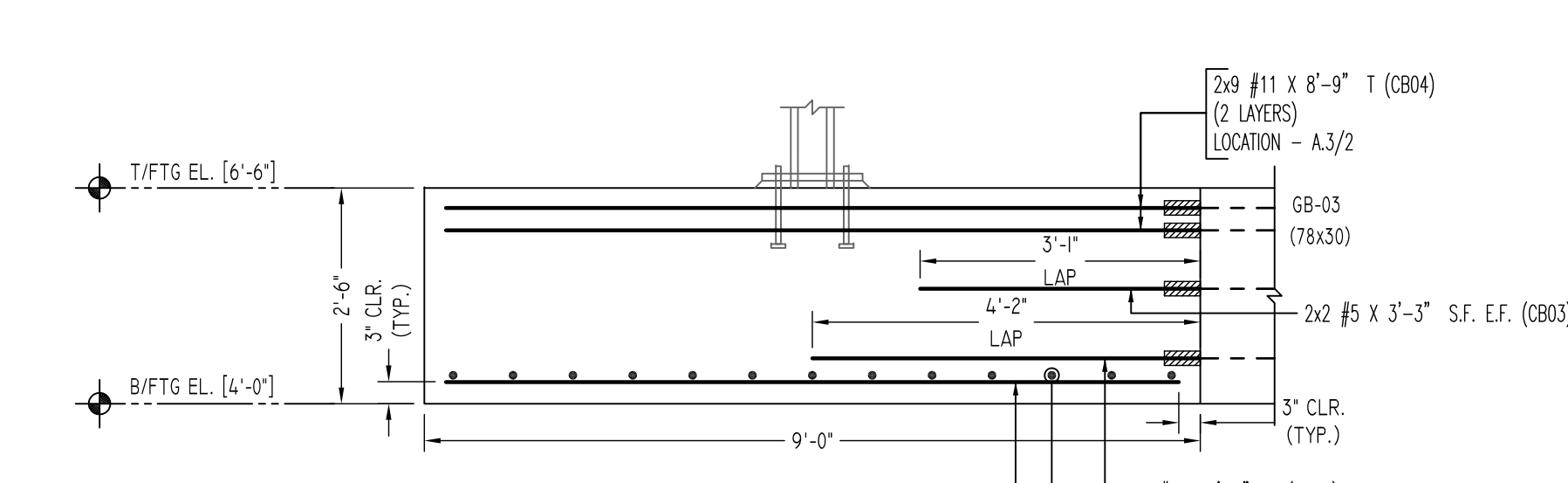
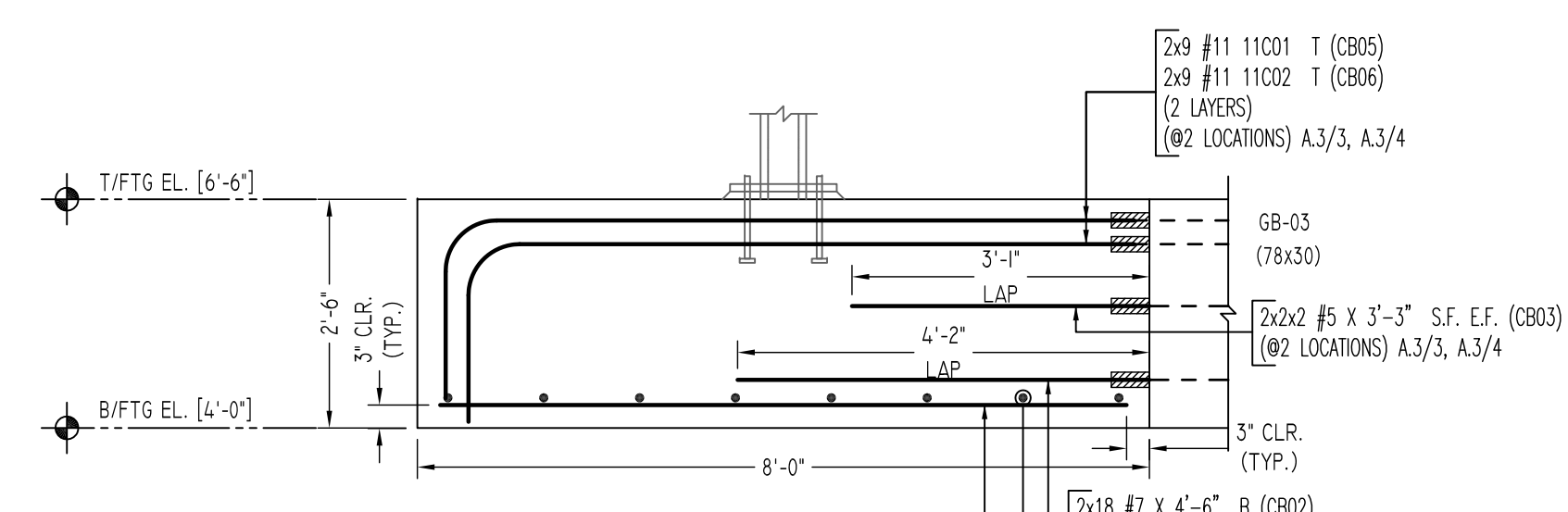


SECTION 1
SCALE - 1/2"=1'-0"
REF:FO-103.00 & S401.00
LOCATIONS - (D/3 & D/1.5)
(REQUIRED-2)

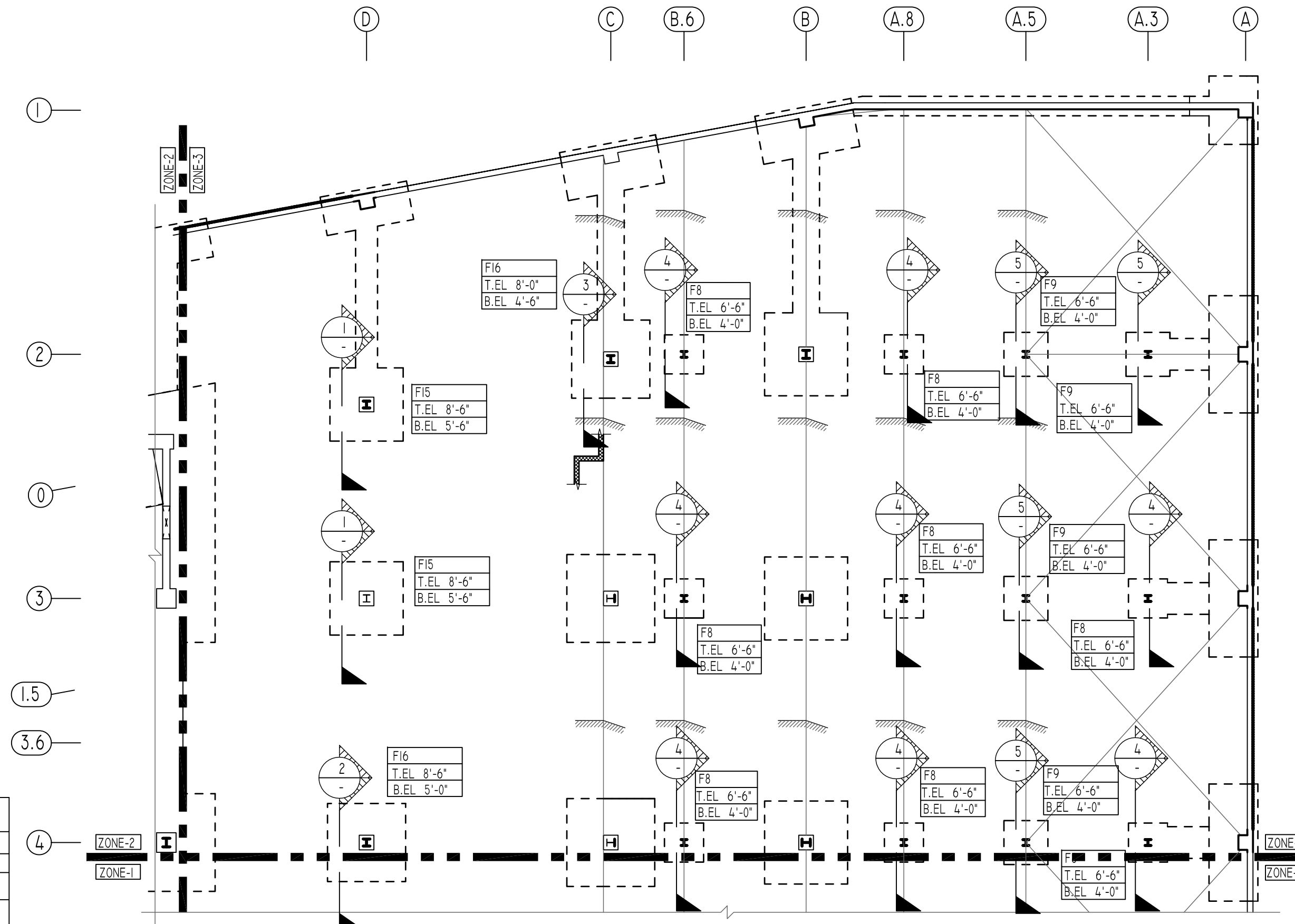
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SCALE - 1/2"=1'-0"
REF:FO-103.00 & S401.00
LOCATIONS - (D/4)

SECTION 3
SCALE - 1/2"=1'-0"
REF:FO-103.00 & S401.00
LOCATIONS - (C/1.5)



SECTION 4
SCALE - 1/2"=1'-0"
REF:FO-103.00 & S401.00
LOCATIONS - (B.6/4, A.8/4, A.3/4, A.3/3), (A.8/3, B.6/3, B.6/2 & A.8/2)
(REQUIRED-8)

