SECTION I - BARRIER

SECTION I - BARRIER (CONT'D)

SHEET NO. NAME

B-16 – GUARDRAIL OVER CULVERTS (TYPES 1-27, 2-27, AND 3-27)
(2010) - 1 GUARDRAIL OVER CULVERTS, TYPE 1-27
(2010) - 2 GUARDRAIL OVER CULVERTS, TYPE 2-27
(2010) - 3 GUARDRAIL OVER CULVERTS, TYPE 3-27
B-17 (2010) – GUARDRAIL END TREATMENT (TYPE 4-27)
B-18 (2010) – CURVED GUARDRAIL SECTION
B-19 (2010) – END ANCHORAGE (TYPE 27)
B-20 – BURIED END SECTION
(2010) - 1 BURIED END SECTION - SINGLE RAIL
(2010) - 2 BURIED END SECTION - DOUBLE RAIL
(2010) - 3 POST, CONCRETE BLOCK, AND RUBRAIL DETAILS
B-21 – GUARDRAIL TO BARRIER CONNECTION (TYPES 1-27, 2-27, AND EXIT TYPE 27)
(2010) - 1 GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-27
(2010) - 2 GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 2-27
(2010) - 3 GUARDRAIL TO BARRIER CONNECTION, EXIT TYPE 27

SECTION II - CURB & GUTTER

SHEET NO. NAME

C-1 – P.C.C. CURB AND INTEGRAL P.C.C. CURB & GUTTER
(2011) - 1 P.C.C. CURB, TYPICAL CURB SECTION, AND TYPICAL TAPER SECTION AT NOSE OF MEDIANS
(2011) - 2 INTEGRAL P.C.C. CURB & GUTTER
C-2 – CURB RAMPS
(2008) - 1 TYPE 1
(2008) - 2 TYPE 2, 3, AND 4
(2008) - 3 SECTIONS FOR TYPES 2, 3, AND 4
(2006) - 4 TYPE 5
C-3 (2010) – ENTRANCES
C-4 (2010) – CURB OPENING DETAILS
C-5 (2011) – CURB OPENING WITH SIDEWALK DETAIL

SECTION III - DRAINAGE

SHEET NO. NAME

D-1 – 6:1 SAFETY END STRUCTURE
(2001) - 1 DETAIL VIEWS
(2001) - 2 SCHEDULES
D-2 – 10:1 SAFETY END STRUCTURE
(2001) - 1 DETAIL VIEWS
(2001) - 2 SCHEDULES
D-3 – SAFETY GRATES
(2005) - 1 SAFETY END STRUCTURE GRATE AND ASSEMBLY DETAIL
(2007) - 2 PERSONNEL SAFETY GRATE FOR PIPE INLET DETAIL
D-R (2011) – DRAINAGE INLET REFERENCE SHEET
D-4 (2009) – INLET BOX DETAILS
D-5 – DRAINAGE INLET DETAILS
(2010) - 1 DRAINAGE INLET ASSEMBLY
(2010) - 2 DRAINAGE INLET FRAME AND GRATES
(2011) - 3 DRAINAGE INLET TOP UNITS
(2010) - 4 DRAINAGE INLET COVER SLAB DETAILS
(2010) - 5 DOUBLE INLET COVER SLAB DETAILS
(2011) - 6 34" x 24" DRAINAGE INLET AND COVER SLAB DETAILS
(2010) - 7 34" x 18" DRAINAGE INLET DETAILS
(2010) - 8 DRAINAGE INLET TOP UNIT, TYPE S
(2010) - 9 DOGHOUSE INLET BOX

SECTION III - DRAINAGE (CONT'D)

SECTION IV - EROSION

SECTION V - LANDSCAPING

SHEET NO. NAME

SECTION VI - MISCELLANEOUS

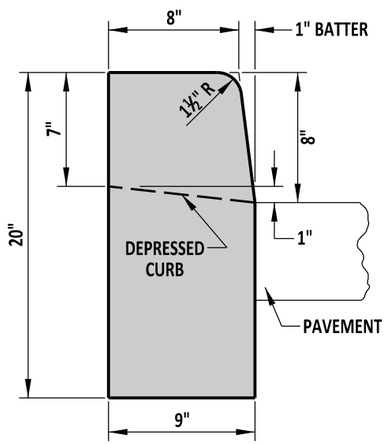
SHEET NO. NAME

SECTION VII - PAVEMENT

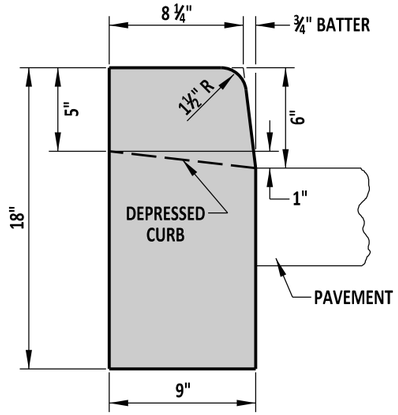
SHEET NO. NAME

SECTION VIII - TRAFFIC

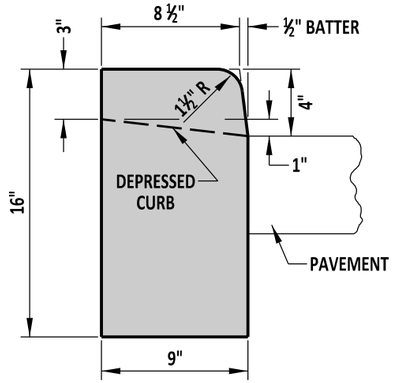
SCALE : NTS



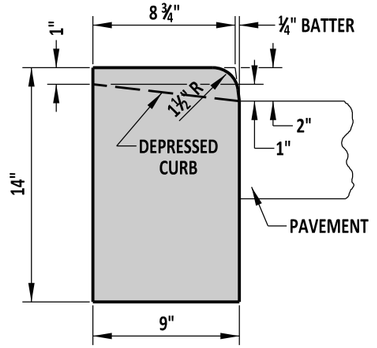
P.C.C. CURB
TYPE 1-8



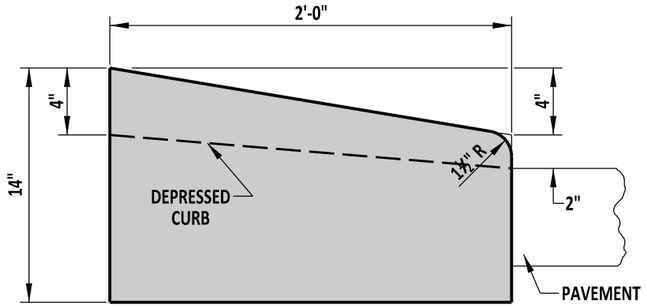
P.C.C. CURB
TYPE 1-6



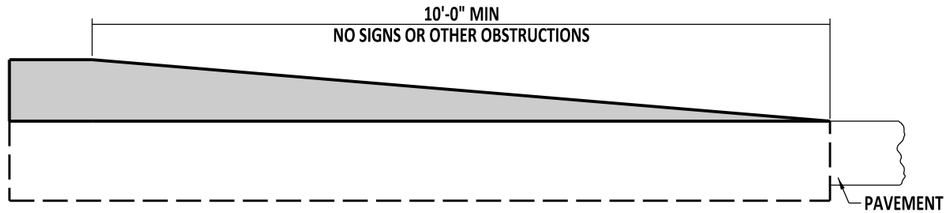
P.C.C. CURB
TYPE 1-4



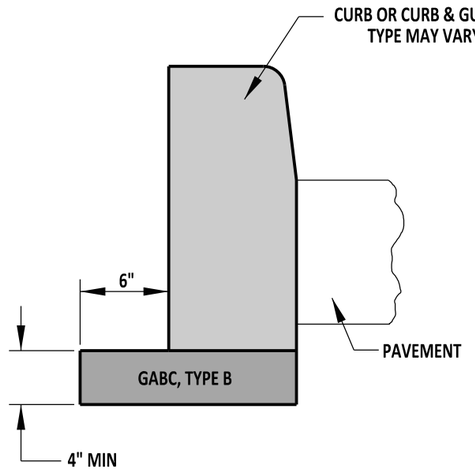
P.C.C. CURB
TYPE 1-2



P.C.C. CURB
TYPE 2



TYPICAL TAPER SECTION AT NOSE OF MEDIANS
TYPE 1-8 CURB SHOWN



TYPICAL CURB SECTION

NOTES:

1). WHEN P.C.C. CURB OR INTEGRAL P.C.C. CURB AND GUTTER IS PLACED ADJACENT TO PORTLAND CEMENT CONCRETE PAVEMENT, CONSTRUCT THE JOINT AS PER THE LONGITUDINAL JOINT SEALANT DETAIL ON DETAIL P-2, SHEET 3 OF 5. USE APPROVED JOINT FILLER TO SEAL. WORK TO BE PAID UNDER RESPECTIVE CURB AND GUTTER ITEM.
2). DEPRESS CURB AT ENTRANCES AND CURB RAMPS AS DETAILED ON THIS SHEET.
3). DEPRESS CURB FLUSH WITH PAVEMENT AT CURB RAMPS. MAXIMUM SLOPE OF CURB AT CURB RAMPS IS 20:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL. SEE DETAIL C-2, SHEET 1 OF 4.
4). DEPRESS CURB FLUSH WITH PAVEMENT OR ADJACENT AREA AT LEADING EDGE OF TRIANGULAR ISLANDS, TAPERING BACK TO FULL HEIGHT AT A SLOPE OF 4:1.

DELAWARE
DEPARTMENT OF TRANSPORTATION

P.C.C. CURB

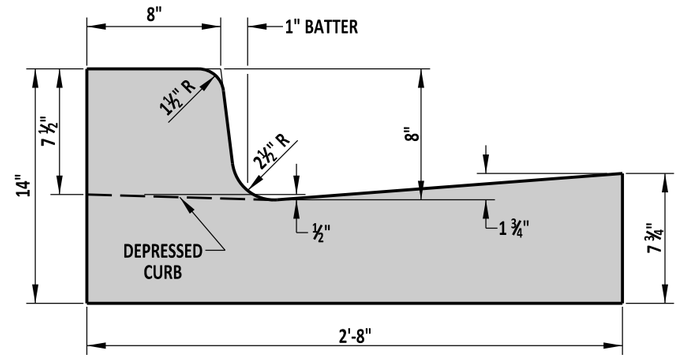
STANDARD NO. C-1 (2011) | SHT. 1 OF 2

APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)

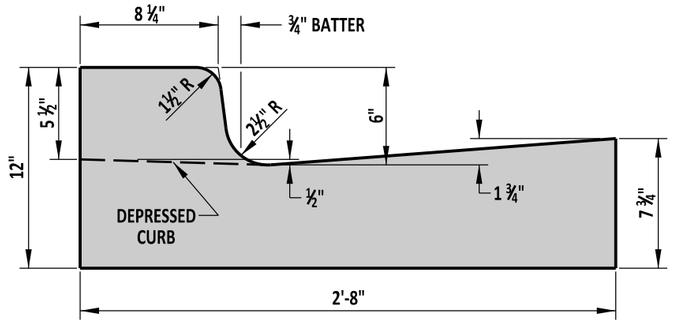
RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

12/12/2011

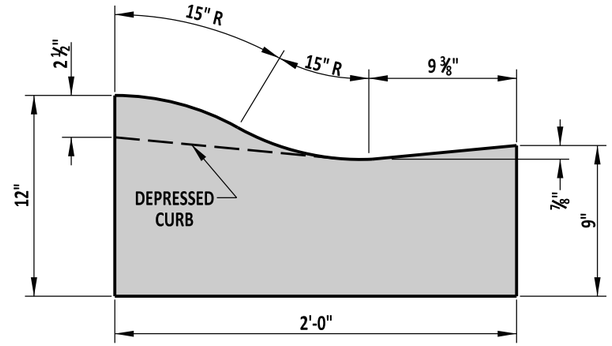
SCALE : NTS



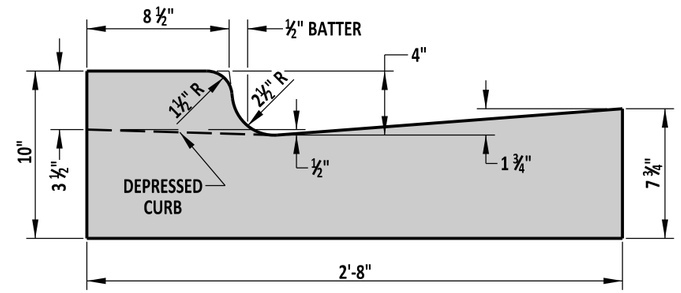
INTEGRAL P.C.C. CURB AND GUTTER
TYPE 1-8



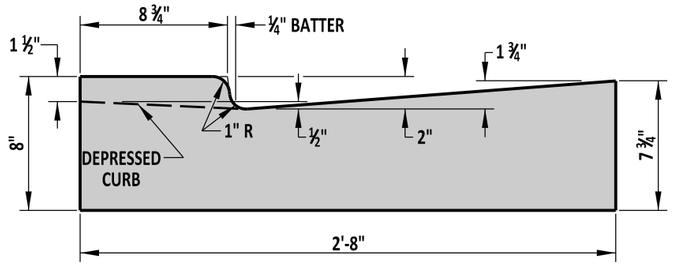
INTEGRAL P.C.C. CURB AND GUTTER
TYPE 1-6



INTEGRAL P.C.C. CURB AND GUTTER
TYPE 2



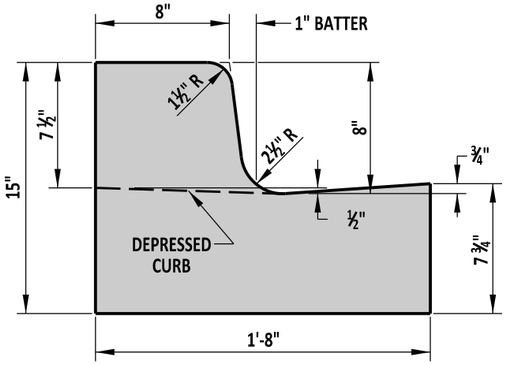
INTEGRAL P.C.C. CURB AND GUTTER
TYPE 1-4



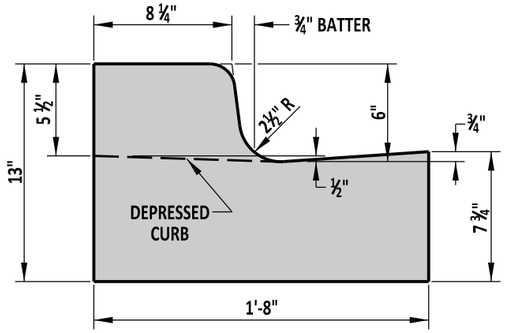
INTEGRAL P.C.C. CURB AND GUTTER
TYPE 1-2

NOTES:

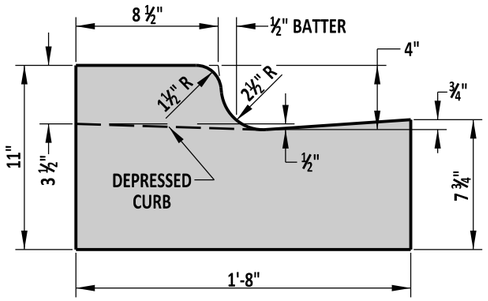
1). WHEN P.C.C. CURB OR INTEGRAL P.C.C. CURB AND GUTTER IS PLACED ADJACENT TO PORTLAND CEMENT CONCRETE PAVEMENT, CONSTRUCT THE JOINT AS PER THE LONGITUDINAL JOINT SEALANT DETAIL ON DETAIL P-2, SHEET 3 OF 5. USE APPROVED JOINT FILLER TO SEAL. WORK TO BE PAID UNDER RESPECTIVE CURB AND GUTTER ITEM.
2). DEPRESS CURB AT ENTRANCES AND CURB RAMPS AS DETAILED ON THIS SHEET.
3). DEPRESS CURB FLUSH WITH PAVEMENT AT CURB RAMPS. MAXIMUM SLOPE OF CURB AT CURB RAMPS IS 20:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL. SEE DETAIL C-2, SHEET 1 OF 4.
4). DEPRESS CURB FLUSH WITH PAVEMENT OR ADJACENT AREA AT LEADING EDGE OF TRIANGULAR ISLANDS, TAPERING BACK TO FULL HEIGHT AT A SLOPE OF 4:1. SEE DETAIL C-1, SHEET 1 OF 2 FOR TYPICAL SECTION OF TAPER AT NOSE OF MEDIAN ISLANDS.
5). 4" OF GABC, TYPE B SHALL BE PLACED UNDER P.C.C. CURB AND P.C.C. CURB AND GUTTER. SEE DETAIL C-1, SHEET 1 OF 2 FOR TYPICAL SECTION.



