

PROJECT ID: 9200-10-73
WITH: N/A
COUNTY: BROWN

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS =



DESIGN DESIGNATION

A.A.D.T.	2027	=	27,880
A.A.D.T.	2047	=	30,320
D.H.V.		=	
D.D.		=	
T.		=	16%
DESIGN SPEED		=	65 MPH/70 MPH
ESALS		=	9,170,000

CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

	ROCK
	LABEL
	95.36
	E
	FO
	G
	SAN
	SS
	T
	W

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

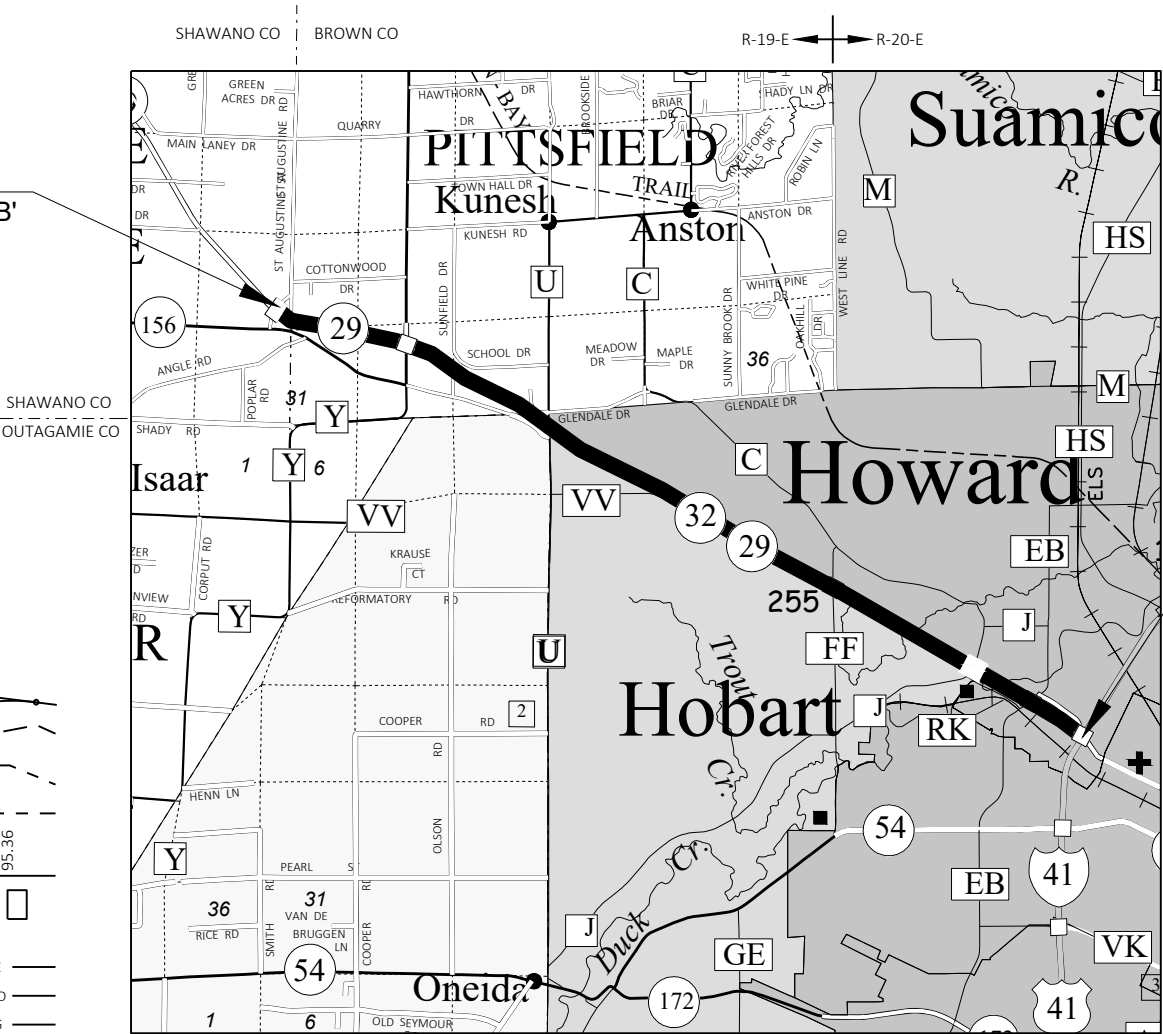
SHAWANO - GREEN BAY

STH 156 - IH 41

STH 29

BROWN COUNTY

STATE PROJECT NUMBER
9200-10-73



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = X.xxx

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), BROWN COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9200-10-73		

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	NE REGION
Designer	K. LORENZ
Project Manager	A. FULCER
Regional Examiner	
Regional Supervisor	D. SEGERSTROM
APPROVED FOR THE DEPARTMENT	
DATE:	(Signature)

E

GENERAL NOTES

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

THE ENGINEER SHALL ADJUST THE LOCATIONS OF FENCE UNDER THIS CONTRACT TO AVOID CONFLICT WITH THE EXISTING UTILITY FACILITIES.

THE EXACT CONSTRUCTION LIMITS AND LOCATIONS OF ALL ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ORDER OF SECTION 2 DETAIL SHEETS

- GENERAL NOTES
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
 - PLAN DETAILS
 - TRAFFIC CONTROL
 - DETOUR PLAN
 - ALIGNMENT PLAN

DNR LIAISON

JIM DOPERALSKI JR.
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GREEN BAY, WI 54313
JIM DOPERALSKI JR.
(920)412-0165
james.doperalski@wisconsin.gov

BROWN COUNTY HIGHWAY COMMISSIONER

PAUL FONTECCHIO
2198 GLENDALE AVE.
GREEN BAY, WI 54303
(920) 492-4925
fontecchio_pa@co.brown.wi.us

NE REGION SURVEY COORDINATOR

CORMAC MCINNIS, RLS
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920)492-5638
cormac.mcinnis@dot.wi.gov

WISDOT PROJECT MANAGER

ANDY FULCER, PE
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920) 362-6126
andrew.fulcer@dot.wi.gov

UTILITIES CONTACTS

COMMUNICATIONS

COMPANY NAME
CONTACT NAME
ADDRESS
CITY, STATE, ZIP
PHONE:
EMAIL:

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP- TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE- TURF			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT						.70 - .95						
CONCRETE						.80 - .95						
BRICK						.70 - .80						
DRIVES, WALKS						.75 - .85						
ROOFS						.75 - .95						
GRAVEL ROADS, SHOULDERS						.40 - .60						

TOTAL PROJECT AREA = _____ ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = _____ ACRES

DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

EMERGENCY CONTACT NUMBERS FOR WISCONSIN POWER AND LIGHT COMPANY

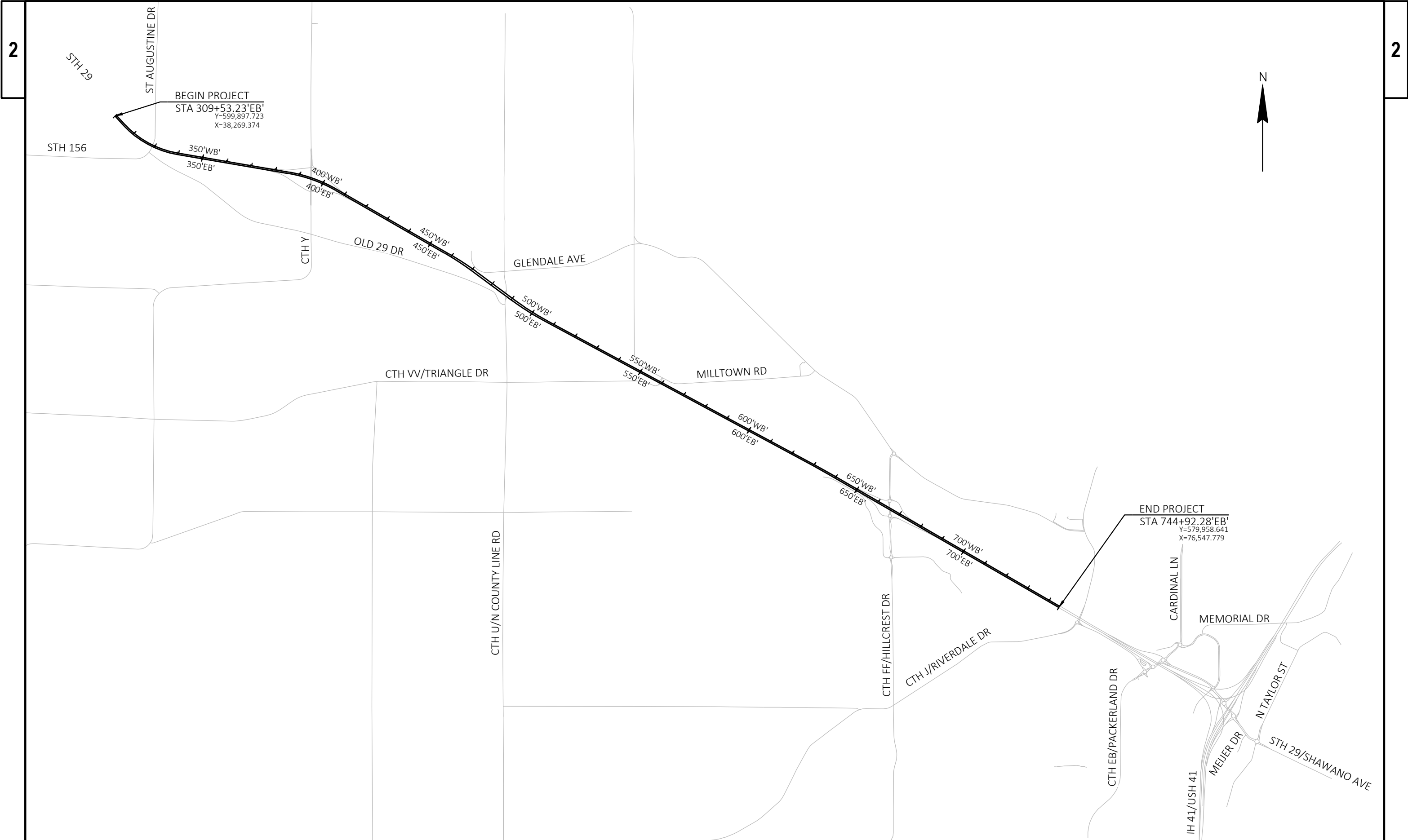
ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-862-6261
GAS 24 HOUR EMERGENCY SERVICE: 1-800-862-6263

EMERGENCY CONTACT NUMBERS FOR WISCONSIN PUBLIC SERVICE

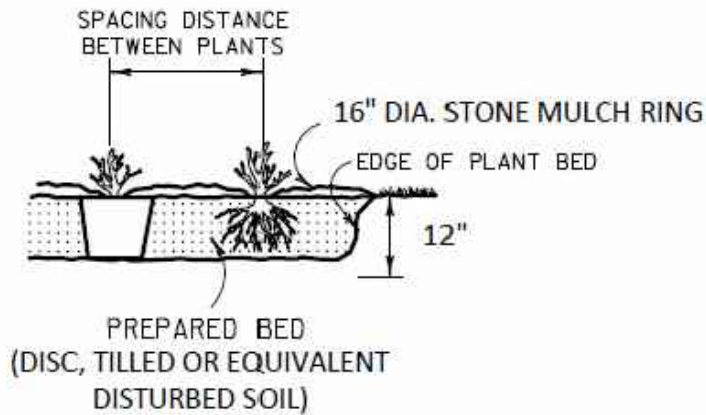
ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-450-7240
GAS 24 HOUR EMERGENCY SERVICE: 1-800-450-7280

EMERGENCY CONTACT NUMBERS FOR WE ENERGIES

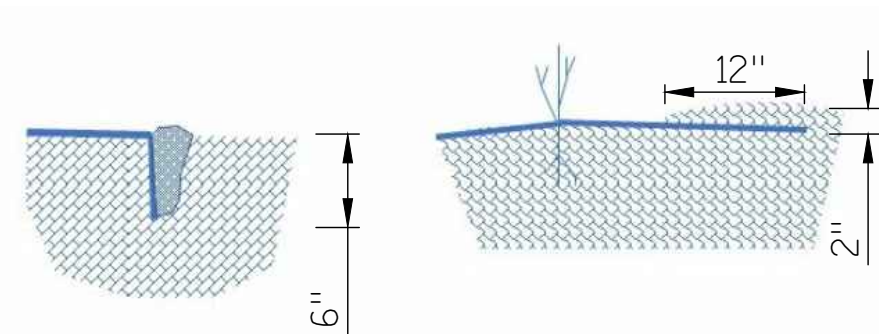
ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-662-4797
GAS 24 HOUR EMERGENCY SERVICE: 1-800-261-5325



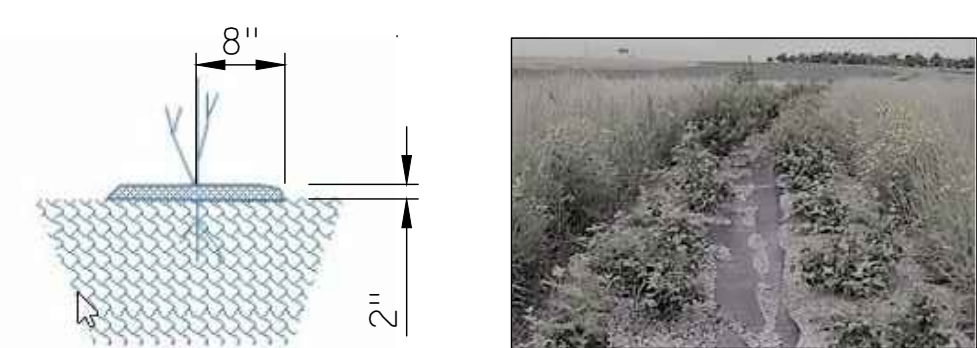
PROJECT NO: 9200-10-73	HWY: STH 29	COUNTY: BROWN	PROJECT OVERVIEW	SHEET	E
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PLANTING BED DETAIL



FABRIC EDGE DETAIL



GRAVEL RING DETAIL



Planting Process Expectations

ENDANGERED SPECIES EXPECTATIONS

- MOWING MUST BEGIN THE FIRST WEEK OF APRIL, TO A MAX HEIGHT OF 6-INCHES.
- MOWING MUST BE MAINTAINED UP TO THE DATE OF INSTALL TO PREVENT NESTING OF ENDANGERED SPECIES.
- CONTRACTOR WILL TAKE GREAT CARE TO WATCH FOR, AND REMOVE, ANY TURTLES FOUND WITHIN THE LIMITS OF THE PROJECT SITE FOR THE DURATION OF THE PROJECT.

INITIAL PLANTING

1. IF REQUIRED PER THE PLAN SET CLEAR AND GRUB WOODY VEGETATION.
2. APPLY HERBICIDE TO PLANTING SITE TO KILL EXISTING WEEDS.
 - APPLY MINIMUM DAYS PRIOR TO CULTIVATING SITE BASED ON MANUFACTURERS APPLICATION INSTRUCTIONS
 - APPLICATOR MUST BE CERTIFIED AND LICENSED
3. MOW AND MAINTAIN SITE TO A HEIGHT NO MORE THAN 6-INCHES.
4. WITHIN 7 DAYS OF SEEDLING STOCK INSTALLATION PREPARE PLANTING BED BY DISCING, TILLING OR EQUIVALENT PROCESS.
 - MINIMUM SOIL DISTURBANCE TO BE 12-INCHES DEPTH AND 12-INCHES WIDTH PER ROW. SEE DETAIL.
5. SOAK SEEDLING STOCK ROOTS 1 TO 24 HOURS PRIOR TO PLANTING.
6. PLANT SEEDLING STOCK AND INSTALL SPECIFIED WEED BARRIER FABRIC OR EQUIVANT. PICK FROM TWO OPTIONS.

HAND PLANTING OPTION	MACHINE PLANTING OPTION
A. PLACE SPECIFIED WEED BARRIER FABRIC OR EQUIVANT. SEE STEP 7 FOR MORE DETAILS.	A. MACHINE PLANT SEEDLING STOCK WITH PULL BEHIND PLANTER.
B. HAND PLANT SEEDLING STOCK THROUGH THE FABRIC	B. PLACE SPECIFIED WEED BARRIER FABRIC OR EQUIVANT. SEE STEP 7 FOR MORE DETAILS.

6. FABRIC INSTALLATION SHALL FOLLOW THESE GUIDELINES
 - INSTALLATION SHALL BE THE WIDTH OF THE PLANTING BED, UNLESS APPROVED BY THE PROJECT ENGINEER.
 - ALL PLANTS SHOULD BE INSTALLED BE 1.5- FEET FROM ALL EDGES OF THE FABRIC.
 - WHEN CUTTING HOLES IN THE FABRIC INDIVIDUAL SLITS SHALL BE LARGE ENOUGH TO PULL THE SHRUB THROUGH AND NO MORE. EXCESS SPACE LEADS TO WEED COMPETION.
 - STAPLES SHALL BE PLACED ACCORDING TO MANUFACTURER'S RECOMMENDATION.
 - CONTRACTOR SHALL SECURE THE OUTSIDE EDGE OF FABRIC BY EITHER CREATING A 2-INCH SOIL BERM ON THE OUTSIDE ONE FOOT OF FABRIC OR DEPRESS 6-INCHES OF OUTSIDE EDGE BELOW THE NATURAL GRADE TO PREVENT LIFTING. SEE DETAIL.
7. APPLY PRE-EMERGENT HERBICIDE AROUND PLANT FABRIC OPENINGS AND OUTSIDE MOWED EDGE.
 - APPLICATION MUST OCCUR AFTER THE FIRST GOOD RAIN AND SOIL SURFACE HAS DRIED.
 - APPLICATOR MUST BE CERTIFIED AND LICENSED
8. INSTALL PEA GRAVEL LANDSCAPE MULCH ON TOP OF FABRIC AROUND EACH PLANT HOLE. SEE DETAIL.
 - PEA GRAVEL MULCH SHALL BE USED TO PREVENT WEED GROWTH IN THE CUT SLITS MADE IN THE FABRIC.
 - SWEEP AND/OR BLOW ANY SOIL, STRAW MULCH, OR OTHER DEBRIS OFF THE TOP OF THE FABRIC PRIOR TO THE PLACEMENT OF THE PEA GRAVEL MULCH.
 - APPLY MULCH AT A 2-INCH DEPTH AS PER THE LIVING SNOW FENCE LAYOUT DETAIL SHEET.
 - USE ¾ INCH CRUSHED AND SCREENED STONE CHIPS IN PLACE OF THE PEA GRAVEL FOR STEEP SLOPES.

