

*This Document is for informational purposes only.*

“Standard and Supplemental Specifications for Road and Bridge Construction 2020 V2.1 Edition” can be found at the following link:

<https://www.mdt.mt.gov/other/webdata/external/const/specifications/2020/SPEC-BOOK/2020-SPEC-BOOK-V2.1.pdf>

**Specification Revisions**

**April 29, 2021**

The Department has revisions to 14 Standard Specifications.

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1. 105.08.1 Department Furnished Survey and Layout .....	2
2. 105.03.4 Contractor Submittals .....	3
3. 107.11.5 Noxious Weed Management .....	5
4. 108.01.1 Subcontracting .....	6
5. 108.03.1 General .....	7
6. 109.07 STOCKPILED MATERIALS .....	8
7. 203.03.6 Topsoil - Salvaging and Placing .....	9
8. 401.03.21 Compaction, Compaction Control Testing, and Density Acceptance Testing .....	11
9. 551.03.2 Composition of Concrete .....	12
10. 606.04.7 Cable Guardrail .....	13
11. 606.04.8 Cable Guardrail Terminal Sections .....	14
12. 713.06 WEED CONTROL MAT .....	15
13. 713.10 MULCH .....	16
14. 713.12 ROLLED EROSION CONTROL PRODUCTS .....	17

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# NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

## 105.08.1 Department Furnished Survey and Layout

Unless otherwise stated, the Department will furnish the following:

- All right of way and monumentation surveys
- Centerline coordinates
- Benchmarks at the beginning, end and near midpoint of the project
- Construction stakes or data for establishing, slopes, clearing limits and stationing
- Construction stakes or data for culverts, structures and appurtenances
- Wetland delineation

Preserve and protect Department furnished control points and replace any that may be damaged, displaced or removed. Replace any stakes that are obliterated by the Contractor or by construction activities.

Use provided controls as the field control to perform the work. Verify accuracy of all Department furnished controls before any layout staking or grading is performed. Request all Department furnished construction staking or data in writing.

**REASON:** The Department is transitioning to 3D design and stakeless earthwork construction. This spec change allows the Department flexibility as to whether the project is staked with wood stakes or whether model data is provided to the contractor for automated machine guidance (AMG). At this time not all projects will be modeled and therefore both options (staked and stakeless data) will need to be included in the specification. The construction staking of pipe, signs, structures, et cetera will not change and continued to be staked.

**COMMENTS:** Some Contractors do not have AMG systems. This may limit competition for small jobs such as culvert replacements or Bridge End work or slope flattening if contractors do not believe they will be receiving stakes from MDT. Might be better to if we give the Contractor the option to have stakes or data.

# NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

## 105.03.4 ~~Contractor Table of Contractor~~ Submittals

Submit all project documents electronically unless otherwise directed by the Project Manager. This includes, but not limited to:

- Project Records
- Forms
- Correspondence
- Notifications
- Computations
- Statements
- Invoices
- Purchase Orders
- Agreements

A. Table of Contractor Submittals To assist in identifying all required submittals and clarifying the submittal process, the Table of Contractor Submittals has been posted to the Department's website at the following link:

<https://www.mdt.mt.gov/business/contracting/>

The table may not be all-inclusive and does not include submittals required by other Special Provisions.

Provide all submittals required by the contract, including those not listed in the table.

If a discrepancy exists, submittals required by other Special Provisions in the contract take precedence over the Table of Contractor Submittals.

Submit electronic submittals to the Department. Ensure ~~Electronic submittals to the Department will be accepted~~ if they are in a format accessible by the Department's software and legible once opened. Verify acceptable electronic format types with the Project Manager prior to submittal.

When a specification requires submittal of a form, submit the most current Department form. Forms are available from the Project Manager or on the Department's Contractor's system Internet site at <http://www.mdt.mt.gov>.

B. Electronic Signatures. Use electronic signatures (e-signatures) in lieu of wet ink signatures for the contract administration process unless otherwise directed by the Project Manager.

Create documents and save them as a .pdf. Use free Adobe Acrobat Reader DC or approved equal to sign all documents associated with the contract administration process identified. Once the documents are signed, transmit the document to the other party electronically using agency or business email.

Replace wet ink signatures with an e-signature on all document's associated with:

- Change Orders
- Contractor created correspondence
- Forms requiring a single party signature

REASON: Streamline the process by not having paper copies and allow for faster delivery and turnaround times.

# NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

## **107.11.5 Noxious Weed Management**

Any product containing forage ~~per Section 80-7-903 MCA~~ must be ~~certified~~ noxious weed seed free ~~by the Montana Department of Agriculture.~~

REASON: At this time it is difficult for The Montana Department of Agriculture to inspect out of state products and the law allows for alternate means of approval.

COMMENTS:

# NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

## 108.01.1 Subcontracting

**TABLE 108-1  
SUBCONTRACT REQUIREMENTS**

Activity	Subcontract Required	Payroll Required
Physical work within the project limits	Yes	Yes
Material application (dust palliative, water, oil products, etc.)	Yes	Yes
Commercially supplied materials	No	No
Owner/Operator of heavy haul trucks <u>only</u>	No	<u>No</u>
Crushing operations at a <u>commercial</u> site dedicated to the project	<u>No</u>	<u>No</u>
<u>Crushing Operations at a non-commercial site dedicated to the project</u>	<u>Yes</u>	<u>Yes</u>
<u>Concrete Pump Truck w/ operator</u>	<u>Yes</u>	<u>Yes</u>
Concrete <del>pump</del> truck- <u>Delivery</u> (no labor by operator)	No	No
Equipment rentals <del>(w/operator)</del> <u>with Operator (Example: Crane)(Contact CAS for Determination for other Specialty Equipment)</u>	<u>Yes</u>	Yes
<u>Equipment Rental without Operator</u>	<u>No</u>	<u>No</u>
Work performed by a <u>different Contractor's employee (reported on the Prime's payroll) on the prime's payroll</u>	No	Yes <u>From Prime</u>
Survey work	Yes	<u>No</u>
<u>Engineering/Consultant services within the project limits (Example: Concrete Testers, Blasters)</u>	Yes	<u>No</u>
<u>Engineering/Consultant services not within project limits</u>	No	No

\*Contact the Department's Labor Compliance office for a determination. In order for a contractor to add another contractor's employee to their payroll, they will need the following information: employees legal name, ethnicity, gender, last 4 of their social security number, pay rate, detailed fringe distribution.

REASON: Spec update

COMMENTS: The changes to the table will negatively impact Contractors, rental equipment suppliers and potentially the schedules on MDT projects. Could this be delayed until the new subcontract process goes live (electronic submitted subcontracts)?

# NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

## **108.03.1 General**

A pre-construction conference will be held on a mutually agreed date between the Contractor, Department and other parties interested in the work before work within the project limits begins. For projects with Notice to Proceed dates from March 1 through October 31 hold the pre-construction conference no later than 20 calendar days after the Notice to Proceed date. For projects with Notice to Proceed dates from November 1 through February 28 hold the pre-construction conference no later than March 20. The Contractor's superintendent in charge of the project must attend the conference. Encourage subcontractors to attend. ~~No payments will be made on the contract until the pre-construction conference has been held.~~

REASON: To allow payments for material in storage that meet the requirements in Subsection 109.07 prior to the pre-construction conference being held.

COMMENTS:

# NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

## **109.07 STOCKPILED MATERIALS**

Materials delivered and stockpiled at the project site or other location approved by the Project Manager may be considered for partial payment, if the following requirements are met:

~~1. The requirements of Subsection 108.03 have been satisfied.~~

2.1. The material meets the contract requirements.

REASON: To allow payments for material in storage prior to the pre-construction conference being held.

COMMENTS:



## PROPOSED DRAFT

### 203.03.6 Topsoil - Salvaging and Placing

Remove sufficient amounts of topsoil from the excavation and embankment foundations to ensure replacement quantities are available to cover all ~~disturbed-cleared and grubbed~~ areas to an average with 4 inches (100 mm) loose depth of topsoil as shown in the Detailed Drawings.

~~Place topsoil on the completed graded roadway to the lines, grades, and elevations specified.~~

Unless directed by the Project Manager, place topsoil on all slopes, excluding slopes 2H:1V or steeper. ~~Place topsoil to an average 4-inch (100 mm) loose depth on the base course surfacing inslope.~~ Uniformly spread the remaining topsoil over the rest of the ~~disturbed-cleared and grubbed~~ areas. Finish the disturbed areas in accordance with Subsection [610.03.2](#).

Stockpile topsoil at acceptable selected locations within the R/W. When construction operations do not permit stockpiling within the R/W, make arrangements for stockpile sites outside the R/W at no additional cost to the Department.

