

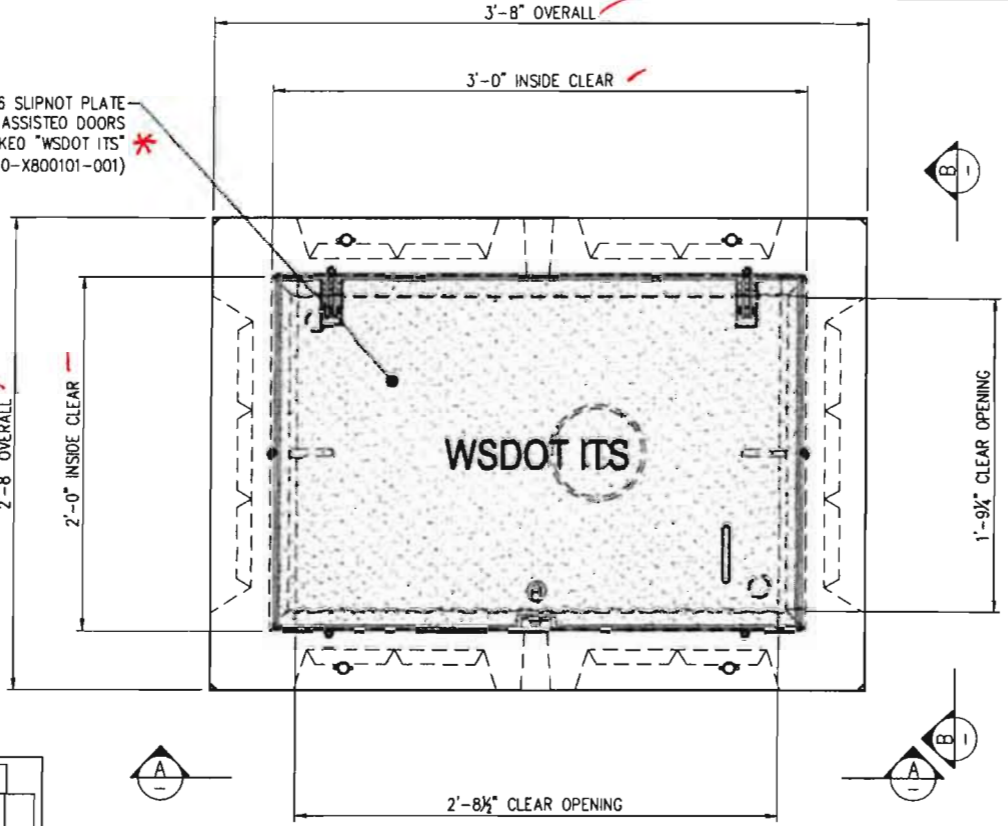
NOTE:
 PENTA HEAD BOLT IS RECESSED
 MINIMUM 1/8" BELOW PLATE SURFACE.
 PENTA HEAD BOLT TO BE LIBERALLY
 COATED WITH ANTI-SEIZE COMPOUND.

APPROVED AS NOTED
 Washington State
 Department of Transportation
 HQ Traffic Operations Office
 DATE September 1, 2010 TAT

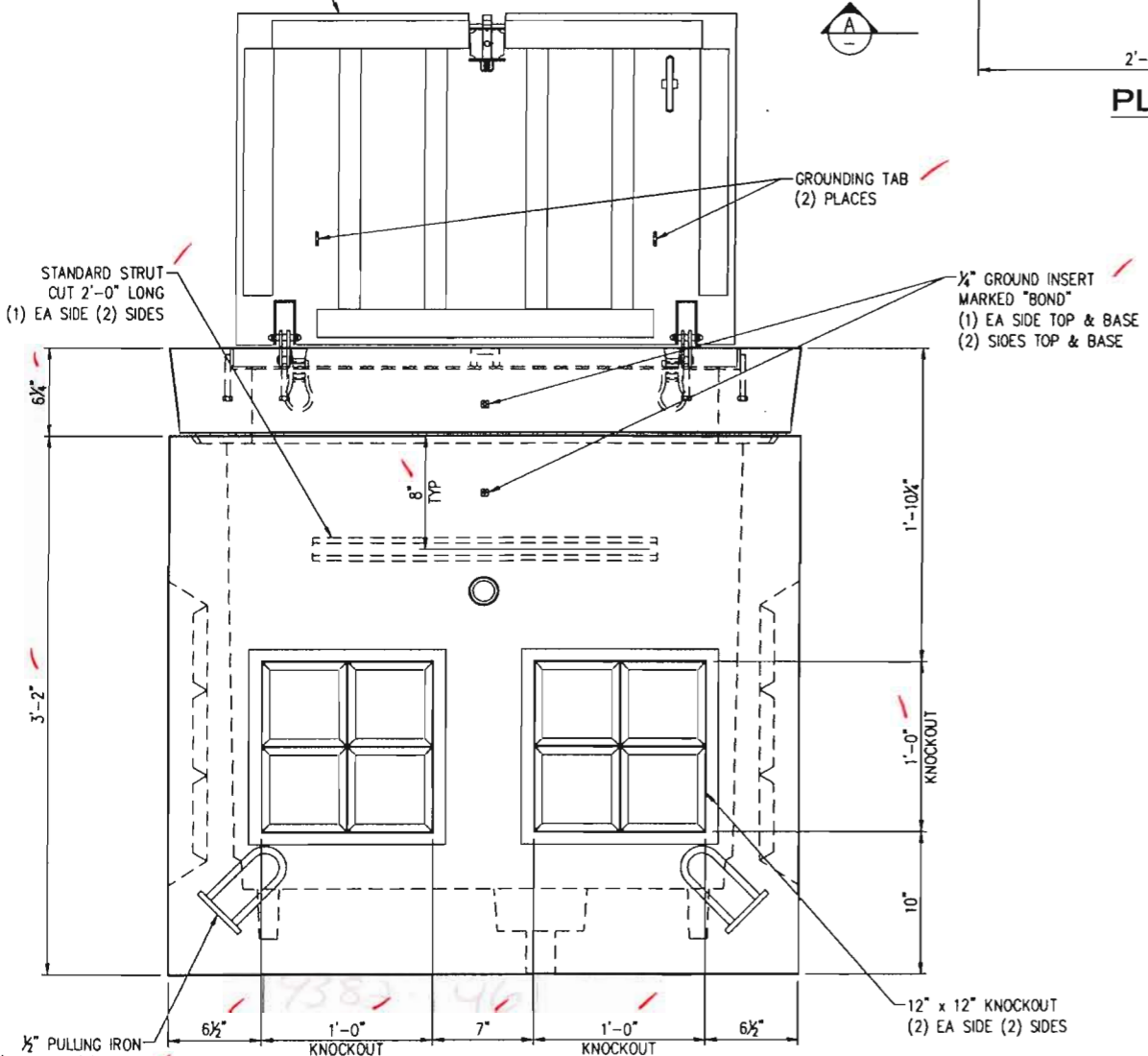
WSDOT 2436 SLIPNOT PLATE
 NON SPRING ASSISTED DOORS
 MARKED "WSDOT ITS" *
 (DRAWING: 010-X800101-001)

WSDOT 2436 SLIPNOT PLATE
 NON SPRING ASSISTED DOORS
 MARKED "WSDOT ITS"
 (DRAWING: 010-X800101-001)

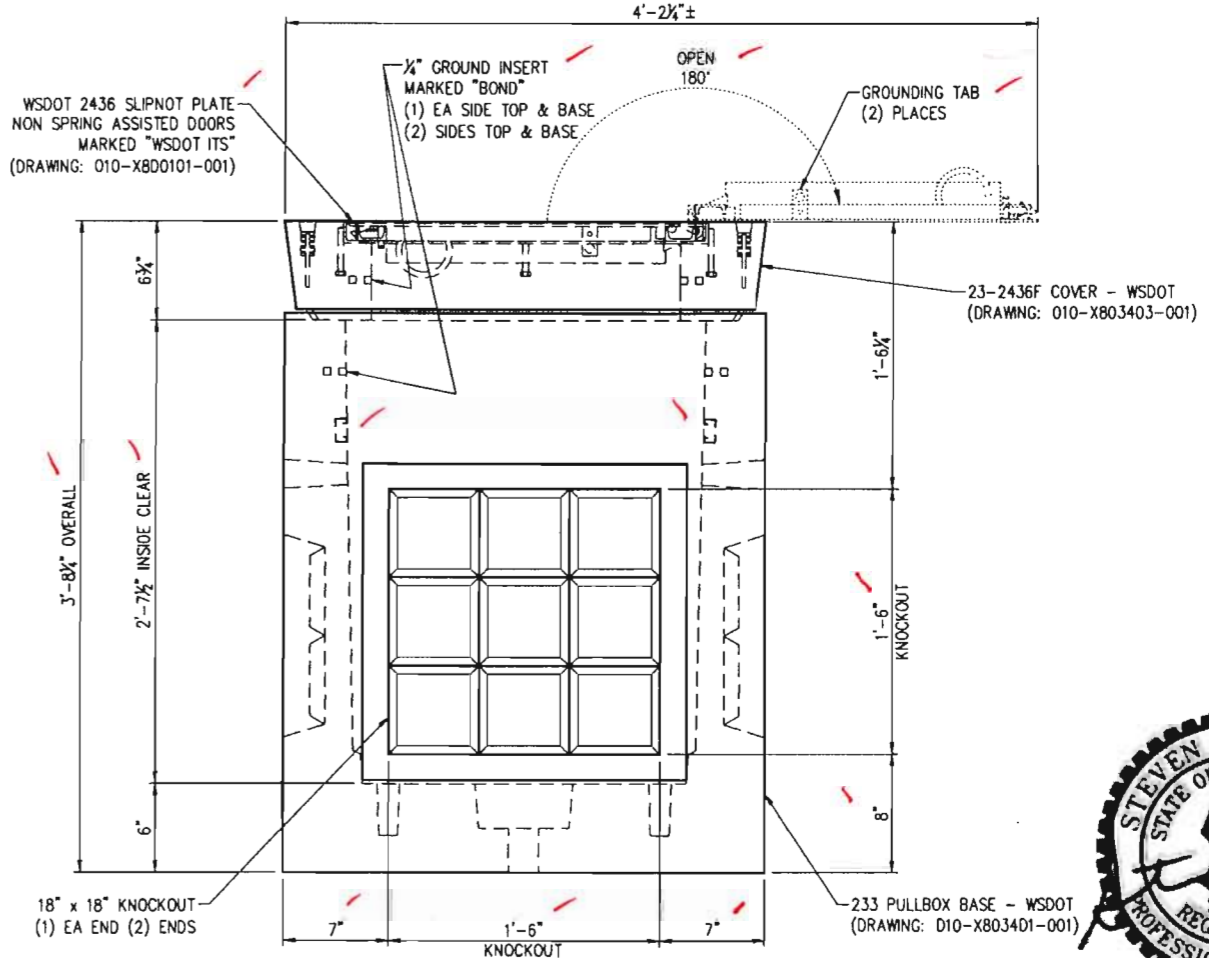
* Note: Doors may also be labeled TS, LT, EVC,
 COMM and TEL.



PLAN VIEW



VIEW AA



VIEW BB

- STRUCTURAL NOTES**
- CONCRETE: 28 DAY COMPRESSIVE STRENGTH f'c = 4000 psi
 - REBAR: ASTM A-615 GRADE 60
 - MESH: ASTM A-185 GRADE 65
 - DESIGN: ACI-318-05 BUILDING CODE
 - LOADS: STANDARD DUTY LOADING, 22,500 lbs
 ASTM C-857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"
 30% IMPACT FOR LESS THAN 2'-0" SOIL COVER
 SOIL DENSITY 120 pcf
 40 pcf E.F.P. LATERAL SOIL PRESSURE ABOVE WATERTABLE
 80 pcf E.F.P. LATERAL SOIL PRESSURE BELOW WATERTABLE
 230 psf LIVE LOAD SURCHARGE
 NO LIVE LOAD SURCHARGE FOR SOIL COVER > 8'-0"
 TOP OF VAULT AT FINISHED GRADE
 WATERTABLE 5'-0" BELOW FINISHED GRADE (ASSUMED)

- GENERAL NOTES**
- CUSTOMER TO:
 VERIFY ALL VAULT FEATURES
 DO ALL GROUTING & EPOXY OF VAULTS, HOLES & SEAMS (USING NON-SHRINK GROUT)
 SUPPLY & INSTALL ALL PIPING & ELECTRICAL
 INSTALL ALL LADDERS
 DO ALL PAINTING

SHIPPING WEIGHT

23-2436F COVER:	490 lbs
233 PULLBOX BASE:	1,785 lbs
TOTAL:	2,275 lbs



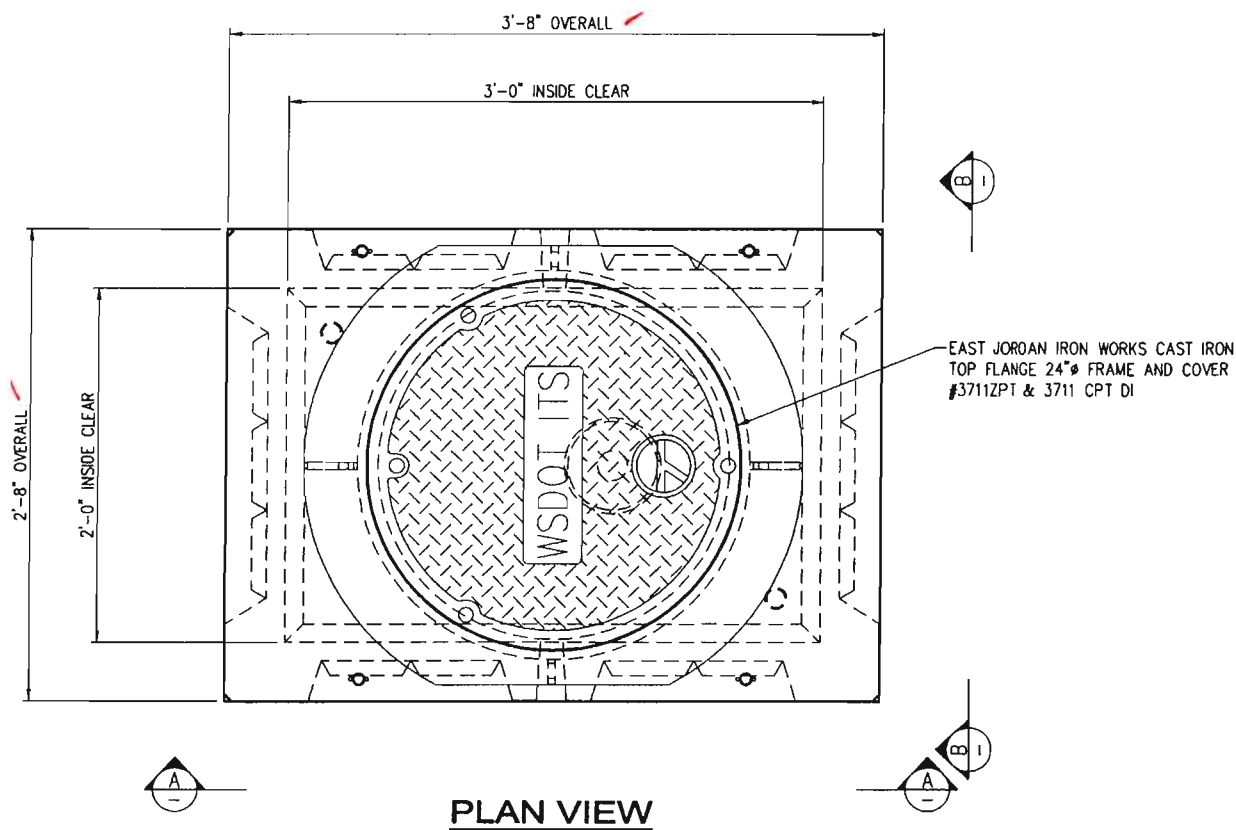
B	AD WSDOT TO DOOR MARKING, AD PENTA BOLT NOTES	8/5/10	JG
-	(SEE CAD FILE FOR COMPLETE REVISION HISTORY)	-	-
LTR	REVISION	DATE	BY

SALES	DATE	4/6/10
DESIGNER	WEIGHT	2,275 lbs
CHECKED	CALC NO	



233 STANDARD DUTY PULL BOX
 CUSTOMER LAYOUT
 CUSTOMER STANDARD PRODUCT

CUSTOMER	WASHINGTON STATE DOT	SHEET	1 OF 1
DRAWING NUMBER	010-X803410-001	REVISION	B



PLAN VIEW

NOTE:
 PENTA HEAD BOLT IS RECESSED MINIMUM 1/8" BELOW PLATE SURFACE.
 PENTA HEAD BOLT TO BE LIBERALLY COATED WITH ANTI-SEIZE COMPOUND.

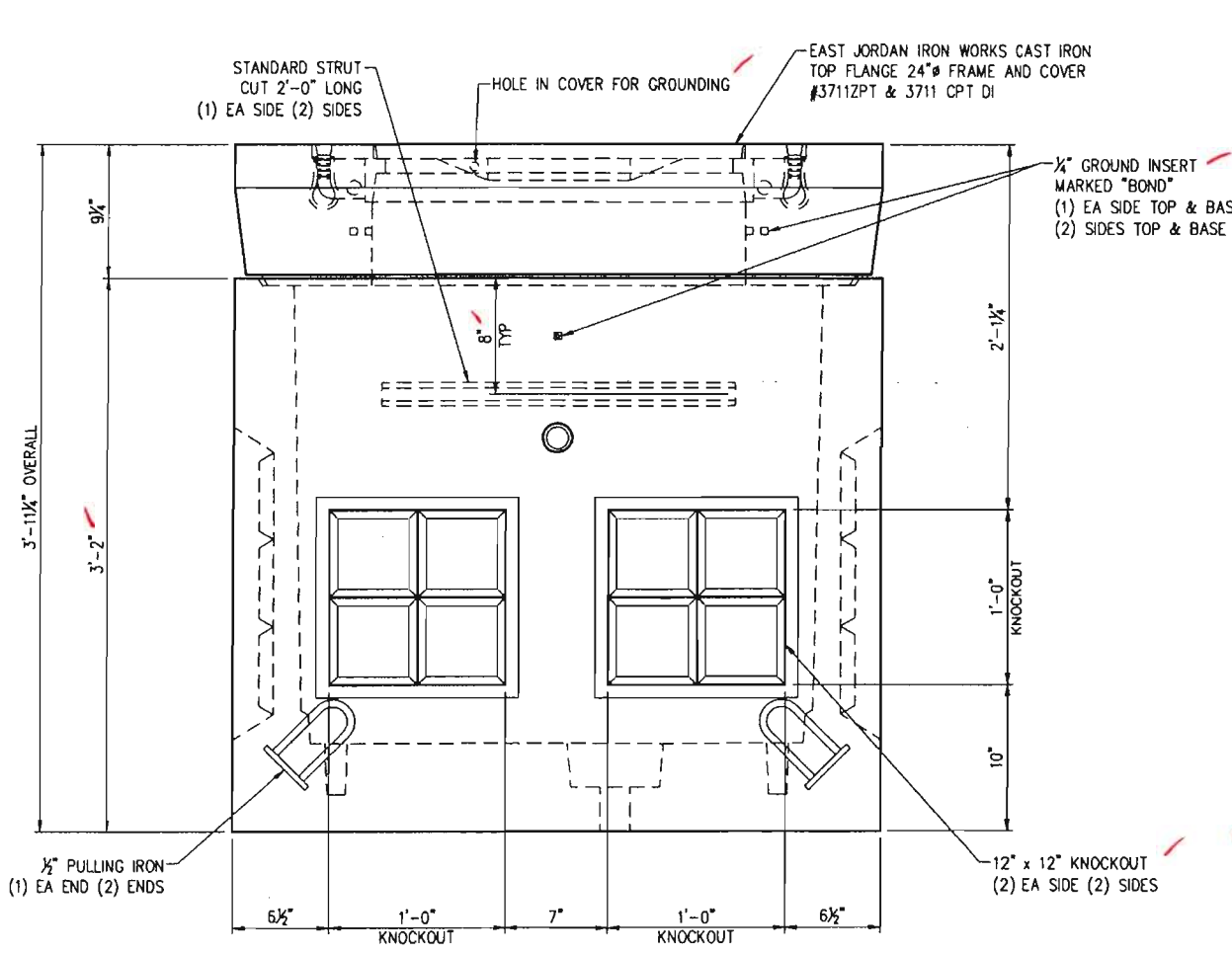
APPROVED
 Washington State
 Department of Transportation
 HQ Traffic Operations Office
 DATE September 1, 2010 TAT

- STRUCTURAL NOTES**
1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH f'c = 4000 psi
 2. REBAR: ASTM A-615 GRADE 60
 3. MESH: ASTM A-185 GRADE 65
 4. DESIGN: ACI-318-05 BUILDING CODE
 5. LOADS: HEAVY DUTY LOADING, 46,000 lbs
 ASTM C-857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"
 30% IMPACT FOR LESS THAN 2'-0" SOIL COVER
 SOIL DENSITY 120 pcf
 40 pcf E.F.P. LATERAL SOIL PRESSURE ABOVE WATERTABLE
 80 pcf E.F.P. LATERAL SOIL PRESSURE BELOW WATERTABLE
 230 psf LIVE LOAD SURCHARGE
 NO LIVE LOAD SURCHARGE FOR SOIL COVER > 8'-0"
 TOP OF VAULT AT FINISHED GRADE
 WATERTABLE 5'-0" BELOW FINISHED GRADE (ASSUMED)