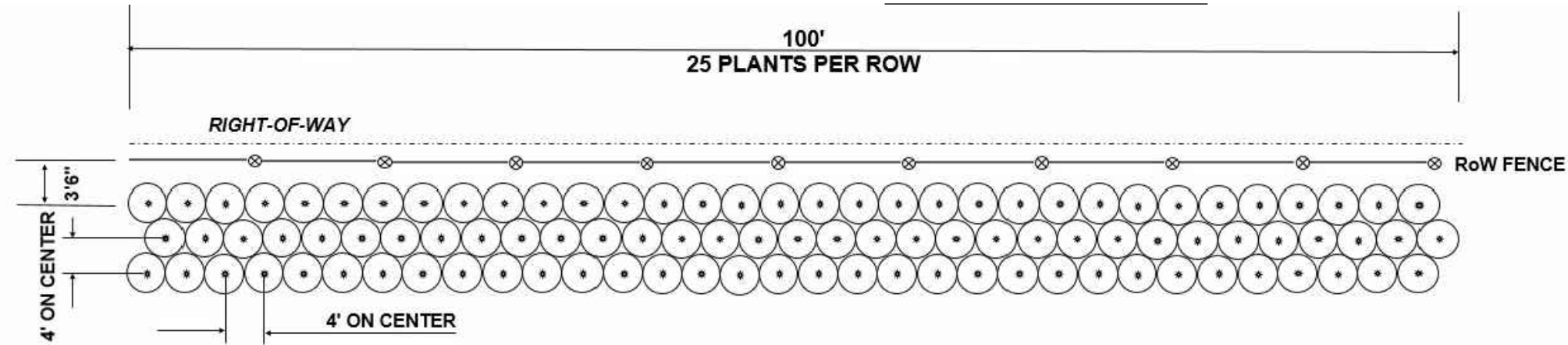
REPLACING DEAD SEEDLING STOCK (EACH SPRING FOLLOWING INTIAL PLANTING)

1. MOW OUTSIDE EDGES OF WEED FABRIC TO A HEIGHT NO MORE THAN 6"
2. APPLY PRE-EMERGENT TO OUTSIDE EDGES AND EXPOSED SOIL IN FABRIC OPENING.
3. REMOVE ANY DEAD PLANT
4. CREATE A DISTURBED SOIL STATE TO A DEPTH OF 12-INCHES
5. INSTALL SEEDLING STOCK REPLACEMENTS
6. BEGIN CARE CYCLE MAINTENANCE

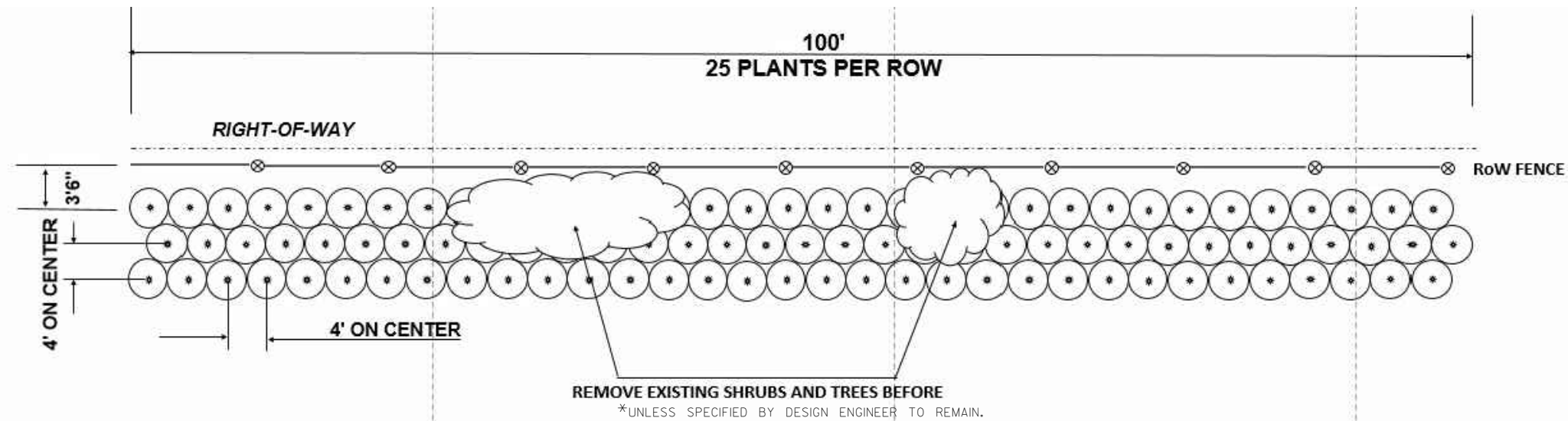
CARE CYCLE MAINTENANCE

1. TO BE PERFORMED AT A MINIMUM OF EVERY TWO WEEKS, TO A MAX OF 13 TOTAL CARE CYCLES PER GROWING SEASON
2. CONTROL WEEDS
 - HAND PULL WEEDS
 - SELECTIVE HERBICIDE TREATMENT WITH CAUTION
 - WEED EATERS/W HACKERS ARE NOT RECOMMENDED DUE HIGH POTENTIAL OF DAMAGE TO SEEDLINGS
3. WATER AS NEEDED
4. MOW SEVERAL TIMES IN THE SEASON TO CONTROL ENCROACHMENT OF UNWANTED VEGETATION.
 - OUTSIDE EDGES OF PLANTING AREA BY 3 TO 5- FEET
5. SUBMIT CARE CYCLE REPORTS EVERY CARE EVENT

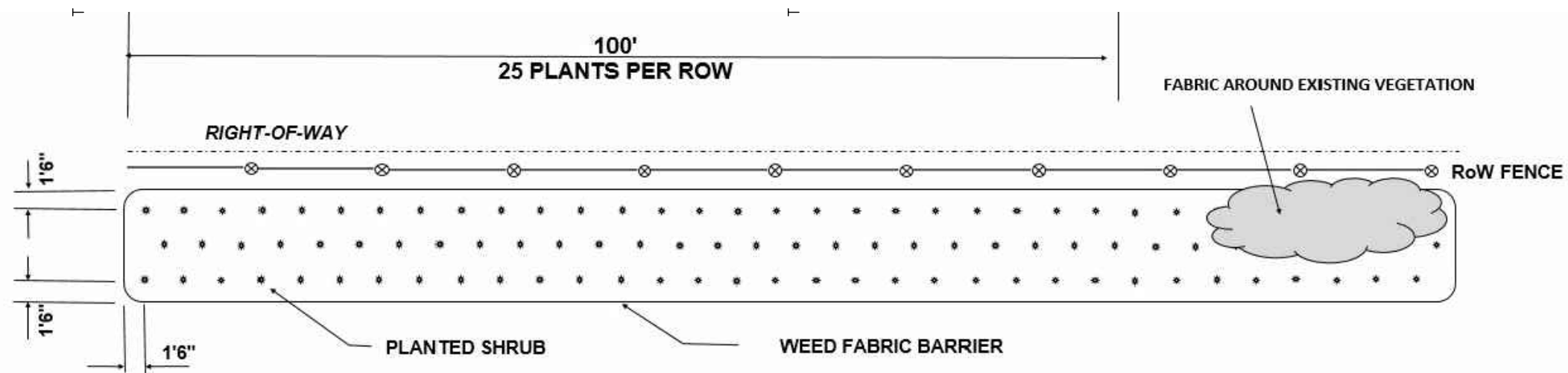
PLANT BED DETAILS



SHRUB DETAIL 1



SHRUB DETAIL 2



WEED FABRIC DETAIL

GENERAL
WEED BARRIER LIMITS-WEED BARRIER IS TO EXTEND
BEYOND THE OUTER PLANTS TO A MINIMUM DISTANCE
OF 15'.

BASE LINE-IF A BASE LINE IS SHOWN, AT LEAST THE
FIRST ROW OF PLANTS SHALL FOLLOW THE LINE.

PLANTING-SHRUBS ARE TO BE PLANTED IN INDIVIDUAL
HOLES OR IN CONTINUOUS TRENCH AS SPECIFIED ON
THE "PLANT DATA CHART." IF PLANTED IN A
TRENCH, THE TRENCH SHALL BE AS DEEP AND AS
WIDE AS THAT SPECIFIED FOR INDIVIDUAL HOLES ON
THE "PLANT DATA CHART."
EXCESS EXCAVATED MATERIAL MAY BE DISPOSED OF
BETWEEN THE HOLES OR TRENCH IF IN THE
JUDGEMENT OF THE ENGINEER IT DOES NOT CAUSE
EROSION OR DAMAGE PROBLEMS. IF THIS IS DONE,
PLANT ELEVATIONS WILL BE ADJUSTED ACCORDINGLY
AND THE ENTIRE BED AREA WILL BE RAKED OR
OTHERWISE FINISHED TO PRODUCE A UNIFORM SURFACE
CONFORMING TO THE ORIGINAL SHAPE AND CONTOUR.
THE ENTIRE BED AREA SHALL BE PLANTED.

Deciduous Woody Shrubs Suitable for Snowdrift Control

Common Name	Latin Name	Mature Height	Soil Moisture Tolerance	Winter Hardiness
Dogwood, Silky	Cornus amomum	10' (3 m)	Wet to dry mesic	South half of the state
Dogwood, Grey	Cornus racemosa	10' (3 m)	Wet mesic to dry	Statewide
Dogwood, Redosier	Cornus sericea	8' (2.5m)	Wet to dry mesic	Statewide
Filbert, American	Corylus americana	8' (2.5m)	Wet mesic to dry	Statewide
Ninebark, Common	Physocarpus opulifolius	10' (3 m)	Wet to dry	Statewide
Plum, American	Prunus americana	15' (4.5 m)	Mesic to dry	South half of the state
Viburnum, American Cranberrybush	Viburnum trilobum	12' (4 m)	Wet to dry mesic	Statewide
Willow, Sandbar	Salix exigua	18' (5 m)	Wet to dry mesic	Statewide
Buttonbush, Common	Cephalanthus	18' (5m)	Wet to dry mesic	Statewide

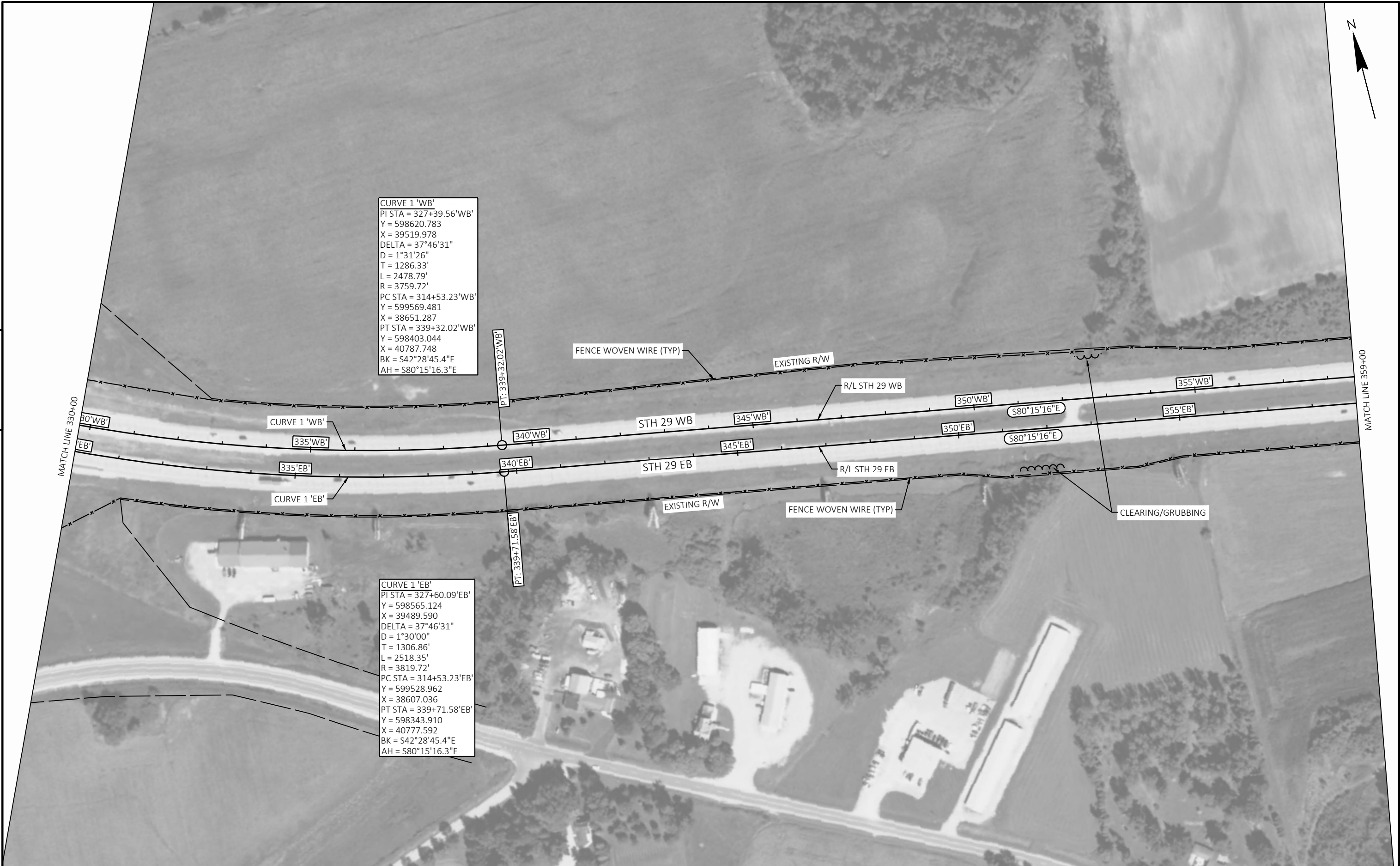
- NOTES:
- 1. LAYOUT AND STAKING OF PLANT MATERIALS TO BE VERIFIED BY ENGINEER PRIOR TO INSTALLATION.
 - 2. SEE PLANT BED DETAILS SHEET 2.2 FOR SPACING OF DECIDUOUS SHRUBS.
 - 3. A VARIETY OF NO LESS THAN 3 SPECIES SHALL BE CHOSEN FROM THE ABOVE LIST, WITH ANY CHOSEN SPECIES COMPRISING OF AT LEAST 20% OF THE TOTAL PLANT MATERIAL COUNT. ANY DEVIATIONS WILL BE SPELLED OUT IN THE PLAN SET OR MUST BE APPROVED BY THE PROJECT ENGINEER.
 - 4. PLANTINGS TO BE PROTECTED BY WEED BARRIER FABRIC TO 1.5' AROUND EACH SHRUB.
 - 5. THE FOLLOWING PLANT SPECIES ARE RECOMMENDED FOR WET AREAS: COMMON BUTTONBUSH, RED OSIER DOGWOOD, AND SANDBAR WILLOW.



