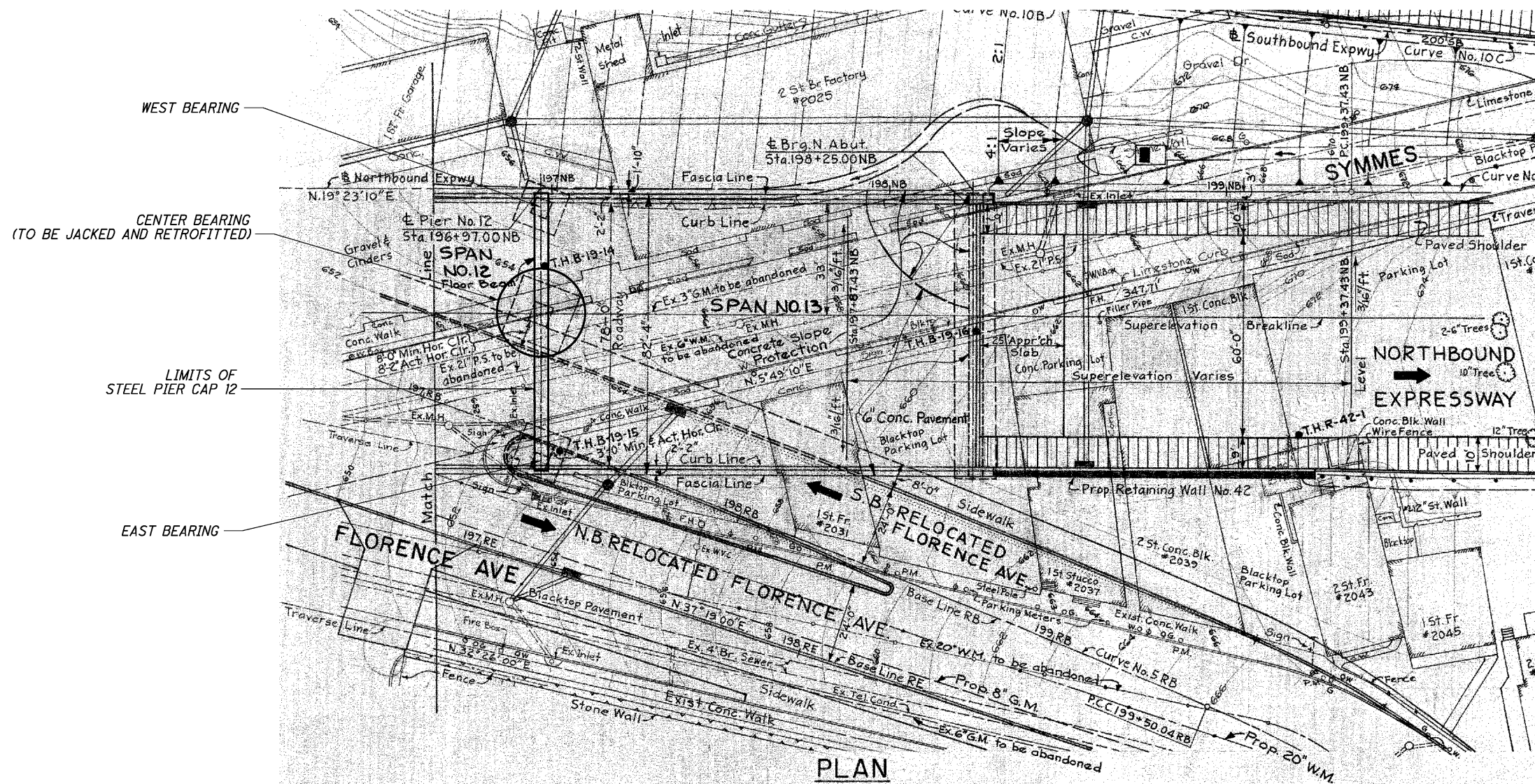
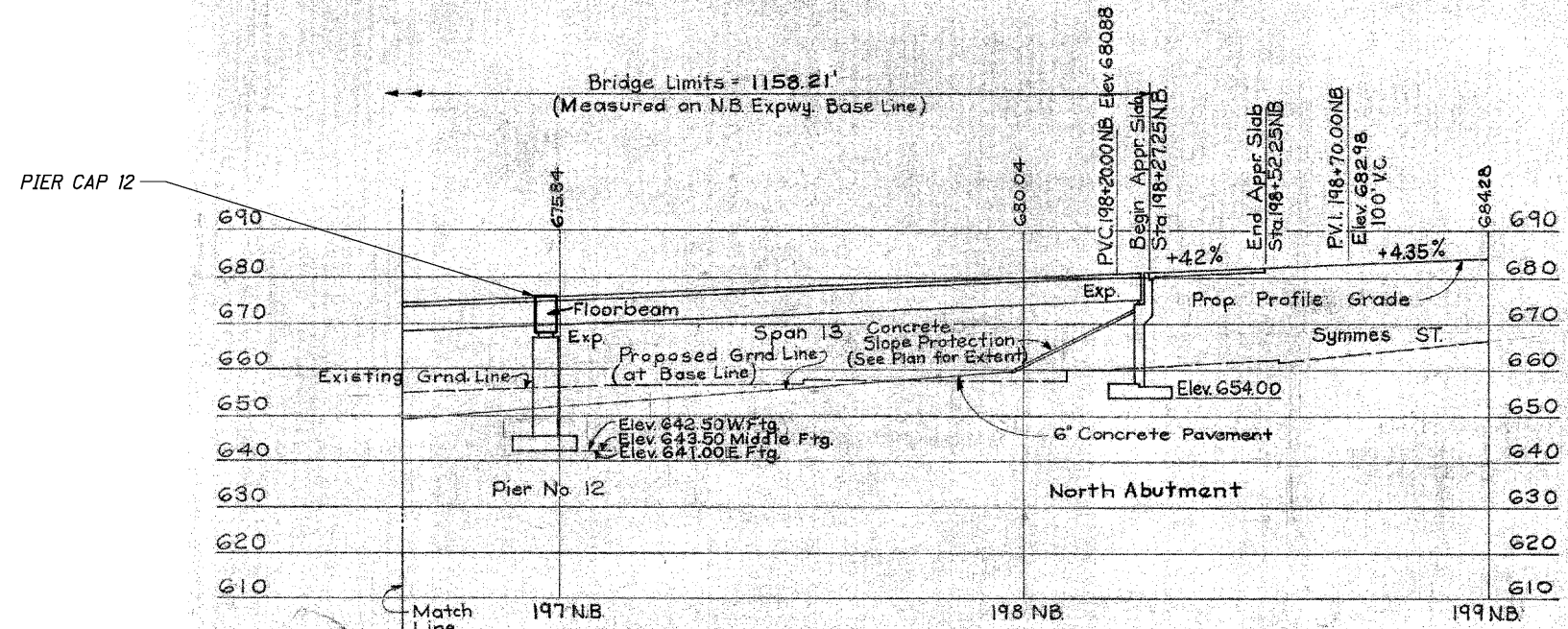


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PLAN



PROFILE
(Along @ N.B. Expressway)

- SYMBOLS AND ABBREVIATIONS**
- BOT. - BOTTOM
 - @ - CENTERLINE
 - CJP - COMPLETE JOINT PENETRATION WELD
 - EXIST. - EXISTING
 - FL - FLANGE
 - GIR. - GIRDER
 - HT - HEIGHT
 - MAX. - MAXIMUM
 - MIN. - MINIMUM
 - PL - PLATE
 - R - RADIUS
 - TH - THICKNESS
 - TYP. - TYPICAL
 - U.N.O. - UNLESS OTHERWISE NOTED
 - φ - DIAMETER

NOTES
1. PLAN AND ELEVATION FROM ORIGINAL 1965 DESIGN PLANS.



REFERENCES

REFERENCE SHALL BE MADE TO THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS DATED JANUARY 1, 2010.

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2005 INTERIM SPECIFICATIONS, GUIDE DESIGN SPECIFICATIONS FOR BRIDGE TEMPORARY WORKS, 1ST EDITION WITH 2008 INTERIM REVISIONS, AND THE ODOT 2004 BRIDGE DESIGN MANUAL WITH 07-15-2011 UPDATES.

DESIGN LOAD

LOADING HS 20-44

DESIGN DATA

STRUCTURAL STEEL - ASTM A709, GRADE 50- YIELD STRENGTH

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM THE PLANS OF THE EXISTING STRUCTURE AND/OR FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. IT IS THE INTENT OF THESE PLANS THAT THE PROPOSED ADDITIONS TO THESE STRUCTURE MATCH EXISTING CONDITIONS. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

SCOPE OF WORK:

THIS WORK INVOLVES THE ACTIVITIES NECESSARY TO REPLACE THE CRACKED BEVELED BRONZE PLATE ON THE CENTER PIER BEARING OF PIER 12 AND REPAIR OF A WELD FLAW IN A DIAPHRAGM WELD IN PIER 10. THE MAJOR WORK ITEMS INCLUDE:

PIER 10:

- 1. GRINDING OUT WELD FLAW AT GIRDER A AND REPLACING WITH NEW WELD MATERIAL, AS WELL AS APPLYING A FINISH COAT TO THE DAMAGED AREAS.

PIER 12:

- 2. STRENGTHENING OF THE EXISTING PIER CAP AT THE JACKING LOCATIONS.
- 3. REMOVAL OF SIDEWALK AND SOIL OVER CENTER PIER FOOTING.
- 4. FABRICATION AND INSTALLATION OF STEEL JACKING STRUCTURES.
- 5. JACKING STEEL PIER CAP 12 UNDER LIVE LOAD.
- 6. REMOVAL OF EXISTING SOLE PLATE
- 7. REPLACING THE CRACKED BEVELED BRONZE PLATE.
- 8. INSTALLING THE NEW SOLE PLATE.
- 9. RESEATING THE BEARINGS
- 10. BACK FILLING THE SOIL ABOVE THE FOOTING AND RE-POURING THE CONCRETE SIDEWALKS.

MAINTENANCE OF TRAFFIC DURING JACKING

JACKING AND RE-SEATING OF PIER CAP 12 WILL BE PERFORMED DURING A SHORT DURATION CLOSURE (MAXIMUM OF FIFTEEN (15) MINUTES) OF I-71 NORTH BOUND BETWEEN THE HOURS OF MIDNIGHT (12 AM) TO 4 AM ON A SATURDAY NIGHT/SUNDAY MORNING. THIS SHORT DURATION CLOSURE WILL BE OBTAINED BY A ROLLING ROADBLOCK ON I-71 NORTHBOUND. A LAW ENFORCEMENT OFFICER WITH PATROL CAR WILL BE USED TO CLOSE EACH ENTRANCE RAMP ALONG THE CLOSURE ROUTE. FOR ADDITIONAL INFORMATION SEE SHEET [T4/T4].

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING PIER CAP 12 BY THE DIMENSIONS AND REQUIREMENTS AS SHOWN ON SHEET [S12/S13]

JACKS SHALL HAVE A MINIMUM STROKE OF 1/2" AND HAVE THE FOLLOWING SAFE WORKING LOADS:
COLUMNS WORKING LOAD
A1, A3, D1, D3 200 TONS
B4, B7, C4, C7 400 TONS

JACKING SHALL NOT EXCEED THE SPECIFIED AMOUNT BY MORE THAN 1/4". DIFFERENTIAL JACKING OF THE COLUMNS SHALL NOT EXCEED 1/8". BEFORE JACKING THE PIER CAP THE CONTRACTOR SHALL SUCCESSFULLY DEMONSTRATE THAT THE JACKS AND CONTROL SYSTEM CAN MEET THESE REQUIREMENTS.

ALL SHIM PLATES USED DURING JACKING OPERATIONS SHALL BE TACK WELDED TO PRECLUDE SHIFTING DURING JACKING OPERATIONS.

IF DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL GIRDERS OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE OWNER'S ENGINEER. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. UPON COMPLETION OF THE JACKING OPERATION THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS.

SEQUENCE OF JACKING

- 1. A TEST PIT SHALL BE DUG AT PIER CAP 12 CENTER SUPPORT. THE TEST PIT SHALL VERIFY LOCATION OF EXISTING TOP OF FOOTING AND THE DISTANCE TO THE BOTTOM OF THE PIER CAP.

FOR ANY VARIANCE WITH THE PLANS, REDUCE LENGTH OF COLUMN IF CLEARANCE IS LESS THAN PLANS. IF CLEARANCE IS GREATER THAN PLANS AND LESS THAN 1" ADJUST WITH SHIMS. IF CLEARANCE IS GREATER THAN PLANS BY MORE THAN 1" ADJUST COLUMN LENGTH.

- 2. EXCAVATE ABOVE THE PIER AN AREA LARGE ENOUGH TO ERECT STEEL BOXES, JACKING TOWERS, AND JACKING BEAMS. PROVIDE APPROPRIATE EXCAVATION PROTECTION OR BACK SLOPES IF EXCAVATION DEPTH EXCEEDS 5'.

- 3. THE CONTRACTOR SHALL ENSURE A LEVEL SURFACE BY LEAD SHEETING OR OTHER APPROVED METHOD. SET JACKING BOXES PLUMB WITH FOOTINGS. ERECT AND PLUMB STEEL TOWERS.
- 4. UPON APPROVAL OF SETUP FROM OWNERS AGENT INSTALL PIER CAP LOAD PLATES.
- 5. REMOVE LIVE LOAD FROM PIER CAP 12 BY A ROLLING ROAD BLOCK AS DETAILED ON SHEET [T4/T4], AND MEETING TIME PERMITTED LANE CLOSURE SCHEDULE.
- 6. WHEN LIVE LOAD IS REMOVED FROM PIER CAP 12 BY ROLLING ROAD BLOCK, JACK AND SHIM PIER CAP 12 TO THE SPECIFIED HEIGHT ON SHEET [S12/S13], TO CREATE A SHORED SYSTEM.
- 7. PERFORM SUGGESTED BEARING RETROFIT SEQUENCE OF WORK PROVIDED ON SHEET [S12/S13], WHILE PIER CAP IS SUPPORTED BY TEMPORARY SHORING SYSTEM.
- 8. REMOVE LIVE LOAD FROM PIER CAP 12 BY ROLLING ROAD BLOCK AS DETAILED ON SHEET [T4/T4], AND MEETING TIME PERMITTED LANE CLOSURE SCHEDULE.
- 10. DURING THE SHORT DURATION CLOSURE, RELIEVE LOAD FROM SHIMS AND REMOVE, THEN FULLY SEAT BRIDGE ON BEARING.
- 11. UPON SUCCESSFUL RESEATING OF THE BEARINGS REMOVE ALL LOAD FROM THE JACKING SYSTEM, REMOVE TRAFFIC CONTROL ON I-71, DE-CONSTRUCT JACKING TOWERS, BACK FILL AREA ABOVE FOOTING, AND POUR REPLACEMENT SIDEWALK.

INCLUDE FOR PAYMENT WITH THIS ITEM ALL MATERIALS, LABOR AND INCIDENTALS ASSOCIATED WITH THE ASSEMBLY OF THE JACKING STRUCTURE, JACKING OPERATIONS AND REMOVAL OF THE JACKING STRUCTURE. MAJOR WORK ITEMS INCLUDE: JACKING BEAMS, SUPPORT BEAMS, COLUMNS, JACKING BOXES, JACKS, AND JACK CONTROL SYSTEM. INCLUDE EXCAVATION, BACKFILLING AND TEST PIT WITH ITEM 202.

ITEM 516 - BEARING DEVICE, MISC: REMOVAL AND REPLACEMENT OF SOLE AND BRONZE PLATE

THIS WORK CONSISTS OF THE REMOVAL AND REPLACEMENT, ON PIER CAP 12, OF THE EXISTING SOLE PLATE AND BRONZE PLATE WITH A NEW BEVELED BRONZE PLATE AND SOLE PLATE. THE PROPOSED SEQUENCE FOR THE REMOVAL AND DETAILS OF THE PROPOSED PLATES CAN BE FOUND ON SHEET [S12/S13].

