

INPLACE ELEVATION AND REMOVALS  
INPLACE REINFORCEMENT NOT SHOWN FOR CLARITY

**NOTES:**

☒ DENOTES REMOVAL

DIMENSIONS FOR NEW WORK BASED ON INPLACE BOLT DIMENSIONS.

FIELD-VERIFY FOR LENGTH OF REQUIRED THREADED ANCHOR ROD EXTENSION.

FIELD-ADJUST REBAR LOCATIONS TO AVOID CONDUITS.

PROVIDE CONCRETE IN ACCORDANCE WITH SPEC. 2461, MIX 3G52.

CONSTRUCT EXTENSION IN ACCORDANCE WITH THE PLAN, SPEC. 2401, AND SPEC. 2471.

QUANTITIES PROVIDED ARE FOR ONE POST BASE EXTENSION. REBAR QUANTITIES ARE PROVIDED FOR REFERENCE ONLY.

MINIMUM FOUNDATION EXTENSION IS 1'0". EXTEND FOUNDATION 1'0", 1'6", OR 2'0" AS REQUIRED. VERIFY WITH THE ENGINEER.

PROVIDE COUPLING NUTS IN ACCORDANCE WITH ASTM A563 GRADE A AND GALVANIZE IN ACCORDANCE WITH SPEC. 3392. SEE SPECIAL PROVISION FOR SPECIAL INSPECTION OF COUPLING NUT INSTALLATION.

FURNISH TYPE B ANCHOR RODS IN ACCORDANCE WITH SPEC. 3385.

FURNISH EPOXY-COATED REINFORCING BARS IN ACCORDANCE WITH SPEC. 3301.

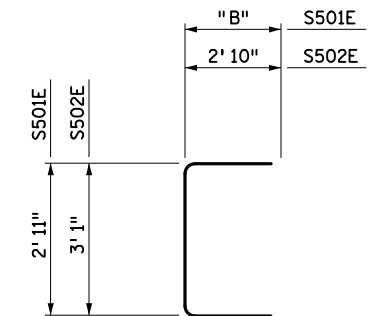
- ① SAWCUT PEDESTAL PERIMETER WITHOUT CUTTING ANY INPLACE REINFORCEMENT BARS BEFORE REMOVING CONCRETE. ALL INPLACE REINFORCEMENT BARS TO REMAIN. CLEAN AND STRAIGHTEN IN-PLACE REINFORCEMENT.
- ② REMOVE UNSOUND CONCRETE.
- ③ CLEAN CONCRETE.
- ④ APPLY EPOXY BONDING AGENT BEFORE PLACING NEW CONCRETE.
- ⑤ INPLACE ANCHOR RODS WITH MINIMAL OR NO DETERIORATION MAY REMAIN WITHOUT CUTTING IF COMPATIBLE WITH THE FOUNDATION EXTENSION. PROVIDE 2" MINIMUM COVER FOR COUPLING NUTS.
- ⑥ EXTEND EXISTING CONDUIT AS NEEDED.
- ⑦ 2" DIAMETER ANCHOR ROD (TYPE 16 POST); 2 1/4" DIAMETER ANCHOR ROD (TYPE 17 POST); 2 1/2" DIAMETER ANCHOR ROD (TYPE 18 POST); 2 3/4" DIAMETER ANCHOR ROD (TYPE 19 POST). FIELD VERIFY.
- ⑧ 9" TYPE 16 POST; 10" TYPE 17 POST; 11" TYPE 18 POST; 12" TYPE 19 POST.

EXTENSION DIMENSIONS AND QUANTITIES									
EXTENSION, "P"	"H"	"X"	"L"	"B"	"C"	"D"	"E"	CONCRETE (CY)	REINF. STEEL (LBS.)
1'0"	1'6"	4	1	1'3"	5'5"	8	16	0.69	168
1'6"	2'0"	5	2	1'9"	6'5"	10	20	0.91	208
2'0"	2'6"	6	3	2'3"	7'5"	12	24	1.14	248

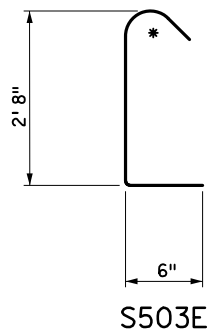
**BAR BENDING DIAGRAMS**

BENT BAR DIMENSIONS GIVEN ARE OUT-TO-OUT. DETERMINE ACTUAL BAR LENGTHS BASED ON THE DETAIL DIMENSIONS SHOWN IN THE BAR BENDING DIAGRAMS.

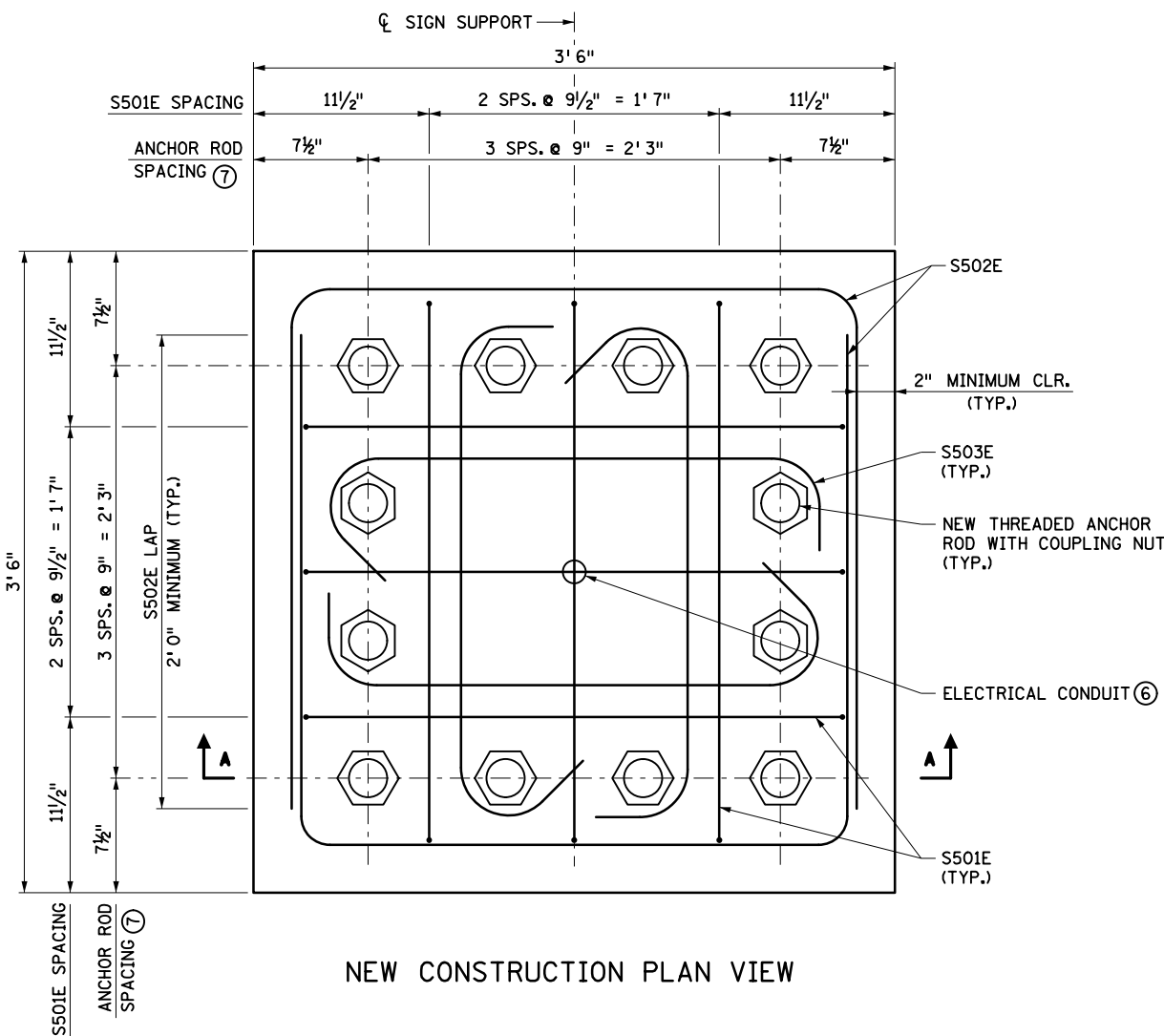
\* DENOTES STANDARD STIRRUP HOOK.



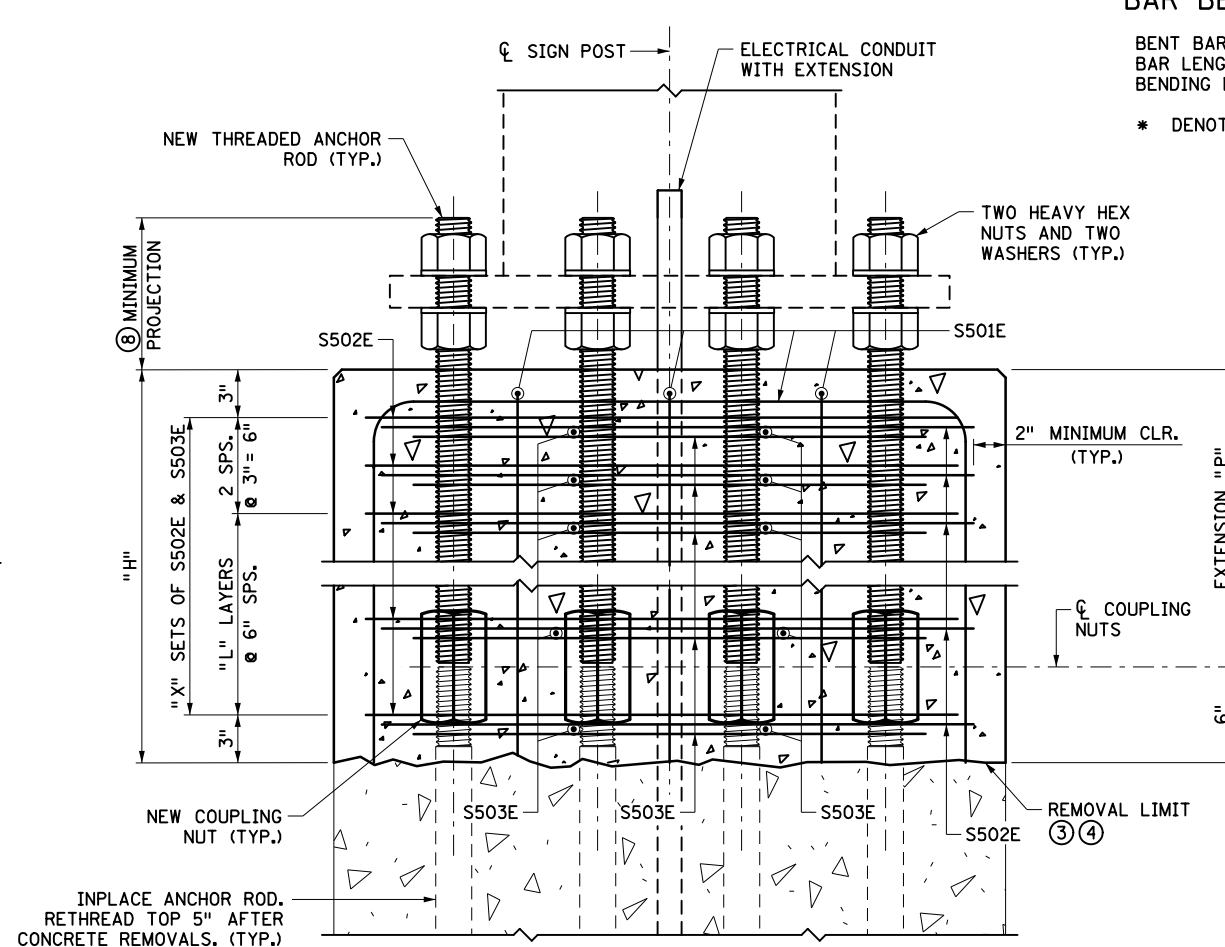
S501E & S502E



S503E



NEW CONSTRUCTION PLAN VIEW



SECTION A-A  
INPLACE REINFORCEMENT NOT SHOWN FOR CLARITY

BILL OF REINFORCEMENT			
BAR	NO.	LENGTH	LOCATION
S501E	6	"C"	VERTICAL TIE
S502E	"D"	8'9"	HORIZONTAL TIE
S503E	"E"	3'8"	HORIZONTAL TIE