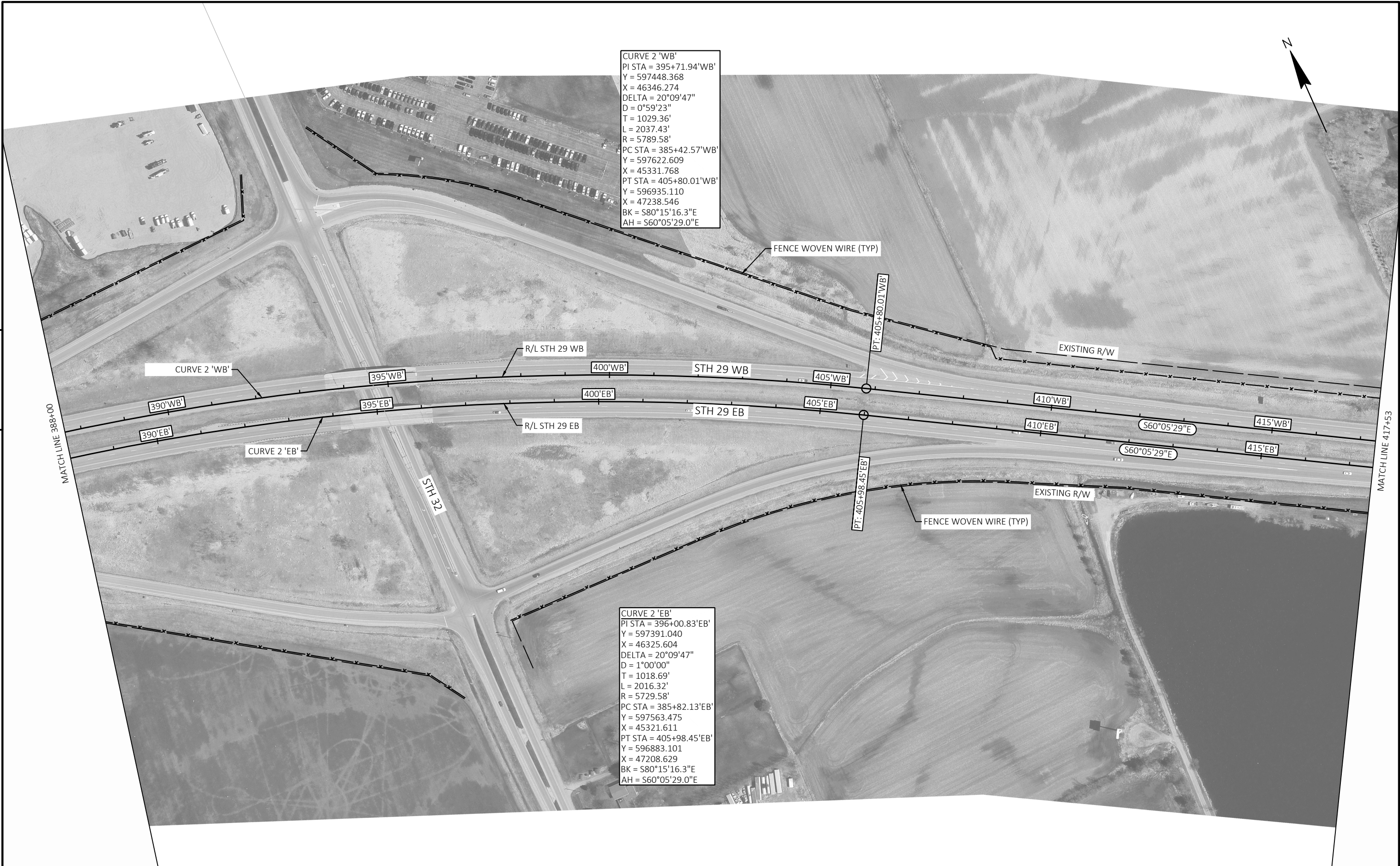


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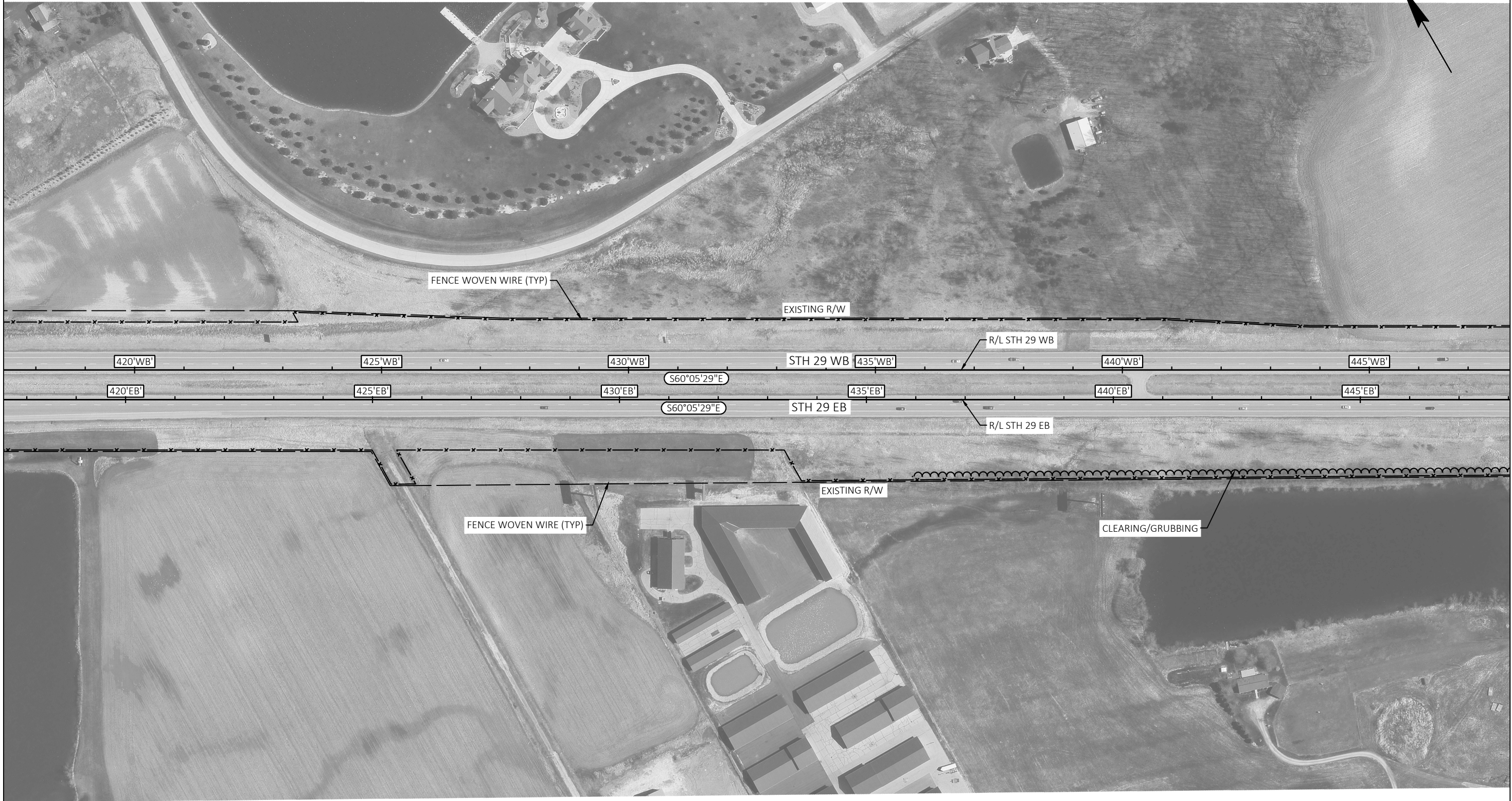


CURVE 2 'WB'
PI STA = 395+71.94'WB'
Y = 597448.368
X = 46346.274
DELTA = 20°09'47"
D = 0°59'23"
T = 1029.36'
L = 2037.43'
R = 5789.58'
PC STA = 385+42.57'WB'
Y = 597622.609
X = 45331.768
PT STA = 405+80.01'WB'
Y = 596935.110
X = 47238.546
BK = S80°15'16.3"E
AH = S60°05'29.0"E

CURVE 2 'EB'
PI STA = 396+00.83'EB'
Y = 597391.040
X = 46325.604
DELTA = 20°09'47"
D = 1°00'00"
T = 1018.69'
L = 2016.32'
R = 5729.58'
PC STA = 385+82.13'EB'
Y = 597563.475
X = 45321.611
PT STA = 405+98.45'EB'
Y = 596883.101
X = 47208.629
BK = S80°15'16.3"E
AH = S60°05'29.0"E

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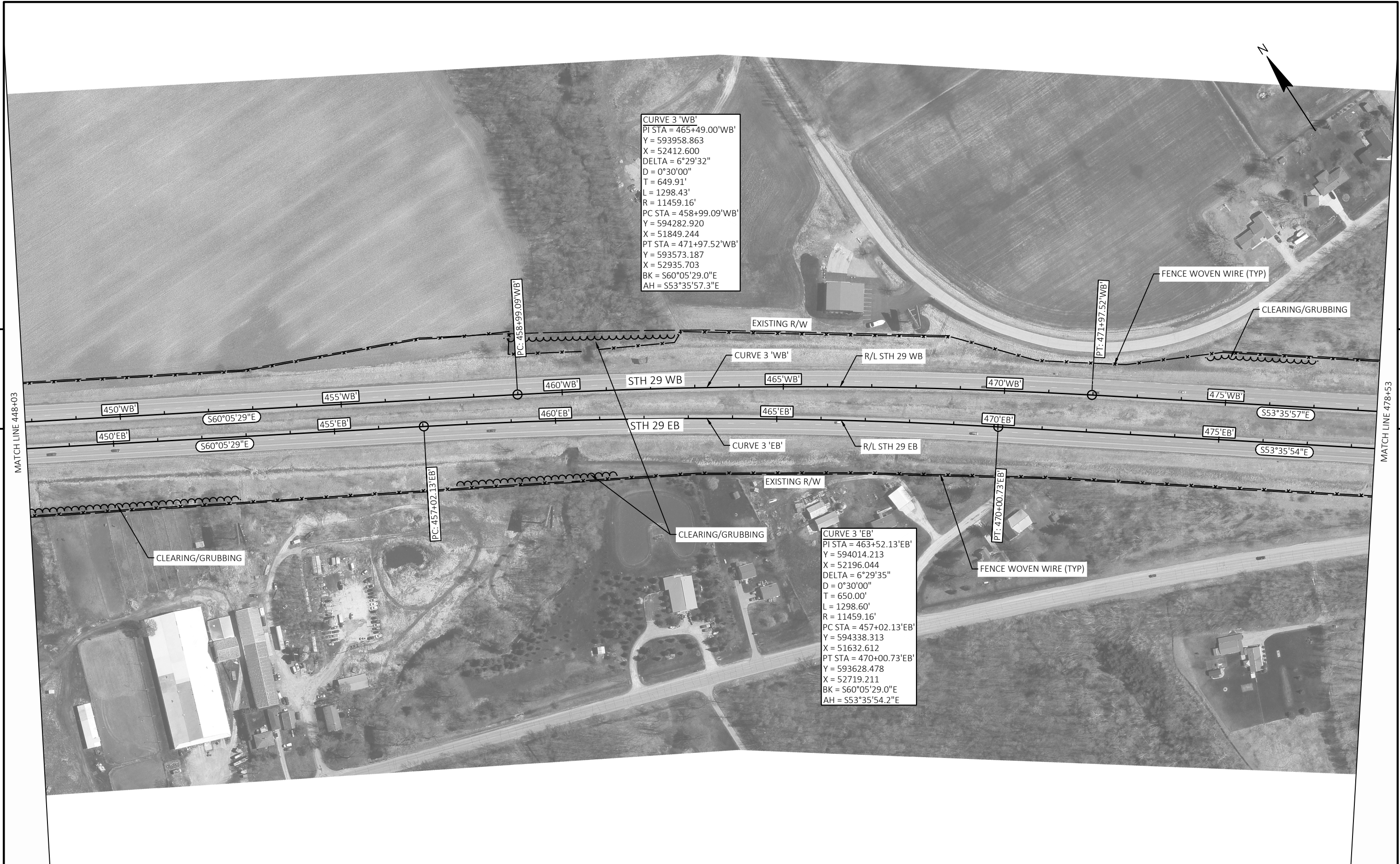
MATCH LINE 417+53

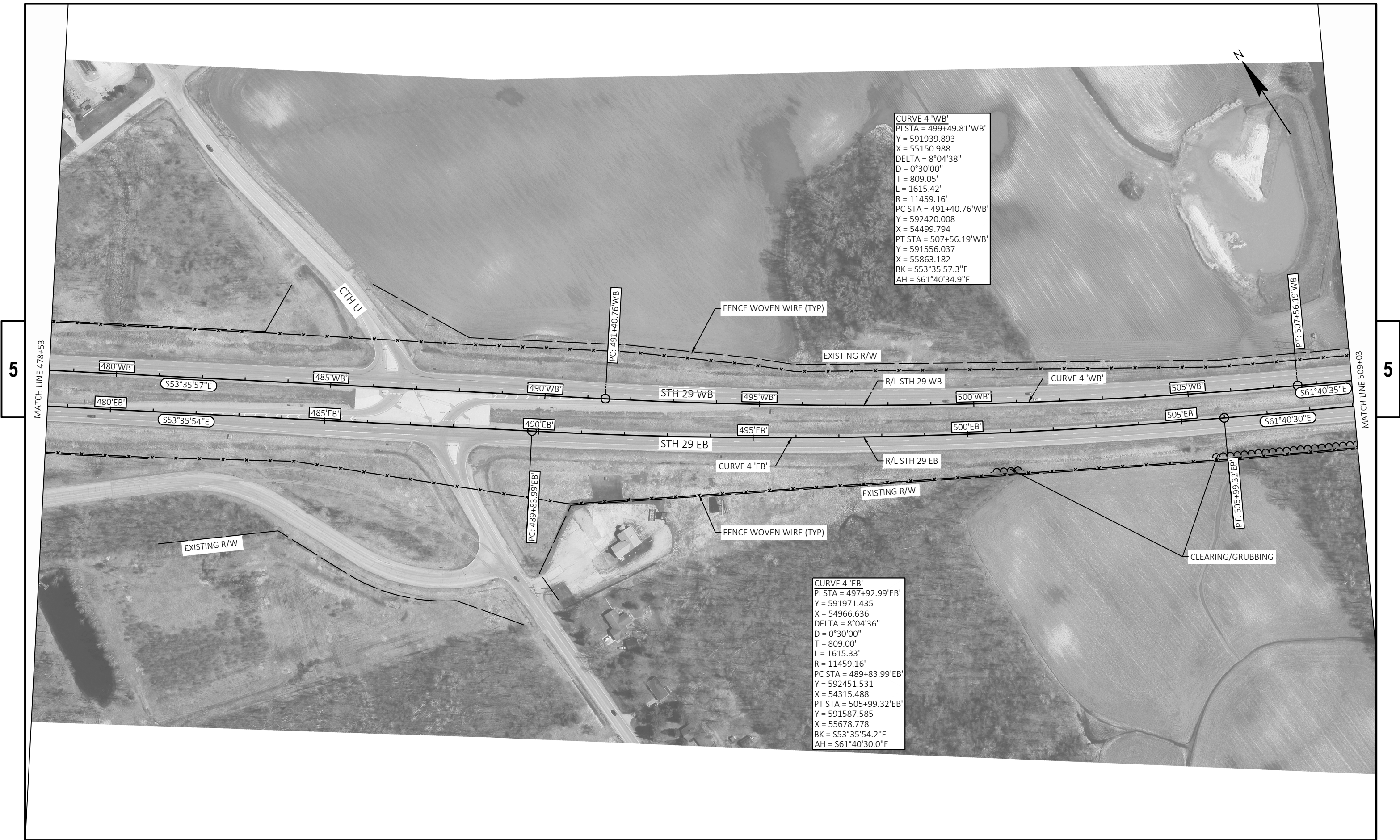


MATCH LINE 448+03

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PROJECT NO: 9200-10-73	HWY: STH 29	COUNTY: BROWN	PLAN SHEET	SHEET	E
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MATCH LINE 509+03



MATCH LINE 539+53

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PROJECT NO: 9200-10-73

HWY: STH 29

COUNTY: BROWN

PLAN SHEET

SHEET

E

FILE NAME : N:\PDS\C3D\92001001\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050208-pn

PLOT DATE : 9/13/2021 1:12 PM

PLOT BY : LORENZ, KELSEY ANN

PLOT NAME :

PLOT SCALE : 1 IN=200 FT

WISDOT/CADDs SHEET 44

5

MATCH LINE 539+53



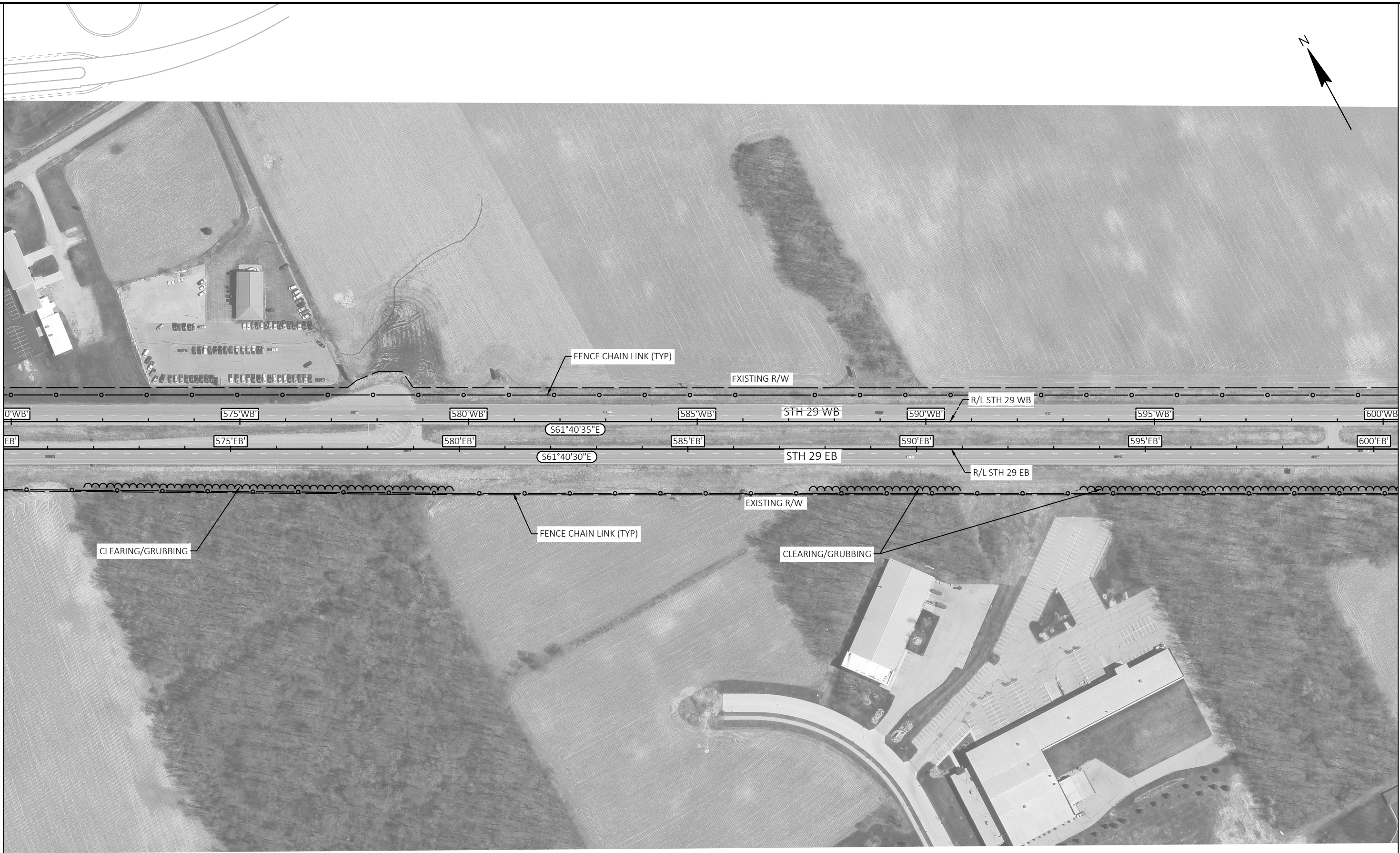
MATCH LINE 570+03

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PROJECT NO: 9200-10-73	HWY: STH 29	COUNTY: BROWN	PLAN SHEET	SHEET	E
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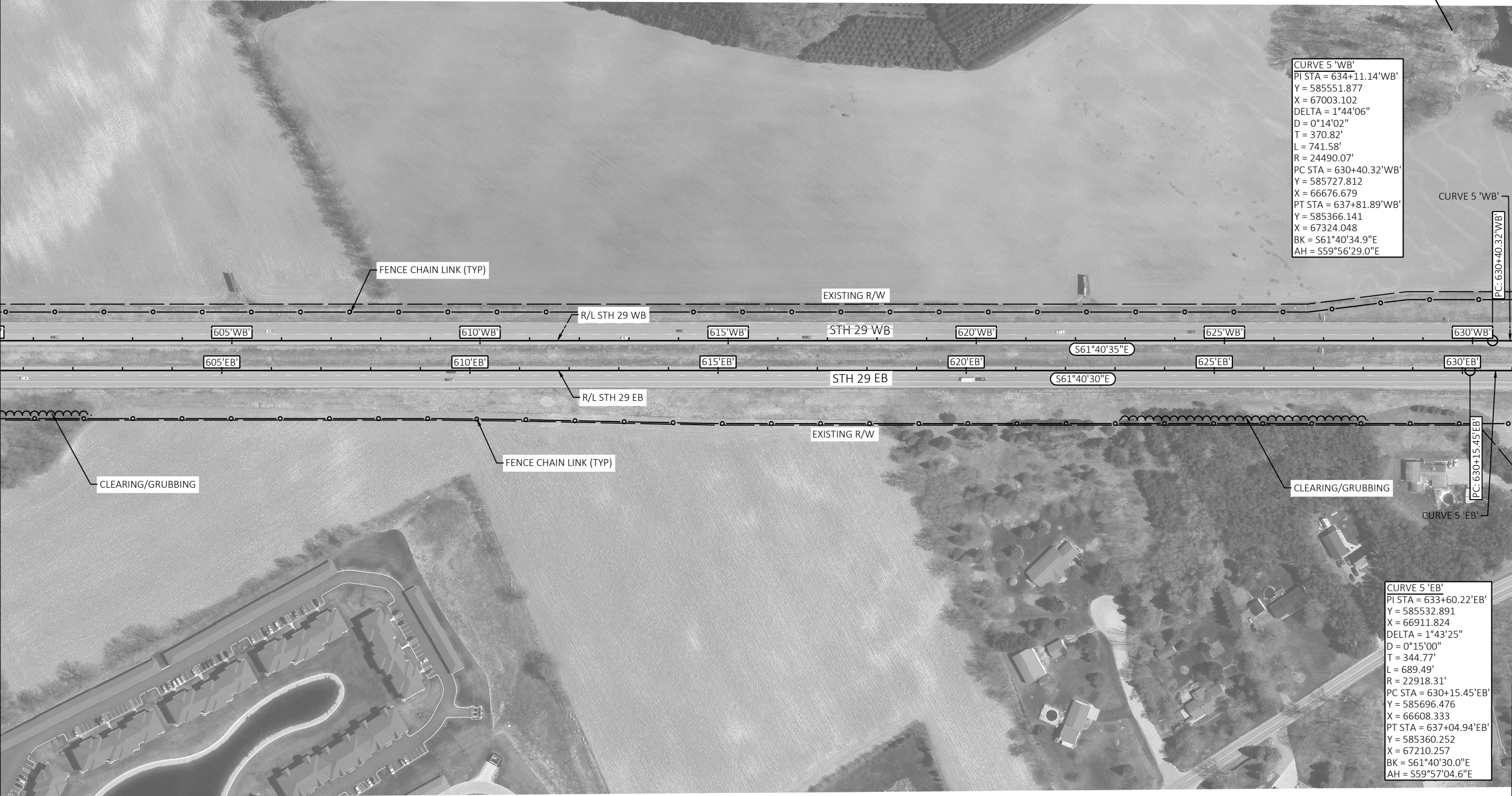
MATCH LINE 570+03

