

APPENDIX C

SAMPLING GUIDE SCHEDULE

Tables 1 through 8 (Pages 1–60) - Acceptance Sampling Guide.

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|----------------|-----------------------------------------------------------------------|
| Table 1 | Soils (Pages 1-3) |
| Table 2 | Aggregates (Pages 4-26) |
| Table 3 | Bituminous Materials (Pages 27-34) |
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| Table 7 | Bituminous Mixtures (Pages 45-48) |
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Table 9 (Page 61) - Illustration of Sampling Ticket and Listing of Codes for Purpose, Testing Lab, Size, and Roadway.

Table 10 (Pages 62–65) - Listing of Material Codes and Type Codes Used By FAST (Field Office Automation SysTem).

Table 11 (Pages 66-69) - Index of Materials Listed in Tables 1 through 8.

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| TABLE 1 ACCEPTANCE SAMPLING GUIDE FOR SOILS | | | | |
|----------------------------------------------------------|---------------------------------------------------------|--------------------------|--------------------|-----------------------------------|
| SPECIFICATION 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 | | |
| | Embankment for Metal Pile Location only | pH | In-Place or Source | One per source. |
| Resistivity | | | | |
| 203 | Natural Ground for Embankment 5 ft. or less in height | Proctor Density | In-Place | One per soil type, and as needed. |
| | | Optimum Moisture | | |
| | | Compaction | | |
| (1) Independent Assurance Sampling and Testing required. | | | | |

| TABLE 1 (continued) ACCEPTANCE SAMPLING GUIDE FOR SOILS | | | | |
|------------------------------------------------------------|----------------------------|--------------------------|--------------------|--------------------------------------------------|
| SPECIFICATION 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 | | | | |
|------------------------------------------------------------|-------------------------------------|------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION 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 | | |
| | | Exchangeable Sodium in percent and parts per million | | |
| (1) Independent Assurance Sampling and Testing required. | | | | |

