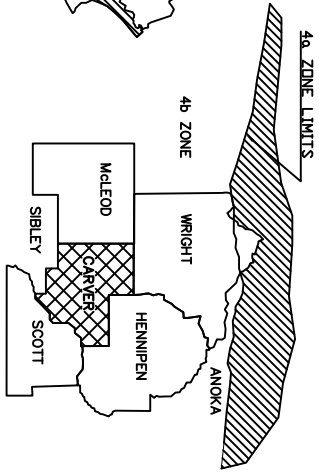
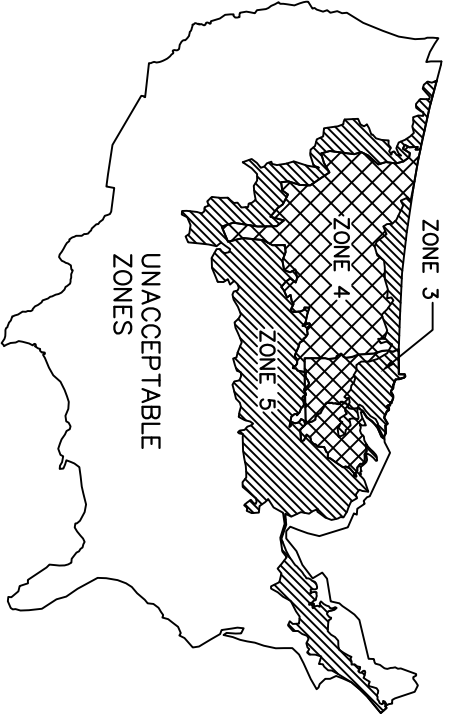


KEY	SPRING				FALL			
	PERENNIALS	CONIFEROUS	DECIDUOUS	SEEDLINGS	DECIDUOUS	CONIFEROUS	PERENNIALS	CONIFEROUS
1	MAY 1 TO JUNE 15	APRIL 21 TO JUNE 1	APRIL 21 TO JUNE 1	APRIL 21 TO JUNE 1	OCT. 1 TO NOV. 1	AUG. 25 TO SEPT. 15		
2	MAY 1 TO JUNE 15	APRIL 7 TO MAY 17	APRIL 7 TO MAY 17	APRIL 7 TO MAY 17	OCT. 10 TO NOV. 15	AUG. 25 TO SEPT. 15		

NOTES:
1.**BARE ROOT PERENNIALS MUST BE INSTALLED IN THE SPRING BY JUNE 1ST. IF PLANTING IN FALL, FOLLOW FALL DECIDUOUS PLANTING DATES.
2.**ACTUAL DATES MAY CHANGE DEPENDING UPON SEASONAL CONDITIONS, AS RECOMMENDED BY THE LOCAL EXTENSION SERVICE. SEE RECOMMENDED PROVISIONS FOR SPECIFIC PROJECT REQUIREMENTS. THE FOLLOWING BARE ROOT PLANTS ARE NOT AVAILABLE IN MINNESOTA: HAWTHORN, RISSAN, OLIVE, DOGWOOD, POPULAR, HACKBERRY, LINDEN, IRONWOOD, HONET, LOCUST, BIRCH, MOUNTAIN ASH, MAPLE, WILLOW, CRABAPPLE, PLUM/CHERRY, OAKS, AND SUMAC.

PLANTING DETAIL FOR MASS PLANTING BEDS

OPTIMUM PLANTING DATE ZONES IN MINNESOTA



PLANT HARDINESS IN CHANHASSEN IS ZONE 4b
AVERAGE ANNUAL EXTREME MINIMUM TEMPERATURE RANGE FOR ZONE 4b IS -25 TO -20 DEGREES (F)

ALL PLANT STOCK SHALL BE DEEMED ACCEPTABLE FOR HARDINESS:
1.**IF IT IS HARDY TO THE MINNESOTA ZONE 4b WHERE THE PROJECT SITE IS LOCATED AND:
OR
B.**PLANT STOCK, IF GROWN OUTSIDE THE ACCEPTABLE CONTINUOUSLY GROWN FOR AT LEAST THE LAST TWO YEARS WITHIN THE ACCEPTABLE LIMITS ZONES 3,4 OR 5 SHOWN ON THE ACCEPTABLE PLANT STOCK GROWING RANGE ABOVE.