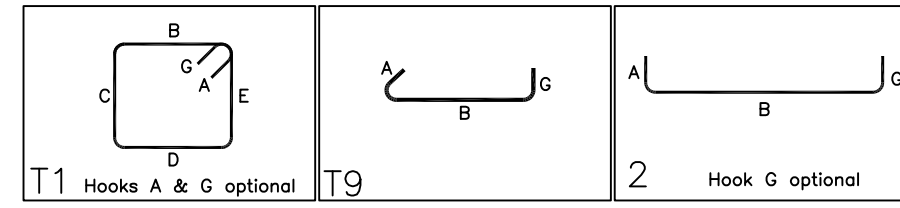
SECTION 5
SCALE - 1/2"=1'-0"
REF:FO-103.00 & S401.00
LOCATIONS - 4 (A.5/4, A.5/3, A.5/2 & A.3/2)
(REQUIRED-4)



ALL BARS IN THIS DRAWING
ASTM A615 GRADE 60
BLACK UNCOATED

Release Number: R7

Bar Mark	Qty	Size	Total Length	Type	X'	Y'	Z'	V'	W'	U'	T'	S'	R'	Q'	P'	O'	N'	M'	L'	K'	J'	I'	H'	G'	F'	E'	D'	C'	B'	A'
3002	40	#3	11'-8"	T1	0'-4"	2'-9"	2'-9"	2'-9"	2'-9"	0'-4"																				
3003	96	#3	3'-5"	T9	0'-4"	2'-9"				0'-4"																				
7003	24	#7	7'-8"	D	1'-2"	6'-6"																								
7006	24	#7	7'-2"	D	1'-2"	6'-6"																								
7007	48	#7	6'-9"	D	1'-2"	5'-7"																								



Release Number: R7 (COUPLER BARS)

Bar Mark	Qty	Size	Total Length	Type	X'	Y'	Z'	V'	W'	U'	T'	S'	R'	Q'	P'	O'	N'	M'	L'	K'	J'	I'	H'	G'	F'	E'	D'	C'	B'	A'
11001	18	#11	9'-7"	T	2'-0"	7'-7"																								
11002	18	#11	9'-4"	T	2'-0"	7'-4"																								

COUPLER REINFORCEMENT DETAILS

MARK	BAR DIA.	BAR SHAPE	QUANTITY	REMARK
CB01	#9	7'-3"	14	REFER SECTION 1
CB02	#7	4'-6"	84	REFER SECTION 1, 3, 4 & 5
CB03	#6	3'-3"	22	REFER SECTION 1, 3, 4 & 5
CB04	#11	8'-9"	34	REFER SECTION 3 & 5
CB05	#11	7'-7"	18	REFER SECTION 4
CB06	#11	7'-4"	18	REFER SECTION 4

FOOTING SCHEDULE

TYPE	FOOTING SIZE		BOTTOM REINFORCING		BOTTOM REINFORCING		F.C (KSI)
	LENGTH X WIDTH	DEPTH	LONG WAY	SHORT WAY	LONG WAY	SHORT WAY	
F7	7'-0"x7'-0"	2'-6"	11 - #6	11 - #6	-	-	5
F8	8'-0"x8'-0"	2'-6"	11 - #7	11 - #7	-	-	5
F9	9'-0"x9'-0"	2'-6"	13 - #7	13 - #7	-	-	5
F11	11'-0"x11'-0"	3'-0"	19 - #7	19 - #7	-	-	5
F15	15'-0"x15'-0"	3'-0"	30 - #8	30 - #8	-	-	10
F16	16'-0"x16'-0"	3'-6"	30 - #9	30 - #9	-	-	10
F17	17'-0"x17'-0"	3'-6"	32 - #9	32 - #9	-	-	10
F18	18'-0"x18'-0"	4'-0"	38 - #9	38 - #9	-	-	10
F20	20'-0"x20'-0"	4'-0"	38 - #10	38 - #10	-	-	10
F20A	20'-0"x20'-0"	4'-6"	38 - #10	38 - #10	20 - #7		10
F21	21'-0"x21'-0"	4'-0"	40 - #10	40 - #10	-	-	10
F21A	21'-0"x21'-0"	4'-0"	40 - #10	40 - #10	20 - #7		10
F22	22'-0"x22'-0"	4'-0"	44 - #10	44 - #10	-	-	10
F116	11'-0"x6'-0"	2'-6"	12 - #10	10 - #7	-	-	5
F146	14'-0"x6'-0"	2'-6"	12 - #10	16 - #7	-	-	5
F157	15'-0"x7'-0"	2'-6"	16 - #10	18 - #7	-	-	5
F188	18'-0"x8'-0"	2'-6"	24 - #11	16 - #8	-	-	5
F1410	14'-0"x10'-0"	3'-0"	16 - #10	14 - #8	-	-	5
F2010	20'-0"x10'-0"	3'-0"	30 - #11	16 - #9	-	-	5
F2030	20'-0"x30'-0"	4'-6"	20 - #10	40 - #10	20 - #7		10
F2410	24'-0"x10'-0"	3'-0"	24 - #11	20 - #9	-	-	5
WF4	4'-0"x4'-0"	2'-6"	6 - #6	#6@12"	6 - #9	-	5

LAP SCHEDULE

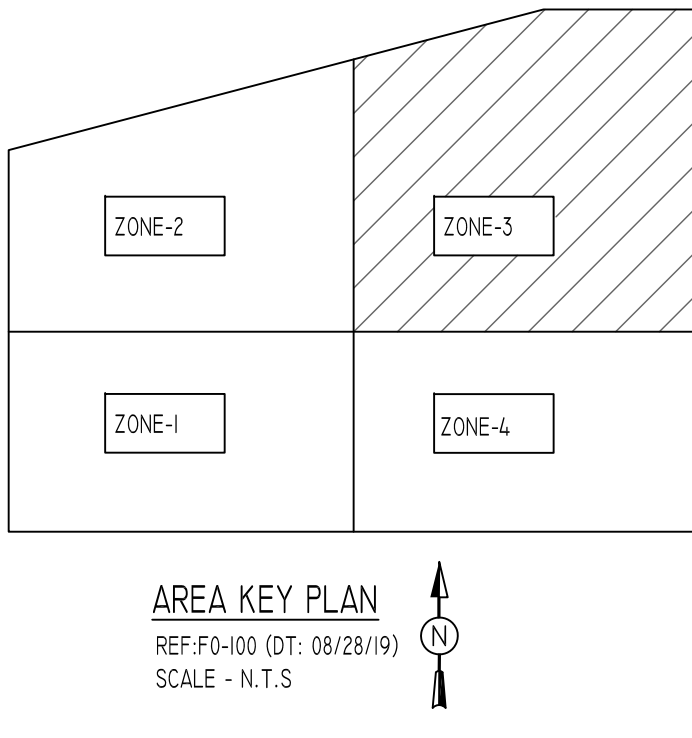
SIZE	10000 PSI		5000 PSI	
	TOP	OTHERS	TOP	OTHERS
#3	17"	13"	#3	23"
#4	23"	17"	#4	30"
#5	26"	21"	#5	37"
#6	33"	25"	#6	45"
#7	46"	36"	#7	64"
#8	52"	41"	#8	73"
#9	59"	46"	#9	82"
#10	67"	51"	#10	93"
#11	73"	56"	#11	102"

PIER SCHEDULE

TYPE	PIER SIZE		REINFORCING		REMARK
	LENGTH X WIDTH	VERTICAL	HORIZONTAL		
P1	36"x36"	24 - #7	#3 @ 14"		
P2	48"x48"	24 - #9	#3 @ 16"		
P3	36"x36"	24 - #7	#4 @ 12"	1.3 LD SPLICE	
P4	48"x48"	24 - #9	#4 @ 12"	1.3 LD SPLICE	
B1	36"x36"	24 - #7	#3 @ 14"		
B2	24"x36"	16 - #7	#3 @ 14"		
B3	36"x24"	16 - #7	#3 @ 14"		

TYPICAL REINFORCING BAR CLEARANCE TABLE

LOCATION	MIN. COVER
FOOTINGS AGAINST EARTH BOTTOM	3" CLR
TOP	2" CLR
EXPOSED TO EARTH (#5 & SMALLER)	1 1/2" CLR
EXPOSED TO EARTH (#6 & LARGER)	2" CLR
COLUMN (MAIN REINF.)	2" CLR
COLUMN (TIES, REINF.)	1 1/2" CLR
BEAMS (STIRRUPS, MAIN REINF.)	1 1/2" CLR
SLABS, WALLS, JOISTS	1 1/2" CLR



REVISION MARK	REVISION DETAILS	DATE
0	FOR APPROVAL	02/28/2020

PROJECT	JFK TERMINAL LOGISTICS CENTER
LOCATION	JAMAICA, NY, 11430
ARCHITECT	CRAFT ARCHITECTS
ENGINEER	DESIMONE STRUCTURAL ENGINEERS
CUSTOMER	BENCHMARK CONTRACTING
DRAWN BY:	RAM/MRS
DATE:	02/28/20
REVIEWED BY:	T/L
JOB NO.:	20015
DRAWING TITLE:	SPREAD FOOTING & PIER REINFORCEMENT DETAILS ZONE-3
DRAWING NO.:	R7

