

N/A

8-10-26
DATE

Save: 8/7/2026 3:42 PM jasmuelson Plot: 8/10/2026 9:17 AM x:\AE\IC\GCOB\186553\5-final-dsgn\51-drawings\20-struct\plan shsC.1 ESTIMATED PROJECT QUANTITIES, GENERAL NOTES AND TABULATIONS.dwg

100_01A 7/15/97						
ESTIMATED PROJECT QUANTITIES						
Line No.	Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	0010	2101-0850001	CLEARING AND GRUBBING	ACRE	0.1	
2	0020	2102-2710080	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY	20	
3	0030	2115-0100000	MODIFIED SUBBASE	CY	20	
4	0040	2518-6910000	SAFETY CLOSURE	EACH	6	
5	0050	2528-8445110	TRAFFIC CONTROL	LS	1	
6	0060	2533-4980005	MOBILIZATION	LS	1	
7	0070	2599-9999005	12" DIAMETER TREATED TIMBER PILING	EACH	16	
8	0080	2599-9999005	TREATED TIMBER STRINGERS	EACH	17	
9	0090	2599-9999009	REMOVE EXISTING BRIDGE EDGE BOARDS AND RR TIES	LF	110	
10	0100	2599-9999009	TREATED TIMBER APPROACH RAIL	LF	124	
11	0110	2599-9999009	TREATED TIMBER BRIDGE RAIL	LF	220	
12	0120	2599-9999011	ABUTMENT REPAIR TIMBERS	MFBM	0.8	
13	0130	2599-9999011	PIER CAP REPAIR TIMBERS	MFBM	0.4	
14	0140	2599-9999018	6" TREATED LAMINATE TIMBER BRIDGE DECK - TRANSVERSE	SY	150	
15	0150	2602-0000020	SILT FENCE	LF	80	
16	0160	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF	80	
17	0170	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF	40	
18	0180	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	2	

100_17 8/15/22					
TABULATION OF SILT FENCES					
Refer to EC-201					
Line No.	Station From	Station To	Side	Length	Remarks
				(FT)	
1	1000+00.00	1000+16.00	RT	16.0	SW Wing - Eagle Ave Br
2	1000+00.00	1000+16.00	LT	16.0	NW Wing - Eagle Ave Br
3	1000+81.00	1000+97.00	RT	16.0	SE Wing - Eagle Ave Br
4	1000+81.00	1000+97.00	LT	16.0	NE Wing - Eagle Ave Br
5	2000+00.00	2000+16.00	RT	16.0	SW Wing - Finch Ave Br
6	2000+00.00	2000+16.00	LT	16.0	NW Wing - Finch Ave Br
7	2000+60.00	2000+76.00	RT	16.0	SE Wing - Finch Ave Br
8	2000+60.00	2000+76.00	LT	16.0	NE Wing - Finch Ave Br

- GENERAL NOTES:
- 1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES OUTSIDE THE CONSTRUCTION LIMITS RESULTING FROM THEIR NEGLIGENCE.
 - 2) CONTRACTOR SHALL PROTECT EXISTING FACILITIES, TREES, AND OTHER APPURTENANCES NOT TO BE REMOVED FROM THE SITE DURING THE CONSTRUCTION ACTIVITIES.
 - 3) CONTRACTOR SHALL CONFINE HIS WORK TO THE CONSTRUCTION LIMITS AND EASEMENTS. IF THE CONTRACTOR OBTAINS ADDITIONAL EASEMENTS FOR THE STORAGE OF EQUIPMENT AND MATERIALS, COPIES OF THE AGREEMENTS WITH THE PROPERTY OWNERS SHALL BE PROVIDED TO THE COUNTY.
 - 4) CONSTRUCTION STAKING PROVIDED BY THE OWNER SHALL INCLUDE PROJECT CONTROL POINTS ESTABLISHED PRIOR TO THE START OF THE PROJECT.

- TRAFFIC CONTROL NOTES:
- 1) PEDESTRIAN PATH CLOSURES SHALL BE ERECTED PRIOR TO CONSTRUCTION, AND MAINTAINED THROUGHOUT CONSTRUCTION. REFER TO TABULATION 113-2.

111_25 4/30/25			
INDEX OF TABULATIONS			
Line No.	Tabulation	Tabulation Title	Sheet No.
1	100-1A	ESTIMATED PROJECT QUANTITIES	C.1
2	100-04A	ESTIMATE REFERENCE INFORMATION	C.2
3	100-17	TABULATION OF SILT FENCES	C.1
4	105-4	STANDARDS	C.1
5	113-2	PEDESTRIAN PATH CLOSURES	C.1
6	111-25	INDEX OF TABULATIONS	C.1

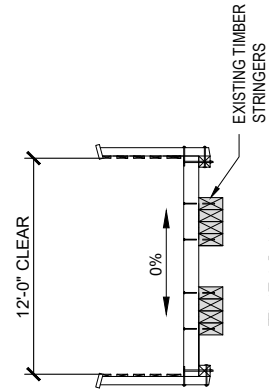
113_2 4/16/13			
PEDESTRIAN PATH CLOSURES			
Refer to TC-601			
*Assumes 6 foot wide barricade.			
Closures may need to be removed and re-established.			
Location	Side	Type III Barricades*, No.	Remarks
Trail Intersection - East of Eagle Avenue	L&R	1	
West of Trail Connection to Finch Avenue	L&R	1	
Sta. 1000 + 00.00	L&R	1	
Sta. 1000 + 97.00	L&R	1	
Sta. 2000 + 00.00	L&R	1	
Sta. 2000 + 76.00	L&R	1	

105_04 10/20/26		
STANDARDS		
The following Standards apply to construction work on this project.		
Number	Date	Title
EC-201	4/20/2021	Silt Fence
TC-001	10/15/2019	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-601	10/15/2019	Pedestrian Detour

