APPENDIX C

SAMPLING GUIDE SCHEDULE

Tables 1 through 8 (Pages 1–55) - Acceptance Sampling Guide.

This page intentionally left blank.

TABLE 1
ACCEPTANCE SAMPLING GUIDE FOR SOILS

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
203	Borrow (within 3 ft. of finished subgrade elevation)	Gradation [1]	In-Place	One per 1500 ft.
		PI [1]		
203	Embankment	Proctor Density	In-Place	One per soil type, and as needed.
		Optimum Moisture		
		Compaction	In-Place	One per 1500 ft. per lift.

[1] Independent Assurance Sampling and Testing required.

TABLE 1 (continued)
ACCEPTANCE SAMPLING GUIDE FOR SOILS

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
203	Subgrade	Proctor Density	Roadway	One per soil type, and as needed.
		Optimum Moisture		
		Compaction	Roadway	One per 1500 ft.
		Gradation (1)	Roadway	One per 1500 ft. or change in material.
		PI (1)		
203	Soil for Shoulder Build-up	Gradation	In-Place or Source	One per soil type.
		PI		
		pH		
		Soluble Salts		
		Compaction	In-Place	One per 1500 ft. or as directed by the Engineer.
501	Trench Backfill	Proctor Density	In-Place	One per soil type, and as needed.
		Optimum Moisture		
		Compaction	In-Place	One per 100 CY.

(1) Independent Assurance Sampling and Testing required.

TABLE 1 (continued)
ACCEPTANCE SAMPLING GUIDE FOR SOILS

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
803	Granite Mulch or Decomposed Granite	Gradation	In-Place or Source	One per 10,000 CY.
804	Top Soil	Gradation (1)	In-place	Written soil analysis per source and six samples per lot [a lot is considered approximately 20,000 CY per source].
		PI (1)		
		pH (1)		
		Soluble Salts		
		Calcium Carbonate		
		Exchange-able Sodium in percent and parts per million		

(1) Independent Assurance Sampling and Testing required.

TABLE 2
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
203 501	Structure Backfill or Pipe Backfill	Proctor Density	Stockpile	One per source, or change in material.
		Optimum Moisture		
		Compaction	In-Place	One per 100 CY. Minimum one per lift.
		Resistivity(1)	Source or Stockpile	One per source.
		pH(1)		
		Gradation (1)	On Job Site	One per 1500 CY per source, or change in material.
		PI (1)		

(1) Independent Assurance Sampling and Testing required.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
303	Aggregate Base Class 1, Class 2, and Class 3	Abrasion [2]	Source	One per source.
		Proctor Density	Crusher Belt, Stockpile or Windrow	At start of production, then as material changes.
		Optimum Moisture		
		Compaction	Roadway	One per lift per 1500 ft.
		Fractured Coarse Aggregate Particles [1]	Stockpile or Windrow	One per 10,000 tons.
		Gradation [1]	Windrow	One per 2000 tons, minimum one per shift.
		PI [1]		

[1] Independent Assurance Sampling and Testing required.

[2] Provided Construction & Materials Group concurs, historical abrasion values may be used.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
303	Aggregate Subbase Class 4, Class 5, and Class 6	Proctor Density	Crusher Belt, Stockpile or windrow.	At start of production, then as material changes.
		Optimum Moisture		
		Compaction	Roadway	One per lift per 1500 ft.
	Class 4	Fractured Coarse Aggregate Particles (1)	Stockpile or windrow	One per 10,000 tons.
		Gradation (1)	Windrow	One per 2000 tons, minimum one per shift.
		PI (1)		
		Abrasion (2)	Source	One per source.
	Class 5 and Class 6	Gradation (1)	Windrow	One per 2000 tons, minimum one per shift.
		PI (1)		

(1) Independent Assurance Sampling and Testing required.

(2) Provided Construction & Materials Group concurs, historical abrasion values may be used.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
304 305	Aggregate for Cement Treated Base or Lean Concrete Base	Gradation (1)	Stockpile	One per 2000 tons, minimum one per shift.
		Fractured Coarse Aggregate Particles (1)	Stockpile	One per 10,000 tons.
		Abrasion (2)	Source	One per source.
	for Cement Treated Base	PI (1)	Stockpile	One per 2000 tons, minimum one per shift.
	for Lean Concrete Base	Sand Equivalent (1)	Stockpile	One every other day of Lean Concrete Base production.

(1) Independent Assurance Sampling and Testing required.

(2) Provided Construction & Materials Group concurs, historical abrasion values may be used.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
404	Cover Material	Abrasion [2]	Source or Stockpile	One per source.
		Bulk O.D. Specific Gravity	Stockpile	One per source.
		Percent Carbonates		
		Dry Unit Weight		
		Fractured Coarse Aggregate Particles	Final Stockpile	One per 500 tons. (Sampled prior to pre-coating for hot applied).
		Flakiness Index		
		Gradation [1]		
		Moisture Content	Trucks at Scale	Per Discretion of the Engineer for Emulsion Chip Seal.
404 412	Blotter Material	Gradation	Final Stockpile	Per Discretion of the Engineer.

[1] Independent Assurance Sampling and Testing required.

[2] Provided Construction & Materials Group concurs, historical abrasion values may be used.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
404	Bonded Wearing Course (BWC)	Abrasion [2]	Source or Stockpile	One per source.
		Percent Carbonates	Stockpile	One per source.
		Gradation [1]	Cold Feed Stockpile	One prior to start of Bonded Wearing Course production, and one per 500 tons.
		Sand Equivalent	Stockpile	One prior to start of and during production of Bonded Wearing Course production, and one per every other day as directed by the Engineer.
		Fractured Coarse Aggregate Particles		
		Uncompacted Void Content		
		Moisture Content	Prior to mixing with mineral admixture	One per each two days of asphaltic concrete production.
		Asphalt Content		By means of nuclear gauge, 4 samples per shift.

[1] Independent Assurance Sampling and Testing required.

[2] Provided Construction & Materials Group concurs, historical abrasion values may be used.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
Refer to Special Provisions	Mineral Aggregate for Micro-Surfacing	Abrasion [2]	Source or Stockpile	One per source.
		Percent Carbonates	Stockpile	One per source.
		Gradation [1]	Final Stockpile	One prior to start of Micro-Surfacing production, and one per 300 tons
		Sand Equivalent	Stockpile	One prior to start of Micro-Surfacing production, and one per 600 tons
		Fractured Coarse Aggregate Particles		
		Uncompacted Void Content		
		Moisture Content	Trucks at Scale	One per 300 tons.

[1] Independent Assurance Sampling and Testing required.

[2] Provided Construction & Materials Group concurs, historical abrasion values may be used.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
407	Mineral Aggregate for Asphaltic Concrete Friction Course (ACFC)	Abrasion [2]	Source or Stockpile	One per source.
		Percent Carbonates		
		Specific Gravity		
		Gradation	Cold Feed	One prior to the start of ACFC production.
		Sand Equivalent [1]	Cold Feed or Stockpile	One prior to the start of ACFC production and one per each two days of ACFC production, minimum of two per project.
		Flakiness Index [1]		
		Fractured Coarse Aggregate Particles [1]		
		Moisture Content	Prior to mixing with mineral admixture	
		Gradation [1]	Cold Feed or Hot Bins	One per 500 tons of ACFC production, minimum of one per shift.