INCLUDE FOR PAYMENT ALL MATERIALS, EQUIPMENT, LABOR AND INCIDENTALS ASSOCIATED WITH THIS WORK.

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 1

THIS ITEM SHALL INCLUDE ALL STEEL AND CONNECTORS USED TO STRENGTHEN PIER CAP 12 AT THE JACKING LOCATIONS.

ITEM 514 - FIELD PAINTING, MISC.: REPAIR FINISH COAT (URETHANE) PAINTING

THIS WORK SHALL INCLUDE APPLYING A FINISH COAT OF URETHANE PAINT MEETING CMS SECTION 514 TO THE STRENGTHENING STEEL AND CONNECTORS ON THE INTERIOR AND EXTERIOR OF PIER CAP 12. THIS WORK ALSO INCLUDES APPLYING APPLYING A FINISH COAT TO ALL NEW WELD MATERIAL IN THE WELD FLAW REPAIR IN PIER 10. IN ADDITION, CMS 514.22 (REPAIR PROCEDURES) MUST BE FOLLOWED WHEN THE FINISH COAT HAS BEEN DAMAGED DURING THE JACKING OR STRENGTHENING OPERATIONS AT PIER 12 OR IN PIER 10 DURING THE FLAW REPAIR.

IT IS ESTIMATED THAT 170 SQUARE FEET OF NEW STEEL WILL BE USED IN THE STRENGTHENING OPERATION.

INCLUDE FOR PAYMENT ALL MATERIAL, EQUIPMENT, LABOR AND INCIDENTALS ASSOCIATED WITH THIS WORK.

ITEM 202 - REMOVAL MISC.: EXPOSING PIER FOOTING AND RESTORATION

THIS WORK SHALL INCLUDE THE DIGGING OF A TEST PIT TO VERIFY THE LOCATION OF PIER 12 CENTER FOOTING, THE REMOVAL OF THE SIDEWALK AND SOIL ABOVE THE FOOTING FOR AN AREA NECESSARY TO INSTALL THE JACKING FRAMES, AS SHOWN IN THE PLANS. THE WORK SHALL ALSO INCLUDE THE RESTORATION OF THE AREA TO ITS ORIGINAL STATE. THE SOIL REMOVED SHALL BE STORED ON SITE AND BE USED TO BACKFILL UPON COMPLETION OF THE JACKING OPERATION. THE EXCAVATED AREAS SHALL BE BACKFILLED IN ACCORDANCE WITH CMS 203.06. A 4" CONCRETE WALK SHALL BE INSTALLED ON TOP OF ALL EXCAVATED AREAS, AND SHALL HAVE A SMOOTH TRANSITION TO ALL EXISTING CONCRETE SURFACES. THE CONCRETE WALK SHALL MEET ALL SPECIFICATIONS FOR ITEM 608 - CONCRETE WALK.

INCLUDE FOR PAYMENT ALL MATERIAL, LABOR AND EQUIPMENT AND INCIDENTALS ASSOCIATED WITH THIS WORK. MAJOR ITEMS INCLUDE DIGGING THE TEST PIT, EXCAVATION, BACKFILL, 4" CONCRETE WALK, DISPOSAL OF EXISTING CONCRETE WALK AND STORAGE OF SOIL ON SITE.

ITEM 513 - STRUCTURAL STEEL, MISC.: WELD REPAIR

THIS WORK INCLUDES REMOVING ALL PAINT NECESSARY TO PERFORM NON-DESTRUCTIVE TESTING AT THE WELD FLAW LOCATION (ON BOTH FACES OF THE DIAPHRAGM), PERFORMING NON-DESTRUCTIVE TESTING ON BOTH SIDES OF THE DIAPHRAGM TO WEB WELDS TO VERIFY THE LIMITS OF THE WELD FLAW, GRINDING OUT THE WELD FLAW AS DETAILED ON SHEET [S13/S13], AND REPLACING THE REMOVED WELD MATERIAL WITH NEW WELD MATERIAL.

NON-DESTRUCTIVE TESTING SHALL BE PERFORMED WITH EITHER MAGNETIC PARTICLE EXAMINATION OR DYE PENETRANT IN CONFORMANCE WITH CMS 513.25.

INCLUDE FOR PAYMENT ALL MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS ASSOCIATED WITH THIS WORK. MAJOR WORK ITEMS INCLUDE NON-DESTRUCTIVE TESTING, GRINDING AND WELDING.

BRIDGE NUMBER	STRUCTURE FILE NUMBER	INTERSECTED FEATURE	EXISTING PLANS BRIDGE NUMBER
HAM-71-0248R	3106802	EDEN PARK ENTRANCE; FLORENCE AVE.	HAM-71-0224

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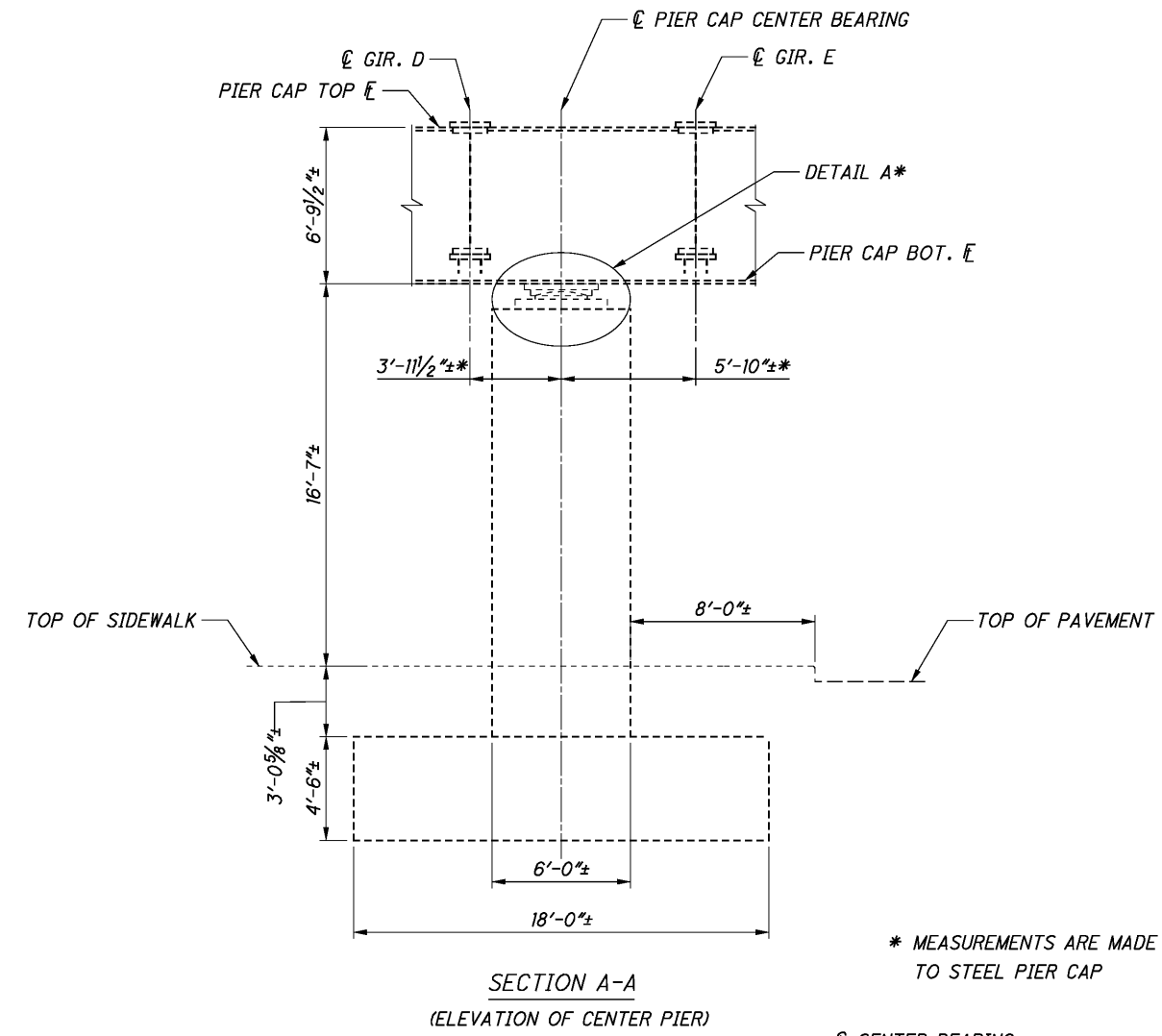
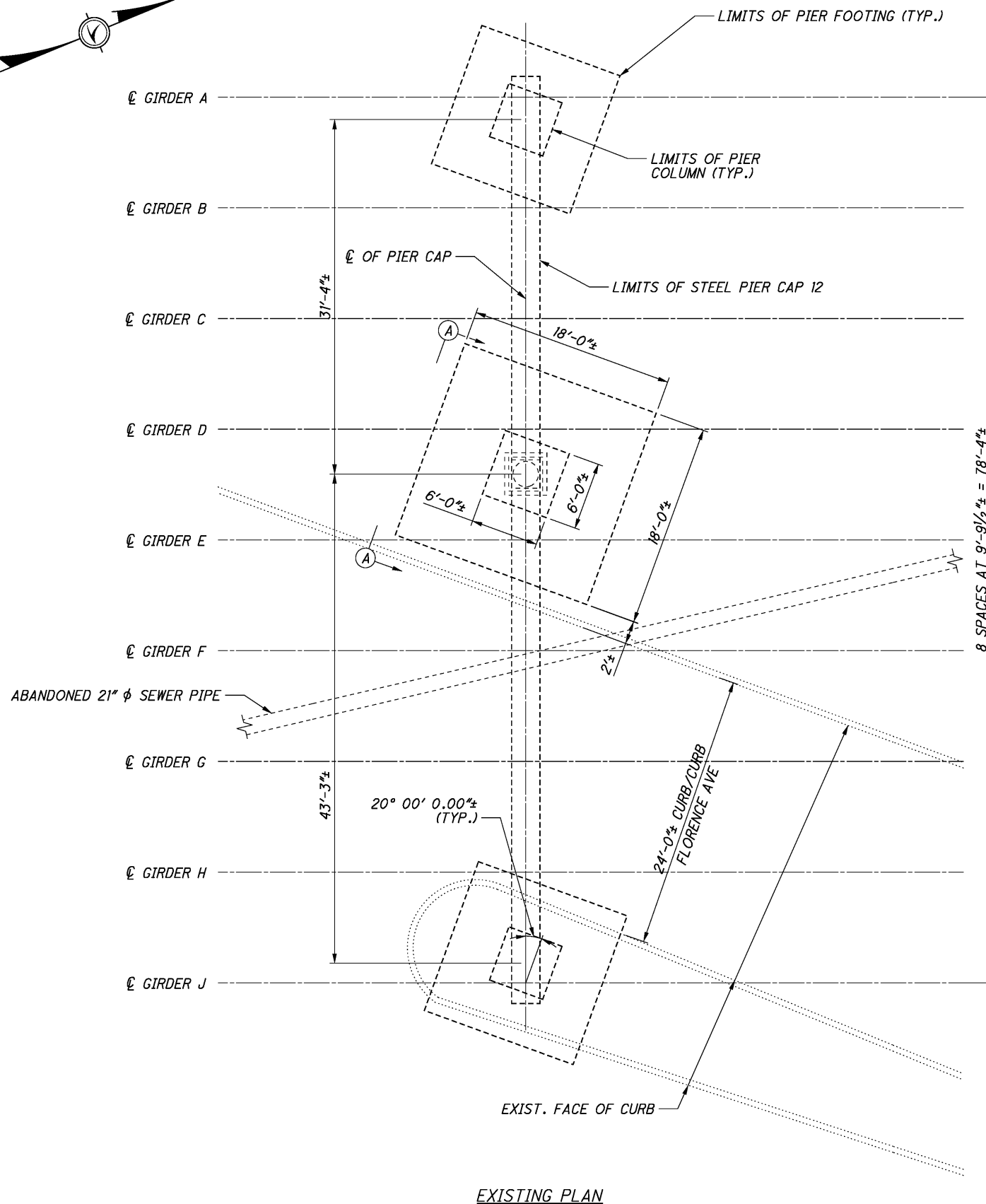
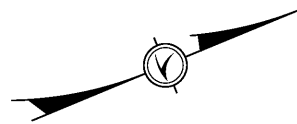
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DRAWN	BKC	REVISED	
REVIEWED	WRW	STRUCTURE FILE NUMBER	3106802
DATE	1/19/2012		

STRUCTURE GENERAL NOTES
PIER 12 CENTER BEARING RETROFIT
I-71 OVER FLORENCE AVENUE

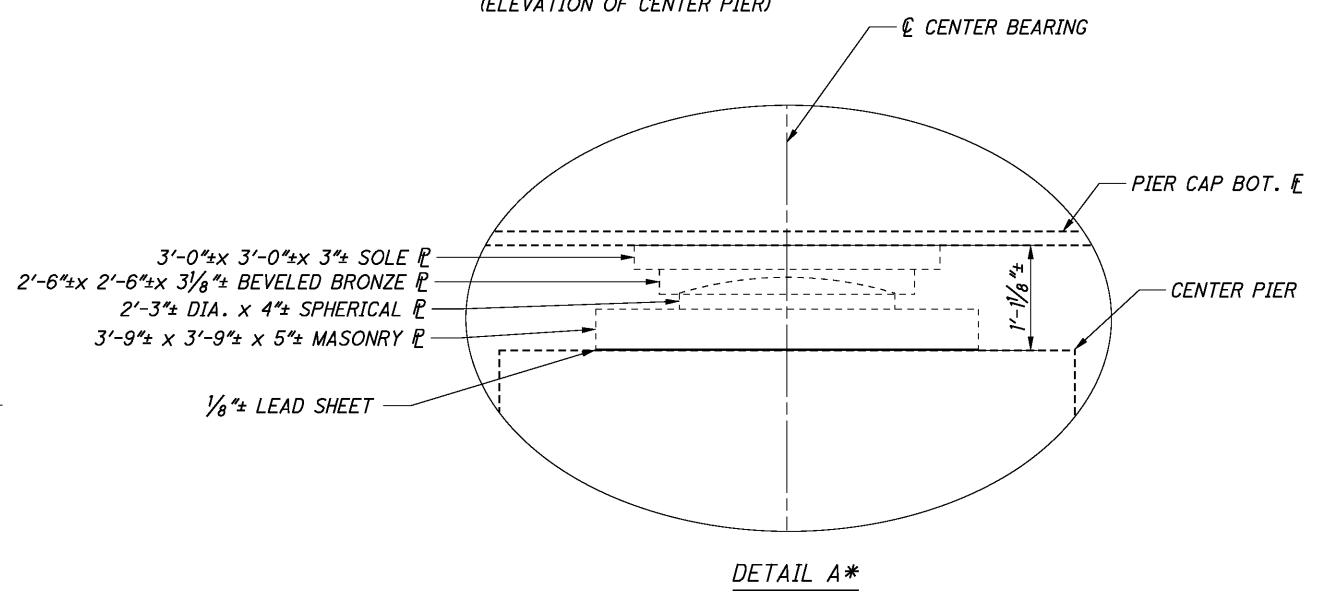
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PID No. 92793