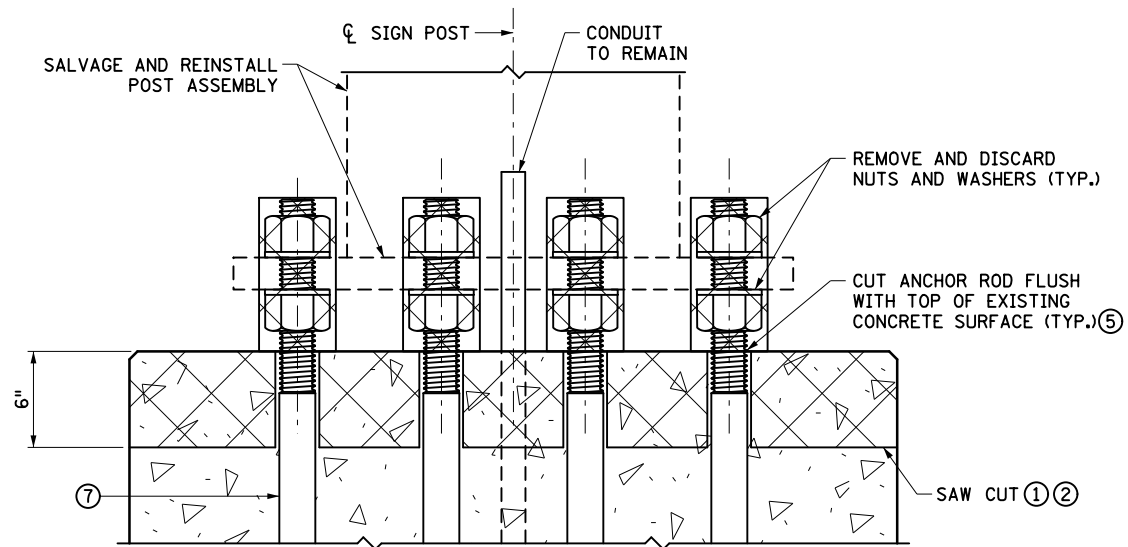
REVISION:  
APPROVED: 01-15-2021  
*Kevin Western*  
KEVIN WESTERN  
STATE BRIDGE ENGINEER