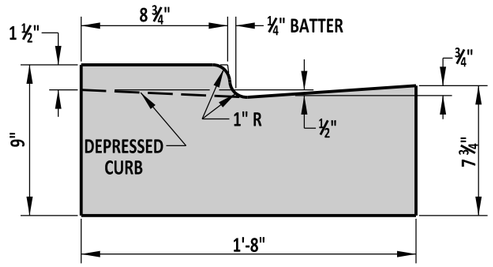
INTEGRAL P.C.C. CURB AND GUTTER
TYPE 3-8



INTEGRAL P.C.C. CURB AND GUTTER
TYPE 3-6



INTEGRAL P.C.C. CURB AND GUTTER
TYPE 3-4

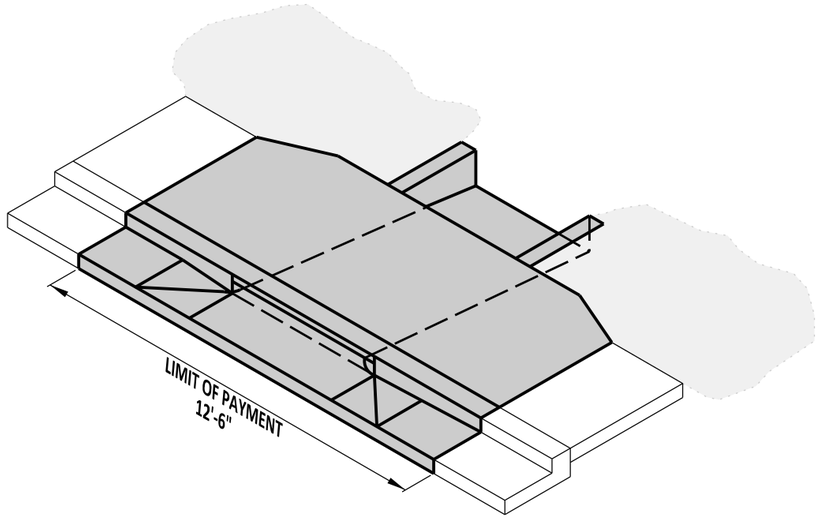


INTEGRAL P.C.C. CURB AND GUTTER
TYPE 3-2

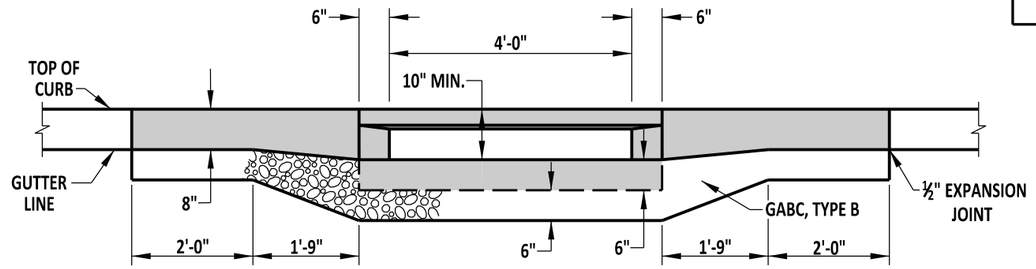
DELAWARE DEPARTMENT OF TRANSPORTATION	INTEGRAL P.C.C. CURB & GUTTER			APPROVED	SIGNATURE ON FILE (CHIEF ENGINEER) 02/27/2012 (DATE)
	STANDARD NO. C-1 (2011)	SHT. 2	OF 2	RECOMMENDED	SIGNATURE ON FILE (DESIGN ENGINEER) 02/26/2012 (DATE)

2/14/2012

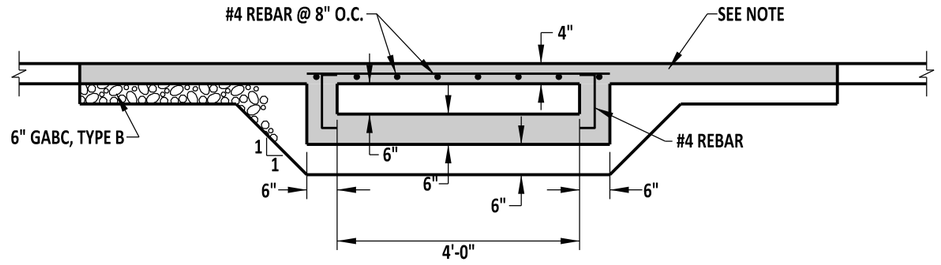
SCALE : NTS



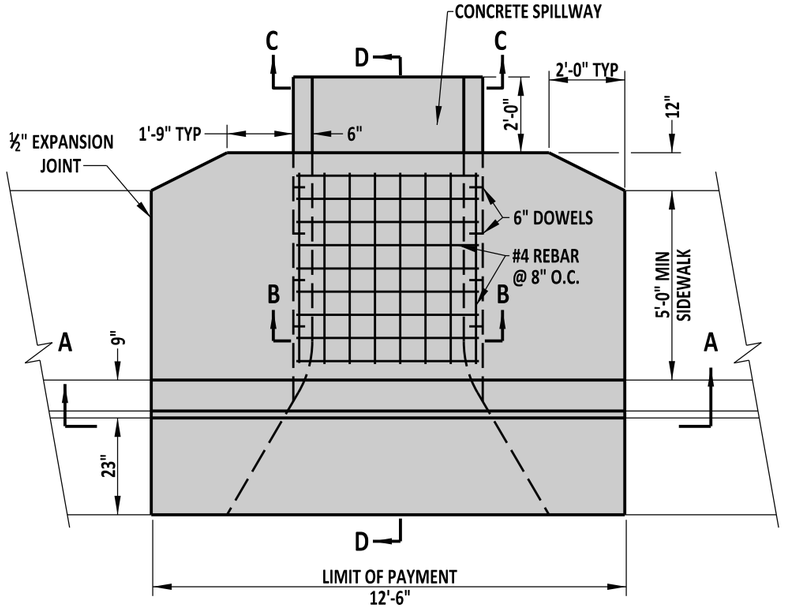
ISOMETRIC



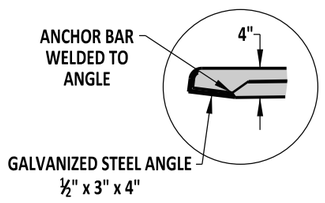
SECTION A-A

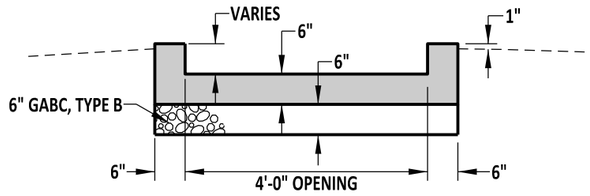


SECTION B-B

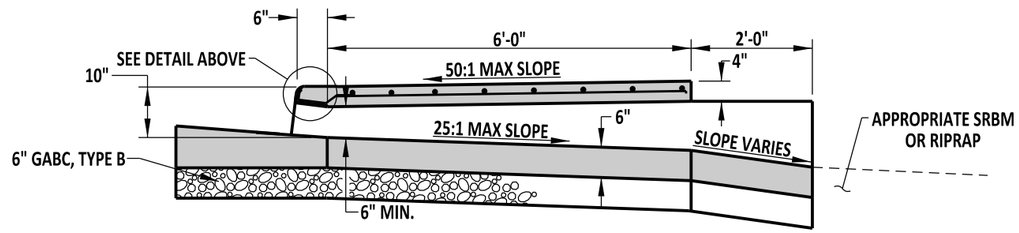


PLAN





SECTION C-C



SECTION D-D

CURB / SIDEWALK OPENING

NOTE:
WHEN A GRASS STRIP IS PRESENT BETWEEN THE BACK OF CURB AND SIDEWALK, THE SIDEWALK PORTION OF THIS STRUCTURE MAY BE PRECAST. HOWEVER, WHEN THE SIDEWALK IS DIRECTLY BEHIND THE CURB, THE ENTIRE UNIT MUST BE CAST-IN-PLACE.

DELAWARE DEPARTMENT OF TRANSPORTATION	CURB OPENING WITH SIDEWALK DETAIL		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. C-5 (2011)	SHT. 1 OF 1	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

12/12/2011

SCALE : NTS

INLET BOX SIZE		COVER SLAB SIZE (L X W)	DRAINAGE INLET TOP UNIT	INLET TOP UNIT REBAR LENGTH	INLET TOP UNIT LIMIT OF PAYMENT	INLET TOP UNIT BAR BENDING DIAGRAM	FRAME & GRATE (FOUND ON DETAIL D-5, SHEET 2)	MAXIMUM PIPE SIZE (SEE NOTE 1)		MAXIMUM HEIGHT (TO TOP OF BOX)
L	W							L	W	
17⅝"	11⅝"	NO COVER SLAB	TYPE 5 (FRAME & GRATE COMBO)	N/A	N/A	N/A	TYPE 5 (FRAME & GRATE COMBO)	N/A	N/A	4'-0"
24"	24"	NO COVER SLAB	TYPE 6 (FRAME & GRATE COMBO)	N/A	N/A	N/A	TYPE 6 (FRAME & GRATE COMBO)	15"	15"	4'-0"
34"	18"	NO COVER SLAB	TYPES A, C, D, & E (DETAIL D-5, SHEET 7)	79"	82"	S504 (DETAIL D-5, SHEET 7)	TYPES 1 THRU 4 GRATE STANDARD DRAINAGE INLET FRAME	24"	12"	11'-4"
34"	24"	46" x 36" (SEE NOTE 3)	TYPES A, B, C, D, & E (DETAIL D-5, SHEET 6)	79"	82"	S503 (DETAIL D-5, SHEET 6)	TYPES 1 THRU 4 GRATE STANDARD DRAINAGE INLET FRAME	24"	15"	11'-4"
48"	30"	60" x 42" (DETAIL D-5, SHEET 4)	TYPES A, B, C, D, & E (DETAIL D-5, SHEET 3)	93"	96"	S501 (DETAIL D-5, SHEET 6)	TYPES 1 THRU 4 GRATE STANDARD DRAINAGE INLET FRAME	36"	21"	11'-4"
48"	48"	60" x 60" (DETAIL D-5, SHEET 4)	TYPES A, B, C, D, & E (DETAIL D-5, SHEET 3)	93"	96"	S501 (DETAIL D-5, SHEET 3)	TYPES 1 THRU 4 GRATE STANDARD DRAINAGE INLET FRAME	36"	36"	11'-4"
66"	30"	78" x 42" (DETAIL D-4, SHEET 4)	TYPES A, B, C, D, & E (DETAIL D-5, SHEET 3)	111"	114"	S501 (DETAIL D-5, SHEET 3)	TYPES 1 THRU 4 GRATE STANDARD DRAINAGE INLET FRAME	48"	21"	11'-4"
66"	48"	78" x 60" (DETAIL D-5, SHEET 4)	TYPES A, B, C, D, & E (DETAIL D-5, SHEET 3)	111"	114"	S501 (DETAIL D-5, SHEET 3)	TYPES 1 THRU 4 GRATE STANDARD DRAINAGE INLET FRAME	48"	36"	11'-4"
66"	66"	78" x 78" (DETAIL D-5, SHEET 4)	TYPES A, B, C, D, & E (DETAIL D-5, SHEET 3)	111"	114"	S501 (DETAIL D-5, SHEET 3)	TYPES 1 THRU 4 GRATE STANDARD DRAINAGE INLET FRAME	48"	48"	11'-4"
72"	24"	84" x 36" DETAIL D-5, SHEET 5)	TYPES A, B, C, D, & E (DETAIL D-5, SHEET 3)	117"	120"	S502 (DETAIL D-5, SHEET 5)	TYPES 1 THRU 4 GRATE STANDARD DRAINAGE INLET FRAME	54"	15"	11'-4"
72"	48"	84" x 60" (DETAIL D-5, SHEET 5)	TYPES A, B, C, D, & E (DETAIL D-5, SHEET 3)	117"	120"	S502 (DETAIL D-5, SHEET 5)	TYPES 1 THRU 4 GRATE STANDARD DRAINAGE INLET FRAME	54"	36"	11'-4"
72"	72"	84" x 84" (DETAIL D-5, SHEET 5)	TYPES A, B, C, D, & E (DETAIL D-5, SHEET 3)	117"	120"	S502 (DETAIL D-5, SHEET 5)	TYPES 1 THRU 4 GRATE STANDARD DRAINAGE INLET FRAME	54"	54"	11'-4"

NOTES :

1). MAXIMUM PIPE SIZES ARE CALCULATED USING REINFORCED CONCRETE PIPE PERPENDICULAR TO THE BOX WALL. FOR OTHER PIPE SIZES, TYPES AND SKEW ANGLES OTHER THAN PERPENDICULAR, SEE CHART ON DELDOT DESIGN RESOURCE CENTER.

2). STEPS ARE REQUIRED ON ALL BOXES WHOSE DEPTH IS GREATER THAN 4'-0" (1219).

3). FOR A 34" X 24" DRAINAGE INLET BOX, NO COVER SLAB IS NEEDED FOR A TYPE B TOP UNIT.

4). SEE DETAIL D-4 OR APPROPRIATE DETAIL SHEET FOR ADDITIONAL NOTES.