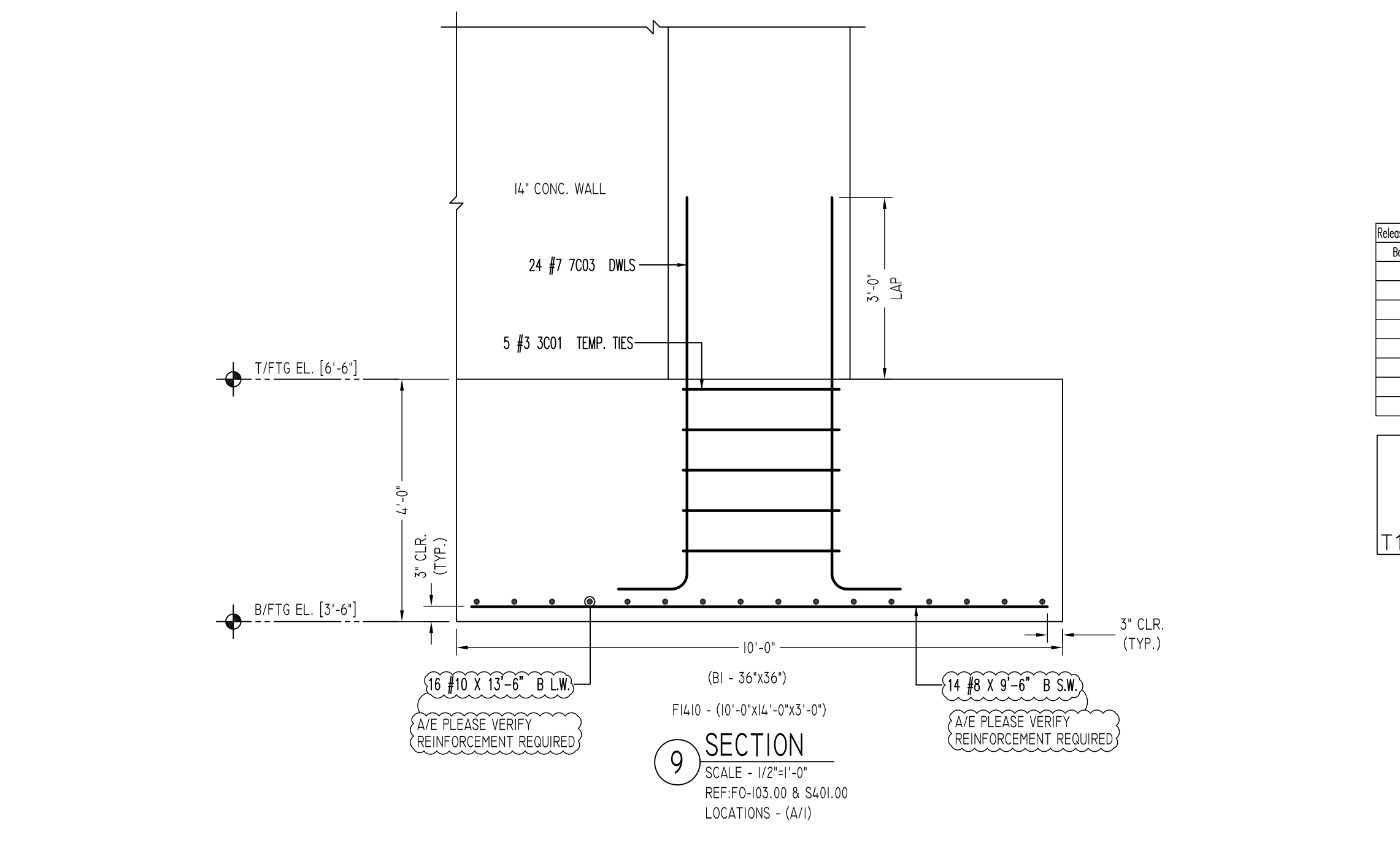
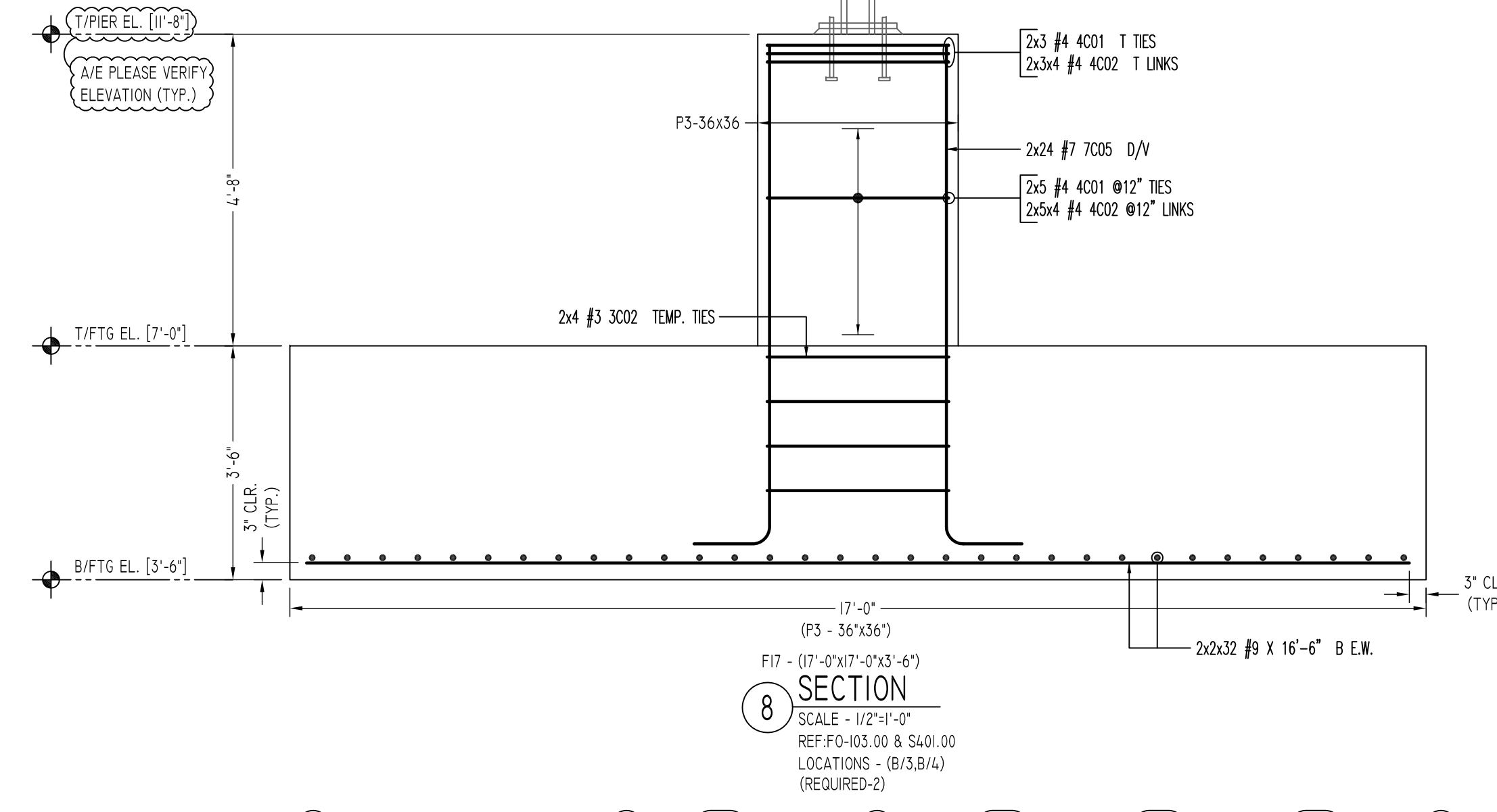
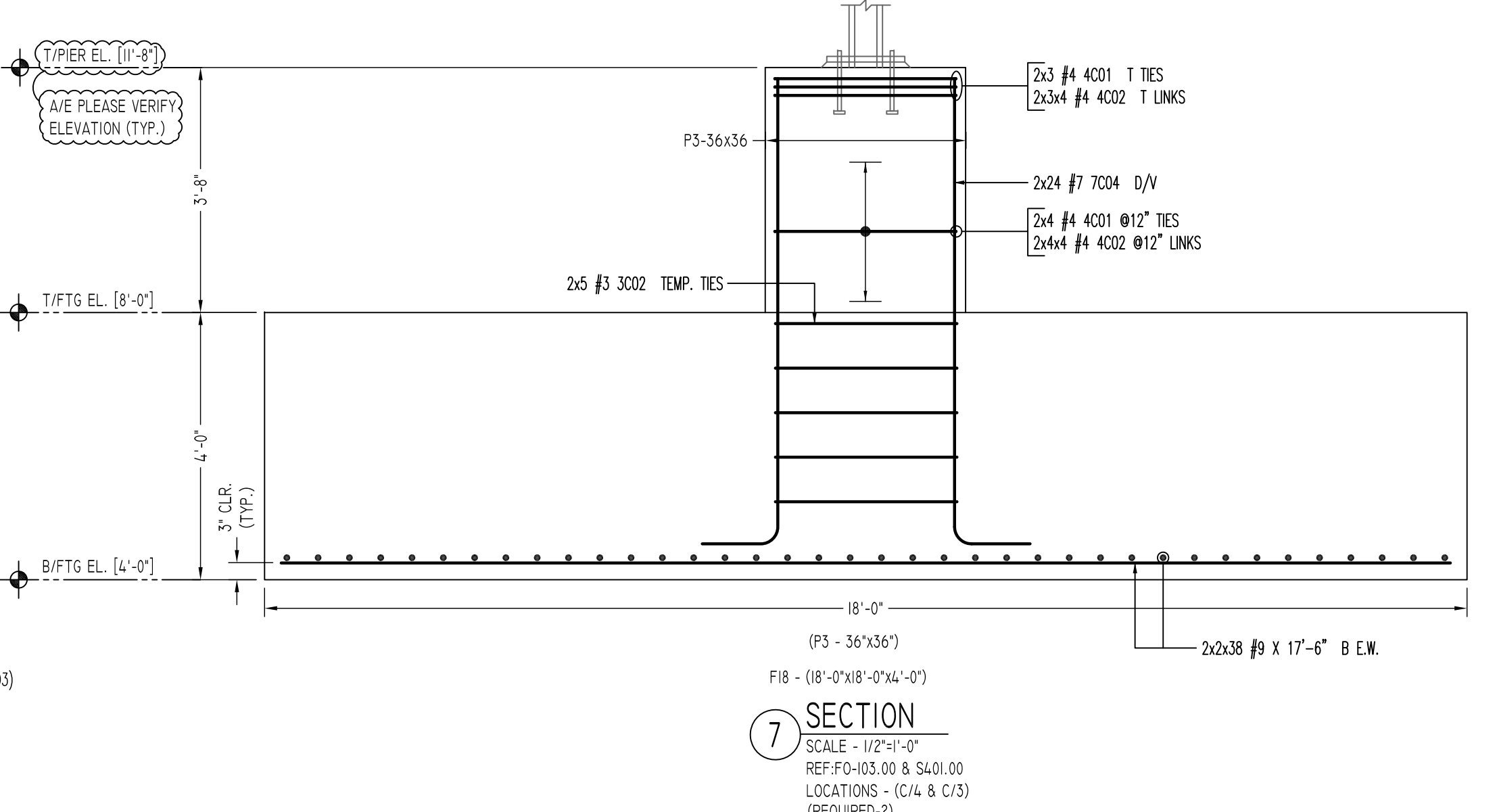
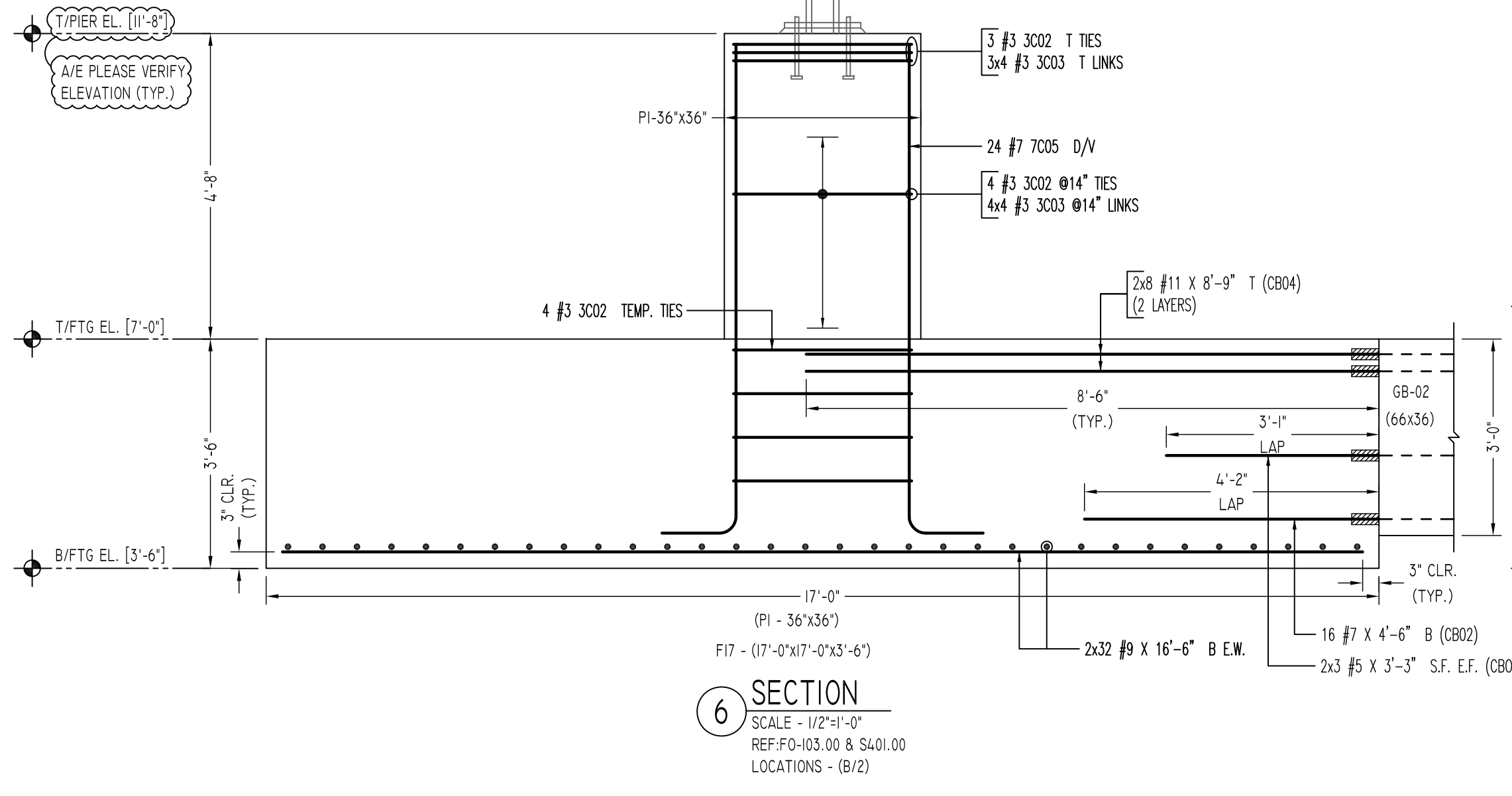
