

ITEM NUMBER	DESCRIPTION	UNIT	ROADWAY QUANTITY 0003	BRIDGE QUANTITY 0044	100% VILLAGE 0043	TOTAL QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	72.2			72.2
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	110.6			110.6
20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	4			4
20200100	EARTH EXCAVATION	CU YD	19843			19,843
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	9757			9,757
20400800	FURNISHED EXCAVATION	CU YD	545			545
20700220	POROUS GRANULAR EMBANKMENT	CU YD	250			250
20800150	TRENCH BACKFILL	CU YD	1,646		750	2,396
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CUYD	3,070			3,070
Δ 25000210	SEEDING, CLASS 2A	ACRE	4			4
Δ 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	320			320
Δ 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	320			320
Δ 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	320			320
Δ 25100630	EROSION CONTROL BLANKET	SQ YD	4,791			4,791
28000305	TEMPORARY DITCH CHECKS	FOOT	310			310
28000400	PERIMETER EROSION BARRIER	FOOT	6,390			6,390
28000500	INLET AND PIPE PROTECTION	EACH	20			20
28000510	INLET FILTERS	EACH	61			61
28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	4,791			4,791
30300112	AGGREGATE SUBGRADE IMPROVEMENT, 12	SQ YD	33,980			33,980
35101800	AGGREGATE BASE COURSE, TYPE B, 6"	SQ YD	3,031			3,031
40200710	AGGREGATE SURFACE COURSE, TYPE A, 10"	SQ YD	70			70
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	2,570			2,570
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1,285			1,285
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	92			92
40600990	TEMPORARY RAMP	SQ YD	550			550
Δ 40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	255			255
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	434			434
40603395	HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	184			184
40701881	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 10"	SQ YD	147			147
42000501	PORTLAND CEMENT CONCRETE PAVEMENT 10" (JOINTED)	SQ YD	29,474			29,474
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	552			552
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	9,120			9,120
42400800	DETECTABLE WARNINGS	SQFT	579			579
44000100	PAVEMENT REMOVAL	SQ YD	16,411			16,411
44000157	HMA SURFACE REMOVAL 2"	SQ YD	2,654			2,654
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	974			974
44003100	MEDIAN REMOVAL	SQ FT	686			686

Δ INDICATES SPECIALTY ITEM  
• SEE SPECIAL PROVISIONS

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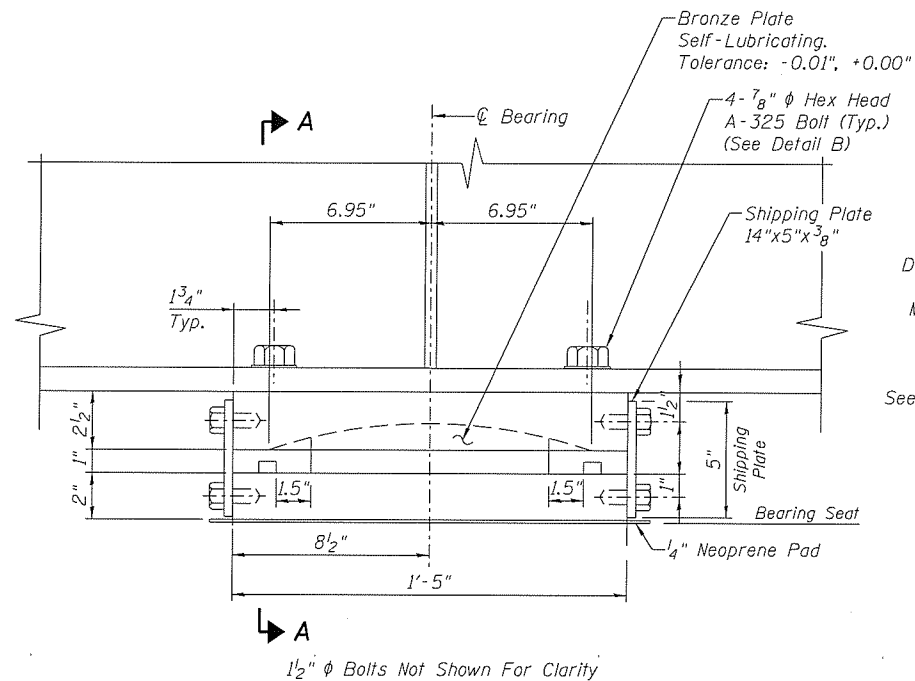
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DRAWN - JNH	CHECKED - KMB	REVISED -
PLOT SCALE = 2.0000' / in.	DATE - 05-31-2019	REVISED -
PLOT DATE = 8/22/2019		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