DELAWARE
DEPARTMENT OF TRANSPORTATION

DRAINAGE INLET REFERENCE SHEET

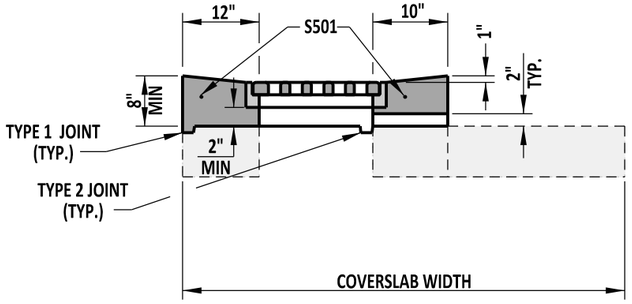
STANDARD NO. D-R (2011) SHT. 1 OF 1

APPROVED SIGNATURE ON FILE CHIEF ENGINEER 12/22/2011 DATE

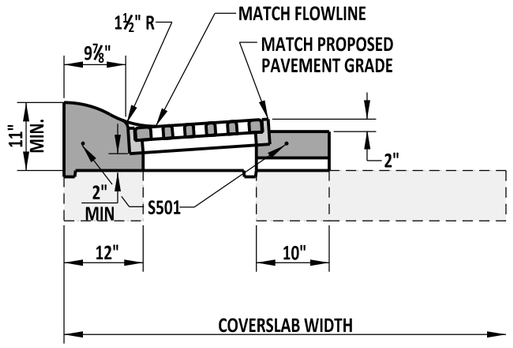
RECOMMENDED SIGNATURE ON FILE DESIGN ENGINEER 12/21/2011 DATE

12/20/2011

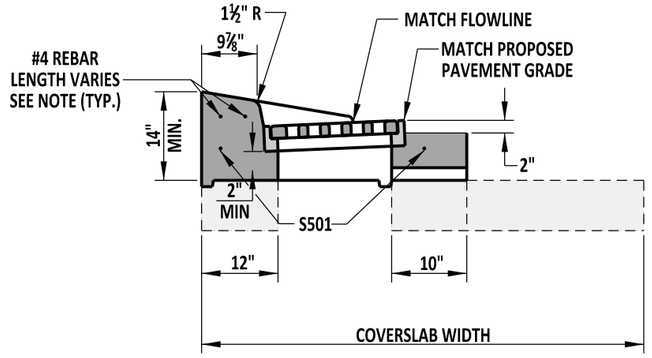
SCALE : NTS



TYPE A



TYPE D



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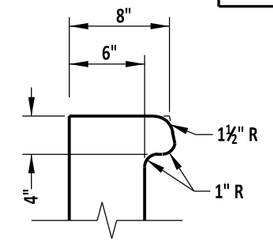
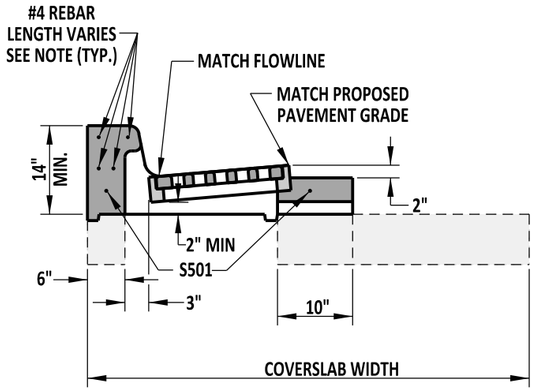
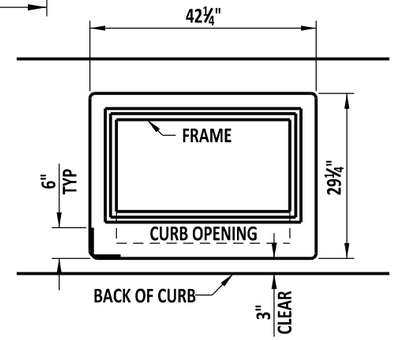


CURB OPENING DETAIL



TYPE B

INLET TOP UNIT APPLICATIONS	
TOP UNIT	CURB
TYPE A	USE IN DRAINAGE SWALE
TYPE B	INTEGRAL PCC CURB & GUTTER, TYPE 1-8 & 3-8, PCC CURB TYPE 1-8
TYPE C	INTEGRAL PCC CURB & GUTTER, TYPES 1-6, 3-6, 1-4, 3-4 , 1-2 AND 3-2 AND PCC CURB TYPE 1-6, 1-4, AND 1-2.
TYPE D	INTEGRAL PCC CURB & GUTTER, TYPE 2
TYPE E	PCC CURB TYPE 2

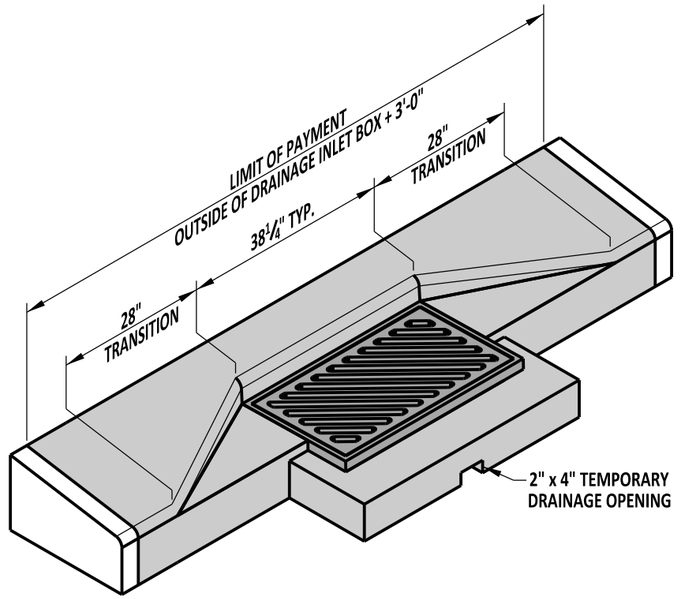


S501 BENDING DIAGRAM

S501 IS NOT REQUIRED TO BE ONE CONTINUOUS BAR. IF MORE THAN ONE BAR IS USED, THERE MUST BE A 12" OVERLAP BETWEEN BARS.

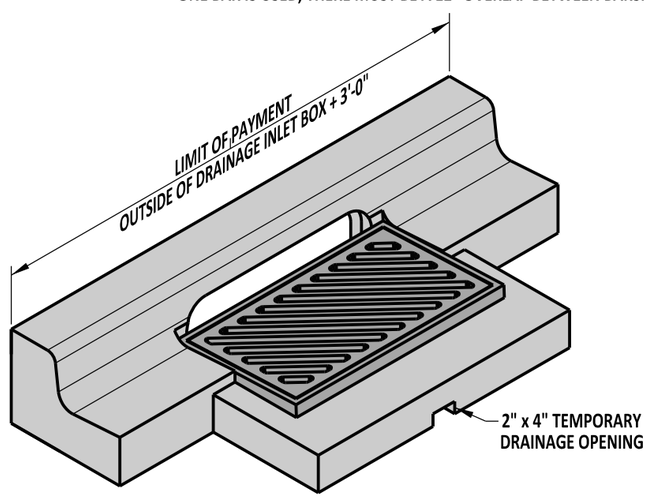
TYPE C

* - THIS DIMENSION VARIES BASED ON THE HEIGHT OF THE CURB AND GUTTER OR CURB USED:
- INTEGRAL P.C.C. CURB AND GUTTER, TYPES 1-6 AND 3-6 & CURB, TYPE 1-6 - 12" MIN.
- INTEGRAL P.C.C. CURB AND GUTTER, TYPES 1-4 AND 3-4 & CURB, TYPE 1-4 - 10" MIN.
- INTEGRAL P.C.C. CURB AND GUTTER, TYPES 1-2 AND 3-2 & CURB, TYPE 1-2 - 8" MIN.



ISOMETRIC VIEW

TYPE E UNIT SHOWN



ISOMETRIC VIEW

TYPE B TOP UNIT SHOWN WITH INTEGRAL CURB & GUTTER TYPE 3

NOTE: LENGTH OF #4 REBAR SHALL BE THE OUTSIDE OF THE DRAINAGE INLET BOX PLUS 2'-9".

DELAWARE
DEPARTMENT OF TRANSPORTATION

DRAINAGE INLET TOP UNITS

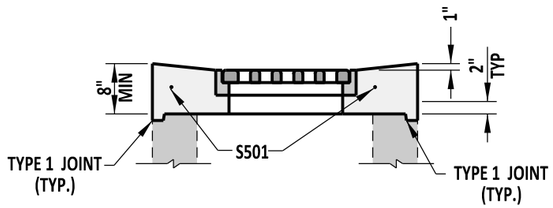
STANDARD NO. D-5 (2010) | SHT. 3 OF 9

APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 02/27/2012 (DATE)

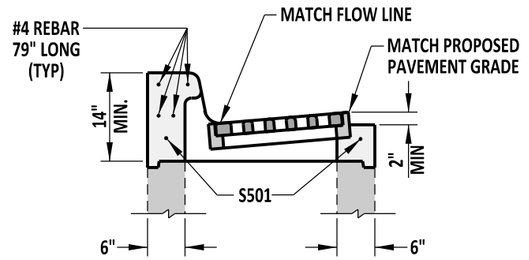
RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 02/26/2012 (DATE)

2/14/2012

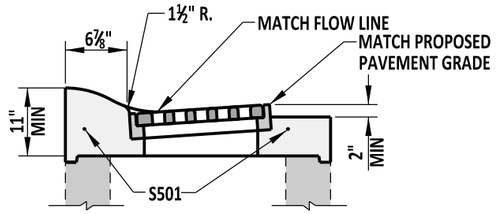
SCALE : NTS



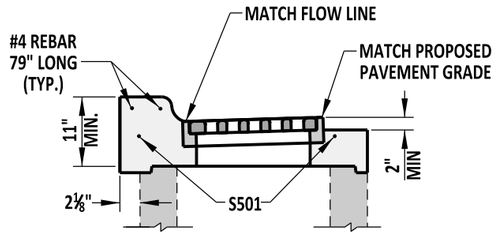
TYPE A



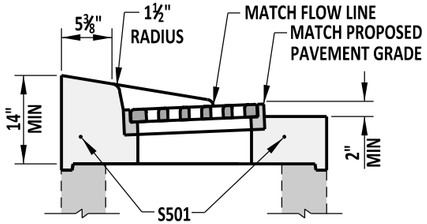
TYPE B



TYPE D



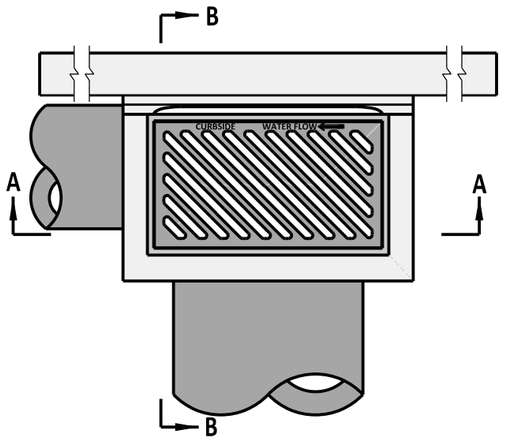
TYPE C



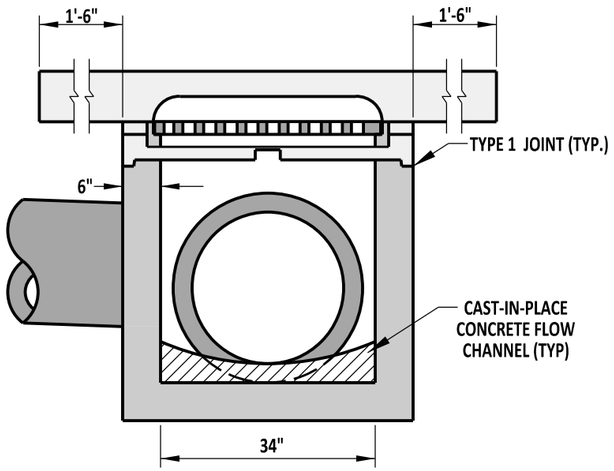
TYPE E

TOP UNIT DETAILS

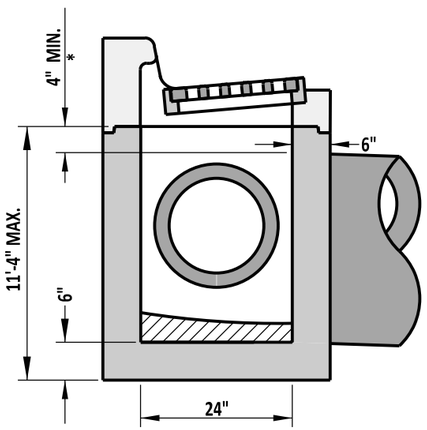
NOTE: SEE DETAIL D-5, SHEET 3 OF 9 FOR INLET TOP UNIT APPLICATIONS.



TOP VIEW



SECTION A-A



SECTION B-B

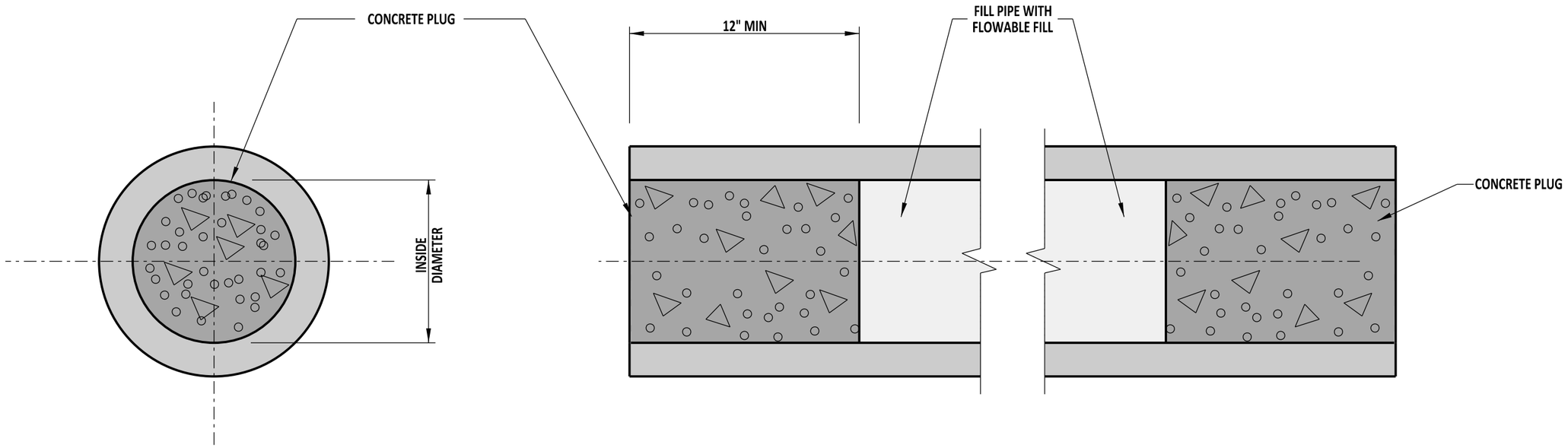
DRAINAGE INLET DETAILS

NOTE: REFER TO PREVIOUS SHEETS FOR REINFORCING REQUIREMENTS
* - SEE OPTIONAL PIPE OPENING DETAIL ON STANDARD NO. D-4, SHEET 1 OF 1

DELAWARE DEPARTMENT OF TRANSPORTATION	34" x 24" DRAINAGE INLET AND COVER SLAB DETAILS	APPROVED	SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. D-5 (2011) SHT. 6 OF 9	RECOMMENDED	SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

09/06/2011

SCALE : NTS



SECTION

ELEVATION

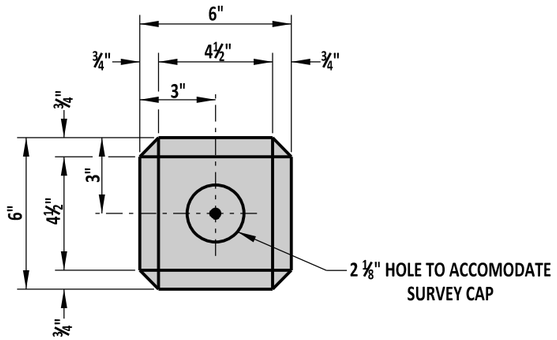
NOTE:
THE CONTRACTOR SHALL FURNISH MATERIAL AND PLUG ABANDONED DRAINAGE PIPES WITH CONCRETE AS DIRECTED BY THE ENGINEER.

