DATE:7/28/2017 TIME:9:29:56 FILENAME:K:\03265-010\Cad\Plan\ca

DATE

PLAN SYMBOLS STATE LINE COUNTY LINE TOWNSHIP OR RANGE LINE SECTION LINE QUARTER LINE SIXTEENTH LINE RIGHT-OF-WAY LINE SLOPE EASEMENT PRESENT RIGHT-OF-WAY CONTROL OF ACCESS LINE PROPERTY LINES (EXCEPT LAND LINES) _____ VACATED PLATTED PROPERTY CORPORATE OR CITY LIMITS TRUNK HIGHWAY CENTER LINE RETAINING WALL ____ RATI ROAD RAILROAD RIGHT-OF-WAY RIVER OR CREEK SIZE ⇒ DRY RUN DRAINAGE DITCH DRAIN TILE CULVERT DROP INLET 0====: GUARD RAIL BARBED WIRE FENCE WOVEN WIRE FENCE CHAIN LINK FENCE RAILROAD SNOW FENCE STONE WALL OR FENCE HEDGE RAILROAD CROSSING SIGN 19882888888 RAILROAD CROSSING BELL MEANDER CORNER SPRINGS MARSH TIMBER ORCHARD BRUSH NURSERY CATCH BASIN FIRE HYDRAN CATTLE GUARD OVERPASS (HIGHWAY OVER) UNDERPASS (HIGHWAY UNDER) BRIDGE STORY FRAME) C - CONCRETE T - TILE ST- STUCCO 1-S-F 🖺 IRON ROD OR PIPE WOODEN HUB GRAVEL PIT SAND PIT BORROW PIT ROCK QUARRY UTILITY SYMBOLS POWER POLE LINE TELEPHONE OR TELEGRAPH POLE LINE JOINT TELEPHONE AND POWER ON POWER POLE ON TELEPHONE POLES STREET LIGHT PEDESTAL (TELEPHONE CABLE TERMINAL) WATER MAIN CONDUIT TELEPHONE CABLE IN CONDUIT ELECTRIC CABLE IN CONDUIT ≠ T ==== — T-BUR — — P-BUR — TELEPHONE MANHOLE ELECTRIC MANHOLE BURIED TELEPHONE CABLE BURIED ELECTRIC CABLE AERIAL TELEPHONE CABLE --- T-AE ----SEWER (SANITARY OR STORM SEWER MANHOLE SCALES PLAN ____50′ _10**.**000′_ INDEX MAP ___500° GENERAL LAYOUT

PLAN REVISIONS

SHEET NO.

APPROVER

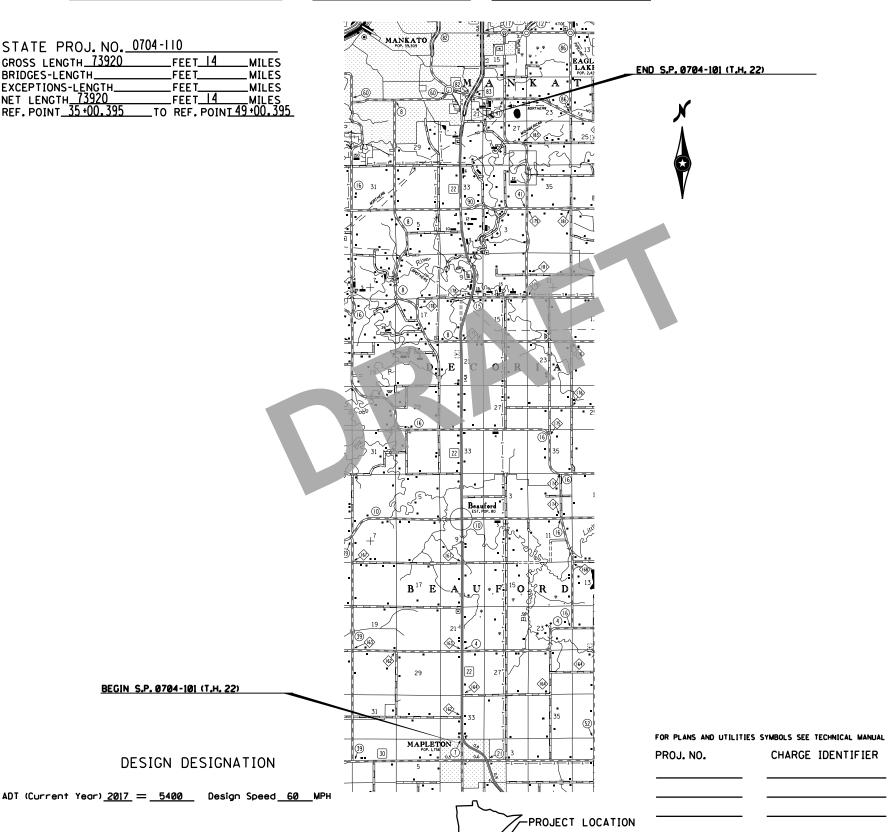
MINNESOTA DEPARTMENT OF TRANSPORTATION CONSTRUCTION PLAN FOR <u>LANDSCAPING</u>

FROM NORTH EDGE OF MAPLETON TO JUNCTION OF 206TH STREET LOCATED ON TH 22

STATE PROJ. NO. 0704-110 GROSS LENGTH 73920 _FEET<u>||4</u> MILES BRIDGES-LENGTH_ _FEET_ MILES EXCEPTIONS-LENGTH____ NET_LENGTH__73920 REF.POINT_35+00.395 _FEET_ MILES _FEET<u>|4</u> _____FEET<u>|4</u>____MILES _TO_REF.POIN<u>T49+00.395</u>

BEGIN S.P. 0704-101 (T.H. 22)

DESIGN DESIGNATION



COUNTY : BLUE EARTH DISTRICT: 7

STATE FUNDS FED. PROJ. NO.

GOVERNING SPECIFICATIONS

THE 2016 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

INDEX

SHEET NO. DESCRIPTION TITLE SHEET ESTIMATED QUANTITIES REMOVAL PLAN 3-38 39-116 LANDSCAPE PLAN 118-119 LAYOUT PLAN MISCELLANEOUS DETAILS 120-126 127-133 STANDARD PLANS

THIS PLAN CONTAINS 133 SHEETS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.				
PRINT NAME: <u>CANDACE C. AMBERG</u> LICENSE <u>40646</u>				
DATE: SIGNATURE:	_			
PROJECT DESIGNERS				
RECOMMENDED FOR APPROVAL	20			
RECOMMENDED FOR APPROVAL PRINCIPAL LANDSCAPE ARCHITECT	20			
RECOMMENDED FOR APPROVALSTATE PRE-LETTING ENGINEER	20			
OFFICE OF LAND WANAGEMENT APPROVAL	20			
APPROVED 20 STATE DESIGN ENGINEER				

I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: LICENSE .

SIGNATURE:

STATE PROJ. NO. 0704-110 (TH 22 = 39)

SHEET NO. 1 OF 133 SHEETS

ESTIMATE	D QUANTITIES			
Item No.	Description	Notes	Unit	Estimated Total Ouantity
BASE BID		,		
2021.501	MOBILIZATION	+	LUMP	1
2101.501	CLEARING	+	ACRE	
2101.502	CLEARING		TREE	
2101.506	GRUBBING		ACRE	
2101.507	GRUBBING		TREE	
2104.503	REMOVE CONCRETE PAVEMENT REMOVE BITUMINOUS PAVEMENT	+	SO FT	
2104,503	VEROAS DIIORIMONO LYASERSAI	+	30 71	
2105,604	GEOTEXTILE FABRIC SPECIAL	(I)	SO YD	
2105.607	SPECIAL TOPSOIL BORROW		CU YD	40
2112.604	SUBGRADE PREPARATION	-	SO YD	
2123,610	STREET SWEEPER WITH PICKUP BROOM	+	HOUR	16
2301.504	CONCRETE PAVEMENT 4"		SO YD	
2301.504	CONCRETE PAVEMENT 6"		SO YD	
2357.502	TACK COAT	+	GAL	
2331.302	INCH PART	1	OWF	
2360.501	TYPE SP 12.5 WEARING COURSE MIXTURE (2,8)		TON	
2360.502	TYPE SP 12.5 NON WEARING COURSE MIXTURE (2,8)		TON	
	ADAM AD DAGGET.			
2451.609	GRANULAR BACKFILL	+	TON	
2502.541	4" PERF TP PIPE ORAIN	+	LIN FT	
2511.602	KASOTA STONE BOULDERS		EACH	
25.81 602	PRECAST CONCRETE CURB DESIGN SPECIAL	+	EACH	
2331,002	LUECASI CONCUETE COMO DESIGN SECCIAL	(2)	EMUN	
2540.602	FLAGPOLE		EACH	1
2540.602	STONE MONUMENT		EACH	1
2540.603	LANDSCAPE EDGER	(3)	LIN FT	
2545.501	LIGHTING SYSTEM		LUMP	1
		_		
2563.601	TRAFFIC CONTROL		LUMP	l
2564.537	HANDICAPPED PARKING SIGN	+	EACH	1
2571,501	CONIFEROUS TREE 6' HT B&B	+	TREE	
2571.501	CONFEROUS TREE 7" HT BAB		TREE	
2571.501	CONIFEROUS TREE 8" HT B&B		TREE	
2571.502		+	TREE	
2571,502		+	TREE	
2571.502 2571.502			TREE	
2571,502			TREE	
2571.502	CONIFEROUS SHRUB NO. 7 CONT		SHRUB	
2571.505	DECIDUOUS SHRUB NO. 5 CONT	+	SHRUB	
2571.507 2571.507	PERENNIAL NO. 1 CONT LIVE HERBACEOUS PLUGS	+	PLANT EACH	
-2.100				
2574,525	BOLLEYARD TOPSOIL BORROW	(4)	CU YD	
25.75.500.500	CEEN TORE I CRECIAL MITH HONDAMA C.	+	Bours	
2575,502/608 2575,501	SEED TYPE 1 SPECIAL WITH HYDROMULCH SEEDING- HERBICIDE KILL OFF OF EXISTING VEGETATION & TILLING		POUND ACRE	
2575,502/608	SEED TYPE 2 SPECIAL WITH HYDROMULCH		POUND	
2575.501 2575.502/608	SEEDING- HERBICIDE KILL OFF OF EXISTING VEGETATION & TILLING SEED TYPE 3 TURF	+	POUND	
2575.513	MULCH MATERIAL TYPE 6		CU YD	
2575,609	LANDSCAPE ROCK	+-	TON	
2582.502	4" SOLID LINE PAINT		LIN FT	

1. LANDSCAPING FABRIC
2. WHEEL STOP IN PARKING LOT
3. METAL LANDSCAPE EDGING
4. TYPE F

KRAFT PAPER



DRAWN BY: BAK

DESIGNED BY: CCA

CHECKED BY: CCA

I HEREBY CERTIFY THAT THIS SHEET WAS PREPARED BY SIGNATURE:

ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A SIGNATURE:

DULLY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT PRINTED NAME: CANDACE C. AMBERG UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 7/28/2017 LIC. NO. 4064

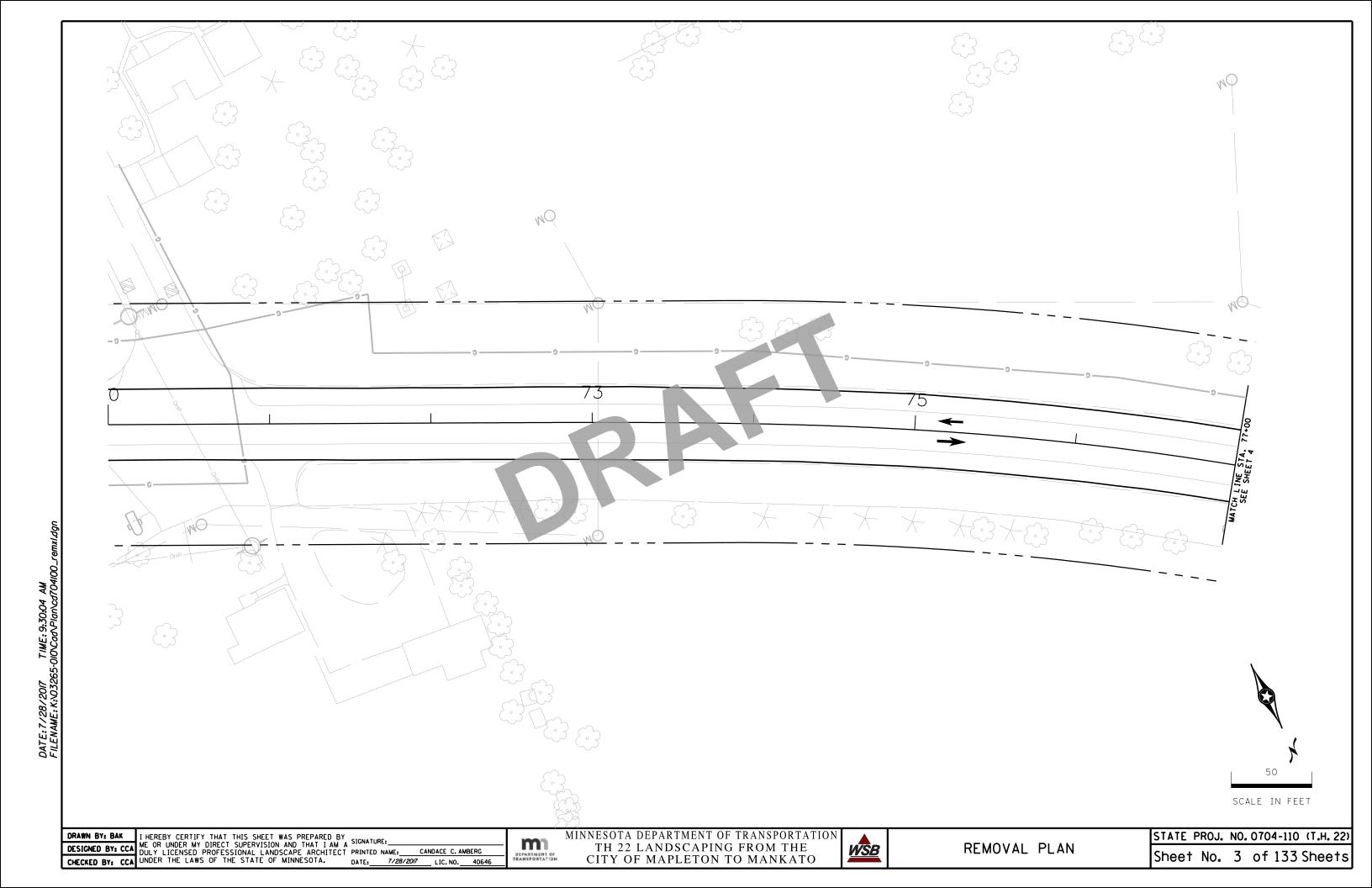
DATE: 7/28/2017 LIC. NO. 40646

m DEPARTMENT OF MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



ESTIMATED QUANTITIES

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 2 of 133 Sheets



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DEPARTMENT OF TRANSPORTATION

MINNESOTA DEPARTMENT OF TRANSPORTATION
TH 22 LANDSCAPING FROM THE
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REMOVAL PLAN

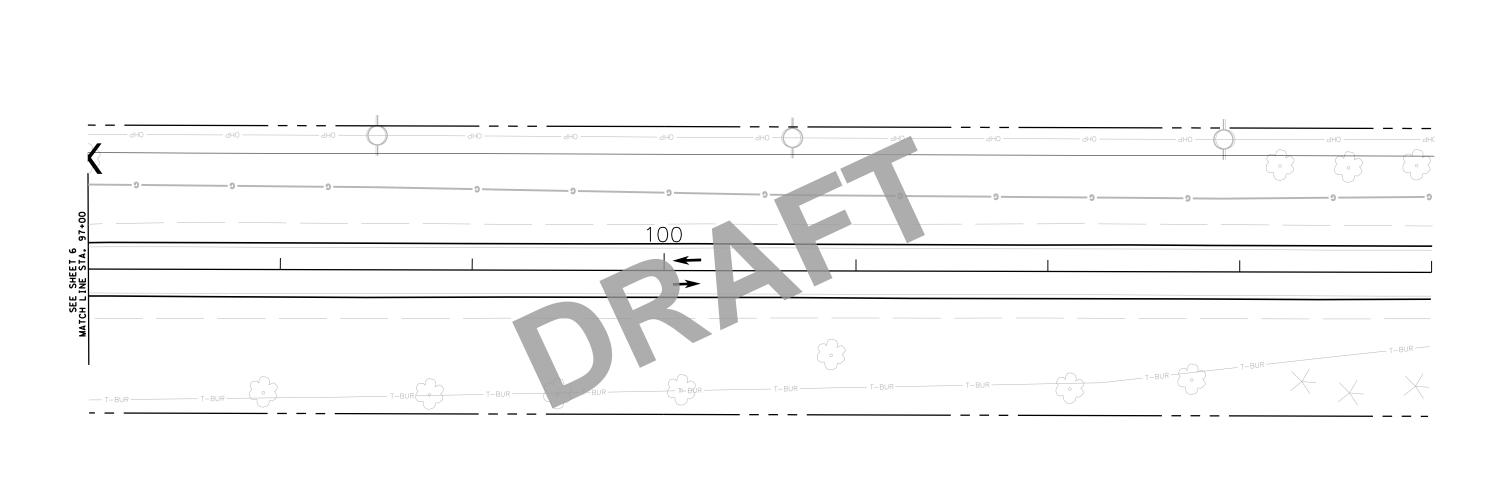
STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 4 of 133 Sheets

DEPARTMENT OF TRANSPORTATION

MINNESOTA DEPARTMENT OF TRANSPORTATION
TH 22 LANDSCAPING FROM THE
CITY OF MAPLETON TO MANKATO



REMOVAL PLAN Sheet No. 6 of 133 Sheets



SCALE IN FEET

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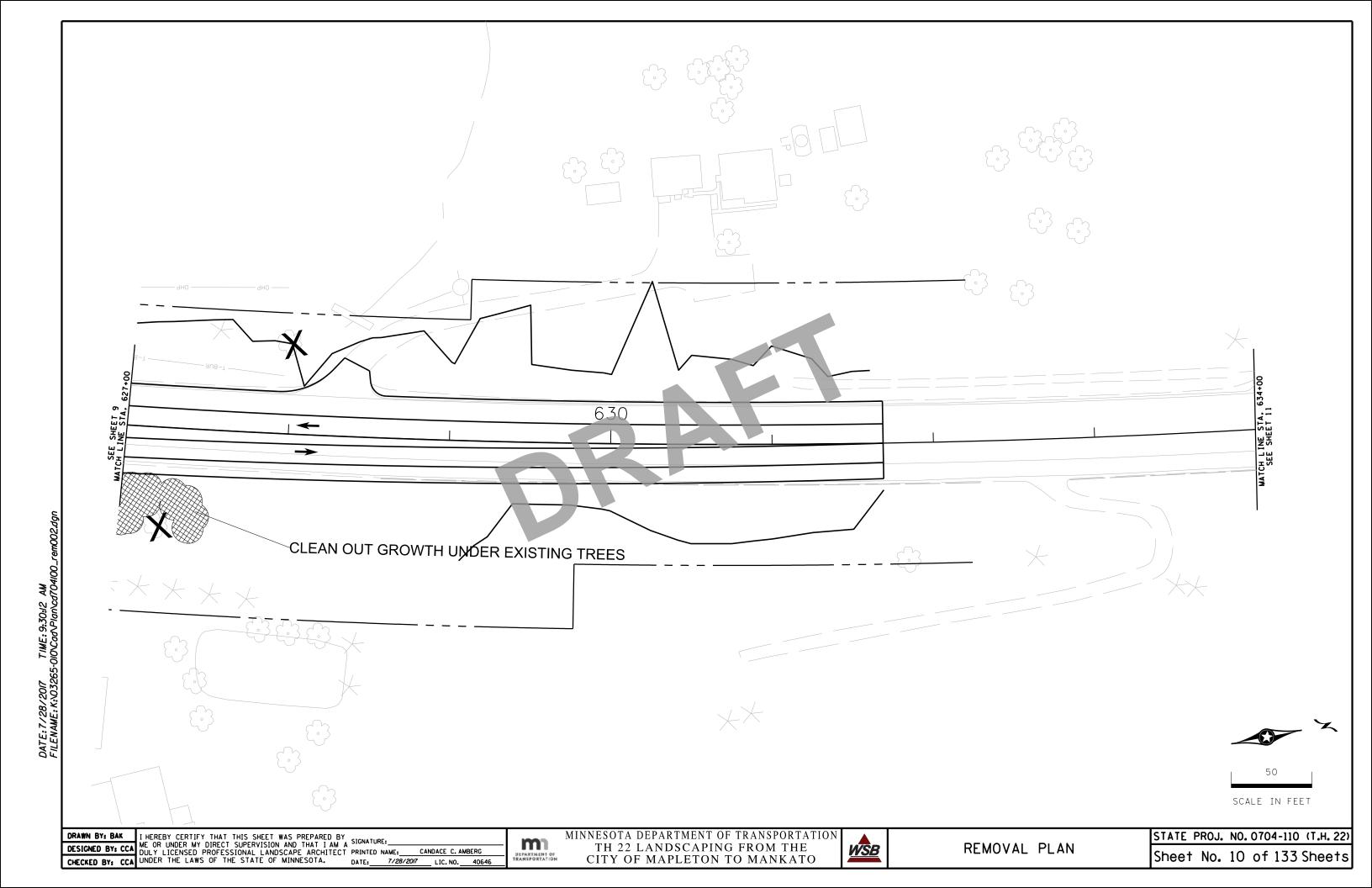
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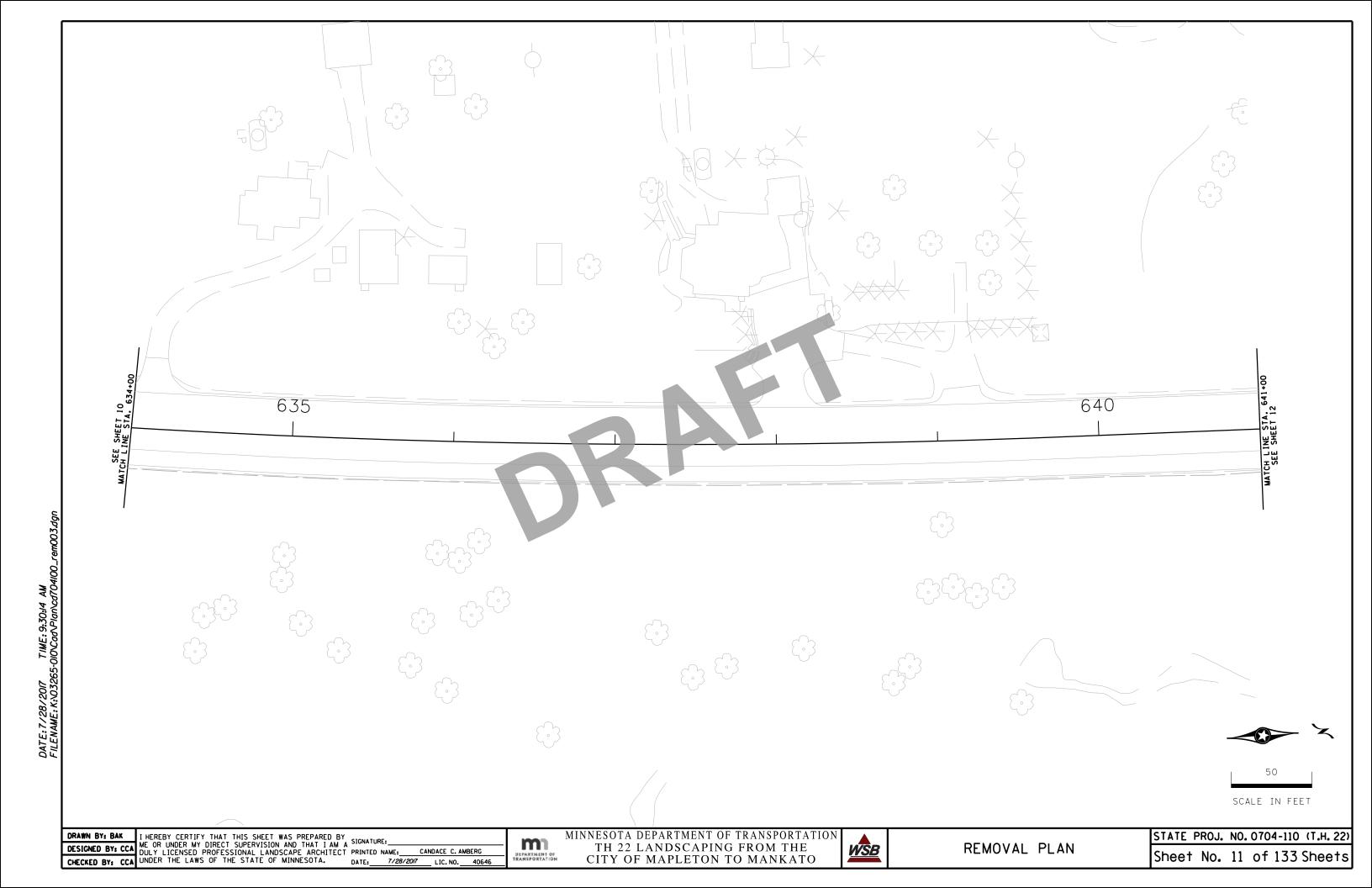
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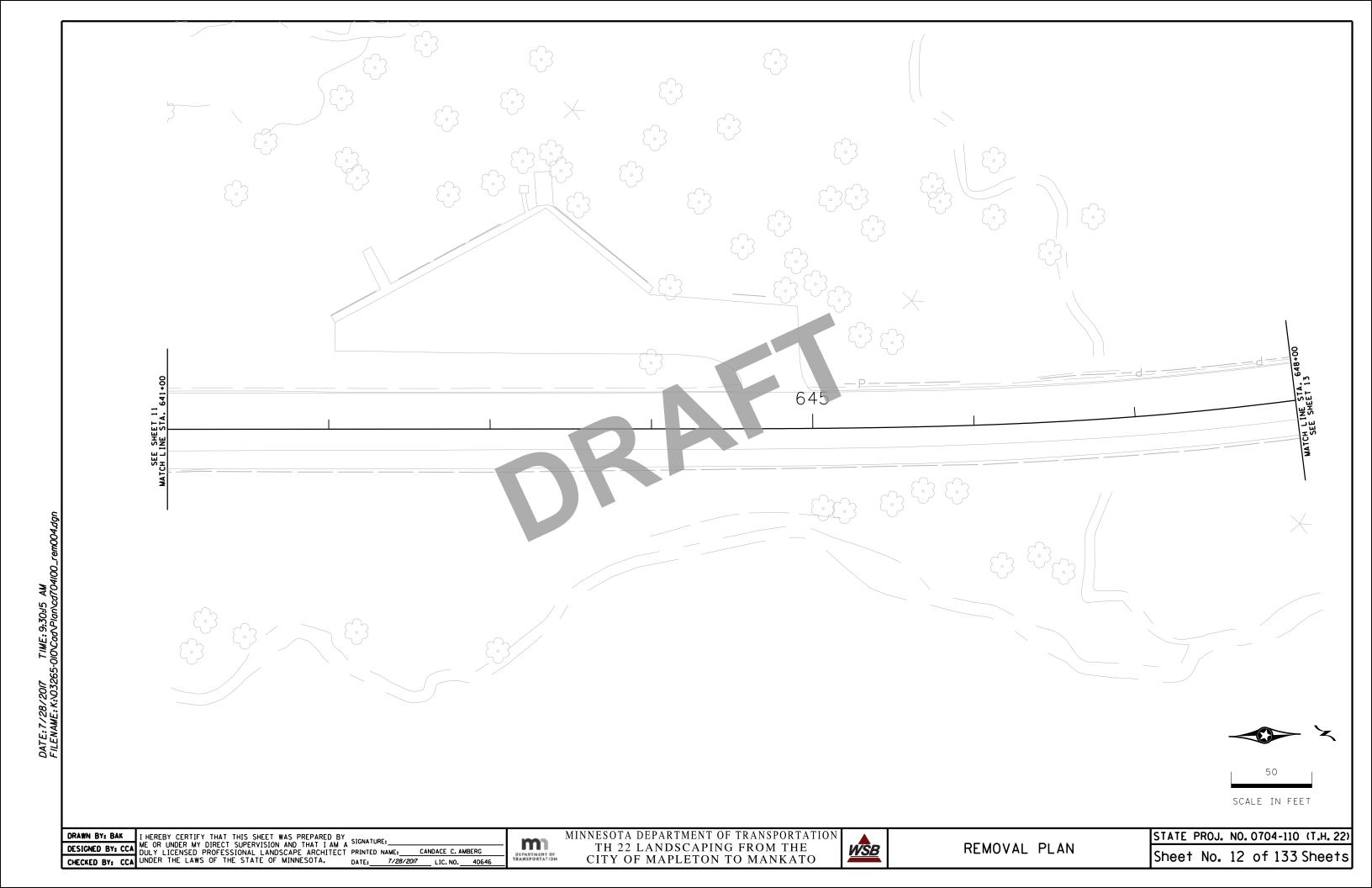
MINNESOTA DEPARTMENT OF TRANSPORTATION
TH 22 LANDSCAPING FROM THE
CITY OF MAPLETON TO MANKATO

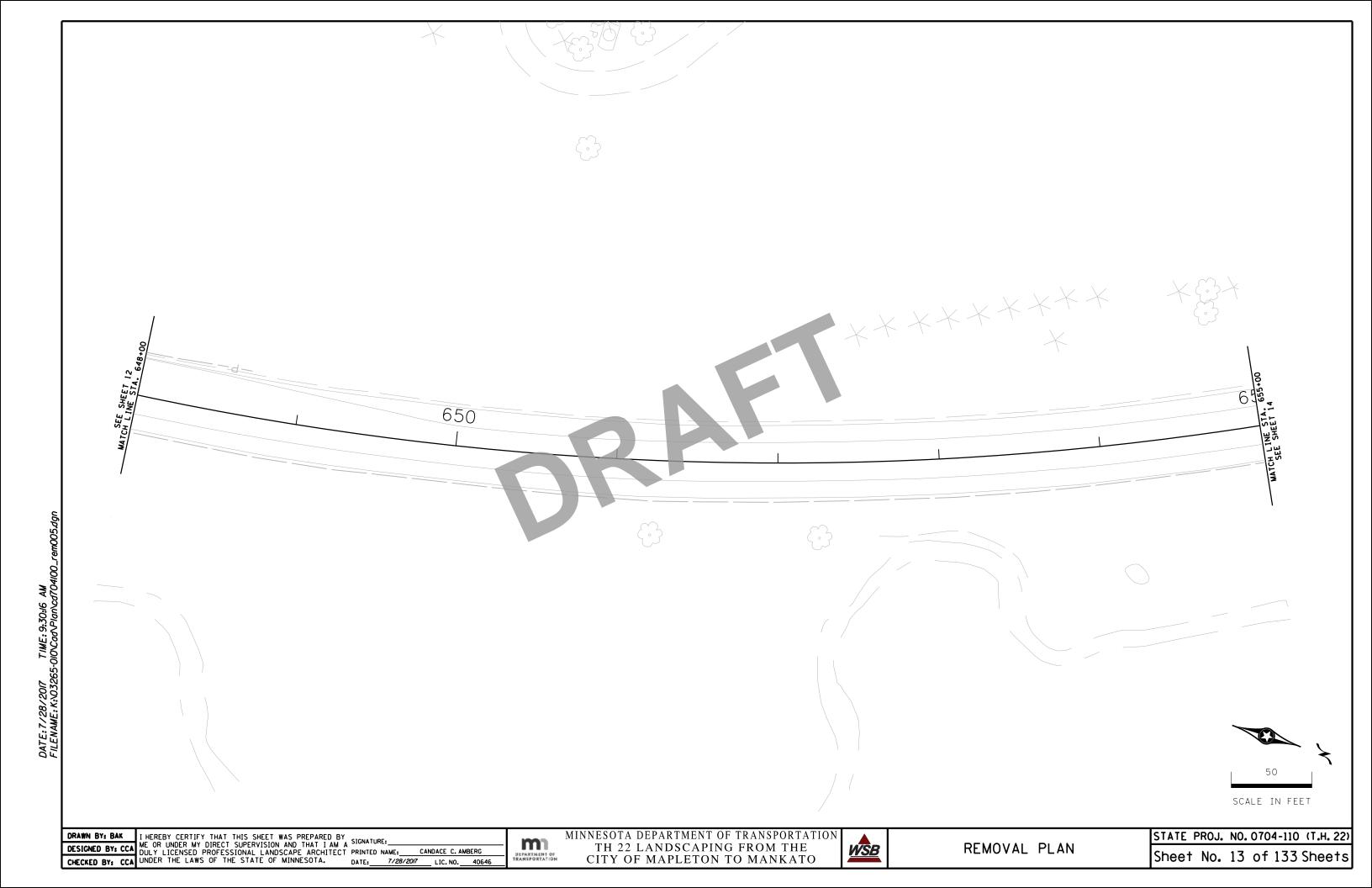


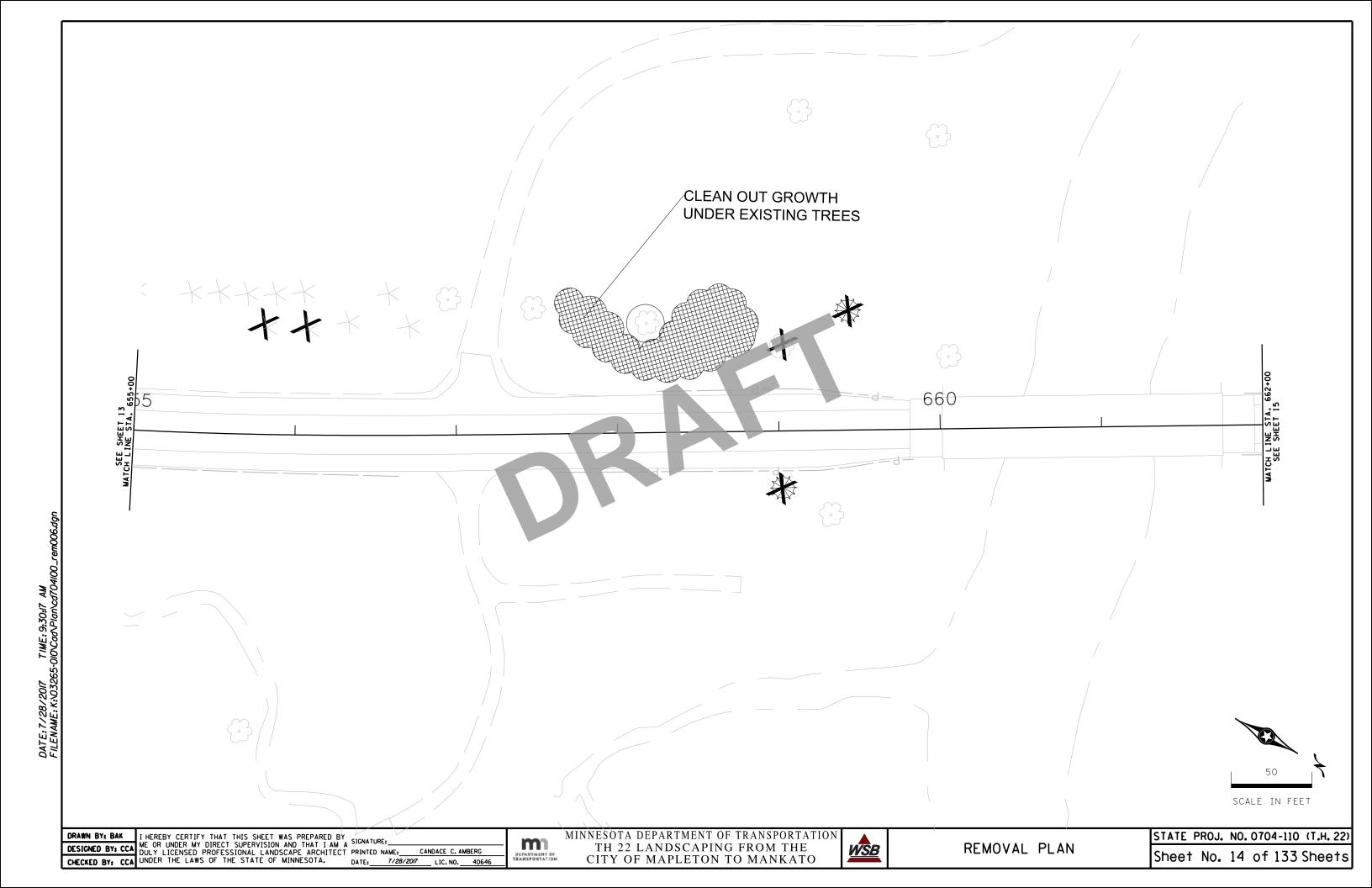
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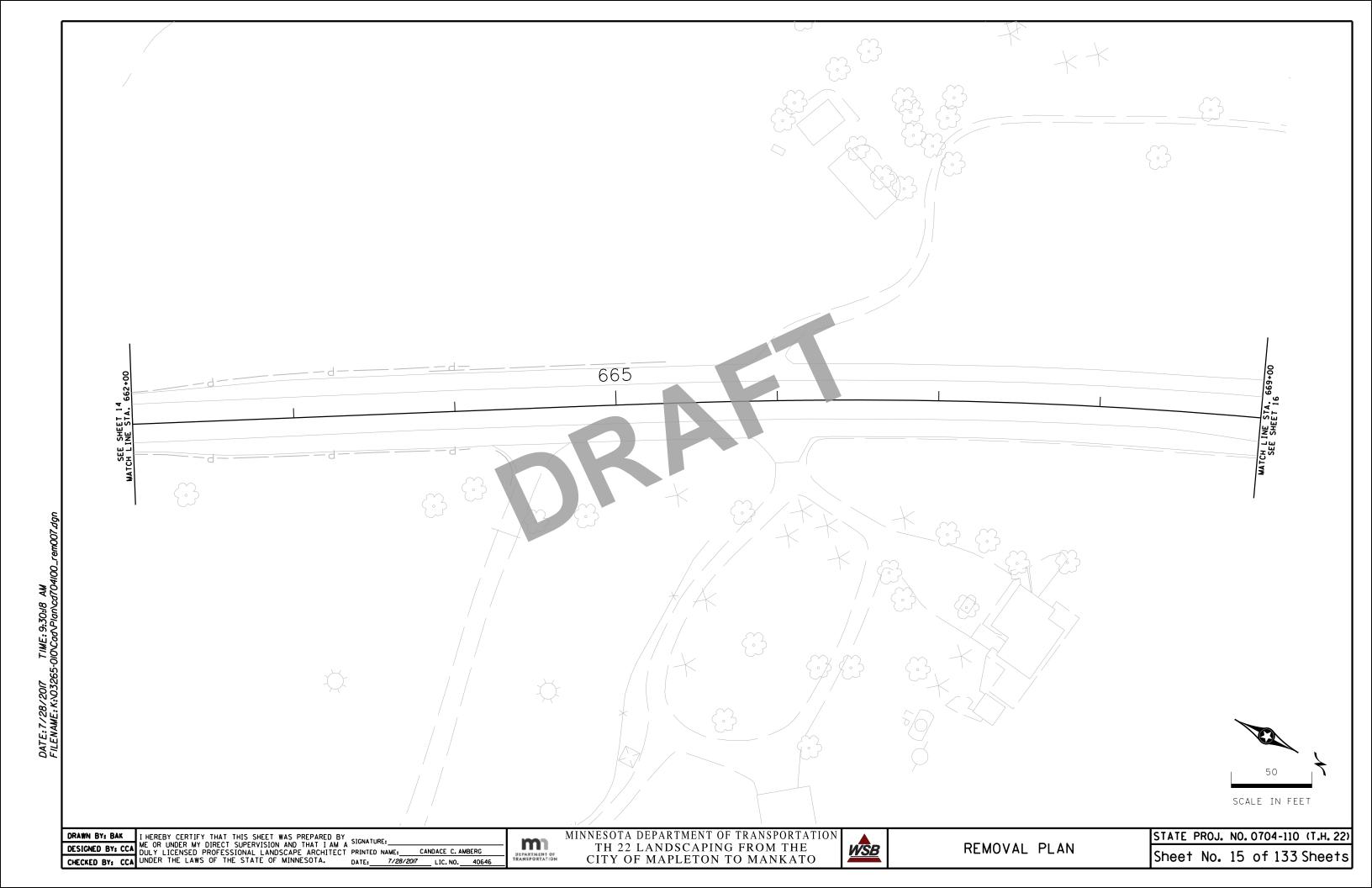