S2/S13
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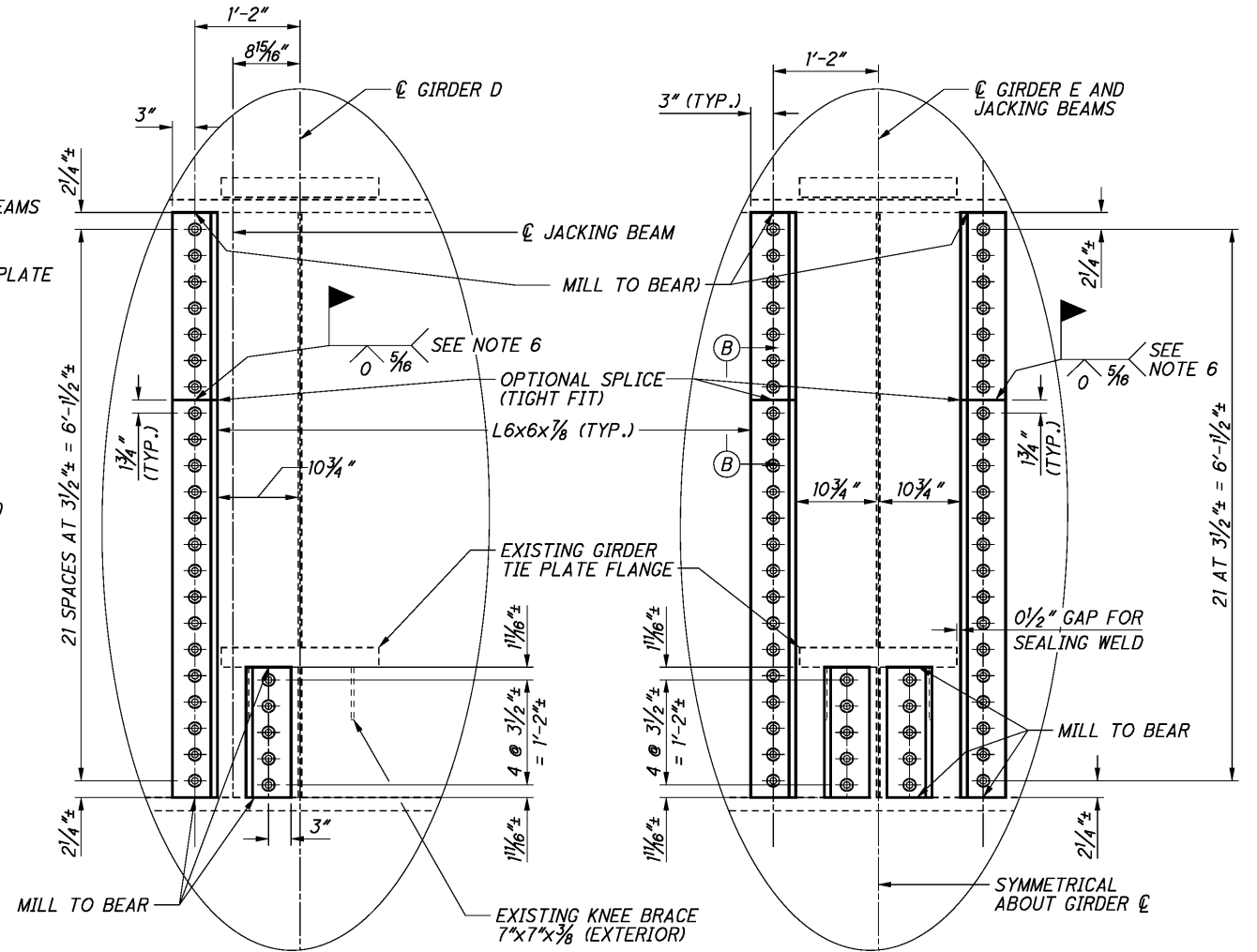
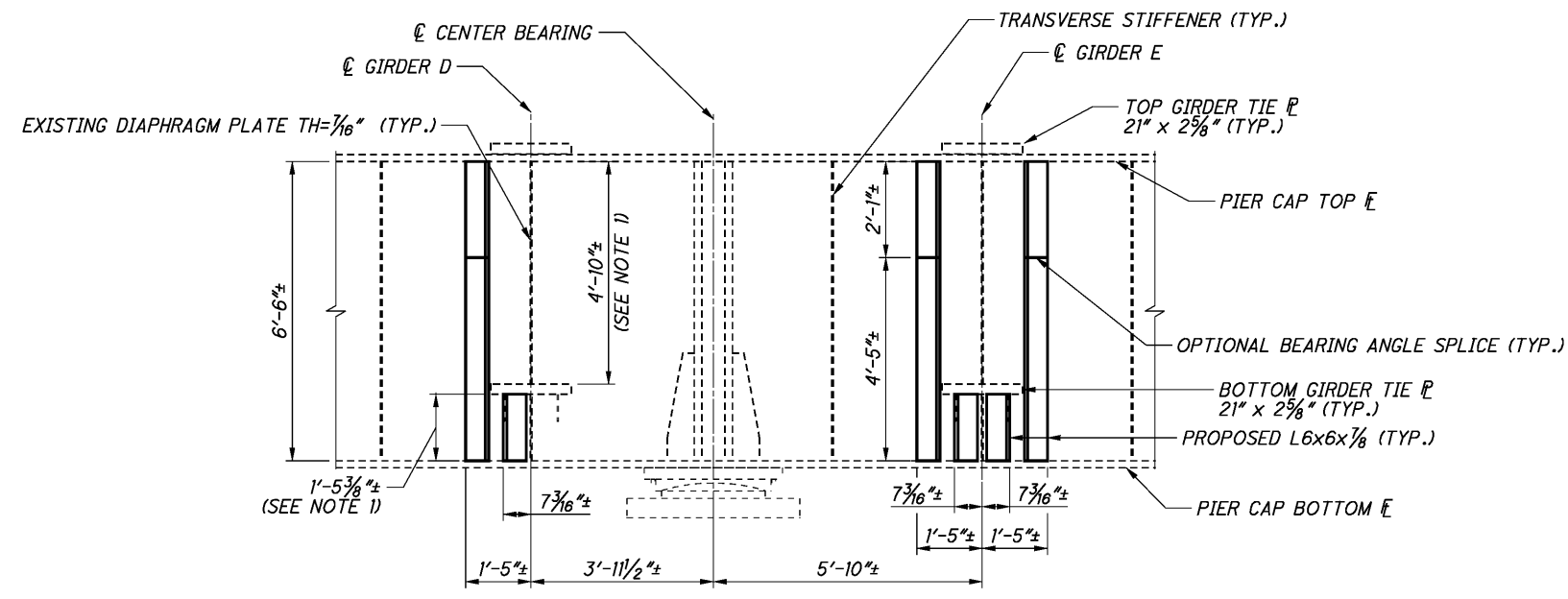
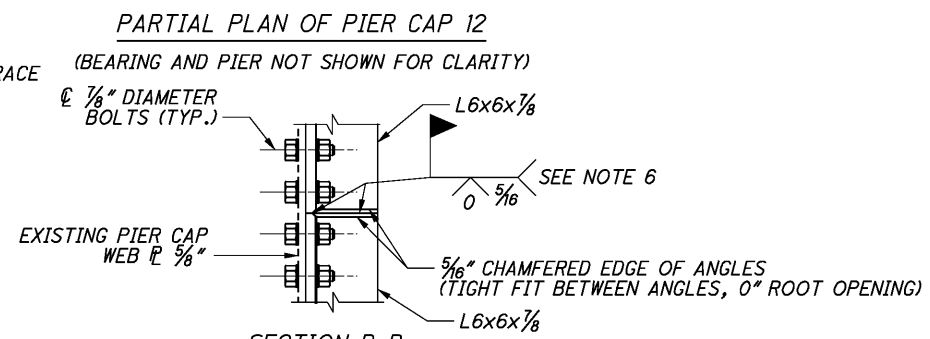
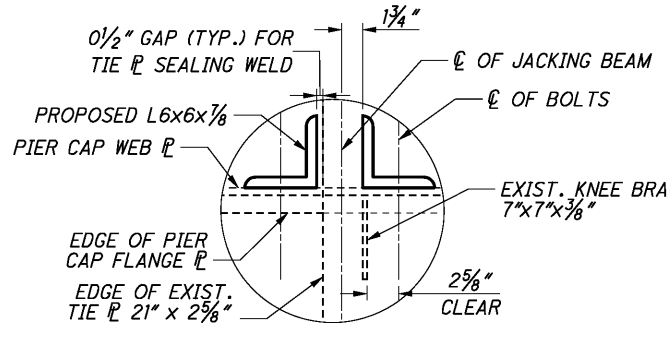
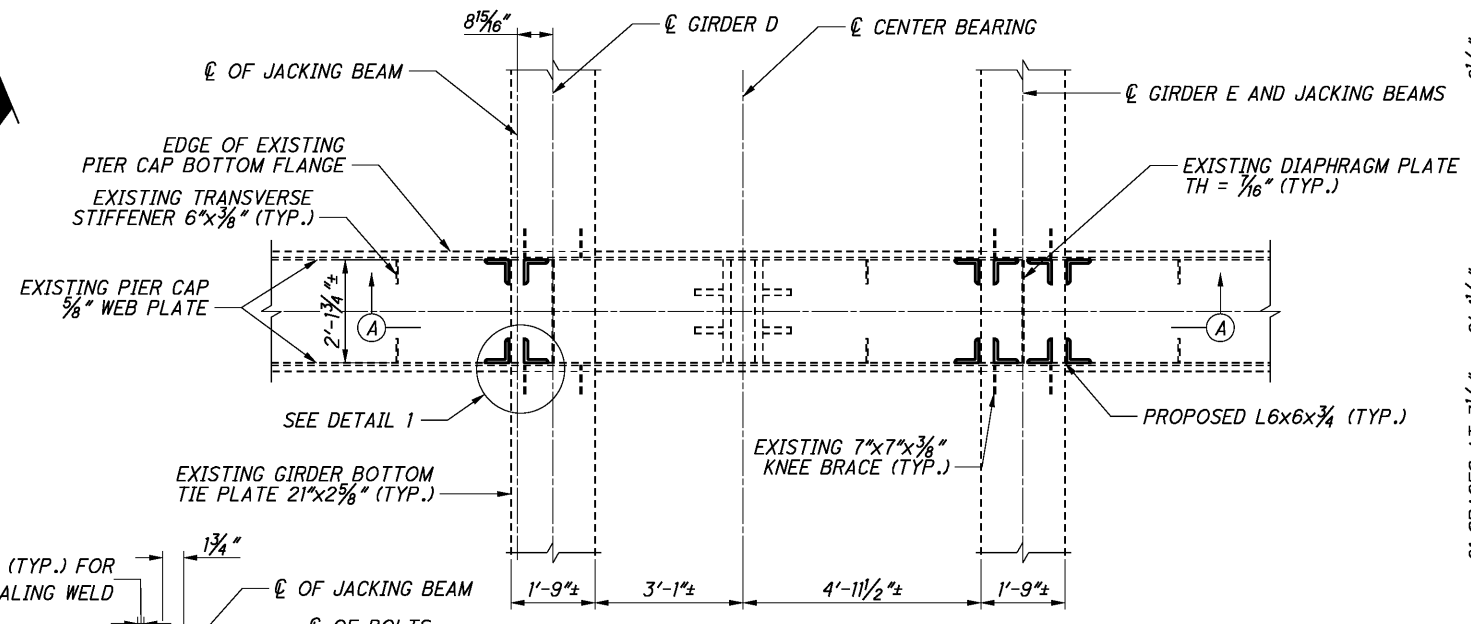
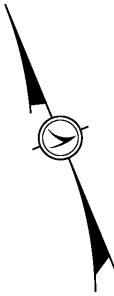
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* MEASUREMENTS ARE MADE PERPENDICULAR TO STEEL PIER CAP



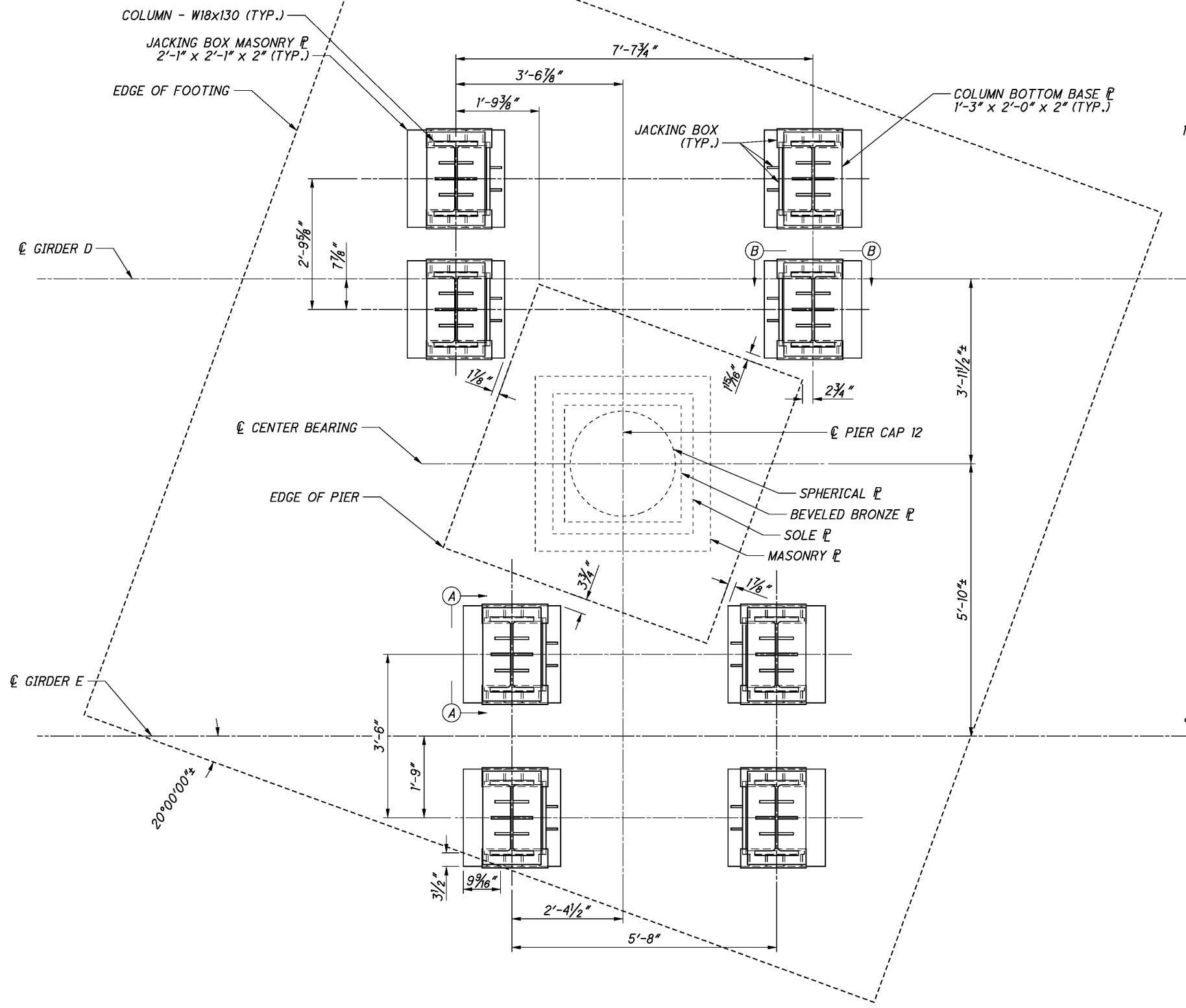
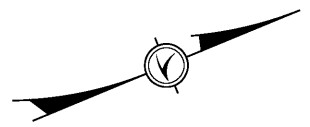
- NOTES
1. FOR PLAN OF JACKING BOXES AND COLUMN LAYOUT SEE SHEET S5 / S13.
 2. FOR PLAN OF JACKING AND SUPPORT BEAMS SEE SHEET S6 / S13.
 3. FOR ELEVATION OF JACKING SYSTEM SEE SHEETS S7 / S13 AND S8 / S13.
 4. FOR DETAILS OF JACKING BOXES, COLUMNS, JACKING BEAMS AND SUPPORT BEAMS SEE SHEETS S9 / S13 TO S11 / S13.
 5. FOR DETAILS OF THE BRONZE BEARING PLATE WORK, SEE SHEET S12 / S13.



