

BUFFALO COUNTY RECLAMATION PLAN MODIFICATION

June 4, 2021

MODIFICATION PURPOSE:

The purpose of this Reclamation Plan Modification is to modify portions of the existing Reclamation Plan for the Bremer Quarry. The modification incorporates much of the existing reclamation plan with the following proposed modifications:

- to revise the final-end land use to forestry and industrial. The proposed final-end land use is in compliance with local zoning ordinances. The landowner of the Bremer Quarry wishes to utilize the property in as close of condition as it currently exists. This reclamation plan modification is written to meet the conditions of the Buffalo County Nonmetallic Mining Reclamation Ordinance, Chapter 757 and satisfy the landowner's desire to utilize her property in as close to its current state as possible, while achieving the requirements of Chapter 757.
- to provide updated highwall stability and safety information in addition to what is listed in the existing reclamation plan.
- The Reclamation Plan Modification is being submitted by Milestone Materials. In December of 2020, Milestone took over the reclamation responsibility of the Bremer Quarry from The Kraemer Company.

SITE NAME: Bremer Quarry

GENERAL INFORMATION:

Operator Name/Address: Milestone Materials
P.O. Box 507
Onalaska, Wisconsin 54650
(715) 492-0065 (Candy Anderson, Agent)

Property Owner: Jane Bremer
S1354 CTH U
Mondovi, Wisconsin 54755

Parcel Number/Site ID#: 028-729-0000 and 028-730-0000

Property Description: The N ½ of the SE 1/4, Section 11, T22N, R11W, Montana Township, Buffalo County.

The quarry entrance is located east County Road U at fire number S1356 CTH U, Mondovi, WI 54755.

Total Site Acreage: 80.0 acres

PROPOSED POST MINING LAND USE:

The proposed modified final-end land use for the Bremer Quarry will be forestry and industrial. The proposed final-end land use is allowed under current zoning regulations. Portions of the highwalls will remain for bird and wildlife habitat.

RECLAMATION MEASURES:

Description of Phases and Estimated Time Frames:

Reclamation is expected to begin upon approval of the modified reclamation plan. Reclamation is expected to take one to two months to complete.

Handling of Topsoil:

Very little topsoil from prior excavation exists at the Bremer Quarry. Overburden piles have been located to the north of the existing quarry entrance, and will be used for the reclamation sloping for the area against the highwall on the north side of the existing entrance.

Proposed Slopes and Grades:

Please refer to the attached **Reclamation Plan Map** showing the areas where highwalls that will require additional stability through the installation of a safety catchment berm. The rock faces will be scaled to remove loose material that may be prone to dislodging or falling. After the highwall faces are scaled, a Safety Catchment Berm installed approximately 10' from the base of the highwall. The 10' space between the highwall and the Safety Catchment Berm will serve as a Safety Catchment Area for any loose rock from the highwall. The Safety Catchment Berm will be approximately 6' high and will have a 3:1 slope in towards the middle of the quarry floor. The Safety Catchment Berm will be vegetated using a Wisconsin DOT #20 seed mix. "Danger – Falling Rock" signs will be placed approximately every 200' along the top of the Safety Catchment Berm. Please refer to **Attachment A** for the **Proposed Quarry Highwall Reclamation Schematic** and **Attachment B** for the **Wisconsin DOT #20 seed mix**.

The proposed final-end land use will not require topsoil or overburden to be spread on the quarry floor or vegetated. The final-end land use will require the quarry floor to remain as-is.

All permanent vertical rock faces higher than 15 feet will be safeguarded by installing a 3-wire barbed-wire fence along the rim of the highwall.

Description of Grading Methods:

Backhoes, haul trucks, front-end loaders and scrapers will be used to load and haul the overburden and topsoil to the reclamation area. Dozers will be used to achieve the final grade, slope, and drainage.

Proposed Final Features:

Please refer to the attached Reclamation Plan Map. The proposed final features will include the locking gate at the entrance and the gravel entrance road and quarry floor for the owners use of the property. Final features will also include the Safety Catchment Berm, and “Danger – Falling Rock” signs.

