	CIVIL PULLBOXES	1448
		Sheet 1 of 1
Rev: 08/01/20		

1448

PULLBOXES

CONTAINS

- 1448-11 PULLBOX 17 IN X 30 IN**
- 1448-12 PULLBOX 18 IN NON-TRAFFIC TYPE**
- 1448-14 PULLBOX 18IN EXISTING CONDUIT**
- 1448-15 PULLBOX 18 IN TRAFFIC COVER**
- 1448-30 PULLBOX 36 IN STANDARD COVER**
- 1448-31 PULLBOX 36 IN TRAFFIC COVER**
- 1448-32 PULLBOX 48 IN STANDARD COVER**
- 1448-33 PULLBOX 48 IN TRAFFIC COVER**

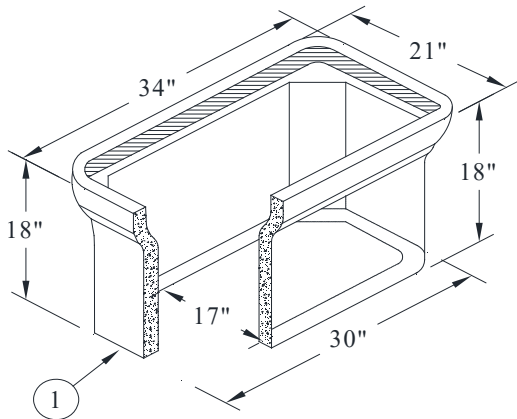
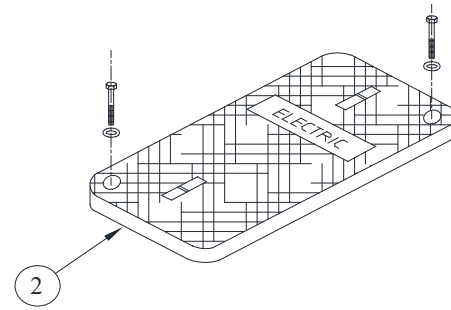
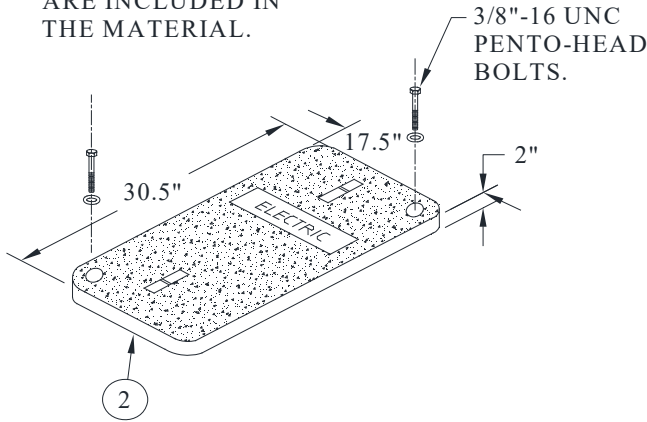
CIVIL
PULLBOXES
PULLBOX 17 IN X 30 IN



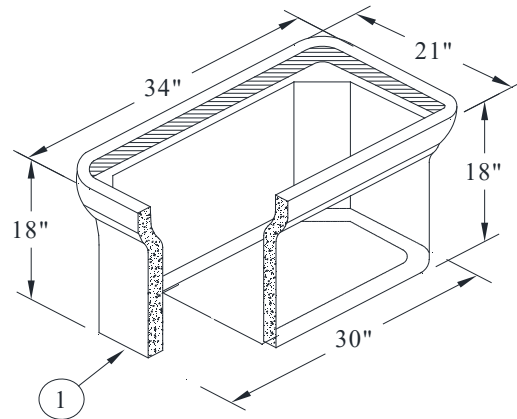
DOUBLE-CHECK THAT 2- 3/8"-16 UNC PENTO-HEAD BOLTS ARE INCLUDED IN THE MATERIAL.

*THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNITS

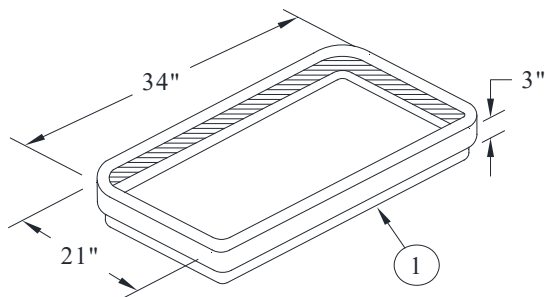
3/8"-16 UNC PENTO-HEAD BOLTS.