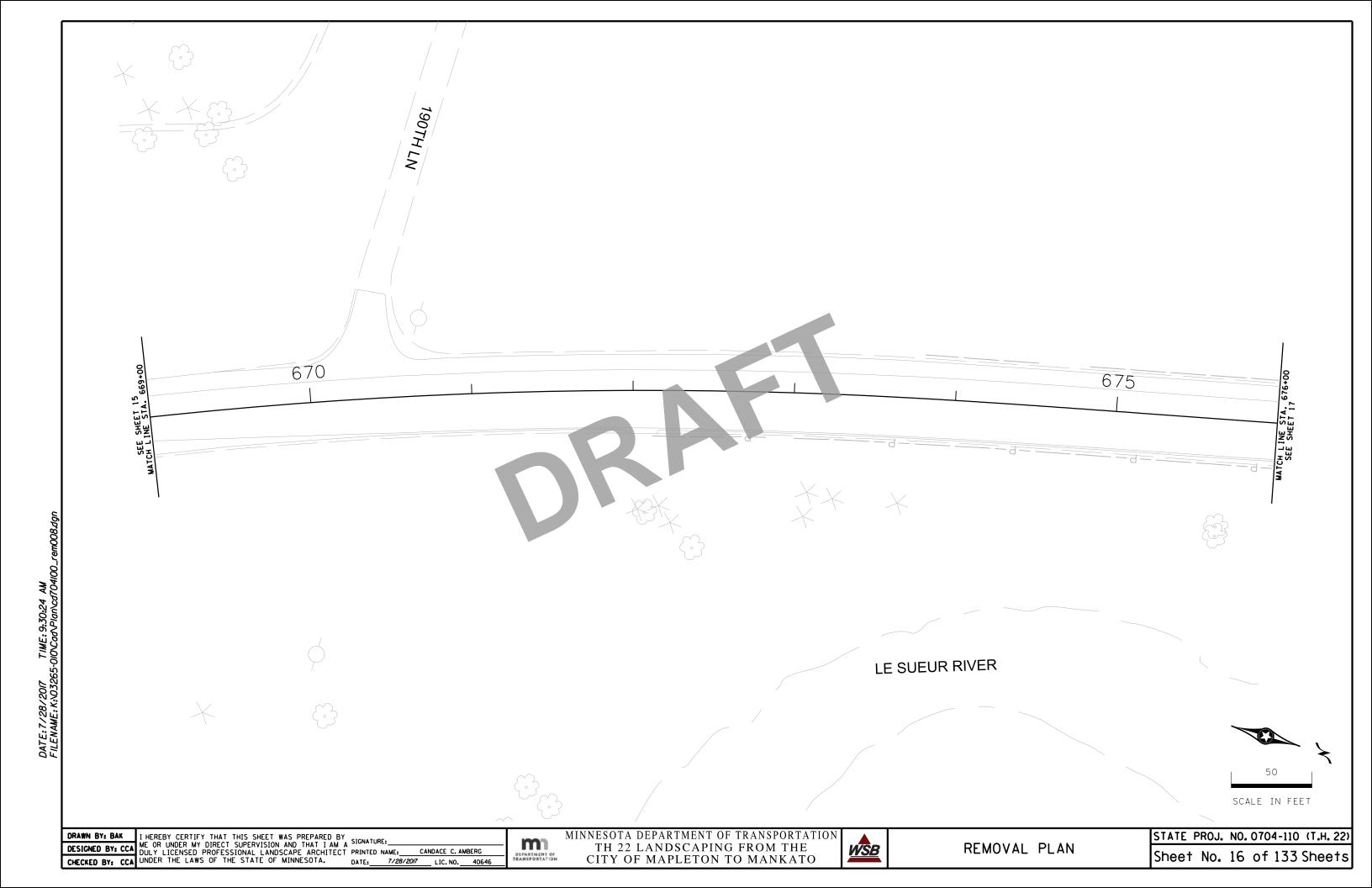


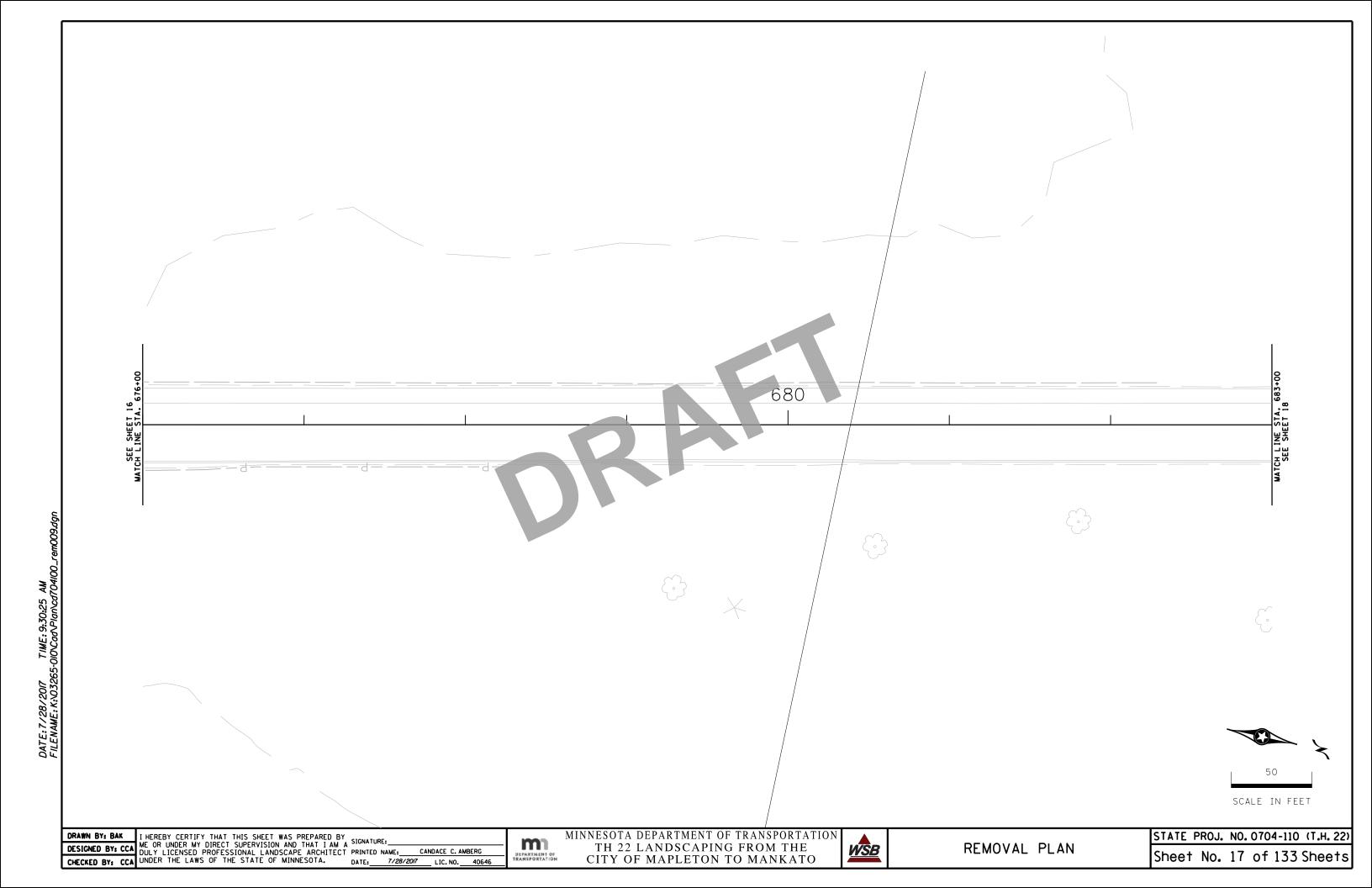


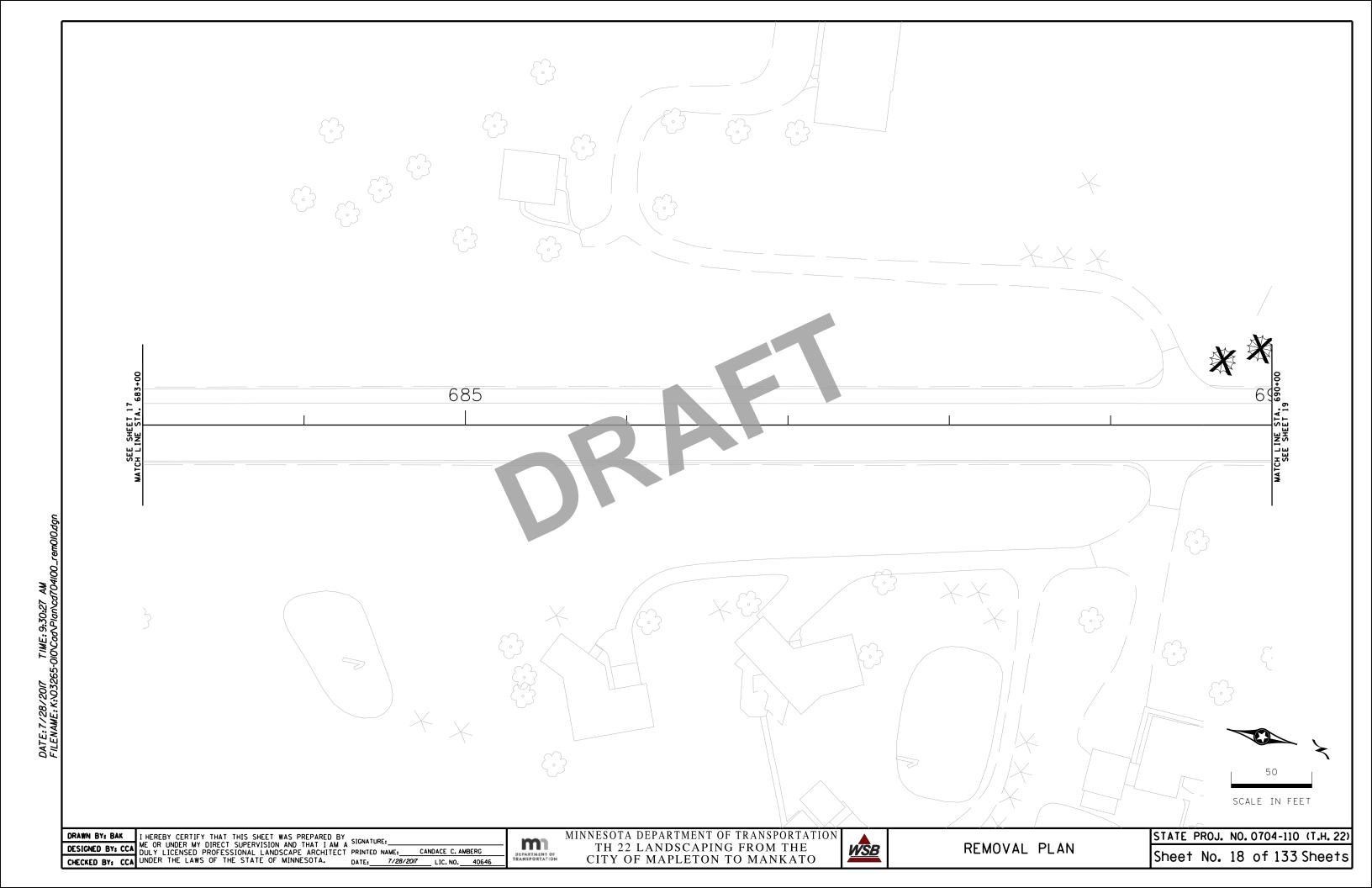


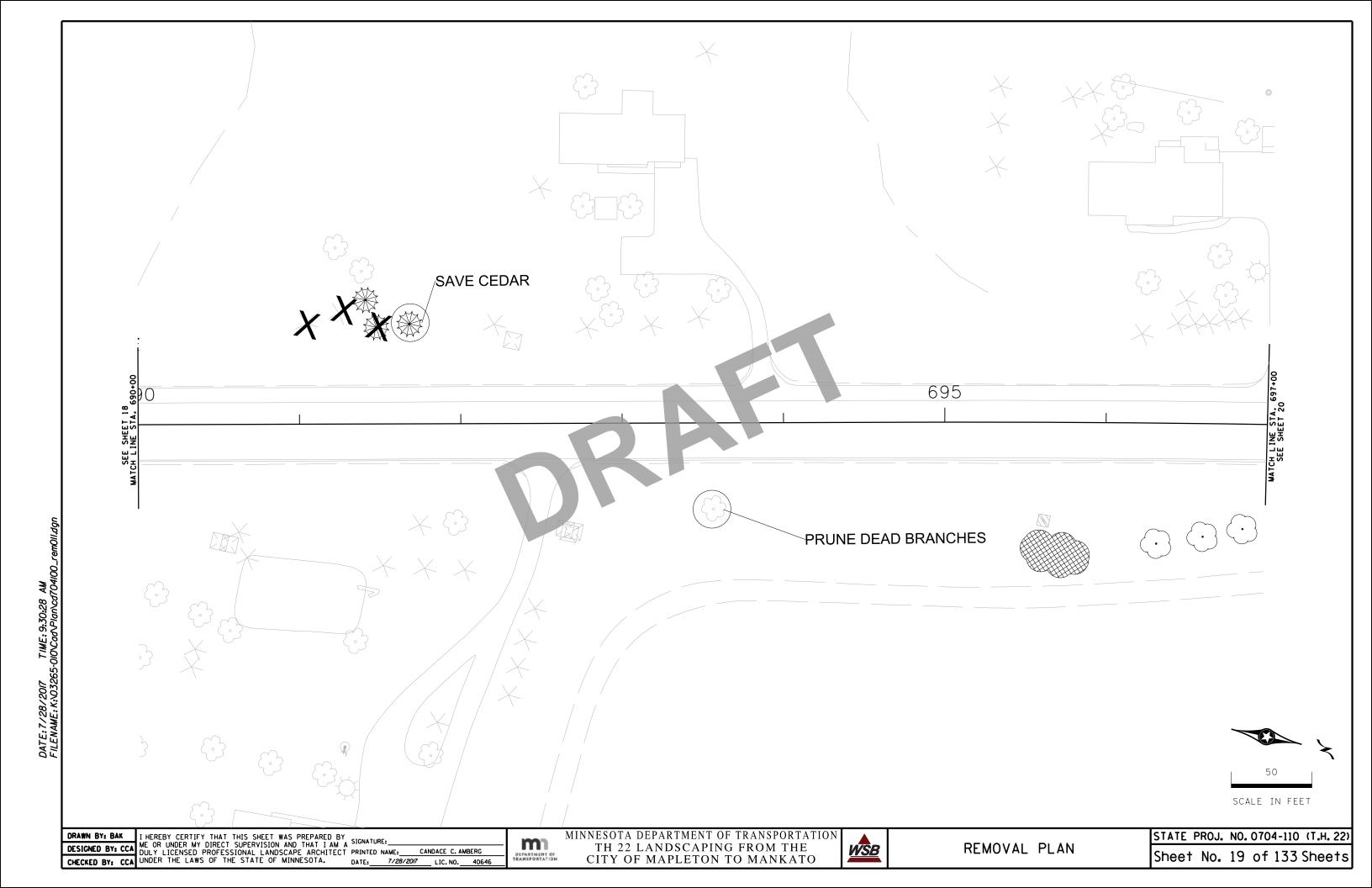


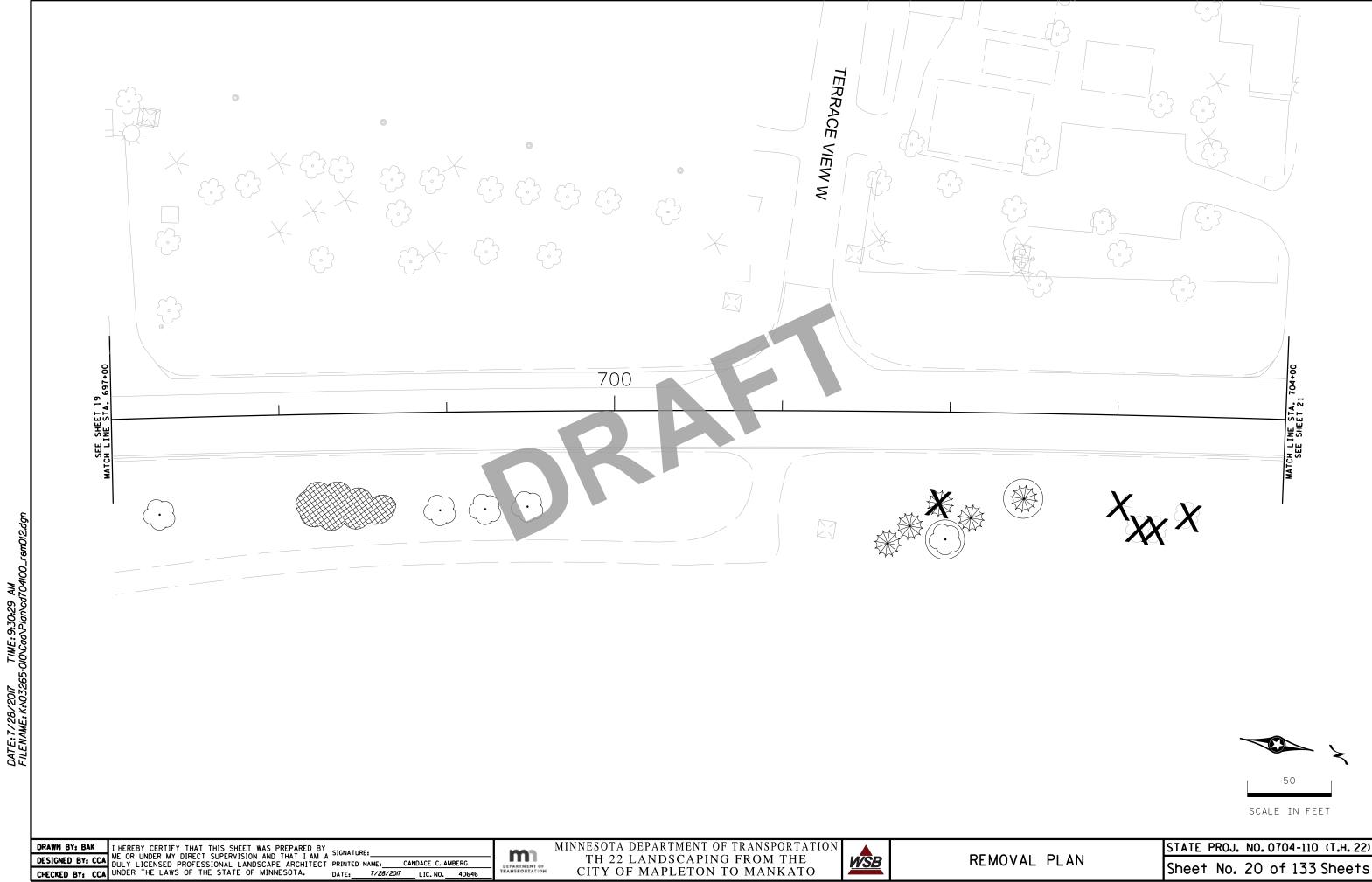








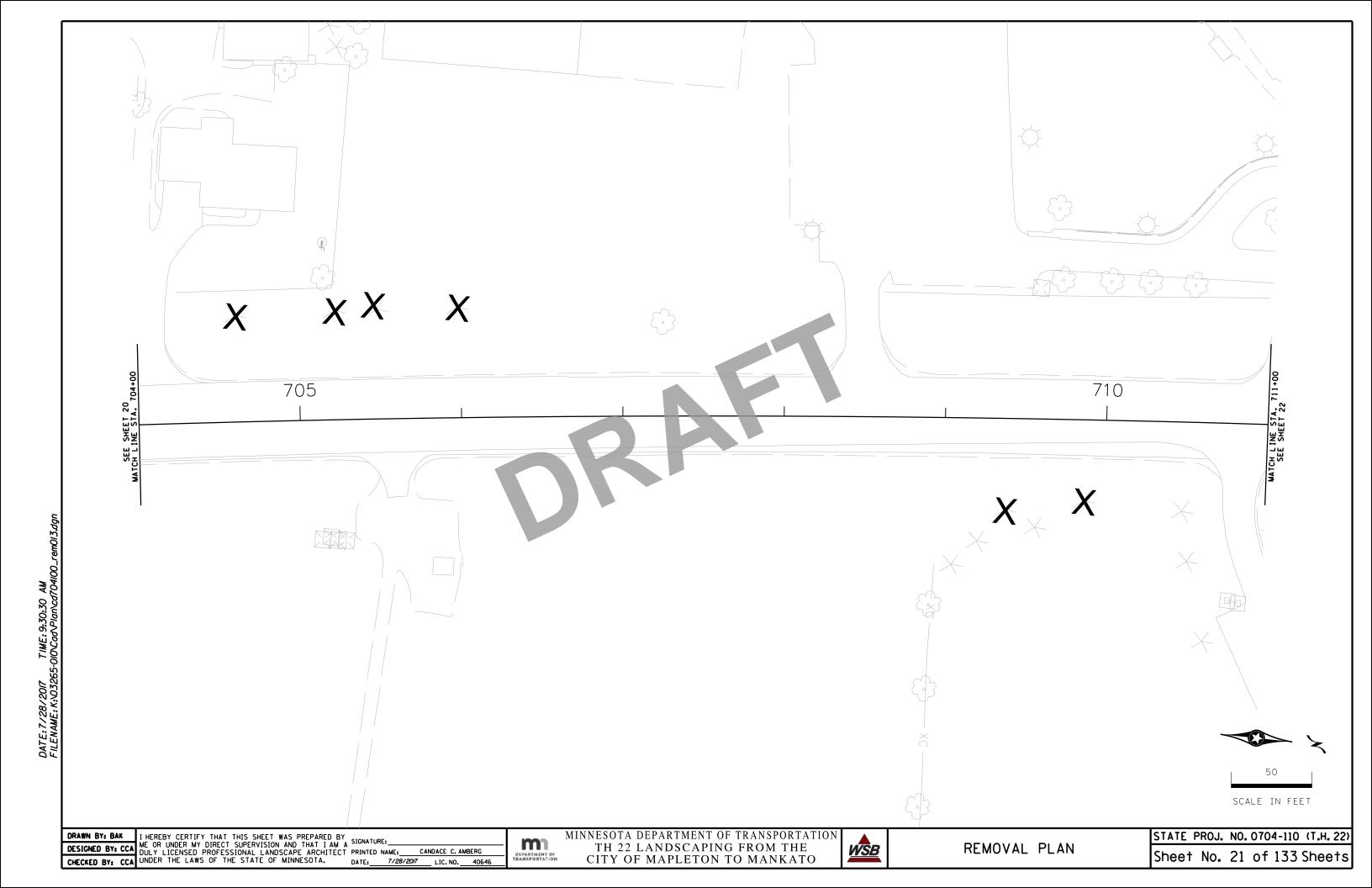


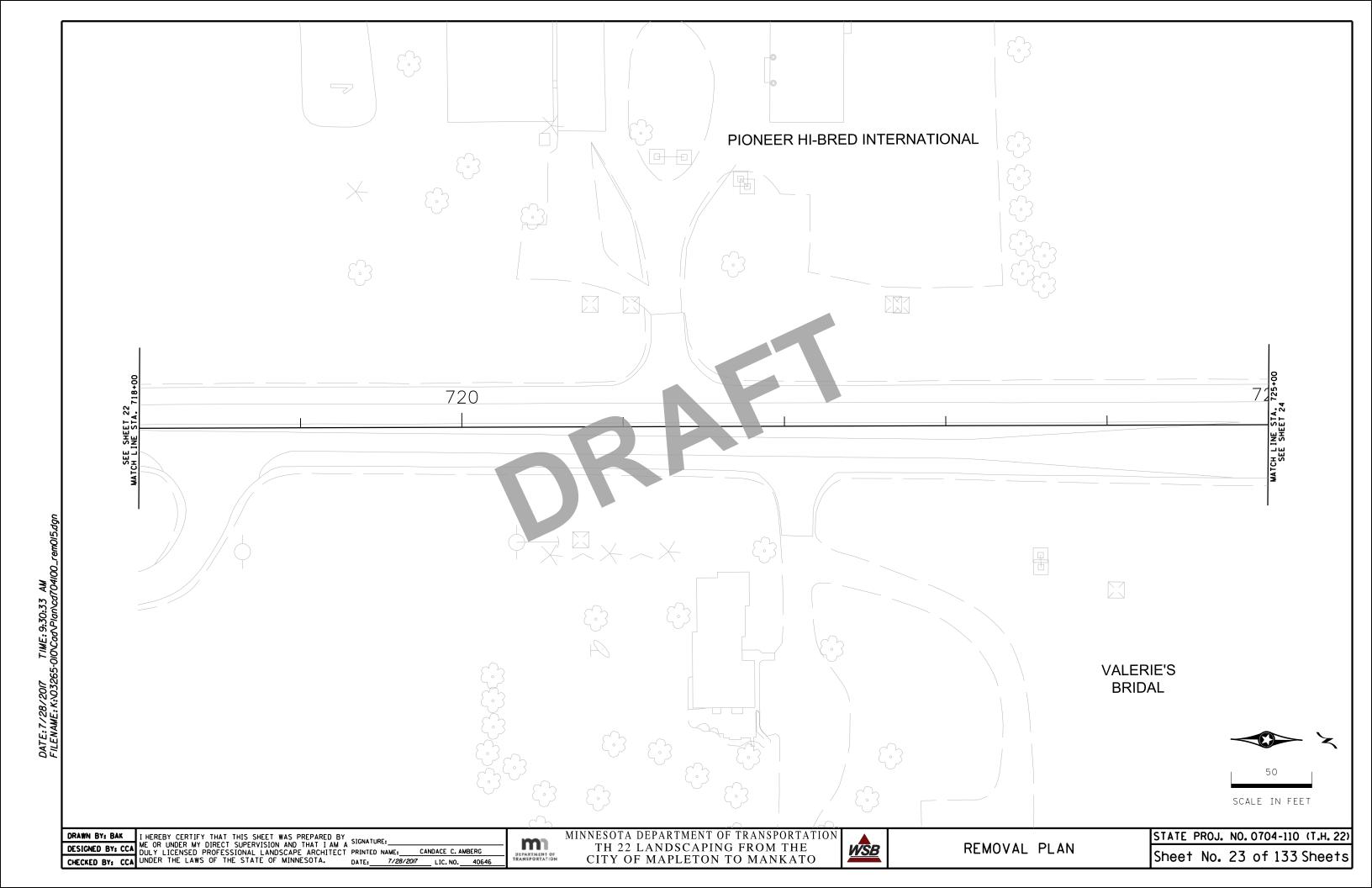


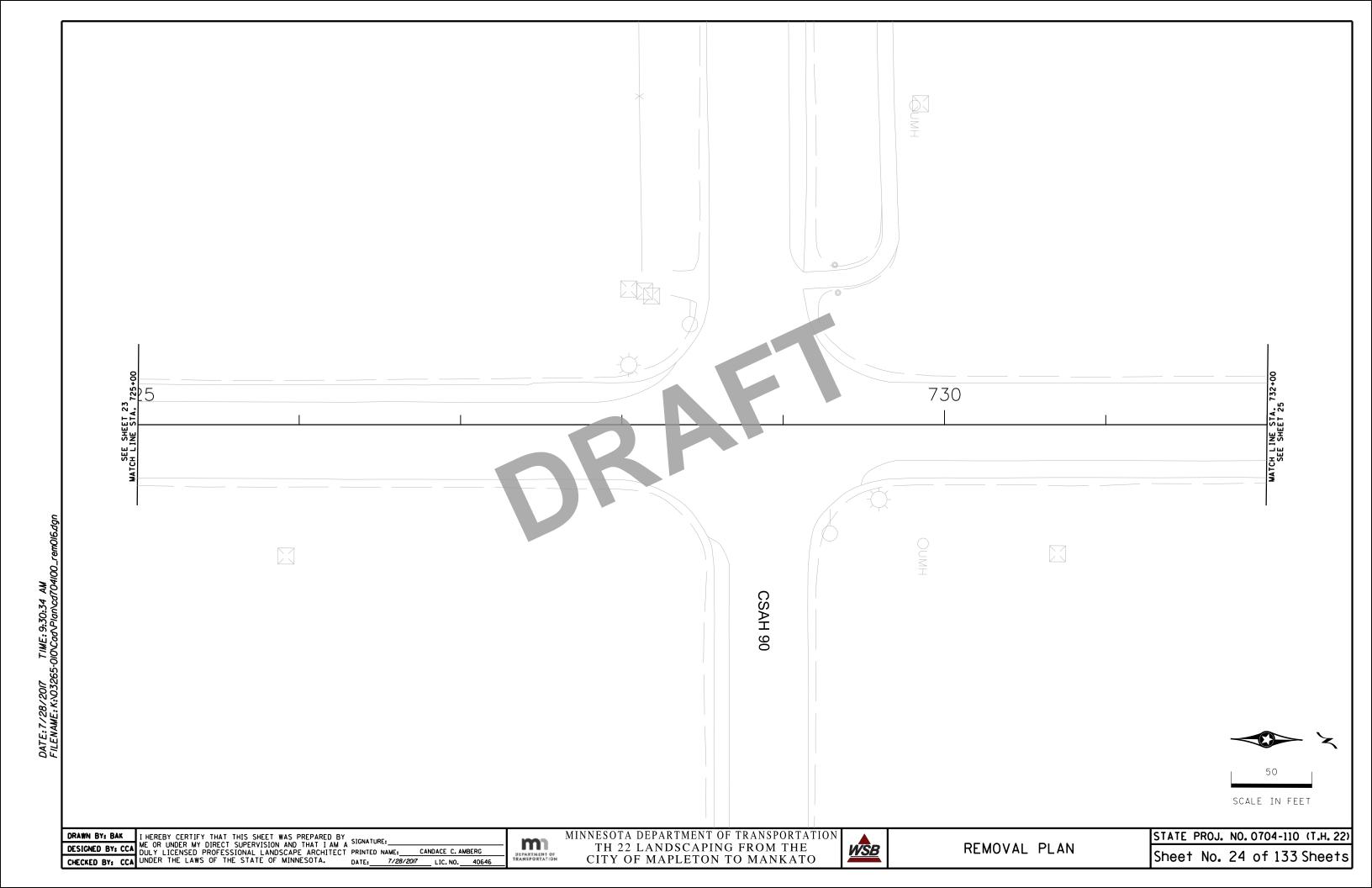
MINNESOTA DEPARTMENT OF TRANSPORTATION
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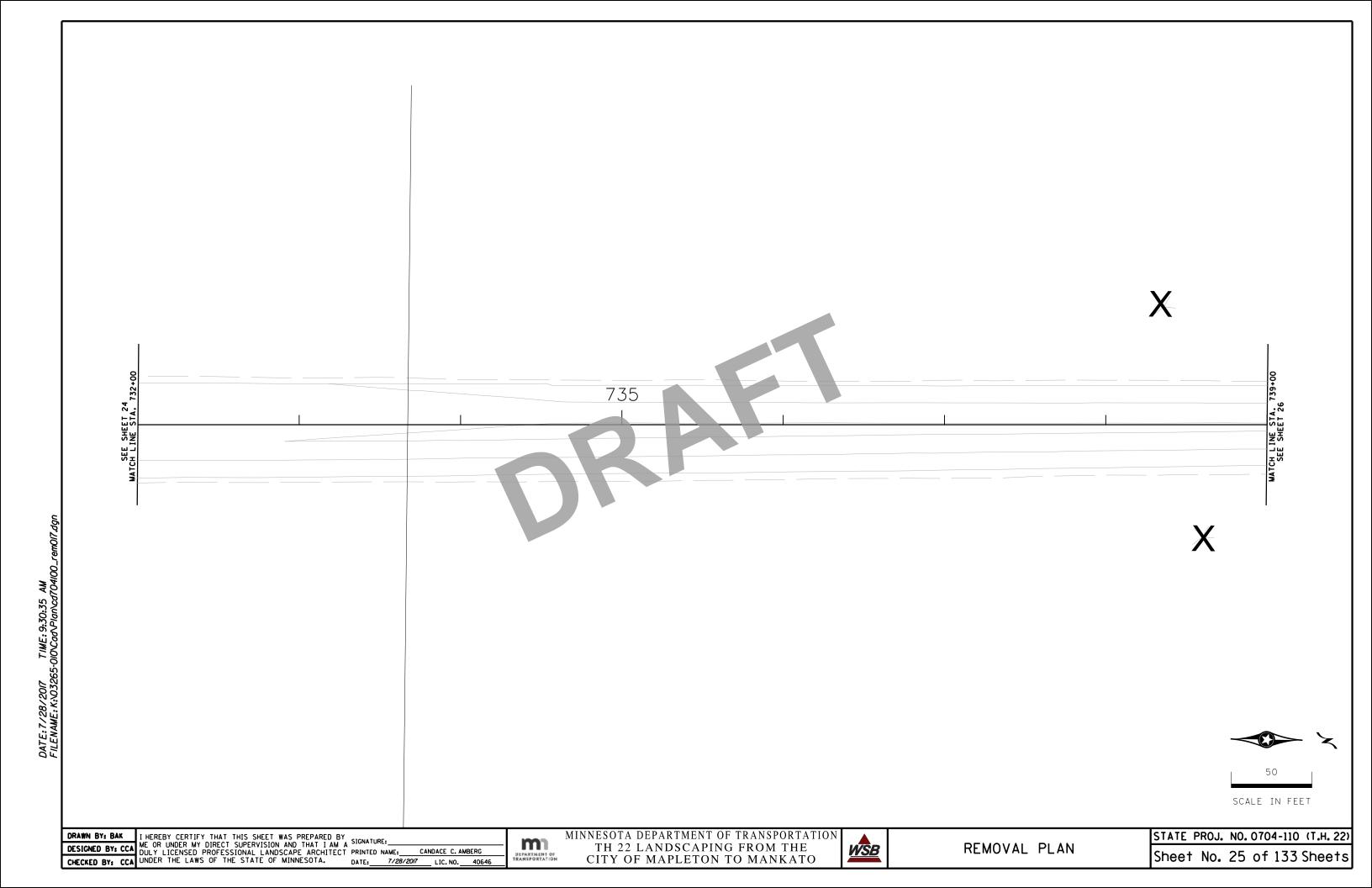
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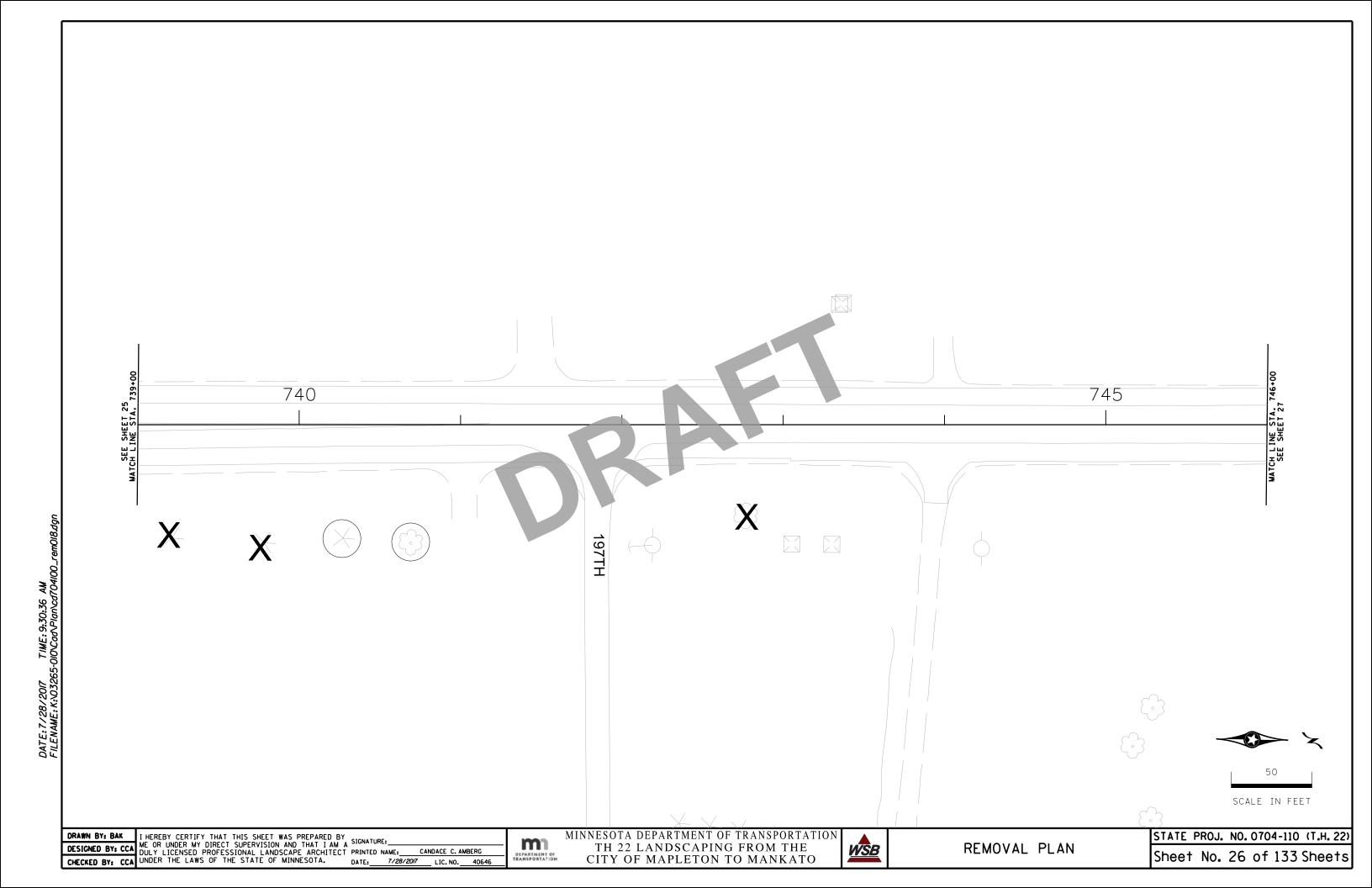
Sheet No. 20 of 133 Sheets