RE-VEGETATION MEASURES:

Seed Mixes, Seeding Rates and Schedule:

The reclaimed sloped areas and Safety Catchment Berm will be seeded with *Wisconsin DOT #20 seed mix*. The seed mixture will be applied once all grading of the disturbed area is complete. Seed application typically occurs two to fourteen days after completion of grading to prevent erosion and will be conducted based on current weather conditions (seeding should be conducted during calm conditions and not prior to heavy rainfall), season (seeding is not typically done during winter months) and availability of personnel. If seeding cannot be completed within a day after final grading, the graded areas will be lightly raked prior to seeding to allow for optimum seed contact and growth opportunity.

Seed Bed Preparation Methods:

The seed mixture will be scattered uniformly over the graded areas with hand seeders and will be lightly raked to cover the seed with approximately ¼” of overburden material or topsoil. The seeded areas will be covered with mulch, typically consisting of hay or straw, immediately after seeding. The mulch will be uniformly spread over the seeded area to a loose depth of roughly ¼” or greater.

Erosion Control Measures:

Erosion control measures, such as berm construction, seeding, mulching, and water diversion, silt fence, and/or bale check installation, etc. will be implemented, as needed, to temporarily and permanently control drainage and erosion of newly graded and seeded areas during the reclamation process. The quarry floor **is already internally drained and no erosion or runoff is anticipated to occur**. All erosion control measures will be inspected periodically to ensure proper operation and will be repaired or replaced as necessary. Temporary erosion control measures will be removed once site shows evidence of stabilization.

CRITERIA FOR ASSESSING RECLAMATION:

Successful vegetative growth is expected to occur within 9 to 12 months of the seeding date. Buffalo County and Milestone personnel will inspect the seed growth to be certain there is adequate cover for growth and erosion control. 70% vegetated cover within 12 months with minimal signs of erosion will be considered successful reclamation. Successful vegetation will be determined by placing a one-meter square grid on random test locations of the seeded area to determine percent coverage. The County may determine the number and location of test areas. If successful vegetation is not achieved by 12 months, additional seed will be added to unsuccessful areas until successful vegetation is achieved. If substantial erosion has occurred, the areas will be re-graded, -seeded and -mulched until erosion control is achieved.

Once the vegetation has established, Milestone will submit a Notice of Completion of Reclamation to Buffalo County to begin the approval of the reclamation and release of the reclamation bond.

MAPS AND FIGURES:

Reclamation Plan Map

- Attachment A: Proposed Quarry Highwall Reclamation Schematic
- Attachment B: Wisconsin DOT Standard Specification for Seeding (DOT#20 Seed Mix)

RECLAMATION PLAN MODIFICATION CERTIFICATION:

Operator:

As an authorized representative of Milestone Materials, I certify that the proposed reclamation of the site referenced in this document will be carried out in accordance with the proposed reclamation plan and any subsequent, approved changes.

Applicant’s Signature (Candy Anderson, Geologist)

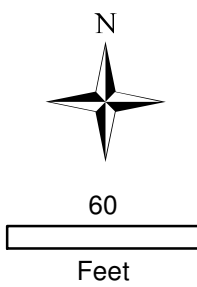
Date

Owner and/or Lessee:

I certify that I concur with the reclamation plan submitted and will allow its implementation.