| TABLE 2 ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-------------------------------------------------------------------------------|-------------------------------------|--------------------------|---------------------|--------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 203 501 (When Contractor Quality Control is not a bid item.) | Structure Backfill or Pipe Backfill | Proctor Density | Stockpile | One per source, and as needed. |
| | | Optimum Moisture | | |
| | | Compaction | In-Place | One per 75 CY. |
| | | Resistivity | Source or Stockpile | One per source. |
| | | pH | | |
| | | Gradation ⁽¹⁾ | On Job Site | One per 500 CY per source. |
| | | PI ⁽¹⁾ | | |
| 203 501 (When Contractor Quality Control is a bid item.) | Structure Backfill or Pipe Backfill | Proctor Density | Stockpile | One per source, and as needed. |
| | | Optimum Moisture | | |
| | | Compaction | In-Place | One per 100 CY. |
| | | Resistivity | Source or Stockpile | One per source. |
| | | pH | | |
| | | Gradation ⁽¹⁾ | On Job Site | One per 1500 CY per source. |
| | | PI ⁽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 |
| 303 (When Contractor Quality Control is not a bid item.) | Aggregate Base Class 1, Class 2, and Class 3 | Abrasion ⁽²⁾ | Source | One per source. |
| | | Proctor Density | Crusher Belt or Stockpile | At start of production, then as material changes. |
| | | Optimum Moisture | | |
| | | Compaction | Roadway | One per lift per 1000 ft. |
| | | Fractured Coarse Aggregate Particles ⁽¹⁾ | Stockpile | One per 10,000 tons. |
| | | Gradation ⁽¹⁾ | Windrow | One per 2000 tons, minimum one per shift. |
| | | PI ⁽¹⁾ | | |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽²⁾ Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------|---------------------------|---------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 303 (When Contractor Quality Control is a bid item.) | Aggregate Base Class 1, Class 2, and Class 3 | Abrasion ⁽²⁾ | Source | One per source. |
| | | Proctor Density | Crusher Belt or Stockpile | At start of production, then as material changes. |
| | | Optimum Moisture | | |
| | | Compaction | Roadway | One per lift per 1500 ft. |
| | | Fractured Coarse Aggregate Particles ⁽¹⁾ | Stockpile | One per 10,000 tons. |
| | | Gradation ⁽¹⁾ | Windrow | One per 2000 tons, minimum one per shift. |
| | | PI ⁽¹⁾ | | |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽²⁾ Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------|---------------------------|---------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 303 (When Contractor Quality Control is not a bid item.) | Aggregate Subbase Class 4, Class 5, and Class 6 | Proctor Density | Crusher Belt or Stockpile | At start of production, then as material changes. |
| | | Optimum Moisture | | |
| | | Compaction | Roadway | |
| | Class 4 | Fractured Coarse Aggregate Particles ⁽¹⁾ | Stockpile | 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⁾ | | | | |
| <p>(1) Independent Assurance Sampling and Testing required.</p> <p>(2) Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------------|---------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 303 (When Contractor Quality Control is a bid item.) | Aggregate Subbase Class 4, Class 5, and Class 6 | Proctor Density | Crusher Belt or Stockpile | At start of production, then as material changes. |
| | | Optimum Moisture | | |
| | | Compaction | Roadway | |
| | Class 4 | Fractured Coarse Aggregate Particles ⁽¹⁾ | Stockpile | 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⁾ | | |
| | <p>(1) Independent Assurance Sampling and Testing required.</p> <p>(2) Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------|----------------|-------------------------------------------------------|
| SPECIFICATION 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. |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽²⁾ Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------|---------------------|----------------------------|
| SPECIFICATION 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 | Stockpile | One per 600 tons. |
| | | Flakiness Index | | |
| | | Gradation ⁽¹⁾ | Final Stockpile | One per 300 tons. |
| | | Moisture Content | Trucks at Scale | One per 300 tons. |
| 404 412 413 415 | Blotter Material | Gradation ⁽¹⁾ | Final Stockpile | One per stockpile. |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽²⁾ Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------|---------------------|------------------------------------------------------------------------|
| SPECIFICATION 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. |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽²⁾ Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION 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. | | |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽²⁾ Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------|
| SPECIFICATION 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. |
| | | Percent Carbonates (if required) | | |
| | | 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. |
| | | Percent Carbonates (if required) | | |
| | | Sand Equivalent ⁽¹⁾ | Stockpile | One per source. |
| | | Uncompacted Void Content ⁽¹⁾ | Stockpile | One prior to start of asphaltic concrete production. |
| | | Fractured Coarse Aggregate Particles ⁽¹⁾ | Cold Feed or Stockpile | One per each two days of asphaltic concrete production, minimum of two per project. |
| | | 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 45.) | | |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽²⁾ Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION 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. | |
| 413 | Mineral Aggregate for Asphaltic Concrete (Asphalt-Rubber) [AR-AC] | Abrasion ⁽²⁾ | Source or Stockpile | One per source. |
| | | Percent Carbonates (if required) | | |
| | | Specific Gravity | Stockpile | One per source. |
| | | Gradation | Cold Feed | One prior to the start of AR-AC production. |
| | | Sand Equivalent ⁽¹⁾ | Cold Feed or Stockpile | One prior to the start of AR-AC production and one per each two days of AR-AC production, minimum of two per project. |
| | | Fractured Coarse Aggregate Particles ⁽¹⁾ | | |
| | | Moisture Content | Prior to mixing with mineral admixture | One per each two days of AR-AC production. |
| | Gradation ⁽¹⁾ | Cold Feed or Hot Bins | One per 500 tons of AR-AC 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 | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION 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. | | |
| <p>(1) Independent Assurance Sampling and Testing required.</p> <p>(2) Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 415 | Mineral Aggregate for Asphaltic Concrete (Asphalt-Rubber) - End Product [AR-AC] | Abrasion ⁽²⁾ | Source or Stockpile | One per source. |
| | | Percent Carbonates (if required) | | |
| | | Sand Equivalent | Stockpile | One at least five working days prior to start of AR-AC production. |
| | | Fractured Coarse Aggregate Particles | | |
| | | Uncompacted Void Content | | |
| | | Ignition Furnace Calibration | | |
| | | Sand Equivalent ⁽¹⁾ | Cold Feed or Stockpile | One per each two days of AR-AC 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 (Asphalt-Rubber) - End Product on Page 46.) | | |
| <p>(1) Independent Assurance Sampling and Testing required.</p> <p>(2) Historical abrasion values may be used provided testing was conducted within the past two years.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|
| SPECIFICATION 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 18 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 47.) | | | |
| <p>(1) Independent Assurance Sampling and Testing required.</p> <p>(2) Historical abrasion values may be used provided testing was conducted within the past two years.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SPECIFICATION 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 PPD ⁽³⁾ . (See Page 17 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. |
| | | Fractured Coarse Aggregate Particles (Composite of Virgin Agg. and RAP Agg.) | | |
| | | Uncompacted Void Content (Special Mix only) (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 | |
| | | Fractured Coarse Aggregate Particles ⁽¹⁾ (Composite of Virgin Agg. and RAP Agg. obtained from Arizona Test Method 428) | | One per each two days of asphaltic concrete production, minimum of two per project. |
| | | Uncompacted Void Content ⁽¹⁾ (Special Mix only) (Virgin Agg. only) | | |
| Moisture Content | Prior to mixing with mineral admixture | | | |
| | | Gradation | (See Bituminous Mixture requirements for Asphaltic Concrete - End Product on Page 47.) | |

