, high-early, etc. as may be required by property or project owner. At no time will concrete be approved with a compressive strength of less than 3750 at 28 days. All concrete shall be supplied from a state approved source unless otherwise found acceptable by the Bureau of Engineering prior to use. Any concrete batch, permit number, or permittee may be

randomly selected by the Bureau of Engineering for cylinder testing, to determine the suitability of concrete for the project, at the sole expense of the permittee.

All concrete permits containing work over 3 cubic yards shall be required to provide one of the following to an inspector: a material ticket, a mix design, or a cylinder break from a lab for final acceptance.

All concrete shall be white in color unless approved by the Bureau of Engineering.

21. Site Mixed Cement Concrete

The concrete shall consist of one part cement, two parts fine aggregate and three parts coarse aggregate. This composition shall be thoroughly mixed with sufficient water to obtain a workable mixture, but not to exceed 5.3 gallons per bag of cement. For each cubic yard of concrete use 6.75 to 8.00 bags of cement. All concrete shall be white in color unless approved by the Bureau of Engineering.

Commercially available bagged concrete shall be prohibited without prior written approval by the Engineering Bureau before work is performed, and on a case-by-case basis. Commercially bagged concrete may be deemed an acceptable alternative in small batches (under 1 Cubic Yard), provided it meets the minimum compressive strength of the Bureau of Engineering's specifications. All other specifications shall apply to bagged concrete mixes, including placement parameters, curing methods, and maintenance requirements

22. Sealer

All new concrete shall be cured and sealed in accordance with Section 676.3(g) from PennDOT Publication 408. After curing is completed, remove curing compound by water blasting and apply a penetrating sealer in accordance with Section 676(g) and the manufacturer's instructions. Notify the Engineering Bureau Inspector of the curing method and sealer proposed prior to application.

23. Laboratory Testing

Any and all tests of materials required by the Bureau of Engineering shall be performed by a testing laboratory approved by the Bureau of Engineering at the expense of the permittee. At least one complete material test, including a minimum of 7- and 28-day cylinder breaks, is required for every 30 cubic yards of cement concrete placed and every 20 cubic yards placed thereafter. All materials that are found to be unsuitable must be immediately removed from the job site, including the entire lot of concrete represented by a failed sample. The Bureau of Engineering reserves the right to require cylinder or core samples of any concrete batch or permittee at any time, for any reason, at the permittee's expense.

The contractor shall provide a slump cone, air meter and thermometer at the job site and perform a minimum of one slump, air content and temperature test per each day cement concrete is placed in the presence of the Bureau of Engineering. The contractor or laboratory is required to provide high-low thermometers to monitor curing conditions of field cured cylinders.

All testing shall conform to section 704 of PennDOT Pub. 408. Contractors shall submit Quality Control plans prior to testing.

The contractor shall provide all delivery slips of materials or material certifications as directed by the Bureau of Engineering.

PART 3. CURB CONSTRUCTION REQUIREMENTS

24. Dimensions

Concrete curb shall be seven inches in width at the top and nine inches at the bottom, the increase in width being on the face of the curb, and 18 inches in depth. A standard reveal of 6 inches is established for the construction of new curb, unless existing conditions prohibit this reveal as verified by the Bureau of Engineering. Curb reveal in most cases shall match existing, surrounding conditions and elevations.

Full depth forms shall be used to ensure that the poured concrete does not flow under existing pavement. The City inspector shall be notified and present to inspect the templates and forms prior to the concrete being poured. Face forming is not permitted unless the City inspector has been to the site to verify the base and sub-base conditions of the roadway and written approval has been received by the Bureau of Engineering. Face forming the street side of the curb will not be permitted unless circumstances are present that make forming the curb infeasible as determined by the Bureau of Engineering.

Curbs shall be constructed with control joints not less than 4 feet and not exceeding 10 feet, with expansion joints at a maximum of 30 feet. All control joints must be perpendicular to the curb. Sawcutting of expansion joints is expressly prohibited. Sawcutting of control joints is permitted.

25. Driveway Aprons

A separate Driveway Permit is required for curb and/or sidewalk work performed on all new or modified driveways. A modified driveway is defined as any change to the width of an existing driveway apron. These permits are obtainable from the Bureau. The reveal at curb depressions shall be between 1/2 inches and 1-1/2 inches above the street surface for driveway aprons. For driveway aprons primarily designated commercial, such as public garages, gas stations, and places of business, the length of this depressed curb shall not exceed 40 feet without a safety island. This safety island shall not be less than 15 feet in length as measured along the pedestrian line of travel. For all other driveways the length of depressed curb shall not exceed 20 feet. All depressed curbs greater than 20’ in length shall be approved by Bureau of Engineering.