DELAWARE DEPARTMENT OF TRANSPORTATION	PIPE PLUGGING DETAIL		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. D-10 (2011)	SHT. 1 OF 1	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

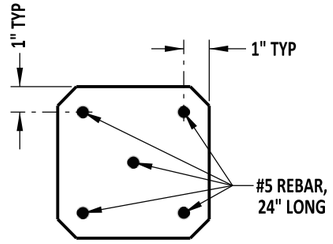
04/27/2011

SCALE : NTS

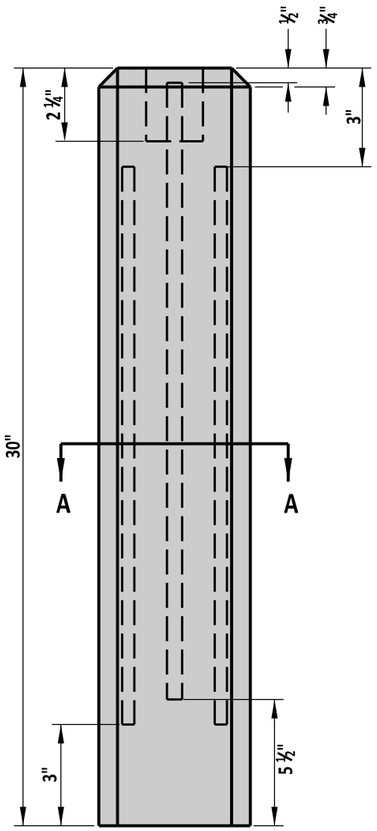
NOTES :
1). LONGITUDINAL STEEL SHALL BE HELD IN PLACE BY CRADLES.
2). LETTERS ON CONCRETE MONUMENT TO BE COUNTERSUNK IN TOP OF MARKER ¼".
3). FLEXIBLE DELINEATORS ARE ONLY TO BE USED ON ROADS WITH A SPECIFIED DENIAL OF ACCESS OR CLASSIFIED AS MINOR ARTERIALS OR HIGHER. ON ALL OTHER ROAD CLASSIFICATIONS, A WOODEN STAKE SHALL BE PLACED WITH "ROW" HANDWRITTEN VERTICALLY IN 1" TALL LETTERS.
4). PLACE CAP ON CONCRETE MONUMENT SO THAT TOP OF CAP IS FLUSH WITH THE TOP OF THE CONCRETE MONUMENT.



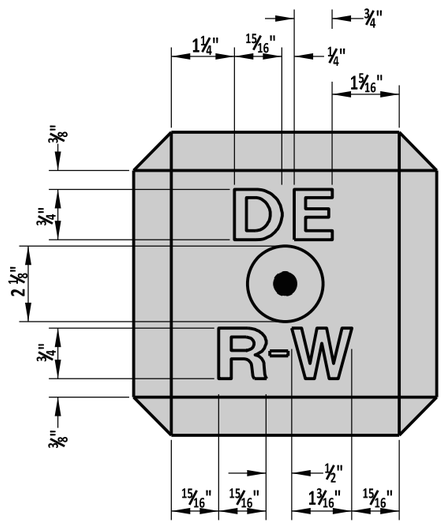
TOP



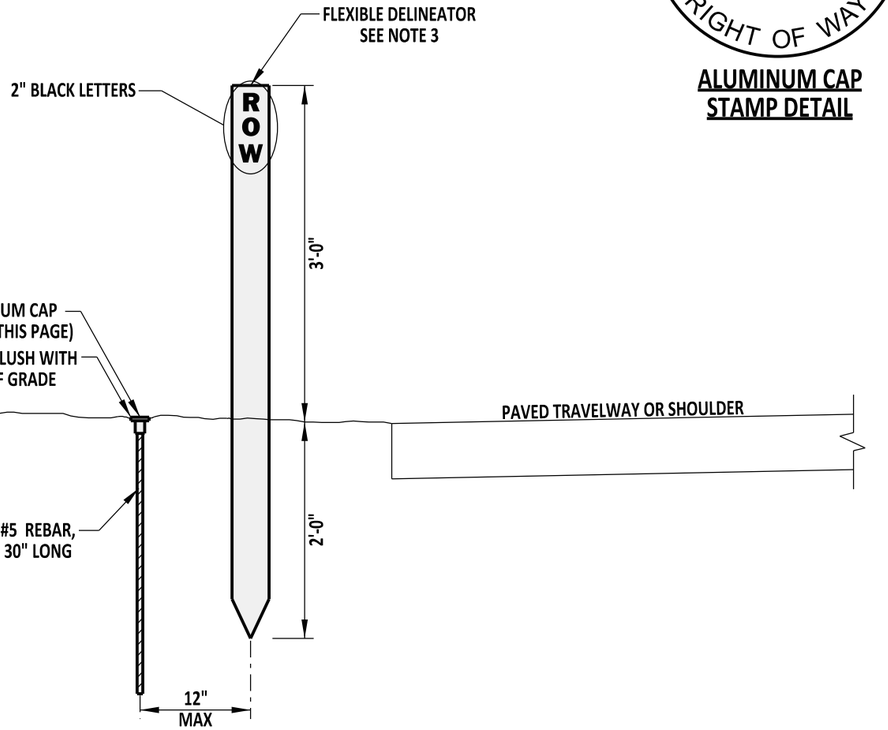
SECTION A-A



ELEVATION



TOP DETAIL



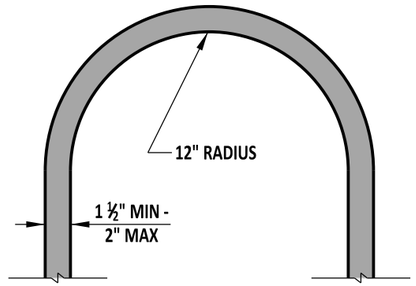
REBAR AND CAP WITH FLEXIBLE DELINEATOR DETAIL

ALUMINUM CAP STAMP DETAIL

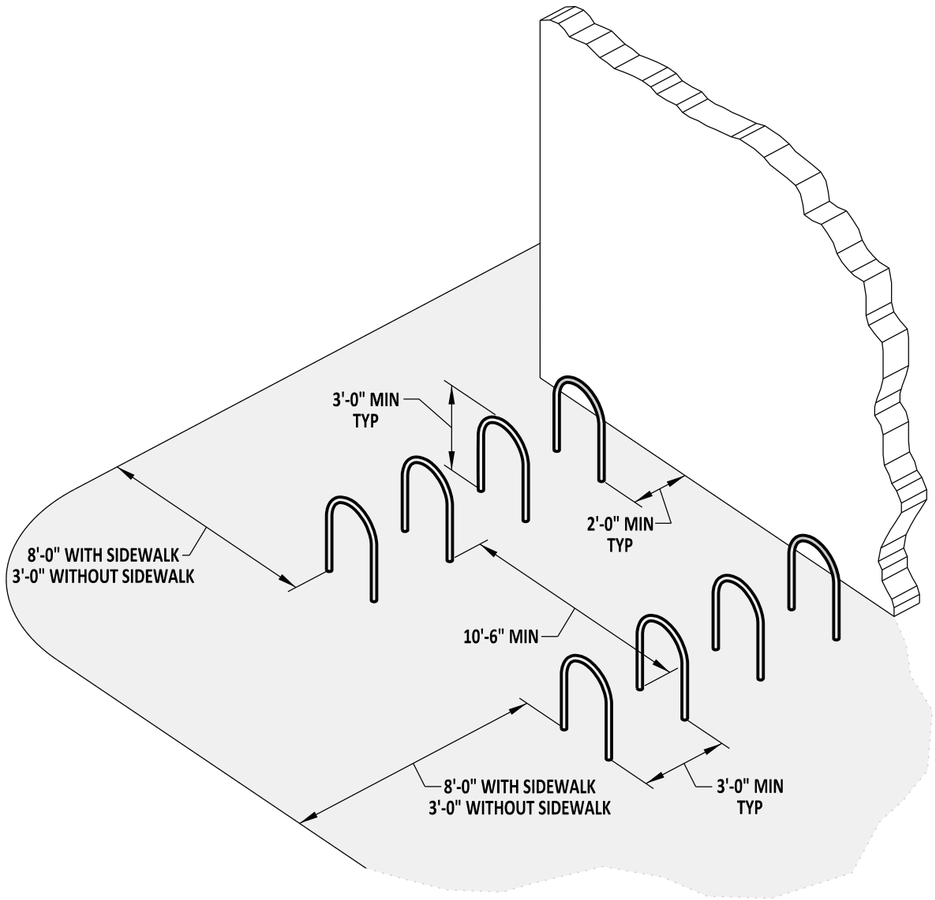
DELAWARE DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY MONUMENTATION			APPROVED	SIGNATURE ON FILE (CHIEF ENGINEER) — 12/22/2011 (DATE)
	STANDARD NO. M-2 (2011)	SHT. 1	OF 1	RECOMMENDED	SIGNATURE ON FILE (DESIGN ENGINEER) — 12/21/2011 (DATE)

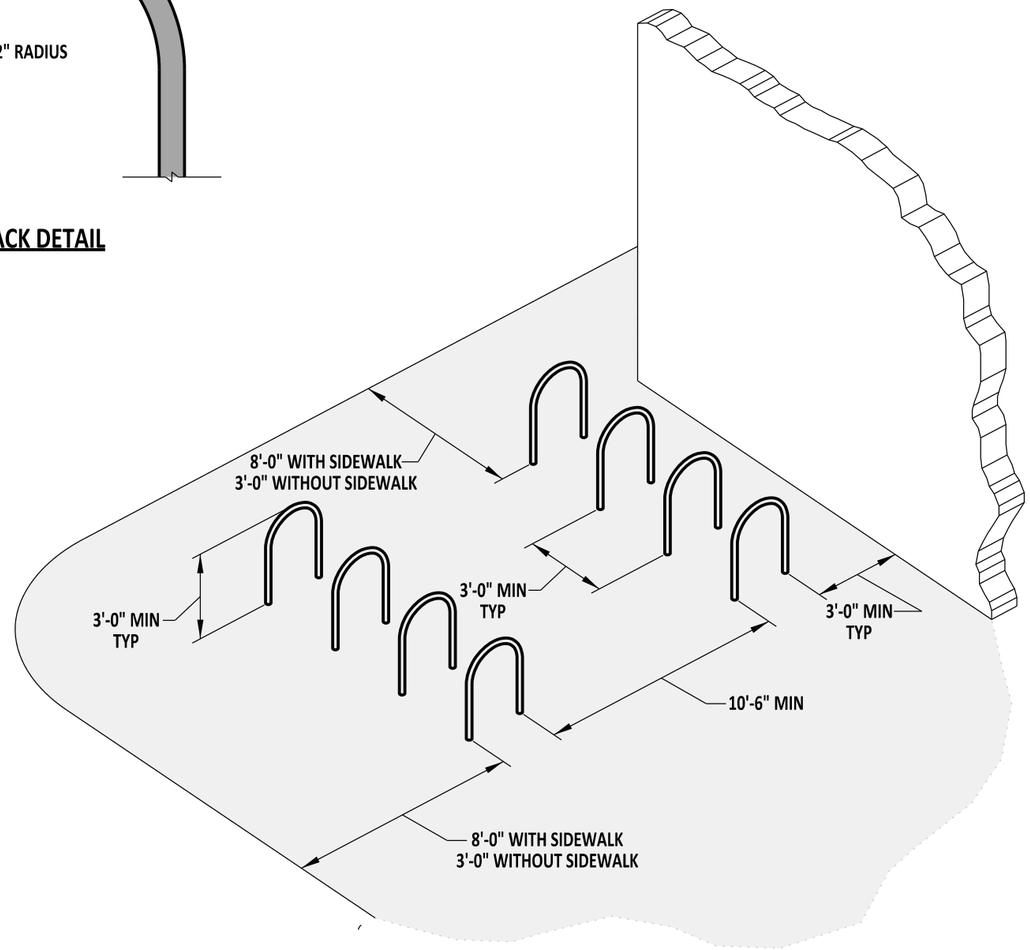
12/12/2011

SCALE : NTS



BIKE RACK DETAIL





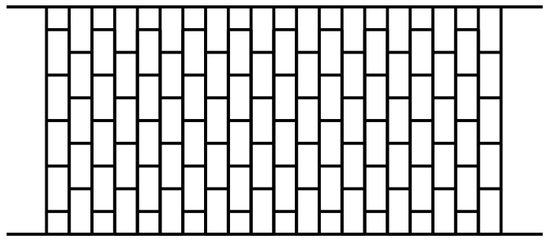
NOTES:

1). BIKE RACK SHALL BE ANCHORED AS PER MANUFACTURER'S RECOMMENDATIONS AFTER APPROVAL FROM ENGINEER IN THE FIELD.
2). DETAIL SHOWN WITH P.C.C. CURB TYPE 1-8, HOWEVER ACTUAL CURB VARIES AND SHOULD BE PLACED AS SHOWN ON PLANS.
3). SPECIAL CONSIDERATIONS SHOULD BE TAKEN WHEN PLACING BIKE RACKS NEAR CURB RAMPS AND MAY REQUIRE A DETAIL ON THE PLANS.

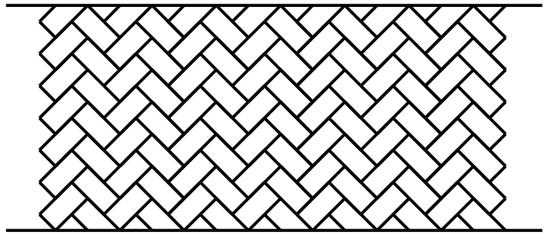
DELAWARE DEPARTMENT OF TRANSPORTATION	BIKE RACK LAYOUT DETAILS		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. M-4 (2011)	SHT. 1 OF 1	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

04/15/2011

SCALE : NTS



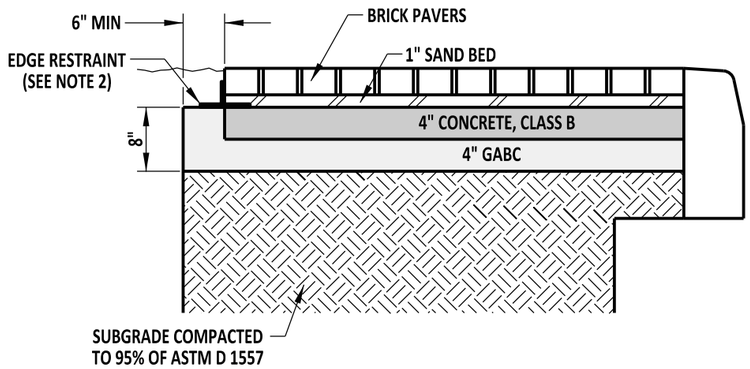
4" x 8" RUNNING BOND PATTERN



4" x 8" HERRINGBONE PATTERN

NOTES:

1. ACTUAL PATTERN TO BE USED SHALL BE SPECIFIED ON THE PLANS. COLOR IS TO BE "BRICK RED" UNLESS OTHERWISE NOTED ON THE PLANS.
2. MATERIALS AND PAVEMENT BOX VARY DEPENDING ON PLANS.
3. FOR CROSSWALK APPLICATIONS, REFER TO THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STRIPING WIDTH.
4. THE PATTERNS ABOVE ARE THE PREFERRED PATTERNS AVAILABLE FOR SIDEWALK OR CROSSWALK APPLICATIONS.