RIDGE ROAD  
SUMMARY OF QUANTITIES

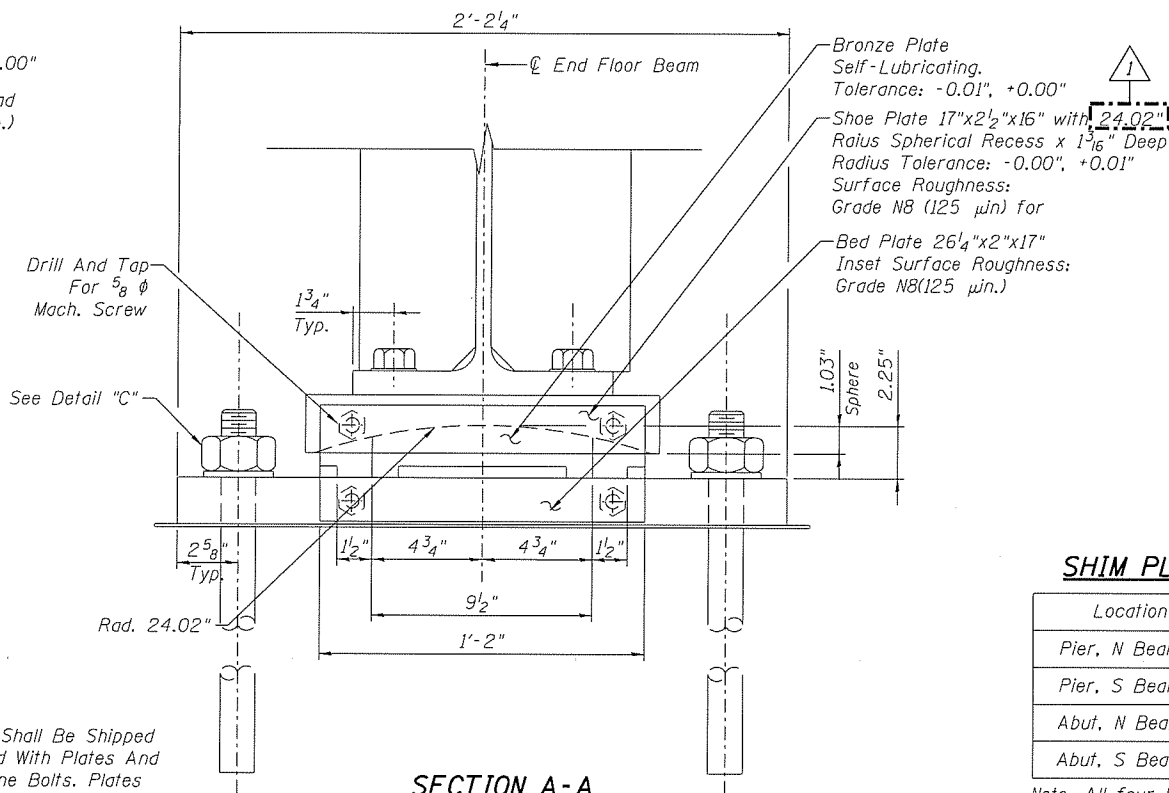
SHEET 1 OF 7 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
384	11-00134-02-WR	GRUNDY	239	5
CONTRACT NO. 87695			ILLINOIS FED. AID PROJECT	

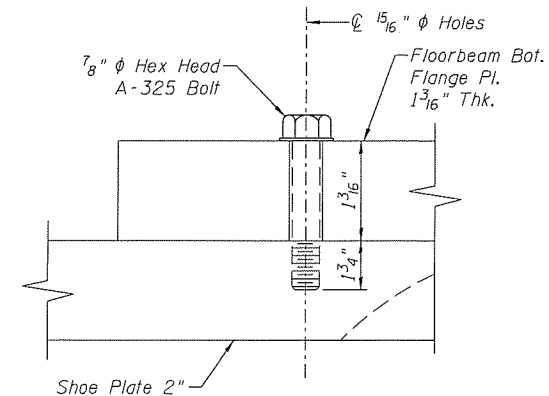


**BEARING ELEVATION**  
Not To Scale

**NOTES:**  
Bearings Shall Be Shipped Assembled With Plates And 5/8" Machine Bolts. Plates Shall Be Removed After Anchor Bolts Have Been Installed. (2 Plates Per Bearing).



**SECTION A-A**  
Not To Scale



**DETAIL "B"**  
Not To Scale

**SHIM PLATE THICKNESS**

Location	Total Shim Thickness
Pier, N Bearing	8 1/4"
Pier, S Bearing	7 3/4"
Abut, N Bearing	5 15/16"
Abut, S Bearing	5 7/16"

Note: All four Floorbeam Bearings require Shim Plates under Bed Plates. Contractor shall submit Shim Plate plan to Engineer for approval prior to ordering steel. Cost to be included with Furnishing and Erecting Structural Steel, Special.

**BEARING SERVICE LOADS**

$V_D$	=	-- kips/Bearing
$V_{L+IM}$	=	-- kips/Bearing
$V_{TOT}$	=	227 kips/Bearing
$H_{MIN}$	=	$\frac{V_{TOT}}{10} = 23$ kips/Bearing