Jane Bremer

Date



NOTES

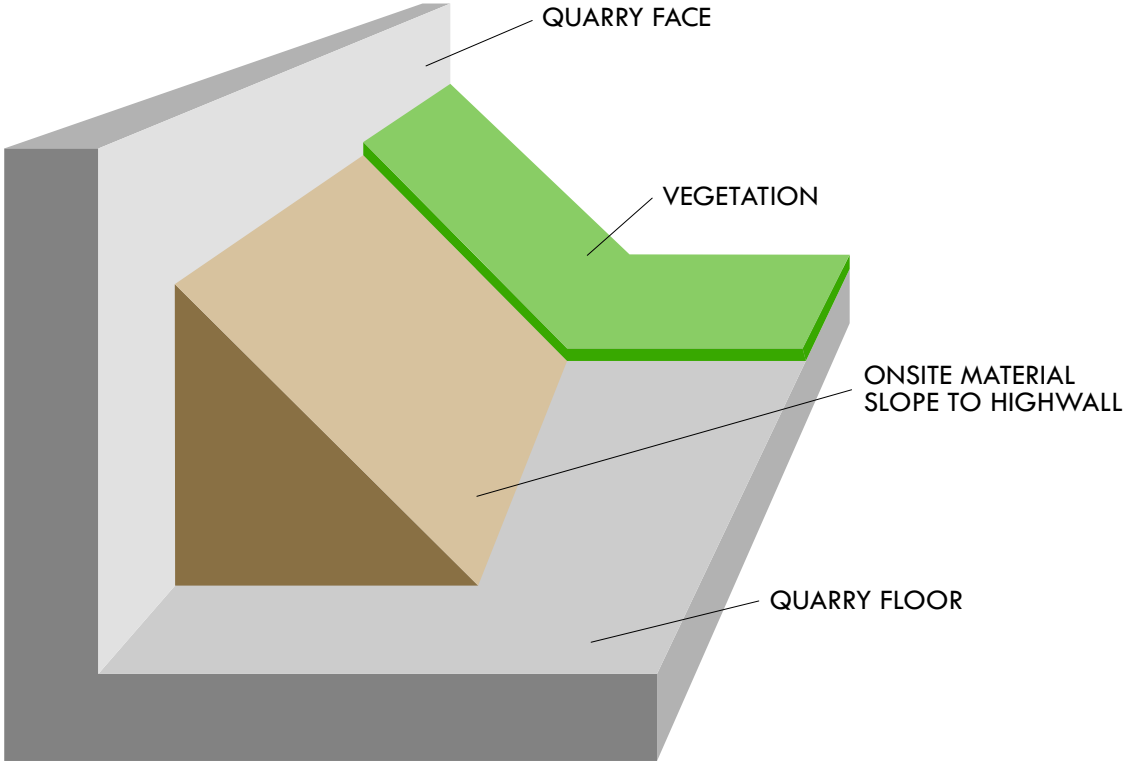
OWNER: JANE BREMER
ADDRESS: S1356 COUNTY RD U, MONDOVI WI 54755
PART OF SECTION 11, T22N, R11W
TOWN OF MONTANA, BUFFALO CO, WI
2015 AERIAL PHOTOGRAPH.

**RECLAMATION PLAN REVISION
FOR THE BREMER QUARRY**

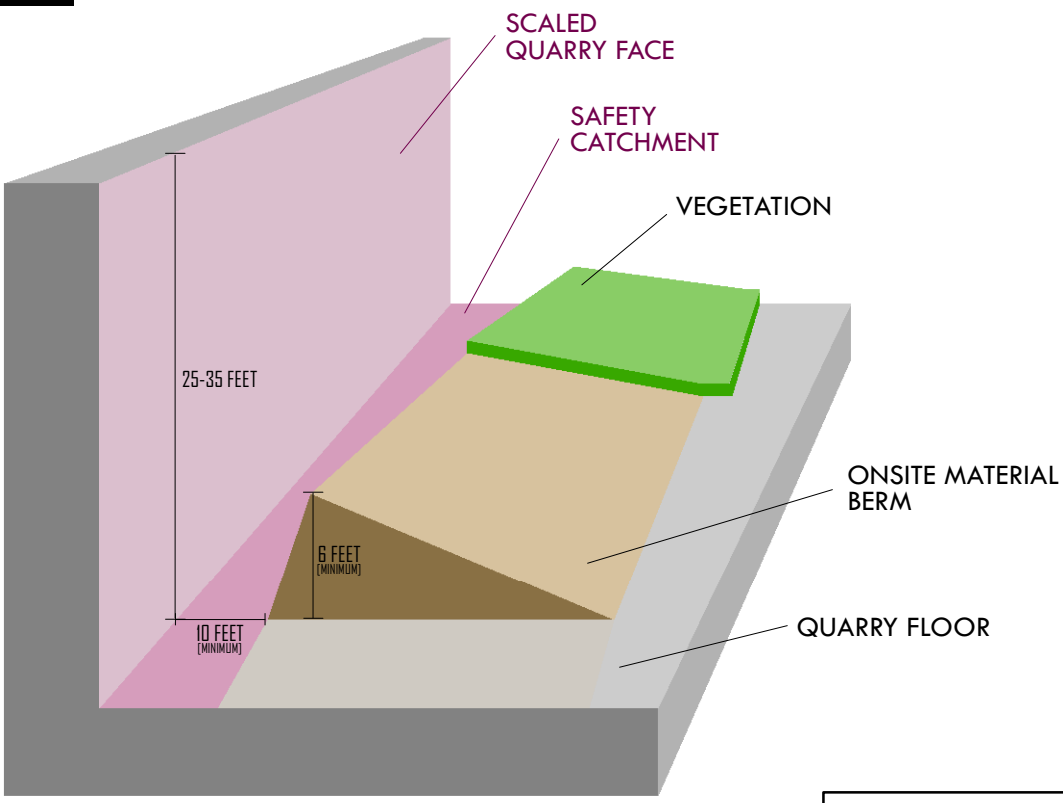
**PREVIOUSLY LEASED BY
THE KRAEMER COMPANY**