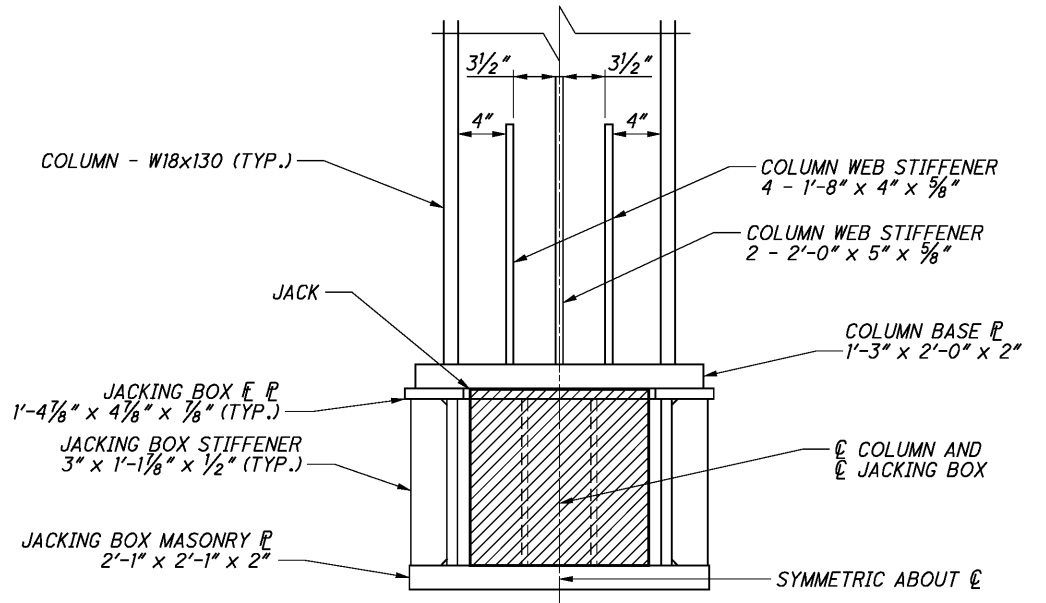
NOTES

1. FIELD VERIFY THE LOCATION OF THE TIE PLATE AND LENGTH OF THE PROPOSED ANGLES. ALL ANGLES SHALL BE MILLED TO BEAR AT EACH END.
2. ALL BOLTS 7/8\"/>

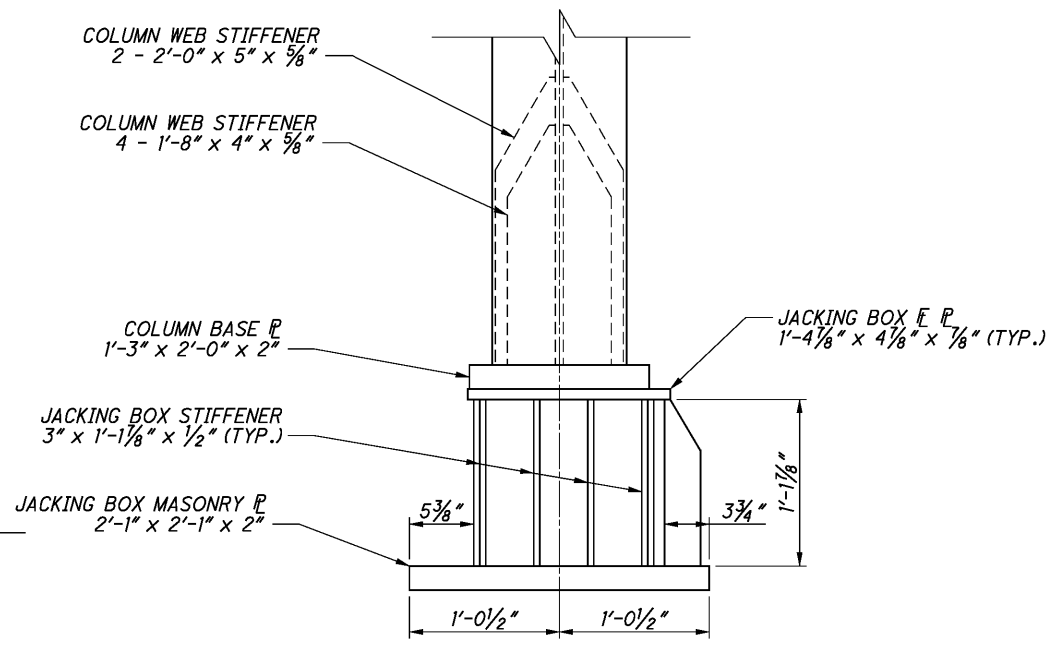
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PLAN OF JACKING BOXES AND COLUMNS



SECTION A-A
(TOP OF FOOTING NOT SHOWN)

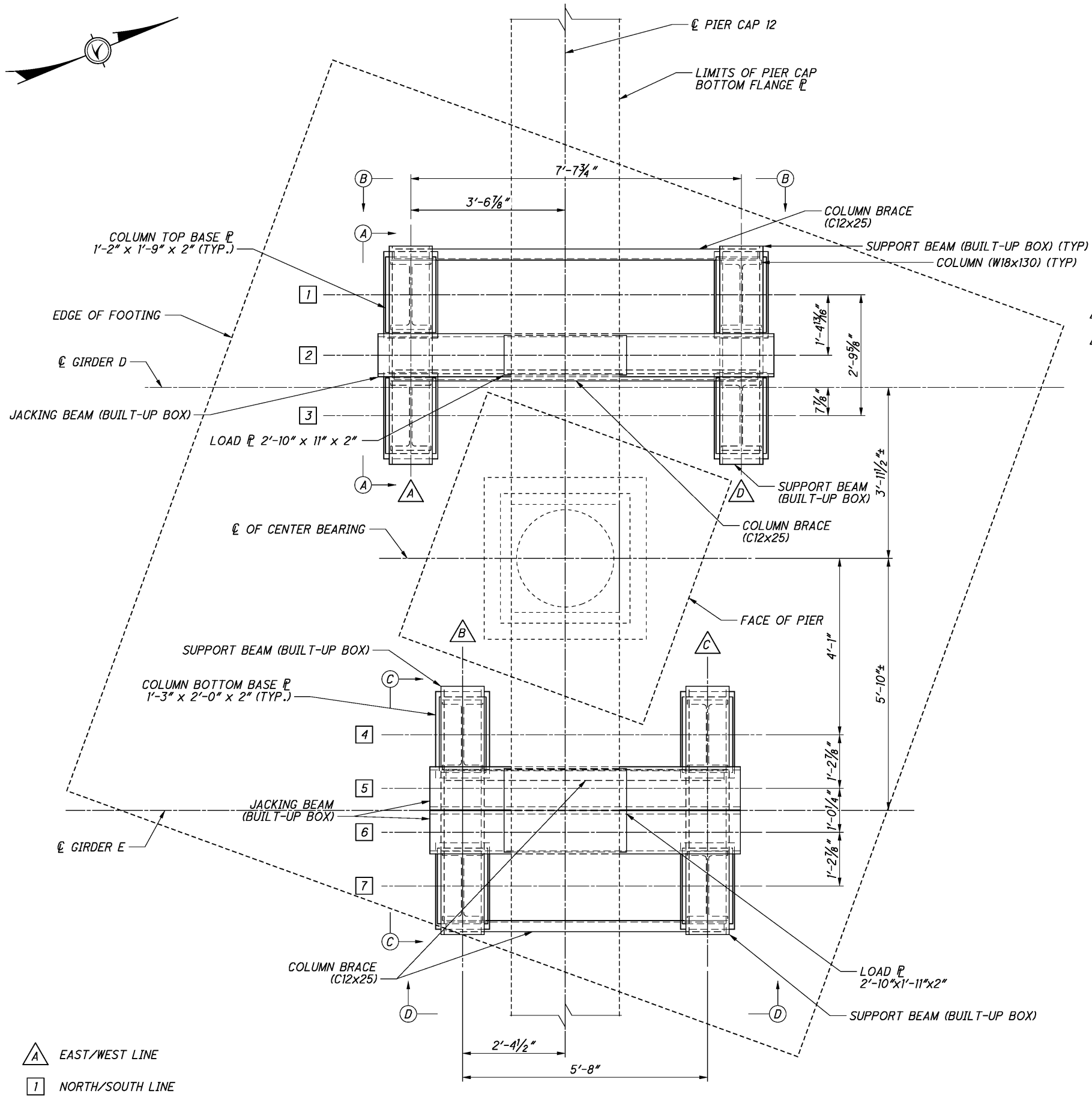
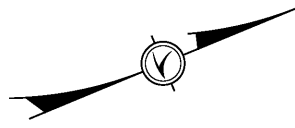


SECTION B-B
(TOP OF FOOTING NOT SHOWN)

NOTES

1. FOR ADDITIONAL JACKING BOX DETAILS SEE SHEET S9/S13.
2. FOR ADDITIONAL COLUMN DETAILS SEE SHEET S10/S13.
3. FOR INFORMATION ON JACKING AND SUPPORT BEAMS SEE SHEET S6/S13.
4. ALL COSTS FOR JACKING BOXES, COLUMNS AND JACKS SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516 - JACKING AND TEMPORARY SUPPORTS OF SUPERSTRUCTURE, AS PER PLAN.
5. ALL COSTS ASSOCIATED WITH THE REMOVAL OF THE EXISTING SIDEWALK AND SOIL SHALL BE INCLUDED FOR PAYMENT WITH ITEM 202 - REMOVAL, MISC.: EXPOSING PIER FOOTING AND RESTORATION.

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BEAM AND COLUMN KEY

MEMBER ID	DESCRIPTION	# OF MEMBERS	LENGTH
2 2	GIRDER D JACKING BEAM	1	9'-2"
5 5	GIRDER E JACKING BEAM	1	7'-3"
6 6	GIRDER E JACKING BEAM	1	7'-3"
A A	GIRDER D SUPPORT BEAM	1	5'-1"
B B	GIRDER E SUPPORT BEAM	1	5'-9"
C C	GIRDER E SUPPORT BEAM	1	5'-9"
D D	GIRDER D SUPPORT BEAM	1	5'-1"
A 1; A 3; D 1; D 3	GIRDER D COLUMN	4	11'-6 1/16"
B 4; B 7; C 4; C 7	GIRDER E COLUMN	4	11'-6 1/16"

BUILT-UP BOX JACKING AND SUPPORT BEAMS CONSISTS OF:
 A) 2 - 12"x1 3/4" FLANGE PLATES
 B) 2 - 31"x 7/8" WEB PLATES

JACKING SYSTEM STEEL WEIGHT (LBS)					
DESCRIPTION	ROLLED MEMBERS	BUILT-UP MEMBERS	STIFFENERS	MISC. PLATES	SUB-TOTAL
JACKING BEAMS		4607	458		5065
SUPPORT BEAMS	15276		1756	3045	20077
COLUMNS		8128	929	657	9714
JACKING BOXES		7420	973		8393
JACKING SYSTEM TOTAL					43249

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 1 WEIGHT					
DESCRIPTION	ROLLED MEMBERS	BUILT-UP MEMBERS	STIFFENERS	MISC. PLATES	SUB-TOTAL
GIRDER D	576				576
GIRDER E	1149				1149
LEVEL 1 STEEL TOTAL					1725

NOTES

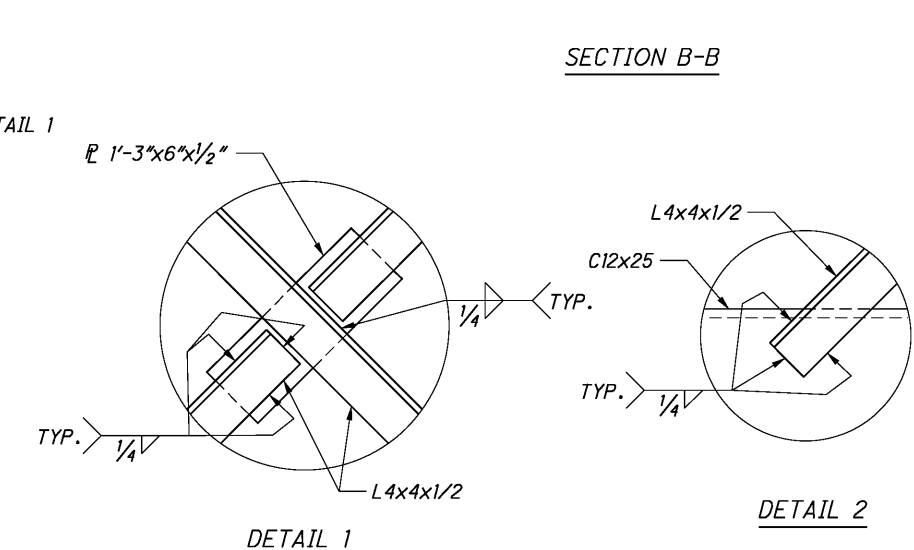
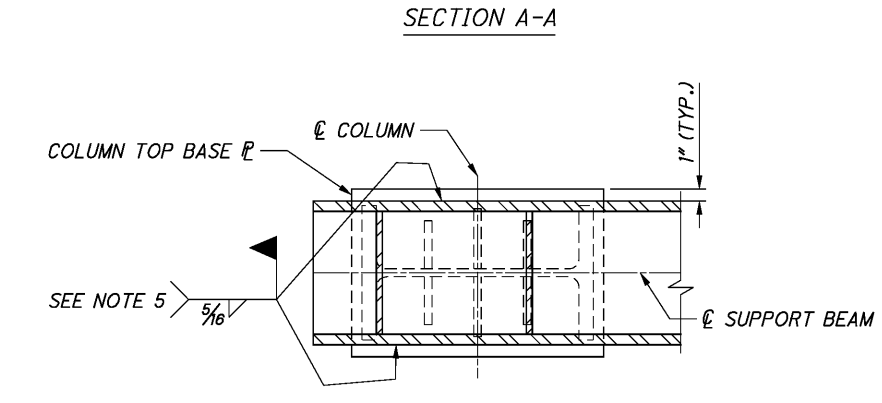
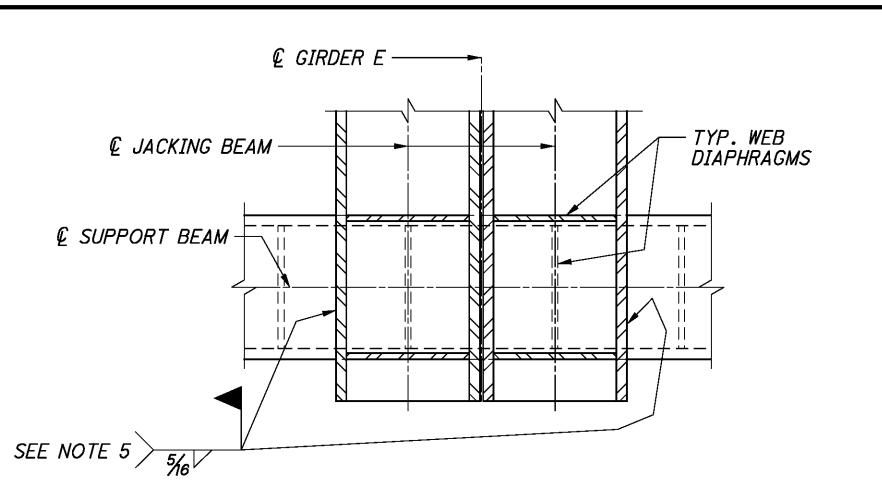
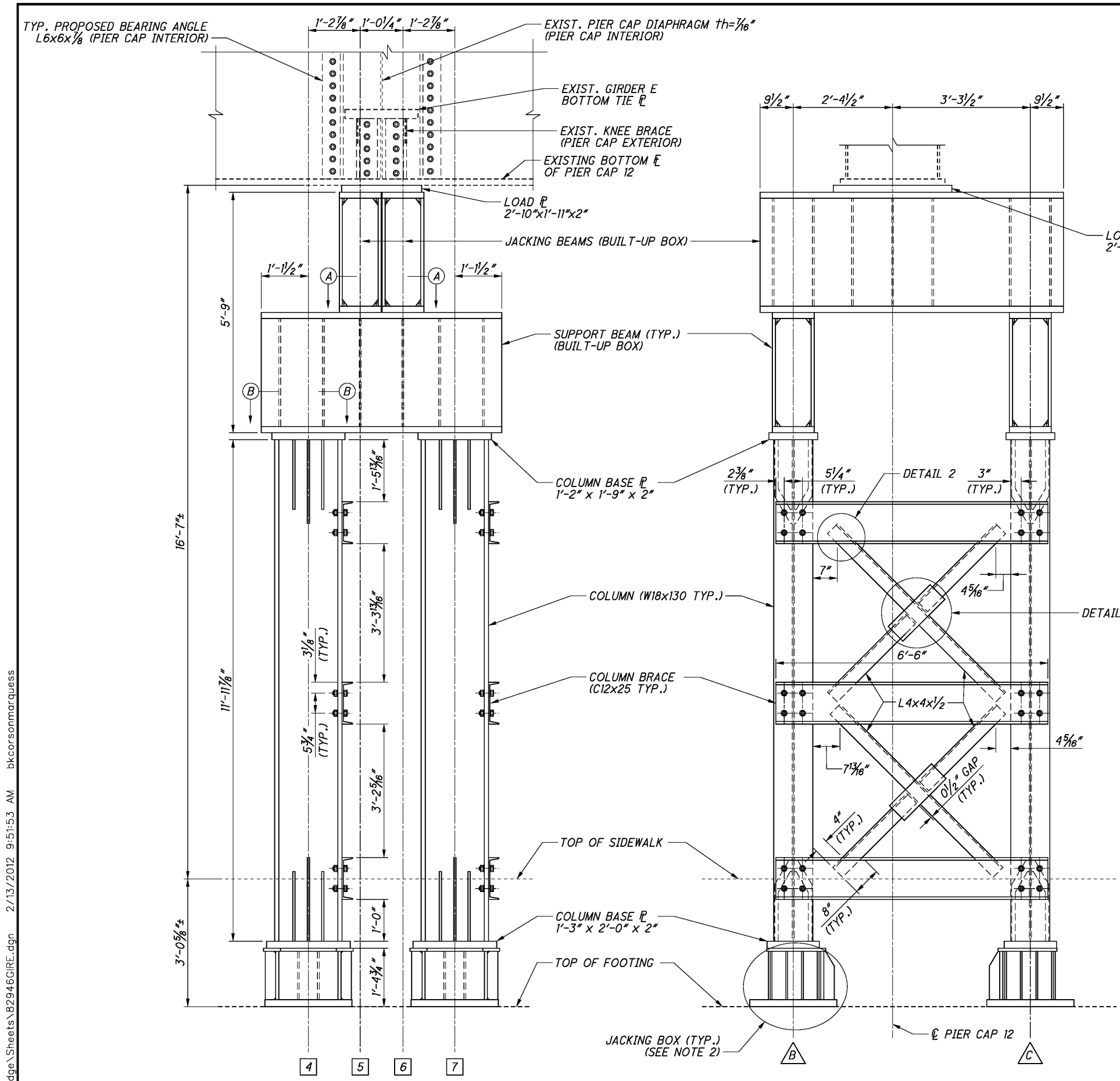
- WEB STIFFENERS (FOR ALL MEMBERS) AND JACKING BOXES ARE NOT SHOWN FOR CLARITY.
- FOR SECTIONS A-A AND B-B SEE SHEET S7/S13.
- FOR SECTIONS C-C AND D-D SEE SHEET S8/S13.
- FOR ADDITIONAL DETAILS FOR JACKING BEAMS AND SUPPORT BEAMS SEE SHEET S11/S13.
- FOR PLAN OF JACKING BOXES SEE SHEET S5/S13. FOR JACKING BOX DETAILS SEE SHEET S9/S13.
- ALL COSTS FOR JACKING BEAMS, SUPPORT BEAMS, COLUMNS, BRACES AND LOAD PLATES SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516 - JACKING AND TEMPORARY SUPPORTS OF SUPERSTRUCTURE, AS PER PLAN.
- ALL COSTS FOR STRENGTHENING THE EXISTING PIER CAP AT THE JACKING LOCATIONS SHALL BE INCLUDED FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 1.

