



380 – Windbreak-Shelterbelt Establishment and Renovation Implementation Requirements

Producer: _____

Project or Contract: _____

Location: _____

County: _____

Farm Name: _____

Tract Number: _____



Apply this practice on any areas where linear plantings of woody plants are desired and suited for managing wind, noise, snow, energy use, and improving visual resources and air quality. The location, layout and density of the planting will accomplish the purpose and function intended within a 20-year period. Use NRCS Conservation Practice Standard (CPS) Tree/Shrub Site Preparation (Code 490), for preparing the site prior to plant establishment. The designed protected area will be ten times the maximum design height (H) of the tallest row of trees or shrubs at age 20 for the given site.

Gopher State One Call Utility Service 651-454-0002 or 800-252-1166

Practice Purpose (check all that apply)

- Reduce soil erosion from wind.
- Enhance plant health and productivity by protecting plants from wind-related damage.
- Manage snow distribution to improve moisture utilization by plants.
- Manage snow distribution to reduce obstacles, ponding, and flooding that impacts other resources, animals, structures, and humans.
- Provide shelter from wind, snow, and excessive heat, to protect animals, structures, and humans.
- Improve moisture management by reducing transpiration and evaporation losses and improving irrigation efficiency.
- Improve air quality by intercepting airborne particulate matter, chemicals, and odors, and/or by reducing airflow across contaminant or dust sources.
- Reduce energy used in the heating and cooling buildings and relocating snow.
- Increase carbon storage in biomass and soils.

Description of Work

Empty rectangular box for describing the work.

Save Form

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Location and Layout	
Width (feet, including width of maintenance area around perimeter):	
Length (feet):	Total Area of windbreak/shelterbelt (acres):
Total area of zone protected/sheltered (acres; based on expected height and density of the windbreak/shelterbelt):	
Additional requirements:	

Use the criteria contained in the Conservation Practice Standard Tree/Shrub Establishment, Code 612 for planting. Determine the location of Row 1, note on map.

Species, Stock Type and Planting Rates

Used MN-ECS-002, or

CTSG/WS

Selected the desired Conservation Tree/Shrub Group and Windbreak Suitability (CTSG/WS) type. (For a more detailed selection, see the CTSG spreadsheet for the subzones at eFOTG section II >> "Soils - Statewide Official Data & County Reports" >> "Conservation Tree and Shrub Groups.")

Species/cultivar by row number:	Size: caliper & height and/or nursery age	Kind of stock ¹	Distance between plants within row (ft):	Distance between adjacent rows: (ft) ²	Total number of plants for row:
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

¹ Bare-root, COntainer (includes potted, and B&B), CUtting (including whips, poles and stakes) PLug, POTTed; include size, caliper, height, and age as applicable.

² Adjusted for width of maintenance equipment for mature plants.

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Density (check the applicable density designation)		
Snow distribution - 25-50% Snow accumulation - ≥ 65%, NTE 80% Protection of structures, livestock & people - ≥65%, NTE 80% Noise screens - ≥ 65%, NTE 80%		Air quality - at least 50% on the windward side of the source area and, for windbreaks on the downwind side of the source area, at least 65%, NTE 80% Density for other purposes is generally ≥ 50%, NTE 65%
25-50% density: 1-row - deciduous shrubs 2-row - deciduous trees and deciduous shrubs	50-65% density: Twin-row - deciduous shrubs 1-row – non-deciduous conifer trees 2-row - non-deciduous conifer trees and deciduous trees 3-row - combination of deciduous trees and deciduous shrubs	65+% density (NTE 80%): Twin-row - medium to tall non-deciduous conifer trees 3 or more rows - combination of non-deciduous conifer trees, deciduous trees and shrubs

Site Preparation

Follow guidelines in NRCS Conservation Practice Standard Site Preparation, Code 490. Additional requirements:

Temporary/Permanent Cover

Follow guidelines in the 380 Specification Document. Use the form MN-CPA-003 for the seeding plan. Additional requirements:

Planting Methods

Follow guidelines in NRCS Conservation Practice Standard Tree/Shrub Establishment, Code 612. Additional requirements:

Supplemental Moisture

Follow guidelines in NRCS Conservation Practice Standards Mulching, Code 484 or Irrigation System, Sprinkler, Code 442. Additional requirements:

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Operation and Maintenance

Inspect windbreak components after severe storms; note any damage from winds, hail, ice or snow loads. Use the Conservation Practice Standards Windbreak/Shelterbelt Renovation, Code 650, or Tree/Shrub Pruning, Code 660, if repairs are needed.

Note damage or symptoms from insects or disease. Contact the local UMN Extension Service or MNDNR Insect and Disease Section as necessary to identify the damaging pest. Use the Conservation Practice Standard Integrated Pest Management, Code 595, Windbreak/Shelterbelt Renovation, Code 650, Tree/Shrub Pruning, Code 660, or Woody Residue Treatment, Code 384 as necessary.

Windbreaks and Shelterbelts must be repaired and maintained to original planned density to function properly.

Replace dead or dying tree/shrub stock and continue control of competing vegetation for at least 3 years to allow proper establishment. Use Conservation Practice Standards Windbreak/Shelterbelt Renovation, Code 650 and Tree/Shrub Establishment, Code 612 if necessary.

The windbreak will be protected from livestock and wildlife damage by using the criteria contained in the Conservation Practice Standards Tree/Shrub Establishment, Code 612 or Access Control, Code 472, as appropriate.

If weed control fabric was used during installation, annually inspect whether stems are being girdled by the fabric. If the fabric is tight against the stems, cut the fabric to free them before the stems are girdled.

Prune dead or dying branches to maintain function; follow the criteria contained in the Conservation Practice Standard Tree/Shrub Pruning, Code 660.

[Type here]

**380 – Windbreak Shelterbelt Establishment and Renovation
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Practice Specifications Approval and Completion Certification

Provided Practice Cost information

Site-specific cost estimate, or specifications for the producer to develop a cost estimate or obtain the bid themselves.

Job Class Information (List Practice Job Class)

380 ESJAA Fact Sheet	Job Class:
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Design Installation and Layout Approval

Designed By:	Date:	Designer's Job Approval Authority:
Approved By:	Date:	Approver's Job Approval Authority:

Record of Completion and Check Out Certification

Treated Acres	Date Completed by Client	Date Certified	Approver's Initials

Additional documentation to support practice certification is in the Case File.

Certification Statement

I certify that implementation of this conservation practice is complete, meets criteria for the stated purpose(s), and meets the NRCS conservation practice standard and specifications.

Printed Name:	Date:
Title:	Certifier's Job Approval Authority (JAA):
Signature:	

Notes: