

Chapter ATCP 50**APPENDIX G****TECHNICAL STANDARDS INCORPORATED BY REFERENCE**

Chapter ATCP 50, Wis. Adm. Code, incorporates the following technical standards by reference. *Primary standards* are specifically identified in ATCP 50. *Secondary standards* are incorporated by reference in one or more primary standards. The following list identifies each primary and secondary standard and its date of publication. Copies of each standard are on file with the department and the legislative reference bureau. The county land conservation committee normally has inspection copies on file. The following list explains how to obtain copies from the publisher. Future updates to technical standards are *not* automatically incorporated into ATCP 50. The department may incorporate future updates in future rule amendments.

Primary Standards

1. *United States Department of Agriculture, Natural Resources Conservation Service, Wisconsin, Section IV, Technical Guide (“NRCS technical guide”) standards.* A person may obtain copies of the following standards from the NRCS Wisconsin State Office, 8030 Excelsior Drive, Suite 200, Madison WI 53717-2906. Phone: 608-276-8732. Website: www.nrcs.usda.gov.

- Access Road Standard 560 (August, 2006).
- Animal Trails and Walkways Standard 575 (August, 2006).
- Channel Stabilization Standard 584 (July, 2003).
- Closure of Waste Impoundments Standard 360 (November, 2006).
- Contour Farming Standard 330 (May, 2002).
- Cover Crop Standard 340 (June, 2002).
- Critical Area Planting Standard 342 (June, 2002).
- Diversion Standard 362 (August, 2006).
- Fence Standard 382 (November, 1999).
- Field Border Standard 386 (May, 2002).
- Filter Strip Standard 393 (January, 2001).
- Fish Passage Standard 396 (June, 2008).
- Grade Stabilization Structure Standard 410 (July, 2001).
- Grassed Waterway Standard 412 (June, 2008).
- Heavy Use Area Protection Standard 561 (August, 2008).
- Irrigation Regulating Reservoir Standard 552 (May, 2004).
- Irrigation System, Sprinkler Standard 442 (May, 2004).
- Irrigation System, Tailwater Recovery Standard 447 (June, 2008).
- Irrigation Water Conveyance Aluminum Tubing Pipeline Standard 430AA (May, 2004).
- Irrigation Water Conveyance High-Pressure, Underground, Plastic Pipeline Standard 430DD (May, 2004).
- Irrigation Water Management Standard 449 (May, 2004).
- Lined Waterway or Outlet Standard 468 (August, 2006).
- Manure Transfer Standard 634 (February, 2007).
- Mulching Standard 484 (June, 2002).
- Nutrient Management Standard 590 (September, 2005).
- Obstruction Removal Standard 500 (May, 2002).
- Open Channel Standard 582 (May, 2002).
- Pasture and Hayland Planting Standard 512 (June, 2002).
- Pest Management Standard 595 (June, 2003).
- Pipeline Standard 516 (April, 2002).
- Pond Standard 378 (July, 2001).
- Pond Sealing or Lining, Flexible Membrane Lining Standard 521A (March, 2008).
- Pond Sealing or Lining-Bentonite Treatment Standard 521C (October, 2007).
- Prescribed Grazing (Managed Grazing-Wisconsin) Standard 528 (December, 2005).
- Pumping Plant Standard 533 (July, 2003).
- Recreation Trail and Walkway Standard 568 (October, 2007).
- Residue and Tillage Management-No Till/Strip Till/Direct Seed Standard 329 (October, 2006).
- Residue and Tillage Management-Mulch Till Standard 345 (October, 2006).
- Residue Management- Seasonal Standard 344 (October, 2006).
- Riparian Forest Buffer Standard 391 (January, 2001).
- Roof Runoff Structure Standard 558 (January, 2008).
- Sediment Basin Standard 350 (August, 2008).
- Shoreland Habitat Standard 643A (July, 2001).
- Sinkhole Treatment Standard 725 (March, 2000).
- Spoil Spreading Standard 572 (May, 2002).