**m**  
MINNESOTA  
DEPARTMENT  
OF  
TRANSPORTATION

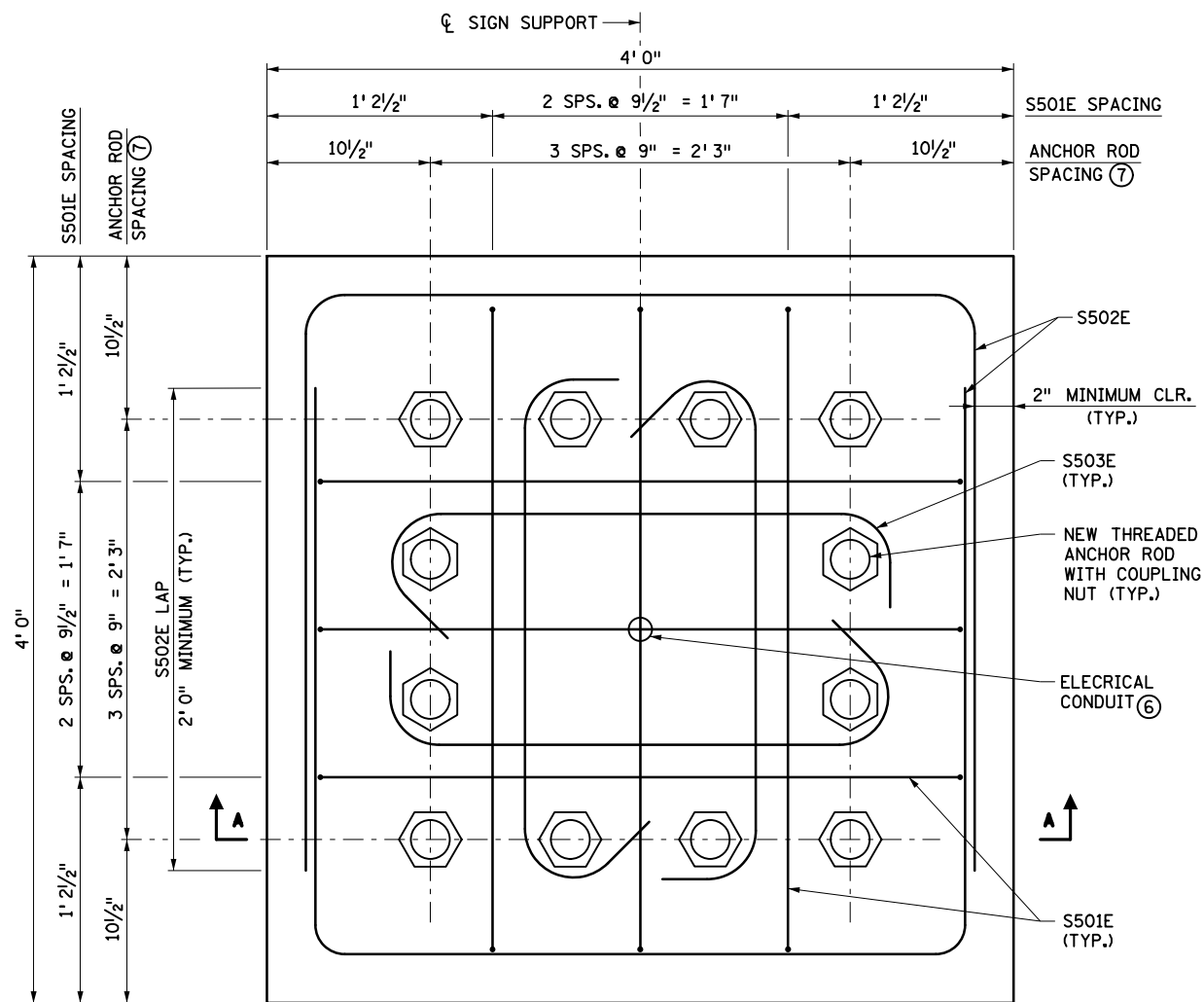
STANDARD PLAN 5-297.789 1 OF 2  
*Tom Styrbicki*  
THOMAS STYRBICKI  
STATE DESIGN ENGINEER  
APPROVED: 01-15-2021  
REVISED:

