

MINN. PROJ. NO.

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF  
TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION"  
SHALL GOVERN. SEE SPECIAL PROVISIONS FOR ALL XXXX.6XX  
SERIES PAY ITEMS FOR ADDITIONAL REQUIREMENTS.

NO.	TITLE
1	TITLE SHEET
2	GENERAL PLAN
3	BRIDGE TYPICAL SECTION & QUANTITIES
4-6	REMOVALS
7-14	RECONSTRUCTION
15-17	BEARINGS
18-19	WATERPROOF EXPANSION DEVICE
20-22	BRIDGE APPROACH PANEL
23-24	TRAFFIC CONTROL

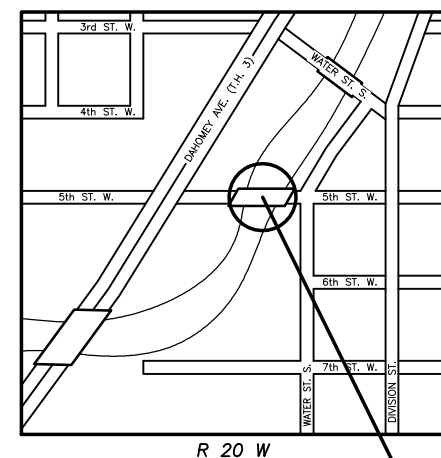
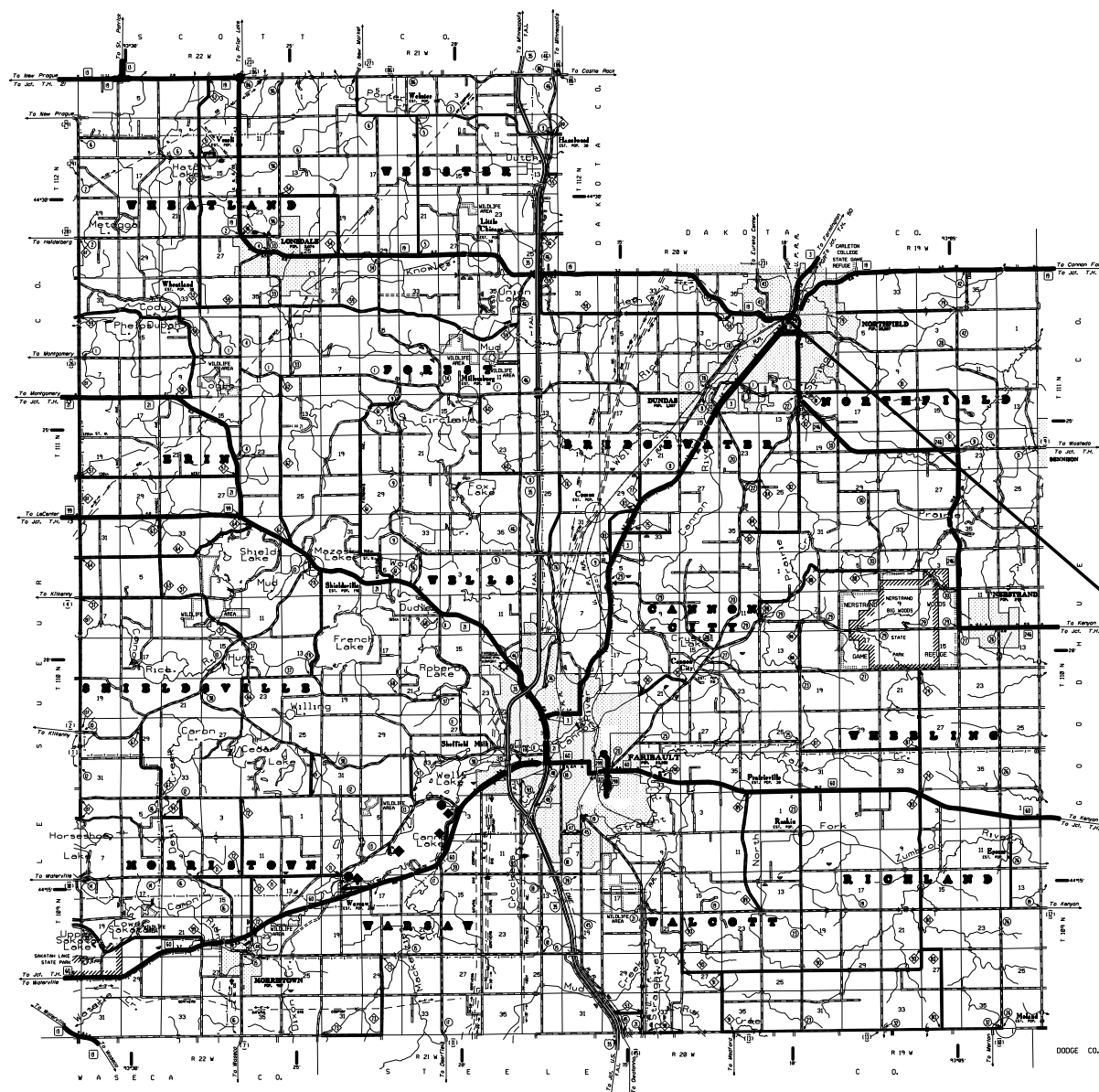
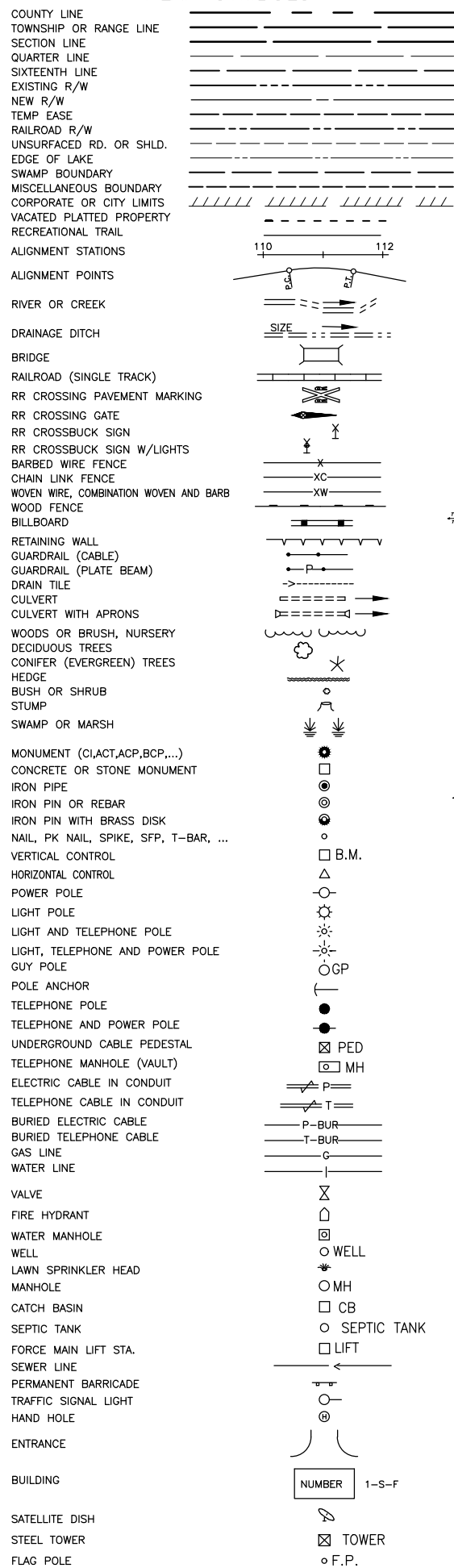
THIS PLAN CONTAINS 24 SHEETS.

LOCATED 0.1 MILES EAST OF JCT. OF T.H. 3 ON 5th ST. WEST (C.S.A.H. 19 & M.S.A.S. 108)  
OVER THE CANNON RIVER, IN THE CITY OF NORTHFIELD, MN.  
(Geographical Description)

**SEC. 01      TWP. 111 N      R 20 W      (Legal Description)**

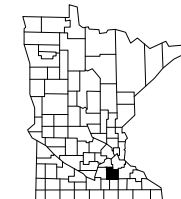
**CITY PROJECT NO. 2021STRT-B00 Fifth Street Bridge 66505 Maintenance**

GROSS LENGTH	291.83	FEET	0.055	MILES
BRIDGES-LENGTH	245.83	FEET	0.047	MILES
EXCEPTIONS-LENGTH		FEET		MILES
NET. LENGTH	291.83	FEET	0.055	MILES



EXISTING BRIDGE NO. 66505  
CONTINUOUS STEEL BEAM SPAN  
STRUCTURE LENGTH: 245.8'  
ROADWAY WIDTH: 44.0'  
YEAR BUILT: 1964  
YEAR REMODELED: 1987  
BEG. PROJ. STA. 3+110.8  
END PROJ. STA. 6+02.92

**PROJECT LOCATION**  
Outline Map of Minnesota showing  
location of the County within the State.



RICE COUNTY

5th ST. WEST  
(C.S.A.H. 19 & M.S.A.S. 108)

FUNCTIONAL CLASSIFICATION	URBAN/MINOR ARTERIAL
NO. OF TRAFFIC LANES	4
NO. OF PARKING LANES	
DRIVING LANE WIDTH	11'
SHOULDER WIDTH	0'
ADT (CURRENT YEAR) 2021	7,912
ADT (PROJECTED YEAR) 2041	11,077
PAVEMENT DESIGN	
ESALS (20)	
R=VALUE	
SOIL FACTOR	
DESIGN SPEED	35 MPH
BASED ON SIGHT DISTANCE	250'
HEIGHT OF EYE / HEIGHT OF OBJECT	3.5' / 2.0'
DESIGN SPEED NOT ACHIEVED AT:	

RONALD L. DOKKEN

DESIGN ENGINEER: I HEREBY CERTIFY THAT THIS PLAN (SHEETS 1-24) WAS 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.

DATE \_\_\_\_\_ LICENSE NUMBER 13931

APPROVED: CITY ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

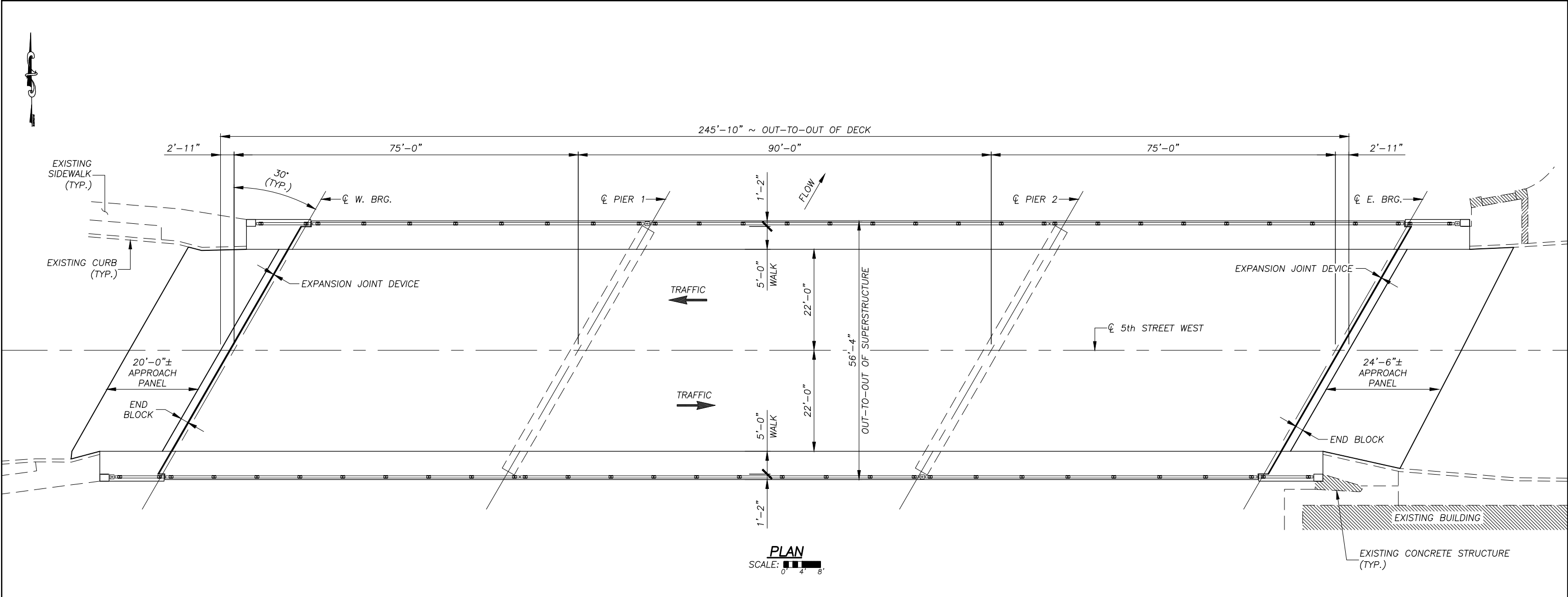
CITY PROJECT NO. 2021STRT-B00  
Fifth Street Bridge 66505 Maintenance

**SHEET NO. 1 OF 24 SHEETS**

BRIDGE NO.  
66505

**SUBSURFACE UTILITY NOTE**  
THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."





CONSTRUCTION NOTES

- THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. SEE SPECIAL PROVISIONS FOR ALL XXXX.6XX SERIES PAY ITEMS FOR ADDITIONAL REQUIREMENTS.
- THE BAR SIZES SHOWN IN THIS PLAN ARE IN U.S. CUSTOMARY DESIGNATIONS. BARS MARKED WITH THE SUFFIX "E" SHALL BE EPOXY COATED IN ACCORDANCE WITH SPEC. 3301. BARS MARKED WITH THE SUFFIX "S" SHALL BE STAINLESS STEEL IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

GENERAL NOTES

- INFORMATION REGARDING THE EXISTING STRUCTURE HAS BEEN TAKEN FROM THE ORIGINAL PLANS FOR BRIDGE NO 66505, APPROVED 10-1-1963 AND THE PRIOR REHABILITATION PLANS APPROVED 6-5-1986.
- ALL ELEVATIONS SHOWN IN THIS PLAN ARE BASED ON DATA FROM FIELD SURVEY PERFORMED BY ERICKSON ENGINEERING IN APRIL 2021.
- ALL FIELD CUTS AND REMOVALS SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER IN THE FIELD. ALL REMOVALS INCLUDED IN PRICE BID FOR "STRUCTURE REMOVALS".

LIST OF STANDARD PLATES	
PLATE NO.	DESCRIPTION
8000 J	CHANNELIZERS
7000 E	INTEGRAL CURBS
7100 H	CONCRETE CURB AND GUTTER

THE ABOVE STANDARD PLATES, AS APPROVED BY THE F.H.W.A., SHALL APPLY ON THIS PROJECT.

BENCHMARK EL. 915.995 (NAVD88)

LOCATION: MnDOT BENCHMARK "JENNA", APPROXIMATELY 400 FT. SOUTHWEST OF JCT. 5th ST. WEST & T.H. 3 (DAHOMEY AVE.), NEAR WALGREENS.

LIST OF SHEETS	
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1	TITLE SHEET
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4-6	REMOVALS
7-14	RECONSTRUCTION
15-17	BEARINGS
18-19	WATERPROOF EXPANSION DEVICE
20-22	BRIDGE APPROACH PANEL
23-24	TRAFFIC CONTROL

I HEREBY CERTIFY THAT THIS PLAN WAS 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.

RONALD L. DOKKEN

DATE: LIC. NO. 13931

DESIGN DATA

2020 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS  
HL-93 LIVE LOAD

MATERIAL DESIGN PROPERTIES:  
REINFORCED CONCRETE:  
f'c = 4 KSI CONCRETE  
fy = 60 KSI PLAIN AND EPOXY COATED BARS  
fy = 75 KSI STAINLESS STEEL BARS  
n = 8 FOR REINFORCEMENT BARS

STRUCTURAL STEEL:  
Fy = 36 KSI STRUCTURAL STEEL SPEC. 3306

STRUCTURE AREA = 13,839 SQUARE FEET

7,912 ADT FOR YEAR 2021  
11,077 PROJECTED ADT FOR YEAR 2041

APPROVED: NORTHFIELD CITY ENGINEER

DATE:

ERICKSON ENGINEERING  
9531 WEST 78TH STREET - SUITE 100  
EDEN PRAIRIE, MN 55344

5th STREET WEST RICE COUNTY  
MINNESOTA DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 66505

LOCATED 0.1 MILES EAST OF JCT. T.H. 3 ON  
5th STREET WEST (C.S.A.H. 19 & M.S.A.S. 108)  
OVER THE CANNON RIVER

75'-90'-75' CONTINUOUS STEEL BEAM SPANS  
44' ROADWAY ~ (2) 5' SIDEWALKS ~ 30° SKEW  
ORNAMENTAL METAL RAILING  
SPAN IDENTIFICATION NO. 401

GENERAL PLAN

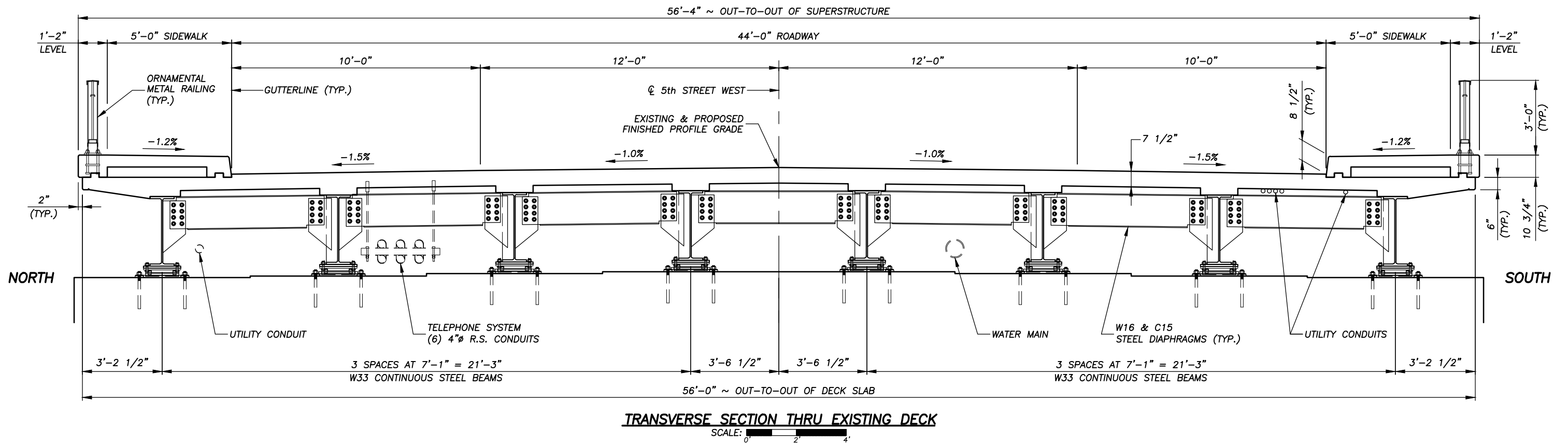
SEC. 01 TWP. 111 N R 20 W

CITY: NORTHFIELD COUNTY: RICE

CITY PROJECT NO. 2021STRT-B00  
Fifth Street Bridge 66505 Maintenance

DES.:	DSN	DRN.:	NBB
CHK.:	RLD	CHK.:	DSN
SHEET 2 OF 24 SHEETS			

BRIDGE NO.  
66505

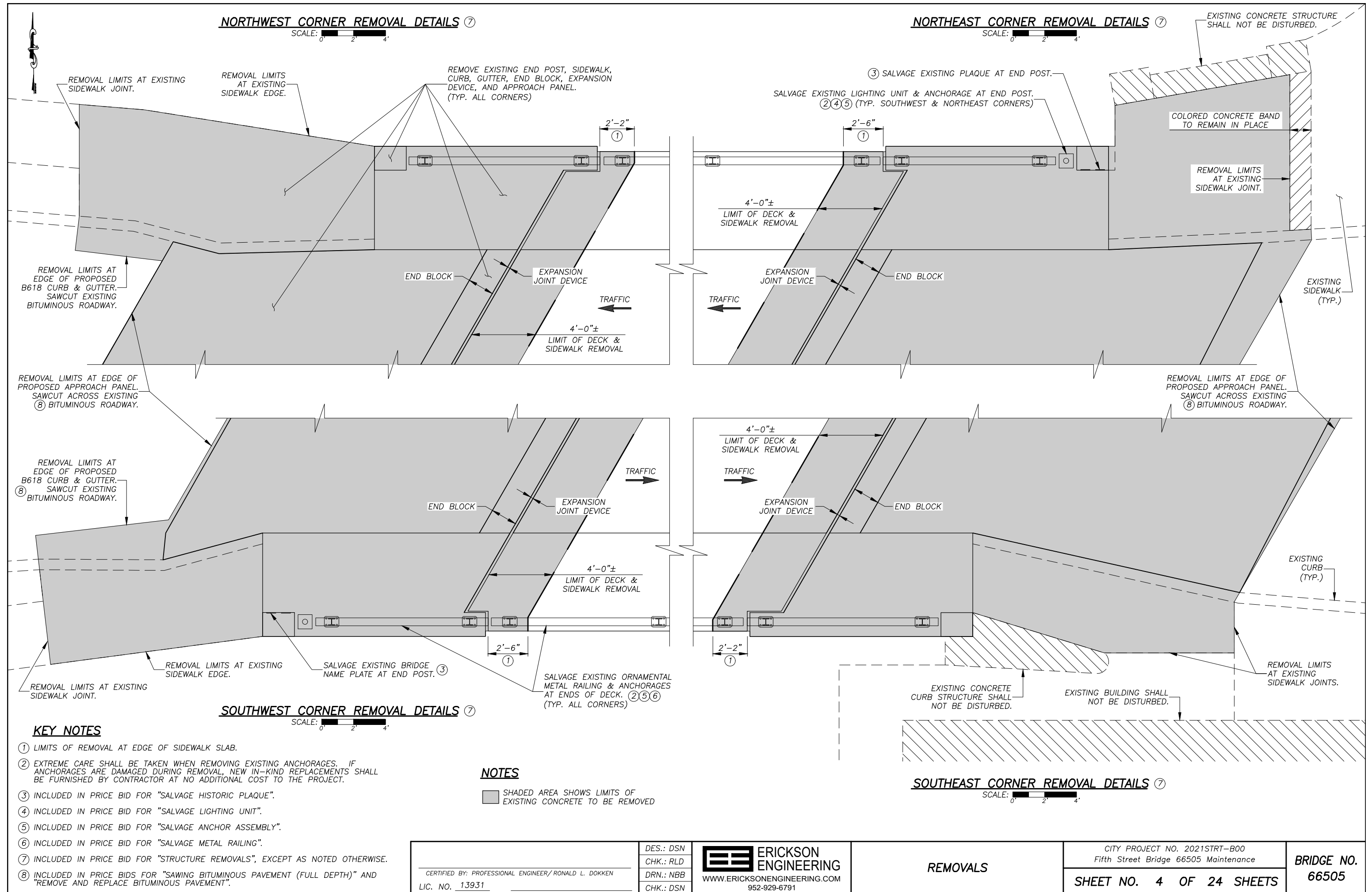


#### STATEMENT OF ESTIMATED QUANTITIES FOR ENTIRE BRIDGE

KEYNOTE	ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY (A)
	2021.501	MOBILIZATION	LUMP SUM	1
B	2104.502	SALVAGE ANCHOR ASSEMBLY	EACH	14
C	2104.502	SALVAGE HISTORIC PLAQUE	EACH	2
D	2104.502	SALVAGE LIGHTING UNIT	EACH	2
	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN. FT.	122
E	2104.503	SALVAGE METAL RAILING	LIN. FT.	90
	2104.618	REMOVE AND REPLACE BITUMINOUS PAVEMENT	SQ. FT.	100
F	2401.507	STRUCTURAL CONCRETE (3S52)	CU. YD.	15 (P)
	2401.508	REINFORCEMENT BARS (EPOXY COATED)	POUND	3890 (P)
	2401.518	BRIDGE SLAB CONCRETE (3Y42-M)	SQ. FT.	649 (P)
G	2402.502	BEARING ASSEMBLY TYPE 1	EACH	4
G	2402.502	BEARING ASSEMBLY TYPE 2	EACH	12
	2402.503	EXPANSION JOINT DEVICES TYPE 4	LIN. FT.	125 (P)
H	2402.508	STRUCTURAL STEEL (3306)	POUND	1200 (P)
	2406.504	BRIDGE APPROACH PANELS	SQ. YD.	235
I	2433.501	STRUCTURE REMOVALS	LUMP SUM	1
J	2433.502	ANCHORAGES TYPE REINF BARS (STAINLESS STEEL)	EACH	100
K	2433.602	REMOVE BEARING ASSEMBLY	EACH	16
L	2478.518	ORGANIC ZINC-RICH PAINT SYSTEM (FIELD)	SQ. FT.	1940
M	2521.518	4" CONCRETE WALK	SQ. FT.	401
	2531.503	CONCRETE CURB AND GUTTER DESIGN B618	LIN. FT.	15
	2540.602	INSTALL HISTORIC PLAQUE	EACH	2
	2540.603	INSTALL METAL RAILING	LIN. FT.	90
	2545.602	INSTALL LIGHTING UNIT	EACH	2
	2554.602	INSTALL ANCHOR ASSEMBLY	EACH	14
	2563.601	TRAFFIC CONTROL	LUMP SUM	1