- Spring Development Standard 574 (June, 2008).
- Streambank and Shoreline Protection Standard 580 (December, 2005).
- Stripcropping Standard 585 (June, 2002).
- Structure for Water Control Standard 587 (June, 2002).
- Subsurface Drain Standard 606 (June, 2002).
- Surface Drainage, Field Ditch Standard 607 (June, 2003).
- Surface Drainage, Main or Lateral Standard 608 (August, 2006).
- Terrace Standard 600 (June, 2002).
- Tree/Shrub Establishment Standard 612 (April, 2003).
- Underground Outlet Standard 620 (May, 2002).
- Use Exclusion Standard 472 (June, 2002).
- Vegetated Treatment Area Standard 635 (August, 2008).
- Waste Storage Facility Standard 313 (December, 2005).
- Waste Treatment Standard 629 (August, 2008).
- Water & Sediment Control Basin Standard 638 (July, 2001).
- Watering Facility Standard 614 (April, 2002).
- Water Well Standard 642 (May, 2005).
- Well Decommissioning Standard 351 (May, 2008).

- Wetland Restoration Standard 657 (September, 2000).
 - Wildlife Upland Habitat Management Standard 645 (July, 2000).
 - Windbreak/Shelterbelt Establishment Standard 380 (June, 2002).
2. **University of Wisconsin–Extension Publications.** A person may obtain copies of the following standards from Cooperative Extension Publications, 45 North Charter Street, Madison WI 53715. Phone: 877–WIS–PUBS (947–7827). E-mail: reitzman@admin.uwex.edu
 - Nutrient application guidelines for field, vegetable, and fruit crops in Wisconsin, UWEX Pub. No. A2809 (2006).
 - Soil Test Recommendations for Field, Vegetable and Fruit Crops, UWEX Pub. No. A–2809 (1998).
 - Pollution Control Guide for Milking Center Waste Water Management, UWEX Pub. No. A3592 (1994).
 - Pastures for profit: A guide to rotational grazing, UWEX Pub. No. A3529 (2002).
 - Recommended Methods of Manure Analysis, UWEX Pub. No. A3769 (2003).
 3. **Wisconsin Department of Natural Resources Standards.** A person may obtain these standards from the Wisconsin Department of Administration, Document Sales Unit, 202 S Thornton Ave, PO Box 7840, Madison WI 53707–7840. Phone: 608–266–3358. E-mail: docsales@doa.state.wi.us.
 - Wet Detention Basin Standard 1001 (June, 1999).
 - “Wisconsin Construction Site Best Management Practice Handbook”, DNR Publication No. WR–222 93 (April 1994).
 4. **United States Department of Agriculture, Natural Resources Conservation Service–Wisconsin.**
 - Wisconsin Conservation Planning Technical Note WI–1, “Companion Document to NRCS FOTG Standard 590, Nutrient Management”. (September, 2007). A person may obtain copies of this standard from the NRCS Wisconsin State Office, 8030 Excelsior Drive, Suite 200, Madison, WI 53717–2906. Phone: 608–276–8732. Website: www.nrcs.usda.gov.
 - Revised Universal Soil Loss Equation, Version 2 (“RUSLE 2”), (November 14, 2006). This software contains 9 previous versions as well as the 2006 version and may be downloaded free of charge from: http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_Index.htm
 5. **American Society of Civil Engineers (ASCE), Minimum Design Loads for Buildings and Other Structures, ASCE/SEI 7–05 (2006).** A person may obtain this standard from ASCE Publications, 1801 Alexander Bell Drive, Reston, VA 20191. Phone: 800–548–ASCE (2723). Email: www.asce.org/asce.cfm.
