

FP-14
SPECIAL CONTRACT REQUIREMENTS
For

**Katishraam Wellness Center
Parking Lot Facility
Project No. J52555-0029**

Grade, Place Aggregate Base Course,
Asphalt Concrete, Permanent Signing,
and Pavement Markings on

Route 0029 (010)

for the

**KARUK INDIAN TRIBE
SISKIYOU COUNTY, CALIFORNIA**

May 2019



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SPECIAL CONTRACT REQUIREMENTS

The following Special Contract Requirements amend and supplement the *Standard Specifications for Construction of Roads and Bridges, on Federal Highway Projects (FP-14)*, U.S. Department of Transportation, Federal Highway Administration.

DIVISION 100 GENERAL REQUIREMENTS

Delete the words “Contracting Officer (CO), CO, and Government and replace with “Tribe” for the entire FP-14.

Section 101. – TERMS, FORMAT, AND DEFINITIONS

101.03 Abbreviations.

(a) **Acronyms.** Add the following:

BIA — Bureau of Indian Affairs

(b) **US Customary abbreviations and symbols.** Delete the text and add the following:

A	— ampere	electric current
ac.	— acre	area
BTU	— British Thermal Unit	energy
cu. in. or in³	— cubic inches	volume
cu. ft., cf, ft³ or CUFT	— cubic feet	volume
cu. yd., cy, yd³ or CUYD	— cubic yards	volume
D	— day	time
deg. or °	— degree	plane angle
Fc	— foot-candles	luminous intensity
fl. oz.	— fluid ounces	volume
ft. or '	— foot or feet	length
gal. or GAL	— gallon	volume
H	— Henry	inductance
hr. or HR	— hour	time
Hz	— hertz (s ⁻¹)	frequency
in. or "	— inch or inches	length
K	— kelvin	temperature
lb or LB, lbs	— pound, pounds	mass
Lbf	— pound-force	force
lnft or LNFT	— linear foot	length
mi.	— miles	length
min. or m	— minute	time
min. or '	— minute	plane angle
°F	— degrees Fahrenheit	temperature
oz.	— ounces	mass
Psi	— pounds/square inch	pressure
Q	— cubic feet/second	flow rate

sec. or s	— second	time
sec. or "	— second	plane angle
sq. in. or in²	— square inches	area
sq. ft., sf, ft² or SQFT	— square feet	area
sq. yd., sy, yd² or SQYD	— square yards	area
T	— short ton (2000 lbs)	mass
V	— volt (W/A)	electric potential
W	— watt (J/s)	power
YD	— yard or yards	length
Ω	— ohm V/A	electric resistance

(c) Metric unit abbreviations and symbols. Delete the text and add the following:

A	— ampere	electric current
Cd	— candella	luminous intensity
°C	— degree Celsius	temperature
D	— day	time
deg. or °	— degree	plane angle
g or gram	— gram	mass
H	— Henry	inductance
Ha	— hectare	area
hr. or HR	— hour	time
Hz	— hertz (s ⁻¹)	frequency
J	— Joule (N·m)	energy
K	— kelvin	temperature
Kg	— kilogram	mass
L	— liter	volume
Lx	— lux	illuminance
M	— meter	length
mm	— millimeter	length
m²	— meter squared	area
m³	— cubic meter	volume
min. or m	— minute	time
min. or '	— minute	plane angle
N	— Newton (kg·m/s ²)	force
Pa	— Pascal (N/m ²)	pressure
sec. or s	— second	time
sec. or "	— second	plane angle
Sta.	— station	Length
T	— metric ton	Mass
V	— volt (W/A)	electric potential
W	— watt (J/s)	Power
Ω	— ohm V/A	electric resistance

101.04 Definitions.

Add the following:

Subcontractor Delete the text and substitute the following:

Subcontractor – An individual or legal entity with which the Contractor sublets part of the work. This includes subcontractors and material suppliers at any tier.