#### STATEMENT OF QUANTITIES KEYNOTES:

- A. (P) DENOTES "PLAN QUANTITY"
- B. INCLUDES: (12) ANCHOR ASSEMBLIES FOR THE EXISTING ORNAMENTAL METAL RAIL END SECTIONS AND (2) ANCHOR ASSEMBLIES FOR THE EXISTING LIGHTING UNITS.
- C. INCLUDES: (1) EXISTING PLAQUE ON THE SOUTHWEST END POST AND (1) EXISTING PLAQUE ON THE NORTHEAST END POST.
- D. INCLUDES: (1) EXISTING LIGHT POST ON THE SOUTHWEST CORNER AND (1) EXISTING LIGHT POST ON THE NORTHEAST CORNER.
- E. INCLUDES: THE LAST (2) ORNAMENTAL RAIL SECTIONS AT EACH CORNER OF THE BRIDGE.
- F. INCLUDES: SIDEWALK OVER WINGWALLS AND CONCRETE END POST RECONSTRUCTION.
- G. INCLUDES: INSTALLING THE NEW BEARING ASSEMBLY & SHIM PLATE AND INSTALLING THE CORRESPONDING (2) ANCHOR RODS PER ASSEMBLY.
- H. INCLUDES: INSTALLING (3) NEW END DIAPHRAGMS AND ASSOCIATED HARDWARE AT NORTHWEST, NORTHEAST & SOUTHEAST BAYS.
- I. INCLUDES: ALL CONCRETE, REINFORCEMENT, END DIAPHRAGMS, AND EXPANSION JOINT REMOVALS ASSOCIATED WITH THE PROJECT UNLESS NOTED OTHERWISE.
- J. INCLUDES: (1) STAINLESS STEEL BAR & (1) CHEMICAL ANCHORAGE (SEE SPECIAL PROVISIONS).
- K. INCLUDES: REMOVAL OF (16) EXISTING BEARING ASSEMBLIES UP TO, BUT NOT INCLUDING, THE BEAM SOLE PLATE AND CUTTING EXISTING ANCHOR RODS FLUSH WITH THE BEARING SEAT. DURING REMOVAL OPERATIONS NO SINGLE BEAM SHALL BE LIFTED MORE THAN A 1/4 INCH HIGHER THAN AN ADJACENT BEAM.
- L. INCLUDES: CLEANING AND SURFACE PREPARATION (SAND BLASTING) OF THE EXISTING BEAM SOLE PLATES, THE EXISTING END DIAPHRAGMS REMAINING IN PLACE, THE LAST 7 FEET OF THE EXISTING BEAMS, AND THE NEW END DIAPHRAGMS.
- M. INCLUDES: SIDEWALK OFF BRIDGE STRUCTURE.




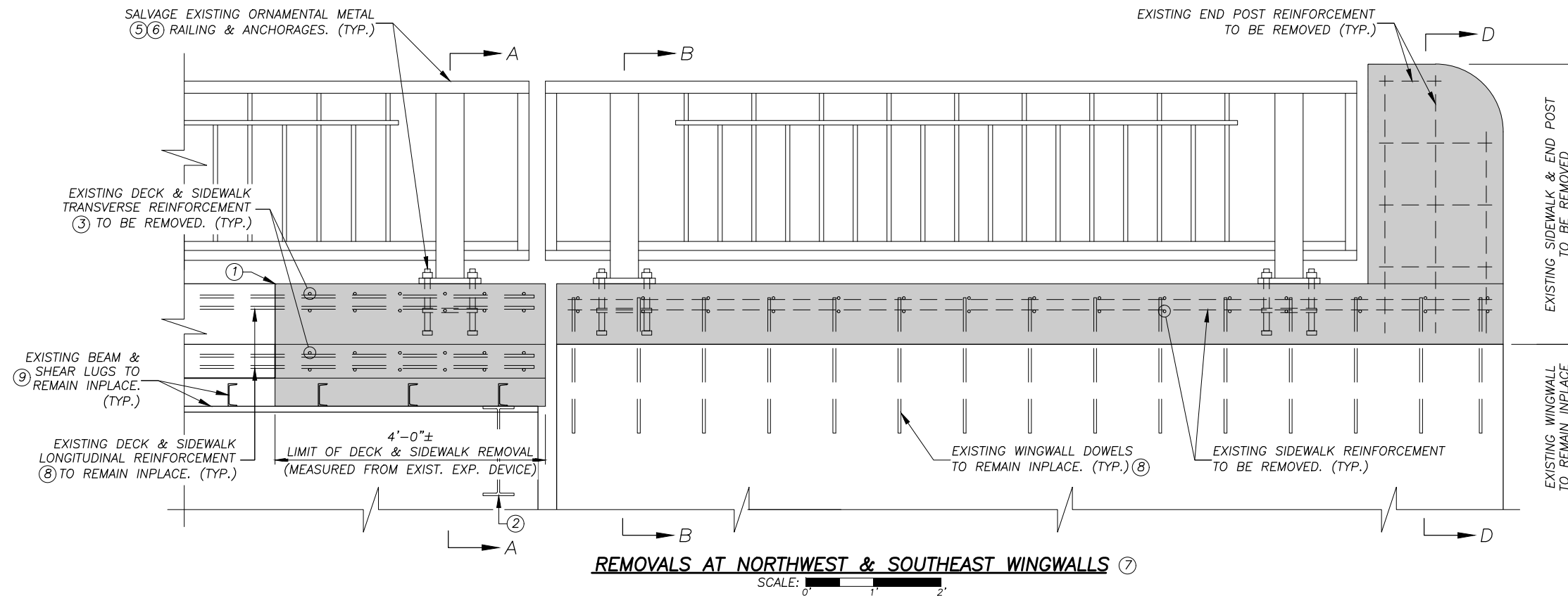
**KEY NOTES**

- ① LIMITS OF REMOVAL AT EDGE OF SIDEWALK SLAB.
- ② EXTREME CARE SHALL BE TAKEN WHEN REMOVING EXISTING ANCHORAGES. IF ANCHORAGES ARE DAMAGED DURING REMOVAL, NEW IN-KIND REPLACEMENTS SHALL BE FURNISHED BY CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.
- ③ INCLUDED IN PRICE BID FOR "SALVAGE HISTORIC PLAQUE".
- ④ INCLUDED IN PRICE BID FOR "SALVAGE LIGHTING UNIT".
- ⑤ INCLUDED IN PRICE BID FOR "SALVAGE ANCHOR ASSEMBLY".
- ⑥ INCLUDED IN PRICE BID FOR "SALVAGE METAL RAILING".
- ⑦ INCLUDED IN PRICE BID FOR "STRUCTURE REMOVALS", EXCEPT AS NOTED OTHERWISE.
- ⑧ INCLUDED IN PRICE BIDS FOR "SAWING BITUMINOUS PAVEMENT (FULL DEPTH)" AND "REMOVE AND REPLACE BITUMINOUS PAVEMENT".

**NOTES**

■ SHADED AREA SHOWS LIMITS OF EXISTING CONCRETE TO BE REMOVED

<div>CERTIFIED BY: PROFESSIONAL ENGINEER/ RONALD L. DOKKEN</div> <div>LIC. NO. 13931</div>	DES.: DSN	<div> ERICKSON ENGINEERING</div> <div>WWW.ERICKSONENGINEERING.COM</div> <div>952-929-6791</div>	REMOVALS	CITY PROJECT NO. 2021STRT-B00		BRIDGE NO. 66505
	CHK.: RLD			Fifth Street Bridge 66505 Maintenance		
	DRN.: NBB			SHEET NO. 4 OF 24 SHEETS		
	CHK.: DSN					

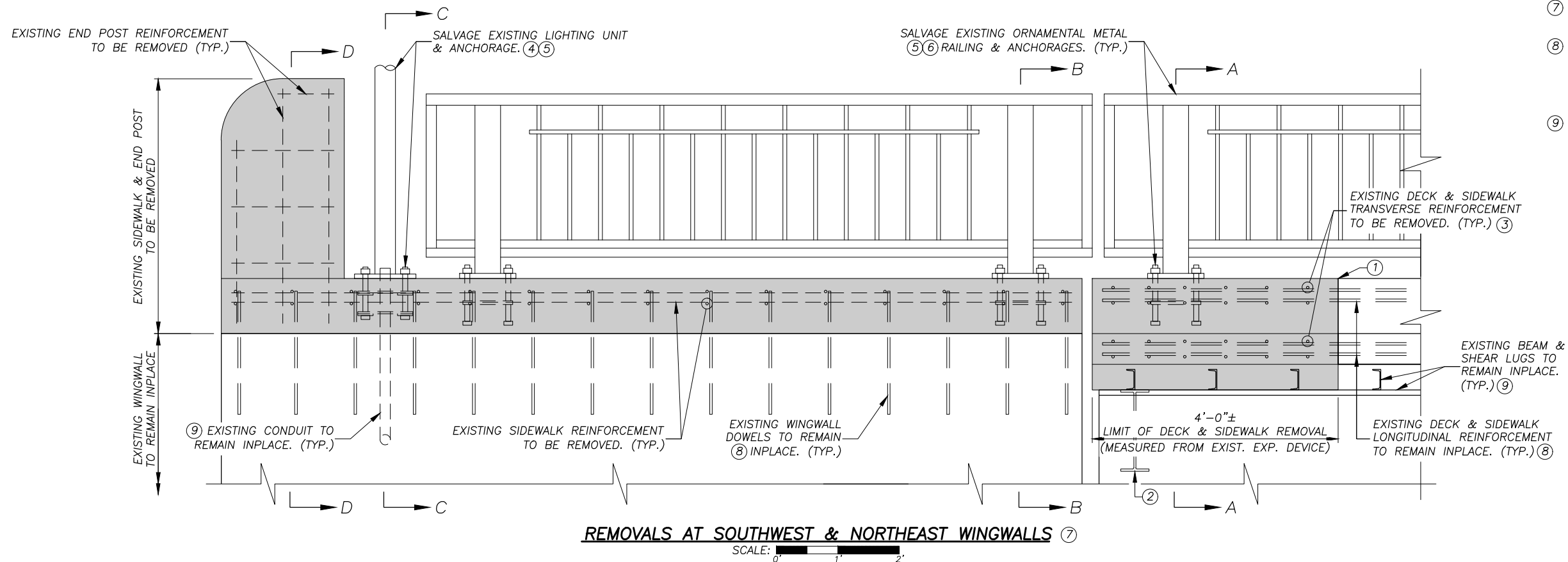


### NOTES

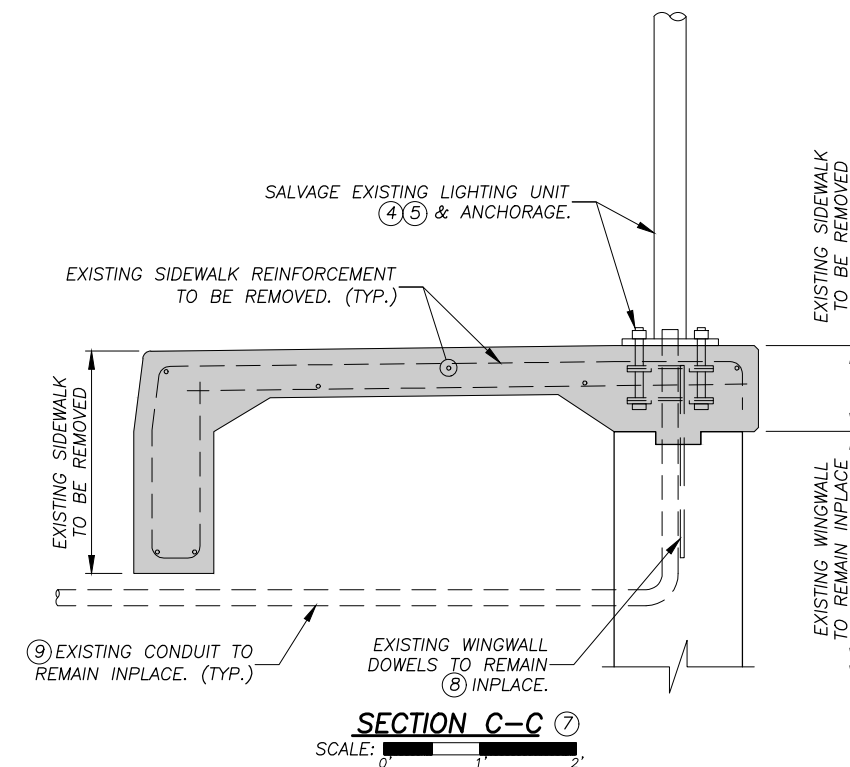
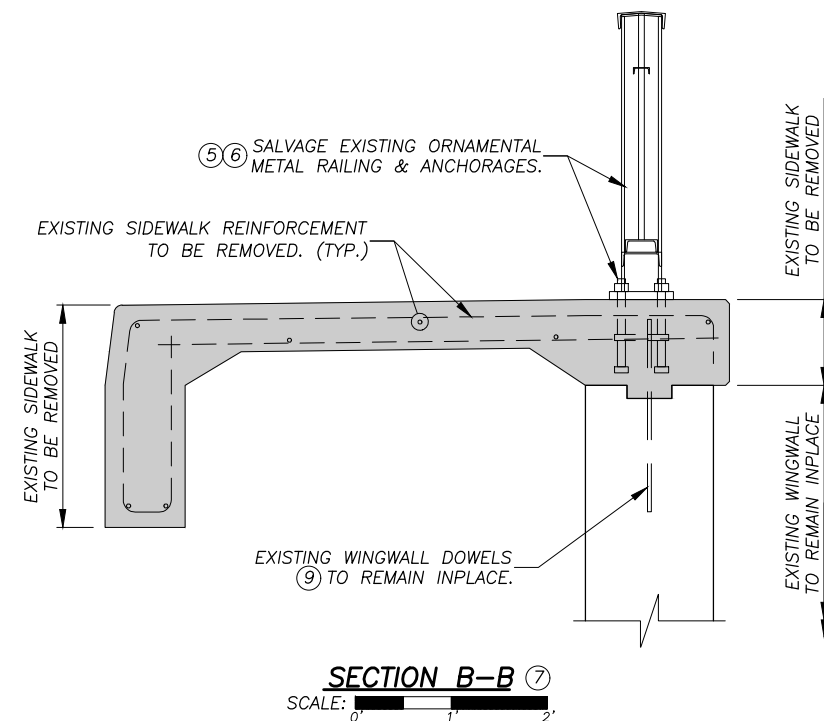
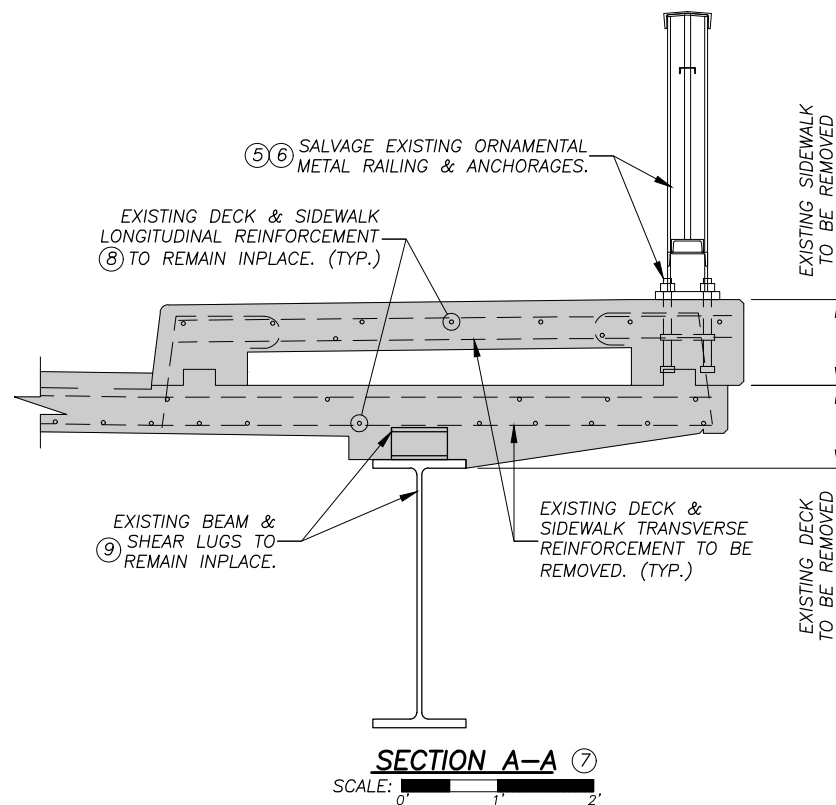
■ SHADED AREA SHOWS LIMITS OF EXISTING CONCRETE TO BE REMOVED

SEE SHEET 6 FOR SECTIONS A-A THRU D-D.

- ① SAWCUT ACROSS TOP OF SIDEWALK. TO PREVENT DAMAGE TO EXISTING REINFORCEMENT, SAWCUT DEPTH SHALL NOT EXCEED 2".
- ② SEE "BEARING & DIAPHRAGM LAYOUT" FOR DIAPHRAGM DETAILS.
- ③ ANY EXISTING TRANSVERSE DECK & SIDEWALK REINFORCEMENT THAT REMAINS PARTIALLY EMBEDDED IN THE EXISTING CONCRETE SHALL BE CLEANED, STRAIGHTENED AND RE-USED.
- ④ INCLUDED IN PRICE BID FOR "SALVAGE LIGHTING UNIT".
- ⑤ INCLUDED IN PRICE BID FOR "SALVAGE ANCHOR ASSEMBLY".
- ⑥ INCLUDED IN PRICE BID FOR "SALVAGE METAL RAILING".
- ⑦ INCLUDED IN PRICE BID FOR "STRUCTURE REMOVALS", EXCEPT AS NOTED OTHERWISE.
- ⑧ EXTREME CARE SHALL BE TAKEN DURING REMOVALS AS TO NOT DAMAGE EXISTING REINFORCEMENT. IF EXISTING REINFORCEMENT IS DAMAGED, NEW DOWELED IN REINFORCEMENT SHALL BE FURNISHED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.
- ⑨ EXTREME CARE SHALL BE TAKEN DURING REMOVALS AS TO NOT DAMAGE EXISTING COMPONENTS.