JACKING SYSTEM PLAN
 (DIAGONAL BRACING NOT SHOWN FOR CLARITY)

A EAST/WEST LINE
 1 NORTH/SOUTH LINE

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- NOTES**
1. FOR LOCATION OF SECTIONS C-C AND D-D SEE SHEET **S6/S13**.
 2. FOR JACKING BOX PLAN LAYOUT SEE SHEET **S5/S13**. FOR JACKING BOX DETAILS SEE SHEET **S9/S13**.
 3. FOR ADDITIONAL DETAILS FOR JACKING BEAMS AND SUPPORT BEAMS SEE SHEET **S11/S13**.
 4. FOR ADDITIONAL COLUMN DETAILS SEE SHEET **S10/S13**.
 5. TERMINATE WELDS 1/2" BEFORE EDGE OF PLATE.
 6. ALL COSTS FOR JACKING BEAMS, SUPPORT BEAMS, COLUMNS, STIFFENERS, LOAD PLATES, BRACES AND JACKING BOXES SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516 - JACKING AND TEMPORARY SUPPORTS OF SUPERSTRUCTURE, AS PER PLAN.

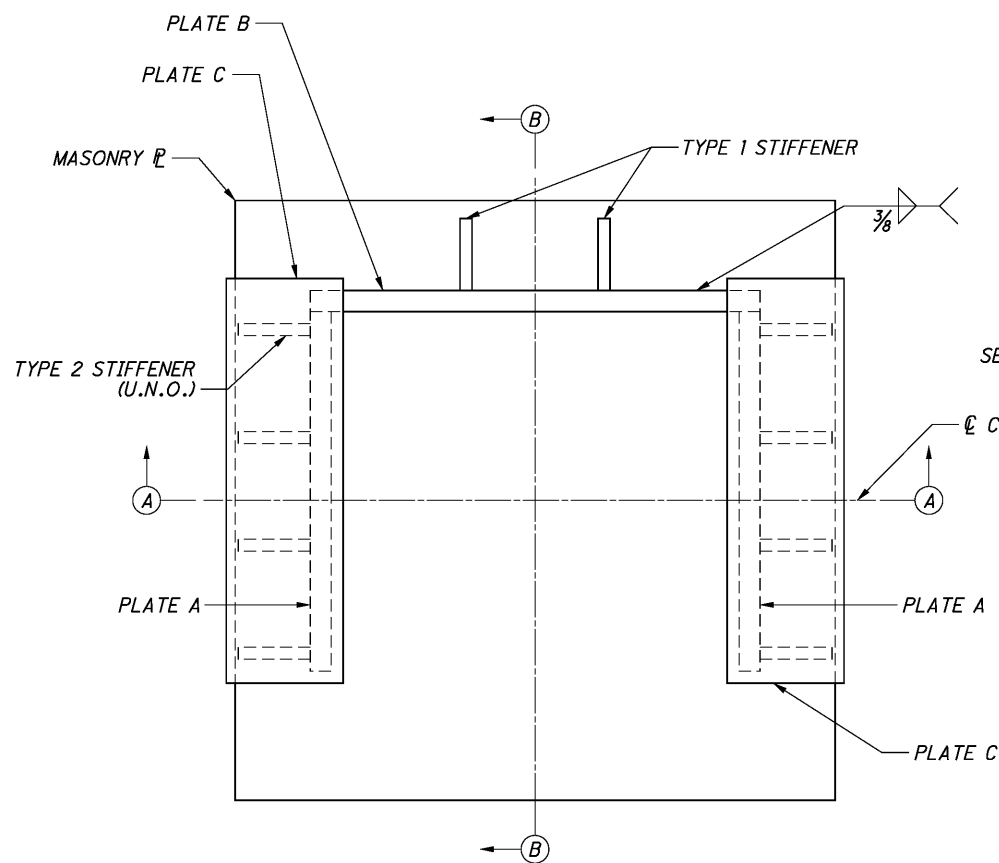
SECTION C-C
SOUTH ELEVATION
(DIAGONAL BRACING NOT SHOWN FOR CLARITY)

SECTION D-D
EAST ELEVATION
(PIER CAP STRENGTHENING ANGLES NOT SHOWN FOR CLARITY)

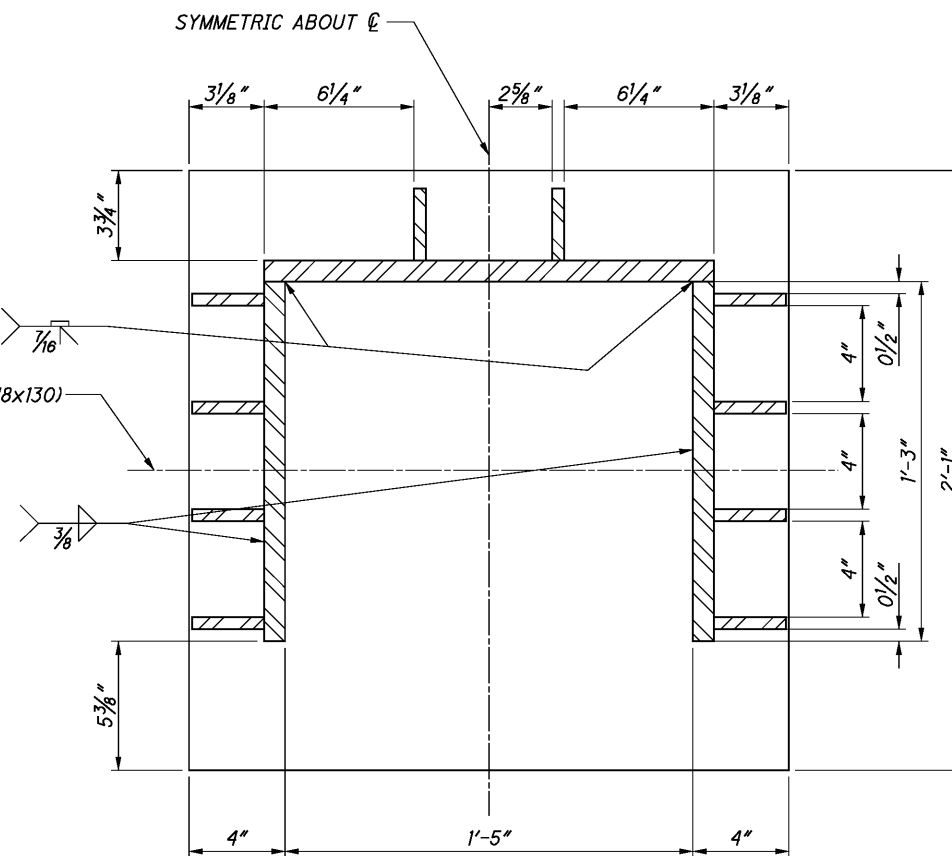
A EAST/WEST LINE
I NORTH/SOUTH LINE

	DESIGN AGENCY	DATE	1/19/2012
	55 PUBLIC SQUARE SUITE 1900 CLEVELAND, OHIO 44113	REVIEWED	WRW
STRUCTURE FILE NUMBER	3106802	DRAWN	BKC
DESIGNED	BKC	CHECKED	CTG
GIRDER E JACKING SYSTEM ELEVATION PIER 12 CENTER BEARING RETROFIT I-71 OVER FLORENCE AVENUE			
HAM-71-0248R PID No. 92793		S8/S13 15/20	

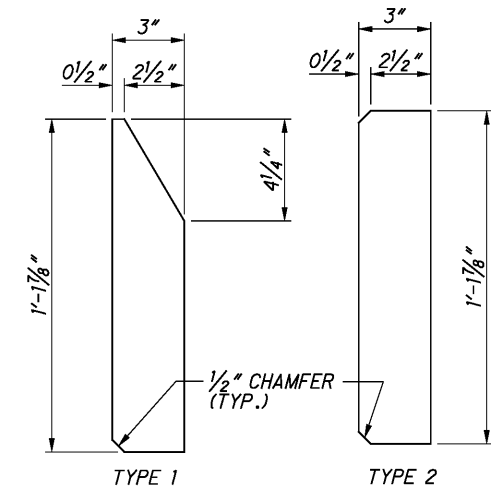
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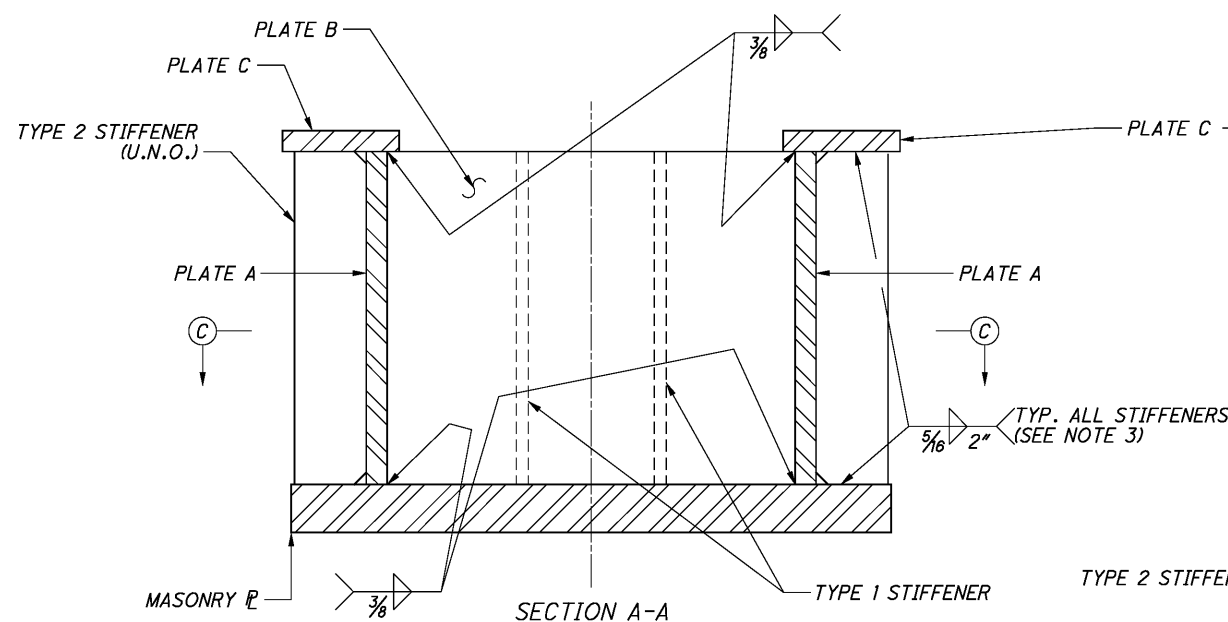
JACKING BOX PLAN