Tribe – The Karuk Indian Tribe

Section 105. — CONTROL OF MATERIAL

105.01 Source of Supply and Quality Requirements. Add the following:

Materials containing petroleum-based solvents such as cutback asphalts and traffic paints may be restricted from use by local laws or ordinances in certain geographic areas. Upon presenting proof of such restrictions, alternate materials considered acceptable to the TRIBE may be substituted for the materials specified in the contract.

Section 106. — ACCEPTANCE OF WORK

106.02 Visual Inspection. Delete the Subsection and substitute the following:

106.02 Visual Inspection. Acceptance is based on visual inspection of the work for compliance with the contract requirements. In the absence of specific contract requirements or tolerances, use prevailing industry standards.

106.03 Certification. Add the following after the second paragraph:

See Table 106-3 for schedule for full or partial acceptance by material certification. Submit certification and sample of material for testing as required.

Delete the third paragraph and substitute the following:

Check certifications before incorporating the material into the work to ensure that the requirements of the contract have been met. Mark the certifications with the following information:

- Project number and name;
- Pay item number and description;
- Contractor signed certification stating “to the best of our knowledge the materials certified by the attached certification represent the materials incorporated into the work of this contract”; and
- Date.

Table 106-3 Schedule For Full or Partial Acceptance by Materials Certification. Add Table 106-3 following Table 106-2.

**Table 106-3
Schedule For Full or Partial Acceptance by Materials Certification**

Section	Description	Material	Material Property Or Specification	Frequency	
				Certification	Sample
302	Minor Crushed Aggregate	Crushed Aggregate	Source, Quality and Gradation	1 per source	1 per source
312	Dust Palliative	Calcium Chloride Magnesium Chloride, Lignosulfonate,	As specified	1 per shipment	First shipment
403	Asphalt Concrete	Aggregate Asphalt Mix	Source quality, Gradation, Stability, and Grade	1 per mix	1 per source
634 and 635	Permanent Pavement Markings, Temporary Traffic Control	634.02 as applicable, 635 as applicable	As specified	1 per source	-----

Section	Description	Material	Material Property Or Specification	Frequency	
				Certification	Sample
701	Hydraulic Cement	Portland Cement, Blended Hydraulic Cement, Masonry and Mortar Cement	AASHTO M 85, M 240, ASTM C 91 and ASTM C1392 as applicable	1 per shipment	1 per 100 tons
702.01	Asphalt Material	Asphalt Cement	AASHTO M 226 or M 320, as applicable	1 per shipment	1 per shipment
702.02	Asphalt Material	Emulsified Asphalt	AASHTO M 140 or M 208 as applicable	1 per shipment	1 per shipment
702.03	Asphalt Material	Asphalt Materials used for Damproofing and Waterproofing Concrete and Masonry Surfaces	As specified for each type of asphalt material	1 per shipment	-----
702.05	Antistrip	As specified	As applicable	1 per shipment	-----
706	Concrete and Plastic Pipe	As specified	As applicable	1 per shipment	-----
707	Metal Pipe	As specified	As applicable	1 per shipment	-----
708	Plastic Pipe	As specified	As applicable	1 per shipment	-----
709	Reinforcing and Prestressing Steel	As specified	As applicable	1 per shipment	For 709.01 submit 3, 1-yard (1-meter) bars of each size and grade of bar furnished. 709.02 submit 1 6-foot (2-meter) length for each size furnished
710	Fence and Guardrail	As specified	As applicable	1 per shipment	-----
711	Concrete Curing Material and Admixtures	As specified	As applicable	1 per material source per material type	-----
712	Joint Material (all)	As specified	As applicable	1 per shipment	-----
713	Roadside Improvement Materials (all)	As specified	As applicable	1 per shipment	-----
714	Geosynthetic Material (all)	As specified	As applicable	1 per shipment	1 per project per type
715	Piling	As specified	As applicable	1 per shipment	-----
716	Material for Timber Structures	Timber and Hardware	As applicable	1 per shipment	-----
717	Structural Metal	As specified	As applicable	1 per shipment	717.01(e) minimum