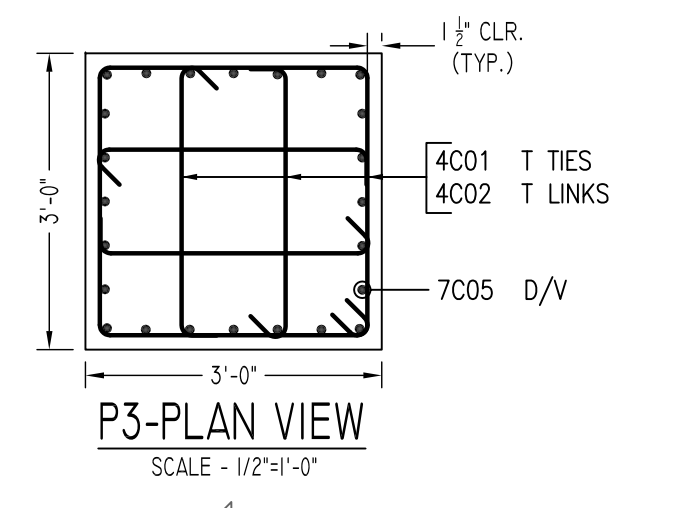
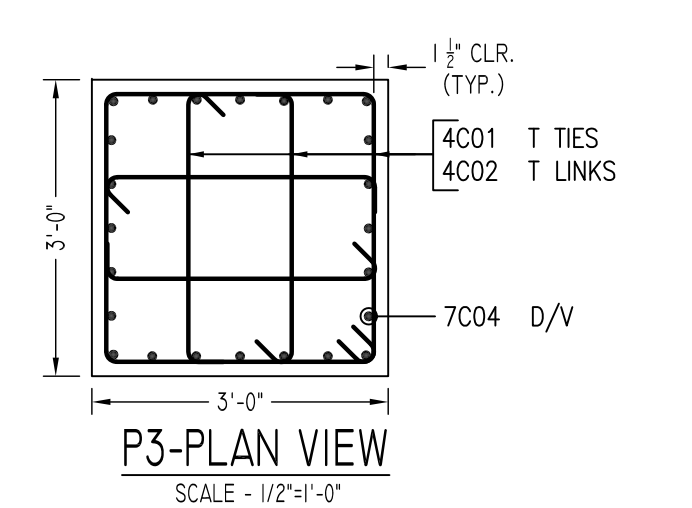
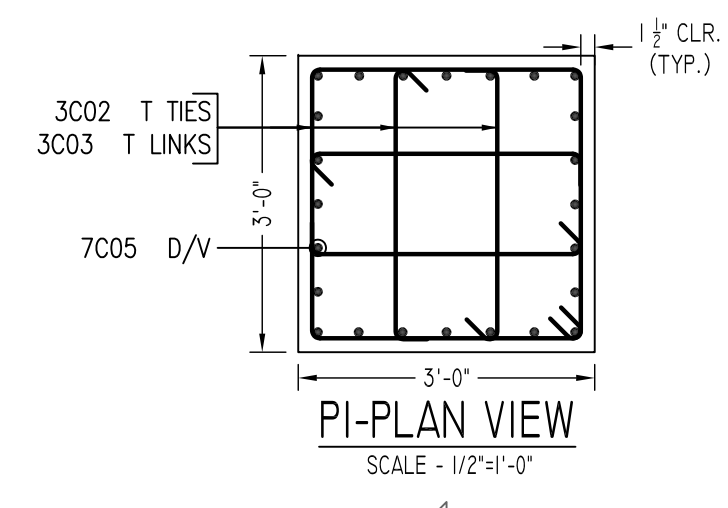
NOTICE

