CITY OF HARRISBURG

WANDA R.D. WILLIAMS
MAYOR

Department of Engineering & Development
1002 North 7th Street, Harrisburg, PA 17102
(717) 255-3091

Procedures Manual & Standard Specifications

For Street Cut Permits which include sidewalk and curb work

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INDEX

PERMIT REQUIRED 1
PERMIT APPLICATION 2
BOND CONDITIONS AND AMOUNTS 2
STREET CLOSURES AND NO PARKING 2
MAINTENANCE AND PROTECTION OF TRAFFIC, PUBLIC NOTIFICATIONS 3
STREET CUT EXCAVATIONS, TRENCHING, CITY NOTIFICATIONS 3
STREET RESTORATION AND MAINTENANCE 3
COMPACTION AND BACKFILL 4
ASPHALTIC CONCRETE BASE PAVING 5
TEMPORARY RESTORATION AND USE OF STEEL PLATES 5
WEATHER LIMITATIONS 5
MATERIALS 5
CEMENT CONCRETE BASE PAVING 6
BITUMINOUS CONCRETE CURB 6
TREES 6
PROTECTION OF SEWER SYSTEM/STORM WATER INLETS 6
RESTORATION OF ADJACENT SURFACES 6
SIDEWALKS AND CURBS 7
ADA ACCESSIBLE CURB RAMPS 7
FEE SCHEDULE 8

FORMS, APPLICATIONS AND SAMPLES

STREET CUTTING BOND APPLICATION (UTILITY COMPANIES) 9
STREET CUTTING BOND APPLICATION (NON UTILITY COMPANIES) 10
STREET CUT PERMIT APPLICATION FORM 11
SKETCH FORM AND GENERAL APPLICATION INSTRUCTIONS 12
SAMPLE SKETCH AND SAMPLE TRAFFIC CONTROL PLAN 13
SUPPLEMENTAL PERMIT APPLICATION FORM 14
STREET CLOSURE REQUEST FORM 15
GENERAL SIDEWALK APPLICATION INSTRUCTIONS 16
STREET CUT PERMIT APPLICATION FORM 17
SAMPLE RESIDENT NOTIFICATION FORM 18

DETAILS

BITUMINOUS BASE RESTORATION DETAIL D-1 19
CONCRETE BASE RESTORATION DETAIL D-2…….…….20
DRIVEWAY DETAIL D-4 21
GRANITE CURB DETAIL D-7…..……...…….22
CURB AND SIDEWALK DETAIL D-8…….....……...……..23
CURB AND SIDEWALK WITH GRASS DIVIDER D-18……..……...……..…….24
CURB AND SIDEWALK WITH BRICK DIVIDER D-19 …...….....…….25
STORM INLET SEDIMENT CONTROL DEVICE DETAIL D-24…….. 26
PENNDOT RC STANDARDS FOR CURB RAMPS AND SIDEWALKS .....27 - 40
PENNDOT TABLE A CEMENT CONCRETE CRITERIA 41

LINKS

Manual on Uniform Traffic Control Devices 2009 Edition with 2 Revisions from 2012
https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/mutcd2009r1r2edition.pdf

Penn DOT Pub-213
https://www.dot.state.pa.us/public/PubsForms/Publications/PUB%20213.pdf

ADA Accessibility Survey Instructions
https://www.ada.gov/pcatoolkit/app1curbramps.pdf

PennDOT Pub-408/2016
https://www.dot.state.pa.us/public/PubsForms/Publications/Pub_408/408_2016/408_2016_IE/408_2016_IE.pdf

These Specifications and any future updates can be found on-line at:
http://cohbg.maps.arcgis.com/sharing/rest/content/items/bd067cf7ef924d5282d0b4570cdabd8c/data

CITY OF HARRISBURG, PA

PROCEDURES MANUAL AND STANDARD SPECIFICATIONS

STREET, SIDEWALK, CURB - CUTS AND EXCAVATIONS

SECTION 200

200.1 PERMIT REQUIRED

No person, firm or corporation shall cut or dig open any roadway or sidewalk within the City Right of Way (ROW) without first obtaining a "Street Cut Permit" from the Office of The City Engineer. Street Cut Permits will be valid for up to six (6) months from the date of issue. All permitted work shall be completed within those six (6) months. A time extension permit supplement may be issued to extend the completion time an additional six (6) months. The cost for each supplement is Two Hundred Fifty Dollars ($250). No more than two supplemental permits may be granted. A separate permit is required for each property address. An exception may be granted for major trench work serving multiple addresses.

When a permit reaches the six (6) month expiration date and the work has not been completed and accepted by the City Engineer or his or her Representative, the bonding company will be notified to obtain funds to complete said permit. It is the Permittee's responsibility to apply for a time extension supplement prior to the original permit expiration date. Permits are invalid until they are paid in full by check or money order, payable to "City Treasurer" at the receipt of your permit or within 30 days of monthly invoice date, if applicable.

All street cuts made to access public utilities must be submitted in the name of the utility facility owner or operator providing the utility service. The term "public utility" is defined in Section 102 of the Pennsylvania Public Utility Code and for the purpose of these Procedures and Specifications includes municipal authorities created under the Municipal Authorities Act and any party granted an easement in the public right-of-way per City Ordinance Chapter 7-901. An application for public utility cut may not be in the name of a contractor, nor in the name of a person being serviced by the utility.

Curb, sidewalk, driveway cuts and any other work not involving a public utility shall be submitted in the name of the property owner or contractor for the property owner.

An emergency dig is defined as "the repair of a utility which must be made to restore service, to avoid property damage or to eliminate danger to the public". Notice of an emergency pavement cut shall be given to the office of City Engineer by phone, email or text during normal business hours. If after normal business hours, notification shall be given at the beginning of the next business day. An application shall be made for a permit for all emergency work within seventy-two hours after the work is started.

Water and Sewer applicants need to obtain and complete the Street/Sidewalk Cut Permit Application on Capital Region Water's website. https://capitalregionwater.com

Provide 2-year $25,000 bond listing Capital Region Water as oblige, Certificate of Insurance listing Capital Region Water as additionally insured, and payment with Application in- person at:

CRW's Customer Service Center
3003 North Front Street
Harrisburg, PA 17103

200.2 PERMIT APPLICATION

Application for a Street Cut Permit, (Copy on page 11) shall be made in writing on the forms prescribed by the City Engineer. The application shall indicate the property street address, location and description of the area for which such cut(s) or opening is to be made; the name and address of the applicant; dimensions; purpose of the proposed cut or opening; approximate time required for the completion of the work, and a copy of an approved Work Zone Traffic Control figure (Pub 203). Applications must be signed by the applicant agreeing to all terms stated on the form and within these specifications. You can request an electronic pdf application form from the City Engineer's Office.
Application for supplemental time extensions (copy on page 14) shall be made in writing on forms prescribed by the City Engineer. The application shall indicate the original permit number, expiration date and a written explanation as to the reason for the supplement request. To avoid work delays, submit your applications to the Office of the City Engineer at least three (3) working days in advance of the anticipated date work is to commence.

200.3 BOND CONDITIONS AND AMOUNT

Before the issuance of a Utility Street Cut Permit, the applicant therefore, as principal, shall execute and file with the Office of the City Engineer a street cut bond conditioned that the applicant shall fully and completely perform all acts and requirements with respect to the restoration and maintenance of the highway and the payment of the cost of such restoration and maintenance. A reputable surety company licensed to do business in the Commonwealth of Pennsylvania shall execute such bond. The bond shall remain in effect for a period of two years from the acceptance date of the final restoration or five years from the date of issuance, whichever is longer. A new bond shall be submitted every twelve month period and shall remain in effect as provided in this section. The bond amounts shall be Fifty-Thousand Dollars ($50,000.00) for public utility companies and Ten-Thousand Dollars ($10,000) for street cuts and any other work not involving a public utility for curb improvements, the applicant may post financial security in the form of a bond, letter of credit or other approved form in the amount of $150 per square yard. (See pages 9 and 10 for forms)

200.4 STREET CLOSURES AND NO PARKING

City ordinances and Department regulations do not permit closure of City streets or sidewalks as a matter of course with issuance of a Street Cut Permit. Specific approval to close a street or to materially alter traffic patterns must be obtained from the City Engineer or designee. (See Request Form on page 15) In their absence or in an emergency, the Harrisburg Police Bureau may grant approval. In every case, the Permittee's request to close or alter traffic must include precise location, reason, work methods, time and date, and what alternatives were considered. The City reserves the right to require work hours of 9:00 a.m. to 3:00 p.m. and 6:00 p.m. to 6:00 a.m. in heavily traveled streets. Permittees will be required to place steel plates, pinned in place, to maintain traffic flow during non-working hours in such areas (also see Section 200.10 Weather Limitations). Such authority shall include, but not be limited to, the power to require that work be done on a continuous, around-the-clock, twenty-four hour basis. It is the Permittee's responsibility to notify City Parking Enforcement (717-255-3141) two days prior for Temporary No Parking signs to be posted. For parking areas controlled by Metropolis, you must contact them at 717-234-2274.

200.5 MAINTENANCE AND PROTECTION OF TRAFFIC, PUBLIC NOTIFICATIONS

All permittees shall furnish material and traffic control devices necessary for the maintenance and protection of traffic and Pedestrians, conforming to PA DOT Work Zone Traffic Control 67 PA Code, Chapter 203, until the roadway is restored to the condition as required. If at any time a detour may be required, the Permittee shall first contact the Office of the City Engineer.

All permittees are responsible to notify businesses and residences that will be affected by street and sidewalk work that blocks, restricts vehicle or pedestrian traffic flow or prevents the usual parking in the area affected by the work. This notification shall be given by "door to door" notices in the work site area at least 48 hours prior to commencing work. This notification must indicate the area effected, dates and times of work, type of work being done and 24 hr. contact information on permittee's company letterhead. (See sample notice on page 16)

200.6 STREET CUT EXCAVATIONS, TRENCHING, CITY NOTIFICATIONS

All existing street pavements shall be saw cut. Cut shall be full depth of the concrete or base thickness and care shall be taken in removing the concrete to insure that the slab breaks on the next line produced by the concrete saw. Asphalt concrete pavement and all excavated material shall be removed from the site. There shall be no storage of any material or steel plates on the street surface.

All excavation, trenching and shoring, and the like, shall be performed in a manner that meets with OSHA Department of Labor, Safety and Health regulations for construction. It is the responsibility of the permitee to understand and abide by all OSHA regulations concerning trenching and shoring which is outlined in the OSHA Technical Manual, Section V, Chapter 2.

Per OSHA requirements you must submit, with your application, the contact information of the

appointed OSHA Competent Person when digging more than four (4) feet deep.

All permittees are responsible to notify the Office of the City Engineer in advance of all excavations within the City right of way.

All permittees are responsible to notify the Office of the City Engineer prior to final restorations in order to schedule the inspection visit to each location/site.

200.8 STREET RESTORATION AND MAINTENANCE

It shall be the duty of the permittee, in the manner set forth in this chapter, to cause such highways and / or sidewalks to be restored within six (6) months from permit issue date or within six (6) months from time extension supplement issue date.

Permitee is to maintain such portion of the highway and sidewalk for a period of two (2) years from the date of such final restoration, subject at all times to the approval of the City Engineer. In the event the permittee fails to maintain such restoration, after having received written notice from the City Engineer, the City Engineer will instruct the Permittee's bonding agent to cause the proper restoration to be performed and maintained for the period required herein.

When a longitudinal street opening longer than ten (10) feet and wider than three (3) feet is made in the highway pavement, the Permittee shall mill and overlay the traffic lanes in which the opening was made for the entire length of opening.

When two or more transverse street trench openings are made in the highway pavements less than 100 feet apart, the Permittee shall mill and overlay the traffic lanes in which the openings were made for the entire length of the highway between such openings.

When four (4) or more street openings are made by the same Permittee in the highway pavement less than 100 feet apart, the City Engineer or Representative may require the Permittee to mill and overlay the entire disturbed area.

When the street opening is to be closer than three (3) feet from the edge of the existing pavement, the opening must be extended to the edge of the pavement.

When the permitted opening is to be closer than five (5) feet from the edge of an existing patch or patches in the pavement, the restoration shall be extended to include said patch or patches.

All Permittees test boring, or drilling into any City highway for location of leaks or venting of leaks will be required to backfill holes with 1-B stone to 1 1/2" below highway surface and fill and compact holes with asphalt material.

Pavement Markings: It is the permittee's responsibility to replace all Pavement markings that are removed or damaged. All material shall meet with the approval of The City Engineer or Representative.

200.8 COMPACTION AND BACKFILL

Do not commence with backfilling of any part of the excavation until an Engineering Representative has inspected such part.
Backfill each material at optimum moisture content and compact to a modified proctor density of not less than 95%. Compaction to be performed using vibrating compaction equipment or mechanical tampers. Hand tamp around utilities, if necessary.

Backfill trenches to contours and elevations with unfrozen materials.
All backfill material shall be either 2 RC or 2A modified stone as specified by PA DOT Form 408, Section 703.2 and 703.3 and placed in 6 inch (6") lifts to one foot (1') below the subgrade elevation for streets or poured surfaces.

Flowable Fill may be used for backfill of utility cuts under the street pavement with permission from the City Engineer and must meet the following PA DOT specifications:

Maximum Allowable Compressive Strength at 28 days of 200 psi.
Mix Design: 90lbs. Cement; 400lbs. Fly ash; 2652lbs. Sand; 480lbs.
Water. (57.6 gal.) 7" to 8" slump.

200.9 ASPHALTIC CONCRETE BASE PAVING

Streets with existing bituminous base or concrete base which predates 1940 as verified by the City Engineer or his or her Representative, final street restoration must consist of 8" min. of superpave asphalt mixture design, 25 MM binder course 0.3 ESALS. Place 1 ½" min. superpave wearing coarse asphalt mixture design, PG-22 < 0.3 million ESALS, 9.5 MM, SRL - L to match the existing street surface. (Detail D-1 on page 17)
Seal all edges with asphalt sealer set per PA DOT 408 section 469 and paint the date completed with white spray paint. Where concrete base restoration is required (See 200.13 Cement Concrete Base Paving).

200.10 TEMPORARY RESTORATION AND USE OF STEEL PLATES

The use of temporary cold patch may be used. Steel plates may be used under the following conditions.

1. Cut must be less than 6 feet in either length or width.
2. Plates shall be extended a minimum of 18 inches from each edge of the opening and must be secured to the pavement to prevent movement and noise by the use of pins, bolts and cold patch under and around the edges.
3. Permittee will not be allowed to place steel plates on City streets between October 31 and April 1 unless approved by the City Engineer.
4. Proper signage must be used indicating that steel plates are in use.
5. The thickness and material grade of the plate shall be sufficient to carry the PennDOT and AASHTO wheel load as certified by a licensed professional engineer.
6. Steel plates shall not be permitted to remain on street for more than 24 hours unless approved by the City Engineer.

Under no circumstances will the City permit a street cut to remain stone filled without a cover as mentioned in this paragraph.

200.11 WEATHER LIMITATIONS

Do not place asphalt or apply bituminous coatings when base surface temperature is less than 40 degrees, or surface is wet or frozen.

Utilize a temporary surface of cold patch, four inches (4") in depth, if final restoration cannot occur due to weather limitations.

200.12 MATERIALS

Bituminous tack coat set per PA DOT 408 section 460; Asphalt joint sealer set per PA DOT 408 section 469; 8" min. superpave asphalt mixture design, 25 MM binder coursc 0.3 ESALS; 1 1/2" min. superpave wearing coarse asphalt mixture design, PG-22 < 0.3 million ESALS, 9.5 MM mix, SRL - L.

200.13 CEMENT CONCRETE BASE PAVING

Streets with existing concrete base installed after 1940 with an opening exceeding four feet (4') in width will require concrete base restoration. (Detail D-2 on page 18)

The permittee will be required to dowel. Epoxy coated dowel bars 1-1/4" x 18" shall be installed in the concrete base placed at twelve inch (12") centers measured longitudinally in the direction of the traffic flow, place dowel bars to centerline and surface of the slab in conformance with PA DOT Specs 408.

Reinforcing welded steel wire fabric, plain type. ANSI/ASTM A185 uncoated finish may be required.

Where bituminous wearing course is to be used as the surface course, 1 ½ "min, WMA superpave wearing coarse asphalt mixture design, pg-64-22, 0.3 to < 10 million esals, 9.5 mm mix, SLR - H is to be applied. Concrete base must match the existing concrete base and the depth of the bituminous areas must compensate to match the existing surface.
Apply tack coat in accordance with PA DOT Pub.408, Section 160 over existing surface prior to spreading of new bituminous course. Do not apply after sunset or on a wet surface.

Paint the date completed with white spray paint upon the completed patch.
Cement concrete shall be Class AA 500 psi mix as per PA DOT 408 standards.

The Office of the City Engineer shall be notified twenty-four (24) hours prior to placement of concrete.

200.14 BITUMINOUS CONCRETE CURB

This section will only be used in limited conditions where approved by the City Engineer.

200.15 TREES

No trees are to be removed, cut, trimmed or pruned without first obtaining the approval of the property owner and the City Bureau of Parks Maintenance.

200.16 PROTECTION OF SEWER SYSTEM/STORM WATER INLETS

No contractor may allow dirt or debris to enter the Sewer system. All stormwater inlets within the drainage area of the excavation must be protected by a filter system that will prohibit water from carrying silt or other debris into the sewer. Acceptable means of protection are the use of a filter material insertion into each inlet. (Detail D-24 on page 24).

200.17 RESTORATION OF ADJACENT SURFACES

It is the permittee's responsibility to properly restore any and all adjacent surfaces disturbed by the action of work in the right-of-way to equal or better condition than existed prior to start of work. Sidewalks, driveways, curbs, lawn or grass areas will be restored in accordance with City details. All work is to be done at the contractor's cost and expense to the satisfaction of the City Engineer and the property owner.

200.18 SIDEWALKS AND CURBS

The following details are the standard for all construction and repair involving curbs and sidewalks unless otherwise approved by the City Engineer. Details are found on the following pages:

D-4. Driveway - Page 19

D-7. Granite Curb - Page 20

D-8. Concrete Curb and Sidewalk - Page 21, [1/2" expansion joints every 20'-0" OC control joint 5' -0" and match existing joint]

D-18. Concrete Curb and Sidewalk with Grass Divider - Page 22

D-19. Concrete Curb and Sidewalk with Brick Divider on Concrete - Page 23

All sidewalk work in historical districts must obtain Historic Architectural Review Board (HARB) approval.

200.19 ADA ACCESSIBLE CURB RAMPS

For sidewalk and/or curb work at a street corner ADA ramps are required. ADA ramps must be upgraded to conform to the latest ADA standards, as required by PennDOT District 8 guidelines and applicable design standards. Designs must be reviewed by the City Engineer for approval prior to construction. The design submission should include a transmittal letter and ADA Ramp Plans, signed and sealed by the Design Engineer (11”x 17” size). Detectable Warning Surfaces shall be “Safety Yellow” in color.

See page 25 through 38 for PennDOT RC Standards for Curb Ramps and Sidewalks

STREET /SIDEWALK CUT PERMIT FEE SCHEDULE

City of Harrisburg Ordinance Section9-103.11

The office of the City Engineer shall charge an administration fee to a permittee for a street cut or sidewalk excavation, valid for a period of up to six months, the following amounts:

(a) Application Fee for Utility work .....…….. $250

(b) Application Fee for work limited to only sidewalk and curb improvements……..…..……....$25

The office of the City Engineer shall charge an inspection fee for all utility excavations within the street and sidewalk surfaces in the following amounts:

(No inspection fee will be charged for non utility sidewalk and curb improvements)

(a) Inspection fee up to and including three square yards of surface opening...…….……..$60

(b) Additional square yard of surface opening ……...…..….. $30 per square yard

(c) Inspection fee for steel plates……..…….……..…. $60 per plate

(If permitted to be used on a street for longer than 24 hrs.)

(d) Inspection fee for long term closures in high volume areas (vehicular or pedestrian) or in areas of complicated traffic patterns or detours.……..…….....……..…..….. $100

Note: The City Engineer will make the determination as to whether this inspection fee is applicable and promptly notify applicant before issuing permit.

The minimum permit charge is one square yard.
Fractions are rounded up to the nearest whole square yard.

The office of the City Engineer shall charge an administration fee to extend permits for up to an additional six months in the following amount:

Supplement fee……..……..…….…..….....……. $250

DEGRADATION FEE:

Degradation fee will be charged to a permittee for a street cut or excavation that has been applied for and granted within ten years after the City has repaved a street. This charge will be on a sliding scale basis. Minimum charge for a degradation fee is two square yards rounded to the next whole square yard.

1st Year	2nd Year	3rd Year	4th Year	5th Year	6th-10th Year
$150/SY	$140/SY	$130/SY	$120/SY	$110/SY	$100/SY

CITY OF HARRISBURG
DEPARTMENT OF ENGINEERING & DEVELOPMENT

STREET CUTTING BOND APPLICATION
FOR UTILITY COMPANIES

Bond Number _____

KNOW ALL MEN BY THESE PRESENTS, THAT _____

Of _____ as

Principal, and, _____

Surety, are jointly and severely held and firmly bound unto the City of Harrisburg, Pennsylvania, in the aggregate sum of **Fifty Thousand and 00/100 ------- ($50,000.00)** lawful money of the United States of America, to be paid to the said City of Harrisburg, its successors or assigns, to which payment will and truly be made we do bind ourselves and each of us, our and each of our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Article 903 of the Codified Ordinances of the City of Harrisburg requires the above principal to present to the City of Harrisburg a bond in aforesaid amount, conditioned as in said ordinance.

NOW, THEREFORE, the condition of this obligation is such that Principal shall faithfully observe all the Ordinances of the City of Harrisburg, and faithfully perform the duties required by Ordinance, rules or regulations and will save and keep harmless and indemnify the City from all actions, suits, costs, damages and expenses, including Attorney's Fees which shall or may at any time happen to come to it or for or on account of any injury or damage received or sustained by any person, than the above obligation shall be void; otherwise to be and remain in full force and effect.

Required period of this bond is two years, renewable annually. The term of this Bond shall be from _____ to _____. All street cuts are to be maintained for a period of two years from the date of completion as per the ordinance.

SIGNED AND SEALED WITH OUR SEAL, this _____ day of _____.

_____ _____
Witness: Principal

SURETY COMPANY

_____ _____
Witness Attorney-in-Fact

CITY OF HARRISBURG
DEPARTMENT OF ENGINEERING & DEVELOPMENT

STREET CUTTING BOND APPLICATION
ALL NON UTILITY APPLICANTS – FOR CURB

NOTE: UNTIL FURTHER NOTICE BONDS ARE NOT REQUIRED FOR SIDEWALK REPAIR WORK.

Bond Number _____

KNOW ALL MEN BY THESE PRESENTS, THAT _____

Of _____ as

Principal, and, _____

Surety, are jointly and severely held and firmly bound unto the City of Harrisburg, Pennsylvania, in the aggregate sum of **Ten Thousand and 00/100 ------- ($10,000.00)** lawful money of the United States of America, to be paid to the said City of Harrisburg, its successors or assigns, to which payment will and truly be made we do bind ourselves and each of us, our and each of our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Article 903 of the Codified Ordinances of the City of Harrisburg requires the above principal to present to the City of Harrisburg a bond in aforesaid amount, conditioned as in said ordinance.

NOW, THEREFORE, the condition of this obligation is such that Principal shall faithfully observe all the Ordinances of the City of Harrisburg, and faithfully perform the duties required by Ordinance, rules or regulations and will save and keep harmless and indemnify the City from all actions, suits, costs, damages and expenses, including Attorney's Fees which shall or may at any time happen to come to it or for or on account of any injury or damage received or sustained by any person, than the above obligation shall be void; otherwise to be and remain in full force and effect.

Required period of this bond is two years, renewable annually. The term of this Bond shall be from _____ to _____. All street cuts are to be maintained for a period of two years from the date of completion as per the ordinance.

SIGNED AND SEALED WITH OUR SEAL, this ____ day of _____.

_____ _____
Witness: Principal

SURETY COMPANY

_____ _____
Witness Attorney-in-Fact

STREET CUT PERMIT APPLICATION FORM

City of Harrisburg - Department of Engineering & Development
1002 N 7th Street, Harrisburg, PA 17102
Phone: 717-255-3091 E-mail: streetcuts@harrisburgpa.gov

Permittee Information

Applicant Company Name: _____ Contact Person: _____

Address: _____

Phone: _____ Fax: _____ E-mail: _____

24 Hour Emergency Phone (If different from above): _____ Web Site: _____

City Merchantile Account Number: _____ Job or WR Number: _____

Street Cut Information

Address of Opening: _____

Cut will be in street: ☐ _____ ft. long, _____ ft. wide _____ ft. deep | Distance to nearest intersection: _____

Sidewalk: ☐ _____ ft. long, _____ ft. wide _____ ft. deep | Street: _____

Work Description: _____

Estimated Start Date/Time: _____ PA One Call Serial Number: _____

Bond Number: _____ Bond Expiration Date: _____

Notes:

IN ORDER FOR US TO BETTER UPDATE YOUR INTERACTIVE MAP PLEASE TYPE IN GPS COORDINATES OF YOUR DIG LOCATION

Use Google Maps or a GPS App from any smartphone or tablet device.

Use the DD (Decimal Degrees) format for Latitude (X) and Longitude (Y). (Example 40.000000 and -76.000000) Use closest location as possible if you will be doing multiple cuts. Contact the City Engineer's office for more infomation and instructions.