Section	Description	Material	Material Property Or Specification	Frequency	
				Certification	Sample
					6 per shipment for each size used. 717.10 1 per project
718	Traffic Signing and Marking Material (all)	As specified	As applicable	1 per shipment	-----
719	Paint	As specified	As applicable	1 per batch\lot	1 sample for quantities > 25 gallons (100L)
720	Structural Wall and Stabilized Embankment Material (all)	As specified	As applicable	1 per shipment per material type	-----
721	Electrical and Illumination Material (all)	As specified	As applicable	1 per shipment per material type	-----
722	Anchor Material	As specified	As applicable	1 per shipment per material type	-----
725	Miscellaneous materials	As specified	As applicable	1 per shipment per material type	-----

Section 107. - LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

107.01 Laws to be Observed. Add the following:

National Pollutant Discharge Elimination System (NPDES) in California

Comply with the requirements of the California Construction General Permit (CGP) Order No. 2009-0009-DWQ as amended 07/17/2012. A copy of the permit is located at:

http://www.swrcb.ca.gov/water_issues/programs/stormwater/constpermits.shtml

This permit expired on 09/02/2014, but has been administratively extended until a new permit is issued. Amend the Storm Water Pollution Prevention Plan (SWPPP) and site plan when the new permit goes into effect to meet new permit conditions.

(a) General. Designate and submit qualifications for the Stormwater Team members who will be responsible for implementing the SWPPP according to qualifications requirements below and in 157.03. Team Members include:

- (1) Erosion Control Supervisor that will be on-site during working hours. Cannot be the Contractor Superintendent
- (2) Qualified SWPPP Developer (QSD), certified by the State of California, to update and certify amendments and revisions to SWPPP during construction.
- (3) Qualified SWPPP Practitioner (QSP), certified by the State of California, to conduct Rain Event Action Plans development and to review on-site inspections if using trained personnel that are not certified for routine inspections.
- (4) Qualified Stormwater inspector if not included in personnel above.

Obtain a separate NPDES permit associated with industrial activity for any mobile asphalt and concrete plants that provide material for the project. Provide a copy of the permit and acknowledgement letter to the TRIBE for their records.

(b) Preparation of SWPPP. The Contractor shall prepare and implement a comprehensive SWPPP. Provide an electronic copy of the approved SWPPP to the Tribe for inclusion in permit registration documents. Implement the SWPPP as required throughout the construction period.

Retain the QSD for the duration of the project to write and approve amendments to the SWPPP. The QSD may modify the erosion and sediment control details and layout sheets included in the plans, as necessary, to address project site conditions and proposed construction operations. Submit changes to Tribe for approval and include the changes in the SWPPP.

(c) Permit Registration Documents. The Contractor will be responsible to file these documents Post a copy of the NOI acknowledgement at the construction site bulletin board for the duration of the project. Do not perform any ground disturbing activities including clearing, grubbing, or earthwork until an acknowledgement letter is received from the State Water Board and the SWPPP has been approved and implemented.

(d) Inspections and Revisions to the SWPPP. Conduct inspections according to the CGP. Document the inspections on forms provided in the SWPPP. Retain inspection forms onsite in the SWPPP notebook throughout the construction period. Submit monitoring reports in the SMARTS system when required by the CGP.

Revisions to the SWPPP by a QSD may be necessary during construction to make improvements or to respond to unforeseen conditions noted during construction or site inspections. For that purpose, specify in the SWPPP the mechanism whereby revisions may be proposed by the Contractor or the Tribe and incorporated into the plan, including review and approval of minor changes. Jointly approve and sign each revision to the SWPPP before implementation. Begin implementation of approved modifications within 72 hours following the inspection when deficiencies or necessary corrections were first noted.