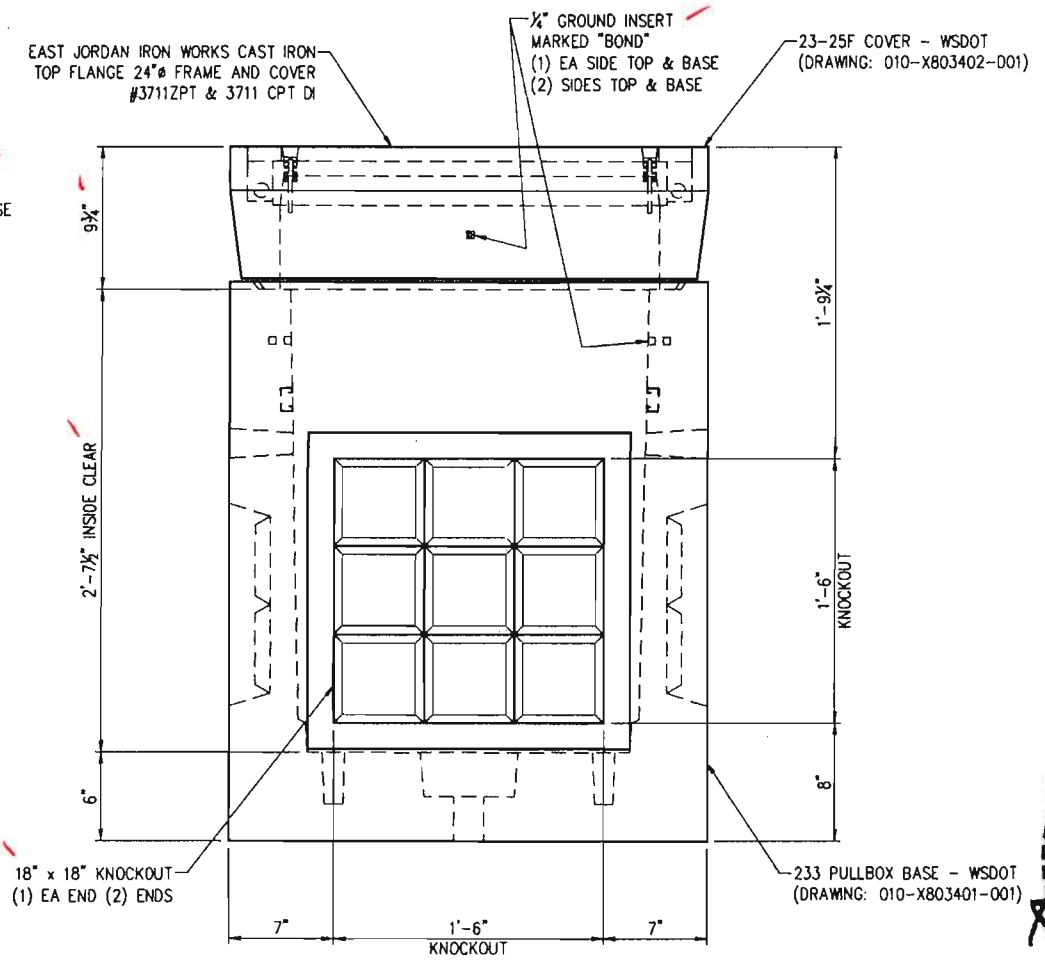
- GENERAL NOTES**
1. CUSTOMER TO:
 VERIFY ALL VAULT FEATURES
 DO ALL GROUTING & EPOXY OF VAULTS, HOLES & SEAMS (USING NON-SHRINK GROUT)
 SUPPLY & INSTALL ALL PIPING & ELECTRICAL
 INSTALL ALL LADDERS
 DO ALL PAINTING

SHIPPING WEIGHT

23-25F COVER:	975 lbs
233 PULLBOX BASE:	1,785 lbs
TOTAL:	2,760 lbs



VIEW AA



VIEW BB



B	REVISED FRAME/COVER CALLOUT	8/5/10	JG	THIS DOCUMENT IS THE PROPERTY OF OLDCASTLE PRECAST, INC. IT IS SUBMITTED FOR REFERENCE PURPOSES ONLY AND SHALL NOT BE USED IN ANY WAY INJURIOUS TO THE INTERESTS OF OLDCASTLE PRECAST, INC. COPYRIGHT © 2010 Oldcastle Precast, Inc. All Rights Reserved.	SALES	DATE 4/6/10	<p>Oldcastle Precast® P.O. BOX 508 AUBURN, WA 98071-0508 PHONE: 800-882-1536 FAX: 253-735-4201</p>	233 HEAVY DUTY PULL BOX CUSTOMER LAYOUT CUSTOMER STANDARD PRODUCT	CUSTOMER	WASHINGTON STATE DOT	SHEET	1 OF 1	
-	(SEE CAD FILE FOR COMPLETE REVISION HISTORY)	-	-	DESIGNER	JG	WEIGHT			2,760 lbs	DRAWING NUMBER	010-X803410-002	REVISION	B
LTR.	REVISION	DATE	BY	CHECKED		CALC NO							

NOTE:
 PENTA HEAD BOLT IS RECESSED
 MINIMUM 1/8" BELOW PLATE SURFACE.
 PENTA HEAD BOLT TO BE LIBERALLY
 COATED WITH ANTI-SEIZE COMPOUND.

WSDOT 2436 SLIPNOT PLATE
 NON SPRING ASSISTED DOORS
 MARKED "WSDOT ITS"
 (DRAWING: 010-X800101-001)

ROUGHENED SURFACE REQUIRED
 PRIOR TO CASTING BOTTOM/WALL
 CONCRETE

APPROVED

Washington State
 Department of Transportation
 HQ Traffic Operations Office
 DATE September 1, 2010 TAT

WSDOT 2436 SLIPNOT PLATE
 NON SPRING ASSISTED DOORS
 MARKED "WSDOT ITS"
 (DRAWING: 010-X800101-001)

STANDARD STRUT
 CUT 2'-0" LONG
 (1) EA SIDE (2) SIDES

GROUNDING TAB
 (2) PLACES

1/4" GROUND INSERT
 MARKED "BOND"
 (1) EA SIDE TOP & BASE
 (2) SIDES TOP & BASE

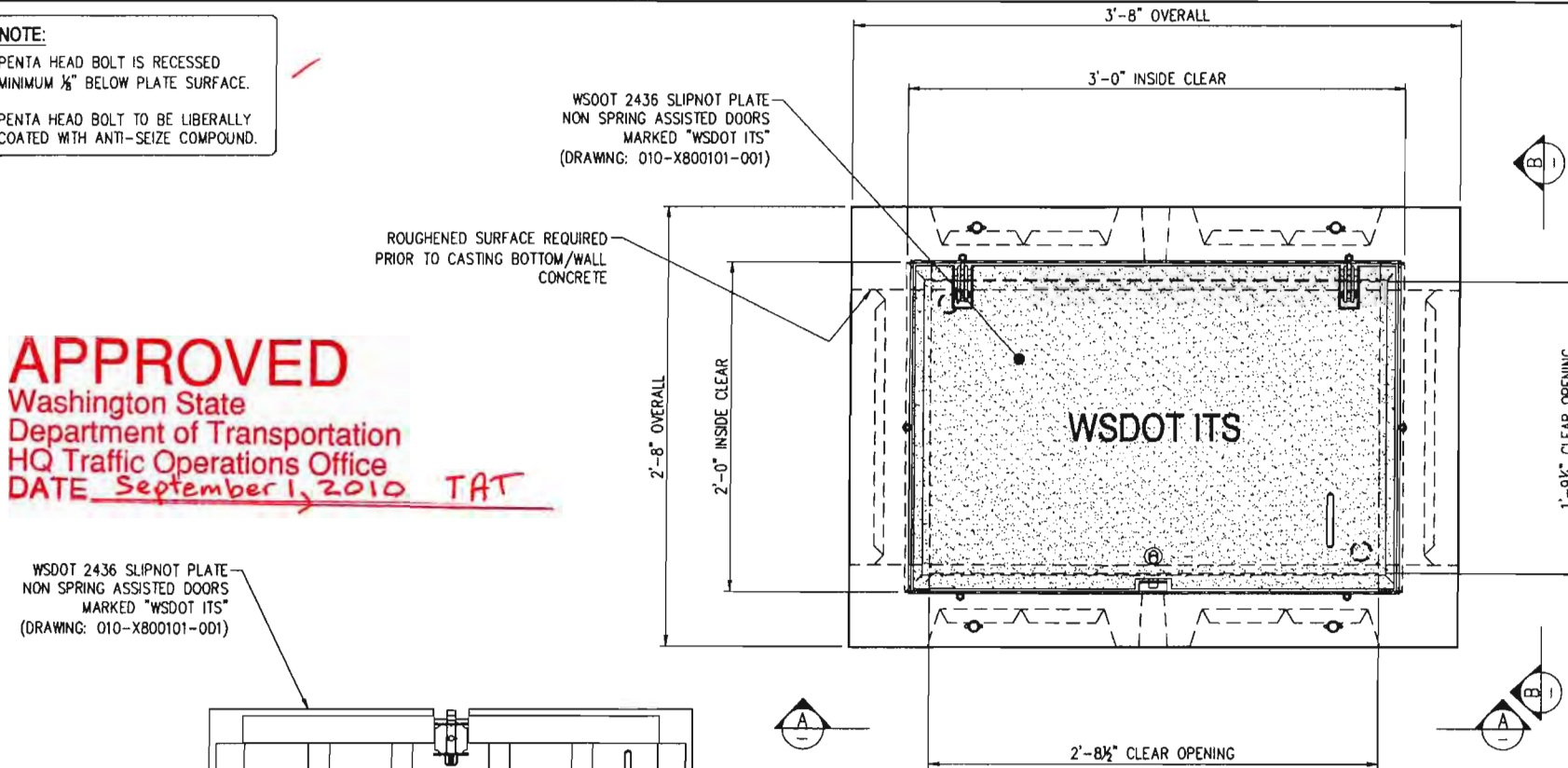
WSDOT 2436 SLIPNOT PLATE
 NON SPRING ASSISTED DOORS
 MARKED "WSDOT ITS"
 (DRAWING: 010-X800101-001)

1/4" GROUND INSERT
 MARKED "BOND"
 (1) EA SIDE TOP & BASE
 (2) SIDES TOP & BASE

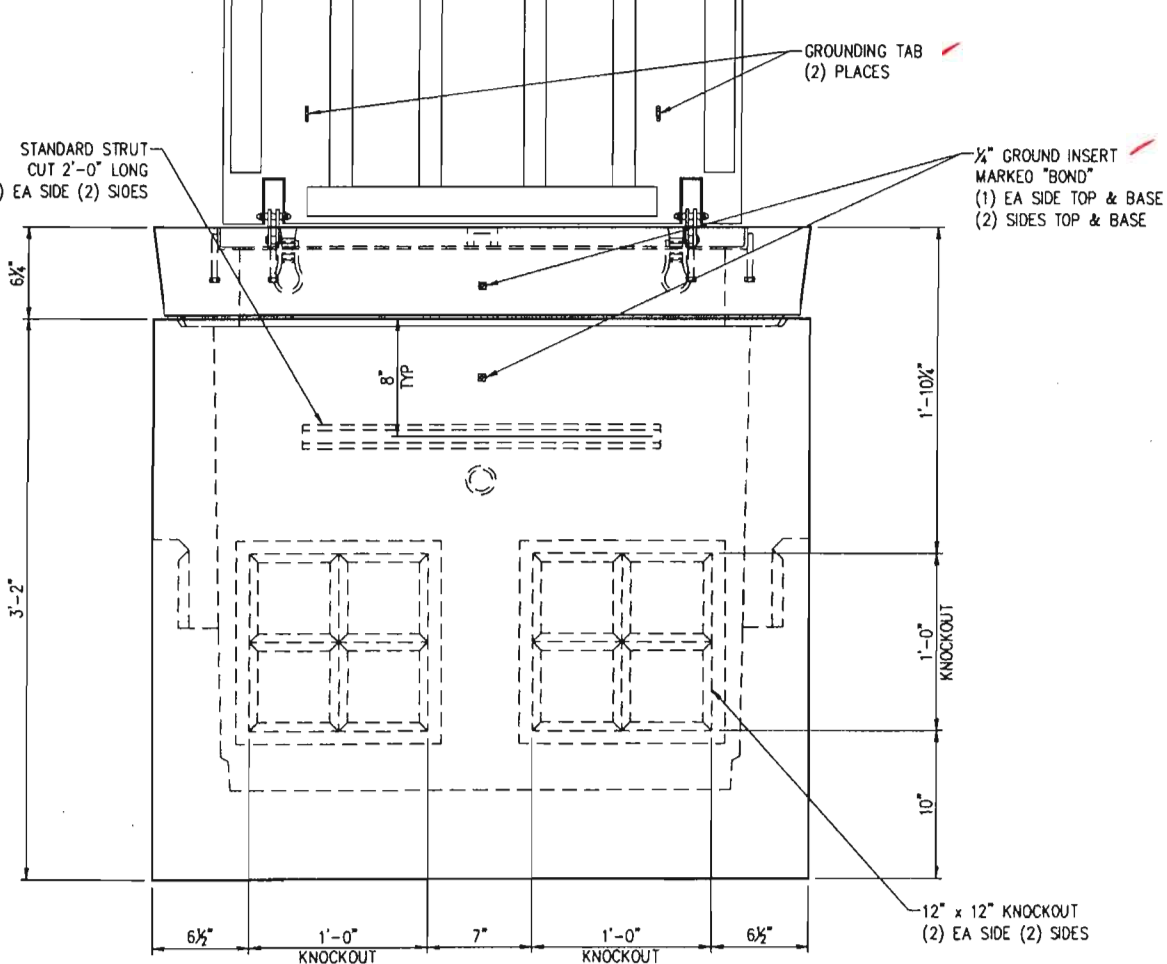
GROUNDING TAB
 (2) PLACES

23-2436F COVER - WSDOT
 (DRAWING: 010-X803403-001)

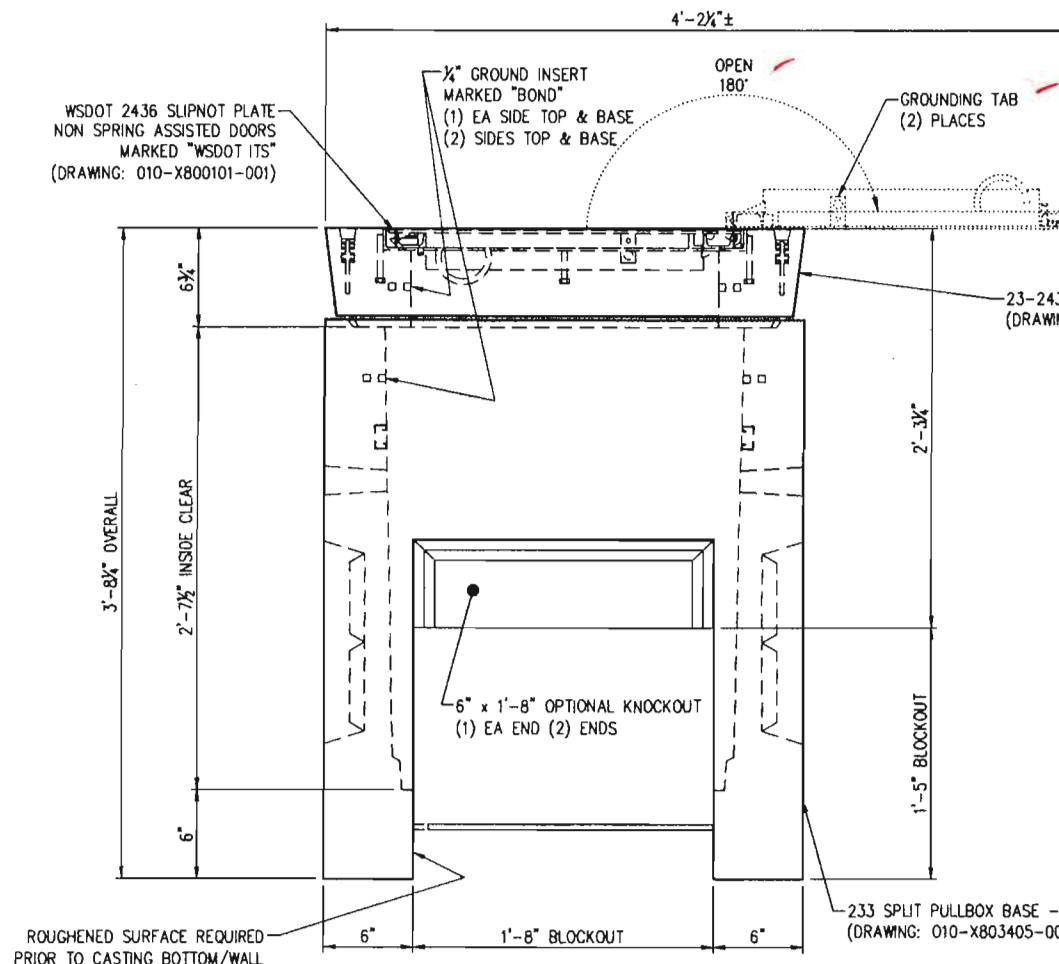
233 SPLIT PULLBOX BASE - WSDOT
 (DRAWING: 010-X803405-001)



PLAN VIEW



VIEW AA



VIEW BB

STRUCTURAL NOTES

1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH f'c = 4000 psi
2. REBAR: ASTM A-615 GRADE 60
3. MESH: ASTM A-185 GRADE 65
4. DESIGN: ACI-318-05 BUILDING CODE
5. LOADS: STANDARD DUTY LOADING, 22,500 lbs
 ASTM C-857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"
 30% IMPACT FOR LESS THAN 2'-0" SOIL COVER
 SOIL DENSITY 120 pcf
 40 pcf E.F.P. LATERAL SOIL PRESSURE ABOVE WATERTABLE
 80 pcf E.F.P. LATERAL SOIL PRESSURE BELOW WATERTABLE
 230 psf LIVE LOAD SURCHARGE
 NO LIVE LOAD SURCHARGE FOR SOIL COVER > 8'-0"
 TOP OF VAULT AT FINISHED GRADE
 WATERTABLE 5'-0" BELOW FINISHED GRADE (ASSUMED)

GENERAL NOTES

1. CUSTOMER TO:
 VERIFY ALL VAULT FEATURES
 DO ALL GROUTING & EPOXY OF VAULTS, HOLES & SEAMS
 (USING NON-SHRINK GROUT)
 SUPPLY & INSTALL ALL PIPING & ELECTRICAL
 INSTALL ALL LADDERS
 DO ALL PAINTING

SHIPPING WEIGHT

23-2436F COVER:	490 lbs
233 SPLIT PULLBOX BASE:	1,580 lbs
TOTAL:	2,070 lbs



8-13-10

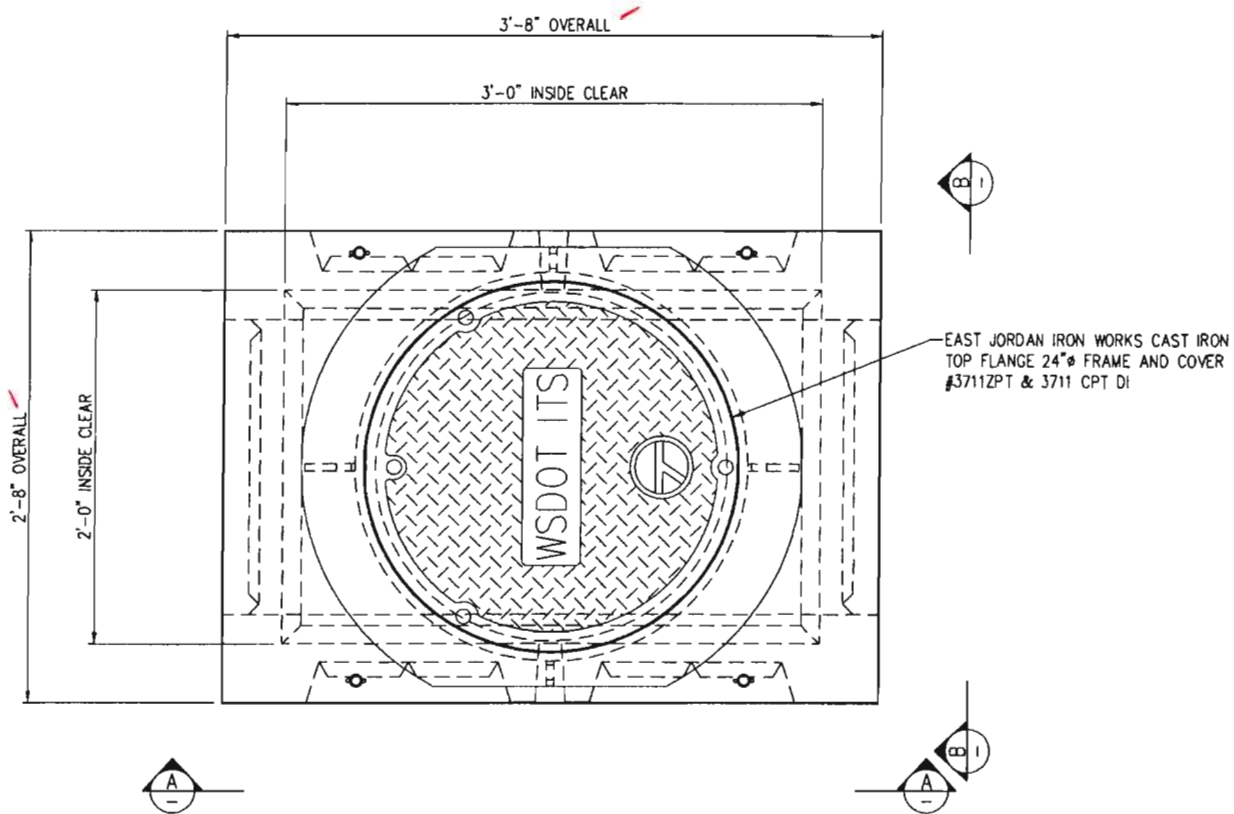
B	UPDATE DOOR, AD PENTA BOLT NOTES & ROUGHEN NOTE	8/5/10	JG
-	(SEE CAD FILE FOR COMPLETE REVISION HISTORY)	-	-
LTR.	REVISION	DATE	BY

SALES	DATE	4/6/10
DESIGNER	WEIGHT	2,070 lbs
CHECKED	CALC NO	

Oldcastle Precast
 P.O. BOX 508 AUBURN, WA 98001-0508
 PHONE: 800-862-1638 FAX: 253-736-4201

233 STANDARD DUTY SPLIT PULL BOX
 CUSTOMER LAYOUT
 CUSTOMER STANDARD PRODUCT

CUSTOMER	WASHINGTON STATE DOT	SHEET	1 OF 1
DRAWING NUMBER	010-X803410-003	REVISION	B



NOTE:
 PENTA HEAD BOLT IS RECESSED
 MINIMUM 1/8" BELOW PLATE SURFACE.
 PENTA HEAD BOLT TO BE LIBERALLY
 COATED WITH ANTI-SEIZE COMPOUND.