(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 | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------|
| SPECIFICATION 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 20 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 48.) | | |
| <p>(1) Independent Assurance Sampling and Testing required.</p> <p>(2) Historical abrasion values may be used provided testing was conducted within the past two years.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SPECIFICATION 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 19 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. |
| | | 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 48.) | | | |
| ⁽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 | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------|-----------------------|--------------------------------|
| SPECIFICATION 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 | Gradation ⁽¹⁾ | Source or Stockpile | One per 300 CY per source. |
| | | PI ⁽¹⁾ | | |
| | | pH ⁽¹⁾ | | |
| | | Resistivity ⁽¹⁾ | Source or Stockpile | One per source, and as needed. |
| | | Proctor Density | | |
| | | Optimum Moisture | In-Place | One every 50 CY. |
| | | Compaction | | |
| 501 | Filter Material for Perforated Pipe | Gradation ⁽¹⁾ | Source or Stockpile | One per 300 CY per source. |
| <p>(1) Independent Assurance Sampling and Testing required.</p> <p>(2) Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|------------------------------------------|
| SPECIFICATION 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 | In-Place | One every 50 CY. |
| Compaction | | | | |
| 702 | Crash Barrel Sand | Gradation | Plant or Site | One per each attenuator system location. |
| | | Dry Unit Weight per cubic foot | | |
| | | Moisture Content | | |
| | Sand and Rock Salt Mixture (when Sand Barrel Crash Cushions are installed at elevations above 3,000 feet) | Percent Rock Salt | | |
| 808 | Bedding Material for Polyvinyl Chloride (PVC) Irrigation Pipe | Gradation | Source or Stockpile | One per source. |

| TABLE 2 (continued) | | | | |
|------------------------------------------|---------------------------------------------------------------------------------------|--------------------------|----------------|----------------------------|
| ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
| SPECIFICATION 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) | Project | One per 1/2 shift. |
| | Rock for Grouted Riprap and Dumped Riprap | Specific Gravity | Source | One per source. |
| | | Gradation | Project | One per 1/2 shift. |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 1006 | Fine Aggregate for Portland Cement Concrete (PCC) Classes P, S, and B | Gradation ⁽¹⁾ | Batch Plant Conveyer Belt or Stockpile | One every other day of PCC production. |
| | | Sand Equivalent ⁽¹⁾ | | |
| | | Soundness [when used in concrete over 4500 ft. elevation] | Stockpile | One per source. For evaluation of concrete aggregate sources, see PPD ⁽³⁾ . |
| | | Organic Impurities | | |
| | | Mortar Strength | | |
| Deleterious Substances [Clay Lumps and Friable Particles; Lightweight Particles] | Stockpile | At the discretion of Materials Group. For evaluation of concrete aggregate sources, see PPD ⁽³⁾ . | | |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽³⁾ ADOT Materials Practice and Procedure Directive.</p> | | | | |

| 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 Conveyer Belt or Stockpile | One every other day of PCC production. |
| | | Soundness [when used in concrete over 4500 ft. elevation] | Stockpile | One per source. For evaluation of concrete aggregate sources, see PPD ⁽³⁾ . |
| | | Abrasion ⁽²⁾ | | |
| | | Deleterious Substances [Clay Lumps and Friable Particles; Lightweight Particles; Material Passing No. 200 Sieve] | Stockpile | With the exception of "Material Passing No. 200 Sieve", at the discretion of Materials Group. For evaluation of concrete aggregate sources, see PPD ⁽³⁾ . |
| | | Fractured Coarse Aggregate Particles | Stockpile | One per source. |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽²⁾ Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> <p>⁽³⁾ ADOT Materials Practice and Procedure Directive.</p> | | | | |

| TABLE 2 (continued) ACCEPTANCE SAMPLING GUIDE FOR AGGREGATES | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------|--------------------------|--------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| Refer to Special Provisions | Aggregate for Arrestor Bed | Abrasion ⁽²⁾ | Screen Belt or Stockpile | One per source. |
| | | Specific Gravity | | |
| | | Gradation ⁽¹⁾ | Screen Belt or Stockpile | One per shift. |
| | | Fractured Coarse Aggregate Particles ⁽¹⁾ | | |
| | | Flakiness Index ⁽¹⁾ | | |
| Refer to Special Provisions | Aggregate for Soil-Cement Bank Protection or Cement Stabilized Alluvium | Gradation ⁽¹⁾ | Source or Stockpile | One per 2000 tons, minimum of one per day. |
| | | PI ⁽¹⁾ | | |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽²⁾ Provided Construction & Materials Group concurs, historical abrasion values may be used.</p> | | | | |

| 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 1/2 shift. |
| 1005 | Liquid Asphalt [Cutback Asphalt - (Medium Curing Type)] MC-70 MC-250 MC-800 MC-3000 | Per Specifications | Distributor Recommended ⁽⁴⁾ | Certificate of Compliance required and duplicate samples (each one gallon in a metal can) per delivery unit. |
| 404 | for Prime Coat | | | |
| <p>⁽⁴⁾ Point of sampling specified by Engineer.</p> <p>Note: During production, samples of bituminous material shall be taken by the contractor and witnessed by the Engineer.</p> | | | | |

| TABLE 3 (continued) ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION 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 Recommended ⁽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. |
| <p>⁽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.</p> | | | | |

| TABLE 3 (continued) ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION 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 Recommended ⁽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. |
| <p>⁽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.</p> | | | | |