Place the SWPPP and all updates in a three-ring binder so that completed inspection forms and other records may be inserted. Maintain a current copy of the SWPPP, including a copy of the permit, NOI, Waste Discharge Identification (WDID), and all associated records and forms at the job site throughout the duration of the project. Make the SWPPP available for public inspection and for use by the Tribe.

At the completion of the project, provide the Tribe with the complete SWPPP, including inspection forms, logs, monitoring reports, and any other information added during the project.

107.05 Responsibility for Damage Claims. Delete the first sentence of the third paragraph and substitute the following:

Before work begins, submit “*certificates of insurance*” certifying that the policies will not be changed or canceled until 30 days written notice has been given to the Tribe.

107.10 Environmental Protection.

(a) Federal Water Pollution Control Act (Clean Water Act) 33 USC § 1251 et seq. Add the following:

- (4) Do not ford running streams with construction equipment. Obtain approval from the Tribe to use temporary bridges or other structures whenever crossings are necessary.
- (5) Immediately clear ephemeral drainages, intermittent and perennial streams, lakes and reservoirs of all work items, debris or other obstructions placed by or resulting from construction operations.
- (6) Locate machinery servicing and refueling areas away from streambeds and washes to reduce the possibility and minimize the impacts of accidental spills or discharges.

(b) Oil and hazardous substances. Add the following to the end of the third paragraph:

Sand or soils are not approved absorbent materials.

Add the following to the end of the fourth paragraph:

Report the spill to the appropriate federal, state, and local authorities as required by the SPCC plan or hazardous spill plan.

(c) Dirt, plant, and foreign material. Add the following:

All vehicles and equipment entering the project area must be clean of noxious weeds and free from oil leaks and are subject to inspection. Wash all construction equipment to thoroughly remove all dirt, plant, and other foreign material prior to entering the project. Particular attention must be shown to the under carriage and any surface where soil containing exotic seeds may exist. Allow the Tribe to inspect each piece of equipment before entering the project. Provide the cleaning and inspection records to the Tribe. Equipment found operating on the project that has not been inspected, or has oil leaks will be shut down and subject to citation.

DIVISION 150 PROJECT REQUIREMENTS

Section 151. — MOBILIZATION

Payment

151.03 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
15101	Mobilization ,	LMPS

Section 152. — CONSTRUCTION SURVEY AND STAKING

Construction Requirements

152.05 Survey and Staking Requirement.

(f) Grade-finishing stakes. Delete paragraph (1) AMG method.

Measurement

152.07 Delete the third paragraph and substitute the following:

Do not measure miscellaneous survey and staking.

Payment

152.08 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
15201	Construction Survey and Staking	LMPS

Section 153. — CONTRACTOR QUALITY CONTROL

153.09 Measurement and Payment. Delete the text and substitute the following:

Measurement

153.09 Measure contractor quality control according to Subsection 109.02.

Payment

153.10 The accepted quantities will be paid at the contract price per unit of measurement for the Section 153 pay item listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Progress payments for Contractor quality control will be paid as follows:

- (1) 25 percent of the item amount, not to exceed 0.5 percent of the original contract amount, will be paid after the contractor quality control plan is accepted; all testing facilities are in place; qualified quality control supervisor, inspection, and sampling and testing personnel are in position to provide quality control activities; and the work being inspected or tested has started.
- (2) 65 percent of the total lump sum will be prorated for payment based on the completed portion of the total work not including the original 25 percent completed under (1) above.
- (3) Payment of the remaining 10 percent of the lump sum will be paid when all inspections, test results, submittals, and reports are complete and accepted.

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
15301	Contractor Quality Control	,LMPS

Section 154. — CONTRACTOR SAMPLING AND TESTING

Construction Requirements

154.03 Sampling. Add the following:

Perform the initial curing of all concrete test cylinders. Provide for transporting the Tribe verification cylinders location designated by the Tribe.

