"New Draft" SECTION 303

PLACEMENT AND CONSTRUCTION OF COARSE AGGREGATE BASE COURSE FOR PERVIOUS CONCRETE PAVEMENT

303.1 DESCRIPTION:

Coarse aggregate base course shall be open graded and shall be constructed to the thickness indicated on the contract documents above a subgrade as approved by the Engineer. Coarse aggregate base course thickness depends on vehicle loads, soil type, and stormwater storage requirements.

The contractor preforming this work shall meet the qualifications of Section 323.

303.2 MATERIALS:

303.2.1 Coarse Aggregate: Coarse aggregate shall conform to the criteria in Table 303-1 or as defined in the contract documents.

Table 303-1 **Coarse Aggregate Design Criteria**		
Gradations for Coarse Aggregate:		
ASTM C33, Table 3, Test Method ASTM C136		
	Accumulative Percent Passing Sieve, by Weight	
Sieve Size	**No. 4**	**No. 57**
3 inch	-	-
2 1/2 inch	-	-
2 inch	100	-
1 1/2 inch	90 to 100	100
1 inch	20 to 55	95 to 100
3/4 inch	0 to 15	-
1/2 inch	-	25 to 60
3/8 inch	0 to 5	-
No. 4	-	0 to 10
No. 8	-	0 to 5
No. 16	-	-
Voids in Aggregate: Test Method ASTM C29		
Percent Minimum by Weight	30	30
Resistance to Degradation and Abrasion by the Los Angeles Abrasion Machine: Test Method ASTM C131, Percent Loss by Weight		
Maximum allowable value at 100 revolutions	10	10
Maximum allowable value at 500 revolutions	40	40

The coarse aggregate shall be uniformly washed to remove dust, oil and other deleterious substances. The percent by weight of material passing the No. 200 sieve tested in accordance with ASTM C117 shall not exceed 2 percent.

The Contractor may substitute materials meeting the gradation and other criteria specified herein for coarse aggregate when approved by the Engineer. The Contractor shall provide the Engineer laboratory testing documentation on the source of the coarse aggregate material showing compliance to this section at least 10 business days prior to placement except where the materials are being obtained from a currently approved source from a list maintained by the appropriate Agency or as determined by the Engineer.

303.2.2 Filtration and Separation Fabric: When specified, the filtration and separation fabric shall be nonwoven and per Table 796-2, Class A.

303.3 PLACEMENT AND CONSTRUCTION:

303.3.1 Subgrade Preparation: The subgrade shall be constructed and compacted true to grades and lines indicated on plans and as specified in Section 301 except as modified in this section. Unless otherwise noted in the contract documents, the subgrade shall be uniformly compacted between 90 to 95 percent, measured as a percentage of maximum dry density when tested in accordance with Section 301. Unless otherwise noted in the project plans or project specifications, compaction shall be performed within 2 percentage points of the optimum moisture content. The Contractor shall exercise extreme caution to prevent the subgrade from being over compacted. Overcompaction can affect the overall permeability of the subgrade.

All soft or unsuitable material shall be removed to a depth of not less than 6 inches below subgrade elevation and replaced with material satisfactory to the Engineer.

Where erosion of subgrade has caused accumulation of fine materials and/or surface ponding, this material shall be removed and replaced with material satisfactory to the Engineer prior to the placement of coarse aggregate base course.

Coarse aggregate base course or geosynthetic fabric construction shall not commence until placement of the subgrade material has been inspected and approved by the Engineer.

303.3.2 Filtration and Separation Geosynthetic Fabric: Filtration and separation fabric shall only be used when specified in the contract documents. The Contractor shall provide a surface free of obstructions, depressions, debris, and soft yielding surfaces prior to the placement of fabric. The fabric shall be loosely laid (not in a stretched condition), aligned and placed with no fold over wrinkles.

The fabric shall be placed to provide a minimum 24-inch of overlap for each joint. On horizontal joints, the uphill fabric shall overlap the downhill fabric. On vertical joints, the upstream fabric shall overlap the downstream fabric. Securely attach the fabric to the vertical sides of the excavation in accordance with manufacturer's recommendations.