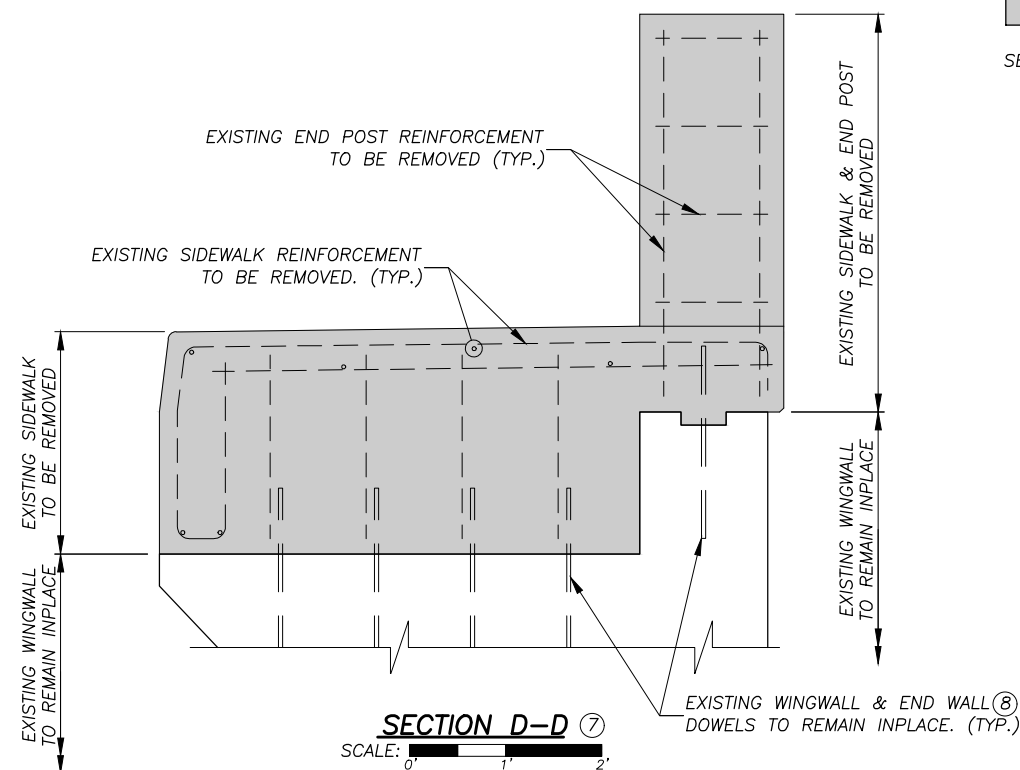
DES.: DSN CHK.: RLD DRN.: NBB CHK.: DSN CERTIFIED BY: PROFESSIONAL ENGINEER/ RONALD L. DOKKEN LIC. NO. 13931	 <b>ERICKSON ENGINEERING</b> WWW.ERICKSONENGINEERING.COM 952-929-6791	<b>REMOVALS</b>	CITY PROJECT NO. 2021STRT-B00 Fifth Street Bridge 66505 Maintenance <b>SHEET NO. 5 OF 24 SHEETS</b>	<b>BRIDGE NO. 66505</b>
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### NOTES

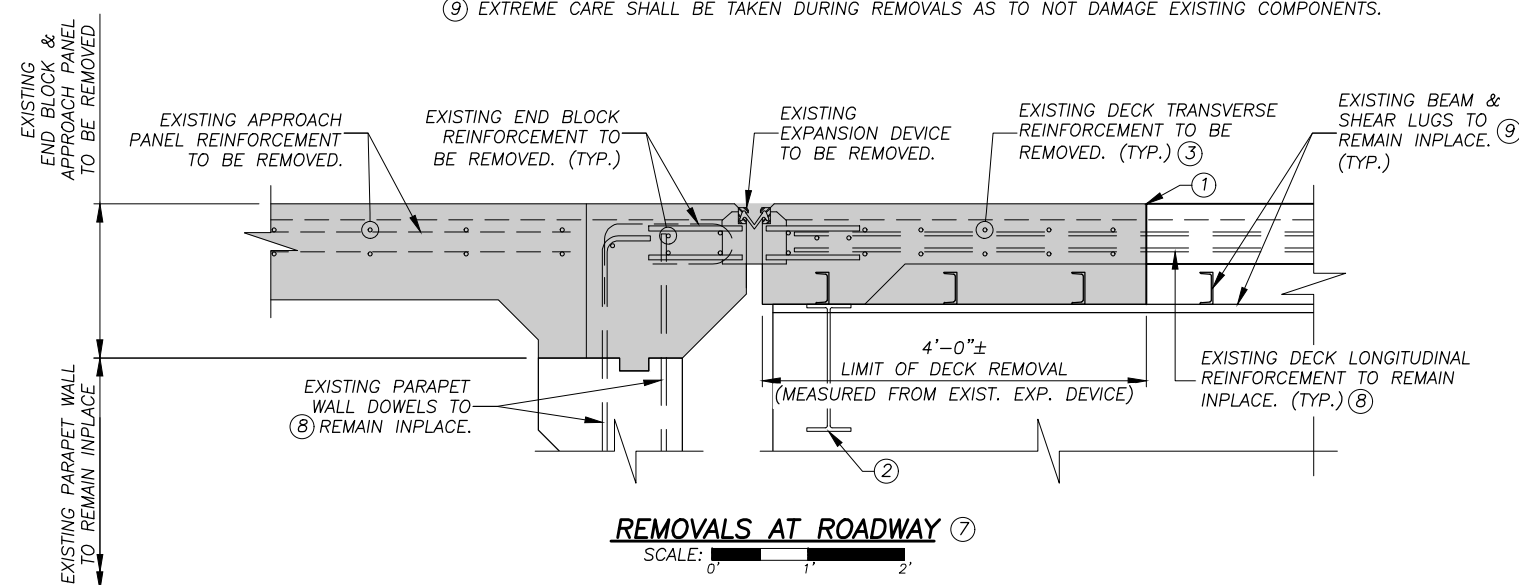
SHADED AREA SHOWS LIMITS OF EXISTING CONCRETE TO BE REMOVED

SEE SHEET 5 FOR LOCATIONS OF SECTIONS A-A THRU D-D.

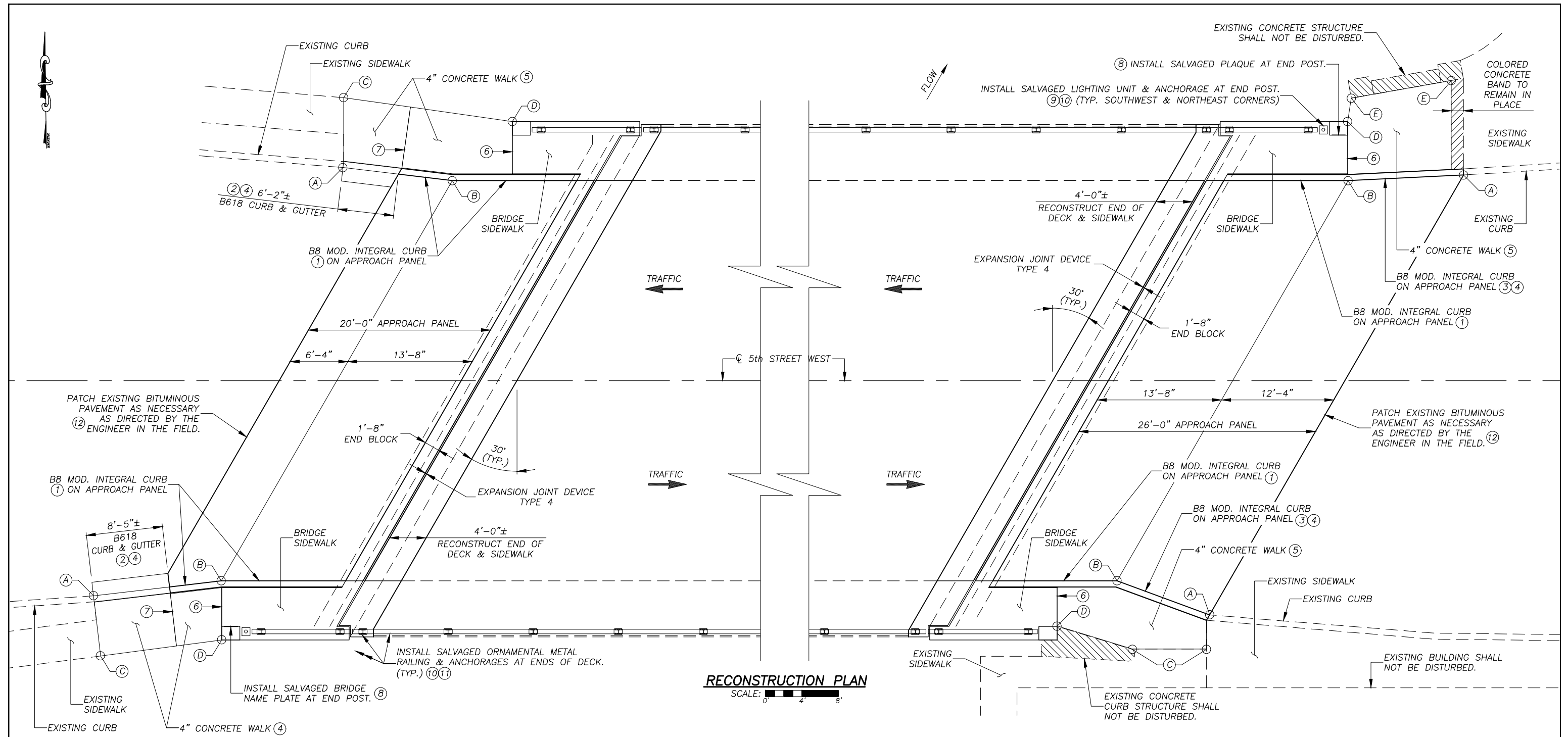


### KEY NOTES

- SAWCUT ACROSS TOP OF DECK. TO PREVENT DAMAGE TO EXISTING REINFORCEMENT, SAWCUT DEPTH SHALL NOT EXCEED 2".
- SEE "BEARING & DIAPHRAGM LAYOUT" FOR DIAPHRAGM DETAILS.
- ANY EXISTING TRANSVERSE DECK REINFORCEMENT THAT REMAINS PARTIALLY EMBEDDED IN THE EXISTING DECK SHALL BE CLEANED, STRAIGHTENED AND RE-USED.
- INCLUDED IN PRICE BID FOR "SALVAGE LIGHTING UNIT".
- INCLUDED IN PRICE BID FOR "SALVAGE ANCHOR ASSEMBLY".
- INCLUDED IN PRICE BID FOR "SALVAGE METAL RAILING".
- INCLUDED IN PRICE BID FOR "STRUCTURE REMOVALS", EXCEPT AS NOTED OTHERWISE.
- EXTREME CARE SHALL BE TAKEN DURING REMOVALS AS TO NOT DAMAGE EXISTING REINFORCEMENT. IF EXISTING REINFORCEMENT IS DAMAGED, NEW DOWELED IN REINFORCEMENT SHALL BE FURNISHED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.
- EXTREME CARE SHALL BE TAKEN DURING REMOVALS AS TO NOT DAMAGE EXISTING COMPONENTS.



<p>CERTIFIED BY: PROFESSIONAL ENGINEER/ RONALD L. DOKKEN LIC. NO. 13931</p>	<p>DES.: DSN CHK.: RLD DRN.: NBB CHK.: DSN</p>	<p><b>ERICKSON ENGINEERING</b> WWW.ERICKSONENGINEERING.COM 952-929-6791</p>	<p><b>REMOVALS</b></p>	<p>CITY PROJECT NO. 2021STRT-B00 Fifth Street Bridge 66505 Maintenance <b>SHEET NO. 6 OF 24 SHEETS</b></p>	<p><b>BRIDGE NO. 66505</b></p>
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### RECONSTRUCTION PLAN

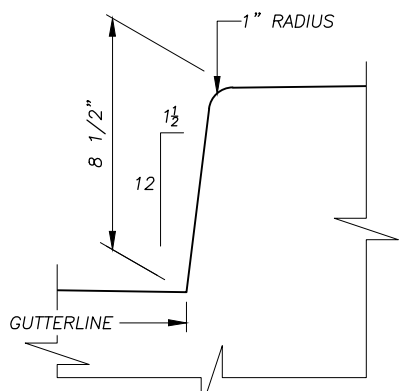
SCALE: 0' 4' 8'

### KEY NOTES

- ① B8 MOD. INTEGRAL CURB ON APPROACH PANEL SHALL HAVE A CONSTANT HEIGHT OF 8 1/2".
- ② A UNIFORM CURB TRANSITION SHALL OCCUR BETWEEN END OF APPROACH PANEL AND EXISTING CURB.
- ③ A UNIFORM CURB TRANSITION SHALL OCCUR BETWEEN ALIGNMENT POINTS "A" & "B".
- ④ CURB SHALL TRANSITION FROM B8 MODIFIED CURB PROFILE TO EXISTING B6 CURB PROFILE.
- ⑤ TOP OF 4" CONCRETE WALK SHALL MATCH AT END OF BRIDGE SIDEWALK, END OF EXISTING SIDEWALK, AND BACK FACE OF CURBS.
- ⑥ REQUIRED DOWELED JOINT IN 4" CONCRETE WALK.
- ⑦ REQUIRED TOOLED JOINT IN 4" CONCRETE WALK.
- ⑧ INCLUDED IN PRICE BID FOR "INSTALL HISTORIC PLAQUE".
- ⑨ INCLUDED IN PRICE BID FOR "INSTALL LIGHTING UNIT".
- ⑩ INCLUDED IN PRICE BID FOR "INSTALL ANCHOR ASSEMBLY".
- ⑪ INCLUDED IN PRICE BID FOR "INSTALL METAL RAILING".
- ⑫ INCLUDED IN PRICE BIDS FOR "REMOVE AND REPLACE BITUMINOUS PAVEMENT".

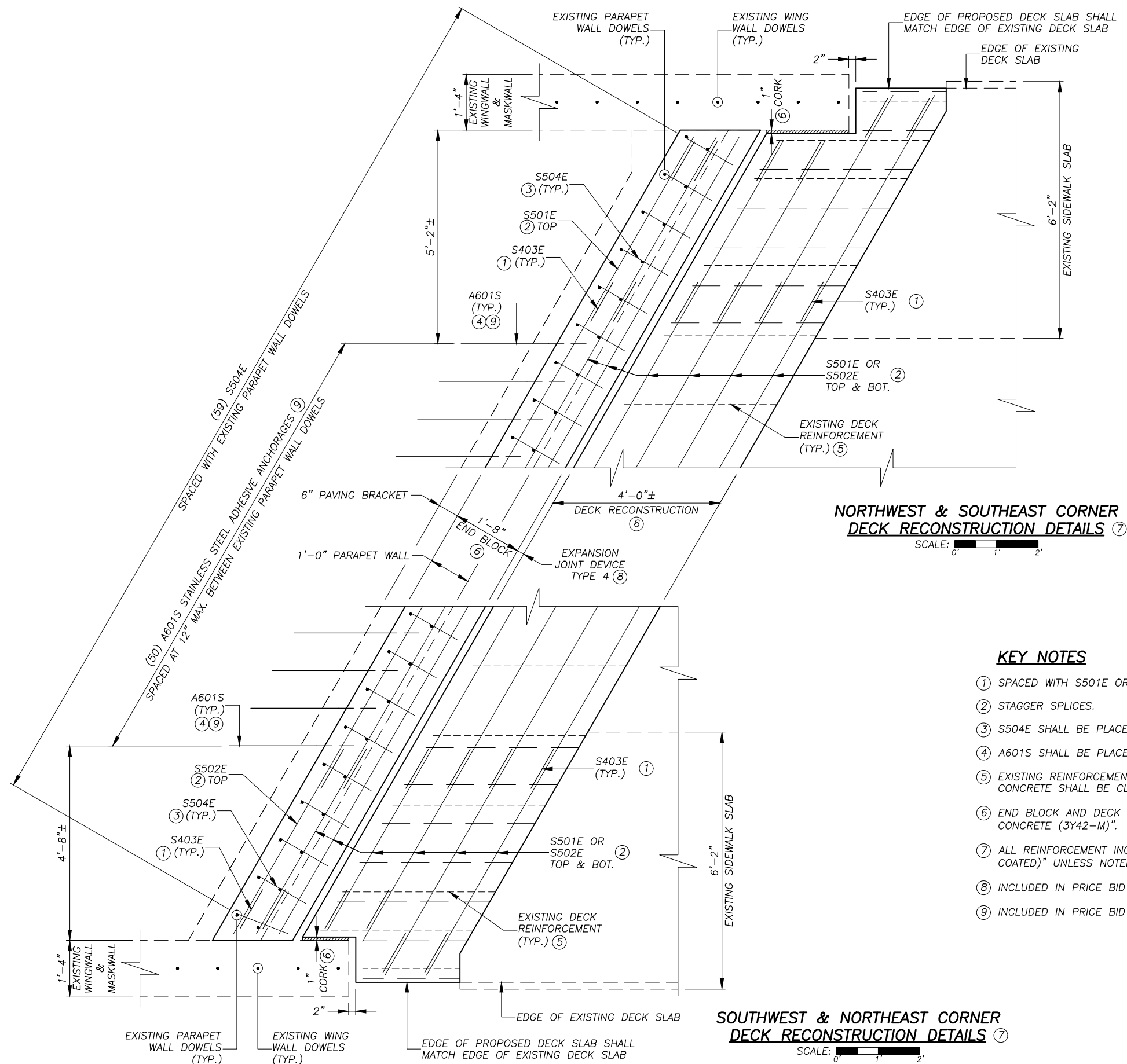
### ALIGNMENT NOTES

- Ⓐ CONTROL POINT AT FACE OF EXISTING CURB FOR B618 CURB HEIGHT AND ALIGNMENT.
- Ⓑ MATCH POINT ON PROPOSED APPROACH PANEL. SEE APPROACH PANEL PLANS.
- Ⓒ MATCH POINT AT EXISTING SIDEWALK JOINT.
- Ⓓ MATCH POINT AT CORNER OF PROPOSED END POST.
- Ⓔ MATCH POINT AT FRONT FACE OF EXISTING CONCRETE STRUCTURE.




**B8 MODIFIED CURB PROFILE  
AT BRIDGE SIDEWALK & APPROACH PANEL**

DES.: DSN CHK.: RLD DRN.: NBB CHK.: DSN CERTIFIED BY: PROFESSIONAL ENGINEER/ RONALD L. DOKKEN LIC. NO. 13931	 <b>ERICKSON ENGINEERING</b> WWW.ERICKSONENGINEERING.COM 952-929-6791	<b>RECONSTRUCTION</b>	CITY PROJECT NO. 2021STR-B00 Fifth Street Bridge 66505 Maintenance <b>SHEET NO. 7 OF 24 SHEETS</b>	<b>BRIDGE NO. 66505</b>
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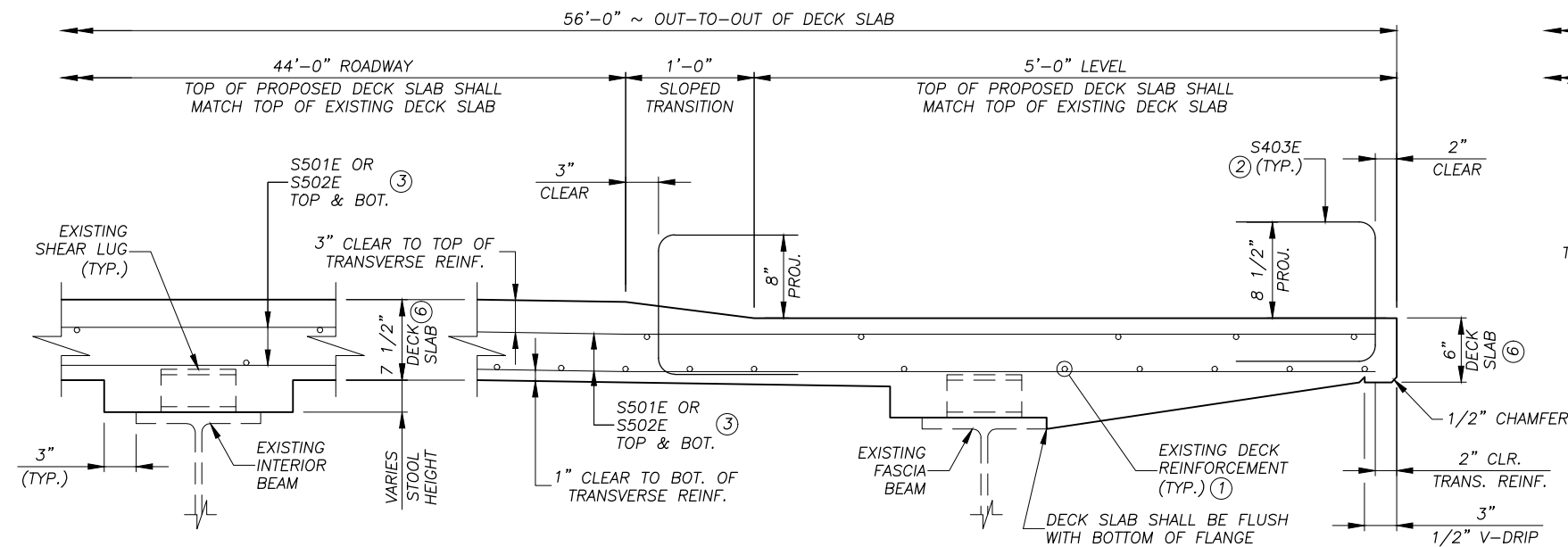


### KEY NOTES

- ① SPACED WITH S501E OR S502E.
- ② STAGGER SPLICES.
- ③ S504E SHALL BE PLACED PERPENDICULAR TO END OF DECK.
- ④ A601S SHALL BE PLACED PARALLEL TO  $\phi$  ROADWAY.
- ⑤ EXISTING REINFORCEMENT THAT REMAINS PARTIALLY EMBEDDED IN THE EXISTING CONCRETE SHALL BE CLEANED, STRAIGHTENED AND RE-USED.
- ⑥ END BLOCK AND DECK RECONSTRUCTION INCLUDED IN PRICE BID FOR "BRIDGE SLAB CONCRETE (3Y42-M)".
- ⑦ ALL REINFORCEMENT INCLUDED IN PRICE BID FOR "REINFORCEMENT BARS (EPOXY COATED)" UNLESS NOTED OTHERWISE.
- ⑧ INCLUDED IN PRICE BID FOR "EXPANSION JOINT DEVICES TYPE 4".
- ⑨ INCLUDED IN PRICE BID FOR "ANCHORAGES TYPE REINF BARS (STAINLESS STEEL)".