BRICK PAVER SIDEWALK DETAIL

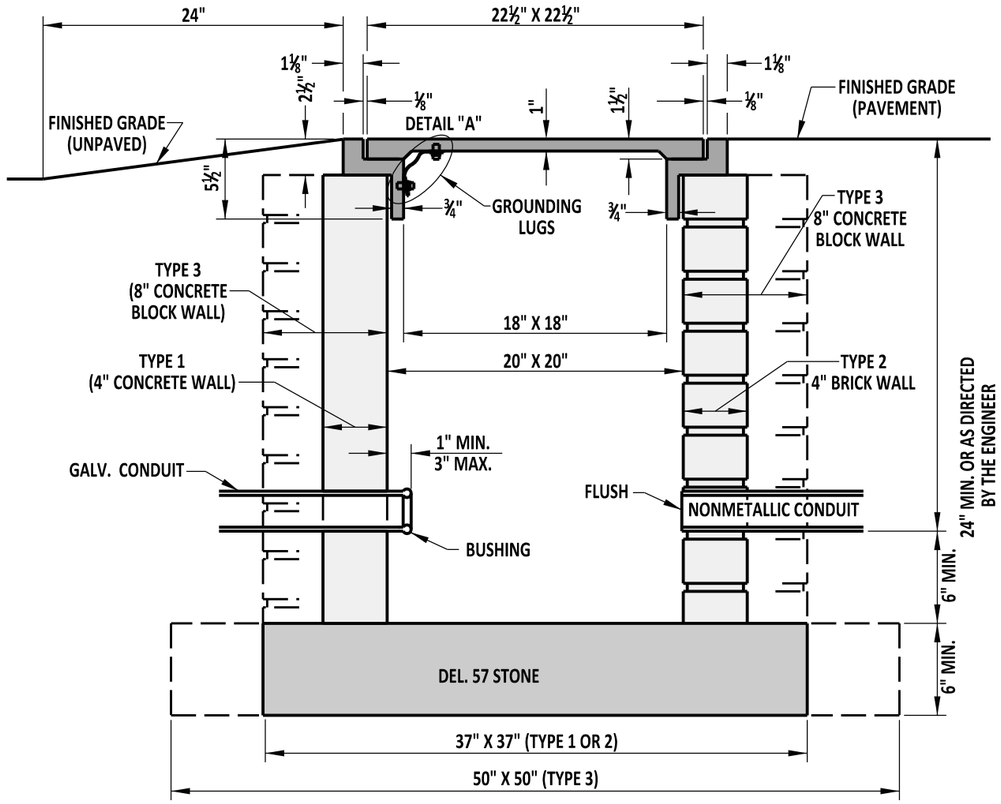
NOTES:

1. WHEN SIDEWALK IS CONFINED BY A RIGID STRUCTURE ON BOTH SIDES, EXPANSION JOINT MATERIAL SHALL BE USED FROM TOP OF BRICK TO BOTTOM OF CONCRETE BASE ON AT LEAST ONE SIDE OF THE SIDEWALK.
2. EDGE RESTRAINT MUST BE APPROVED BY THE ENGINEER IN THE FIELD AND SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.

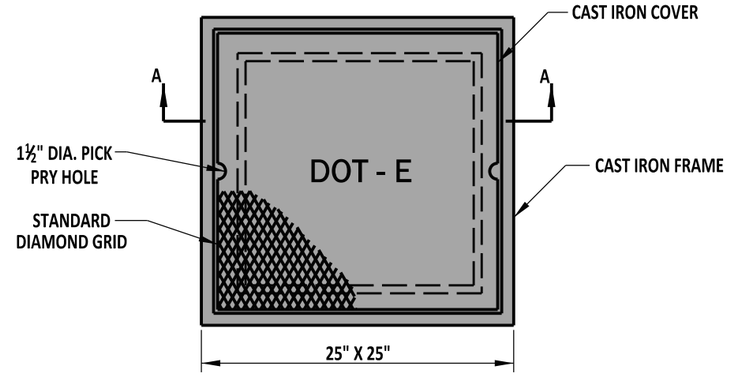
DELAWARE DEPARTMENT OF TRANSPORTATION	PATTERNED HOT-MIX OR CONCRETE & BRICK PAVER DETAILS		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 01/17/2012 (DATE)
	STANDARD NO. M-6 (2011)	SHT. 1 OF 1	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 01/17/2012 (DATE)

09/06/2011

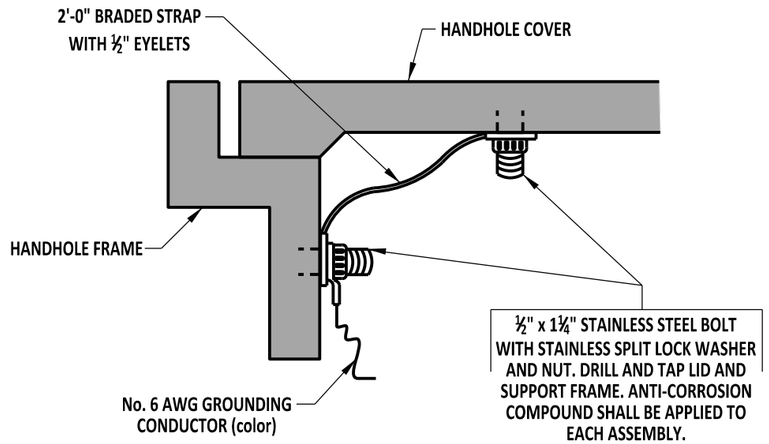
SCALE : NTS



SECTION A-A



PLAN VIEW



DETAIL "A"

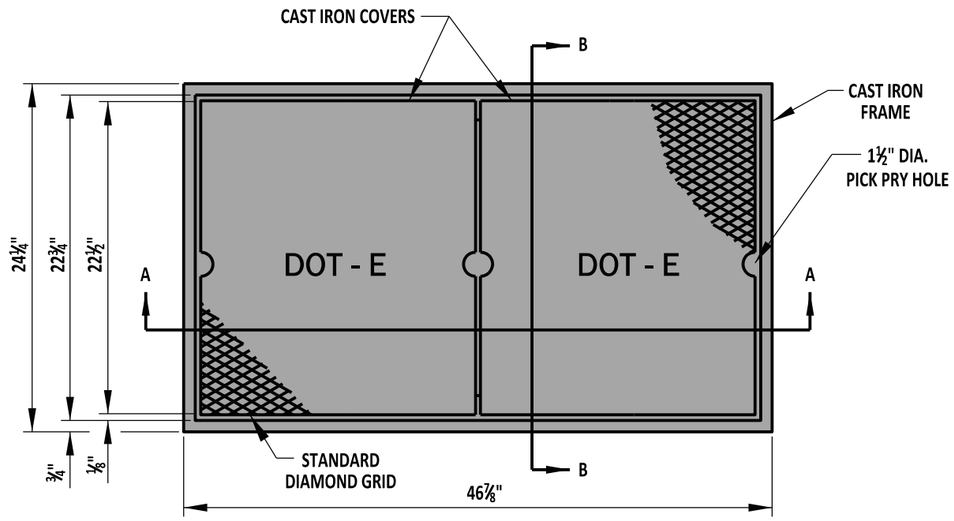
NOTES:

1). TYPE 1 CONDUIT JUNCTION WELL SHALL BE PRECAST CONCRETE. AT LEAST ONE HOLE IN PRECAST WELLS WILL BE OF A 5" DIAMETER COMPLETELY THROUGH THE WALL. UNUSED HOLES SHALL BE PLUGGED.
2). TYPES 2 AND 3 CONDUIT JUNCTION WELLS SHALL BE BRICK AND WILL CONFORM TO STANDARD SPECIFICATIONS FOR BRICK MASONRY. JOINTS SHALL BE CONCAVE TYPE. TYPE 2 WALLS WILL BE A NOMINAL 4" THICK. TYPE 3 WALL WILL BE A NOMINAL 8" THICK.
3). JUNCTION WELLS SHALL NOT BE PLACED UNDER ANY TYPE OF PAVEMENT.
4). ALL CONDUIT JUNCTION WELLS SHALL BE CONSTRUCTED FLUSH WITH THE SURFACE OF THE SAME. INSTALLATION IN UNPAVED AREAS WILL BE CONSTRUCTED ABOVE GRADE AND GRADED TO DRAIN AWAY FROM CONDUIT JUNCTION WELL.
5). ALL CRACKS, GAPS, OR OPENINGS IN JUNCTION WELL WALL SHALL BE SEALED WITH CONCRETE.

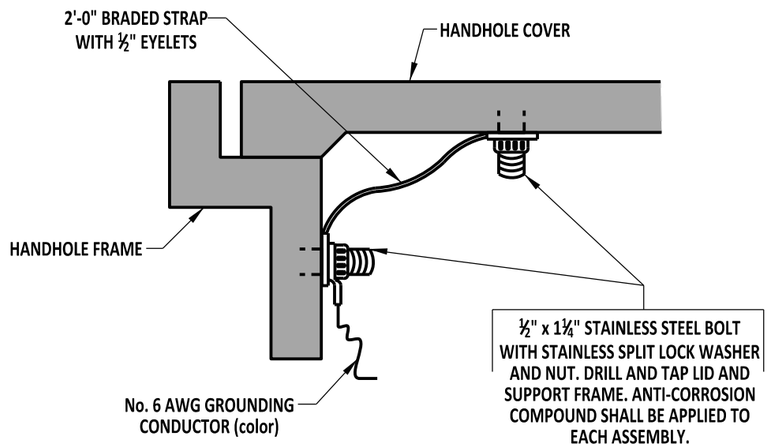
DELAWARE DEPARTMENT OF TRANSPORTATION	CONDUIT JUNCTION WELL, TYPES 1, 2, AND 3		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. T-1 (2011)	SHT. 1 OF 3	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

10/27/2011

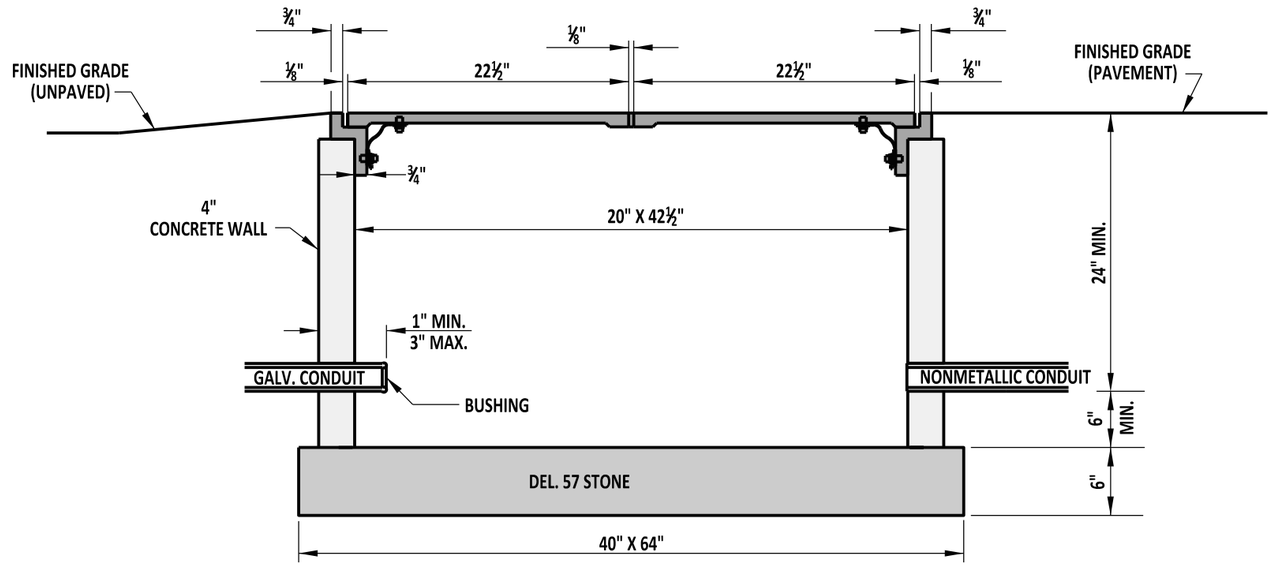
SCALE : NTS



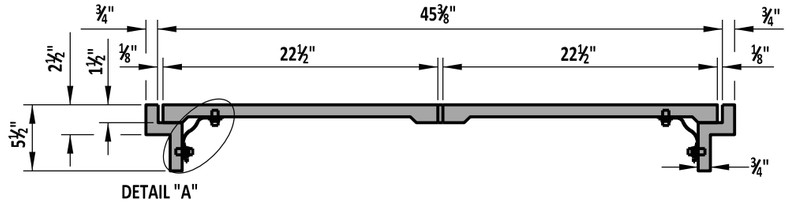
PLAN VIEW



DETAIL "A"



SECTION B-B



SECTION A-A

NOTES:

1). TYPE 4 CONDUIT JUNCTION WELL SHALL BE PRECAST CONCRETE. AT LEAST ONE HOLE IN PRECAST WELLS WILL BE OF A 5" DIAMETER COMPLETELY THROUGH THE WALL. UNUSED HOLES SHALL BE PLUGGED.
2). ALL CONDUIT JUNCTION WELLS CONSTRUCTED SHALL BEWITHIN CONSTRUCTED FLUSH WITH THE SURFACE OF THE SAME. INSTALLATION IN UNPAVED AREAS WILL BE CONSTRUCTED ABOVE GRADE AND GRADED TO DRAIN AWAY FROM CONDUIT JUNCTION WELL.
3). ALL CRACKS, GAPS, OR OPENINGS IN JUNCTION WELL WALL SHALL BE SEALED WITH CONCRETE.