[1] Independent Assurance Sampling and Testing required.

[2] Provided Construction & Materials Group concurs, historical abrasion values may be used.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
409	Mineral Aggregate for Asphaltic Concrete (Miscellaneous Structural) [For Special Mix, see below.]	Abrasion [2]	Source or Stockpile	One per source.
		Sand Equivalent	Stockpile	One per source.
		Fractured Coarse Aggregate Particles		
		Moisture Content	Prior to mixing with mineral admixture	One per each two days of asphaltic concrete production.
		Gradation	Cold Feed or Hot Bins	At discretion of the Engineer.
409	Mineral Aggregate for Asphaltic Concrete (Miscellaneous Structural – Special Mix)	Abrasion [2]	Source or Stockpile	One per source.
		Sand Equivalent [1]	Stockpile	One prior to start of production. One per each two days of asphaltic concrete production, minimum of two per project.
		Uncompacted Void Content [1]	Cold Feed	
		Fractured Coarse Aggregate Particles [1]	Cold Feed or Stockpile	
		Moisture Content	Prior to mixing with mineral admixture	One per each two days of asphaltic concrete production.
		Gradation	(See Bituminous Mixture requirements for Asphaltic Concrete (Miscellaneous Structural - Special Mix) on Page 42.)	

[1] Independent Assurance Sampling and Testing required.

[2] Provided Construction & Materials Group concurs, historical abrasion values may be used.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
411	Mineral Aggregate for Asphaltic Concrete Friction Course (ACFC) - Miscellaneous	Abrasion [2]	Source or Stockpile	One per source.
		Percent Carbonates		
		Sand Equivalent	Stockpile	One per source.
		Flakiness Index		
		Fractured Coarse Aggregate Particles		
		Moisture Content	Prior to mixing with mineral admixture	One per each two days of ACFC production.
		Gradation	Cold Feed or Hot Bins	At the discretion of the Engineer.

[1] Independent Assurance Sampling and Testing required.

[2] Provided Construction & Materials Group concurs, historical abrasion values may be used.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
414	Mineral Aggregate for Asphaltic Concrete Friction Course (Asphalt-Rubber) [AR-ACFC]	Abrasion [2]	Source or Stockpile	One per source.
		Specific Gravity	Stockpile	One per source.
		Percent Carbonates		
		Gradation	Cold Feed	One prior to the start of AR-ACFC production.
		Sand Equivalent [1]	Cold Feed or Stockpile	One prior to the start of AR-ACFC production and one per each two days of AR-ACFC production, minimum of two per project.
		Fractured Coarse Aggregate Particles [1]		
		Flakiness Index [1]		
		Moisture Content	Prior to mixing with mineral admixture	
		Gradation [1]	Cold Feed or Hot Bins	One per 500 tons of AR-ACFC production, minimum of one per shift.

[1] Independent Assurance Sampling and Testing required.

[2] Provided Construction & Materials Group concurs, historical abrasion values may be used.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
924	Mineral Aggregate for Stone Matrix Asphalt (SMA)	Abrasion [2]	Source or Stockpile	One per source.
		Percent Carbonates (if required)		
		Sand Equivalent	Stockpile	One at least five days prior to start of asphaltic concrete production.
		Fractured Coarse Aggregate Particles		
		Uncompacted Void Content **(Special Mix only)**		
		Ignition Furnace Calibration		
		Flakiness Index		
		Flat and Elongated Particles		
		VCA Mix		
		Soundness		
		Sand Equivalent [1]	Cold Feed or Stockpile	One per each two days of asphaltic concrete production, minimum of two per project.
		Fractured Coarse Aggregate Particles [1]		
		Uncompacted Void Content [1]		
		Flakiness Index		
		Flat and Elongated		
		VCA Mix		
		Moisture Content	Prior to mixing with mineral admixture	
		Gradation	Stockpile	

[1] Independent Assurance Sampling and Testing required.

[2] Historical abrasion values may be used provided testing was conducted within the past two years.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
416	Mineral Aggregate for Asphaltic Concrete - End Product **[with reclaimed asphalt pavement (RAP)]** (See Page 17 for mixes without RAP.)	Abrasion [2]	Source or Stockpile	One per source.
		Percent Carbonates (if required)		
		Sand Equivalent	Stockpile	One at least five days prior to start of asphaltic concrete production.
		Fractured Coarse Aggregate Particles		
		Uncompacted Void Content **(Special Mix only)**		
		Ignition Furnace Calibration		
		Sand Equivalent [1]	Cold Feed or Stockpile	One per each two days of asphaltic concrete production, minimum of two per project.
		Fractured Coarse Aggregate Particles [1]		
		Uncompacted Void Content [1] **(Special Mix only)**		
		Moisture Content	Prior to mixing with mineral admixture	
		Gradation	(See Bituminous Mixture requirements for Asphaltic Concrete - End Product on Page 44.)	

[1] Independent Assurance Sampling and Testing required.

[2] Historical abrasion values may be used provided testing was conducted within the past two years.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
416	Mineral Aggregate for Asphaltic Concrete - End Product **[without reclaimed asphalt pavement (RAP)]** (See Page 16 for mixes with RAP.)	Abrasion (2)	Source or Stockpile	One per source.
		Percent Carbonates (if required)		
		Sand Equivalent	Stockpile	One at least five days prior to start of asphaltic concrete production.
		Fractured Coarse Aggregate Particles		
		Uncompacted Void Content **(Special Mix only)**		
		Ignition Furnace Calibration		
		Sand Equivalent (1)	Cold Feed or Stockpile	One per each two days of asphaltic concrete production, minimum of two per project.
		Fractured Coarse Aggregate Particles (1)		
		Uncompacted Void Content (1) **(Special Mix only)**		
		Moisture Content	Prior to mixing with mineral admixture	
		Gradation	(See Bituminous Mixture requirements for Asphaltic Concrete - End Product on Page 44.)	

(1) Independent Assurance Sampling and Testing required.

(2) Historical abrasion values may be used provided testing was conducted within the past two years.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
417	Mineral Aggregate for Asphaltic Concrete (End Product) SHRP Volumetric Mix **[without reclaimed asphalt pavement (RAP)]** (See Page 19 for mixes with RAP.)	Abrasion [2]	Source or Stockpile	One per source.
		Percent Carbonates (if required)		
		Sand Equivalent	Stockpile	One at least five days prior to start of asphaltic concrete production.
		Fractured Coarse Aggregate Particles		
		Uncompacted Void Content		
		Ignition Furnace Calibration		
		Sand Equivalent [1]	Cold Feed or Stockpile	One per each two days of asphaltic concrete production, minimum of two per project.
		Fractured Coarse Aggregate Particles [1]		
		Uncompacted Void Content [1]		
		Moisture Content	Prior to mixing with mineral admixture	
		Gradation	(See Bituminous Mixture requirements for Asphaltic Concrete (End Product) SHRP Volumetric Mix on Page 45.)	