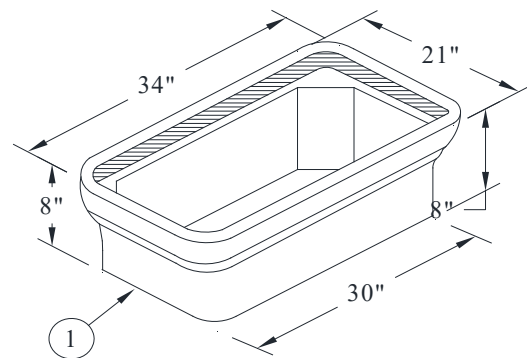
*1448-10-01



*1448-10-03

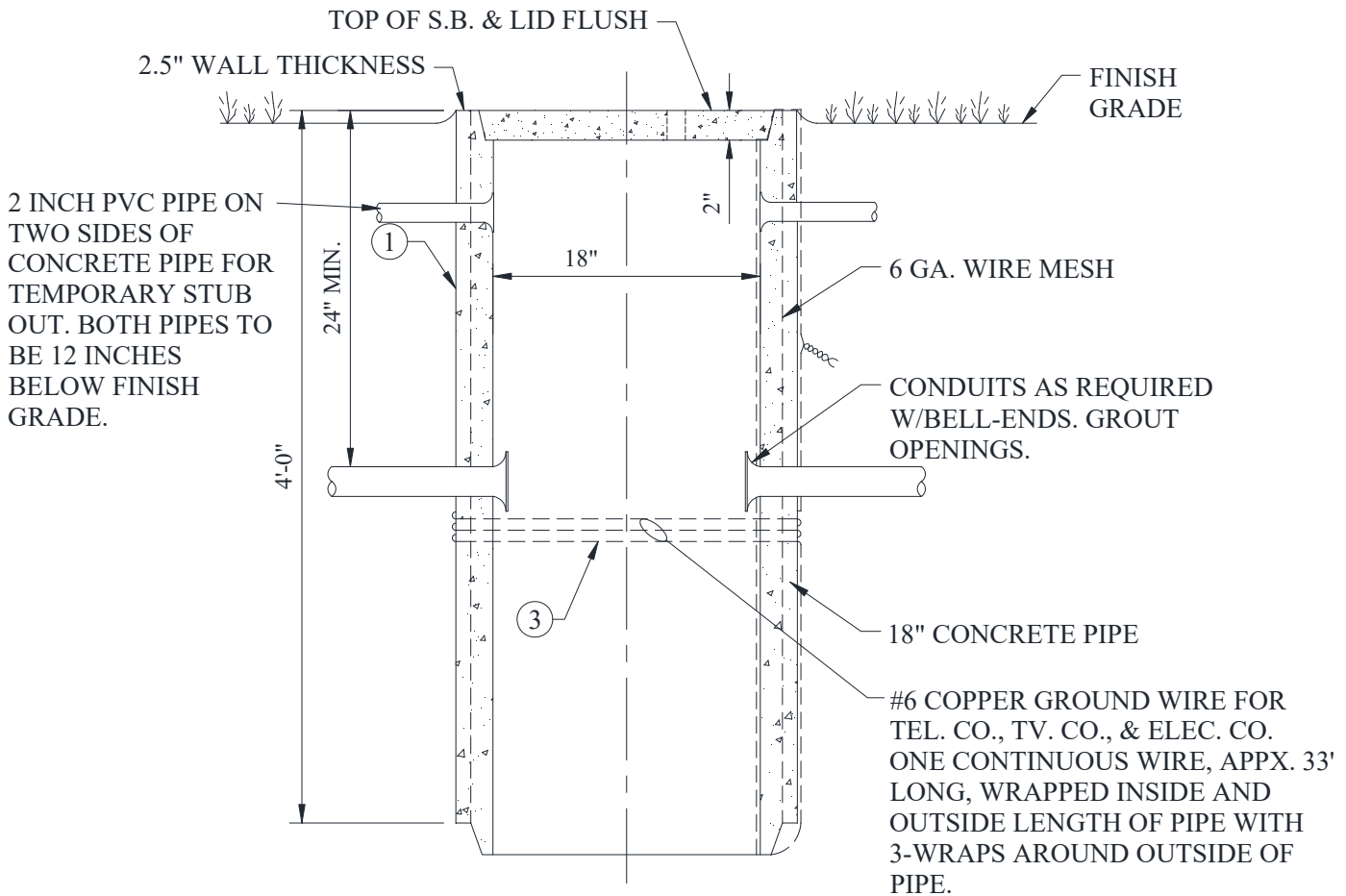
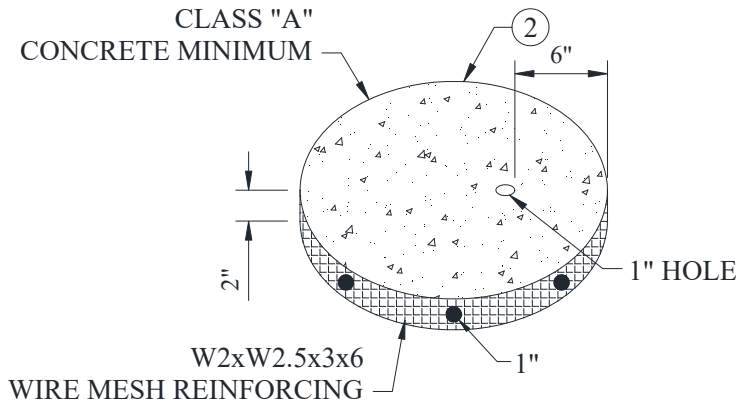


1448-10-05




1448-10-07

CIVIL
 PULLBOXES
PULLBOX 18 IN. FOR NON-TRAFFIC TYPE



2 INCH PVC PIPE ON TWO SIDES OF CONCRETE PIPE FOR TEMPORARY STUB OUT. BOTH PIPES TO BE 12 INCHES BELOW FINISH GRADE.

SERVICE BOX SECTION
 *1448-12-01

 Rev: 08/01/20	CIVIL PULLBOXES PULLBOX 18 IN. FOR NON- TRAFFIC TYPE	1448-12 Sheet 2 of 2

CU

PB18INWSCE

14481201E

PB 18" ROUND W/STD COVER EAST

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000023553	PIPE CONCRETE 4 FTX18 IN ID W RING COVER & HARDWARE	1	EA	14481201E
2	0000003000	COVER MANHOLE CONCRETE FOR 18 IN NON- TRAFFIC TY PULLBOX	1	EA	14481201E
3	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	50	EA	14481201E
4	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14481201E
5	0000006798	CLAMP GRND BRNZ #4 WIRE TO 1/2 IN ROD OR 1 IN PIPE	1	EA	14481201E
6	0000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14481201E
7	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	45	EA	14481201E