**STANDARD NOTES**

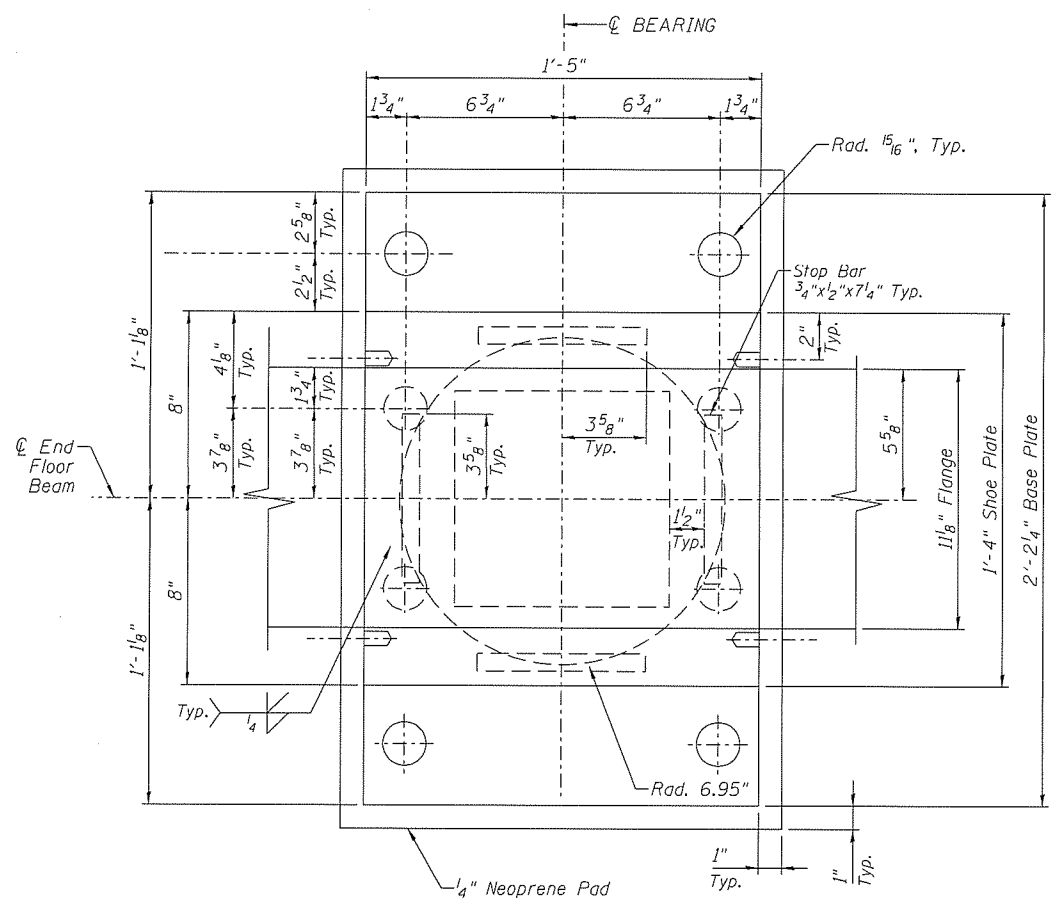
- Design And Workmanship Shall Be In Accordance With AREMA Manual Chap. 15.  
- Material Shall Be In Accordance With The Following Specifications:

- Structural Steel: ASTM A709 Grade 50W for Bearing Plates.
  - Bronze Plates: ASTM B22-82 Copper Alloy UNS No. C86300
  - Welding: CSA W59-03(2008)
  - Anchor Bolts: ASTM F1554-Grade 105
  - HS Bolts: ASTM F3125 A325 Type 3
- All Holes Shall Be Drilled Or Sub-Punched And Reamed.  
- All Non-Sliding Surfaces Of Bearings Shall Be Zinc-Metalized In Accordance With CSA G189. Zinc Coating Shall Not Be Less Than 0.01".

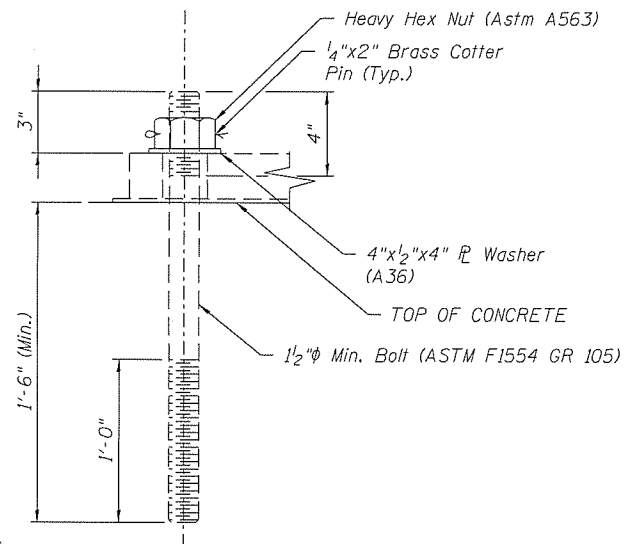
Self Lubricating Bronze Bearing Plates Shall Be As Detailed On The Drawings. Either One Or Both Surfaces, As Indicated On The Drawings, Shall Be Provided With Trepanned Recesses Which Shall Be Filled With A Lubricating Compound Capable Of Withstanding The Atmospheric Elements And Consisting Of Graphite And Metallic Substance With A Lubricating Binder; The Compound Shall Be Pressed Into The Recesses By Hydraulic Presses So As To Form Dense, Non-Plastic Lubricating Inserts. The Lubricating Area Shall Comprise Approximately 25% Of The Total Area. The Bearing Metal Shall Meet The Requirements Of ASTM Specification B22-79, Copper Alloy UNS No. C86300 (Formerly Alloy E). The Coefficient Of Friction Shall Not Exceed 0.10. Acceptable Lubricant: GI Lubrite Lubricant, Supplied By Lubrite Technologies.

Bearings Lubricate Top And Bottom

Estimated Weight  
- Structural Steel = 525 Lbs. (Per Bearing)  
(Does Not Include Weight Of Shim Plates, Anchor Bolts or Other Bolts)



**BEARING PLAN @ SHOE PLATE**  
Not To Scale



**NOTES:**

Concrete To Be Drilled After Determining Bolt Location. Bolts To Be Grouted Using Non-Shrink Grout. Bolts, Nuts & Washers Shall Be Fully Galvanized.

Bolt Threaded 12" To Extend 1'-6" Into Concrete. Concrete To Be Drilled After Determining Bolt Location. Bolts To Be Grouted By Using Non-Shrink Grout. Bolts Shall Be Fully Galvanized.