[1] Independent Assurance Sampling and Testing required.

[2] Historical abrasion values may be used provided testing was conducted within the past two years.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
417	Mineral Aggregate for Asphaltic Concrete (End Product) SHRP Volumetric Mix **[with reclaimed asphalt pavement (RAP)]** See PPD [3]. (See Page 18 for mixes without RAP.)	Abrasion [2] (Virgin Agg. and RAP Agg. separately)	Source or Stockpile	One per source.
		Percent Carbonates (if required) (Composite of Virgin Agg. and RAP Agg.)		
		Sand Equivalent (Virgin Agg. only)	Stockpile	One at least five days prior to start of asphaltic concrete production. (Ideally, sampling should coincide with mix design sampling.)
		Fractured Coarse Aggregate Particles (Composite of Virgin Agg. and RAP Agg.)		
		Uncompacted Void Content (Virgin Agg. only)		
		Ignition Furnace Calibration (Virgin Agg., RAP Agg., and RAP material)		
		Gradation, Binder Content [1], and Moisture Content of RAP material	Individual stockpiles (belt cut may be used for single stockpile)	One per each lot of asphaltic concrete production.
		Sand Equivalent [1] (Virgin Agg. only)	Cold Feed or Stockpile	One per each two days of asphaltic concrete production, minimum of two per project.

		Fractured Coarse Aggregate Particles [1] (Composite of Virgin Agg. and RAP Agg. obtained from Arizona Test Method 428)		
		Uncompacted Void Content [1] (Virgin Agg. only)		
		Moisture Content	Prior to mixing with mineral admixture	
		Gradation	(See Bituminous Mixture requirements for Asphaltic Concrete (End Product) SHRP Volumetric Mix on Page 45.)	

[1] Independent Assurance Sampling and Testing required.
[2] Historical abrasion values may be used provided testing was conducted within the past two years.
[3] ADOT Materials Practice and Procedure Directive.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
Refer to Special Provisions	Mineral Aggregate for Asphaltic Concrete - Miscellaneous Paving	Abrasion [2]	Source or Stockpile	One per source.
		Sand Equivalent	Stockpile	One per source.
		Gradation	Cold Feed or Hot Bins	At discretion of the Engineer.
501	Bedding Material for Pipe[3]	Gradation [1]	Source or Stockpile	One per 300 CY per source.
		PI [1]		
		pH [1] [3]		One per source. [3]
		Resistivity [1] [3]		
		Proctor Density	Source or Stockpile	One per source, and as needed.
		Optimum Moisture		
		Compaction	In-Place	One every 50 CY.
501	Filter Material for Perforated Pipe	Gradation [1]	Source or Stockpile	One per 300 CY per source.

[1] Independent Assurance Sampling and Testing required.

[2] Provided Construction & Materials Group concurs, historical abrasion values may be used.

[3] pH and Resistivity for Metal Pipe Only

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
501	Plating Material for Pipe Ends	Gradation	Source or Stockpile	One per source, and as needed.
		PI		
		Proctor Density		
		Optimum Moisture		
		Compaction	In-Place	One every 50 CY.
702	Crash Barrel Sand	Gradation	Plant or Site (Sand intended to be blended with rock salt to be sampled at the plant or the site. Sand to be tested prior to the addition of rock salt.)	One per each attenuator system location.
		Dry Unit Weight per cubic foot		
		Moisture Content		
	Sand and Rock Salt Mixture	Percent Rock Salt (only when installed at elevations above 3,000 feet)		
808	Bedding Material for Polyvinyl Chloride (PVC) Irrigation Pipe	Gradation	Source or Stockpile	One per source.

TABLE 2 (continued)
ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
913	Rock for Wire Tied Riprap, Gabions, Riprap (Slope Mattress), and Rail Bank Protection	Specific Gravity	Source	One per source.
		Gradation ~~(visual)~~ Refer to ADOT Specification 913-2.01	Source	One per source.
	Rock for Grouted Riprap and Dumped Riprap	Specific Gravity	Source	One per source.
		Gradation	Source	One per source. Refer to ADOT Specification 913-2.01
1006	Fine Aggregate for Portland Cement Concrete (PCC) Classes P, S, and B	Gradation (1)	Batch Plant Conveyer Belt or Stockpile	Once per week of production.
		Sand Equivalent (1)		

(1) Independent Assurance Sampling and Testing required.

TABLE 2 (continued)

ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES

SPECIFICATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1006	Coarse Aggregate for Portland Cement Concrete (PCC) Classes P, S, and B	Gradation (1)	Batch Plant Conveyor Belt or Stockpile	Once per week of production.
		Abrasion (2)	Stockpile	One per source.
	Fractured Coarse Aggregate Particles		Stockpile	One per source.

TABLE 3
ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL

SPECIFICATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1005	Recycling Agent RA-1 RA-5 RA-25 RA-75	Per Specifications	Circulation Line Recommended [4]	Certificate of Compliance required and duplicate samples (each one gallon in a metal can) per shift.
1005 404	Liquid Asphalt for Prime Coat	Per Specifications	Distributor Recommended [4]	Certificate of Compliance required and duplicate samples (each one gallon in a metal can) per delivery unit.

[4] Point of sampling specified by Engineer.

Note: During production, samples of bituminous material shall be taken by the contractor and witnessed by the Engineer.

TABLE 3 (continued)
ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1005	Emulsified Asphalt RS-1 CRS-1 RS-2 CRS-2 SS-1 CSS-1 CRS-2P	Per Specifications	Supplier (For pre-approval of material.)	See PPD [3].
		Residue	Distributor Recom-mended [4]	See PPD [3].
				For preapproved emulsions, Certificate of Compliance required and duplicate samples (each 1/2 gallon in a plastic container) per delivery unit.
404	for Chip Seal Coat, Tack Coat, and Fog Coat			For emulsions not preapproved, Certificate of Analysis required and duplicate samples (each 1/2 gallon in a plastic container) per delivery unit.

[3] ADOT Materials Practice and Procedure Directive.

[4] Point of sampling specified by Engineer.

Note: During production, samples of bituminous material shall be taken by the contractor and witnessed by the Engineer.

TABLE 3 (continued)
ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1005	Emulsified Asphalt Special Type (Diluted SS-1 or CSS-1)	Residue	Distributor Recom-mended [4]	See PPD [3].
				For preapproved undiluted emulsions, Certificate of Compliance required and duplicate samples (each 1/2 gallon in a plastic container) per delivery unit.
404	for Tack Coat and Fog Coat			For undiluted emulsions not preapproved, Certificate of Analysis required and duplicate samples (each 1/2 gallon in a plastic container) per delivery unit.

[3] ADOT Materials Practice and Procedure Directive.

[4] Point of sampling specified by Engineer.

Note: During production, samples of bituminous material shall be taken by the contractor and witnessed by the Engineer.