Pipes, grates, wood, or other bridging shall not be placed in the gutter to form an improvised driveway access. The length of the ramp between the depressed curb and the regular curb should be no more than 10 percent slope for pedestrian safety and ADA compliance. No curb returns are permitted within sidewalks at driveways. Straight depressed curb shall extend across all driveways. Exceptions for industrial areas and landscaping strips shall be made at the discretion of the Bureau of Engineering. All driveways in excess of 40 feet width will require an area of pedestrian refuge.

26. Excavation Procedures

Mark proposed excavation area and call PA-1-Call a minimum of 3 days prior to digging, or as designated by current state law (PA Act 287). The permittee shall cleanly sawcut the existing pavement straight and parallel to the proposed curb at a maximum distance of 24 inches from the proposed face of curb prior to the removal of the existing curb.

27. Curb Base

Excavations shall be made to the required depth. Coarse aggregate not less than four inches thick shall be placed under the curb and thoroughly compacted.

28. Curb Forms

Forms shall be of steel or wood, free from warp. Forms shall be at least 18 inches in depth. A front and back form shall be used except where a good concrete sidewalk, which is not to be removed and has not been undermined, abuts the new curb. Curb is to be straight with minimal deformation and is subject to corrective action at the discretion of the Bureau at no further cost to the City. Forms shall be accurately set to line and grade in such a manner as to prevent settlement or displacement.

In all instances a full depth curb form is required on the face of the curb unless otherwise approved by the Bureau of Engineering. The paving and/or road sub-base must not be used as a form. The sidewalk side curb form shall be set in a vertical position. Details of forms inconsistent with the dimensions herein included shall be submitted to the Bureau of Engineering for approval prior to use.

29. Finishing

All forms must be removed and curbs rubbed out the same day as the pour. Minor defects shall be filled with mortar composed of one part Portland cement and two parts fine aggregate. The top and face of the curb from the top to nine inches below the top shall be finished while the concrete is still green, by rubbing the surface with a carborundum stone, soft brick or wood block and water until a smooth even surface is produced. The top and face shall be rubbed again as described after the concrete has hardened. All joints in the curb shall be promptly opened from top to bottom and edges adjacent to the joints shall be sharp and clean cut. The use of a magnesium hand float for finishing the top of freshly poured curbs is permitted without the need for additional rubbing.

30. Backfilling

After the concrete has hardened sufficiently, but not less than 24 hours or after inspection of the work (whichever is longer), spaces adjacent to the curb on the sidewalk side shall be refilled with coarse aggregate in lifts of not more than four inches in depth as specified herein. Each lift shall be thoroughly compacted to the required elevation.

For curbs along bituminous paved streets, the permittee shall place 2A/2A Modified stone on the street side of the curb as shown in the Engineering Details, compacted in lifts, using a vibratory plate compactor or mechanical rammer. Following stone sub-base, paving base and wearing course shall be installed as follows, as directed by the Bureau of Engineering:

- 4.5” of 25mm Superpave, followed by 2” of 12.5mm Superpave to finished grade; or
- 5” of 25mm Superpave, followed by 1.5” of 9.5mm Superpave to finished grade; or
- 6.5” of 25mm Superpave to finished grade, where roadway milling, and resurfacing is proposed within the same construction season, or within 6 months of curb work.

For curbs along concrete base streets, the permittee shall place coarse aggregate on the street side of the curb in compacted lifts up to the lower limit of the existing adjacent concrete street base. Then the permittee shall place the concrete base within the confines of the excavation equal in depth to the existing street base. A pre-approved flowable concrete is hereby permitted for use in this application. The Bureau of Engineering may permit a 25mm Superpave bituminous material in lieu of concrete base, at its discretion.

31. Curing

Concrete work shall be protected from rainstorms and other damage or vandalism for a period of not less than 24 hours. Permittee is responsible for all damage resulting from vandalism and shall report all instances to the Bureau of Police and file a report.

Within the period of 24 hours after concrete placement, the permittee shall prepare all finished surfaces, regardless of curing method, for protective coating by removing all surface dirt, debris, oil, grease and foreign matter. The protective coating shall be applied as directed by the manufacturers instructions.

The permittee shall be responsible for not allowing pedestrian traffic to use the concrete surfaces during application and drying periods.