PB18INWSCW

14481201W

PB 18" ROUND W/STD COVER WEST

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000023553	PIPE CONCRETE 4 FTX18 IN ID W RING COVER & HARDWARE	1	EA	14481201W
2	0000003000	COVER MANHOLE CONCRETE FOR 18 IN NON- TRAFFIC TY PULLBOX	1	EA	14481201W
3	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	50	EA	14481201W
7	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	40	EA	14481201W
8	0000001216	CLAMP TWO- BOLT FOR #2 STR- 2/0 STR TAP #6 STR- 2/0 STR	1	EA	14481201W

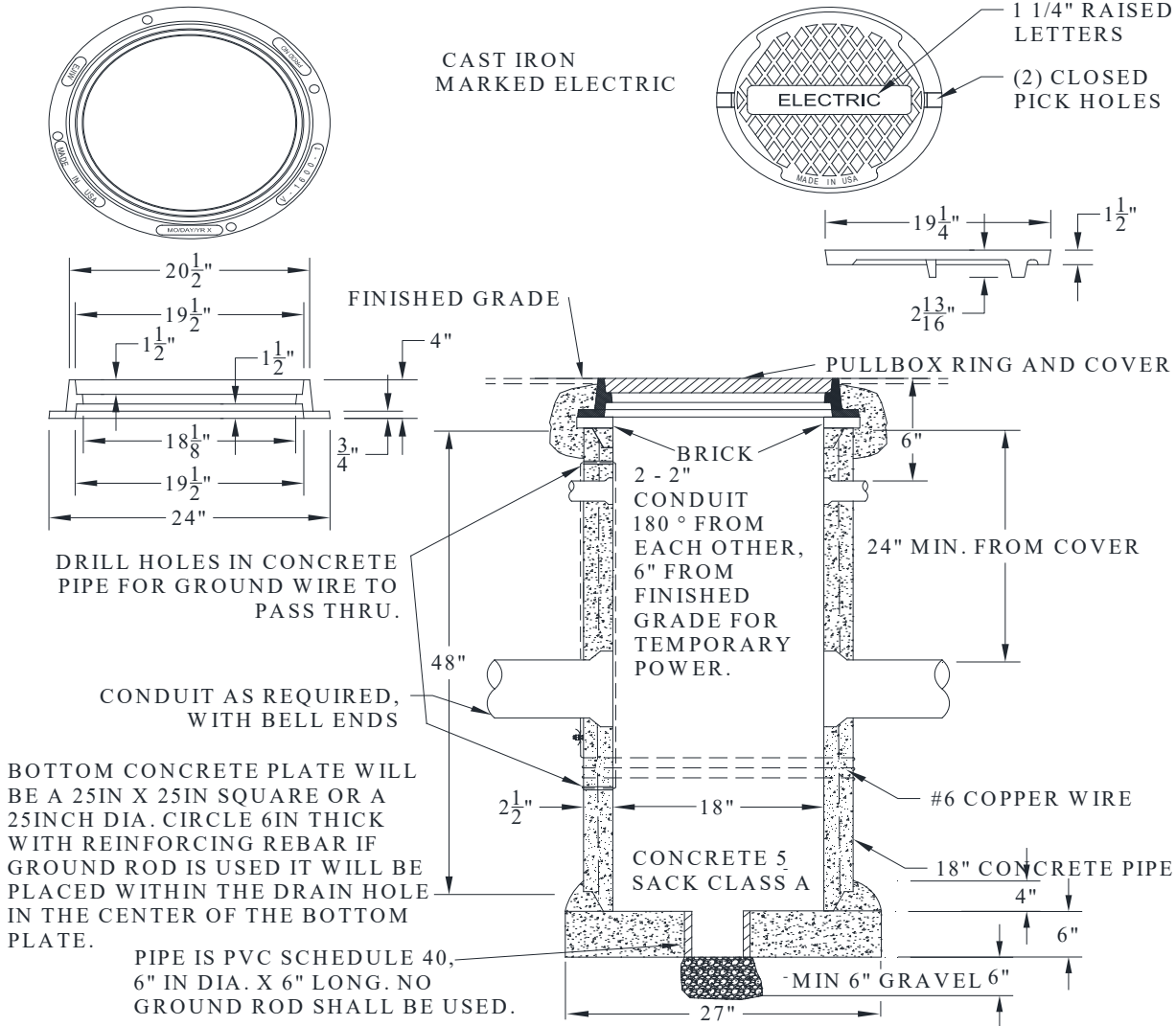
PB18INWSCN

14481201N

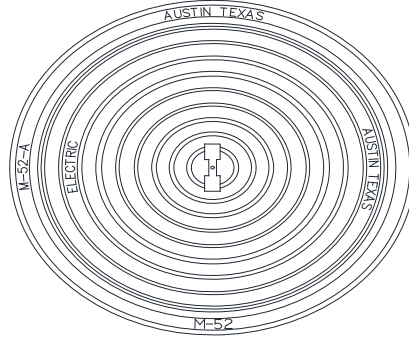
PB 18" ROUND W/STD COVER NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000023553	PIPE CONCRETE 4 FTX18 IN ID W RING COVER & HARDWARE	1	EA	14481201N
2	0000003000	COVER MANHOLE CONCRETE FOR 18 IN NON- TRAFFIC TY PULLBOX	1	EA	14481201N
3	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	50	EA	14481201N
4	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14481201N
5	0000006798	CLAMP GRND BRNZ #4 WIRE TO 1/2 IN ROD OR 1 IN PIPE	1	EA	14481201N
6	0000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14481201N
7	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	45	EA	14481201N

