

**WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION
AGRICULTURAL ENGINEERING PRACTITIONER; CERTIFICATION**

PRACTITIONER	OFFICE	Original	Revised	Revised
(SIGNATURE) _____	TITLE _____	DATE _____	_____	_____
CONCURRED BY _____	TITLE Supervisor	DATE _____	_____	_____
CERTIFIED BY _____	TITLE DATCP Agricultural Engineer	DATE _____	_____	_____
CONCURRED BY _____	TITLE _____	DATE _____	_____	_____

STD. CODE	PRACTICE	SUB-PRACTICE	CONTROLLING FACTORS	UNITS	JOB CLASS					CERTIFICATION RATING	
					I	II	III	IV	V	DESIGN	CONST
560	ACCESS ROAD		GRADE	%	10	ALL					
		CULVERT	DRAINAGE AREA	ACRES	10	20	40	160	ALL		
		LIVESTOCK AND EQUIPMENT STREAM CROSSING	VELOCITY	F.P.S.	4	6	8	10	ALL		
410	GRADE STABILIZATION STRUCTURE	EARTHEN	HAZARD	CLASS	a	a	a	a	a		
350	SEDIMENT BASIN (EXCEPT FOR ANIMAL WASTE)	EMBANKMENTS	DRAINAGE AREA	ACRES	20	40	160	320	640		
			EFFECTIVE HEIGHT (a)	FEET	10	15	20	25	35		
378	POND (EMBANKMENT)		STORAGE (b)	AC.FT.	5	15	30	50	85		
587	STRUCTURE FOR WATER CONTROL		CONDUIT (SINGLE)	INCH	12	18	24	36	48		
402	DAM, FLOODWATER RETARDING	BOX DROP TO CULVERT	NET DROP	FEET	2*	3*	4*	4	6		
			WEIR CAPACITY	C.F.S.	100*	200*	300*	400	500		
		TOEWALLS	NET DROP	FEET	2*	3*	4*	3	4		
			WEIR CAPACITY	C.F.S.	100*	200*	300*	300	300		
		CHUTES	NET DROP	FEET	4	6	8	10	12		
			CAPACITY	C.F.S.	50	100	200	250	300		
362	DIVERSION		DRAINAGE AREA	ACRES	10	20	40	160	ALL		
393	FILTER STRIP	SEDIMENT RELATED	WIDTH	FEET	10	ALL					
		BARNYARD	CONTRIBUTING AREA	SQ.FT.	15000	40000	ALL				
		MILKING CENTER	VOLUME	G.P.D.	300	600	ALL				
		OTHER WASTES	FILTER AREA	SQ.FT.	1000	2500	5000	10000	ALL		
412	GRASSED WATERWAY		DRAINAGE AREA	ACRES	50	200	600	1300	ALL		

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561	HEAVY USE AREA PROTECTION		AREA	SQ.FT.	15000	40000	ALL				
468	LINED WATERWAY OR OUTLET		DESIGN CAPACITY (c)	C.F.S.	10	30	100	150	ALL		
582	OPEN CHANNEL		DESIGN VELOCITY	F.P.S.	2	4	6	8	10		
584	STREAM CHANNEL STABILIZATION		DESIGN CAPACITY	C.F.S.	100	200	300	400	500		
516	PIPELINE, LIVESTOCK WATER		LENGTH	MILES	1/4	1	3	30	ALL		
378	POND (EXCAVATED)		VOLUME OF EXCAVATION	CU.YD.	20000	ALL					
521	POND SEALING OR LINING, WATER PONDS		AREA TREATED	ACRES	1/4	1/2	1	2	ALL		
558	ROOF RUNOFF MANAGEMENT		ROOF SIZE	SQ.FT.	1500	3000	4500	7000	ALL		
350	SEDIMENT BASIN, LIVESTOCK		WALL HEIGHT	FEET	2*	4*	5*	6*	8*		
			CONTRIBUTING AREA	SQ.FT.	15000	40000	ALL				
574	SPRING DEVELOPMENT		ESTIMATED FLOW	G.P.M.	ALL						
580	STREAMBANK AND SHORELINE PROTECTION	LAKESHORES	WATER HEIGHT	FEET					3		
		STREAMBANKS (d)	CAPACITY	C.F.S.	100	300	1000	2000	4000		
			VELOCITY	F.P.S.	2	4	6	8	10		
606	SUBSURFACE DRAIN		PIPE SIZE	INCH	4	6	8	12	ALL		
607	SURFACE DRAIN FIELD DITCH		DRAINAGE AREA	ACRES	10	20	50	100	ALL		
608	SURFACE DRAINAGE, MAIN OR LATERAL		DRAINAGE AREA	ACRES	100	320	640	2000	ALL		
600	TERRACE	GRADIENT	EMBANKMENT HEIGHT	FEET	2	3	ALL				
		UNDERGROUND OUTLET	EMBANKMENT HEIGHT	FEET	3	4	6	8	ALL		
614	TROUGH OR TANK		NUMBER	EACH	ALL						
620	UNDERGROUND OUTLET		PIPE SIZE	INCH	4	6	8	12	ALL		
638	WATER AND SEDIMENT CONTROL BASIN		EMBANKMENT HEIGHT	FEET	5	10	15				
312	WASTE MANAGEMENT SYSTEM		ANIMAL UNITS	EACH	75	150	300	600	1000		