DATE: JUNE 4, 2021

TYPICAL SECTION



PROPOSED SECTION



**PROPOSED QUARRY
HIGHWALL RECLAMATION**
BREMER QUARRY
SECTION 11, T22N, R11W
BUFFALO COUNTY, WISCONSIN

630 Seeding

630.1 Description

- (1) This section describes preparing seed beds and furnishing and sowing the required seed on slopes, appurtenances, and other areas, and on borrow pits and material disposal sites.
- (2) This section also describes furnishing and sowing temporary seed mixture on the slopes and appurtenances of temporary embankments and roadways.

630.2 Materials

630.2.1 Seed

630.2.1.1 General

- (1) Use seed within one year of the test date appearing on the label.
- (2) Seed mixtures 70, 70A, 75, and 80 contain wild type forbs and grasses. Wild type is defined as seed that is derived directly from native, wild stock, including seed that was wild collected and placed into production or has been harvested directly from native stands.

630.2.1.2 Purity and Germination

- (1) Test seed for purity, germination, and noxious weed seed content according to the Rules for Testing Seed, published by the Association of Official Seed Analysts.
- (2) Percent live seed (PLS) is determined by multiplying the percent purity times the percent germination. Determine sowing rate and measure mixtures containing PLS as described in [CMM 640.3.4](#) to ensure the correct quantity of viable seed of each species is applied.

630.2.1.3 Inoculation

- (1) Inoculate legume seed (white clover, red clover, alsike clover, partridge pea, purple prairie clover, Canada tick-trefoil, and lupine) unless pre-inoculated by the vendor. Follow the inoculation instructions that come with the culture purchases. If applying the seed according to method B, [630.3.3.3](#), treat seeds requiring inoculation with 5 times the quantity of inoculant recommended in the instructions.
- (2) Avoid exposure of the culture or inoculated seed to the sunlight; do not exceed 1/2 hour exposure.

630.2.1.4 Storing Seed

- (1) Store seed delivered before use in a way that protects it from damage by heat, moisture, rodents, or other causes. Discard and replace any previously tested and accepted seed that becomes damaged.

630.2.1.5 Seed Mixtures

630.2.1.5.1 Permanent

630.2.1.5.1.1 Composition

- (1) Seed mixtures for the right-of-way and easements shall, unless specified otherwise, be composed of seeds of the purity, germination, and proportions, by weight, as given in table 630-1 and table 630-2.
- (2) Use seed of the species and varieties listed below. If no variety is listed, there will be no restriction on the variety furnished, except as follows:
 1. Pure live seed (PLS) species shall contain no named or improved varieties and be grown in Wisconsin, northern Illinois, northeastern Iowa, or eastern Minnesota. Use out-of-state seed grown in one of the following counties:

1.1 From northern Illinois:

Boone	Bureau	Carroll	Cook	De Kalb	Du Page	Grundy	Henry
Jo Daviess	Kane	Kendall	Lake	La Salle	Lee	McHenry	Ogle
Putnam	Rock Island	Stevenson	Whiteside	Will	Winnebago		