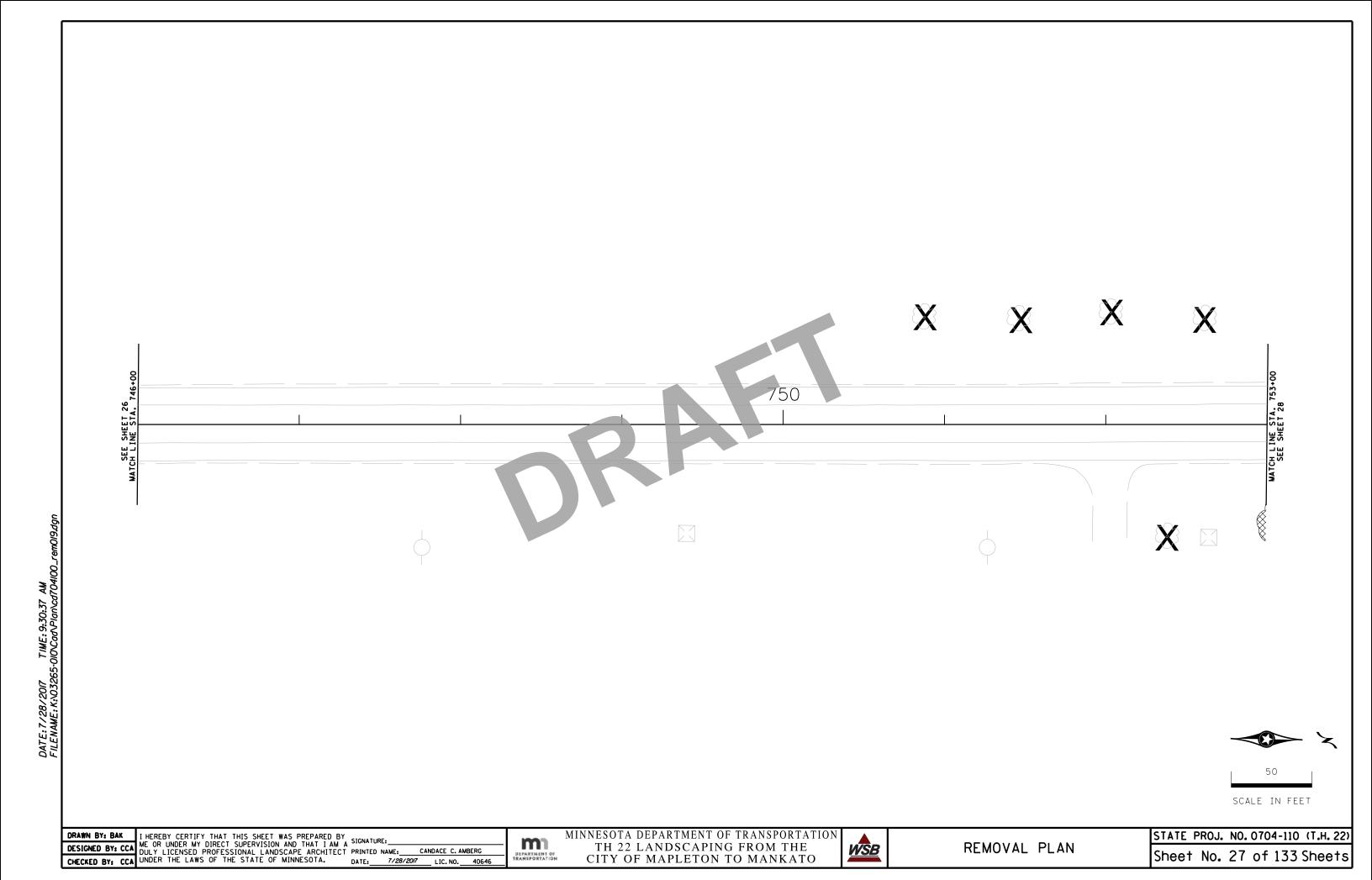












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DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT PRINTED NAME: CANDACE C. AMBERG

UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 7/28/2017 LIC. NO. 40646

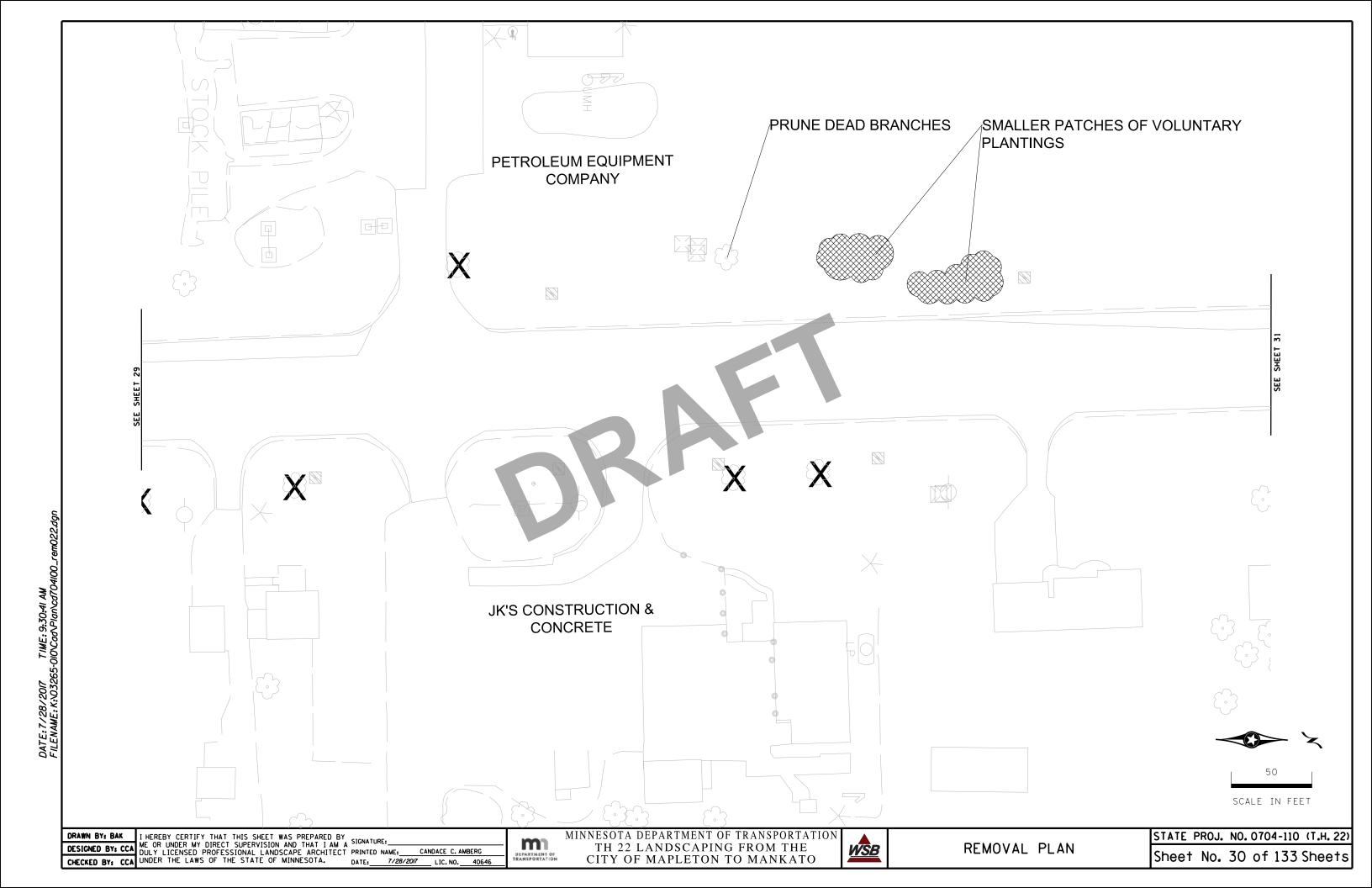
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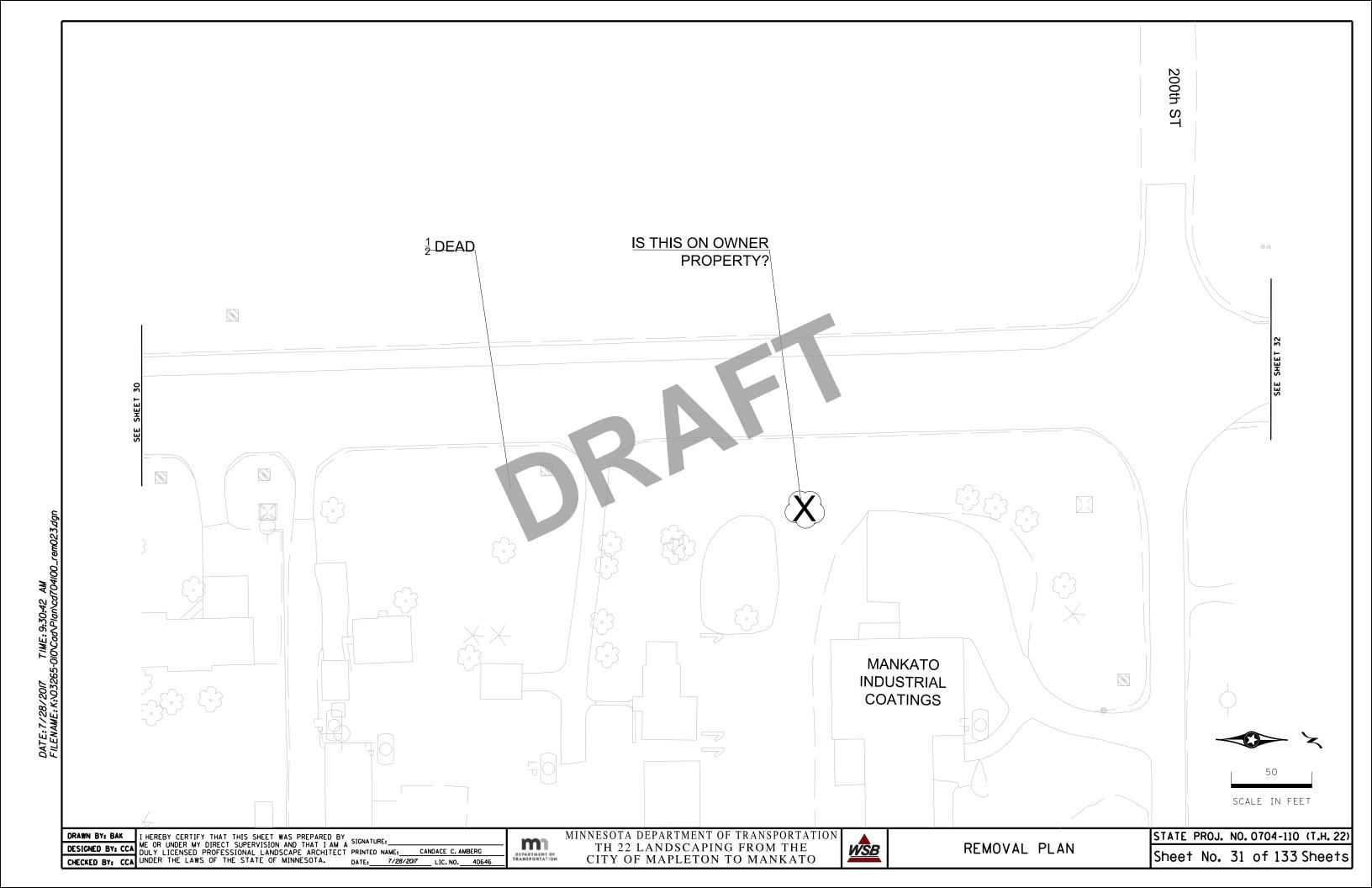
MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO

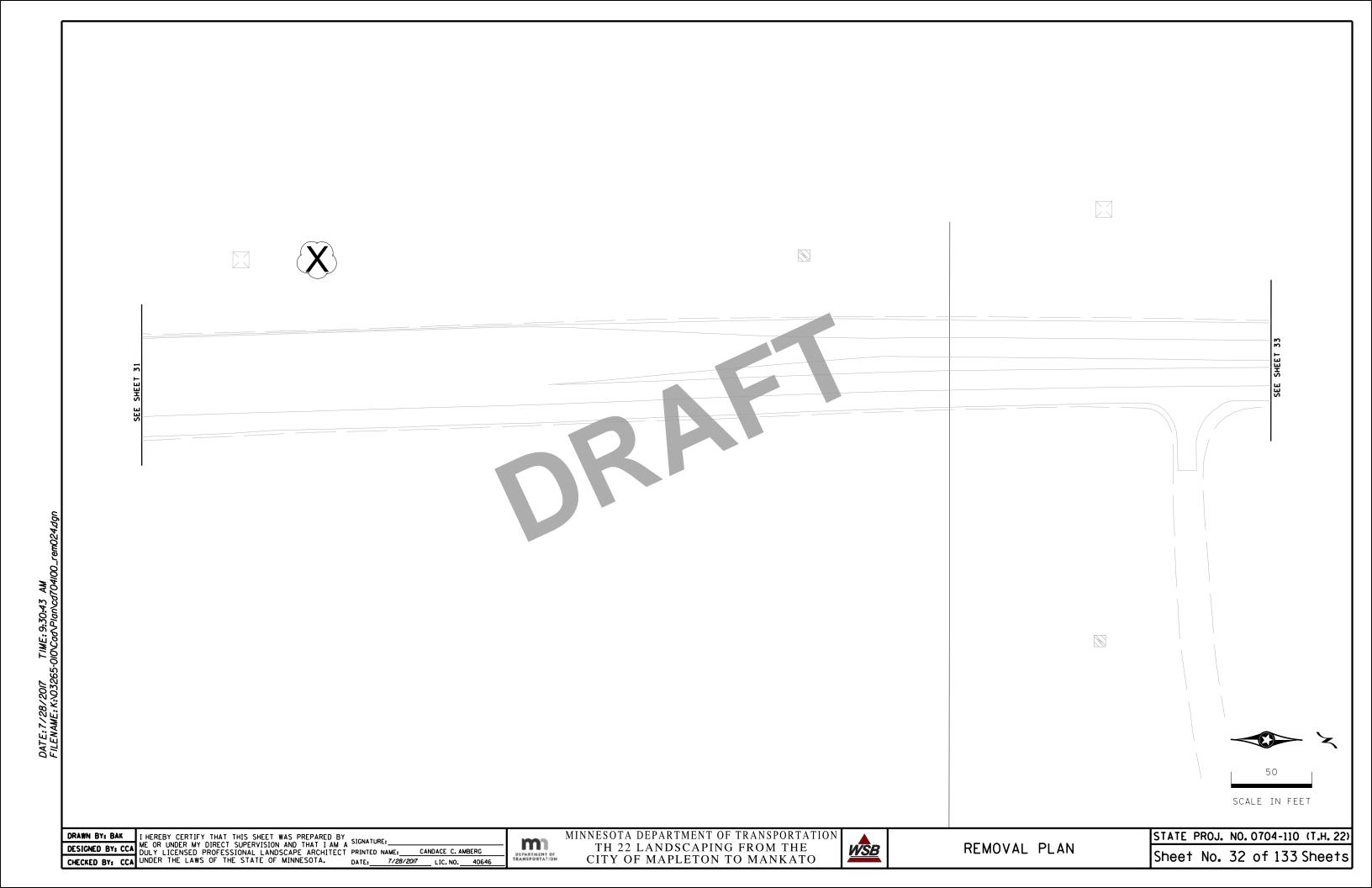


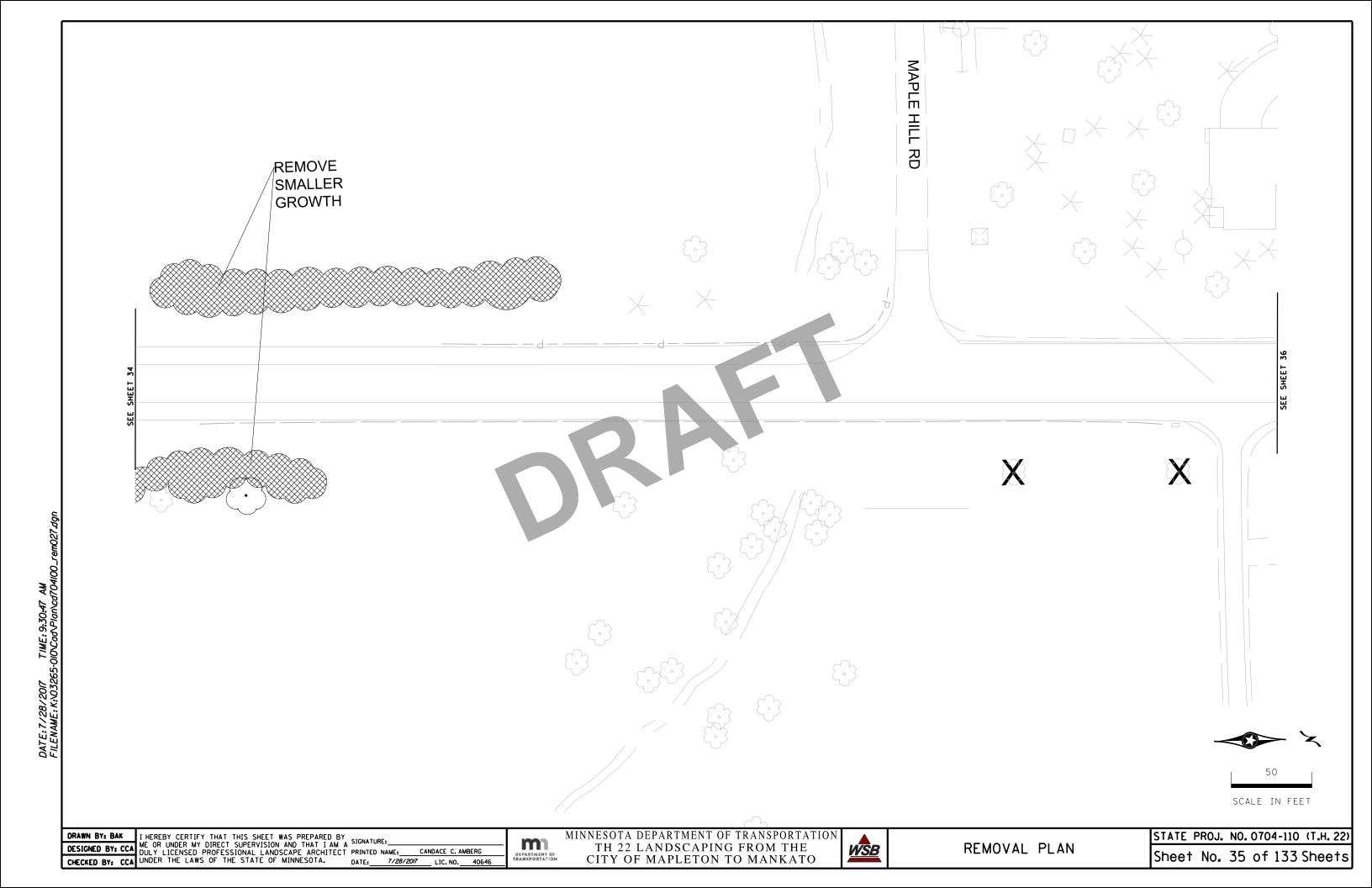
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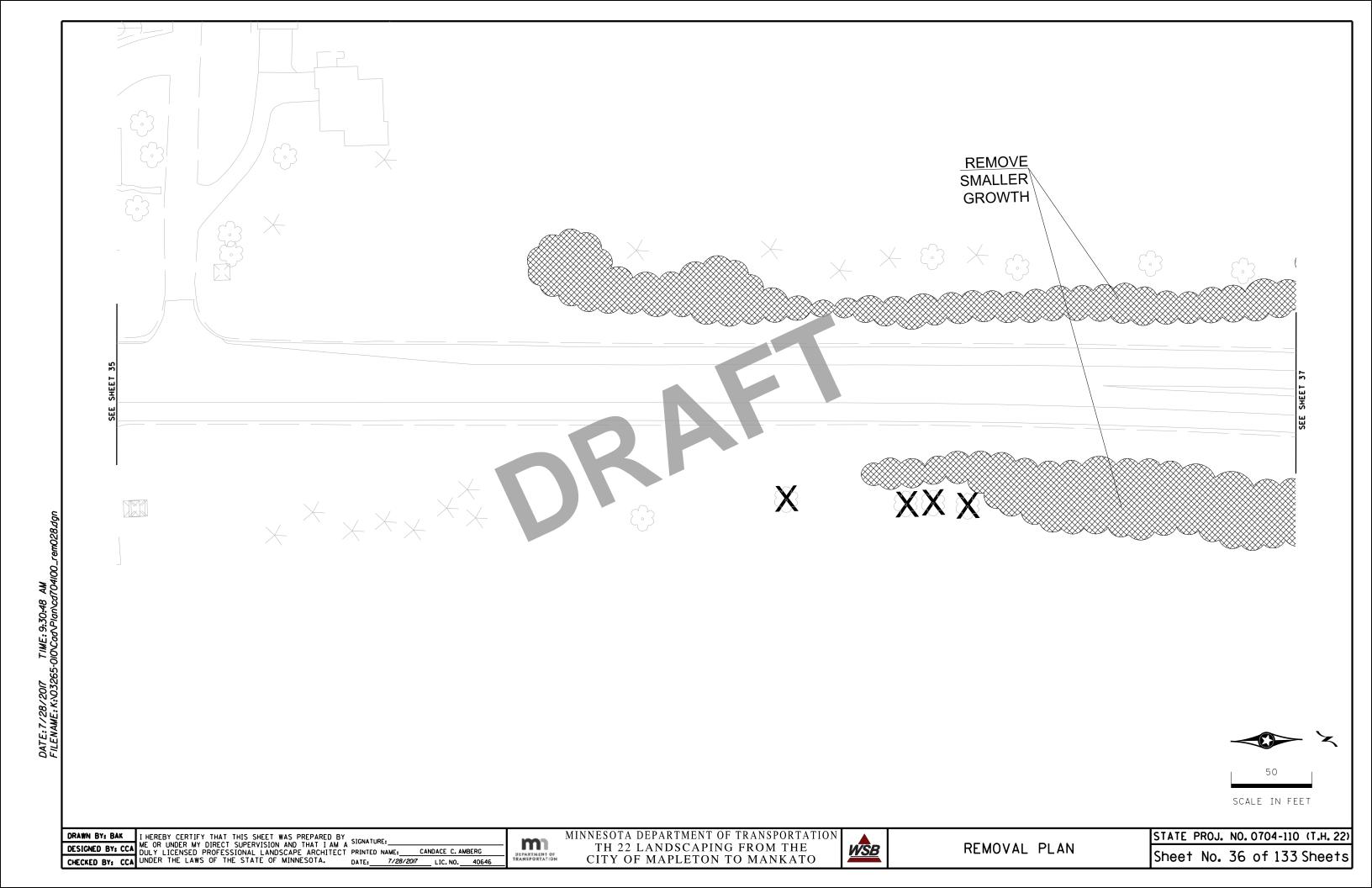
STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 29 of 133 Sheets



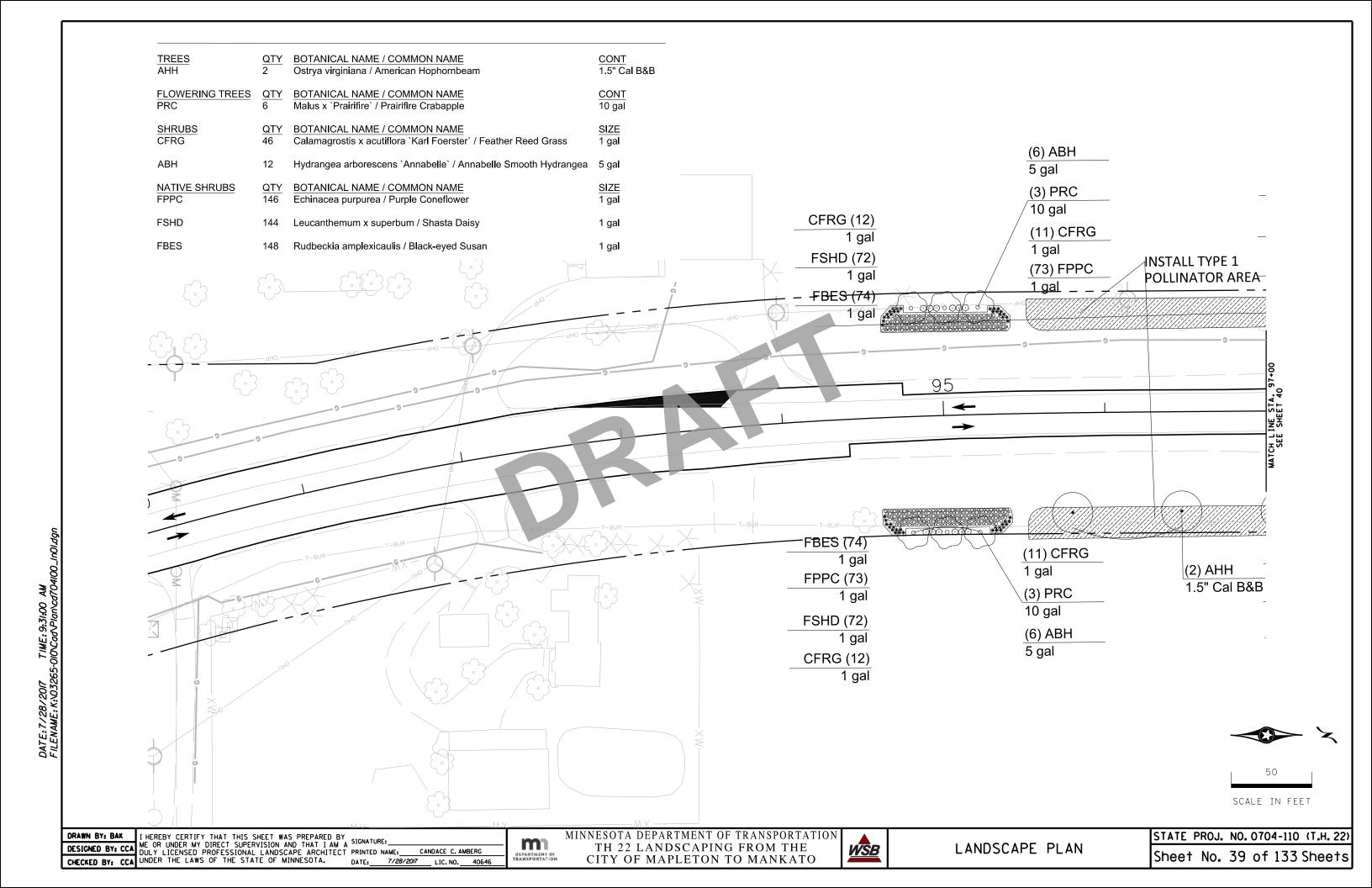


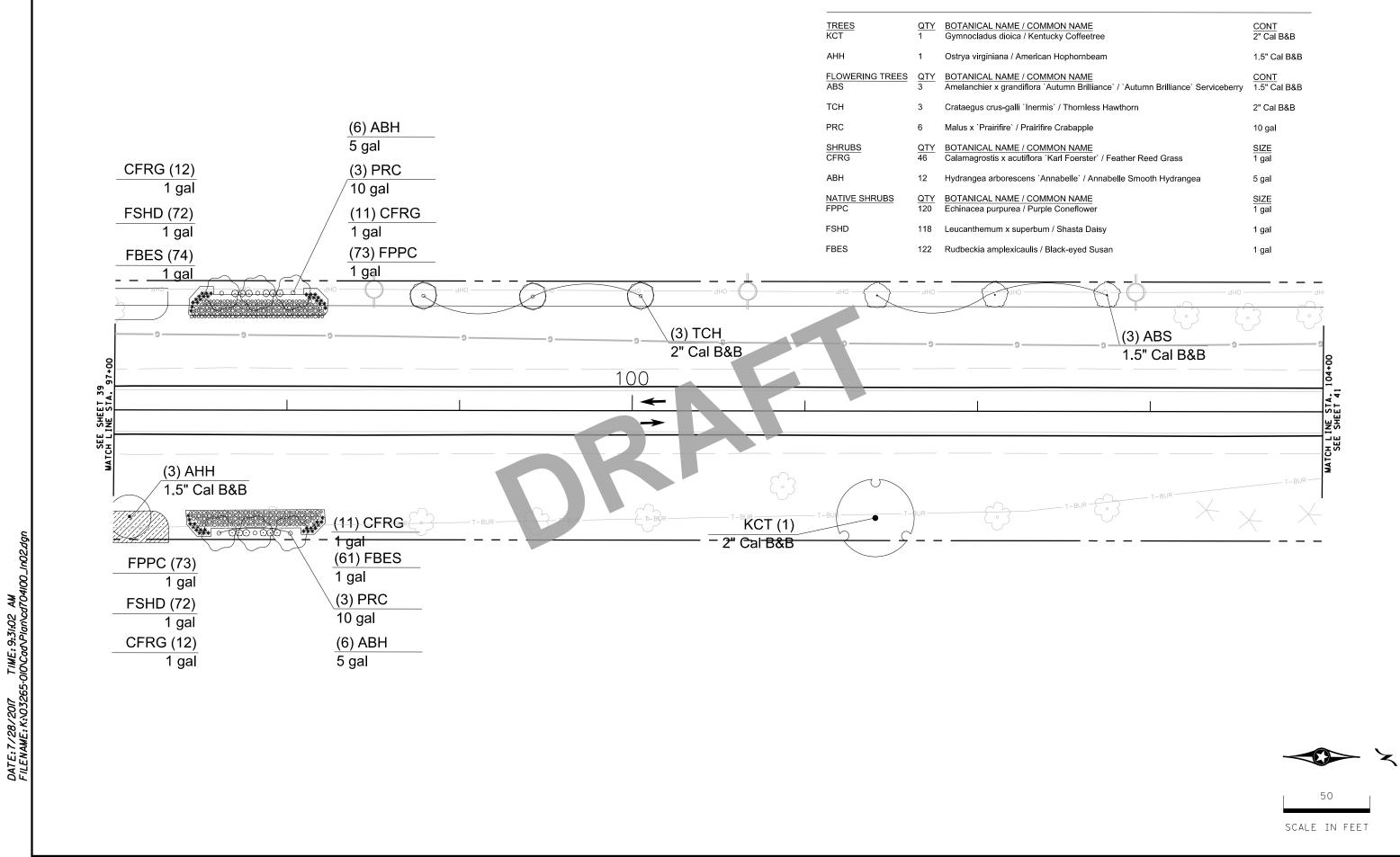












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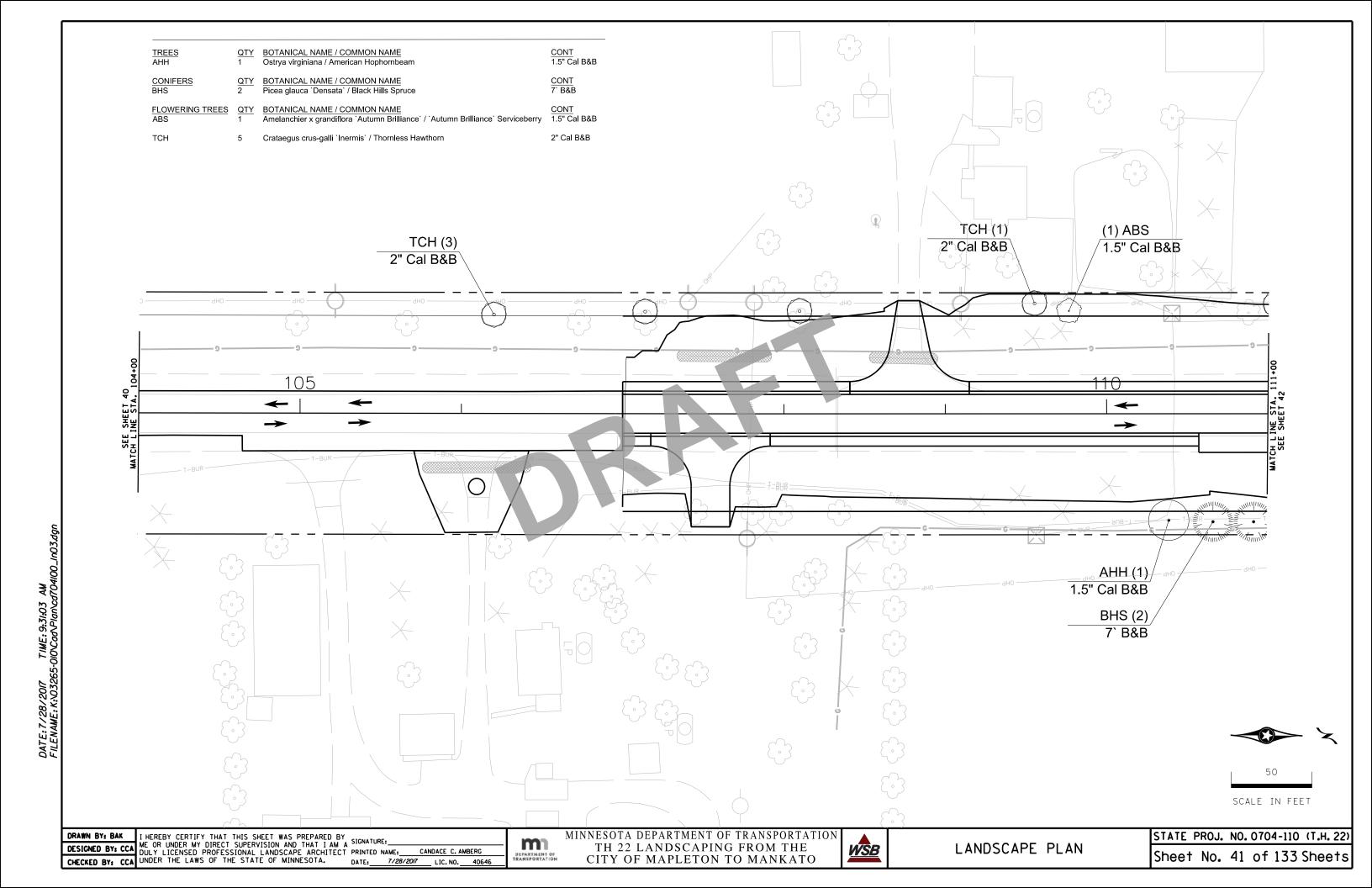
DATE: 7/28/ CANDACE C. AMBERG DATE: 7/28/2017