303.3.3 Coarse Aggregate Base Course: Coarse aggregate shall be placed in lifts not more than 6 inches in depth before leveling.

After distributing, the coarse aggregate base course material shall be graded to a uniform layer that will net the required thickness. The grading operation shall be continued to such extent as may be necessary to minimize segregation.

After placement, the coarse aggregate base course surface shall be true, even and uniform conforming to the grade and cross-section specified. In no case shall the coarse aggregate base course vary by more than ½ inch above or below required grade. No concrete shall be placed until the coarse aggregate base course has been inspected and approved by the Engineer.

Any ruts in the coarse aggregate, which develop during spreading or construction operations shall be removed and re-leveled prior to the placement of pervious concrete.

303.4 MEASUREMENT:

Measurement for coarse aggregate base course will be by the square yard. No separate measurement will be made for geosynthetic fabric.

303.5 PAYMENT:

Payment for coarse aggregate base course shall be made at the contract unit price per square yard for each thickness shown on the plans.

- End of Section -

SECTION 323

PLACEMENT OF PERVIOUS CONCRETE

323.1 DESCRIPTION:

Pervious concrete describes a near-zero-slump, open graded material with sufficient continuous voids to allow water to pass from the surface to underlying layers. It does not look or behave like typical asphalt or concrete. The finished surface is not tight and uniform, but is open and varied to allow permeability. Minor surface irregularities and minimal amounts of surface raveling, and color variations are normal. Pervious concrete is usually part of a water management system used to reduce runoff rates and volumes from on-grade surfaces such as patios, walkways, driveways, fire lanes, and parking spaces. Sections without sub-surface storage bed systems can achieve reductions in runoff rates and volumes by providing less surface runoff than conventional hardscape surfaces. Sections with sub-surface storage bed systems designed to meet specific groundwater recharge requirements will require additional engineering and supplemental specifications. The work covered by this specification is intended for light traffic areas, pedestrian surfaces and consists of furnishing all materials, labor and equipment for the placement of pervious concrete.

323.2 MATERIALS:

Materials utilized in pervious concrete shall conform to the requirements of Section 723.

323.3 GENERAL:

The Pervious Concrete Contractor shall be experienced in the installation of pervious concrete and shall employ no less than one National Ready Mixed Concrete Association (NRMCA) certified Pervious Concrete Craftsman who must be on site overseeing each placement crew during all pervious concrete placements or employ no less than three NRMCA Certified Pervious Concrete Installers on each pervious concrete placement crew during all pervious concrete placements. The minimum number of certified individuals (1 Craftsman or 3 Installers) is to be present at each pervious concrete placement, and a certified individual is to be in charge of the placement crew and the construction procedures.

Field test(s) of pervious concrete shall be performed by an individual certified as both an NRMCA Certified Pervious Concrete Technician or equivalent, and ACI Concrete Field Technician Grade 1 or equivalent as approved by the Engineer.

323.4 CONSTRUCTION OF TEST SECTION(S):

If required by the Engineer or contract documents, the Contractor shall construct a test section(s) using the same equipment, and placement crew as proposed to be used for the remainder of the pervious concrete work and may be placed non-contiguously. Test section(s) shall be a minimum of 225 square feet and shall include a construction joint and a control joint. Test section(s) may be placed at any of the final pervious concrete placement locations and may be incorporated into the work if approved by the Engineer.

323.4.1: Sample fresh pervious concrete in accordance with ASTM C172. The size of the sample shall be at least 1 ft^3. The temperature of the pervious concrete shall be tested in accordance with ASTM C1064 and shall be 95 degrees or less, unless a higher temperature is approved by the Engineer. Complete at least one density test on a sample of freshly mixed pervious concrete and void content in accordance with ASTM C1688. The acceptable fresh density shall be within ± 5 lbs./ft^3 of the approved mix design density.