Latitude (X): _____ Longitude (Y): _____

AGREEMENT OF ISSUANCE OF STREET CUT PERMIT

This is an Agreement made between the City of Harrisburg ("City") and the applicant named above ("Permittee") for the issuance of a Street Cut Permit. In consideration of the mutual obligations undertaken herein and intending to be legally bound, the parties hereby agree as follows:

1. The City hereby agrees to grant a permit, by and through the Office of the City Engineer, for the opening and cutting of the street pavement.
2. The Permittee agrees to pay the just and full Street Cut Permit Fees for issuance of the above described permit.
3. As a condition of issuance of said permit, Permittee agrees that within six (6) months after permit issue date, to restore the above described premises to the same good order and repair which it was prior to the opening and cutting thereof, and to maintain the same for a period of two (2) years from the date of such final restoration, subject at all times to the approval and acceptance of the City.
4. As a further condition to receiving the permit the Permittee agrees to pay or cause to be paid the total costs of any and all work necessary to restore and maintain said street(s) as described herein. Should Permittee fail to do so, City shall have the right to perform or cause to be performed such work, and Permittee agrees to pay the costs of all work necessary to restore and maintain said street(s) within thirty (30) days after any bill therefore has been submitted by the City.
5. It is understood and agreed by all parties involved that the Permittee is responsible to understand and conform to all O.S.H.A., State and City Regulations including but not limited to trenching and shoring and has received, read, understands and will abide by the City's Standard Specifications, as revised, and the City of Harrisburg Workplace Violence Policy, as amended. (Copies are available at the Office of the City Engineer)
6. This permit or license may be suspended or revoked at any time by the Mayor or designee if it is determined that the holder of the permit or license secured the same by misrepresentation; failed to maintain qualifications required by federal, state or local laws; engaged in fraudulent behavior or misleading advertising; consented to or allowed any behavior which would constitute a crime under federal, state or local laws, including but not limited to drug trafficking or drug possession; committed an act of gross negligence, or allowed any manner or form of public nuisance. (Executive order 1-2002)

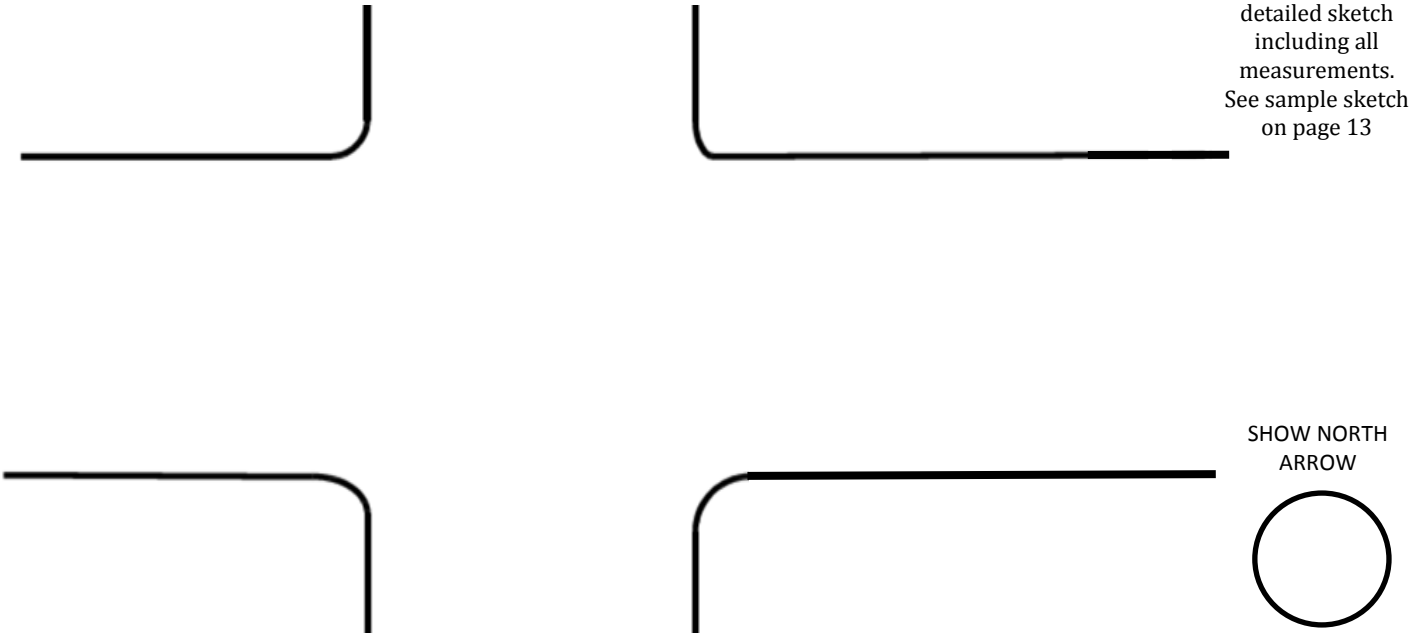
Applicant's Signature: _____ Date: _____

CITY OF HARRISBURG

DEPARTMENT OF ENGINEERING & DEVELOPMENT

SKETCH FORM AND GENERAL INSTRUCTIONS

Draw or attach a detailed sketch including all measurements. See sample sketch on page 13



PERMIT REQUIRED

You must have a Street Cut Permit in your possession while you work within any City Street where such work involves any of the following:

1. Opening of the street surface.
2. Installation, replacement, repair or adjustment of utility facilities or other structures.
3. Drilling of test, or vent holes.

APPLICATION FORM

Complete all items on the face of this form. Describe in detail what work you intend to do, how you intend to perform the work, and the materials you intend to use. You must include your City Business Mercantile Account Number, City Building and or Plumbing Permit Number and a valid PA One Call Serial Number. You must read, sign and date your application.

An electronic form is available. Contact the City Engineer's office for more information.

To avoid delays, submit your application to the City Engineer's office at least 3 working days prior to the anticipated start of work.

PLANS

Include a complete sketch of good quality on your application. The plans must clearly illustrate the location and pertinent dimensions of both the proposed installations(s) and related highway features and must comply with City Ordinance, Section 202.

ADDITIONAL PLAN REQUIREMENTS

Traffic Control: A traffic control plan is required for all work within the City. All plans shall comply with Section 6123 of the Vehicle Code and the applicable provisions of 67 PA Code, Chapter 203.

FEES

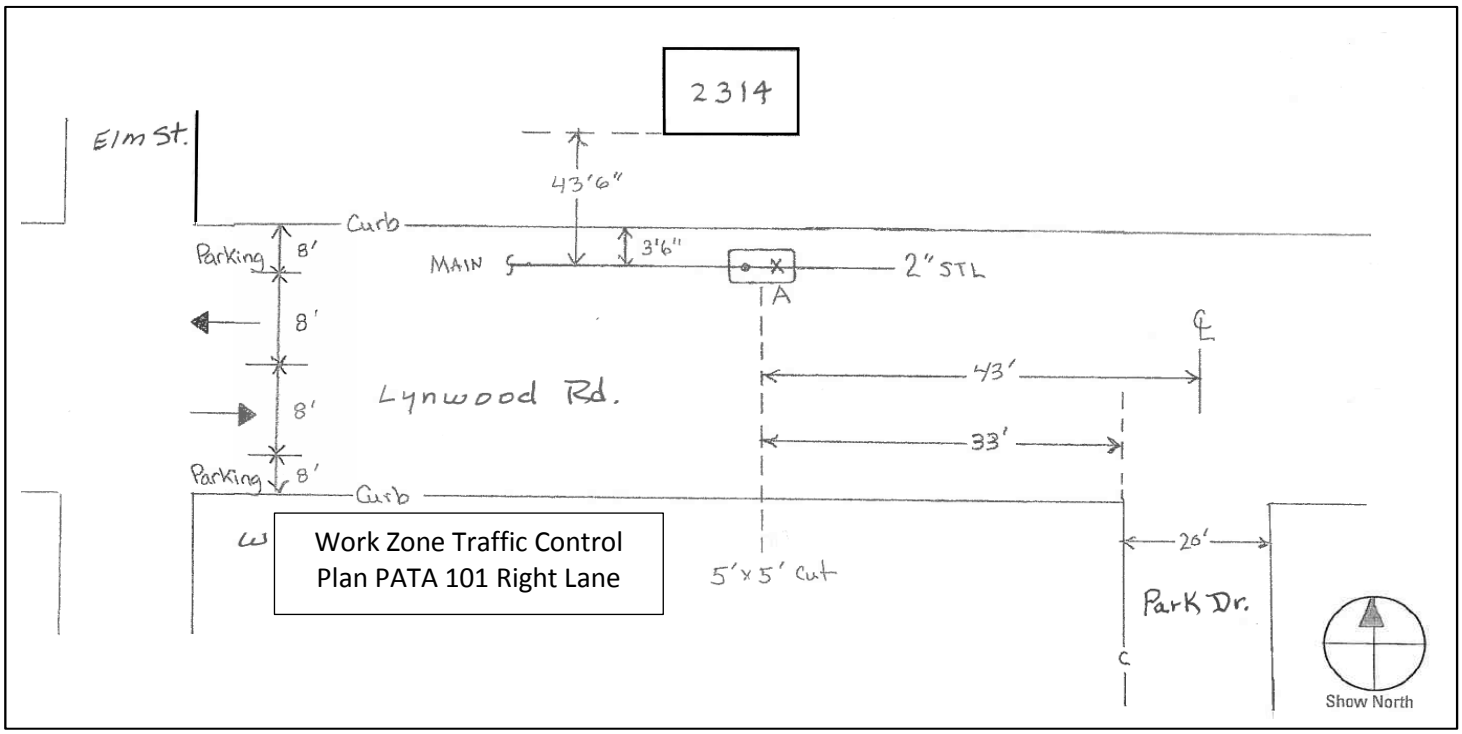
Submit a check or money order, payable to "City Treasurer," at receipt of your completed Street Cut permit unless you are approved for monthly billing. Fees are levied in accordance with the fees specified by City Ordinance, Section 903.13.

STREET CUT PERMIT

Upon approval of this application you will receive your copy of the Street Cut Permit. The issued Permit may prescribe special conditions and restrictions, which are in addition to the City's Regulations. Failure to comply with all State regulations or City Procedures Manual & could result in you being suspended from working within the City Right-of-Way.

*S*treet Cut Permits expire after six (6) months from issue date.

SAMPLE SKETCH INCLUDING WORK ZONE TRAFFIC CONTROL PLAN



PATA 101 (Old PATA 5) - Notes

1. The shadow vehicle and traffic control devices are not required if the work space is outside the highway right-of-way, behind barrier, more than 2' behind curb, or 15' or more from the edge of any roadway.

2. For operations of 60 minutes or less, all traffic control devices may be eliminated if a shadow vehicle is present.

3. For divided highways and one-way highways where it is physically possible, advance warning signs should also be placed on the left-hand side of the roadway.

4. When a shadow vehicle is not used, distance A is measured from the Road Work (W20-1) sign location to beginning of work space.

Signs

W20-1

Sign Spacing Chart

Condition	Distance A Feet	B Feet	C Feet	F Feet
Urban 35 MPH or less	100	100	100	100
Urban Greater than 35 MPH	350	350	350	350
Rural	500	500	500	500

When multiple distance plaques are used on advance warning signs, they shall all be of the same series type.
Example: either all "AHEAD" or XXX FEET.

Taper Length Formulas

S	L
40 MPH or less	$L = \frac{WS^2}{60}$
45 MPH or more	L = WS

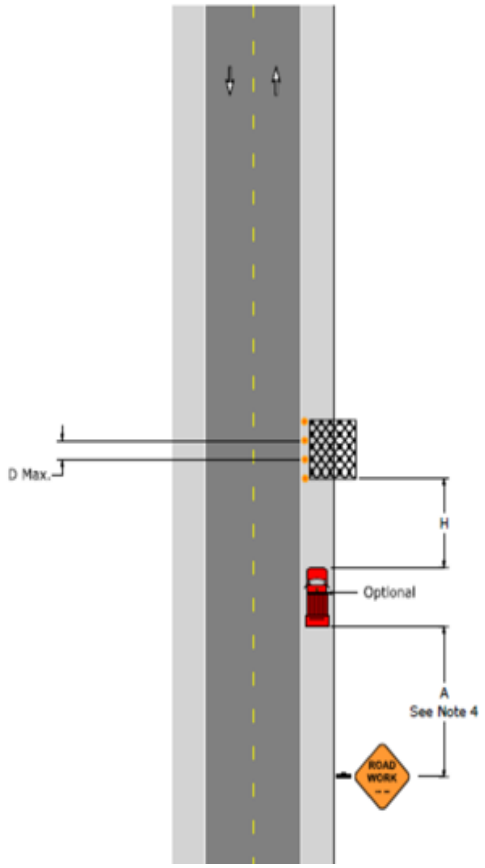
S = Regulatory Speed Limit
W = Width of Offset

Distance and Spacing Quick Reference Chart

Speed	W	L	1/2L	1/3L	Min. Channelizing Devices Per Taper Type (Length) L	1/2L	1/3L	50'	D	E	H
MPH	Feet	Feet	Feet	Feet					Feet	Feet	Feet
25	10	105	55	35	6	6	6	6	50	155	150
	11	115	60	40							
	12	125	65	45							
30	10	150	75	50	6	6	6	6	60	200	150
	11	165	85	55	7						
	12	180	90	60	7						
35	10	205	105	70	7	6	6	6	70	250	150
	11	225	115	75	8						
	12	245	125	85	8						
40	10	270	135	90	8	6	6	6	80	305	150
	11	295	150	100	9						
	12	320	160	110	9						
45	10	450	225	150	11	6	6	6	90	360	150
	11	495	250	165	12	7					
	12	540	270	180	13	7					
50	10	500	250	170	11	6	6	6	100	425	250
	11	550	275	185	12	7					
	12	600	300	200	13	7					
55	10	550	275	185	11	6	6	6	110	495	250
	11	605	305	205	12	7					
	12	660	330	220	13	7					

Note: Channelizing devices used in taper shall be equally spaced at ½ D Max.

PATA 101 (Old PATA 5)
Work Space On Or Beyond The Shoulder (No Roadway Encroachment)



CITY OF HARRISBURG
DEPARTMENT OF ENGINEERING & DEVELOPMENT
1002 N 7TH STREET
HARRISBURG, PA 17102
PHONE: 717-255-3091 – EMAIL: streetcuts@harrisburgpa.gov

APPLICATION FOR SUPPLEMENTAL STREET CUT PERMIT

APPLICANT: _____ CONTACT PERSON: _____

ADDRESS: _____ ZIP: _____

PHONE: _____ EMAIL: _____

24 HOUR EMERGENCY PHONE (IF DIFFERENT FROM ABOVE): _____

ORIGINAL PERMIT NUMBER: _____

ORIGINAL EXPIRATION DATE: _____

REASON FOR SUPPLEMENT: _____

_____

_____

_____

_____

_____

OTHER INFORMATION: _____

_____

_____

_____

_____

CITY OF HARRISBURG - DEPARTMENT OF ENGINEERING & DEVELOPMENT

STREET CLOSURE REQUEST FORM

1002 N 7th Street, Harrisburg, PA 17102

Phone: 717-255-3091 E-mail: streetcuts@harrisburgpa.gov

This request for permission to close a street within the City of Harrisburg must be completed and received by the city engineer for review at least 3 business days prior to the planned closure. The city engineer will inspect the location, review your detour and traffic control plans and approve or disapprove your request. Please note that you are responsible for the actual physical closure and must follow all city, state and federal regulations in respect to Work Zone Traffic Control. Refer to PennDOT Pub 213 (67 PA Code, Chapter 212). A Traffic Control plan must accompany this form showing detours and traffic control figures. It is your responsibility to notify all property owners within the affected closure area. It is also your responsibility to notify Harrisburg City Parking Enforcement (717-255-3141) and Metropolis (717-234-2274) at least two days prior to closing for temporary no parking signs to be posted.

STREET NAME:

STREET FROM:

STREET TO:

DATE FROM: TIME FROM:

DATE TO: TIME TO:

TYPE OF CLOSURE: COMPLETE, PARTIAL OR BOTH:

HAVE ALL RESIDENTS BEEN NOTIFIED? YES / NO

CONTRACTOR INFO
COMPANY NAME, CONTACT PERSON, ADDRESS, PHONE, E-MAIL, FAX ETC.

CLOSURE INFO:
REASON, LEFT, RIGHT OR CENTER LANES, OPEN DURING NIGHT HOURS ETC.

DETOUR:
USE BACK OF PAGE OR ADD TO THIS FORM IF MORE SPACE IS NEEDED:

I have read, understand and will follow all requirements. By clicking on the green E-Mail button you agree with the above terms and signature is not required. If printing form you must sign here:

SIGNATURE_____

PRINT YOUR NAME HERE:

Email

Print Form

Clear Form

BELOW TO BE COMPLETED BY CITY OF HARRISBURG PERSONNEL

ADDED TO MAP: BUSINESS LICENSE #

APPROVED BY:

DATE SENT:

COMMENTS:

04/01/2020

CITY OF HARRISBURG
DEPARTMENT OF ENGINEERING & DEVELOPMENT
1002 N 7TH STREET, HARRISBURG, PA 17102
PHONE: 717-255-3091 E-MAIL: streetcuts@harrisburgpa.gov

GENERAL SIDEWALK APPLICATION INSTRUCTIONS

PERMIT REQUIRED
You must have a Sidewalk Permit in your possession while you work within any sidewalk within the city right of way.

APPLICATION FORM
Complete all items on the face of this form. Describe in detail what work you intend to do, how you intend to perform the work, and the materials you intend to use.

To avoid delays, submit your application to the City Engineer's office at least 3 working days prior to the anticipated start of work.

PLANS
If directed by the City Engineer you must include a complete sketch of good quality with your application. The plans must clearly illustrate the location and pertinent dimensions of both the proposed installations(s) and related highway features and must comply with City Ordinance, Section 202.

ADDITIONAL PLAN REQUIREMENTS
Traffic Control: A traffic control plan is required for all work within the City. All plans shall comply with Section 6123 of the vehicle Code and the applicable provisions of 67 PA Code, Chapter 203.

FEES
Submit a check or money order in the amout of $25.00 payable to "City Treasurer". Fees are levied in accordance with the fees specified by City Ordinance, Section 903.13.

PERMIT
Upon approval of this application you will receive your Sidewalk Permit. The issued Permit may prescribe special conditions and restrictions, which are in addition to the City's Regulations. Failure to comply with all State regulations or City specifications could result in you being suspended from working within the City Right-of-Way.
E-mail photos of your completed sidewalk restorations to streetcuts@harrisburgpa.gov

Permits expire after six (6) months from issue date.

SIDEWALK PERMIT APPLICATION FORM

City of Harrisburg - Department of Engineering & Development
1002 N 7th Street, Harrisburg, PA 17102
Phone: 717-255-3091
E-mail: streetcuts@harrisburgpa.gov

Permittee Information

Applicant /Company Name: _____ Contact Person: _____

Address: _____

Phone: _____ Fax: _____ E-mail:

24 Hour Emergency Phone (If different from above): _____

Sidewalk Information

Address of Opening: _____

_____ ft. long, _____ ft. wide _____ ft. deep

Work Description: _____

Estimated Start Date/Time: _____ PA One Call Serial Number: _____

Notes:

OPTIONAL - TYPE IN GPS COORDINATES OF YOUR DIG LOCATION

Use Google Maps or a GPS App from any smartphone or tablet device.
Use the DD (Decimal Degrees) format for Latitude (X) and Longitude (Y). (Example 40.000000 and -76.000000)
Use closest location as possible if you will be doing multiple cuts.

Latitude (X): _____ Longitude (Y): _____

AGREEMENT OF ISSUANCE OF SIDEWALK PERMIT

This is an Agreement made between the City of Harrisburg ("City") and the applicant named above ("Permittee") for the issuance of a Sidewalk Permit. In consideration of the mutual obligations undertaken herein and intending to be legally bound, the parties hereby agree as follows:

1. The City hereby agrees to grant a permit, by and through the Office of the City Engineer, for the opening and cutting of the sidewalk pavement.
2. The Permittee agrees to pay the just and full Sidewalk Permit Fees for issuance of the above described permit.
3. As a condition of issuance of said permit, Permittee agrees that within six (6) months after permit issue date, to restore the above described premises to the same good order and repair which it was prior to the opening and cutting thereof
4. It is understood and agreed by all parties involved that the Permittee is responsible to understand and conform to all O.S.H.A., State and City Regulations including but not limited to trenching and shoring and has received, read, understands and will abide by the City's Standard Specifications, as revised, and the City of Harrisburg Workplace Violence Policy, as amended. (Copies are available at the Office of the City Engineer)
5. This permit or license may be suspended or revoked at any time by the Mayor or designee if it is determined that the holder of the permit or license secured the same by misrepresentation; failed to maintain qualifications required by federal, state or local laws; engaged in fraudulent behavior or misleading advertising; consented to or allowed any behavior which would constitute a crime under federal, state or local laws, including but not limited to drug trafficking or drug possession; committed an act of gross negligence, or allowed any manner or form of public nuisance. (Executive order 1-2002)

Once this application form is complete click the green button to e-mail this application. You may add your attachments through your e-mail program. Signature is not required if form is Emailed. (More instructions on next page)

Clear Form Fields | E-Mail Application | Print Form

SAMPLE

USE YOUR COMPANY LETTERHEAD HERE

NOTICE OF CONSTRUCTION

DEAR RESIDENT:

THIS NOTICE IS TO INFORM YOU THAT _____ WILL BE

WORKING AT OR IN THE VICINITY OF _____ FOR THE

PURPOSE OF _____

WORK IS SCHEDULED TO BEGIN ON / ABOUT _____ AND END ON / ABOUT _____

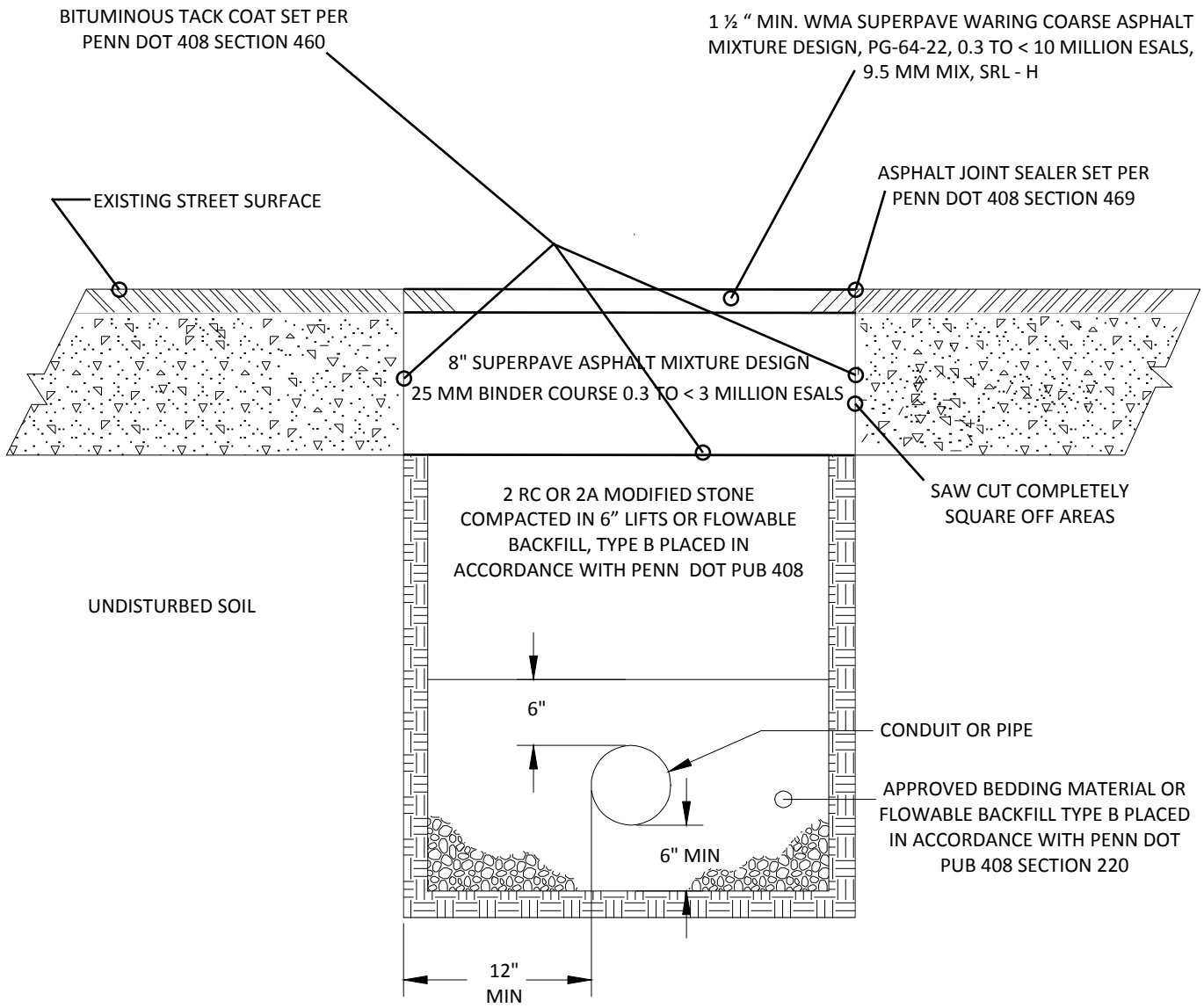
SOME INCONVENIENCES MAY OCCUR BECAUSE OF THIS WORK. WE WILL DO EVERYTHING POSSIBLE TO KEEP IT AT A MINIMUM.

IF, AT ANY TIME YOU HAVE ANY QUESTIONS OR CONCERNS REGARDING THIS NOTICE OR THE WORK

BEING PERFORMED YOU CAN CONTACT US AT _____ AND ASK FOR _____

THANK YOU FOR YOUR UNDERSTANDING.