TABLE 3 (continued)
ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL

SPECIFICATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1005 404	Asphalt Cement (PG XX-XX, PG XX-XX TR+)	Per Specifications		
  416 417	for Tack Coat			Certificate of Compliance required.
	for Asphaltic Concrete		Supplier or Project	A two gallon sample (two full one-gallon metal cans) at least five days prior to start of asphaltic concrete production (for calibration of ignition furnace).
    404			Circulation Line Recommended [4]	
  407 409 411	for Chip Seal Binder Coat		Distributor Recommended[4]	Certificate of Compliance required and duplicate samples (each one gallon in a metal can) per 1/2 shift.
416 417	for Asphaltic Concrete, or ACFC		Circulation Line Recommended [4]	

[4] Point of sampling specified by Engineer.

Note: During production, samples of bituminous material shall be taken by the contractor and witnessed by the Engineer.

TABLE 3 (continued)
ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1005	Emulsified Recycling Agent (ERA) ERA-1 ERA-5 ERA-25 ERA-75	Per Specifications	Supplier (For pre-approval of material)	See PPD [3].
		Residue	Distributor Recom-mended [4]	See PPD [3].
				For preapproved ERA, Certificate of Compliance required and duplicate samples (each 1/2 gallon in a plastic container) per delivery unit.
				For ERA not preapproved, Certificate of Analysis required and duplicate samples (each 1/2 gallon in a plastic container) per delivery unit.
404	ERA (Diluted) for Fog Coat	Residue	Distributor Recom-mended [4]	See PPD [3].
				For preapproved undiluted ERA, Certificate of Compliance required and duplicate samples (each 1/2 gallon in a plastic container) per delivery unit.
				For undiluted ERA not preapproved, Certificate of Analysis required and duplicate samples (each 1/2 gallon in a plastic container) per delivery unit.

[3] ADOT Materials Practice and Procedure Directive.

[4] Point of sampling specified by Engineer.

Note: During production, samples of bituminous material shall be taken by the contractor and witnessed by the Engineer.

TABLE 3 (continued)
ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1005 1009 410	Asphalt Cement (PG XX-XX, PG XX-XX TR+) for Asphalt - Rubber (Sprayed Applications)	Per Specifications	Delivery Unit or Terminal (if blended at terminal)	Certificate of Compliance required and duplicate samples (each one gallon in a metal can) for each shipment - not less than one set of duplicate samples for each 40 tons.
1005 1009 414	Asphalt Cement (PG XX-XX) for Asphalt - Rubber for AR-AC or AR-ACFC	Per Specifications	Delivery Unit or Terminal (if blended at terminal) (4)	Certificate of Compliance required and duplicate samples (each one gallon in a metal can) per 1/2 shift.
1009	Crumb Rubber for Asphalt - Rubber	Gradation	Project (or Terminal (if blended at terminal)	Certificate of Compliance required and one sample [approximately 1500 grams (one gallon) per Arizona Test Method 714] per lot per type.
1009 410	Asphalt - Rubber [CRA (5)] Type 1, Type 2, or Type 3 (Sprayed Applications)	Per Special Provisions.	Distributor Recom-mended (4)	Certificate of Compliance required and a one gallon sample in a metal can per delivery unit.

(4) Point of sampling specified by Engineer.

(5) CRA = Crumb Rubber Asphalt

Note: During production, samples of bituminous material shall be taken by the contractor and witnessed by the Engineer.

TABLE 3 (continued)
ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1009 414	Asphalt - Rubber [CRA [5]] Type 1, Type 2, or Type 3 For AR-AC or AR-ACFC			Certificate of Compliance required.
		Penetration	Circulation Line Recom-mended [4]	Duplicate samples (each one gallon in a metal can) per 1/2 shift.
		Softening Point		
		Resilience		
		Rotational Viscosity (laboratory)		
		Rotational Viscosity (at plant/terminal)		One sample (one gallon in a metal can) per batch.

[4] Point of sampling specified by Engineer.

[5] CRA = Crumb Rubber Asphalt

Note: During production, samples of bituminous material shall be taken by the contractor and witnessed by the Engineer.

TABLE 3 (continued)
ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
Refer to Special Provisions	Emulsified Asphalt for Cold Recycled Asphaltic Concrete HFE-150P HFE-300P	Per Special Provisions.	Supplier (for pre-approval of material.)	See PPD [3].
		Residue	Distributor Recom-mended [4]	See PPD [3].
				For preapproved emulsions, Certificate of Compliance required and duplicate samples (each 1/2 gallon in a plastic container) per delivery unit.
				For emulsions not preapproved, Certificate of Analysis required and duplicate samples (each 1/2 gallon in a plastic container) per delivery unit.

[3] ADOT Materials Practice and Procedure Directive.

[4] Point of sampling specified by Engineer.

Note: During production, samples of bituminous material shall be taken by the contractor and witnessed by the Engineer.

TABLE 4
ACCEPTANCE SAMPLING GUIDE FOR PORTLAND CEMENT CONCRETE

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
401 1006	Portland Cement Concrete (PCC) Class P	Compressive Strength	Immediately before going into paver or forms, or as otherwise directed by the Engineer.	Five samples per lot. (For compressive strength, one set of three cylinders per sample.)
		Slump		
		Air Content (when Required)		
		Temperature		
		Thickness	Roadway	10 cores per lot.
1006	Portland Cement Concrete (PCC) Class S **(with a compressive strength requirement less than 4,000 psi)**	Compressive Strength	Back of Truck or Mixer	One sample for each 100 CY, or fraction thereof, of continuously placed concrete per day from each batch plant. For daily placements of 10 CY or less, at the discretion of the Engineer. (For compressive strength, one set of two cylinders per sample.)
		Slump		
		Temperature		
		Air Content (when Required)	Back of Truck or Mixer	Sample for air content every 50 CY when elevation is above 3000 ft. For daily placements of 10 CY or less, at the discretion of the Engineer.
402	**Dowel Bar**	Epoxy Coatings		Certificate of Compliance for Epoxy bars. Certificate of Compliance for Coating Material. Certificate of Analysis for Coating Application. Each Shipment.
601 1006	Self-Consolidating Concrete (SCC)	Compressive Strength Spread Temperature Air Content (When Requested)	Back of Truck or Mixer	

TABLE 4 (continued)
ACCEPTANCE SAMPLING GUIDE FOR PORTLAND CEMENT CONCRETE

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1006	Portland Cement Concrete (PCC) Class S **(with a compressive strength requirement equal to or greater than 4,000 psi)**	Compressive Strength	Back of Truck or Mixer	One sample for each 50 CY, or fraction thereof, of continuously placed concrete per day from each batch plant. For daily placements of 10 CY or less, at the discretion of the Engineer.
		Slump		
		Temperature		(For compressive strength, one set of three cylinders per sample.)
		Air Content (when Required)	Back of Truck or Mixer	Sample for air content every 50 CY when elevation is above 3000 ft. For daily placements of 10 CY or less, at the discretion of the Engineer.