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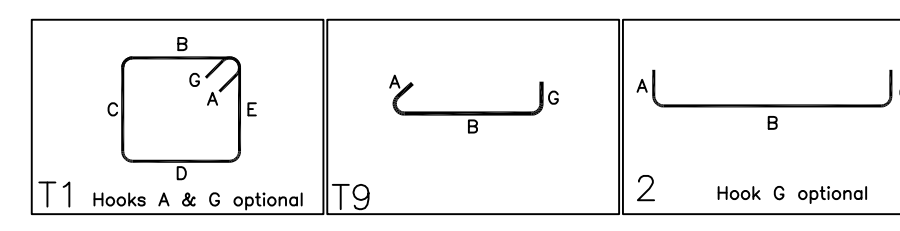
REINFORCING STEEL PLACING DRAWINGS ONLY USE IN CONJUNCTION WITH CONTRACT DRAWINGS & SPECIFICATIONS. ELEVATIONS & DIMENSIONS SHOWN ON THIS DRAWING ARE FOR DETAILING PURPOSES ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION UNLESS VERIFIED BY ENGINEER OR CONTRACTOR.

Abbreviations:
 I.F. = Inside Face
 O.F. = Outside Face
 E.F. = Each Face
 DWL = Dowel
 V = Vertical
 H = Horizontal
 C.B. = Corner Bar
 S.DWL = Slab Dowel
 E.W. = Each Way
 B/BOT = Bottom
 T = Top
 MDWL = Masonry Dowel
 B.B. = Bond Beam
 ALT. = Alternate
 Approx. = Approximate

OPNG = Opening
 BAL. = Balance
 BTW = Between
 CL = Construction Joint
 CLR. = CLEARANCE
 CMU = Concrete Masonry Unit
 CONT. = Continuous
 EA = Each
 Elev. = Elevation
 EMB = Embedment
 SW = Short Way
 LW = Long Way
 (BL) = Black Bar
 (EP) = Epoxy Bar
 (GA) = Galvanized

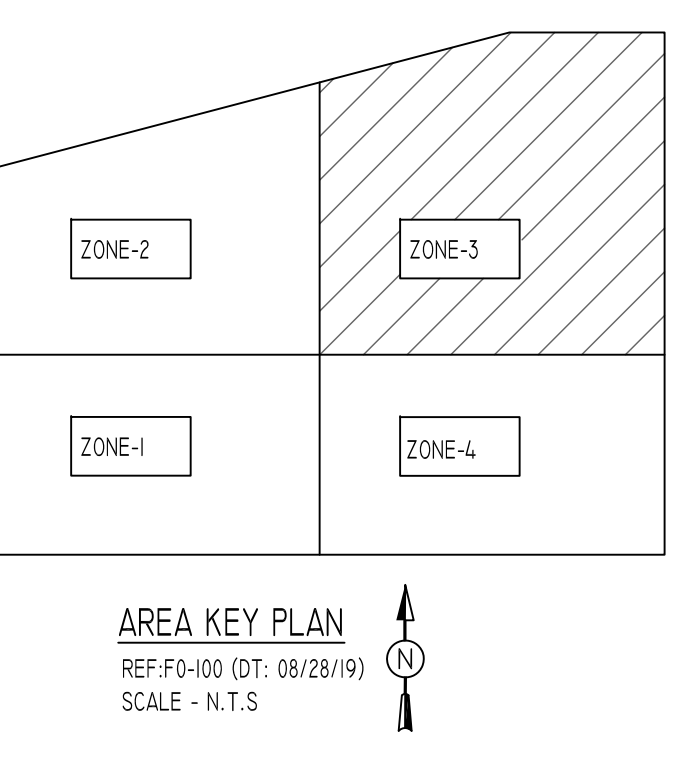
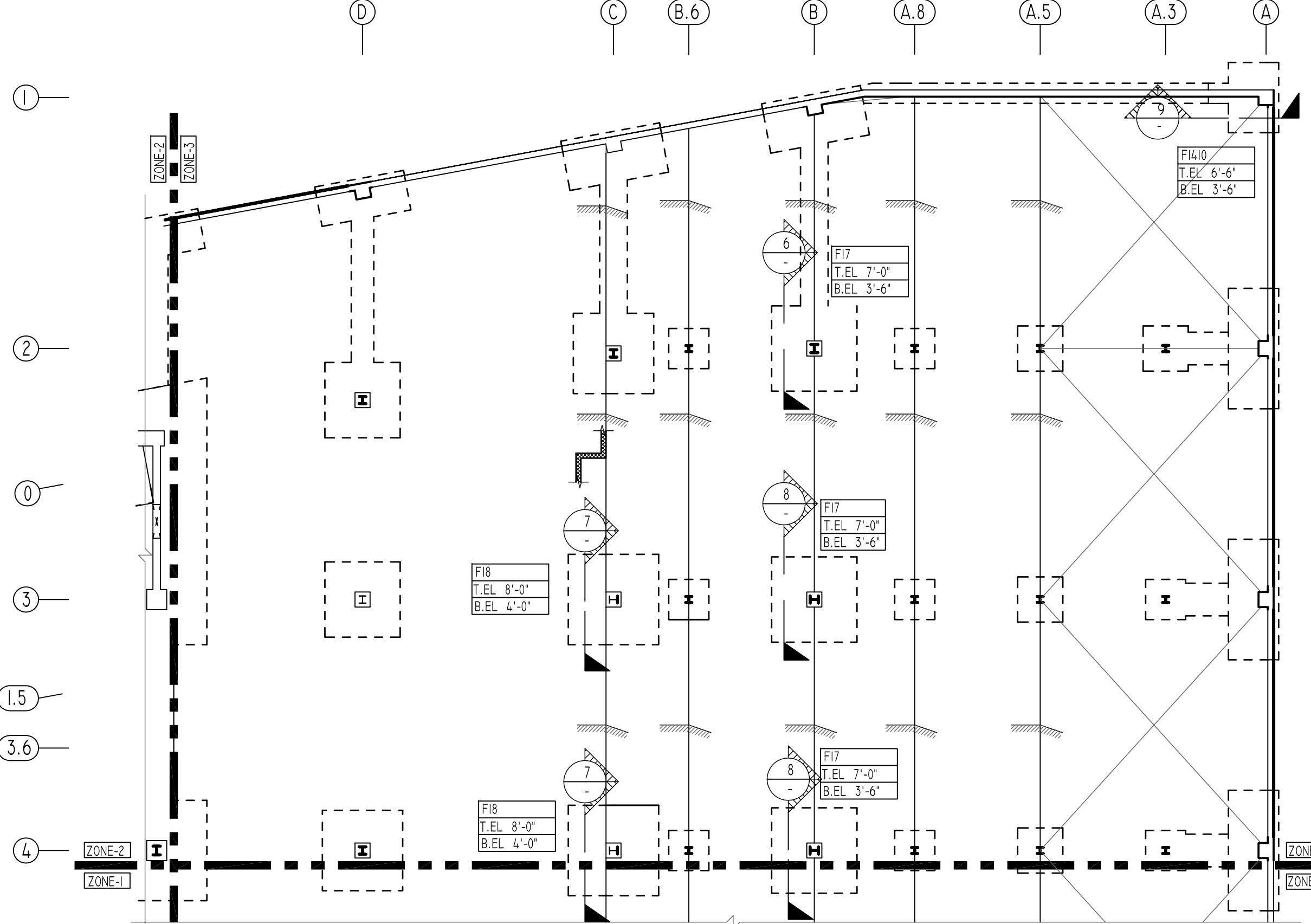


Bar Mark	Qty	Size	Total Length	Type	X	Y	Z	W	V	U	T	S	R	Q	P	O	N	M	L	K	J	I	H	G	F	E	D	C	B	A	
3001	5	#3	11'-0"	T1	0'-4"	2'-7"	2'-7"	2'-7"	2'-7"	2'-7"	0'-4"																				
3002	29	#3	11'-8"	T1	0'-4"	2'-9"	2'-9"	2'-9"	2'-9"	2'-9"	0'-4"																				
3003	28	#3	3'-5"	T9	0'-4"	2'-9"	2'-9"	2'-9"	2'-9"	2'-9"	0'-4"																				
4001	30	#4	11'-9"	T1	0'-4.5"	2'-9"	2'-9"	2'-9"	2'-9"	2'-9"	0'-4.5"																				
4002	120	#4	3'-5"	T9	0'-4.5"	2'-9"	2'-9"	2'-9"	2'-9"	2'-9"	0'-4.5"																				
7003	24	#7	7'-9"	T2	1'-2"	6'-6"	6'-6"	6'-6"	6'-6"	6'-6"	1'-2"																				
7004	48	#7	8'-8"	T2	1'-2"	7'-0"	7'-0"	7'-0"	7'-0"	7'-0"	1'-2"																				
7005	72	#7	8'-8"	T2	1'-2"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	1'-2"																				



MARK	BAR DIA.	BAR SHAPE	QUANTITY	REMARK
CB02	#7	4'-6"	16	REFER SECTION 6
CB03	#5	3'-3"	6	REFER SECTION 6
CB04	#11	8'-9"	16	REFER SECTION 6

TYPE	FOOTING SIZE		BOTTOM REINFORCING		BOTTOM REINFORCING		F.C (KSI)
	LENGTH X WIDTH	DEPTH	LONG WAY	SHORT WAY	LONG WAY	SHORT WAY	
F7	7'-0"x7'-0"	2'-6"	11 - #6	11 - #6	-	-	5
F8	8'-0"x8'-0"	2'-6"	11 - #7	11 - #7	-	-	5
F9	9'-0"x9'-0"	2'-6"	13 - #7	13 - #7	-	-	5
F11	11'-0"x11'-0"	3'-0"	19 - #7	19 - #7	-	-	5
F15	15'-0"x15'-0"	3'-0"	30 - #8	30 - #8	-	-	10
F16	16'-0"x16'-0"	3'-6"	30 - #9	30 - #9	-	-	10
F17	17'-0"x17'-0"	3'-6"	32 - #9	32 - #9	-	-	10
F18	18'-0"x18'-0"	4'-0"	38 - #9	38 - #9	-	-	10
F20	20'-0"x20'-0"	4'-0"	38 - #10	38 - #10	-	-	10
F20A	20'-0"x20'-0"	4'-6"	38 - #10	38 - #10	20 - #7	-	10
F21	21'-0"x21'-0"	4'-0"	40 - #10	40 - #10	-	-	10
F21A	21'-0"x21'-0"	4'-0"	40 - #10	40 - #10	20 - #7	-	10
F22	22'-0"x22'-0"	4'-0"	44 - #10	44 - #10	-	-	10
F116	11'-0"x6'-0"	2'-6"	12 - #9	10 - #7	-	-	5
F146	14'-0"x6'-0"	2'-6"	12 - #10	16 - #7	-	-	5
F157	15'-0"x7'-0"	2'-6"	16 - #10	18 - #7	-	-	5
F188	18'-0"x8'-0"	2'-6"	24 - #11	16 - #8	-	-	5
F1410	14'-0"x10'-0"	3'-0"	16 - #10	14 - #8	-	-	5
F2010	20'-0"x10'-0"	3'-0"	30 - #11	16 - #9	-	-	5
F2030	20'-0"x30'-0"	4'-6"	20 - #10	40 - #10	20 - #7	-	10
F2410	24'-0"x10'-0"	3'-0"	24 - #11	20 - #9	-	-	5
WF4	4'-0"x4'-0"	2'-6"	6 - #6	#6@12"	6 - #9	-	5



ALL BARS IN THIS DRAWING
ASTM A615 GRADE 60
BLACK UNCOATED

LOCATION	MIN. COVER
FOOTINGS AGAINST EARTH	3" CLR
TOP	2" CLR
EXPOSED TO EARTH (#5 & SMALLER)	1 1/2" CLR
EXPOSED TO EARTH (#6 & LARGER)	2" CLR
COLUMN (MAIN REINF.)	2" CLR
COLUMN (TIES, REINF.)	1 1/2" CLR
BEAMS (STIRRUPS, MAIN REINF.)	1 1/2" CLR
SLABS, WALLS, JOISTS	1 1/2" CLR

SIZE	10000 PSI		5000 PSI	
	TOP	OTHERS	TOP	OTHERS
#3	17"	15"	#3	23"
#4	23"	17"	#4	30"
#5	26"	21"	#5	37"
#6	33"	25"	#6	45"
#7	46"	36"	#7	64"
#8	52"	41"	#8	73"
#9	59"	46"	#9	82"
#10	67"	51"	#10	93"
#11	73"	56"	#11	102"