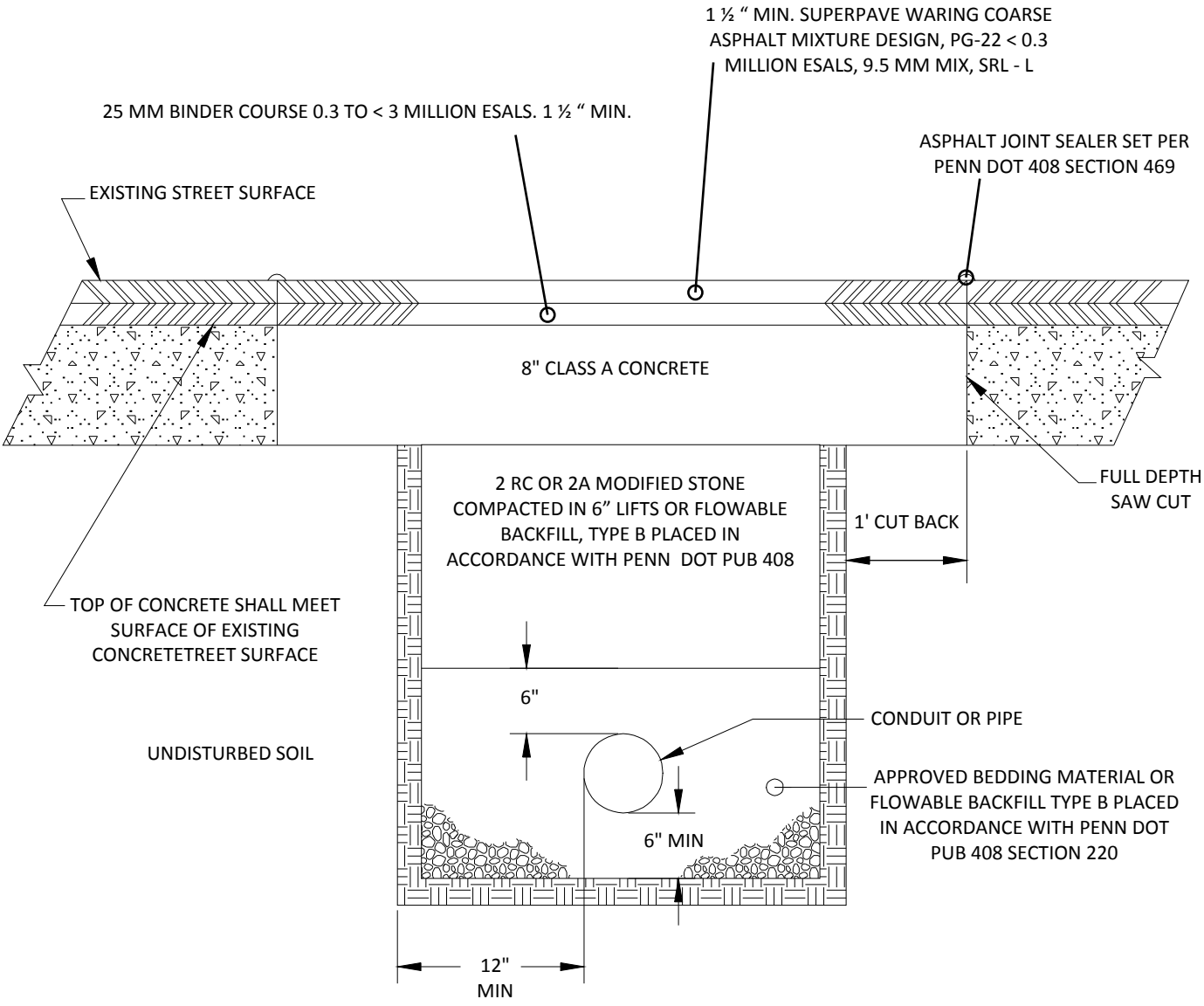
_____



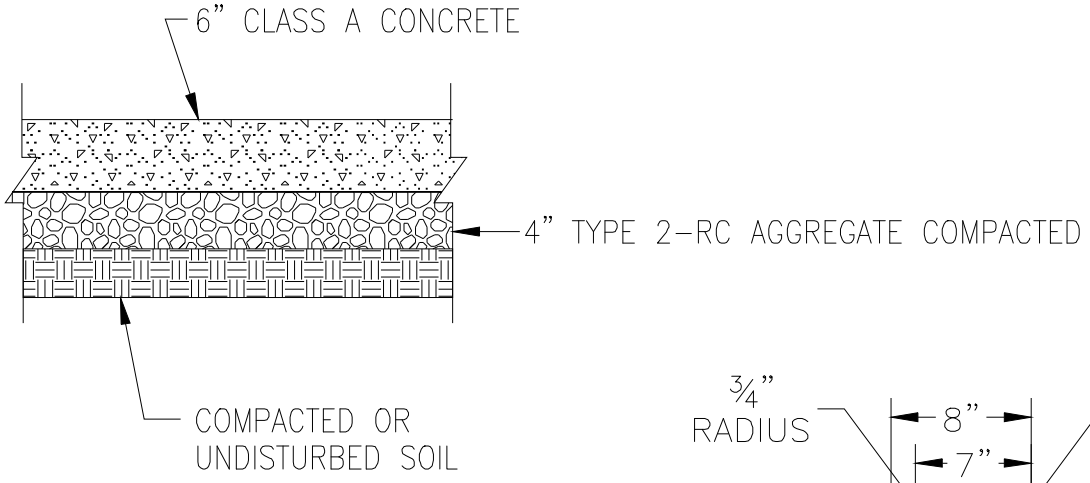
PREPARE AND PATCH TEMPORARY UTILITY PATCHES IN ACCORDANCE WITH PENN DOT PUBLICATION 408 SECTION 450 – MANUAL BITUMINOUS PATCHING

THE USE OF A MILLING OR PLANNING MACHINE IS PERMITTED

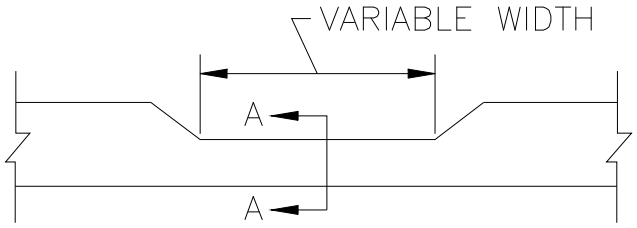
	THE CITY OF HARRISBURG DEPARTMENT OF ENGINEERING & DEVELOPMENT	SHEET:
	STANDARD BITUMINOUS CONCRETE BASE COURSE STREET RESTORATION DETAIL	D-1
	DRAWN BY: KARL SCHILL — DATE: 12/14/2016 - UPDATED 6/13/2019	
	CHECKED BY: WAYNE S. MARTIN, PE — SCALE: NONE	



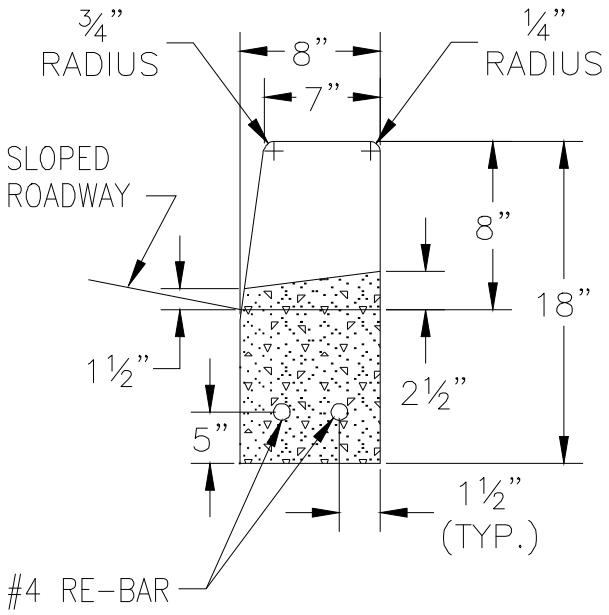
THE CITY OF HARRISBURG DEPARTMENT OF ENGINEERING & DEVELOPMENT		SHEET:
CONCRETE BASE RESTORATION DETAIL		D-2
DRAWN BY: KARL SCHILL	DATE: 12/14/2016 - UPDATED 9/14/2017	
CHECKED BY: WAYNE S. MARTIN, PE	SCALE: NONE	



CONCRETE APRON AT DRIVEWAY ENTRANCE DETAIL
NO SCALE



PLAN VIEW



SECTION A-A

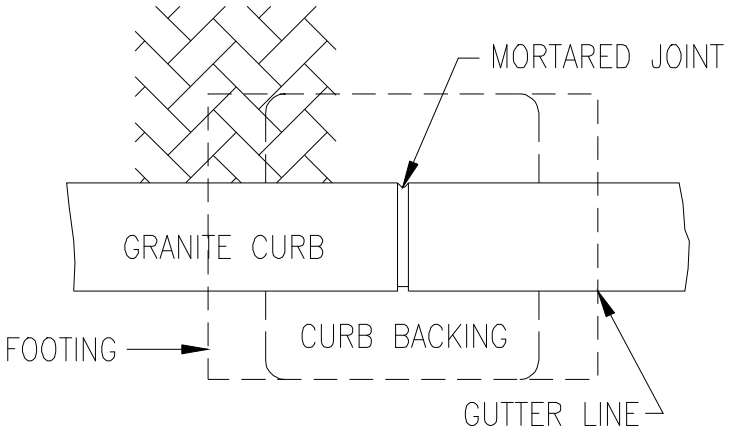
DRIVEWAY ENTRANCES:

(A) DRIVEWAY ENTRANCES OR APRONS WITHIN THE STREET RIGHT-OF-WAY SHALL BE SURFACED TO THEIR FULL WIDTH. THE WIDTH OF ACCESS ROADS OR DRIVEWAYS SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS.

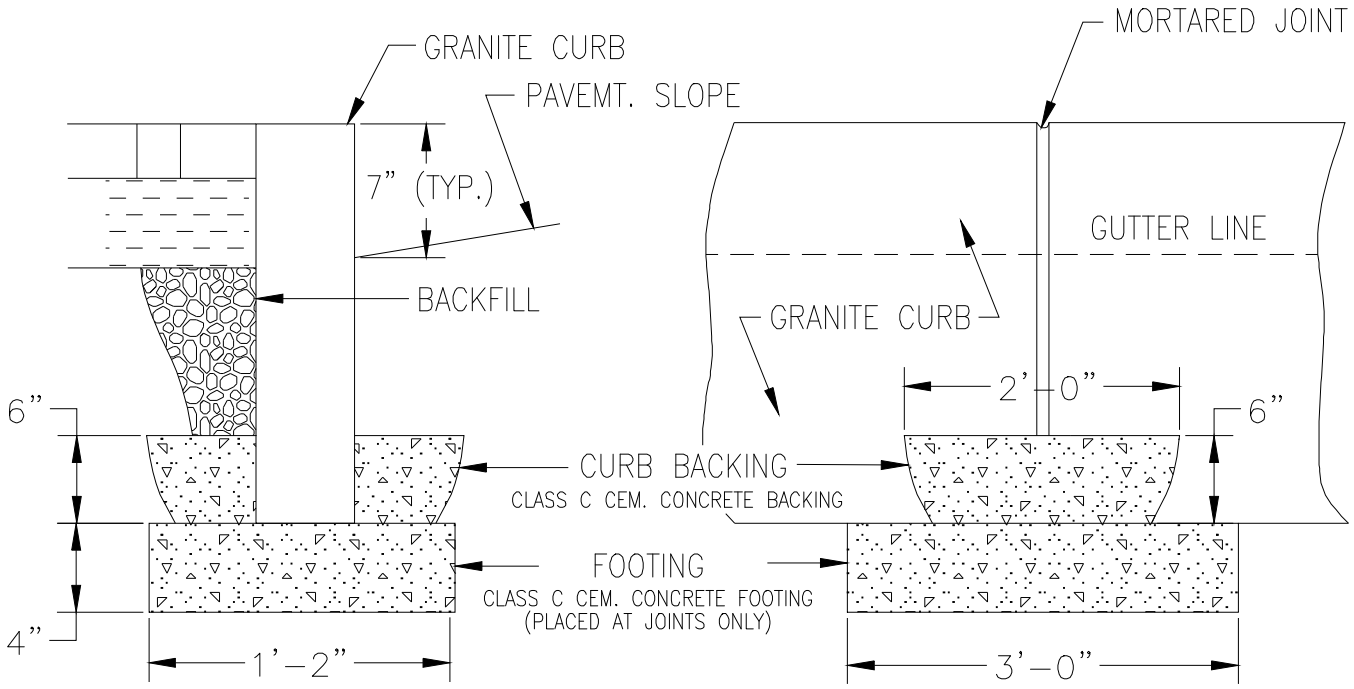
(1) FOR MULTI-FAMILY RESIDENTIAL, MOBILE HOME PARKS, AND ALL NON-RESIDENTIAL DEVELOPMENTS OR SUBDIVISIONS, DRIVEWAY ENTRANCES SHALL BE NO LESS THAN TWENTY FOUR (24) FEET IN WIDTH AT THE STREET LINE, AND SHALL CLEARLY BE DEFINED BY THE USE OF CURBING.

(2) FOR SINGLE FAMILY RESIDENTIAL, DRIVEWAYS SHALL BE NO LESS THAN TEN (10) FEET IN WIDTH AND NO GREATER THAN TWENTY (20) FEET IN WIDTH AT THE STREET LINE.

	THE CITY OF HARRISBURG OFFICE OF THE CITY ENGINEER	SHEET: D-4
	PROJECT: STANDARD DRIVEWAY DETAIL	
	DRAWN BY: MICHAEL J. HILTON	DATE: SEPTEMBER 25, 1996
	CHECKED BY: KRISTIE A. HEBERLIG	SCALE: NONE



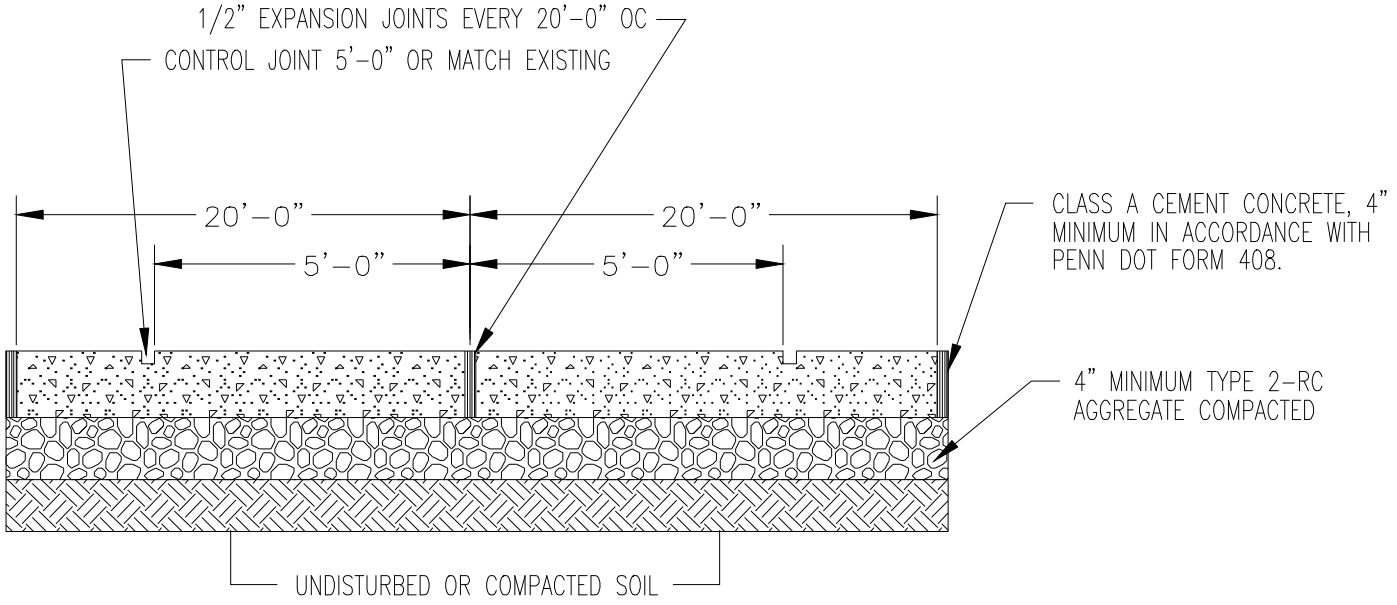
PLAN



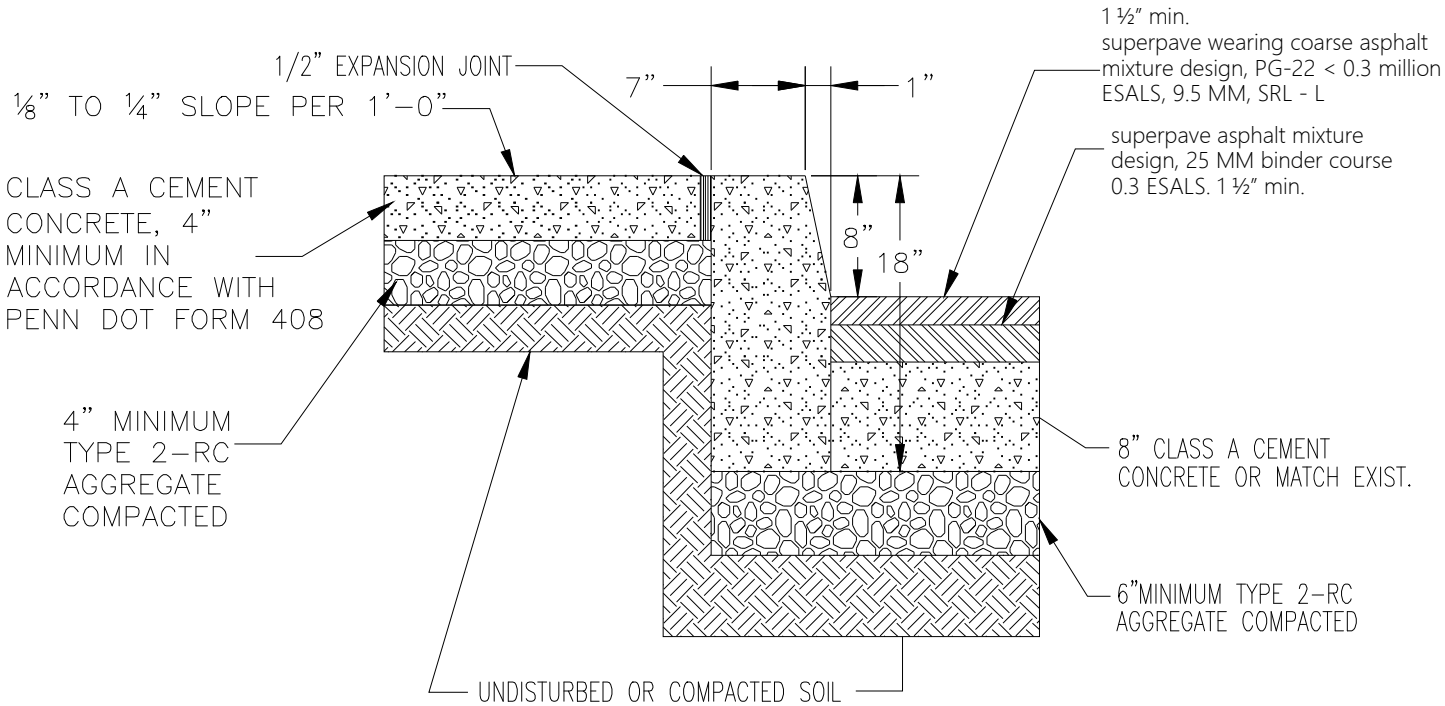
SECTION

ELEVATION

THE CITY OF HARRISBURG OFFICE OF THE CITY ENGINEER		SHEET: D-7
PROJECT: GRANITE CURB DETAIL		
DRAWN BY: MICHAEL J. HILTON	DATE: AUGUST 30, 1996	
CHECKED BY: KRISTIE A. HEBERLIG	SCALE: NONE	

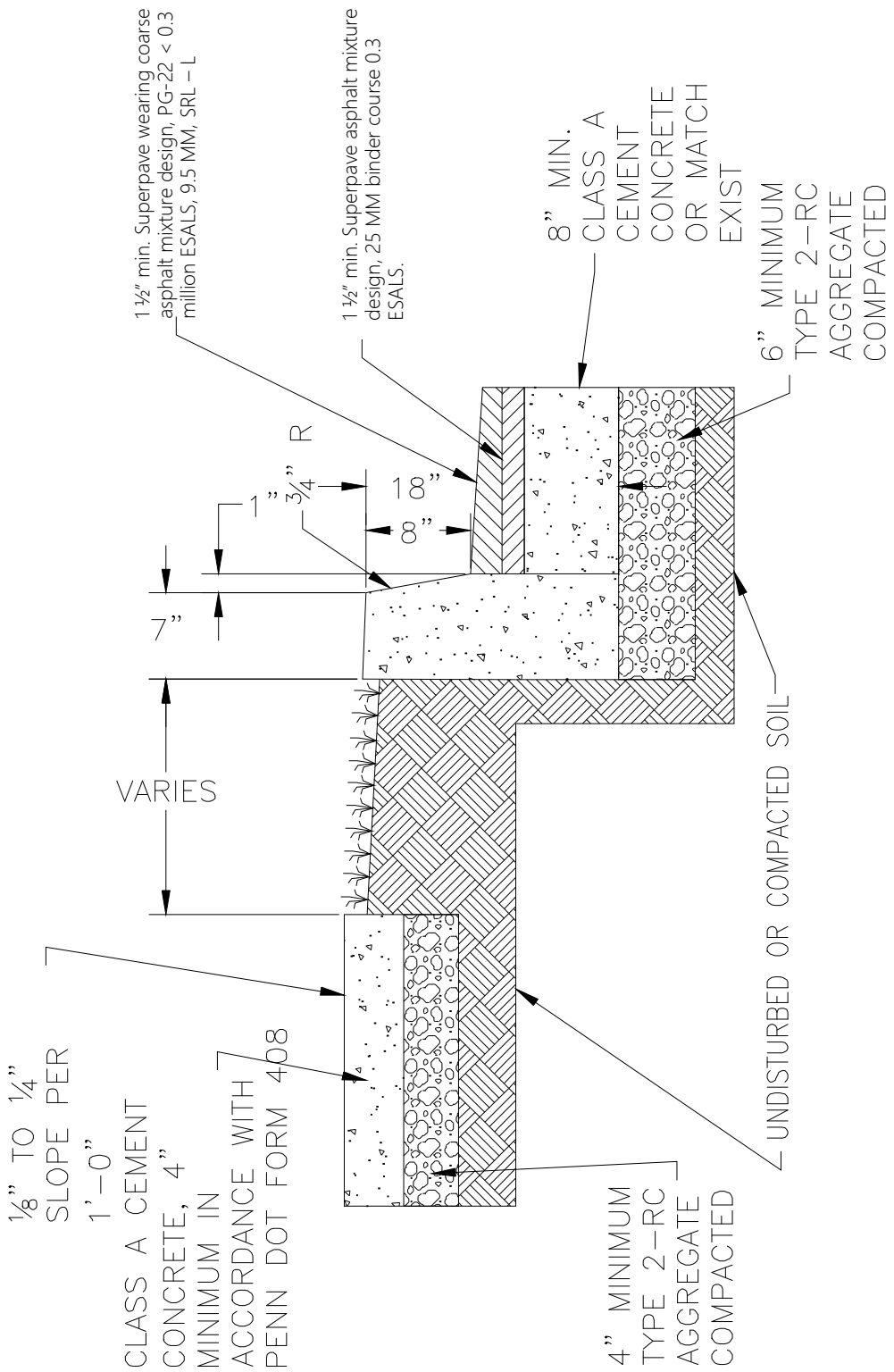


LONGITUDINAL SECTION

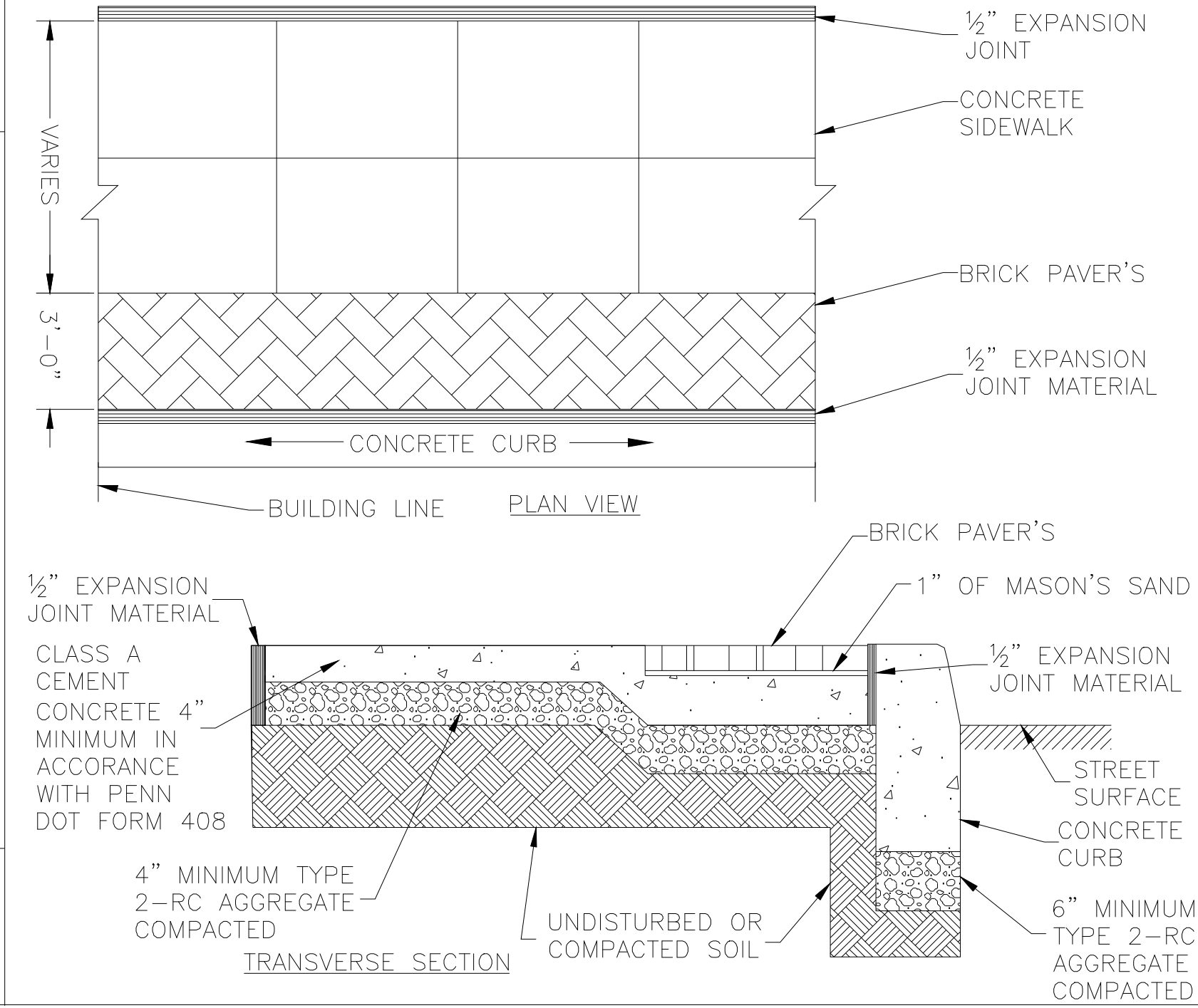


TRANSVERSE SECTION

THE CITY OF HARRISBURG OFFICE OF THE CITY ENGINEER		SHEET: D-8
PROJECT: CONCRETE CURB & SIDEWALK DETAIL		
DRAWN BY: MICHAEL J. HILTON	DATE: SEPTEMBER 25, 1996	
CHECKED BY: KRISTIE A. HEBERLIG	SCALE: NONE	