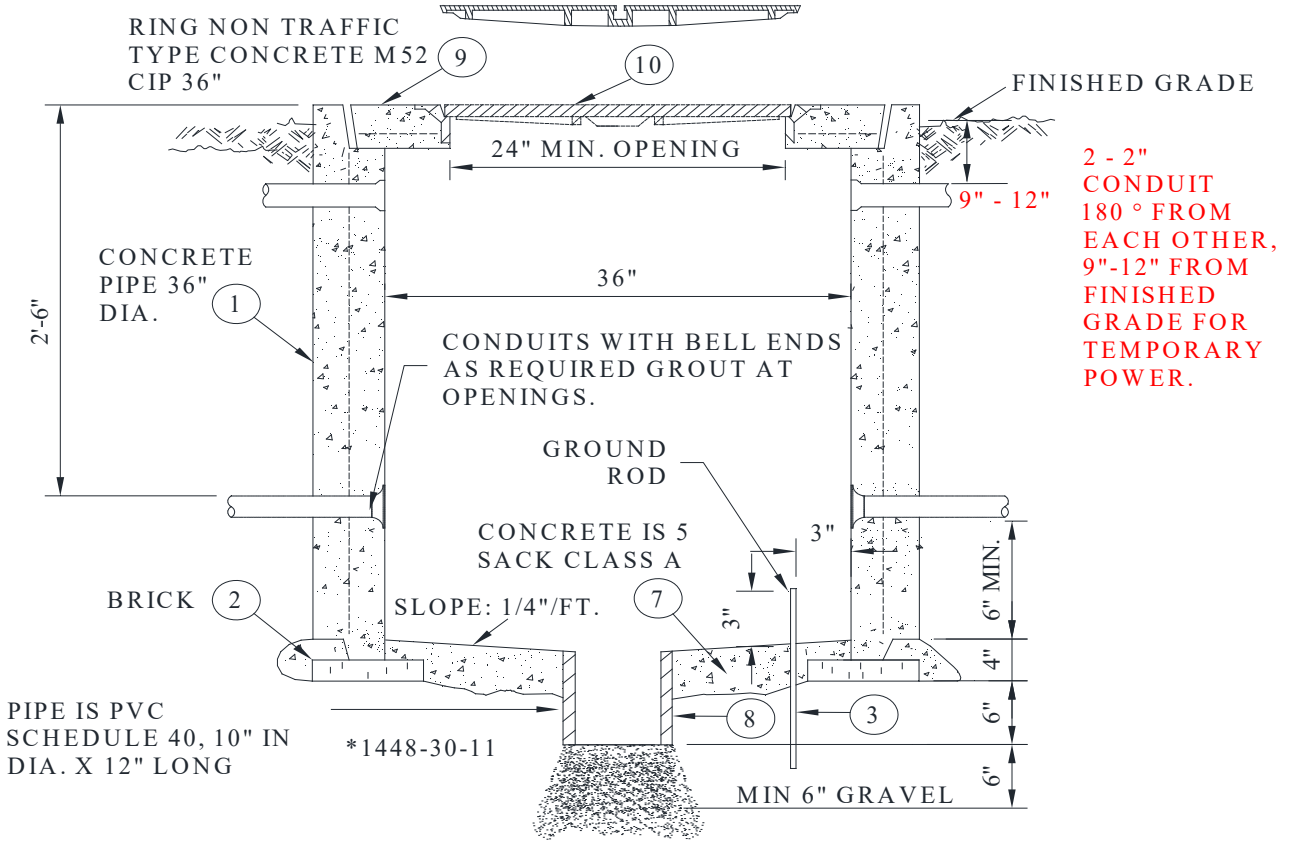
CIVIL
PULLBOXES
PULLBOX 18 IN. TRAFFIC TYPE



- 12 INCHES MINIMUM DISTANCE MEASURED BOTH HORIZONTALLY AND VERTICALLY FROM AE'S UNDERGROUND FACILITIES (CABLE, CONDUIT, DUCT STRUCTURE, PULL BOXES, AND SUCH), OR CROSS AE UG FACILITIES. JOINT TRENCH IS PERMITTED WITH OTHER UTILITIES ONLY BY WRITTEN AGREEMENT WITH AE.
- CONCRETE PIPE SHALL BE 4 FT X 18 INCH ID X 2.5 INCH WALL THICKNESS, AND BE RCP C76 CLASS III WITH STEEL REINFORCEMENT ASTM A615 GRADE 60.
- GROUNDING: 35' OF #6 SOLID BARE SOFT-DRAWN, BARE COPPER GROUND. (SEE GROUNDING DETAIL 1488-10 AND 1488-20). DRILL 2, 1/2 INCH HOLES, IN CONCRETE PIPE TO PASS GROUND WIRE THRU. ONE HOLE JUST BELOW THE BOTTOM OF THE LIP ON THE 18" PIPE AND THE OTHER 6 INCHES BELOW THE CONDUIT FOR THE SECONDARY CABLES.
- BELL ENDS NEED TO BE GROUTED FLUSH TO THE WALLS.
- ALL TRAFFIC TYPE ARE TO HAVE CONCRETE FOOTING. ALL NON TRAFFIC TYPE ARE TO HAVE GRAVEL FOOTING..
- USE RUBBER RINGS FOR ADJUSTING HEIGHT OR ANGLE OF RING & COVER. USE CAST IRON 2IN RISER FOR HEIGHT ADJUSTMENT IN ROADWAYS.