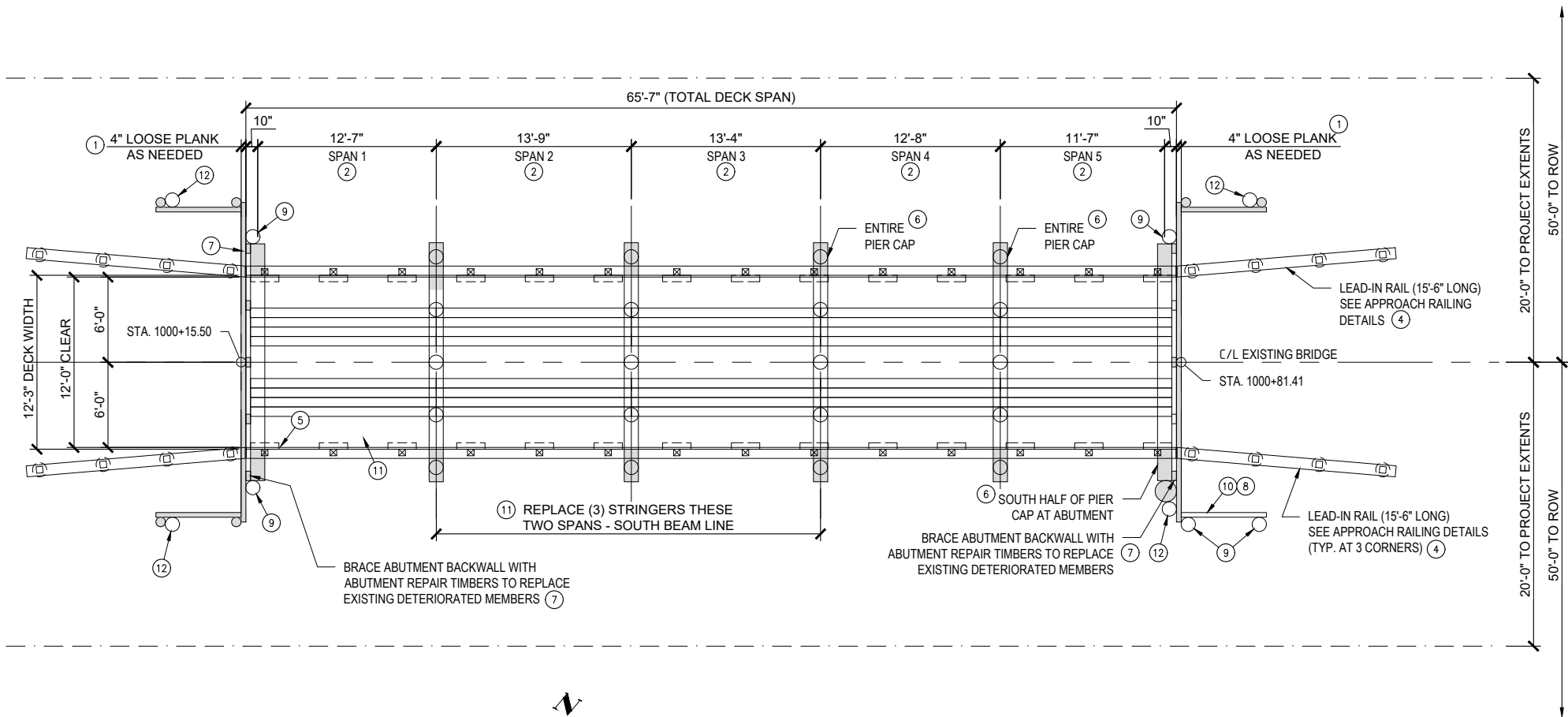
Save: 8/10/2026 9:13 AM jasmuelson Plot: 8/10/2026 9:17 AM x:\AE\ICGCCB\186553\5-final-dsgn\51-drawings\20-struct\plan.shx\C.2 ESTIMATE REFERENCE AND TABULATIONS.dwg

				100_04A
				6/2/23
ESTIMATE REFERENCE INFORMATION				
Line No.	Item No.	Item Code	Description	
1	0010	2101-0850001	CLEARING AND GRUBBING	
			Item is for material encroaching on trail requiring removal for access to bridge site and for vegetation behind and adjacent to wingwalls where repairs are designated. All material generated as the result of Clearing and Grubbing shall become the property of the contractor and must be disposed off site. All wood material must be disposed according to Iowa Department of Agriculture and Land Stewardship Emerald Ash Borer Quarantine Order. For more information see www.iowatreepests.com.	
2	0020	2102-2710080	EXCAVATION, CLASS 10, ROADWAY AND BORROW	
			Refer to IDOT Section 2102.Item is for new borrow material to provide infill material behind repaired wingwalls, for widening of the existing rail bed at each end of bridges to the outside end of approach rails.	
3	0030	2115-0100000	MODIFIED SUBBASE	
			Refer to IDOT Section 2115 and Typical Section on Sheet B.1.	
4	0040	2518-6910000	SAFETY CLOSURE	
			Refer to IDOT Section 2518 and Tabulation 113-2. Item is for Pedestrian Path Closures.	
5	0050	2528-8445110	TRAFFIC CONTROL	
			Refer to IDOT Section 2528.	
6	0060	2533-4980005	MOBILIZATION	
			Refer to IDOT Section 2533.	
7	0070	2599-9999005	12" DIAMETER TREATED TIMBER PILING	
			Refer to Construction Notes on Sheet C.1 and V sheets for details. Description: Item is for furnishing and installing treated timber piling adjacent to or in replacement of existing piles, including augering of new holes and concrete fill to grout the base of the piling. Materials: Pressure treated timber shall be in accordance with IDOT Section 2409, 4160, 4161, and 4163. See Sheets V.1 and V.2 for wood species. Timber piling shall be in accordance with Section 4165. Specification: Preservative treatment shall be in accordance with IDOT Section 4161 and installation of timber construction in accordance with IDOT Section 2409. Method of Measurement: Per each piling installed. Basis of Payment: Payment is full compensation for furnishing and installing treated timber pilings, including costs to remove existing deteriorated members and temporarily support wingwall timbers, costs to auger holes and furnish and place concrete fill to grout base of piling.	
8	0080	2599-9999005	TREATED TIMBER STRINGERS	
			Refer to Construction Notes on Sheet C.1 and V sheets for details. Description: Item is for furnishing and installing treated timber stringers to replace existing stringers as indicated on plans, including removing existing bolts and hardware to remove existing deteriorated members and reinstalling with existing or replacement hardware after installation of replacement stringers. Materials: Pressure treated timber shall be in accordance with IDOT Section 2409, 4160, 4161, and 4163. Steel and hardware material shall meet Sections 4152 and 4153. See Sheets V.1 and V.2 for wood species. Specification: Preservative treatment shall be in accordance with IDOT Section 4161 and installation of timber construction in accordance with IDOT Section 2409. Method of Measurement: Per each stringer measured as one timber stringer element over one span. Basis of Payment: Payment is full compensation for furnishing and installing treated timber stringers, including costs to remove existing deteriorated members and provide temporary support for adjacent elements during the progress of work.	
9	0090	2599-9999009	REMOVE EXISTING BRIDGE EDGE BOARDS AND RR TIES	
			Refer to Construction Notes on Sheet C.1 and V sheets for details. Description: Item is for removal of exisiting bridge edge boards and all railroad ties, including attachment hardware. Materials: Not Applicable to removals. Specification: All work required for removal of existing bridge members shall be in accordance with IDOT Section 2401. Method of Measurement: Per linear foot of bridge. Basis of Payment: Payment is full compensation for removal and disposal of treated timber boards and RR ties, including all attachment hardware.	
10	0100	2599-9999009	TREATED TIMBER APPROACH RAIL	
			Refer to Construction Notes on Sheet C.1 and V sheets for details. Description: Item is for furnishing and installing treated timber approach rail system in accordance with the construction plans. Materials: Pressure treated timber shall be in accordance with IDOT Section 2409, 4160, 4161, and 4163. Posts shall be in accordance with Section 4164. Steel and hardware material shall meet Sections 4152 and 4153. See Sheets V.1 and V.2 for wood species. Specification: Preservative treatment shall be in accordance with IDOT Section 4161 and installation of timber construction in accordance with IDOT Section 2409. Method of Measurement: Per linear foot of timber approach rail installed. Basis of Payment: Payment is full compensation for furnishing and installing treated timber approach rails including excavation work, furnishing and installing PVC pipe, geotextile fabric, and crushed stone.	
11	0110	2599-9999009	TREATED TIMBER BRIDGE RAIL	
			Refer to Construction Notes on Sheet C.1 and V sheets for details. Description: Item is for furnishing and installing treated timber bridge rail system in accordance with the construction plans. Materials: Pressure treated timber shall be in accordance with IDOT Section 2409, 4160, 4161, and 4163. Posts shall be in accordance with Section 4164. Steel and hardware material shall meet Sections 4152 and 4153. See Sheets V.1 and V.2 for wood species. Specification: Preservative treatment shall be in accordance with IDOT Section 4161 and installation of timber construction in accordance with IDOT Section 2409. Method of Measurement: Per linear foot of treated timber bridge rail installed. Basis of Payment: Payment is full compensation for furnishing and installing treated timber bridge rail system, including all attachment hardware.	
12	0120	2599-9999011	ABUTMENT REPAIR TIMBERS	
			Refer to Construction Notes on Sheet C.1 and V sheets for details. Description: Item is for furnishing and installing new timbers at the top of each abutment and wingwall to replace deteriorated members and to extend the height of the structure for additional soil retention in accordance with the construction plans. Also includes furnishing and installing tieback anchors for abutment wingwalls as indicated on plans. Materials: Pressure treated timber shall be in accordance with IDOT Section 2409, 4160, 4161, and 4163. Steel and hardware material shall meet Sections 4152 and 4153. See Sheets V.1 and V.2 for wood species. Specification: Preservative treatment shall be in accordance with IDOT Section 4161 and installation of timber construction in accordance with IDOT Section 2409. Method of Measurement: Per Thousand Board Feet of abutment repair timbers installed. Basis of Payment: Payment is full compensation for furnishing and installing new timbers at the top of each abutment including all material and hardware required for installation. Final amount of required material to extend abutment and provide replacement of existing deteriorated members shall be as directed by the engineer.	
13	0130	2599-9999011	PIER CAP REPAIR TIMBERS	
			Refer to Construction Notes on Sheet C.1 and V sheets for details. Description: Item is for furnishing and installing new pier cap repair timbers in accordance with the construction plans. Materials: Pressure treated timber shall be in accordance with IDOT Section 2409, 4160, 4161, and 4163. Steel and hardware material shall meet Sections 4152 and 4153. See Sheets V.1 and V.2 for wood species. Specification: Preservative treatment shall be in accordance with IDOT Section 4161 and installation of timber construction in accordance with IDOT Section 2409. Method of Measurement: Per Thousand Board Feet of pier cap repair timbers installed. Basis of Payment: Payment is full compensation for furnishing and installing new pier cap repair timbers at locations designated on the plan and as directed by the engineer, including all material and hardware required for installation. Final amount of required material to provide repair of existing deteriorated members shall be as directed by the engineer.	
14	0140	2599-9999018	6" TREATED LAMINATE TIMBER BRIDGE DECK - TRANSVERSE	
			Refer to Construction Notes on Sheet C.1 and V sheets for details. Description: Item is for furnishing and installing engineered laminate deck system in accordance with the construction plans. Materials: Pressure treated timber shall be in accordance with IDOT Section 2409, 4160, 4161, and 4163. Steel and hardware material shall meet Sections 4152 and 4153. See Sheets V.1 and V.2 for wood species. Specification: Preservative treatment shall be in accordance with IDOT Section 4161 and installation of timber construction in accordance with IDOT Section 2409. Method of Measurement: Per square yard of 6" treated laminate timber bridge deck installed. Measurement will be to the outside of continuous deck. Contractor shall field verify bridge overall length before ordering material. Basis of Payment: Payment is full compensation for furnishing and installing 6" treated laminate timber bridge deck system including cost to install dekcing, hardware, falsework, and all other material required for installation of the deck system.	
15	0150	2602-0000020	SILT FENCE	
			Refer to Tabulation 100-17	
16	0160	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	
			Refer to Tabulation 100-17	
17	0170	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	
			Refer to Tabulation 100-17	
18	0180	2602-0010010	MOBILIZATIONS, EROSION CONTROL	
			Refer to Tabulation 100-17	