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425	WASTE STORAGE POND (INCLUDES ABANDONMENT)		EFFECTIVE HEIGHT (a)	FEET	10	15	20	25	ALL		
		UNLINED	DESIGN CAPACITY	CU.FT.			100000	500000	1M		
		CONCRETE LINER	DESIGN CAPACITY	CU.FT.			100000	500000	1M		
		EARTH LINER	DESIGN CAPACITY	CU.FT.			100000	500000	1M		
		MEMBRANE LINER	DESIGN CAPACITY	CU.FT.			100000	500000	1M		
313	WASTE STORAGE STRUCTURE (e) (INCLUDES ABANDONMENT)		DESIGN CAPACITY	CU.FT.	5000	25000	75000	150000	250000		
			PREQUALIFIED WALL HT. (STANDARD)	EACH FEET	ALL		4*	6*	8*		
			WALL HT. (NON-STANDARD)	FEET			4	6	8		
358	WASTE TRANSFER		TYPE	EACH	PUMP	ALL					
			RECEPTION TANK (f)	EACH	STAND. DESIGN	ALL					
642	WELL	ABANDONMENT	ESTIMATED DEPTH	FEET	100	200	300	500	ALL		
657	WETLAND DEVELOPMENT OR RESTORATION	SCRAPE	SURFACE AREA	ACRE	1/2	1	ALL				
		TILE BREAK	DRAIN DIAMETER	INCH	6	8	12	ALL			
		DITCH PLUG	DEPTH	FEET	4	6	8	ALL			
			DRAINAGE AREA	ACRES	80	160	320	640	ALL		
EMBANKMENT	EFFECTIVE HEIGHT	FEET	4	6	8	10	ALL				
	DRAINAGE AREA	ACRES	20	40	80	120	160				
	STORAGE (b)	AC.FT.	5	15	30	50					
* -STANDARD DETAIL DRAWINGS											
NOTES:											
1. CERTIFICATION IS NOT GRANTED FOR PRACTICES NOT SHOWN.											
2. OTHER RESTRICTIONS MAY APPLY AS NOTED.											
FOOTNOTES:											
a. DIFFERENCE IN ELEVATION IN FEET BETWEEN THE EMERGENCY SPILLWAY CREST (TOP OF EMBANKMENT IF NO EMERGENCY SPILLWAY) AND THE LOWEST POINT IN THE CROSS SECTION TAKEN ALONG THE CENTERLINE OF THE EMBANKMENT.											
b. STORAGE—TOTAL STORAGE CAPACITY AT THE TOP OF THE DAM IN ACRE-FEET.											
c. LINED WATERWAY OR OUTLET (468)—THE JOB CLASS WILL BE BASED ON THE 10 YEAR 24 HOUR DURATION PEAK DISCHARGE.											
d. MAXIMUM DESIGN VELOCITY.											
e. PREQUALIFIED STRUCTURES CAN BE FOUND IN CHAPTER 17 OF THE ENGINEERING FIELD HANDBOOK. THE MWPS DRAWING No. 74303 AND THE MNTC DRAWING Nos. 5.E-33,001 and 5.E-33,002 ARE CLASSIFIED UNDER WALL HEIGHT											
f. THE MWPS DRAWING No. 74303 AND THE MNTC DRAWING Nos. 5.E-33,001 and 5.E-33,002 ARE CLASSIFIED UNDER CLASS II.											