DELAWARE
DEPARTMENT OF TRANSPORTATION

CONDUIT JUNCTION WELL, TYPE 4

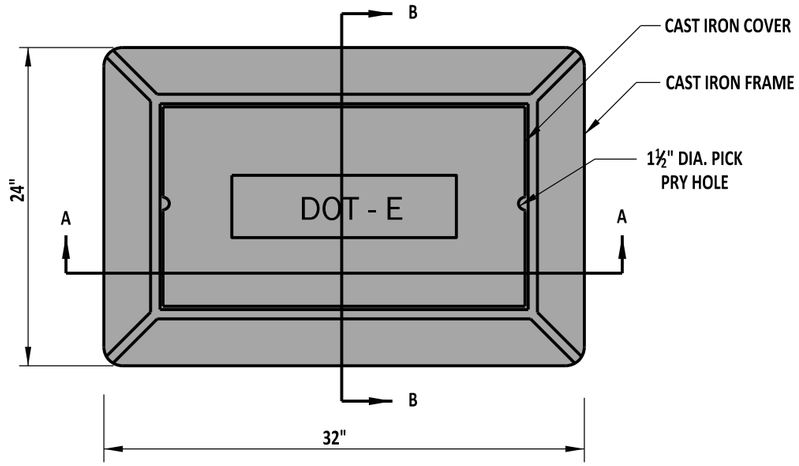
STANDARD NO. T-1 (2011) | SHT. 2 OF 3

APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)

RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

10/27/2011

SCALE : NTS



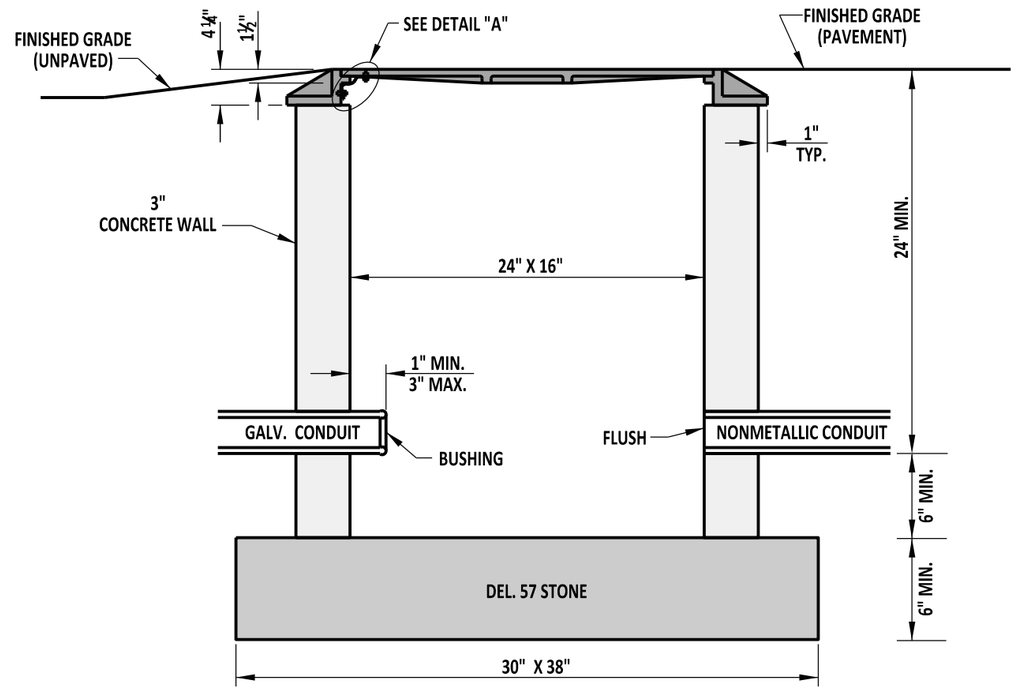
PLAN VIEW

NOTES:

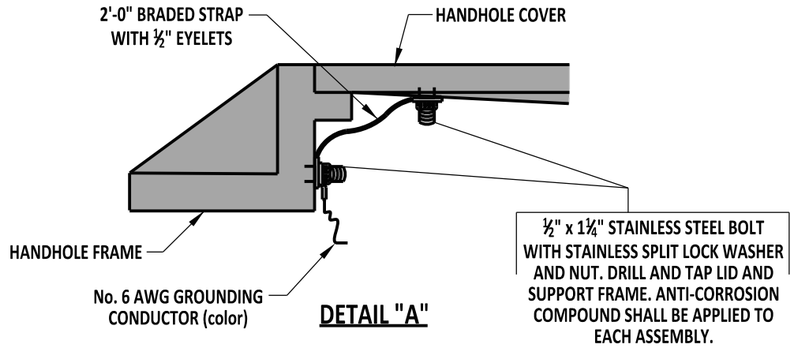
1). TYPE 5 CONDUIT JUNCTION WELL SHALL BE PRECAST CONCRETE. AT LEAST ONE HOLE IN PRECAST WELLS WILL BE OF A 5" DIAMETER COMPLETELY THROUGH THE WALL. UNUSED HOLES SHALL BE PLUGGED.

2). ALL CONDUIT JUNCTION WELLS CONSTRUCTED SHALL BEWITHIN CONSTRUCTED FLUSH WITH THE SURFACE OF THE SAME. INSTALLATION IN UNPAVED AREAS WILL BE CONSTRUCTED ABOVE GRADE AND GRADED TO DRAIN AWAY FROM CONDUIT JUNCTION WELL.

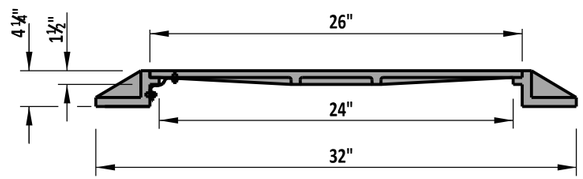
3). ALL CRACKS, GAPS, OR OPENINGS IN JUNCTION WELL WALL SHALL BE SEALED WITH CONCRETE.



SECTION B-B



DETAIL "A"

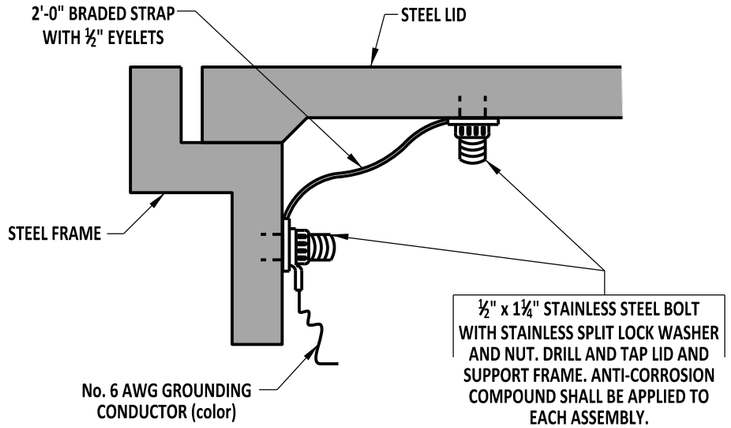


SECTION A-A

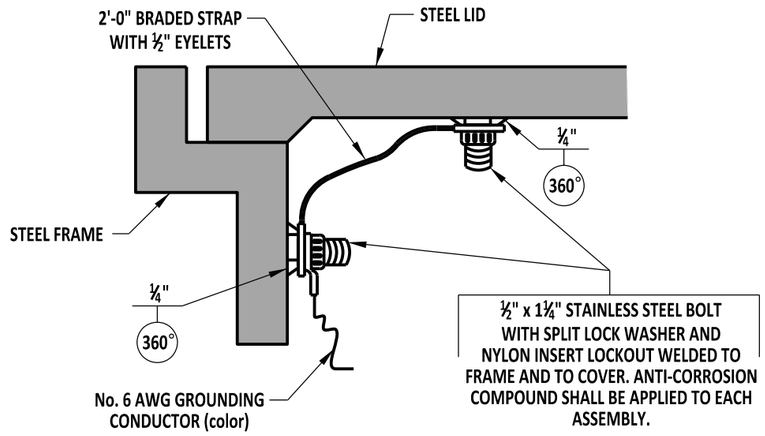
DELAWARE DEPARTMENT OF TRANSPORTATION	CONDUIT JUNCTION WELL, TYPE 5			APPROVED	SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. T-1 (2011)	SHT. 3	OF 3	RECOMMENDED	SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

10/27/2011

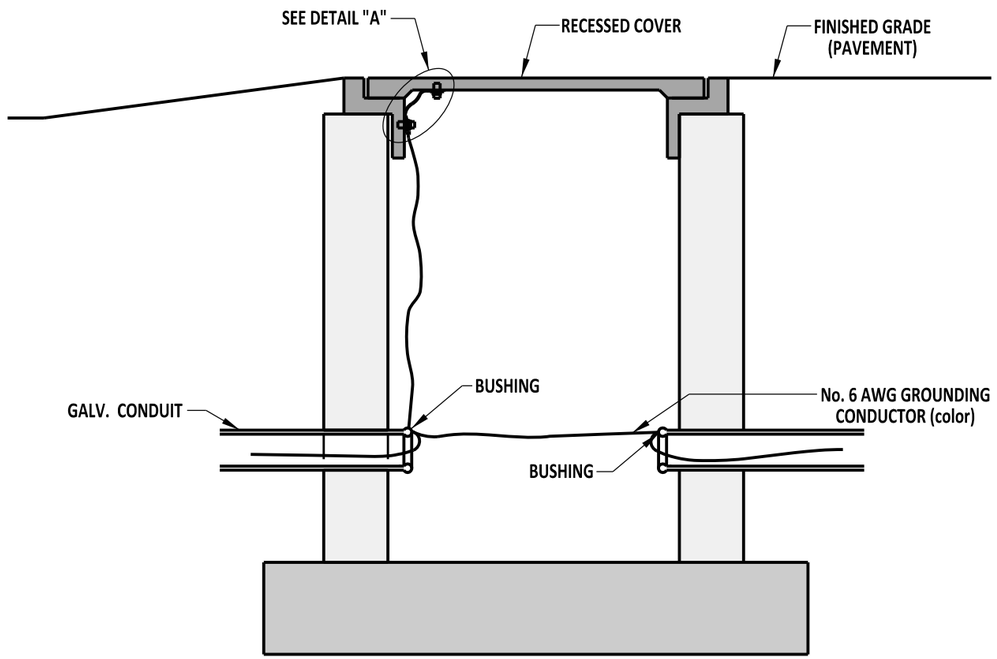
SCALE : NTS



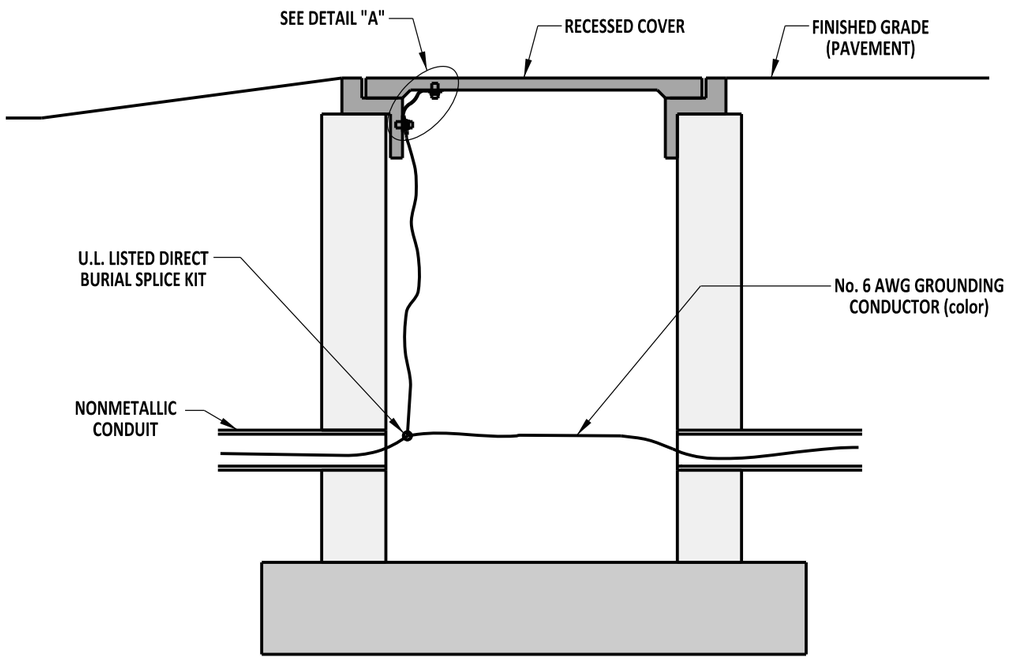
DETAIL "A"



BONDING AN EXISTING JUNCTION WELL COVER & FRAME



JUNCTION WELL BONDING GALVANIZED TO GALVANIZED

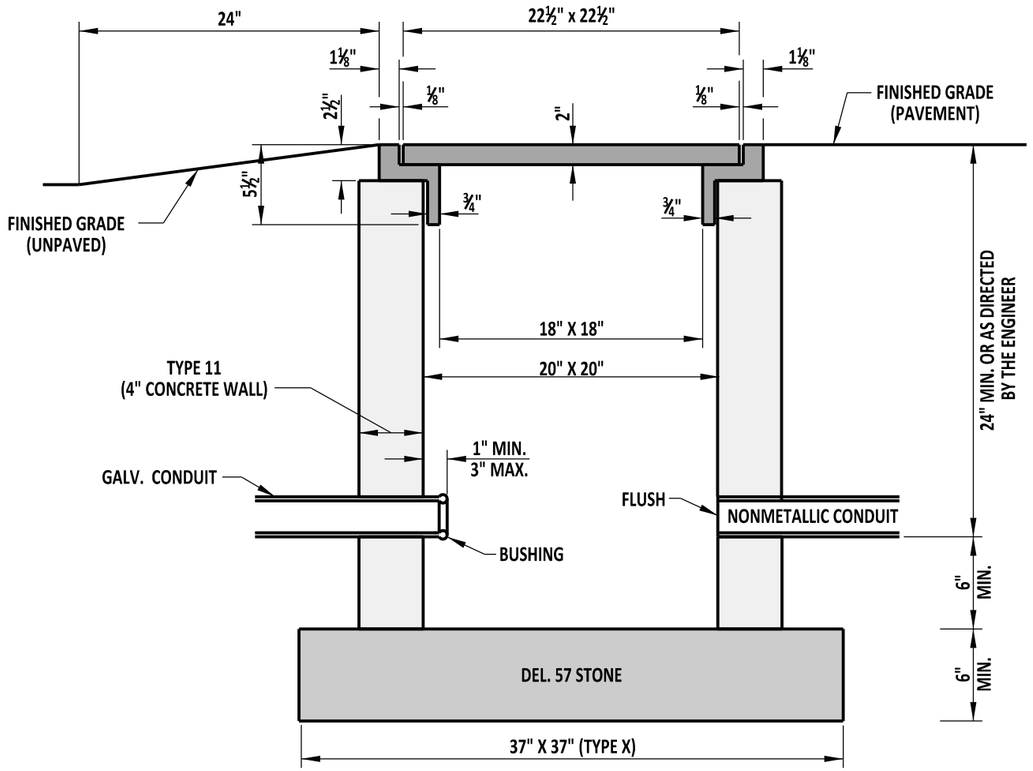


JUNCTION WELL BONDING NONMETALLIC CONDUIT

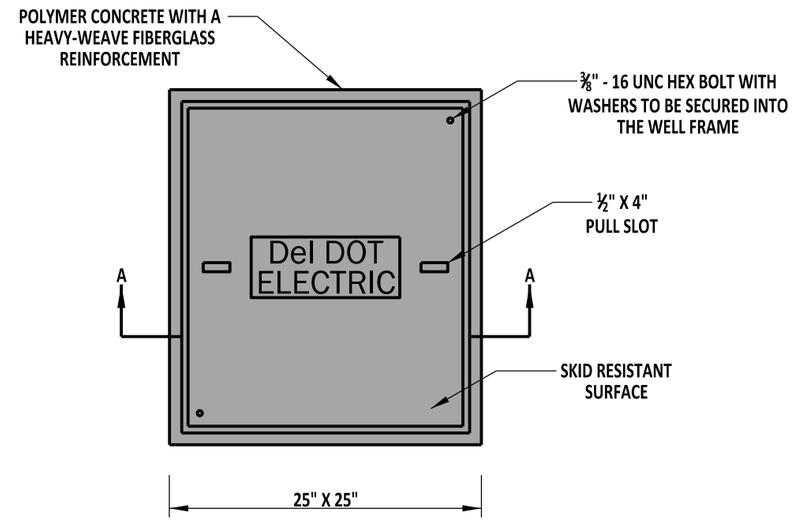
DELAWARE DEPARTMENT OF TRANSPORTATION	JUNCTION WELL, GROUNDING & BONDING FOR STEEL FRAMES & LIDS		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. T-2 (2011)	SHT. 1 OF 1	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