 6. **University of Wisconsin–Madison, Biological Systems Engineering Department.** Wisconsin Minimum Design and Construction Standards for Concrete Mixing and Loading Pads and Secondary Containment Structures (February, 2005). A person may obtain this standard from the Biological Systems Engineering Dept., University of Wisconsin–Madison, 460 Henry Mall, Madison WI 53706. Phone: 608–262–3311. E-mail: hkirsch@facstaff.wisc.edu
 7. **University of Wisconsin–Madison, Soil Science Department.** Wisconsin Procedures for Soil Testing, Plant Analysis and Feed & Forage Analysis (December 2007). A person may obtain this standard from the Soil Science Department, University of Wisconsin–Madison, Madison, WI 53706, or from this department’s website: <http://www.datcp.state.wi.us/arm/agriculture/land-water/conservation/nutrient-mngmt/planning.jsp>.
- ### Secondary Standards
1. **United States Department of Agriculture, Natural Resources Conservation Service – Wisconsin, Section IV, Technical Guide (“NRCS technical guide”).** A person may obtain copies of the following standards from the NRCS Wisconsin State Office, 8030 Excelsior Drive, Suite 200, Madison WI 53717–2906. Phone: 608–276–8732. Website: www.nrcs.usda.gov.
 - Conservation Crop Rotation Standard 328 (May, 2002).
 - Forest Site Preparation Standard 490 (June, 2002).
 - Stream Crossing Standard 578 (August, 2006).
 - Stream Habitat Improvement and Management Standard 395 (May, 2006).
 - Hedgerow Planting Standard 422 (June, 2002).
 - Prescribed Burning Standard 338 (March, 2008).
 - Wildlife Watering Facilities Standard 648 (October, 1991).
 - Wisconsin Construction Specification 2, “Excavation” (July, 2008).
 - Wisconsin Construction Specification 3, “Earthfill” (June, 2005).
 - Wisconsin Construction Specification 4, “Concrete” (September, 2003).
 - Wisconsin Construction Specification 6, “Corrugated Metal Pipe Conduits” (April, 2006).
 - Wisconsin Construction Specification 9, “Rock Riprap” (July, 2008).
 - Wisconsin Construction Specification 10, “Fences” (June, 2002).
 - Wisconsin Construction Specification 13, “Geotextiles” (May, 2008).
 - Wisconsin Construction Specification 15, “Plastic Pipe Conduits” (January, 2006).
 - Wisconsin Construction Specification 19, “Well Abandonment/Decommissioning” (May, 2006).
 - Wisconsin Construction Specification 202 “Polyethylene Geomembrane Lining” (December, 2005).
 - Wisconsin Construction Specification 203 “Geosynthetic Clay Liner” (March, 2005).
 - Wisconsin Construction Specification 204 “Earthfill for Waste Storage Facilities” (March, 2005).
 - Wisconsin Construction Specification 205 “Flexible Membrane Lining” (April, 1999).
 - Wisconsin Construction Specification 300 “Clay Liner” (December, 2005).
 2. **United States Department of Agriculture, Natural Resources Conservation Service, Agricultural Waste Management Field Handbook, Part 651.** A person may obtain copies of the following standards from the NRCS Wisconsin State Office, 8030 Excelsior Drive, Suite 200, Madison WI 53717–2906. Phone: 608–276–8732. Website: www.nrcs.usda.gov.

- Chapter 7, “Geologic and Ground Water Considerations” (June, 1999).
 - Chapter 9, “Agricultural Waste Management Systems” (April, 1992).
 - Chapter 10, “Agricultural Waste Management System Component Design” (July, 1996).
 - Chapter 12, “Waste Management Equipment” (October, 1997).
3. **United States Department of Agriculture, Natural Resources Conservation Service – Wisconsin, Wisconsin Technical Notes.** A person may obtain copies of the following standards from the NRCS Wisconsin State Office, 8030 Excelsior Drive, Suite, Madison WI 53717-2906. Phone: 608-276-8732. Website: www.nrcs.usda.gov.
- Wisconsin Agronomy Technical note WI-1, “Guidelines for Herbaceous Stand Evaluation” (May, 1991).
 - Wisconsin Agronomy Technical Note WI-5, “Prairie Restoration Seeding” (September, 1999).
 - Wisconsin Biology Technical Note 1, “Shoreland Habitat” (September, 2001).