OVERHEAD SIGN STRUCTURES  
FOUNDATION EXTENSION  
DESIGN B EXTENSION DETAILS - TYPE 16-19 POSTS

STATE PROJ. NO. (TH ) SHEET NO. OF SHEETS



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NEW CONSTRUCTION PLAN VIEW

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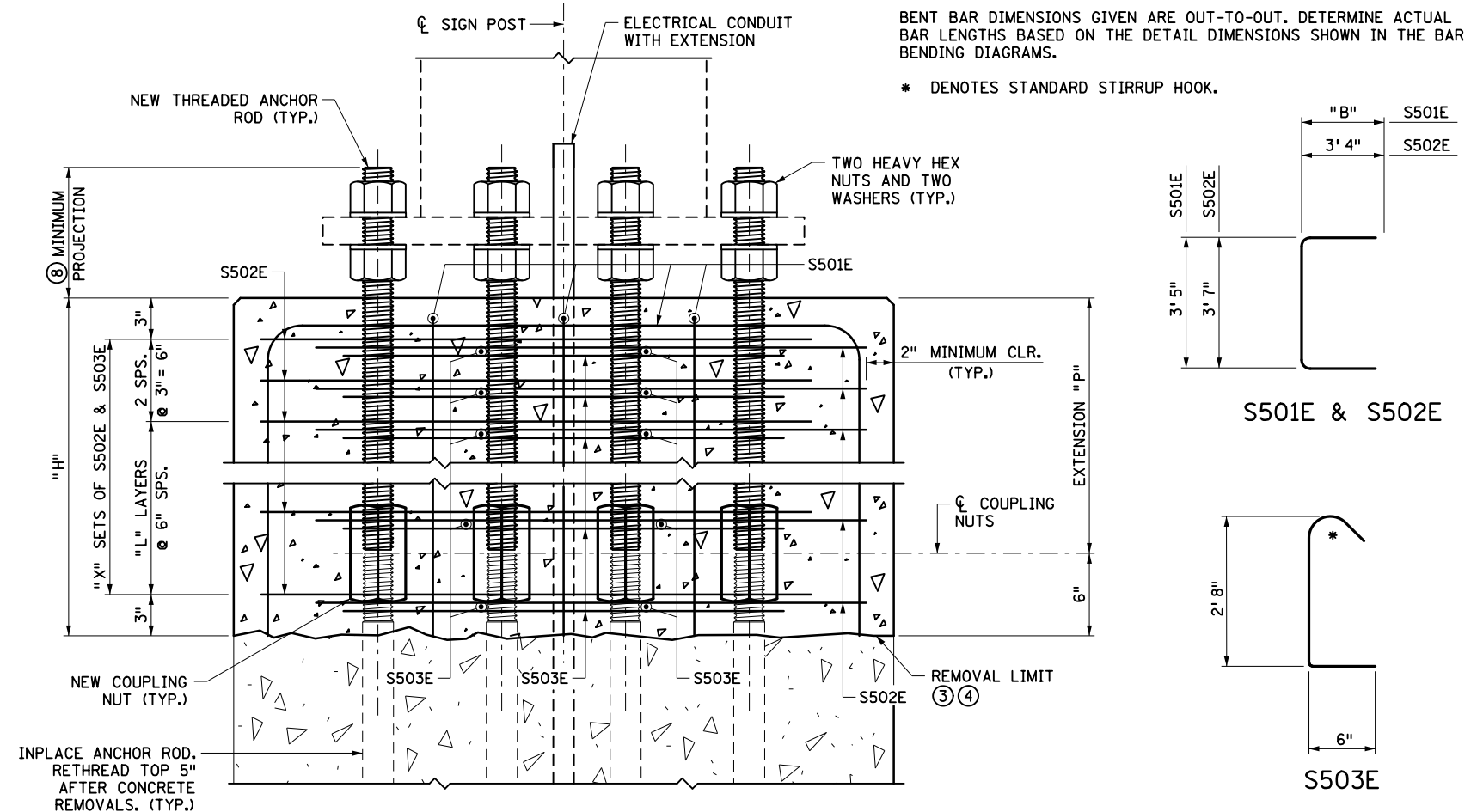
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1' 0"	1' 6"	4	1	1' 3"	5' 11"	8	16	0.89	184
1' 6"	2' 0"	5	2	1' 9"	6' 11"	10	20	1.19	227
2' 0"	2' 6"	6	3	2' 3"	7' 11"	12	24	1.49	270

BAR BENDING DIAGRAMS

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\* DENOTES STANDARD STIRRUP HOOK.



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INPLACE REINFORCEMENT NOT SHOWN FOR CLARITY

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REVISION:  
APPROVED: 01-15-2021  
*Kevin Western*  
KEVIN WESTERN  
STATE BRIDGE ENGINEER

**m**  
MINNESOTA  
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STANDARD PLAN 5-297.789

2 OF 2

*Tom Styrbicki*  
THOMAS STYRBICKI  
STATE DESIGN ENGINEER

APPROVED: 01-15-2021  
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STATE PROJ. NO.

OVERHEAD SIGN STRUCTURES  
FOUNDATION EXTENSION  
DESIGN B EXTENSION DETAILS - TYPE 16-19 POSTS

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