Label each concrete mold with the name and number of the Project, the cylinder number, date molded, location of the sample, and the test age (i.e. – 7, 14, or 28 days). Label the mold after casting and the cylinder after stripping to ensure the sample can be identified throughout the entire curing process.

Provide the required cylinder molds.

154.04 Testing Add the following:

Where Process Control Sampling and Testing frequencies are identical to the Sampling, Testing, and Acceptance Tables at the end of each Section for all applicable work, the Process Control Samples may be used for acceptance.

Payment

154.08 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
15401	Contractor Sampling and Testing	LMPS

Section 155. — SCHEDULES FOR CONSTRUCTION CONTRACTS

Measurement

155.09 Delete this section and replace with the following:

The Construction schedule will not be measured directly for payment but will be considered a subsidiary obligation of the Contract.

Section 157. — SOIL EROSION AND SEDIMENT CONTROL

157.04 General. Add the following:

Do not designate the project superintendent as the Erosion Control Supervisor.

Payment

157.18 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
15701	Soil Erosion and Sediment Control	LMPS

Section 158. — WATERING FOR DUST CONTROL

Measurement

158.05 Delete this section and replace with the following:

The Watering for Dust Control will not be measured directly for payment but will be considered a subsidiary obligation of the Contract.

DIVISION 200 EARTHWORK

Section 201. — CLEARING AND GRUBBING

Payment

201.09 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
20102	Clearing and Grubbing	LMPS

Section 203. — REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Construction Requirements

203.04 Removing Material.

(c) Concrete removal in repair areas. Add the following to the second paragraph:

Use hand tools (hammers and chisels) to remove final particles of concrete or to achieve the required depth.

203.05 Disposing of Material.

(a) Remove from Project. Add the following:

Secure clearances according to Subsection 107.10.

(b) Burn. Delete the subsection.

(c) Bury. Delete the subsection.

Payment

203.08 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
20303	Removal of Concrete	SQYD

Section 204. — EXCAVATION AND EMBANKMENT

Construction Requirements

204.14 Disposal of Unsuitable or Excess Material. Add the following:

Secure environmental clearances according to Subsection 107.10(d).

Measurement

(a) Roadway excavation.

Delete this section and replace with the following:

Roadway excavation will be paid for as the contract quantity shown in the bid schedule. The contract quantity will be adjusted for authorized changes that affect the quantity. If there is evidence that the original contract quantity is incorrect, submit calculations and drawings indicating where the quantity needs to be adjusted.

(g) Subexcavation.

Delete this section and replace with the following:

Subexcavation will be paid for as the contract quantity shown in the bid schedule. The contract quantity will be adjusted for authorized changes that affect the quantity. If there is evidence that the original contract quantity is incorrect, submit calculations and drawings indicating where the quantity needs to be adjusted.

Add:

(h) Ditch excavation. Measure ditch excavation by the linear foot.

Payment

204.17 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
20401	Roadway Excavation	CUYD
20402	Subexcavation	CUYD
20425	Ditch Excavation	LNFT

Section 251. — RIPRAP

Payment

251.09 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
25101	Placed RIPRAP, Class 2	CUYD

DIVISION 300 AGGREGATE AND BASE COURSES

Section 302. — MINOR CRUSHED AGGREGATE

302.06 Acceptance. Add the following to the second paragraph:

Sample material from the windrow or roadbed after processing but prior to compaction at the frequency shown in Table 302-1. Submit samples to the Tribe for verification. Materials that do not meet the approved certification will be considered unacceptable.