COVER IS DUCTILE IRON M-52A, 24"



2 - 2" CONDUIT 180° FROM EACH OTHER, 9"-12" FROM FINISHED GRADE FOR TEMPORARY POWER.

- NOTES:
- * GROUNDING: 35' OF 2/0 STRANDED BARE SOFT-DRAWN, TINNED COPPER GROUND OR 5/8" X 8'-0" CU. COPPERWELD GROUND ROD. (SEE GROUNDING DETAIL 1488-10 AND 1488-20)
 - * METAL RING & CONCRETE RING PRE-CAST TO FIT GROOVE DIA. & DEPTH W/ 1/2" CLEARANCE AROUND EDGE OF PULL BOX.
 - * WHEN THE PULLBOX IS INSTALLED IN DRIVEWAYS OR PARKING LOTS USE TRAFFIC TYPE SHOWN ON PAGE 1448-31.
 - * TOP OF BOX NEEDS TO BE 3" TO 4" ABOVE NATURAL GROUND LEVEL.

	CIVIL PULLBOXES	1448-30
	PULLBOX 36-IN. STANDARD COVER	Sheet 3 of 3
Rev: 08/01/20		

CU-ID	CU-REF	CU-DESCRIPTION
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PB36INWSCN	14483011N	PB 36" W/STD COVER NETWORK
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000003006	MANHOLE CONCRETE PIPE 36 IN	1	EA	14483011N
10	0000015285	COVER MANHOLE NONTRAFFIC CAST IRON M52A 24" MARKD ELCTR	1	EA	14483011N
11	0000006798	CLAMP GRND BRNZ #4 WIRE TO 1/2 IN ROD OR 1 IN PIPE	1	EA	14483011N
2	0000003011	BRICK COMMON SMALL 3 HOLE	4	EA	14483011N
3	0000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14483011N
4	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14483011N
5	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	10	EA	14483011N
6	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	5	EA	14483011N
7	0000001402	CONCRETE 5 SACK CLASS A	.25	EA	14483011N
8	0000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14483011N
9	0000003005	RING MANHOLE NON- TRAFFIC CONCRETE M52 CAST IN PLC 36IN	1	EA	14483011N

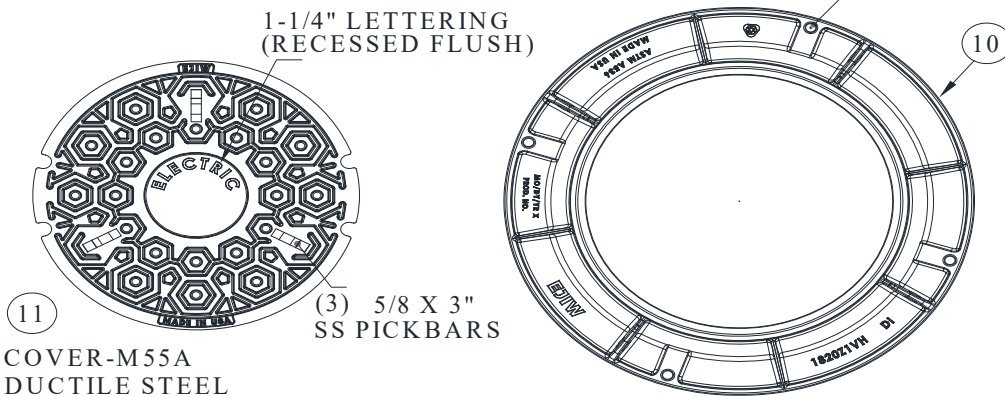
FOR DETAILS	SEE PAGE
STRUCTURE GROUNDING	1488- 10 AND 1488- 20

1448-31 36-IN. PULLBOX - HEAVY-DUTY COVER

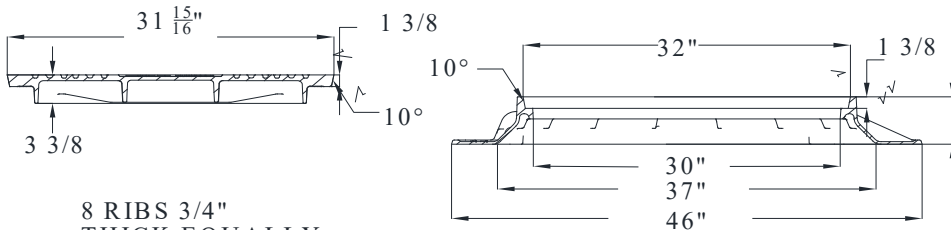
(4) 1" HOLES
ON 43 1/2" B.C.

NOTES:

- * GROUNDING 35' OF 2/0 STRANDED BARE SOFT-DRAWN, COPPER GROUND OR 5/8" X 8'-0" C.U. COPPERWELD GROUND ROD. (SEE GROUNDING DETAIL 1488-10 AND 1488-20).
- * METAL RING & CONCRETE RING PRE-CAST TO FIT GROOVE DIA. & DEPTH W/ 1/2" CLEARANCE AROUND EDGE OF PULL BOX.
- * 48" PULL BOXES SHALL BE REQUIRED WHENEVER IT IS NECESSARY TO STACK TWO PULL BOXES.