32. Curbing Substitutions

When a curb replacement could negatively impact a healthy tree, a steel plate or channel or other durable materials may be proposed for use in lieu of a concrete curb. All installations in this manner shall subject to review and approval of the Bureau of Engineering to ensure roadway edge preservation and drainage implications.

PART 4. SIDEWALK DESIGN AND CONSTRUCTION REQUIREMENTS

All City of Lancaster sidewalks shall be a minimum of five (5) feet wide with a cross grade of no more than two percent (2%), and built to City of Lancaster specifications. Consideration shall be given to ADA requirements and other applicable standards when determining the technical feasibility, lines and grades for sidewalk, curbs and other hardscape. Transition from walkable to curb should be less than ten percent (10%).

33. Sidewalk Restoration after Curb Construction

The permittee shall be required to restore existing sidewalks to the first control or expansion joint behind newly constructed curbs, unless otherwise approved by the Bureau of Engineering. Sidewalks shall be replaced in accordance with the requirements set forth herein. If the project is located within the boundaries of the Streetscape District, then additional requirements will apply per the Streetscape Design Guidelines. Landscaping or brick banding, where applicable, will be required when at least 25 percent of the sidewalk along the curb is being replaced at a property, or whenever activities other than routine care and maintenance are commenced. If landscapes, the landscaping shall allow for a reduction in impervious area and to reduce stormwater runoff. The width of the landscaping shall be at least 3 feet in width unless otherwise authorized in writing by the Bureau of Engineering and shall allow for a minimum sidewalk width of 5 feet for pedestrian traffic (6 feet in the downtown investment or central business districts). Brick banding shall be per the Streetscape Design Guidelines, as directed by the Bureau, or as necessary to match existing conditions of adjacent or nearby properties on the same block of the street.

34. Dimensions

All sidewalks in the City of Lancaster must be a minimum of 60” width of 2% or less cross-slope (6’ width in downtown investment or central business districts). Sidewalks of greater width may be required by the Bureau based upon pedestrian volumes and generators such as housing density, proximity to schools, parks, bus stops, and persons with disabilities. Exceptions to this requirement are on a case-by-case basis and only permitted with the written approval of the Bureau of Engineering.

The City of Lancaster requires ADA-compliance for sidewalks while also encouraging the installation of street trees, landscaped areas, grass strips, and other pervious and porous surfaces for stormwater mitigation.

35. Slope

The slope of the sidewalk toward the curb shall, under regular conditions in the pedestrian access route, not exceed 2% slope for a minimum width of 60” to conform to the City’s ADA regulations. All variances to this requirement must be approved in writing by the Bureau of Engineering.

36. Obstructions

Where existing structures such as light standards, poles, fire hydrants, etc. are within the limits of the sidewalk area, such structures should be wrapped with expansion material as directed by the Bureau and referenced in Section 9. Where obstructions such as utility poles or hydrants are replaced, disturbed sidewalks shall be replaced in full sections based on the

pre-existing or predominant spacing of scoring. “Boxing out” of utilities in the sidewalk (utility boxes, poles, hydrants, etc) with expansion or control joints is prohibited.

Where obstructions such as a utility pole will narrow the accessible route under 48”, a sidewalk bump-out or addition will be required around the obstruction to maintain adequate sidewalk width. Refer to Detail #5 on Sheet 1 of the Curb and Sidewalk Details for more information.

Tree openings shall not be larger than will allow a minimum four foot (4’ or 48”) walk. Spaces left open with City approval shall be filled to the level of the sidewalk with mulch, sod or grass on top of a 6” topsoil layer, with native soil components below.

It shall be the responsibility of the permittee to reset or have reset all castings within the limit of his work. All sewer vent caps, water boxes, gas shut-off boxes, etc., shall be brought to finished grade within 1/4" of a flush condition to meet ADA requirements. All water boxes, gas shut-off boxes, sewer vent caps, etc., if broken during construction, shall be replaced by and/or at the expense of the permittee. Any re-work required related to utility lids or valves shall be at the permittee’s expense. Any abandoned water boxes, shutoff valves, sewer vents etc. should be sealed in an acceptable method as approved by the Bureau.

37. Driveway Aprons

The sidewalk at depressed curbs shall start at the back of the curb and transition in grade to the proposed driveway. At least 5 feet of the overall driveway width shall not exceed 2 percent cross slope for pedestrian use as a sidewalk to meet ADA requirements. Sidewalks of greater width may be required by the Bureau based upon pedestrian volumes and generators such as housing density, proximity to schools, parks, bus stops, and persons with disabilities.