Payment

302.08 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
30201	Roadway Aggregate, Method 2	CUYD

Delete Table 302-1 and substitute the following:

**Table 302-1
Sampling, Testing, and Acceptance Requirements**

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	Remarks
Production								
Crushed aggregate ⁽¹⁾	Measured and tested for conformance (106.04)	Moisture-Density	AASHTO T 180, Method D ⁽³⁾	1 per aggregate supplied	Production output or stockpile	No	Before using in work	-
		Gradation ⁽²⁾	AASHTO T11 and T27	1 per 500 tons (450 metric tons)	From the windrow or roadbed after processing.		Before placing next layer	
		Density	AASHTO T310 or other approved procedures	1 per 500 tons (450 metric tons)	In-place after compaction	"	Before placing next layer	For Method 2 compaction only
Crushed aggregate	Process control (153.03)	Moisture content (in-place)	"	"	"	"	"	-
Finished Product								
Crushed aggregate	Measured and tested for conformance (106.04)	Surface tolerance & grade	Subsection 301.06	Determined by the Tribe	Surface of final course	No	Before placement of next layer or as requested	-

⁽¹⁾ Sampling and testing required for roadway aggregate.

⁽²⁾ Use only sieves indicated for the specified gradation.

⁽³⁾ Minimum of 5 points per proctor.

DIVISION 400 ASPHALT PAVEMENTS AND SURFACE TREATMENTS

Section 403. — ASPHALT CONCRETE

Description

403.01 Add the following:

Asphalt binder is designated according to AASHTO M 320.

Construction Requirements

403.02 **Composition of Mix (Job-Mix Formula).** Add the following:

The Tribe may perform mix design-verification testing to confirm the mix meets the contract requirements. If verification testing is required, submit a loose mix sample to the Tribe 14 days prior to placement.

403.09 **Compacting.** Add the following:

For HMA, do not roll the mix after the surface cools below 175 °F (80°C).

Along forms, curbs, headers, walls, and other places not accessible to the rollers, compact the mix with alternate equipment to obtain the required compaction.

403.12 **Acceptance.** Add the following:

During production placement of the mix, sample loose mix and compacted cores according to Table 403-2 and submit to the Tribe for acceptance. Materials that do not meet the approved job-mix formula are considered unacceptable.

Payment

403.14 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
40301	Asphalt Concrete Pavement, Type 1	TON

Delete Table 403-2 and substitute the following:

**Table 403-2
Sampling, Testing, and Acceptance Requirements**

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	Remarks
Mix Design								
Asphalt concrete mixture Type I (403.02(a))	Measured and tested for conformance (106.04)	Job-mix formula	Subsection 403.02(a)	When requested by the Tribe.	Flowing mix stream (bin or belt discharge) or behind the paver before compaction.	Yes	Before approval of job-mix formula	Tested by the Tribe
Production								
Asphalt concrete, Type I (403.02(a))	Measured and tested for conformance (106.04)	Job-mix formula	Subsection 403.02	1 per 700 tons (650 metric tons)	Behind the paver before compaction.	Yes		Deliver cores to Tribe for testing
		Density ⁽¹⁾	AASHTO T 166	"	In-place after Compacting	"		
		Maximum specific gravity	AASHTO T 209 ⁽²⁾	"	Behind the paver before compaction	"		
		Surface Tolerance	Straightedge measurement, Subsection 403.11	Continuously, after compaction	Finished pavement surface	No		
		Placement temperature	-	First load and as determined by Tribe thereafter	Hauling vehicle before dumping, or windrow before pickup	"	Upon completion of measurement	-

**Table 403-2 (continued)
Sampling, Testing, and Acceptance Requirements**

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	Remarks
Production								
	Process control (153.03)	Gradation at the plant	AASHTO T 27 & T 11	Contractor determined	Cold feed or hot bins as applicable	"	24 hours	—
		Moisture content of aggregates	AASHTO T 255	"	Stockpile	"	"	—
		Density	ASTM D2950	1 per 500 feet (150 meters)	In-place after compacting	"	"	—
Asphalt concrete, Type II (403.02(b))	Measured and tested for conformance (106.04)	"	"	3 per 700 tons (650 metric tons)	In-place after compacting	"	"	—