THE CITY OF HARRISBURG OFFICE OF THE CITY ENGINEER		SHEET: D–18
PROJECT: CONCRETE CURB & SIDEWALK WITH GRASS DIVIDER DETAIL		
DRAWN BY: MICHAEL J. HILTON	DATE: SEPTEMBER 25, 1996	
CHECKED BY: KRISTIE A. HEBERLIG	SCALE: NONE	



THE CITY OF HARRISBURG
OFFICE OF THE CITY ENGINEER

PROJECT: CONCRETE CURB & SIDEWALK W/ BRICK DIVIDER (CONCRETE BASE) DETAIL

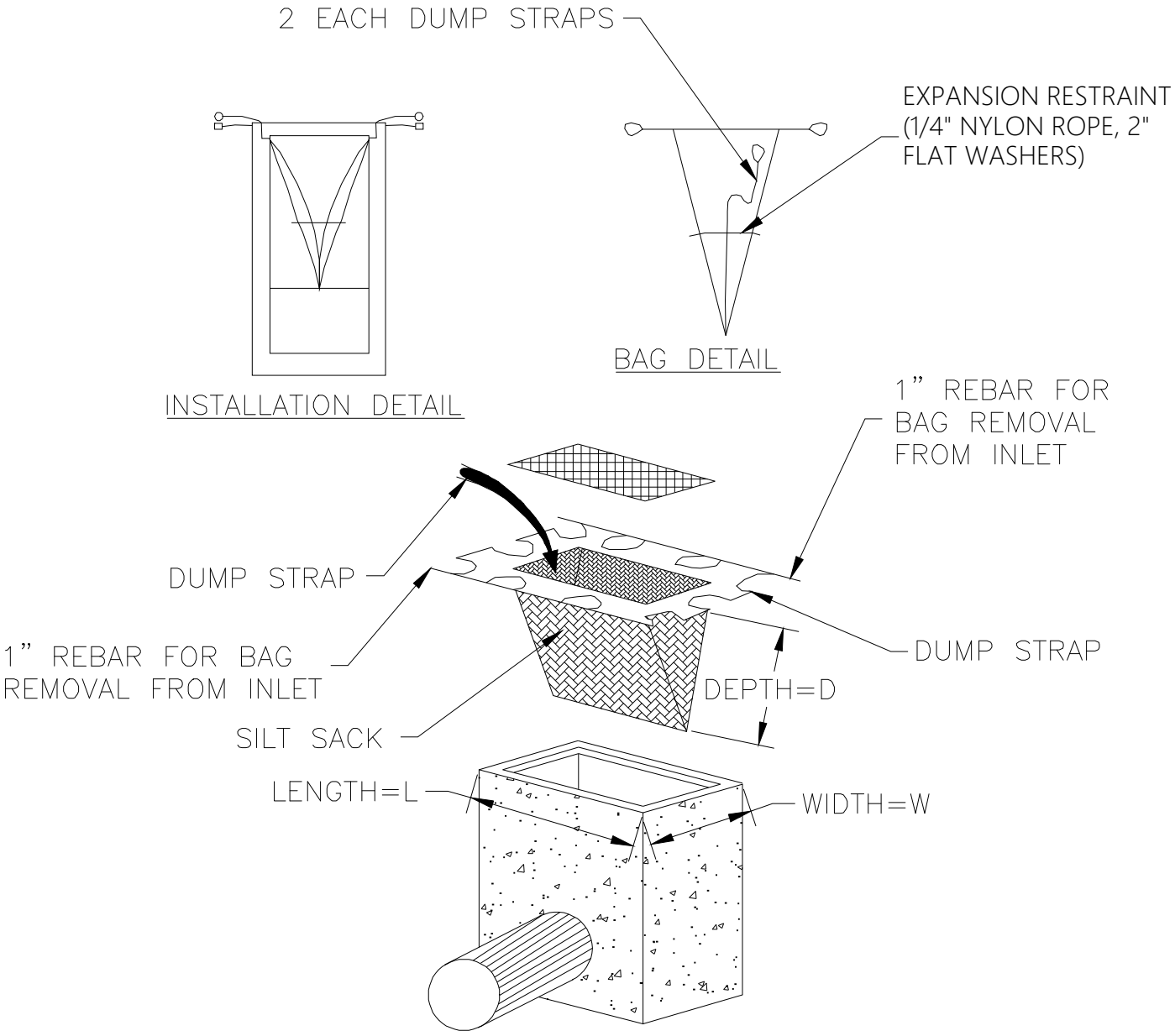
DRAWN BY: MICHAEL J. HILTON

DATE: SEPTEMBER 25, 1996

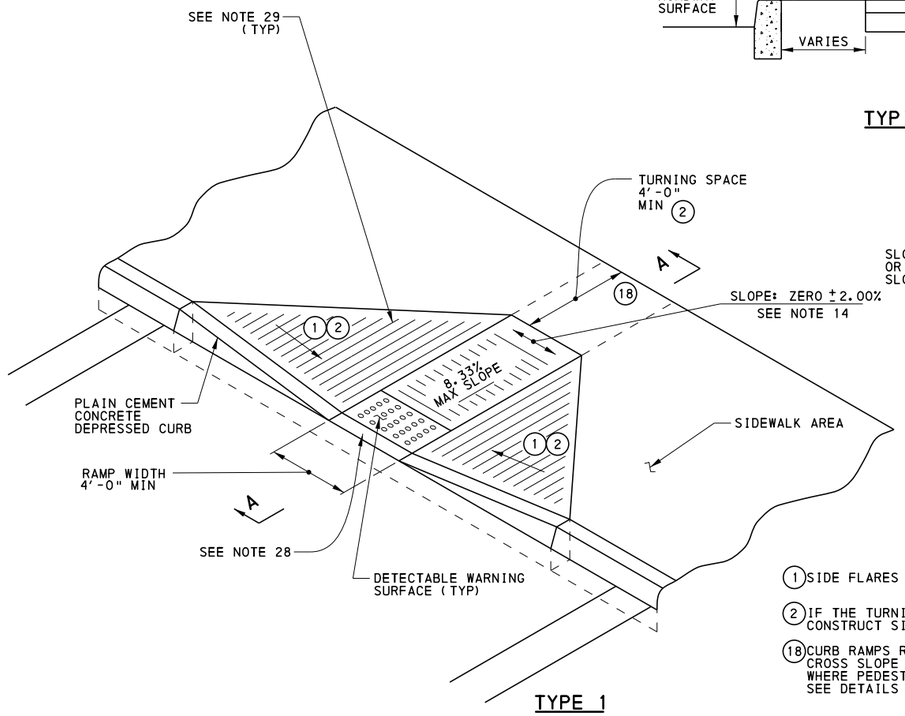
CHECKED BY: KRISTIE A. HEBERLIG

SCALE: NONE

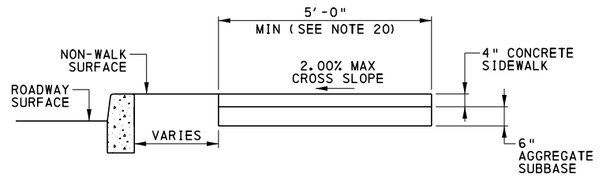
SHEET: D-19



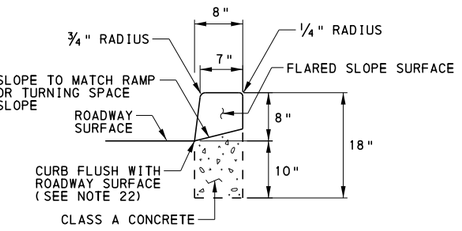
	THE CITY OF HARRISBURG OFFICE OF THE CITY ENGINEER	SHEET: D-24
	PROJECT: INLET SEDIMENT CONTROL DEVICE DETAIL	
	DRAWN BY: MICHAEL J. HILTON	DATE: SEPTEMBER 25, 1996
	CHECKED BY: KRISTIE A. HEBERLIG	SCALE: NONE



TYPE 1
CURB RAMP



SIDEWALK
TYPICAL SECTION

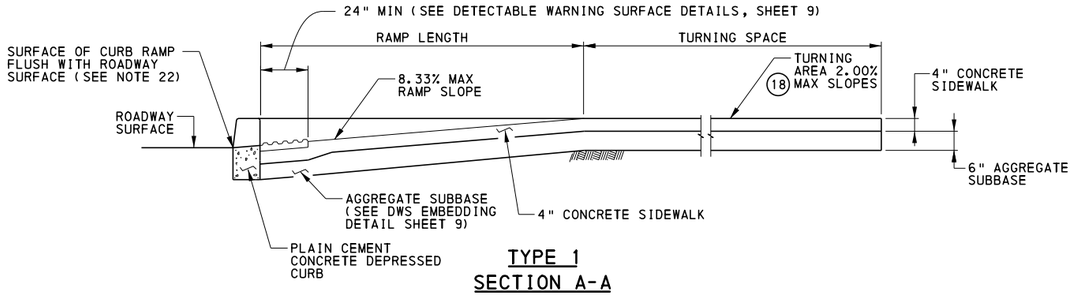


DEPRESSED CURB
FOR CURB RAMPS

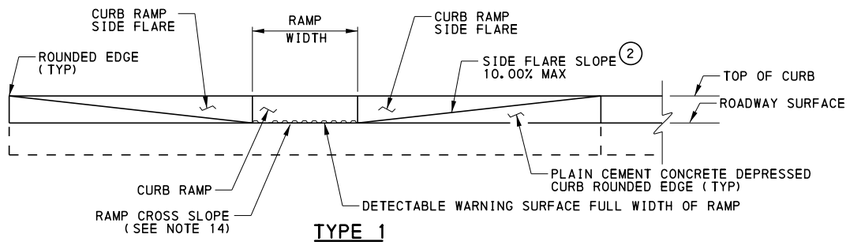
(1) SIDE FLARES 10.00% MAX SLOPE

(2) IF THE TURNING SPACE IS INDICATED TO BE LESS THAN 4'-0", CONSTRUCT SIDE FLARES 8.33% MAX SLOPE.

(18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.



TYPE 1
SECTION A-A



TYPE 1
ELEVATION

PERCENT SLOPE	EQUIVALENT SLOPE
10.00%	10:1
8.33%	12:1
7.14%	14:1
5.00%	20:1
2.00%	50:1
1.00%	100:1

EQUIVALENT SLOPES

NOTES

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676, 694, AND 695.
2. PROVIDE EXPANSION JOINT MATERIAL ½" THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
3. CONSTRUCT CURB RAMPS WITH A MINIMUM 4'-0" X 4'-0" CLEAR SPACE BEYOND THE CURB FACE, WITHIN THE WIDTH OF THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. SEE SHEET 7 FOR CROSSWALK DETAILS.
4. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
5. PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB RAMP INCLUDING SIDE FLARES.
6. MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 8" HEIGHT.
7. CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK SLOPE.
8. TO AVOID CHASING GRADE INDEFINITELY WHEN TRAVERSING THE HEIGHT OF CURB, RAMP LENGTH NOT TO EXCEED 15'-0". ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE.
9. NON-WALK AREA IS AN OBSTRUCTED OR GRASS/NON-PAVED AREA ADJACENT TO THE PEDESTRIAN ACCESS ROUTE THAT IS NOT USED BY THE PEDESTRIAN FOR ACCESS.
10. THE DETAILS DEPICT PEDESTRIAN PUSHBUTTON POLES TO ILLUSTRATE THE RECOMMENDED PLACEMENT OF PEDESTRIAN PUSHBUTTONS. FOR ALTERATION PROJECTS, PROVIDE ACCESS TO EXISTING PEDESTRIAN PUSHBUTTONS TO THE MAXIMUM EXTENT FEASIBLE. INSTALL PEDESTRIAN PUSHBUTTON STUB POLES, WHERE APPLICABLE, SO AS NOT TO CREATE PEDESTRIAN OBSTRUCTIONS.
11. SEE TC-8803 FOR ADDITIONAL PEDESTRIAN PUSHBUTTON DETAILS NOT SHOWN.
12. ALIGN DETECTABLE WARNING SURFACE TRUNCATED DOMES ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE RAMP AND PERPENDICULAR TO CURB. SEE SHEET 9 FOR INSTALLATIONS ALONG CURVED SURFACES.
13. PROVIDE DETECTABLE WARNING SURFACES (DWS) 24" MINIMUM (IN THE DIRECTION OF PEDESTRIAN TRAVEL) ACROSS FULL WIDTH OF RAMP AT THE GRADE BREAK NEAR STREET EDGE. PROVIDE DWS THAT CONTRAST VISUALLY WITH ADJACENT WALKWAY SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT FOR THE FULL WIDTH OF RAMP.
14. FOR NEW CONSTRUCTION, DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR PEDESTRIAN ACCESS ROUTE.
15. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE POSSIBLE. THE SLOPES INDICATED IN THE DETAILS SHOW THE MAX SLOPE ALLOWABLE. SLOPES THAT EXCEED THOSE INDICATED IN THE DETAILS, OR CONTRACT DOCUMENTS AS APPLICABLE, WILL NOT BE ACCEPTED AND WILL BE RECONSTRUCTED.
16. CONSTRUCT SIDEWALKS AT A LONGITUDINAL SLOPE NOT TO EXCEED 5.00%. FOR ROADWAY PROFILE SLOPES THAT EXCEED 5.00%, CONSTRUCT PARALLEL SIDEWALKS ADJACENT TO ROADWAY AT A LONGITUDINAL SLOPE NOT TO EXCEED ROADWAY PROFILE SLOPE.
17. THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE IS NOT TO EXCEED AN ALGEBRAIC DIFFERENCE OF 13.33%. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP, TURNING SPACE OR BLENDED TRANSITION IS NOT TO EXCEED 5.00%. SEE SHEET 8 FOR DETAILS.
18. THE CONSTRUCTION STANDARDS DEPICTED ARE MOST APPROPRIATE FOR NEW CONSTRUCTION. ALL CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED.
19. ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE. THEREFORE, THE LENGTH OF RAMP IS NOT SOLELY DEPENDANT ON THE HEIGHT OF CURB. (FOR EXAMPLE, A 6" CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 6'-0" FOR A 12:1 SLOPE.
20. SIDEWALK WIDTH MAY BE REDUCED TO 4'-0", WHEN PASSING AREAS 5'-0" X 5'-0" ARE PROVIDED EVERY 200'.
21. THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT MARKING LINE. IF A WHITE PAVEMENT MARKING LINE DOES NOT EXIST, THE TRAVEL LANE IS DEFINED BY THE CONTRACT DOCUMENTS.
22. CONSTRUCT DEPRESSED CURB FOR CURB RAMPS FLUSH TO ADJACENT ROADWAY. GRADE EDGE OF ROAD ELEVATIONS AT THE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. FOR LEVEL TURNING SPACES BEHIND DEPRESSED CURB, ADJUST SLOPES TO PROVIDE POSITIVE DRAINAGE. AT THE JOINT BETWEEN DEPRESSED CURB AND ROADWAYS, REMOVE EXCESS JOINT SEALER AND COVER THE SEALED AREA WITH A LIGHT APPLICATION OF DRY SAND.
23. CHEEK WALLS ARE PERMITTED WHEN ADJACENT TO NON-WALK AREAS OR ELEVATION DIFFERENCES CANNOT BE ACCOMMODATED BY FLARES OR GRADING. GRADE GRASS AREAS OR OTHER NON-WALK AREAS AT 3:1 OR FLATTER. DO NOT INSTALL CHEEK WALLS THAT INTERSECT THE PEDESTRIAN PATH.
24. CONSTRUCT TOP OF PLAIN CEMENT CONCRETE DEPRESSED CURB TO BE FLUSH WITH ADJACENT SURFACES (RAMPS, SIDEWALKS, FLARES).
25. FOR CURB RAMPS THAT LEAD TO A SINGLE CROSSWALK, THE RAMP (EXCLUDING FLARES) TO BE FULLY INSIDE OF MARKED CROSSWALK LINES. SEE SHEET 7 FOR DETAILS.
26. A 4'-0" MAXIMUM DIGITAL DISPLAY LEVEL WILL BE USED TO VERIFY THE SLOPES OF CURB RAMPS AND SIDEWALKS.
27. INSTALL DUMMY JOINTS WHERE RAMPS, TURNING SPACES, FLARES, AND SIDEWALKS ABUT.
28. CONSTRUCT DEPRESSED CURB SLOPE TO MATCH ROADWAY PROFILE AND HAVE A FLUSH CONNECTION. TRANSITION CURB RAMP CROSS SLOPE TO MATCH ROADWAY PROFILE AS GRADUALLY AS POSSIBLE. DO NOT EXCEED 3.00% PER 1'-0" CROSS SLOPE RATE OF CHANGE WHEN TRANSITIONING TO ROADWAY PROFILE.
29. DO NOT SCORE OR MAKE GROOVES ON SLOPED SURFACES. LINES SHOWN ON DETAILS ARE FOR ILLUSTRATION ONLY. SEE NOTE 5.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS NEW CONSTRUCTION OR ALTERATION DETAILS TYPE 1 CURB RAMPS AND TYPICAL SECTIONS

RECOMMENDED JUN. 10, 2013
CHIEF, HWY. DELIVERY DIVISION

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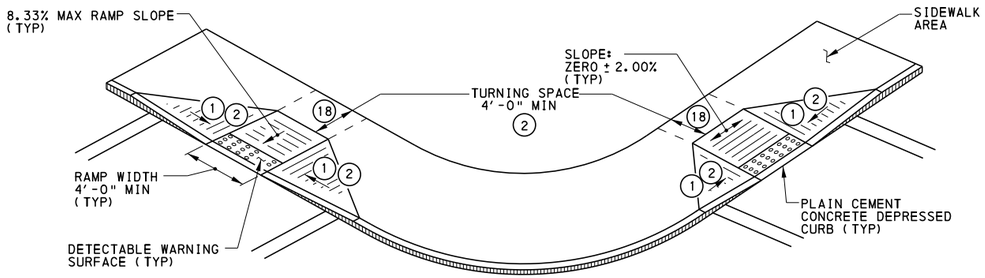
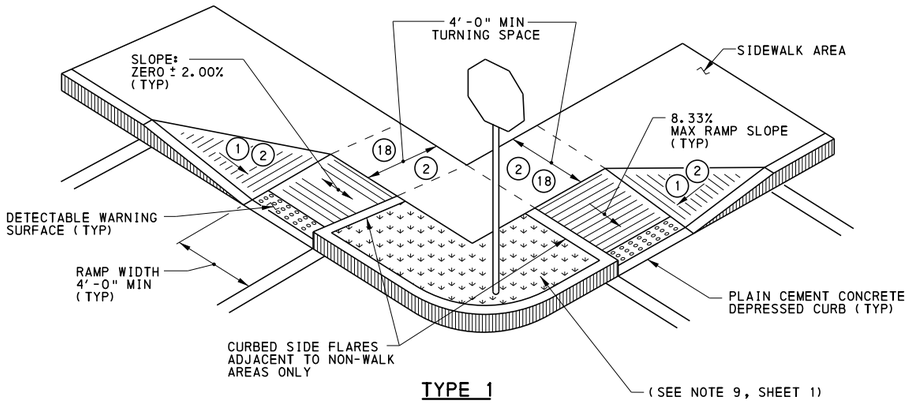
SHT 1 OF 14

RC-67M

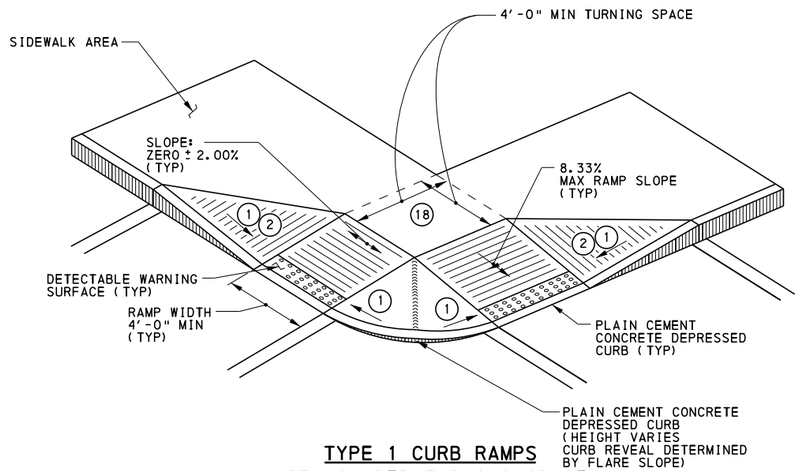


NOTE: IF SPACE IS LIMITED, IT MAY BE NECESSARY TO CURB THE SIDE FLARES OF THE TYPE 1 CURB RAMPS (SEE ALTERNATE INSTALLATION DETAIL BELOW). PEDESTRIAN TRAFFIC SHOULD NOT BE DIRECTED TO CROSS THE VERTICAL DROP.

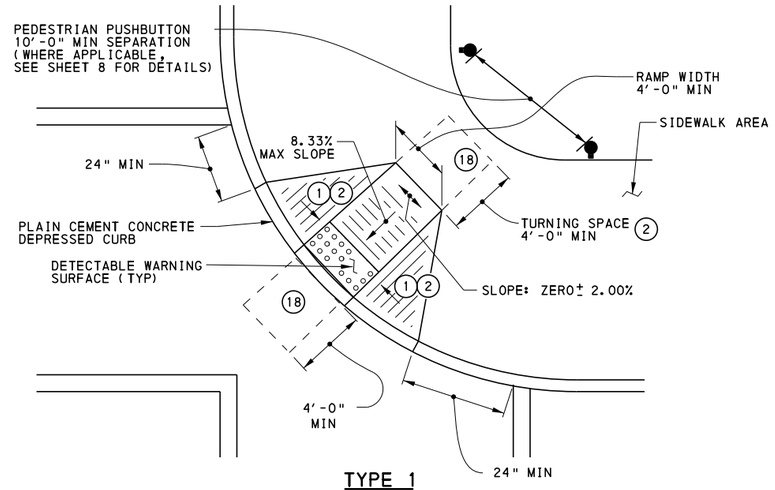
TYPE 1
DOUBLE CURB RAMPS
(PREFERRED INSTALLATION)



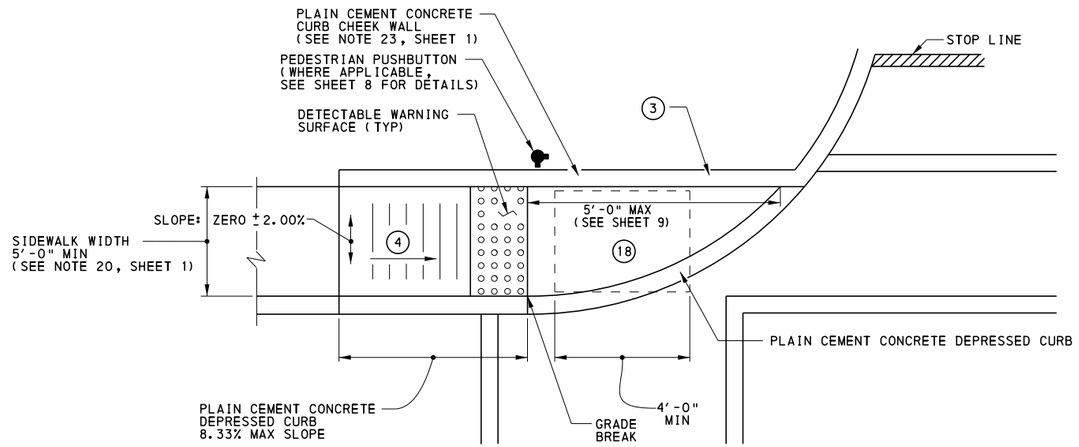
TYPE 1
DOUBLE CURB RAMPS
(ALTERNATE INSTALLATION)



TYPE 1 CURB RAMPS
WITH SHARED TURNING SPACE



TYPE 1
CURB RAMP
(DIAGONAL - REQUIRES ASSISTANT DISTRICT EXECUTIVE APPROVAL)



TYPE 1A
CURB RAMP
ASSISTANT DISTRICT EXECUTIVE APPROVAL REQUIRED IF TURNING SPACE IS NOT ENTIRELY ON SIDEWALK

(1) SIDE FLARES 10.00% MAX SLOPE.