| TABLE 3 (continued) ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL | | | | | |
|--------------------------------------------------------------------------|---------------------------------|--------------------------|---------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY | |
| 1005 | Asphalt Cement (PG XX-XX) | Per Specifications | | | |
| 404 | for Tack Coat | | | Certificate of Compliance required. | |
| 416 417 | for Asphaltic Concrete | | Supplier or Project | Circulation Line Recommended ⁽⁴⁾ | 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). |
| 407 409 411 416 417 | for Asphaltic Concrete, or ACFC | | Supplier or Project | | |
| | | | | Circulation Line Recommended ⁽⁴⁾ | Certificate of Analysis and a one gallon sample in a metal can required at least seven days prior to start of asphaltic concrete production. |
| | | | | Circulation Line Recommended ⁽⁴⁾ | Certificate of Compliance required and duplicate samples (each one gallon in a metal can) per 1/2 shift. |

⁽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 | 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 Recommended ⁽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 Recommended ⁽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 | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 1005 1009 410 | Asphalt Cement (PG XX-XX) for Asphalt - Rubber (Sprayed Applications) | Per Specifications | Circulation Line - Delivery Unit | 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 413 414 415 | Asphalt Cement (PG XX-XX) for Asphalt - Rubber for AR-AC or AR-ACFC | Per Specifications | Delivery Unit Recom- mended ⁽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 Type A or Type B | Gradation | Project | 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. |
| <p>⁽⁴⁾ Point of sampling specified by Engineer.</p> <p>⁽⁵⁾ CRA = Crumb Rubber Asphalt</p> <p>Note: During production, samples of bituminous material shall be taken by the contractor and witnessed by the Engineer.</p> | | | | |

| TABLE 3 (continued) ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 1009 413 414 415 | Asphalt - Rubber [CRA ⁽⁵⁾] Type 1, Type 2, or Type 3 For AR-AC or AR-ACFC | Penetration | Circulation Line Recommended ⁽⁴⁾ | Certificate of Compliance required. |
| | | Softening Point | | Duplicate samples (each one gallon in a metal can) per 1/2 shift. |
| | | Resilience | | |
| | | Rotational Viscosity | | |
| | | Rotational Viscosity (at plant) | | One sample (one gallon in a metal can) per batch. |
| 415 | for AR-AC | | 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). |
| | | | Circulation Line Recommended ⁽⁴⁾ | |
| <p>⁽⁴⁾ Point of sampling specified by Engineer.</p> <p>⁽⁵⁾ CRA = Crumb Rubber Asphalt</p> <p>Note: During production, samples of bituminous material shall be taken by the contractor and witnessed by the Engineer.</p> | | | | |

| TABLE 3 (continued) ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MATERIAL | | | | |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION 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 Recommended ⁽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 | | | | |
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| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 401 1006 | Portland Cement Concrete (PCC) Class P | Compressive Strength ⁽¹⁾ | Immediately before going into paver or forms, or as otherwise directed by the Engineer. | Five samples per lot. |
| | | Slump | | (For compressive strength, one set of three cylinders per sample.) |
| | | 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 ⁽¹⁾ | At Discharge ⁽⁶⁾ | 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. |
| | | Slump | | (For compressive strength, one set of two cylinders per sample.) |
| | | Temperature | | |
| | | Air Content (when Required) | At Discharge ⁽⁶⁾ | 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. |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽⁶⁾ Concrete pumped to facilitate placement will be sampled for acceptance at the final point of placement. Samples will be taken during continuous discharge of concrete that has been pumped beyond the pump hopper without interruption at the normal production rate. Where freeze-thaw durability is of concern (such as in bridge decks, overlays, approach slabs, and barrier walls), the concrete shall also be sampled at the truck to determine air loss through the pump. In accordance with Subsection 601-3.03(C), if the loss of air as measured between the supply truck and the point of placement exceeds two percent, the contractor shall employ measures acceptable to the Engineer to reduce the loss of air to less than two percent. If sampling at the point of placement is not practical, as determined by the Engineer, or creates a safety concern, the concrete shall be sampled for acceptance at the truck. When acceptance sampling can only be performed at the truck, the acceptable range of air content of the supplied mix will be adjusted to not less than five percent nor more than eight percent in accordance with Subsection 1006-3.01.</p> | | | | |

| TABLE 4 (continued) ACCEPTANCE SAMPLING GUIDE FOR PORTLAND CEMENT CONCRETE | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION 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 ⁽¹⁾ | At Discharge ⁽⁶⁾ | 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. (For compressive strength, one set of three cylinders per sample.) |
| | | ----- Slump | | |
| | | ----- Temperature | | |
| | | Air Content (when Required) | At Discharge ⁽⁶⁾ | 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. |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽⁶⁾ Concrete pumped to facilitate placement will be sampled for acceptance at the final point of placement. Samples will be taken during continuous discharge of concrete that has been pumped beyond the pump hopper without interruption at the normal production rate. Where freeze-thaw durability is of concern (such as in bridge decks, overlays, approach slabs, and barrier walls), the concrete shall also be sampled at the truck to determine air loss through the pump. In accordance with Subsection 601-3.03(C), if the loss of air as measured between the supply truck and the point of placement exceeds two percent, the contractor shall employ measures acceptable to the Engineer to reduce the loss of air to less than two percent. If sampling at the point of placement is not practical, as determined by the Engineer, or creates a safety concern, the concrete shall be sampled for acceptance at the truck. When acceptance sampling can only be performed at the truck, the acceptable range of air content of the supplied mix will be adjusted to not less than five percent nor more than eight percent in accordance with Subsection 1006-3.01.</p> | | | | |