(1) Dry cores to constant mass at 125±5°F (52±3 °C) or vacuum dry, ASTM D7227 before testing. For asphalt concrete Type I, cut two 6-inch (150-millimeter) diameter side by side cores. Remove them with a core retriever and fill and compact the core holes with asphalt concrete mixture. Label the cores and protect them from damage due to handling and temperature. Submit one core for verification testing. Dry the other core to constant mass at 125±5 °F (52±3 °C) or vacuum dry it according to ASTM D7227 before performing the core density and measuring the thickness. Use 62.245 pounds per cubic foot (997.1 kilograms per cubic meter) to convert specific gravity to density. Use AASHTO T 166 regardless of the volume of water absorbed. Use the average maximum specific gravity value (AASHTO T 209) of the first three samples to determine the percent compaction of each Lot.

(2) Do not use the dry back method (Section 11 of AASHTO T 209).

DIVISION 600 INCIDENTAL CONSTRUCTION

Section 601. — MINOR CONCRETE STRUCTURES

601.07 Acceptance. Add the following:

The concrete mixture's density, air content, slump, temperature, and compressive strength will be evaluated under Subsections 106.02 and 106.04.

**Table 601-2
Sampling, Testing, and Acceptance Requirements**

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	Remarks
Source								
Aggregate (703.01 & 703.02)	Measured and tested for conformance (106.04 & 105)	Quality	Subsection 703.01 & 703.02	1 per material type	Source of material	Yes	Before producing	–
Mix Design								
Concrete Composition (601.03)	"	All	Subsection 601.03	1 per mix design	"	If requested	"	–
Production								
Concrete ⁽¹⁾	Measured and tested for conformance (106.04)	Density	AASHTO T 121	1 set per 30 yd ³ (25 m ³), but not less than 1 per day	Discharge stream at point of placing	No	Upon completing tests	–
		Air content	AASHTO T 152 or AASHTO T 196	"	"	No	"	–
		Slump	AASHTO T 119	"	"	No	"	–
		Temperature	ASTM C1064	"	"	No	"	–
		Compressive strength ⁽²⁾⁽³⁾ (28-day)	AASHTO T 23 & T 22	1 set per 30 yd ³ (25 m ³), but not less than 1 per day	Discharge stream at point of placing	No	28 days	Deliver cylinders to the Tribe or designated laboratory for scheduled testing

- (1) Sample according to AASHTO R 60, except composite samples are not required.
(2) Cast at least four compressive strength test cylinders for 6- by 12-inch (150- by 300-millimeter) specimens or six compressive strength cylinders for 4- by 8-inch (100- by 200-millimeter) and carefully transport the cylinders to the job site curing facility.
(3) A single compressive strength test result is the average result from two 6- by 12-inch (150- by 300-millimeter) or three 4- by 8-inch (100- by 200-millimeter) cylinders cast from the same load.
(4) If the point of placement is different from the point of discharge, correlate the discharge tests with the placement tests to document the changes.

Section 602. — CULVERTS AND DRAINS

Payment

602.10 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
60201	18-Inch CMP Pipe Culvert	LNFT

Section 604. — MANHOLES, INLETS AND CATCH BASINS

Payment

604.11 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
60404	Catch Basin, Type 1 with Frame and Grate	EACH
60405	Manhole Adjustment, Storm Drain	EACH
60411	Area Drain, Reconstruct with Lid, Ring and Cover	EACH
60412	Area Drain, Remove and Reset Metal Frame and Grate	EACH

Section 609. — CURB AND GUTTER

Payment

609.11 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
60901	Curb and Gutter, Concrete	LNFT

Section 611. — WATER SYSTEMS

Payment

611.07 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
61108	Adjust Water Meter, Water Valve or Clean out	EACH

Section 619. — FENCES, GATES, CATTLE GUARDS AND BOLLARD POSTS

Payment

619.11 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
610904	Bollard Post	EACH

Section 633. — PERMANENT TRAFFIC CONTROL

Payment

633.10 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
63301	Sign System	EACH
63302	Sign	EACH

Section 634. — PERMANENT PAVEMENT MARKINGS

Construction Requirements

634.04 Solventborne Traffic Paint (Type A). Delete the Subsection and substitute the following:

Apply paint when the pavement and air temperature are at 35°F and rising. Do not heat the paint above 120°F. Apply paint at a rate of 100 square feet per gallon.