323.4.2: Remove cores not less than 7 days after placement in accordance with ASTM C42 Obtaining and Testing Drilled Cores and Sawed Beams of Concrete. Test thickness in accordance with ASTM C174 and test void content and hardened density in accordance with ASTM C1754. ~~saturated density in accordance with ASTM C140, paragraphs 8.3 and 9.3.~~

Tolerance for thickness, and density, reported as the average of three cores of each test panel, shall be as follows:

A. The average compacted thickness shall not be greater than 1/2 in. less than the specified thickness, with no single core exceeding 1 in. less than the specified thickness; nor shall the average compacted thickness be 1-1/2 in. more than the specified thickness.
B. The acceptable hardened density shall be within ± 5 lbs./ft^3 of the approved mix design density.

When a test panel is outside any of the limits of A and B above, the test panel shall be rejected, removed, and replaced at the Contractor's expense, unless accepted by the Engineer. When the test panel complies with A and B, the panel may be left in place and included in the completed work.

323.5 PERVIOUS CONCRETE BASE PREPARATION:

The surface below pervious concrete shall be prepared in accordance with the contract documents and Section 303 or as directed by the Engineer. ~~Remove any non-compliant or loose material from the prepared base surface before placing pervious concrete. Keep all traffic off the base during construction to the maximum extent practical. Regrade base material disturbed by concrete delivery vehicles or other construction traffic to the satisfaction of the Engineer, as needed.~~

The surface of the coarse aggregate base course shall be moistened immediately prior to placement of concrete to provide a uniformly moist condition. Any excess water standing in pools or flowing on the surface shall be removed prior to placing pervious concrete. Failure to provide a moist coarse aggregate base course will result in a reduction in strength of the pavement.

323.6 PLACEMENT:

Pervious concrete shall be constructed a minimum of 6 inches in depth, unless otherwise specified in the plans or special provisions.

When hot weather is anticipated, recommended practices in ACI 305, Specification for Hot Weather Concreting, can provide good reference information to help the Contractor prepare and submit detailed procedures for the production, transportation, placement, protection, and curing of pervious concrete for approval by the Engineer. Evaporation retarders shall be available during placement and applied as needed in accordance with the manufacturer's recommendations to protect the pervious concrete from rapid evaporation. In cold weather, follow the requirements of Section 725.9(A)(2).

Pervious concrete shall be uniformly deposited over the entire formed area. A self-propelled roller screed shall be used for strike-off, spreading, and compaction. Hand-rodding or other placement methods may be used if approved by the Engineer. Adjacent to the edge of each form, hand tampers shall be used for compaction. Placement operations shall not result in the voids becoming sealed in order to maintain an adequate continuous voids structure for water passage through the pervious concrete. Surface depressions shall be corrected immediately after compaction by placing fresh pervious concrete in the depressions and compacting using a hand tamper or roller screed~~compactor~~. The final surface shall not deviate more than 3/8 inch from a 10 foot straightedge laid on the surface.

7/27/20 Comment from Tom Kaczmarowski - Glendale

323.6.1 JOINTS:

Joints shall be constructed in accordance with an approved jointing plan. Contraction joints shall be constructed at regular intervals not to exceed two times the placement width or 15 feet on center, whichever is less. Joints shall be constructed to a depth of 1/4 of the pavement thickness, or a minimum of 1-1/2 inches whichever is greater. Unless otherwise approved, contraction joints shall be constructed by one of the following methods:

A. Rolling with a small roller to which a beveled fin has been attached around the circumference immediately after compaction and prior to curing.

B. Saw cutting as soon as the pervious concrete can be saw cut without causing raveling along the joint edges. Only the area occupied by the concrete saw shall be uncovered and exposed with all other curing materials remaining in place. Immediately after sawing each joint, the exposed area shall be fogged with water and re-covered in accordance with Section 323.7.

Use isolation joints only where pavement abuts fixed objects, such as buildings, foundations, and manholes or at 75 feet on sidewalks. Extend isolation joints through the full depth of the pavement. Fill the entire isolation joint with expansion joint material that complies with Section 729.