TYPE	PIER SIZE		REINFORCING		REMARK
	LENGTH X WIDTH	VERTICAL	HORIZONTAL		
P1	36"x36"	24 - #7	#3 @ 14"		
P2	48"x48"	24 - #9	#3 @ 16"		
P3	36"x36"	24 - #7	#4 @ 12"	1.3 LD SPLICE	
P4	48"x48"	24 - #9	#4 @ 12"	1.3 LD SPLICE	
B1	36"x36"	24 - #7	#3 @ 14"		
B2	24"x36"	16 - #7	#3 @ 14"		
B3	36"x24"	16 - #7	#3 @ 14"		

Abbreviations:
I.F. = Inside Face
O.F. = Outside Face
E.F. = Each Face
D.V. = Dowel
V = Vertical
H = Horizontal
C.B. = Corner Bar
S.D.W.L. = Slab Dowel
E.W. = Each Way
B/BOT = Bottom
T = Top
MDWL = Masonry Dowel
B.B. = Bond Beam
ALT. = Alternate
Approx. = Approximate

OPNG = Opening
BAL. = Balance
BTW. = Between
CJ = Construction Joint
CLR. = CLEARANCE
CMU = Concrete Masonry Unit
CONT. = Continuous
EA = Each
Elev. = Elevation
EMB = Embedment
SW = Short Way
LW = Long Way
(BL) = Black Bar
(EP) = Epoxy Bar
(GA) = Galvanized

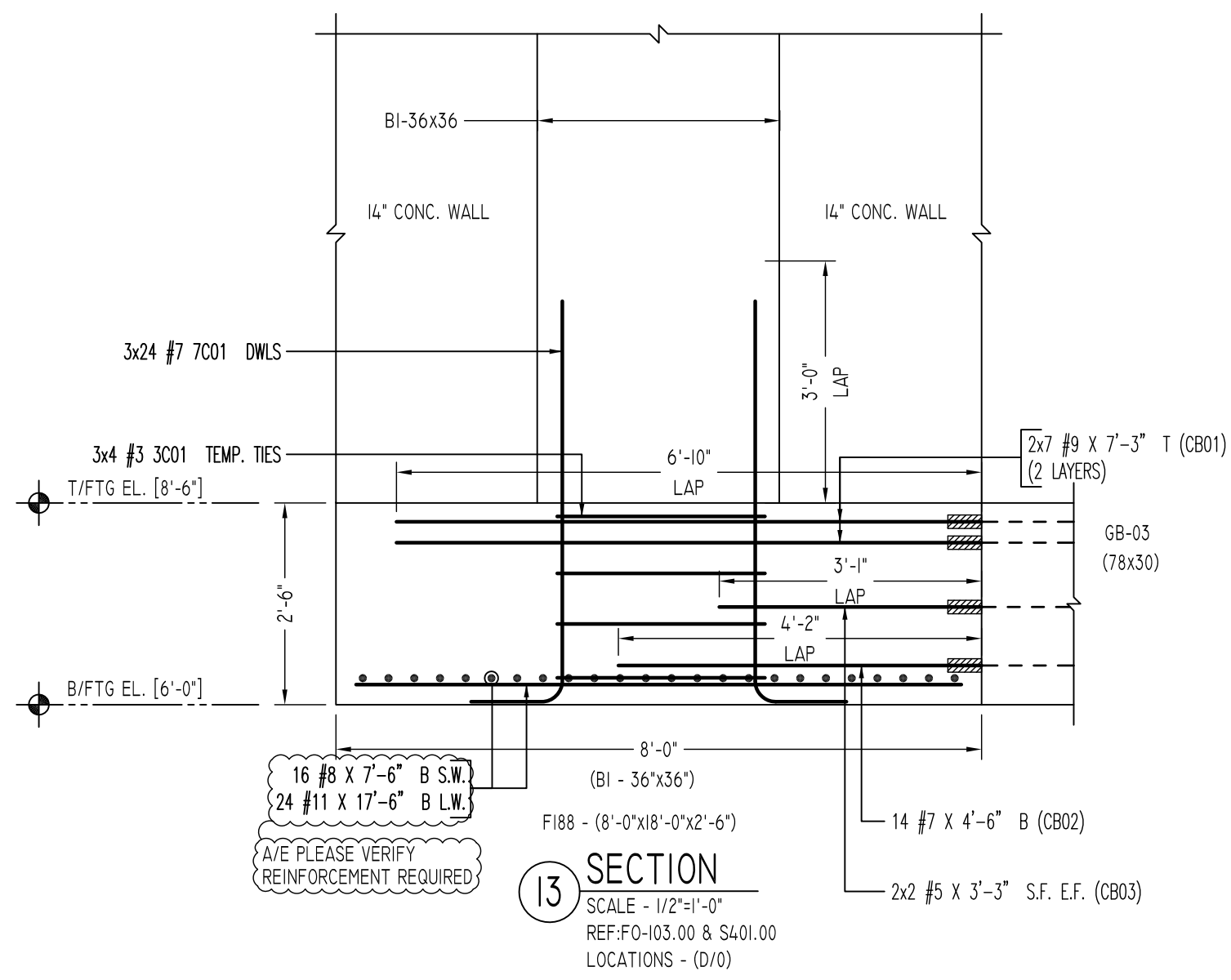
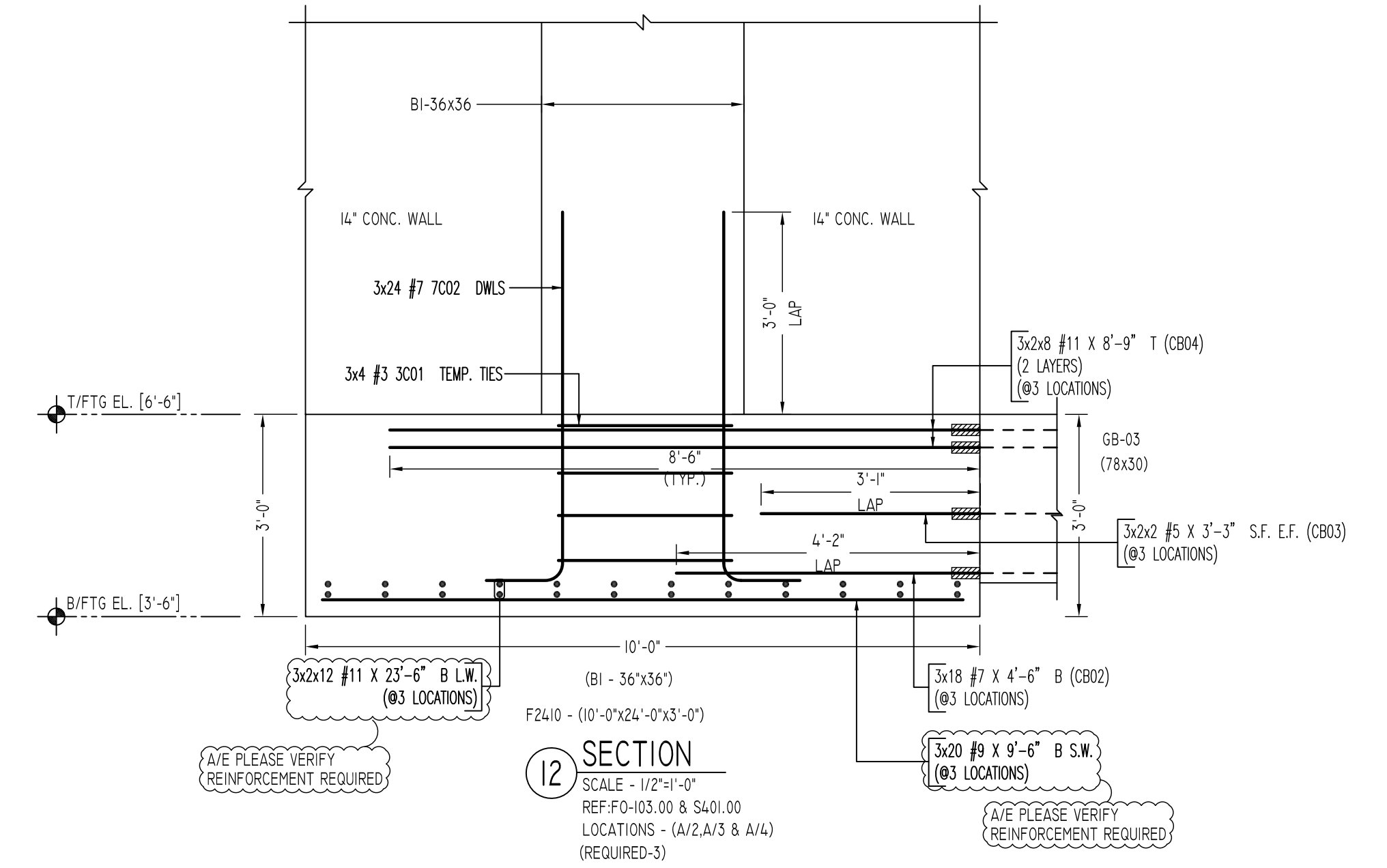
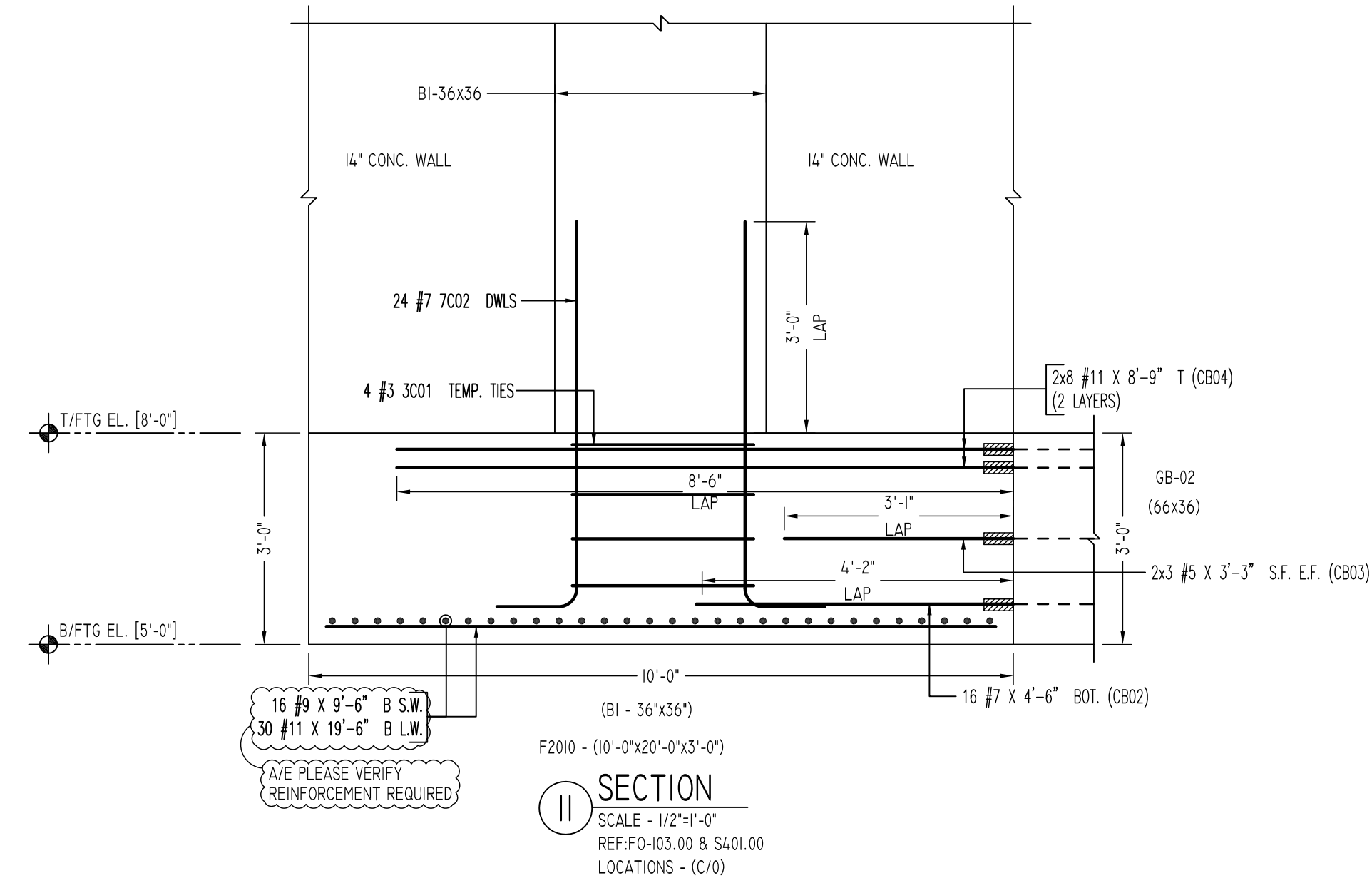
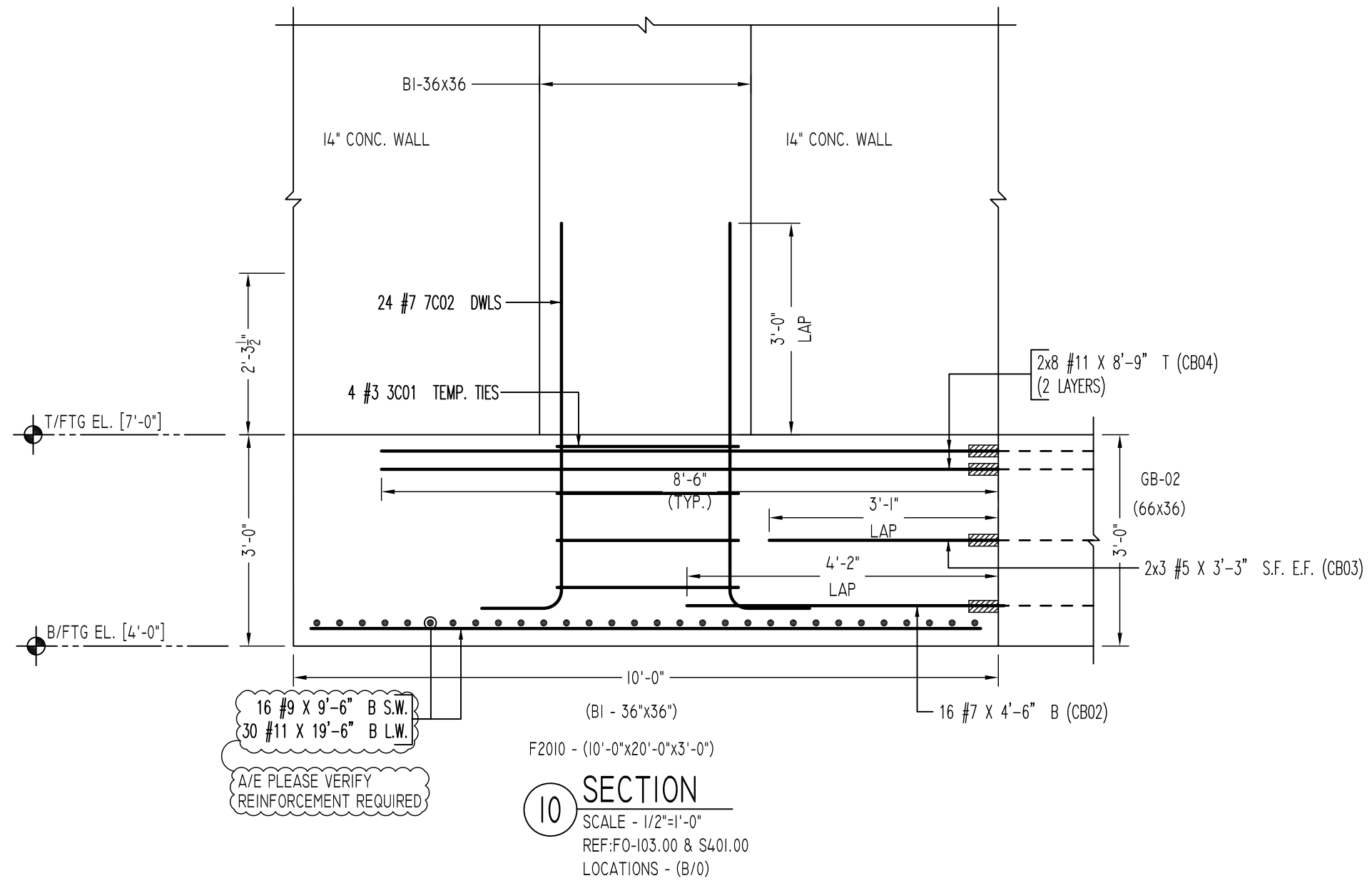
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REVISION MARK	REVISION DETAILS	DATE
0	FOR APPROVAL	02/28/2020