(2) IF THE TURNING SPACE IS INDICATED TO BE LESS THAN 4'-0", CONSTRUCT SIDE FLARES 8.33% MAX SLOPE.

(3) OPTIONAL ROLLED CONCRETE SURFACE OR REGRADE SLOPE CAN BE USED TO MEET THE ADJACENT SURFACES IN LIEU OF A RETURN CURB CHEEK WALL.

(4) 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1.

(18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR ALTERATION DETAILS
TYPE 1 AND TYPE 1A CURB RAMPS

RECOMMENDED JUN. 10, 2013
CHIEF, HWY. DELIVERY DIVISION

RECOMMENDED JUN. 10, 2013
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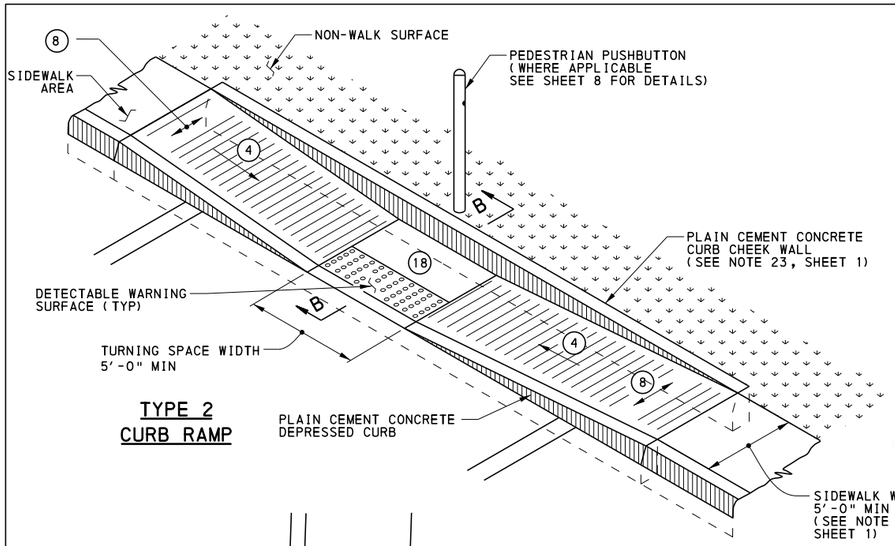
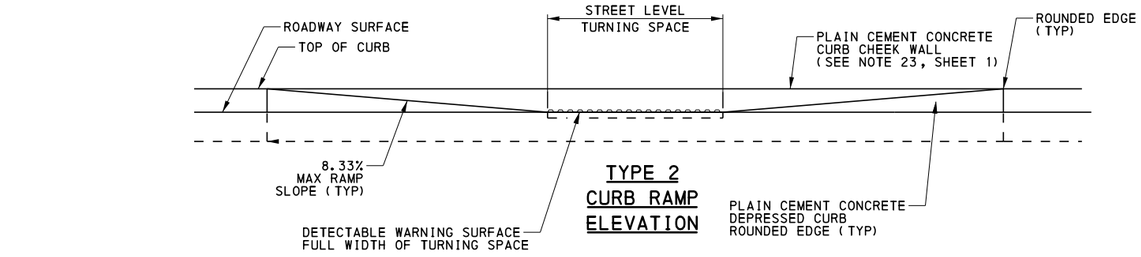
SHT 2 OF 14

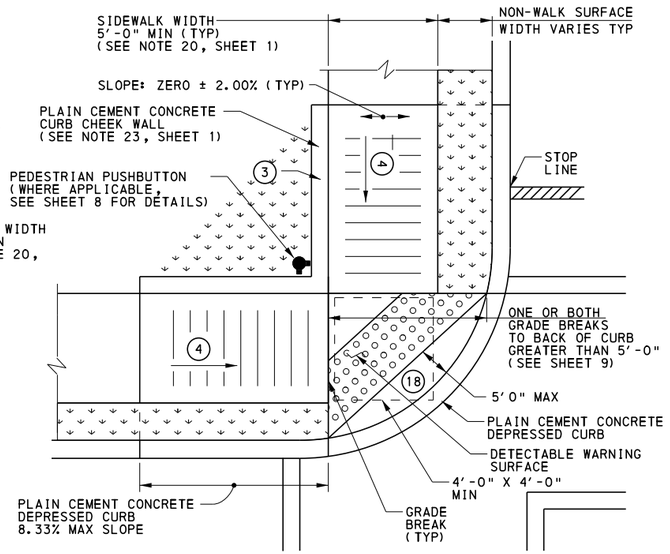
RC-67M

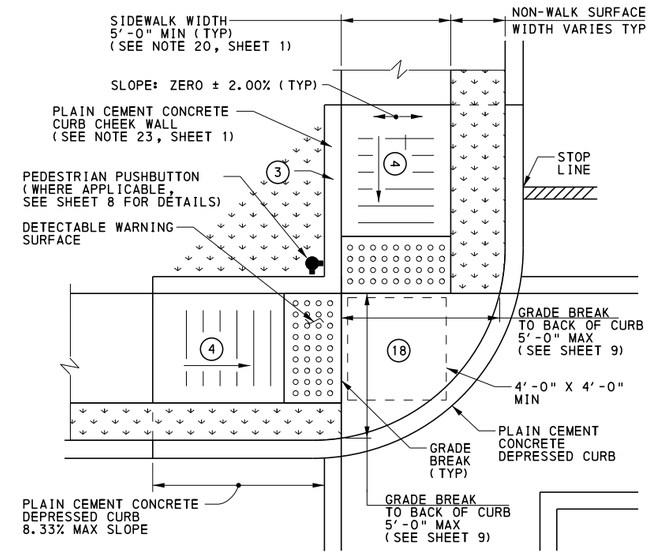


TYPE 2
CURB RAMP

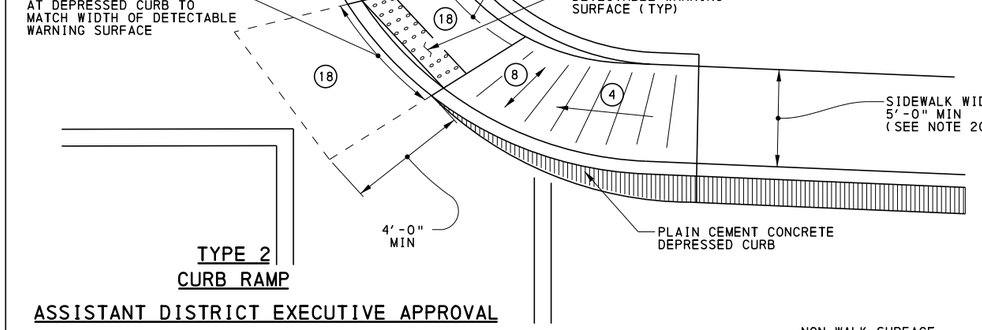


TYPE 2
CURB RAMP
ELEVATION





TYPE 1A
CURB RAMPS
ASSISTANT DISTRICT EXECUTIVE APPROVAL
REQUIRED IF TURNING SPACE
IS NOT ENTIRELY ON SIDEWALK



TYPE 2
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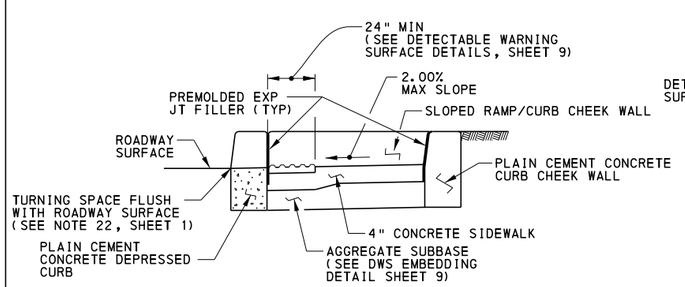
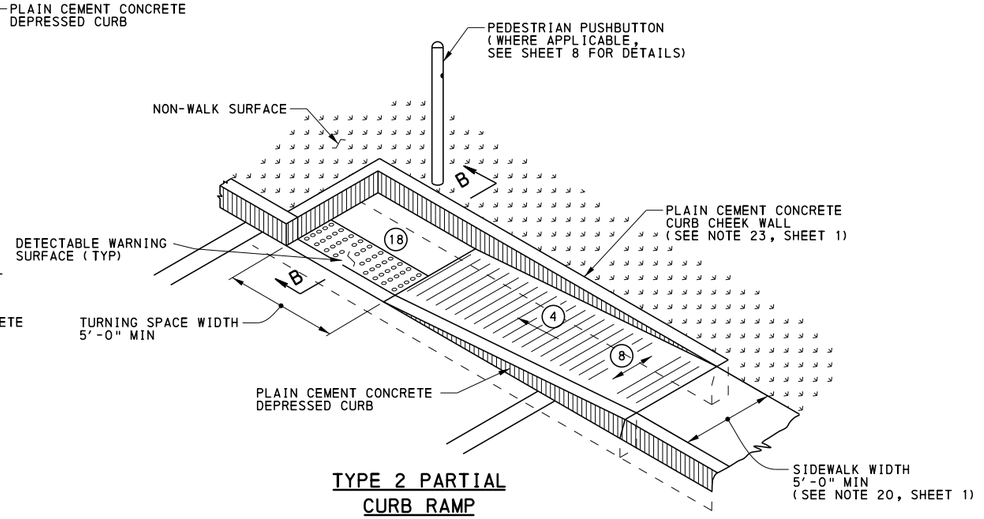
ASSISTANT DISTRICT EXECUTIVE APPROVAL
REQUIRED IF TURNING SPACE
IS NOT ENTIRELY ON SIDEWALK



TYPE 2
CURB RAMP
SECTION B-B



TYPE 2 PARTIAL
CURB RAMP

(3) OPTIONAL CONCRETE ROLLED FLARE OR REGRADE SLOPE CAN BE USED TO MEET THE ADJACENT SURFACES IN LIEU OF PLAIN CEMENT CONCRETE CURB CHEEK WALL. SEE SHEET 4.

(4) 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1

(8) SLOPE: ZERO ±2.00%

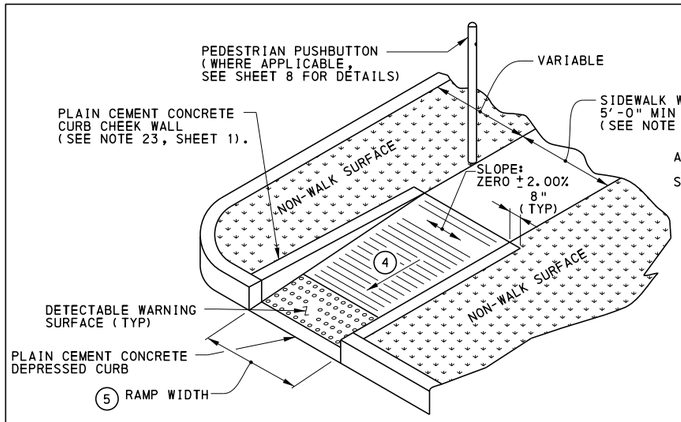
(18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

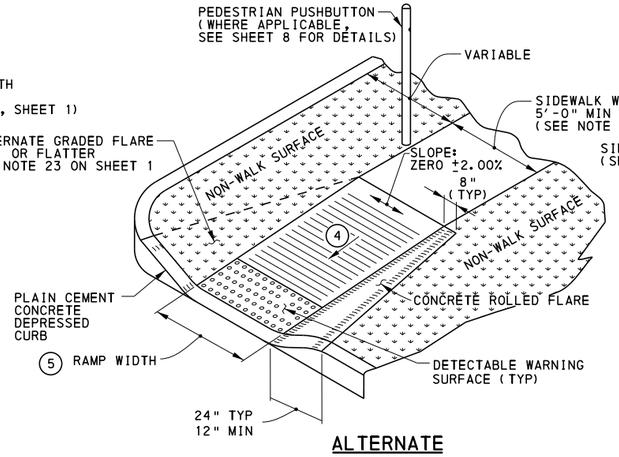
CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR ALTERATION DETAILS TYPE 1A AND TYPE 2 CURB RAMPS

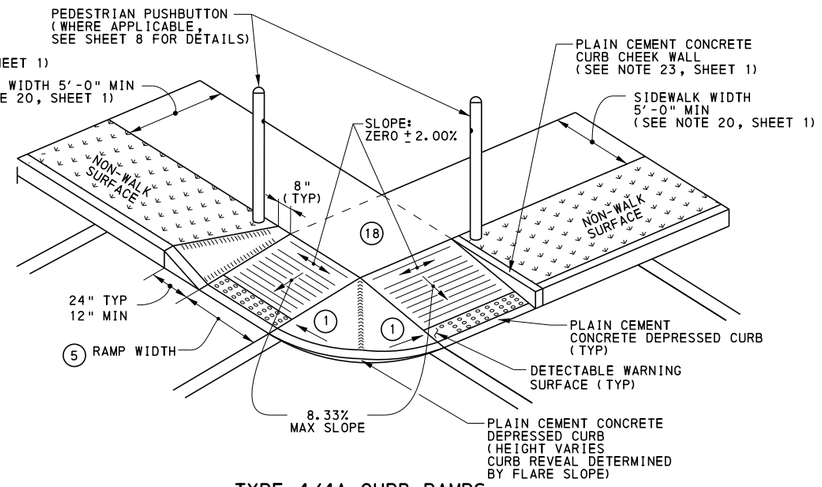
RECOMMENDED JUN. 10, 2013	RECOMMENDED JUN. 10, 2013	SHT 3 OF 14
CHIEF, HWY. DELIVERY DIVISION	ACTING DIR. BUREAU OF PROJECT DELIVERY	RC-67M



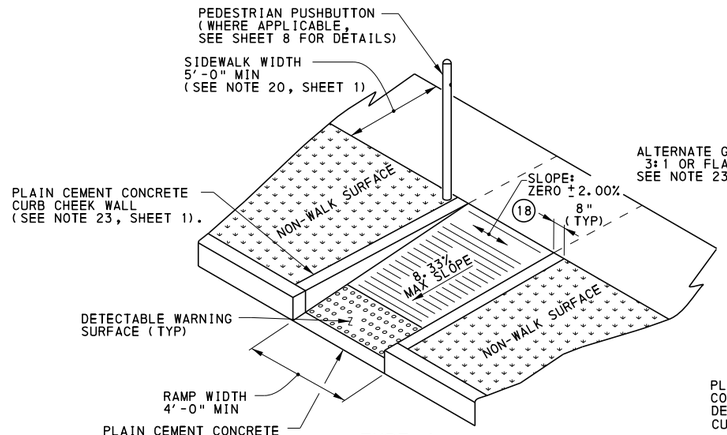
TYPE 4
CURB RAMP
(PARALLEL)



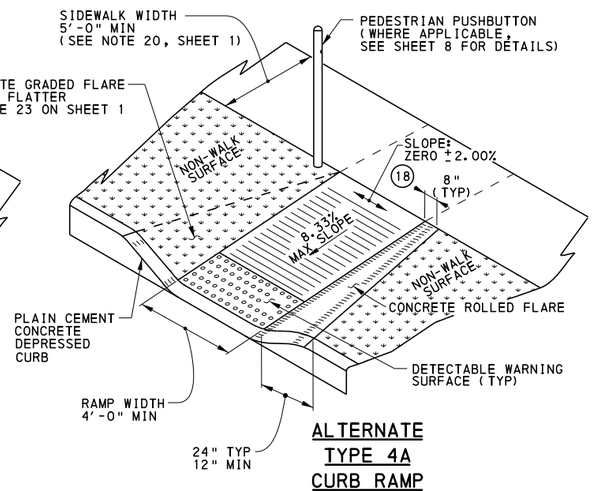
ALTERNATE
TYPE 4A
CURB RAMP
(PARALLEL)



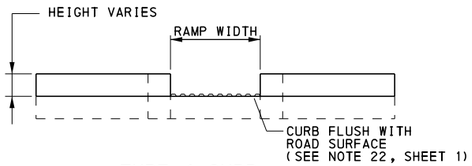
TYPE 4/4A CURB RAMPS
WITH SHARED TURNING SPACE



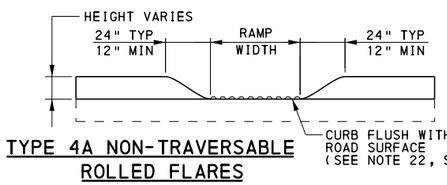
TYPE 4
CURB RAMP
(PERPENDICULAR)



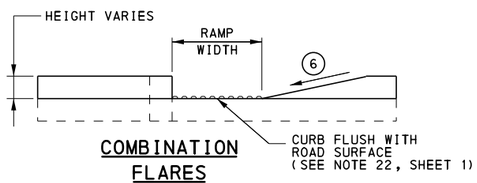
ALTERNATE
TYPE 4A
CURB RAMP
(PERPENDICULAR)



TYPE 4 CURB
CHEEK WALL FLARES



TYPE 4A NON-TRAVERSABLE
ROLLED FLARES



COMBINATION
FLARES

TYPICAL ELEVATIONS
FOR DEPRESSED CURBS

(1) SIDE FLARES 10.00% MAX SLOPE.

(4) 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1.

(5) CURB RAMP WIDTH IS EQUAL TO SIDEWALK WIDTH WHEN THE SIDEWALK WIDTH IS GREATER THAN OR EQUAL TO THE MINIMUM 4'-0".

(6) SLOPE VARIES SEE RAMP DETAILS.

(18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS NEW CONSTRUCTION OR ALTERATION DETAILS TYPE 4 CURB RAMPS AND TYPICAL ELEVATIONS

RECOMMENDED JUN. 10, 2013
CHIEF, HWY. DELIVERY DIVISION

RECOMMENDED JUN. 10, 2013
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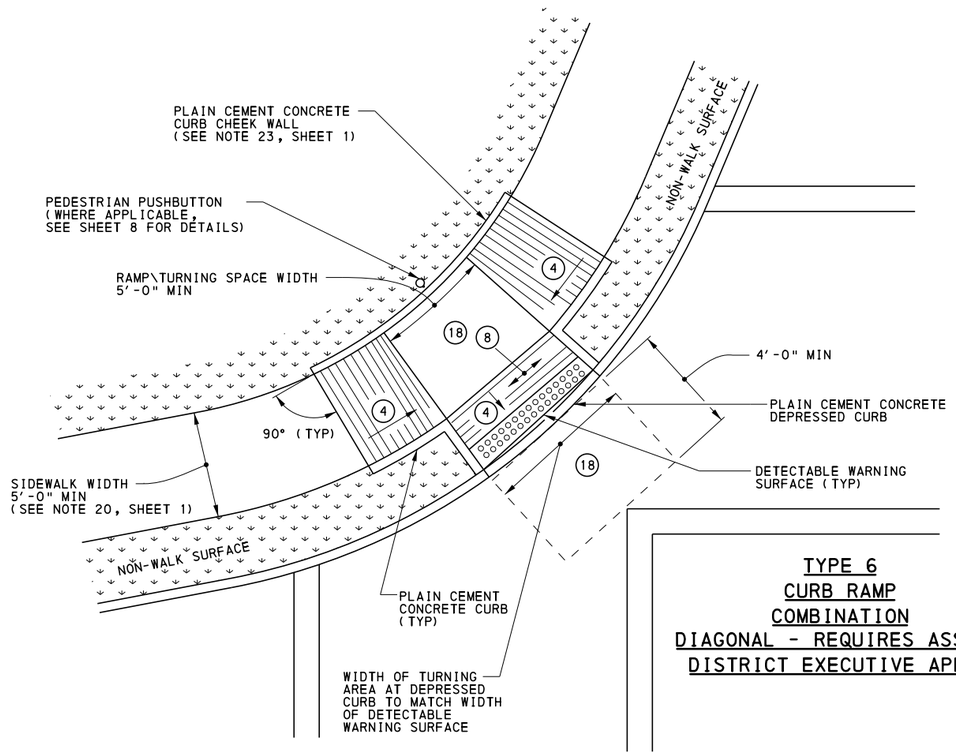
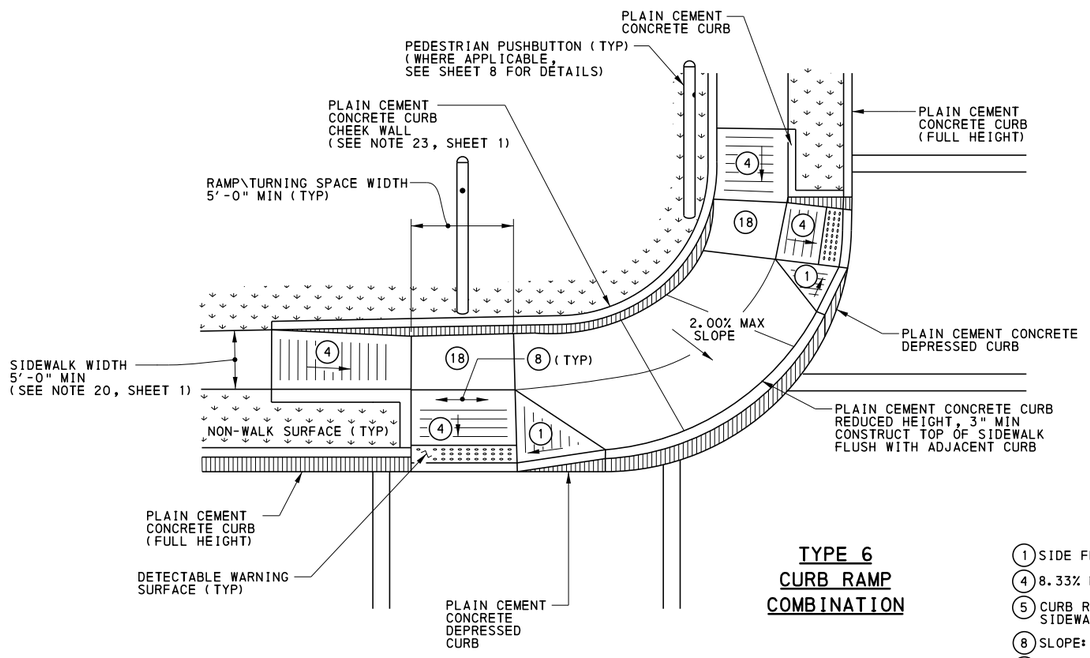
SHT 4 OF 14

RC-67M

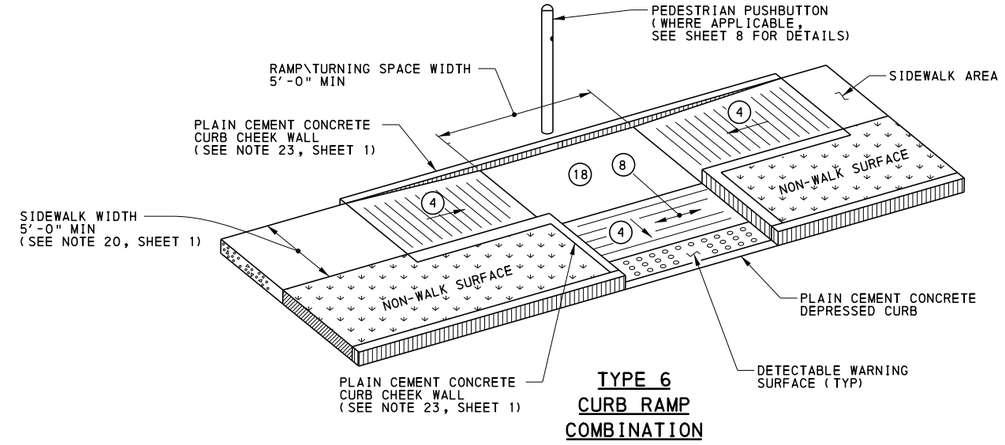


TYPE 6 CURB RAMP COMBINATION DIAGONAL - REQUIRES ASSISTANT DISTRICT EXECUTIVE APPROVAL

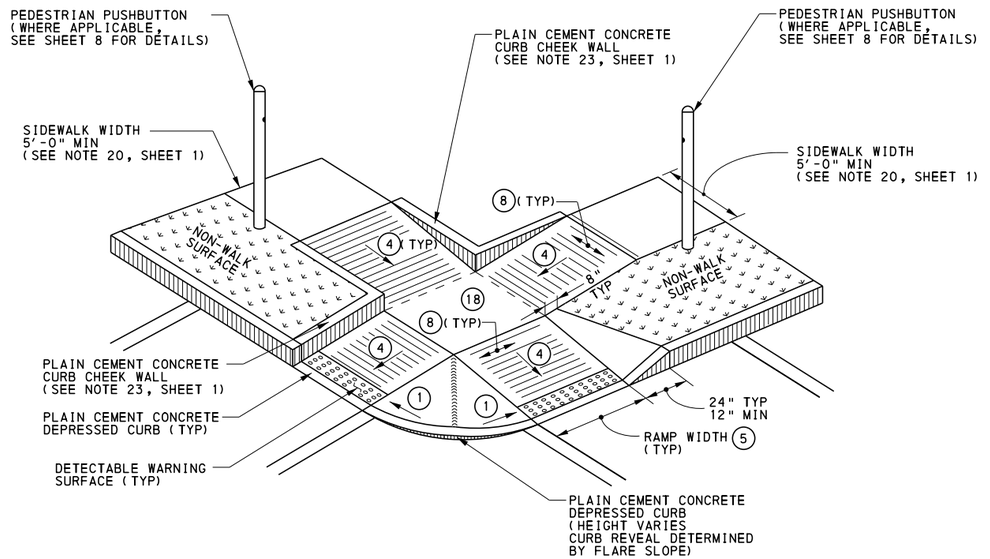


TYPE 6 CURB RAMP COMBINATION

(1) SIDE FLARES 10.00% MAX SLOPE.
(4) 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1.
(5) CURB RAMP WIDTH IS EQUAL TO SIDEWALK WIDTH WHEN THE SIDEWALK WIDTH IS GREATER THAN OR EQUAL TO 4'-0".
(8) SLOPE: ZERO ± 2.00%.
(18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.