ACCEPTABLE PLANT STOCK GROWING RANGE LIMITS SOURCE: USDA, PLANT HARDINESS ZONE MAP



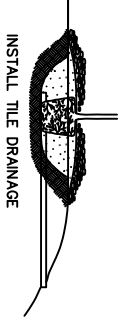
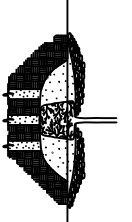
REVISED: 3-14

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ENGINEERING DEPARTMENT

PLATE: 5310

PLANTING DETAILS FOR STEEP SLOPES/MASS BED PLANTINGS

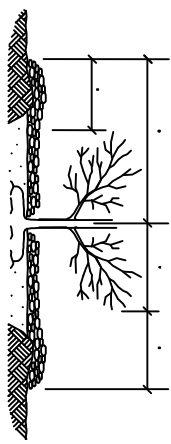


1.**EXCAVATE HOLE OR BED TO ALLOW PLACING THE TOP OF THE ROOT MASS 1'-3" HIGHER THAN FINISHED GRADE.
2.**INSTALL 4" MINIMUM DIAMETER DRAIN TILE DAYLIGHTING AT A LOWER GRADE.
3.**ROUND-BOTTOMED PERENNIALS ACCORDING TO PLANTING DETAILS (SHEET A).



1.**EXCAVATE HOLE OR BED 1/4 THE DEPTH OF THE ROOT MASS.
2.**SET ROOT MASS IN HOLE.
3.**CONSTRUCT BERM WITH SANDY LOAM TOPSOIL. EXTEND THE BERM HEIGHT TO A WIDTH OF 3 TIMES THE BERM HEIGHT.
4.**COMPLETE PLANTING ACCORDING TO PLANTING DETAILS (SHEET A).

ALTERNATIVE PLANTING DETAILS FOR POORLY DRAINED SOIL



SUBSIDING OR DETERIORATING MULCH SHALL BE ACCEPTABLE THROUGHOUT THE CONTRACT PERIOD PROVIDED THE MULCH DEPTH IS MAINTAINED AT A MINIMUM 3" DEPTH AT ALL TIMES AND UPON FINAL ACCEPTANCE. REPLACEMENT MULCH SHALL BE REQUIRED WHEN THE CONTRACTOR'S OPERATIONS HAVE CONTAMINATED THE MULCH WITH SOIL.

NOTE:
1.**REMOVE MULCH PLACED TO A DEPTH GREATER THAN THAT SPECIFIED WHEN DIRECTED BY THE ENGINEER.
2.**PULL MULCH BACK NO LESS THAN 3" AND NO MORE THAN 6" FROM THE TRUNK

TYPE OF PLANT	W CENTER OF PLANT TO MULCH LINE	X EDGE OF BRANCHING TO MULCH LINE	Y DEPTH OF MULCH	Z DEPTH OF MULCH	
					CONFIFEROUS TREES
CONFIFEROUS TREES	VARIABLES	3 MIN.	4"-6"	4"-6"	
DECIDUOUS TREES	3 MIN.	N/A	4"-6"	4"-6"	
CONFIFEROUS SHRUBS	VARIABLES	3 MIN.	3"-4"	4"-6"	
DECIDUOUS SHRUBS	3 MIN.	N/A	4"-6"	4"-6"	
VINES	2 MIN.	N/A	4"-6"	4"-6"	
PERENNIALS	VARIABLES	2 MIN.	2"-4"	2"-4"	
MACHINE-TRANSPLANTED TREES	12" BEYOND EDGE OF HOLE	4"-6"	4"-6"	4"-6"	

MULCH PLACEMENT DETAIL