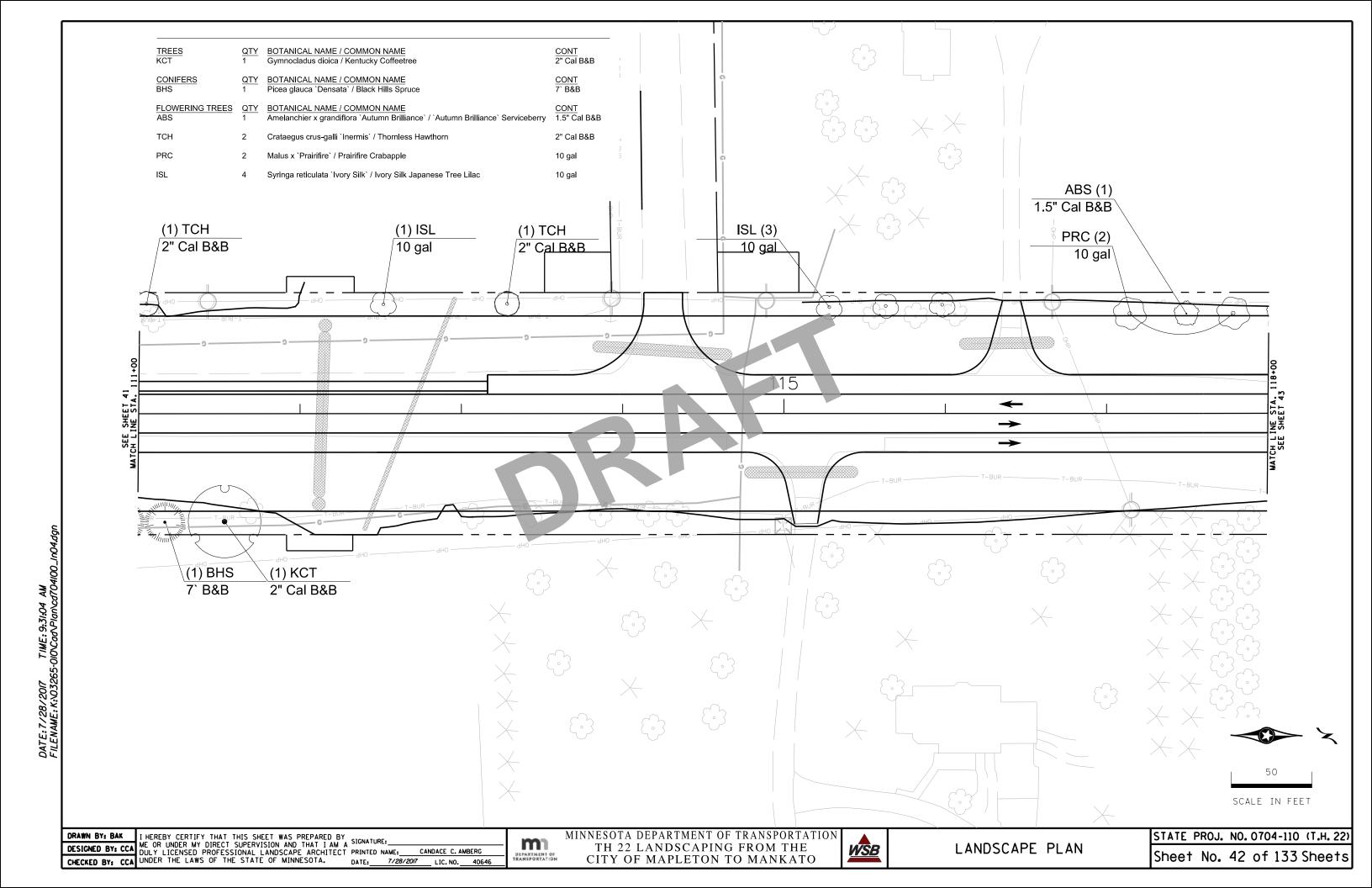
m DEPARTMENT OF MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO

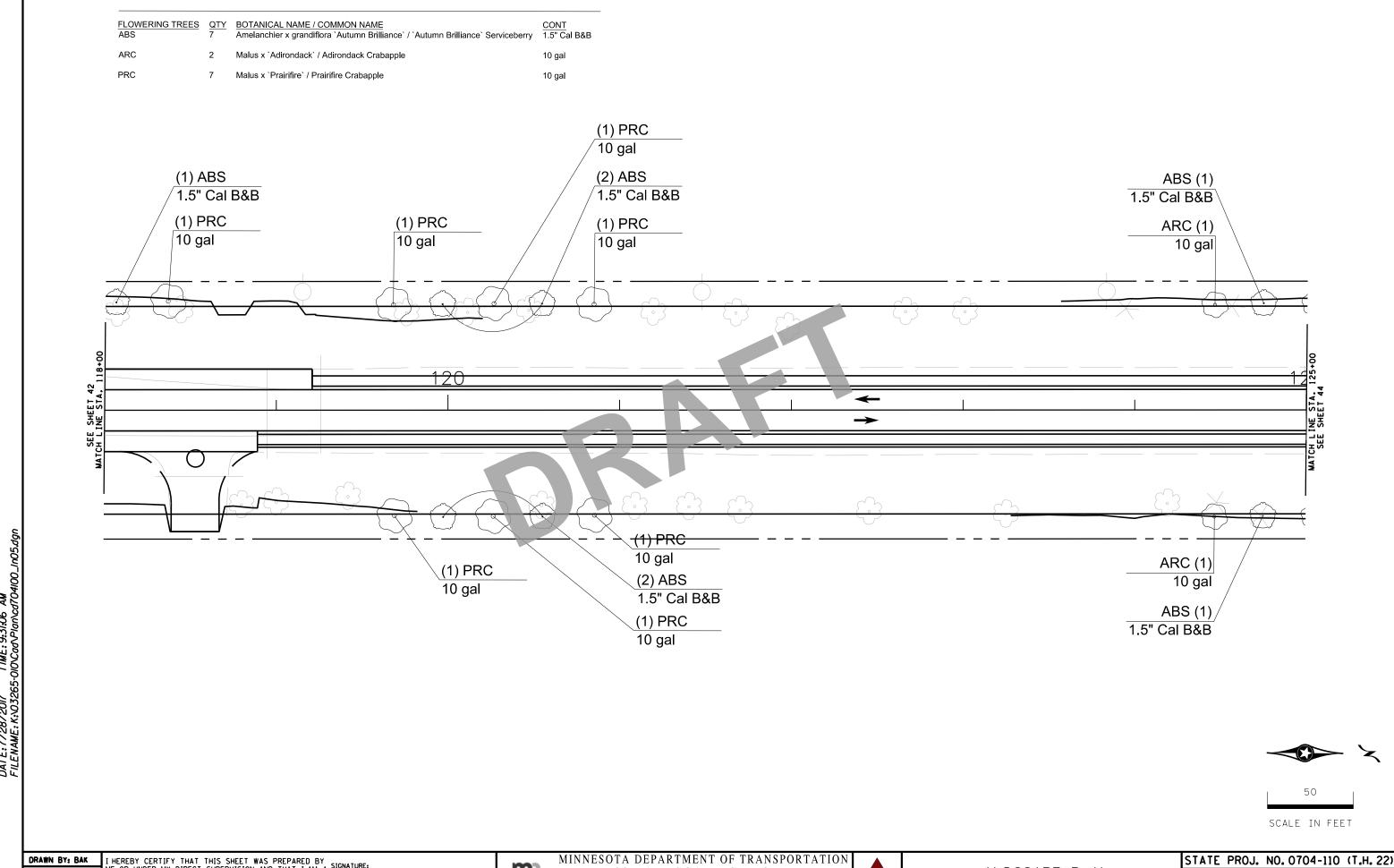


LANDSCAPE PLAN

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 40 of 133 Sheets







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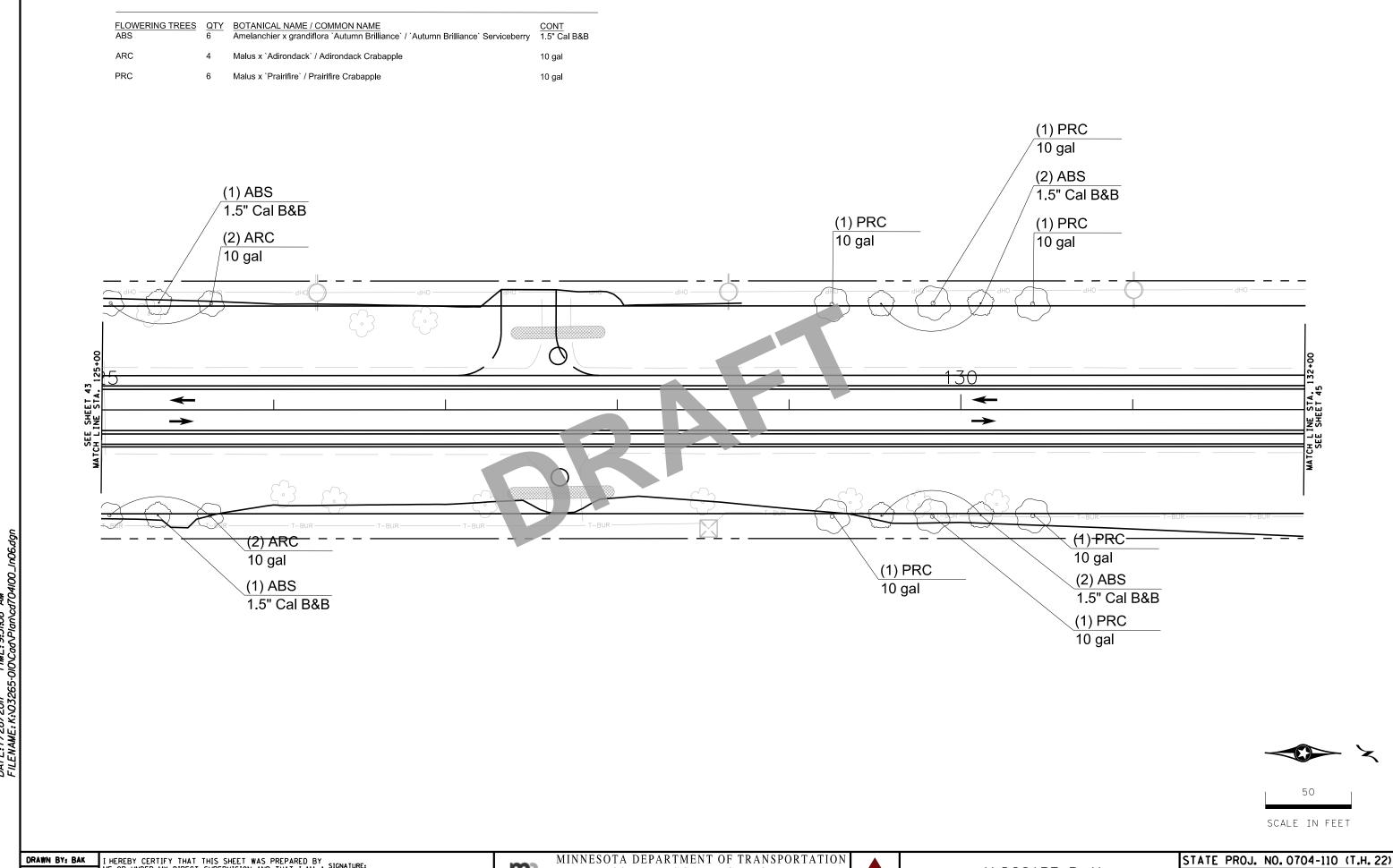
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TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



LANDSCAPE PLAN

Sheet No. 43 of 133 Sheets



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CANDACE C. AMBERG
DATE: 7/28/2017 LIC. NO. 4064

DATE: 7/28/2017 LIC. NO. 40646

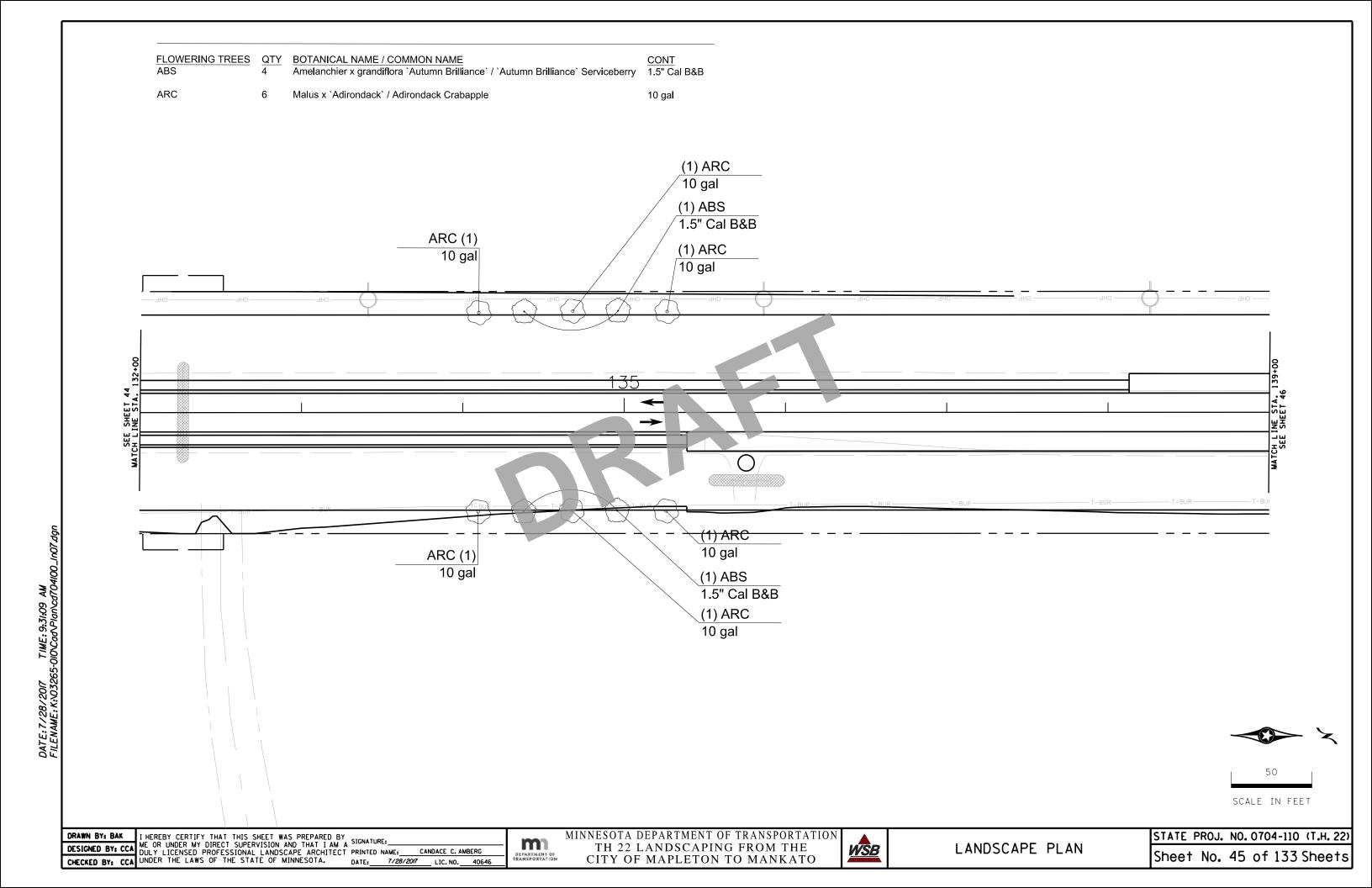
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TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



LANDSCAPE PLAN

Sheet No. 44 of 133 Sheets



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CANDACE C. AMBERG
DATE: 7/28/2017 LIC. NO. 4064 DATE: 7/28/2017 LIC. NO. 40646

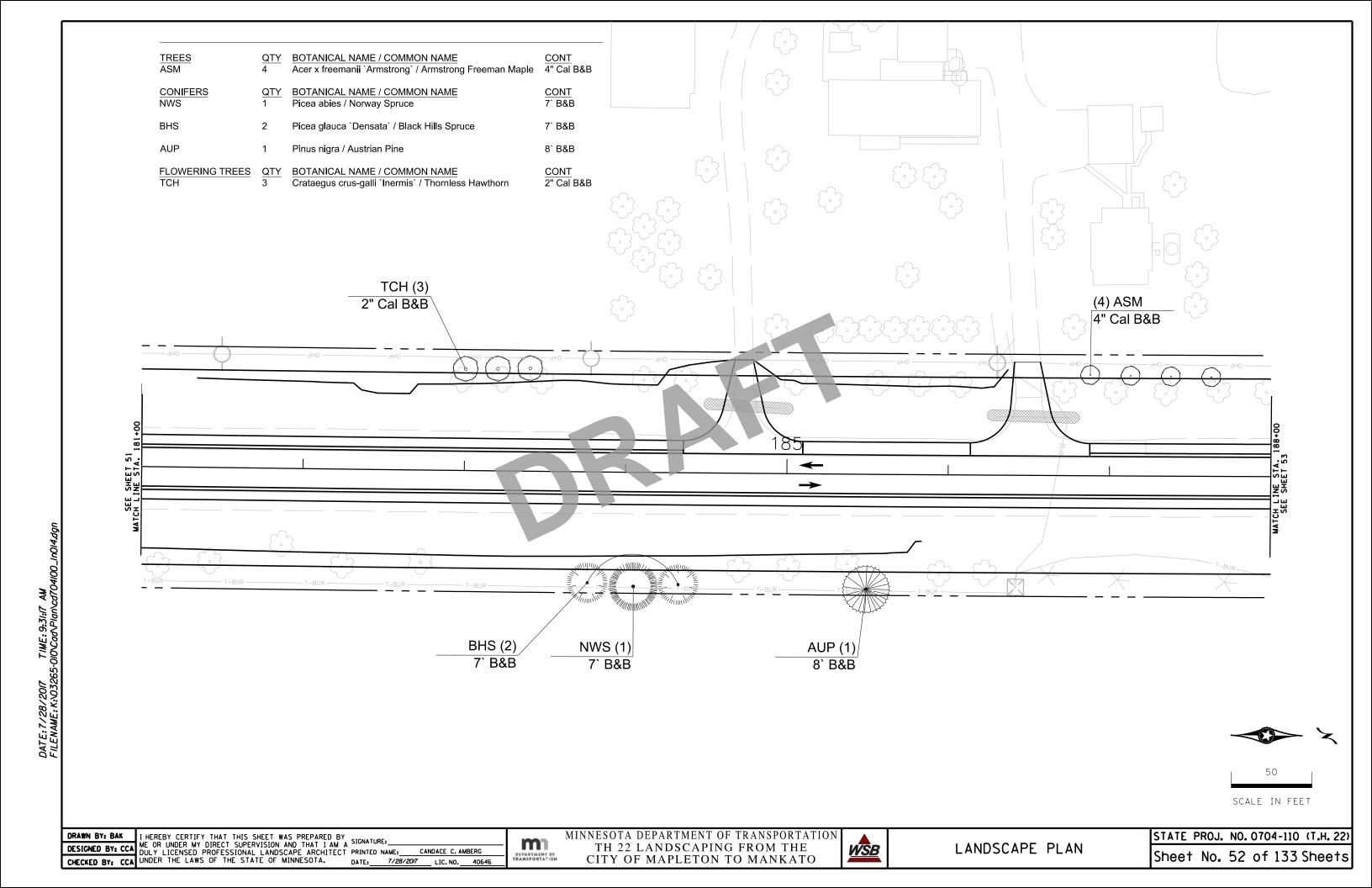
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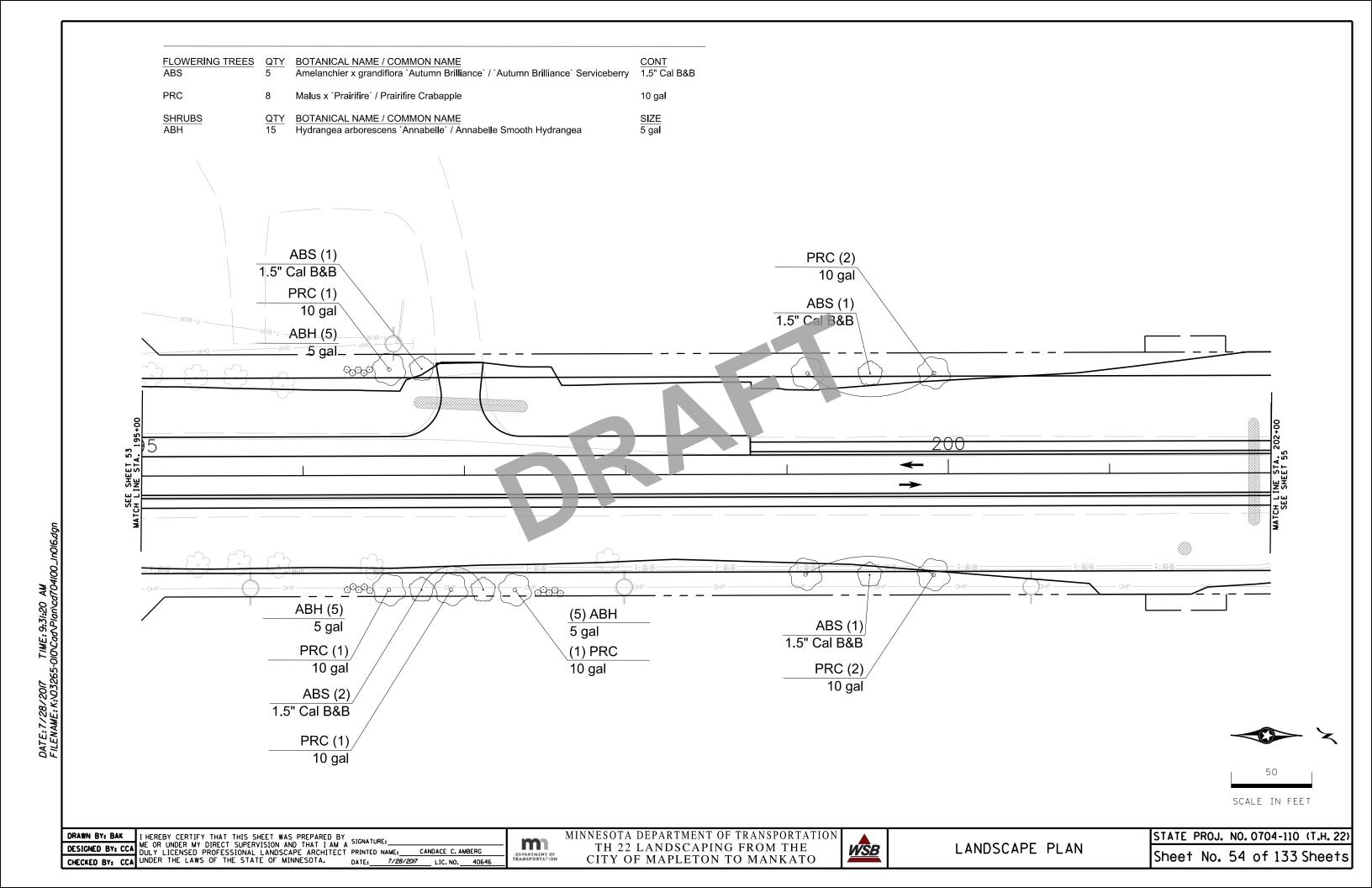
MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



LANDSCAPE PLAN

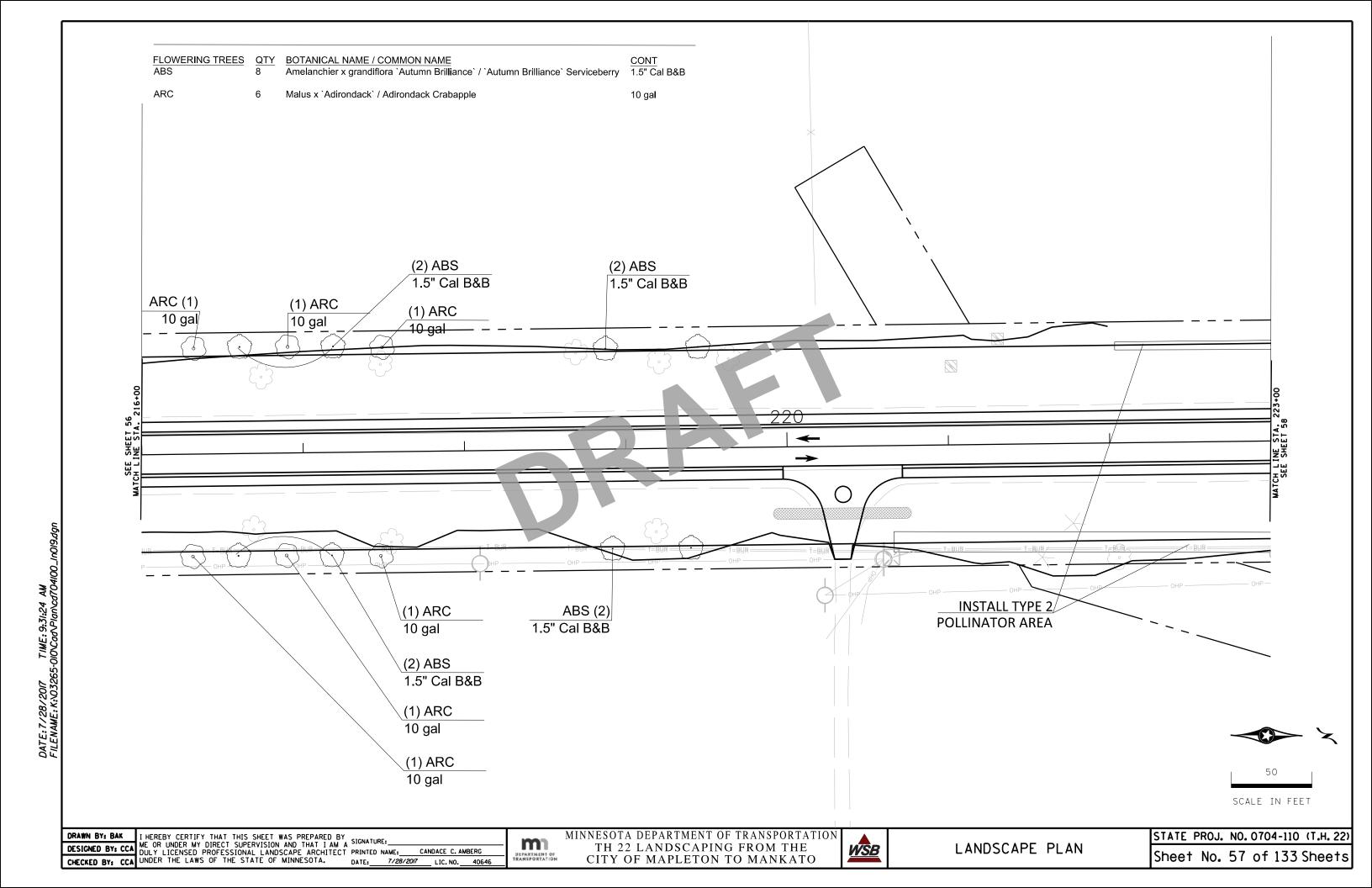
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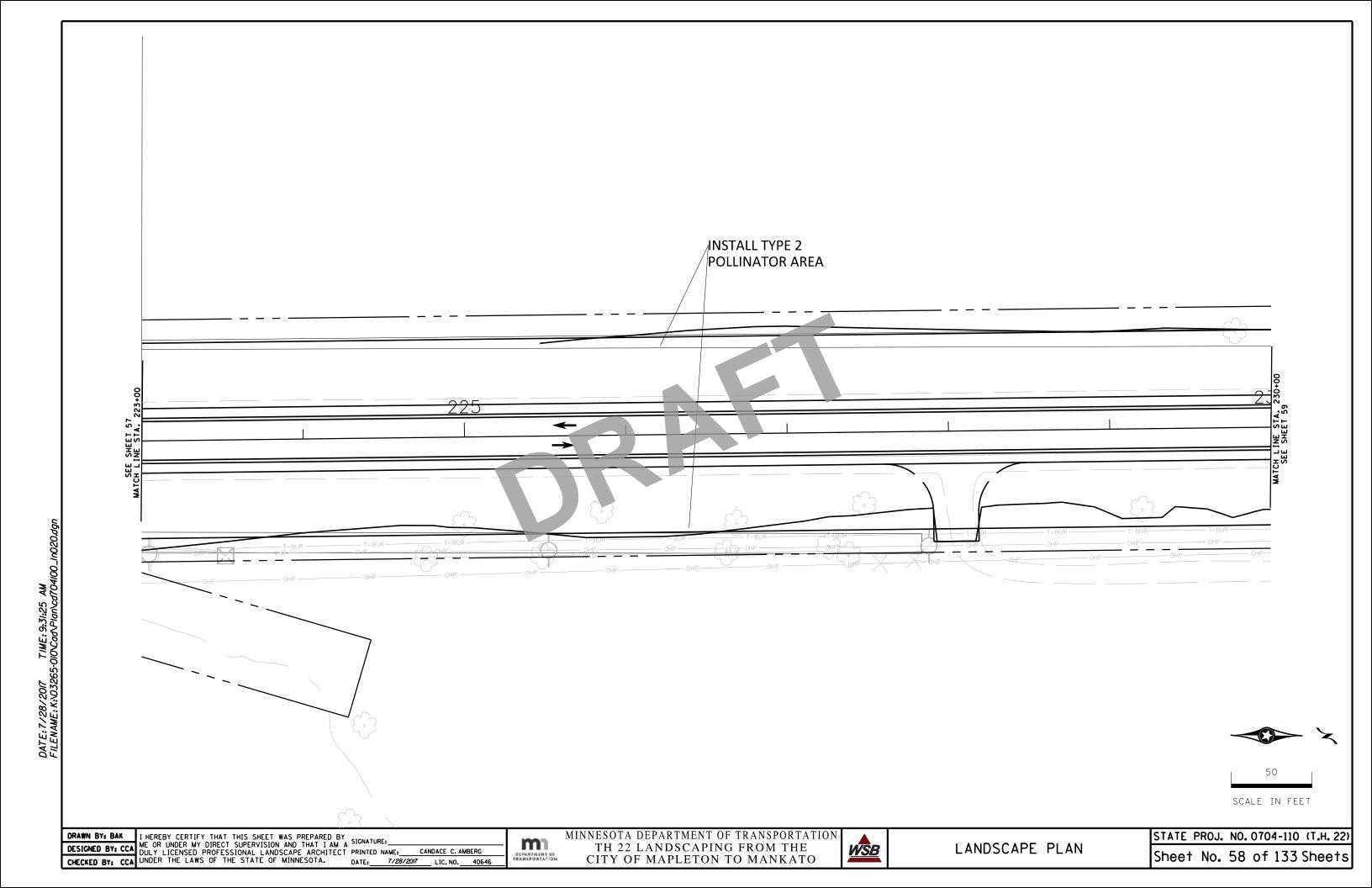


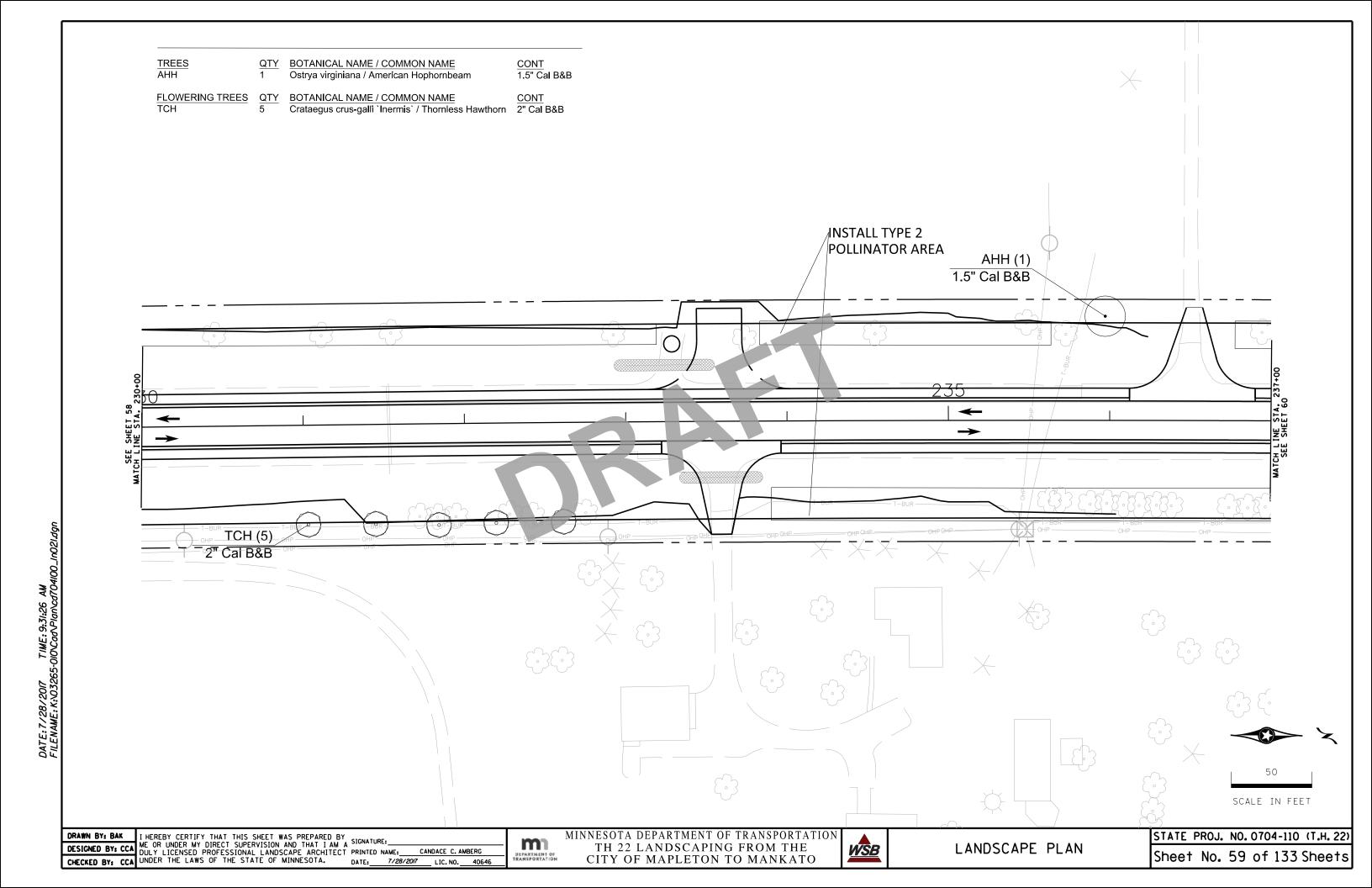


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Sheet No. 56 of 133 Sheets







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MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



LANDSCAPE PLAN

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 60 of 133 Sheets

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DATE: 7/28/1 DATE: 7/28/2017

m CANDACE C. AMBERG

MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



LANDSCAPE PLAN

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 61 of 133 Sheets

SCALE IN FEET

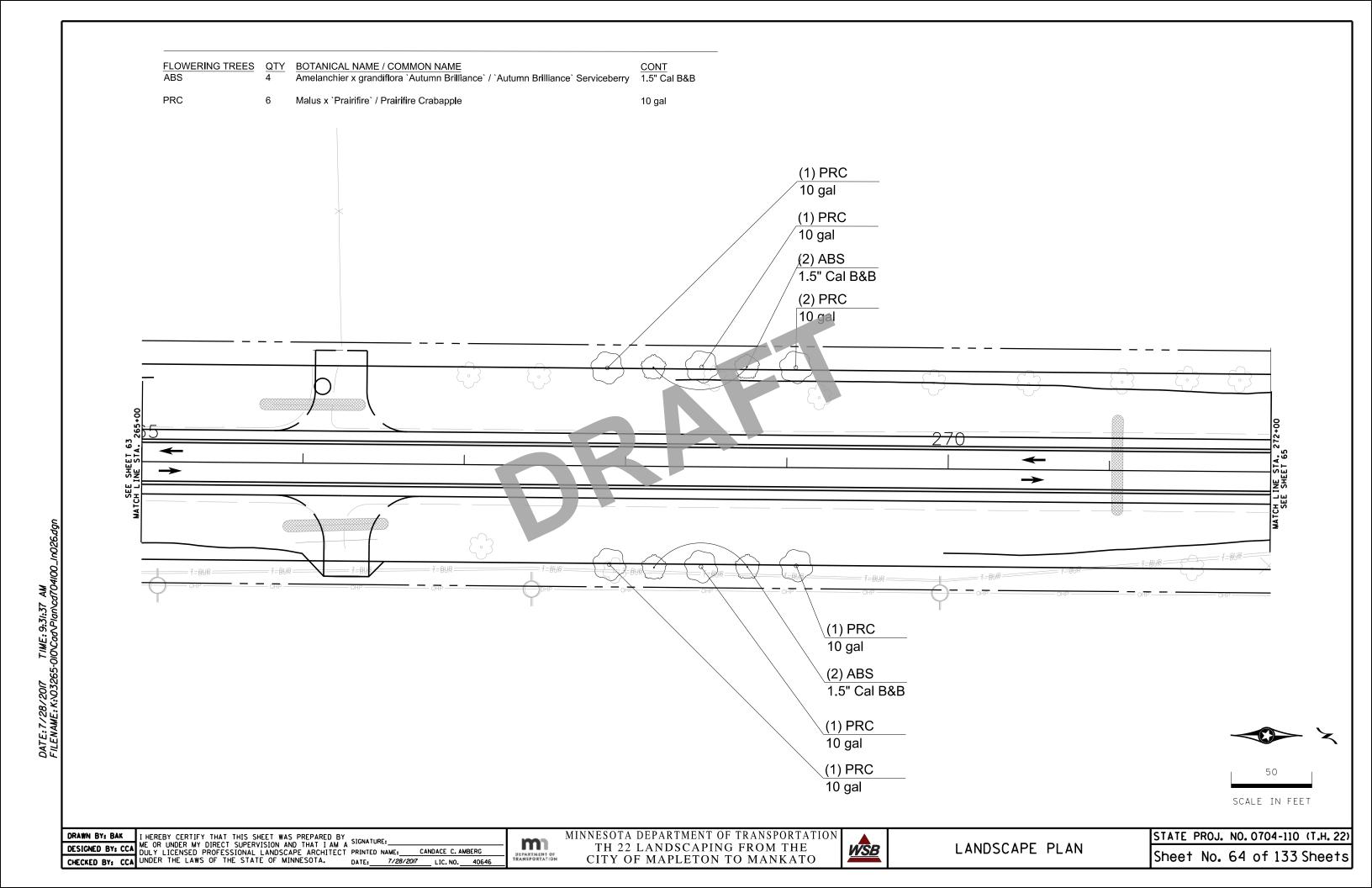
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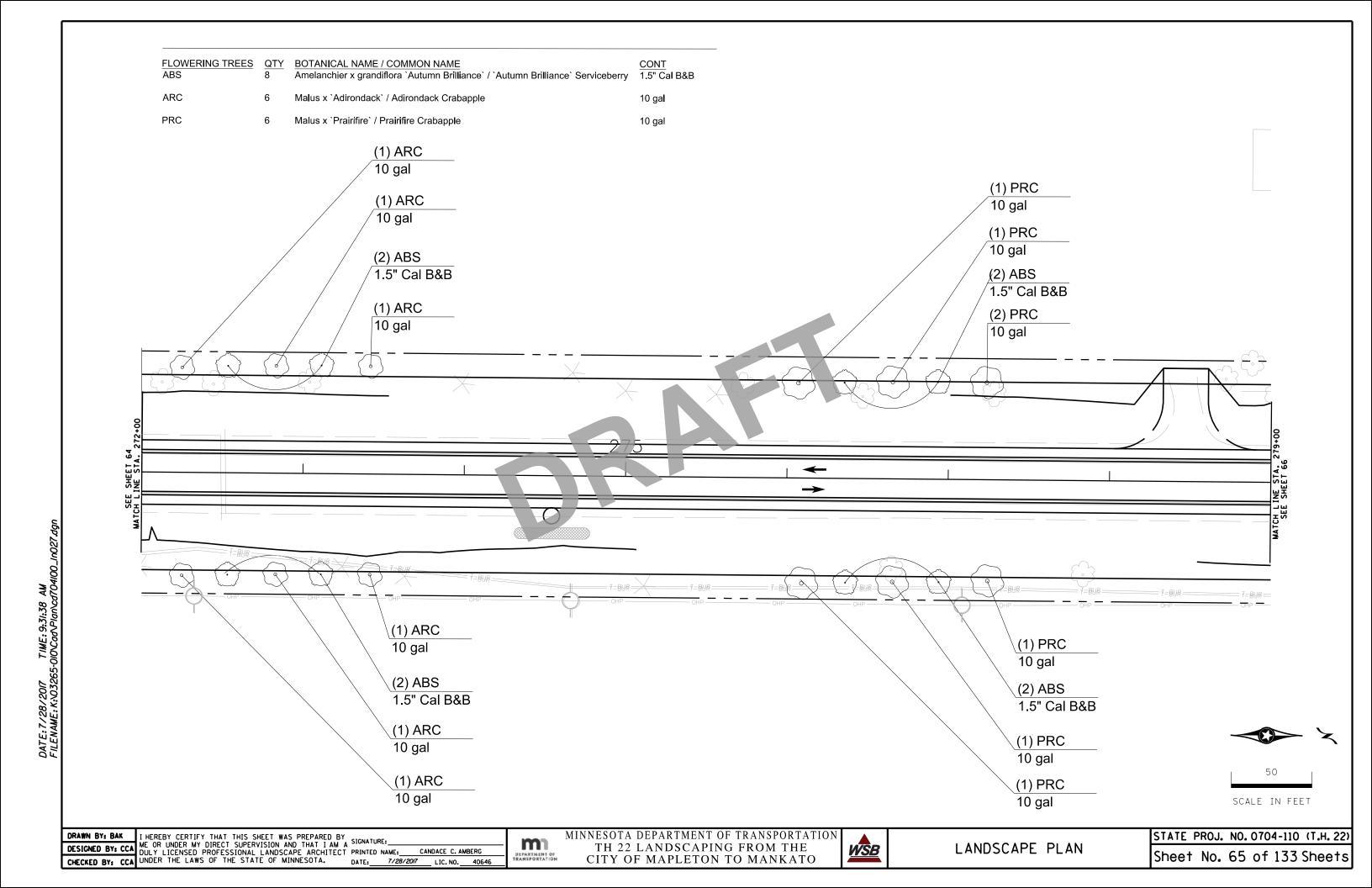
m DEPARTMENT OF

TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



Sheet No. 62 of 133 Sheets





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CHECKED BY: CCA

CH DATE: 7/28/2017 LIC. NO. 40646

m

MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



LANDSCAPE PLAN

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 67 of 133 Sheets

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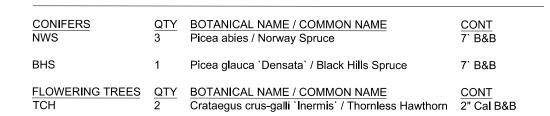
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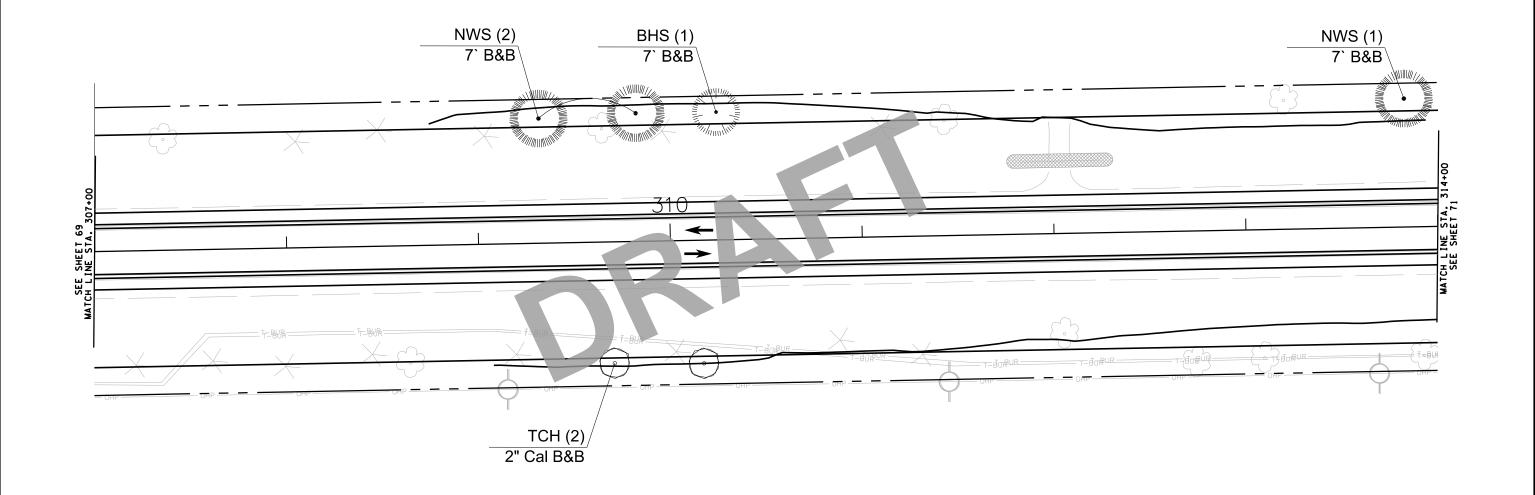
MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO

<u>WSB</u>

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 69 of 133 Sheets

SCALE IN FEET





SCALE IN FEET

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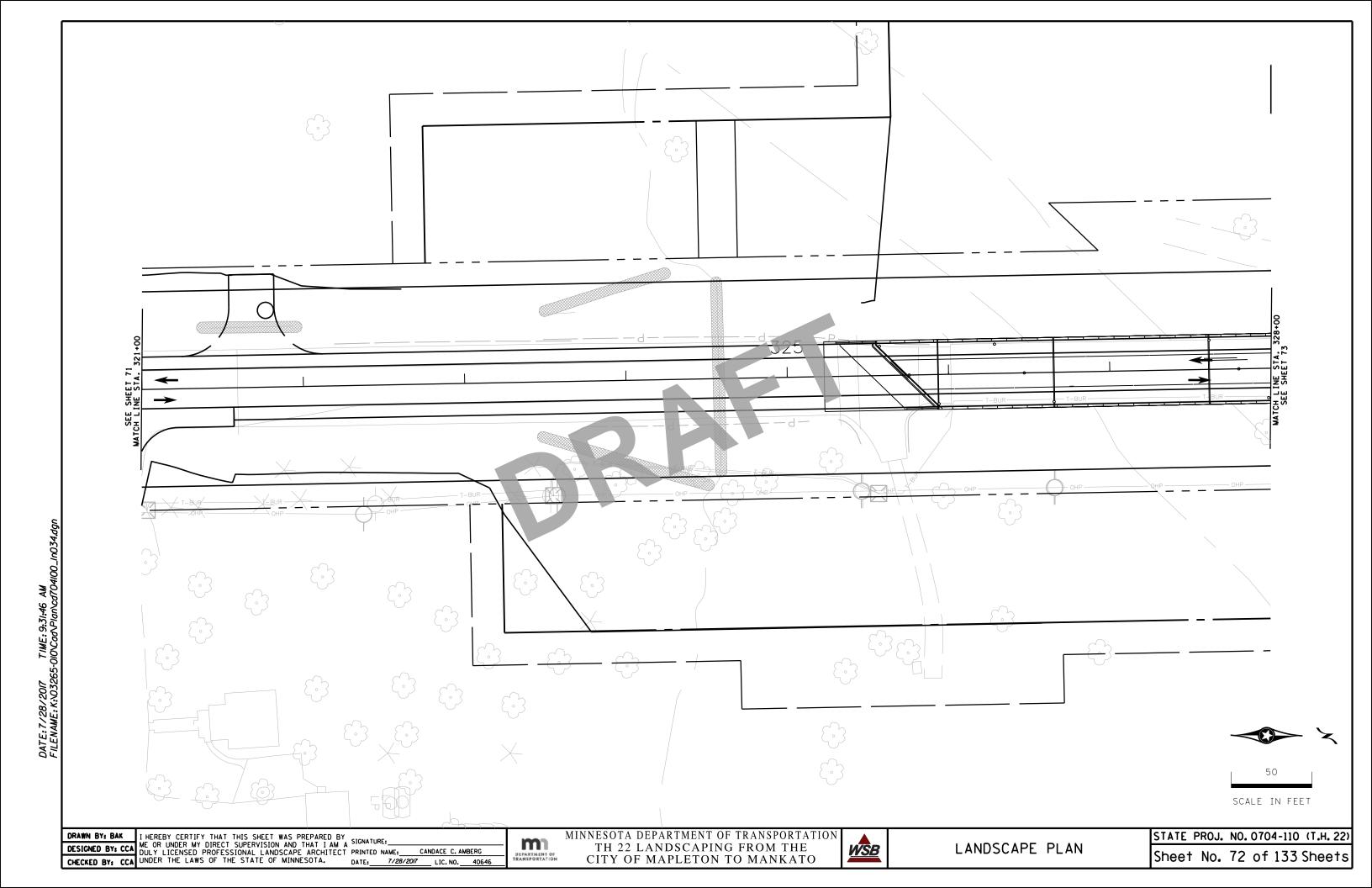
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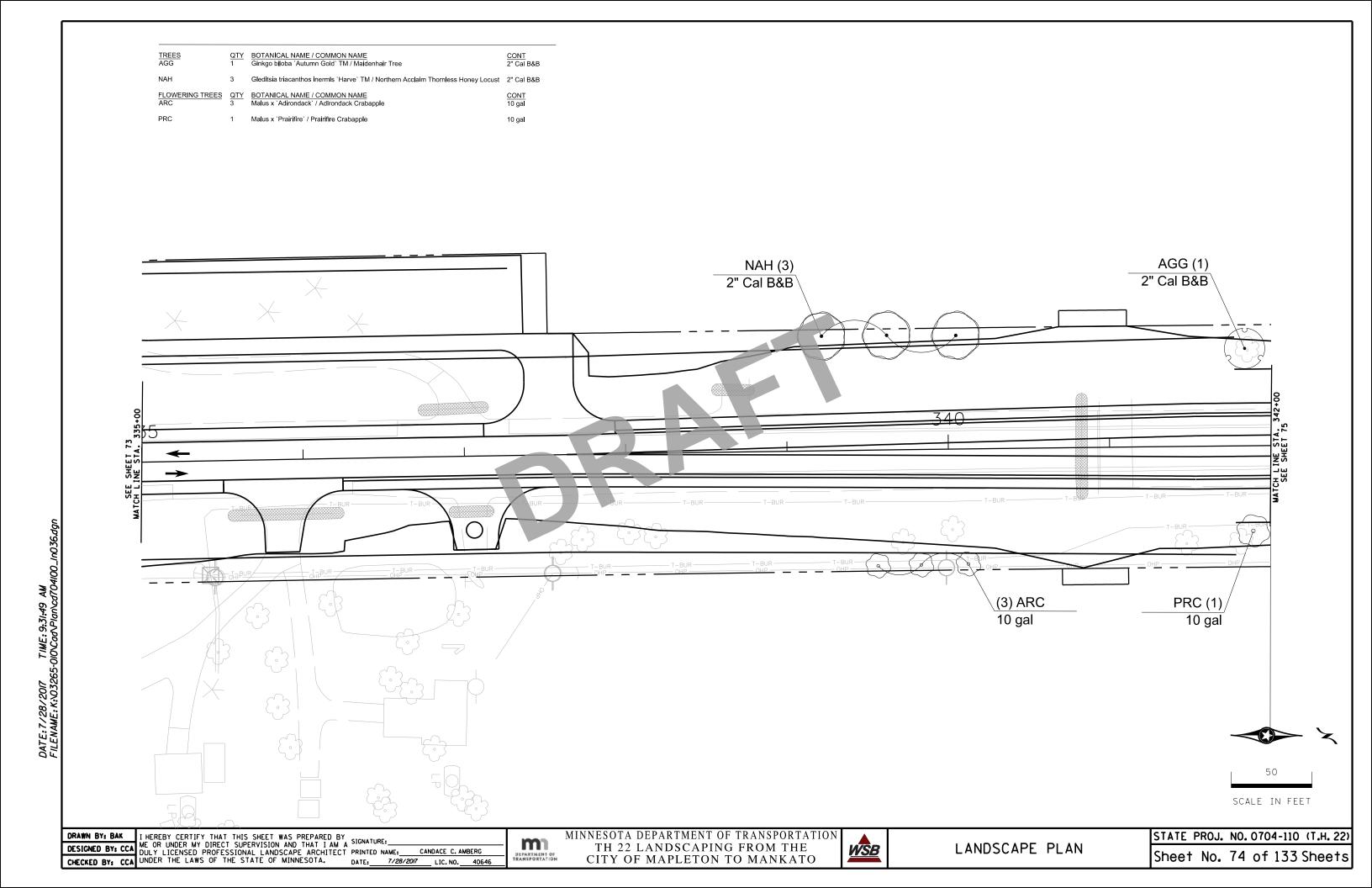
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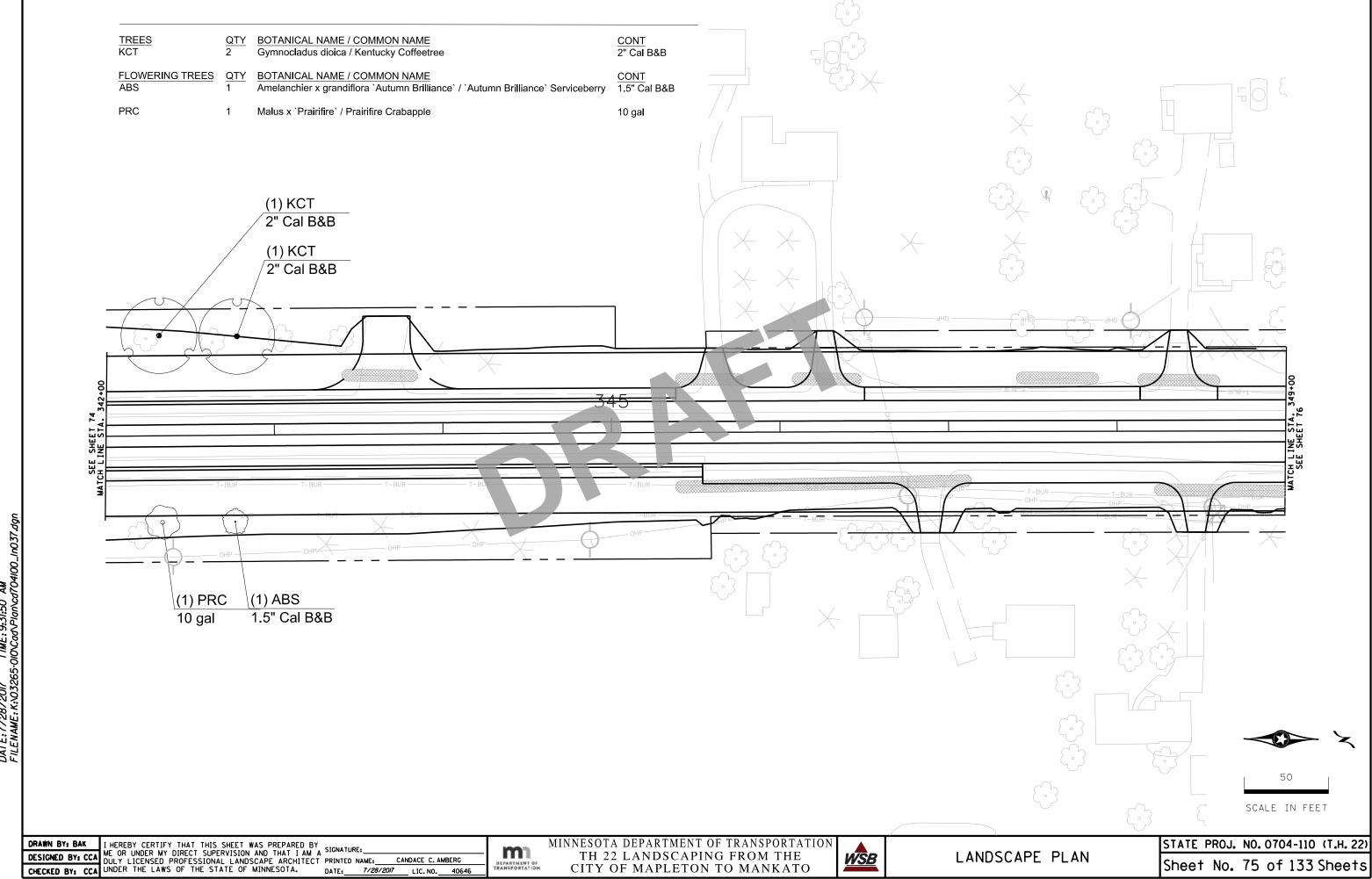
MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



STATE PROJ. NO. 0704-110 (T.H. 22) LANDSCAPE PLAN Sheet No. 70 of 133 Sheets







DATE: 7/28/2017 LIC. NO. 40646

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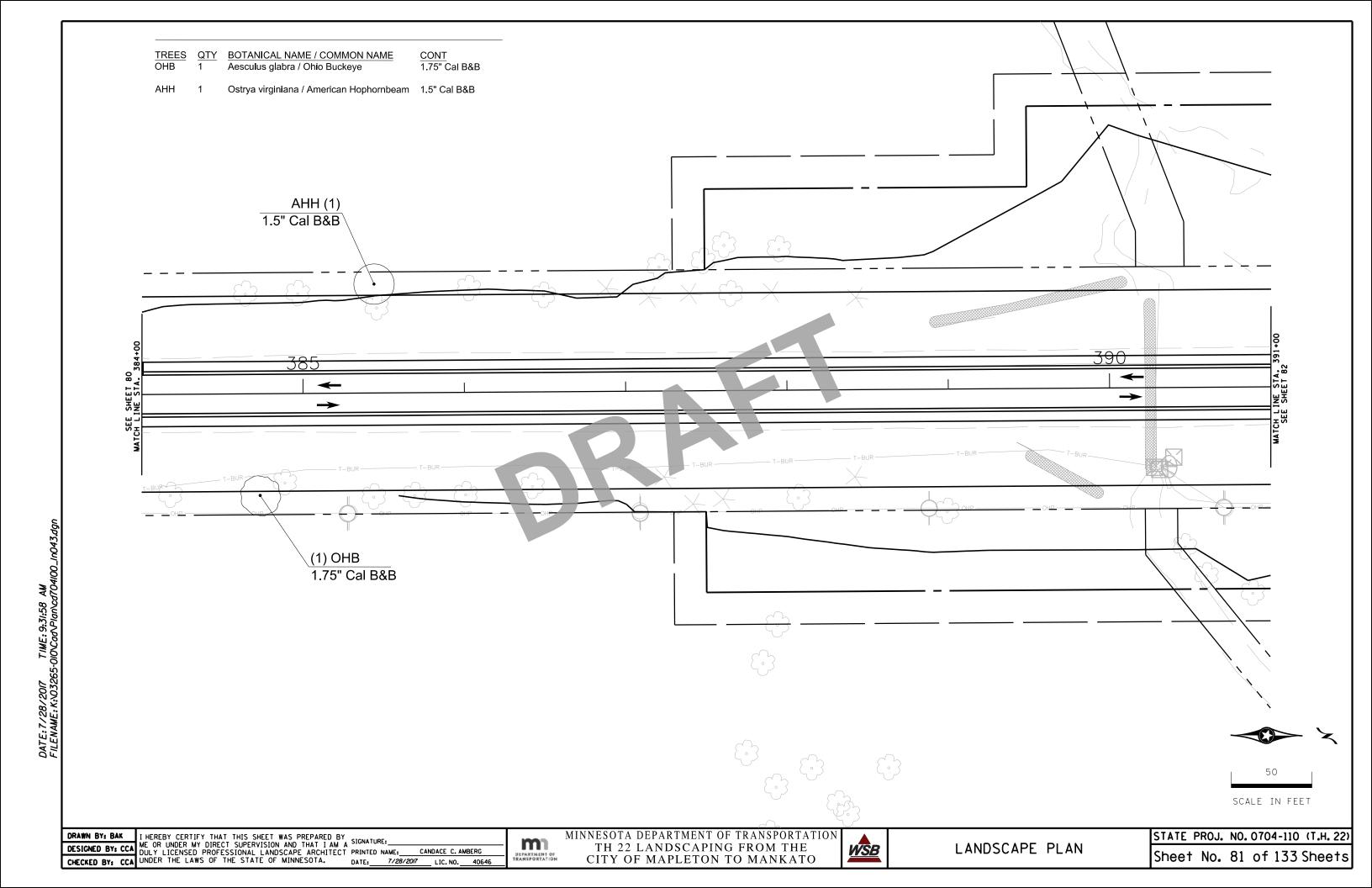
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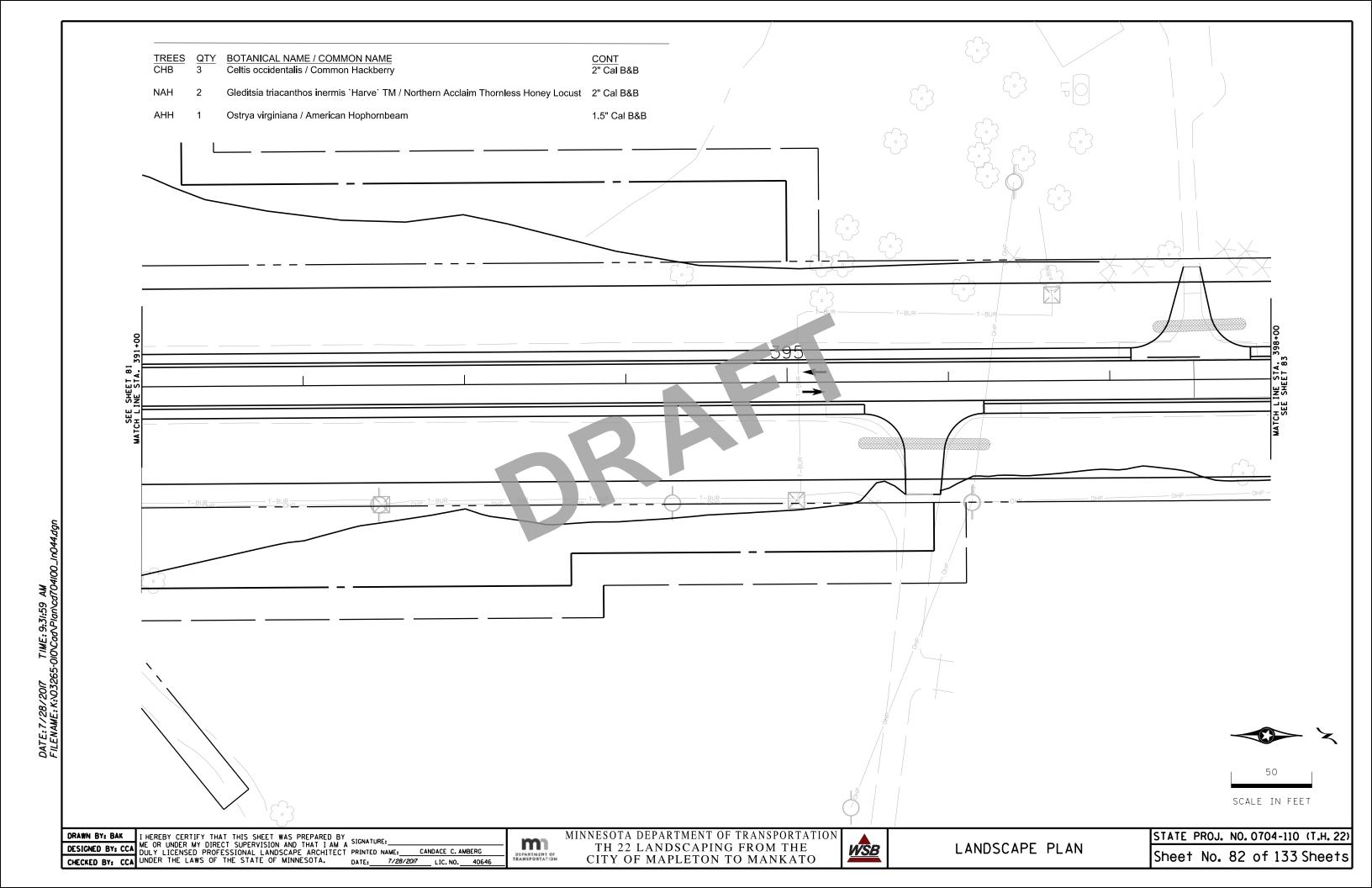
TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO

CITY OF MAPLETON TO MANKATO

DATE: 7/28/2017 LIC. NO. 40646

Sheet No. 79 of 133 Sheets





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UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 7/28/2017 LIC.NO. 40646

MINNESOTA DEPARTMENT OF TRANSPORTATION
TH 22 LANDSCAPING FROM THE
CITY OF MAPLETON TO MANKATO

<u>WSB</u>

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 83 of 133 Sheets

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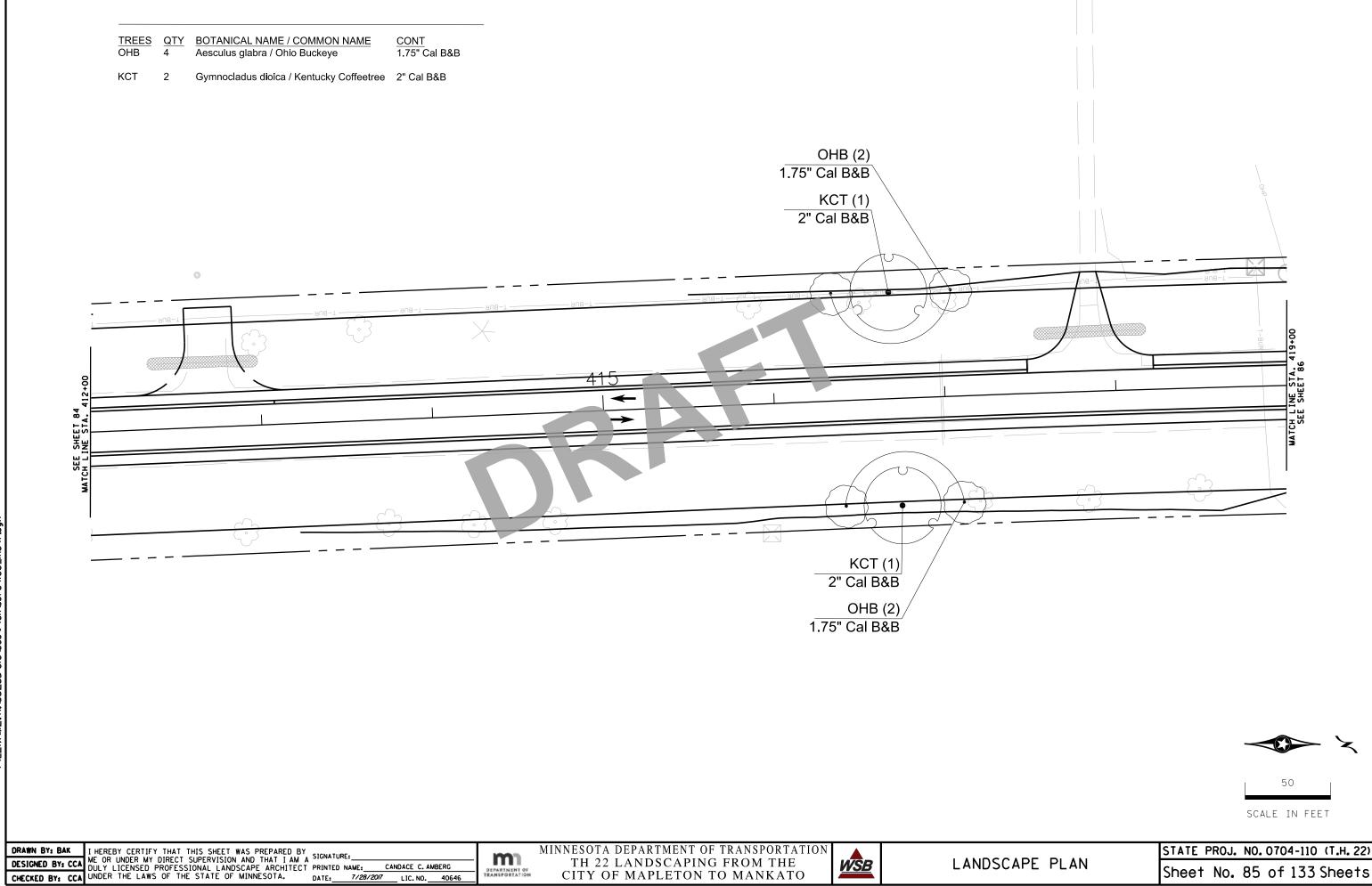
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MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



LANDSCAPE PLAN

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 84 of 133 Sheets

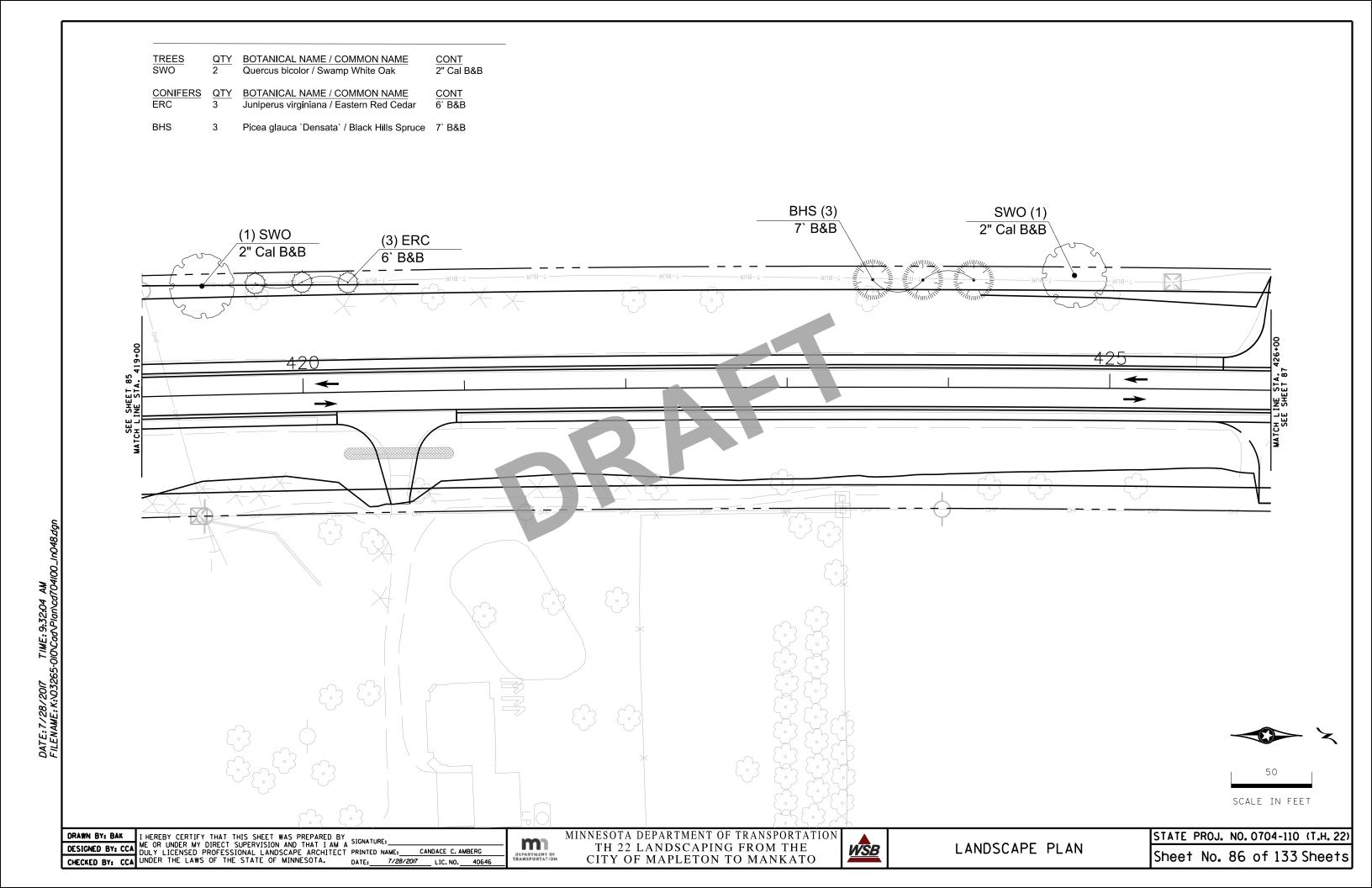


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TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO

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MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



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MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



LANDSCAPE PLAN

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 89 of 133 Sheets

CITY OF MAPLETON TO MANKATO

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LANDSCAPE PLAN

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 92 of 133 Sheets

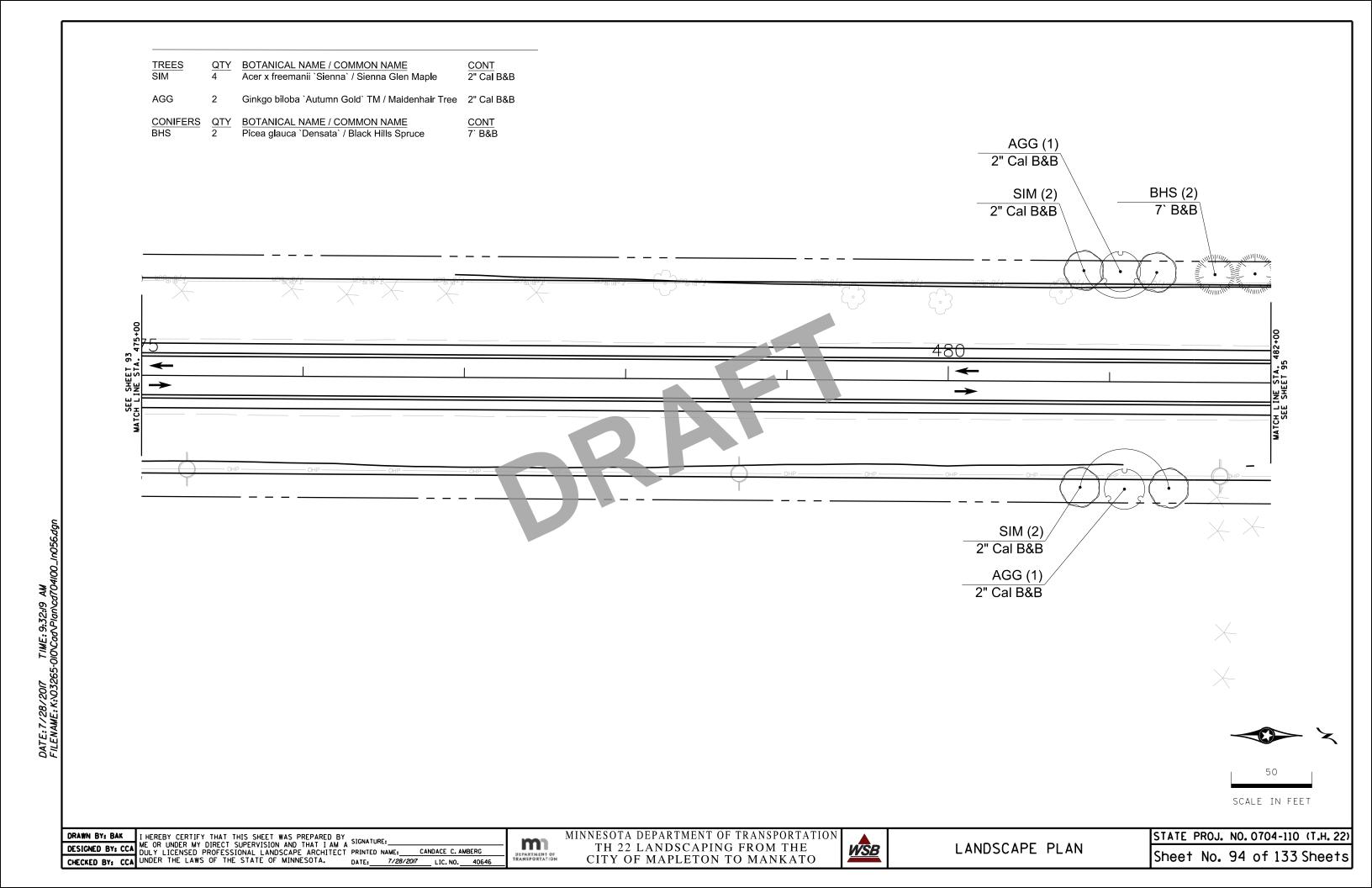
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LANDSCAPE PLAN