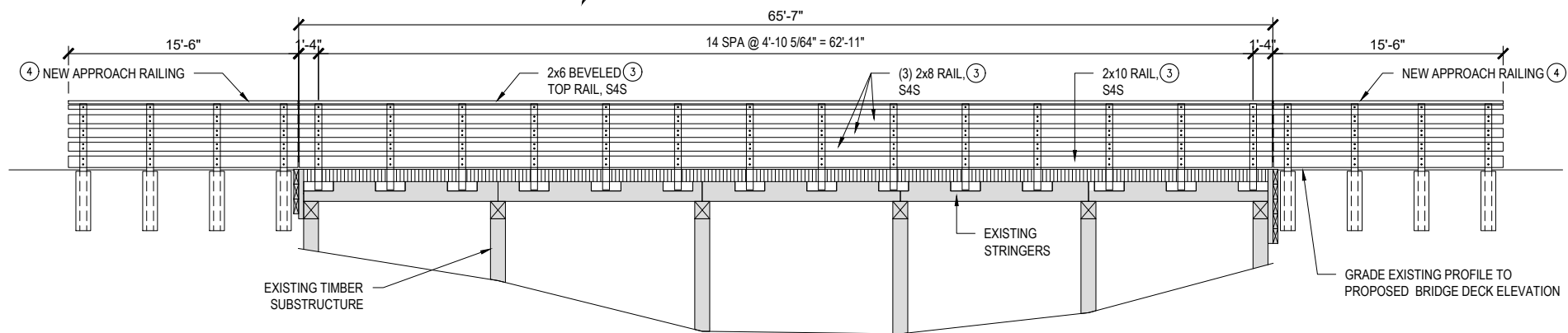
Save: 8/3/2026 5:00 PM jasmunselon Plot: 8/10/2026 9:17 AM x:\AE\IC\GCCB\186553\5-final-dsgn\5-1-drawings\20-struct\plan shs\V.1 SITUATION PLAN - EAGLE AVENUE BRIDGE.dwg



TYPICAL
CROSS SECTION



SITUATION PLAN



LONGITUDINAL SECTION ALONG CENTERLINE TRAIL

GENERAL NOTES

ALL DIMENSIONS ARE IN FEET / FEET - INCHES UNLESS OTHERWISE NOTED.

ALL SAWCUTS, HOLES, AND ABRASIONS SHALL BE FIELD TREATED WITH TWO APPLICATIONS OF A 2% SOLUTION OF COPPER NAPHTHENATE.

THERE SHALL BE NO PROJECTIONS GREATER THAN $\frac{3}{8}$ " ON TIMBER DECK SURFACE.

BEAM TYPE - NEW LONGITUDINAL DECK PANELS.

NO WORK IN CHANNEL - NO DNR OR ARMY CORPS OF ENGINEERS PERMIT IS REQUIRED.