| TABLE 4 (continued) ACCEPTANCE SAMPLING GUIDE FOR PORTLAND CEMENT CONCRETE | | | | |
|-------------------------------------------------------------------------------|----------------------------------------|-------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 1006 | Portland Cement Concrete (PCC) Class B | Compressive Strength ⁽¹⁾ | At Discharge ⁽⁶⁾ | 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. (For compressive strength, one set of two cylinders per sample.) |
| | | ----- Slump | | |
| | | ----- Temperature | | |
| | | Air Content (when Required) | At Discharge ⁽⁶⁾ | 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. |

(1) Independent Assurance Sampling and Testing required.

(6) Concrete pumped to facilitate placement will be sampled for acceptance at the final point of placement. Samples will be taken during continuous discharge of concrete that has been pumped beyond the pump hopper without interruption at the normal production rate. Where freeze-thaw durability is of concern (such as in bridge decks, overlays, approach slabs, and barrier walls), the concrete shall also be sampled at the truck to determine air loss through the pump. In accordance with Subsection 601-3.03(C), if the loss of air as measured between the supply truck and the point of placement exceeds two percent, the contractor shall employ measures acceptable to the Engineer to reduce the loss of air to less than two percent. If sampling at the point of placement is not practical, as determined by the Engineer, or creates a safety concern, the concrete shall be sampled for acceptance at the truck. When acceptance sampling can only be performed at the truck, the acceptable range of air content of the supplied mix will be adjusted to not less than five percent nor more than eight percent in accordance with Subsection 1006-3.01.

| TABLE 4 (continued) | | | | |
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| ACCEPTANCE SAMPLING GUIDE FOR PORTLAND CEMENT CONCRETE | | | | |
| SPECIFICATION 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 | Prestressed Concrete | Compressive Strength ----- Slump ----- Temperature | At Discharge ⁽⁶⁾ | 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 28-day breaks.) |
| 912 | Shotcrete | Compressive Strength ----- Slump ----- Air Content (For Shotcrete placed at an elevation of 3,000 feet or above) | Test Panels ----- At Mixer Discharge ----- For wet-mix process, just prior to pumping ----- For dry-mix process, from in-place material | Three cores from a test panel every 100 CY or fraction thereof, per day. ----- One per 50 CY or fraction thereof, per day. |
| 922 1006 | Utility Concrete | None | | |
| <p>⁽⁶⁾ Concrete pumped to facilitate placement will be sampled for acceptance at the final point of placement. Samples will be taken during continuous discharge of concrete that has been pumped beyond the pump hopper without interruption at the normal production rate. Where freeze-thaw durability is of concern (such as in bridge decks, overlays, approach slabs, and barrier walls), the concrete shall also be sampled at the truck to determine air loss through the pump. In accordance with Subsection 601-3.03(C), if the loss of air as measured between the supply truck and the point of placement exceeds two percent, the contractor shall employ measures acceptable to the Engineer to reduce the loss of air to less than two percent. If sampling at the point of placement is not practical, as determined by the Engineer, or creates a safety concern, the concrete shall be sampled for acceptance at the truck. When acceptance sampling can only be performed at the truck, the acceptable range of air content of the supplied mix will be adjusted to not less than five percent nor more than eight percent in accordance with Subsection 1006-3.01.</p> | | | | |

| TABLE 5 ACCEPTANCE SAMPLING GUIDE FOR MATERIALS USED WITH PORTLAND CEMENT CONCRETE | | | | |
|------------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 602 1003 | Prestressing 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 1003 | Reinforcement Bars (Epoxy Coated or Uncoated) | Yield Strength, Tensile Strength, Bend Test, Elongation, Weight/Foot, and Coating Thickness (if applicable) | | |
| | Phoenix and Tucson Sources | | Fabrication Plant or Supplier's Yard | Certificate of Compliance required and samples as per PPD ⁽³⁾ . |
| | | | Project | Certificate of Compliance required and one 7 ft. bar per shipment. See PPD ⁽³⁾ . |
| | Other sources | | Project | Certificate of Compliance required and samples as per PPD ⁽³⁾ . |
| 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. |
| (3) ADOT Materials Practice and Procedure Directive. | | | | |