TABLE 4 (continued)
ACCEPTANCE SAMPLING GUIDE FOR PORTLAND CEMENT CONCRETE

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1006	Portland Cement Concrete (PCC) Class B	Compressive Strength	Back of Truck or Mixer	One sample for each 100 CY of concrete placed from each batch plant For daily placements of 10 CY or less, at the discretion of the Engineer.
		Slump		
		Temperature		(For compressive strength, one set of two cylinders per sample.)
		Air Content (when Required)	Back of Truck or Mixer	Sample for air content every 50 CY when elevation is above 3000 ft. For daily placements of 10 CY or less, at the discretion of the Engineer.

TABLE 4 (continued)
ACCEPTANCE SAMPLING GUIDE FOR PORTLAND CEMENT CONCRETE

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
601 1006	Portland Cement Structural Concrete for Minor Precast Structures (Manholes, Cattle Guards, Utility Vaults, Catch Basins, Flared Ends, etc.)	Rebound Hammer	At Fabrication Yard	One set of readings per precast unit.
601 1006	Pre-stressed Concrete	Compressive Strength	Back of Truck or Mixer	One sample per member or for each day's production. (For compressive strength, a minimum of two sets of 3 cylinders for detensioning, and one set of 3 cylinders for 28day breaks.)
		Slump		
		Temperature		
912	Shotcrete	Compressive Strength	Test Panels	Three cores from a test panel every 100 CY or fraction thereof, per day.
		Slump	At Mixer Discharge	One per 50 CY or fraction thereof, per day.
		Air Content (For Shotcrete placed at an elevation of 3,000 feet or above)	For wet-mix process, just prior to pumping	
			For dry-mix process, from in-place material	
922 1006	Utility Concrete	None		

[6] If Sampling at point of placement is not feasible, sample in accordance with subsection 1006-7.02(A). When air entrainment is required, and concrete is pumped, sample also from discharge of the delivery vehicle to determine if air loss is excessive in accordance with subsection 601.3-03(C).

TABLE 5
ACCEPTANCE SAMPLING GUIDE FOR MATERIALS USED WITH PORTLAND CEMENT CONCRETE

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
602 1003	Pre-stressing Steel (Spiral, Bars, Strand Wire, or Wire)	Tensile Strength	Project or Fabrication Plant	Certificate of Compliance required and one 6 ft. piece from each bar size, heat, reel, or coil.
602 1003	Post-Tensioning Steel	Tensile Strength	Project	Certificate of Compliance required and one 6 ft. piece from each bar size, heat, reel, or coil.
605	Mechanical Splices for Reinforcing Steel	Yield Strength (125%)	Field	Minimum of three splices or 2% of the total number of field splices (whichever is greater) chosen at random and tested to 125% yield strength by Structural Materials Testing Lab. Samples to be at least 42 inches long with splice at mid length.
605 1003	Mechanical Splices for Reinforcing Steel Reinforcement Bars (Epoxy Coated or Uncoated) [8]	Yield Strength, Tensile Strength, Bend Test, Elongation, Weight/Foot, and Coating Thickness (if applicable)	Fabrication Plant or Supplier's Yard	Certificate of Compliance required. Samples required for No. 7 and above.
	All Sources		Project	Certificate of Compliance required and one 7 ft. bar per shipment.
	Welded Wire Fabric (Smooth)		Supplier's Yard or Project	Certificate of Compliance required and one 2 ft. x 2 ft. sample per 25 rolls.

[8]For rebar #4, #5, and #6 testing is no longer required and is accepted on Certificate of Compliance. For rebar size #7 and greater, testing is required.

TABLE 5 (continued)
ACCEPTANCE SAMPLING GUIDE FOR MATERIALS USED WITH PORTLAND CEMENT CONCRETE

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1003	Welded Wire Fabric (Smooth)	Tensile Strength, Diameter, Spelter, Weld Shear, Reduction in Area	Supplier's Yard or Project	Certificate of Compliance required and one 2 ft. x 2 ft. sample per 25 rolls.
1003	Welded Wire Fabric	Tensile Strength, Weld Shear, Weight/Foot	Supplier's Yard or Project	Certificate of Compliance required and one 4 ft. x 4 ft. sample per 25 sheets.
1006	Admixtures			Certificate of Compliance required and must be on the Department's Approved Products List.
1006	Curing Compound	Non-volatile Content, %	Supplier's Yard or Project	For material from preapproved lot, Certificate of Analysis only.
				For material not preapproved, Certificate of Analysis and a 1/2 gallon sample per lot.
1006	Fly Ash and Natural Pozzolan			Material supplied from an Approved Material Source with a Certificate of Analysis submitted with the mix design.
1006	Silica Fume			Certificate of Compliance required with each delivery.

TABLE 5 (continued)
ACCEPTANCE SAMPLING GUIDE FOR MATERIALS USED WITH PORTLAND CEMENT CONCRETE

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1006	Water	Soluble Salts pH	Source	One sample (1 pint in glass container) per source [7].
1006	Hydraulic Cement (All Types)			Material supplied from an Approved Material Source. See PPD [3] with a Certificate of Analysis submitted with the mix design
1011	Joint Materials	Per Specifications		Silicone joint sealant must be on the Department's Approved Product List. In addition, a Certificate of Analysis shall accompany each lot or batch of sealant. For joint materials other than silicone joint sealant, only a Certificate of Compliance is required.

[3] ADOT Materials Practice and Procedure Directive.

[7] No sample is necessary if water is potable and comes from a proven source.

TABLE 5 (continued)
ACCEPTANCE SAMPLING GUIDE FOR MATERIALS USED WITH PORTLAND CEMENT CONCRETE

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1013 604	Bearing Pads (Preformed Fabric)	Thickness Compression Load	Contractor's Yard	Certificate of Analysis required and two sample pads from every 100, or fraction thereof, with a minimum of one sample pad from each lot for each type of pad. (Tested by ADOT.)
1013 604	Bearing Pads (Plain and Fabric Reinforced Elastomeric)	Per Specification Subsection 1013-2	Contractor's Yard	Certificate of Analysis required and two sample pads from every 100, or fraction thereof, with a minimum of one sample pad from each lot for each type of pad.[(1)] [Tested by an ADOT Accredited Laboratories listed on the ADOT website)
1013 604	Bearing Pads (Steel Reinforced Elastomeric)	Per Specification Subsection 1013-2	Contractor's Yard	Certificate of Analysis required and two sample pads from every 100, or fraction thereof, with a minimum of one sample pad from each lot for each type of pad.[(1)] [Tested by an ADOT Accredited Laboratory listed on the ADOT website)

[(1)] It is the Contractor's responsibility to coordinate with ADOT Accredited Laboratory.

TABLE 6
ACCEPTANCE SAMPLING GUIDE FOR STABILIZED SOILS AND BASES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
301	Lime Treated Subgrade	Proctor Density	Roadway	One per soil type, and as needed.
		Optimum Moisture		
		Compaction	Roadway	One per lift per 1000 ft.
		Compressive Strength (2)	Roadway or Point of Placement	Three random samples per shirt. (Three specimens from each sample, molded within 90 minutes.)
302	Cement Treated Subgrade	Proctor Density	Roadway	At start of production, then one per week, and as needed.
		Optimum Moisture		
		Compaction	Roadway	One per lift per 1000 ft.
304	Cement Treated Base	Proctor Density	Roadway	At start of production then one per week, and as needed.
		Optimum Moisture		
		Compaction	Roadway or Point of Placement	One per lift per 1000 ft.
		Compressive Strength (1)		Five random samples per shift. A reduced number of samples may be taken at the discretion of the Engineer. (Three specimens from each sample.)

(1) Independent Assurance Sampling and Testing required.
(2) If Compressive Strength is required by Special Provisions

TABLE 6 (continued)
ACCEPTANCE SAMPLING GUIDE FOR STABILIZED SOILS AND BASES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
305	Lean Concrete Base	Compressive Strength [1]	At Discharge	Four random samples per 4000 SY, minimum four samples per shift.
		Slump		
		Air Content (when required)		
		Thickness	Roadway	Per Specifications.
Refer to Special Provisions	Bituminous Treated Base	See Special Provisions	Roadway	At the discretion of the Engineer.
Refer to Special Provisions	Cement Stabilized Alluvium	Compressive Strength [1]	Roadway or Point of Placement	One set of three per 1500 CY, minimum one set of three per 1/2 shift.
Refer to Special Provisions	Soil-Cement Bank Protection	Compressive Strength [1]	Roadway or Point of Placement	One set of three per 1500 CY, minimum one set of three per 1/2 shift.

[1] Independent Assurance Sampling and Testing required.

TABLE 7
ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MIXTURES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
404	Bonded Wearing Course (BWC)	% Asphalt [1]	Trucks at Mixing Plant	4 per shift
407	Asphaltic Concrete Friction Course (ACFC)	% Asphalt [1] Moisture Content [1]	Trucks at Mixing Plant	4 per shift.
408	Cold Recycling (Bituminous Surface)	Moisture Content Marshall Density	Roadway	Density tests with nuclear gauge (performed by QC), then 4 Cores per lift.
409	Asphaltic Concrete (Miscellaneous Structural)	% Asphalt Moisture Content Rice Marshall Density	Roadway	At the discretion of the Engineer.
409	Asphaltic Concrete (Miscellaneous Structural - Special Mix)	% Asphalt [1] Moisture Content [1] Rice [1] Marshall Density [1] Gradation [1]	Roadway	One sample per 500 tons.
411	Asphaltic Concrete Friction Course (ACFC) - Miscellaneous	% Asphalt Moisture Content	Trucks at Mixing Plant	At the discretion of the Engineer.

[1] Independent Assurance Sampling and Testing required.

TABLE 7 (continued)
ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MIXTURES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
414	Asphaltic Concrete Friction Course (Asphalt – Rubber) [AR-ACFC]	% Asphalt-Rubber (1)	Trucks at Mixing Plant	4 per shift.
		Moisture Content (1)		
416	Asphaltic Concrete - End Product [For mixes containing reclaimed asphalt pavement (RAP), see PPD (3).]	% Asphalt (1)	Roadway	4 per lot.
		Moisture Content (1)		
		Gradation (1)		
		Marshall (1) [Density, Stability, and Flow]		
		Rice (1)		
		Compaction, (Courses > 1½ inch in nominal thickness)	Roadway	20 cores per lot (10 locations/2 cores per location).

(1) Independent Assurance Sampling and Testing required.

(3) ADOT Materials Practice and Procedure Directive.

TABLE 7 (continued)
ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MIXTURES

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
417	Asphaltic Concrete (End Product) SHRP Volumetric Mix [For mixes containing reclaimed asphalt pavement (RAP), see PPD (3).]	% Asphalt (1)	Roadway	4 per lot.
		Moisture Content (1)		
		Gradation (1)		
		Gyratory Density (1)		
		Rice (1)		
		Compaction (Courses > 1½ inch in nominal thickness)	Roadway	20 cores per lot (10 locations/2 cores per location).
924	Stone Matrix Asphaltic Concrete	% Asphalt (1)	Roadway	4 per lot.
		Moisture Content (1)		
		Gradation (1)		
		Gyratory Density (1)		
		Rice (1)		
		Compaction (Courses > 1½ inch in nominal thickness)	Roadway	20 cores per lot (10 locations/2 cores per location).

(1) Independent Assurance Sampling and Testing required.

(3) ADOT Materials Practice and Procedure Directive.

TABLE 8
ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
301 503 913 1010	Lime (for use in soil stabilization, mortar, and grout)	Chemical and Physical	Sampling for acceptance is not required for these materials	Acceptance is based on material being supplied from an Approved Material Source with associated Certificates of Compliance for each production shift. See PPD (3)
407 409 411 414 416 417	Hydrated Lime (for use as mineral admixture in asphaltic concrete mixes)			
302 304 501 503 505 601 602 912 913 1010	Hydraulic Cement (for use in soil stabilization, mortar, and grout)	Chemical and Physical	Sampling for acceptance is not required for these materials	Acceptance is based on material being supplied from an Approved Material Source with associated Certificates of Compliance for each production shift. See PPD (3)
407 409 411 414 416 417	Portland Cement and Blended Hydraulic Cement (for use as mineral admixture in asphaltic concrete mixes)			

(3) ADOT Materials Practice and Procedure Directive.

TABLE 8 (continued)
ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
501	Corrugated Metal Pipe (CMP) [Coated or Non-coated]			Certificate of Compliance required.
501 1010	Precast Reinforced or Non-Reinforced Concrete Pipe	Compression (D-Load) Wall Thickness	Supplier's Yard	Certificate of Compliance required and one test for each 100 joints per size per class.

TABLE 8 (continued)
ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
Refer to Special Provisions	Paving Brick, Cinder Block, Slump Block, Concrete Masonry Units (CMU)	Compression Absorption	Project	One sample (6 of like kind and size) per project.
601	Vertical Restrainers	Tensile	Project	Certificate of Analysis required and 1 test loop per bridge or one test look for every 40 cable assemblies, whichever is greater.
604 731 1004 1012	High Strength Bolts, Nuts, or Washers	Rockwell Hardness Wedge Tensile Strength	Project	Certificate of Analysis required and three samples per lot, or 0.1% of lots in excess of 3000, for each bolt diameter, including nuts and washers.
731 1004	Anchor Bolts			Certificate of Analysis required.
608 1007	Retroreflective Sheeting	Per Specifications		Certificate of Compliance required and also must be on the Department's Approved Products List
608	Sign Panel Silk-Screened Characters			Certificate of Compliance required.

TABLE 8 (continued)
ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
704 708 709	Glass Beads	Roundness Gradation Refractive Index Moisture Resistance Heavy Metal Concentration (if required)	Supplier's Yard (Recom-mended) or Project	See PPD [3]. For other than Dual Component Pavement Markings: Certificate of Compliance required*, and if preapproved, a copy of the Central Lab test results. If not preapproved by Central Lab, Certificate of Compliance required*, and a one gallon sample when material is supplied in a "super sack", or one full bag when material is supplied in a 50 pound bag. *If required, a Certificate of Analysis must also be submitted (certifying that the Heavy Metal Concentration meets the specifications). For Dual Component Pavement Markings: Certificate of Analysis required**, and if preapproved, a copy of the Central Lab test results. If not preapproved by Central Lab, Certificate of Analysis required**, and a one gallon sample when material is supplied in a "super sack", or one full bag when material is supplied in a 50 pound bag. **The Certificate of Analysis shall also include a Material Safety Data Sheet (MSDS).