Sheet No. 93 of 133 Sheets



CITY OF MAPLETON TO MANKATO

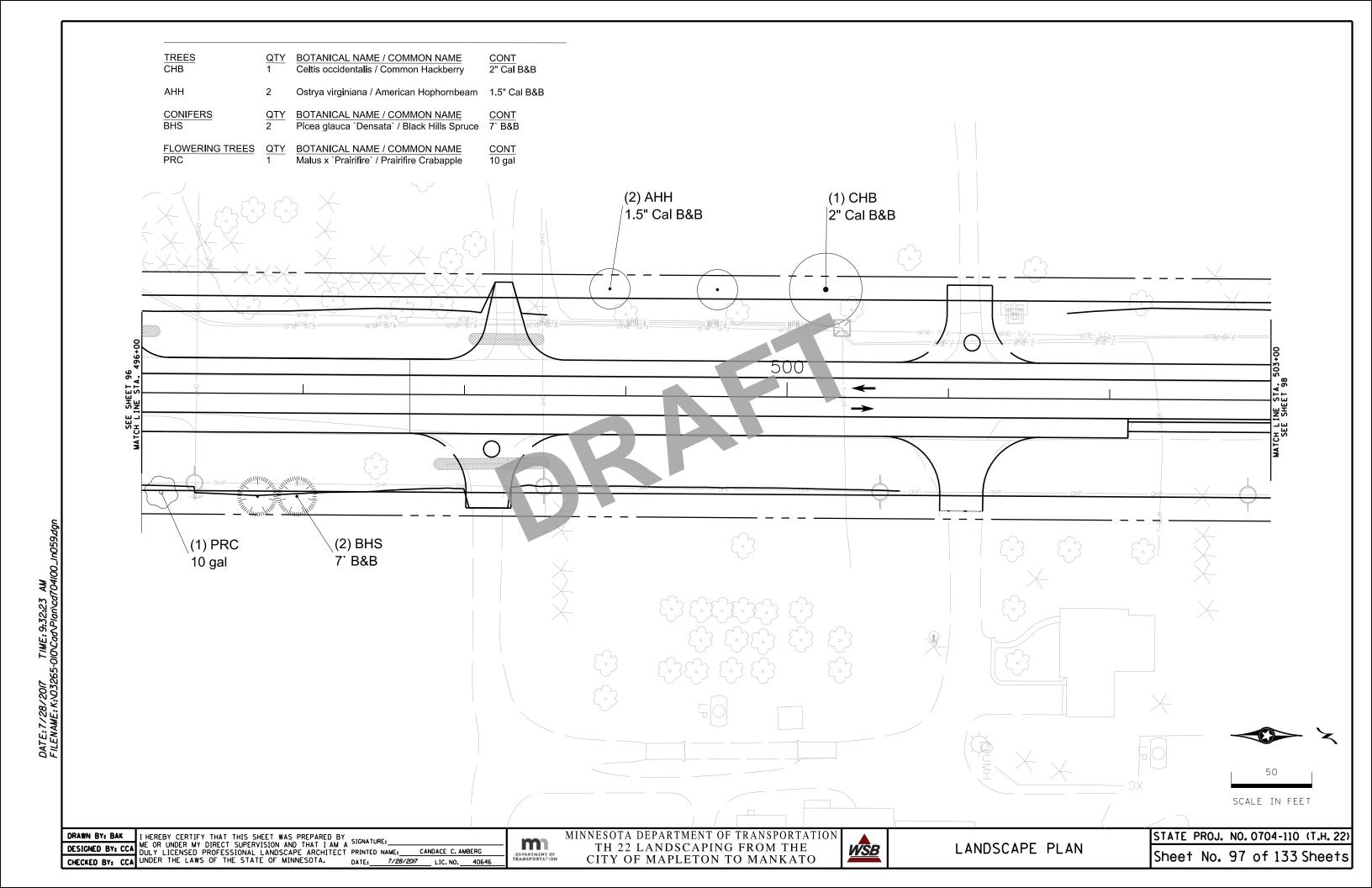
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Sheet No. 96 of 133 Sheets



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STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 98 of 133 Sheets

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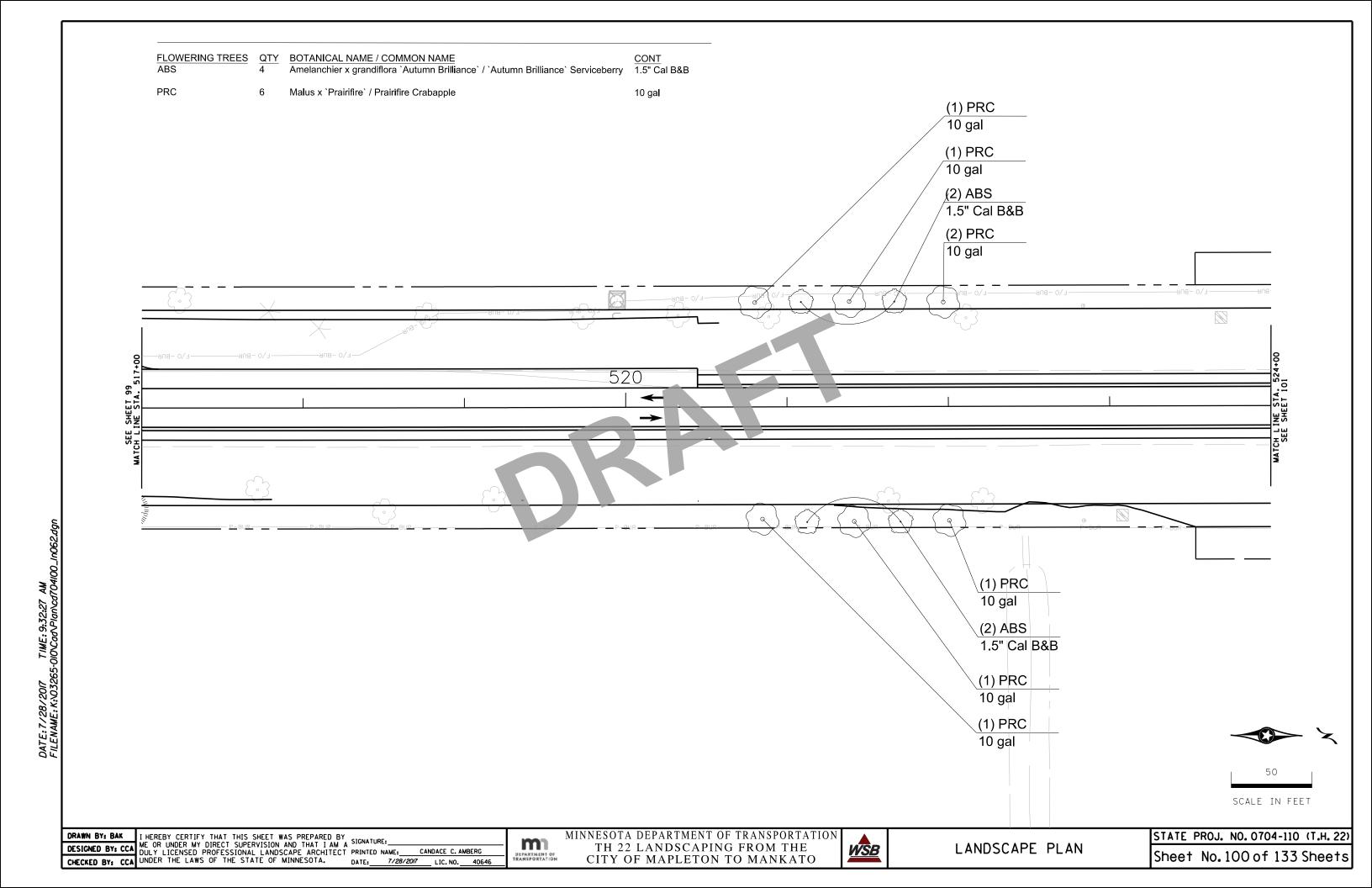
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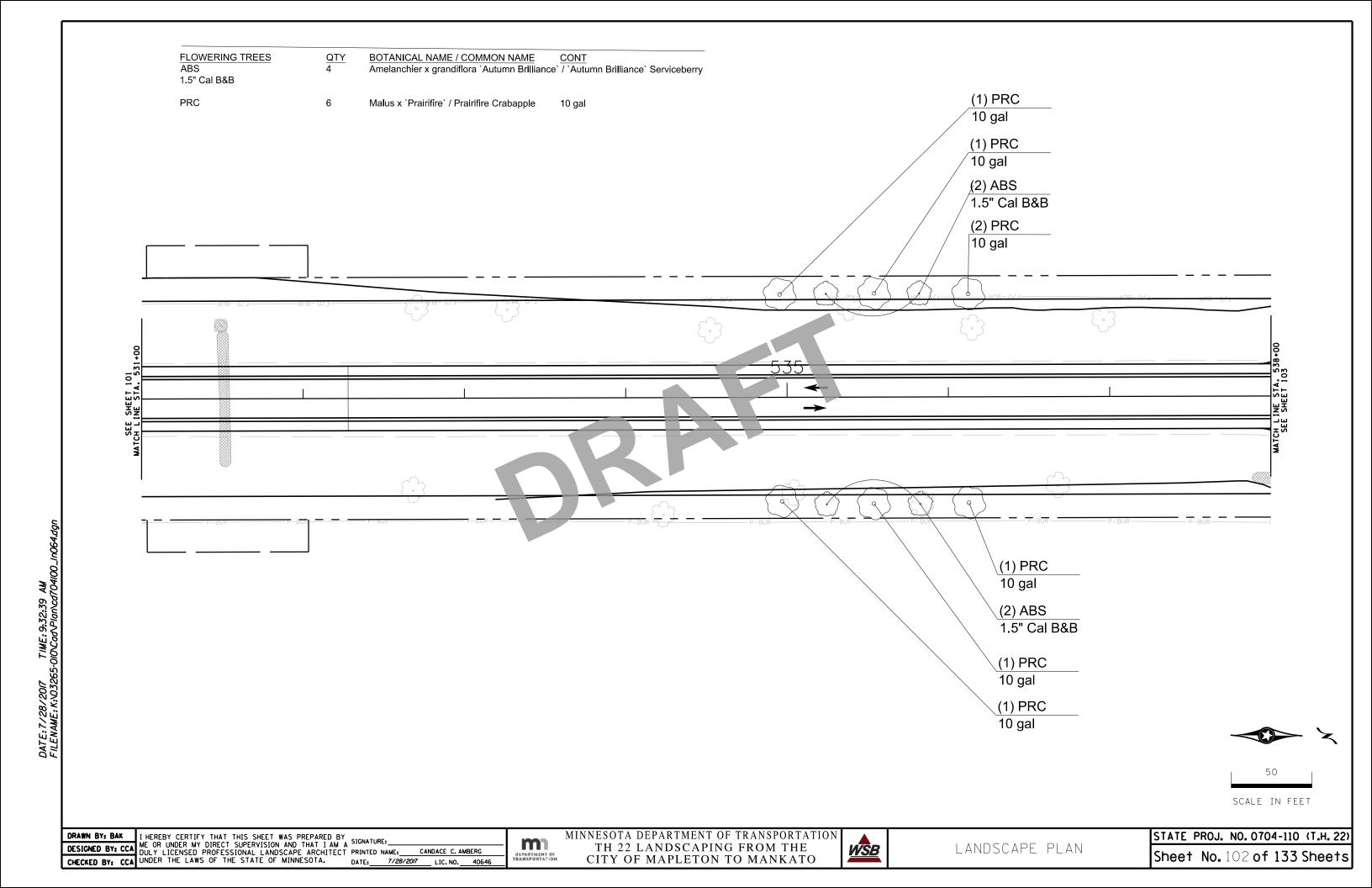


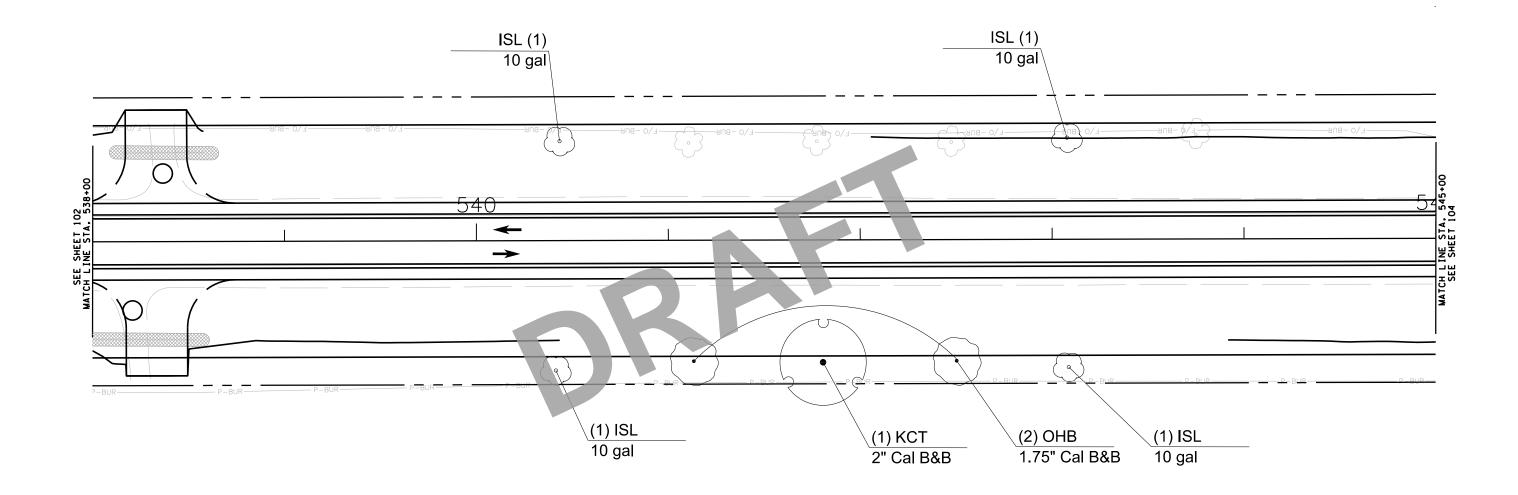
LANDSCAPE PLAN

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 99 of 133 Sheets



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STATE PROJ. NO. 0704-110 (T.H. 22) LANDSCAPE PLAN Sheet No. 103 of 133 Sheets

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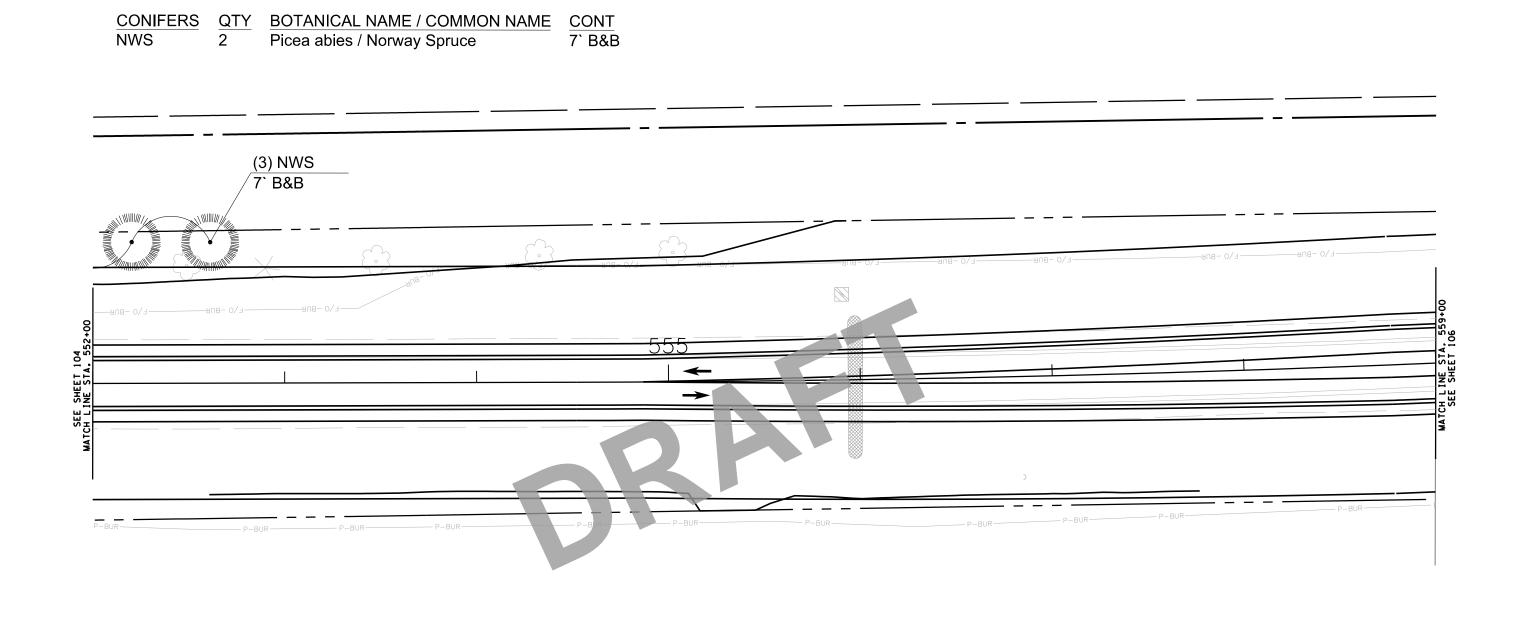
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TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



LANDSCAPE PLAN

Sheet No. 104 of 133 Sheets



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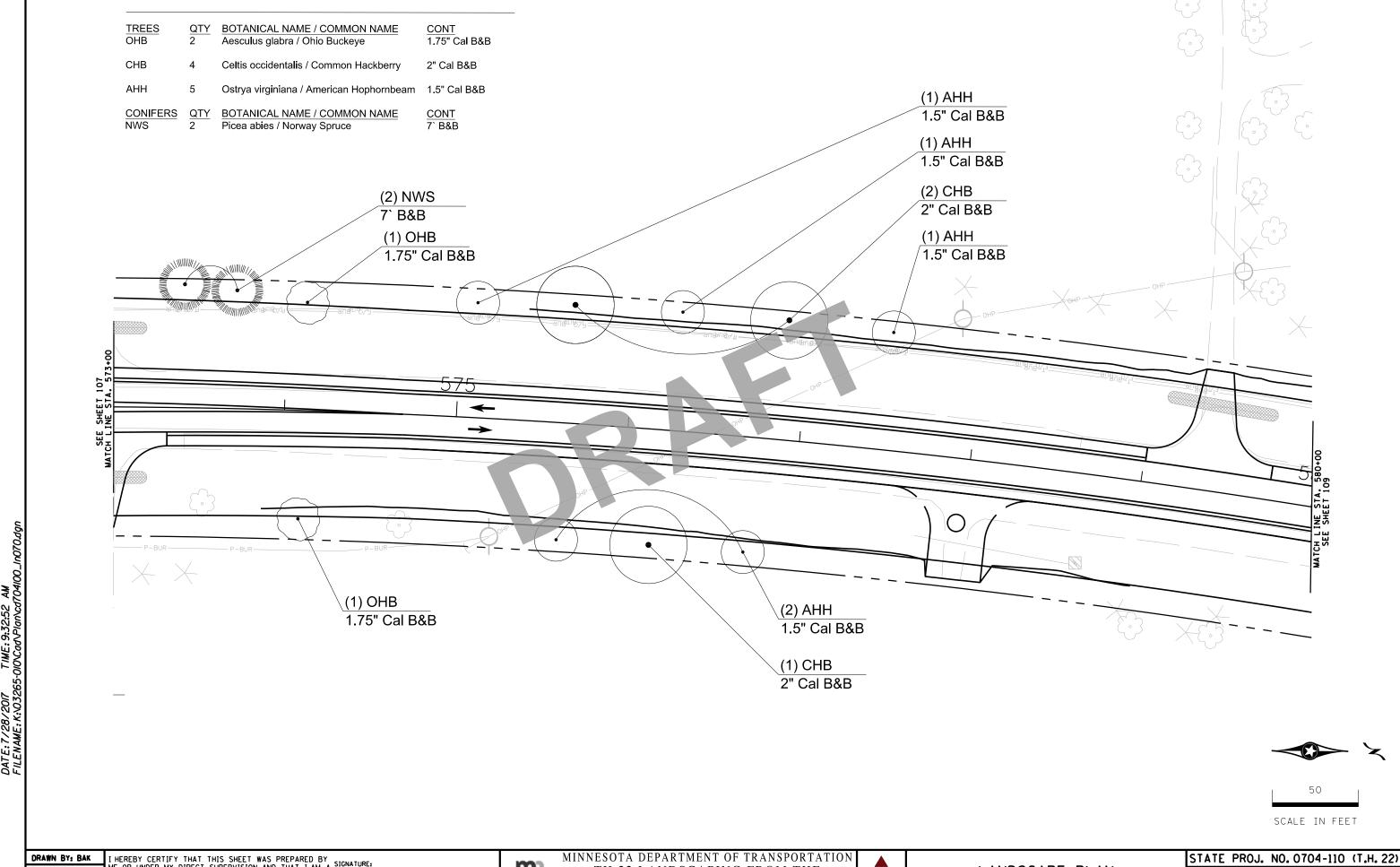
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MINNESOTA DEPARTMENT OF TRANSPORTATION m TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



STATE PROJ. NO. 0704-110 (T.H. 22) LANDSCAPE PLAN Sheet No. 105 of 133 Sheets

CITY OF MAPLETON TO MANKATO



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TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



LANDSCAPE PLAN

Sheet No.108 of 133 Sheets

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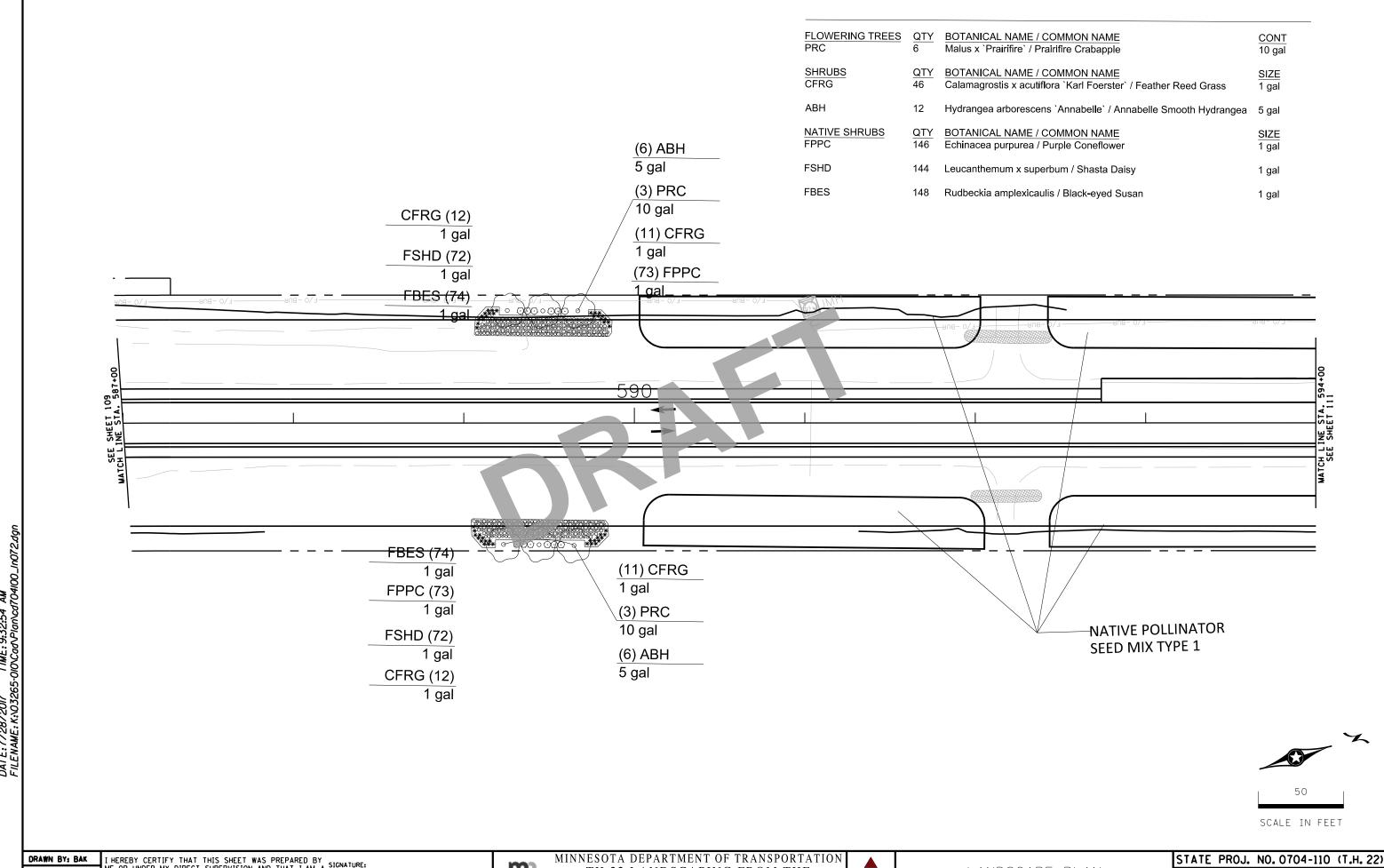
CANDACE C. AMBERG
DATE: 7/28/2017 LIC. NO. 4064 DATE: 7/28/2017 LIC. NO. 40646

MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



LANDSCAPE PLAN

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 109 of 133 Sheets



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TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



LANDSCAPE PLAN Sheet No. 110 of 133 Sheets

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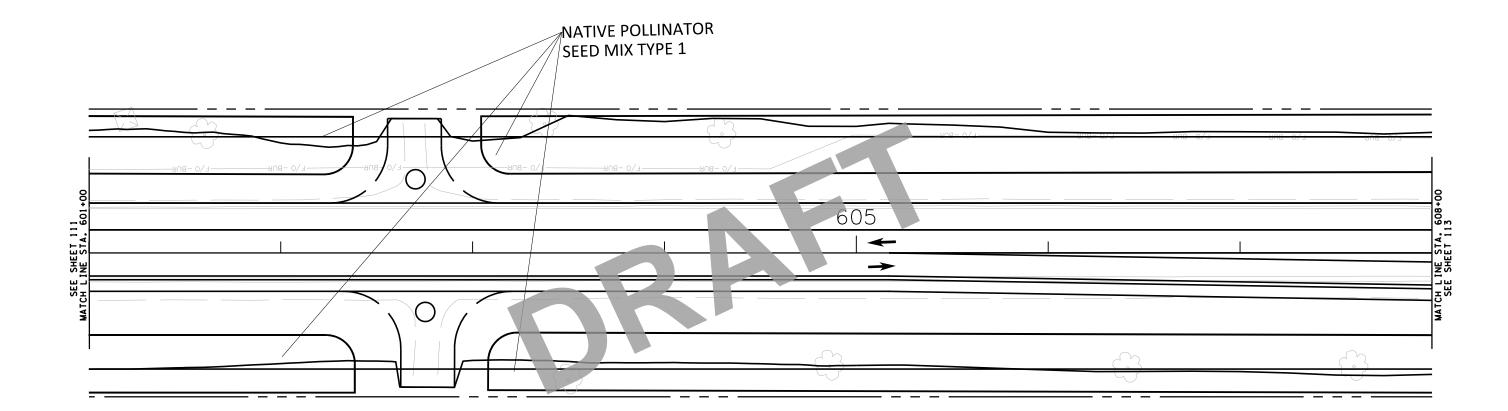


LANDSCAPE PLAN

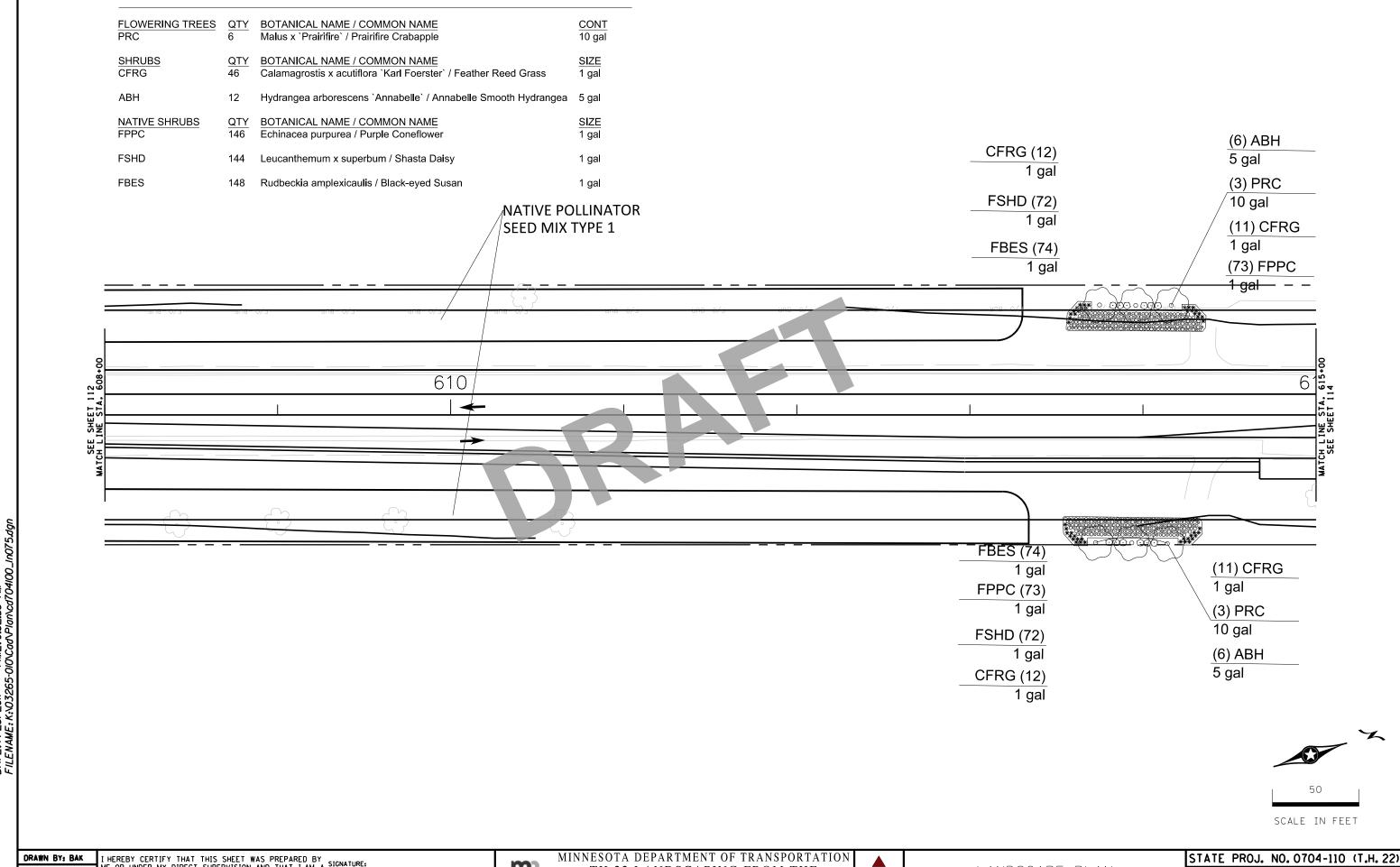


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STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 112 of 133 Sheets



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DATE: 1/28/20 CANDACE C. AMBERG DATE: 7/28/2017 LIC. NO. 40646

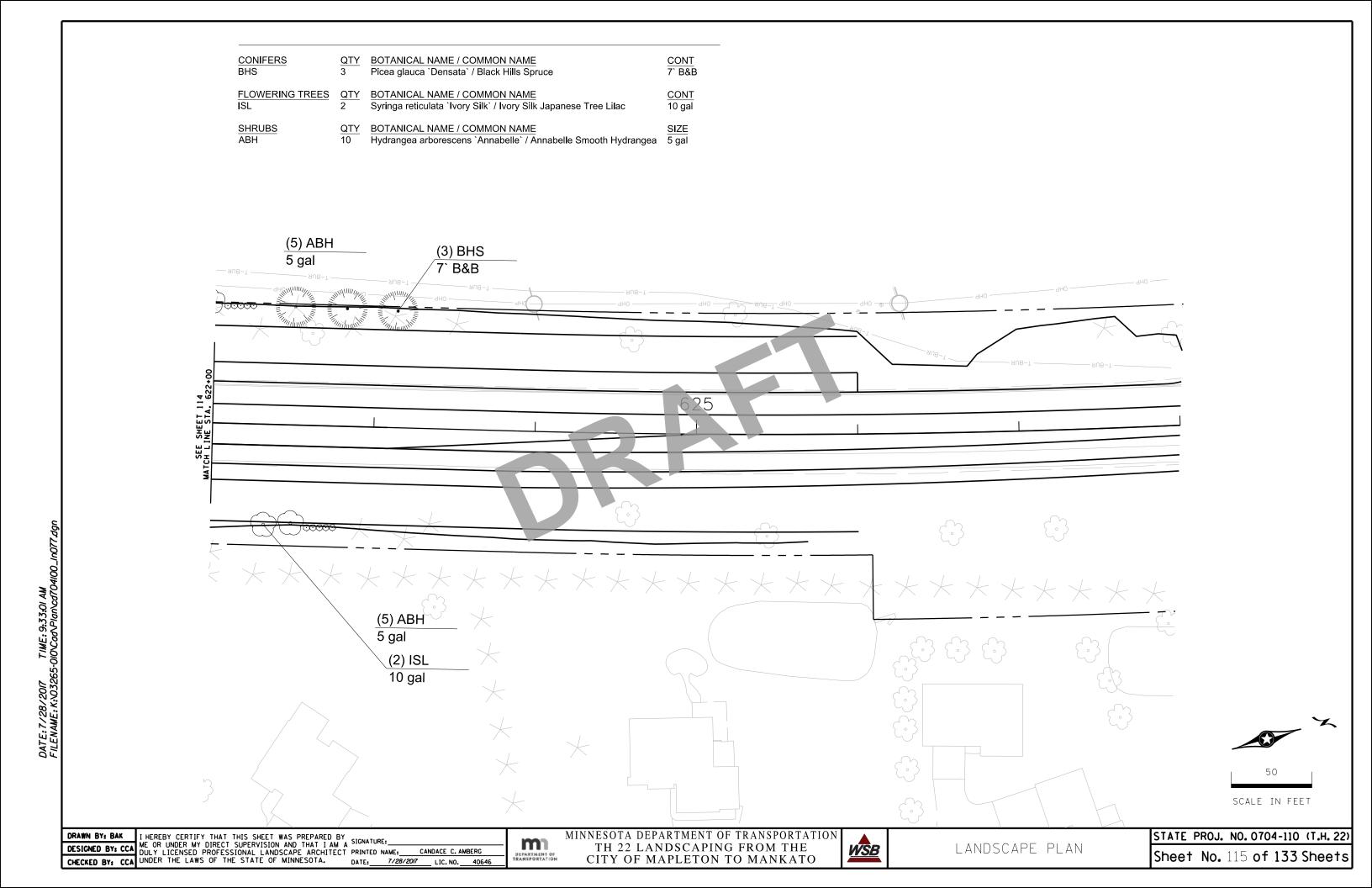
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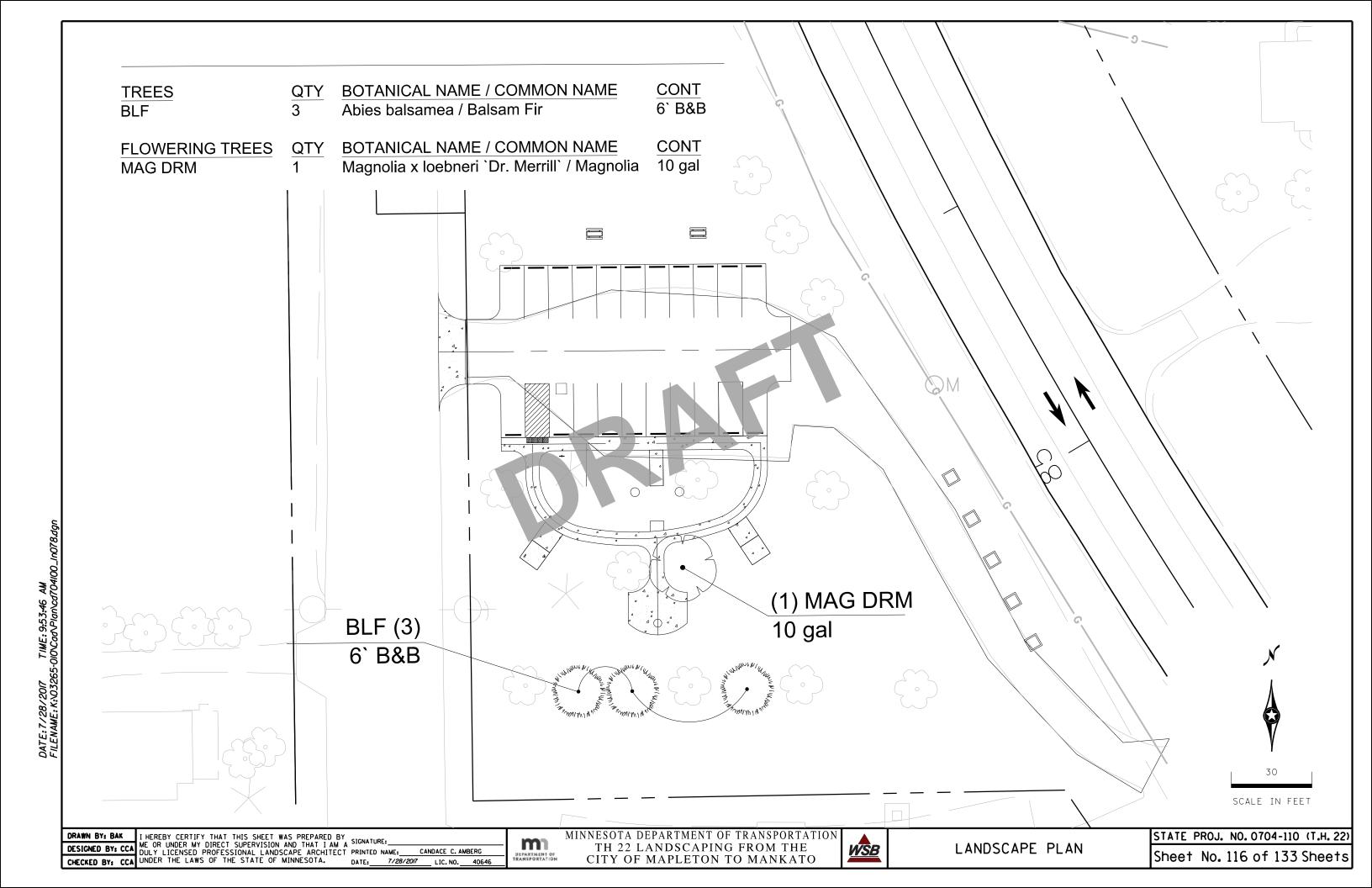
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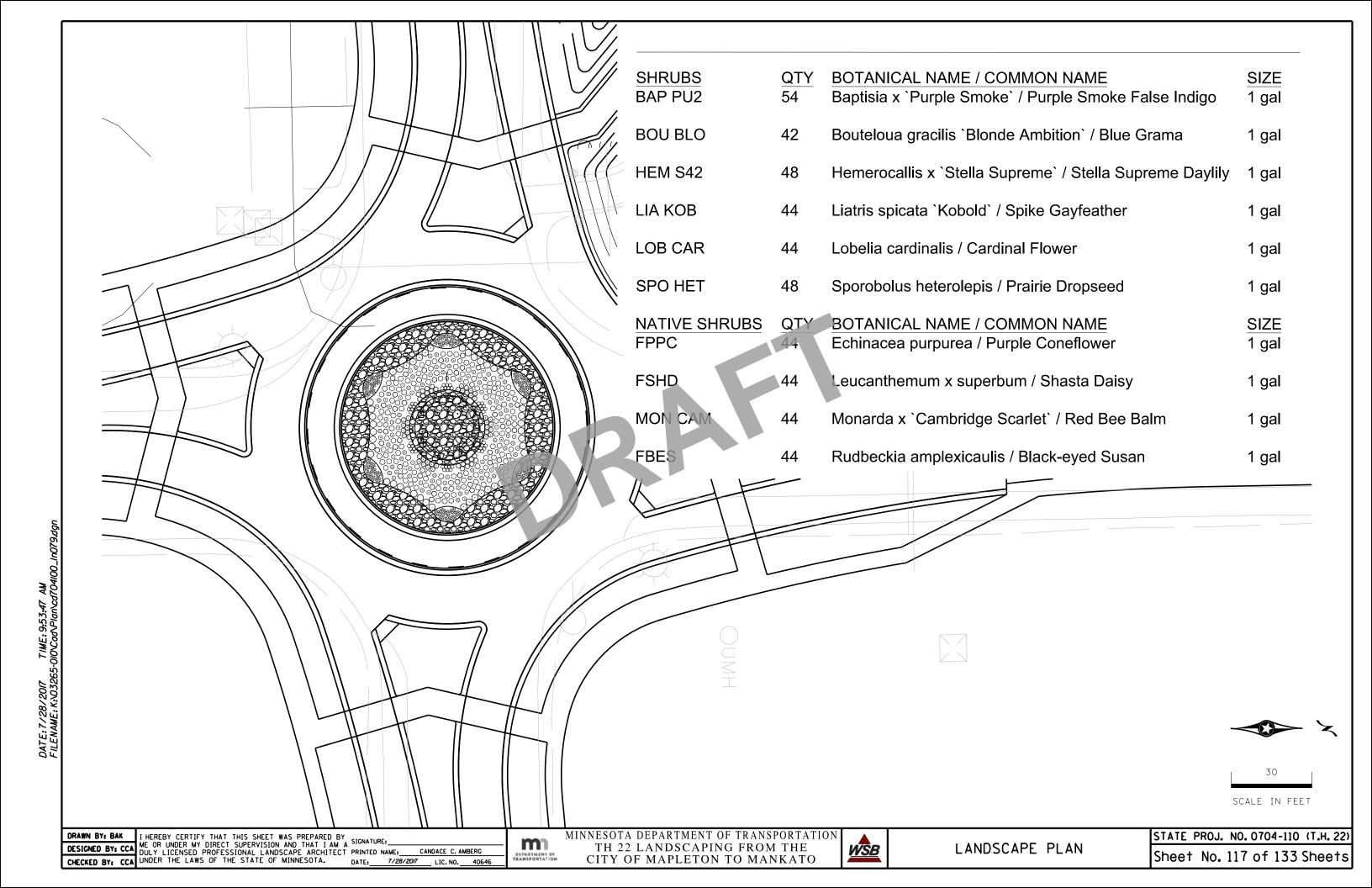