1.2 From northeastern Iowa:

Allamakee	Benton	Black Hawk	Bremer	Buchanan	Cedar	Chickasaw	Clayton
Clinton	Delaware	Dubuque	Fayette	Floyd	Howard	Jackson	Johnson
Jones	Linn	Mitchell	Muscatine	Scott	Winneshiek		

1.3 From eastern Minnesota:

Aitkin	Anoka	Carlton	Carver	Chisago	Dakota	Dodge	Fillmore
Goodhue	Hennepin	Houston	Isanti	Kanabec	La Sueur	Mille Lacs	Mower
Olmsted	Pine	Ramsey	Rice	Scott	Sherburne	Steele	Wabasha
Washington	Winona	Wright					

2. PLS for seed mixtures 70, 70A, 75, and 80 shall be packaged separately by species and clearly labeled with the vendor's name, species common and botanical names, gross weight, percent PLS, year of harvest and any specialized treatments that have been applied to ensure or enhance germination.
3. Minimum percent purity for native for species is 90 percent. If a listed species is not available, substitutions may be made with engineer's approval and must be documented.

(3) Mix native species on the project; clean and debeard seed with awns or excessive hairs before mixing.

SPECIES COMMON NAME	SPECIES BOTANICAL NAME	ACCEPTABLE VARIETIES
Kentucky Bluegrass	Poa pratensis	Low Maintenance
Red Fescue	Festuca rubra	Creeping
Hard Fescue	Festuca ovina var. duriuscula	Improved
Tall Fescue	Festuca arundinacea	Improved turf type
Salt Grass	Puccinella distans	Fult's
	Puccinella distans	Salty
Redtop	Agrostis alba	
Timothy	Phleum pratense	
Canada Wild Rye	Elymus canadensis	
Perennial Ryegrass	Lolium perenne	
Perennial Ryegrass	Lolium perenne	Improved Fine
Annual Ryegrass	Lolium multiflorum	
Alsike Clover	Trifolium hybridum	
Red Clover	Trifolium pratense	
White Clover	Trifolium repens	
Japanese Millet	Echinochola crusgalli var. frumentacea	
Annual Oats	Avena sativa	
Agricultural Rye	Secale cereale	
Winter Wheat	Triticum aestivum	

TABLE 630-1 HIGHWAY SEED MIXTURES

SPECIES	PURITY minimum %	GERMINATION minimum %	MIXTURE PROPORTIONS (in percent)				
			NO.10	NO.20	NO.30	NO.40	NO.60
Kentucky Bluegrass	98	85	40	6	10	35	
Red Fescue	97	85	25	15	30	30	
Hard Fescue	97	85		24	25	20	
Tall Fescue	98	85		40			
Salt Grass	98	85			15		
Redtop	92	85	5				
Timothy	98	90					12
Canada Wild Rye		PLS					10
Perennial Ryegrass	97	90	20	15			
Improved Fine Perennial Ryegrass	96	85			20	15	
Annual Ryegrass	97	90					30
Alsike Clover	97	90					4
Red Clover	98	90					4
White Clover	95	90	10				
Japanese Millet	97	85					20
Annual Oats ^[1]	98	90					20

^[1] Substitute winter wheat for annual oats in fall plantings started after September 1.