11/14/2011

SCALE : NTS



SECTION A-A



PLAN VIEW

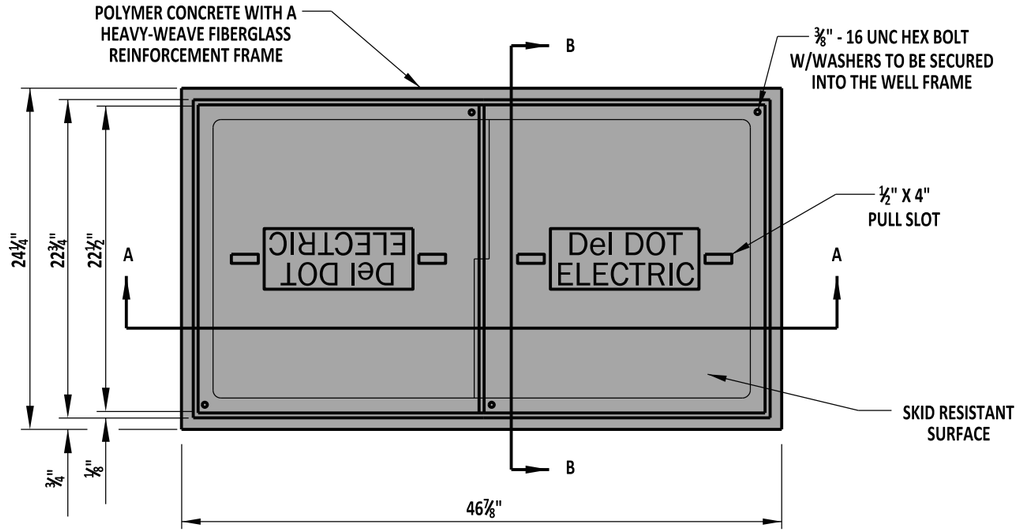
NOTES:

1). TYPE 11 CONDUIT JUNCTION WELL LID SHALL BE PRECAST POLYMER CONCRETE WITH A HEAVY-WEAVE FIBERGLASS FRAME. INSTALLED ON A PRECAST CONCRETE WELL.
2). TYPE 11 CONDUIT JUNCTION WELL BODY SHALL BE PRECAST CONCRETE. AT LEAST ONE HOLE IN PRECAST WELLS WILL BE OF A 5" DIAMETER COMPLETELY THROUGH THE WALL. UNUSED HOLES SHALL BE PLUGGED.
3). TYPE 11 CONDUIT JUNCTION WELLS SHALL BE CONSTRUCTED FLUSH WITH THE SURFACE OF THE SAME. INSTALLATION IN UNPAVED AREAS WILL BE CONSTRUCTED ABOVE GRADE AND GRADED TO DRAIN AWAY FROM THE CONDUIT JUNCTION WELL.
4). ALL CRACKS, GAPS, OR OPENING IN JUNCTION WELL WALL SHALL BE SEALED WITH CONCRETE.

DELAWARE DEPARTMENT OF TRANSPORTATION	CONDUIT JUNCTION WELL, TYPES 11		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. T-3 (2011)	SHT. 1 OF 3	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

10/31/2011

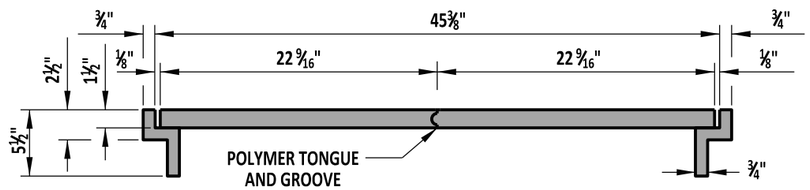
SCALE : NTS



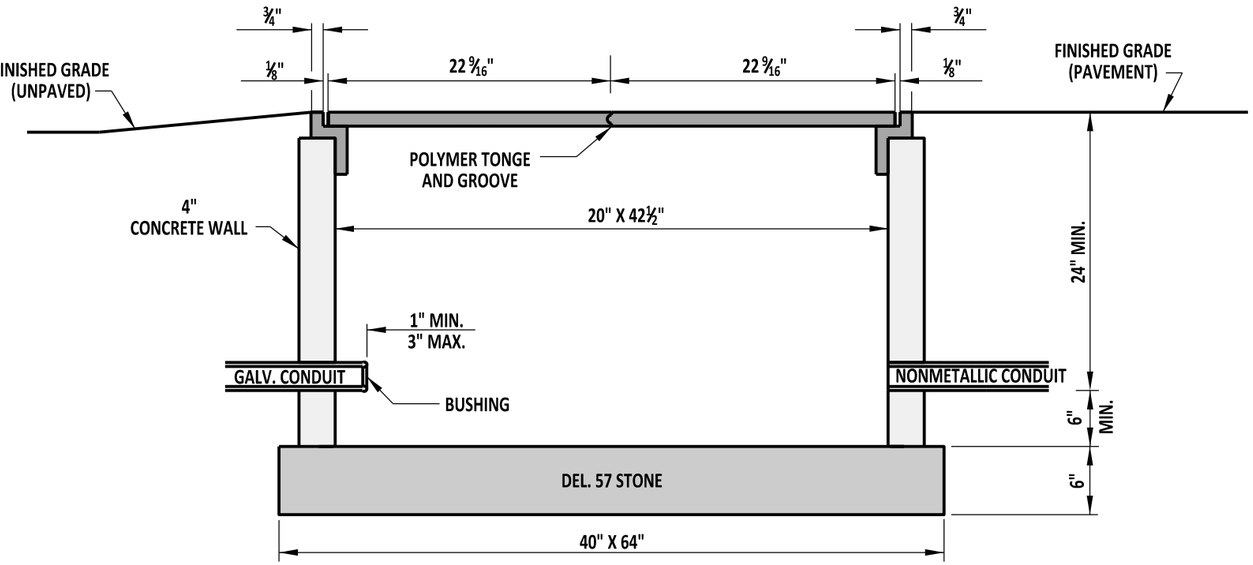
PLAN VIEW

NOTES:

1). TYPE 14 CONDUIT JUNCTION WELL LID SHALL BE PRECAST POLYMER CONCRETE WITH A HEAVY-WEAVE FIBERGLASS FRAME. INSTALLED ON A PRECAST CONCRETE WELL.
2). TYPE 14 CONDUIT JUNCTION WELL BODY SHALL BE PRECAST CONCRETE. AT LEAST ONE HOLE IN PRECAST WELLS WILL BE OF A 5" DIAMETER COMPLETELY THROUGH THE WALL. UNUSED HOLES SHALL BE PLUGGED.
3). TYPE 14 CONDUIT JUNCTION WELLS SHALL BE CONSTRUCTED FLUSH WITH THE SURFACE OF THE SAME. INSTALLATION IN UNPAVED AREAS WILL BE CONSTRUCTED ABOVE GRADE AND GRADED TO DRAIN AWAY FROM THE CONDUIT JUNCTION WELL.
4). ALL CRACKS, GAPS, OR OPENINGS IN JUNCTION WELL WALL SHALL BE SEALED WITH CONCRETE.



SECTION A-A

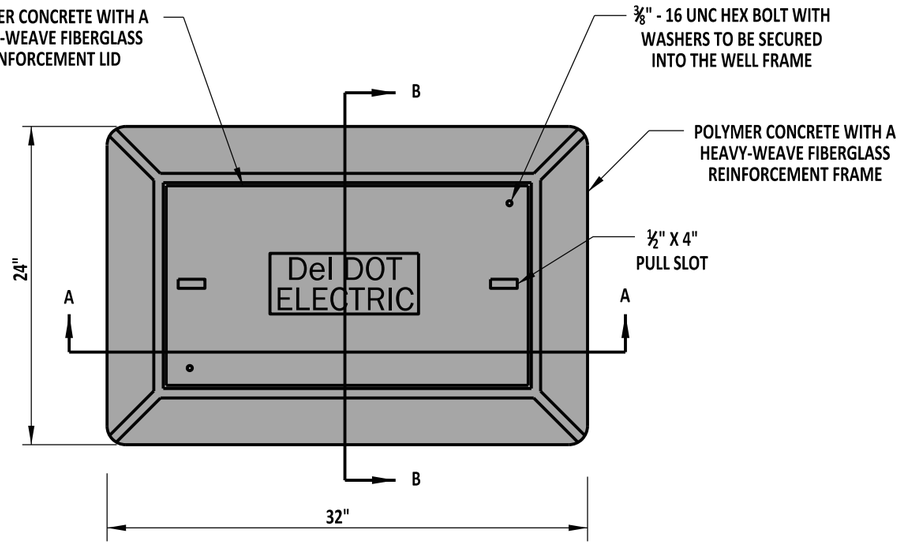


SECTION B-B

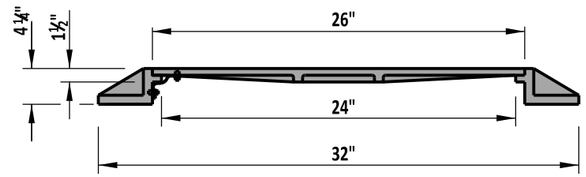
DELAWARE DEPARTMENT OF TRANSPORTATION	CONDUIT JUNCTION WELL, TYPE 14		APPROVED	SIGNATURE ON FILE (CHIEF ENGINEER)	12/22/2011 (DATE)
	STANDARD NO. T-3 (2011)	SHT. 2 OF 3	RECOMMENDED	SIGNATURE ON FILE (DESIGN ENGINEER)	12/21/2011 (DATE)

10/31/2011

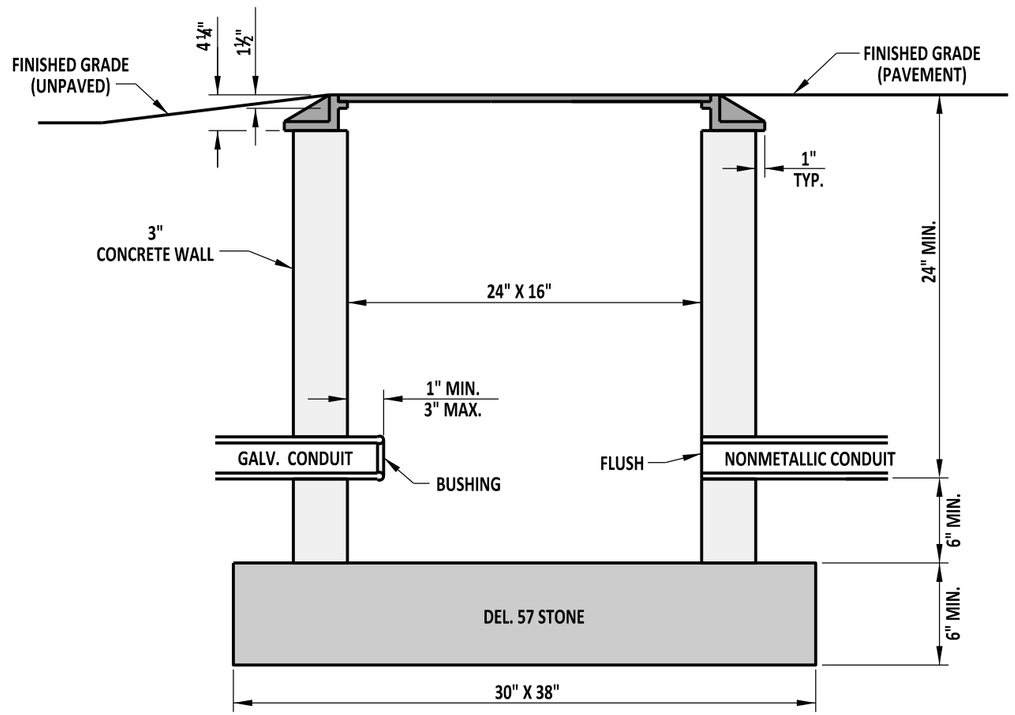
SCALE : NTS



PLAN VIEW



SECTION A-A



SECTION A-A

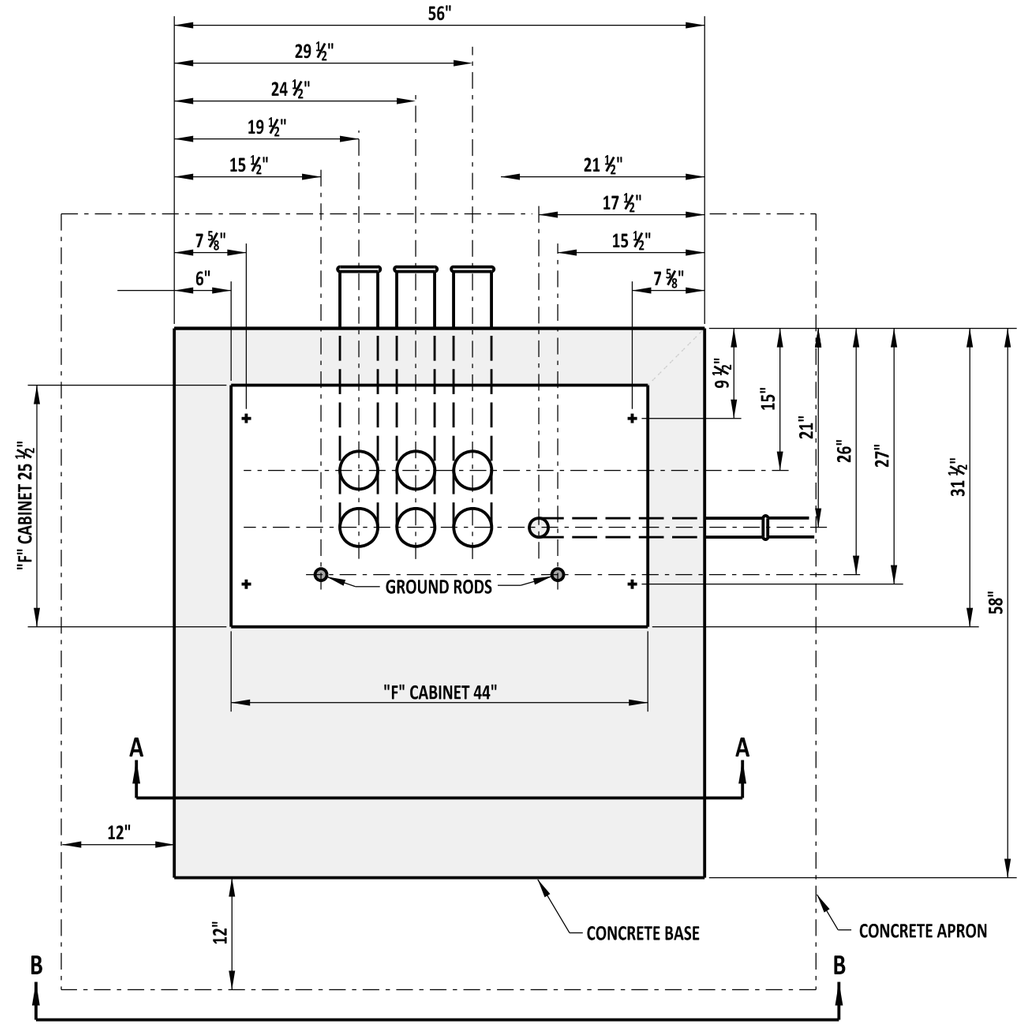
NOTES:

1). TYPE 15 CONDUIT JUNCTION WELL LID SHALL BE PRECAST POLYMER CONCRETE WITH A HEAVY-WEAVE FIBERGLASS FRAME. INSTALLED ON A PRECAST CONCRETE WELL.
2). TYPE 15 CONDUIT JUNCTION WELL BODY SHALL BE PRECAST CONCRETE. AT LEAST ONE HOLE IN PRECAST WELLS WILL BE OF A 5" DIAMETER COMPLETELY THROUGH THE WALL. UNUSED HOLES SHALL BE PLUGGED.
3). TYPE 15 CONDUIT JUNCTION WELLS SHALL BE CONSTRUCTED FLUSH WITH THE SURFACE OF THE SAME. INSTALLATION IN UNPAVED AREAS WILL BE CONSTRUCTED ABOVE GRADE AND GRADED TO DRAIN AWAY FROM THE CONDUIT JUNCTION WELL.
4). ALL CRACKS, GAPS, OR OPENINGS IN JUNCTION WELL WALL SHALL BE SEALED WITH CONCRETE.