| TABLE 5 (continued) ACCEPTANCE SAMPLING GUIDE FOR MATERIALS USED WITH PORTLAND CEMENT CONCRETE | | | | |
|------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 1003 | Welded Wire Fabric (Deformed) | 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. See PPD ⁽³⁾ . |
| 1006 | Curing Compound | Water Loss ----- % Solids | Supplier's Yard or Project | For material from preapproved lot, Certificate of Compliance only. See PPD ⁽³⁾ . ----- For material <u>not</u> preapproved, Certificate of Compliance and a 1/2 gallon sample per lot. See PPD ⁽³⁾ . |
| 1006 | Fly Ash and Natural Pozzolan | Chemical and Physical | | Material supplied from an Approved Material Source. See PPD ⁽³⁾ . |
| 1006 | Silica Fume | | | Certificate of Compliance required with each delivery. See PPD ⁽³⁾ . |
| ⁽³⁾ ADOT Materials Practice and Procedure Directive. | | | | |

| TABLE 5 (continued) ACCEPTANCE SAMPLING GUIDE FOR MATERIALS USED WITH PORTLAND CEMENT CONCRETE | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION 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) | Chemical and Physical | | Material supplied from an Approved Material Source. See PPD ⁽³⁾ . |
| 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. |
| <p>⁽³⁾ ADOT Materials Practice and Procedure Directive.</p> <p>⁽⁷⁾ No sample is necessary if water is potable and comes from a proven source.</p> | | | | |

| TABLE 5 (continued) ACCEPTANCE SAMPLING GUIDE FOR MATERIALS USED WITH PORTLAND CEMENT CONCRETE | | | | |
|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 1013 604 | Bearing Pads (Preformed Fabric) | Thickness ----- Compression Load | Project | 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 | Project | 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 Engineer approved testing laboratory. See PPD ⁽³⁾ .] |
| 1013 604 | Bearing Pads (Steel Reinforced Elastomeric) | Per Specification Subsection 1013-2 | Project | 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 Engineer approved testing laboratory. See PPD ⁽³⁾ .] |
| (3) ADOT Materials Practice and Procedure Directive. | | | | |

| TABLE 6 ACCEPTANCE SAMPLING GUIDE FOR STABILIZED SOILS AND BASES | | | | |
|---------------------------------------------------------------------|-------------------------|-------------------------------------|-------------------------------|---------------------------------------------------------------------|
| SPECIFICATION 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. |
| 302 | Cement Treated Subgrade | Proctor Density | Roadway | One per soil type, 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⁾ | | Three random samples per shift. (Three specimens from each sample.) |
| (1) Independent Assurance Sampling and Testing required. | | | | |

| TABLE 6 (continued) | | | | |
|----------------------------------------------------------|-----------------------------|-------------------------------------|-------------------------------|-----------------------------------------------------------------------|
| ACCEPTANCE SAMPLING GUIDE FOR STABILIZED SOILS AND BASES | | | | |
| SPECIFICATION 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 | | | | |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 407 | Asphaltic Concrete Friction Course (ACFC) | % Asphalt ⁽¹⁾ ----- Moisture Content ⁽¹⁾ | Trucks at Mixing Plant | 1 per 1/2 shift. |
| 409 | Asphaltic Concrete (Miscellaneous Structural) [For Special Mix, see below] | % 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. |
| 413 | Asphaltic Concrete (Asphalt - Rubber) [AR-AC] | % Asphalt-Rubber ⁽¹⁾ ----- Moisture Content ⁽¹⁾ | Roadway | 4 per shift. |
| (1) Independent Assurance Sampling and Testing required. | | | | |

| TABLE 7 (continued) | | | | |
|---------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------|------------------------|-------------------------------------------------------|
| ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MIXTURES | | | | |
| SPECIFICATION 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⁾ | | |
| 415 | Asphaltic Concrete (Asphalt-Rubber) - End Product [AR-AC] | % Asphalt-Rubber ⁽¹⁾ | Roadway | 4 per lot. |
| | | Moisture Content ⁽¹⁾ | | |
| | | Gradation ⁽¹⁾ | | |
| | | Marshall Density ⁽¹⁾ | | |
| | | Rice ⁽¹⁾ | | |
| | | Compaction | Roadway | 20 cores per lot (10 locations/2 cores per location). |
| ⁽¹⁾ Independent Assurance Sampling and Testing required. | | | | |

| TABLE 7 (continued) ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MIXTURES | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------|-------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 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, unless otherwise specified. (Courses > 1½ inch in nominal thickness) | Roadway | 20 cores per lot (10 locations/2 cores per location). |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽³⁾ ADOT Materials Practice and Procedure Directive.</p> | | | | |

| TABLE 7 (continued) | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------|-------------------------------------------------------|
| ACCEPTANCE SAMPLING GUIDE FOR BITUMINOUS MIXTURES | | | | |
| SPECIFICATION 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). |
| Refer to Special Provisions | Asphaltic Concrete - Miscellaneous Paving | | | Tested at the discretion of the Engineer. |
| <p>⁽¹⁾ Independent Assurance Sampling and Testing required.</p> <p>⁽³⁾ ADOT Materials Practice and Procedure Directive.</p> | | | | |