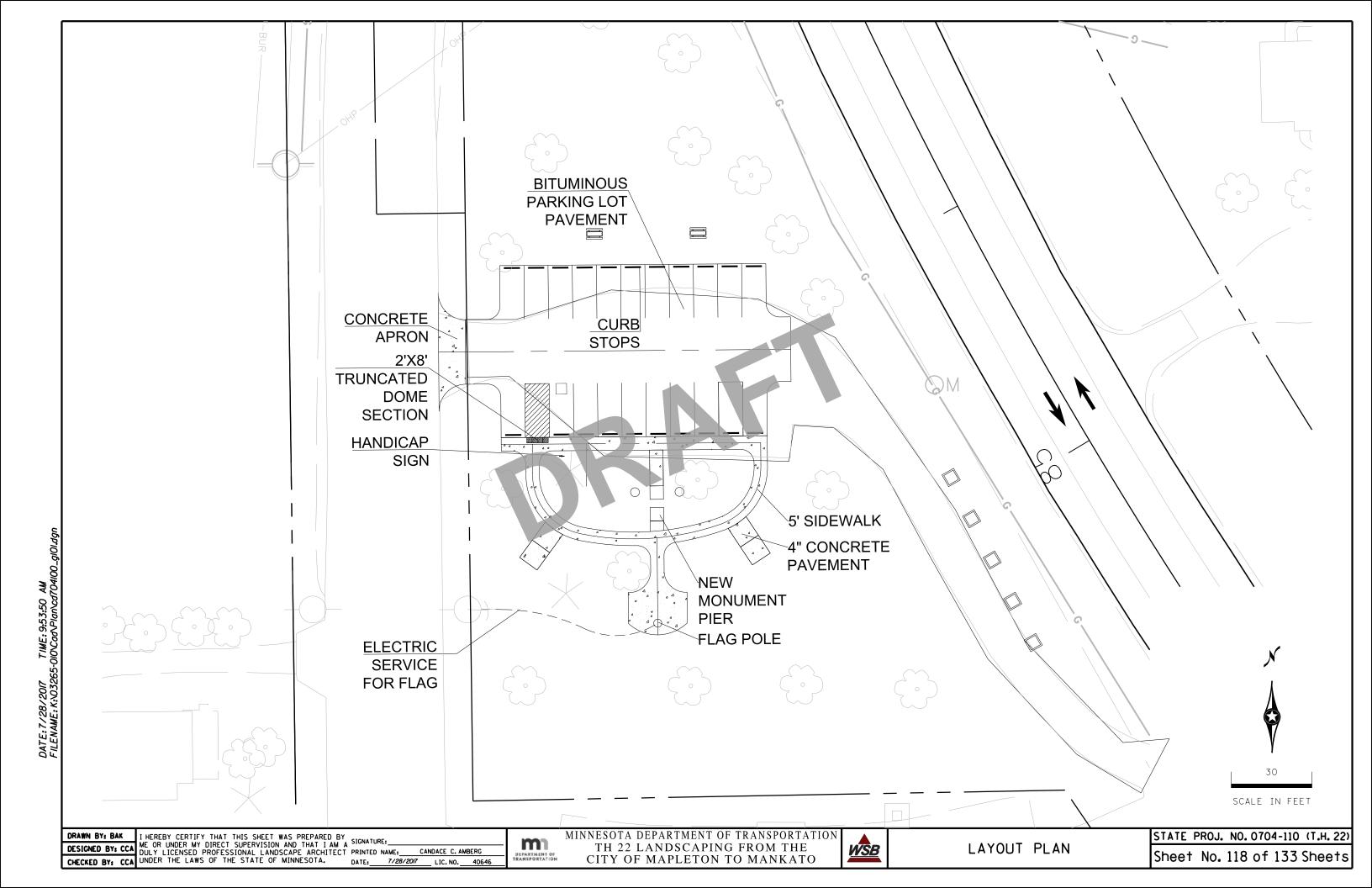
LANDSCAPE PLAN

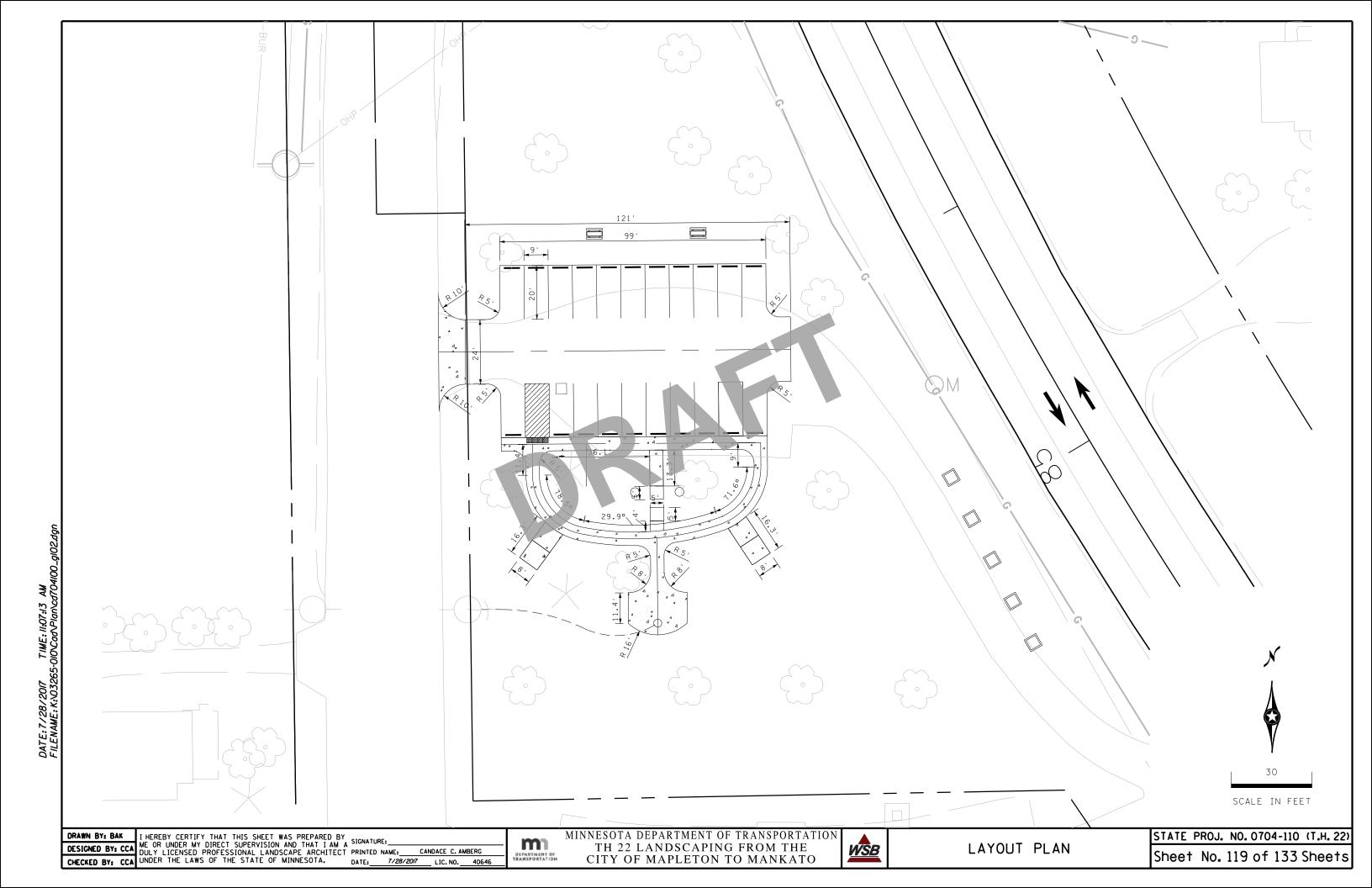
Sheet No. 113 of 133 Sheets











GENERAL NOTES

SEE SPECIAL PROVISIONS FOR SPECIFIC PROJECT REQUIREMENTS.

REFER TO MnDOT SPECIFICATIONS 2571, 3861, AND THE INSPECTION AND CONTRACT ADMINISTRATION MANUAL FOR MnDOT LANDSCAPE PROJECTS" FOR GENERAL REQUIREMENTS.

COMPLETE PREPARATORY WORK BEFORE STARTING INITIAL PLANTING OPERATIONS.

ACCEPT ALL PLANT STOCK IN ACCORDANCE WITH (MnDOT 3861) PRIOR TO PLANTING.

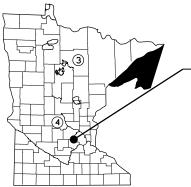
THE CONTRACTOR WILL DEMONSTRATE COMPETENCY FOR SOIL CULTIVATION OPERATIONS IN ACCORDANCE WITH (MnDOT 2571.3D2 STEP 4)

THE CONTRACTOR WILL DEMONSTRATE COMPETENCY FOR ALL PLANT INSTALLATION OPERATIONS IN ACCORDANCE WITH (MnDOT 2571.3F1)

SEE SPECIAL PROVISIONS AND STANDARD PLANTING DETAILS (C)

FERTILIZER	SEE SPECIAL PROVISIONS	
COMPOST	MnDOT 3890 GRADE 2 UNLESS OTHERWISE SPECIFIED.	
MULCH MATERIAL	MnDOT 3882 TYPE 6 UNLESS OTHERWISE SPECIFIED.	
MASS PLANTING BEDS	PREPARE MASS PLANTING BEDS FOR PLANTS PLACED AT LESS, UNLESS OTHERWISE SPECIFIED ON SHEETS. PLANT BEDS IN STAGGERED ROWS ON THE PERIMETER FIRST, THEN UNIFORMLY FILL IN WITH REMAINING PLANTS. USE TRIANGULAR SPACING, UNLESS SPECIFIED OTHERWISE. PROVIDE 5' RADIUS CLEAR OF SHRUBS AROUND EACH DECIDUOUS TREE AND 8' CLEAR RADIUS AROUND EACH CONIFER TREE. RADIUS WILL BE MEASURED FROM THE CENTER OF THE TREE TO THE CENTER OF THE SHRUB. NOTIFY ENGINEER OF GROSS PLANT QUANTITY SURPLUS OR DEFICIENCY IMMEDIATELY. MULCH ENTIRE MASS PLANTING BED. SEE STANDARD PLANTING DETAILS (C)	
TREE	DAINT CAR LINDEN LOCUET MADE ORABARDE AND MOUNTAIN	

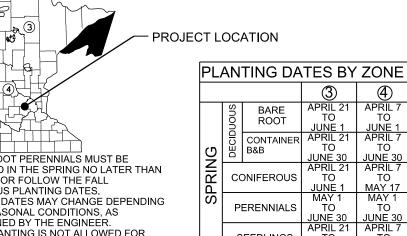
TREE PAINTING (FROST CRACK PREVENTION)	PAINT OAK, LINDEN, LOCUST, MAPLE, CRABAPPLE AND MOUNTAIN ASH. ONLY UNDILUTED EXTERIOR WHITE LATEX PAINT IS ACCEPTABLE. PAINT TREE CIRCUMFERENCE FROM GROUND LINE TO FIRST MAJOR BRANCH.		
PLANTING PLAN DIMENSIONS	STATED DIMENSIONS SUPERCEDE SCALING FROM PLAN.		
(5)	PLANT TYPE	AVERAGE GALLONS OF WATER PER APPLICATION	
2571.3G)	MACHINE TRANSPLANTED TREES	50-100	
3 GUIDELINES (MnDOT 25	BALLED AND BURLAPPED TREES	20	
	BARE ROOT AND CONTAINER TREES	15	
	BALLED AND BURLAPPED SHRUBS	10	
	BARE ROOT AND CONTAINER SHRUBS	7	
	WOODY SEEDLINGS	4	



1.BARE ROOT PERENNIALS MUST BE INSTALLED IN THE SPRING NO LATER THAN JUNE 1ST OR FOLLOW THE FALL DECIDUOUS PLANTING DATES. 2.ACTUAL DATES MAY CHANGE DEPENDING UPON SEASONAL CONDITIONS, AS DETERMINED BY THE ENGINEER. 3.FALL PLANTING IS NOT ALLOWED FOR BARE ROOT FORM OF THE FOLLOWING SPECIES: HAWTHORN, DOGWOOD, POPLAR, HACKBERRY, LINDEN, IRONWOOD, HONEYLOCUST, BIRCH, MOUNTAIN ASH MAPLE, WILLOW, CRABAPPLE, PLUM/CHERRY, OAKS, AND SUMAC. 4.ALL REPLACEMENT PLANTS MUST BE

INSTALLED DURING THE MONTH OF MAY (SPRING PLANTING) AND SEPTEMBER (FALL PLANTING) DURING THE FIRST YEAR OF THE PLANT ESTABLISHMENT PERIOD. 5.MACHINED MOVED PLANTING DATES BE SPECIFIED IN THE SPECIAL POVISION

PLANT INSTALLATION PERIOD



			3	(4)
	DECIDUOUS	BARE ROOT	APRIL 21 TO JUNE 1	APRIL 7 TO JUNE 1
ص ا	DECID	CONTAINER B&B	APRIL 21 TO JUNE 30	APRIL 7 TO JUNE 30
SPRING	CC	ONIFEROUS	APRIL 21 TO JUNE 1	APRIL 7 TO MAY 17
\s	Р	ERENNIALS	MAY 1 TO JUNE 30	MAY 1 TO JUNE 30
	s	EEDLINGS	APRIL 21 TO JUNE 1	APRIL 7 TO JUNE 1
	ECIDNOUS	BARE ROOT	OCT. 1 TO NOV. 1	OCT 10 TO NOV 15
ALL	DECID	CONTAINER B&B	AUG. 25 TO OCT. 15	AUG. 25 TO NOV. 1
T	CC	ONIFEROUS	AUG. 25 TO SEPT. 15	AUG. 25 TO SEPT. 15
	P	ERENNIALS	AUG. 25 TO SEPT. 15	AUG. 25 TO SEPT. 15

LIVE BRANCH **BRANCH BARK** RIDGE DFAD BRANCH BRANCH COLLAR

BRANCHES PRUNED AT TRUNK

CORRECT TOO TOO TOO PRUNING CLOSE LONG SLANTED CUT - LIVE BUD

BRANCHES PRUNED TO LIVE BUD

PRUNING (MnDOT 2571.3F2)

STEPS TO PRUNING WITH PRUNING SAW:

1.CUT PART WAY THROUGH THE BRANCH AT POINT A. 2 CUT COMPLETELY THROUGH BRANCH FROM POINT B TO A. 3 AT BRANCH COLLAR CUT FROM POINT C TO D.

INCORRECT CUT FROM POINT C TO X (TOO CLOSE) WILL RESULT IN DISCONTINUOUS CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

CORRECT CUT FROM POINT C TO D (LEAVING BRANCH COLLAR BUT NOT THE STUB FROM POINT B TO A) WILL RESULT IN CONTINUOUS DOUGHNUT SHAPED CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

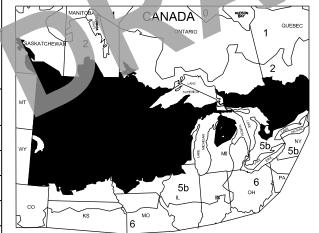
PRUNING NOTES: 1.PRUNE USING CLEAN AND SHARP SCISSOR-TYPE PRUNER OR PRUNING SAW. 2.THE BEST TIME TO PRUNE IS LATE DORMANT SEASON OR EARLY SPRING. 3.AVOID PRUNING OAKS IN APRIL, MAY, JUNE OR JULY. 4.IF PRUNING IS NECESSARY OR IF WOUNDS OCCUR TO OAK TREES IN APRIL, MAY, JUNE OR JULY, IMMEDIATELY PAINT CUT SURFACE OR WOUND WITH LATEX PAINT OR SHELLAC.

CULTIVATED

INPLACE SOIL DEPTH

(MnDOT 2571.3D2)

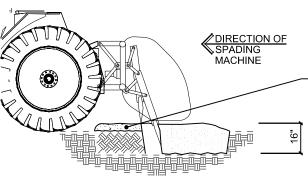
(MnDOT 2571.3K2a9 and 2571.3E1)



ACCEPTABLE ZONES ZONES LEGEND MIN. TEMP. -34.4°TO -40 F° -28.9°TO -34.4 F -26.1°TO -28.9 F

UNACCEPTABLE ZONES ZONES LEGEND 0, 1, 2, 5b and 6

PRIMARY TILLAGE - PASS 1



SPADING

4 INCHES OF GRADE 2 COMPOST AND OTHER SPECIFIED ADDITIVES THOROUGHLY MIXED WITH **INPLACE CULTIVATED SOILS**

INCORPORATION TILLAGE - PASS 2

PLANTING SOI

(MnDOT 2571.3D2)

YEARS WITHIN THE ACCEPTABLE LIMITS SHOWN.

B.PLANT STOCK, GROWN OUTSIDE THE ACCEPTABLE GROWING RANGE LIMITS, HAVING SEED SOURCE OR ROOT AND GRAFT STOCK ORIGINATING FROM THE ACCEPTABLE LIMITS SHOWN.

A.PLANT STOCK CONTINUOUSLY GROWN FOR AT LEAST THE LAST TWO

FOR ALL PLANT STOCK, DOCUMENT ACCEPTABILITY FOR HARDINESS IN THE

MINNESOTA ZONE WHERE THE PROJECT SITE IS LOCATED, AS FOLLOWS:

ACCEPTABLE PLANT STOCK GROWING RANGE LIMITS

SOURCE: USDA PLANT HARDINESS ZONE MAP

(MnDOT 3861.2C)

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PERENNIALS AND VINES

REQUIREMENTS.

DATE: 7/28/2017

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MONITOR AND MAINTAIN SOIL MOISTURE AT ADEQUATE BUT NOT EXCESSIVE LEVELS. THE AMOUNTS LISTED ABOVE ARE GUIDELINES, NOT

> m CANDACE C. AMBERG

LIC. NO.

MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO

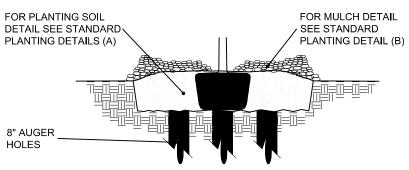


MISCELLANEOUS DETAILS

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 120 of 133 Sheets

RODENT

PROTECTION



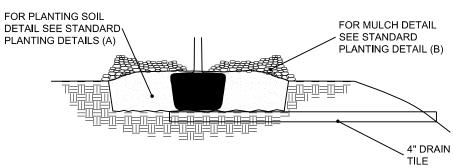
1.EXCAVATE HOLE OR BED TO ALLOW PLACING THE TOP OF ROOT MASS 1"-3" HIGHER THAN

2.AUGER 8" DIAMETER HOLES ENTIRELY THROUGH IMPERVIOUS OR POORLY DRAINED HARD PAN SOIL LAYER TO ADEQUATELY DRAIN SUBSOIL

3.TEST FOR POSITIVE DRAINAGE. RE-AUGER AN ADDITIONAL 8" IF NECESSARY FOR POSITIVE

4.THOUROUGHLY BACKFILL AUGER HOLES WITH A UNIFORM INCORPORATED MIXTURE OF 50% SAND AND 50% INPLACE SOIL.
5.COMPLETE PLANTING ACCORDING TO ROOT TYPE. SEE STANDARD PLANTING DETAILS (B)

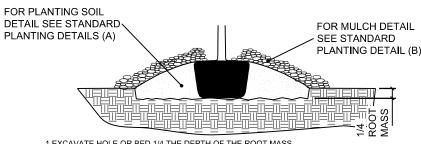
INSTALL GRANULAR FILTER



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.COMPLETE PLANTING ACCORDING TO ROOT TYPE. SEE STANDARD PLANTING DETAILS (B).

INSTALL TILE DRAINAGE



1.EXCAVATE HOLE OR BED 1/4 THE DEPTH OF THE ROOT MASS.

2 SET ROOT MASS IN HOLE

3.CONSTRUCT BERM WITH PLANTING SOIL. EXTEND THE BERM BASE TO A WIDTH OF 3 TIMES THE BERM HEIGHT. 4.COMPLETE PLANTING ACCORDING ROOT TYPE. SEE STANDARD PLANTING DETAILS (B).

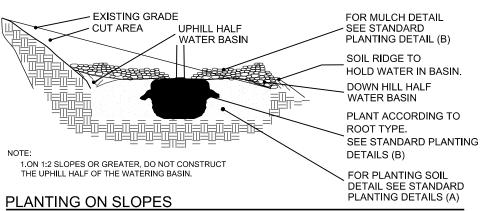
INSTALL MINI-BERM

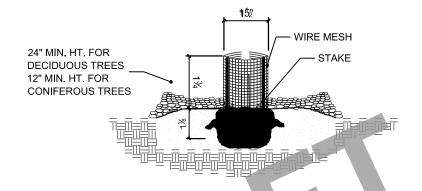
T.THE NEED FOR USING PLANTING DETAILS FOR POORLY DRAINED SOILS AND WHICH TYPE TO USE ARE DETERMINED BY THE CONTRACTOR, SUBJECT TO ENGINEER APPROVAL

PLANTING DETAIL FOR POORLY DRAINED SOILS

(MnDOT 2571,3D2 (STEP 8)

LIC. NO.





1.FORM A DOUBLE-LAYERED CYLINDER USING 0.25" GRID GALVANIZED WELDED WIRE MESH (HARDWARE CLOTH). OVERLAP THE CUT END 2". 2.DRIVE TWO 1" x 1" OPPOSING HEARTWOOD WHITE OAK STAKES INTO THE GROUND, 7" FROM THE

CENTER OF THE IREE STEM.

3.SECURE THE MESH CYLINDER TO THE OUTSIDE OF THE STAKES USING EITHER, SCREWS AND WASHERS
OR CABLE-TIES ALONG THE OVERLAP. SPACE APPROXIMATELY 4" ON CENTER ALONG THE OVERLAP.

a.SCREWS SHALL BE ROUND HEAD GALV ANIZED 1/8" DIA. x 3/4" LONG WITH WASHERS.

LON, AT LEAST 8" LONG AND BETWEEN 75LB TO 120LB TENSILE

4 EMBED THE OWER EDGE OF THE MESH CYLINDER 1" BELOW THE SOIL SURFACE WITHOUT DISTURBING

I NOT BE PERMITTED AT THE TOP OF THE CYLINDER. STAKE WILL BE FLUSH WITH CUT EDGES JULCH WITHIN THE CYLINDER SHALL NOT EXCEED 3" DEPTH AND SHALL BE PULLED BACK FROM THE

ECIFIED IN MULCH PLACEMENT DETAIL.

WHORL OF PINE AND LARCH BRANCHES MAY HAVE TO BE REMOVED TO PERMIT

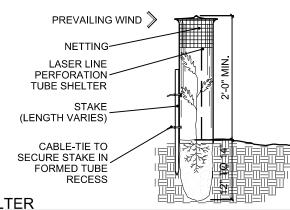
ON OF 12" MIN HEIGHT RODENT GUARDS ON ALL DECIDUOUS, PINE AND LARCH TREES, DO NOT PLACE ON SPRUCE TREES.

RODENT PROTECTION

(MnDOT 2571.3I2)

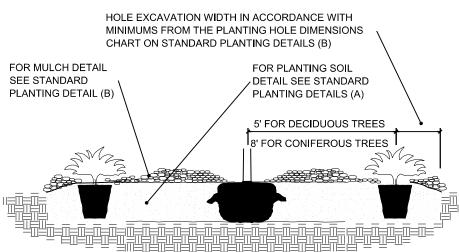
TWIN-WALL, RIGID AND SEMI TRANSLUCENT POLYPROPYLENE TUBES WITH A LASER LINE PERFORATION AND AN OUTWARD-FLARED TOP RIM. 2.SECURE SHELTER WITH NYLON CABLE-TIES ATTACHED TO A 1" x 1" WHITE OAK STAKE TO PREVENT DISLODGING OR TWISTING.
3.EMBED THE BOTTOM OF THE TUBE A MINIMUM OF 1" BELOW THE SOIL SURFACE WITHOUT DISTURBING THE TREE ROOTS 4.INSTALL A PLASTIC
PHOTODEGRADABLE NETTING COVER AND SLEEVE OVER THE TOP OF THE TUBE. PULL NETTING DOWN AS SHOWN

1 LISE SEAMLESS EXTRUDED

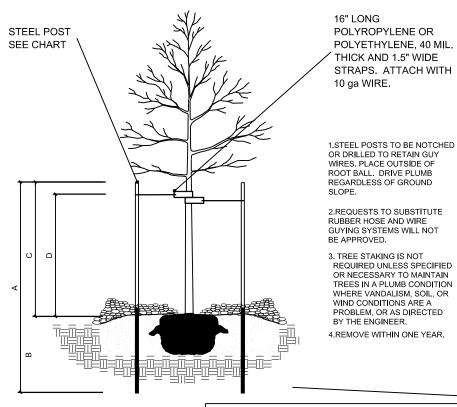


SEEDLING TREE SHELTER

(MnDOT 2571.3I4)



PLANT SPACING IN MASS BEDS



STEEL POST SIZING					
CALIPER	STEEL POST TYPE	Α	В	C	D
LESS THEN 4 INCHES	ROLLED STEEL FENCE POST (MnDOT 3403) OR APPROVED EQUAL.	7'-0"	3'-0" MIN.	4'-0"	3'-0"
GREATER THEN 4 INCHES	10', 2.2 LB. FLANGED CHANNEL STEEL SIGN POST (MnDOT 3401) OR APPROVED EQUAL.	10'-0"	4'-0" MIN.	6'-0"	5'-0"

STAKING AND GUYING

(MnDOT 2571.3|1)

DRAWN BY: BAK DESIGNED BY: CCA

I HEREBY CERTIFY THAT THIS SHEET WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A SIGNATURE: DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT PRINTED NAME: UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 7/28/2017

m CANDACE C. AMBERG

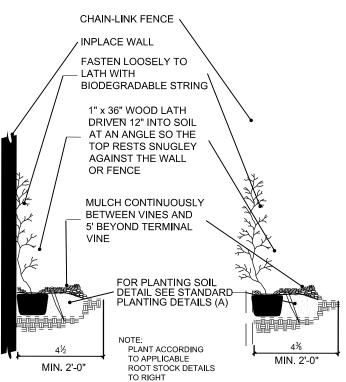
MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



MISCELLANEOUS DETAILS

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 121 of 133 Sheets

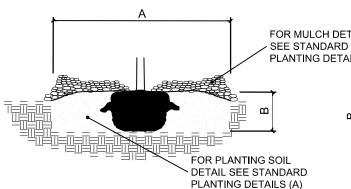
	PLANTING H	OLE DIMENSIONS	
HOLE DEPTH FOR BE FLAIR TO BOTTOM O		S SHALL NOT EXCEED MEASU	REMENT FROM ROOT
PLANT TYPE	PLANT SIZE UP TO AND INCLUDING	(A) MINIMUM HOLE WIDTH	(B) APPROXIMATE HOLE DEPTH
	3' B.R.	46"	13"
	4' B.R	46"	14"
	5' B.R.	48"	14"
	6' B.R.	54"	15"
	7' B.R	60"	16"
	8' B.R.	66"	19"
	0.75" B.R.	48'	12"
	1" B.R.	54"	14"
	1.25" B.R.	60"	14"
	1.5 B.R.	66"	15"
	1.75" B.R	72"	16"
	2" B.R.	84"	19"
DECIDUOUS &	4' B.B.	42"	11"
ORNAMENTAL	5' B.B.	48"	12"
TREES	6' B.B.	52"	14"
	8' B.B.	66"	16"
	10' B.B.	66"	16"
	12' B.B.	48"	16"
	1" B.B.	54"	14"
	1.25" B.B.	56"	15"
	1,5" B.B.	61"	15"
	1.75" B.B.	66"	16"
	2" B.B.	72"	16"
	2.5" B.B.	84"	19"
	3" B.B.	96"	20"
	3,5" B.B.	114"	23"
	4" B.B.	126"	25"
	12" B.R.	24"	7"
	15" B.R.	28"	8"
	18" B.R.	30"	8"
DECIDUOUS SHRUBS, ROSES	2' B.R.	33"	9"
	3' B.R.	42"	11"
AND PERENNIALS PERENNIAL HOLE DEPTH AND WIDTH SHALL BE BASED	4' B.B.	48"	12"
	5' B.R.	54"	14"
	6' B.R.	60"	14"
	18" B.B.	27"	7"
	2' B.B.	30"	8"
PON ON-CENTER	3' B.B.	36"	9"
PACING IN A	4' B.B.	42"	11"
CONTINUOUS TRENCH.	5' B.B.	48"	12"
	6' B.B.	54"	14"



WALL INSTALLATION **FENCE INSTALLATION**

INSTALLATION OF VINES

BARE ROOT STOCK



1.SCARIFY SIDES AND BOTTOM OF HOLE.

2.PROCEED WITH CORRECTIVE PRUNING 3.SET PLANT ON UNDISTURBED NATIVE SOIL OR THOROUGHLY COMPACTED PLANTING SOIL. INSTALL PLANT SO THE ROOT FLARE IS AT OR UP TO 2" ABOVE THE FINISHED GRADE WITH BURLAP AND WIRE BASKET, (IF USED), INTACT

4.SLIT REMAINING TREATED BURLAP AT 6" INTERVALS. 5.BACKFILL TO WITHIN APPROXIMATELY 12" OF THE TOP OF THE ROOTBALL, THEN WATER PLANT.

6.REMOVE THE TOP 1/3 OF THE BASKET OR THE TOP TWO HORIZONTAL RINGS WHICHEVER IS GREATER. REMOVE ALL BURLAP AND NAILS FROM THE TOP 1/3 OF THE BALL. REMOVE ALL TWINE. REMOVE OR CORRECT STEM GIRDLING

7.PLUMB AND BACKFILL WITH PLANTING SOIL. 8.WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.

 $9.\mathsf{BACK}$ FILL VOIDS AND WATER A SECOND TIME. 10.PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

BALLED & BURLAPPED STOCK FOR MULCH DETAIL SEE STANDARI PLANTING DETAIL (B) LOOSENED 78 D 1.SCARIFY SIDES AND BOTTOM OF HOLE. 2.PROCEED WITH CORRECTIVE PRUNING. PREVIOUSLY GROWN. 4.PLUMB AND BACKFILL WITH PLANTING SOIL FOR PLANTING SOIL

DETAIL SEE STANDARD

PLANTING DETAILS (A)

1. SOAK ROOTS IN WATER FOR AT LEAST ONE HOUR BUT NOT MORE THAN 24 HOURS PRIOR TO PLANTING.

2.SCARIFY SIDES AND BOTTOM OF HOLE.

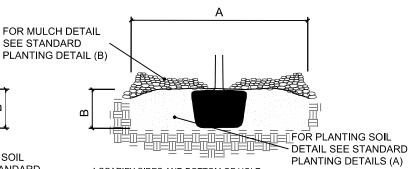
3.PROCEED WITH CORRECTIVE PRUNING OF THE TOP AND

4.TRANSFER PLANT DIRECTLY FROM WATER TO HOLE. SET PLANT SO THE ROOT FLARE IS AT THE FINISHED SOIL ELEVATION. SPREAD ROOTS OUT EVENLY. PLUMB AND IMMEDIATELY BACKFILL WITH PLANTING SOIL.

5.WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.

6.BACK FILL VOIDS AND WATER A SECOND TIME. 7.PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

INSTALLATION OF PLANTS



1.SCARIFY SIDES AND BOTTOM OF HOLE.

2.PROCEED WITH CORRECTIVE PRUNING OF TOP AND ROOT. 3.REMOVE CONTAINER AND SCORE OUTSIDE OF SOIL MASS

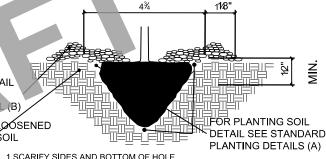
TO REDIRECT AND PREVENT CIRCLING FIBROUS ROOTS. REMOVE OR CORRECT STEM GIRDLING ROOTS.

4.SET PLANT ON UNDISTURBED NATIVE SOIL OR THOROUGHLY COMPACTED PLANTING SOIL. INSTALL PLANT SO THE TOP OF THE ROOT FLARE IS AT OR UP TO 2" ABOVE THE FINISHED GRADE.

5.PLUMB AND BACKFILL WITH PLANTING SOIL. 6.WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANT AND FILL VOIDS.

7.BACK FILL VOIDS AND WATER A SECOND TIME. 8 PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

CONTAINER STO



3.SET PLANT ON NATIVE SOIL AT SAME DEPTH AS IT WAS

5.AFTER PLANTING, LOOSEN THE SOIL IMMEDIATELY ADJACENT TO THE ROOT BALL TO A MINIMUM DISTANCE OF 18" AND A MINIMUM DEPTH OF 12".

6.WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANT AND FILL VOIDS.

7.BACK FILL VOIDS AND WATER A SECOND TIME.