NOTES

- ATTACH 2" LOOSE FILLER PLANKS AS NEEDED IN THE FIELD TO PROVIDE REQUIRED BRIDGE LENGTH. FASTEN WITH $\frac{3}{8}$ " x 11" R.S. NAILS AT 12" CENTERS. PIER SPACING DIMENSIONED ON PLAN IS APPROXIMATE ONLY.
- 6" TRANSVERSE DECK PANEL ASSEMBLED PANELS ON BRIDGE CANNOT EXCEED OUT TO OUT OF DECK DIMENSIONS. (SEE NOTE 1).
- RAILING AND RAIL CAP ARE IN STANDARD LENGTHS AND WILL REQUIRE FIELD TRIMMING. SPLICES SHALL BE STAGGERED. SEE RAIL CONNECTION DETAIL AND RAIL SPLICE DETAIL FOR MORE INFORMATION.
- SEE APPROACH RAILING DETAILS ON SHEET V.4.
- FIELD PLACE BRIDGE NAME PLATE/LOAD LIMIT PLATE AT EACH END OF BRIDGE. PLATE SHALL STATE "10 TON VEHICLE LOAD LIMIT". INCREASED VEHICLE LOAD PROVIDED TO ALLOW USE OF BRIDGE DURING CONSTRUCTION FOR HAULING TRAIL SURFACE MATERIAL.
- TEMPORARILY SHORE EXISTING STRINGERS AND CUT TOP OF PIER CAP DOWN BY 8 INCHES AND INSTALL NEW 8x12 TIMBER TO TOP OF PIER CAP - SEE DETAILS. PAID AS: 'PIER CAP REPAIR TIMBERS'.
- PROVIDE APPROXIMATE 4" ROUGH CUT TIMBERS TO REPLACE BACKWALL AND REPLACE VERTICAL BRACES AS NEEDED IN THE FIELD TO PROVIDE REQUIRED ABUTMENT HEIGHT EQUAL TO BRIDGE DECK ELEVATION. PAID AS: 'ABUTMENT REPAIR TIMBERS'.
- REMOVE REMNANTS OF ORIGINAL WINGWALL AND FORMER APPARENT REPAIR MEASURES PARALLEL TO TRAIL.
- REPLACE EXISTING POST ADJACENT TO ABUTMENT OR ADD NEW POST TO RECONSTRUCT WINGWALL. PAID AS: '12" DIA. TREATED TIMBER PILING'.
- RECONSTRUCT ABUTMENT WING WALL USING EXISTING TIMBERS AND (4) ROUGH CUT 4x12x8'-0" LONG HORIZONTAL TIMBERS. PAID AS: 'ABUTMENT REPAIR TIMBERS'.
- REPLACE TIMBER STRINGER WHERE EXISTING BEAM DETERIORATION WARRANTS REINFORCEMENT - PER ENGINEER DIRECTION. PROVIDE FOURTEEN REPLACEMENT STRINGERS FOR THIS BRIDGE. PAID AS: 'TREATED TIMBER STRINGERS'.
- ADD SUPPLEMENTAL POST ADJACENT TO EXISTING POST AT ABUTMENT WING. PAID AS: '12" DIA. TREATED TIMBER PILING'.



APPROXIMATE PROFILE DATA

ADJUST APPROX. PROFILE AT EACH
END OF BRIDGE TO MATCH BRIDGE
DECK ELEVATION

HYDRAULIC DATA

NOT APPLICABLE - NO WORK IN CHANNEL

UTILITIES

NONE IDENTIFIED.

LOCATION

APPROX. 0.4 MILES NORTH OF 110TH STREET
AND 0.2 MILES EAST OF EAGLE AVENUE
ALONG PRAIRIE LANDS TRAIL
CERRO GORDO COUNTY, IOWA

DESIGN DATA

2020 AND CURRENT INTERIM A.A.S.H.T.O. LRFD BRIDGE DESIGN SPECIFICATIONS AND 2009 LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES.

LOAD AND RESISTANCE FACTOR DESIGN METHOD.

DESIGN LOADING: PEDESTRIAN LOADING 90 PSF OR 20,000 POUND VEHICLE LIVE LOAD (H10 TRUCK).

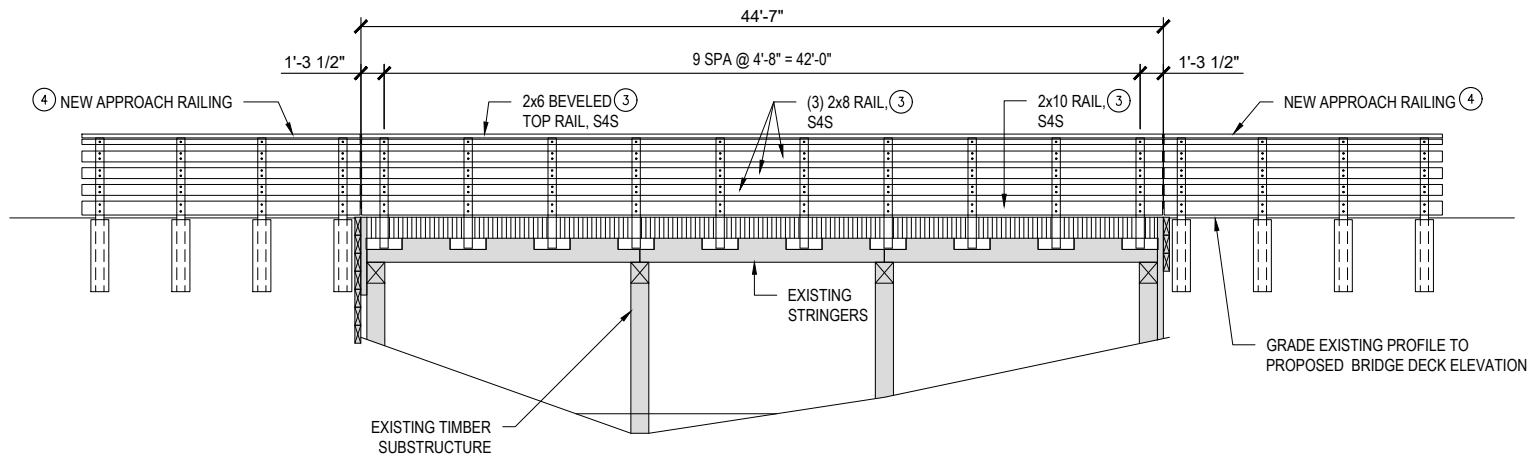
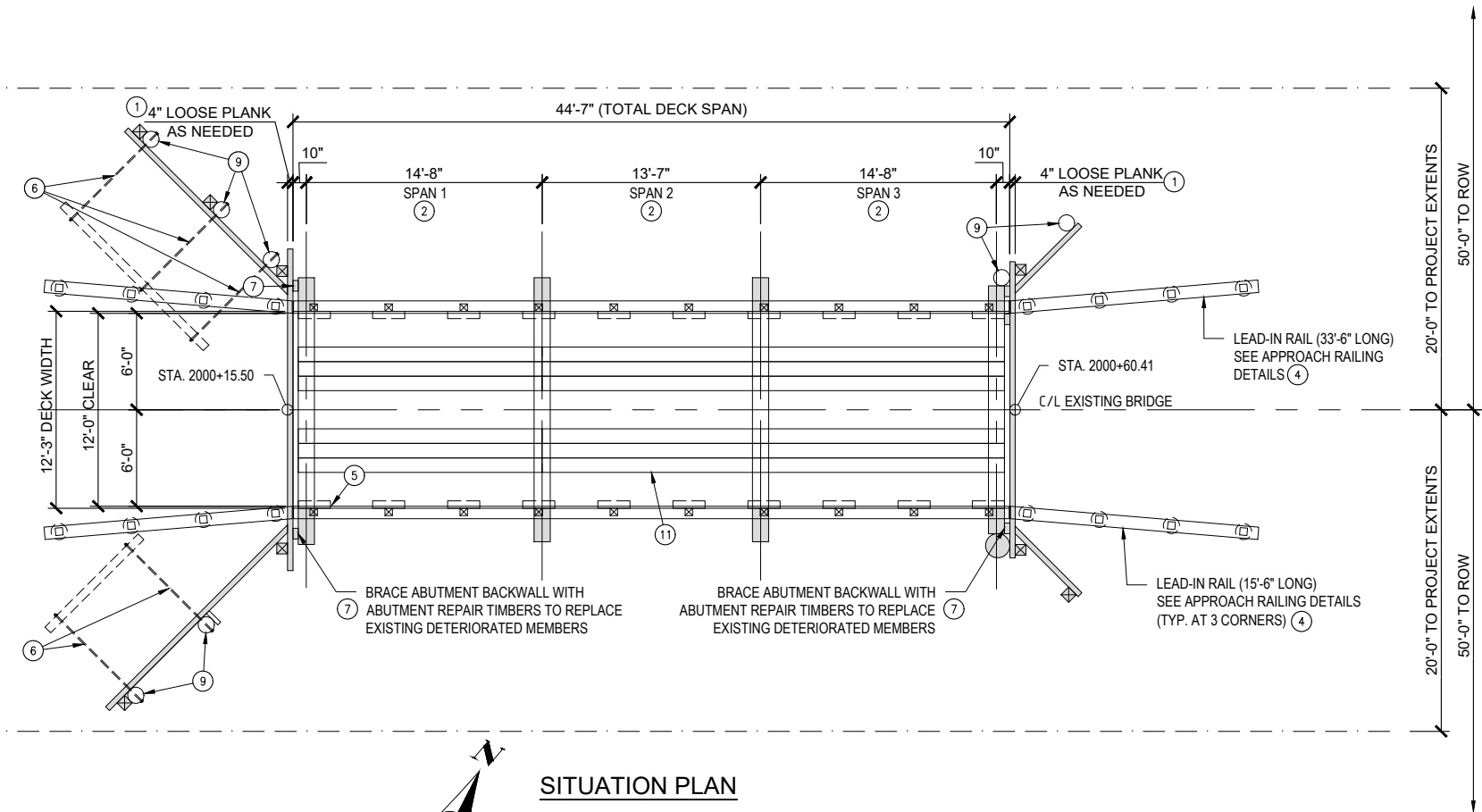
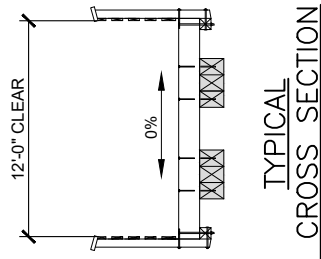
VERIFY ALL DECK AREA.