Construct stockpiles so drainage is maintained, and topsoil is easily reclaimed. Provide erosion controls following best management practice. Limit individual stockpile lengths to 500 feet (150 m) maximum. Place a break between stockpiles of at least 40 feet (12 m).

~~In the event that construction sequencing prevents replacement of topsoil over all disturbed areas prior to final paving, reserve adequate quantities to cover the exposed base course surfacing inslope as shown in the Detailed Drawings.~~

**REASON:** To align the spec better with the Detail Drawing.

**COMMENTS:** Is “Cleared and Grubbed” the correct term we want to use for where topsoil should be placed? Most contracts do not have a bid item for clearing and grubbing but it might become confusing if there is one and the area for clearing and grubbing is small than the area disturbed that we want to receive topsoil and seed. Recommend leaving the “disturbed area” in the spec.

## FINAL ACCEPTANCE

### 203.03.6 Topsoil - Salvaging and Placing

Remove ~~sufficient amounts of enough~~ topsoil from the excavation and embankment foundations to ensure replacement quantities are available to cover all disturbed areas to an average with 4 inches (100 mm) loose depth of topsoil as shown in the Detailed Drawings.

~~Place topsoil on the completed graded roadway to the lines, grades, and elevations specified.~~

Unless directed by the Project Manager, place topsoil on all slopes, excluding slopes 2H:1V or steeper. ~~Place topsoil to an average 4 inch (100 mm) loose depth on the base course surfacing inslope.~~ Uniformly spread the remaining topsoil over the rest of the disturbed areas. Finish the disturbed areas in accordance with Subsection [610.03.2](#).

Stockpile topsoil at acceptable selected locations within the R/W. When construction operations do not permit stockpiling within the R/W, make arrangements for stockpile sites outside the R/W at no additional cost to the Department.

Construct stockpiles so drainage is maintained, and topsoil is easily reclaimed. Provide erosion controls following best management practice. Limit individual stockpile lengths to 500 feet (150 m) maximum. Place a break between stockpiles of at least 40 feet (12 m).

~~In the event that construction sequencing prevents replacement of topsoil over all disturbed areas prior to final paving, reserve adequate quantities to cover the exposed base course surfacing inslope as shown in the Detailed Drawings.~~

# NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

## **401.03.21 Compaction, Compaction Control Testing, and Density Acceptance Testing**

Complete compaction rolling within the temperature range recommended by the asphalt cement manufacturer included in the mix design or before the mat temperature falls below 175°F (80 °C). Compaction rolling after the temperature is below 175 °F (80 °C) is cause to suspend paving operations. Compaction rolling is rolling in the vibratory mode. The Project Manager may adjust the minimum 175 °F (80 °C) temperature if compaction rolling damages the new pavement or has received written approval from the asphalt cement manufacturer. Compact Warm Mixes in accordance with Subsection [401.02.4](#).

Perform all necessary density testing to control compaction.

Once the plant mix is spread, struck off, and surface irregularities are corrected, compact the plant mix to at least 93.0% of target maximum specific gravity as determined in accordance with [MT 328](#) with the following exceptions:

- 92.0% - 3/8-inch (9.5 mm) mixes with plan depths of less than 0.12-foot (36 mm).
- 92.0% - any mix placed directly on a crushed aggregate surfacing.

Compact plant mix placed directly on CTB to 93.0% for the full width of the typical section including crushed aggregate shoulders.

Compact plant mix with mechanical tampers along curbs, abutments, retaining structures, up to and beneath the face of guardrail and posts, and other areas which are not accessible to compaction with rollers.

**REASON:** Clarification that mechanical tampers may be needed to ensure compaction of full width of pavement.

**COMMENTS:**

**NO CHANGES TO THE PROPOSED DRAFT  
FINAL ACCEPTANCE**

**551.03.2 Composition of Concrete**

**TABLE 551-3  
CLSM GRADATIONS**

<b>Percentage By Weight Passing Square Mesh Sieves</b>	
<b>Sieve Size</b>	<b>Percent Passing</b>
¾-inch (19 mm)	100
No. 4 (4.75 mm)	65 – 100
No. 30 (0.600 mm)	<del>40</del> <u>15</u> – 80
No. 200 (0.075 mm)	0 – 30

**REASON:** Allow the concrete supplier to utilize a cleaner sand. Low risk for CLSM designs.

**COMMENTS:**

## NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

### **606.04.7 Cable Guardrail**

Cable guardrail is measured by the foot (m), excluding the terminal sections. ~~as shown on the Detailed Drawings.~~

REASON: Low-tension guardrail did not pass MASH criteria and was removed from the Detailed Drawings.