TYPE 6 CURB RAMP COMBINATION



TYPE 6 CURB RAMPS WITH SHARED TURNING SPACE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR ALTERATION DETAILS
TYPE 6 CURB RAMPS

RECOMMENDED JUN. 10, 2013
CHIEF, HWY. DELIVERY DIVISION

RECOMMENDED JUN. 10, 2013
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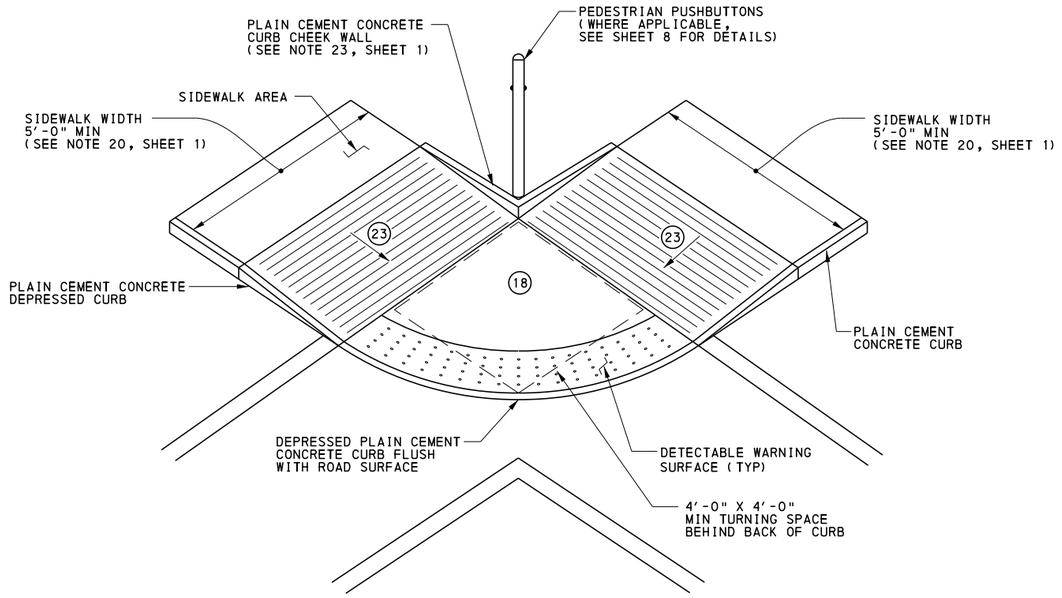
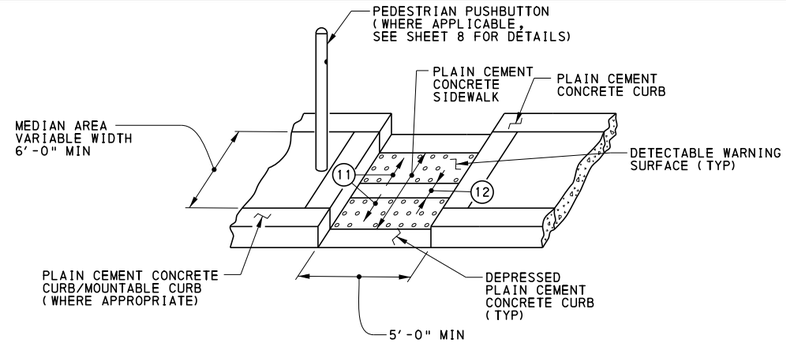
SHT 5 OF 14
RC-67M

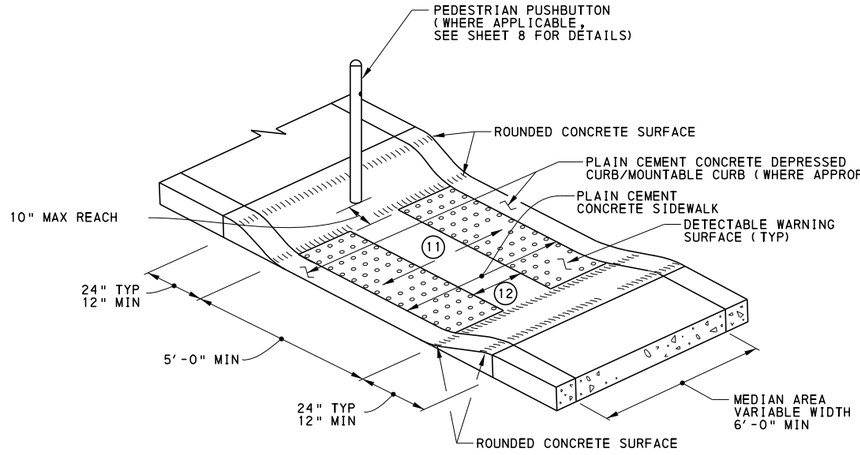


NOTE: DO NOT INSTALL GRATINGS, ACCESS COVERS AND OTHER APPURTENANCES ON THE BLENDED TRANSITION SURFACE WITHIN THE PEDESTRIAN ACCESS ROUTE. EXISTING UTILITY COVERS IN THE PATH OF TRAVEL ARE ACCEPTABLE IF THE TOP SURFACE IS FLUSH [LESS THAN 1/4" IN ELEVATION DIFFERENCE], FIRM, STABLE AND SLIP RESISTANT. INLET GRATES MUST HAVE OPENINGS NO GREATER THAN 1/2" IN DIRECTION OF TRAVEL.

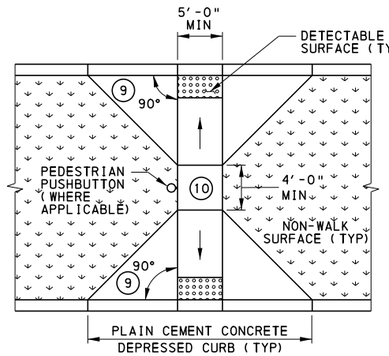
BLENDED TRANSITION



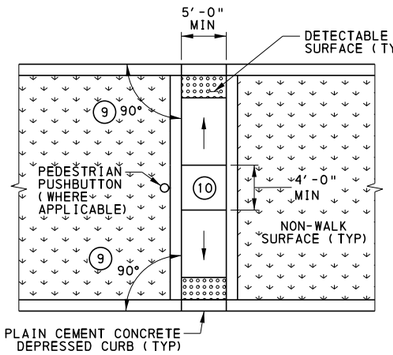
TYPE A
TYPICAL MEDIAN OR ISLAND ACCESS OPENING WITH CURB SIDES
(NARROW MEDIANS)



TYPE B
TYPICAL MEDIAN OR ISLAND ACCESS OPENING WITH FLARED SIDES
(NARROW MEDIANS)



RAMPED MEDIAN OR ISLAND ACCESS OPENING (TYPE 1 DOUBLE CURB RAMPS)



RAMPED MEDIAN OR ISLAND ACCESS OPENING (TYPE A DOUBLE CURB RAMPS)

(9) 90° DESIRABLE.

(10) TURNING SPACES ARE NOT REQUIRED FOR LONGITUDINAL SLOPES 5.00% OR LESS.

(11) PROVIDE ADEQUATE SLOPE FOR DRAINAGE (5.00% MAX).

(12) 2'-0" MIN SEPARATION. DO NOT INSTALL DETECTABLE WARNING SURFACES IF SEPARATION IS LESS THAN 2'-0". REFER TO DM-2 CHAPTER 6 FOR ADDITIONAL DETAILS.

(18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

(23) 5.00% MAX RUNNING SLOPE FOR BLENDED TRANSITION. FOR SLOPES GREATER THAN 5.00% SEE TYPE 2 CURB RAMPS ON SHEET 3 FOR ADDITIONAL DETAILS.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR ALTERATION DETAILS
BLENDED TRANSITION / MEDIANS

RECOMMENDED JUN. 10, 2013
CHIEF, HWY. DELIVERY DIVISION

RECOMMENDED JUN. 10, 2013
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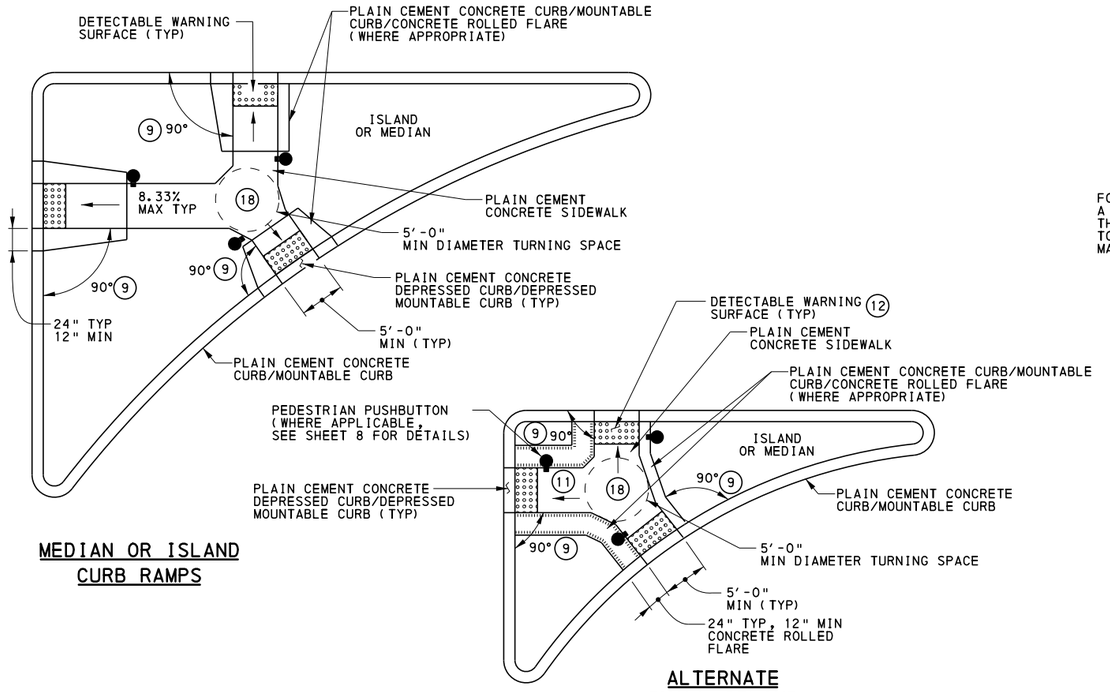
SHT 6 OF 14

RC-67M



MEDIAN OR ISLAND CURB RAMPS

ALTERNATE SMALL ISLAND WITH CUT THROUGH

(9) 90° DESIRABLE.

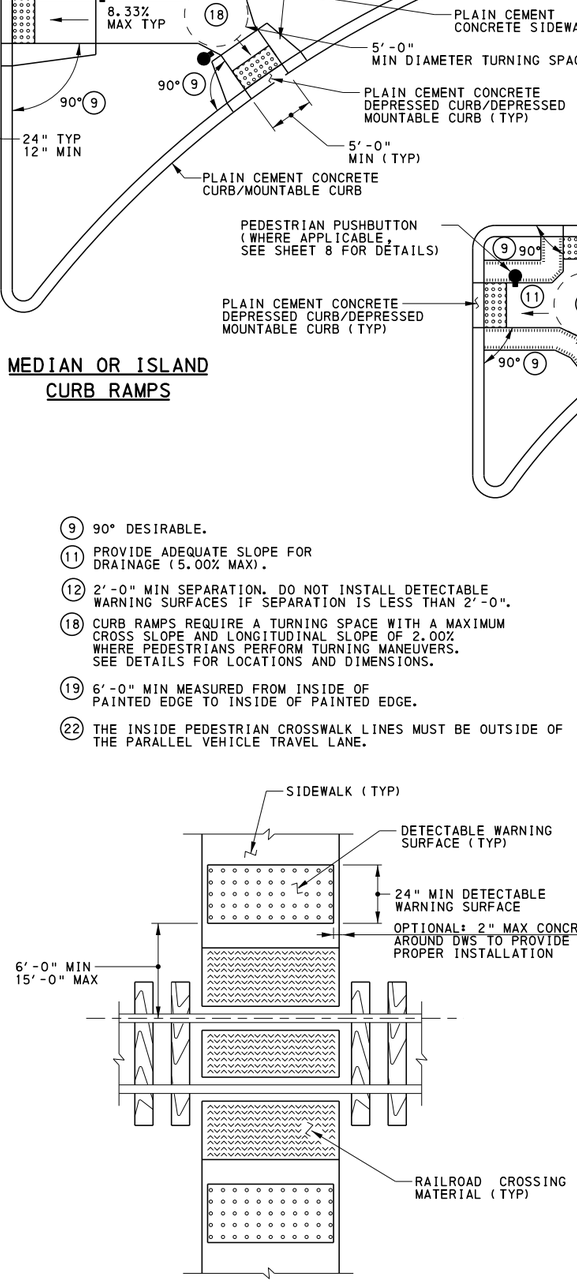
(11) PROVIDE ADEQUATE SLOPE FOR DRAINAGE (5.00% MAX).

(12) 2'-0" MIN SEPARATION. DO NOT INSTALL DETECTABLE WARNING SURFACES IF SEPARATION IS LESS THAN 2'-0".

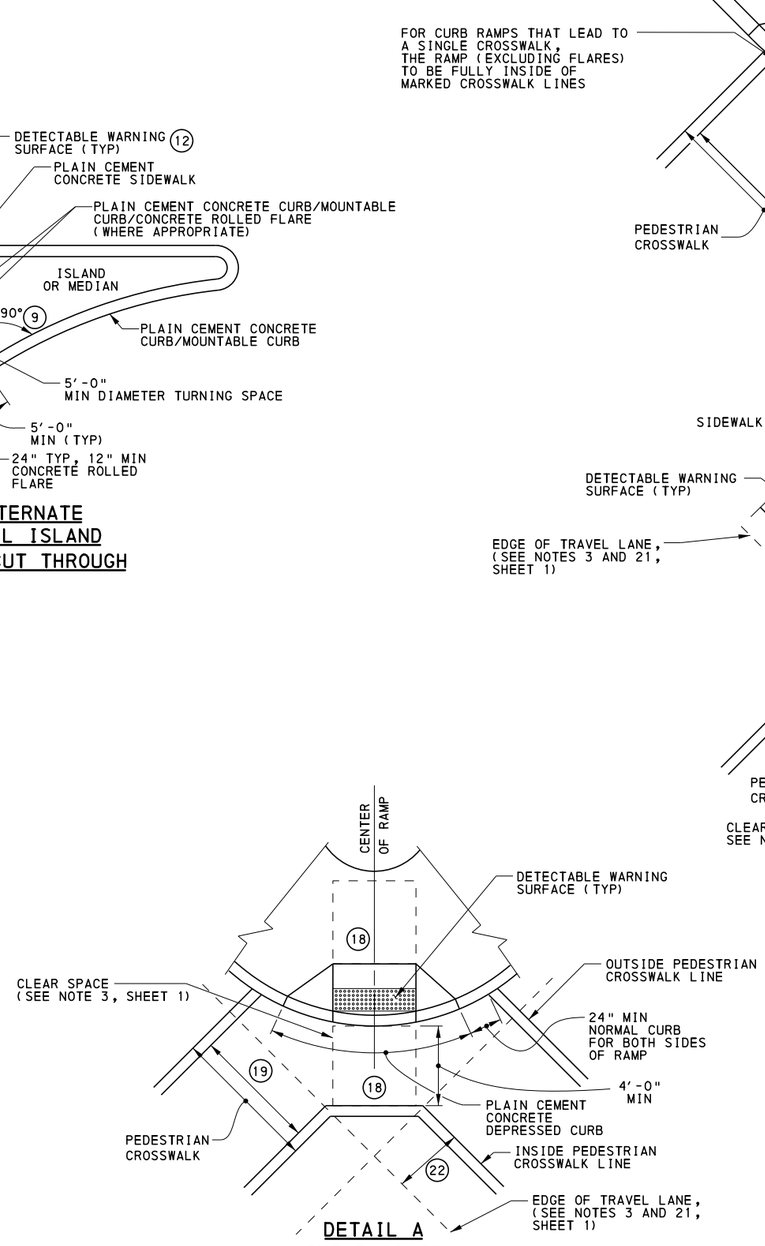
(18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

(19) 6'-0" MIN MEASURED FROM INSIDE OF PAINTED EDGE TO INSIDE OF PAINTED EDGE.

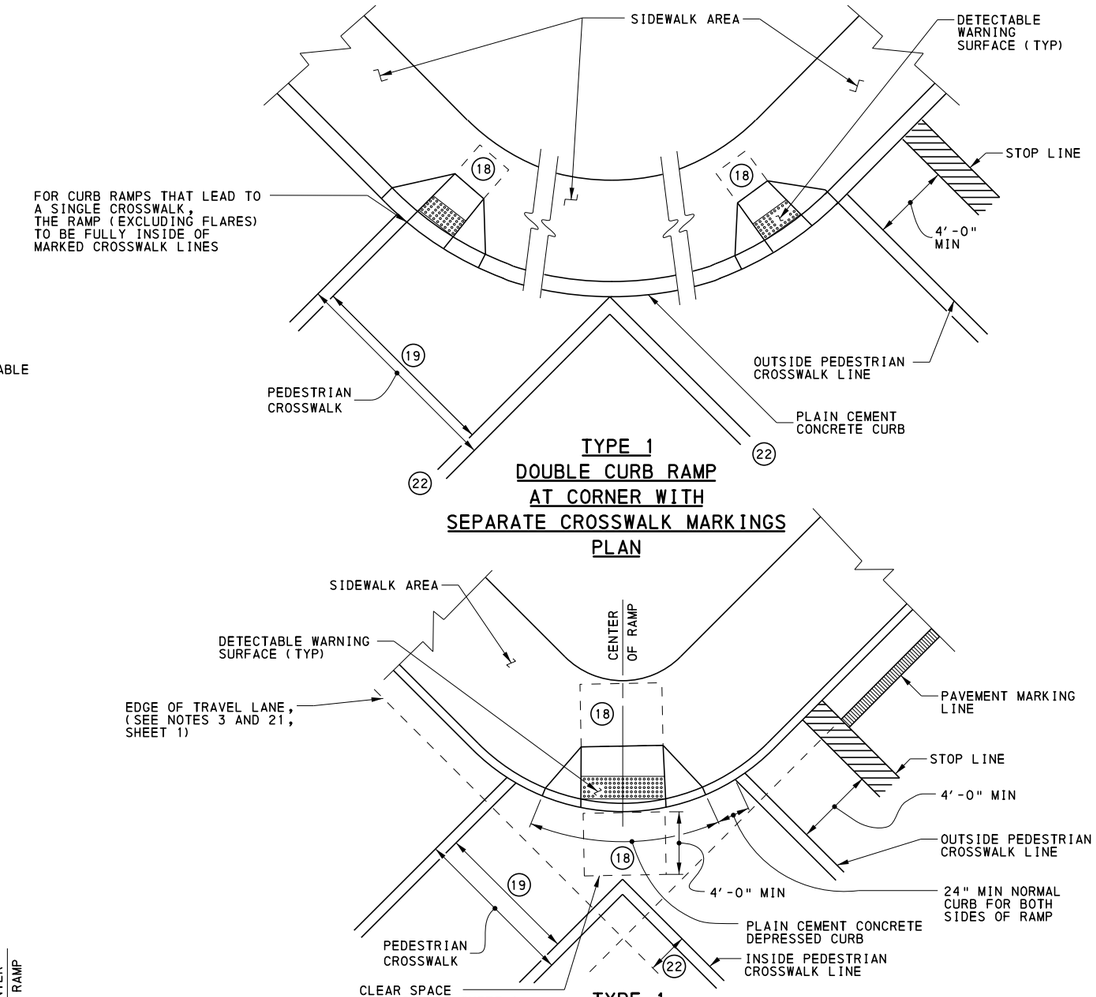
(22) THE INSIDE PEDESTRIAN CROSSWALK LINES MUST BE OUTSIDE OF THE PARALLEL VEHICLE TRAVEL LANE.



TYPICAL DETECTABLE WARNING SURFACE AT RAILROAD CROSSING



DETAIL A
CLEAR SPACE AT CROSSWALK MARKINGS PLAN
(DIAGONAL - REQUIRES ASSISTANT DISTRICT EXECUTIVE APPROVAL)



TYPE 1
DOUBLE CURB RAMP AT CORNER WITH SEPARATE CROSSWALK MARKINGS PLAN

TYPE 1
SINGLE CURB RAMP AT CORNER WITH CROSSWALK MARKINGS PLAN
(DIAGONAL- REQUIRES ASSISTANT DISTRICT EXECUTIVE APPROVAL)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS NEW CONSTRUCTION OR ALTERATION DETAILS

CROSSWALKS, MEDIANS, RAILROAD CROSSING DETECTABLE WARNING SURFACE

RECOMMENDED JUN. 10, 2013
CHIEF, HWY. DELIVERY DIVISION

RECOMMENDED JUN. 10, 2013
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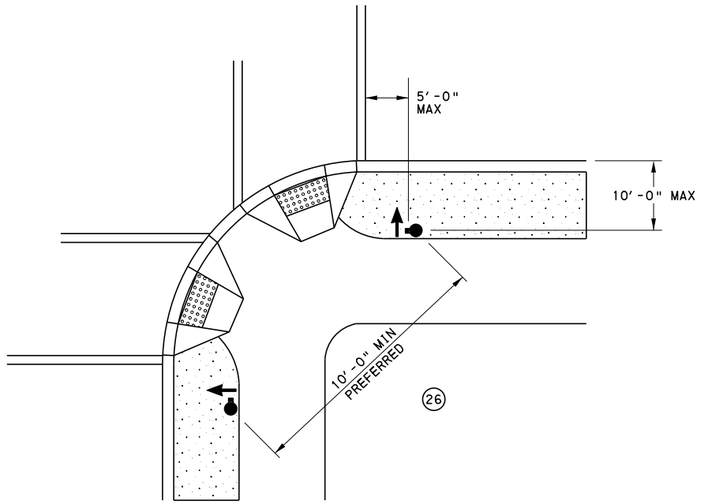
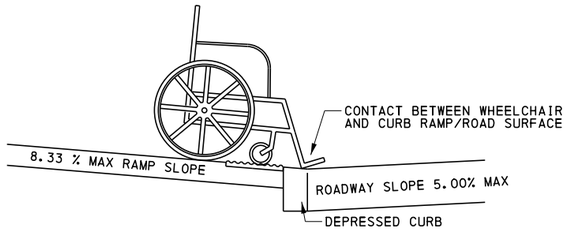
SHT 7 OF 14

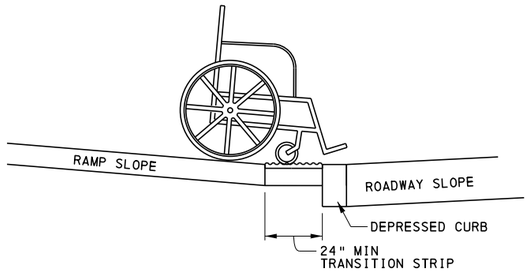
RC-67M



RECOMMENDED PUSHBUTTON LOCATIONS



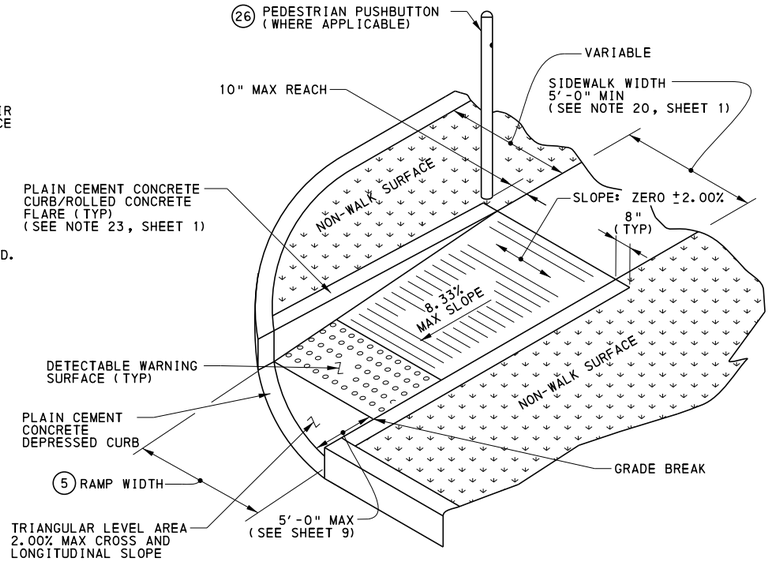
ALGEBRAIC DIFFERENCES BETWEEN ROADWAY SLOPE AND CURB RAMP SLOPE GREATER THAN 13.33% NOT PERMITTED.



PROVIDE A 24" MIN TRANSITION STRIP IF ALGEBRAIC DIFFERENCES BETWEEN ROADWAY SLOPE AND CURB RAMP SLOPE ARE GREATER THAN 13.33%.