APPROVED
 Washington State
 Department of Transportation
 HQ Traffic Operations Office
 DATE September 1, 2010 TAT

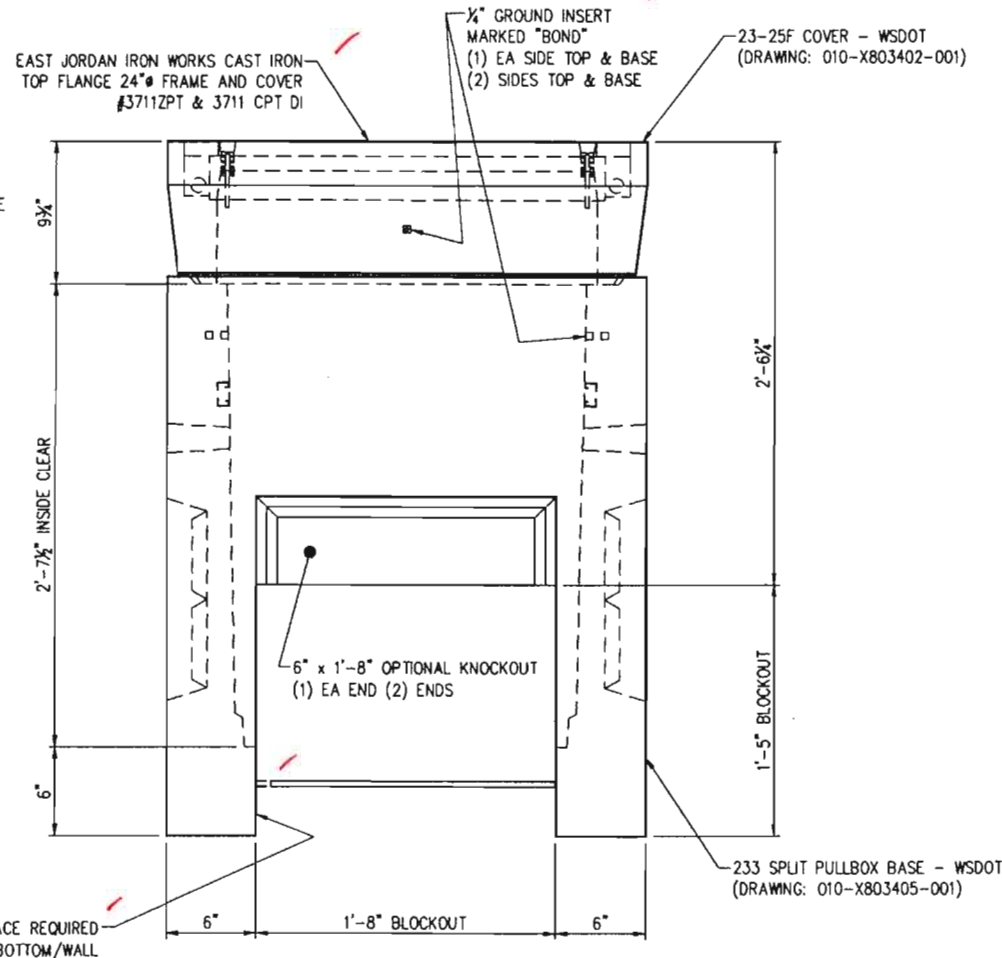
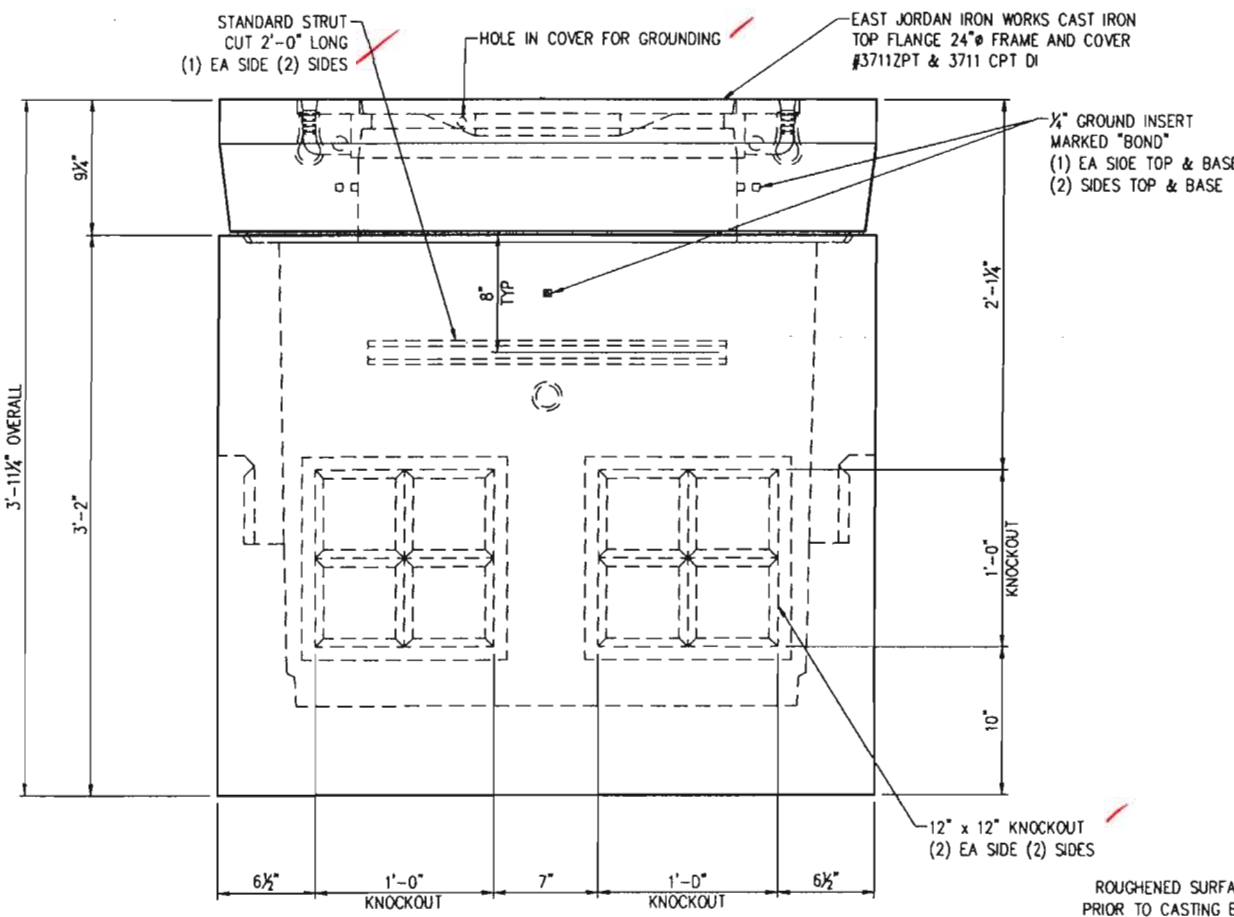
- STRUCTURAL NOTES**
1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH $f'_c = 4000$ psi
 2. REBAR: ASTM A-615 GRADE 60
 3. MESH: ASTM A-185 GRADE 65
 4. DESIGN: ACI-318-05 BUILDING CODE
 5. LOADS: HEAVY DUTY LOADING, 46,000 lbs
 ASTM C-857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"
 30% IMPACT FOR LESS THAN 2'-0" SOIL COVER
 SOIL DENSITY 120 pcf
 40 pcf E.F.P. LATERAL SOIL PRESSURE ABOVE WATERTABLE
 80 pcf E.F.P. LATERAL SOIL PRESSURE BELOW WATERTABLE
 230 psf LIVE LOAD SURCHARGE
 NO LIVE LOAD SURCHARGE FOR SOIL COVER > 8'-0"
 TOP OF VAULT AT FINISHED GRADE
 WATERTABLE 5'-0" BELOW FINISHED GRADE (ASSUMED)

- GENERAL NOTES**
1. CUSTOMER TO:
 VERIFY ALL VAULT FEATURES
 DO ALL GROUTING & EPOXY OF VAULTS, HOLES & SEAMS (USING NON-SHRINK GROUT)
 SUPPLY & INSTALL ALL PIPING & ELECTRICAL
 INSTALL ALL LADDERS
 DO ALL PAINTING

SHIPPING WEIGHT

23-25F COVER:	975 lbs
233 SPLIT PULLBOX BASE:	1,580 lbs
TOTAL:	2,555 lbs

PLAN VIEW



VIEW AA

VIEW BB



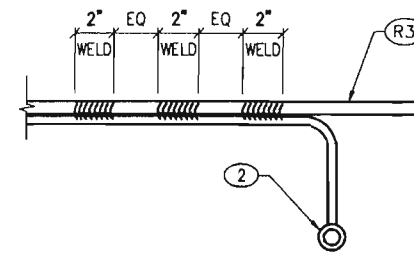
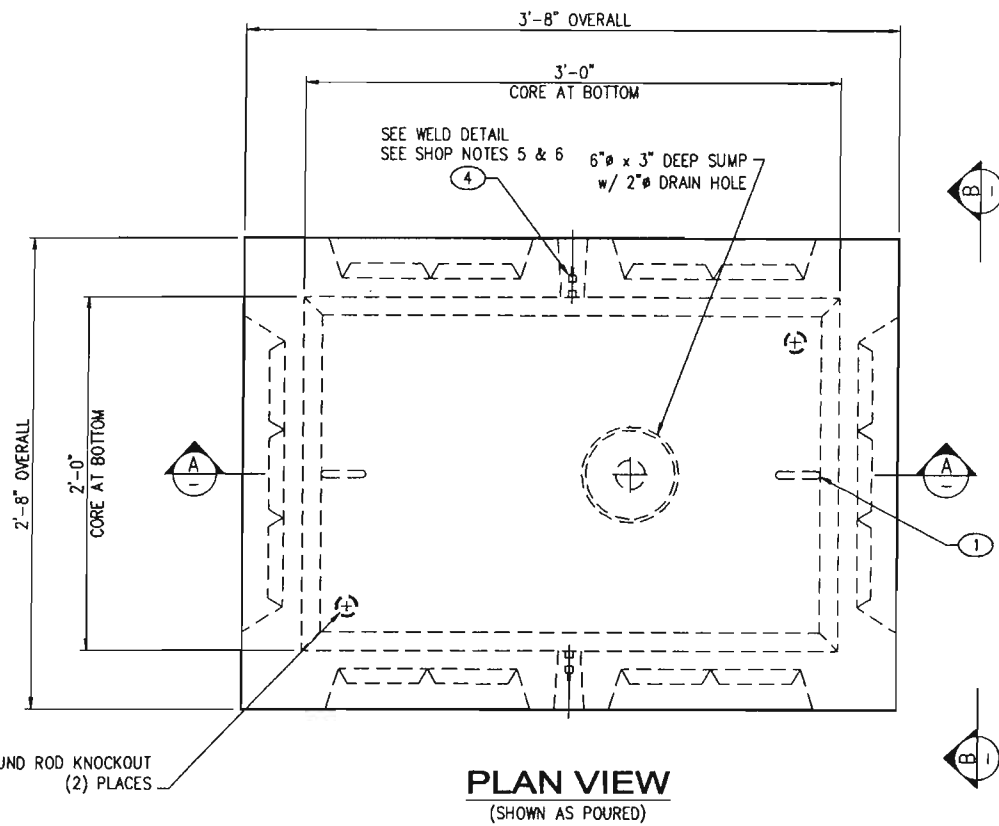
B	REVISED FRAME/COVER CALL OUT	8/5/10	JG
-	(SEE CAD FILE FOR COMPLETE REVISION HISTORY)	-	-
LTR.	REVISION	DATE	BY

SALES	DATE	4/6/10
DESIGNER	WEIGHT	???? lbs
CHECKED	CALC NO	

Oldcastle Precast®
 P.O. BOX 580 ALBANY, WA 98007-0580
 PHONE: 800-802-1638 FAX: 253-738-4261

233 HEAVY DUTY SPLIT PULL BOX
 CUSTOMER LAYOUT
 CUSTOMER STANDARD PRODUCT

CUSTOMER	WASHINGTON STATE DOT	SHEET	1 OF 1
DRAWING NUMBER	010-X803410-004	REVISION	B



SHOP NOTES

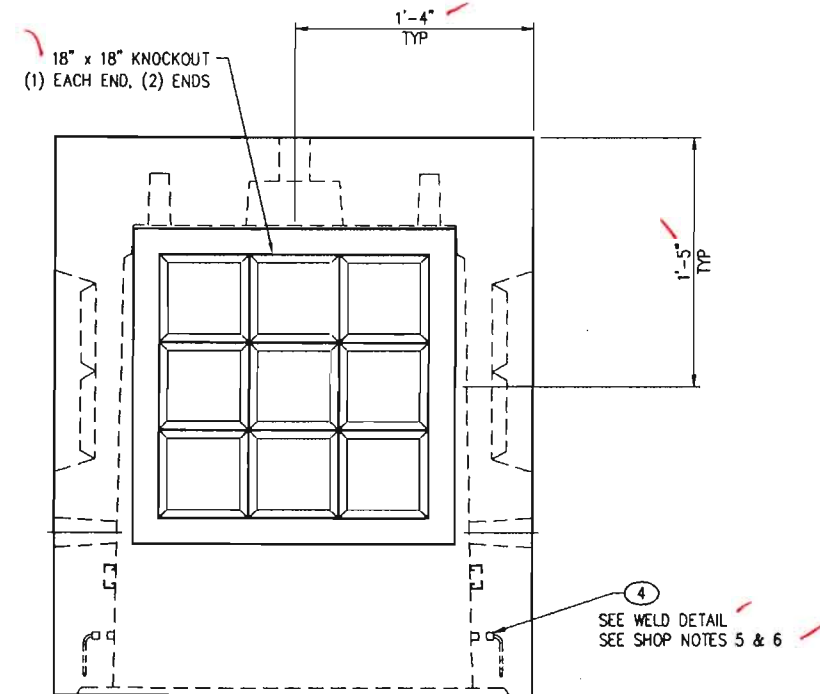
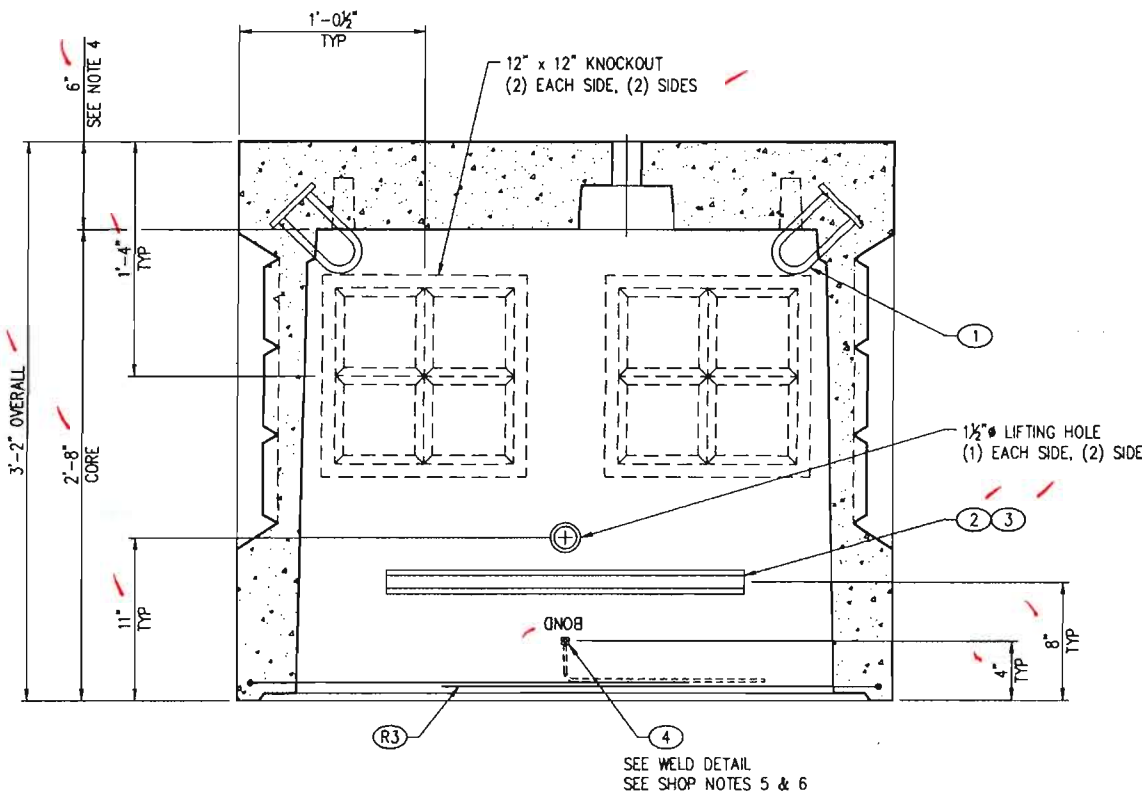
1. USE "233 BASE" STEEL FORM
2. CONCRETE FINISH: FLAT FLOAT FINISH WITH MACHINED EDGES
3. FLIP METHOD: TRUNNION
4. ADD 2" TO BASE SLAB
5. FILL GROUND INSERT WITH GREASE & INSTALL CAP PROTECTOR
6. MARK GROUND INSERTS "BOND" IN 2" LETTERS WITH GREEN PAINT

BILL OF MATERIAL				
PART	QTY	U/M	DESCRIPTION	ITEM #
1	2	ea	1/2" Pulling Iron - Galv	010-5180140-001
4	2	ea	1/4" Ground w/ 3/16"x16" Rod- Brass	010-5100393-000
	0.45	cu-yd	Concrete Mix - SCC	010-5010000-000
	0.73	bar	Rebar #3 X 40' GR60	010-5510010-000
	0.17	bar	Rebar #4 X 40' GR60	010-5510030-000
	0.18	bar	Rebar #5 X 40' GR60	010-5510050-000
	55.33	sq-ft	Mesh - (Square Feet)	010-5500000-000
	4.00	ft	B54-240 304 SS Std Strut	010-5110060-000
	4.00	ft	Unistrut-Plastic Closure	010-5120020-000

APPROVED
 Washington State
 Department of Transportation
 HQ Traffic Operations Office
 DATE September 1, 2010 TAT

LAYOUT CUT LIST			
PART	QTY	DESCRIPTION	SIZE
2	2	B54-240 304 SS Std Strut	2'-0"
3	2	Unistrut-Plastic Closure	2'-0"

1 1/2" x 3 1/2" DEEP GROUND ROD KNOCKOUT
 (2) PLACES



SECTION AA

VIEW BB



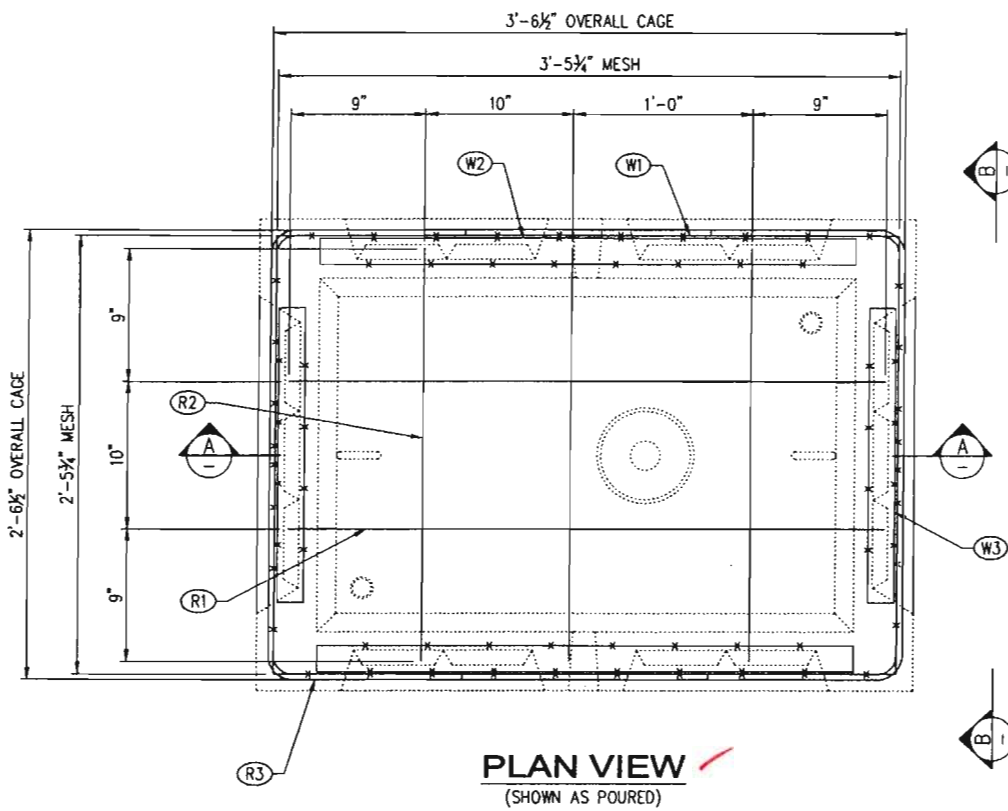
LTR.	REVISION	DATE	BY
A	ADD GROUNDS, ADD MESH TO KNOCKOUTS COMMENTS (SEE CAD FILE FOR COMPLETE REVISION HISTORY)	7/7/10	JG
-			

SALES	DATE	3/20/09
DESIGNER	WS/JG	WEIGHT
		1,785 lbs
CHECKED	BPJ/MLF	CALC NO



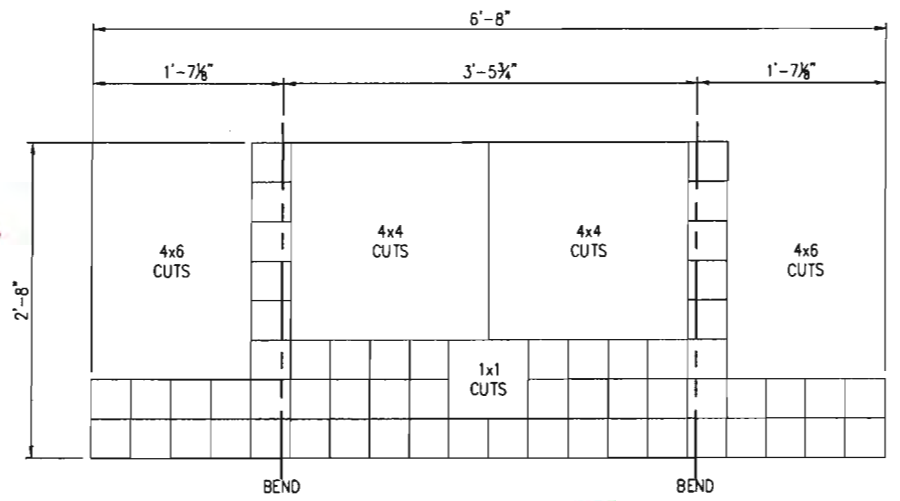
233 PULL BOX BASE - WSDOT
 LAYOUT DETAILS
 CUSTOMER STANDARD PRODUCT

CUSTOMER	WASHINGTON STATE D.O.T.	SHEET	1 of 2
DRAWING NUMBER	010-X803401-001	REVISION	A

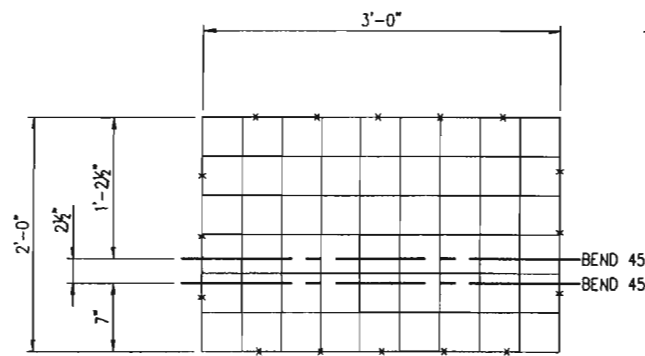


PLAN VIEW
(SHOWN AS POURED)