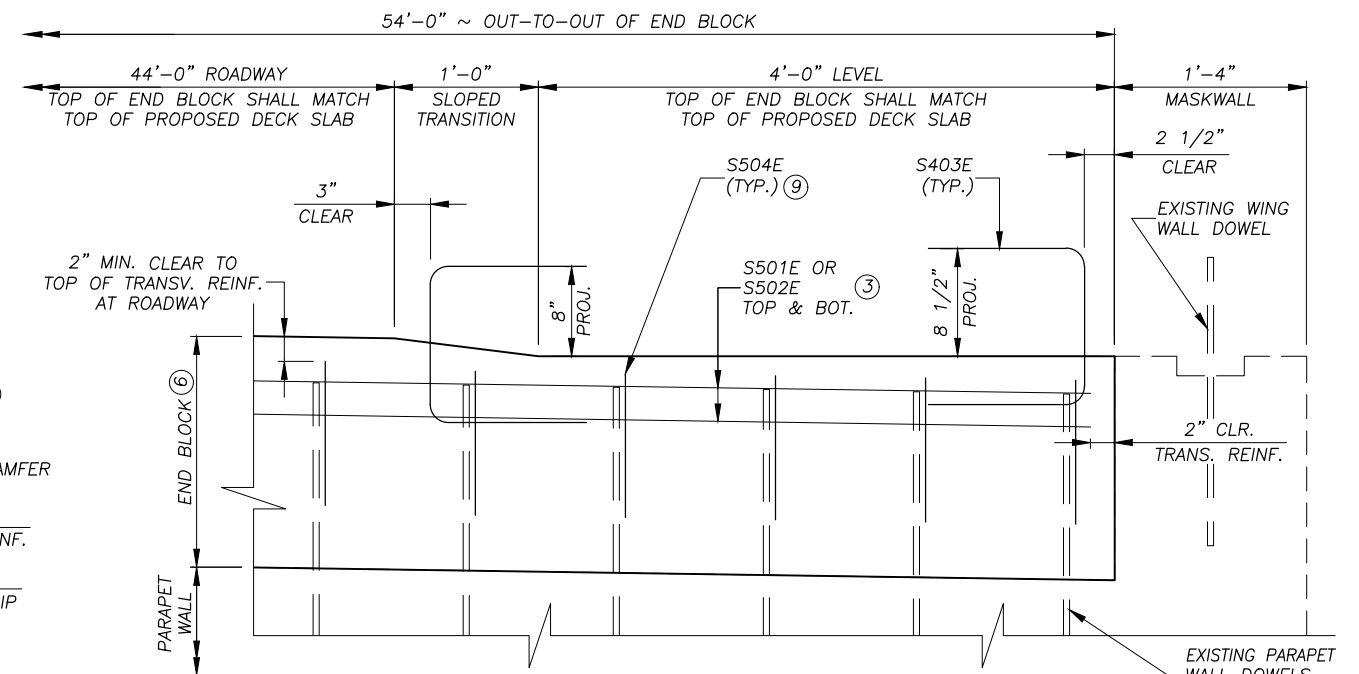
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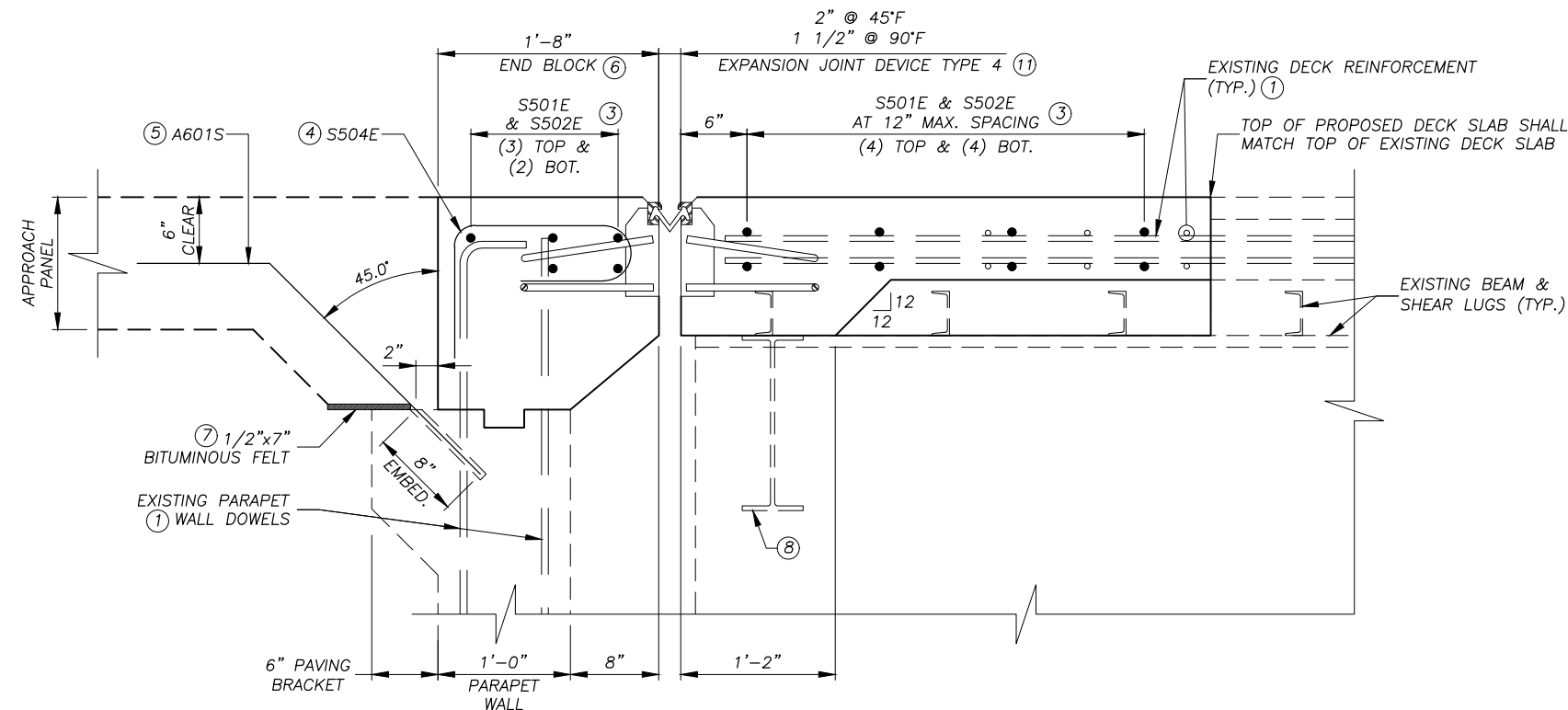
(10)(12) **PARTIAL TRANSVERSE SECTION THRU DECK**

SCALE: 0' 1' 2'



(10)(12) **PARTIAL TRANSVERSE SECTION THRU END BLOCK**

SCALE: 0' 1' 2'



**LONGITUDINAL SECTION AT ABUTMENT** (10)

SCALE: 0' 1' 2'

### KEY NOTES

- (1) EXISTING REINFORCEMENT THAT REMAINS PARTIALLY EMBEDDED IN THE EXISTING CONCRETE SHALL BE CLEANED, STRAIGHTENED AND RE-USED.
- (2) SPACED WITH S501E OR S502E.
- (3) STAGGER SPLICES.
- (4) S504E SHALL BE PLACED PERPENDICULAR TO END OF DECK.
- (5) A601S SHALL BE PLACED PARALLEL TO  $\phi$  ROADWAY. CHEMICAL ANCHORAGE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SEE SPECIAL PROVISIONS. INCLUDED IN PRICE BID FOR "ANCHORAGES TYPE REINF BARS (STAINLESS STEEL)".
- (6) END BLOCK AND DECK RECONSTRUCTION INCLUDED IN PRICE BID FOR "BRIDGE SLAB CONCRETE (3Y42-M)".
- (7) PAYMENT FOR BITUMINOUS FELT INCLUDED IN ITEM "BRIDGE APPROACH PANELS".
- (8) SEE "BEARING & DIAPHRAGM LAYOUT" FOR DIAPHRAGM DETAILS.
- (9) SPACED WITH EXISTING PARAPET WALL DOWELS.
- (10) ALL REINFORCEMENT INCLUDED IN PRICE BID FOR "REINFORCEMENT BARS (EPOXY COATED)" UNLESS NOTED OTHERWISE.
- (11) INCLUDED IN PRICE BID FOR "EXPANSION JOINT DEVICES TYPE 4".
- (12) DIMENSIONS MEASURED PERPENDICULAR TO  $\phi$  ROADWAY.

DES.: DSN  
CHK.: RLD  
DRN.: NBB  
CHK.: DSN

CERTIFIED BY: PROFESSIONAL ENGINEER/RONALD L. DOKKEN  
LIC. NO. 13931

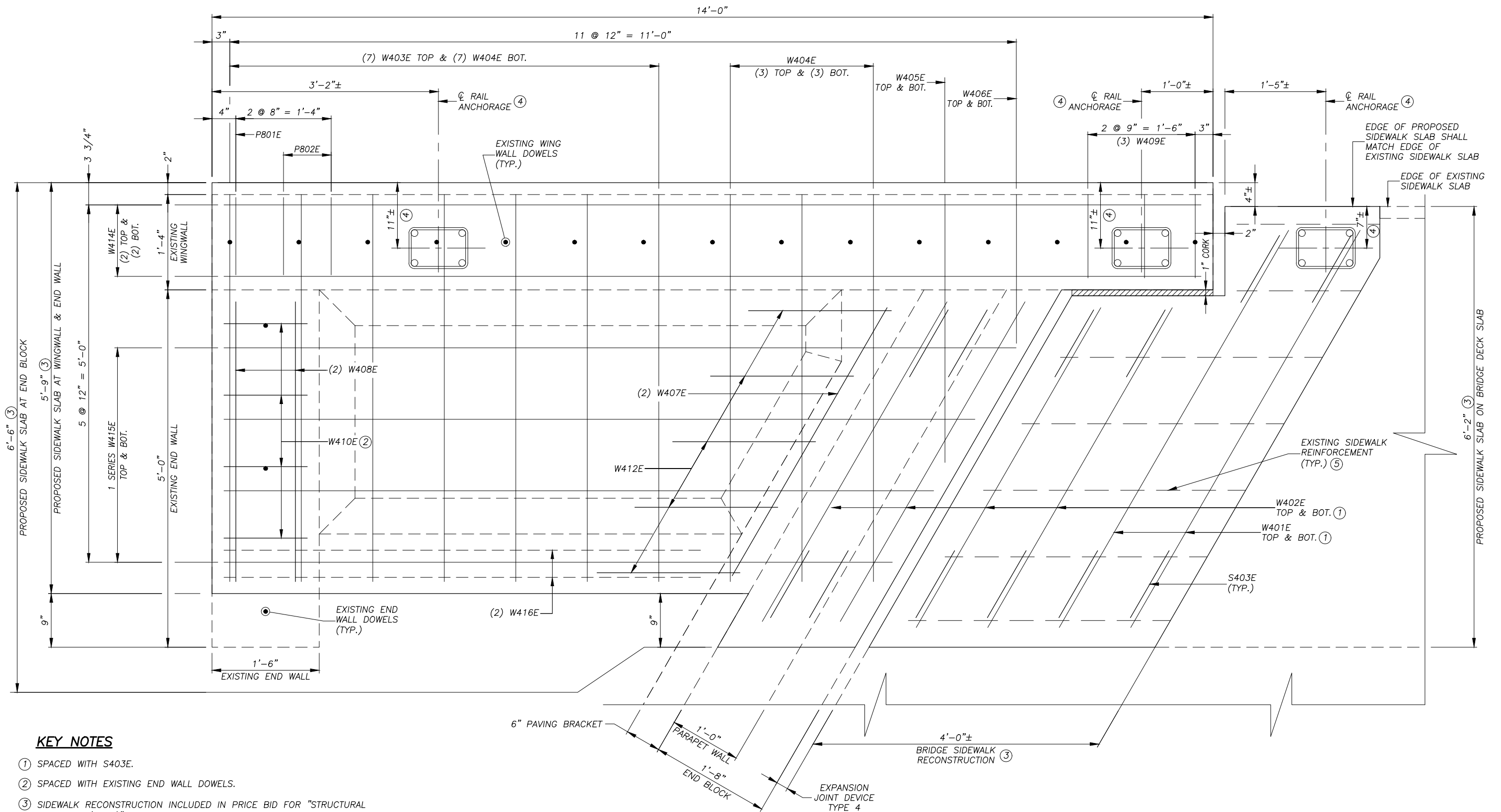
**ERICKSON ENGINEERING**  
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952-929-6791

**RECONSTRUCTION**

CITY PROJECT NO. 2021STRT-B00  
Fifth Street Bridge 66505 Maintenance

**SHEET NO. 9 OF 24 SHEETS**

**BRIDGE NO.  
66505**



# KEY NOTES

1. SPACED WITH S403E.
2. SPACED WITH EXISTING END WALL DOWELS.
3. SIDEWALK RECONSTRUCTION INCLUDED IN PRICE BID FOR "STRUCTURAL CONCRETE (3S52)".
4. CONTRACTOR SHALL USE SALVAGED ORNAMENTAL METAL RAILINGS AS A TEMPLATE TO ACCURATELY LOCATE SALVAGED RAIL ANCHORAGES. INCLUDED IN PRICE BID FOR "INSTALL ANCHOR ASSEMBLY".
5. EXISTING REINFORCEMENT THAT REMAINS PARTIALLY EMBEDDED IN THE EXISTING CONCRETE SHALL BE CLEANED, STRAIGHTENED AND RE-USED.
6. ALL REINFORCEMENT INCLUDED IN PRICE BID FOR "REINFORCEMENT BARS (EPOXY COATED)".
7. W413E TIES FOR CONNECTING 4" CONCRETE WALK NOT SHOWN FOR CLARITY. SEE LONGITUDINAL SECTION ON SHEET 14 FOR DETAILS.

## NORTHWEST & SOUTHEAST CORNER SIDEWALK RECONSTRUCTION DETAILS

SCALE: 0' 1' 2'

DES.: DSN  
CHK.: RLD  
DRN.: NBB  
CHK.: DSN

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LIC. NO. 13931

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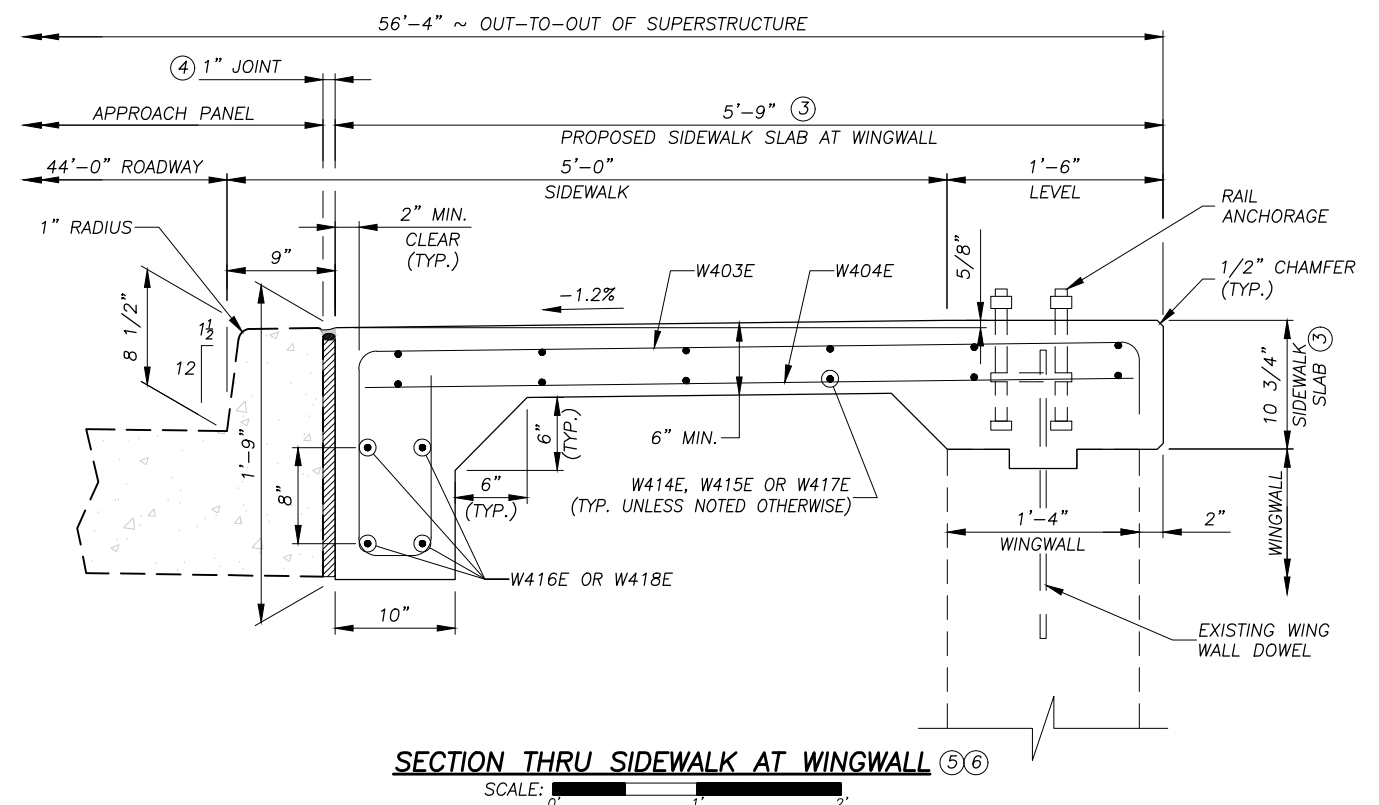
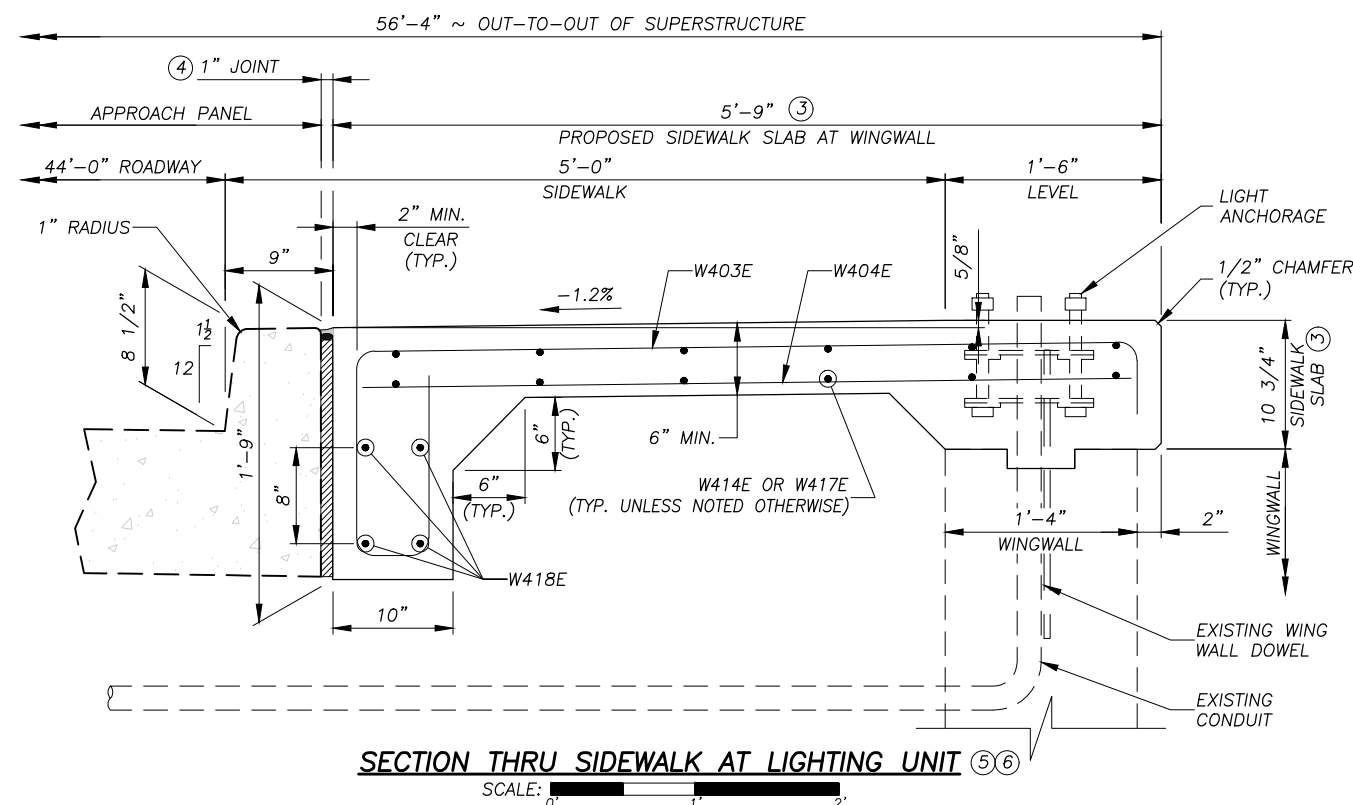
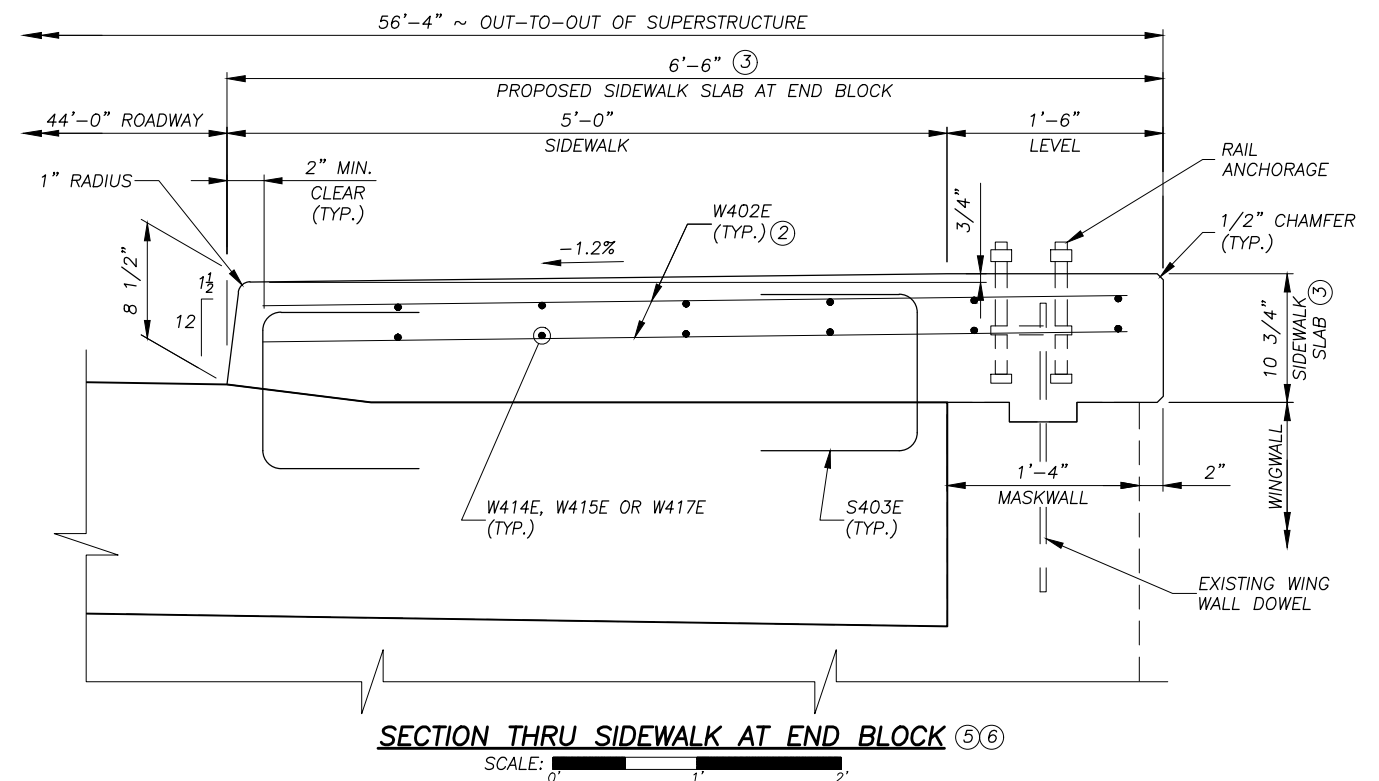
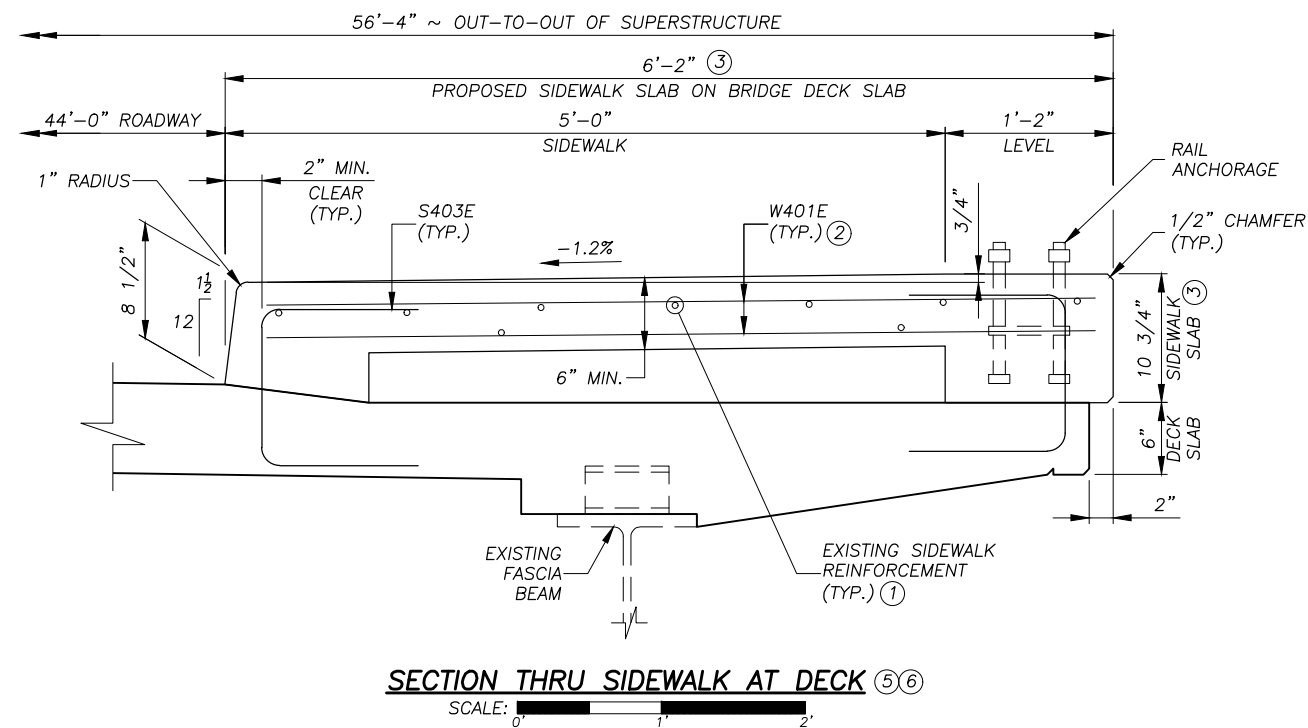
RECONSTRUCTION

CITY PROJECT NO. 2021STRT-B00  
Fifth Street Bridge 66505 Maintenance

SHEET NO. 10 OF 24 SHEETS

BRIDGE NO.  
66505





### KEY NOTES

- ① EXISTING REINFORCEMENT THAT REMAINS PARTIALLY EMBEDDED IN THE EXISTING CONCRETE SHALL BE CLEANED, STRAIGHTENED AND RE-USED.
- ② SPACED WITH S403E.
- ③ SIDEWALK RECONSTRUCTION INCLUDED IN PRICE BID FOR "STRUCTURAL CONCRETE (3S52)".
- ④ SEE APPROACH PANEL SHEETS FOR JOINT DETAILS.
- ⑤ DIMENSIONS MEASURED PERPENDICULAR TO  $\phi$  ROADWAY.
- ⑥ ALL REINFORCEMENT INCLUDED IN PRICE BID FOR "REINFORCEMENT BARS (EPOXY COATED)".