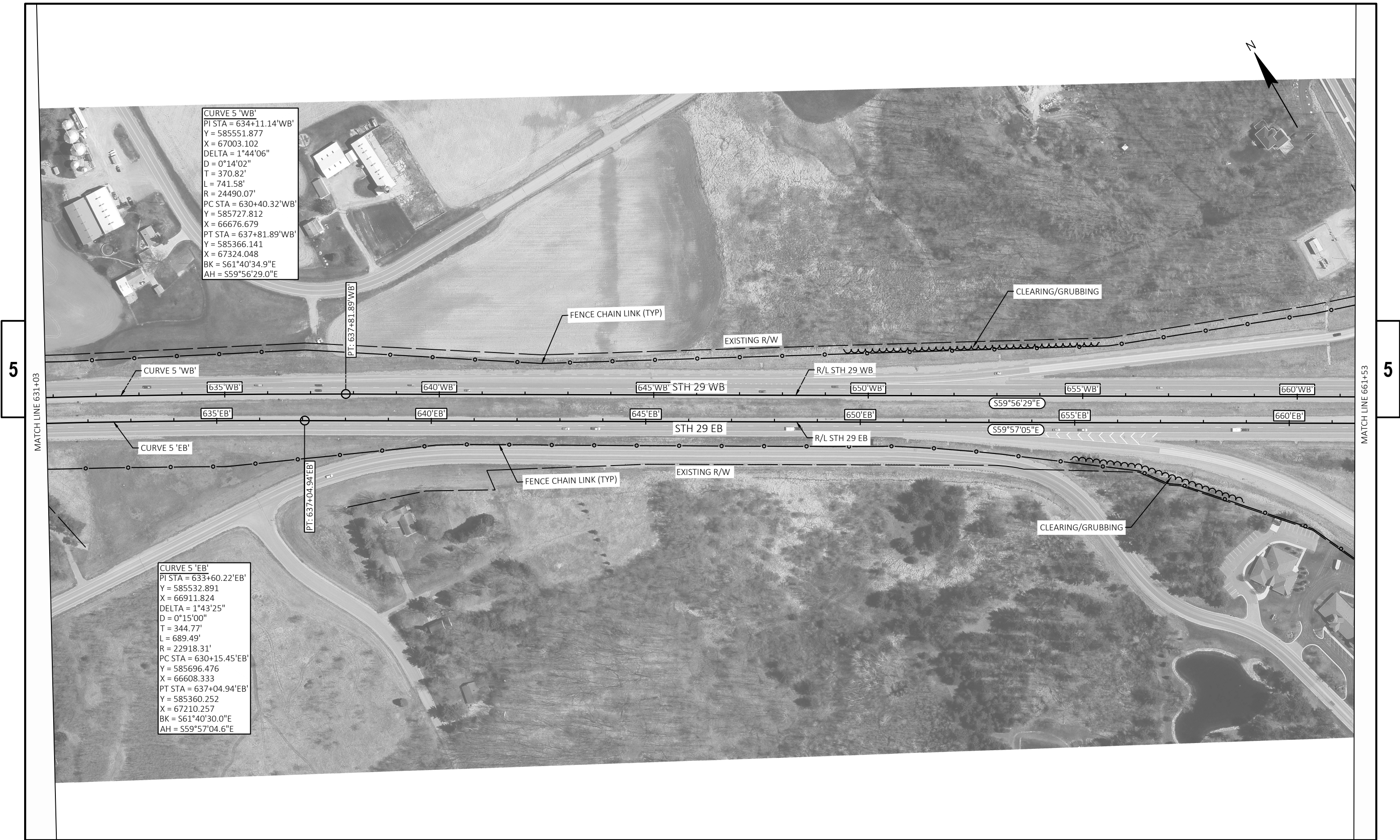


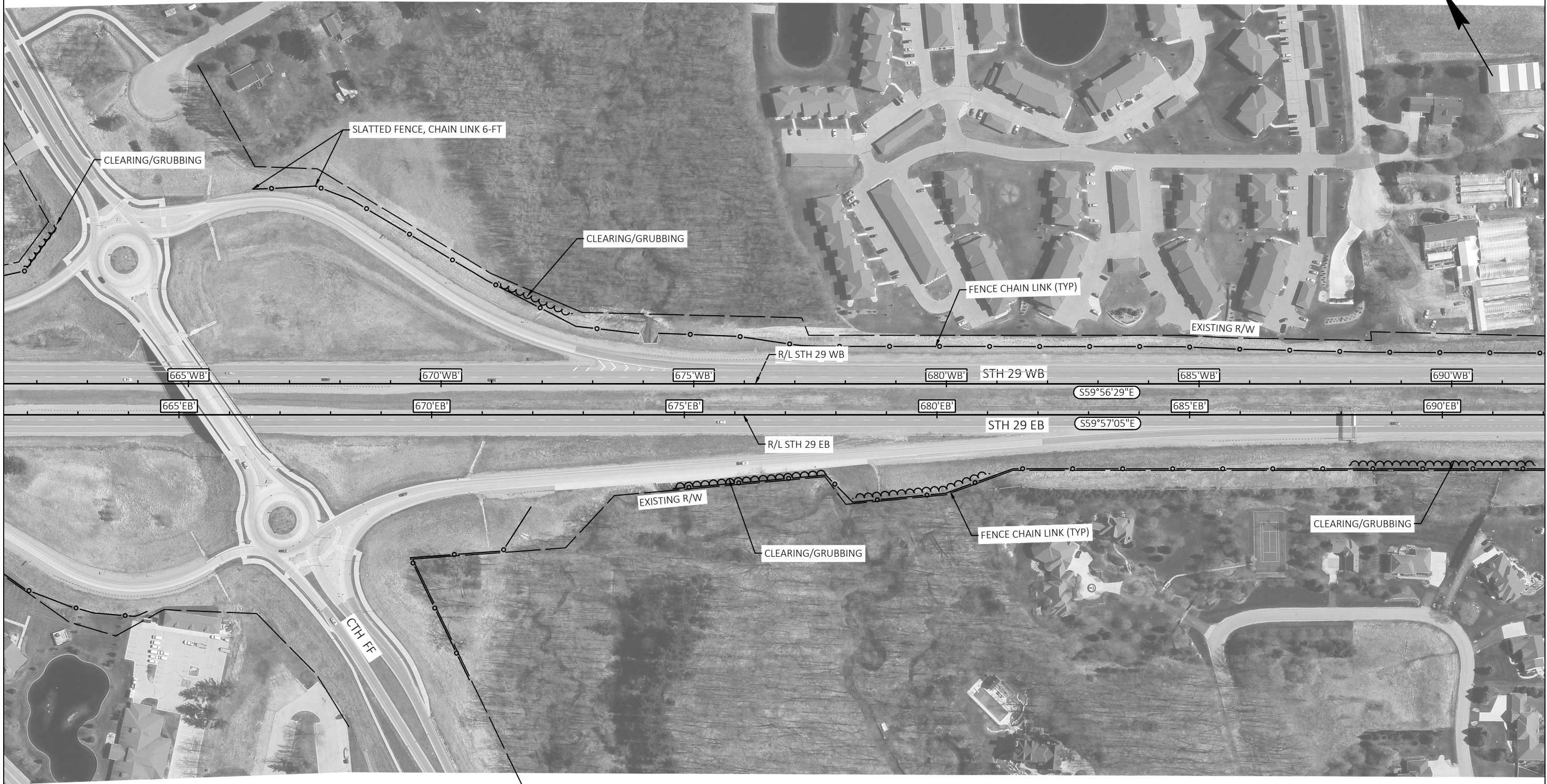
MATCH LINE 600+53

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PROJECT NO: 9200-10-73	HWY: STH 29	COUNTY: BROWN	PLAN SHEET	SHEET	E
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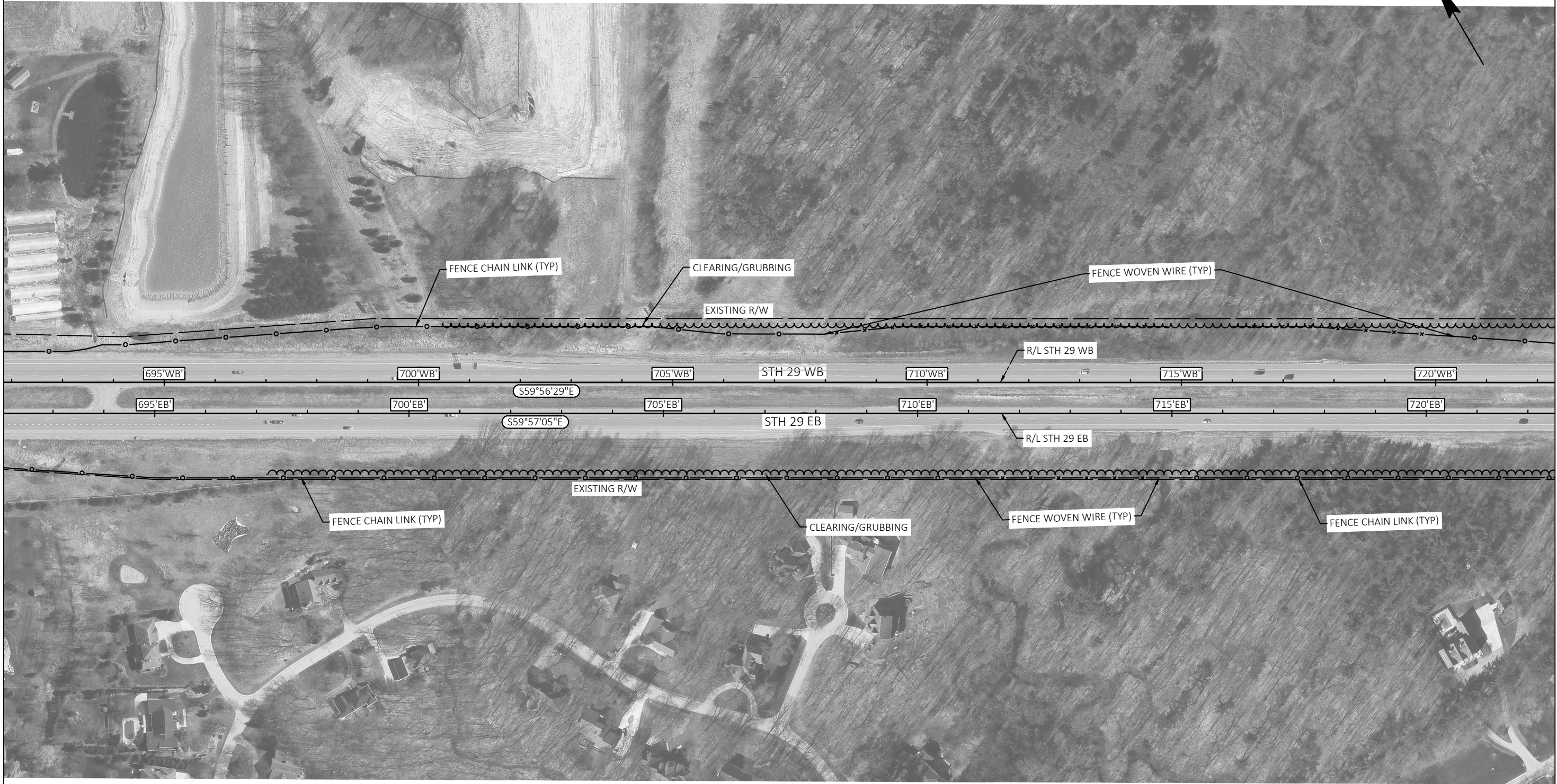






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MATCH LINE 692+03



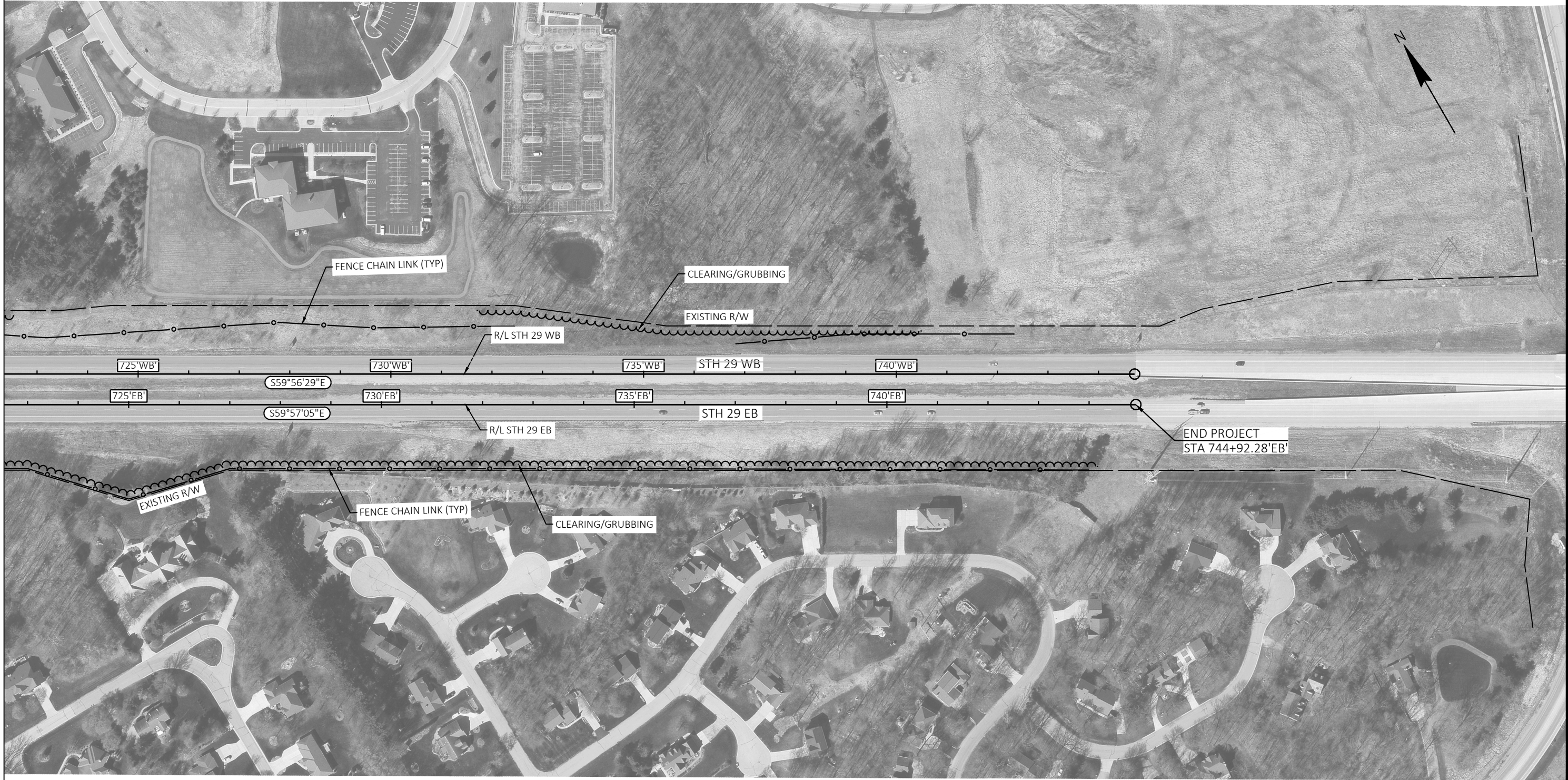
MATCH LINE 722+53

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PROJECT NO: 9200-10-73	HWY: STH 29	COUNTY: BROWN	PLAN SHEET	SHEET	E
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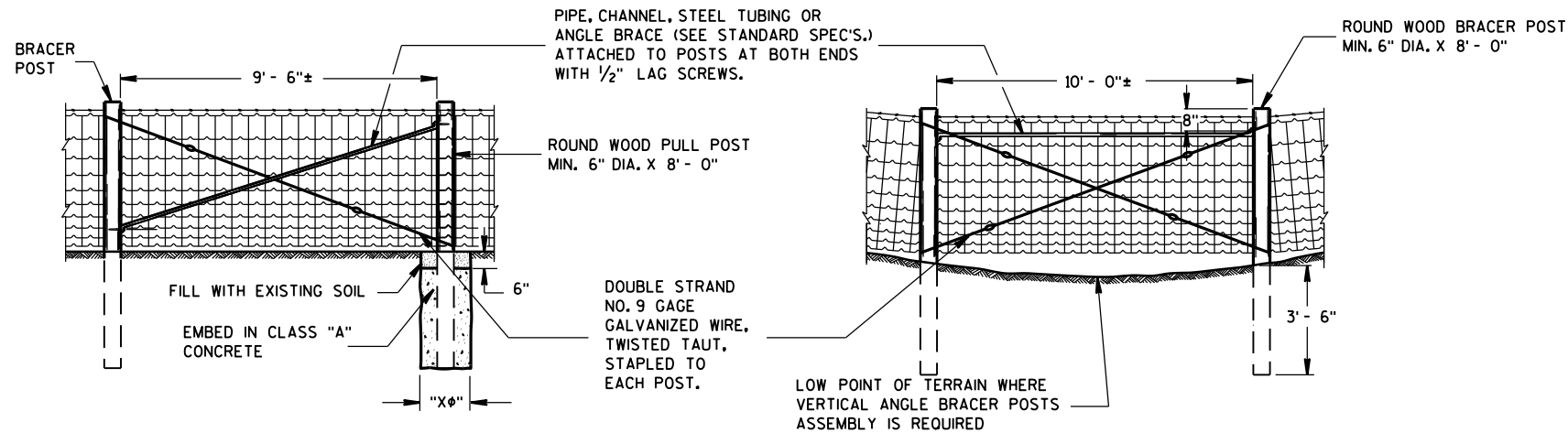
5