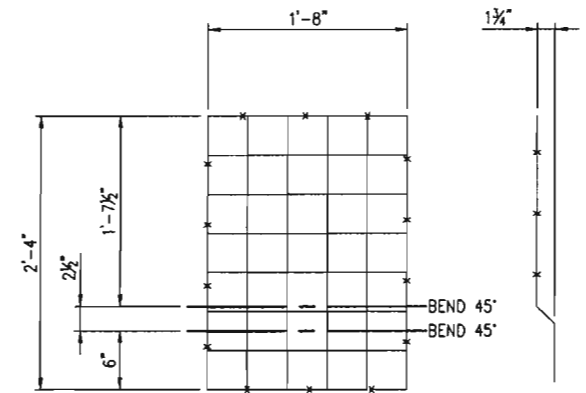
APPROVED
Washington State
Department of Transportation
HQ Traffic Operations Office
DATE September 1, 2010 TAT



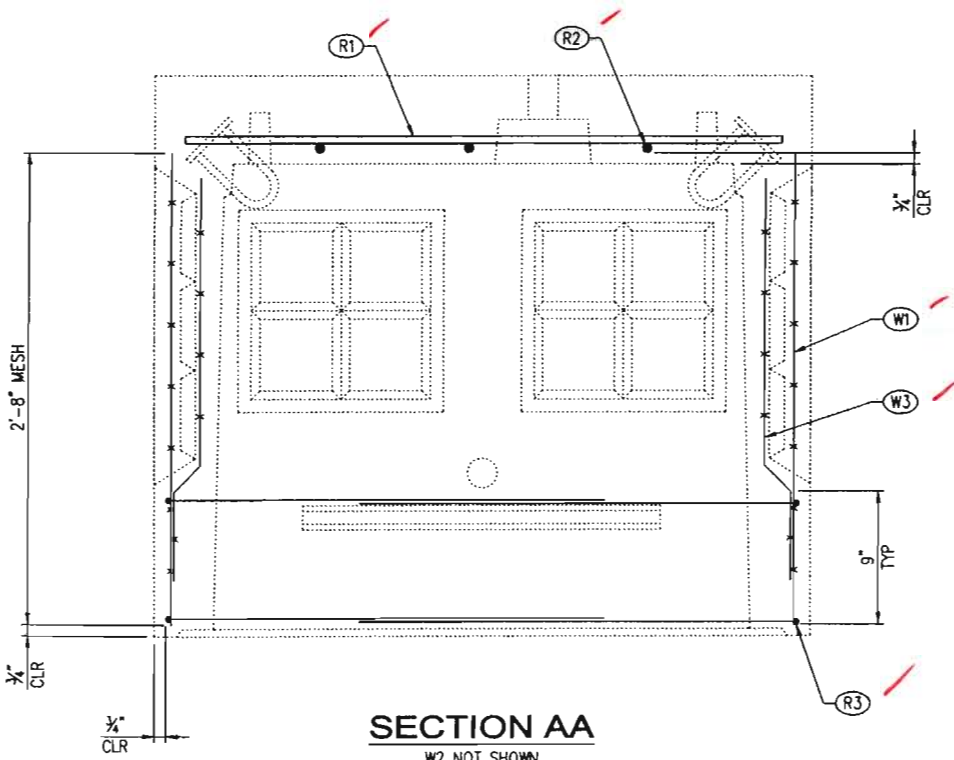
W1 DETAIL



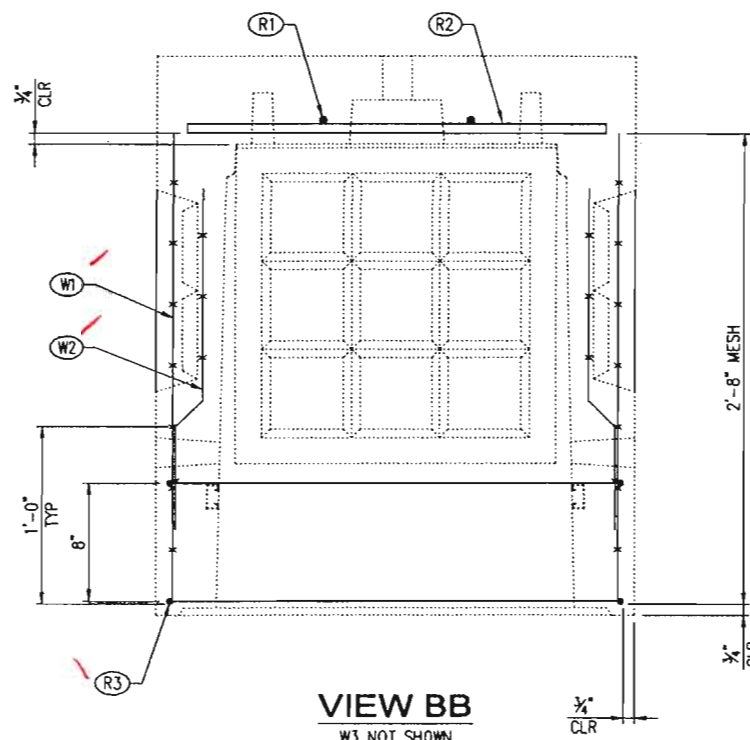
W2 DETAIL



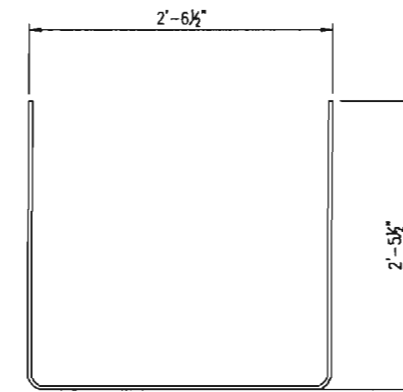
W3 DETAIL



SECTION AA
W2 NOT SHOWN



VIEW BB
W3 NOT SHOWN



R3 DETAIL

REINFORCING CUT LIST					
PART	QTY	DESCRIPTION	FT	IN	SHAPE
R1	2	#4 Rebar	3	4	STR
R2	3	#5 Rebar	2	4	STR
R3	4	#3 Rebar	7	3	BEND
W1	2	Mesh 4x4 - W2.9 x W2.9			BEND
W2	2	Mesh 4x4 - W2.9 x W2.9			BEND
W3	2	Mesh 4x4 - W2.9 x W2.9			BEND



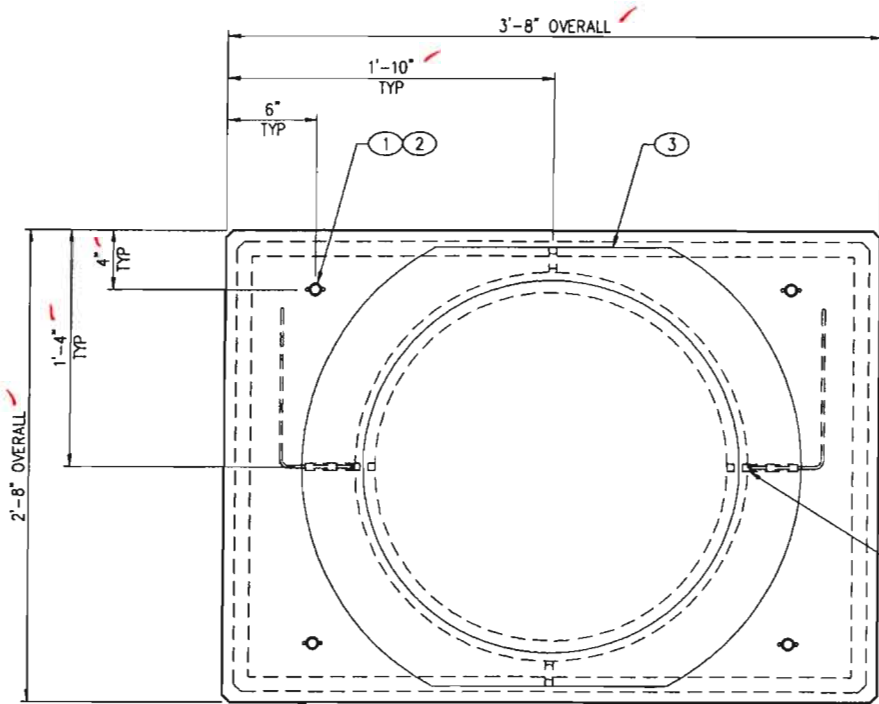
LTR.	REVISION	DATE	BY
A	ADD GROUNDS, ADD MESH TO KNOCKOUTS COMMENTS	7/7/10	JG
-	(SEE CAD FILE FOR COMPLETE REVISION HISTORY)	-	-

SALES	DATE	DESIGNER	WEIGHT
	3/20/09	WS/JG	
CHECKED	CALC NO	BPJ/MLF	

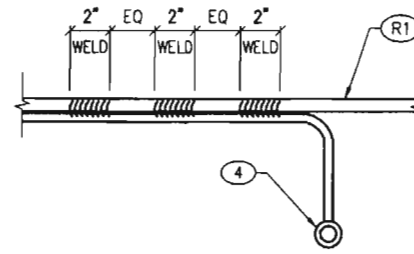
Oldcastle Precast®
P.O. BOX 588 ALBUQU, WA 98071-0588
PHONE: 800-462-1538 FAX: 253-738-0201

233 PULL BOX BASE - WSDOT
REINFORCING DETAILS
CUSTOMER STANDARD PRODUCT

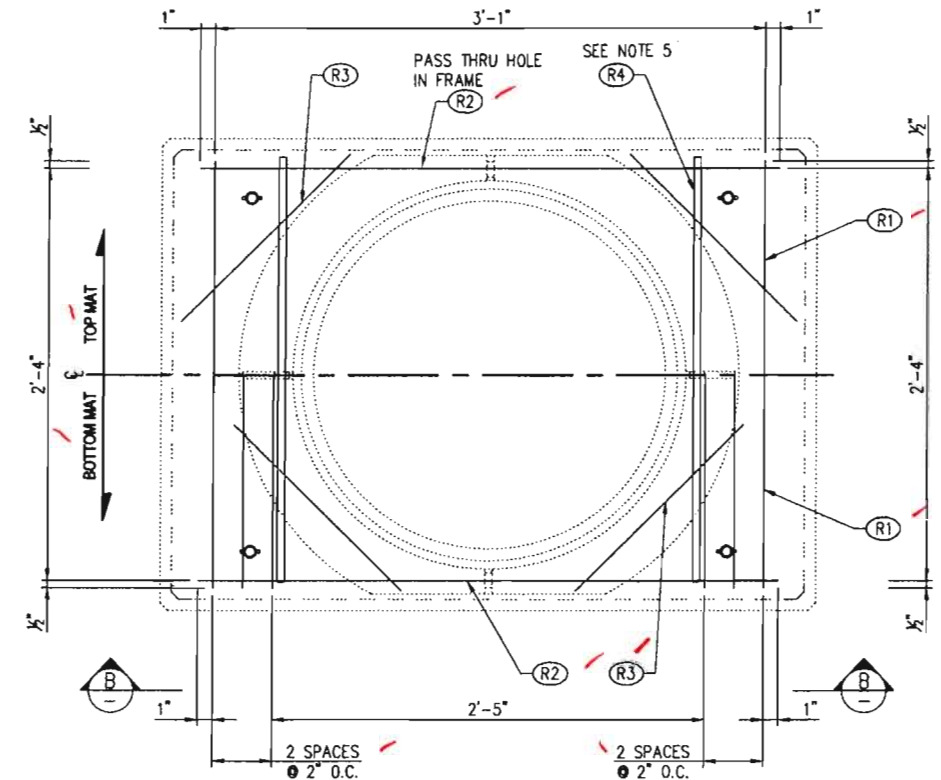
CUSTOMER	SHEET
WASHINGTON STATE D.O.T.	2 of 2
DRAWING NUMBER	REVISION
010-X803401-001	A



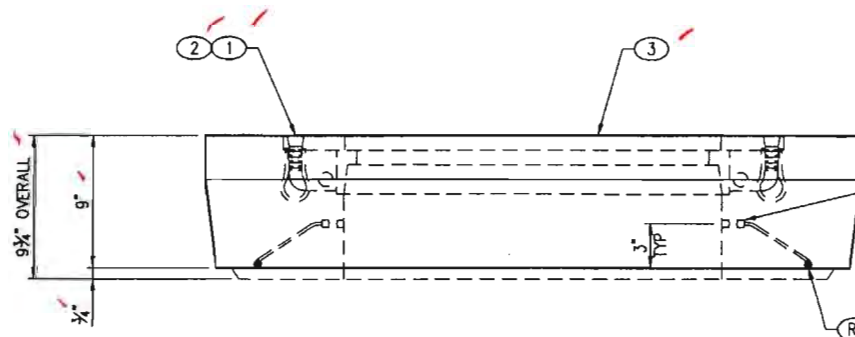
PLAN VIEW
LAYOUT (SHOWN AS POURED)



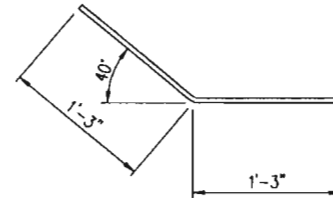
WELD DETAIL



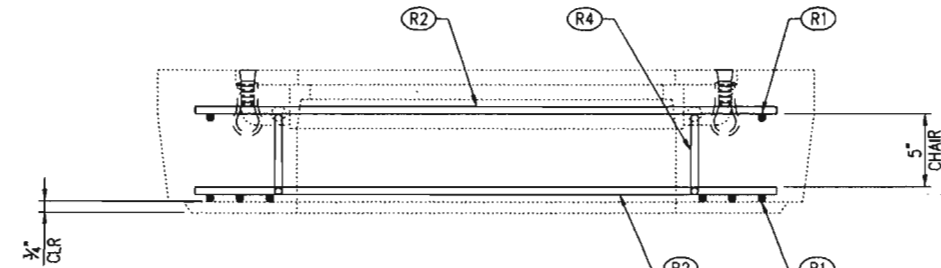
PLAN VIEW
REINFORCING (SHOWN AS POURED)



VIEW AA



R4 DETAIL
SEE NOTE 5



VIEW BB
R3 NOT SHOWN

APPROVED
Washington State
Department of Transportation
HQ Traffic Operations Office
DATE September 1, 2010 TAT

BILL OF MATERIAL				
PART	QTY	U/M	DESCRIPTION	ITEM #
1	4	ea	Insert Loop Ferr 3/4"	010-5100100-000
2	4	ea	Insert Plastic Plug 3/4" UV	010-5100050-000
3	1	ea	24" FRAME FLANGE UP (EJW 3711ZPT)	010-4000080-000
4	2	ea	1/4" Ground w/ 3/16"x16" Rod- Brass	010-5100393-000
	0.18	cu-yd	Concrete Mix - SCC	010-5010000-000
	1.22	bar	Rebar #4 X 40' GR60	D10-5510030-000
	25		Wood & Steel Forming Charge	010-9300050-000

SHOP NOTES

- USE "23 COVER" STEEL FORM
- CONCRETE FINISH: BROOM FINISH WITH MACHINED EDGES
- ADD 3" TO SLAB
- EAST JORDAN IRON WORKS (EJW) #00371101 TAPPED FOR GROUNDING
- PLACE THROUGH HOLE IN FRAME EAR AND TIE TO (R1) OR (R2)
- FILL GROUND INSERT WITH GREASE & INSTALL CAP PROTECTOR
- MARK GROUND INSERTS "BOND" IN 2" LETTERS WITH GREEN PAINT

REINFORCING CUT LIST					
PART	QTY	DESCRIPTION	FT	IN	SHAPE
R1	8	#4 Rebar	2	5	STR
R2	4	#4 Rebar	3	3	STR
R3	8	#4 Rebar	1	4	STR
R4	2	#4 Rebar	2	6	BENT



A	ADD GROUNDS	7/7/10	JG
-	(SEE CAD FILE FOR COMPLETE REVISION HISTORY)	-	-
LTR	REVISION	DATE	BY

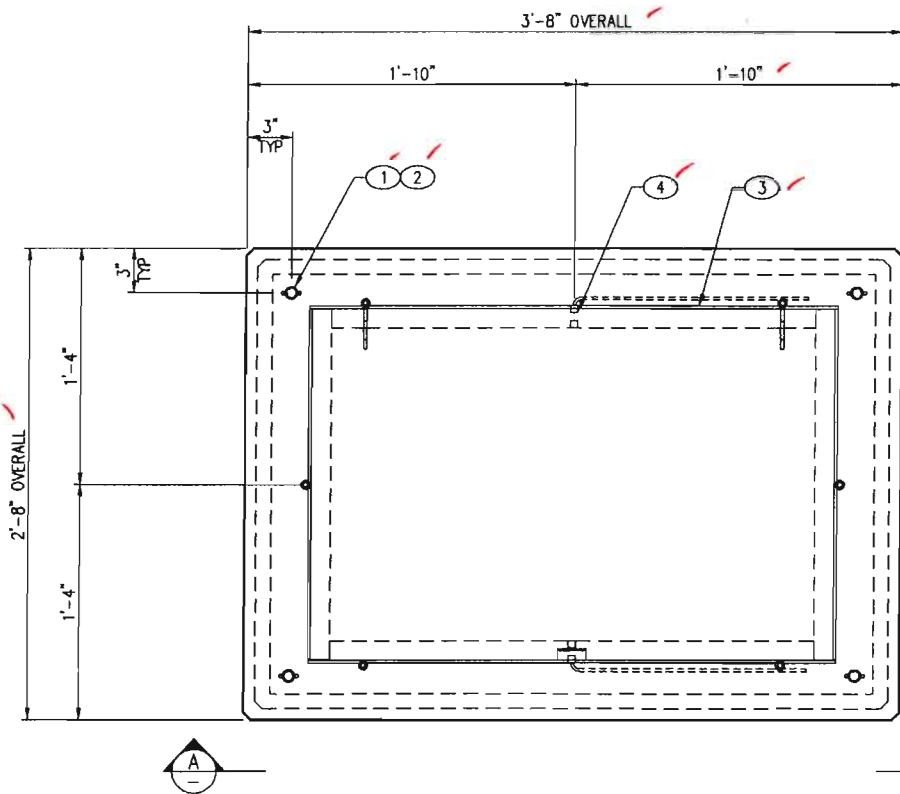
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SALES	DATE	4/6/10	
DESIGNER	JG	WEIGHT	875 lbs
CHECKED		CALC NO	

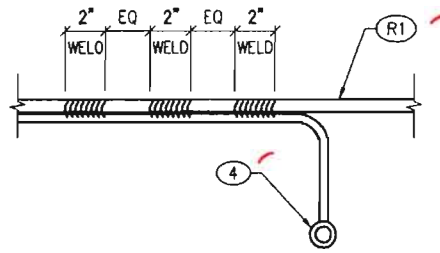


23-25F HEAVY DUTY COVER - WSDOT
LAYOUT & REINFORCING DETAILS
CUSTOMER STANDARD PRODUCT

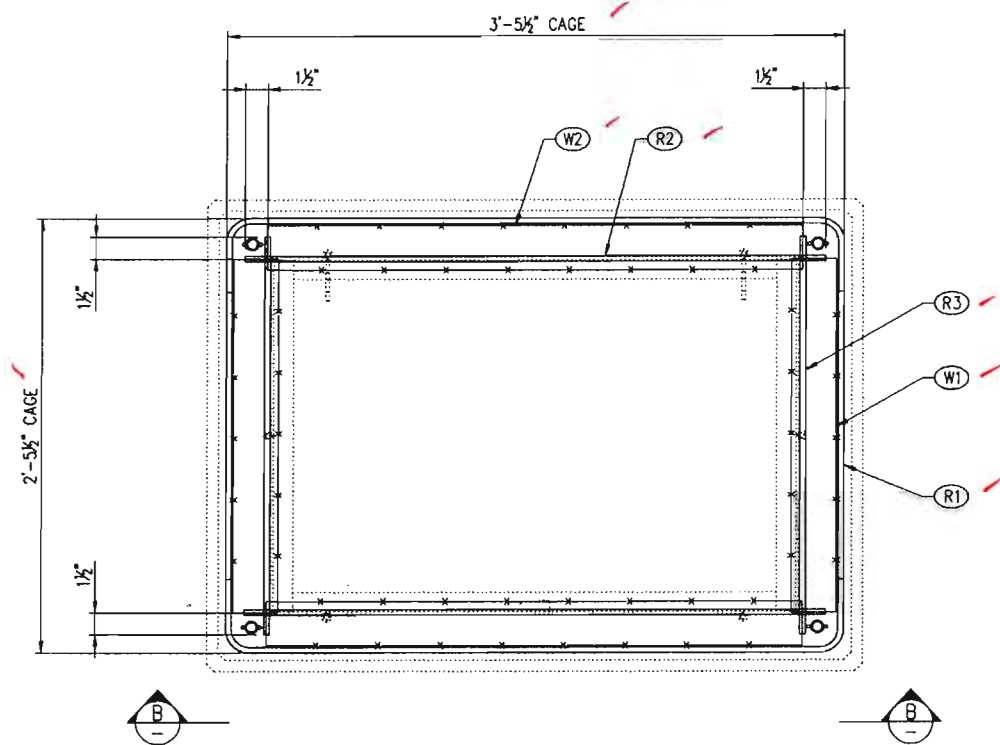
CUSTOMER	WASHINGTON STATE D.O.T.	SHEET
DRAWING NUMBER	010-X803402-001	1 of 1
REVISION		A



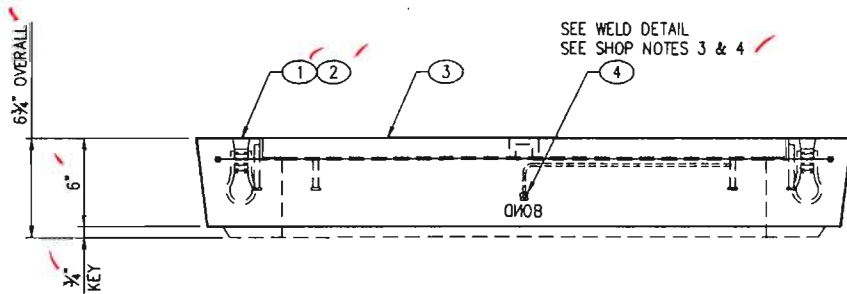
PLAN VIEW
LAYOUT (SHOWN AS POURED)



WELD DETAIL



PLAN VIEW
REINFORCING (SHOWN AS POURED)

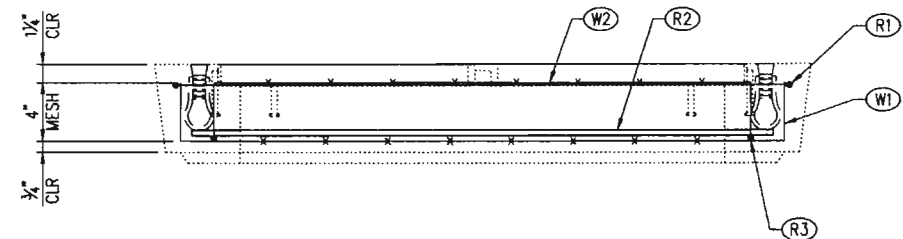


VIEW AA

APPROVED
Washington State
Department of Transportation
HQ Traffic Operations Office
DATE September 1, 2010 TAT