**Contractor Shall Carefully Coordinate Placement of the Hold Down Bolts With Erection Procedure to Ensure All Bolts Can Be Installed and Tightened.**

**DETAIL "C"**  
Not To Scale

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DESIGNED - APW	REVISED - 10/31/2019 RR
CHECKED - MFB	REVISED -
DRAWN - BJW	REVISED -
CHECKED - APW	REVISED -

PLOT DATE = 10/31/2019

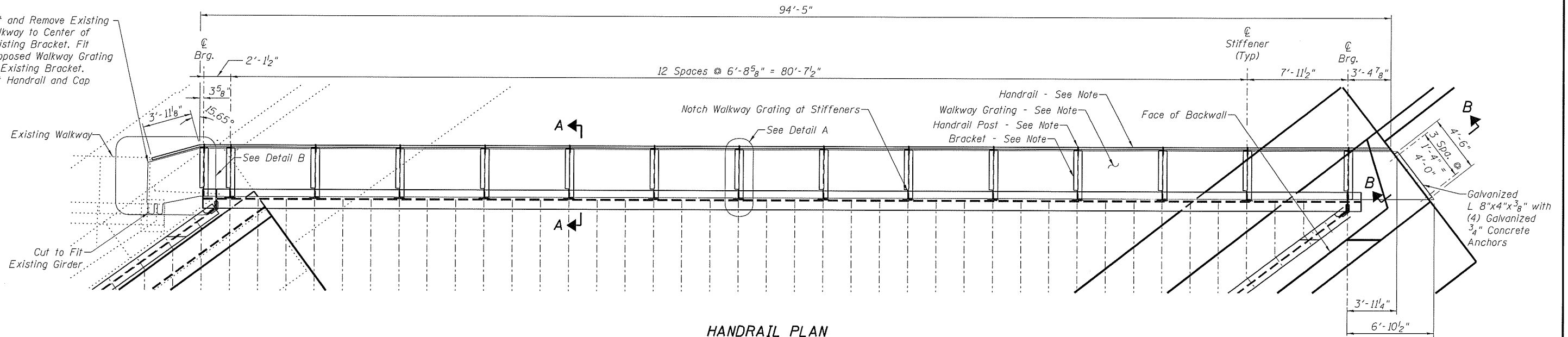
**GRUNDY COUNTY, ILLINOIS  
HIGHWAY DEPARTMENT**

**FLOORBEAM BEARING DETAILS  
STRUCTURE NO. 032-3400**

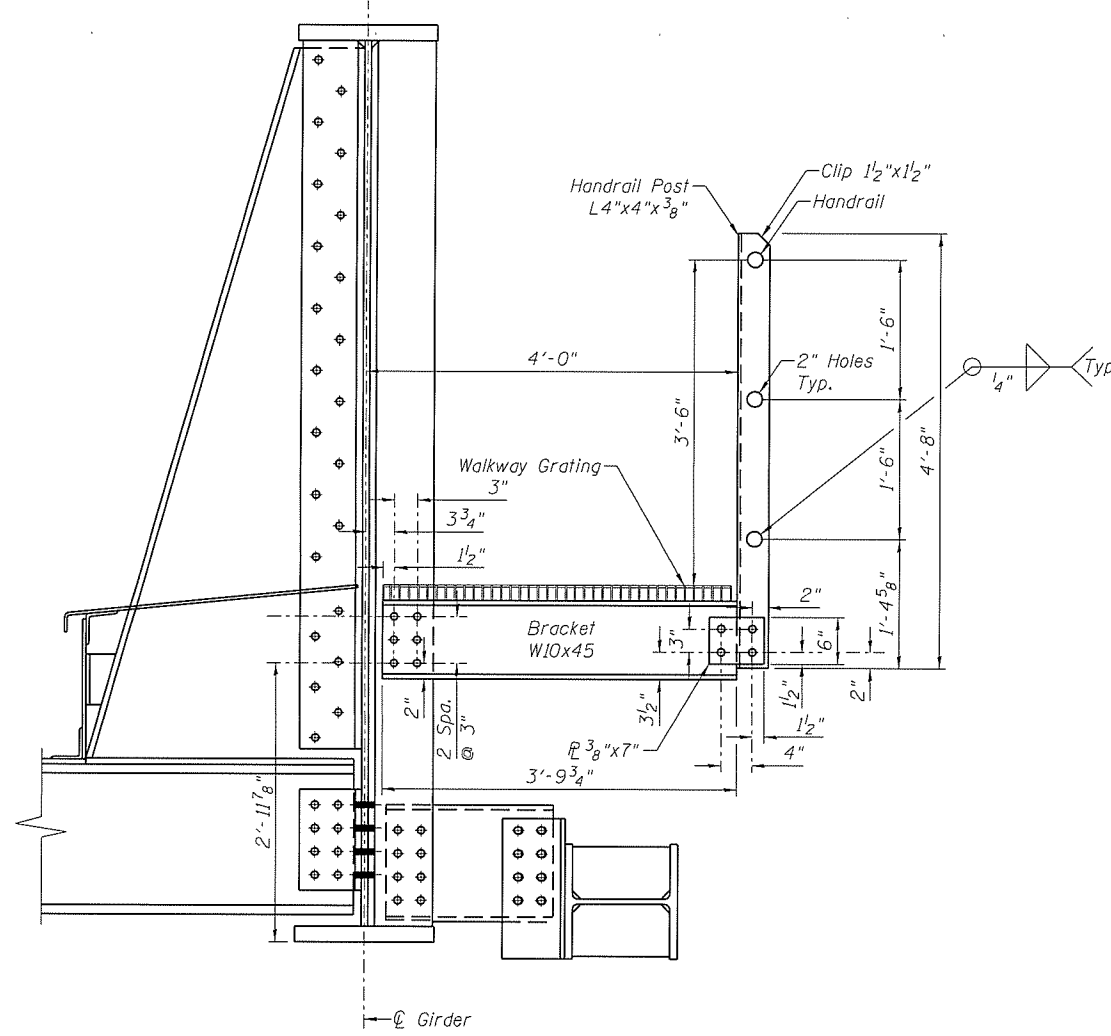
SHEET NO. 5- 38 OF 51 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
384	11-00134-02-WR	GRUNDY	239	190
				CONTRACT NO. 87695
ILLINOIS FED. AID PROJECT				