| TABLE 8 ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS | | | | |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------|----------------|------------------------------------------------------------------------------|
| SPECIFICATION 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 | | See PPD ⁽³⁾ . |
| 407 409 411 413 414 415 416 417 | Hydrated Lime (for use as mineral admixture in asphaltic concrete mixes) | | | Material supplied from an Approved Material Source. See PPD ⁽³⁾ . |
| 302 304 501 503 505 601 602 912 913 1010 | Hydraulic Cement (for use in soil stabilization, mortar, and grout) | Chemical and Physical | | See PPD ⁽³⁾ . |
| 407 409 411 413 414 415 416 417 | Portland Cement and Blended Hydraulic Cement (for use as mineral admixture in asphaltic concrete mixes) | | | Material supplied from an Approved Material Source. See PPD ⁽³⁾ . |

⁽³⁾ ADOT Materials Practice and Procedure Directive.

| TABLE 8 (continued) ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 501 | Corrugated Metal Pipe (CMP) [Coated or Non-coated] | Yearly check by Central Lab | Supplier's Yard | Certificate of Compliance required. |
| 501 1006 | Non-Reinforced, Cast-in-Place Concrete Pipe | Compressive Strength ----- Slump ----- Air Content (when required) ----- Temperature ----- Wall Thickness | At Discharge ⁽⁶⁾ Site | Per Specifications. |
| 501 1010 | Precast Reinforced or Non-Reinforced Concrete Pipe | Compression (D-Load) ----- Wall Thickness | Supplier's Yard | Certificate of Compliance required and one sample for each 100 sections per size per type. |
| Refer to Special Provisions | Vitrified Clay Pipe | Compression | Project | One sample for each 100 sections per size per type. |
| 505 | Brick for Manholes | Compression | Project | One sample (6 bricks of like kind and size) per project. |
| <p>⁽⁶⁾ Concrete pumped to facilitate placement will be sampled for acceptance at the final point of placement. Samples will be taken during continuous discharge of concrete that has been pumped beyond the pump hopper without interruption at the normal production rate. Where freeze-thaw durability is of concern (such as in bridge decks, overlays, approach slabs, and barrier walls), the concrete shall also be sampled at the truck to determine air loss through the pump. In accordance with Subsection 601-3.03(C), if the loss of air as measured between the supply truck and the point of placement exceeds two percent, the contractor shall employ measures acceptable to the Engineer to reduce the loss of air to less than two percent. If sampling at the point of placement is not practical, as determined by the Engineer, or creates a safety concern, the concrete shall be sampled for acceptance at the truck. When acceptance sampling can only be performed at the truck, the acceptable range of air content of the supplied mix will be adjusted to not less than five percent nor more than eight percent in accordance with Subsection 1006-3.01.</p> | | | | |

| TABLE 8 (continued) ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS | | | | |
|------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| Refer to Special Provisions | Paving Brick | Compression ----- Absorption | Project | One sample (6 paving bricks of like kind and size) per project. |
| Refer to Special Provisions | Cinder Block | Compression ----- Absorption | Project | One sample (6 cinder blocks of like kind and size) per project. |
| Refer to Special Provisions | Slump Block | Compression ----- Absorption | Project | One sample (6 slump blocks of like kind and size) per project. |
| 604 731 1004 1012 | High Strength Bolts, Nuts, Washers, or Anchor Bolts | 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. |
| 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 | | | | |
|------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION 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 (Recommended) 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 <u>not</u> 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 <u>not</u> 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 | | | | |
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 705 | Preformed Plastic Pavement Marking | | | <p>Certificate of Compliance required*, and also must be on the Department's Approved Products List.</p> <p>*A Certificate of Analysis is also required (certifying that the Heavy Metal Concentration of the glass beads meets the specifications).</p> |
| 704 | Thermoplastic Pavement Markings | Per Specifications | Supplier or Contractor | At the discretion of the Engineer, a sample (one gallon in a metal can) of the material from each batch or, alternatively, sufficient material from one or more bags of material to make a representative one gallon sample, may be submitted to Central Lab for testing prior to use. |
| | | | Project | <p>Certificate of Compliance and, if applicable, a copy of the Central Materials Chemistry Lab test results are required. Also must be on the Department's Approved Products List.</p> <p>Random spot checks for thickness of thermoplastic material while being applied.</p> |

| TABLE 8 (continued) | | | | |
|-------------------------------------------------------|---------------------------------------|--------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS | | | | |
| SPECIFICATION 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 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. |
| | | | | Check-samples of finished paint while being applied, at intervals determined by the Engineer. |