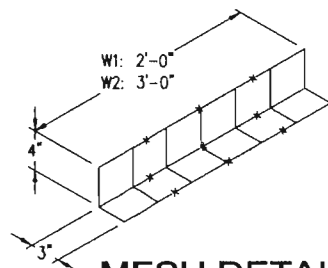
SHOP NOTES

1. USE "23 TOP" STEEL FORM
2. CONCRETE FINISH: BROOM FINISH WITH MACHINED EDGES
3. FILL GROUND INSERT WITH GREASE & INSTALL CAP PROTECTOR
4. MARK GROUND INSERTS "BOND" IN 2" LETTERS WITH GREEN PAINT

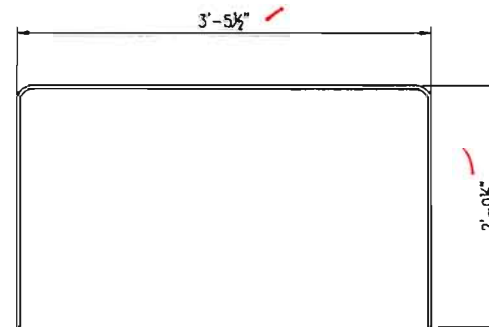


VIEW BB

BILL OF MATERIAL				
PART	QTY	UM	DESCRIPTION	ITEM #
1	4	ea	Insert Loop Ferr 3/4"	010-5100100-000
2	4	ea	Insert Plastic Plug 3/4" 'UV'	010-5100050-000
3	1	ea	WSDOT 2436-NSA Frame	010-XB00125-001
4	2	ea	1/4" Ground w/ 3/16"x16" Rod- Brass	010-5100393-000
	0.09	cu-yd	Concrete Mix - SCC	D10-5010000-000
	0.63	bar	Rebar #3 X 40' GR60	010-5510010-000
	5.83	sq-ft	Mesh - (Square Feet)	010-5500000-000



MESH DETAIL



R1 DETAIL

REINFORCING CUT LIST					
PART	QTY	DESCRIPTION	FT	IN	SHAPE
R1	2	#3 Rebar	7	4	BENT
R2	2	#3 Rebar	3	3	STR
R3	2	#3 Rebar	2	3	STR
W1	2	Mesh 4x4 - W2.9 x W2.9			BENT
W2	2	Mesh 4x4 - W2.9 x W2.9			BENT



LTR.	REVISION	DATE	BY
B	FRAME WAS STD #2130020	8/5/10	JG
A	CHGD R1 SPLICE TO SHORT SIDE. ADD GROUNDS	7/7/10	JG
-	(SEE CAD FILE FOR COMPLETE REVISION HISTORY)	-	-

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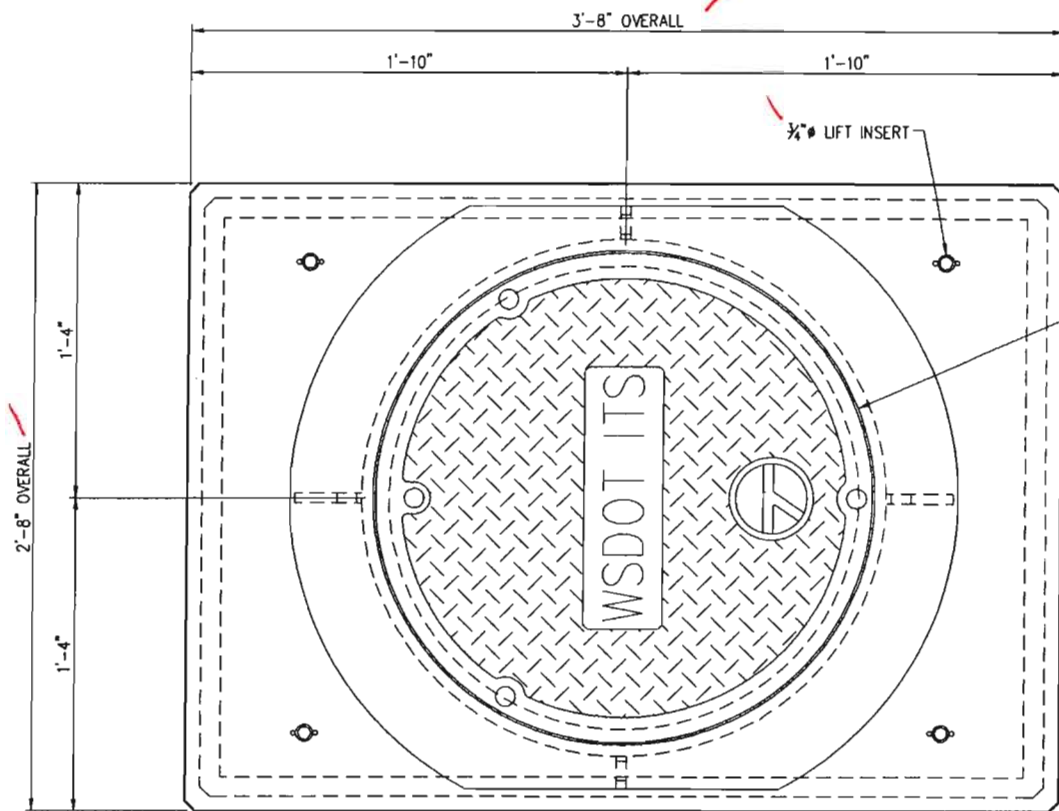
SALES	DATE
JG	4/2/10
DESIGNER	WEIGHT
JG	410 lbs
CHECKED	CALC NO



23-2436F STANDARD DUTY COVER - WSDOT
LAYOUT & REINFORCING DETAILS
CUSTOMER STANDARD PRODUCT

CUSTOMER	SHEET
WASHINGTON STATE D.O.T.	1 OF 1
DRAWING NUMBER	REVISION
010-X803403-001	B

NOTE:
 PENTA HEAD BOLT IS RECESSED
 MINIMUM 1/8" BELOW PLATE SURFACE.
 PENTA HEAD BOLT TO BE LIBERALLY
 COATED WITH ANTI-SEIZE COMPOUND.



EAST JORDAN IRON WORKS CAST IRON
 TOP FLANGE 24" FRAME AND COVER
 #3711ZPT & 3711 CPT DI

STRUCTURAL NOTES

1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH $f'_c = 4,000$ psi
2. REBAR: ASTM A-615 GRADE 60
3. MESH: ASTM A-185 GRADE 65
4. DESIGN: ACI-318-05 BUILDING CODE
5. LOADS: WHEEL LOAD = 46,000 lbs
 ASTM C-857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"
 30% IMPACT FOR LESS THAN 2'-0" SOIL COVER
 TOP OF VAULT AT FINISHED GRADE

GENERAL NOTES

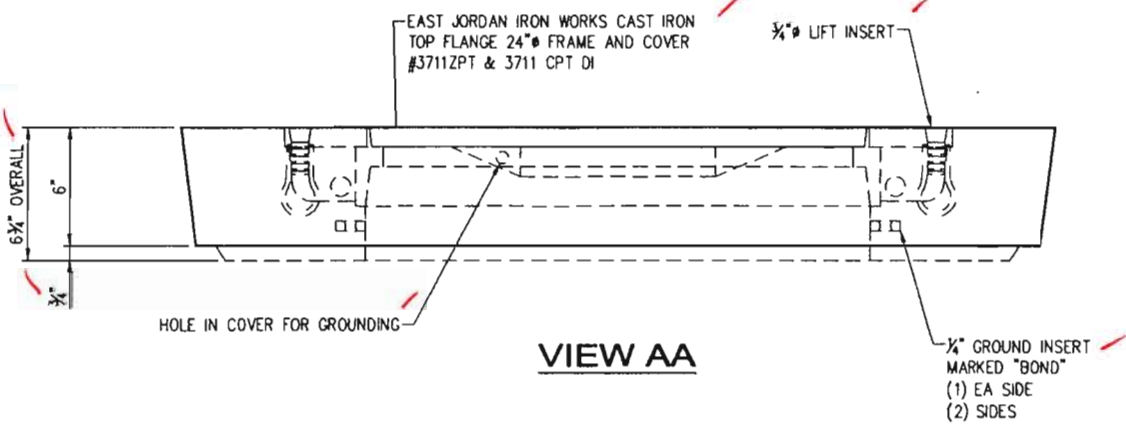
1. CUSTOMER TO:
 VERIFY ALL FEATURES
 DO ALL GROUTING & EPOXY OF VAULTS, HOLES & SEAMS
 (USING NON-SHRINK GROUT)
 SUPPLY & INSTALL ALL PIPING & ELECTRICAL
 INSTALL ALL LADDERS
 DO ALL PAINTING

NOTE

USE THE 23-25F 6" HEAVY DUTY COVER
 WHEN CONVERTING A STANDARD DUTY PULL
 BOX INTO A HEAVY DUTY PULL BOX.

PLAN VIEW

APPROVED
 Washington State
 Department of Transportation
 HQ Traffic Operations Office
 DATE September 1, 2010 TAT



VIEW AA



B	UPDATED FRAME/COVER CALLOUTS	8/5/10	JC
A	ADD GROUNDS	7/7/10	JC
-	(SEE CAD FILE FOR COMPLETE REVISION HISTORY)	-	-
LTR.	REVISION	DATE	BY

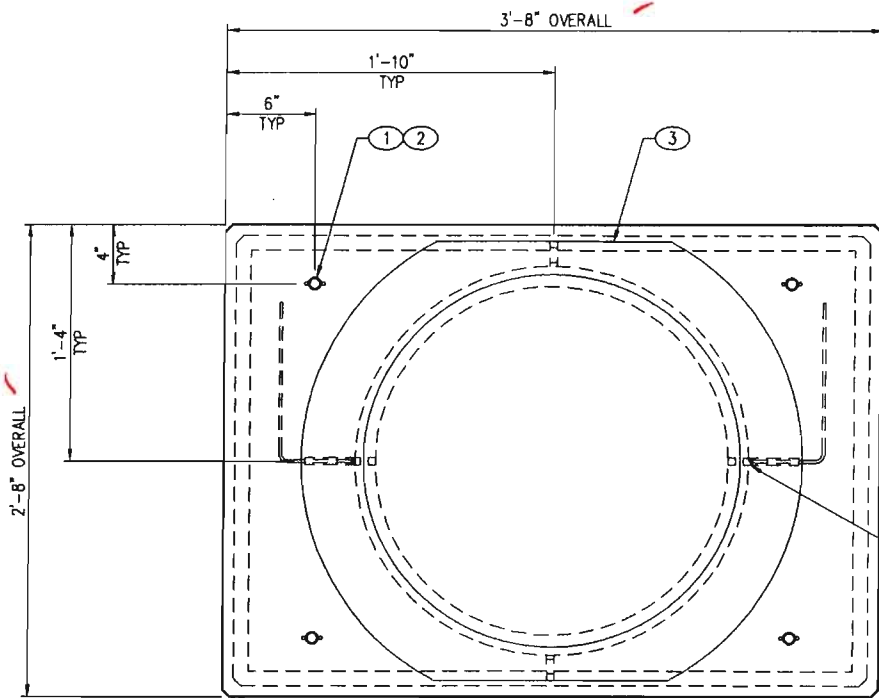
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SALES	DATE	4/11/10
DESIGNER	WEIGHT	740 lbs
CHECKED	CALC NO	

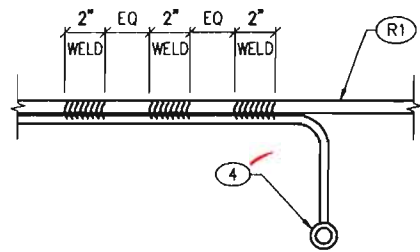


23-25F 6" HEAVY DUTY COVER - WSDOT
 CUSTOMER LAYOUT (WITH COVER)
 CUSTOMER STANDARD PRODUCT

CUSTOMER	WASHINGTON STATE D.O.T.	SHEET	1 of 2
DRAWING NUMBER	010-X803404-001	REVISION	B

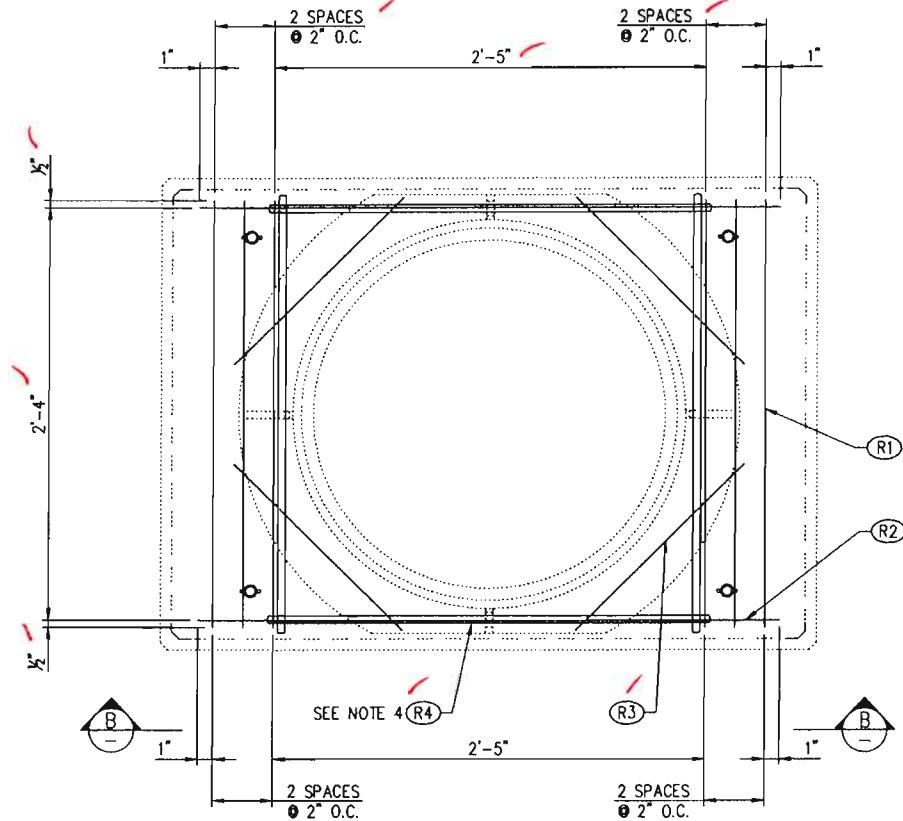


PLAN VIEW
LAYOUT (SHOWN AS POURED)

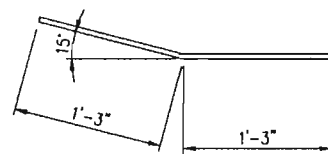


WELD DETAIL

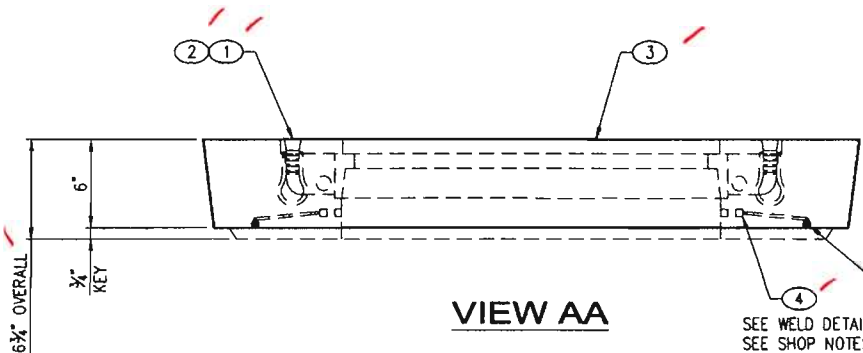
SEE WELD DETAIL
SEE SHOP NOTES 5 & 6



PLAN VIEW
REINFORCING (SHOWN AS POURED)

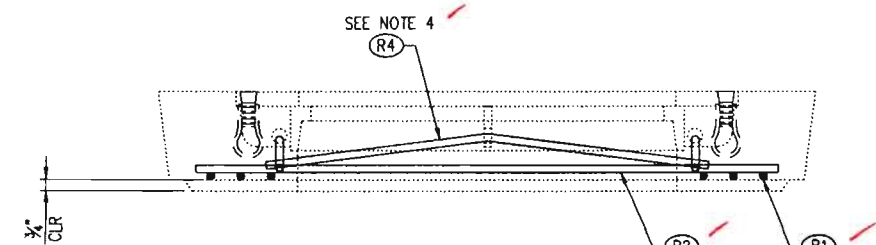


R4 DETAIL
SEE NOTE 5



VIEW AA

SEE WELD DETAIL
SEE SHOP NOTES 5 & 6



VIEW BB

R3 NOT SHOWN

APPROVED
Washington State
Department of Transportation
HQ Traffic Operations Office
DATE September 1, 2010 TAT

BILL OF MATERIAL				
PART	QTY	U/M	DESCRIPTION	ITEM #
1	4	ea	Insert Loop Ferr 3/4"	010-5100100-000
2	4	ea	Insert Plastic Plug 3/4" UV	010-5100050-000
3	1	ea	24" FRAME FLANGE UP (EJW 3711ZPT)	010-4000080-000
4	2	ea	1/4" Ground w/ 3/16"x16" Rod- Brass	010-5100393-000
	0.13	cu-yd	Concrete Mix - SCC	010-5010000-000
	0.91	bar	Rebar #4 X 40' GR60	010-5510030-000
	25		Wood & Steel Forming Charge	010-9300050-000

SHOP NOTES

- USE "23 COVER" STEEL FORM
- CONCRETE FINISH: BROOM FINISH WITH MACHINED EDGES
- EAST JORDAN IRON WORKS (EJW) #00371101 TAPPED FOR GROUNDING
- PLACE THROUGH HOLE IN FRAME EAR
- FILL GROUND INSERT WITH GREASE & INSTALL CAP PROTECTOR
- MARK GROUND INSERTS "BOND" IN 2" LETTERS WITH GREEN PAINT

REINFORCING CUT LIST					
PART	QTY	DESCRIPTION	FT	IN	SHAPE
R1	6	#4 Rebar	2	5	STR
R2	2	#4 Rebar	3	3	STR
R3	4	#4 Rebar	1	4	STR
R4	4	#4 Rebar	2	6	BENT



B	UPDTATED FRAME/COVER CALLOUTS	8/5/10	JC
A	ADD GROUNDS	7/7/10	JC
-	(SEE CAD FILE FOR COMPLETE REVISION HISTORY)	-	-
LTR.	REVISION	DATE	BY

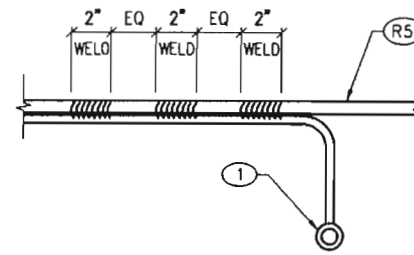
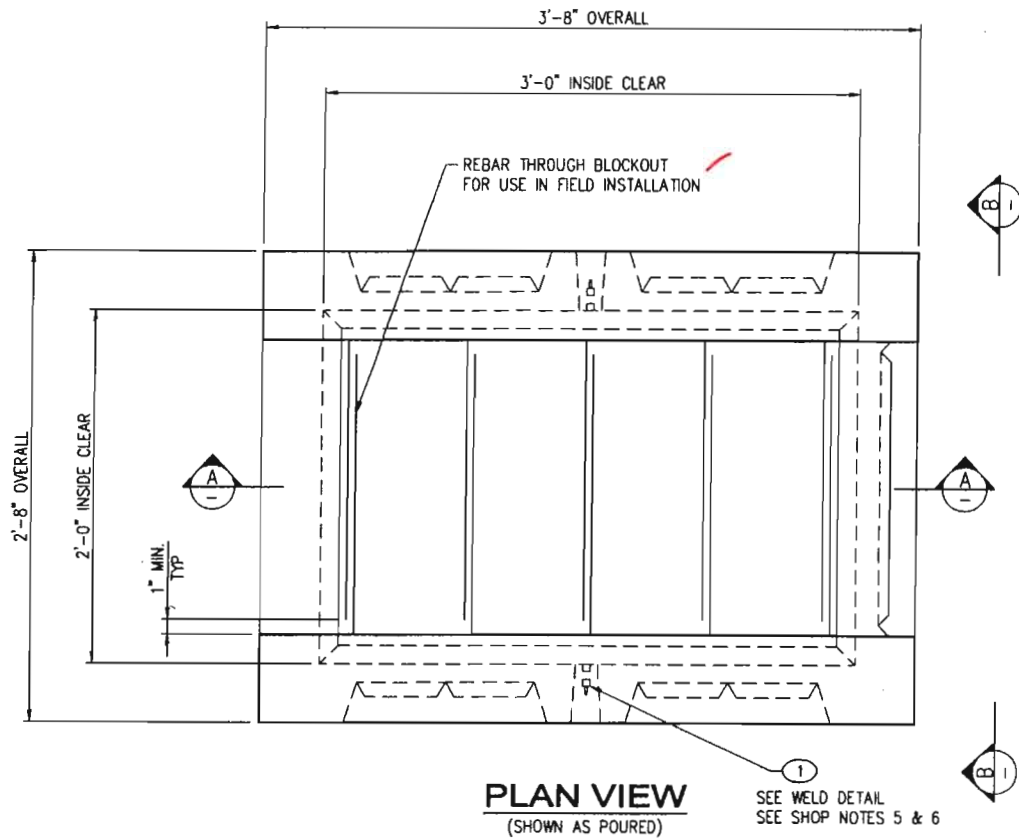
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SALES	DATE	4/11/10	
DESIGNER	JC	WEIGHT	640 lbs
CHECKED		CALC NO	