TABLE 630-2 NATIVE SEED MIXTURES

	SPECIES	SPECIES BOTANICAL NAME	PURITY & GERMINATION minimum %	MIXTURE PROPORTIONS in percent			
				NO. 70	NO. 70A	NO. 75	NO. 80
FORBES	Canada Anemone	<i>Anemone canadensis</i>	PLS	2			
	Butterflyweed	<i>Asclepias tuberosa</i>	PLS		2		
	New England Aster	<i>Aster novae-angliae</i>	PLS	2	2		
	Partridge-pea	<i>Chamaecrista (Cassia) fasciculata</i>	PLS		2		
	Purple Prairie Clover	<i>Dalea (Petalostemum) purpurea</i>	PLS	2	2	4	
	Canada Tick-trefoil	<i>Desmodium canadense</i>	PLS	2			
	Flowering Spurge	<i>Euphorbia corollata</i>	PLS		2		
	Wild Geranium	<i>Geranium maculatum</i>	PLS	2			
	Western Sunflower	<i>Helianthus occidentalis</i>	PLS	3	2		
	Rough Blazingstar	<i>Liatris aspera</i>	PLS		2		
	Prairie Blazingstar	<i>Liatris pycnostachya</i>	PLS	2			
	Lupine	<i>Lupinus perennis</i>	PLS		3		
	Wild Bergamot	<i>Monarda fistulosa</i>	PLS	2			
	Horse Mint	<i>Monarda punctata</i>	PLS		2		
	Yellow Coneflower	<i>Ratibida pinnata</i>	PLS	2	2		
	Blackeyed Susan	<i>Rudbeckia hirta</i>	PLS			1	
	Showy Goldenrod	<i>Solidago speciosa</i>	PLS	2	2		
	Spiderwort	<i>Tradescantia ohiensis</i>	PLS	2	2		
Golden Alexanders	<i>Zizia aurea</i>	PLS	2				
GRASSES	Big Bluestem	<i>Andropogon gerardi</i>	PLS	15	15	10	
	Sideoats Grama	<i>Bouteloua curtipendula</i>	PLS	15	20	20	25
	Canada Wildrye	<i>Elymus Canadensis</i>	PLS	15	15	35	23
	Slender Wheatgrass	<i>Elymus trachycaulus</i>	PLS				20
	Junegrass	<i>Koeleria macrantha</i>	PLS		5		
	Annual Ryegrass	<i>Lolium multiflorum</i>	[1]			10	10
	Switchgrass	<i>Panicum virgatum</i>	PLS				10
	Salt Grass	<i>Puccinella distans</i>	[1]				2
	Little Bluestem	<i>Schizachyrium (Andropogon) scoparium</i>	PLS	15	20	10	10
	Indiangrass	<i>Sorghastrum nutans</i>	PLS	15		10	
ALTERNATE FORBES	Sky Blue Aster	<i>Aster azureus</i>	PLS	[2]	[2]		
	White Wild Indigo	<i>Baptisia leucantha</i>	PLS	[2]	[2]		
	Pale Purple Coneflower	<i>Echinacea pallida</i>	PLS	[2]	[2]		
	White Prairie Clover	<i>Petalostemum candidum</i>	PLS	[2]	[2]		
	Stiff Goldenrod	<i>Solidago rigida</i>	PLS	[2]	[2]		
	Hoary Vervain	<i>Verbena stricta</i>	PLS	[2]	[2]		

[1] Provide the minimum purity and germination specified in table 630-1.

[2] The contractor may, if the engineer approves, substitute an alternate forb for a required forb that is not available using the same percentage as specified for the required forb. Use a different alternate forb for each unavailable required forb. Provide documentation showing that a required forb is not available before using an alternate.

630.2.1.5.1.2 Mixture

- (1) Use seed mixtures that meet with the engineer's approval and conform to the following:
 - No. 10 where average loam, heavy clay, or moist soils predominate.
 - No. 20 where light, dry, well-drained, sandy, or gravelly soils predominate and for all high cut and fill slopes generally exceeding 6 to 8 feet, except where using No. 70.
 - No. 10 or 20 on all ditches, inslopes, median areas, and low fills, except where using No. 30 or 70.
 - No. 30 for medians and on slopes or ditches generally within 15 feet of the shoulder where a salt-tolerant turf is preferred.
 - No. 40 in urban or other areas where a lawn type turf is preferred.
 - No. 60 only on areas, the contract designates or the engineer specifies. Use it as a cover seeding for newly graded wet areas or as a nurse crop for specified wetland seed mixtures. The contractor shall not apply it to flooded areas.
 - Nos. 70 and 70A on slopes and upland areas the contract designates or the engineer specifies. Use seed mixture No. 70 on loamy soils and seed mixture No. 70A on sandy soils.
 - No. 75 where native grasses are desired for erosion control.
 - No. 80 on inslopes where a salt tolerant seed mix containing native grasses is desired.

630.2.1.5.2 Temporary

- (1) Under the Seeding Temporary bid item, use a temporary seed as follows:

SPECIES	% MINIMUM PURITY	% MINIMUM GERMINATION
Annual Oats	98	90
Agricultural Rye	97	85
Winter Wheat	95	90

- (2) Use oats in spring and summer plantings. Use winter wheat or rye for fall plantings started after September 1.