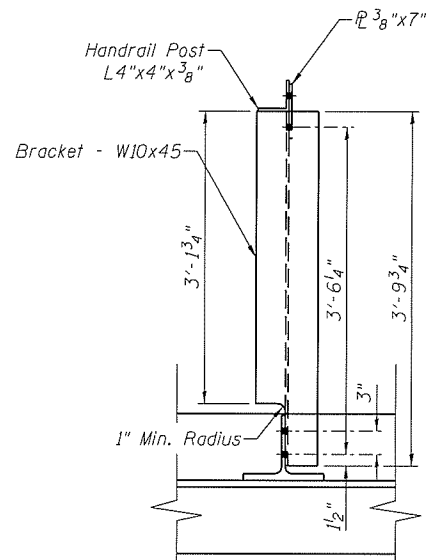
Cut and Remove Existing Walkway to Center of Existing Bracket. Fit Proposed Walkway Grating to Existing Bracket. Cut Handrail and Cap



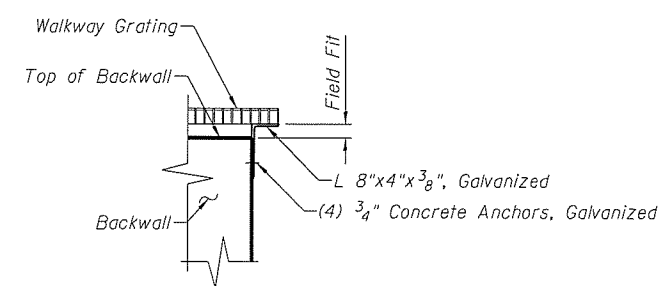
**HANDRAIL PLAN**  
Scale: 1/8" = 1'-0"



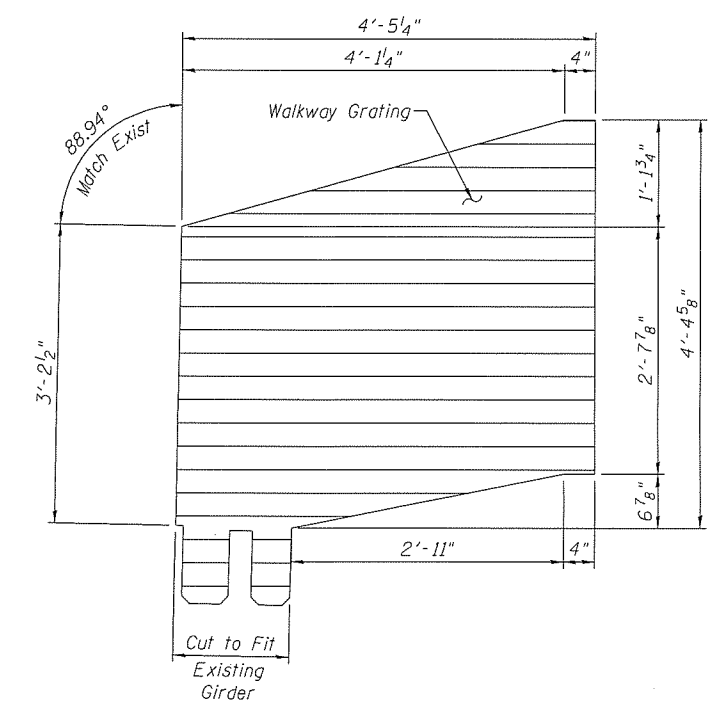
**SECTION A-A**  
Scale: 1/2" = 1'-0"



**DETAIL A**  
Scale: 1/2" = 1'-0"



**SECTION B-B**  
Scale: 1/2" = 1'-0"



**DETAIL B**  
Scale: 1/2" = 1'-0"

**GENERAL NOTES**

- Walkway Grating - Fisher & Ludlow Type 19-4 2'x3' Galvanized
- Grating Fasteners - Type "D" Clips Bolted to Brackets per Manufacturer Specifications Galvanized
- Handrail - 1/2" Standard Steel Pipe Galvanized
- Handrail Post - L4"x4"x 3/8" - A572 Grade 50 Galvanized