MATCH LINE 722+53



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ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY

VERTICAL ANGLE BRACER POSTS ASSEMBLY

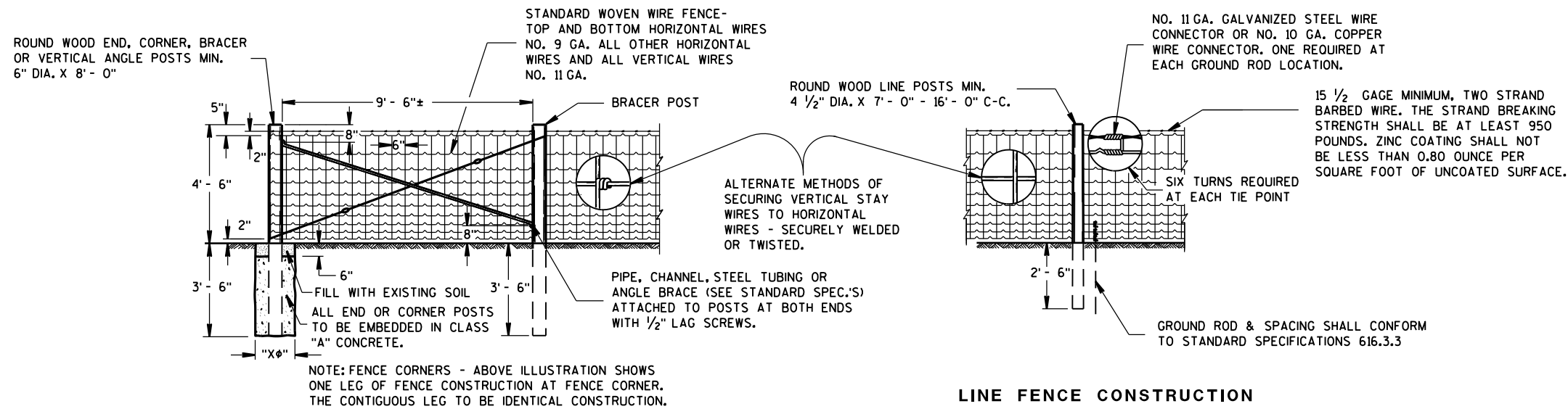
GENERAL NOTES

"X ϕ " = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN), DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER, ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

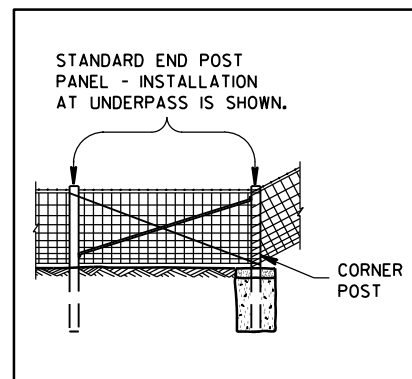
FENCE SHALL BE LOCATED 3'-0" INSIDE
THE RIGHT OF WAY LINE UNLESS
OTHERWISE INDICATED ON THE PLANS.



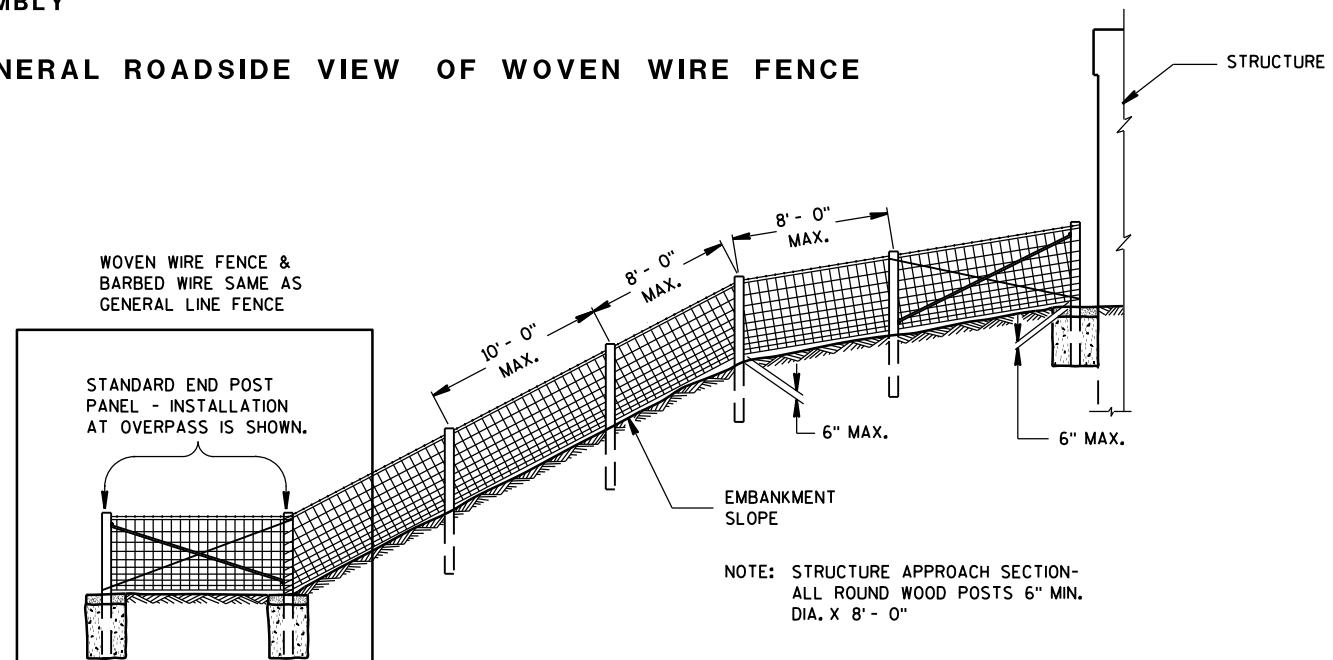
LINE FENCE CONSTRUCTION

END OR CORNER POSTS ASSEMBLY

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



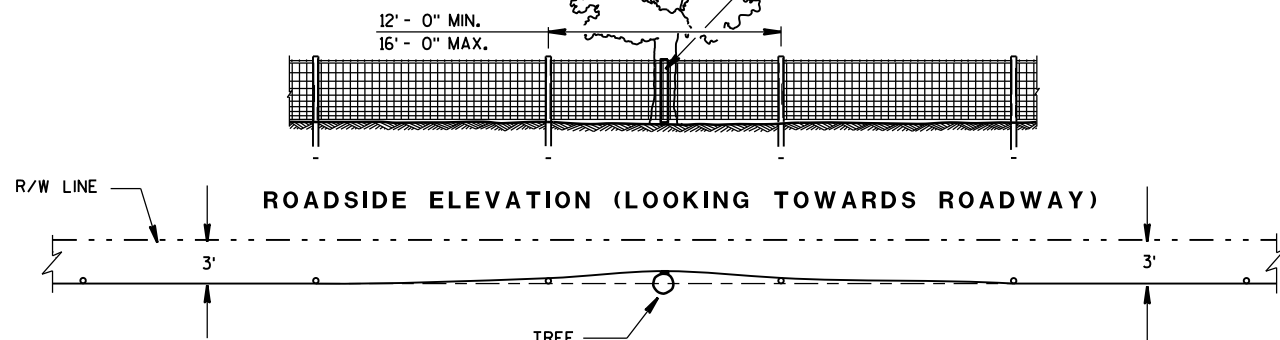
FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

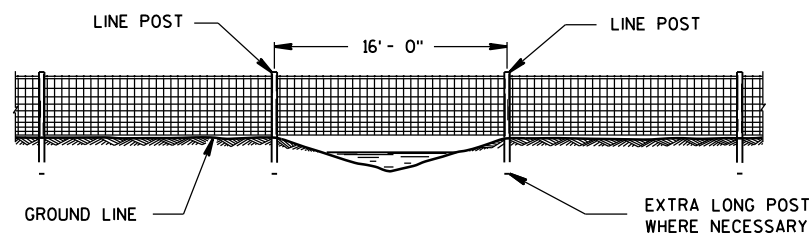
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

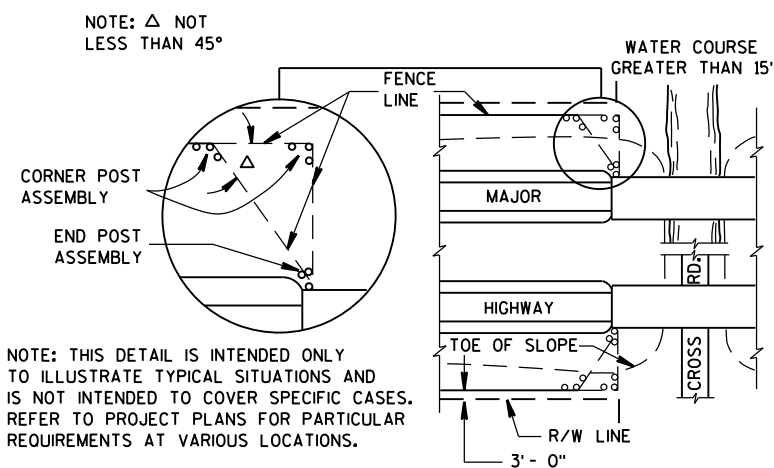
2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.



**PLAN VIEW
FENCE DESIGN AT TREES REMAINING
IN NORMAL FENCE LINE**

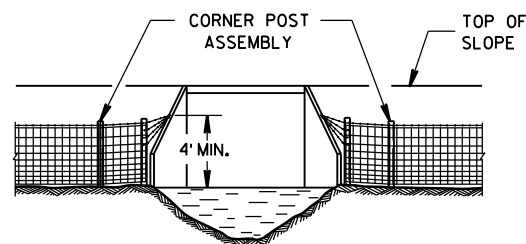


**FENCE CONSTRUCTION OVER STREAM
COURSES OF 15 FT. OR LESS IN WIDTH**



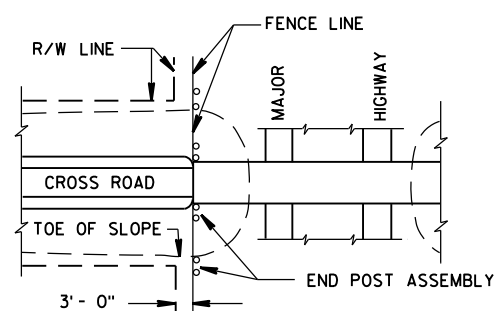
**PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE
CROSSING OF GREATER THAN 15 FT. IN WIDTH**

FENCE LOCATION AT STRUCTURES

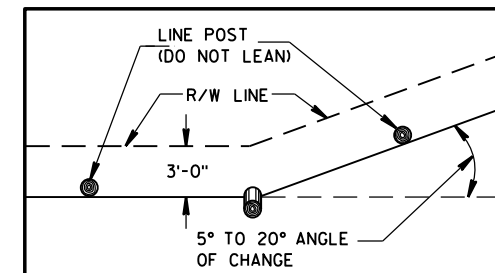


FENCE INSTALLATION TO WINGWALLS

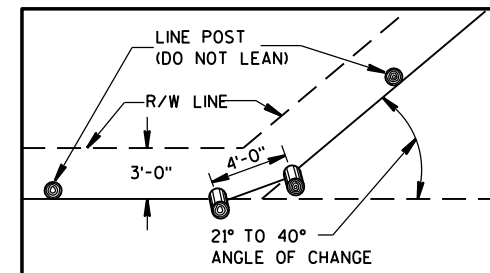
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



**PLAN VIEW
MAJOR HIGHWAY UNDERPASS**



**PLAN VIEW
SINGLE POST CORNER**

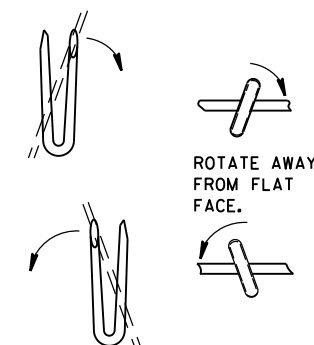


**PLAN VIEW
DOUBLE POST CORNER**

RIGHT OF WAY LINE CHANGE 40° AND LESS

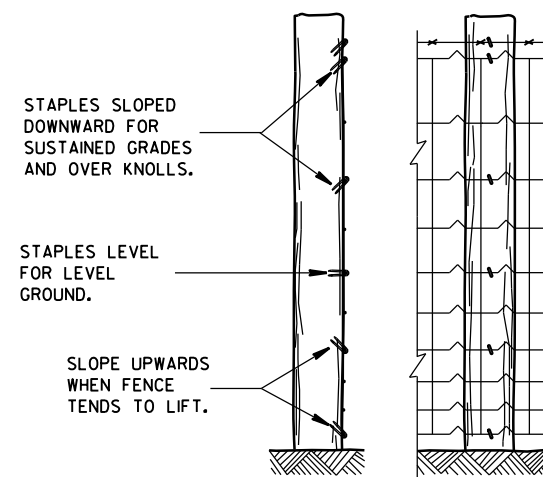
NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



LINE POST

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.



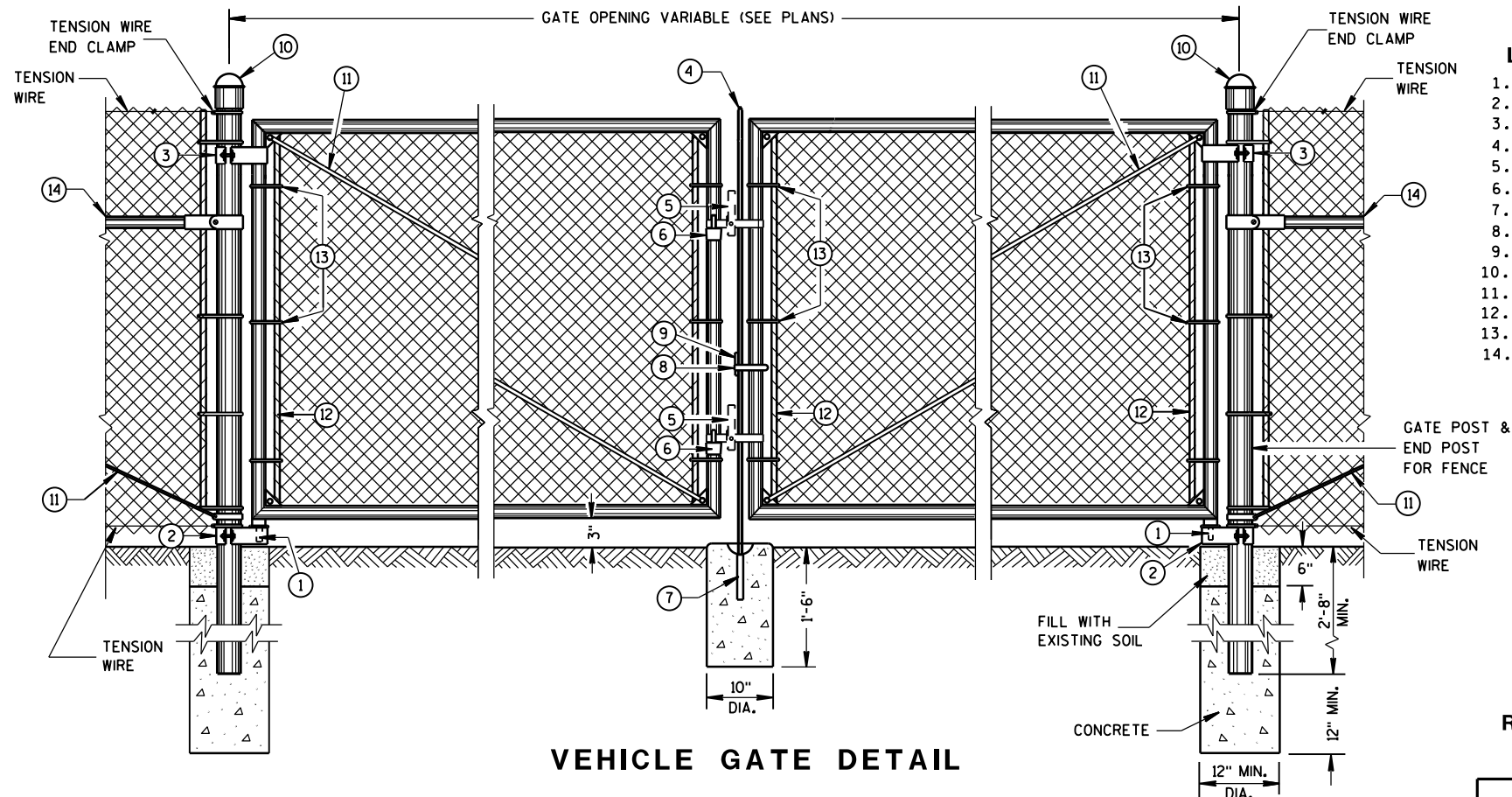
**END
ELEVATION
FARM
SIDE
ELEVATION
FENCE MOUNTING DETAIL**