[3] ADOT Materials Practice and Procedure Directive.

TABLE 8 (continued)
ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
705	Preformed Plastic Pavement Marking			Certificate of Compliance required*, and also must be on the Department's Approved Products List. *A Certificate of Analysis is also required (certifying that the Heavy Metal Concentration of the glass beads meets the specifications).
704	Thermoplastic Pavement Markings	Per Specifications	Manufac-turer	For precertification, the manufacturer shall prepare a one-gallon metal can powder sample per specifications.
			Project	Certificate of Compliance and a copy of the Central Materials Chemistry Lab test results are required. Also must be on the Department's Approved Products List.
				In-place field verification checks for thickness or sampling for composite testing should be made at the discretion of the Engineer, with plate samples that shall be 4"x12" galvanized steel plate without drop on beads, per specifications.

TABLE 8 (continued)
ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
706	Raised Pavement Markers	Per Specifications	Project	Certificate of Compliance required for markers and adhesive.
				Adhesive must be on the Department's Approved Products List.
				For non-reflective pavement markers, one sample (one marker) per lot per type.
				For reflective pavement markers, one sample (three markers) per lot per type.
708	Permanent Pavement Markings (Painted)	Per Specifications	Supplier or Contractor	A sample (one quart or pint in a metal can) of the material from each batch shall be submitted to Central Lab for testing prior to use.
			Project	Certificate of Compliance and a copy of the Central Materials Chemistry Lab test results are required.
				For thickness testing, check-samples of finished paint while being applied, at intervals determined by the Engineer.

TABLE 8 (continued)
ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
709	Dual Component Pavement Markings (Epoxy)	Per Specifications	Project	Certificate of Analysis required and must be on the Department's Approved Projects List. Random spot checks for thickness.
732	Polyvinyl Chloride (PVC) Pipe for Electrical Conduit	Resistance to Crushing	Project	One 7-foot sample per 5000 ft.
808	Polyvinyl Chloride (PVC) Pipe for Water	Wall Thickness Burst Pressure Diameter	Project	One 7-foot sample per 10,000 ft.
902	Chain Link Fabric			Certificate of Compliance required.
902	Fence Post and Rails			Certificate of Compliance required.
902 903	Miscellaneous Fence Hardware			Certificate of Compliance required.
902 903	Post Clips, Hog Rings, Tie Wire, or Tension Wire			Certificate of Compliance required.

TABLE 8 (continued)
ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
903	Barbed Wire or Barbless Wire	Tensile Strength Galvanization Diameter	Supplier's Yard or Project	Certificate of Compliance [8] required and one 4-foot sample per 50 rolls.
903	Fence Stays			Certificate of Compliance required.
903	T-Post	Weight/Foot Length	Supplier's Yard or Project	Certificate of Compliance [8] required
903	Woven Wire Fabric	Spelter Diameter Tensile Strength	Supplier's Yard or Project	Certificate of Compliance [8] required
904 913	Wire Rope			Certificate of Compliance required.

[8] Certifying that manufacturing processes and application of coating occurred in the United States. (This certification required for Federal-Aid projects only. See Special Provisions for exception based on quantity being used.)

TABLE 8 (continued)
ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS

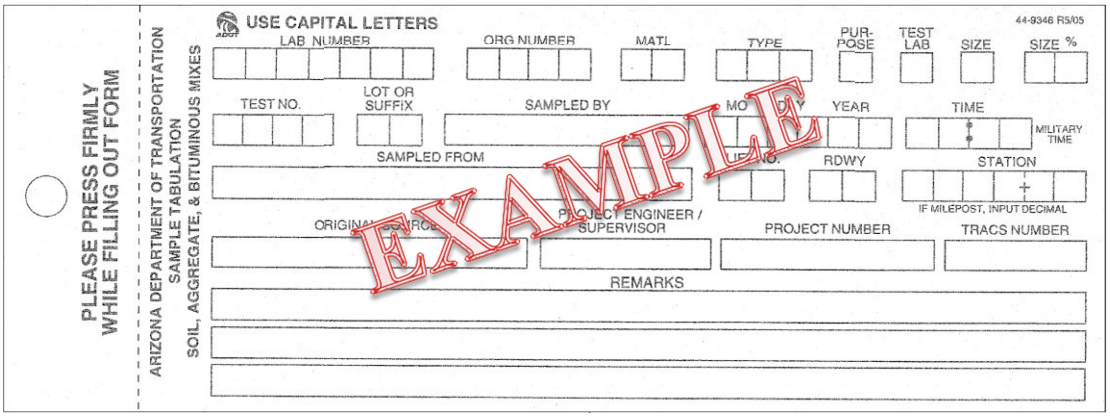
SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1002	Paint	Per Specifications		Paint for use on structural steel and other metallic surfaces:
			Project	Certificate of Compliance is required and the system must be on the Department's Approved Products List.
				Paint for use on concrete or masonry surfaces:
			Supplier or Contractor	A sample (one quart in a metal can) of the material from each batch must be submitted to Central Lab for testing prior to use.
			Project	Certificate of Compliance and a copy of the Central Materials Chemistry Lab test results are required. Also must be on the Department's Approved Products List.
				Paint for use on other than structural steel and other metallic surfaces, concrete surfaces, or masonry surfaces:
			Project	Certificate of Compliance is required and one sample (one quart in a metal can) per batch submitted to Central Lab for testing.

TABLE 8 (continued)
ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS

SPECIFI-CATION SECTION	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
1012	Guardrail Elements			Certificate of Compliance required.
1012	Guardrail Fasteners			Certificate of Compliance required.
1012	Guardrail Posts and Blocks	None		Certificate of Compliance required.
1014	Geosynthetics		Supplier and Project	Certificate of Analysis required. Must be on AASHTO Product Evaluation and Audit Solutions DataMine list.

TABLE 9
ILLUSTRATION OF SAMPLING TICKET AND LISTING OF CODES FOR PURPOSE, TESTING LAB, SIZE, AND ROADWAY

Sample Ticket



Purpose Codes

A Acceptance
M Miscellaneous
C Control
P Independent Assurance
I Informational

Testing Lab Codes

C Central Lab
R Regional Lab
P Project Lab

Size Codes

Stockpiles:
B Blend
F Fine
I Intermediate
C Coarse
K Coarsest
Bins:
9 Composite of Bins
1 Bin #1
2 Bin #2, etc.