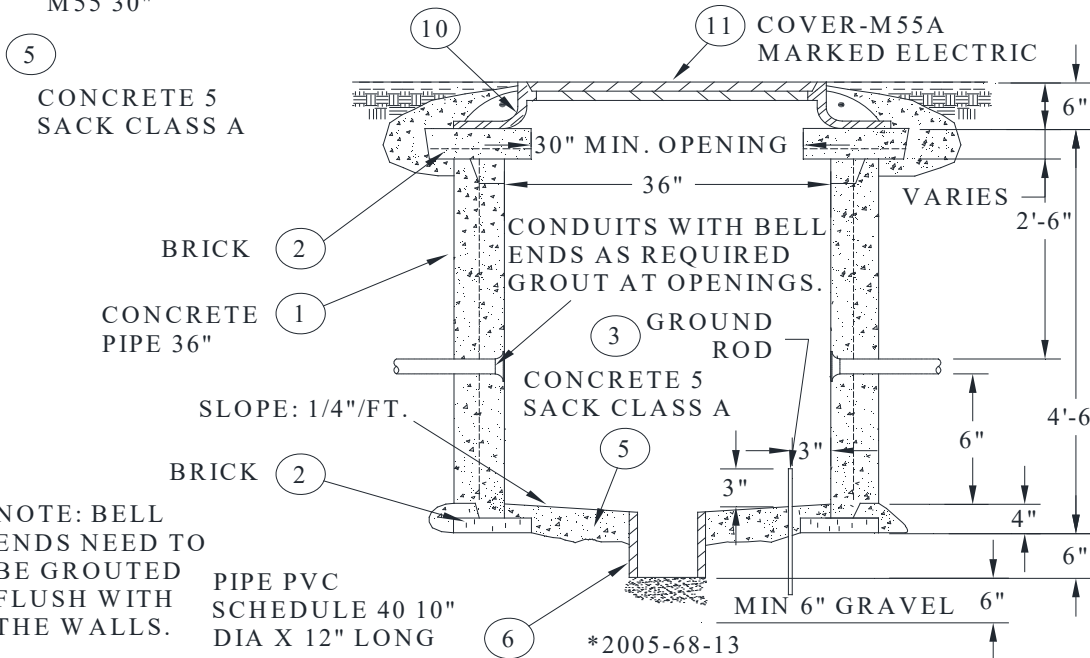
COVER-M55A
DUCTILE STEEL
MARKED ELECTRIC



8 RIBS 3/4" THICK EQUALLY SPACED WITH ANCHOR HOLE

1-1/4" LETTERING (RECESSED FLUSH)

NOTE:
RING AND COVER SEAT TO BE MACHINED. RING DUCTILE IRON M55 30"



CONCRETE 5 SACK CLASS A

BRICK (2)

CONCRETE PIPE 36" (1)

SLOPE: 1/4"/FT.


BRICK (2)

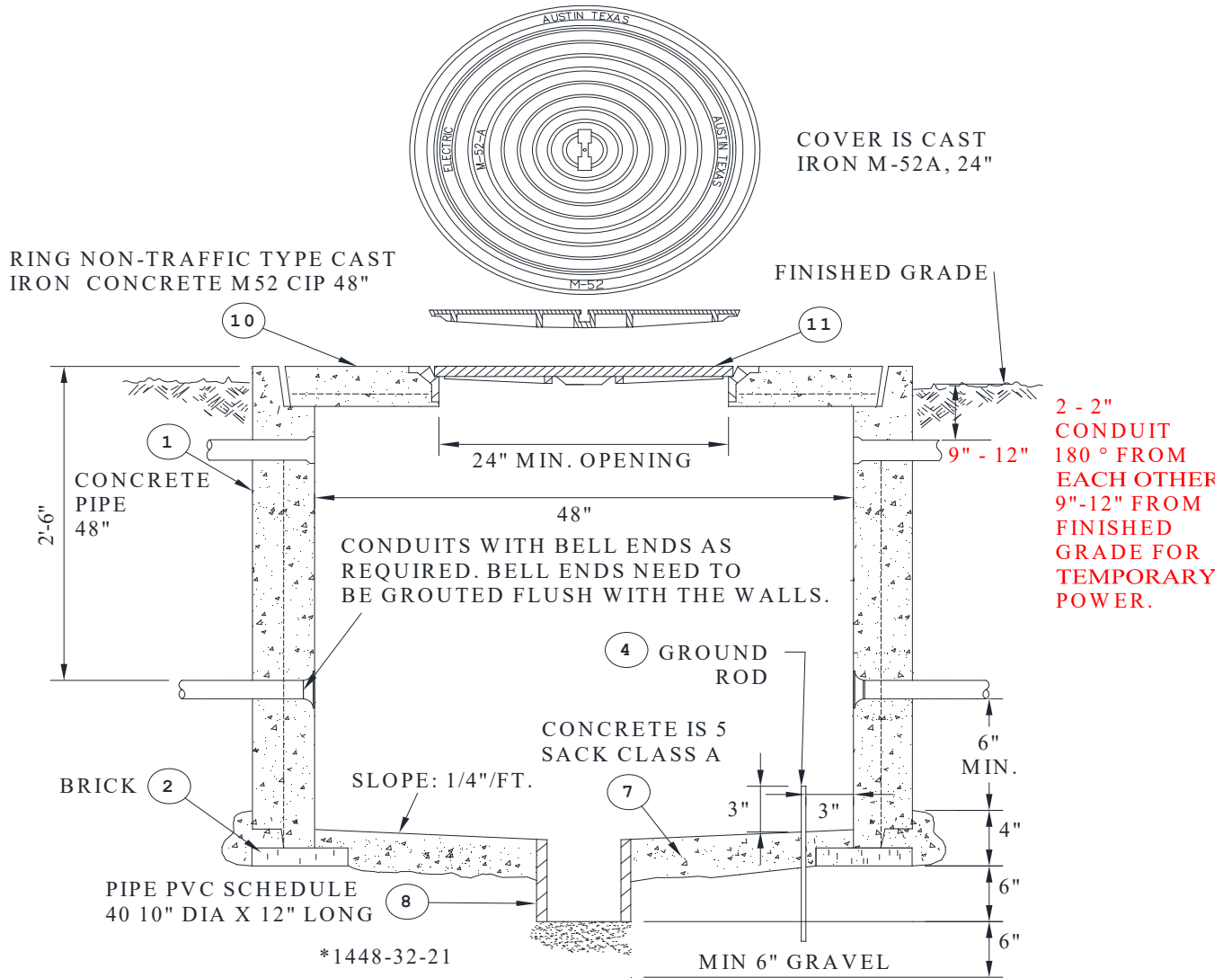
NOTE: BELL ENDS NEED TO BE GROUTED FLUSH WITH THE WALLS.