23-25F 6" HEAVY DUTY COVER - WSDOT
LAYOUT & REINFORCING DETAILS
CUSTOMER STANDARD PRODUCT

CUSTOMER	WASHINGTON STATE D.O.T.	SHEET
DRAWING NUMBER	010-X803404-001	2 OF 2
REVISION	B	REVISION



WELD DETAIL

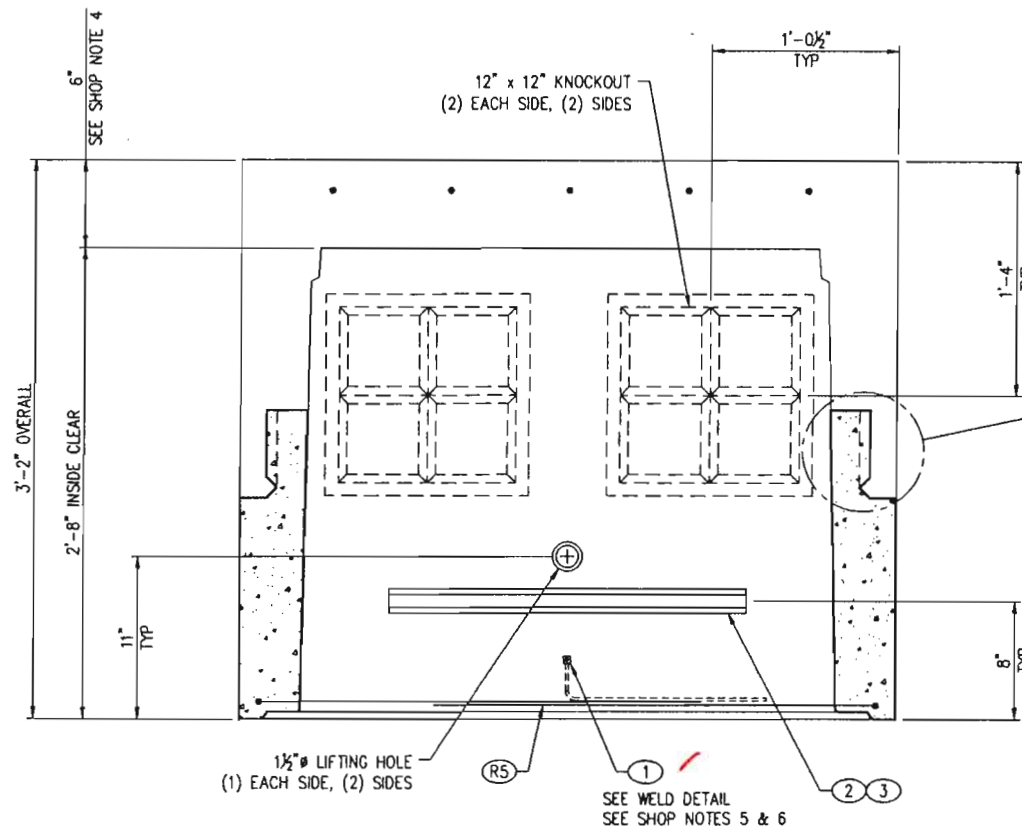
SHOP NOTES

1. USE "233 BASE" STEEL FORM
2. CONCRETE FINISH: FLAT FLOAT FINISH WITH MACHINED EDGES
3. FLIP METHOD: TRUNNION
4. ADD 3" TO BASE SLAB
5. FILL GROUND INSERT WITH GREASE & INSTALL CAP PROTECTOR
6. MARK GROUND INSERTS "BOND" IN 2" LETTERS WITH GREEN PAINT

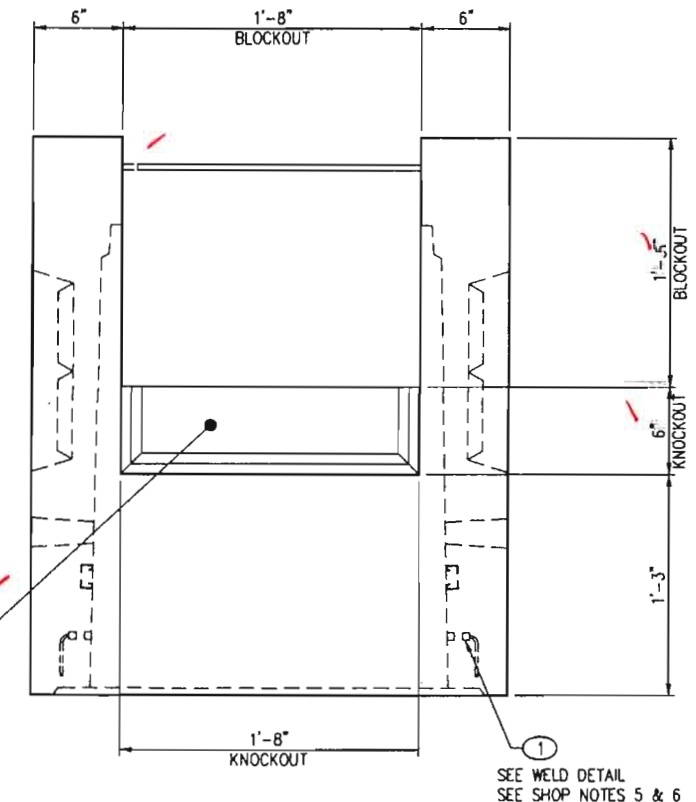
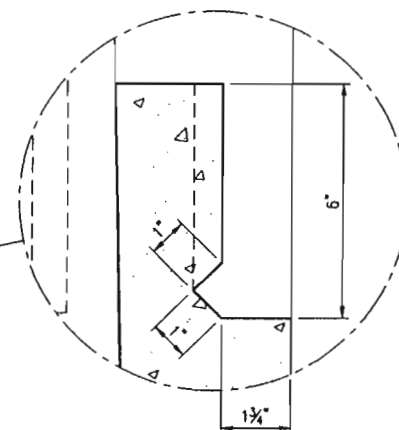
BILL OF MATERIAL				
PART	QTY	U/M	DESCRIPTION	ITEM #
1	2	ea	1/4" Ground w/ 3/16"x16" Rod- Brass	010-5100393-000
	0.39	cu-yd	Concrete Mix - SCC	010-5010000-000
	1.85	bar	Rebar #3 X 40' GR60	010-5510010-000
	36.94	sq-ft	Mesh - (Square Feet)	010-5500000-000
	4.00	ft	B54-240 304 SS Std Strut	010-5110060-000
	4.00	ft	Unistrut-Plastic Closure	010-5120020-000

APPROVED
 Washington State
 Department of Transportation
 HQ Traffic Operations Office
 DATE September 1, 2010 TAT

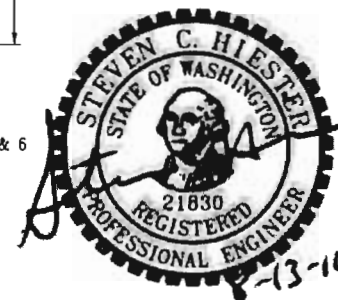
LAYOUT CUT LIST			
PART	QTY	DESCRIPTION	SIZE
2	2	B54-240 304 SS Std Strut	2'-0"
3	2	Unistrut-Plastic Closure	2'-0"



VIEW AA



VIEW BB



A	ADD GROUNDS, ADD MESH TO KNOCKOUTS COMMENTS	7/7/10	JG
-	(SEE CAD FILE FOR COMPLETE REVISION HISTORY)	-	-
LTR.	REVISION	DATE	BY

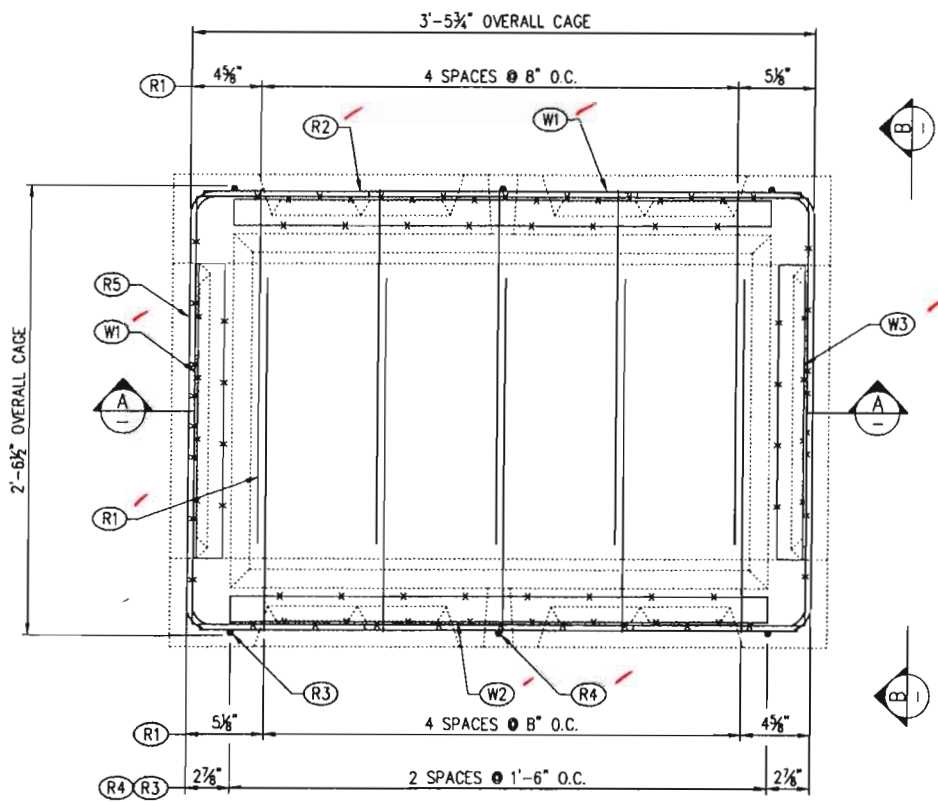
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SALES	DATE
	4/12/10
DESIGNER	WEIGHT
JG	1,580 lbs
CHECKED	CALC NO



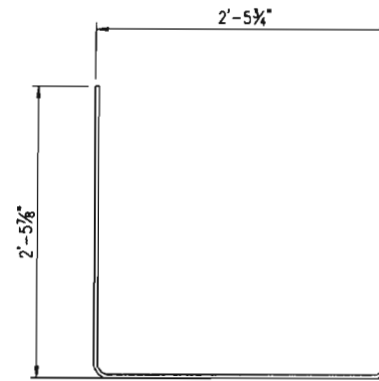
233 SPLIT PULL BOX BASE - WSDOT
 LAYOUT DETAILS
 CUSTOMER STANDARD PRODUCT

CUSTOMER	SHEET
WASHINGTON STATE D.O.T.	1 OF 2
DRAWING NUMBER	REVISION
010-X803405-001	A

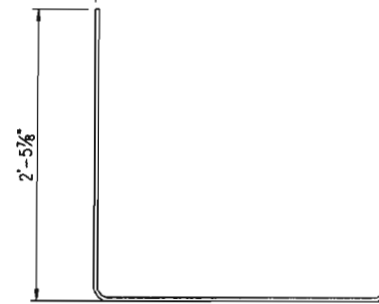


PLAN VIEW
(SHOWN AS POURED)

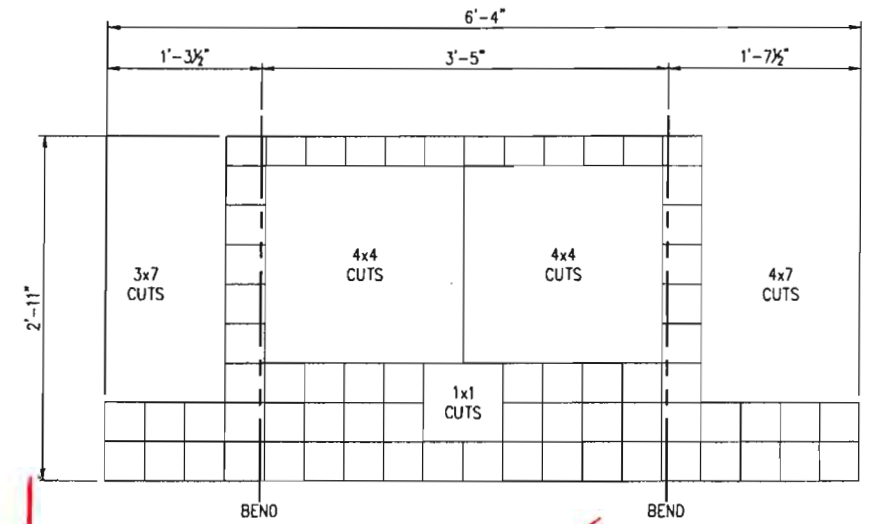
R4 DETAIL



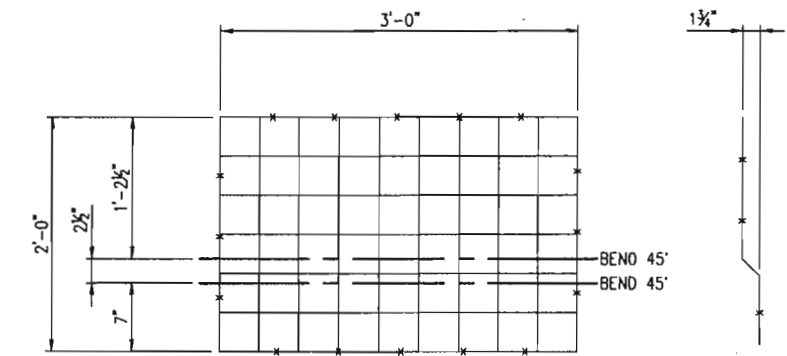
R5 DETAIL



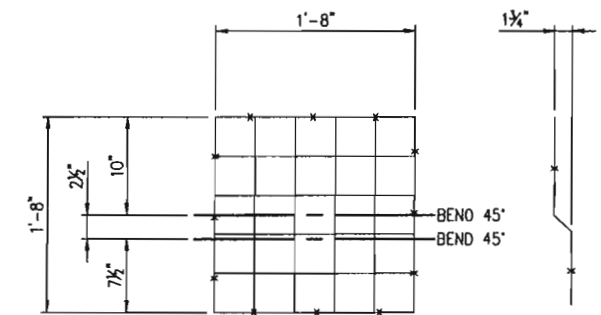
APPROVED
 Washington State
 Department of Transportation
 HQ Traffic Operations Office
 DATE September 1, 2010 TAT



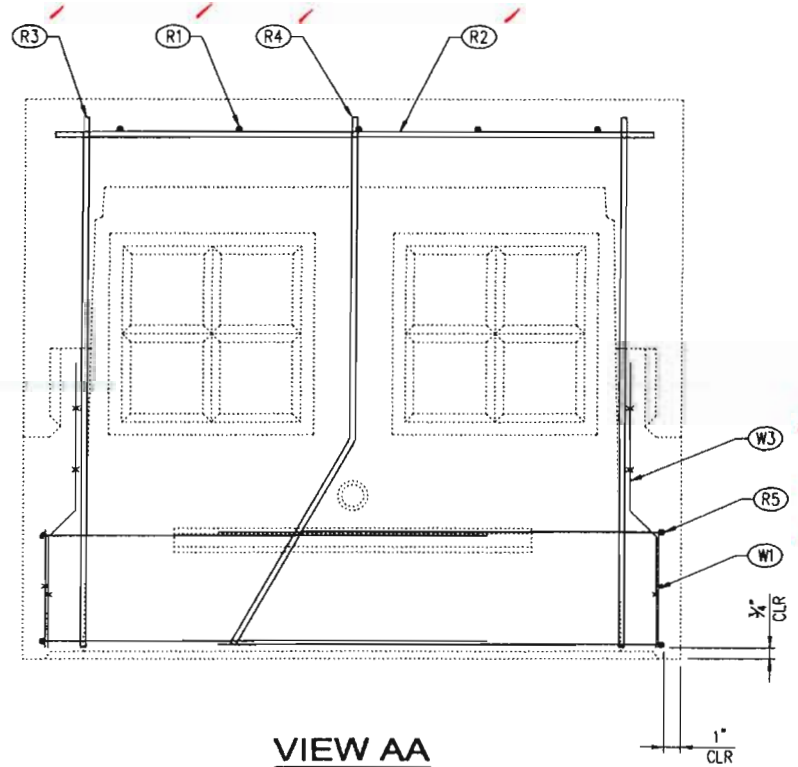
W1 DETAIL



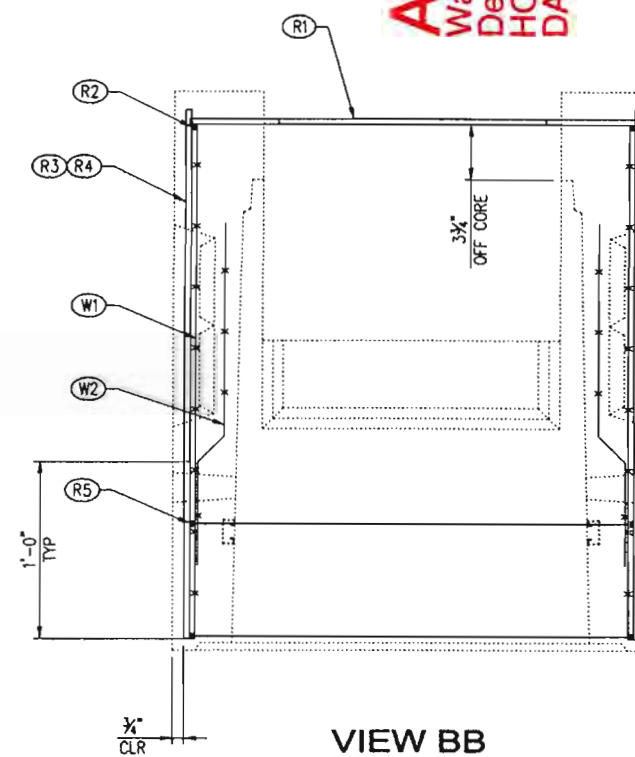
W2 DETAIL



W3 DETAIL



VIEW AA



VIEW BB

REINFORCING CUT LIST					
PART	QTY	DESCRIPTION	FT	IN	SHAPE
R1	10	#3 Rebar	2	0	STR
R2	2	#3 Rebar	3	4	STR
R3	4	#3 Rebar	3	0	STR
R4	2	#3 Rebar	3	2	BENT
R5	4	#3 Rebar	7	3	BENT
W1	2	Mesh 4x4 - W2.9 x W2.9			BENT
W2	2	Mesh 4x4 - W2.9 x W2.9			BENT
W3	2	Mesh 4x4 - W2.9 x W2.9			BENT



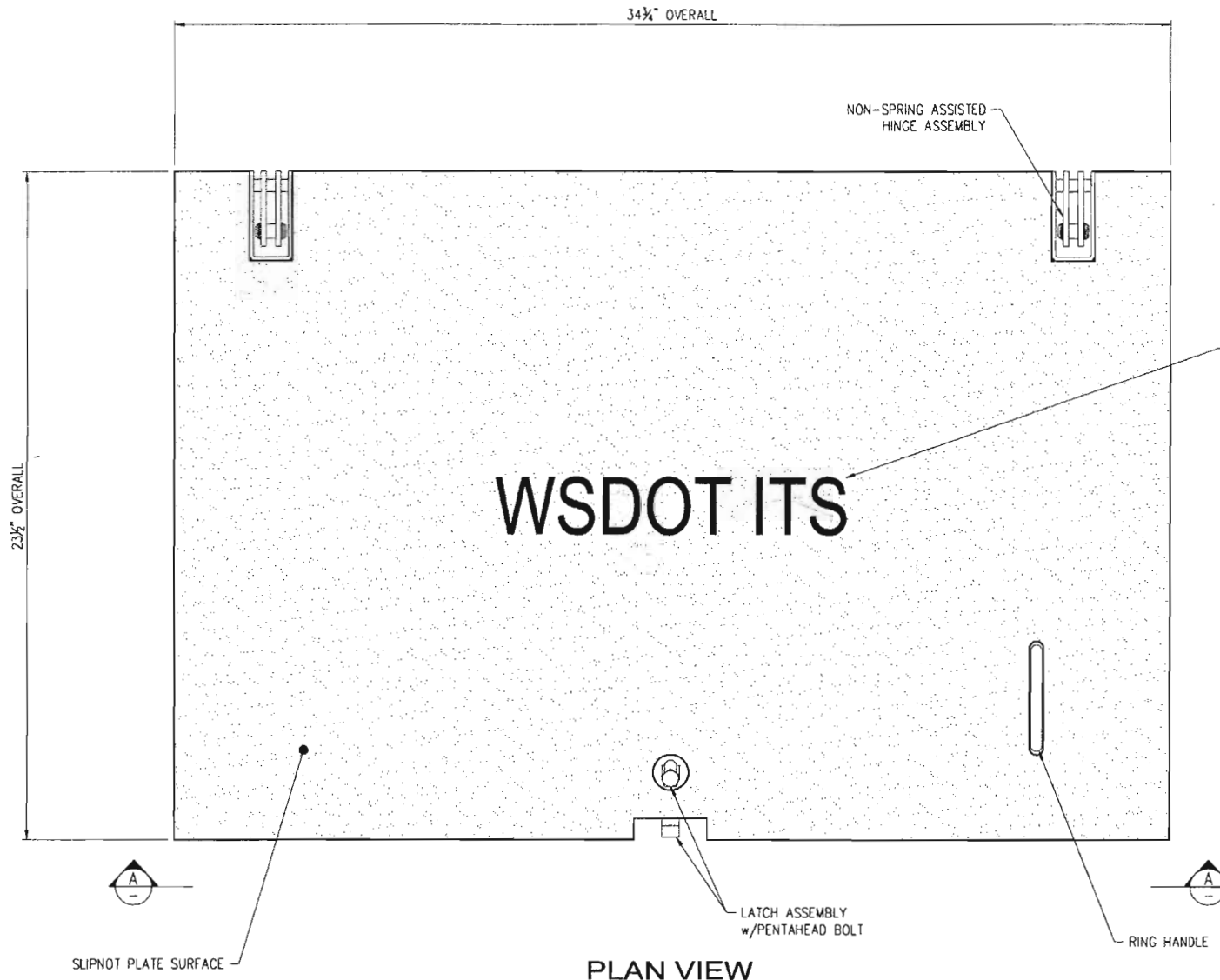
REVISION	DATE	BY
A	7/7/10	JG
-	-	-

SALES	DATE
JG	4/12/10

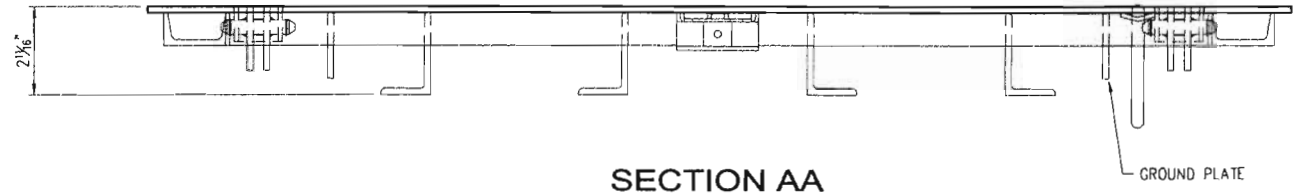


233 SPLIT PULL BOX BASE - WSDOT
 REINFORCING DETAILS
 CUSTOMER STANDARD PRODUCT

CUSTOMER	SHEET
WASHINGTON STATE D.O.T.	2 of 2
DRAWING NUMBER	REVISION
010-X803405-001	A



PLAN VIEW



SECTION AA

MARKED "WSDOT ITS"
(2" LETTERS CENTERED ON DOOR)

*Note: Doors may also be labeled
TS, LT, COMM, TEL and EVC.*

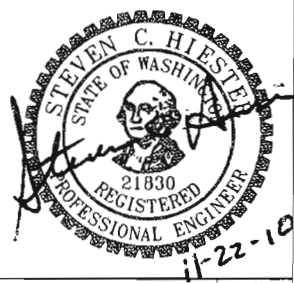
STRUCTURAL NOTES

1. MATERIAL: ASTM A36 STRUCTURAL STEEL STANDARDS
2. ASSEMBLY: AWS D1.1 WELDING STANDARDS
3. COATING: ASTM A123 HOT-DIP GALVANIZING STANDARDS
4. LOADS: SUITABLE FOR AASHTO H-20 WHEEL LOADING IN OFF-STREET LOCATIONS WHERE NOT SUBJECTED TO HIGH-DENSITY TRAFFIC