FENCE WOVEN WIRE

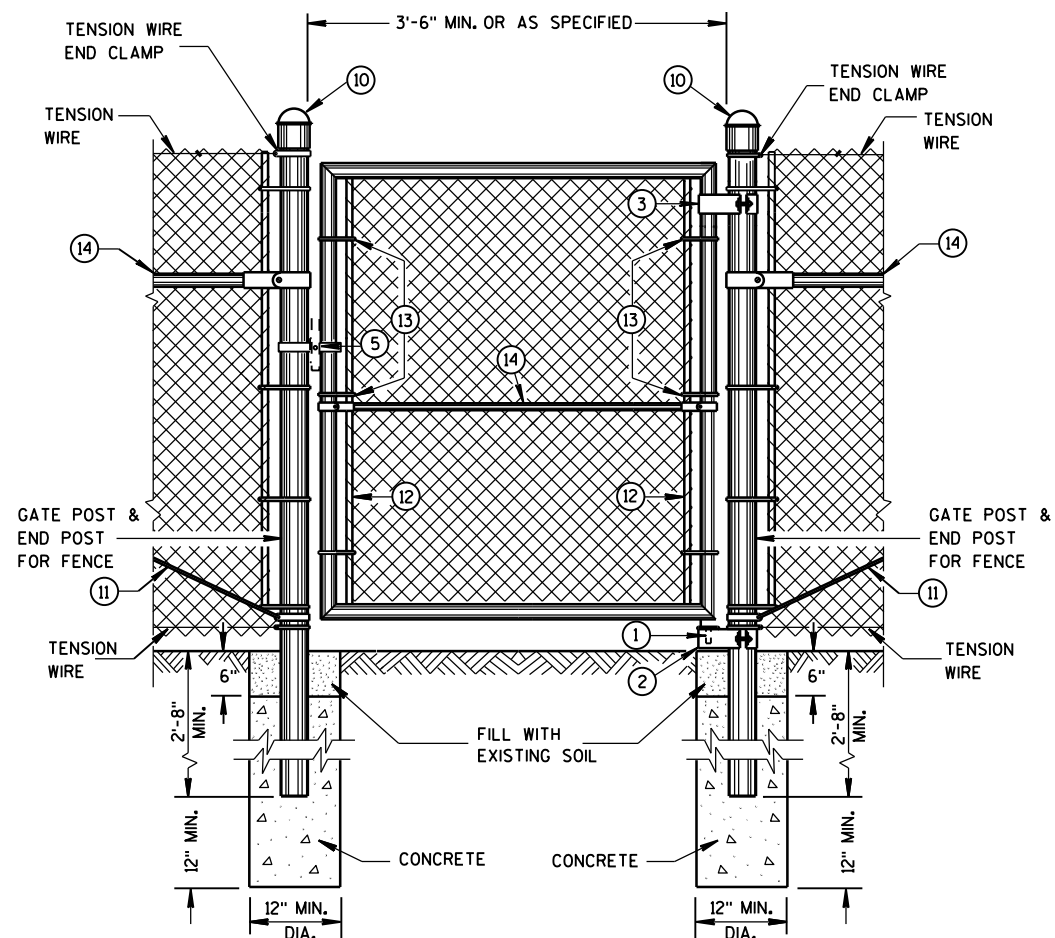
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/4/2008
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

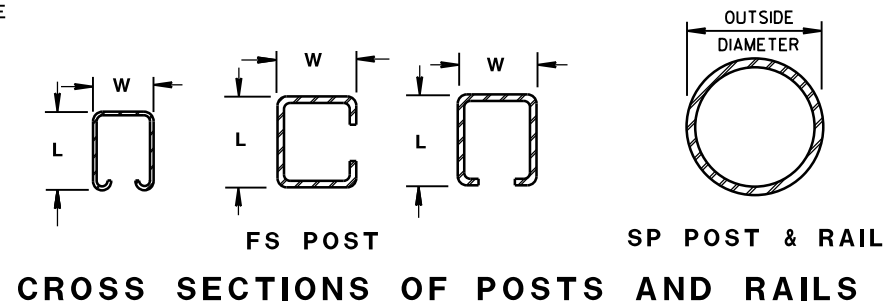
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



ROLLED-FORMED STEEL FENCE POST
(2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST
(1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST
SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

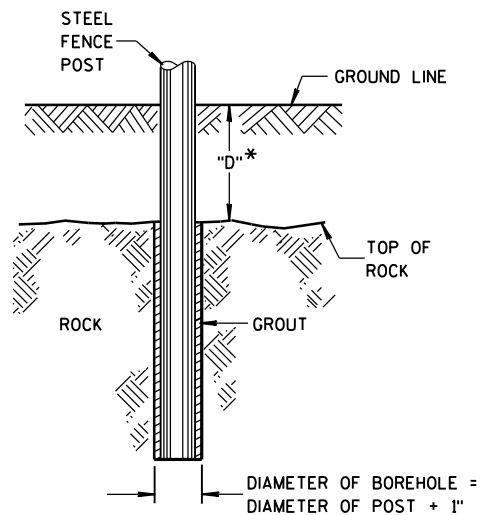
BRACE RAIL TYPES

USE	TYPE
BRACE RAIL	SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

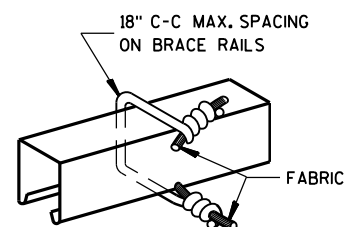
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



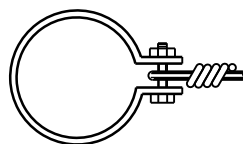
* IF "D" IS LESS THAN 2'-6",
DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

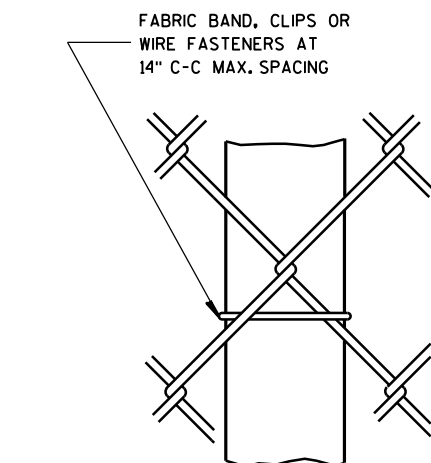


BRACE RAIL FABRIC FASTENER

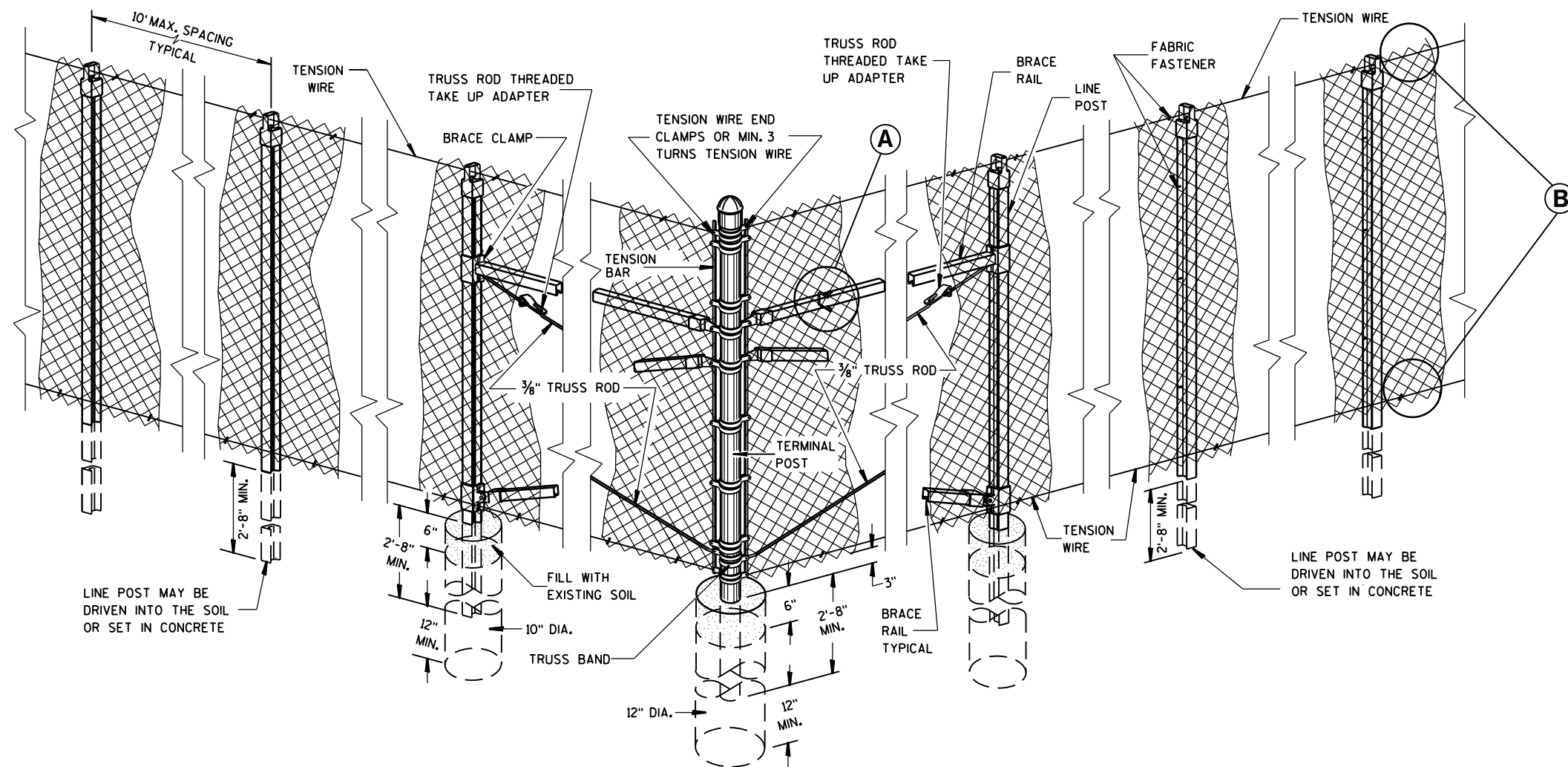
(A)



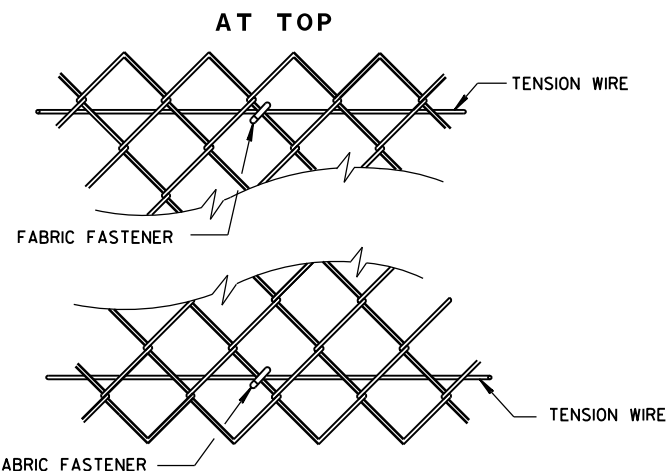
TENSION WIRE END CLAMP



LINE POST FABRIC FASTENER



END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



AT BOTTOM SELVAGES

(B)

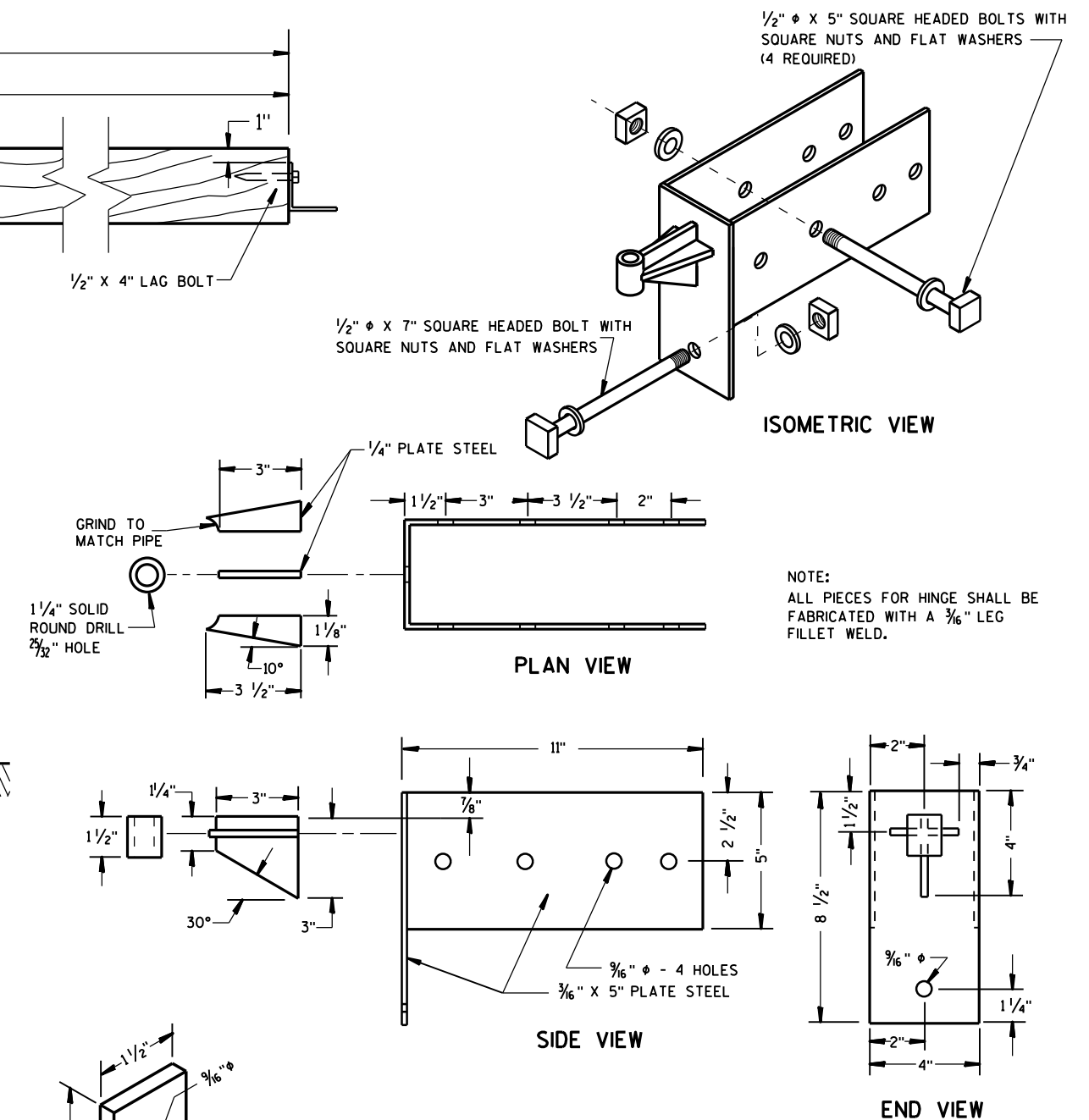
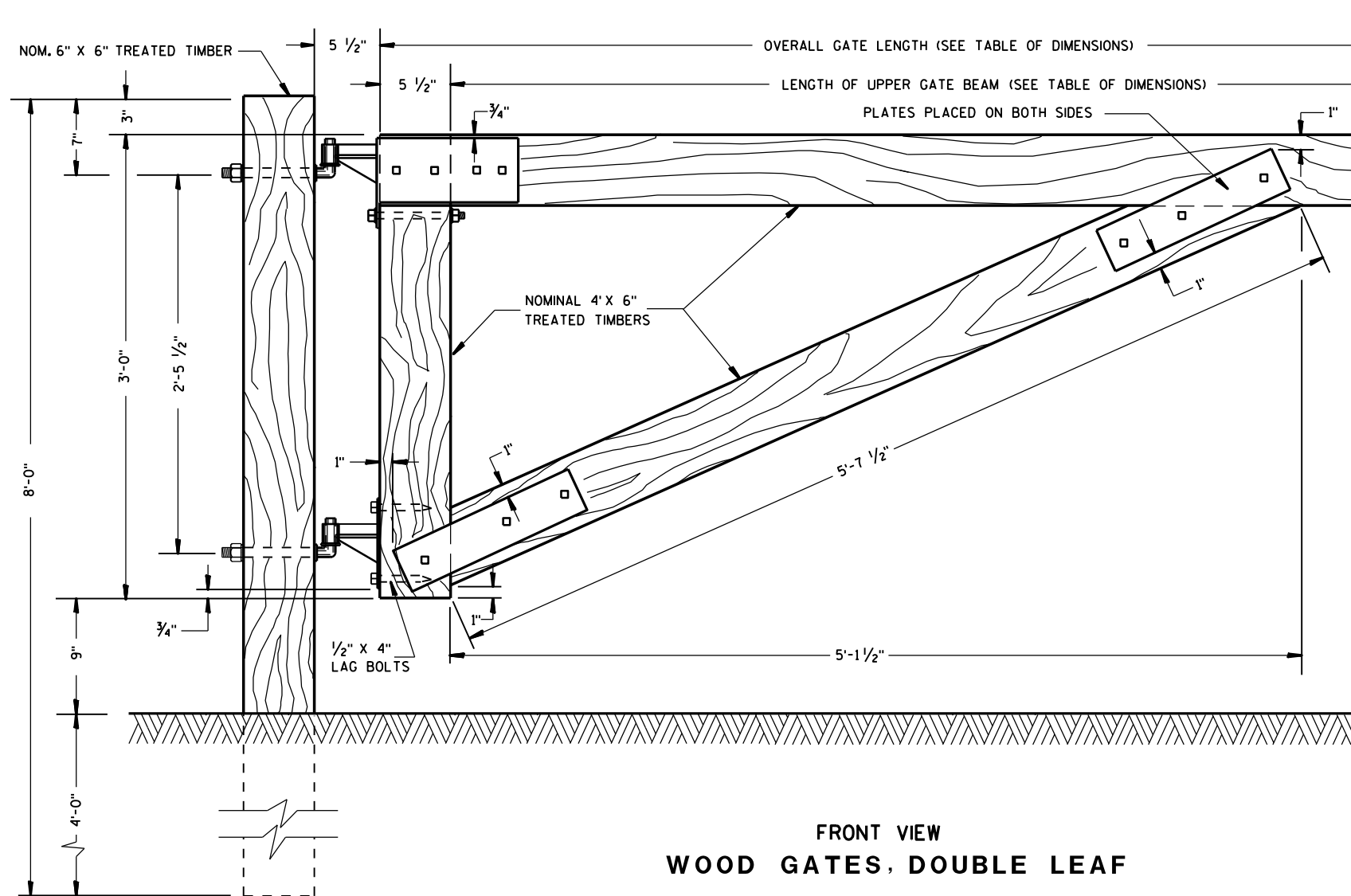
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