323.7 CURING:

The Contractor shall submit a curing plan to the Engineer for review and approval. Curing shall begin immediately or in any case within 20 minutes of finishing. The surface and edges shall be securely covered with polyethylene sheeting/film having a minimum thickness of 6 mils and meeting the requirements of Section 726.2(A). The cover shall be checked daily to verify that it has not been displaced or damaged, and that condensation is evident underneath the sheeting. Damaged sheeting shall be repaired immediately. Displaced sheeting shall be replaced immediately. When there is no observable condensation, 1.5 gallons of water per square yard shall be applied to the surface. Curing methods shall remain in place for a minimum of 7 days or as directed by the Engineer. Pavement sections shall not be opened to light vehicular traffic until the concrete has cured for at least 14 days (28 days for heavy traffic), and until approved by the Engineer for opening to traffic.

323.8 QUALITY CONTROL FIELD TESTING:

Complete at least one density test on a sample of freshly mixed pervious concrete for each 5000 square feet or each day of concrete placement, whichever is greater~~less~~, in accordance with ASTM C1688. Sample fresh pervious concrete in accordance with ASTM C172. The size of the sample shall be at least 1 ft^3. The temperature of the pervious concrete shall be tested in accordance with ASTM C1064 and shall be 95 degrees or less, unless a higher temperature is approved by the Engineer. Discharge of the previous concrete shall be completed in accordance with Section 725.9 (A)(4).

Remove three cores from each lot of 5,000 square feet or each day's production, whichever is less, in accordance with ASTM C42 not less than 7 days after placement of the pervious concrete. Cores shall be a minimum nominal 4 in. diameter. Select three locations in accordance with ASTM D3665. Upon approval of the Engineer, small test sections may be cast for sample extraction along with each placement to avoid removing cores from in-place work. Measure the cores for thickness in accordance with ASTM C174. After thickness determination, trim and measure the cores for void content and hardened density in accordance with ASTM C1754. ~~density in the saturated condition as described in Paragraph 8.3 and 9.3 of ASTM C140.~~ Core holes in the in-place work shall be filled with pervious concrete or other acceptable material in a manner satisfactory to the Engineer.

323.9 TOLERANCES:

Mechanically sweep or vacuum pavement with clean equipment or flush with water before testing for compliance with tolerances.

Tolerance for hardened thickness, and density, reported as the average of three cores for each test panel shall be as follows:

A. Average hardened thickness from a lot shall not be more than 1/2 in. less than the specified thickness, with no single core exceeding 1 in. less than the specified thickness; nor shall the average hardened thickness be 1-1/2 in. more than the specified thickness.

B. Average hardened density from a lot shall be within ± 5 lbs./ft^3 of the average hardened density of the test section(s) from Section 323.4.

C. Unless otherwise specified in the Special Provisions, Pervious Concrete shall have a minimum infiltration rate of 50 inches per hour when tested in accordance with ASTM C1701.

323.10 ACCEPTANCE:

Pervious concrete does not look or behave like typical concrete or asphalt. The finished surface shall be open and varied to permit permeability. Minor surface irregularities and moderate amounts of surface raveling and color variations are normal and acceptable. Pervious concrete shall have no visible excess cement paste, tears, or gouges. Roller constructed joints shall have smooth, rounded, and uniformly compacted edges. Saw cut joints shall not contain cement paste or dust nor exhibit evidence of spalling.

Acceptance will be based on conformance to the specifications. When a lot is outside one of more of the tolerances in Section 323.9, the lot shall be subject to rejection, removal, and replacement at the Contractor's expense, unless accepted by the Engineer.

323.11 PAYMENT:

Payment for pervious concrete shall be made at the contract unit price per square yard ~~foot~~ for each thickness shown on the plans.