Concrete sidewalk through residential or low-volume commercial driveway areas shall be six inches (6”) in thickness and reinforced with 6" x 6" 8-gauge welded wire fabric (WWF, or “wire mesh”) or approved equivalent. The maximum allowed spacing between joints shall be 10 feet. Joints shall be full-depth in the concrete.

Concrete sidewalk through industrial or high-volume commercial driveway areas shall be, eight inches (8”) in thickness and reinforced with a single mat of #5 rebar, 12” o.c., or approved equivalent. Mats shall be placed with a minimum of 4” cover on top and bottom. The maximum allowed spacing between expansion or control joints shall be 10 feet. Expansion joints shall be full-depth in the concrete.

Detectable Warning Surfaces (DWS) shall be installed at the edge of all driveway aprons that serve parking lots as described in City Code Chapter 202. DWS will be required in all high-volume residential, all commercial, and all industrial driveways and access drives. All DWS mats shall conform to ADA regulationsand be a minimum of 24”x60” but should match the width of the Pedestrian Access Route. DWS shall be ADA Solutions brick red or Whitacre Greer domed bricks shall be (#32) or (#33); if in concrete the color shall be (#52) or approved equal.

Existing driveway aprons or depressed curbs that serve a property and have been abandoned for a period of 12 months shall be removed and replaced with standard curb and sidewalk upon notice from the Bureau of Engineering. Future re-installation will be subject to approvals and permitting.

38. Materials Other Than Concrete for Sidewalks

Glen-Gery 53-DD bricks are approved for use in sidewalks throughout the City of Lancaster, and are required for use in the Streetscape District. Bricks may be wet-set in mortar or concrete, installed on a reinforced, draining concrete base, or installed on a concrete sand or stone dust setting bed. All brick sidewalks shall be set over a subbase of PennDOT 2A/2A modified. Bricks shall be swept with a tan polymeric sand joint filler.

Where it is desired to repair sidewalk to remove trip hazards or remove damaged materials, it shall be determined by the Bureau of Engineering whether such repair may be made, or a new sidewalk be laid.

Under no circumstances will material other than brick or concrete be used without the written consent of the Bureau of Engineering. Other engineered materials, particularly those of recycled materials and/or with stormwater or tree health benefits, are encouraged for use in residential areas.

39. Base Material and Subgrade

The subgrade shall be excavated to a depth of 8 inches below finished grade of the sidewalk. The subgrade material shall be firm and stable and hand-compacted. All unstable material, if encountered, shall be removed to whatever depth required. The subgrade shall be fine graded with rakes and shovels. The base shall consist of four inches (4”) of coarse aggregate (AASHTO #57 or PennDOT 2A/2A Modified) and mechanically or hand tamped in place. All areas within 12 inches of any structure shall be hand tamped. Six inches of coarse aggregate shall also be used for driveway base.

40. Sidewalk Forms

Forms shall be of wood or metal, straight, free from warp and of sufficient strength to resist the pressure of the concrete without springing. If of wood, they shall be of two inch planks surfaced on the inside and the top. Forms shall be of depth equal to the depth of the concrete. 2”x4” boards (3.5” x 1.5” nominal) boards shall be acceptable for 4” concrete forming, provided they are properly supposed and supported and kept 1/2" above the base to ensure a full 4” concrete depth is maintained.

Sidewalk forms are to be straight with minimal deformation. Sidewalk joints that are not straight due to finishing or improperly supported forms are subject to corrective action at the discretion of the Bureau at no further cost to the City.

41. Finishing Flatwork

This work consists of pouring concrete of an approved mix four inches thick in one layer. Concrete shall be scored or sawcut into blocks (control joints) no more than 30 square feet in area or as directed by the Bureau of Engineering. Concrete sidewalks shall be replaced in full sections based on the existing or predominant scoring spacing. “Boxing out” of utilities or cutting of sidewalk slabs into smaller sections is prohibited unless approved prior by the Bureau of Engineering. All scoring shall extend at least 5/8 inch into the slab. Saw cutting is permitted in lieu of control joint scoring but is not approved in lieu expansion joint installation. Wet-cutting methods shall be utilized for all concrete sawcutting to ensure effective dust suppression. Sawcutting operations are prohibited when the ambient temperature is below freezing (32°).