Apply two applications of paint. Apply the second coat in the opposite direction of the first application. Apply the second application after the first is tack free.

634.05 Waterborne Traffic Paint (Type B and C). Delete the Subsection and substitute the following:

Apply paint when the pavement and air temperature are at 50°F (10°C) and rising.

(a) Type B. Do not heat the paint above 120°F (49°C). Apply paint at a rate of 100 square feet per gallon (2.5 square meters per liter).

Apply two applications of paint. Apply the second coat in the opposite direction of the first application. Apply the second application after the first is tack free.

(b) Type C. Do not heat the paint above 120°F (49°C). Apply paint at a rate of 70 square feet per gallon (1.7 square meters per liter).

Measurement

634.12

Delete the second paragraph and substitute the following:

When pavement markings are measured by the linear foot, measure the length of line applied along the centerline of each line applied regardless of color or line width. Measure broken or dotted pavement lines from end to end of the line including gaps. Measure solid pavement lines from end to end of each continuous line. For wide lines (12 inches in width or greater), adjust the measured length of line in the ratio of the required width to 4 inches.

Payment

634.13 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
63401	Pavement Marking, Type K, Solid	LNFT
63402	Pavement Markings, Type K, Turn Arrow,	EACH
63403	Pavement Markings, Type K, Straight Arrow	EACH
63404	Pavement Markings, Type K Straight Arrow/ Turn Combinations	EACH
63405	Pavement Markings, Type K, Symbol	EACH

Section 635. — TEMPORARY TRAFFIC CONTROL

Description

635.01 Delete the second paragraph and substitute the following:

Arrow board, portable changeable message sign, barricade, and warning light types are designated in the MUTCD.

Material

635.02 Delete the Subsection and substitute the following:

635.02 Conform to the MUTCD and the following Sections and Subsections:

Concrete barrier (temporary)	618
Delineator and object marker retroreflectors	718.08
Guardrail (temporary)	617
Retroreflective sheeting	718.01
Sign panels	718.03
Sign posts	718.04
Sign hardware	718.06
Temporary plastic fence	710.11
Temporary pavement markings	718.16

Construction Requirements

635.07 Construction Signs. Delete the first paragraph and substitute the following:

Fabricate and install sign panels according to Subsection 633.05. Use Type III, IV, VIII, IX, or XI prismatic retroreflective sheeting. Use fluorescent sheeting for orange signs. For roll-up signs, use fluorescent Type VI retroreflective sheeting.

Add the following:

Provide the same type of sheeting on all post-mounted construction signs that pertain to the project.

Use crashworthy posts within the traversable area adjacent to traffic.

635.09 Flaggers. Add the following:

Perform the work described under MUTCD Part 6.

Payment

635.25 Add the following:

Payment will be made under:

<u>Pay Item</u>	<u>Description of Item</u>	<u>Pay Unit</u>
63501	Temporary Traffic Control	LMPS

DIVISION 700 MATERIAL

Section 702. — ASPHALT MATERIAL

702.01 Asphalt Binder. Delete the Subsection and add the following:

702.01 Asphalt Binder. Conform to M 320, Table 1.

In AASHTO M 320, Table 1 replace footnote *g* with the following:

^g If the creep stiffness is below 300 MPa, the direct tension test is not required. If the creep stiffness is between 301 and 600 MPa, the creep stiffness value shall be used. The *m*-value requirement must be satisfied in both cases.