- End of Section -

SECTION 323

PLACEMENT OF PERVIOUS CONCRETE

323.1 DESCRIPTION:

Pervious concrete describes a near-zero-slump, open graded material with sufficient continuous voids to allow water to pass from the surface to underlying layers. It does not look or behave like typical asphalt or concrete. The finished surface is not tight and uniform, but is open and varied to allow permeability. Minor surface irregularities and minimal amounts of surface raveling, and color variations are normal. Pervious concrete is usually part of a water management system used to reduce runoff rates and volumes from on-grade surfaces such as patios, walkways, driveways, fire lanes, and parking spaces. Sections without sub-surface storage bed systems can achieve reductions in runoff rates and volumes by providing less surface runoff than conventional hardscape surfaces. Sections with sub-surface storage bed systems designed to meet specific groundwater recharge requirements will require additional engineering and supplemental specifications. The work covered by this specification is intended for light traffic areas, pedestrian surfaces and consists of furnishing all materials, labor and equipment for the placement of pervious concrete.

323.2 MATERIALS:

Materials utilized in pervious concrete shall conform to the requirements of Section 723.

323.3 GENERAL:

The Pervious Concrete Contractor shall be experienced in the installation of pervious concrete and shall employ no less than one National Ready Mixed Concrete Association (NRMCA) certified Pervious Concrete Craftsman who must be on site overseeing each placement crew during all pervious concrete placements or employ no less than three NRMCA Certified Pervious Concrete Installers on each pervious concrete placement crew during all pervious concrete placements. The minimum number of certified individuals (1 Craftsman or 3 Installers) is to be present at each pervious concrete placement, and a certified individual is to be in charge of the placement crew and the construction procedures.

Field test(s) of pervious concrete shall be performed by an individual certified as both an NRMCA Certified Pervious Concrete Technician or equivalent, and ACI Concrete Field Technician Grade 1 or equivalent as approved by the Engineer.

323.4 CONSTRUCTION OF TEST SECTION(S):

If required by the Engineer or contract documents, the Contractor shall construct a test section(s) using the same equipment, and placement crew as proposed to be used for the remainder of the pervious concrete work and may be placed non-contiguously. Test section(s) shall be a minimum of 225 square feet and shall include a construction joint and a control joint. Test section(s) may be placed at any of the final pervious concrete placement locations and may be incorporated into the work if approved by the Engineer.

323.4.1: Sample fresh pervious concrete in accordance with ASTM C172. The size of the sample shall be at least 1 ft^3. The temperature of the pervious concrete shall be tested in accordance with ASTM C1064 and shall be 95 degrees or less, unless a higher temperature is approved by the Engineer. Complete at least one density test on a sample of freshly mixed pervious concrete and void content in accordance with ASTM C1688. The acceptable fresh density shall be within ± 5 lbs./ft^3 of the approved mix design density.

323.4.2: Remove cores not less than 7 days after placement in accordance with ASTM C42 Obtaining and Testing Drilled Cores and Sawed Beams of Concrete. Test thickness in accordance with ASTM C174 and test void content and hardened density in accordance with ASTM C1754.

Tolerance for thickness, and density, reported as the average of three cores of each test panel, shall be as follows:

A. The average compacted thickness shall not be greater than 1/2 in. less than the specified thickness, with no single core exceeding 1 in. less than the specified thickness; nor shall the average compacted thickness be 1-1/2 in. more than the specified thickness.
B. The acceptable hardened density shall be within ± 5 lbs./ft^3 of the approved mix design density.

When a test panel is outside any of the limits of A and B above, the test panel shall be rejected, removed, and replaced at the Contractor's expense, unless accepted by the Engineer. When the test panel complies with A and B, the panel may be left in place and included in the completed work.

323.5 PERVIOUS CONCRETE BASE PREPARATION:

The surface below pervious concrete shall be prepared in accordance with the contract documents and Section 303 or as directed by the Engineer.

The surface of the coarse aggregate base course shall be moistened immediately prior to placement of concrete to provide a uniformly moist condition. Any excess water standing in pools or flowing on the surface shall be removed prior to placing pervious concrete. Failure to provide a moist coarse aggregate base course will result in a reduction in strength of the pavement.

323.6 PLACEMENT:

Pervious concrete shall be constructed a minimum of 6 inches in depth, unless otherwise specified in the plans or special provisions.