TIMBER MATERIAL INSTALLED SHALL COMPLY WITH OR EXCEED THE FOLLOWING SCHEDULE:

ITEM	DESCRIPTION
ABUTMENT TIMBER & DECK NAILERS	DOUGLAS FIR, NO. 1 & BETTER, ROUGH SAWN Fb=925 PSI
DECK BOARDS & DECK PANELS	DOUGLAS FIR, NO. 1 & BETTER, S1S2E Fb=1,150 PSI
RAIL POST & RAIL	SOUTHERN YELLOW PINE, NO. 2 OR BETTER, S4S Fb=850 PSI
RAIL POST BLOCK TIMBER TIE	SOUTHERN YELLOW PINE, NO. 2 OR BETTER, ROUGH SAWN Fb=850 PSI

THE WOOD SPECIES INDICATED IN THE DESIGN DATA TABLE OF SHEETS V.1 AND V.2 ARE INTENDED TO REFLECT MINIMUM MATERIAL REQUIREMENTS. AN ALTERNATE WOOD SPECIES AND GRADE MEETING IOWA DOT SECTION 2409 AND 4163 REQUIREMENTS MAY BE SUBSTITUTED PROVIDED THE SPECIFIED MINIMUM ALLOWABLE FLEXURAL STRENGTH AND SURFACE FINISH REQUIREMENTS ARE MET OR EXCEEDED. PRESERVATIVE TREATMENT SHALL MEET THE REQUIREMENTS OF IDOT SECTION 4160 AND 4161.

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GENERAL NOTES

ALL DIMENSIONS ARE IN FEET / FEET - INCHES UNLESS OTHERWISE NOTED.

ALL SAWCUTS, HOLES, AND ABRASIONS SHALL BE FIELD TREATED WITH TWO APPLICATIONS OF A 2% SOLUTION OF COPPER NAPHTHENATE.

THERE SHALL BE NO PROJECTIONS GREATER THAN $\frac{3}{8}$ " ON TIMBER DECK SURFACE.

BEAM TYPE - NEW LONGITUDINAL DECK PANELS.

NO WORK IN CHANNEL - NO DNR OR ARMY CORPS OF ENGINEERS PERMIT IS REQUIRED.

NOTES

- ATTACH 2" LOOSE FILLER PLANKS AS NEEDED IN THE FIELD TO PROVIDE REQUIRED BRIDGE LENGTH. FASTEN WITH $\frac{3}{8}$ " x 11" R.S. NAILS AT 12" CENTERS. PIER SPACING DIMENSIONED ON PLAN IS APPROXIMATE ONLY.
- 6" TRANSVERSE DECK PANEL ASSEMBLED PANELS ON BRIDGE CANNOT EXCEED OUT TO OUT OF DECK DIMENSIONS. (SEE NOTE 1).
- RAILING AND RAIL CAP ARE IN STANDARD LENGTHS AND WILL REQUIRE FIELD TRIMMING, SPLICES SHALL BE STAGGERED. SEE RAIL CONNECTION DETAIL AND RAIL SPLICE DETAIL FOR MORE INFORMATION.
- SEE APPROACH RAILING DETAILS ON SHEET V.4.
- FIELD PLACE BRIDGE NAME PLATE/LOAD LIMIT PLATE AT EACH END OF BRIDGE. PLATE SHALL STATE "10 TON VEHICLE LOAD LIMIT". INCREASED VEHICLE LOAD PROVIDED TO ALLOW USE OF BRIDGE DURING CONSTRUCTION FOR HAULING TRAIL SURFACE MATERIAL.
- AFTER RESTORING WINGWALL TO GENERALLY PLUMB CONDITION AND INSTALLING 12" TREATED TIMBER PILING AT FRONT FACE OF WING, INSTALL 1" DIA GALV ROD THROUGH PILING BACK TO 8X8 TIMBER ANCHOR. PAID AS: 'ABUTMENT REPAIR TIMBERS'.
- PROVIDE APPROXIMATE 4" ROUGH CUT TIMBERS TO REPLACE BACKWALL AND REPLACE VERTICAL BRACES AS NEEDED IN THE FIELD TO PROVIDE REQUIRED ABUTMENT HEIGHT EQUAL TO BRIDGE DECK ELEVATION. PAID AS: 'ABUTMENT REPAIR TIMBERS'.
- REMOVE REMNANTS OF ORIGINAL WINGWALL AND FORMER APPARENT REPAIR MEASURES PARALLEL TO TRAIL.
- ADD NEW POSTS TO RECONSTRUCT WINGWALL. PAID AS: '12" DIA. TREATED TIMBER PILING'.
- RECONSTRUCT ABUTMENT WING WALL USING EXISTING TIMBERS AND (4) ROUGH CUT 4x12x8'-0" LONG HORIZONTAL TIMBERS. PAID AS: 'ABUTMENT REPAIR TIMBERS'.
- REPLACE TIMBER STRINGER WHERE EXISTING BEAM DETERIORATION WARRANTS REINFORCEMENT - PER ENGINEER DIRECTION. PROVIDE THREE REPLACEMENT STRINGERS FOR THIS BRIDGE. PAID AS: 'TREATED TIMBER STRINGERS'.
- ADD SUPPLEMENTAL POST ADJACENT TO EXISTING POST AT ABUTMENT WING. PAID AS: '12" DIA. TREATED TIMBER PILING'.