 - Wisconsin Forestry Technical Note WI-1, “Native Tree and Shrub Planting Recommendations for Wisconsin” (April, 2003).
 - Wisconsin Forestry Technical Note WI-2, “Tree and Shrub Establishment” (April, 2003).
4. **United States Department of Agriculture, Natural Resources Conservation Service.** A person may obtain copies of the following standards from the NRCS Wisconsin State Office, 8030 Excelsior Drive, Suite 200, Madison WI 53717-2906. Phone: 608-276-8732. Website: www.nrcs.usda.gov.
- Technical Release TR-25, “Design of Open Channels” (1977).
 - Technical Release TR-55, “Urban Hydrology for Small Watersheds” (June, 1986).
 - Technical Release TR-60, “Earth Dams and Reservoirs” (July, 2005).
 - Field Office Technical Guide, Section III, “Guidelines for Resource Management System Quality Criteria and Human Considerations” (March, 2005).
 - Field Office Technical Guide, Section I, Part II, “Wind Erosion Prediction” (February, 2003).
 - National Planning Procedures Handbook, Subpart F, Part 600.75, “Draft Comprehensive Nutrient Management Planning Technical Guidance” (undated, the version in effect in 2008).
 - National Handbook of Conservation Practices, Standard 554, “Drainage Water Management” (September, 2001).
 - Wisconsin Job Sheet 134, “How to Establish and Maintain Introduced Grasses and Legumes” (May, 2000).
 - Wisconsin Job Sheet 135, “How to Establish and Maintain Native Grasses, Forbs and Legumes” (May, 2000).
 - Wisconsin Job Sheet 136, “Wildlife Food Plots” (January, 2000).
 - Wisconsin Job Sheet 142, “Permanent Wildlife Habitat” (January, 2000).
 - “Soil Conditioning Index” (June, 2005).
 - “Windows Pesticide Screening Tool” (WIN-PST 3.0) (November 11, 2005). This may also be downloaded from the website: www.wcc.nrcs.usda.gov/pestmgmt/winpst.html.
5. **United States Department of Agriculture, Natural Resources Conservation Service National Engineering Field Handbook, Part 650.** A person may obtain copies of the following standards from the NRCS Wisconsin State Office, 8030 Excelsior Drive, Suite 200, Madison WI 53717-2906. Phone: 608-276-8732. Website: www.nrcs.usda.gov.
- Chapter 6 “Structures” (undated, version in effect on September 1, 2002).
 - Chapter 7, “Grassed Waterways” (1986).
 - Chapter 11, “Ponds and Reservoirs” (April, 1980).
 - Chapter 14, “Water Management (Drainage)” (April, 2001).
 - Chapter 16, “Streambank and Shoreland Protection” (December, 1996).
 - Chapter 18, “Soil Bioengineering for Upland Slope Protection and Erosion Reduction” (October 1992).
6. **United States Department of Agriculture, Natural Resources Conservation Service National Engineering Field Handbook, Part 631.** A person may obtain copies of the following standards from the NRCS Wisconsin State Office, 8030 Excelsior Drive, Suite 200, Madison WI 53717-2906. Phone: 608-276-8732. Website: www.nrcs.usda.gov.
- Chapter 33, “Investigations for Ground Water Resources Development” (November, 1998).
7. **United States Department of Agriculture, Natural Resources Conservation Service National Engineering Handbook, Part 623.** A person may obtain copies of the following standards from the NRCS Wisconsin State Office, 8030 Excelsior Drive, Suite 200, Madison WI 53717-2906. Phone: 608-276-8732. Website: www.nrcs.usda.gov.
- Chapter 2, “Irrigation Water Requirements” (September, 1993).
8. **United States Department of Agriculture, Natural Resources Conservation Service – Wisconsin, “Drainage Guide for Wisconsin” (1977).** A person may obtain this standard from the NRCS Wisconsin State Office, 8030 Excelsior Drive, Suite 200, Madison WI 53717-2906. Phone: 608-276-8732. Website: www.nrcs.usda.gov.