| TABLE 8 (continued) | | | | |
|-------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------|
| ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS | | | | |
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 709 | Dual Component Pavement Markings | 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 sample per 5000 ft. |
| 808 | Polyvinyl Chloride (PVC) Pipe for Water | Wall Thickness ----- Burst Pressure ----- Diameter | Project | One 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 | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 903 | Barbed Wire or Barbless Wire | Tensile Strength ----- Spelter ----- Diameter | Supplier's Yard or Project | Certificate of Compliance ⁽⁸⁾ required and one 4 ft. 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 and one post per 500 posts, or fraction thereof, per lot. |
| 903 | Woven Wire Fabric | Spelter ----- Diameter ----- Tensile Strength | Supplier's Yard or Project | Certificate of Compliance ⁽⁸⁾ required and one sample [3 feet long, the full height (width) of the fabric] per 50 rolls. |
| 904 913 | Wire Rope | | | Certificate of Compliance required. |
| <p>⁽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.)</p> | | | | |

| TABLE 8 (continued) | | | | | |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS | | | | | |
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY | |
| 1002 | Paint | Per Specifications | Project | Paint for use on structural steel and other metallic surfaces: | |
| | | | | 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 | | | | |
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 1012 | Guardrail Elements | | | Certificate of Compliance required. |
| 1012 | Guardrail Fasteners | Rockwell Hardness | Project | For other than High Strength Anchor Bolts, Certificate of Compliance required and three samples per lot, or 0.1% of lots in excess of 3000, for each bolt diameter, including nuts and washers. |
| | | Tensile Strength | | For High Strength Anchor Bolts, see Page 51. |
| 1012 | Guardrail Posts and Blocks | None | | Certificate of Compliance required. |
| | | | | For timber guardrail posts and blocks, see PPD ⁽³⁾ . |
| (3) ADOT Materials Practice and Procedure Directive. | | | | |

| TABLE 8 (continued) | | | | |
|------------------------------------------------------------|---------------|--------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS | | | | |
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| 1014 | Geosynthetics | | Supplier and Project | If material has been preapproved, Certificate of Compliance required and one sample for every 10 rolls per lot. (Minimum of one sample per lot.) Samples shall not be taken within 5 feet from either end of the roll, and shall be at least 6 feet long by the full width of the roll. |
| | | | Project | If material has <u>not</u> been preapproved, Certificate of Analysis required and one sample for every 10 rolls per lot. (Minimum of one sample per lot.) Samples shall not be taken within 5 feet from either end of the roll, and shall be at least 6 feet long by the full width of the roll. |
| NOTE: Information on Geosynthetics continued on next page. | | | | |

| TABLE 8 (continued) | | | | |
|------------------------------------------------------------------|--------------------------------|-------------------------------------|----------------|----------------------------|
| ACCEPTANCE SAMPLING GUIDE FOR MISCELLANEOUS MATERIALS | | | | |
| SPECIFICATION SECTION | MATERIAL | TYPE OF TEST(S) REQUIRED | SAMPLING POINT | MINIMUM SAMPLING FREQUENCY |
| NOTE: Information on Geosynthetics continued from previous page. | | | | |
| 1014 412 | Pavement Fabric | Per Specification Subsection 1014-2 | | |
| 1014 306 | Geogrid | Per Specification Subsection 1014-3 | | |
| 1014 208 | Separation Geotextile Fabric | Per Specification Subsection 1014-4 | | |
| 1014 913 | Bank Protection Fabric | Per Specification Subsection 1014-5 | | |
| 1014 203 | Geocomposite Wall Drain System | Per Specification Subsection 1014-6 | | |
| 1014 307 | Geocomposite Edge Drain System | Per Specification Subsection 1014-7 | | |
| 208 | Geomembrane | See Special Provisions. | | |

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

Sample Ticket

44-9346 RS/05

USE CAPITAL LETTERS

| | | | | | | | | |
|--|----------------------|----------------------------------|----------------------|----------------------|----------------------------|----------------------|----------------------|----------------------|
| | LAB NUMBER | ORG NUMBER | MATL | TYPE | PUR- POSE | TEST LAB | SIZE | SIZE % |
| | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | TEST NO. | LOT OR SUFFIX | SAMPLED BY | | MO | DAY | YEAR | TIME |
| | <input type="text"/> | <input type="text"/> | <input type="text"/> | | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | SAMPLED FROM | | | | LIFT NO. | RDWY | STATION | |
| | <input type="text"/> | | | | <input type="text"/> | <input type="text"/> | <input type="text"/> | |
| | ORIGINAL SOURCE | PROJECT ENGINEER / SUPERVISOR | | PROJECT NUMBER | IF MILEPOST, INPUT DECIMAL | | | |
| | <input type="text"/> | <input type="text"/> | | <input type="text"/> | <input type="text"/> | | | |
| | REMARKS | | | | | | | |
| | <input type="text"/> | | | | | | | |
| | <input type="text"/> | | | | | | | |
| | <input type="text"/> | | | | | | | |

PLEASE PRESS FIRMLY
WHILE FILLING OUT FORM

ARIZONA DEPARTMENT OF TRANSPORTATION
SAMPLE TABULATION
SOIL-, AGGREGATE-, & BITUMINOUS MIXES

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 | | |
| 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 | | |
| 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.

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| Aggregate for Cement Treated Base | 9 |
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| TABLE 11 (continued) INDEX OF MATERIALS LISTED IN TABLES 1 THROUGH 8 | |
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