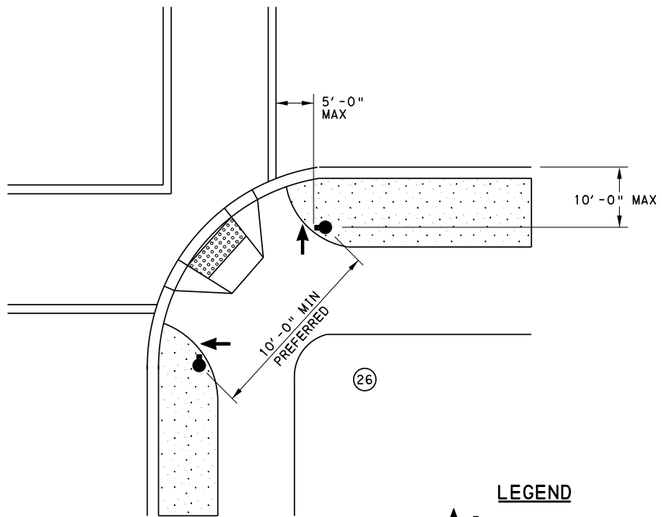
TRANSITION STRIP SLOPE NOT TO EXCEED 5.00%

CHANGE OF GRADE LIMITATIONS



TRIANGULAR LEVEL AREA FOR DIRECTIONAL RAMPS ON CURB RETURNS

PROVIDE A LEVEL TRIANGULAR AREA WHEN DIRECTIONAL RAMPS ARE INSTALLED ON A CURB RETURN TO TRANSITION THE GRADE BREAK.



LEGEND

PEDESTRIAN PUSHBUTTON

RECOMMENDED PUSHBUTTON LOCATIONS

RAMP CROSS SLOPE TRANSITION TO MATCH ROADWAY PROFILE SLOPE

* SLOPES SHOWN ARE FOR ILLUSTRATION ONLY.

TRANSITION CURB RAMP CROSS SLOPE TO MATCH ROADWAY PROFILE AS GRADUALLY AS POSSIBLE. DO NOT EXCEED 3.00 % PER 1′-0" CROSS SLOPE RATE OF CHANGE WHEN TRANSITIONING TO ROADWAY PROFILE.

COMPLETE TRANSITION TO ROADWAY PROFILE BEHIND DETECTABLE WARNING SURFACE OR USE 1′-0" DETECTABLE WARNING SURFACE TILES.

CONSTRUCT DEPRESSED CURB SLOPE TO MATCH ROADWAY PROFILE.

(5) CURB RAMP WIDTH IS EQUAL TO SIDEWALK WIDTH WHEN THE SIDEWALK WIDTH IS GREATER THAN OR EQUAL TO 4′-0".

(26) NEW CONSTRUCTION MUST COMPLY WITH RECOMMENDED LOCATIONS. FOR ALTERATION PROJECTS LOCATE PEDESTRIAN PUSHBUTTONS, TO THE MAXIMUM EXTENT FEASIBLE, AS FOLLOWS:

- ADJACENT TO A LEVEL NON-SLIP SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS A NON-SLIP WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
- WITHIN 5′-0" OF THE CROSSWALK EXTENDED.
- BETWEEN 1′-6" AND 10′-0" OF THE EDGE OF CURB, SHOULDER OR PAVEMENT.
- PARALLEL TO THE CROSSWALK TO BE USED.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS NEW CONSTRUCTION OR ALTERATION DETAILS PUSHBUTTONS, TRIANGULAR LEVEL AREA, CHANGE OF GRADE AND CROSS SLOPE TRANSITIONS

RECOMMENDED JUN. 10, 2013
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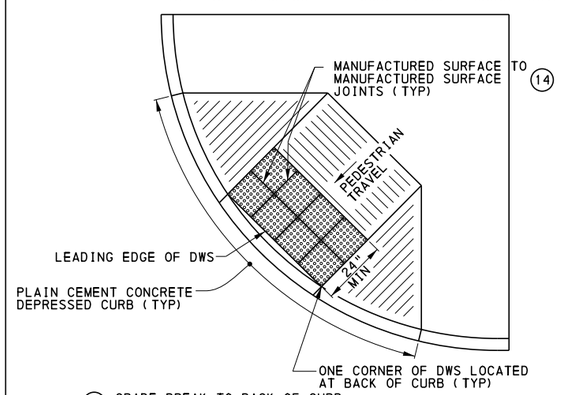
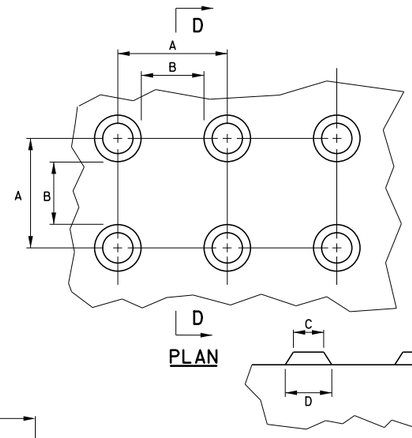
SHT 8 OF 14

RC-67M

SEE NOTE 3 ON SHEET 1 CONCERNING DIAGONAL RAMPS



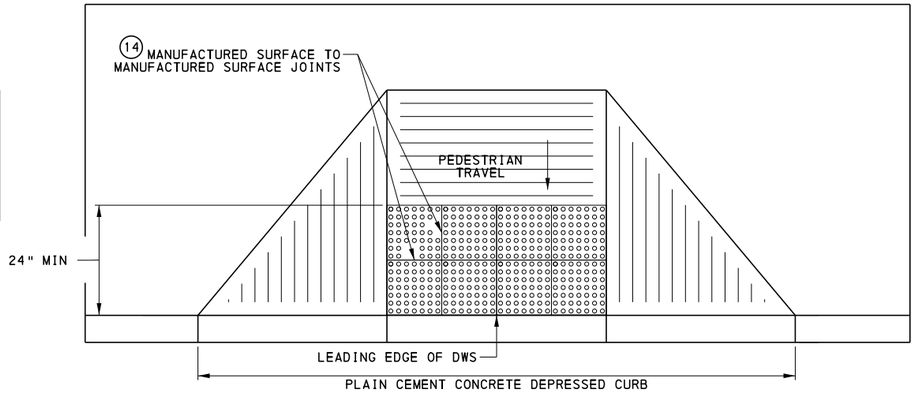


PLAN

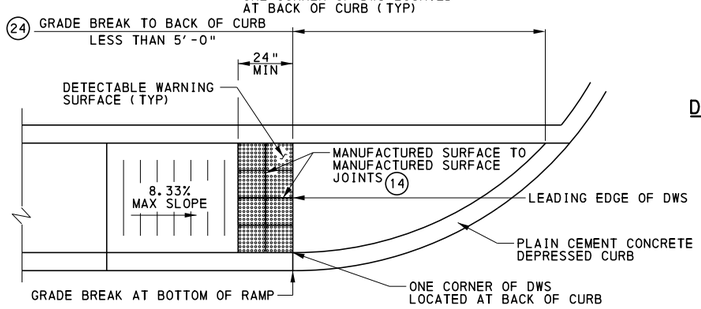
SECTION D-D

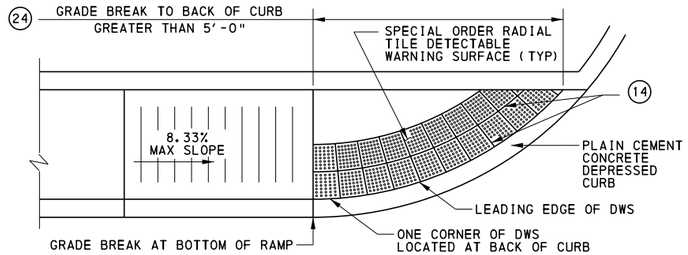
TRUNCATED DOME DIMENSIONS		
DIM	MIN mm (inch)	MAX mm (inch)
A	1.6"	2.4"
B	0.65"	1.5"
C	(13)	(13)
D	0.9"	1.4"

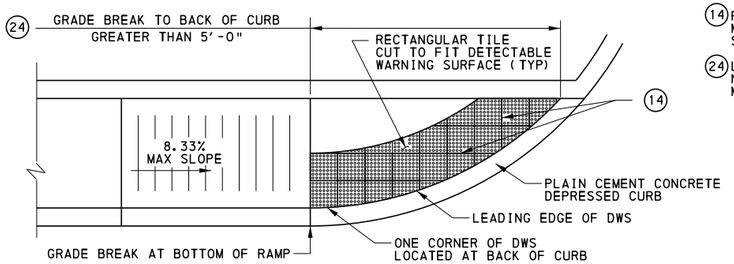
DETECTABLE WARNING SURFACE (DWS)
TRUNCATED DOME DETAILS

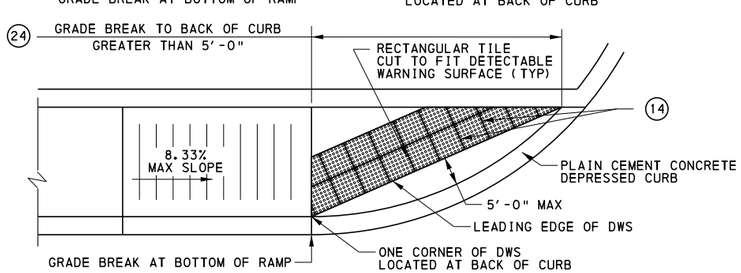


DETECTABLE WARNING SURFACE (DWS)
ON TYPE 1 CURB RAMP







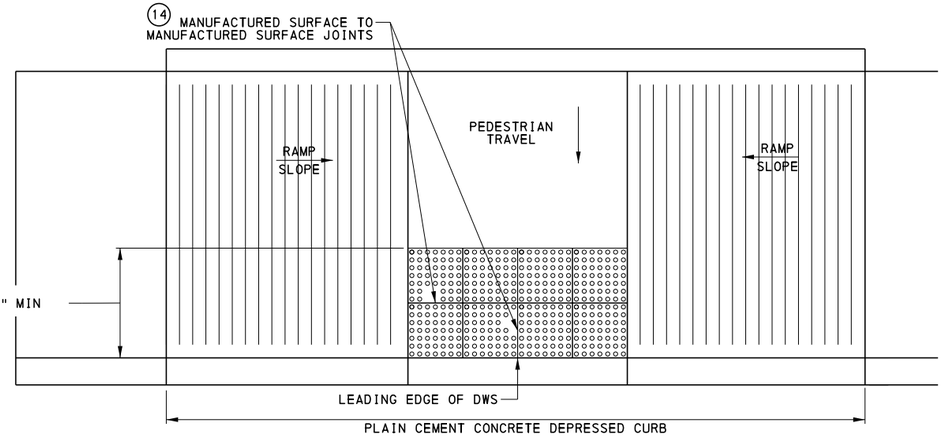


DETECTABLE WARNING SURFACE (DWS)
ON CURVED SURFACES

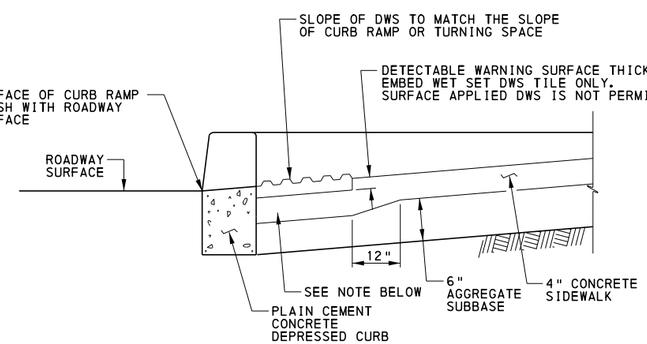
(13) THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

(14) PLACE ADJACENT DWS TILES WITH MANUFACTURED SURFACE TO MANUFACTURED SURFACE. CUT TILES ALONG THE PERIMETER ONLY.

(24) LOCATE ONE CORNER OF THE DWS AT THE BACK OF CURB. NO OTHER POINT ON THE LEADING EDGE OF THE DWS MAY BE MORE THAN 5'-0" AWAY FROM THE BACK OF CURB.



DETECTABLE WARNING SURFACE (DWS)
ON TYPE 2 CURB RAMP



NOTES:
CONSTRUCT NOTCH AS SHOWN TO PROVIDE FULL THICKNESS SIDEWALK UNDER DETECTABLE WARNING SURFACE.

OPTIONAL: CONSTRUCT 2" MAX CONCRETE BORDER AROUND DWS TO PROVIDE PROPER INSTALLATION. SEE PEDESTRIAN PUSHBUTTON ACCESS AREAS DETAIL ON SHEET 14, FOR PLAN VIEW DETAILS.

DETECTABLE WARNING SURFACE
EMBEDDING DETAIL

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR ALTERATION DETAILS
DETECTABLE WARNING SURFACE

RECOMMENDED JUN. 10, 2013
CHIEF, HWY. DELIVERY DIVISION

RECOMMENDED JUN. 10, 2013
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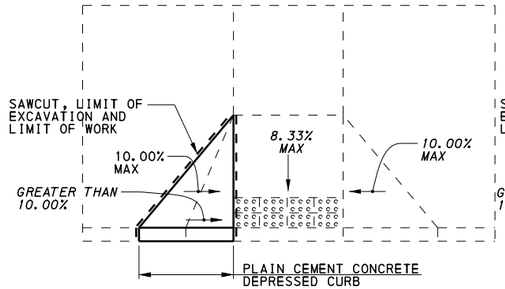
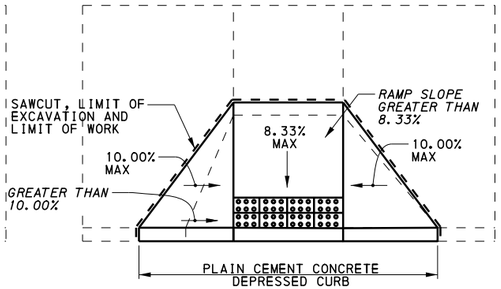
SHT 9 OF 14

RC-67M



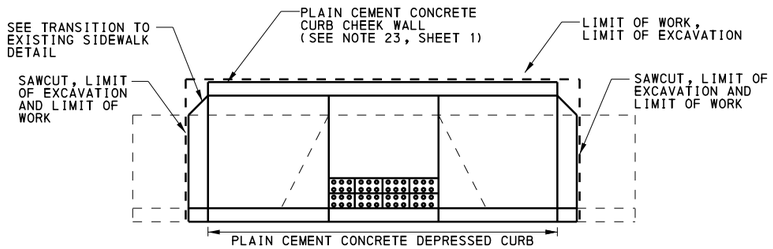
DETAIL ILLUSTRATES FLARE REMOVAL AND REPLACEMENT.

SIDE FLARE RECONSTRUCTION



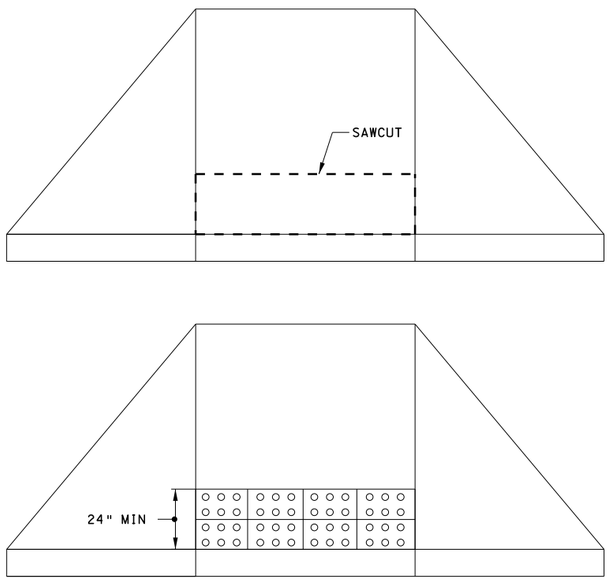
DETAIL ILLUSTRATES CURB RAMP (INCLUDING FLARES) REPLACEMENT.

TOTAL RAMP RECONSTRUCTION

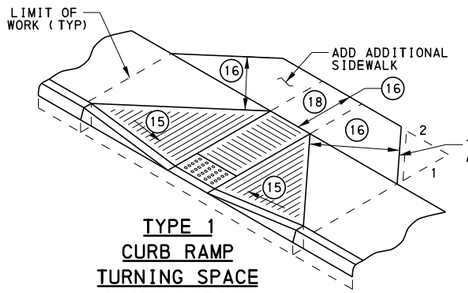


DETAIL ILLUSTRATES A TYPE 1 EXISTING RAMP REPLACED WITH A TYPE 2 RAMP. USE THIS DETAIL AS AN EXAMPLE TO REPLACE ANY RAMP WITH A DIFFERENT CURB RAMP TYPE.

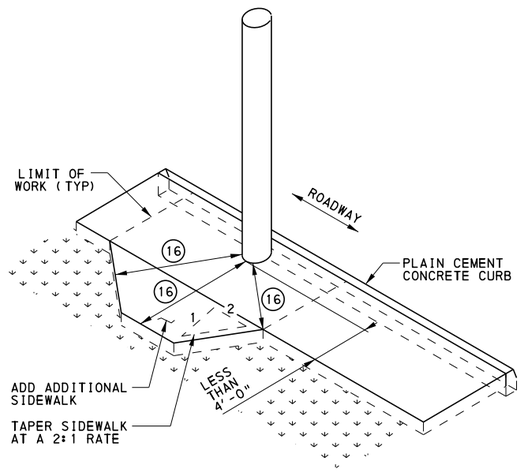
TOTAL RAMP RECONSTRUCTION (RAMP TYPE CHANGE)



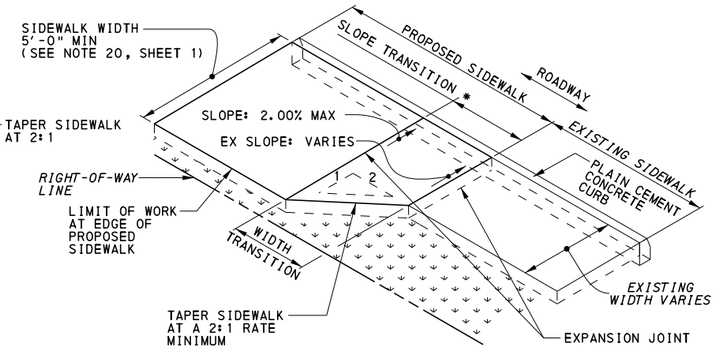
DETECTABLE WARNING SURFACE (DWS) INSTALLATION DETAIL



TYPE 1 CURB RAMP TURNING SPACE INSTALLATION



SIDEWALK ADDITION DUE TO OBSTRUCTIONS



TRANSITION TO EXISTING SIDEWALK DETAIL

* MINIMUM SLOPE TRANSITION LENGTH BASED ON THE DIFFERENCE OF PROPOSED SIDEWALK CROSS SLOPE AND EXISTING SIDEWALK CROSS SLOPE AT THE LOCATION OF TIE IN. THIS MINIMUM LENGTH TO BE DETERMINED BY THE FOLLOWING FORMULA: DELTA % SLOPE X 0.5'.

THE MINIMUM WIDTH TRANSITION SHALL BE CALCULATED USING THE FOLLOWING FORMULA: CHANGE IN WIDTH X 2.

DEPENDING ON WHICH IS LONGEST, EITHER THE SLOPE TRANSITION OR WIDTH TRANSITION WILL CONTROL THE LENGTH OF SIDEWALK TRANSITION.

TRANSITION AREAS SERVE AS TEMPORARY CONNECTIONS OF THE PEDESTRIAN ACCESS ROUTE. FUTURE IMPROVEMENTS TO THE REMAINING PORTION OF EXISTING SIDEWALK SHALL INCLUDE REMOVING THE TRANSITION AREA AND CONSTRUCTING A FULLY COMPLIANT SIDEWALK.

DETECTABLE WARNING SURFACE (DWS) INSTALLATION INSTRUCTIONS

1. SAW CUT EXISTING CURB RAMP SURFACE WHERE THE DWS WILL BE PLACED.
2. REMOVE EXISTING CONCRETE FROM THIS AREA.
3. REPLACE AND COMPACT ANY DISTURBED AGGREGATE SUBBASE.
4. PLACE NEW CEMENT CONCRETE AND LEVEL TO A 4 INCH DEPTH SO THAT THE TOP OF THE CONCRETE IS LOWER THAN THE ADJOINING SIDEWALK, EQUIVALENT TO THE EMBEDDING DEPTH OF THE DWS MATERIAL.
5. LAY OUT AND PROPERLY FIT EACH UNIT PRIOR TO SETTING IN WET CONCRETE.
6. CUT UNITS AS NECESSARY ALONG PERIMETER OF DETECTABLE WARNING SURFACE.
7. PLACE UNITS ACROSS THE ENTIRE WIDTH OF THE CURB RAMP SURFACE AND/OR WHERE THE CURB IS FLUSH.
8. PRESS UNITS INTO FULL CONTACT WITH THE FRESH CONCRETE.
9. ADJUST HEIGHT OF EACH UNIT EDGE TO BE LEVEL WITH ADJACENT RAMP SURFACES.
10. ONLY TRUNCATED DOMES SHOULD BE ABOVE THE ADJACENT FINISHED CONCRETE.
11. FILL ANY SAW CUT GAPS WITH APPROVED JOINT SEALANT MATERIAL.

(15) SIDE FLARES 10.00% MAX FOR RAMPS WITH TURNING SPACES 4'-0" OR GREATER. SIDE FLARES 8.33% MAX FOR RAMPS WITH TURNING SPACES LESS THAN 4'-0".

(16) 4'-0" MIN PEDESTRIAN ACCESS ROUTE.

(18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS

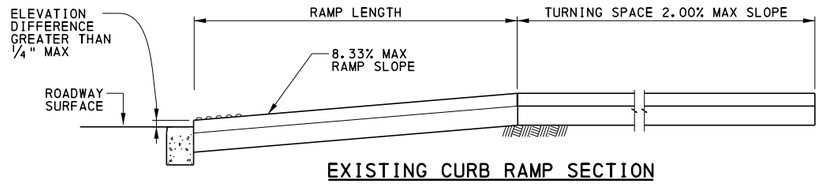
ALTERATION DETAILS

RECOMMENDED JUN. 10, 2013
CHIEF, HWY. DELIVERY DIVISION

RECOMMENDED JUN. 10, 2013
ACTING DIR. BUREAU OF PROJECT DELIVERY

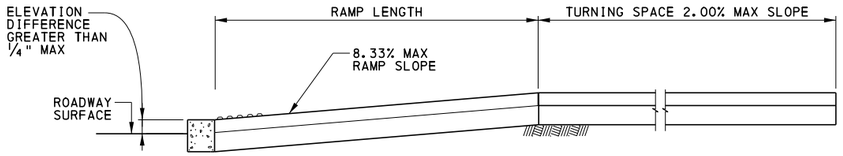
SHT 10 OF 14

RC-67M



EXISTING CURB RAMP SECTION
(VERTICAL DROP AT RAMP)

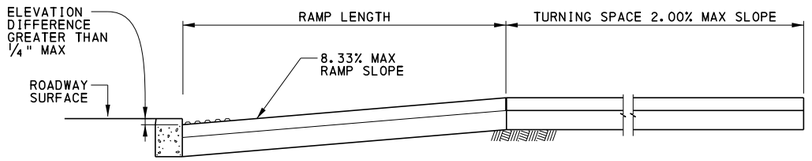
RECOMMENDED CORRECTION:
RECONSTRUCT THE ENTIRE (OR PORTIONS OF) RAMP, TURNING SPACES AND FLARES WHERE APPLICABLE (SEE RAMP RECONSTRUCTION DETAIL ON SHEET 10).



EXISTING CURB RAMP SECTION
(VERTICAL DROP AT ROAD SURFACE)

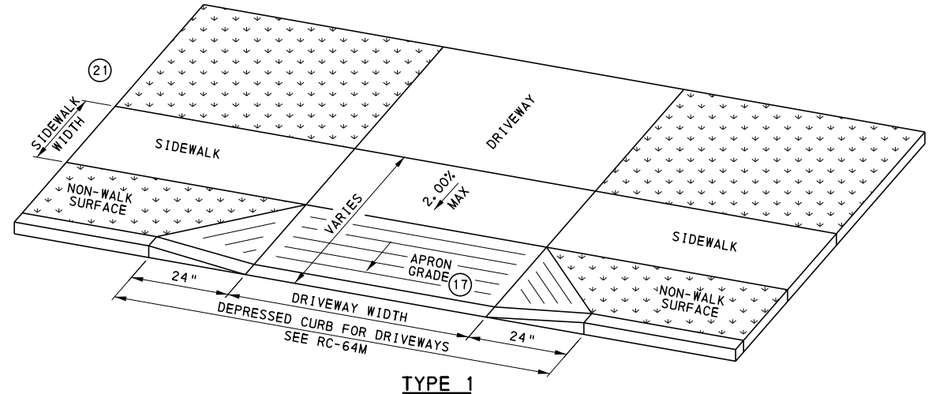
RECOMMENDED CORRECTION:
RECONSTRUCT THE ENTIRE (OR PORTIONS OF) RAMP, TURNING SPACES AND FLARES WHERE APPLICABLE (SEE RAMP RECONSTRUCTION DETAIL ON SHEET 10).

ALTERNATE CORRECTION:
GRIND CURB TO PROVIDE A MAX SLOPE OF 8.33%, FINISHED SURFACE MUST NOT HAVE ELEVATION DIFFERENCES GREATER THAN 1/4".