Ends of all sidewalks shall be finished square and to a vertical line, and shall not extend beyond property or curb lines unless approved by the Bureau of Engineering. Side forms shall not be removed within 24 hours after the concrete has been placed unless approved. After stripping the forms, minor honeycombed areas shall be filled with mortar composed of one part cement and two parts fine aggregate.

After the concrete has sufficiently hardened, the permittee shall evenly broom finish the concrete so that the broom strokes are at 90 degrees to the curb. Broom strokes on pedestrian ramps shall be parallel to the curb.

A swirl finish is also acceptable if the property owner desires such a finish. A wooden or rubber hand trowel or a magnesium hand float are acceptable for initial concrete finishing operations.

Impressed cement concrete, also known as stamped concrete, shall be permitted, only if approved by the Bureau of Engineering. Stamped concrete is not permitted for use in areas requiring ADA-compliance without express consent of the City.

42. Backfilling

After the concrete has hardened sufficiently, spaces adjacent to the sidewalk shall be refilled with quality screened topsoil, shredded hardwood mulch, and sod (or seed and straw mulch). If hardscape materials such as concrete, bricks, pavers, asphalt, etc. were present before construction, they are required to be re-installed to match existing upon completion of the new work. Permittee shall make every attempt to salvage abutting materials for re-use to ensure proper match.

43. Curing

Concrete sidewalks shall be protected and cured in the same manner as specified for curbs.

PART 5. SPECIAL REQUIREMENTS

44. Pedestrian Ramps

Pedestrian ramps shall be installed at street intersections designated for ramps by the Bureau of Engineering. Exact ramp locations and the proper number of ramps to be installed at specific street intersections will be determined by the Bureau of Engineering. Construction details and installation procedures for ramps shall be secured from the Bureau prior to installation work. All materials required for construction shall conform to the specifications as provided herein. The cross slope of all pedestrian ramps may not exceed 2.0 %. The contractor shall be required to replace or rebuild any ramps that fail final inspection.

45. Concrete Porches and Steps; Property Lines

Where a concrete porch or step(s) is desired, a Building Permit countersigned by the Bureau of Engineering shall be secured. Where such a step or porch extends in front of the building line, it shall be constructed under the supervision of the City Building Official. In no case shall a replacement porch or step(s) be permitted to be larger than the replaced structure if encroaching into the right-of-way, unless express written consent is obtained from the Bureau of Engineering.

When new concrete abuts existing concrete or other structures, the existing concrete shall be transitioned into the neighboring property and be separated by expansion joints, unless otherwise approved by the Bureau of Engineering.

46. Sidewalk Utilities

All sewer vents, water and gas curb stop boxes shall be set to grade and protected with two layers of 4 Mil polyethylene and tape. Permittee is responsible for maintaining accessibility, functionality and cleanliness of all vents, valve boxes, etc. and ensuring that they are flush with the surrounding surfaces and provide a smooth walking path (within 1/4” to meet ADA requirements).

All utility poles and fire hydrants located in concrete shall be wrapped with a 1/2” pre-molded expansion joint material, or fiber or asphalt expansion material with a removable “zip-strip” and caulked with Sikaflex 1A “Limestone”. Concrete sidewalks shall be replaced in full sections based on the pre-existing or predominant spacing of scoring. “Boxing out” of utilities in the sidewalk (utility boxes, poles, hydrants, etc) with expansion or control joints is prohibited.

47. Sidewalk Repairs

No patching, grinding, or cutting of curb or sidewalk is permitted without written consent of the Bureau of Engineering. Grinding over one inch of sidewalk will not be permitted. Patching with non-cement products will not be permitted except for temporary repair.

Repairs may be required when all or part of a sidewalk within the right-of-way is not compliant with current City codes and regulations. Such noncompliance includes, but is not limited to, heaved blocks; severely cracked, broken or missing blocks; inappropriate or non-permitted materials; or when required by the Bureau of Engineering.

48. Trimming of Tree Roots

Tree roots with a diameter of one inch or less may be trimmed without prior consultation. Where a root exceeding one inch in diameter requires cutting or grinding as a result of curb or sidewalk construction, the contractor shall cease work in the immediate area and arrange for an assessment by the City Arborist while the root is exposed. In all cases, no roots larger than one inch in diameter shall be cut or ground without prior approval by the City Arborist.

49. Construction Details

Construction Details for the Bureau of Engineering related to curb and sidewalk construction are herewith attached and available for inspection in the Engineering Office at City Hall, Engineering Office, 120 North Duke Street, Lancaster, Pennsylvania.