DES.: DSN  
CHK.: RLD  
DRN.: NBB  
CHK.: DSN

CERTIFIED BY: PROFESSIONAL ENGINEER/RONALD L. DOKKEN  
LIC. NO. 13931

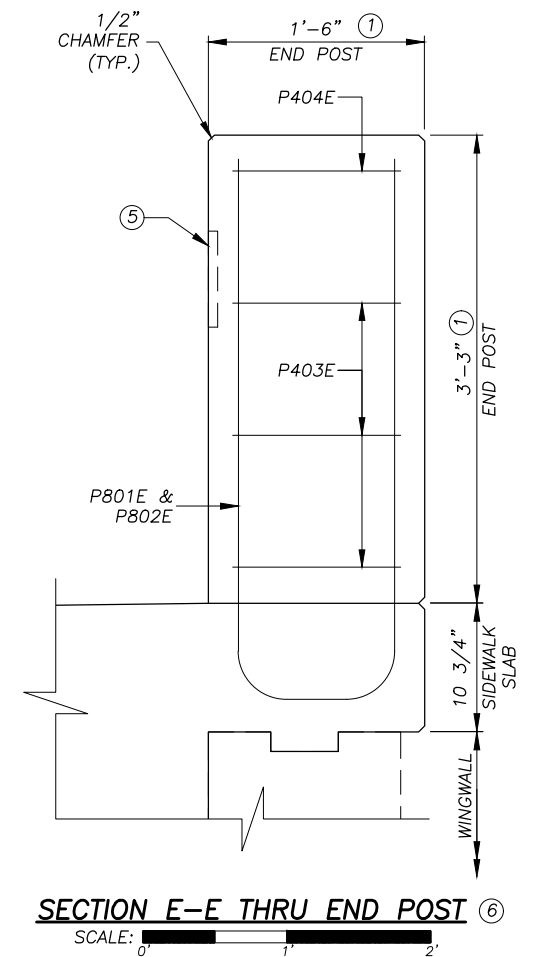
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RECONSTRUCTION

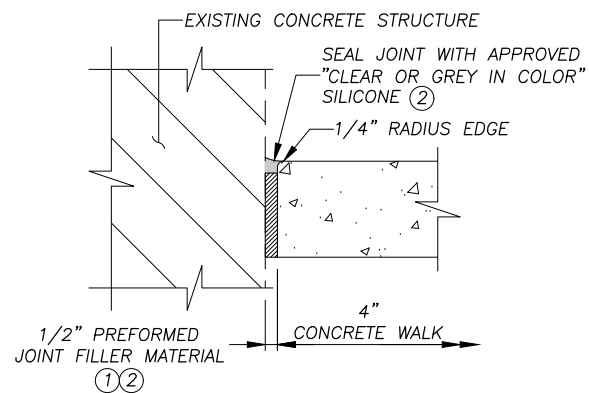
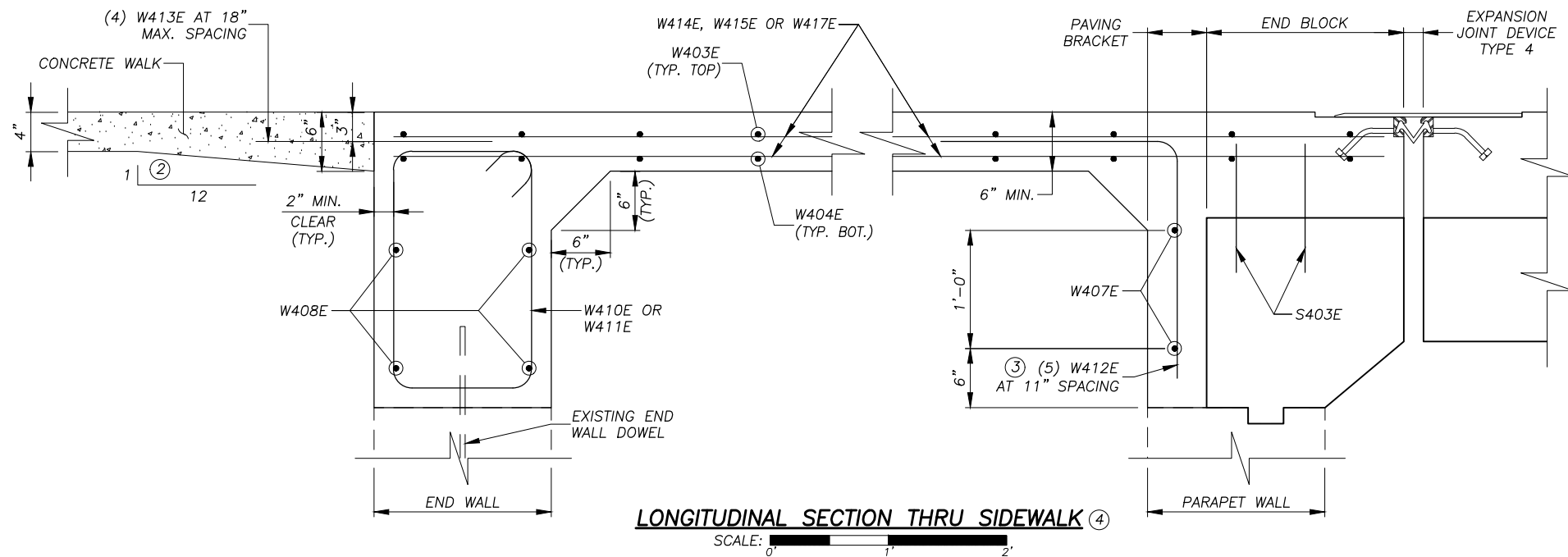
CITY PROJECT NO. 2021STRT-B00  
Fifth Street Bridge 66505 Maintenance

SHEET NO. 12 OF 24 SHEETS

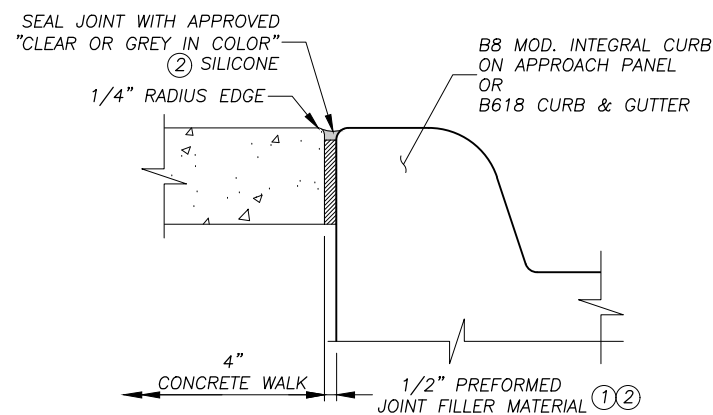
BRIDGE NO.  
66505



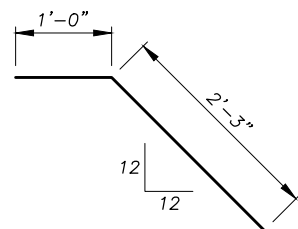
CERTIFIED BY: PROFESSIONAL ENGINEER/ RONALD L. DOKKEN L.I.C. NO. 13931	DES.: DSN	 <b>ERICKSON ENGINEERING</b> WWW.ERICKSONENGINEERING.COM 952-929-6791	RECONSTRUCTION	CITY PROJECT NO. 2021STRT-B00 Fifth Street Bridge 66505 Maintenance	BRIDGE NO. 66505
	CHK.: RLD DRN.: NBB CHK.: DSN			SHEET NO. 13 OF 24 SHEETS	



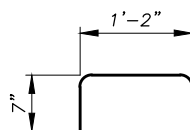
SECTION THRU CONCRETE WALK AT  
EXISTING CONCRETE STRUCTURES



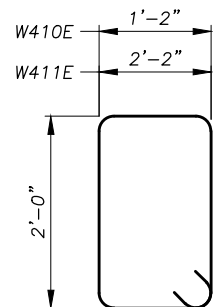
SECTION THRU CONCRETE WALK AT  
B8 MOD. INTEGRAL OR B618 CURB



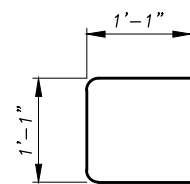
A601S ⑤



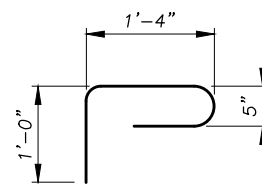
W409E



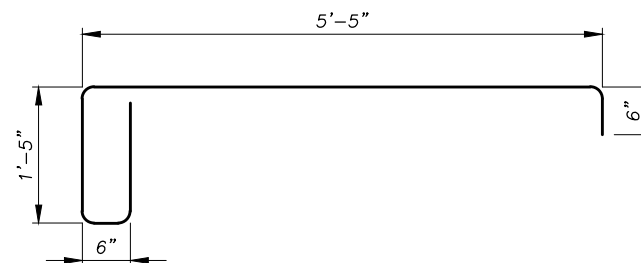
W410E & W411E



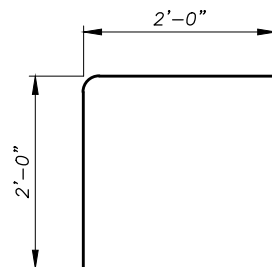
S403E



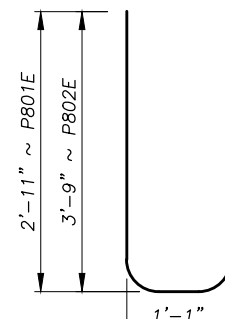
S504E



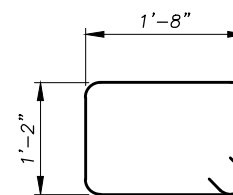
W403E



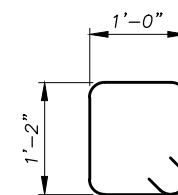
W412E



P801E & P802E



P403E



P404E

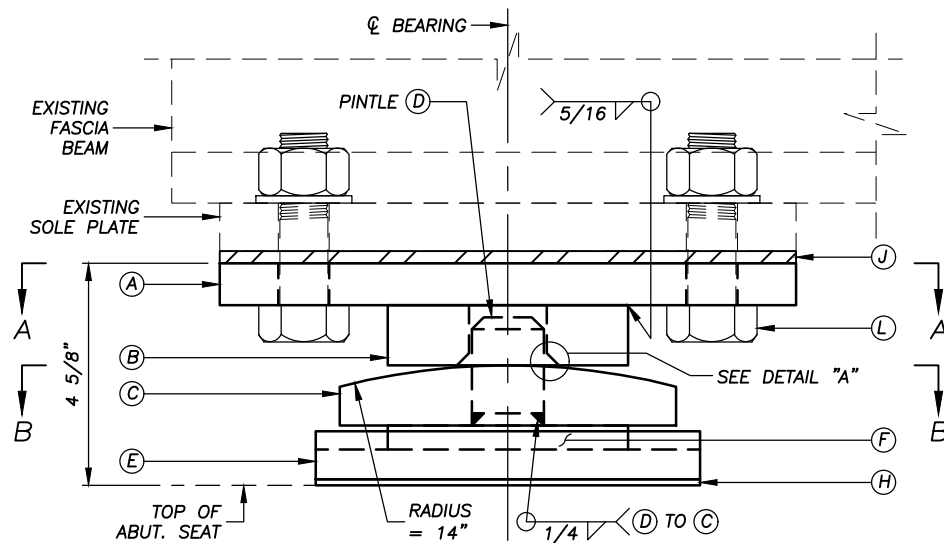
### KEY NOTES

- ① MATERIAL SHALL BE IN ACCORDANCE WITH SPEC. 3702.
- ② INCLUDED IN PRICE BID FOR "4" CONCRETE WALK".
- ③ PLACE HORIZONTAL LEG PARALLEL TO  $\phi$  ROADWAY.
- ④ ALL REINFORCEMENT INCLUDED IN PRICE BID FOR "REINFORCEMENT BARS (EPOXY COATED)" UNLESS NOTED OTHERWISE.
- ⑤ INCLUDED IN PRICE BID FOR "ANCHORAGES TYPE REINF BARS (STAINLESS STEEL)".

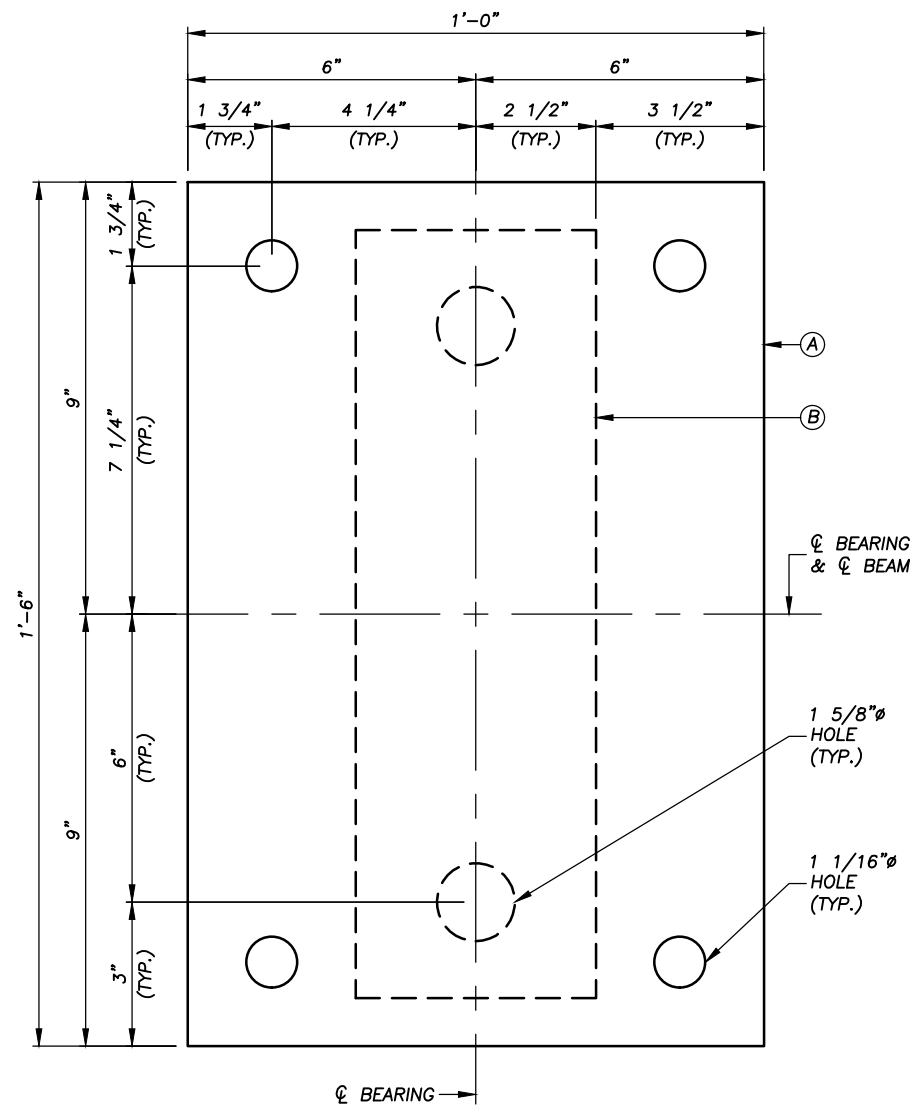
④ BILL OF REINFORCEMENT ~ RECONSTRUCTION				
BAR	NO.	LENGTH	SHAPE	LOCATION
S501E	26	40'-0"	STRT.	SLAB & END BLOCK ~ TRANSVERSE
S502E	26	26'-4"	STRT.	SLAB & END BLOCK ~ TRANSVERSE
S403E	48	3'-3"	BENT	SLAB & END BLOCK ~ SIDEWALK TIE
S504E	118	3'-5"	BENT	END BLOCK ~ TIE
W401E	16	6'-5"	STRT.	SIDEWALK ~ TRANSVERSE
W402E	32	5'-2"	STRT.	SIDEWALK ~ TRANSVERSE
W403E	38	8'-10"	BENT	SIDEWALK ~ TRANSVERSE
W404E	54	5'-4"	STRT.	SIDEWALK ~ TRANSVERSE
W405E	4	3'-9"	STRT.	SIDEWALK ~ TRANSVERSE
W406E	4	2'-1"	STRT.	SIDEWALK ~ TRANSVERSE
W407E	8	4'-4"	STRT.	SIDEWALK ~ TRANSVERSE
W408E	16	3'-11"	STRT.	SIDEWALK ~ TRANSVERSE
W409E	10	2'-4"	BENT	SIDEWALK ~ TIE
W410E	8	7'-0"	BENT	SIDEWALK ~ TIE
W411E	8	9'-0"	BENT	SIDEWALK ~ TIE
W412E	20	4'-0"	BENT	SIDEWALK ~ TIE
W413E	16	3'-0"	STRT.	SIDEWALK ~ TIE
W414E	16	13'-8"	STRT.	SIDEWALK ~ LONGITUDINAL
W415E	2 SER. OF 4	FROM 9'-4" TO 11'-1"	STRT.	SIDEWALK ~ LONGITUDINAL
W416E	8	6'-8"	STRT.	SIDEWALK ~ LONGITUDINAL
W417E	2 SER. OF 4	FROM 12'-9" TO 14'-6"	STRT.	SIDEWALK ~ LONGITUDINAL
W418E	8	11'-11"	STRT.	SIDEWALK ~ LONGITUDINAL
P801E	4	6'-11"	BENT	END POST ~ VERTICAL TIE
P802E	8	8'-7"	BENT	END POST ~ VERTICAL TIE
P403E	12	6'-4"	BENT	END POST ~ HORIZONTAL TIE
P404E	4	5'-0"	BENT	END POST ~ HORIZONTAL TIE
A601S	100	3'-3"	BENT	APPROACH PANEL TIE