APPROXIMATE PROFILE DATA

ADJUST APPROX. PROFILE AT EACH END OF BRIDGE TO MATCH BRIDGE DECK ELEVATION

HYDRAULIC DATA

NOT APPLICABLE - NO WORK IN CHANNEL

UTILITIES

NONE IDENTIFIED.

LOCATION

APPROX. 0.6 MILES NORTH OF 110TH STREET AND 0.5 MILES WEST OF FINCH AVENUE ALONG PRAIRIE LANDS TRAIL CERRO GORDO COUNTY, IOWA

DESIGN DATA

2020 AND CURRENT INTERIM A.A.S.H.T.O. LRFD BRIDGE DESIGN SPECIFICATIONS AND 2009 LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES.

LOAD AND RESISTANCE FACTOR DESIGN METHOD.

DESIGN LOADING: PEDESTRIAN LOADING 90 PSF OR 20,000 POUND VEHICLE LIVE LOAD (H10 TRUCK).

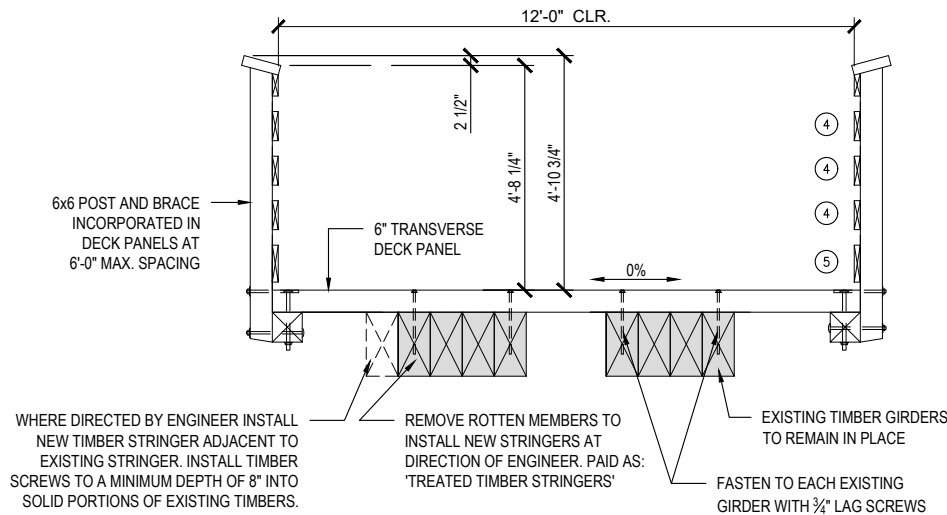
VERIFY ALL DECK AREA.

TIMBER MATERIAL INSTALLED SHALL COMPLY WITH OR EXCEED THE FOLLOWING SCHEDULE:

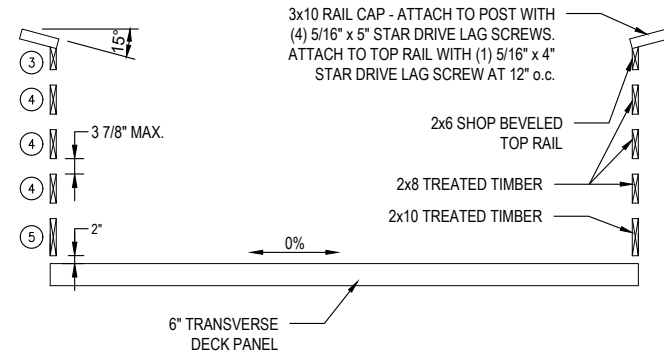
ITEM	DESCRIPTION
ABUTMENT TIMBER & DECK NAILERS	DOUGLAS FIR, NO. 1 & BETTER, ROUGH SAWN Fb=925 PSI
DECK BOARDS & DECK PANELS	DOUGLAS FIR, NO. 1 & BETTER, S1S2E Fb=1,150 PSI
RAIL POST & RAIL	SOUTHERN YELLOW PINE, NO. 2 OR BETTER, S4S Fb=850 PSI
RAIL POST BLOCK TIMBER TIE	SOUTHERN YELLOW PINE, NO. 2 OR BETTER, ROUGH SAWN Fb=850 PSI

THE WOOD SPECIES INDICATED IN THE DESIGN DATA TABLE OF SHEETS V.1 AND V.2 ARE INTENDED TO REFLECT MINIMUM MATERIAL REQUIREMENTS. AN ALTERNATE WOOD SPECIES AND GRADE MEETING IOWA DOT SECTION 2409 AND 4163 REQUIREMENTS MAY BE SUBSTITUTED PROVIDED THE SPECIFIED MINIMUM ALLOWABLE FLEXURAL STRENGTH AND SURFACE FINISH REQUIREMENTS ARE MET OR EXCEEDED. PRESERVATIVE TREATMENT SHALL MEET THE REQUIREMENTS OF IDOT SECTION 4160 AND 4161.

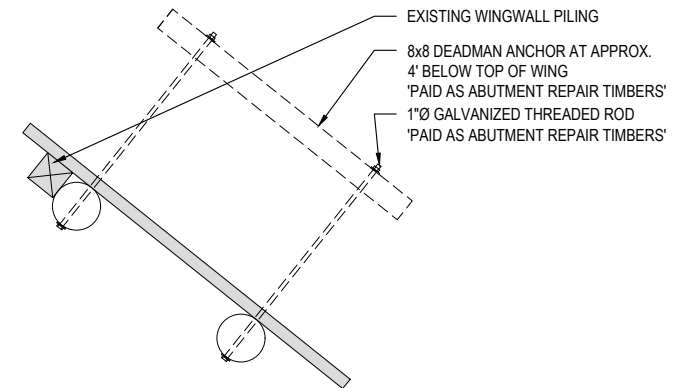
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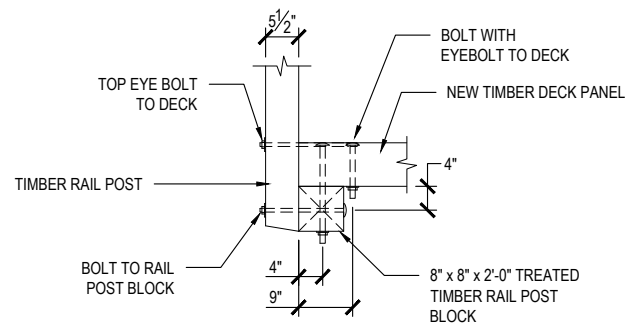
1 RAILING SECTION AT POST CONNECTION
ORIGINAL SCALE: 1/2" = 1'-0"