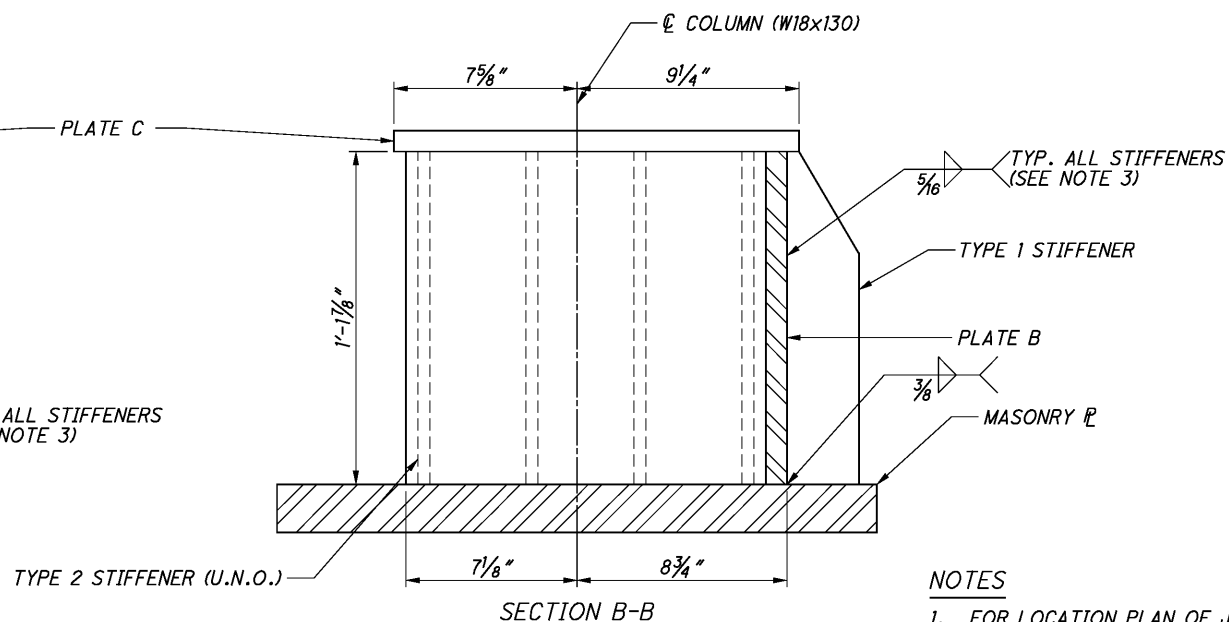
SECTION C-C



STIFFENER DETAILS
ALL STIFFENERS 1/2" THICK



SECTION A-A



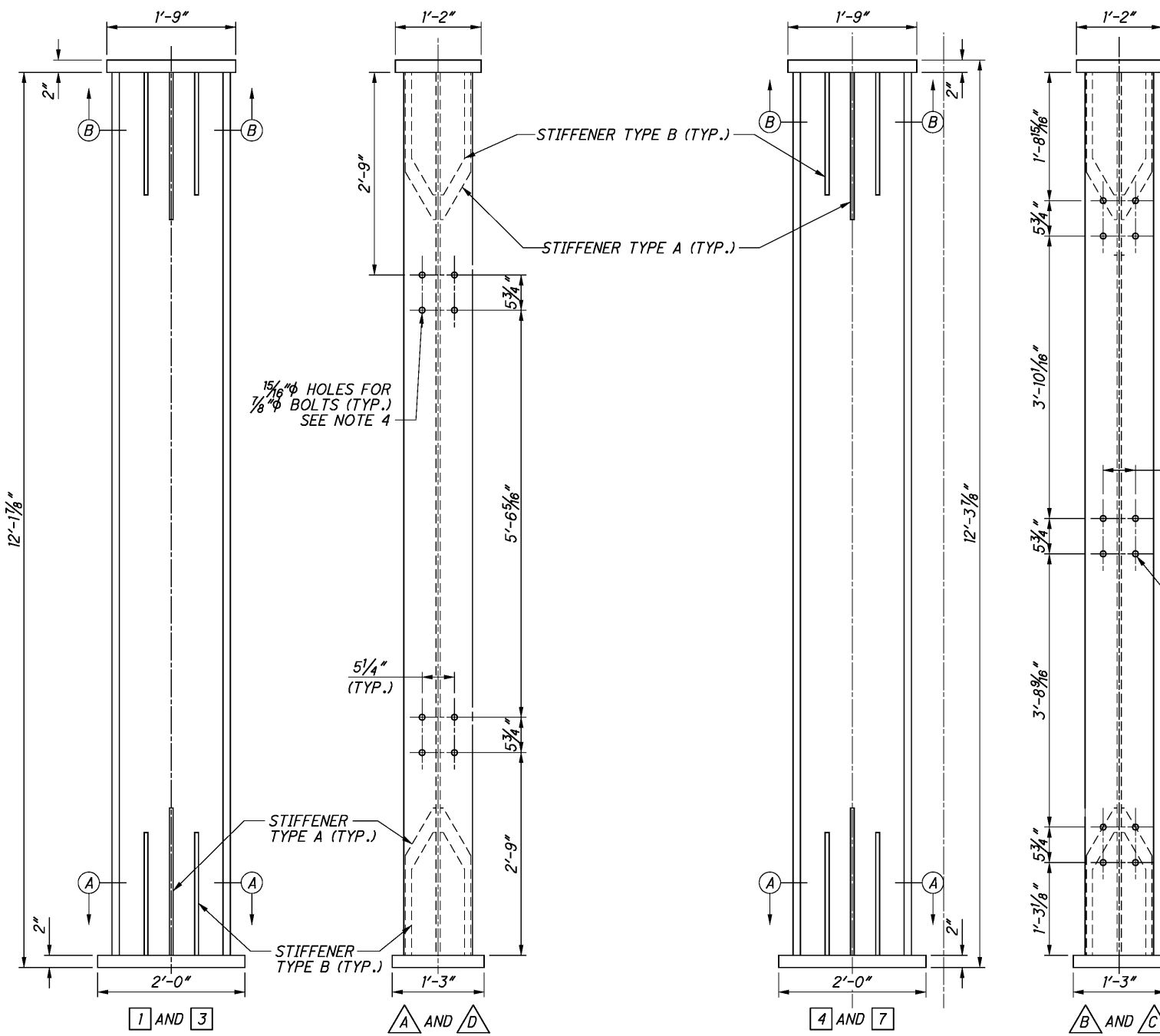
SECTION B-B

NOTES

- FOR LOCATION PLAN OF JACKING BOXES SEE SHEET S5/S13.
- MILL TO BEAR PLATES A, B, AND ALL STIFFENERS AGAINST MASONRY C AND PLATE C.
- TERMINATE ALL STIFFENER WELDS 1/2" BEFORE CHAMFER.
- BACKER BARS MAY BE OMITTED IF FAR SIDE BLOW OUT IS PREVENTED. IF BACKER BARS ARE USED, REMOVE BACKER BARS AFTER WELDING, AND GRIND THE FAR SIDE OF THE WELD SO THAT STIFFENERS ARE FLUSH WITH PLATE A.
- ALL COSTS FOR FABRICATION OF JACKING BOXES SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516 - JACKING AND TEMPORARY SUPPORTS OF SUPERSTRUCTURE, AS PER PLAN.

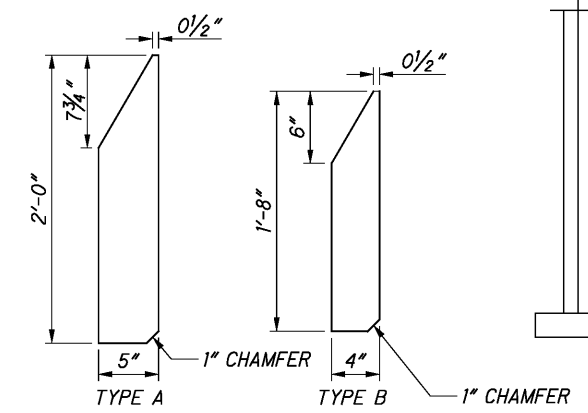
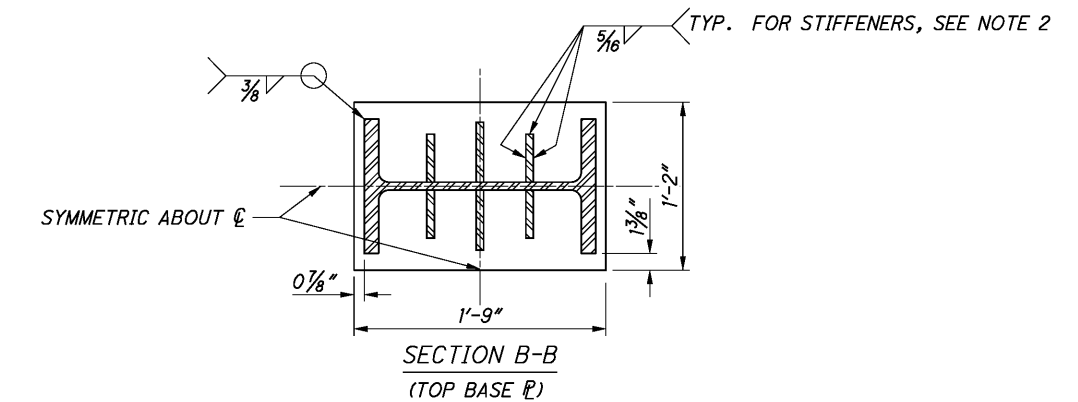
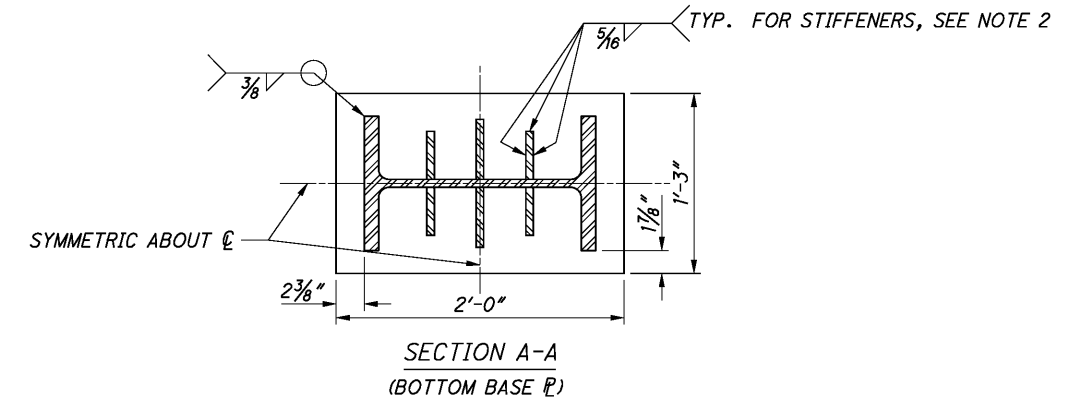
JACKING BOX PLATE DIMENSIONS			
PLATE	LENGTH	WIDTH/HEIGHT	THICK.
A	1'-3"	1'-1 1/8"	7/8"
B	1'-6 3/4"	1'-1 1/8"	7/8"
C	1'-4 1/8"	4 1/8"	7/8"
MASONRY	2'-1"	2'-1"	2"

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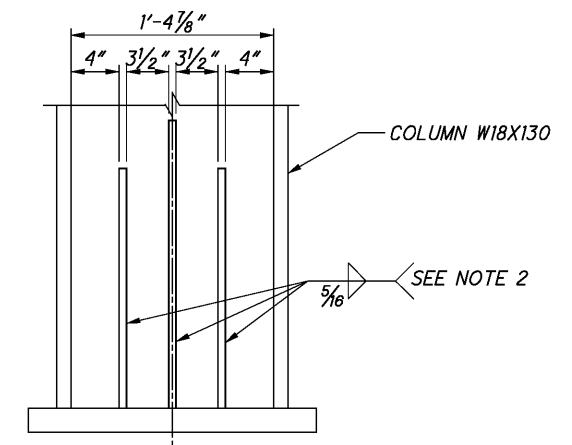