⑤

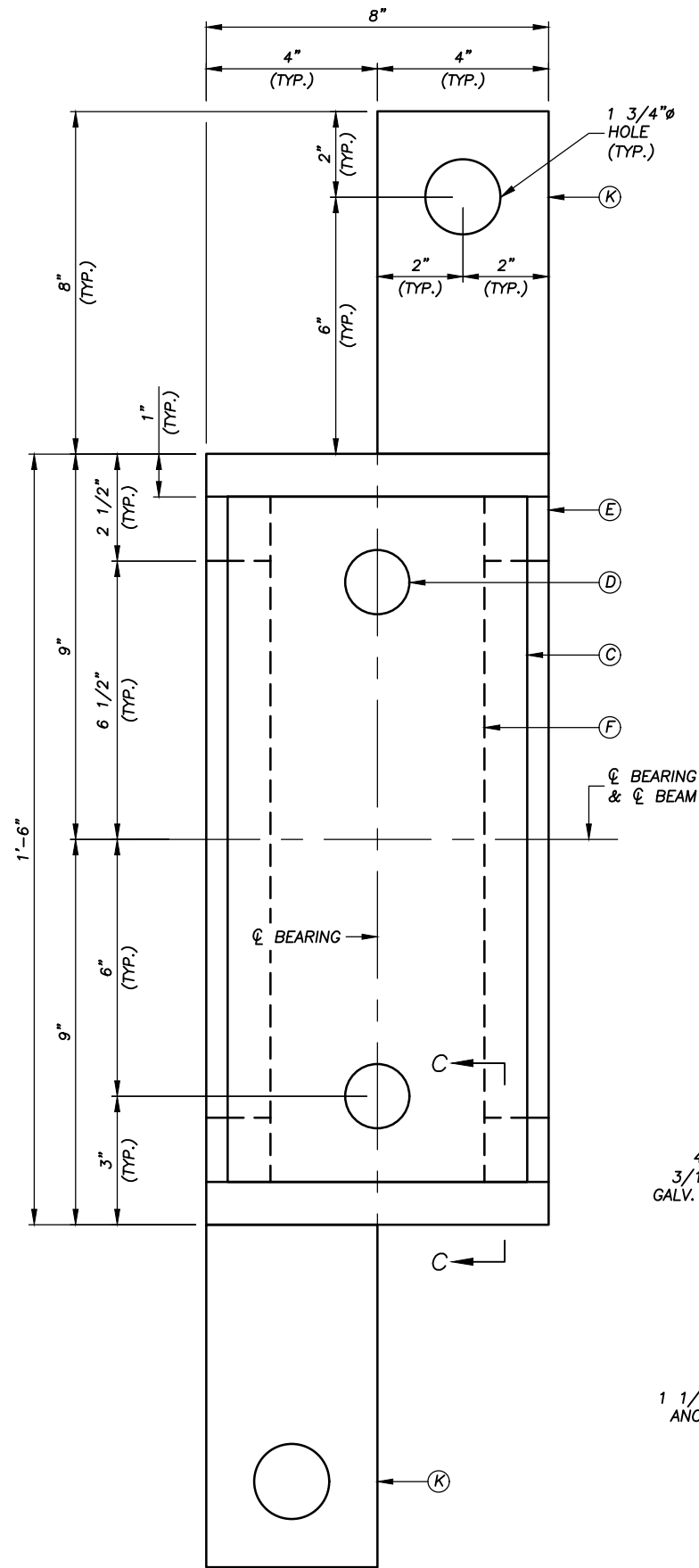




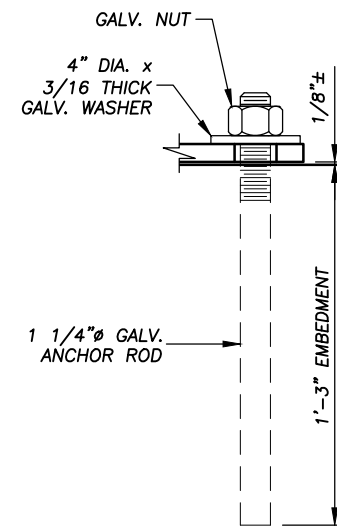
**TYPE 1 BEARING ~ SIDE VIEW**  
(ANCHOR BOLT LUGS (K) NOT SHOWN)



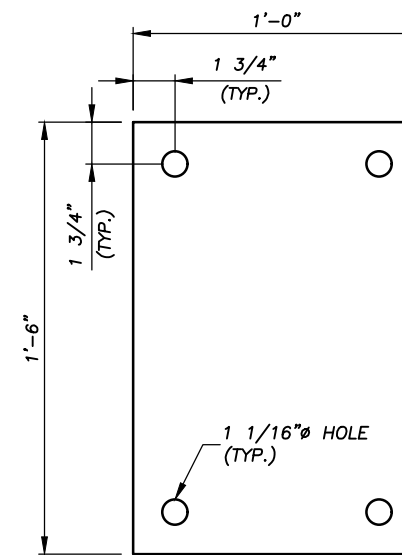
**PLAN A-A**



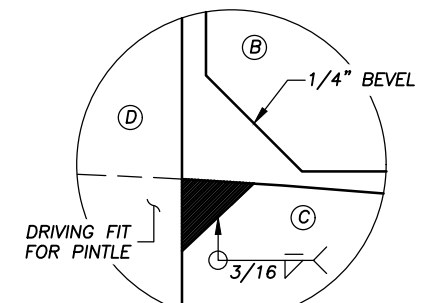
**PLAN B-B**



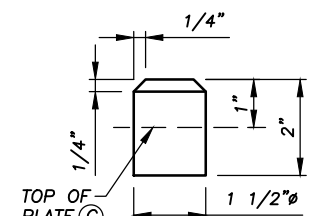
**ANCHOR ROD ASSEMBLY**



**SHIM PLATE J**



**DETAIL A**



**PINTLE D**

**TYPE 1 BEARING**

A	7/8"x12"x1'-6" PLATE
B	1 1/4"x5"x1'-4" PLATE
C	1 1/4"x7"x1'-4" CURVED PLATE
D	1 1/2"x2" PINTLE
E	1"x8"x1'-6" PLATE
F	1/2"x5"x1'-4" BRONZE PLATE
G	-
H	1/8"x8"x1'-6" LEAD SHEET
J	12"x1'-6" SHIM PLATE
K	3/4"x4"x8" ANCHOR LUG
L	(4) 1"x3 1/2" A325 GALV. BOLTS WITH (1) LOCK WASHER & (1) A563 GALV. NUT EACH
M	(2) 1 1/4"x18" A193 GALV. ANCHOR RODS WITH (1) 4" DIA. x 3/16 THICK GALV. WASHER & (1) A194 GALV. NUT EACH

**NOTES**

ALL WELDING SHALL BE IN ACCORDANCE WITH SPEC. 2471.  
PROVIDE ANCHOR RODS IN ACCORDANCE WITH SPEC. 3385, TYPE B.  
ALL STRUCTURAL STEEL SHALL COMPLY WITH SPEC. 3306, EXCEPT AS NOTED.

PLATES SHALL BE FLAT AFTER WELDING AND FABRICATION.

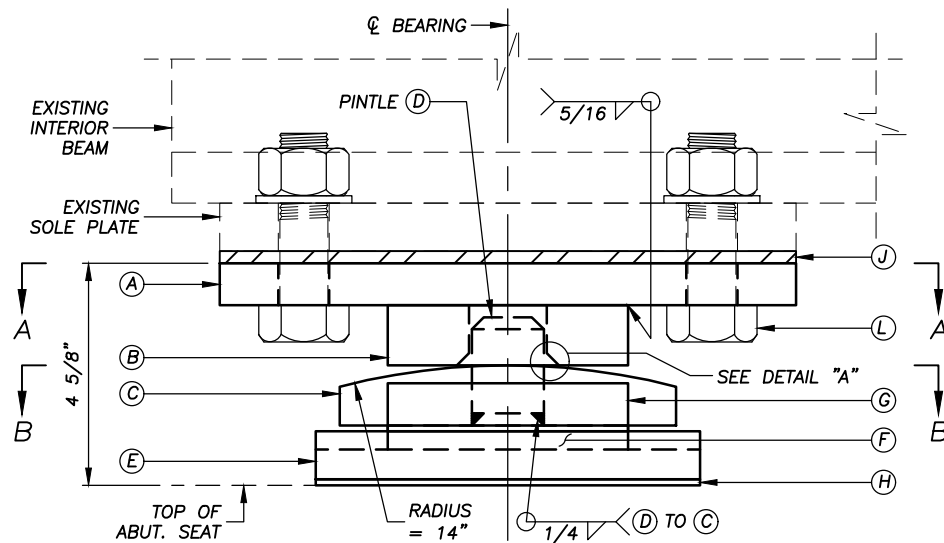
HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH SPEC. 3392.  
GALVANIZE ANCHOR RODS IN ACCORDANCE WITH SPEC. 3394.  
STRUCTURAL STEEL SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SPEC. 3394.

ALL MATERIAL ON THIS DETAIL IS INCLUDED IN PAYMENT FOR BID ITEM "BEARING ASSEMBLY".

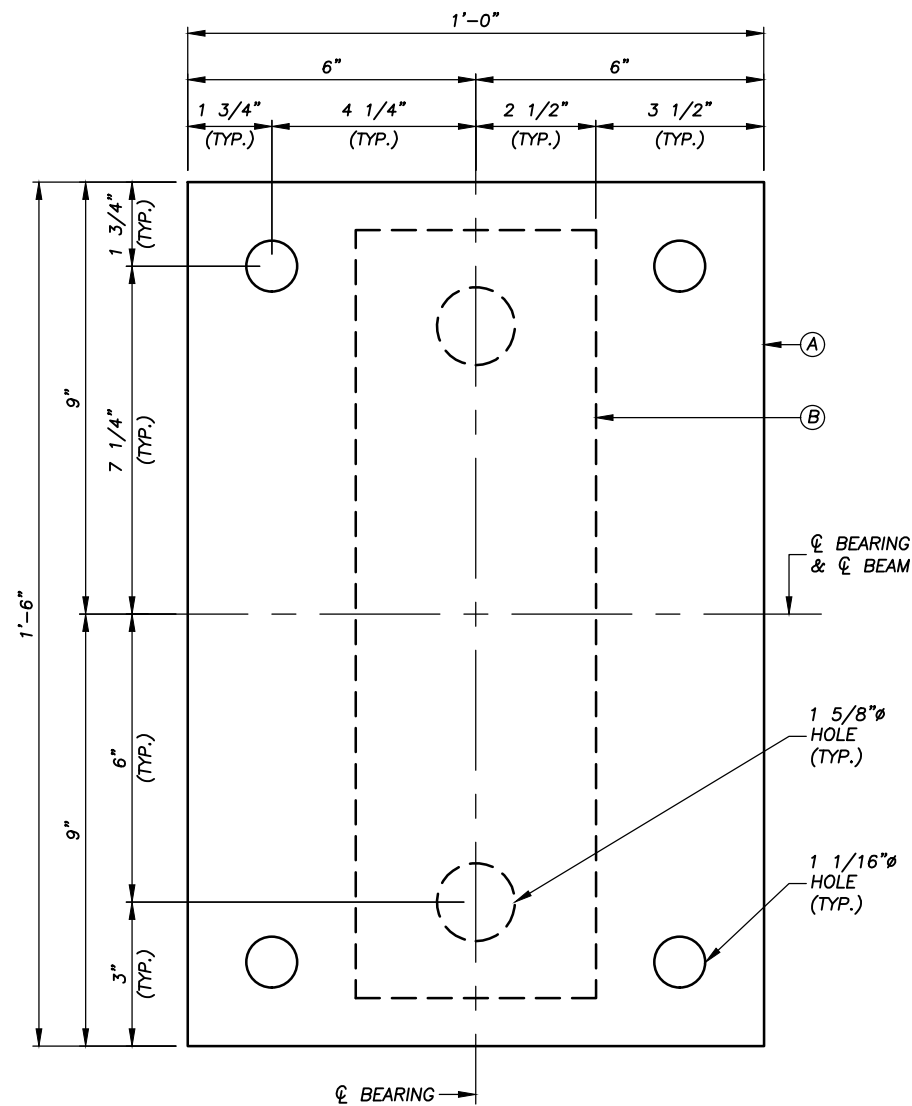
**KEY NOTES**

- MACHINE TOP OF PLATE TO RADIUS SHOWN AND TO 250 MICRO. MACHINE BOTTOM OF PLATE TO 125 MICRO.
- PINTLES SHALL COMPLY WITH SPEC. 3309.
- RECESS IN PLATE SHALL BE FINISHED TO 250 MICRO.
- PLATE SHALL BE LUBRICATED BRONZE IN ACCORDANCE WITH SPEC. 3329. LUBRICATED SURFACE IS ON THE BOTTOM.
- CAST BRONZE SHALL HAVE MACHINE-FINISHED EDGES TO WIDTH AND LENGTH SHOWN. WIDTH AND LENGTH OF BRONZE PLATE SHALL BE HELD TO +0.000 AND -0.050 INCH TOLERANCE.
- MACHINE TOP OF PLATE TO 125 MICRO. MACHINE BOTTOM OF PLATE TO 250 MICRO.
- SHEET LEAD IN ACCORDANCE WITH SPEC. 3335.
- THICKNESS VARIES. SEE BEARING & DIAPHRAGM LAYOUT FOR SHIM THICKNESS INFORMATION AND LOCATIONS.

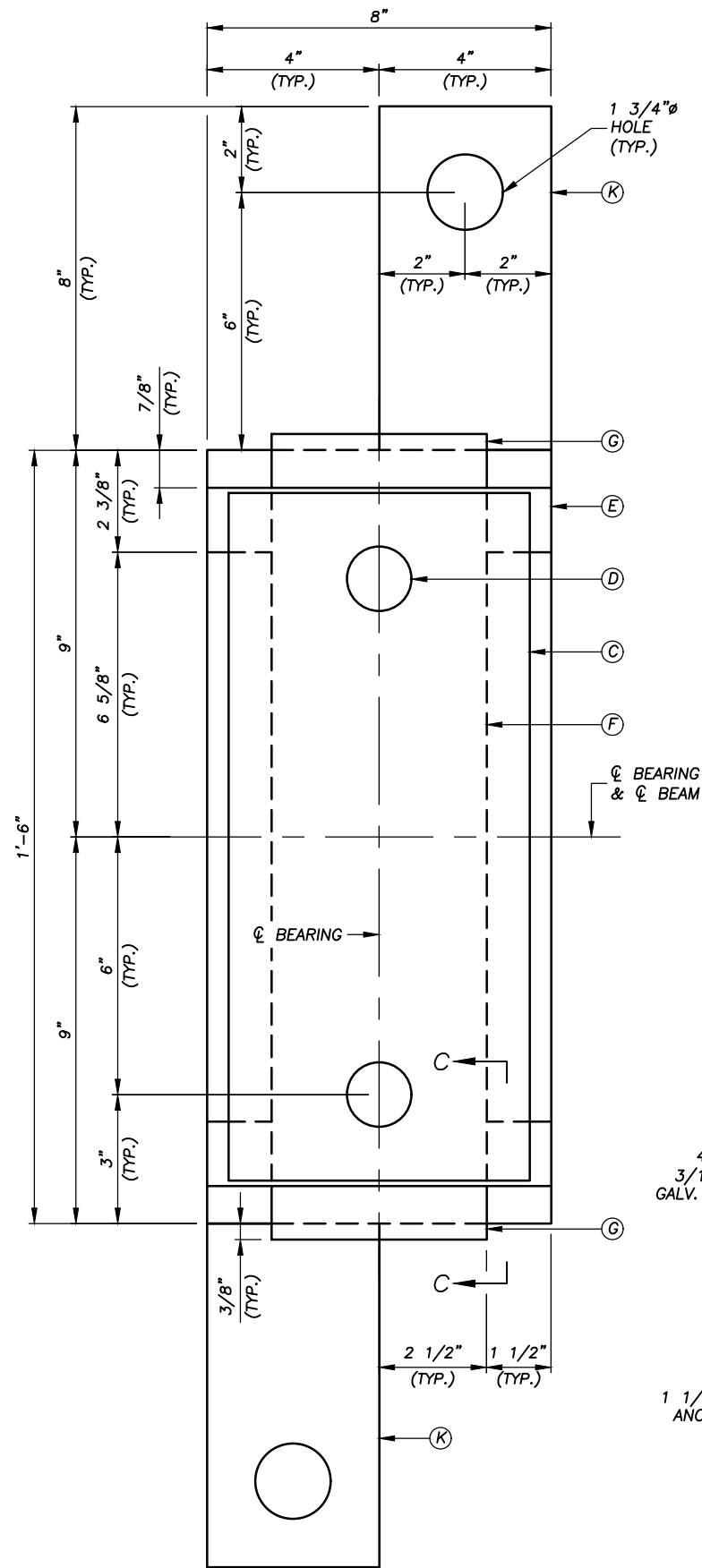




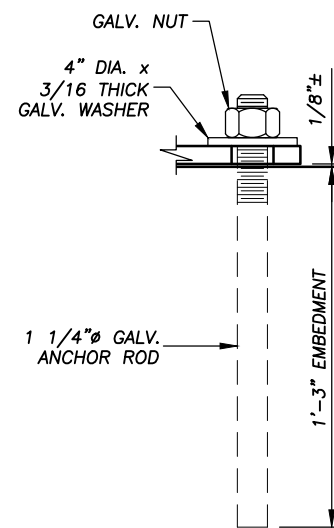
**TYPE 2 BEARING ~ SIDE VIEW**  
(ANCHOR BOLT LUGS (K) NOT SHOWN)



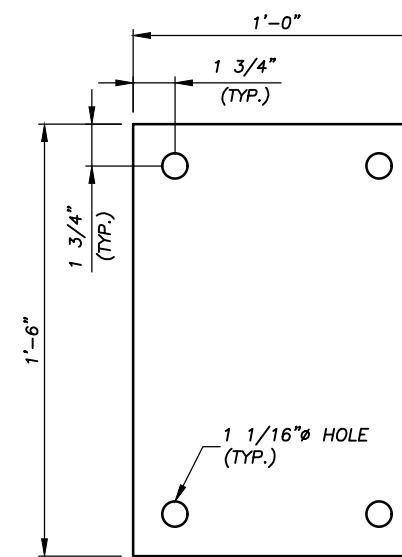
**PLAN A-A**



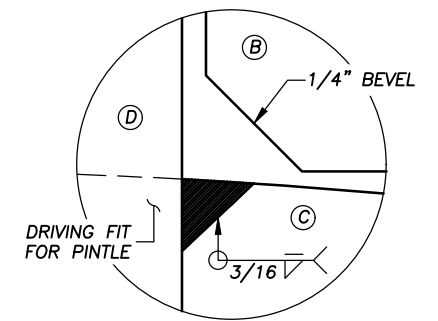
**PLAN B-B**



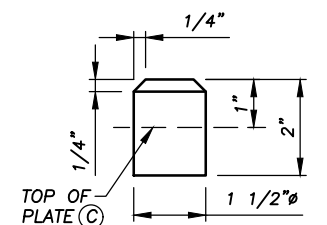
**ANCHOR ROD ASSEMBLY**



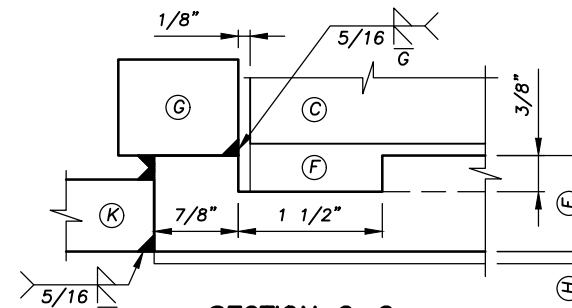
**SHIM PLATE J**



**DETAIL A**



**PINTLE D**



**SECTION C-C**

**NOTES**

ALL WELDING SHALL BE IN ACCORDANCE WITH SPEC. 2471.  
PROVIDE ANCHOR RODS IN ACCORDANCE WITH SPEC. 3385, TYPE B.  
ALL STRUCTURAL STEEL SHALL COMPLY WITH SPEC. 3306, EXCEPT AS NOTED.

PLATES SHALL BE FLAT AFTER WELDING AND FABRICATION.

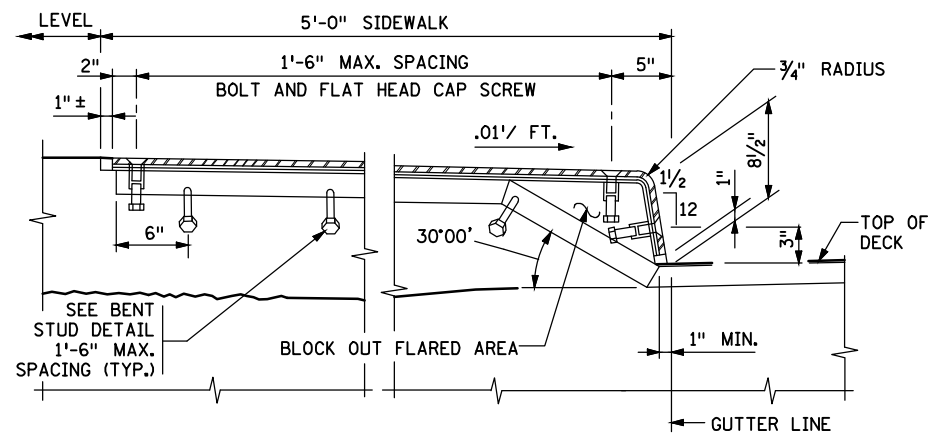
HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH SPEC. 3392.  
GALVANIZE ANCHOR RODS IN ACCORDANCE WITH SPEC. 3394.  
STRUCTURAL STEEL SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SPEC. 3394.

ALL MATERIAL ON THIS DETAIL IS INCLUDED IN PAYMENT FOR BID ITEM "BEARING ASSEMBLY".

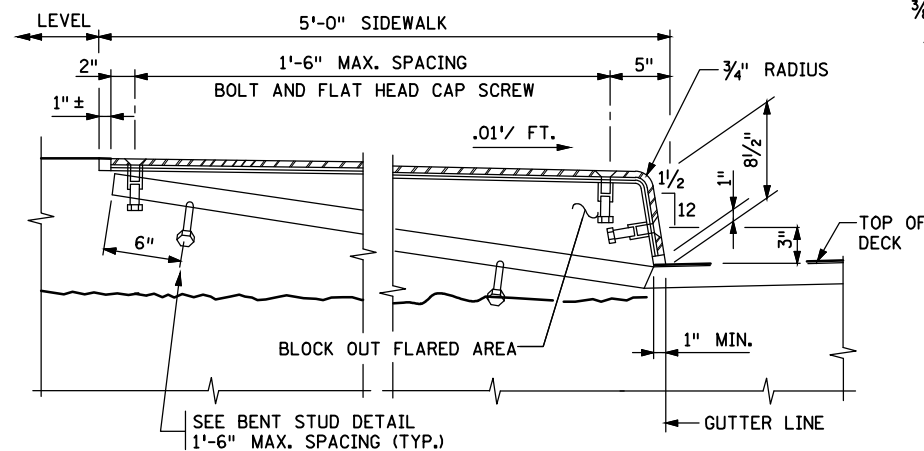
**KEY NOTES**

- ① MACHINE TOP OF PLATE TO RADIUS SHOWN AND TO 250 MICRO. MACHINE BOTTOM OF PLATE TO 125 MICRO.
- ② PINTLES SHALL COMPLY WITH SPEC. 3309.
- ③ RECESS IN PLATE SHALL BE FINISHED TO 250 MICRO.
- ④ PLATE SHALL BE LUBRICATED BRONZE IN ACCORDANCE WITH SPEC. 3329. LUBRICATED SURFACE IS ON THE BOTTOM.
- ⑤ CAST BRONZE SHALL HAVE MACHINE-FINISHED EDGES TO WIDTH AND LENGTH SHOWN. WIDTH AND LENGTH OF BRONZE PLATE SHALL BE HELD TO +0.000 AND -0.050 INCH TOLERANCE.
- ⑥ MACHINE TOP OF PLATE TO 125 MICRO. MACHINE BOTTOM OF PLATE TO 250 MICRO.
- ⑦ SHEET LEAD IN ACCORDANCE WITH SPEC. 3335.
- ⑧ THICKNESS VARIES. SEE BEARING & DIAPHRAGM LAYOUT FOR SHIM THICKNESS INFORMATION AND LOCATIONS.