When hot weather is anticipated, recommended practices in ACI 305, Specification for Hot Weather Concreting, can provide good reference information to help the Contractor prepare and submit detailed procedures for the production, transportation, placement, protection, and curing of pervious concrete for approval by the Engineer. Evaporation retarders shall be available during placement and applied as needed in accordance with the manufacturer's recommendations to protect the pervious concrete from rapid evaporation. In cold weather, follow the requirements of Section 725.9(A)(2).

Pervious concrete shall be uniformly deposited over the entire formed area. A self-propelled roller screed shall be used for strike-off, spreading, and compaction. Hand-rodding or other placement methods may be used if approved by the Engineer. Adjacent to the edge of each form, hand tampers shall be used for compaction. Placement operations shall not result in the voids becoming sealed in order to maintain an adequate continuous voids structure for water passage through the pervious concrete. Surface depressions shall be corrected immediately after compaction by placing fresh pervious concrete in the depressions and compacting using a hand tamper or roller screed. The final surface shall not deviate more than 3/8 inch from a 10 foot straightedge laid on the surface.

323.6.1 JOINTS:

Joints shall be constructed in accordance with an approved jointing plan. Contraction joints shall be constructed at regular intervals not to exceed two times the placement width or 15 feet on center, whichever is less. Joints shall be constructed to a depth of 1/4 of the pavement thickness, or a minimum of 1-1/2 inches whichever is greater. Unless otherwise approved, contraction joints shall be constructed by one of the following methods:

A. Rolling with a small roller to which a beveled fin has been attached around the circumference immediately after compaction and prior to curing.

B. Saw cutting as soon as the pervious concrete can be saw cut without causing raveling along the joint edges. Only the area occupied by the concrete saw shall be uncovered and exposed with all other curing materials remaining in place. Immediately after sawing each joint, the exposed area shall be fogged with water and re-covered in accordance with Section 323.7.

   Use isolation joints only where pavement abuts fixed objects, such as buildings, foundations, and manholes or at 75 feet on sidewalks. Extend isolation joints through the full depth of the pavement. Fill the entire isolation joint with expansion joint material that complies with Section 729.

323.7 CURING:

The Contractor shall submit a curing plan to the Engineer for review and approval. Curing shall begin immediately or in any

case within 20 minutes of finishing. The surface and edges shall be securely covered with polyethylene sheeting/film having a minimum thickness of 6 mils and meeting the requirements of Section 726.2(A). The cover shall be checked daily to verify that it has not been displaced or damaged, and that condensation is evident underneath the sheeting. Damaged sheeting shall be repaired immediately. Displaced sheeting shall be replaced immediately. When there is no observable condensation, 1.5 gallons of water per square yard shall be applied to the surface. Curing methods shall remain in place for a minimum of 7 days or as directed by the Engineer. Pavement sections shall not be opened to light vehicular traffic until the concrete has cured for at least 14 days (28 days for heavy traffic), and until approved by the Engineer for opening to traffic.

323.8 QUALITY CONTROL FIELD TESTING:

Complete at least one density test on a sample of freshly mixed pervious concrete for each 5000 square feet or each day of concrete placement, whichever is greater, in accordance with ASTM C1688. Sample fresh pervious concrete in accordance with ASTM C172. The size of the sample shall be at least 1 ft^3. The temperature of the pervious concrete shall be tested in accordance with ASTM C1064 and shall be 95 degrees or less, unless a higher temperature is approved by the Engineer. Discharge of the previous concrete shall be completed in accordance with Section 725.9 (A)(4).

Remove three cores from each lot of 5,000 square feet or each day's production, whichever is less, in accordance with ASTM C42 not less than 7 days after placement of the pervious concrete. Cores shall be a minimum nominal 4 in. diameter. Select three locations in accordance with ASTM D3665. Upon approval of the Engineer, small test sections may be cast for sample extraction along with each placement to avoid removing cores from in-place work. Measure the cores for thickness in accordance with ASTM C174. After thickness determination, trim and measure the cores for void content and hardened density in accordance with ASTM C1754. Core holes in the in-place work shall be filled with pervious concrete or other acceptable material in a manner satisfactory to the Engineer.