9. **University of Wisconsin-Extension Publications.** A person may obtain copies of the following standards from Cooperative Extension Publications, 45 North Charter Street, Madison WI 53715. Phone: 877-WIS-PUBS (947-7827). E-mail: reitzman@admin.uwex.edu
- “Forage Variety Update for Wisconsin, 2007 Trial Results”, UWEX Publication A1525 (2007).
 - Training Manual for the Private Pesticide Applicator, 4th Edition, Chapter 25 – “Calibration” (January 1998).
 - “Sampling Soils for Testing”, UWEX Publication A2100 (2007).
 - “Phosphorous for Bearing Cranberries in North America” (November, 2004).

10. **Oregon State University–Extension Publications, “Cranberry Tissue Testing for Producing Beds in North America”.** *Extension Publication Number EM-8610 (August, 1995).* A person may obtain copies of the standard from Extension Service Administration, 101 Ballard Hall, Corvallis, OR 97331-0360 Phone: 541-737-2713 or from the UW Horticulture Department Website: www.hort.wisc.edu/cran/mgt_articles/articles_nutr_mgt/a3642.pdf
11. **Wisconsin Department of Natural Resources Publications.** A person may obtain the following standards from the Wisconsin Department of Administration, Document Sales Unit, 202 S Thornton Ave, PO Box 7840, Madison WI 53707-7840. Phone: 608-266-3358. E-mail: doc-sales@doa.state.wi.us.
- BARNY 2.6, “The Wisconsin Barnyard Runoff Model” (October, 1996).
 - “Trails”, Wisconsin Trail Specification Handbook, 8605.1, Ch. 30 (October 2004).
 - “Wisconsin’s Forestry Best Management Practices for Water Quality”, Field Manual Publication No. FR-093 (Reprinted and revised, May, 2003).
12. **Wisconsin Department of Transportation, Facilities Development Manual, Chapter 10, “Erosion Control and Storm Water Quality” (January, 1997).** A person may obtain this standard from the Wisconsin Dept. of Transportation, 4802 Sheboygan Avenue, Madison, WI 53707 Phone: 608-266-0724 E-mail: library@dot.state.wi.us
13. **American Concrete Institute Publications.** A person may obtain copies of the following standards from the American Concrete Institute, PO Box 9094, Farmington Hills, MI 48333-9094. Phone: 248-848-3800. Website: www.aci-int.org.
- “Building Code Requirements for Structural Concrete,” ACI 318-02 (January, 2002).
 - “Design of Slabs on Grade,” ACI 360R-92 (Re-approved 1997).
14. **American Forest & Paper Association, American Wood Council, “National Design Specification for Wood Construction” with Supplement (January, 2005).** A person may obtain this standard from the American Forest & Paper Association, 1111 19th St NW, Suite 800, Washington, DC 20036. Phone: 800-890-7732. E-mail: AWCINFO@afandpa.org.
15. **American Society of Agricultural and Biological Engineers, Engineering Practices.** A person may obtain copies of the following standards from the American Society of Agricultural and Biological Engineers, 2950 Niles Road, St Joseph, MI 49085. Phone: 616-429-0300. Website: www.asae.org.
- Engineering Practice Number 288.5, “Agricultural Building Snow and Wind Loads” (January, 2001).
 - Engineering Practice Number 378.3, “Floor and Suspended Loads on Agricultural Structures Due to Use” (February, 2004).
 - Engineering Practice Number 393.3, “Manure Storages” (February, 2004).
 - Engineering Practice Number 470, “Manure Storage Safety” (January, 1992; reaffirmed February, 2005).
16. **American Institute of Steel Construction, Inc. “Manual of Steel Construction, Load and Resistance Factor Design,” 3rd edition (November 2001), with Shapes Database compact disc Version 3.0.** A person may obtain this standard from the American Institute of Steel Construction, One East Wacker Drive, Suite 3100, Chicago IL 60601-2001. Phone: 800-644-2400. Website: www.aisc.org.