PIPE PVC SCHEDULE 40 10" DIA X 12" LONG (6)


*2005-68-13

2 - 2" CONDUIT 180° FROM EACH OTHER, 9"-12" FROM FINISHED GRADE FOR TEMPORARY POWER.

 Rev: 08/01/20	CIVIL PULLBOXES PULLBOX 48-IN. STANDARD COVER	1448-32 Sheet 1 of 3



- NOTES:
- * GROUNDING: 35' OF 2/0 STRANDED BARE SOFT-DRAWN, TINNED COPPER GROUND OR 5/8" X 8'-0" CU. COPPERWELD GROUND ROD. (SEE GROUNDING DETAIL 1488-10 AND 1488-20).
 - * METAL RING & CONCRETE RING PRE-CAST TO FIT GROOVE DIA. & DEPTH W/ 1/2" CLEARANCE AROUND EDGE OF PULL BOX.
 - * 48" PULL BOXES SHALL BE REQUIRED WHENEVER IT IS NECESSARY TO STACK TWO PULL BOXES.
 - * TOP OF BOX NEEDS TO BE 3" TO 4" ABOVE NATURAL GROUND LEVEL.
 - * WHEN THE HANDHOLD IS INSTALLED IN DRIVEWAYS AND PARKING LOTS, USE TRAFFIC TYPE SHOWN ON PAGE 1488-33

1448-32	CIVIL PULLBOXES PULLBOX 48-IN. STANDARD COVER	
Sheet 2 of 3		
		Rev: 08/01/20

CU


CU-ID CU-REF CU-DESCRIPTION

PB48INWSCE 14483221E PB 48" W/STD COVER EAST

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000022501	MANHOLE CONCRETE PIPE 48 IN	1	EA	14483221E
10	0000003003	RING MANHOLE NON-TRAFFIC CONCRETE M52 CAST IN PLC 48IN	1	EA	14483221E
11	0000015285	COVER MANHOLE NONTRAFFIC CAST IRON M52A 24" MARKD ELCTR	1	EA	14483221E
2	0000003011	BRICK COMMON SMALL 3 HOLE	4	EA	14483221E
3	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	10	EA	14483221E
4	0000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14483221E
5	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14483221E
6	0000006798	CLAMP GRND BRNZ #4 WIRE TO 1/2 IN ROD OR 1 IN PIPE	1	EA	14483221E
7	0000001402	CONCRETE 5 SACK CLASS A	.25	EA	14483221E
8	0000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14483221E
9	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	5	EA	14483221E

PB48INWSCW 14483221W PB 48" W/STD COVER WEST

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000022501	MANHOLE CONCRETE PIPE 48 IN	1	EA	14483221W
10	0000003003	RING MANHOLE NON-TRAFFIC CONCRETE M52 CAST IN PLC 48IN	1	EA	14483221W
11	0000015285	COVER MANHOLE NONTRAFFIC CAST IRON M52A 24" MARKD ELCTR	1	EA	14483221W
13	0000001216	CLAMP TWO-BOLT FOR #2 STR-2/0 STR TAP #6 STR-2/0 STR	1	EA	14483221W
2	0000003011	BRICK COMMON SMALL 3 HOLE	4	EA	14483221W
3	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	10	EA	14483221W
7	0000001402	CONCRETE 5 SACK CLASS A	.25	EA	14483221W
8	0000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14483221W
9	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	40	EA	14483221W