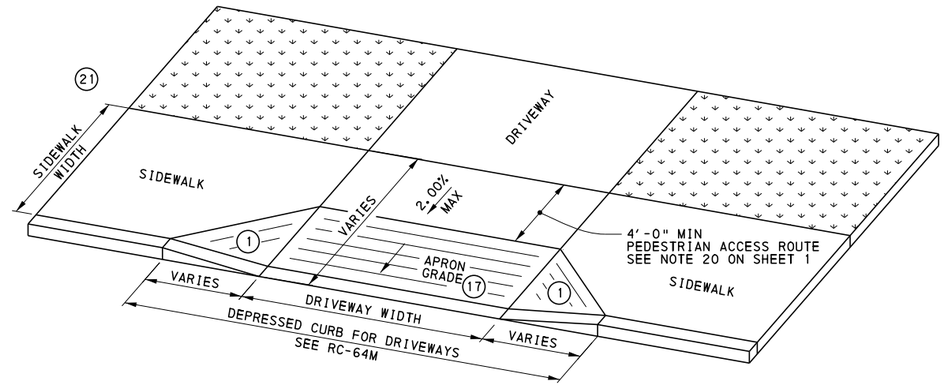


EXISTING CURB RAMP SECTION
(RAMP SETTLEMENT)

RECOMMENDED CORRECTION:
RECONSTRUCT THE ENTIRE (OR PORTIONS OF) RAMP, TURNING SPACES AND FLARES WHERE APPLICABLE (SEE RAMP RECONSTRUCTION DETAIL ON SHEET 10).



TYPE 1
DRIVEWAY APRON



TYPE 1A
DRIVEWAY APRON

(1) SIDE FLARES 10.00% MAX SLOPE.

(17) 8.00% MAX CHANGE IN GRADE BETWEEN ROAD SURFACE AND DRIVEWAY.

(21) MINIMUM SIDEWALK WIDTH 5'-0" (SEE NOTE 20, SHEET 1).

ALTERATION DETAILS

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS

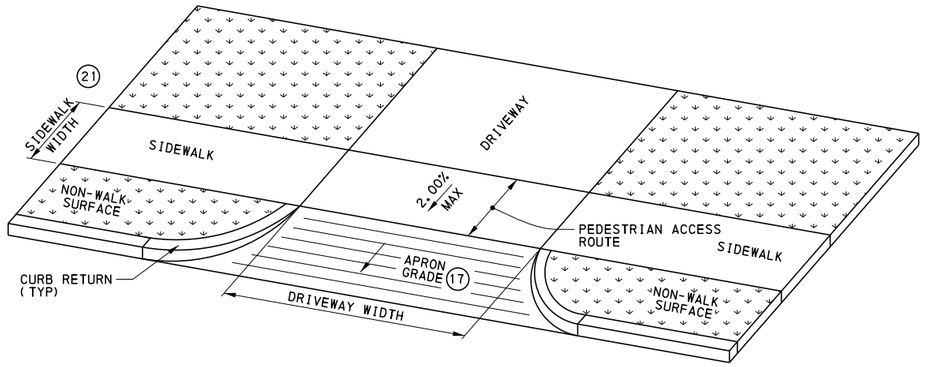
ALTERATION DETAILS
AND DRIVEWAY APRONS

RECOMMENDED JUN. 10, 2013
CHIEF, HWY. DELIVERY DIVISION

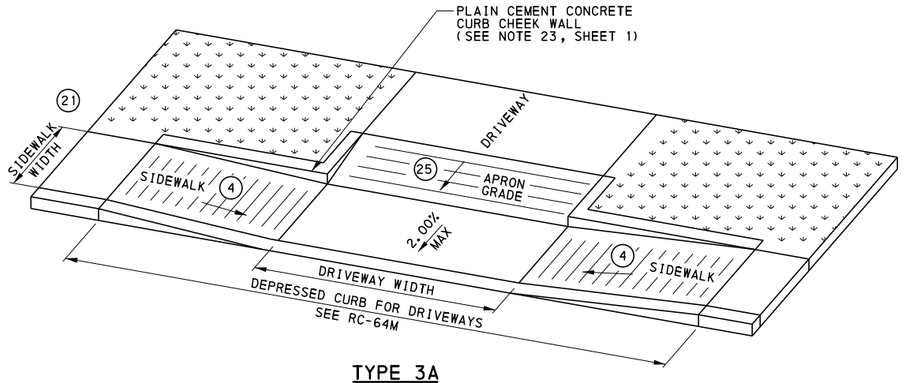
RECOMMENDED JUN. 10, 2013
ACTING DIR. BUREAU OF PROJECT DELIVERY

SHT 11 OF 14

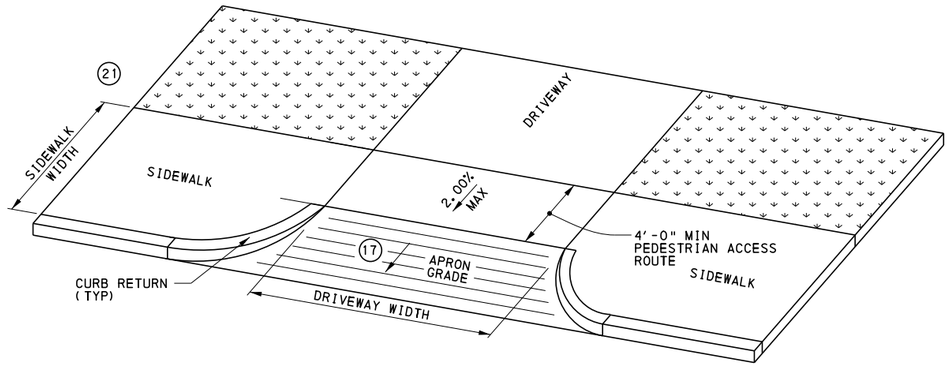
RC-67M



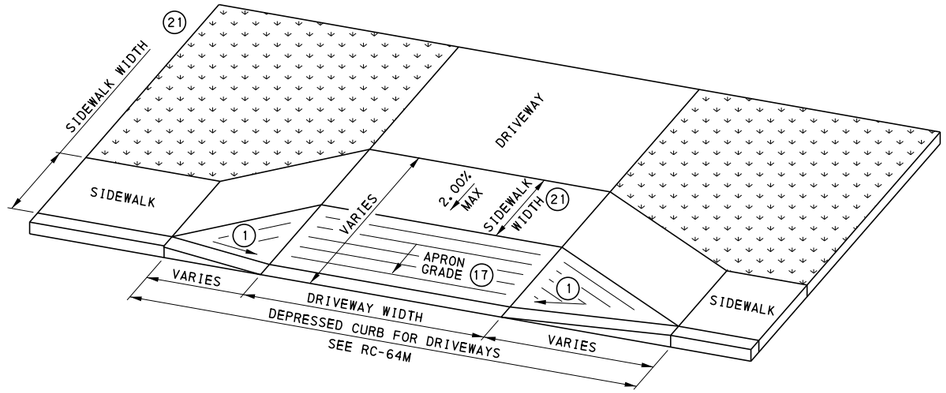
TYPE 2
DRIVEWAY APRON



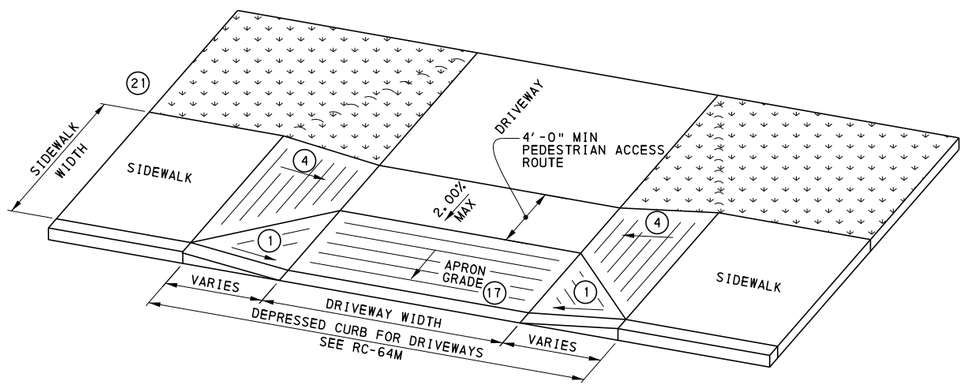
TYPE 3A
DRIVEWAY APRON



TYPE 2A
DRIVEWAY APRON



TYPE 4
DRIVEWAY APRON



TYPE 3
DRIVEWAY APRON

(1) SIDE FLARES 10.00% MAX SLOPE.

(4) 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1.

(17) 8.00% MAX CHANGE IN GRADE BETWEEN ROAD SURFACE AND DRIVEWAY.

(21) MINIMUM SIDEWALK WIDTH 5'-0" (SEE NOTE 20, SHEET 1)

(25) 8.00% MAX CHANGE IN GRADE BETWEEN DRIVEWAY SURFACE AND SIDEWALK.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS

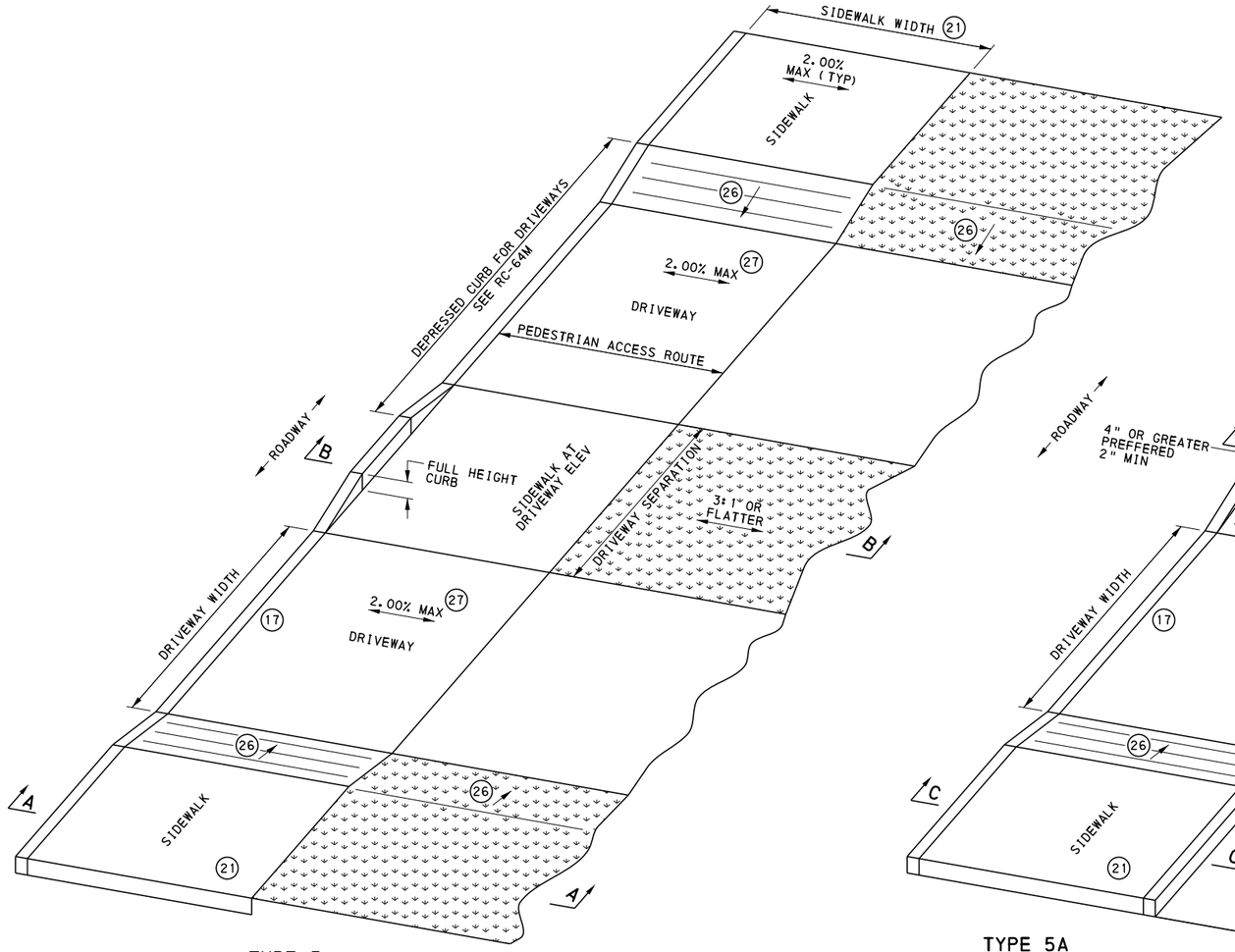
DRIVEWAY APRONS

RECOMMENDED JUN. 10, 2013
CHIEF, HWY. DELIVERY DIVISION

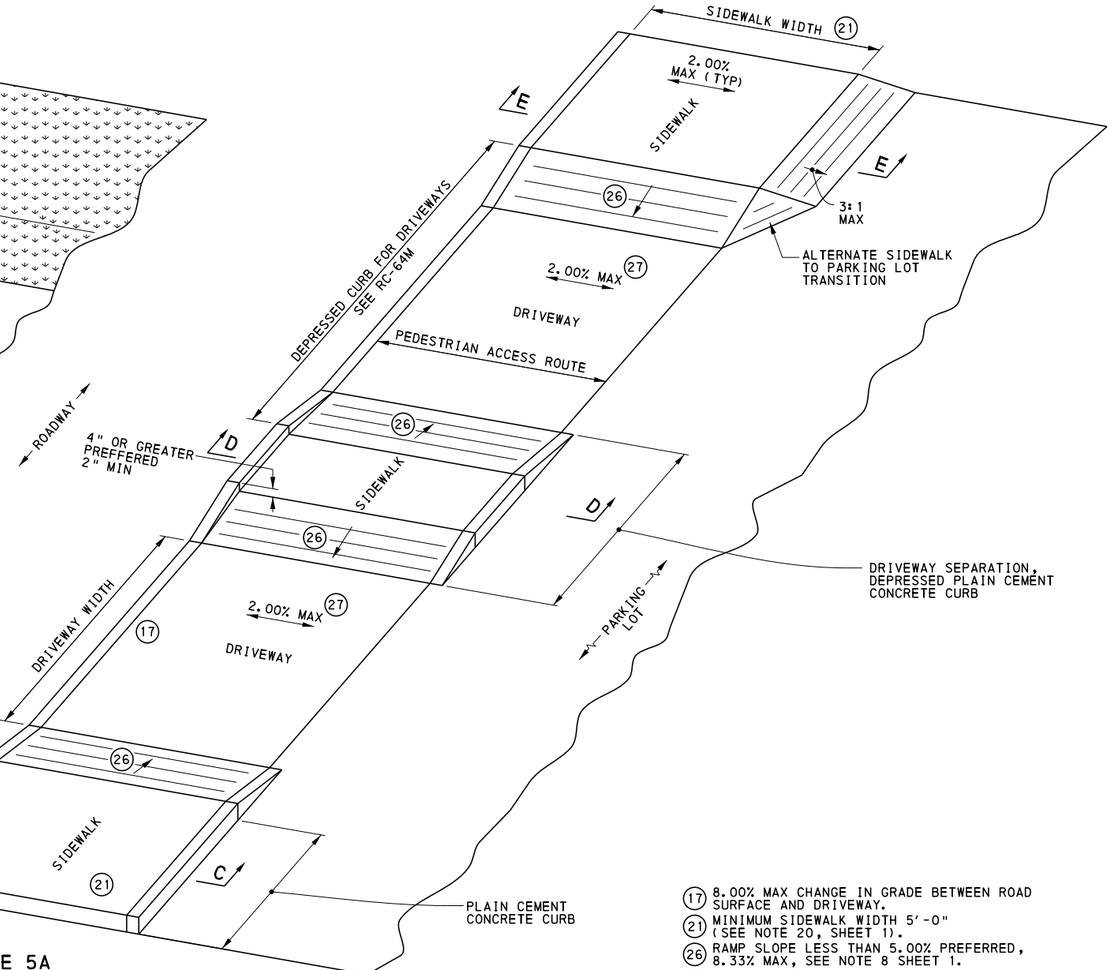
RECOMMENDED JUN. 10, 2013
ACTING DIR. BUREAU OF PROJECT DELIVERY

SHT 12 OF 14

RC-67M

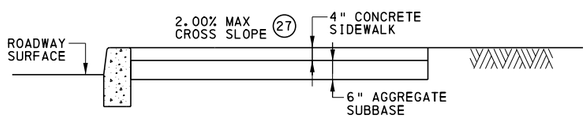


TYPE 5
MULTIPLE DRIVEWAYS

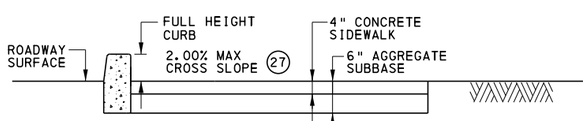


TYPE 5A
MULTIPLE DRIVEWAYS

(17) 8.00% MAX CHANGE IN GRADE BETWEEN ROAD SURFACE AND DRIVEWAY.
(21) MINIMUM SIDEWALK WIDTH 5'-0" (SEE NOTE 20, SHEET 1).
(26) RAMP SLOPE LESS THAN 5.00% PREFERRED, 8.33% MAX, SEE NOTE 8 SHEET 1.
(27) ENSURE POSITIVE DRAINAGE.



SECTION A-A



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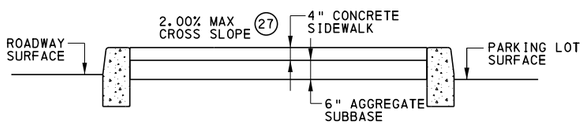

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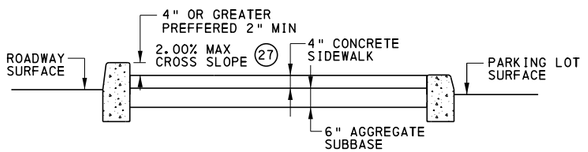

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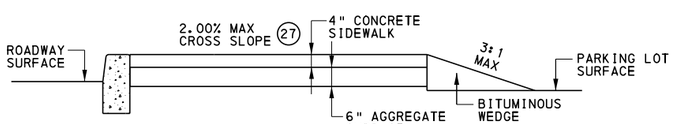

SECTION E-E

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS

DRIVEWAY APRONS

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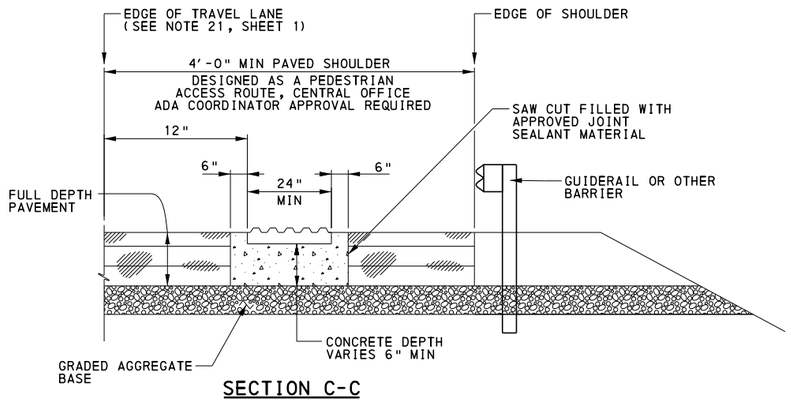
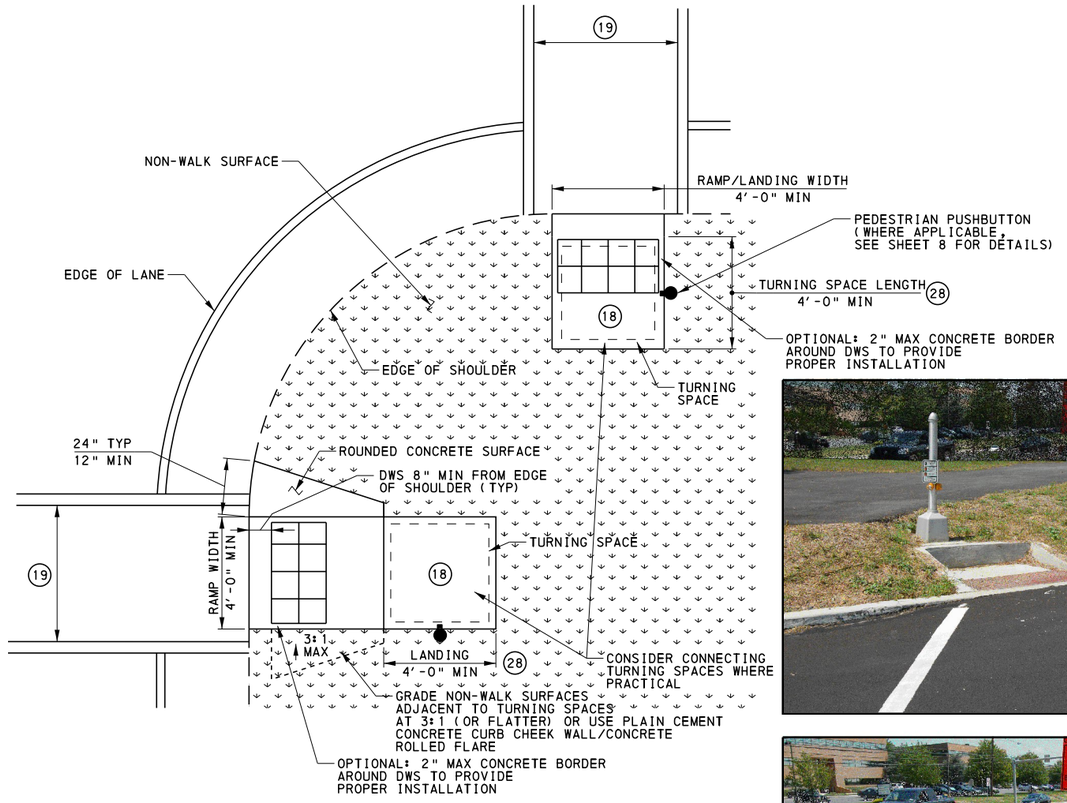
SHT 13 OF 14

RC-67M



SECTION C-C

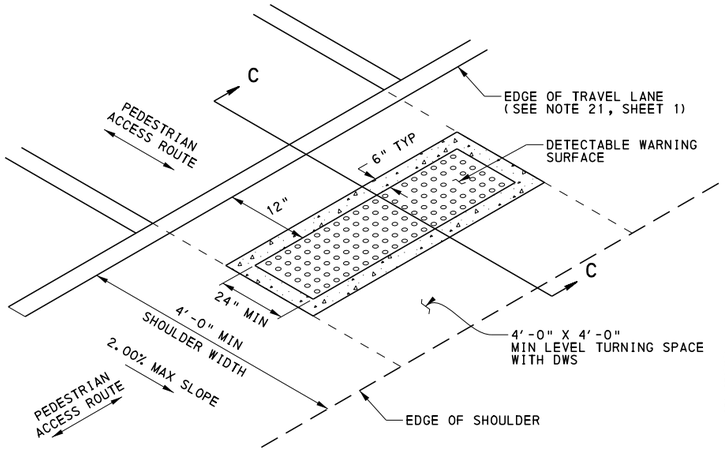


PEDESTRIAN PUSHBUTTON
ACCESS AREAS

(18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

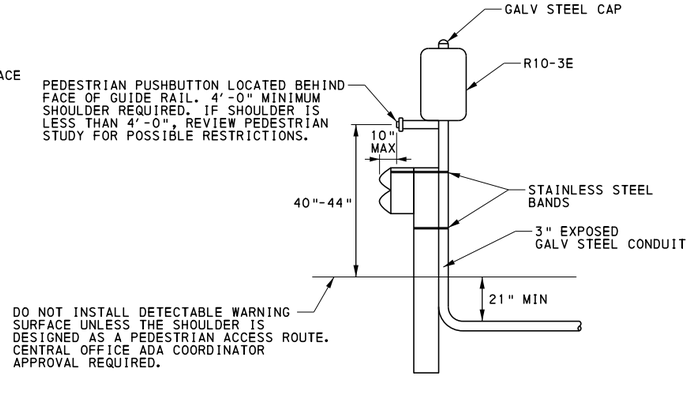
(19) 6'-0" MIN MEASURED FROM INSIDE OF PAINTED EDGE TO INSIDE OF PAINTED EDGE.

(28) TURNING SPACES SHOWN ARE TO PROVIDE ACCESS TO PEDESTRIAN PUSHBUTTON. TURNING SPACE MUST BE 5'-0" X 5'-0" WHEN CONFINED ON TWO OR MORE SIDES.



DWS PLACEMENT ON
PAVED SHOULDERS
DESIGNED AS A
PEDESTRIAN ACCESS
ROUTE (PAR)

CENTRAL OFFICE ADA COORDINATOR
APPROVAL REQUIRED



PEDESTRIAN PUSHBUTTON
BEHIND GUIDE RAIL

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS
DWS PLACEMENT ON PAVED SHOULDERS AND AT PEDESTRIAN PUSHBUTTONS

RECOMMENDED JUN. 10, 2013
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SHT 14 OF 14

RC-67M

TABLE A
CEMENT CONCRETE CRITERIA
(From PennDOT Pub 408/2016)

Class of Concrete	Use	Cement Factor[3][5] (lbs/cu. yd.)		Maximum Water Cement Ratio[6] (lbs/lbs)	Minimum Mix[2,9] Design Compressive Strength (psi)			Proportions Coarse[1] Aggregate Solid Volume (cu. ft./cu. yd.)	28-Day Structural Design Compressive Strength (psi)
					Days				
		Min.	Max.		3	7	28		
AAAP	Bridge Deck	560	690	0.45	—	3,000	4,000	—	4,000
HPC	Bridge Deck	560	690	0.45	—	3,000	4,000	—	4,000
AAA[4]	Other	634.5	752	0.43	—	3,600	4,500	—	4,000
AA	Slip Form Paving[7]	587.5	752	0.47	—	3,000	3,750	11.00-13.10	3,500
AA	Paving	587.5	752	0.47	—	3,000	3,750	9.93-13.10	3,500
AA	Accelerated Patching[8]	587.5	800	0.47	—	—	3,750	9.93-13.10	3,500
AA	Structures and Misc.	587.5	752	0.47	—	3,000	3,750	9.93-13.10	3,500
A		564	752	0.50	—	2,750	3,300	10.18-13.43	3,000
C		394.8	658	0.66	—	1,500	2,000	11.45-15.10	2,000
HES		752	846	0.40	3,000	—	3,750	9.10-12.00	3,500