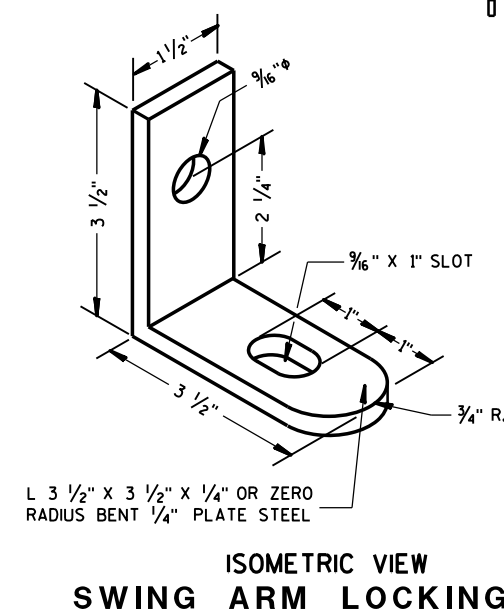
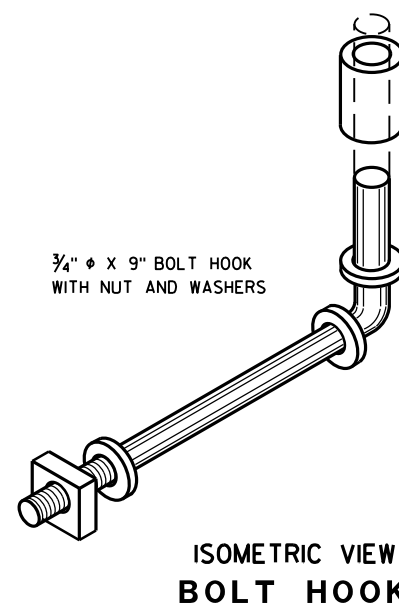
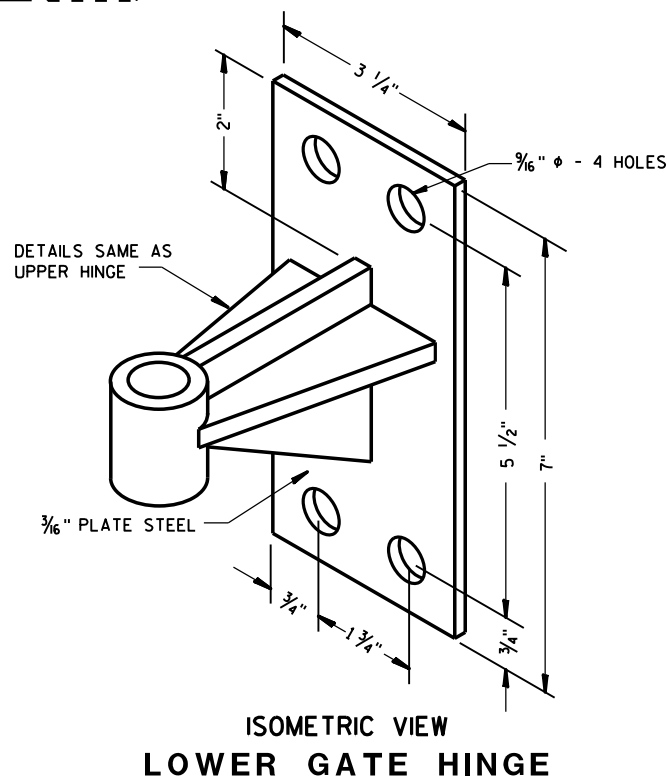
APPROVED
FEB. 2015
DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



SDD 15b10-a Wood Gate, Double Leaf



NOTE:
ALL PIECES FOR HINGE SHALL BE
FABRICATED WITH A 3/16" LEG
FILLET WELD.

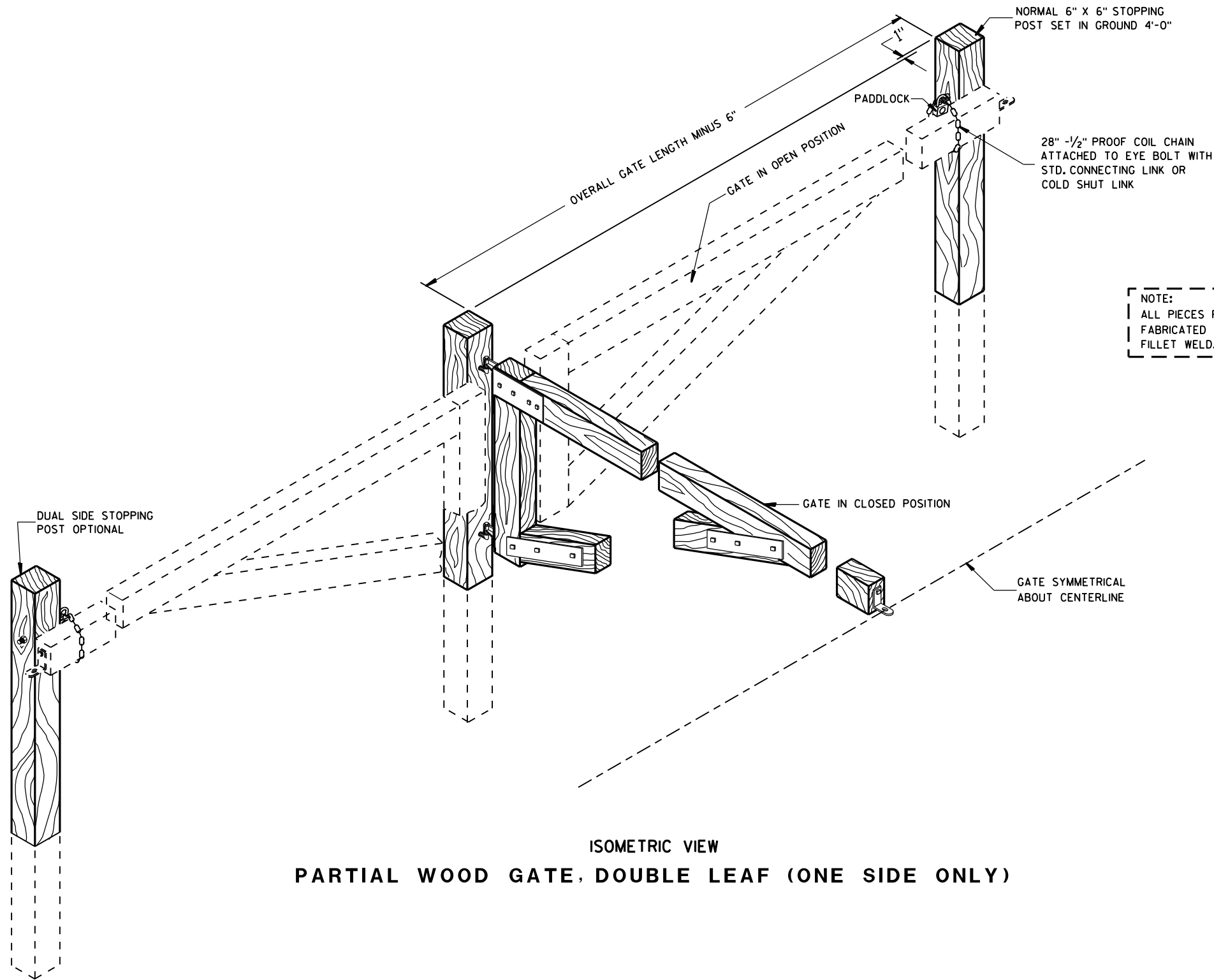


WOOD GATE, DOUBLE LEAF

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

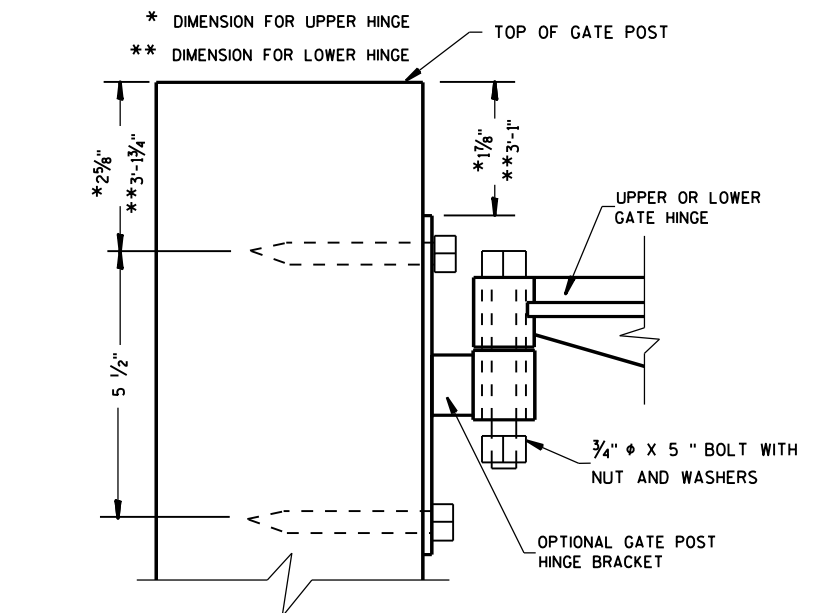


SDD 15b10-b Wood Gate, Double Leaf

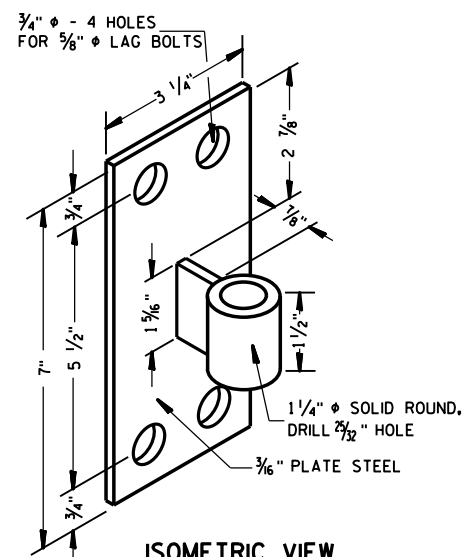


ISOMETRIC VIEW
PARTIAL WOOD GATE, DOUBLE LEAF (ONE SIDE ONLY)

NOTE:
ALL PIECES FOR HINGE SHALL BE
FABRICATED WITH A $\frac{3}{16}$ " LEG
FILLET WELD.



SIDE VIEW
INSTALLATION FOR OPTION B
GATE POST HINGE BRACKET



ISOMETRIC VIEW
OPTION B
GATE POST HINGE BRACKET

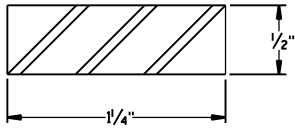
NOTE: TO BE USED IN PLACE OF HOOK BOLT
FOR A 16' CLEAR WIDTH OPENING ONLY
(USE ON BOTH UPPER & LOWER GATE HINGE ASSEMBLY)

WOOD GATE, DOUBLE LEAF

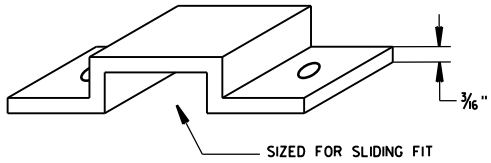
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



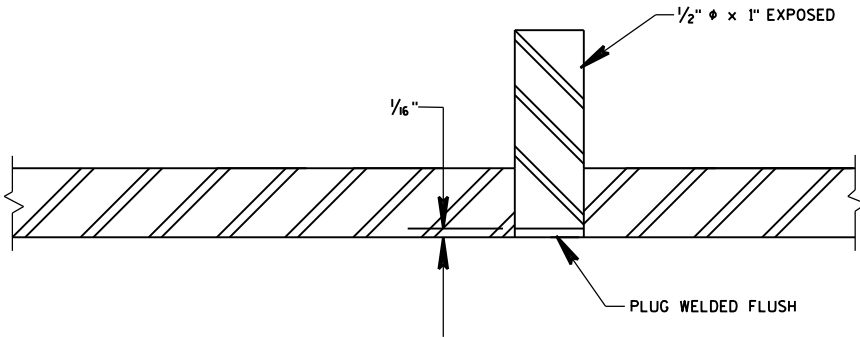
SDD 15b10-c Wood Gate, Double Leaf



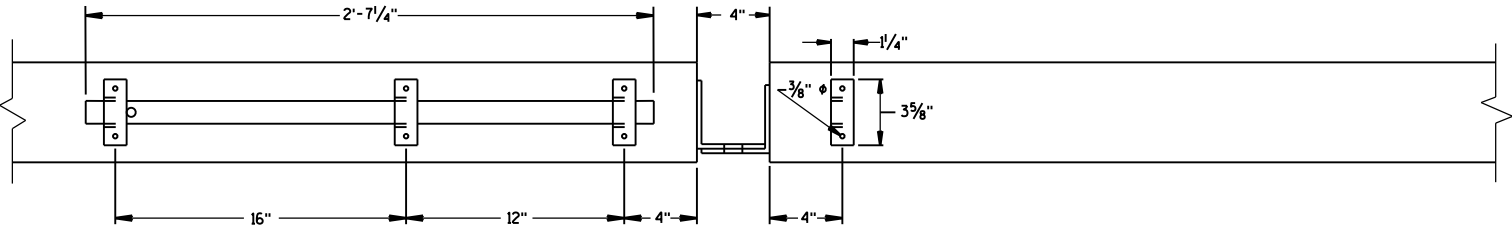
SLIDE BAR CROSS SECTION



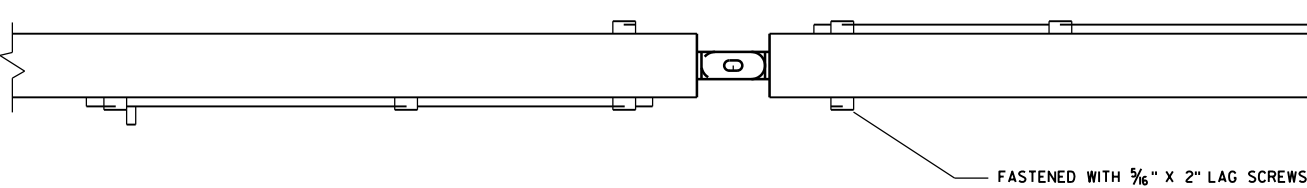
KEYWAY FOR SLIDE BAR
ISOMETRIC VIEW



SECTION FOR SLIDE PIN ASSEMBLY



ELEVATION VIEW



PLAN VIEW

SLIDE BAR ASSEMBLY FOR GATES GREATER THEN 20'-0"

GENERAL NOTES

POSTS SHALL BE SET IN GROUND AT THE DEPTH SHOWN, FILLED AND COMPACTED EVERY 6 INCHES WITH ORIGINAL SUBSOIL.

ALL SAW CUTS AND HOLES DRILLED IN TIMBERS SHALL BE TREATED IN ACCORDANCE WITH SECTION 507.2.2.6 AND WOOD PRESERVATIVE SHALL BE SECTION 507.2.3.4 OF THE STANDARD SPECIFICATIONS.

GATE LOCK CAN BE MASTER KEYED AND SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS: SHACKLE DIA. OF 3/8", VERTICAL CLEARANCE OF 1 1/2", HORIZONTAL CLEARANCE OF 1/2".

ALL METAL SHALL BE PAINTED WITH A ZINC RICH PRIMER AND ONE COAT OF EPOXY FINISH PAINT. A SECOND FINISH COAT SHALL BE FIELD APPLIED AFTER INSTALLATION.

STOPPING POSTS SHALL BE SET AT EACH SIDE AND EQUIPPED WITH LOCKING POST LOCK BAR FOR HOLDING IN POSITION.

ALL TIMBER BRACES AND HINGE ASSEMBLY SHALL BE SHOP FABRICATED.

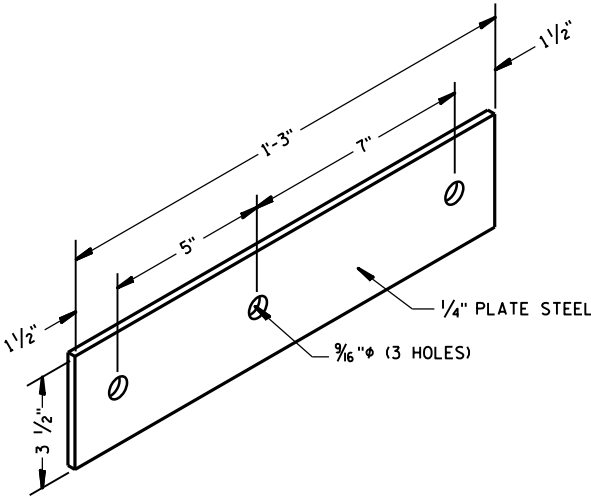
(TABLE OF DIMENSIONS)

CLEAR WIDTH	DISTANCE BETWEEN POSTS	LENGTH OF UPPER GATE BEAM	OVERALL GATE LENGTH
12'-0"	12'-7"	5'-2 1/2"	5'-8"
14'-0"	14'-7"	6'-2 1/2"	6'-8"
16'-0"	16'-7"	7'-2 1/2"	7'-8"
18'-0"	18'-7"	8'-2 1/2"	8'-8"
** 20'-0"	20'-7"	9'-2 1/2"	9'-8"
** 24'-0"	24'-7"	11'-2 1/2"	11'-8"
** 28'-0"	28'-7"	13'-2 1/2"	13'-8"
** 30'-0"	30'-7"	14'-2 1/2"	14'-8"
** 32'-0"	32'-7"	15'-2 1/2"	15'-8"

DESIGN NOTE:

GATE SIZE SHALL BE SPECIFIED AS THE CLEAR WIDTH OF OPENING.

**FOR A 20' AND UP CLEAR WIDTH OPENING - HINGE BRACKET (OPTION B) IS TO BE USED INSTEAD OF THE BOLT HOOK, AND HINGE POST SHALL BE AT A MIN. DEPTH OF 6'-0" AND SLIDE BAR ASSEMBLY SHALL BE USED.