PROJECT	JFK TERMINAL LOGISTICS CENTER
LOCATION	JAMAICA, NY, 11430
ARCHITECT	CRAFT ARCHITECTS
ENGINEER	DESIMONE STRUCTURAL ENGINEERS
CUSTOMER	BENCHMARK CONTRACTING
DRAWN BY:	RAM/MRS
DATE:	02/28/20
REVIEWED BY:	T/L
JOB NO.:	20015
DRAWING TITLE:	SPREAD FOOTING & PIER REINFORCEMENT DETAILS ZONE-3
DRAWING NO.:	R8

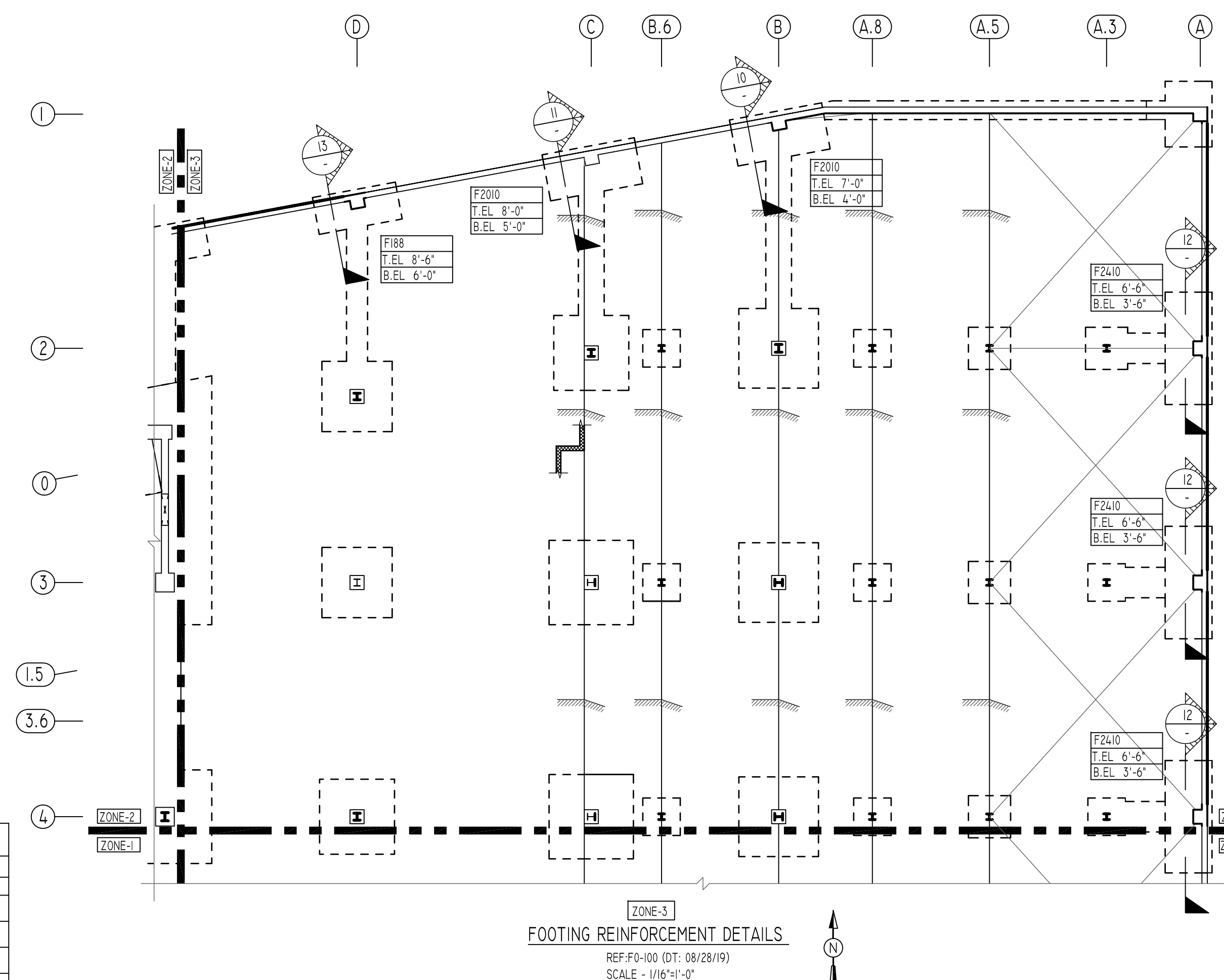


Release Number: R9

Bar Mark	Qty	Size	Total Length	Type	Y'	Y''	Y'''	Y''''	Y'''''	Y''''''	Y'''''''	Y''''''''	Y'''''''''	Y''''''''''
3001	30	#3	11'-0"	11	0'-4"	2'-7"	2'-7"	2'-7"	2'-7"	0'-4"				
7001	72	#7	6'-2"	2	1'-2"	5'-0"								
7002	120	#7	6'-8"	2	1'-2"	5'-6"								

BENDING DETAILS

T1 Hooks A & G optional
2 Hook G optional



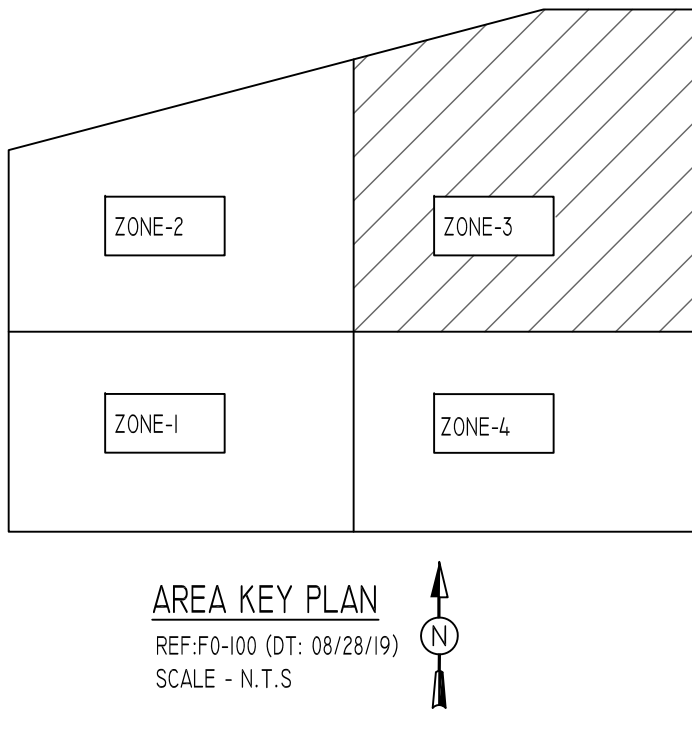
COUPLER REINFORCEMENT DETAILS

MARK	BAR DIA.	BAR SHAPE	QUANTITY	REMARK
CB01	#9	7'-3"	14	REFER SECTION 13
CB02	#7	4'-6"	100	REFER SECTIONS 10, 11, 12 & 13
CB03	#5	3'-3"	28	REFER SECTIONS 10, 11, 12 & 13
CB04	#11	8'-9"	80	REFER SECTIONS 10, 11 & 12

**ALL BARS IN THIS DRAWING
ASTM A615 GRADE 60
BLACK UNCOATED**

FOOTING SCHEDULE

TYPE	FOOTING SIZE		BOTTOM REINFORCING		F.C (KSI)
	LENGTH X WIDTH	DEPTH	LONG WAY	SHORT WAY	
F7	7'-0"x7'-0"	2'-6"	11 - #6	11 - #6	5
F8	8'-0"x8'-0"	2'-6"	11 - #7	11 - #7	5
F9	9'-0"x9'-0"	2'-6"	13 - #7	13 - #7	5
F11	11'-0"x11'-0"	3'-0"	19 - #7	19 - #7	5
F15	15'-0"x15'-0"	3'-0"	30 - #8	30 - #8	10
F16	16'-0"x16'-0"	3'-6"	30 - #9	30 - #9	10
F17	17'-0"x17'-0"	3'-6"	32 - #9	32 - #9	10
F18	18'-0"x18'-0"	4'-0"	38 - #9	38 - #9	10
F20	20'-0"x20'-0"	4'-0"	38 - #10	38 - #10	10
F20A	20'-0"x20'-0"	4'-6"	38 - #10	20 - #7	10
F21	21'-0"x21'-0"	4'-0"	40 - #10	40 - #10	10
F21A	21'-0"x21'-0"	4'-0"	40 - #10	20 - #7	10
F22	22'-0"x22'-0"	4'-0"	44 - #10	44 - #10	10
F116	11'-0"x6'-0"	2'-6"	12 - #9	10 - #7	5
F146	14'-0"x6'-0"	2'-6"	12 - #10	16 - #7	5
F157	15'-0"x7'-0"	2'-6"	16 - #10	18 - #7	5
F188	18'-0"x8'-0"	2'-6"	24 - #11	16 - #8	5
F1410	14'-0"x10'-0"	3'-0"	16 - #10	14 - #8	5
F2010	20'-0"x10'-0"	3'-0"	30 - #11	16 - #9	5
F2030	20'-0"x30'-0"	4'-6"	20 - #10	40 - #10	10
F2410	24'-0"x10'-0"	3'-0"	24 - #11	20 - #9	5
WF4	4'-0"x4'-0"	2'-6"	6 - #6	#6@12"	5



TYPICAL REINFORCING BAR CLEARANCE TABLE

LOCATION	MIN. COVER
FOOTINGS AGAINST EARTH	3" CLR
TOP	2" CLR
EXPOSED TO EARTH (#5 & SMALLER)	1 1/2" CLR
EXPOSED TO EARTH (#6 & LARGER)	2" CLR
COLUMN (MAIN REINF.)	2" CLR
COLUMN (TIES, REINF.)	1 1/2" CLR
BEAMS (STIRRUPS, MAIN REINF.)	1 1/2" CLR
SLABS, WALLS, JOISTS	1 1/2" CLR

LAP SCHEDULE

SIZE	10000 PSI		5000 PSI	
	TOP	OTHERS	TOP	OTHERS
#3	17"	15"	#3	23"
#4	23"	17"	#4	30"
#5	26"	21"	#5	37"
#6	33"	25"	#6	45"
#7	46"	36"	#7	64"
#8	52"	41"	#8	73"
#9	59"	46"	#9	82"
#10	67"	51"	#10	93"
#11	73"	56"	#11	102"

PIER SCHEDULE

TYPE	PIER SIZE		REINFORCING		REMARK
	LENGTH X WIDTH	VERTICAL	HORIZONTAL		
P1	36"x36"	24 - #7	#3 @ 14"		
P2	48"x48"	24 - #9	#3 @ 16"		
P3	36"x36"	24 - #7	#4 @ 12"	1.3 LD SPLICE	
P4	48"x48"	24 - #9	#4 @ 12"	1.3 LD SPLICE	
B1	36"x36"	24 - #7	#3 @ 14"		
B2	24"x36"	16 - #7	#3 @ 14"		
B3	36"x24"	16 - #7	#3 @ 14"		

Abbreviations:
 I.F.=Inside Face
 O.F.=Outside Face
 E.F.=Each Face
 DWL=Dowel
 V=Vertical
 H=Horizontal
 C.B.=Corner Bar
 S.DWL=Slab Dowel
 E.W.=Each Way
 B/BOT=Bottom
 T=Top
 MDWL=Masonry Dowel
 B.B.=Bond Beam
 ALT.=Alternate
 Approx.=Approximate

OPNG=Opening
 BAL.=Balance
 BTW=Between
 CJ=Construction Joint
 CLR.=CLEARANCE
 CMU=Concrete Masonry Unit
 CONT.=Continuous
 EA.=Each
 Elev.=Elevation
 EMB=Embedment
 SW=Short Way
 LW=Long Way
 (BL)=Black Bar
 (EP)=Epoxy Bar
 (GA)=Galvanized

NOTICE

Shortages, improper fabrication or claims for any other reason must be reported to this company within a period of 15 days of delivery. This company reserves the right to field inspect prior to replacement or reconditioning of nonconforming material, and will not honor charges for work done in the field without specific authorization from this company.

REINFORCING STEEL PLACING DRAWINGS ONLY USE IN CONJUNCTION WITH CONTRACT DRAWINGS & SPECIFICATIONS. ELEVATIONS & DIMENSIONS SHOWN ON THIS DRAWING ARE FOR DETAILING PURPOSES ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION UNLESS VERIFIED BY ENGINEER OR CONTRACTOR.

REVISION MARK	REVISION DETAILS	DATE
0	FOR APPROVAL	02/28/2020

PROJECT	JFK TERMINAL LOGISTICS CENTER
LOCATION	JAMAICA, NY, 11430
ARCHITECT	CRAFT ARCHITECTS
ENGINEER	DESIMONE STRUCTURAL ENGINEERS
CUSTOMER	BENCHMARK CONTRACTING
DRAWN BY:	RAM/MRS
DATE:	02/28/20
REVIEWED BY:	T/L
JOB NO.:	20015
DRAWING TITLE:	SPREAD FOOTING & PIER REINFORCEMENT DETAILS ZONE-3
DRAWING NO.:	R9