GIRDER D COLUMNS

GIRDER E COLUMNS



STIFFENER DETAILS
STIFFENER PLATES 5/8" THICK

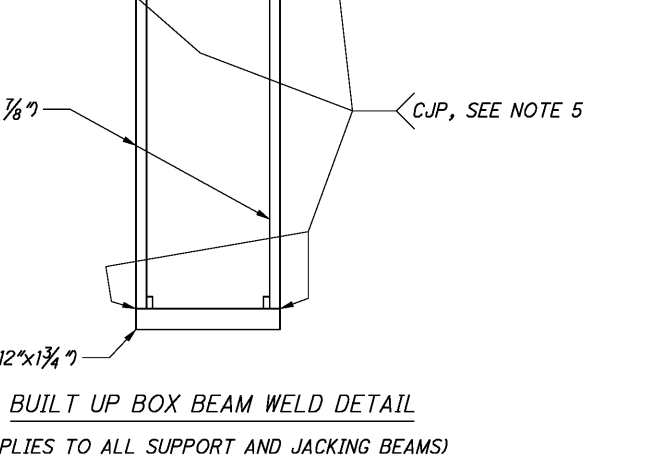
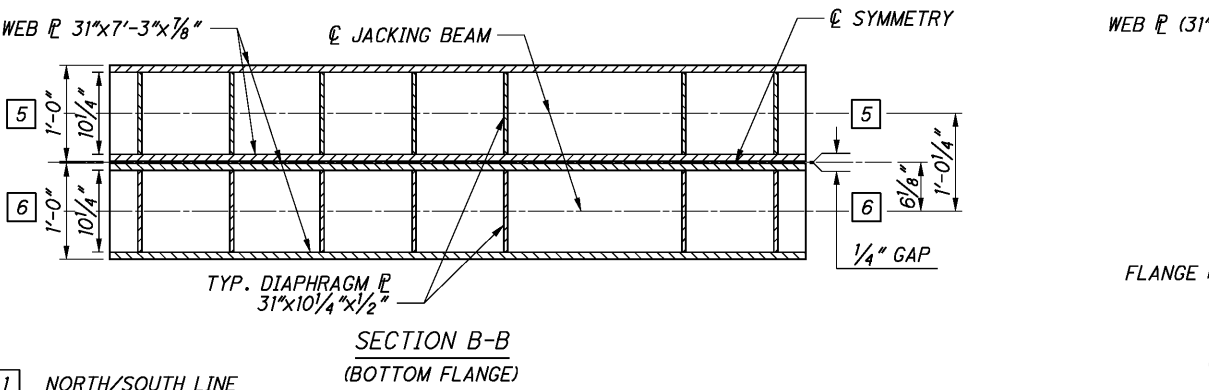
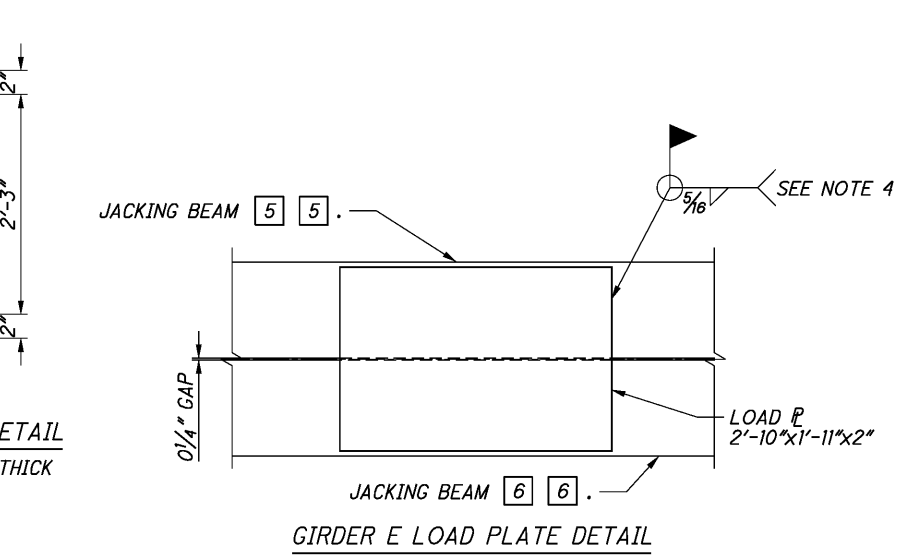
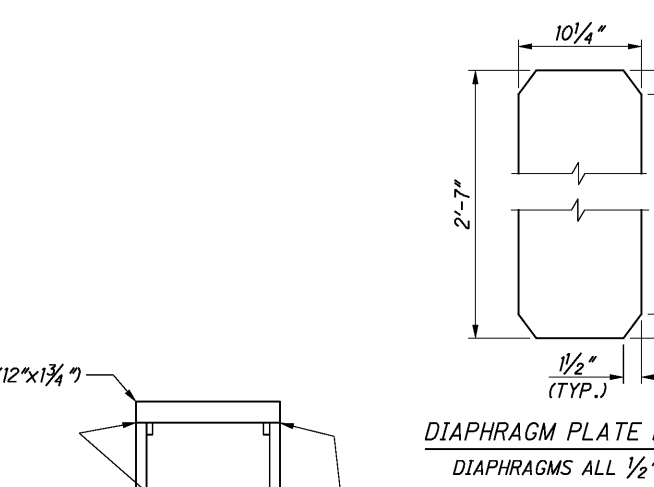
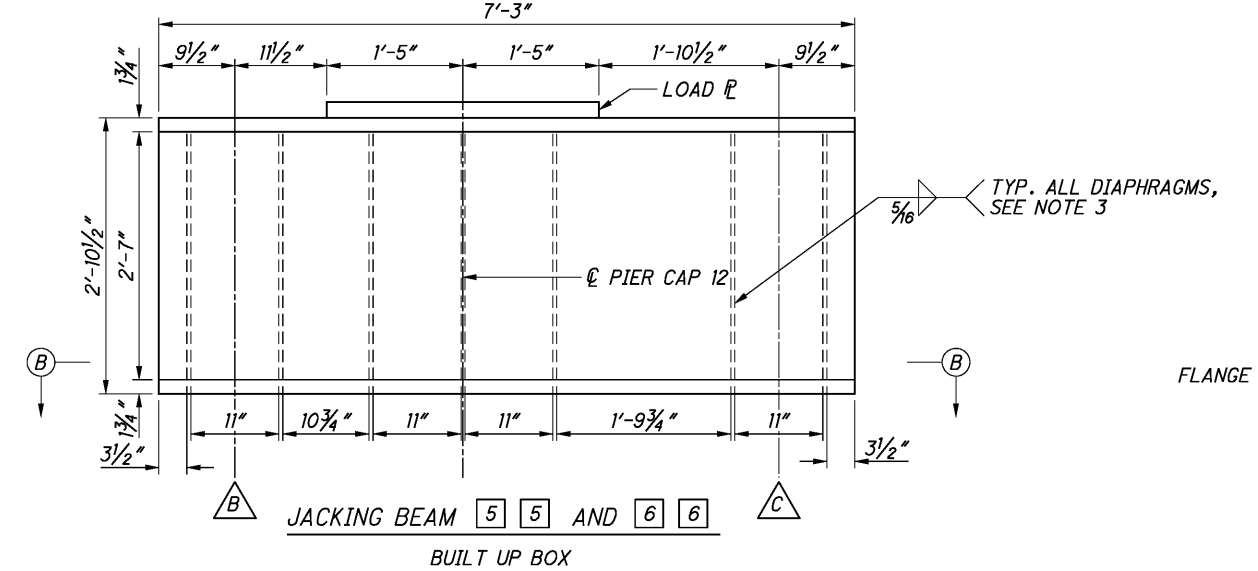
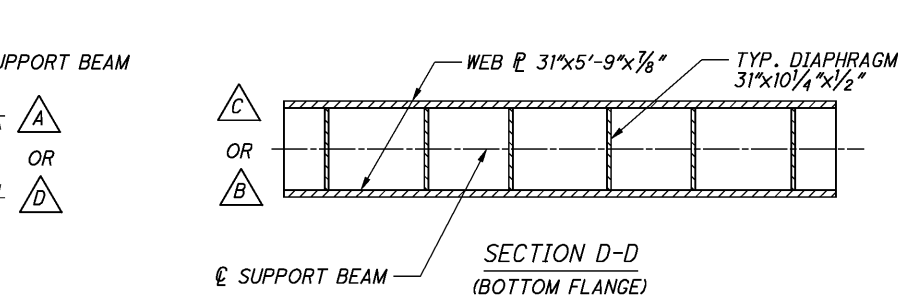
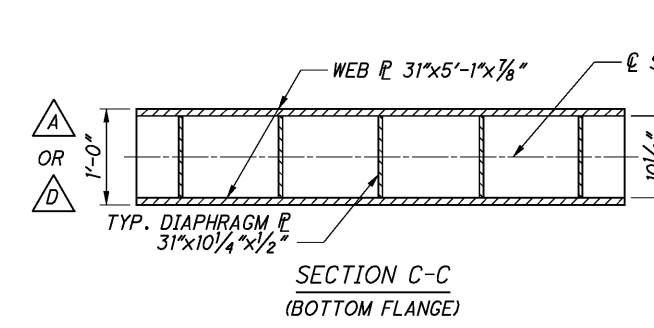
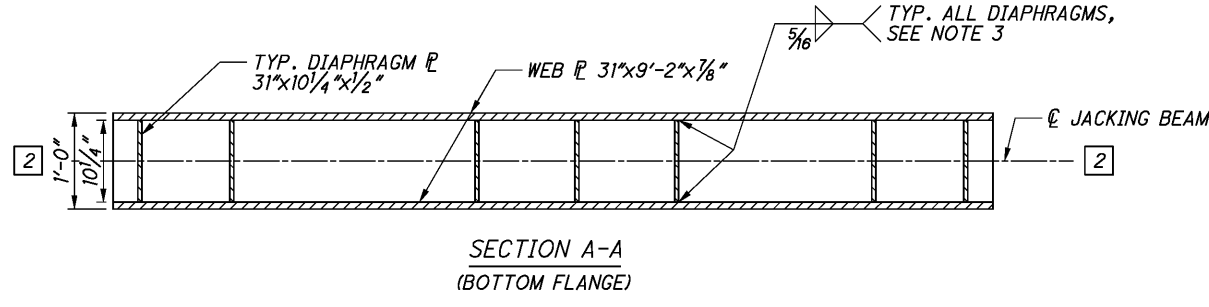
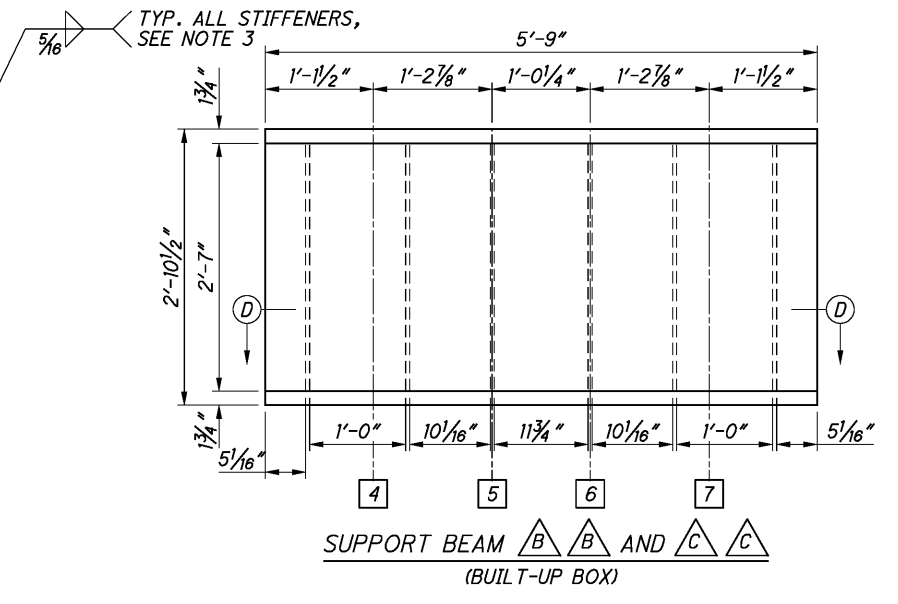
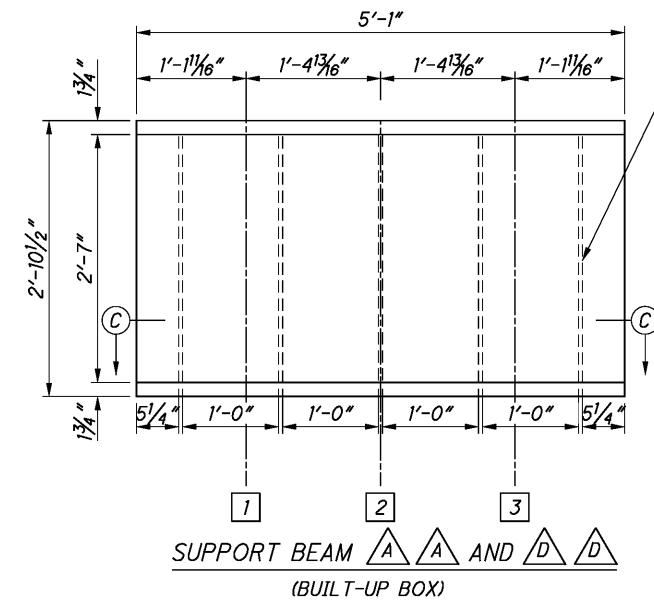
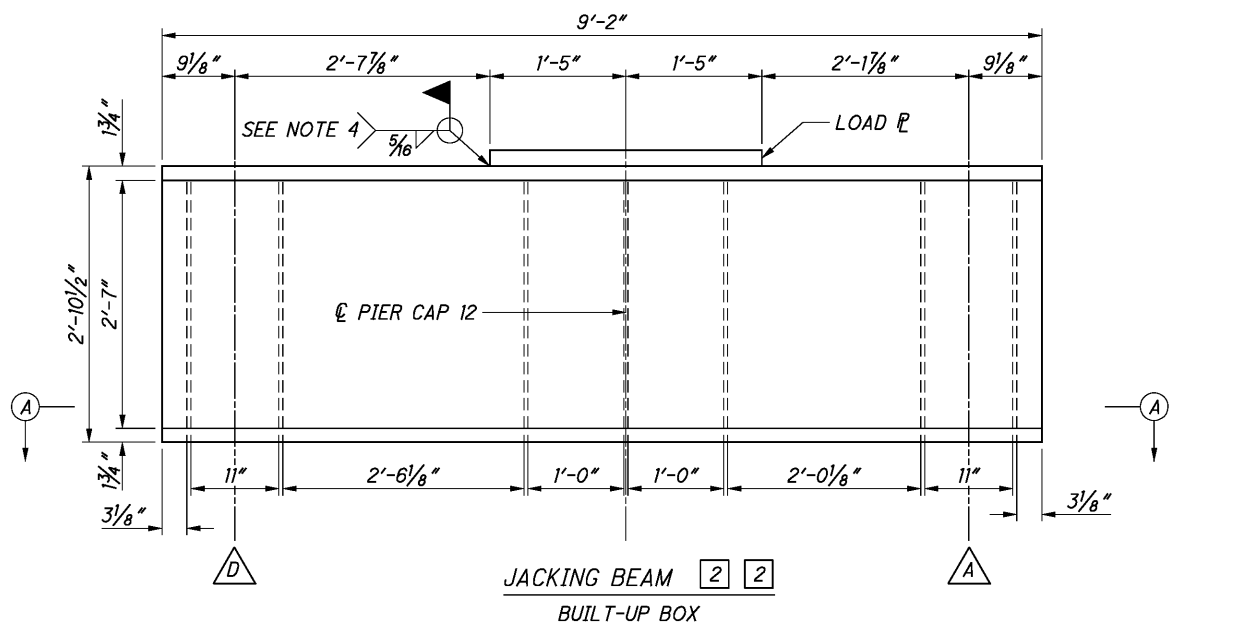


DETAIL A
(BOTTOM STIFFENERS SHOWN
TOP STIFFENERS ARE SYMMETRIC)

- NOTES**
- FOR A PLAN OF THE COLUMN LOCATION SEE SHEETS S5/S13 AND S6/S13.
 - TERMINATE WELDS 1/2" FROM STIFFENER CHAMFER.
 - MILL TO BEAR ALL COLUMNS/BASE PLATES AS WELL AS STIFFENERS/BASE PLATES.
 - BOLT HOLES ONLY LOCATED ON WEST FLANGE OF GIRDER D COLUMNS. BOLT HOLES ONLY LOCATED ON EAST FLANGE OF GIRDER E COLUMNS.
 - ALL COSTS FOR FABRICATION OF COLUMNS INCLUDING ROLLED SECTIONS, STIFFENER PLATES, AND BASE PLATES SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516 - JACKING AND TEMPORARY SUPPORTS OF SUPERSTRUCTURE, AS PER PLAN.

△ EAST/WEST LINE
1 NORTH/SOUTH LINE

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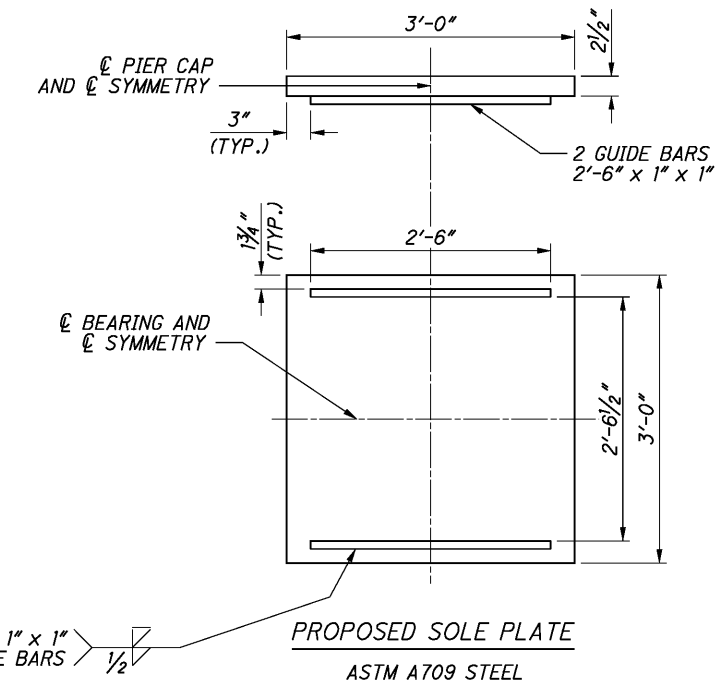
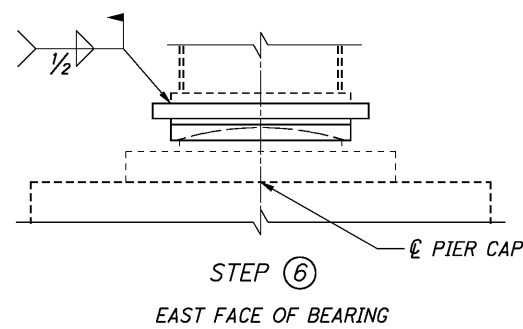
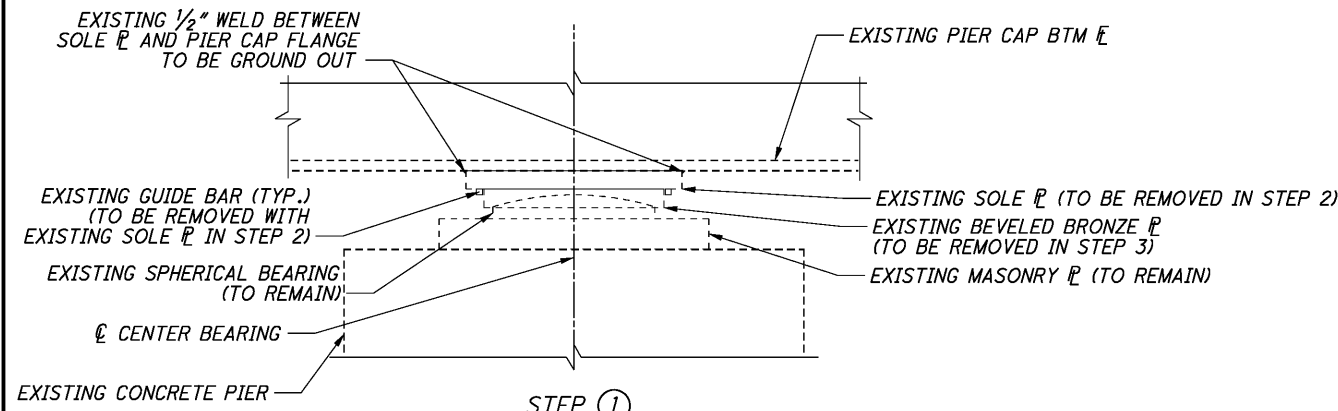


NOTES

- FOR LOCATION OF JACKING AND SUPPORT BEAMS SEE SHEET S6/S13.
- ALL STIFFENERS MILLED TO BEAR AGAINST FLANGES.
- TERMINATE ALL STIFFENER WELDS 1/2" BEFORE CHAMFERS.
- BREAK WRAP AROUND WELD FOR 1/2" ON EACH SIDE OF EDGE OF FLANGE PLATE.
- BACKER BARS CAN REMAIN IN PLACE AFTER COMPLETE JOINT PENETRATION WELD.
- ALL COSTS FOR FABRICATION OF JACKING AND SUPPORT BEAMS, INCLUDING DIAPHRAGMS AND LOAD PLATES, SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516 - JACKING AND TEMPORARY SUPPORTS OF SUPERSTRUCTURE, AS PER PLAN.