ISOMETRIC VIEW
UPPER AND LOWER SPLICE PLATES

WOOD GATE, DOUBLE LEAF

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/5/94

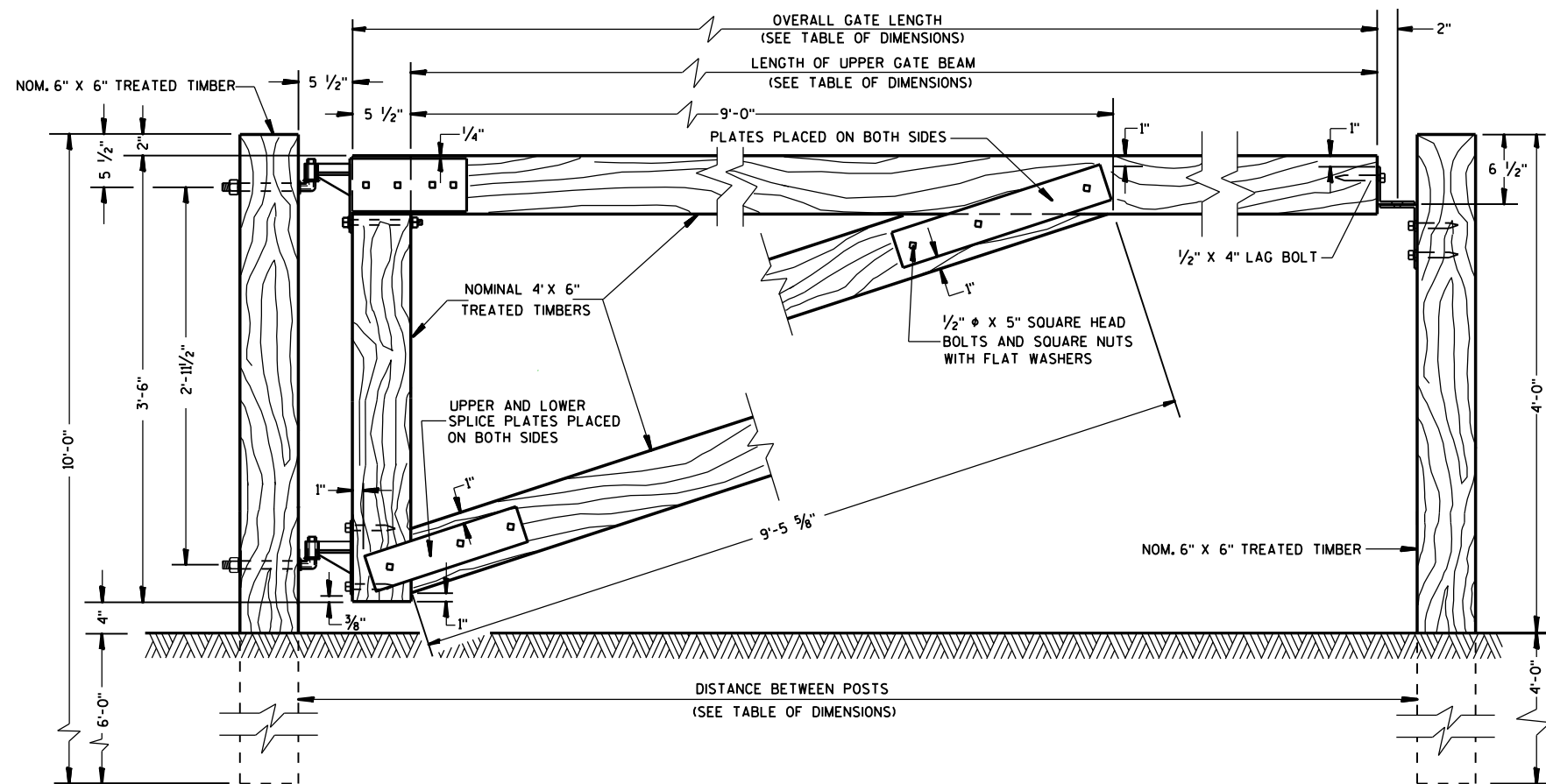
DATE

FHWA

/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER



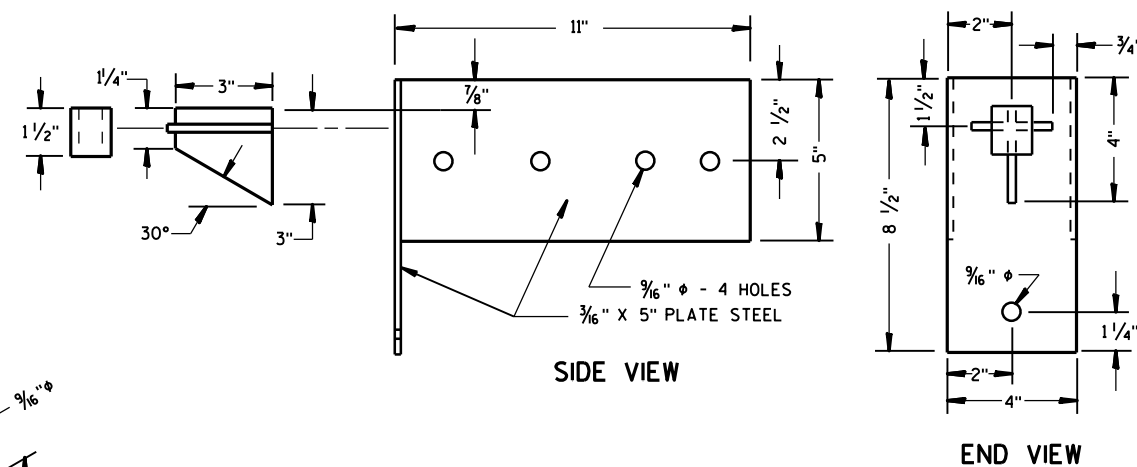
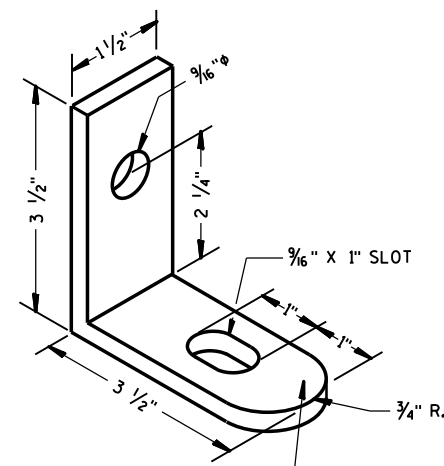
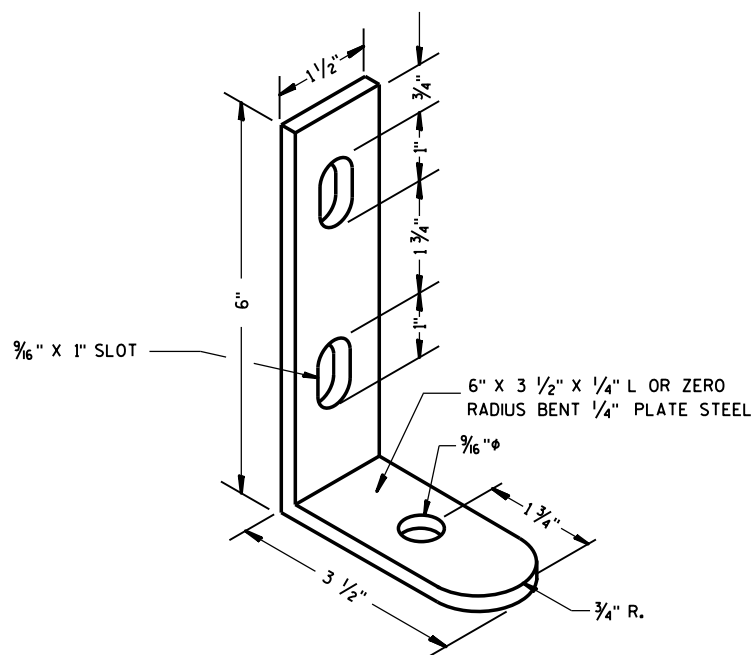
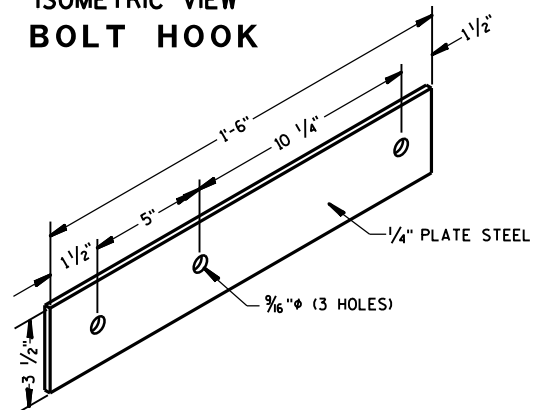
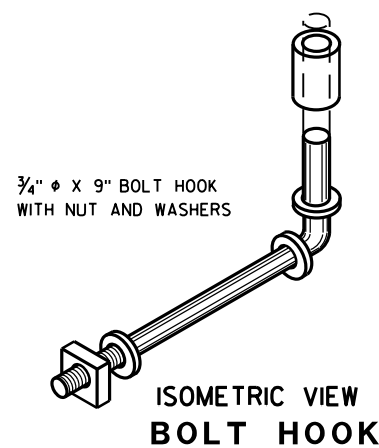
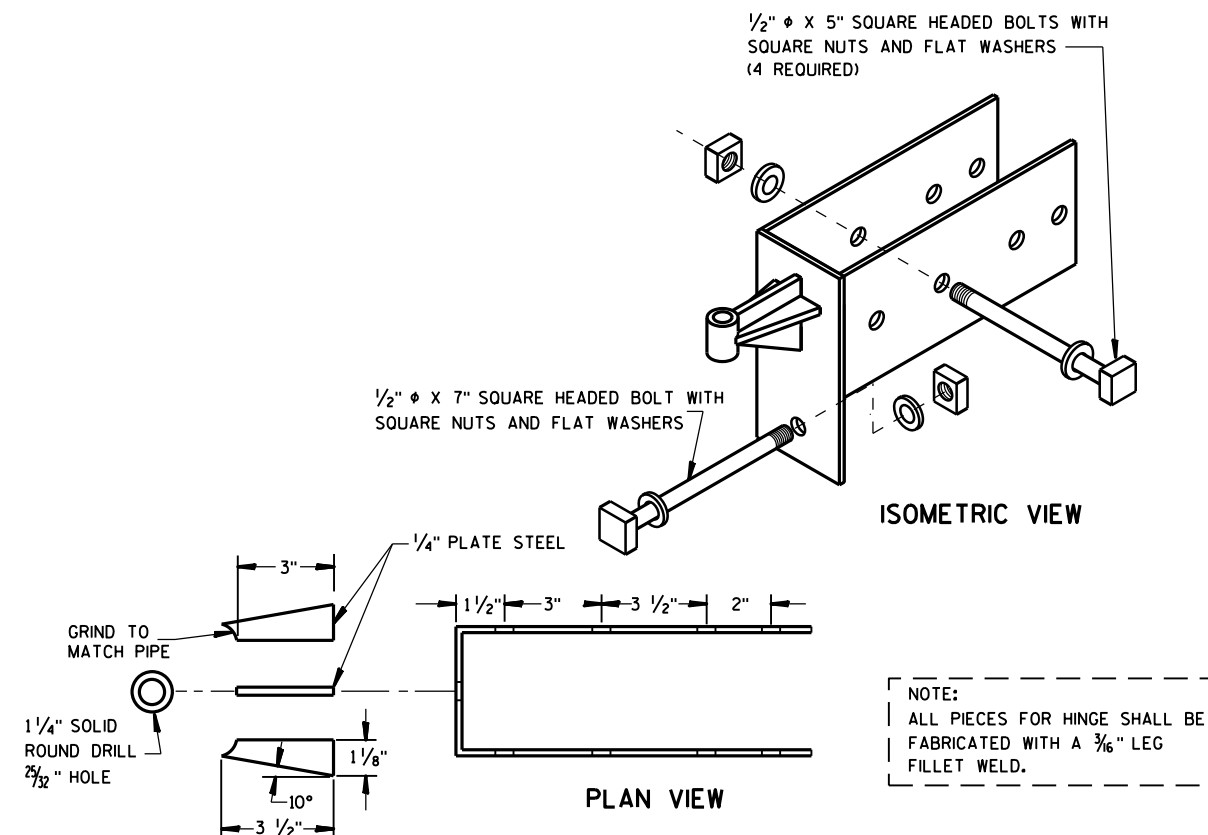
SDD 15b11-a Wood Gate, Single Leaf



GATE POST

FRONT VIEW
WOOD GATE, SINGLE LEAF

STOPPING POST



UPPER HINGE DETAIL ASSEMBLY

WOOD GATE, SINGLE LEAF

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SDD 15b11-b Wood Gate, Single Leaf

(TABLE OF DIMENSIONS)

CLEAR WIDTH	DISTANCE BETWEEN POSTS	LENGTH OF UPPER GATE BEAM	OVERALL GATE LENGTH
** 16'-0"	16'-7"	15'-4 1/4"	15'-9 3/4"
** 14'-0"	14'-7"	13'-4 1/4"	13'-9 3/4"
12'-0"	12'-7"	11'-4 1/4"	11'-9 3/4"
10'-0"	10'-7"	9'-4 1/4"	9'-9 3/4"

** FOR A 14' AND 16' CLEAR WIDTH OPENING - HINGE BRACKET (OPTION B) IS TO BE USED INSTEAD OF THE BOLT HOOK.

GENERAL NOTES

POSTS SHALL BE SET IN GROUND AT THE DEPTH SHOWN, FILLED AND COMPACTED EVERY 6 INCHES WITH ORIGINAL SUBSOIL.

ALL SAW CUTS AND HOLES DRILLED IN TIMBERS SHALL BE TREATED IN ACCORDANCE WITH SECTION 507.2.2.6 AND WOOD PRESERVATIVE SHALL BE SECTION 507.2.3.4 OF THE STANDARD SPECIFICATIONS.

GATE LOCK CAN BE MASTER KEYED AND SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS: SHACKLE DIA. OF 3/8", VERTICAL CLEARANCE OF 1 1/2", HORIZONTAL CLEARANCE OF 1 1/2".

ALL METAL SHALL BE PAINTED WITH A ZINC RICH PRIMER AND ONE COAT OF EPOXY FINISH PAINT. A SECOND FINISH COAT SHALL BE FIELD APPLIED AFTER INSTALLATION.

STOPPING POSTS SHALL BE SET AT EACH SIDE AND EQUIPPED WITH LOCKING POST LOCK BAR FOR HOLDING IN POSITION.

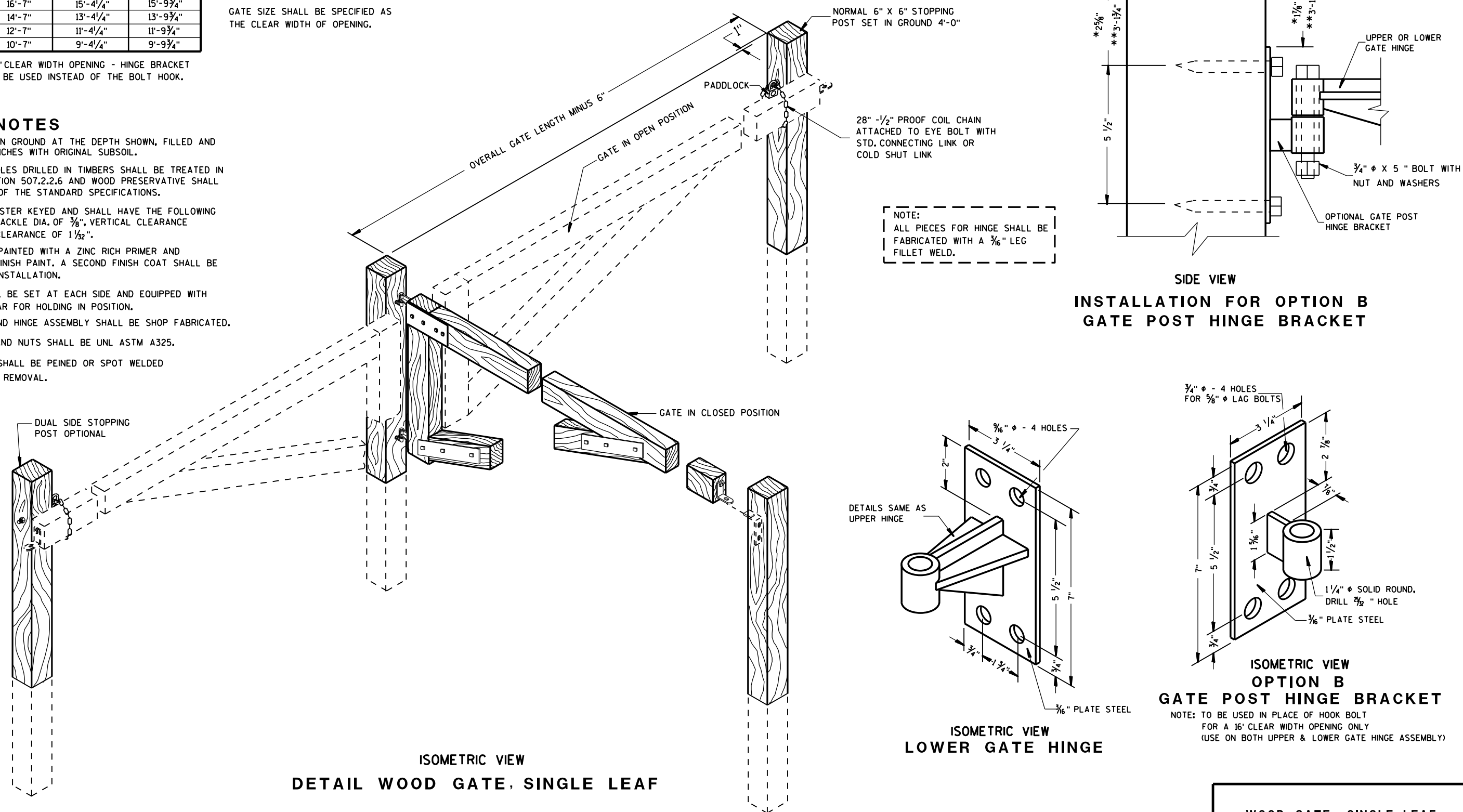
ALL TIMBER BRACES AND HINGE ASSEMBLY SHALL BE SHOP FABRICATED.

ALL BOLTS, WASHERS AND NUTS SHALL BE UNL ASTM A325.

HINGE BOLT THREADS SHALL BE PEINED OR SPOT WELDED IN PLACE TO PREVENT REMOVAL.

DESIGN NOTE:

GATE SIZE SHALL BE SPECIFIED AS THE CLEAR WIDTH OF OPENING.



EPlans Preliminary Sheet Numbering Tool

This sheet: ftp://ftp.dot.state.wi.us/transp/roads/eplans/prelim_sheet_numbers.pdf

Notes

- Acrobat 5 or higher is required to use this tool.
- The Bureau of Highway Construction places sheet numbers in the final plan.
- This sheet is for placing preliminary sheet numbers with a "PRE_" prefix.
- If a plan contains multiple projects, number each plan individually.
- Leave this sheet in the plan.

TO ADD PRELIMINARY SHEET NUMBERS

1. Insert this sheet at the end of the plan

- a. With the plan open in Acrobat, select Document > Insert Pages.
- b. In the Select File to Insert dialog box, select this file (prelim_sheet_numbers.pdf)
- c. In the Insert dialog box, choose After for Location and Last page for Page.
- d. Click OK.

2. Click the Place Preliminary Sheet Numbers button

- a. Go to the last sheet of the plan.
- b. Click the Place Preliminary Sheet Numbers button once.
(The preliminary sheet number appears in the bottom right corner of the sheets.
The number should match the page number in the Acrobat Status bar).

3. Re-Save the PDF

- a. Select File > Save As and save the PDF.

TO REMOVE PRELIMINARY SHEET NUMBERS