323.9 TOLERANCES:

Mechanically sweep or vacuum pavement with clean equipment or flush with water before testing for compliance with tolerances.

Tolerance for hardened thickness, and density, reported as the average of three cores for each test panel shall be as follows:

A. Average hardened thickness from a lot shall not be more than 1/2 in. less than the specified thickness, with no single core exceeding 1 in. less than the specified thickness; nor shall the average hardened thickness be 1-1/2 in. more than the specified thickness.

B. Average hardened density from a lot shall be within ± 5 lbs./ft^3 of the average hardened density of the test section(s) from Section 323.4.

C. Unless otherwise specified in the Special Provisions, Pervious Concrete shall have a minimum infiltration rate of 50 inches per hour when tested in accordance with ASTM C1701.

323.10 ACCEPTANCE:

Pervious concrete does not look or behave like typical concrete or asphalt. The finished surface shall be open and varied to permit permeability. Minor surface irregularities and moderate amounts of surface raveling and color variations are normal and acceptable. Pervious concrete shall have no visible excess cement paste, tears, or gouges. Roller constructed joints shall have smooth, rounded, and uniformly compacted edges. Saw cut joints shall not contain cement paste or dust nor exhibit evidence of spalling.

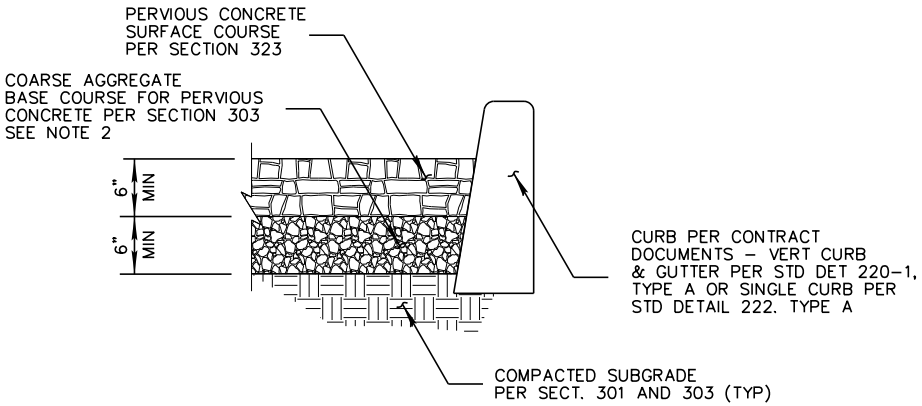
Acceptance will be based on conformance to the specifications. When a lot is outside one of more of the tolerances in Section 323.9, the lot shall be subject to rejection, removal, and replacement at the Contractor's expense, unless accepted by the Engineer.

323.11 PAYMENT:

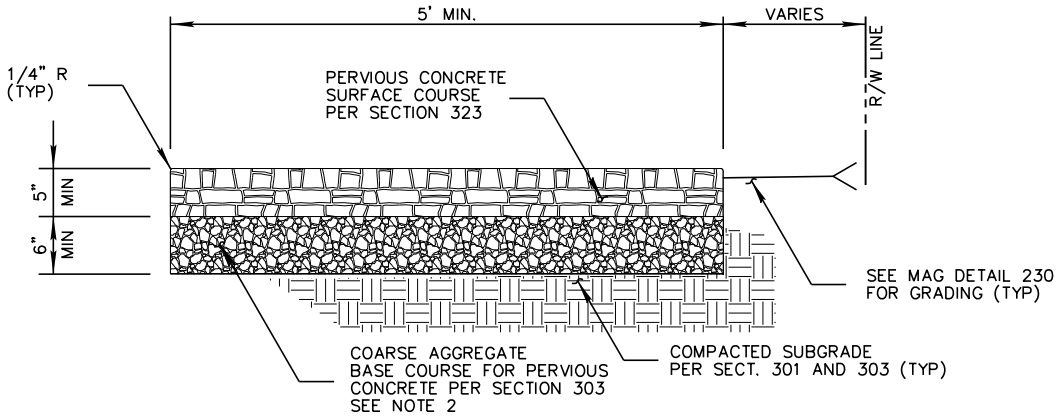
SECTION 323

Payment for pervious concrete shall be made at the contract unit price per square yard for each thickness shown on the plans.