630.2.1.5.3 Nurse Crop

- (1) If seeding bare soil with either mixture 70, 70A, 75, or 80, include the Seeding Nurse Crop as follows:

SPECIES	% MINIMUM PURITY	% MINIMUM GERMINATION
Annual Oats	98	90
Annual Ryegrass	97	90
Winter Wheat	95	90

- (2) When a nurse crop is required for spring seeding before June 15, or if the engineer allows seeding between June 15 and October 15, use annual oats. For fall seeding after October 15, use winter wheat, or annual ryegrass.

630.2.2 Water

- (1) Furnish clean water, free of impurities or substances that might injure the seed.

630.3 Construction

630.3.1 General

- (1) Perform seeding when and as the engineer directs or allows. Provide protective cover within 24 hours after sowing. The engineer may direct or allow covering with mulch as specified in [627](#), erosion mat as specified in [628](#), or using other contract bid items.
- (2) If using Nos. 60, 70 and 70A mixtures, do not seed between June 15 and October 15 unless the engineer allows.

630.3.2 Seed Bed Preparation

- (1) Complete grading, shouldering, topsoiling, and fertilizing, if part of the work under contract, before permanent seeding, except the contractor may place the fertilizer and seed mixture in one operation if using equipment designed for the purpose.
- (2) Just before seeding, work the area being seeded with discs, harrows, or other appropriate equipment to obtain a reasonably even and loose seedbed. Place topsoil as specified in [625.3.3](#).

630.3.3 Sowing Methods

630.3.3.1 General

- (1) Select the method of sowing from either method A, method B, method C, or an appropriate combination of methods A, B, and C. Obtain the engineer's approval for the sowing method and specific procedures used for each seed mixture used before sowing that mixture.

630.3.3.2 Method A

- (1) Sow the selected seed mixture using equipment adapted to the purpose, or by scattering it uniformly over the areas to be seeded. Lightly rake or drag to cover the seed with approximately 1/4 inch of soil. After seeding, lightly roll or compact the areas using suitable equipment, preferably the cultipacker type, when the engineer judges the seedbed too loose, or if the seedbed contains clods that might reduce seed germination. The contractor shall not roll slopes steeper than 1:3.
- (2) If scattering seed by hand, perform this work with satisfactory hand seeders and only when the air is calm enough to prevent seeds from blowing away.

630.3.3.3 Method B

- (1) Sow or spread the seed upon the prepared bed using a stream or spray of water under pressure and operated from an engineer-approved machine designed for that purpose. Place the selected seed mixture and water into a tank, provided within the machine, in sufficient quantities that when spraying the seed on a given area it is uniformly spread at the required application rate. During this process, keep the tank contents stirred or agitated to provide uniform distribution. Spread the tank contents within one hour after adding the seed to the tank. The engineer will reject seed that remains mixed with the water for longer than one hour. The engineer will not require dragging or rolling.

630.3.3.4 Method C

- (1) For spring seeding of seed mixtures 70 and 70A into existing ground cover, mow existing vegetation to 4 inches or less in height 2 to 4 weeks before seeding. Ten to 14 days after mowing, spray with vegetation control herbicide conforming to [632.2.12](#).
- (2) For fall seeding of seed mixtures 70 and 70A into existing ground cover, mow existing vegetation to 4 inches or less in height 4 to 6 weeks before seeding. Ten to 14 days after mowing, spray with vegetation control herbicide conforming to [632.2.12](#). Retreat with vegetation control herbicide 10 to 14 days after initial application if live vegetation persists.
- (3) Seed with a rangeland type drill with one or more seed boxes that can be calibrated independently to deliver different sized seeds uniformly at the required rate and equipped with a rear-mounted press wheel for each seed drop tube. If seeding into existing vegetation or thatch, use a rangeland type drill equipped with a no-till attachment that can cut through the vegetation or thatch in front of the V disc and seed drop tube. If the configuration of the area to be seeded allows, apply seed at 1/2 the specified seed rate and apply the second 1/2 in a perpendicular direction.

630.3.4 Borrow Pits and Material Disposal Sites

- (1) Seed borrow pits and material disposal sites off the right-of-way. Consult with the landowner or the landowner's agent when selecting the seed mixture.