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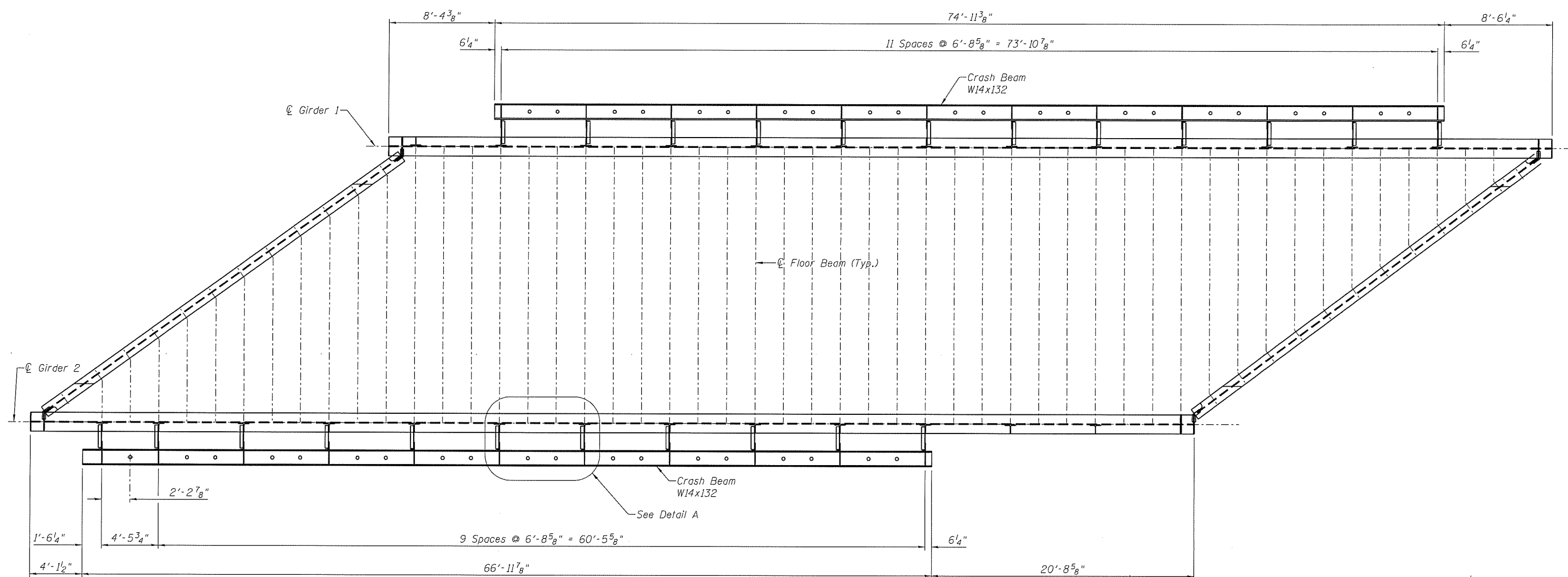
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CHECKED - MFB	REvised -
DRAWN - BJW	REvised -
CHECKED - APW	REvised -

**GRUNDY COUNTY, ILLINOIS  
HIGHWAY DEPARTMENT**

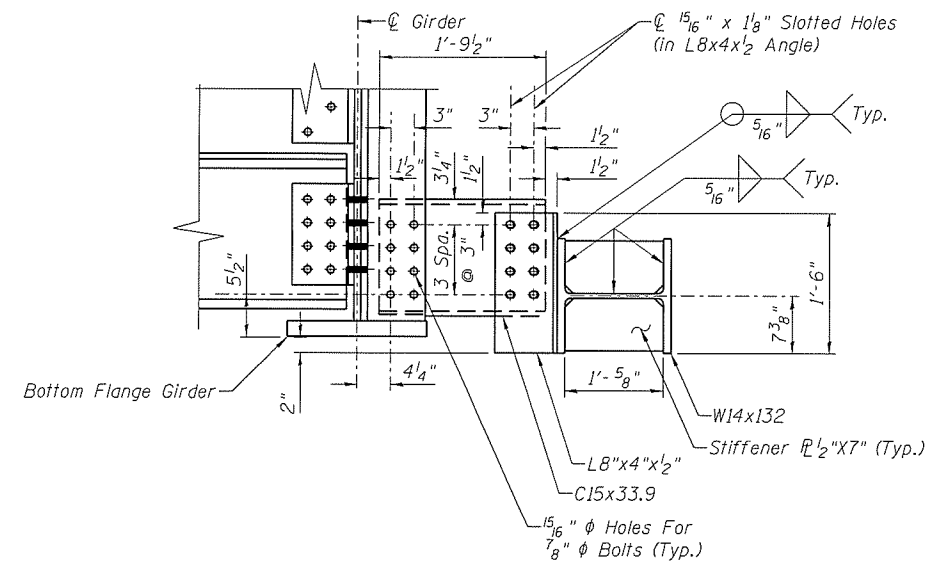
**WALKWAY DETAILS  
STRUCTURE NO. 032-3400**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
384	11-00134-02-WR	GRUNDY	239	191
				CONTRACT NO. 87695
ILLINOIS FED. AID PROJECT				