Roadway Codes

NB Northbound
SB Southbound, etc.
RA Ramp A
RB Ramp B, etc.
FR Frontage Road
XR Crossroad

TABLE 10
LISTING OF MATERIAL CODES AND TYPE CODES
USED BY FAST [Field Office Automation SysTem] (9)

Material Description	Material Code	Type Description	Type Code
Admix	AD		
Aggregate	AG	Bituminous Treated Base	BB
Aggregate	AG	Cement Treated Base	CB
Aggregate	AG	Cement Treated Subgrade	CS
Aggregate	AG	Lean Concrete Base	LC
Aggregate	AG	Lime Treated Subgrade	LS
Aggregate	AG	Road Mix	RM
Aggregate	AG	Soil Cement	SC
Aggregate Base	AB	Class 1	1
Aggregate Base	AB	Class 2	2
Aggregate Base	AB	Class 3	3
Aggregate Subbase	AS	Class 4	4
Aggregate Subbase	AS	Class 5	5
Aggregate Subbase	AS	Class 6	6
Arrestor Bed Aggregate	AA		
Asphaltic Concrete	AC	1/2" Asphaltic Concrete	12
Asphaltic Concrete	AC	1/2" Fine Band 417 AC	12F
Asphaltic Concrete	AC	1/2" Coarse Band 417 AC	12K
Asphaltic Concrete	AC	3/4" Asphaltic Concrete	34
Asphaltic Concrete	AC	3/4" Fine Band 417 AC	34F
Asphaltic Concrete	AC	3/4" Coarse Band 417 AC	34K
Asphaltic Concrete	AC	Asphaltic Concrete Friction Course (ACFC)	FC
Asphaltic Concrete	AC	Asphalt-Rubber Asphaltic Concrete (AR-AC)	RD
Asphaltic Concrete	AC	Asphalt-Rubber Asphaltic Concrete Friction Course (AR-ACFC)	RF
Asphaltic Concrete	AC	Base Mix	BM
Asphaltic Concrete	AC	Bituminous Treated Base	BB
Asphaltic Concrete	AC	AZ409 Miscellaneous Structural	409MI
Asphaltic Concrete	AC	AZ409 Miscellaneous Structural (Special Mix)	409SP

(9) FAST may revise codes, delete codes, or add codes at various times. Users must assure that they are utilizing the current FAST codes.

TABLE 10 (continued)
LISTING OF MATERIAL CODES AND TYPE CODES
USED BY FAST [Field Office Automation SysTem] (9)

Material Description	Material Code	Type Description	Type Code
Asphaltic Concrete	AC	Other	OT
Asphaltic Concrete	AC	Recycled Asphaltic Concrete	RC
Asphaltic Concrete	AC	Road Mix	RM
Asphaltic Concrete Friction Course (ACFC)	FC		
Asphalt-Rubber Asphaltic Concrete (AR-AC)	RD		
Asphalt-Rubber Asphaltic Concrete Friction Course (AR-ACFC)	RF		
Asphaltic Concrete	AC	Stone Matrix Asphalt	SMA
Backfill	BF	Aluminum Pipe	AP
Backfill	BF	Concrete Pipe	CP
Backfill	BF	Metal Pipe	MP
Backfill	BF	Plastic Pipe	PP
Backfill	BF	Slurry	SL
Backfill	BF	Special	SP
Backfill	BF	Trench	TR
Bedding Material	BM	Concrete Pipe	CP
Bedding Material	BM	Corrugated Metal Pipe	MP
Bedding Material	BM	PVC Pipe	PV
Bedding Material	BM	Slurry	SL
Blotter Material	BL		
Borrow	BW		
Bonded Wearing Course	BWC		
Cement Stabilized Alluvium	CS		
Coarse Aggregate	CA	Size 1	1
Coarse Aggregate	CA	Size 2	2
Coarse Aggregate	CA	Size 3	3
Coarse Aggregate	CA	Size 4	4
Coarse Aggregate	CA	Size 5	5
Coarse Aggregate	CA	Size 6	6
Coarse Aggregate	CA	Size 7	7
Coarse Aggregate	CA	Size 8	8
Coarse Aggregate	CA	Size 9	9

(9) FAST may revise codes, delete codes, or add codes at various times. Users must assure that they are utilizing the current FAST codes.

TABLE 10 (continued)
LISTING OF MATERIAL CODES AND TYPE CODES
USED BY FAST [Field Office Automation SysTem] (9)

Material Description	Material Code	Type Description	Type Code
Coarse Aggregate	CA	Size 10	10
Coarse Aggregate	CA	Size 24	24
Coarse Aggregate	CA	Size 56	56
Coarse Aggregate	CA	Size 57	57
Coarse Aggregate	CA	Size 67	67
Coarse Aggregate	CA	Size 68	68
Coarse Aggregate	CA	Size 78	78
Coarse Aggregate	CA	Size 89	89
Coarse Aggregate	CA	Size 357	357
Coarse Aggregate	CA	Size 467	467
Coarse Aggregate	CA	Composite Samples	NA
Cover Material	CM		
Crash Barrel Sand	CB		
Decomposed Granite	DG		
Embankment	EM		
Entrained Air (Air Content)	ET		
Filter Material	FM		
Fine Aggregate	FA		
Fly Ash	FF		
Granite Mulch	GM		
Granulated (Crumb) Rubber	GR		
Grout	GT		
Maintenance	MT		
Membrane Seal	MS		
Mineral Aggregate	MA		
Mineral Aggregate	MA	1/2" Asphaltic Concrete	12
Mineral Aggregate	MA	1/2" Fine Band 417 AC	12F
Mineral Aggregate	MA	1/2" Coarse Band 417 AC	12K
Mineral Aggregate	MA	3/4" Asphaltic Concrete	34
Mineral Aggregate	MA	3/4" Fine Band 417 AC	34F
Mineral Aggregate	MA	3/4" Coarse Band 417 AC	34K
Mineral Aggregate	MA	AZ409 Miscellaneous Structural	409MI
Mineral Aggregate	MA	AZ409 Miscellaneous Structural (Special Mix)	409SP

(9) FAST may revise codes, delete codes, or add codes at various times. Users must assure that they are utilizing the current FAST codes.

TABLE 10 (continued)
LISTING OF MATERIAL CODES AND TYPE CODES
USED BY FAST [Field Office Automation SysTem] (9)

Material Description	Material Code	Type Description	Type Code
Mineral Aggregate	MA	Asphaltic Concrete Friction Course (ACFC)	FC
Mineral Aggregate	MA	Asphalt-Rubber Asphaltic Concrete (AR-AC)	RD
Mineral Aggregate	MA	Asphalt-Rubber Asphaltic Concrete Friction Course (AR-ACFC)	RF
Mineral Aggregate	MA	Base Mix	BM
Mineral Aggregate	MA	Other	OT
Mineral Aggregate	MA	Recycled Asphaltic Concrete	RC
Natural Ground	NG		
Other	OT		
Pipe Plating	PM		
Pneumatically Placed Mortar	NM		
Reclaimed Asphalt Pavement	RP	Coarse	C
Reclaimed Asphalt Pavement	RP	Fine	F
Reclaimed Asphalt Pavement	RP	Other	O
Rip Rap	RR		
Rock Mulch	RM		
Slurry	SL	3/8" Aggregate	38
Slurry	SL	#4 Aggregate	4
Structure Backfill	SB		
Subgrade	SG		
Subgrade Seal	SS		
Top Soil	TS		
Water	HO		
Winter Cinders	WC		

(9) FAST may revise codes, delete codes, or add codes at various times. Users must assure that they are utilizing the current FAST codes.