630.3.5 Seeding Rates

- (1) Use the following sowing rate for seeds in pounds per 1000 square feet:
 - No. 10 at 1.5 pounds
 - No. 20 at 3 pounds
 - No. 30 at 2 pounds
 - No. 40 at 2 pounds
 - No. 60 at an equivalent seeding rate of 1.5 pounds^[1]
 - No. 70 or 70A at 0.4 pounds
 - No. 75 at an equivalent seeding rate of 0.7 pounds^[1]
 - No. 80 at an equivalent seeding rate of 0.8 pounds^[1]
 - Temporary seeding at 3 pounds
 - Nurse crop seeding at 0.8 pounds

^[1] Determine the actual seeding rate by multiplying the equivalent seeding rate by the sum of the unadjusted and adjusted percentages of the various species in the seed mixtures as sown.

- (2) The unadjusted percentage equals the minimum percent of purity and germination specified in the table 630-1 and table 630-2.
- (3) Obtain the adjusted percentage for each of the PLS species by dividing the specified percentage of the species by the product of the percent of purity and the percent of germination for each of the PLS species as delivered.

630.3.6 Watering

- (1) If rainfall is not sufficient, keep seeded areas thoroughly moist. Once the seed has germinated, do not let the top inch of soil dry out until the grass is well established. Maintain soil moisture for 30 days

unless the engineer directs or allows otherwise. Apply water in a manner that precludes washing or erosion.

630.3.7 Establishment Period for Native Seeding

- (1) During the growing season after planting seed mixture 70 or 70A, mow all seeded areas twice as the engineer directs. Mow vegetation back to 6 inches when it has reached a height of at least 12 inches.
- (2) During the growing season after planting seed mixture 70 or 70A, eradicate the following species from the seeded areas as soon as they become evident:

SPECIES COMMON NAME	SPECIES BOTANICAL NAME
Musk thistle	Carduus nutans
Spotted knapweed	Centaurea maculosa
Canada thistle	Cirsium arvense
Bull thistle	Cirsium vulgare
Field bindweed	Convolvulus arvensis
Leafy spurge	Euphorbia esula
Sweetclover	Melilotus species
Wild parsnip	Pastinaca sativa
Teasel	Dipsacus species
Phragmites	Phragmites australis

- (3) Eradicate by hand pulling or by applying a vegetation control herbicide conforming to [632.2.12](#) to individual plants.

630.4 Measurement

630.4.1 Seeding

- (1) The department will measure the Seeding bid items by the equivalent pound acceptably completed, measured based on net weights of seed shipments or weighed on department-approved scales the contractor furnishes. The department will deduct quantities wasted or not actually incorporated in the work according to the contract. The department will determine the equivalent pounds of seed furnished and applied by dividing the actual pounds of seed applied by the sum of the unadjusted and adjusted percentages, determined as specified in [630.3.5](#), of the various species in the seed mixture sown.

630.4.2 Watering

- (1) The department will measure Seed Water by the 1000 gallons acceptably completed, measured as the volume indicated by engineer-approved meters or by the volume of tanks of known capacity.

630.5 Payment

- (1) The department will pay for measured quantities at the contract unit price under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
630.0100 - 0199	Seeding (mixture)	LB
630.0200	Seeding Temporary	LB
630.0300	Seeding Borrow Pit	LB
630.0400	Seeding Nurse Crop	LB
630.0500	Seed Water	MGAL

- (2) Payment for the Seeding bid items is full compensation for providing, handling, and storing all seed; for providing the required culture and inoculating seed as specified; and for preparing the seed bed, sowing, covering, and firming the seed. If the landowner does not want the pit or material disposal site seeded, or seeded with any of the mixtures allowed, the department will not pay for fertilization or seeding of those areas.
- (3) Payment for Seed Water is full compensation for watering seed.
- (4) The department will pay separately for seed covering required under [630.3.1](#) as follows:
 - Under the Mulching bid items as specified in [627.5](#).
 - Under the Erosion Mat and Soil Stabilizer Type A bid items as specified in [628.5](#).
 - Absent the appropriate bid items, as extra work.