SHEET NO. 5-39 OF 51 SHEETS



**CRASH BEAM PLAN**  
Scale: 1/8" = 1'-0"



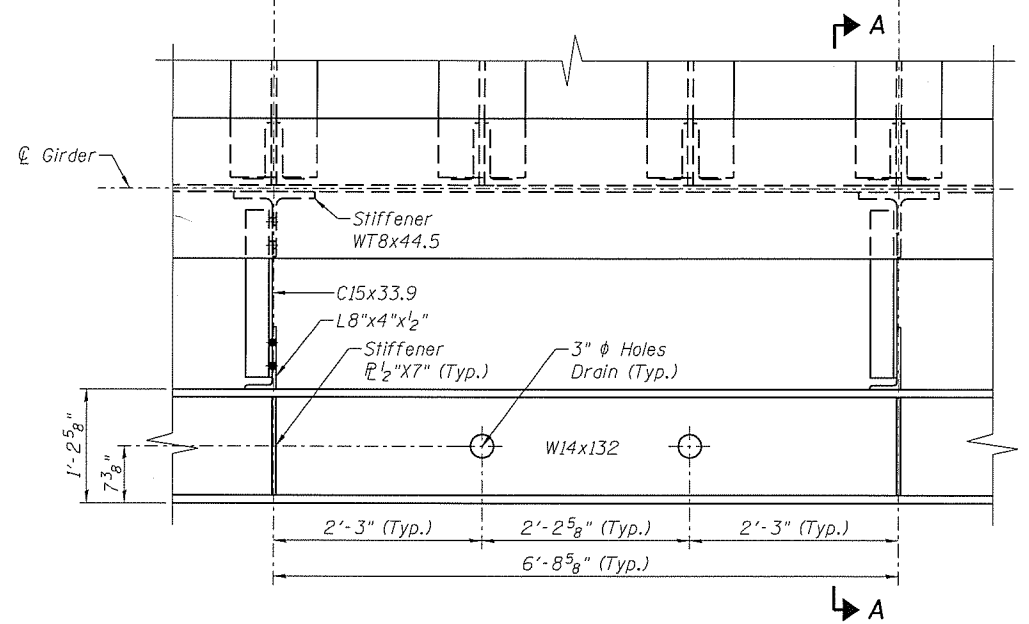
**SECTION A-A**  
Scale: 1/2" = 1'-0"

**NOTES:**

1. For general notes, see General Notes sheets
2. Material shall be in accordance with the following specs
3. Structural steel: ASTM A709/A588/A572/A36 grade 50W  
For all members on this sheet
4. Welding: AWS D1.5
5. H.S. bolts: ASTM F3125 A325 Type 3 7/8" dia. u.n.o.
6. All holes to be drilled or sub-punched and reamed
7. All H.S. bolts to be tightened by turn of nut method

Estimated Weight

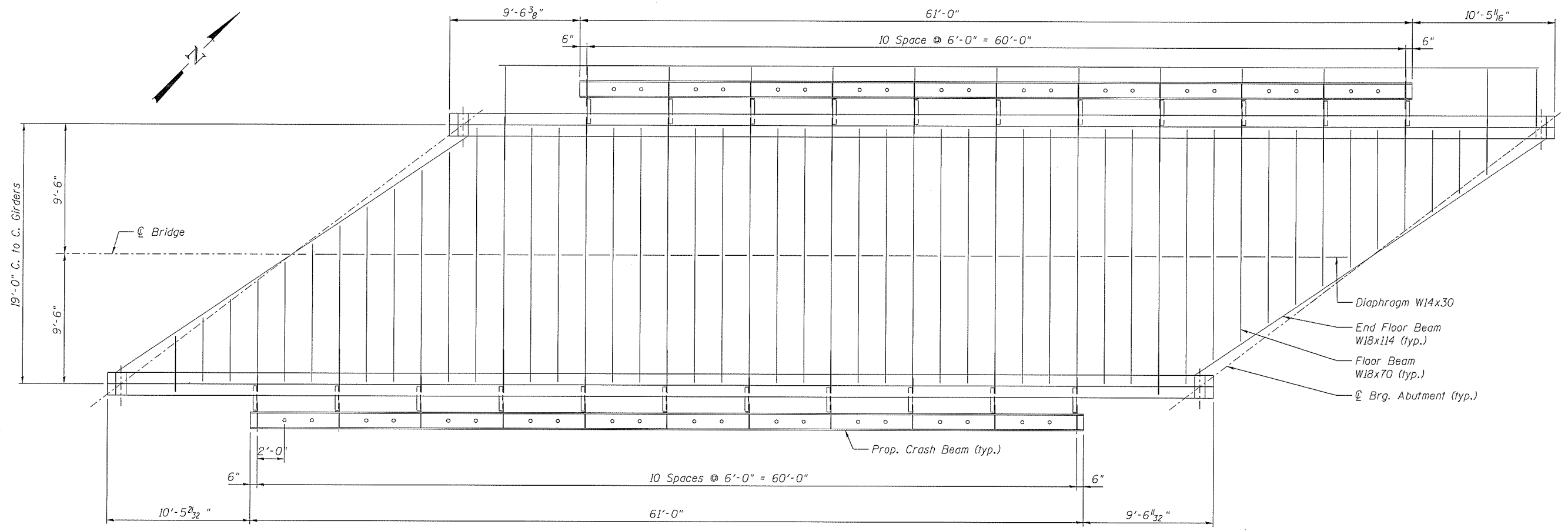
- Structural Steel = 11,285 Lbs. (Crash Beam Assembly at Girder 1)
- = 10,130 Lbs. (Crash Beam Assembly at Girder 2)
- (Does Not Include Weight of Bolts)



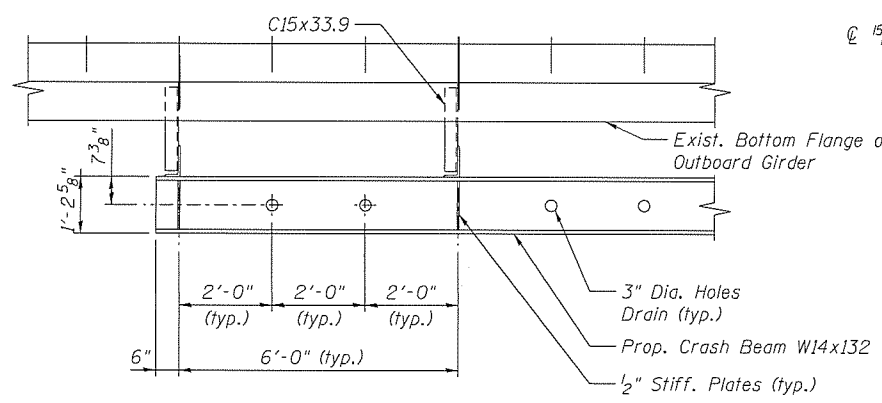
**DETAIL A**  
Scale: 1/2" = 1'-0"