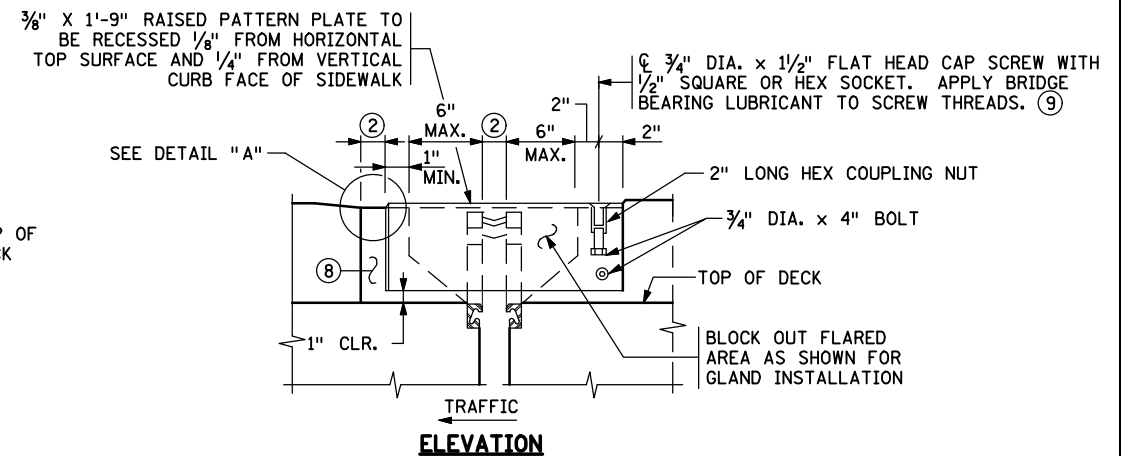
TYPE 2 BEARING	
A	7/8"x12"x1'-6" PLATE
B	1 1/4"x5"x1'-4" PLATE
C	1 1/4"x7"x1'-4" CURVED PLATE
D	1 1/2"x2" PINTLE
E	1"x8"x1'-6" PLATE
F	1/2"x5"x1'-4" BRONZE PLATE
G	1"x1 1/4"x5" GUIDE LUG
H	1/8"x8"x1'-6" LEAD SHEET
J	12"x1'-6" SHIM PLATE
K	3/4"x4"x8" ANCHOR LUG
L	(4) 1"x3 1/2" A325 GALV. BOLTS WITH (1) LOCK WASHER & (1) A563 GALV. NUT EACH
M	(2) 1 1/4"x18" A193 GALV. ANCHOR RODS WITH (1) 4" DIA. x 3/16 THICK GALV. WASHER & (1) A194 GALV. NUT EACH



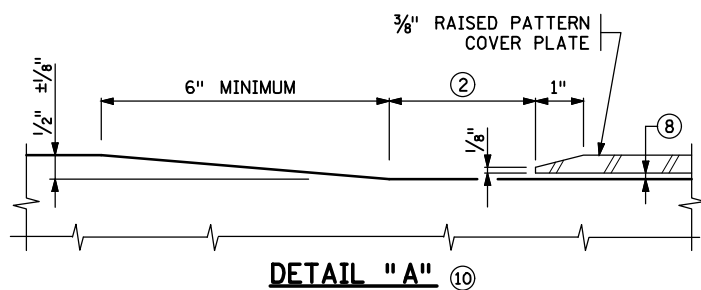
**SECTION THROUGH RAISED SIDEWALK - OPTION 1**



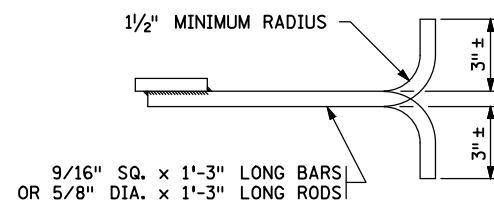
**SECTION THROUGH RAISED SIDEWALK - OPTION 2**



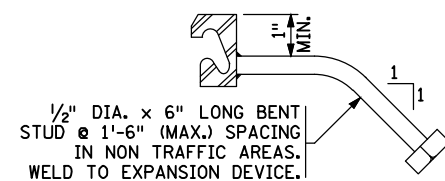
**RAISED SIDEWALK DETAILS**



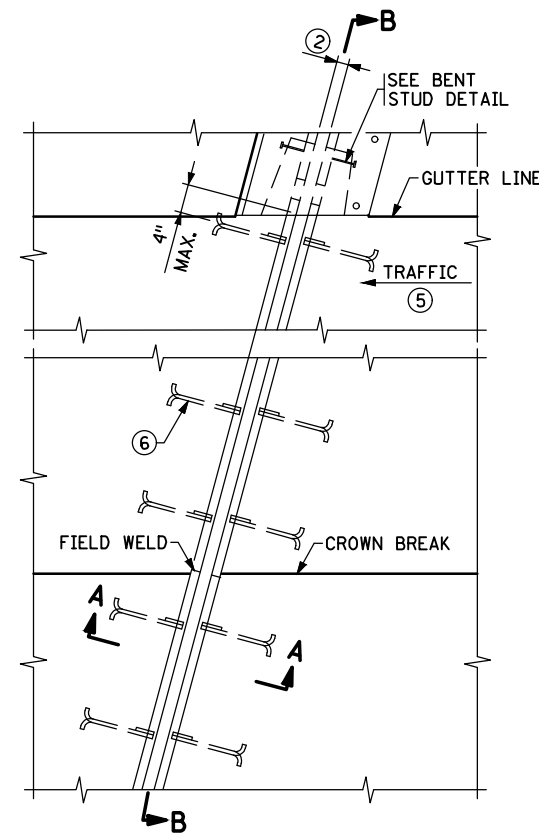
**DETAIL "A" 10**



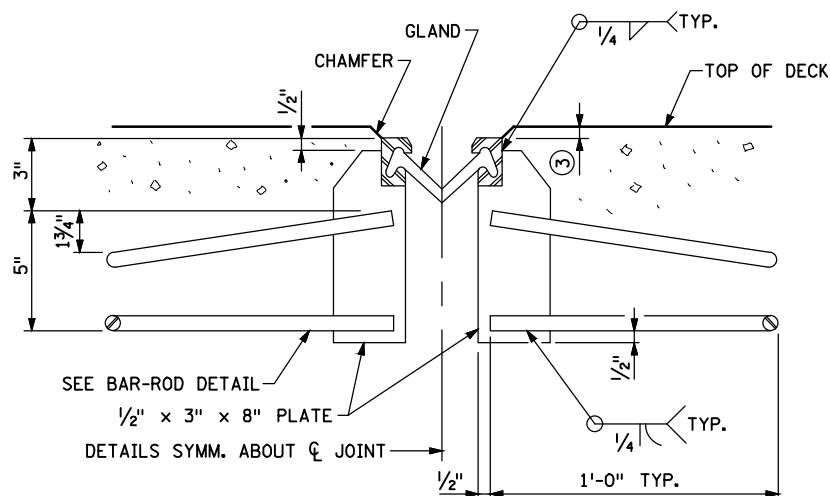
**BAR-ROD DETAIL**



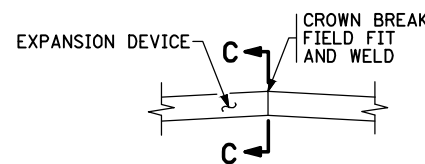
**BENT STUD DETAIL**



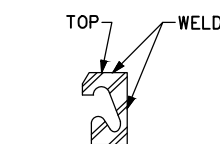
**PLAN VIEW OF EXPANSION DEVICE WITH STRAIGHT DEVICE**



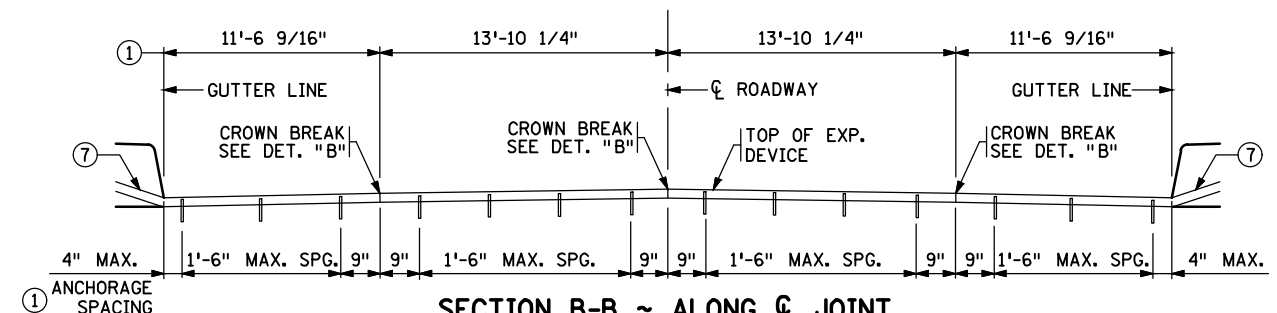
**SECTION A-A**



**DETAIL "B"**



**SECTION C-C**



**SECTION B-B ~ ALONG C JOINT**

### GENERAL NOTES

GALVANIZE STRUCTURAL STEEL AFTER FABRICATION PER SPEC. 3394. GALVANIZE FASTENERS PER SPEC. 3392.

LOCATE JOINTS IN EXTRUSION AT BREAKS IN TRANSVERSE PROFILE AND AS OTHERWISE REQUIRED, WITH CLOSE FIT, WELDED JOINTS. REPAIR AFTER WELDING PER SPEC. 2471.3.L.

PROVIDE STRUCTURAL STEEL PER SPEC. 3306 OR SPEC. 3309.

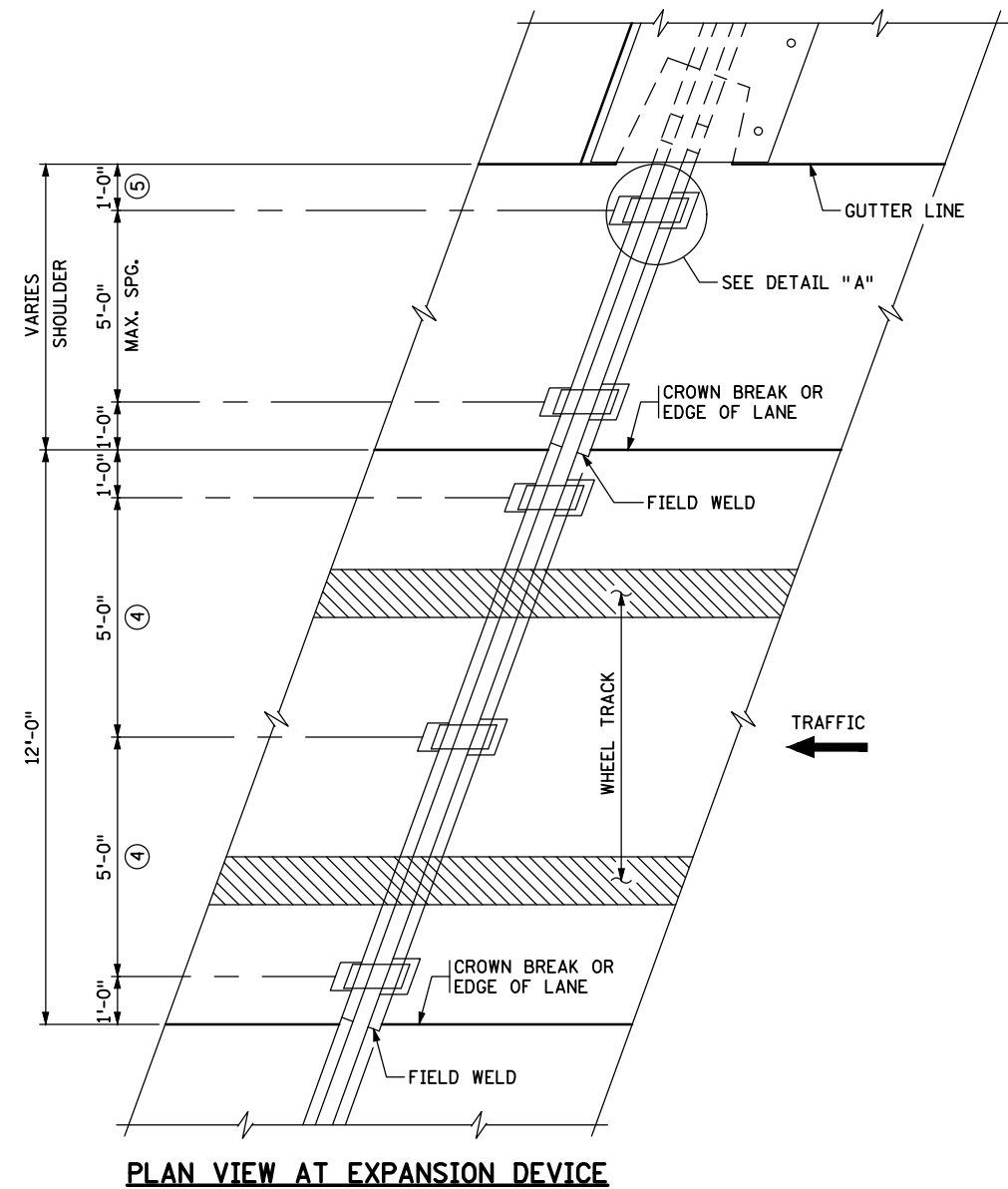
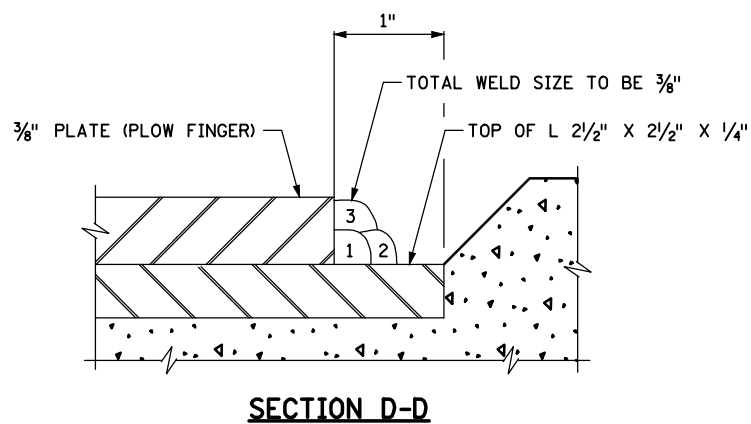
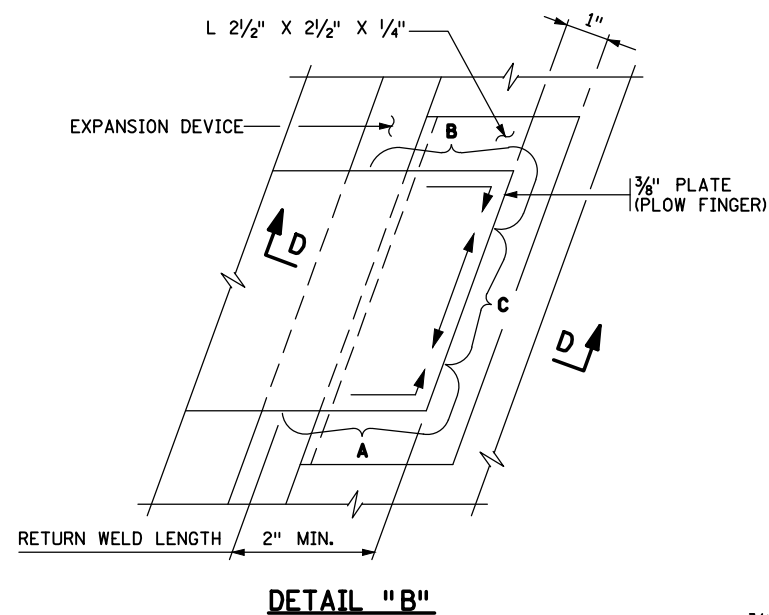
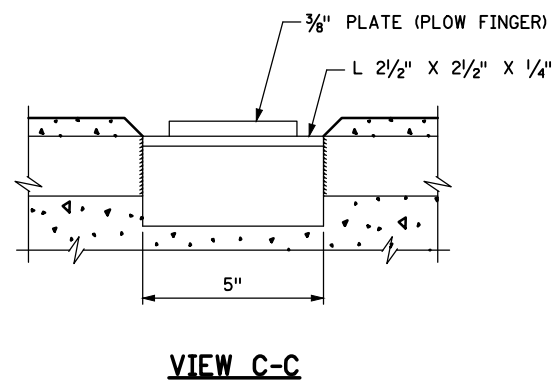
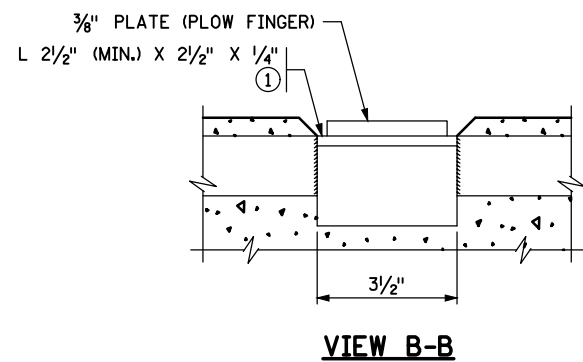
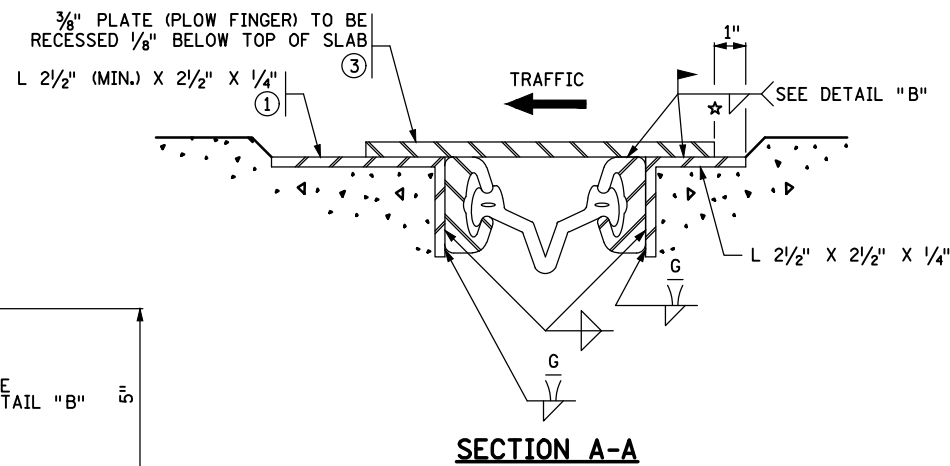
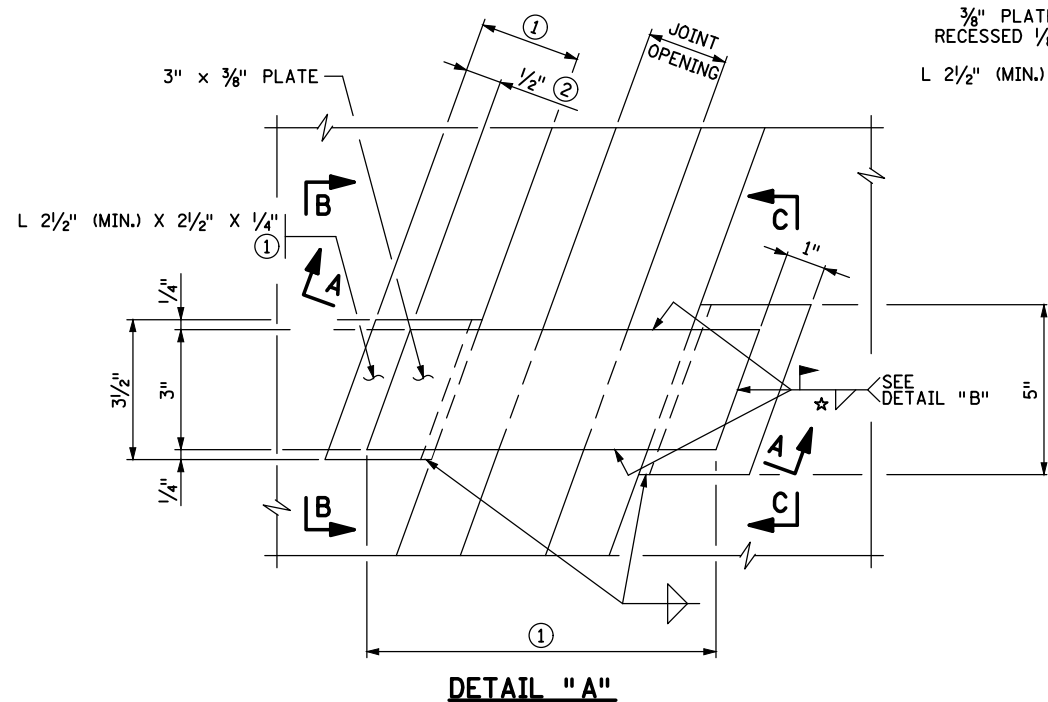
STRAIGHTEN EXPANSION DEVICE TO A TOLERANCE OF 1/8" IN 10 FT.

TRANSVERSE DECK REINFORCEMENT MAY BE SHIFTED THE MINIMUM DISTANCE REQUIRED FOR EXPANSION DEVICE PLACEMENT.

3/4" DIA. X 1/2" FLATHEAD CAP SCREW WITH 1/2" SQUARE OR HEX SOCKET PER SPEC 3391. COUNTERSINK CAP SCREWS 1/16" BELOW TOP OF PLATE. APPLY BRIDGE BEARING LUBRICANT PER MNDOT APPROVED PRODUCTS LIST TO SCREW THREADS. 9

PAYMENT LENGTH IS BASED ON THE HORIZONTAL DISTANCE BETWEEN THE OUTSIDE EDGES OF THE DECK MEASURED ALONG THE CENTERLINE OF JOINT.

- ① DIMENSIONS ARE ALONG CENTERLINE OF JOINT.
- ② 2" AT 45°F; 1/2" AT 90°F.
- ③ 1/2" (5/8" MAX.) WHEN SNOWPLOW FINGERS ARE USED. SNOWPLOW FINGERS ARE REQUIRED FOR SKEWS OVER 15° AND LESS THAN 50°.
- ④ SEE SUPERSTRUCTURE DETAILS FOR RADIUS.
- ⑤ SEE SHEET NO. 2 FOR DIRECTION OF TRAFFIC.
- ⑥ PLACE BAR-ROD NORMAL TO JOINT ON NEW BRIDGES AND JOINT REPLACEMENTS. ON JOINT REPLACEMENTS WHEN SKEW IS OVER 15° AND LESS THAN 50° BEND RODS PARALLEL TO C ROADWAY.
- ⑦ SEE SHEET 5-397.630 (B) MODIFIED FOR DETAILS AT SIDEWALK.
- ⑧ PROVIDE SMOOTH CONCRETE FINISH BENEATH PLATE WITH 0" MIN. TO 1/4" MAX. GAP BETWEEN CONCRETE AND UNDERSIDE OF PLATE. PROVIDE BOND BREAKER (DUCT TAPE, ETC.) TO UNDERSIDE OF COVER PLATE.
- ⑨ LUBRICANT PER MNDOT APPROVED/QUALIFIED PRODUCTS LIST: BRIDGE GREASE.
- ⑩ DIMENSIONS SHOWN ARE REQUIRED TO COMPLY WITH A.D.A. STANDARDS.