GENERAL NOTES

1. FRAMES AVAILABLE TO USE WITH THIS DOOR:
X800101 (WSDOT 24.36-NSA FRAME)
2. OPTIONAL LETTERING FOR DOORS AS REQUESTED:
WSDOT TS
WSDOT LT
WSDOT TEL
WSDOT COMM

APPROVED AS NOTED
Washington State
Department of Transportation
HQ Traffic Operations Office
DATE December 2, 2010 TAT



B	NO CHANGES TO THIS SHEET	11/19/10	JG
A	CHANGED LETTERING AND ADDED OPTIONAL LETTERING NOTE	8/5/10	JG
LTR.	REVISION	DATE	BY

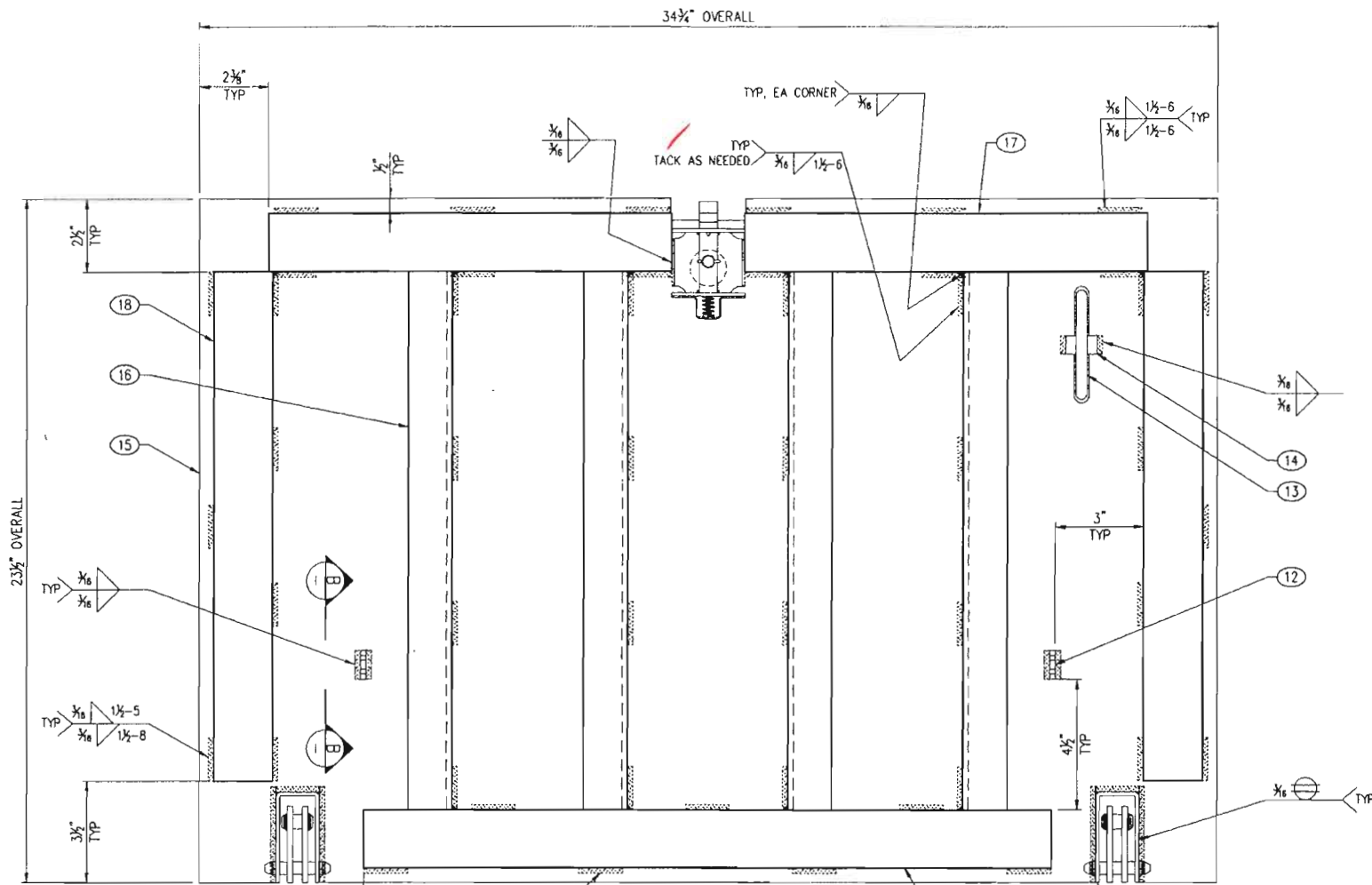
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SALES	DATE	4/2/10
DESIGNER	JG	WEIGHT
CHECKED		CALC NO

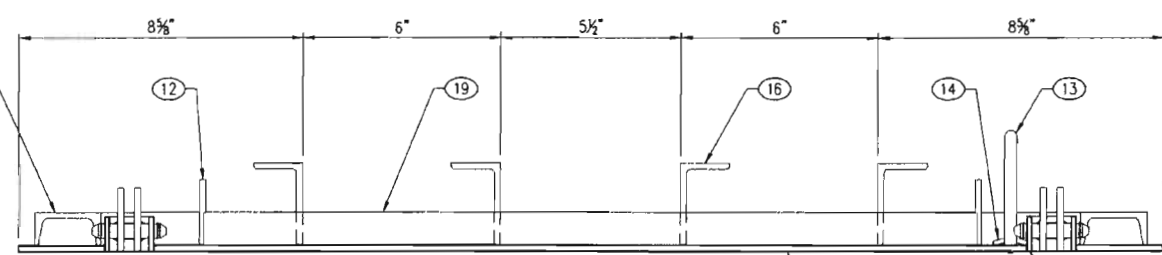


WSDOT 2436-NS-NSA "WSDOT ITS"
WSDOT STANDARD PRODUCT

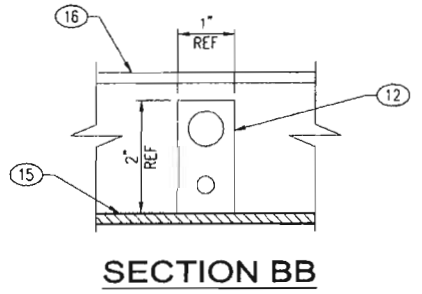
CUSTOMER	WASHINGTON STATE D.O.T.	SHEET	1 OF 3
DRAWING NUMBER	010-X800101-001	REVISION	B



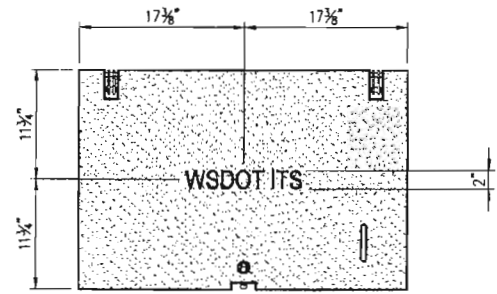
PLAN VIEW
(UNDERSIDE OF DOOR SHOWN)



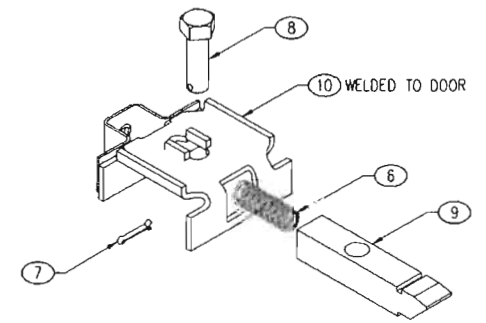
VIEW AA



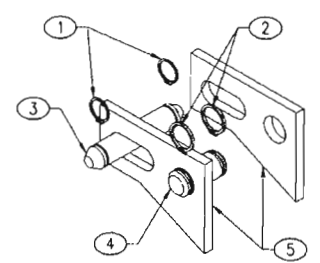
SECTION BB



LETTERING DETAIL
(TOPSIDE OF DOOR SHOWN)



LATCH ASSEMBLY



HINGE ASSEMBLY
(SHOWN, BUT NOT INSTALLED UNTIL DOOR & FRAME ASSEMBLED)

BILL OF MATERIAL

PART	QTY	U/M	DESCRIPTION	ITEM #
1	4	ea	Waldes Truarc #5160-42 - PLTD SS	OPC
2	4	ea	Waldes Truarc #5160-50 - PLTD SS	OPC
3	2	ea	Hinge Pin 7/16" x 2.25" - SS	010-5182015-001
4	2	ea	Hinge Pin 1/2" x 1.055" - SS	010-5182010-001
5	4	ea	Hinge Side Plate - PLTD	010-5310010-001
6	1	ea	Comp Spring OD.425"WD.045"L1.5"-PLTD	OPC
7	1	ea	Cotter Pin - 3/32" x 3/4" - PLTD SS	OPC
8	1	ea	3/8" Pentahead Bolt - GALV SS	010-5180810-001
9	1	ea	Latch Bolt - ALUMINUM	010-5210000-001
10	1	ea	Latch Cage - GALV	010-5210045-001
11	2	ea	Hinge Pocket	010-5310040-001
12	2	ea	Ground Plate	010-5210010-001
13	1	ea	Ring Handle	010-5210090-001
14	1	ea	Ring Clip	010-5210100-001
0.10	sht		SlipNot Plate 72" x 120" x 3/16"	010-5540120-000
15.05	lbs		Angle 2 1/2" x 1 1/2" x 3/16"	
12.76	lbs		Channel 2" x 1" x 1/8"	010-5520230-000
80	lbs		Galvanizing Per Lb.	010-5800000-000

LAYOUT CUT LIST

PART	QTY	DESCRIPTION	SIZE
15	1	Slipnot Plate 72 x 120 x 3/16	SHT 3
16	4	Angle 2 1/2" x 1 1/2" x 3/16"	18 1/2"
17	2	Channel 2" x 1" x 1/8"	13 3/4"
18	2	Channel 2" x 1" x 1/8"	17 1/2"
19	1	Channel 2" x 1" x 1/8"	23 1/2"

SHOP NOTES

- OVERALL DIMENSIONS HAVE A MAXIMUM ALLOWABLE TOLERANCE OF $\pm 1/16$ "
- ALL WELDS ARE $1/8$ " FILLET WELDS, UNLESS OTHERWISE NOTED
- GRIND ALL SHARP EDGES
- DOOR TO BE HOT-DIPPED GALVANIZED AFTER FABRICATION.

APPROVED AS NOTED
 Washington State
 Department of Transportation
 HQ Traffic Operations Office
 DATE December 2, 2010 TAT



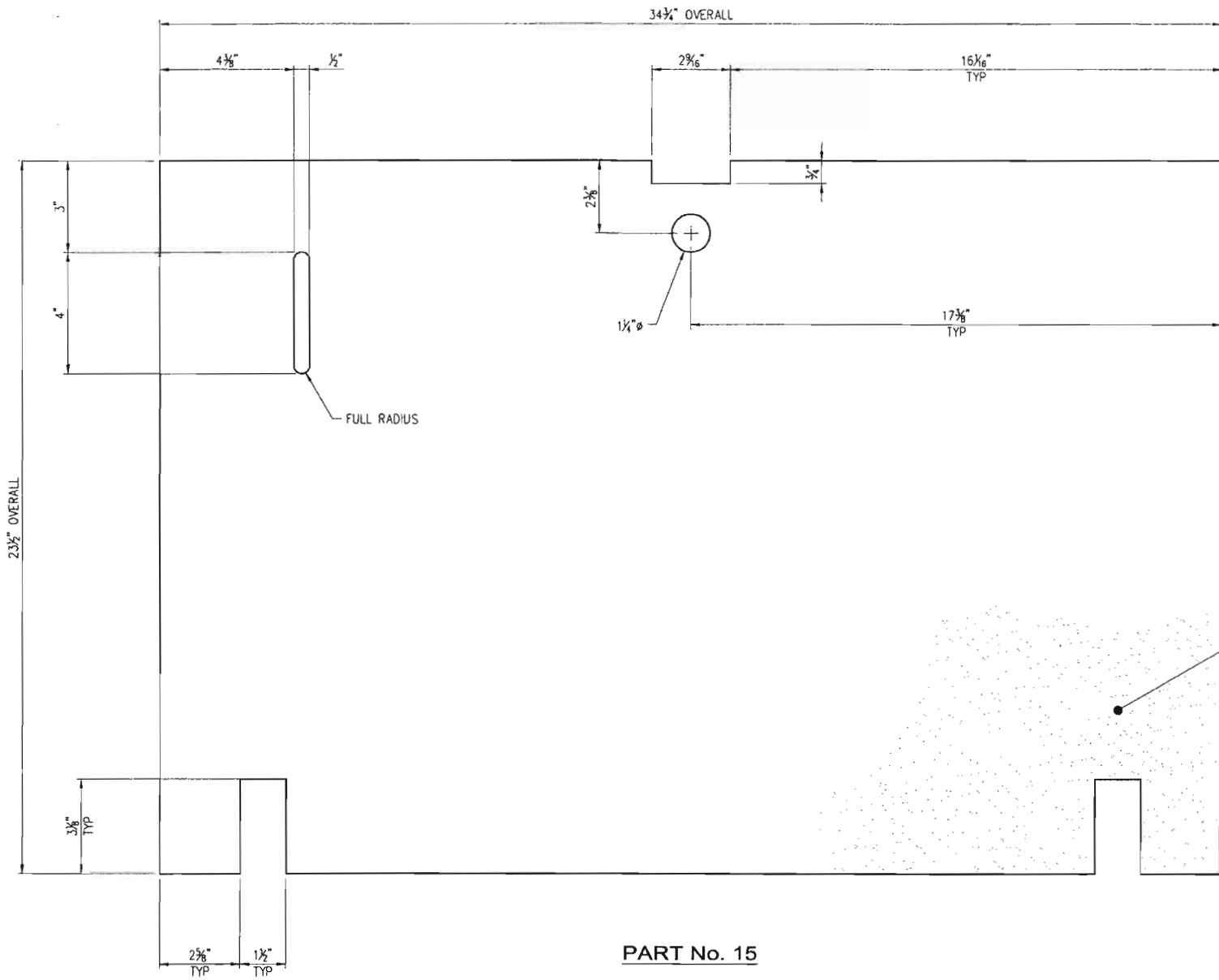
B	ADD NOTE "TACK AS NEEDED" FOR WELDING	11/19/10	JG
A	AD OPT LETTERING NOTE, AD GALV, SS, PLTD, SLIPNOT	8/5/10	JG
LTR.	REVISION	DATE	BY

SALES	DATE	4/2/10
DESIGNER	JG	WEIGHT
CHECKED		CALC NO

Oldcastle Precast
 P.O. BOX 600 ALBUQU, WA 98071-0600
 PHONE: 800-962-1536 FAX: 253-736-4201

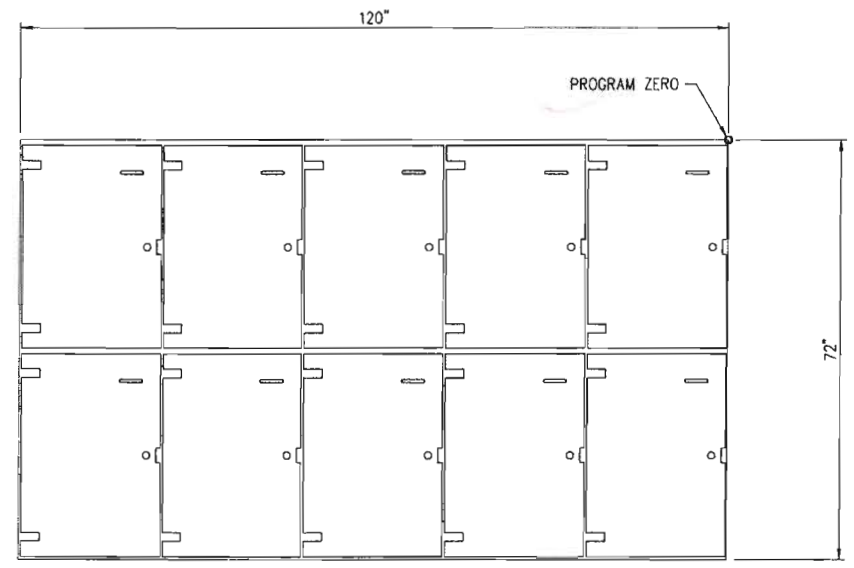
WSDOT 2436-NS-NSA "WSDOT ITS"
 ASSEMBLY & WELD DETAILS
 WSDOT STANDARD PRODUCT

CUSTOMER	WASHINGTON STATE D.O.T.	SHEET
DRAWING NUMBER	010-X800101-001	2 OF 3
REVISION		B



PART No. 15

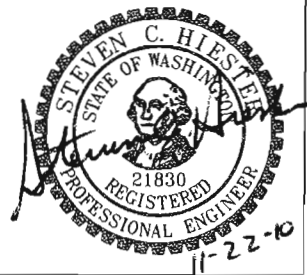
APPROVED
 Washington State
 Department of Transportation
 HQ Traffic Operations Office
 DATE December 2, 2010 TAT

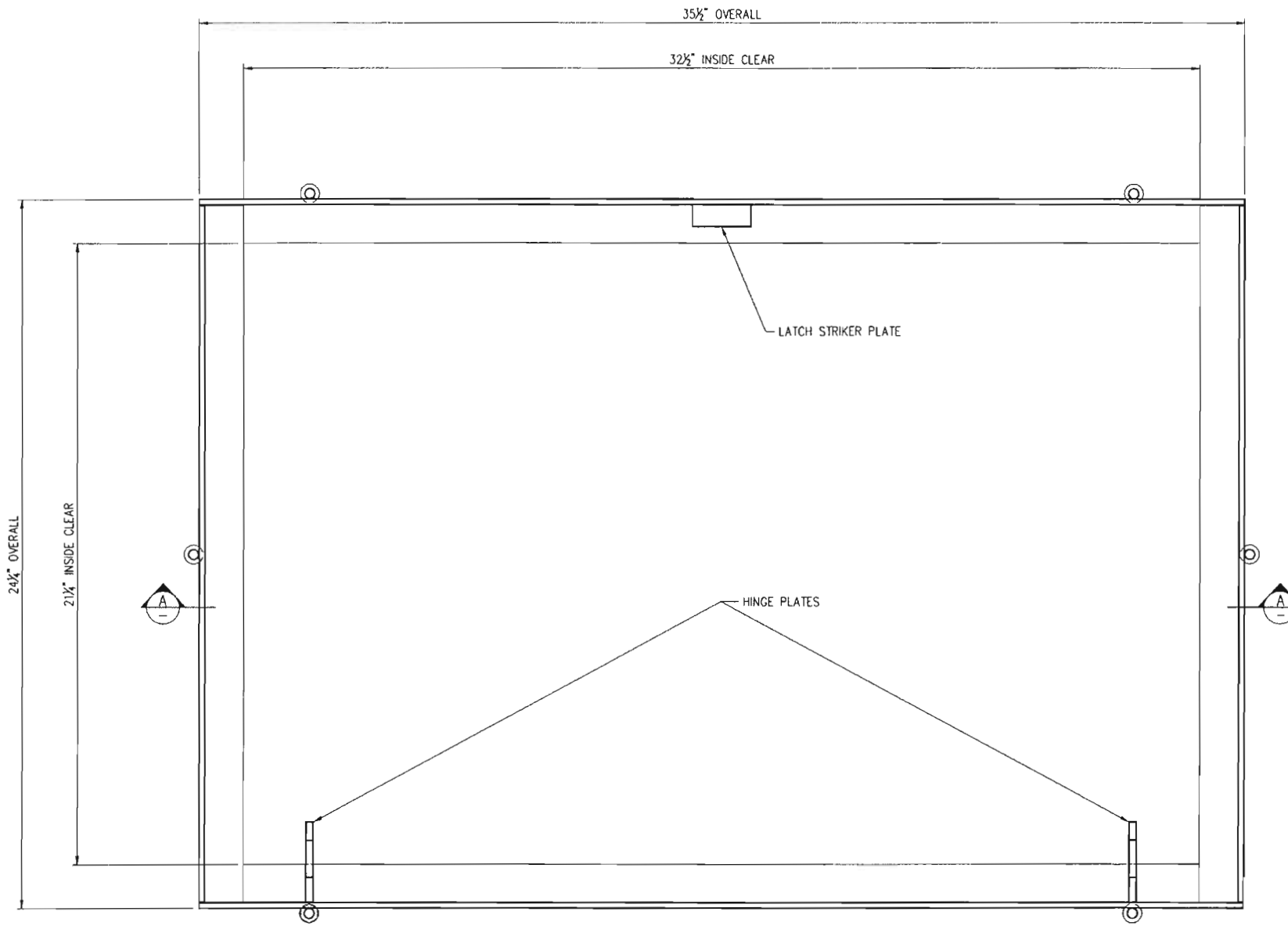


PLASMA CUT DETAIL

LAYOUT CUT LIST			
PART	QTY	DESCRIPTION	SIZE
15	1	Slipbot Plate 72 x 120 x 3/16	

- SHOP NOTES**
2. PLASMA PROGRAM NAMES: 2436-NSA-S (SINGLE CUT)
2436-NSA-M (MULTIPLE CUT)
 3. CUT w/SLIPNOT PATTERN UP





PLAN VIEW

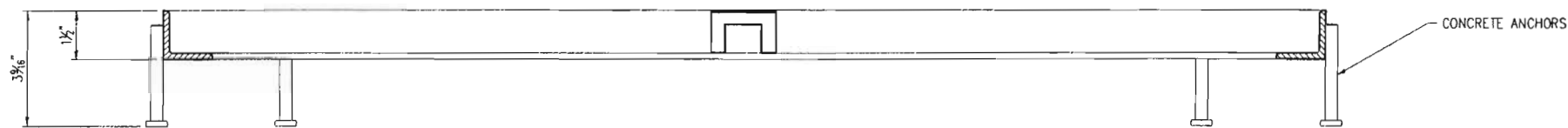
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STRUCTURAL NOTES

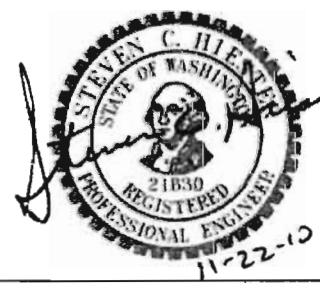
1. MATERIAL: ASTM A36 STRUCTURAL STEEL STANDARDS
2. ASSEMBLY: AWS D1.1 WELDING STANDARDS
3. COATING: ASTM A123 HOT-DIP GALVANIZING STANDARDS