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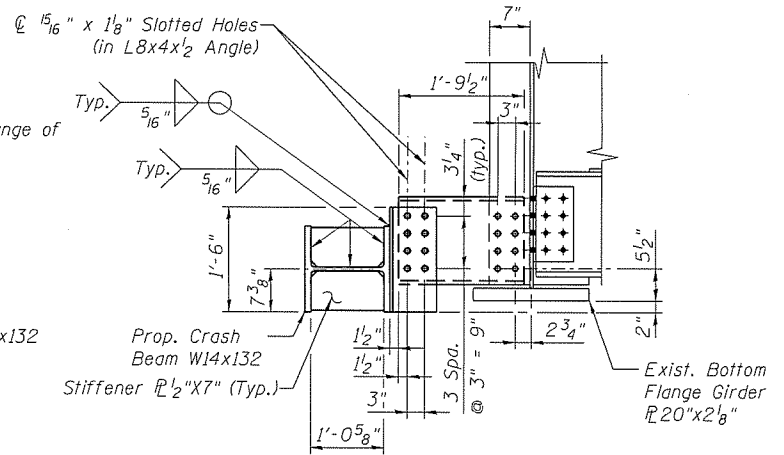
	DESIGNED - APW	REvised -  10/31/2019 MRC	<b>GRUNDY COUNTY, ILLINOIS</b> <b>HIGHWAY DEPARTMENT</b>	<b>CRASH BEAM DETAILS</b> <b>STRUCTURE NO. 032-3400</b>	F.A.U. RTE. 384	SECTION 11-00134-02-WR	COUNTY GRUNDY	TOTAL SHEETS 239	SHEET NO. 192
	CHECKED - MFB	REvised -			SHEET NO. 192	CONTRACT NO. 87695			
	DRAWN - BJW	REvised -			ILLINOIS FED. AID PROJECT				
	CHECKED - APW	REvised -			SHEET NO. 5- 40 OF 51 SHEETS				



**EXISTING SPAN**

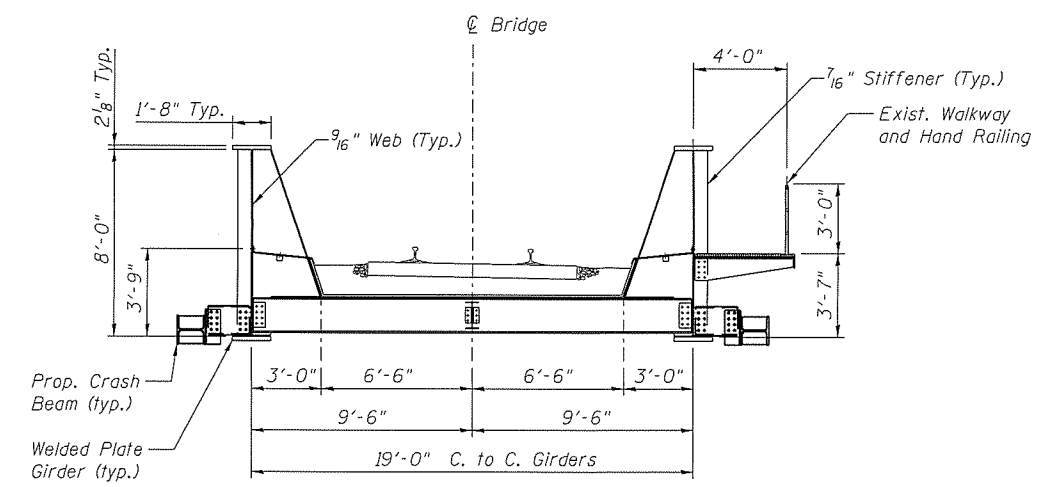


**PROP. CRASH BEAM PLAN**



**PROP. CRASH BEAM SECTION**

Note: Elevation of Protection Beam



**EXISTING SECTION**

**NOTES:**

1. For general notes, see General Notes sheets
2. Material shall be in accordance with the following specs
3. Structural steel: ASTM A709/A588/A572/A36 grade 50W  
For all members on this sheet
4. Welding: AWS D1.5
5. H.S. bolts: ASTM F3125 A325 Type 3 7/8" dia. u.n.o.
6. All holes to be drilled or sub-punched and reamed
7. All H.S. bolts to be tightened by turn of nut method

Estimated Weight  
- Structural Steel = **9,325** Lbs. (Per Crash Beam Assembly)  
(Does Not Include Weight of Bolts)

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DESIGNED - APW	REVISED -  10/31/2019 MRC
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**GRUNDY COUNTY, ILLINOIS  
HIGHWAY DEPARTMENT**

**EXISTING SPAN CRASH BEAM DETAILS  
STRUCTURE NO. 032-3400**

SHEET NO. 5- 41 OF 51 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
384	11-00134-02-WR	GRUNDY	239	193
CONTRACT NO. 87695				
ILLINOIS FED. AID PROJECT				