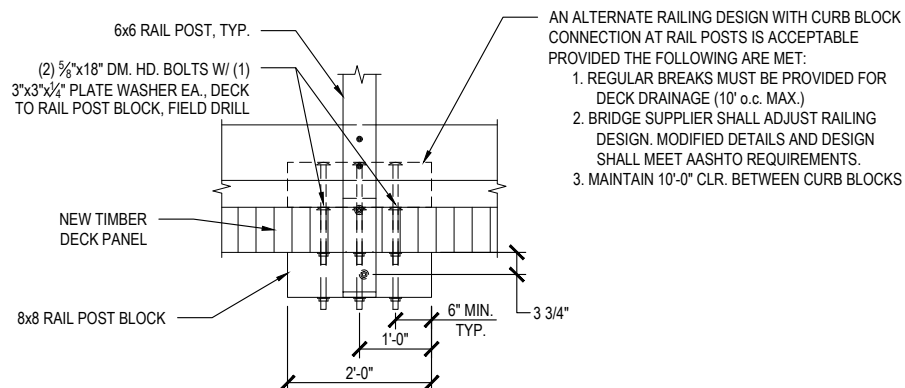
2 RAILING SECTION BETWEEN POSTS
ORIGINAL SCALE: 1/2" = 1'-0"



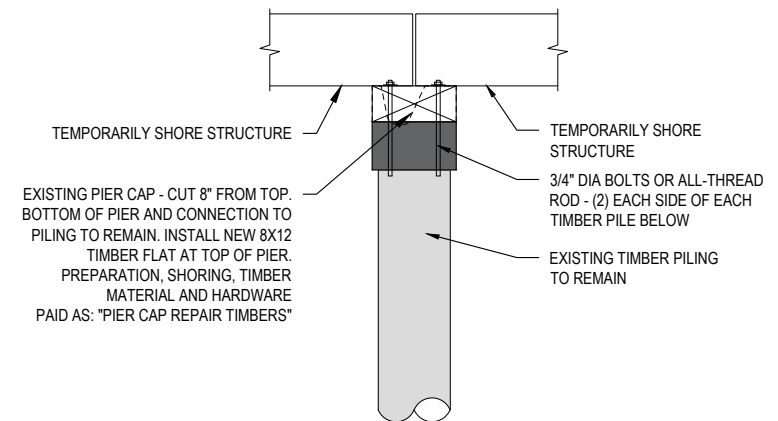
7 ABUTMENT/WINGWALL REPAIR DETAIL
ORIGINAL SCALE: 1/2" = 1'-0"



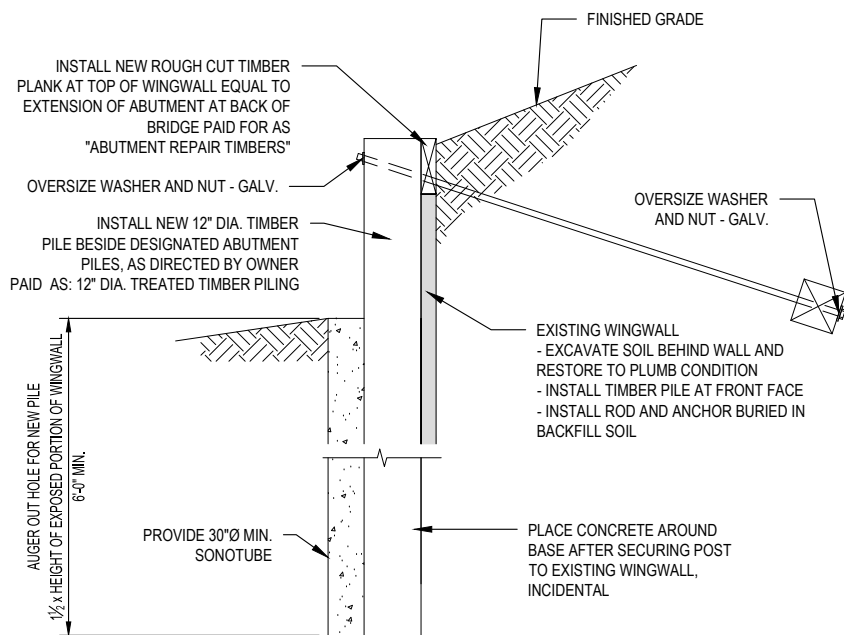
3 RAILING CONNECTION DETAIL
ORIGINAL SCALE: 3/4" = 1'-0"



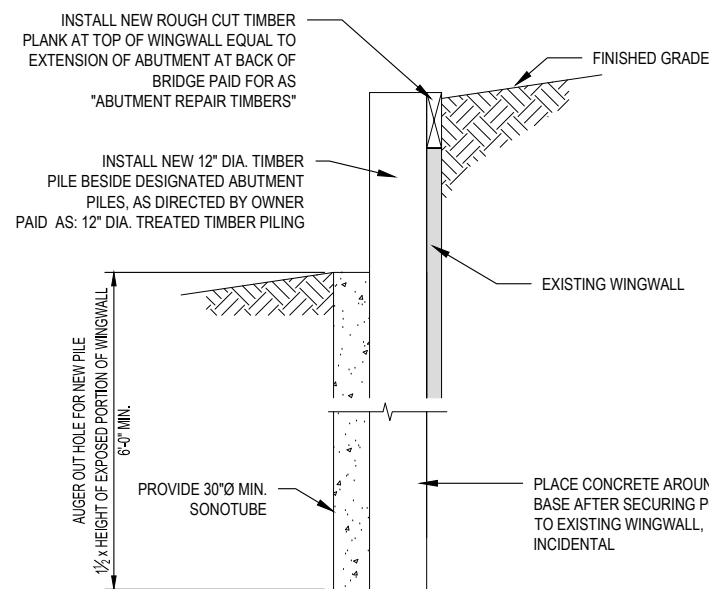
4 RAILING CONNECTION DETAIL
ORIGINAL SCALE: 3/4" = 1'-0"