#### ☆ WELDING PROCEDURE FOR PLOW FINGERS

- ALL WELDING SHALL BE DONE WITH 1/8" DIAMETER LOW HYDROGEN SMAW ELECTRODES TYPE E7016 OR E7018.
- PRIOR TO WELDING, REMOVE THE GALVANIZED COATING IN THE WELD AREA BY GRINDING.
- WELD PASS ONE IN AREAS A AND B FIRST, THEN AREA C, FOLLOW WITH PASSES TWO AND THREE IN SAME ORDER, AS SHOWN IN DETAIL "B".
- REMOVE ALL WELD SLAG AND OTHER RESIDUE BETWEEN PASSES.
- ALLOW AT LEAST 5 MINUTES COOLING TIME BETWEEN EACH OF NINE WELD PASSES.

#### GENERAL NOTES

- DO NOT GALVANIZE PLOW FINGERS.
- VARIES WITH SKEW AND EXPANSION OPENING.
  - MINIMUM IN CLOSED POSITION.
  - EVERY SNOW PLOW FINGER SHALL HAVE FULL AND DIRECT BEARING ON THE PLATE THAT IS LOCATED UNDER THE MOVEMENT SIDE OF THE FINGER. NO CLICKING NOISE WILL BE ALLOWED.
  - MODIFY IF LANE WIDTH DIFFERS FROM 12 FT.
  - OMIT LAST PLOW FINGER ON DEVICE WITH CURVED END.

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LIC. NO. 13931

DES.: DSN  
CHK.: RLD  
DRN.: NBB  
CHK.: DSN

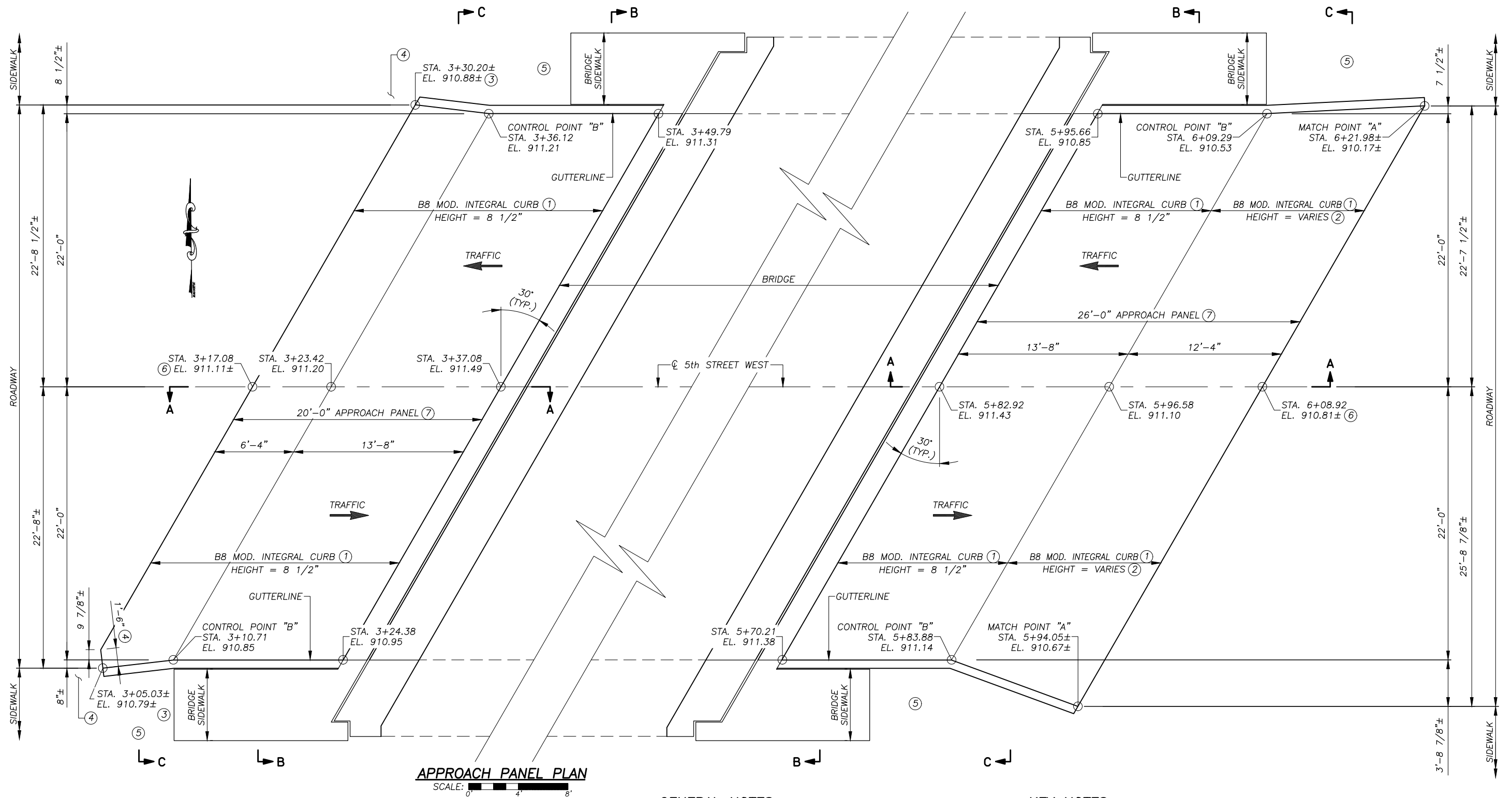
**ERICKSON ENGINEERING**  
WWW.ERICKSONENGINEERING.COM  
952-929-6791

**WATERPROOF EXPANSION DEVICE  
SNOW PLOW PROTECTION**  
(USE ON SKEWS OVER 15' AND LESS THAN 50')

CITY PROJECT NO. 2021STRT-B00  
Fifth Street Bridge 66505 Maintenance

**SHEET NO. 19 OF 24 SHEETS**

**BRIDGE NO.  
66505**



### GENERAL NOTES


ELEVATIONS SHOWN ARE BASED OFF MnDOT BENCHMARK "JENNA" AND ERICKSON ENGINEERING FIELD SURVEY (APRIL 2021).

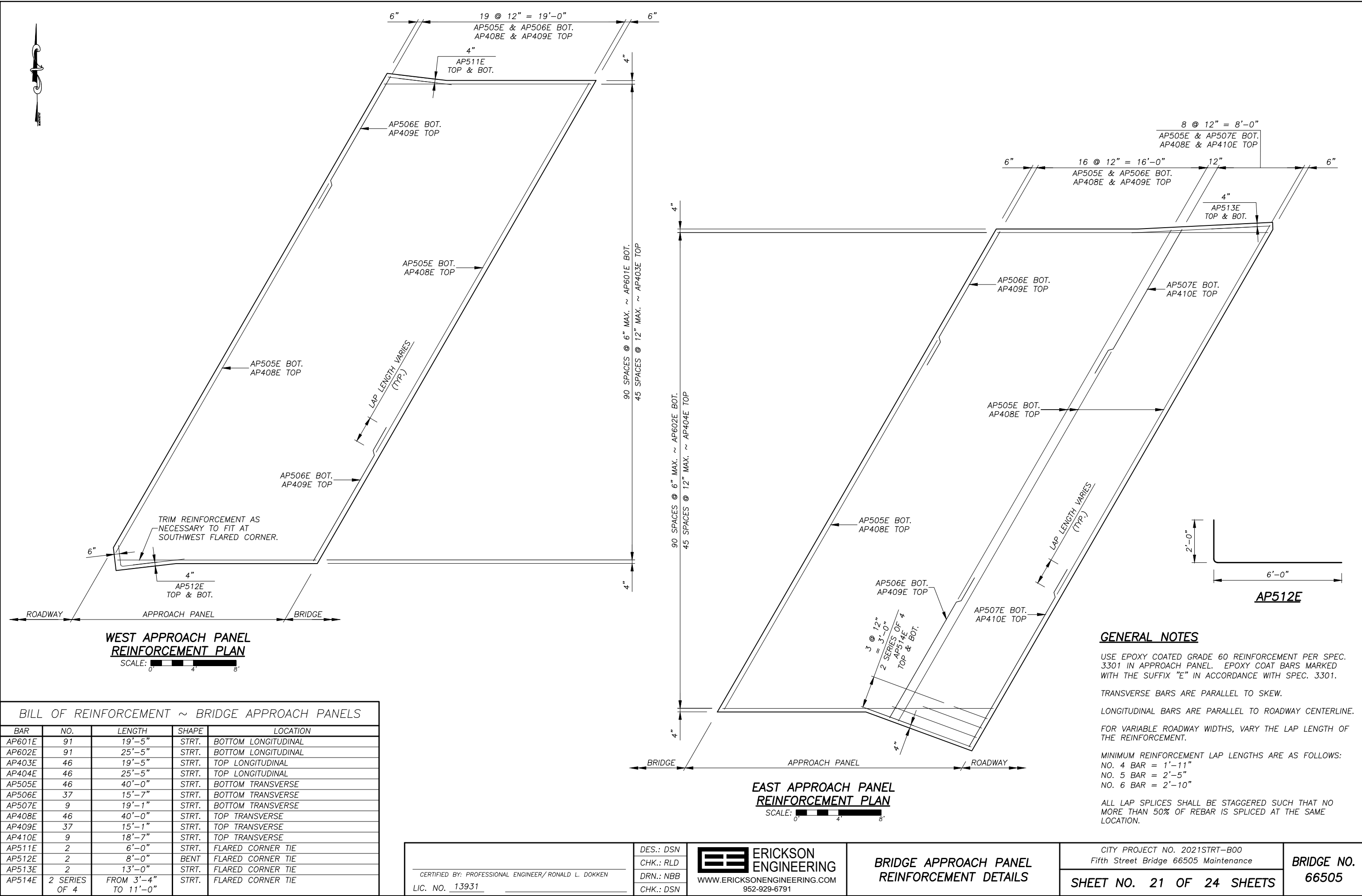
REFER TO SPEC. 2406 FOR ADDITIONAL INFORMATION.

SECTIONS A-A, B-B & C-C ARE SHOWN ON SHEET 22.

### KEY NOTES

- ① SEE STANDARD PLATES FOR CURB DETAILS.
- ② A UNIFORM CURB HEIGHT TRANSITION SHALL OCCUR BETWEEN MATCH POINT "A" & CONTROL POINT "B".
- ③ SEE SHEET 7 FOR ALIGNMENT DETAILS.
- ④ SEE SHEET 7 FOR CURB & GUTTER DETAILS.
- ⑤ SEE SHEET 7 FOR CONCRETE WALK DETAILS.
- ⑥ MATCH EXISTING ROADWAY.
- ⑦ APPROACH PANEL LENGTHS ARE MEASURED ALONG  $\phi$  ROADWAY.

CERTIFIED BY: PROFESSIONAL ENGINEER/ RONALD L. DOKKEN LIC. NO. 13931	DES.: DSN CHK.: RLD DRN.: NBB CHK.: DSN	 <b>ERICKSON ENGINEERING</b> WWW.ERICKSONENGINEERING.COM 952-929-6791	<b>BRIDGE APPROACH PANEL LAYOUTS</b>	CITY PROJECT NO. 2021STRT-B00 Fifth Street Bridge 66505 Maintenance <b>SHEET NO. 20 OF 24 SHEETS</b>	<b>BRIDGE NO. 66505</b>
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LONGITUDINAL SECTION A-A

TRANSVERSE SECTION B-B

TRANSVERSE SECTION C-C

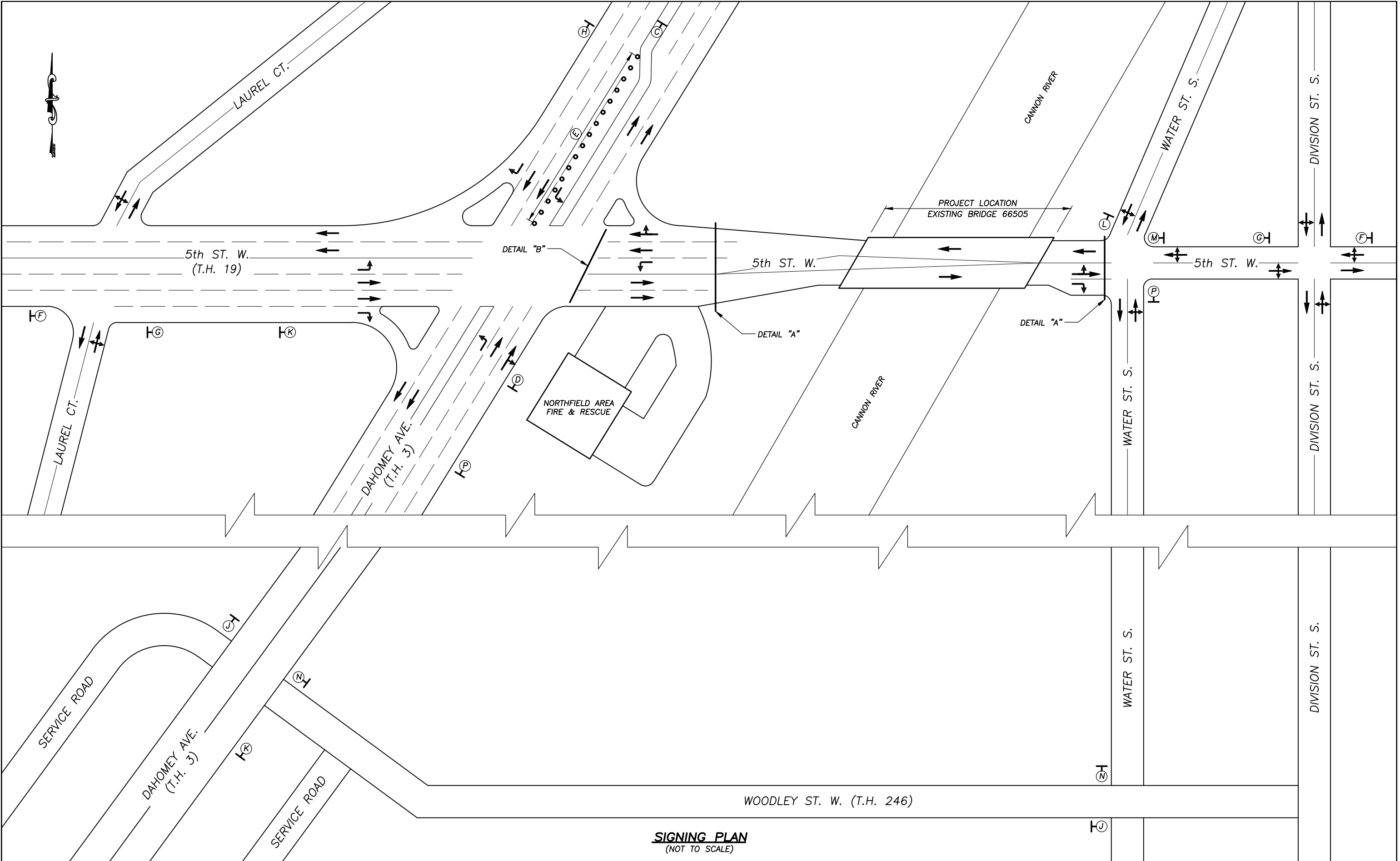
### APPROACH PANEL JOINT LAYOUT ⑤

### KEY NOTES:

- ① PLACE 12 MIL POLYETHYLENE SHEETING (OR 2 LAYERS OF 6 MIL) UNDER THE LIMITS OF THE APPROACH PANEL TO ALLOW THE PANEL TO MOVE LONGITUDINALLY ON THE GRADE. SHEETING IS INCLUDED IN THE APPROACH PANEL PAY ITEM.
- ② SEAL WITH SELF-LEVELING SILICONE PER SPEC. 3722.
- ③ C2H CONTRACTION JOINT.
- ④ L1TH LONGITUDINAL JOINT.
- ⑤ ALL JOINTS SHALL BE SAWCUT. SAWCUTS SHALL BE MADE WHILE THE CONCRETE IS STILL GREEN.
- ⑥ CLEAN AND DRY FULLY CURED JOINT FACES BY SANDBLASTING PRIOR TO SEALING THE JOINT.

## CURB DETAIL

DETAIL "F"



**SIGNING PLAN**  
(NOT TO SCALE)

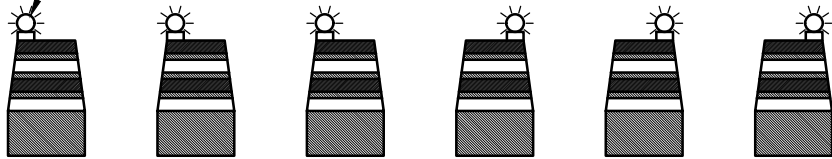
<div>CERTIFIED BY: PROFESSIONAL ENGINEER/ RONALD L. DOKKEN</div> <div>LIC. NO. 13931</div>	DES.: DSN	<div> ERICKSON ENGINEERING</div> <div>WWW.ERICKSONENGINEERING.COM</div> <div>952-929-6791</div>	TRAFFIC CONTROL	CITY PROJECT NO. 2021STRT-B00		BRIDGE NO. 66505
	CHK.: RLD			Fifth Street Bridge 66505 Maintenance		
	DRN.: NBB			SHEET NO. 23 OF 24 SHEETS		
	CHK.: DSN					



DETAIL "A"



WARNING LIGHT (TYPE C)  
ON PLASTIC DRUMS

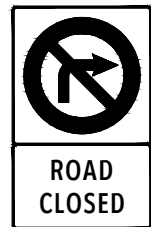


DETAIL "B"

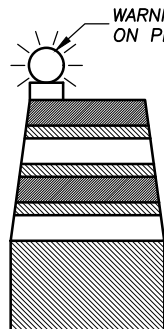
NOTE:  
FOR SETUP OF DETAIL "B", PLACE ONE BARRICADE  
ON EACH SIDE OF THE ROADWAY. PLACE PLASTIC  
DRUMS BETWEEN BARRICADES AT 8' MAX. SPACING.



DETAIL "C"



DETAIL "D"



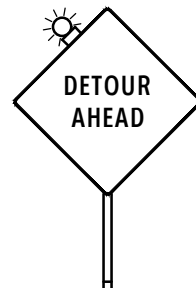
WARNING LIGHT (TYPE C)  
ON PLASTIC DRUMS ONLY

NOTE:  
PLACE PLASTIC DRUMS  
AT 8' MAX. SPACING.

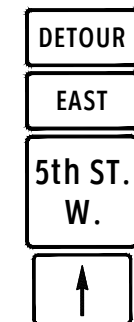
DETAIL "E"



DETAIL "F"



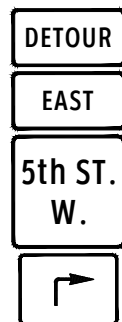
DETAIL "G"



DETAIL "H"



DETAIL "J"



DETAIL "K"



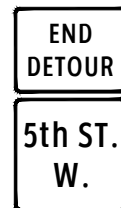
DETAIL "L"



DETAIL "M"



DETAIL "N"



DETAIL "P"

## TRAFFIC CONTROL DEVICES

ITEM	DESIGN NUMBER	F&I BY CONTRACTOR	SIZE	REMARKS
BARRICADES (TYPE III)		12	8' WIDE	
FLASHERS (TYPE A)		76		
PLASTIC DRUMS		66		
5th ST. W.	M1-X4	11	24" x 24"	LETTERING ~ BLACK ON WHITE
EAST	M3-2	5	24" x 12"	LETTERING ~ BLACK ON WHITE
WEST	M3-4	4	24" x 12"	LETTERING ~ BLACK ON WHITE
DETOUR	M4-8	9	24" x 12"	LETTERING ~ BLACK ON ORANGE
END DETOUR	M4-8a	2	24" x 18"	LETTERING ~ BLACK ON ORANGE
LEFT TURN ARROW	M5-1L	3	21" x 15"	LETTERING ~ BLACK ON WHITE
RIGHT TURN ARROW	M5-1R	4	21" x 15"	LETTERING ~ BLACK ON WHITE
ARROW (AHEAD)	M6-3	2	21" x 15"	LETTERING ~ BLACK ON WHITE
NO RIGHT TURN	R3-1	1	36" x 36"	LETTERING ~ BLACK & RED ON WHITE
NO LEFT TURN	R3-2	1	36" x 36"	LETTERING ~ BLACK & RED ON WHITE
ROAD CLOSED	R11-2M	2	36" x 24"	LETTERING ~ BLACK ON WHITE
BRIDGE CLOSED	R11-2M	2	48" x 30"	LETTERING ~ BLACK ON WHITE
ROAD CLOSED TO THRU TRAFFIC	R11-4	2	60" x 30"	LETTERING ~ BLACK ON WHITE
DETOUR AHEAD	W20-2	2	48" x 48"	LETTERING ~ BLACK ON ORANGE
ROAD CLOSED AHEAD	W20-3	2	48" x 48"	LETTERING ~ BLACK ON ORANGE
① ORANGE SAFETY FENCE				

### NOTES:

EXISTING ACCESS TO RESIDENCES SHALL BE MAINTAINED THROUGHOUT PROJECT DURATION.

ALL COSTS INCURRED FOR MATERIALS, INSTALLATION, MAINTENANCE, AND REMOVAL OF TRAFFIC CONTROL DEVICES AS SHOWN ON THIS SHEET AND RELATED WORK DURING CONSTRUCTION SHALL BE INCLUDED IN PRICE BID FOR ITEM "TRAFFIC CONTROL".

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

BARRICADE PLACEMENT TO BE DETERMINED IN THE FIELD SO AS NOT TO OBSTRUCT VISION TO OR FROM ROADWAY ENTRANCES.

EXACT LOCATION OF TRAFFIC CONTROL DEVICES TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE CONTRACTOR SHALL REMOVE, SALVAGE OR COVER & RESTORE AS APPROPRIATE, ALL EXISTING SIGNING THAT CONFLICTS WITH THIS TRAFFIC CONTROL PLAN TO THE SATISFACTION OF THE ENGINEER.

ALL INSTALLATIONS REQUIRING POSTS SHALL BE A "U" CHANNEL TYPE. MINIMUM WEIGHT PER FOOT - 2.75 lbs.

ALL TRAFFIC CONTROL DEVICES SHALL HAVE RETROREFLECTIVE SHEETING.

① THE USE OF TEMPORARY ORANGE CONSTRUCTION FENCING MAY BE REQUIRED BY THE ENGINEER TO COMPLETELY CLOSE OFF ANY SPECIFIC WORK AREA.