COMMENTS:

# NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

## **606.04.8 Cable Guardrail Terminal Sections**

Cable guardrail terminal sections are measured by the unit. ~~as shown on the Detailed Drawings.~~

REASON: Low-tension guardrail did not pass MASH criteria and was removed from the Detailed Drawings.

COMMENTS:

# NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

## 713.06 WEED CONTROL MAT

Furnish Weed Control Mats listed on the Department QPL. Furnish a machine woven weed control mat composed of synthetic polypropylene or polyolefin fibers. Meet the requirements in Table 713-5.

**TABLE 713-5  
WEED CONTROL MAT**

Property	Value	Test Method
Average weight	minimum 4 oz/yd <sup>2</sup>	ASTM D3776
Water permeability	10-15 gallons per min per square foot	ASTM D4491
UV stability (minimum % tensile retention)	70%	ASTM D4355 (2,500-hour exposure)
Grab tensile strength	Warp: <del>90</del> -80 lbs minimum Fill: 50 lbs minimum	ASTM D4632

**REASON:** To allow more products to be available. To make it easier for the field crews.

**COMMENTS:** Can we reference 107.11.5 so that it is clearer of the requirement of noxious weeds and forage?

NO CHANGES TO THE PROPOSED DRAFT  
FINAL ACCEPTANCE

**713.10 MULCH**

Furnish mulch listed on the [QPL](#), and in accordance with the contract [and Subsection 107.11.5](#).

REASON: To make it easier to find in the Spec book.

COMMENTS:



# NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

## **713.12 ROLLED EROSION CONTROL PRODUCTS**

Furnish rolled erosion control products listed on the Department's [QPL](#), as specified in the contract and meeting the requirements of this Subsection and Subsection 107.11.5. ~~If required,~~ ~~F~~urnish natural fiber netting or stitching consisting of woven 100% biodegradable natural fibers such as coir, jute or sisal. Furnish blankets designed to stabilize and hold previously applied mulch or compost on slopes as well as newly constructed stream banks and slopes.

**REASON:** To make it easier to find in the Spec book.

**COMMENTS:**

THE PROPOSED DRAFT WAS NOT IMPLEMENTED AT THIS TIME.

**713.13 COMPOST**

**TABLE 713-7  
COMPOST PHYSICAL AND CHEMICAL PROPERTIES**

Property	Requirement	Method <sup>1</sup>
Particle size	<del>90% (by volume) passing 1-inch (25 mm) screen</del> <del>100% passing 3/4 inch (16 mm) sieve</del> <del>70% retained on 3/8 inch (9.5 mm) on sieve</del>	<del>TMECC 05.08-B</del>
% Moisture	30% to 55% <u>wet weight basis</u>	TMECC 03.09-A
% Organic matter	<del>30-35%</del> <u>65% minimum</u> <u>dry weight basis</u>	TMECC 05.07-A
pH	5.0 to 8.5	TMECC 04.11-A
C/N ratio	10:1 to 30:1	TMECC 05.02-A
Inert material	<1% <u>dry weight basis</u>	TMECC 03-02-A
<u>Stability/Maturity</u> <u>or</u> <u>Carbon Dioxide Evolution Rate</u>	Stable, ≥5 using Solvita test  <u>mg CO<sub>2</sub>-C per g OM per day &lt;8</u>	Solvita test kit  <u>TMECC 05.08-B</u>
Soluble salt concentration (electrical conductivity)	<del>4-10</del> <u>0 mmhos/cm maximum</u>	TMECC 04.10-A
<u>Heavy Metals</u>	<u>Pass</u>	<u>TMECC 04.06</u> <u>TMECC 04.13B</u>

Notes:

1. TMECC – test methods for evaluating compost and composting

Provide a manufacturer's certification in accordance with Subsection [106.03](#), attesting that the material meets these specifications, and is noxious weed free.-

**REASON:** Update Spec

**COMMENTS:** Indicate the min/max for the 70% retained. Organic matter by wet mass basis? In general mass instead of weight.

Method for Particle size?