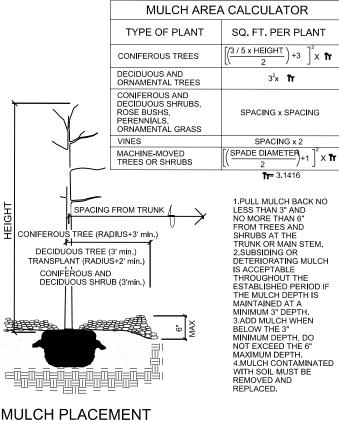
8.PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE. MINIMUM THEE SHADE SIZE DECLUDEMENTS

MINIMUM TREE SPADE SIZE REQUIREMENTS			
(C) SPADE DIAMETER SIZE	OAK TREE, CALIPER	DECIDUOUS/ ORNAMENTAL TREE,CALIPER	CONIFEROUS TREE, HEIGHT
42"	1" to 1.5"	2" to 3"	5' to 7'
60"	1.5" to 2.5"	3" to 4"	7' to 9'
78"	2.5" to 3.5"	4" to 6"	9' to 14'
85"	3.5" to 5"	6" to 8"	14' to 18'

MACHINE MOVED STOCK

(MnDOT 2571.3F)

PLANTING H	OLE DIMENSIONS	
&B AND CONTAINER PLANT OF SOIL BALL.	S SHALL NOT EXCEED MEASU	REMENT FROM ROOT
PLANT SIZE UP TO AND INCLUDING	(A) MINIMUM HOLE WIDTH	(B) APPROXIMATI HOLE DEPTH
2' B.B	36"	10"
3' B.B	42"	11"
4' B.B	51"	13"
5' B.B	60"	13"
6' B.B	66"	15"
7' B.B	72"	16"
8' B.B	81"	18"
9' B.B	90"	20"
10' B.B	102"	21"
12' B.B	114"	24"
18" B.B.	24"	7"
3' B.B.	48"	12"
18" SPR B.B.	30"	8"
2' SPR B.B.	36"	9"
CELLPACKS / PLUGS	6"	2.5"
2.25" CONT.	7"	3"
3.5" CONT.	10"	3"
4" CONT.	11"	4"
4.5" CONT.	13"	4"
6"/1 QT CONT.	15"	5.5"
1# CONT.	18"	6"
2# CONT.	23"	7.5"
3# CONT.	29"	8.5"
5# CONT.	30"	11"
7# CONT.	37"	11"
15# CONT.	44"	14"
10# CONT.	45"	15"
20# CONT.	60"	16"
25# CONT.	72"	17"
6" SEEDLING	15"	14"
9" SEEDLING	18"	14"
12" SEEDLING	23"	16"
18" SEEDLING		16"
		18"
	15"	11"
1 YR. MED B.R.	15" 17"	11" 14'
	15" 17" 33"	11" 14' 12"
	&B AND CONTAINER PLANT: F SOIL BALL. PLANT SIZE UP TO AND INCLUDING 2° B.B 3° B.B 4° B.B 6° B.B 7° B.B 8° B.B 10° B.B 12° B.B 12° B.B 18° SPR B.B. 2° SPR B.B. 2° SPR B.B. CELLPACKS / PLUGS 2.25° CONT. 4.5° CONT. 4.5° CONT. 4.5° CONT. 2# CONT. 5# CONT. 1# CONT. 2# CONT. 5# CONT. 19 CONT. 2# CONT. 5# CONT. 19 CONT. 2# CONT. 2# CONT. 2# CONT. 2# CONT. 5# SEEDLING	PLANT SIZE UP TO AND INCLUDING WIDTH 2 'B.B 36" 3 'B.B 42" 4 'B.B 51" 5 'B.B 60" 6 'B.B 66" 7 'B.B 72" 8 'B.B 90" 10 'B.B 102" 12 'B.B 1114" 18 'B.B 24" 3 'B.B 48" 3 'B.B 30" 10 'B.B 102" 12 'B.B 1114" 18 'B.B 36" 6 'B.B 66" 6 'B.B 72" 12 'B.B 102" 12 'B.B 102" 13 'B.B 102" 14 'B.B 102" 15 'B.B 103" 16 'B.B 103" 17 'B.B 103" 18



(MnDOT 2571.3H)

DRAWN BY: BAK DESIGNED BY: CCA

I HEREBY CERTIFY THAT THIS SHEET WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A SIGNATURE: DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT PRINTED NAME:_ CHECKED BY: CCA UNDER THE LAWS OF THE STATE OF MINNESOTA.

CANDACE C. AMBERG DATE: 7/28/2017 LIC. NO.







BRANCHES PRUNED AT TRUNK

CORRECT TOO TOO TOO CLOSE LONG SLANTED PRUNING CUT LIVE BUD

BRANCHES PRUNED TO LIVE BUD

PRUNING

STEPS TO PRUNING WITH PRUNING

1.CUT PART WAY THROUGH THE BRANCH AT POINT A. 2.CUT COMPLETELY THROUGH BRANCH FROM POINT B TO A. 3.AT BRANCH COLLAR CUT FROM POINT C TO D.

INCORRECT CUT FROM POINT C TO X (TOO CLOSE) WILL RESULT IN DISCONTINUOUS CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

CORRECT CUT FROM POINT C TO D (LEAVING BRANCH COLLAR BUT NOT THE STUB FROM POINT B TO A) WILL RESULT IN CONTINUOUS DOUGHNUT SHAPED CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

PRUNING NOTES: 1 PRUNE USING CLEAN AND SHARP SCISSOR-TYPE PRUNER

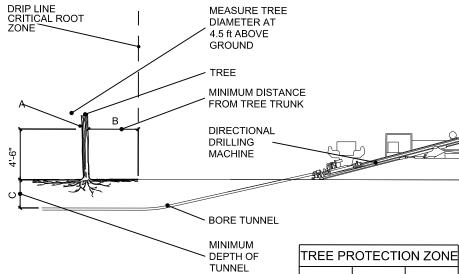
OR PRUNING SAW. 2.THE BEST TIME TO PRUNE IS LATE DORMANT SEASON OR EARLY SPRING. 3 AVOID PRUNING OAKS IN APRIL MAY, JUNE OR JULY.

4.IF PRUNING IS NECESSARY OR IF WOUNDS OCCUR TO OAK TREES IN APRIL, MAY, JUNE OR JULY, IMMEDIATELY PAINT CUT SURFACE OR WOUND WITH LATEX PAINT OR SHELLAC.

1.FABRICATE 12" X 9" X 3/8" SIGN WITH 0.75" RADIUS CORNERS. **Tree Protection Area** 2.SIGN SHALL BE WHITE WITH BLACK LETTERING. 3.ATTACH SIGN TO POST USING 1" LENGTH WOOD SCREWS. DO NOT ENTER THE FENCED AREA
We appreciate your cooperation to
protect these trees during DRIP LINE CRITICAL ROOT **TREE PROTECTION** SIGN CONSTRUCTION LIMITS

1.FURNISH AND INSTALL TEMPORARY FENCE AT THE TREE'S DRIPLINE OR CONSTRUCTION LIMITS AS SPECIFIED, PRIOR TO ANY CONSTRUCTION.

2.WHEN POSSIBLE PLACE FENCE 25 FEET BEYOND THE DRIP LINE. 3.PLACE TREE PROTECTION SIGNS ALONG FENCI INTERVALS.



NOTE:

1.(A) IS THE DIAMETER OF TREES MEASURED 4-6 FEET ABOVE THE GROUND AND IS TERMED THE "DIAMETER AT BREAST HEIGHT," (DBH).

2.USING A TREE DIAMETER TAPE, WRAP THE TAPE AROUND THE GIRTH OF THE TREE, AT THE DBH, BEING CAREFUL NOT TO TWIST THE TAPE

UTILITY CONSTRUCTION

С <2" 2' 2' 2-4" 2.5' >4-9" 2.5' >9-14" 10' 3' >14-19" 12' 3.25' >19" 15' 4'

(MnDOT 2572 3A5)

DRIP LINE

ZONE

CRITICAL ROOT

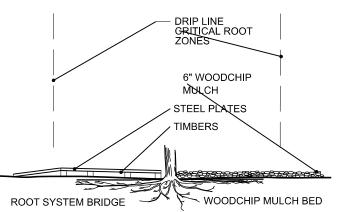
TEMPORARY FENCE

REDUCED ROUNDING

NORMAL ROUNDING

TEMPORARY FENCE

(MnDOT 2571 3K2a9 and 2571 3E1

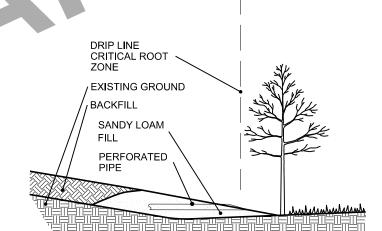


CLEAN ROOT CUTTIN ROOT SYSTEM **BRIDGE EXCAVATION**

WHEN DESIGNATED IN THE PLAN OR DIRECTED BY THE ENGINEER, PRIOR TO EXCAVATION, ALL TREE ROOTS WILL BE CLEANLY CUT BY A VIBRATORY PLOW OR OTHER APPROVED ROOT CUTTER.

THE TREE ROOTS WILL BE CUT CLEANLY TO THE MINIMUM DEPTH NECESSARY FOR CONSTRUCTION. IMMEDIALTLY, AND CLEANLY CUT DAMAGED AND EXPOSED ROOTS.

ROOT ENDS EXPOSED BY EXCAVATION ACTIVITIES SHALL BE IMMEDIATELY COVERED WITH A 6" LAYER OF ADJACENT SOIL.



(MnDOT 2572.3A1)

1.ANY FILL REQUIRED WITHIN THE DRIP LINE OF TREES, IS UNCOMPACTED SANDY LOAM TOPSOIL (WITH A COARSE 2.EXCESSIVE FILL MAY REQUIRE INSTALLING PERFORATED PIPE

WITH AT LEAST ONE DAYLIGHTED END OPENING AS AN

SANDY LOAM TOPSOIL

AERATION SYSTEM.

(MnDOT 2572.3A4)

SIGNIFICANT TREES NEAR THE PROPOSED CONSTRUCTION LIMITS WILL BE IDENTIFIED IN THE PLAN OR BY THE ENGINEER AND WILL BE PRESERVED BY THE CONTRACTOR.

> 1.PLACE THE TEMPORARY FENCE. 2.REDUCE SLOPE ROUNDING WHERE ROOT ZONES ARE DISTURBED BY NORMAL SLOPE ROUNDING. 3. VARY BACKSLOPE STEEPNESS TO AVOID TREE LOSS OR UNNECESSARY ROOT DAMAGE.

SLOPE ROUNDING

IF CONSTRUCTION VEHICLES MUST PASS OVER ROOT ZONES. THE CONTRACTOR MUST EITHER:

1.CONSTRUCT ROOT SYSTEM BRIDGES WITH STEEL PLATE SUPPORTED ON WOOD TIMBERS PLACED RADIALLY TO THE TREE TRUNK.

2.PLACE A 6 INCH LAYER OF WOODCHIP MULCH OVER TYPE III GEOTEXTILE (MnDOT 3733)

OTHER VEGETATION PROTECTION MEASURES

(MnDOT 2572,3A12)

CLEAN ROOT CUTTING

(MnDOT 2572.3A2)

AREA

<u>WSB</u>

MISCELLANEOUS DETAILS

STATE PROJ. NO. 0704-110 (T.H. 22) Sheet No. 123 of 133 Sheets

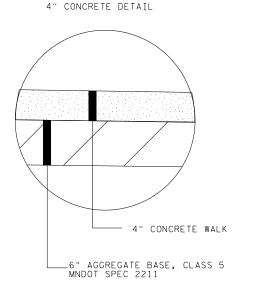
DRAWN BY: BAK DESIGNED BY: CCA

I HEREBY CERTIFY THAT THIS SHEET WAS PREPARED BY
ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A SIGNATURE:
DULLY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT PRINTED NAME:
UNDER THE LAWS OF THE STATE OF MINNESOTA.
DATE: 7/28.

CANDACE C. AMBERG DATE: 7/28/2017 LIC. NO.

m

MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO





DRAWN BY: BAK

DESIGNED BY: CCA

ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A SIGNATURE:

DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT PRINTED NAME:

CHECKED BY: CCA

CH

DATE: 7/28/2017 LIC. NO. 40646

m DEPARTMENT OF MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO



1.5" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB240B)

MNDOT 2357 BITUMINOUS TACK COAT

2.0" TYPE SP 12.5 NON-WEARING COURSE MIXTURE (SPNWB230B)

8" AGGREGATE BASE CLASS 5

24" SELECT GRANULAR BORROW

GEOTEXTILE FABRIC

DRAWN BY: BAK

DESIGNED BY: CCA

CHECKED BY: CCA

I HEREBY CERTIFY THAT THIS SHEET WAS PREPARED BY SIGNATURE:

ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A SIGNATURE:

DULLY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT PRINTED NAME: CANDACE C. AMBERG UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 7/28/2017 LIC. NO. 4064

DATE: 7/28/2017 LIC. NO. 40646









DRAWN BY: BAK

DESIGNED BY: CCA

CHECKED BY: CCA

DRAWN BY: BAK

I HEREBY CERTIFY THAT THIS SHEET WAS PREPARED BY

ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A SIGNATURE:

DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT PRINTED NAME:

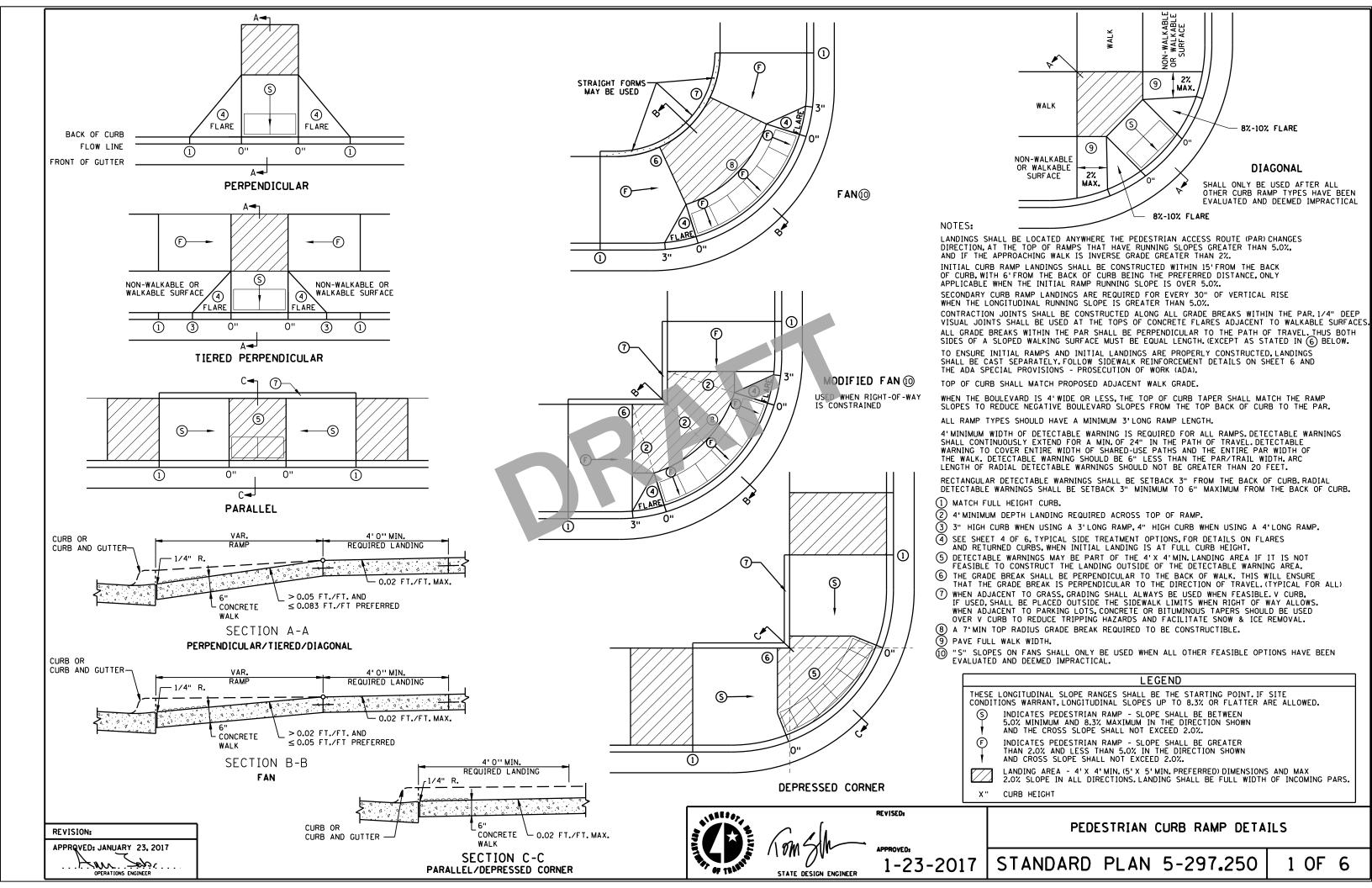
CANDACE C. AMBERG

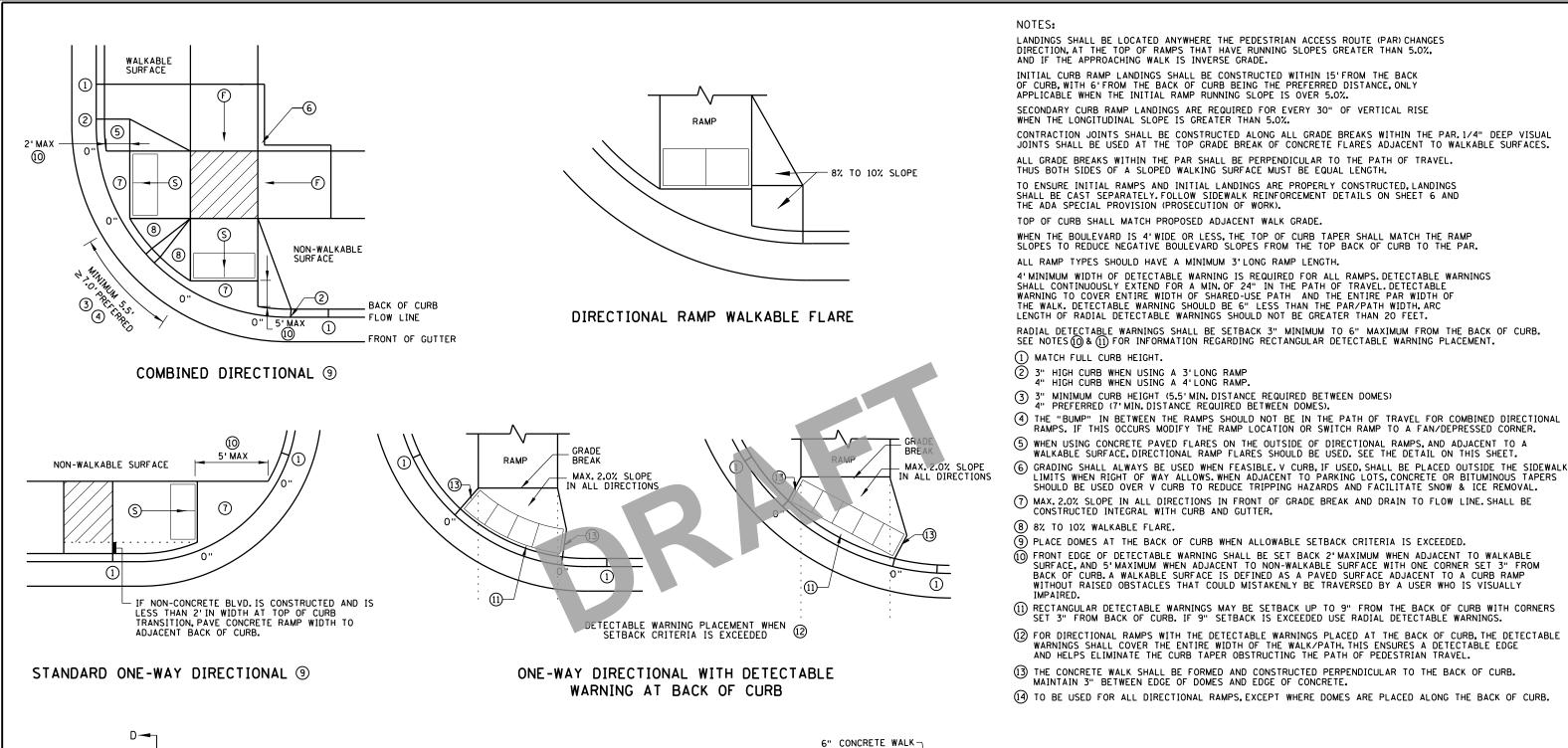
DATE: 7/28/2017 LIC. NO. 4064

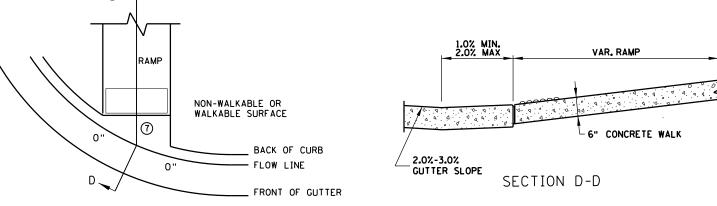
DATE: 7/28/2017 LIC. NO. 40646

m DEPARTMENT OF MINNESOTA DEPARTMENT OF TRANSPORTATION TH 22 LANDSCAPING FROM THE CITY OF MAPLETON TO MANKATO









APPRQVED: JANUARY 23, 2017

OPERATIONS ENGINEER

TYPICAL SIDEWALK SECTION WITHIN INTERSECTION CORNER

3" MINIMUM CLASS 5-AGGREGATE BASE

CURB FOR DIRECTIONAL RAMPS (19)

REVISED: 1-23-2017 STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

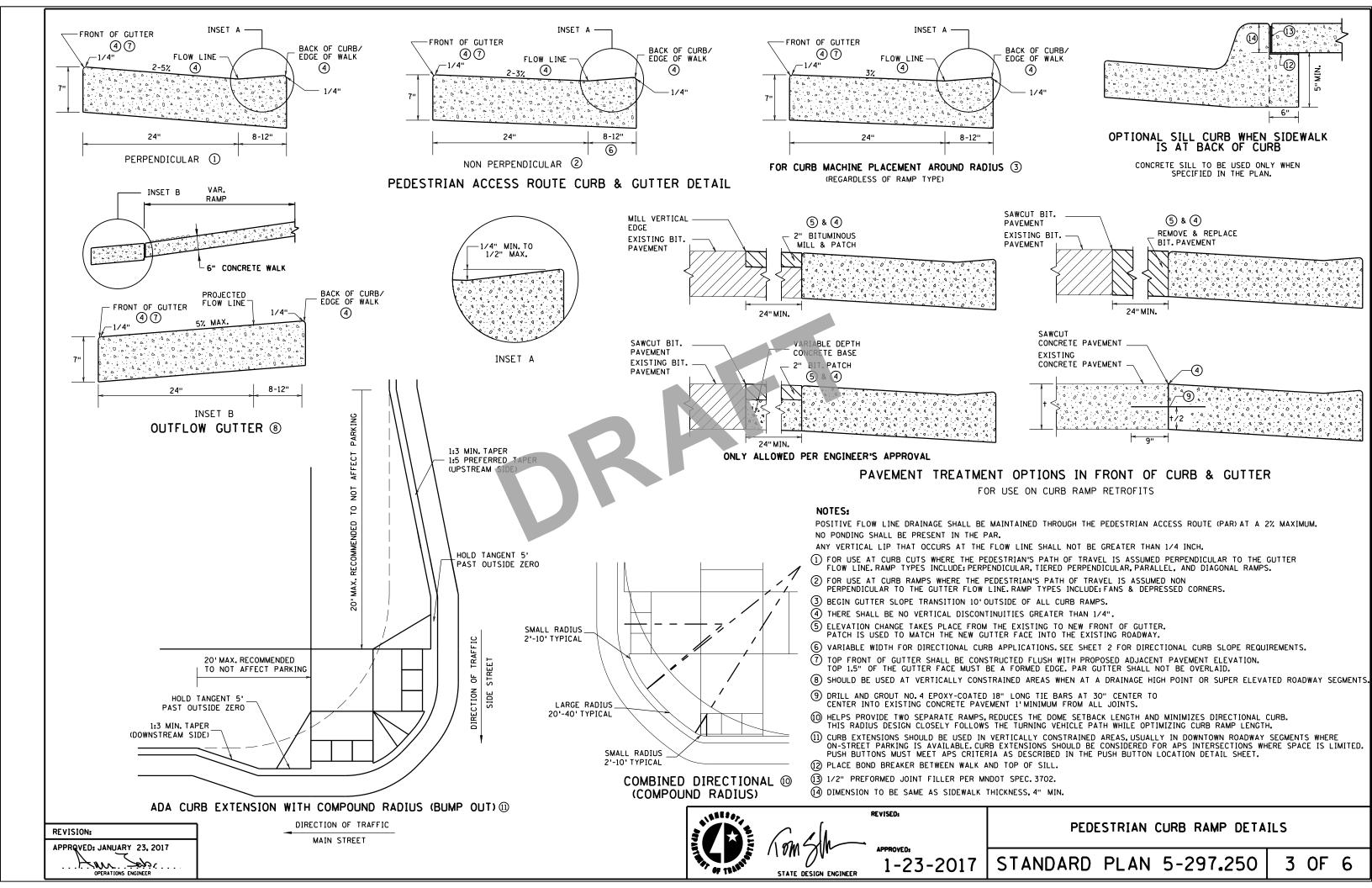
INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

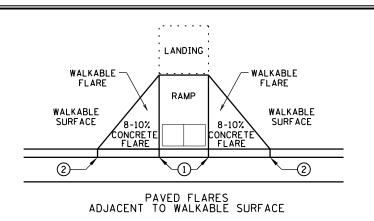
CURB HEIGHT

STANDARD PLAN 5-297.250

LANDING AREA - 4'X 4'MIN. (5'X 5'MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

2 OF 6





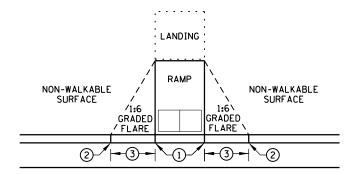
LANDING NON-WALKABLE NON-WALKABLE SURFACE SURFACE COŃCRETE ONCRETE

FLARE

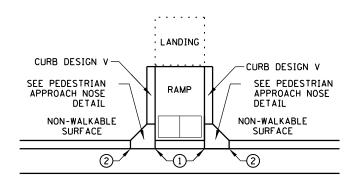
1' MINIMUM

PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

'FLARE

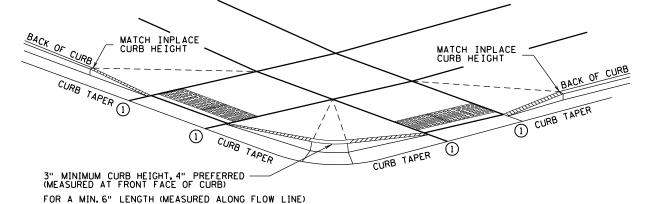


GRADED FLARES

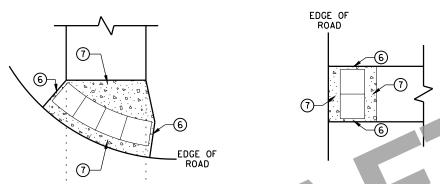


RETURNED CURB (5)

TYPICAL SIDE TREATMENT OPTIONS 4 11



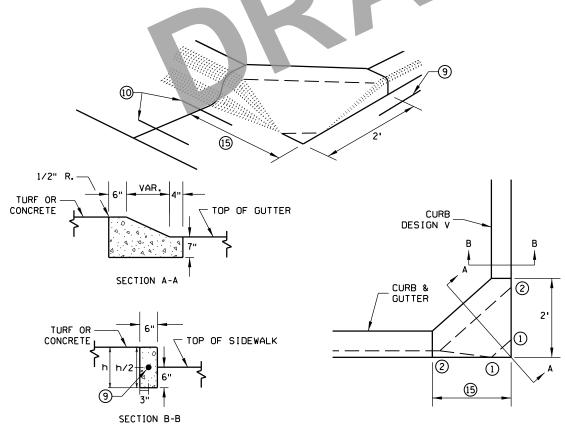
DETECTABLE EDGE WITH ® CURB AND GUTTER



RADIAL DETECTABLE WARNING

RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER



PEDESTRIAN APPROACH NOSE DETAIL (FOR RETURNED CURB SIDE TREATMENT)



SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED. CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8'LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

PEDESTRIAN GATE ARM

FACE OF CURB/PROJECTED FACE OF CURB

RAILROAD

GATE ARM

- 1) O" CURB HEIGHT.
- FULL CURB HEIGHT.
- 3 2'FOR 4" HIGH CURB AND 3'FOR 6" HIGH CURB.
- 4 SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.

PLACE DETECTABLE WARNINGS ENTIRE

CROSSING

SURFACE

RAILROAD CROSSING

PLAN VIEW

DETECTABLE

WARNINGS

DETECTABLE WARNINGS

NEAREST RAIL

- (5) TYPICALLY USED FOR MEDIANS AND ISLANDS.
- (6) WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
- IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.
- (8) ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.
- 9 DRILL AND GROUT 1 NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.
- (D) DRILL AND GROUT 2 NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.
- (1) SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6'LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE.
- (2) NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL.FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.
- (3) WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM THIS CRITERIA GOVERNS OVER NOTE (12).
- (4) CROSSING SURFACE SHALL EXTEND 2 MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.
- (5) 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.
- (6) SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.

REVISED:

PEDESTRIAN CURB RAMP DETAILS

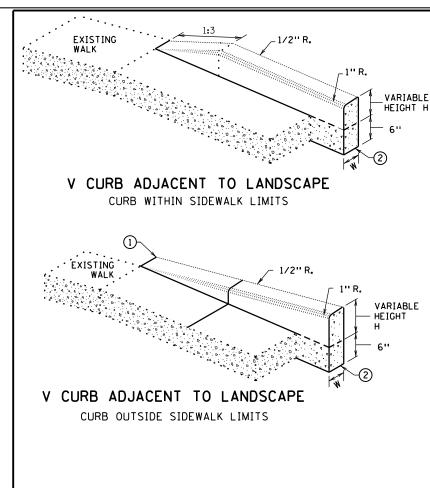
STANDARD PLAN 5-297.250

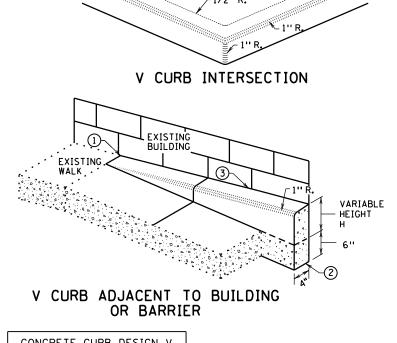
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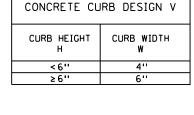
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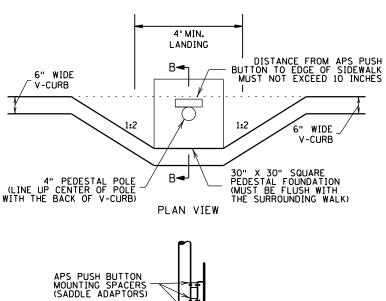
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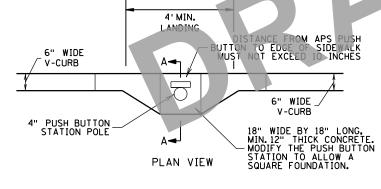
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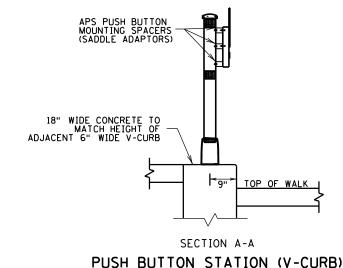


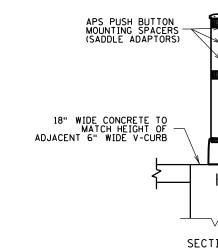


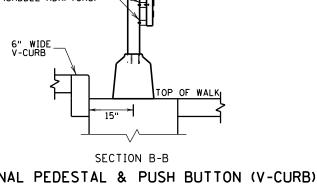




TOP OF WALK

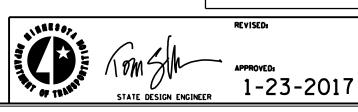


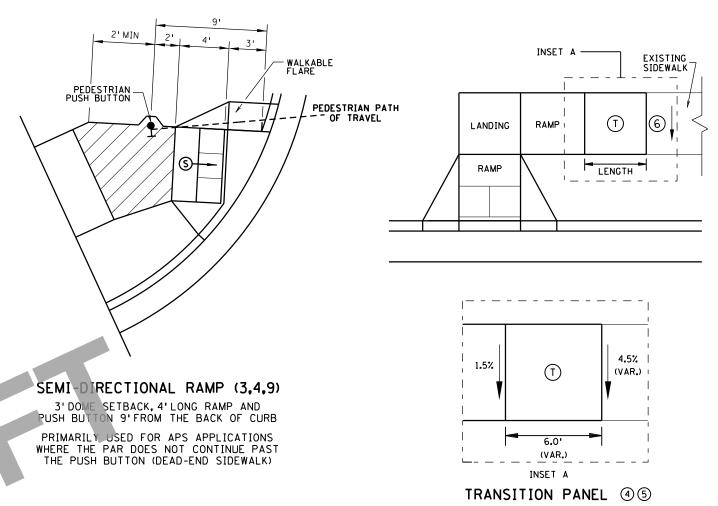




SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)

REVISION: APPRQVED: JANUARY 23, 2017 OPERATIONS ENGINEER





NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

- V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.
- V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP
- (1) END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.
- (2) ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.
- 3 EDGE BETWEEN NEW V CURB AND INPLACE STRUCTURE SHALL BE SEALED AND BOND BREAKER SHALL BE USED BETWEEN EXISTING STRUCTURE AND PLACED V-CURB.
- 4 THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1'LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6'OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.
- (5) TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).
- (6) EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

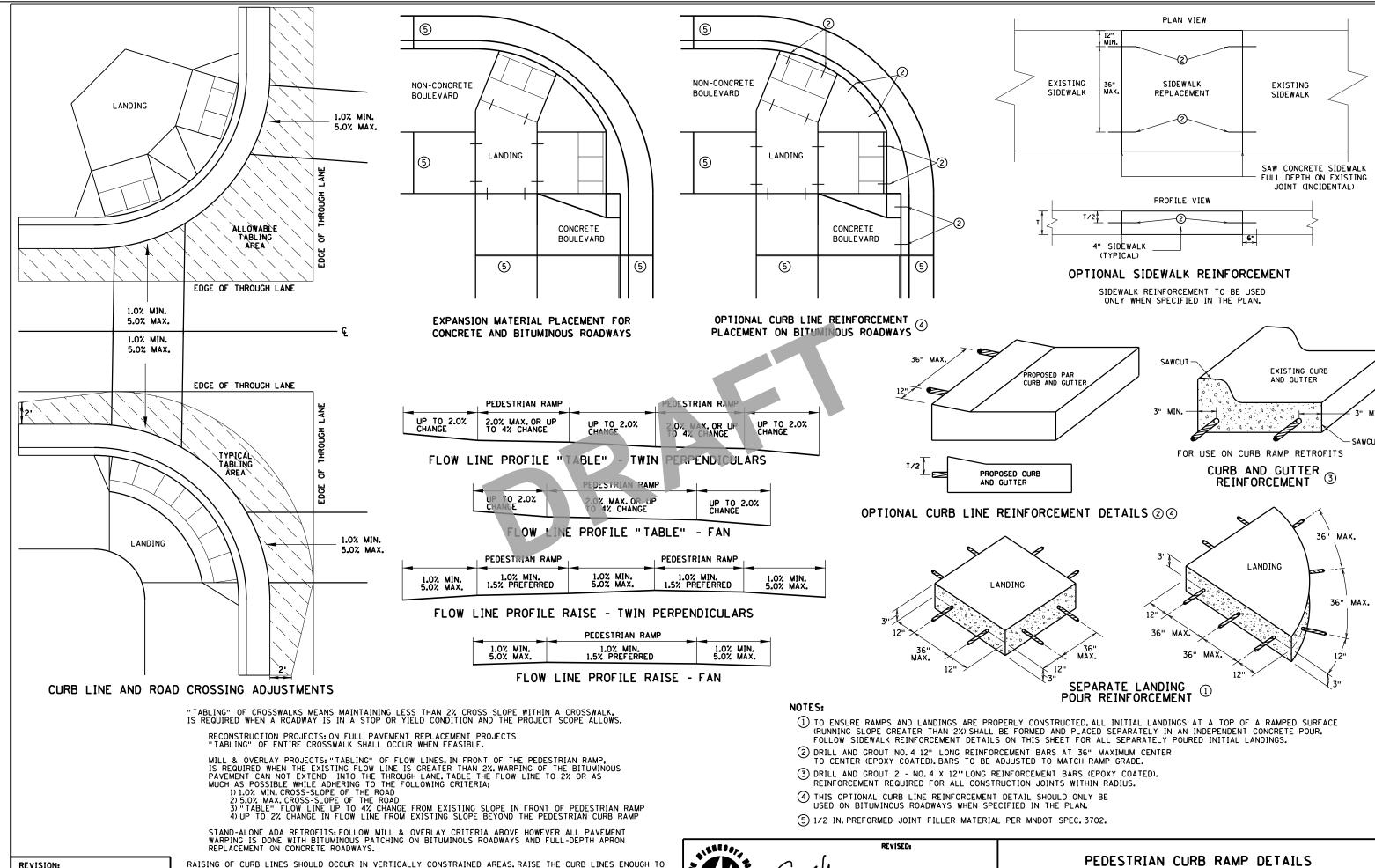
THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

- INDICATES PEDESTRIAN RAMP SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- LANDING AREA 4'X 4'MIN.(5'X 5'MIN.PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS.LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- TRANSITION PANEL(S) TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

PEDESTRIAN CURB RAMP DETAILS

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RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE

4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

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