1 NORTH/SOUTH LINE
 A EAST/WEST LINE

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SUGGESTED SEQUENCE OF WORK

- ① REMOVE BY GRINDING 1/2" FILLET WELD BETWEEN EXISTING SOLE PLATE (THICK=3") AND EXISTING BOTTOM FLANGE OF THE PIER CAP.
- ② JACK EXISTING PIER CAP SO THAT 1/2" CLEARANCE IS PROVIDED BETWEEN BOTTOM OF THE EXISTING PIER CAP FLANGE AND THE TOP OF THE EXISTING SOLE PLATE. DO NOT JACK PIER CAP MORE THAN 1/4".

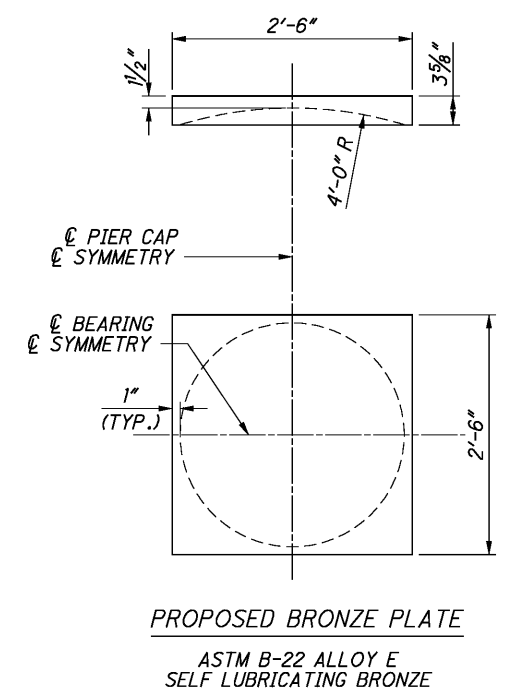
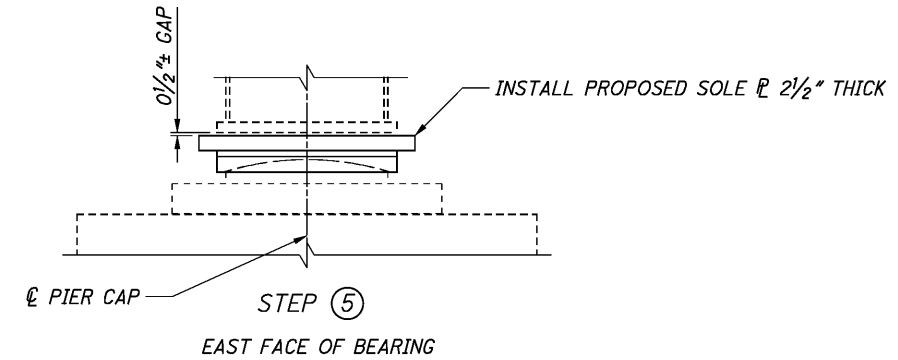
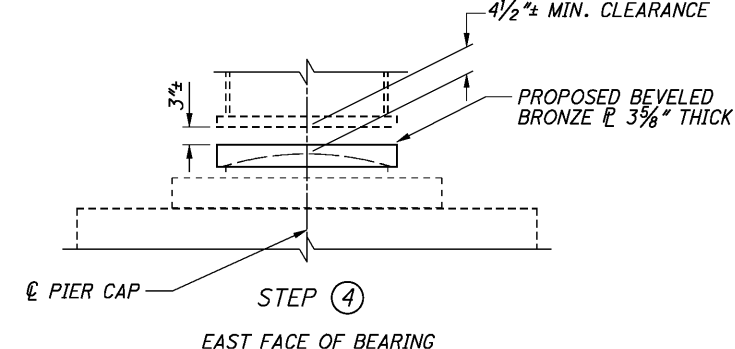
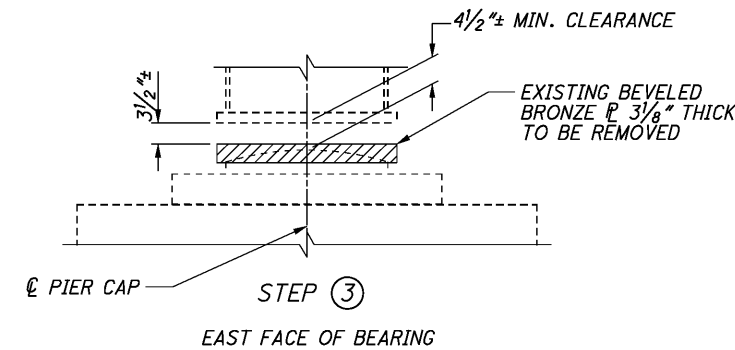
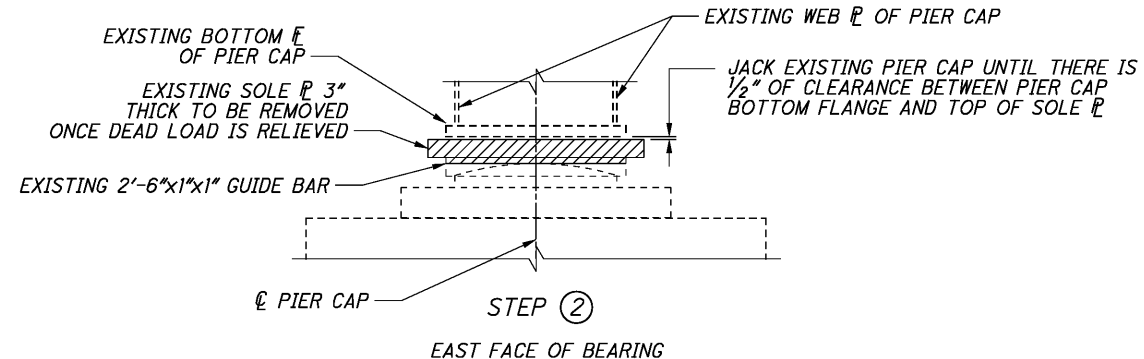
INSERT AND TACK WELD SHIMS IN PLACE BETWEEN THE COLUMN BASE AND THE JACKING BOX. ENSURE SHIMS ARE FULLY LOADED AND JACKS ARE LOCKED OFF BEFORE REMOVING ANY EXISTING MATERIAL.

REMOVE THE EXISTING 3" THICK SOLE PLATE.
- ③ LIFT THE BEVELED BRONZE PLATE AT LEAST 2/8" AND REMOVE FROM THE BEARING ASSEMBLY. CARE SHALL BE TAKEN NOT TO DAMAGE THE EXISTING STEEL SPHERICAL PLATE.

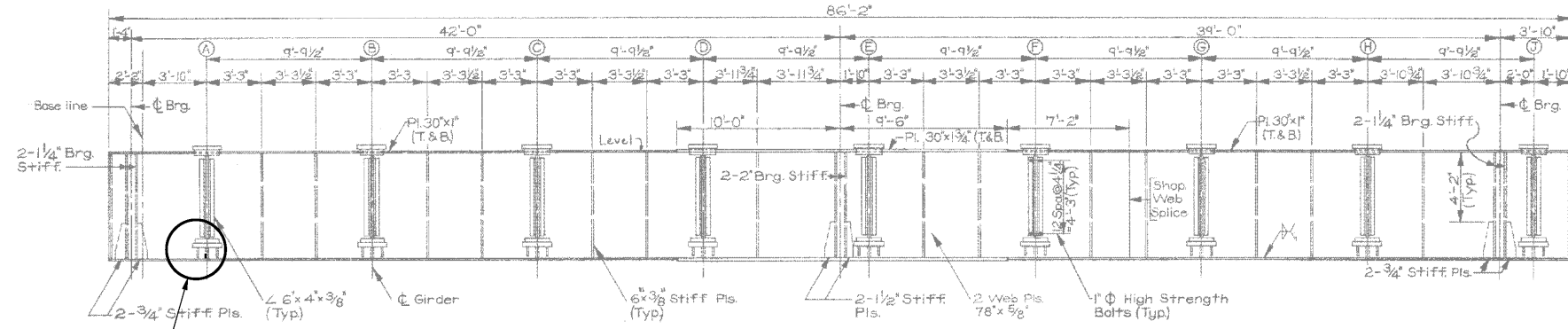
AFTER REMOVAL OF THE EXISTING BRONZE PLATE, CLEAN THE SPHERICAL PLATE (TO REMAIN) AND INSPECT FOR ANY DEFICIENCIES.
- ④ INSTALL, CENTER AND PLUMB THE PROPOSED 3/8" BEVELED BRONZE PLATE ON TOP OF THE EXISTING SPHERICAL PLATE.
- ⑤ PLACE PROPOSED 2 1/2" SOLE PLATE BETWEEN PROPOSED BEVELED BRONZE PLATE AND EXISTING PIER CAP FLANGE. SOLE PLATE WILL HAVE BOTH GUIDE BARS INSTALLED AT TIME OF INSTALLATION.
- ⑥ UNLOAD JACKS, FULLY SEAT BEARING, AND WELD THE SOLE PLATE TO THE PIER CAP FLANGE.

NOTES

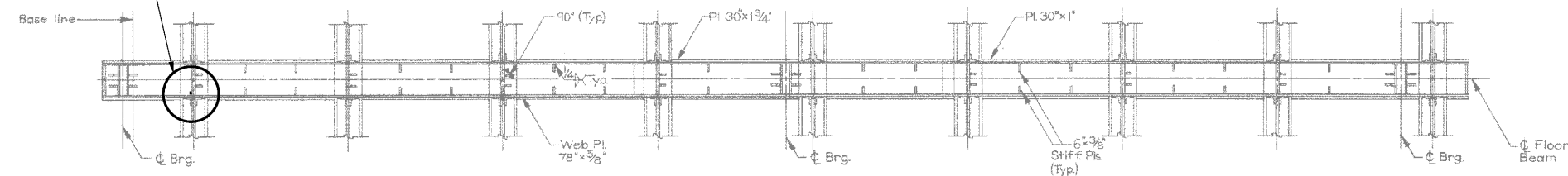
1. FOR ADDITIONAL NOTES ABOUT JACKING SEE SHEET S2/S13.
2. FOR JACKING PLAN AND DETAILS SEE SHEETS S5/S13 TO S11/S13.
3. ALL COSTS TO REMOVE AND REPLACE EXISTING SOLE AND BRONZE PLATES SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516 - BEARING DEVICE, MISC.: REMOVAL AND REPLACEMENT OF BRONZE PLATE.
4. ALL COSTS ASSOCIATED WITH JACKING THE EXISTING PIER CAP SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.



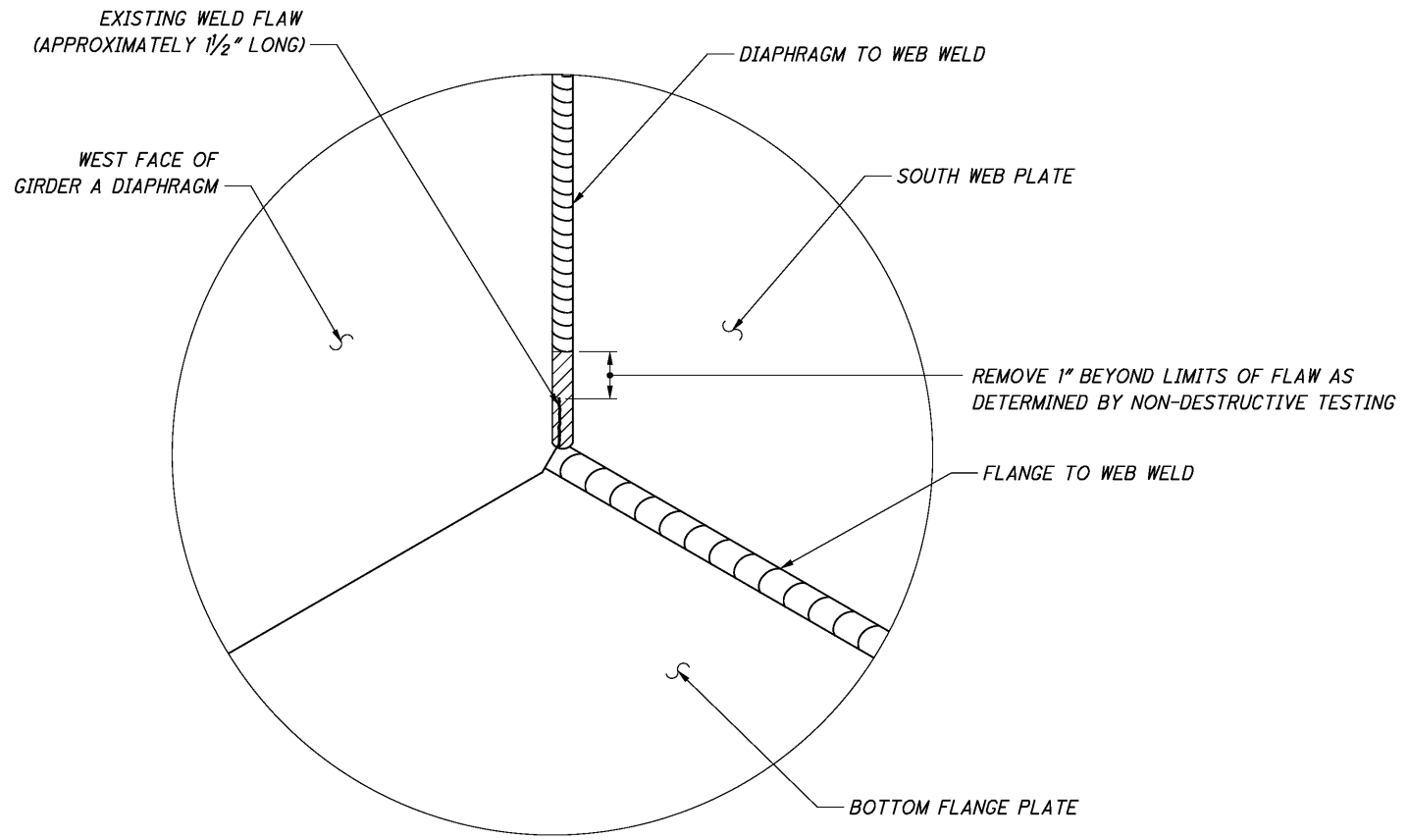
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PIER CAP 10 SOUTH ELEVATION



PIER CAP 10 PLAN



CRACK REPAIR DETAIL
WELD CRACK REPAIR DETAIL
(GIRDER TIE PLATE NOT SHOWN FOR CLARITY)

AREA OF WELD TO BE REMOVED BY DIE GRINDING WITH EGG SHAPED BIT

NOTES

1. BEFORE GRINDING VERIFY THE LIMITS OF WELD FLAW, BY NON-DESTRUCTIVE TESTING, ON BOTH THE WEST AND EAST FACES OF GIRDER A DIAPHRAGM ALONG THE SOUTH WEB PLATE.
2. WHEN REMOVING THE TRANSVERSE WELD MATERIAL CARE SHALL BE TAKEN TO NOT DAMAGE THE EXISTING LONGITUDINAL WELD BETWEEN THE PIER CAP WEB - PIER CAP FLANGE.
3. REPLACE REMOVED WELD MATERIAL WITH WELD MATERIAL OF SIMILAR SIZE AS EXISTING AND MEETING CMS 513.21. ENSURE THAT NEW WELD MATERIAL HAS AT LEAST 1/8" GAP BETWEEN THE TOE AND THE EXISTING LONGITUDINAL WELD.
4. INCLUDE ALL WORK, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS ASSOCIATED WITH NON-DESTRUCTIVE TESTING OF WELD, GRINDING, AND WELDING WITH ITEM 513 - STRUCTURAL STEEL, MISC.: WELD CRACK REPAIR.
5. UPON COMPLETION OF WELD REPAIR APPLY A URETHANE FINISH COAT TO ALL AREAS OF DAMAGED STEEL PER ITEM 514 - FIELD PAINTING, MISC.: REPAIR FINISH COAT (URETHANE) PAINTING.