GENERAL NOTES

1. DOORS AVAILABLE TO USE WITH THIS FRAME:
 X800101 (WSDOT 2436-DP-NSA "ITS WSDOT")



SECTION AA



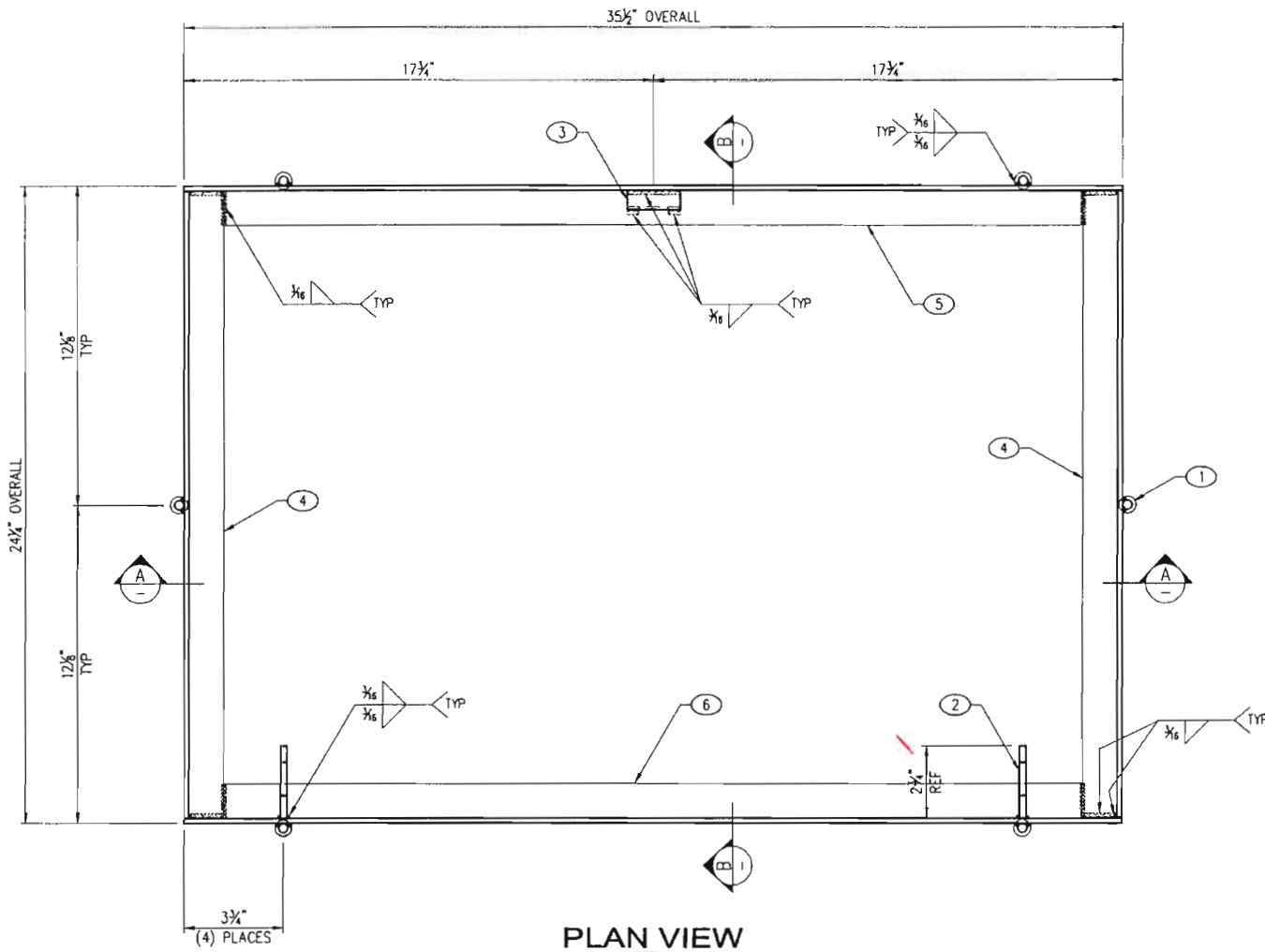
A	NO CHANGES TO THIS SHEET	11/19/10	JG
LTR.	REVISION	DATE	BY

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SALES	DATE	7/28/10	
DESIGNER	JG	WEIGHT	19 lbs
CHECKED		CALC NO	

Oldcastle Precast®
 P.O. BOX 580 ALABAMA, WA 98071-0580
 PHONE: 800-862-1530 FAX: 253-735-4201

WSDOT 2436-NSA FRAME
 WSDOT STANDARD PRODUCT

CUSTOMER	WASHINGTON STATE D.O.T.	SHEET	1 of 3
DRAWING NUMBER	010-X800125-001	REVISION	A



PLAN VIEW

Headed anchor stud per standard specification 9-06.15

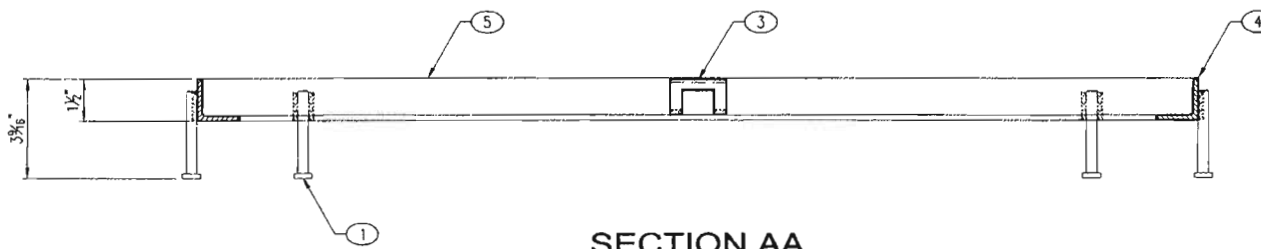
BILL OF MATERIAL				
PART	QTY	U/M	DESCRIPTION	ITEM #
1	6	ea	Stud 3/8" x 3-1/8"	010-5910455-000
2	2	ea	Hinge Plate	010-5210600-001
3	1	ea	Striker Plate	010-5210020-001
	17.80	lbs	Angle 1-1/2" x 1-1/2" x 3/16"	010-5510210-000
	19.00	lbs	Galvanizing Per Lb.	010-5800000-000

LAYOUT CUT LIST			
PART	QTY	DESCRIPTION	SIZE
4	2	Angle 1-1/2" x 1-1/2" x 3/16"	23 13/16
5	1	Angle 1-1/2" x 1-1/2" x 3/16"	SHT 3
6	1	Angle 1-1/2" x 1-1/2" x 3/16"	SHT 3

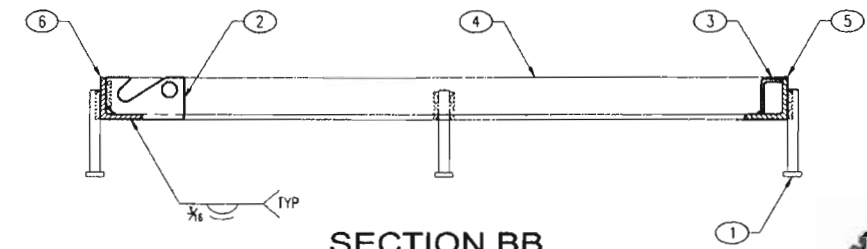
SHOP NOTES

- OVERALL DIMENSIONS HAVE A MAXIMUM ALLOWABLE TOLERANCE OF $\pm 1/16$ "
- ALL WELDS ARE $3/16$ " FILLET WELDS, UNLESS OTHERWISE NOTED
- GRIND ALL SHARP EDGES
- FRAME TO BE HOT-DIPPED GALVANIZED AFTER FABRICATION.

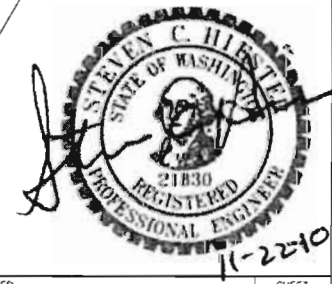
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SECTION AA



SECTION BB



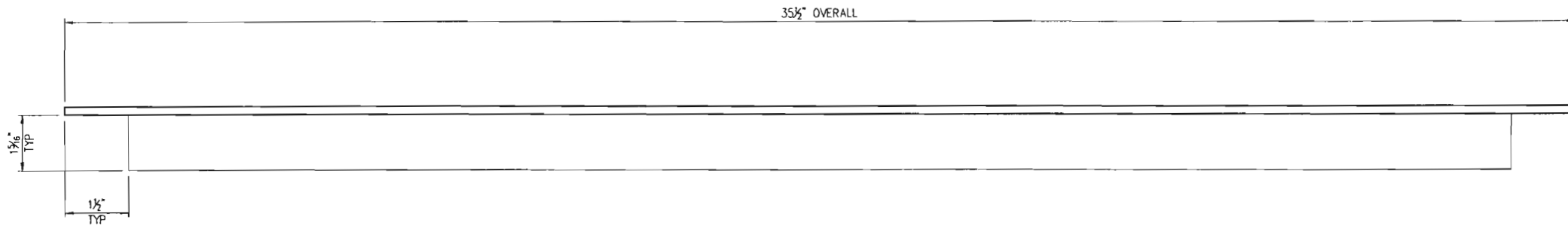
REVISION	DATE	BY
A ADD "REF" DIMENSION	11/19/10	JG
LTR.		

SALES	DATE	7/28/10
DESIGNER	JG	WEIGHT
CHECKED		CALC NO

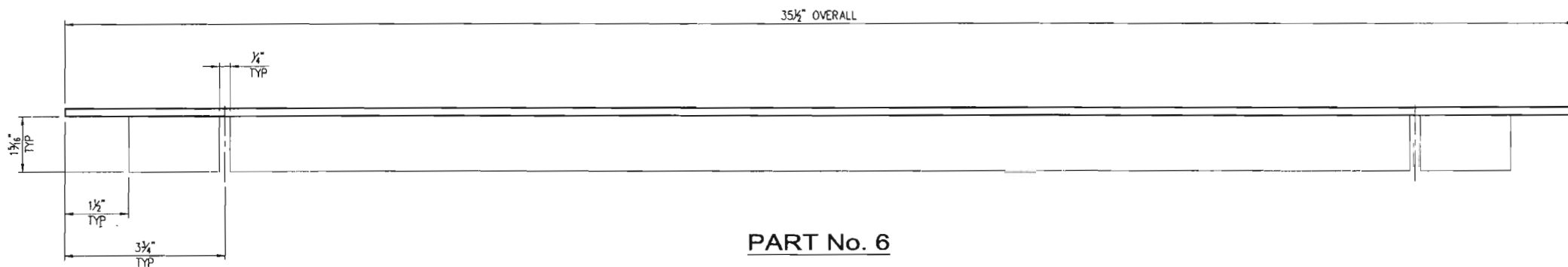
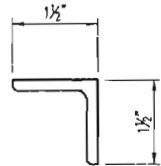


WSDOT 2436-NSA FRAME
 ASSEMBLY & WELD DETAILS
 WSDOT STANDARD PRODUCT

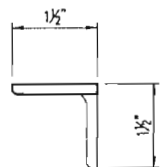
CUSTOMER	WASHINGTON STATE D.O.T.	SHEET	2 of 3
DRAWING NUMBER	010-X800125-001	REVISION	A



PART No. 5



PART No. 6



LAYOUT CUT LIST				
PART	QTY	DESCRIPTION	SIZE	
5	1	Angle 1-1/2" x 1-1/2" x 3/16"	35 1/2	
6	1	Angle 1-1/2" x 1-1/2" x 3/16"	35 1/2	

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 HQ Traffic Operations Office
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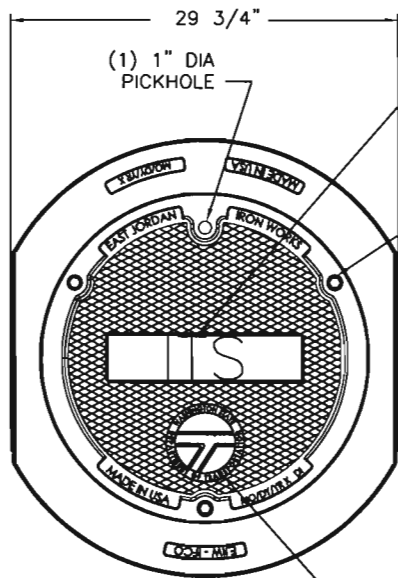
NO	REVISION	DATE	BY
A	NO CHANGES TO THIS SHEET	11/19/10	JG
LTR			

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DESIGNER	JG	WEIGHT		
CHECKED		CALC NO		



WSDOT 24-36-NSA FRAME
 PART DETAILS
 WSDOT STANDARD PRODUCT

CUSTOMER	WASHINGTON STATE D.O.T.	SHEET	3 of 3
DRAWING NUMBER	010-X800125-001	REVISION	A



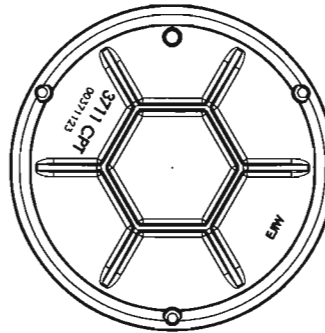
PLAN VIEW

3" ENGRAVED LETTERING

(1) 1" DIA PICKHOLE

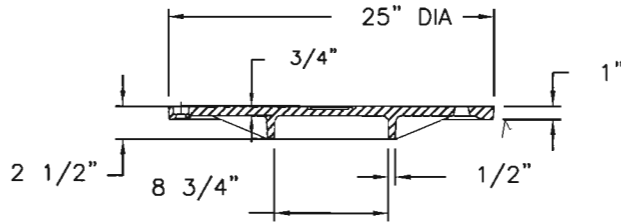
(3) 1/2-13 X 1 3/4" HEX SS CAP SCREW W. 1/2" ZINC (NARROW) WASHERS

Penta Head



COVER BOTTOM

CUSTOM LOGO (WITH 1/4" FLAT FACE LETTERING FLUSH)

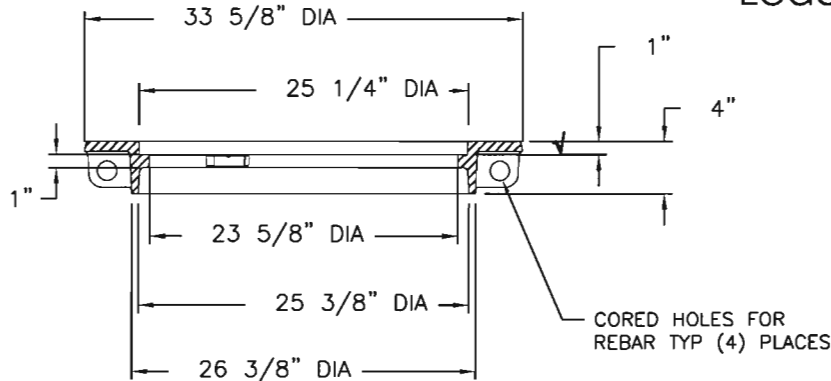


TYP COVER SECTION



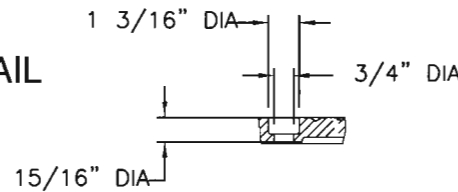
LOGO DETAIL

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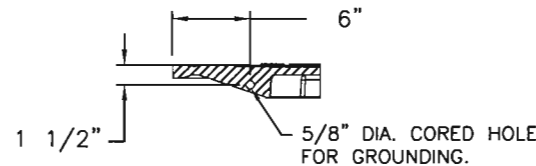


FRAME SECTION

CORED HOLES FOR REBAR TYP (4) PLACES



BOLT HOLE DETAIL



GROUND STRAP HOLE

EJIW EAST JORDAN
 IRON WORKS EST. 1883
 800-626-4653
 www.ejiw.com
 MADE IN USA

PRODUCT NUMBER
00371101

CATALOG NUMBER
 3711CPT DI ✓
 3711ZPT

MANHOLE ASSEMBLY

LOAD RATING
HEAVY DUTY

COATING
UNDIPPED

ESTIMATED WEIGHT
 FRAME: 133 LBS 60kg
 COVER: 99 LBS 45kg
 UNIT: 232 LBS 105kg

MATERIAL SPECIFICATION
 FRAME - CAST IRON
 ASTM A48 CL35B
 COVER - DUCTILE IRON ✓
 ASTM A536

OPEN AREA
 N/A

✓ DESIGNATES MACHINED SURFACE

DRAWN DEW	DATE 05/13/06
--------------	------------------

LAST REVISED JJD	DATE 05/22/08
---------------------	------------------

REFERENCE INFORMATION

00371124
00371113

PRODUCT NUMBER
00371123

CATALOG NUMBER
3711CPT DI

MANHOLE COVER

LOAD RATING
HEAVY DUTY

COATING
UNDIPPED

ESTIMATED WEIGHT
 COVER: 99 LBS 45kg

MATERIAL SPECIFICATION
 COVER - DUCTILE IRON
 ASTM A536

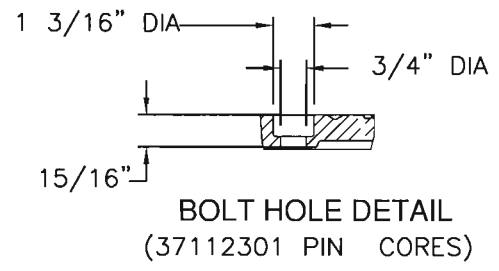
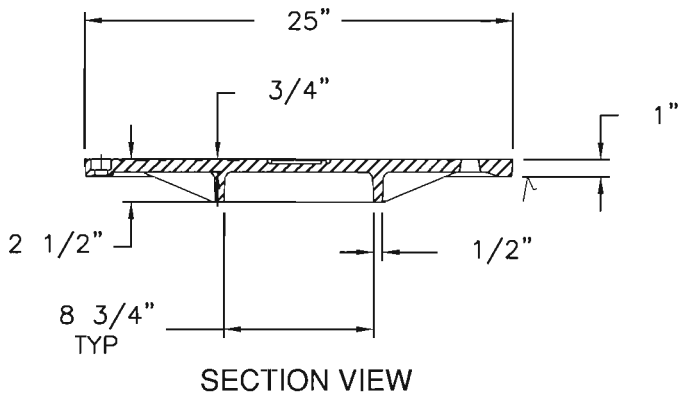
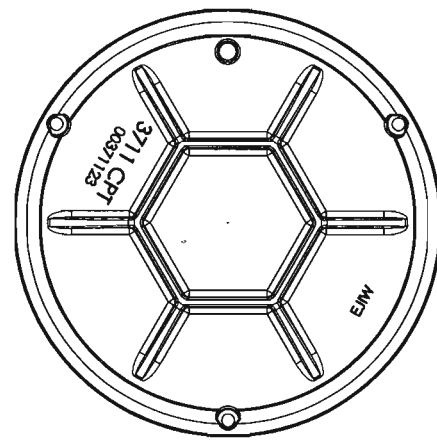
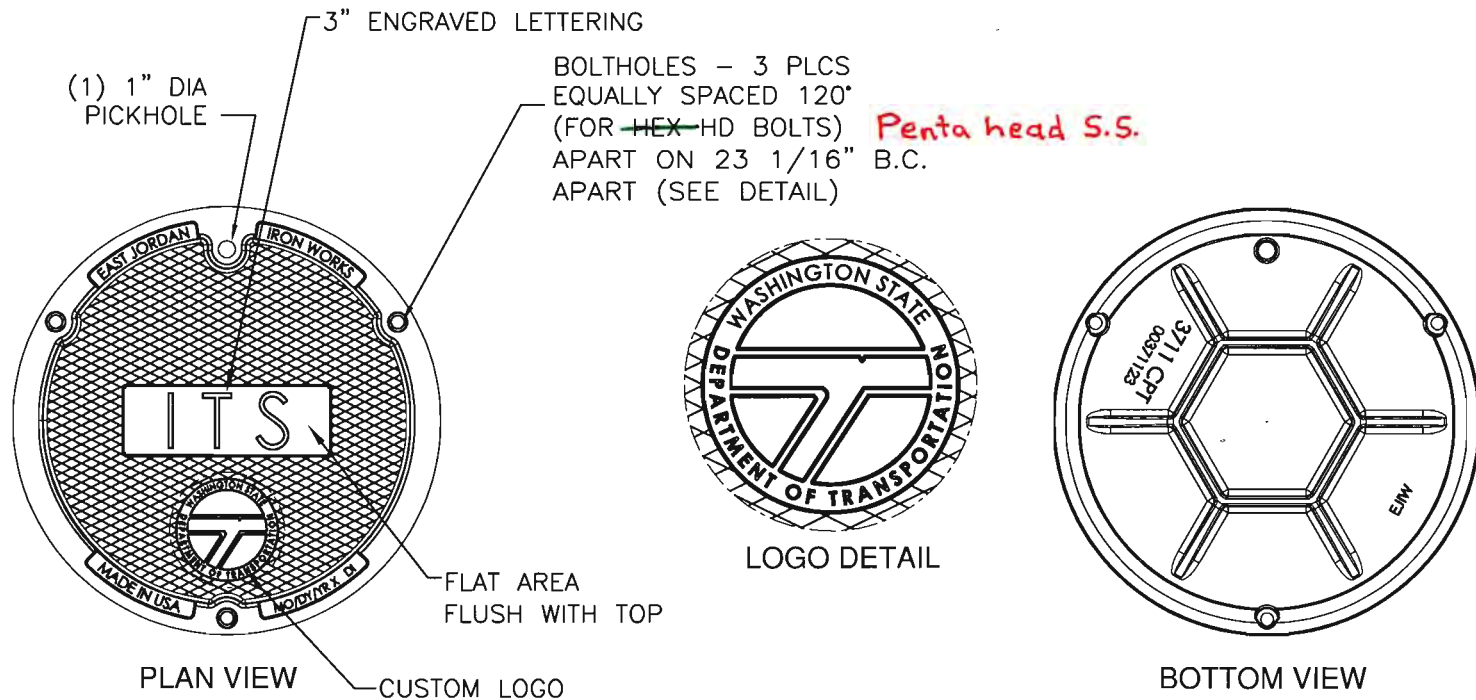
OPEN AREA
 N/A

√ DESIGNATES MACHINED SURFACE

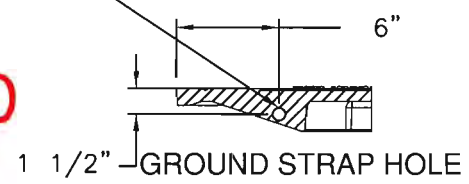
DRAWN DEW	DATE 08/29/07
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LAST REVISED	DATE
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REFERENCE INFORMATION
 00371123.1C
 00371123.1D



3/4" DIA CORED HOLE FOR GROUNDING



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 Department of Transportation
 HQ Traffic Operations Office
 DATE September 1, 2010 TAT