	CIVIL PULLBOXES	1448-32
	PULLBOX 48-IN. STANDARD COVER	Sheet 3 of 3
Rev: 08/01/20		

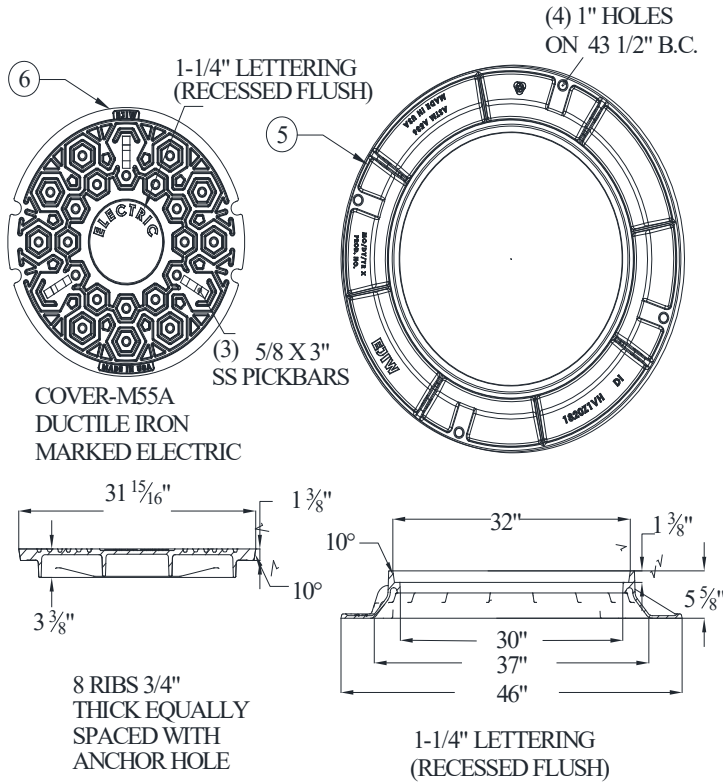
CU-ID	CU-REF	CU-DESCRIPTION
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PB48INWSCN	14483221N	PB 48" W/STD COVER NETWORK
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000022501	MANHOLE CONCRETE PIPE 48 IN	1	EA	14483221N
10	000003003	RING MANHOLE NON- TRAFFIC CONCRETE M52 CAST IN PLC 48IN	1	EA	14483221N
11	0000015285	COVER MANHOLE NONTRAFFIC CAST IRON M52A 24" MARKD ELCTR	1	EA	14483221N
2	000003011	BRICK COMMON SMALL 3 HOLE	4	EA	14483221N
3	000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	10	EA	14483221N
4	000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14483221N
5	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14483221N
6	000006798	CLAMP GRND BRNZ #4 WIRE TO 1/2 IN ROD OR 1 IN PIPE	1	EA	14483221N
7	000001402	CONCRETE 5 SACK CLASS A	.25	EA	14483221N
8	000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14483221N
9	000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	5	EA	14483221N

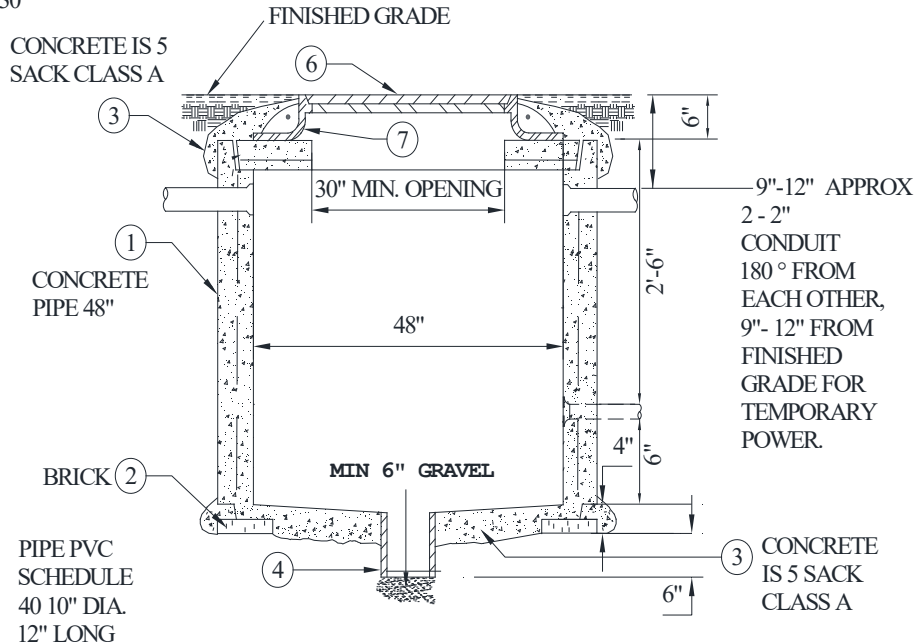
FOR DETAILS	SEE PAGE
STRUCTURE GROUNDING	1488- 10 AND 1488- 20


CIVIL
PULLBOXES
PULLBOX 48-IN. TRAFFIC COVER



NOTES:
 * GROUNDING 35' OF 2/0 STRANDED BARE SOFT-DRAWN, TINNED COPPER GROUND OR 5/8" X 8'-0" C.U. COPPERWELD GROUND ROD. (SEE GROUNDING DETAIL 1488-10 AND 1488-20).
 * METAL RING & CONCRETE RING PRE-CAST TO FIT GROOVE DIA. & DEPTH W/ 1/2" CLEARANCE AROUND EDGE OF PULL BOX.
 * 48" PULL BOXES SHALL BE REQUIRED WHENEVER IT IS NECESSARY TO STACK TWO PULL BOXES.

NOTE:
 RING AND COVER SEAT TO BE MACHINED. RING DUCTILE IRON M55 30"



1448-33	CIVIL PULLBOXES PULLBOX 48-IN. TRAFFIC COVER	
Sheet 3 of 3		
		Rev: 08/01/20

CU-ID	CU-REF	CU-DESCRIPTION
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PB48INWHDCN	14483323N	PB 48" W/HD COVER NETWORK
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ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000022501	MANHOLE CONCRETE PIPE 48 IN	1	EA	14483323N
2	0000003011	BRICK COMMON SMALL 3 HOLE	12	EA	14483323N
3	0000001402	CONCRETE 5 SACK CLASS A	.25	EA	14483323N
4	0000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14483323N
5	0000015289	RING MANHOLE TRAFFIC TYPE DUCTILE IRON M55 30 IN	1	EA	14483323N
6	0000015286	COVER MANHOLE TRAFFIC TY DUCTILE IRON M 55A 30IN MARKED	1	EA	14483323N

FOR DETAILS	SEE PAGE
STRUCTURE GROUNDING	1488- 10 AND 1488- 20