8 PIER CAP REPAIR DETAIL
ORIGINAL SCALE: 1/2" = 1'-0"



5 SISTERED/REPLACEMENT POST DETAIL (WITH SOIL ANCHOR)
ORIGINAL SCALE: 3/4" = 1'-0"

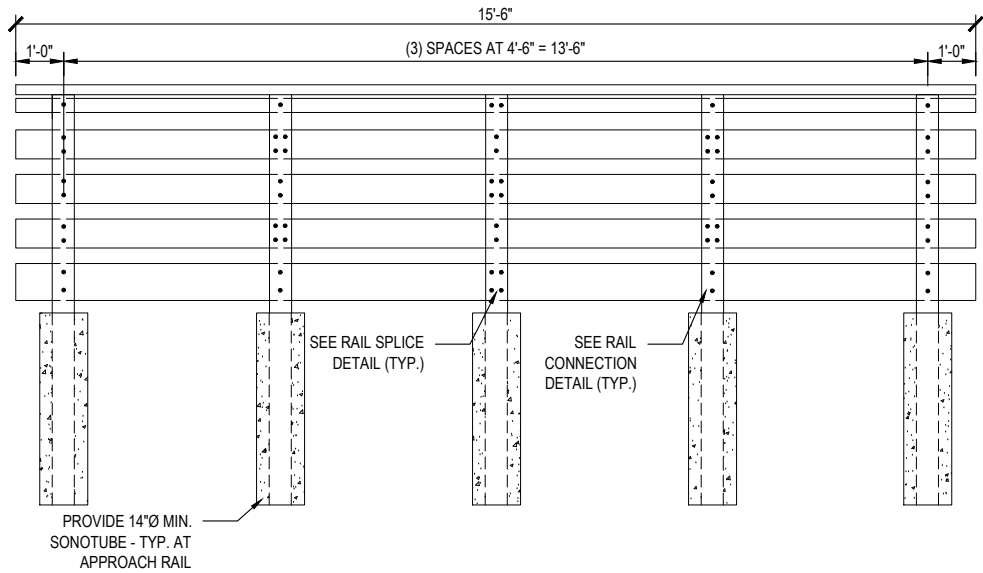


6 SISTERED/REPLACEMENT POST DETAIL
ORIGINAL SCALE: 3/4" = 1'-0"

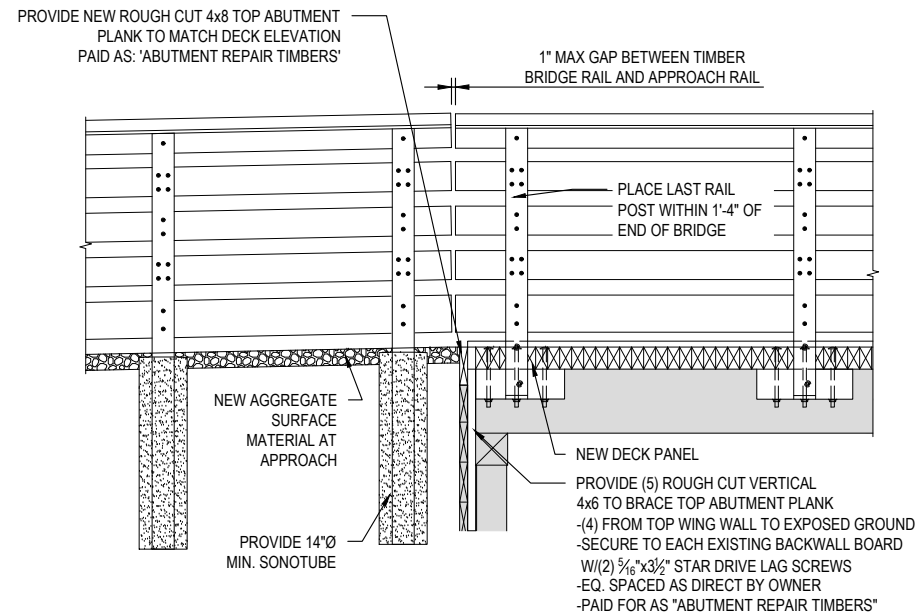
NOTES

- 1 ALL HARDWARE PENETRATING THE TOP OR BOTTOM EDGE OF THE DECK PLANK SHALL PASS THROUGH THE CENTER OF THAT EDGE DIMENSION.
- 2 FIELD DRILL HOLES IN THE UPPER AND LOWER SPLICE BLOCKS OF EACH PANEL. SPLICE BLOCKS ARE TO BE DRILLED COMPLETELY THROUGH TO PREVENT SPLITTING WHEN INSTALLING THE 16d NAILS.
- 3 2x6 SHOP BEVELED TOP RAIL. ATTACH TO POST WITH (2) 5/16" x 3 1/2" STAR DRIVE LAG SCREWS. USE (4) AT RAIL SPLICE.
- 4 2x8 RAIL. ATTACH TO POST WITH (3) 5/16" x 3 1/2" STAR DRIVE LAG SCREWS. USE (6) AT RAIL SPLICE.
- 5 2x10 BOTTOM RAIL. ATTACH TO POST WITH (3) 5/16" x 3 1/2" STAR DRIVE LAG SCREWS. USE (6) AT RAIL SPLICE.

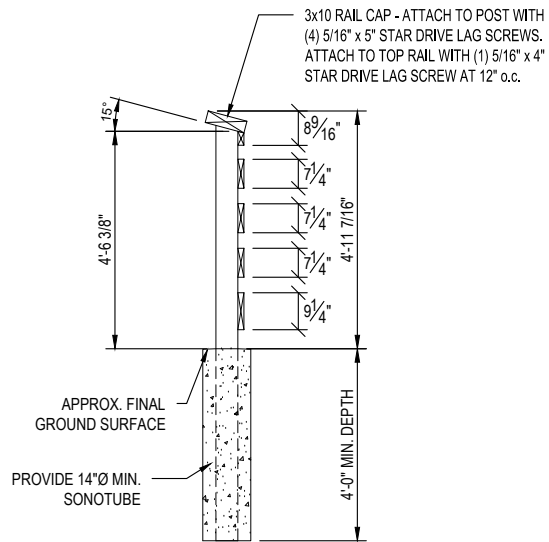
Save: 8/3/2026 2:52 PM jasmuelson Plot: 8/10/2026 9:18 AM x:\AE\IC\GCCB\186553\5-final-dsgn\51-drawings\20-struct\plan sheetV.4 STRUCTURAL DETAILS - APPROACH RAIL.dwg



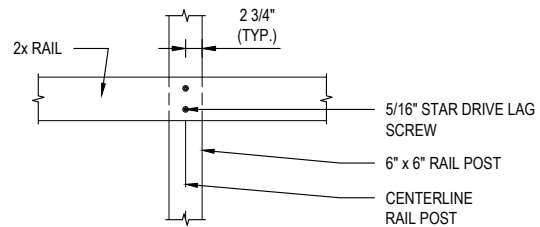
1 APPROACH RAIL ELEVATION
ORIGINAL SCALE: 1/2" = 1'-0"



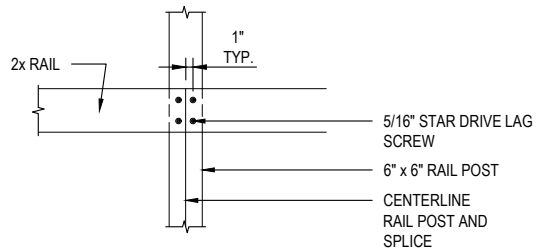
5 CONNECTION TO ABUTMENT DETAIL
ORIGINAL SCALE: 1/2" = 1'-0"



2 APPROACH RAILING SECTION
ORIGINAL SCALE: 1/2" = 1'-0"



3 RAILING CONNECTION DETAIL
ORIGINAL SCALE: 3/4" = 1'-0"



4 RAILING SPLICE DETAIL
ORIGINAL SCALE: 3/4" = 1'-0"

NOTES

- 1 ALL HARDWARE PENETRATING THE TOP OR BOTTOM EDGE OF THE DECK PLANK SHALL PASS THROUGH THE CENTER OF THAT EDGE DIMENSION.
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