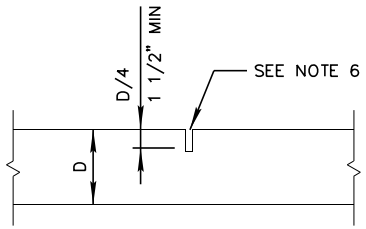
- End of Section -



PERVIOUS CONCRETE PAVEMENT
(VEHICLE TRAFFIC)



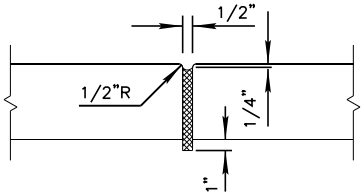
PERVIOUS CONCRETE PAVEMENT
(SIDEWALK)



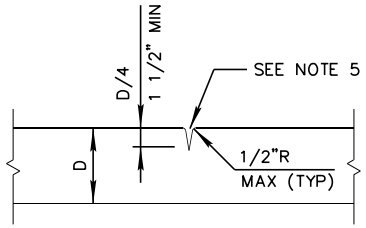
CONTRACTION JOINT
(SAWCUT JOINT)

NOTES:

1. THIS USE OF PERVIOUS CONCRETE PAVEMENT IS INTENDED FOR LIGHT TRAFFIC AREAS AND PEDESTRIAN SURFACES ABOVE A SUBGRADE AS APPROVED BY THE ENGINEER.
2. PERVIOUS CONCRETE PAVEMENT AND COARSE AGGREGATE BASE COURSE SHALL BE CONSTRUCTED TO THE THICKNESS INDICATED IN THE CONTRACT DOCUMENTS.
3. FILTRATION AND SEPARATION GEOSYNTHETIC FABRIC SHALL ONLY BE USED WHEN SPECIFIED IN THE CONTRACT DOCUMENTS.
4. CONTRACTION JOINTS SHALL BE CONSTRUCTED AT REGULAR INTERVALS NOT TO EXCEED TWO TIMES THE PLACEMENT WIDTH OR 15 FEET ON CENTER, WHICHEVER IS LESS. CONTRACTION JOINTS SHALL BE CONSTRUCTED WITH A PERVIOUS CONCRETE JOINT CUTTER OR BY SAW CUTTING.
5. WHEN JOINTING A CONTRACTION JOINT USING A PERVIOUS JOINT ROLLER, THE JOINT SHALL BE PLACED IMMEDIATELY AFTER COMPACTION AND PRIOR TO CURING. DEPTH OF JOINT SHALL BE AT LEAST 1/4 THE PAVEMENT THICKNESS OR A MINIUM OF 1-1/2" WHICHEVER IS GREATER.
6. SAW CUTTING SHALL CONFORM TO SECTION 323. DEPTH OF SAWCUT SHALL BE AT LEAST 1/4 THE PAVEMENT THICKNESS OR A MINIUM OF 1-1/2" WHICHEVER IS GREATER.
7. EXPANSION JOINTS SHALL CONFORM TO SECTION 729, BE INSTALLED PRIOR TO CONCRETE PLACEMENT AND AT A MAXIMUM SPACING OF 75 FEET.



EXPANSION JOINT



CONTRACTION JOINT
(USING PERVIOUS CONCRETE JOINT CUTTER)

DETAIL NO.				REVISED	DETAIL NO.
228	MARICOPA ASSOCIATION of GOVERNMENTS	STANDARD DETAIL ENGLISH	PERVIOUS CONCRETE PAVEMENT	07-27-2020	228