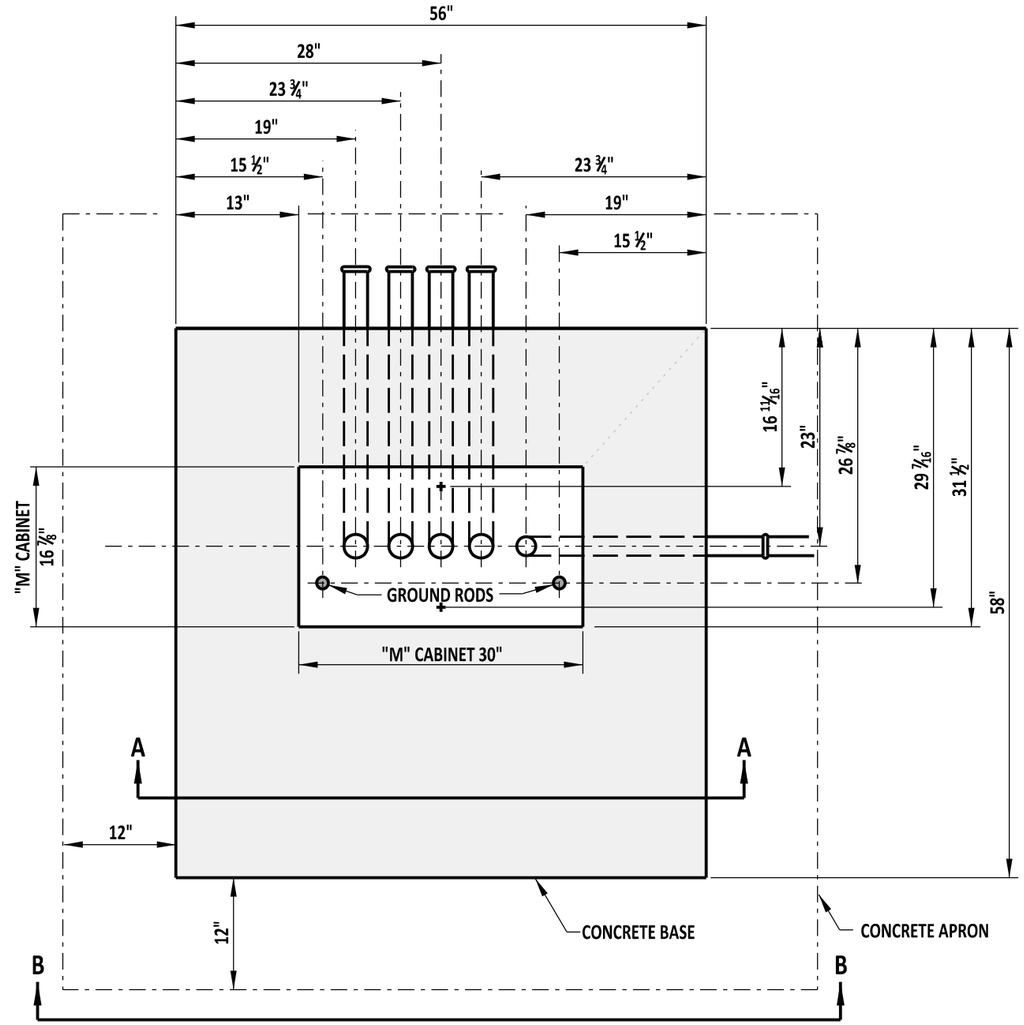
DELAWARE DEPARTMENT OF TRANSPORTATION	CONDUIT JUNCTION WELL, TYPE 15		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. T-3 (2011)	SHT. 3 OF 3	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

10/31/2011

SCALE : NTS



"F" CABINET
PLAN VIEW



"M" CABINET
PLAN VIEW

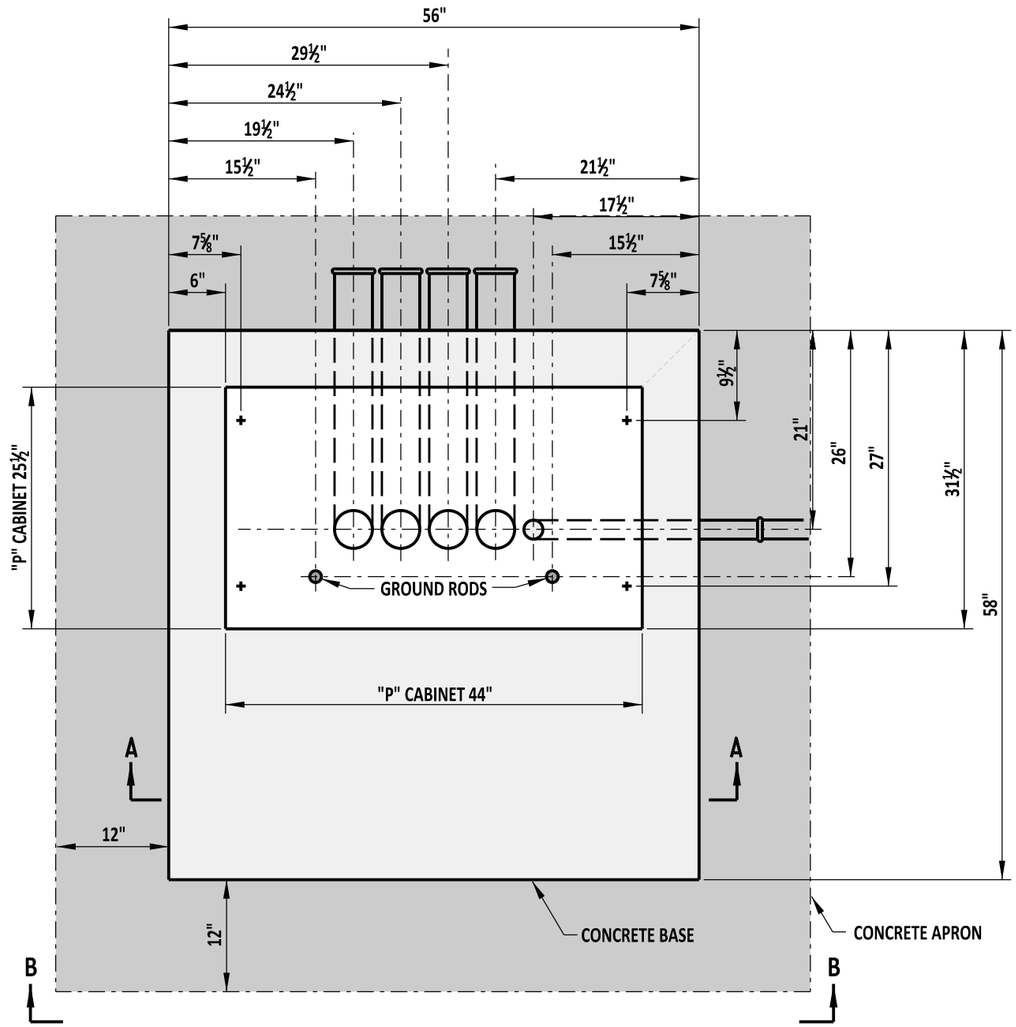
NOTE:

CONCRETE APRON IS REQUIRED ONLY WHEN CABINET BASE IS INSTALLED IN EARTH AREAS OR AS DIRECTED ON PLAN.

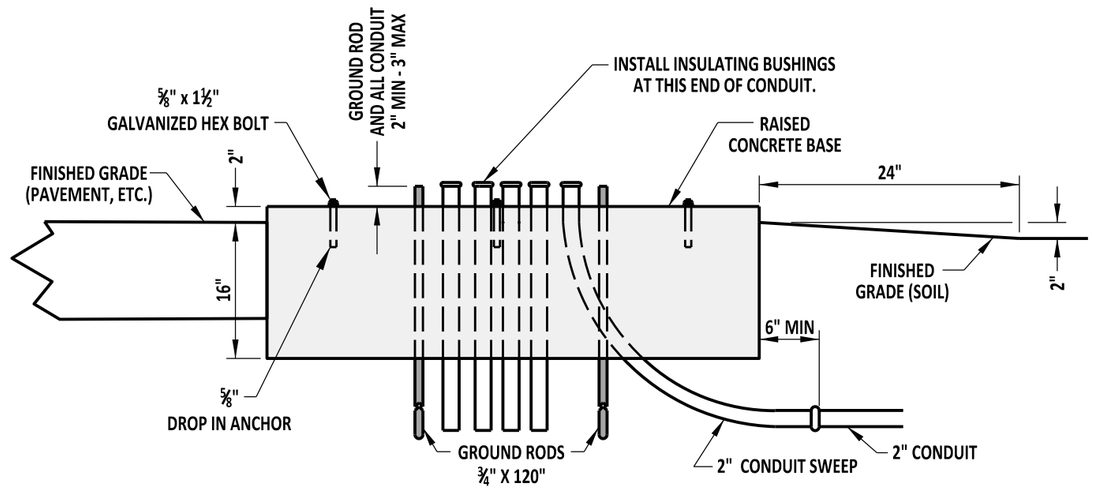
DELAWARE DEPARTMENT OF TRANSPORTATION	CABINET BASES, TYPES M & F		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. T-4 (2011)	SHT. 1 OF 2	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

11/15/2011

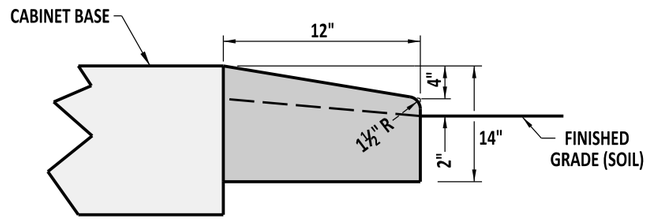
SCALE : NTS



"P" & "R" CABINETS
PLAN VIEW



SECTION A-A



SECTION B-B

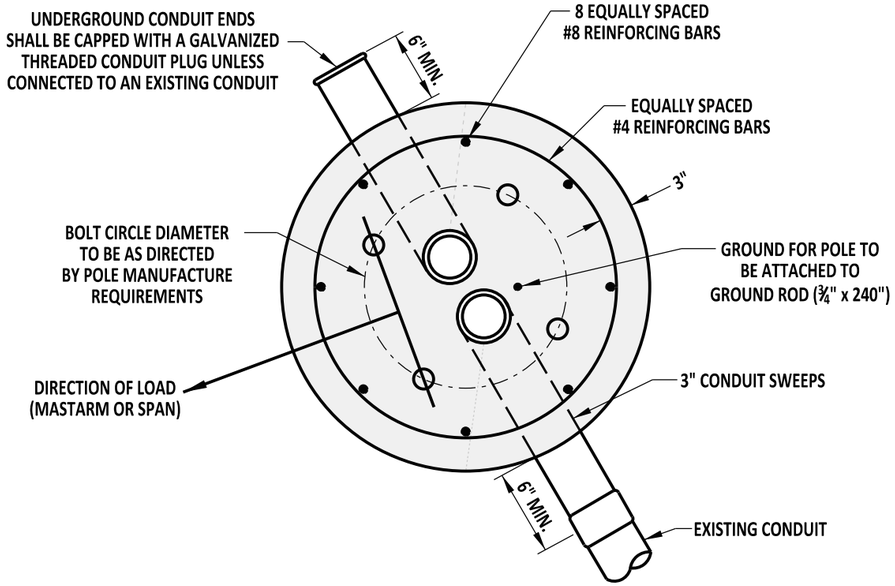
NOTE:

CONCRETE APRON IS REQUIRED ONLY WHEN CABINET BASES IS INSTALLED IN EARTH AREAS OR AS DIRECTED ON PLAN.

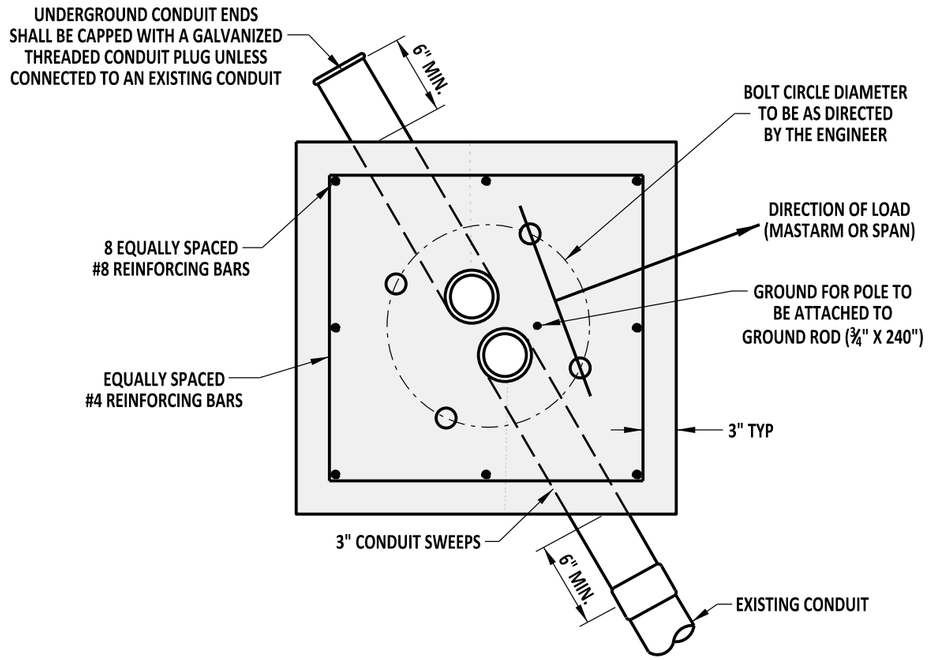
DELAWARE DEPARTMENT OF TRANSPORTATION	CABINET BASES, TYPES P & R		APPROVED	SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. T-4 (2011)	SHT. 2 OF 2	RECOMMENDED	SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

11/15/2011

SCALE : NTS



ROUND BASE

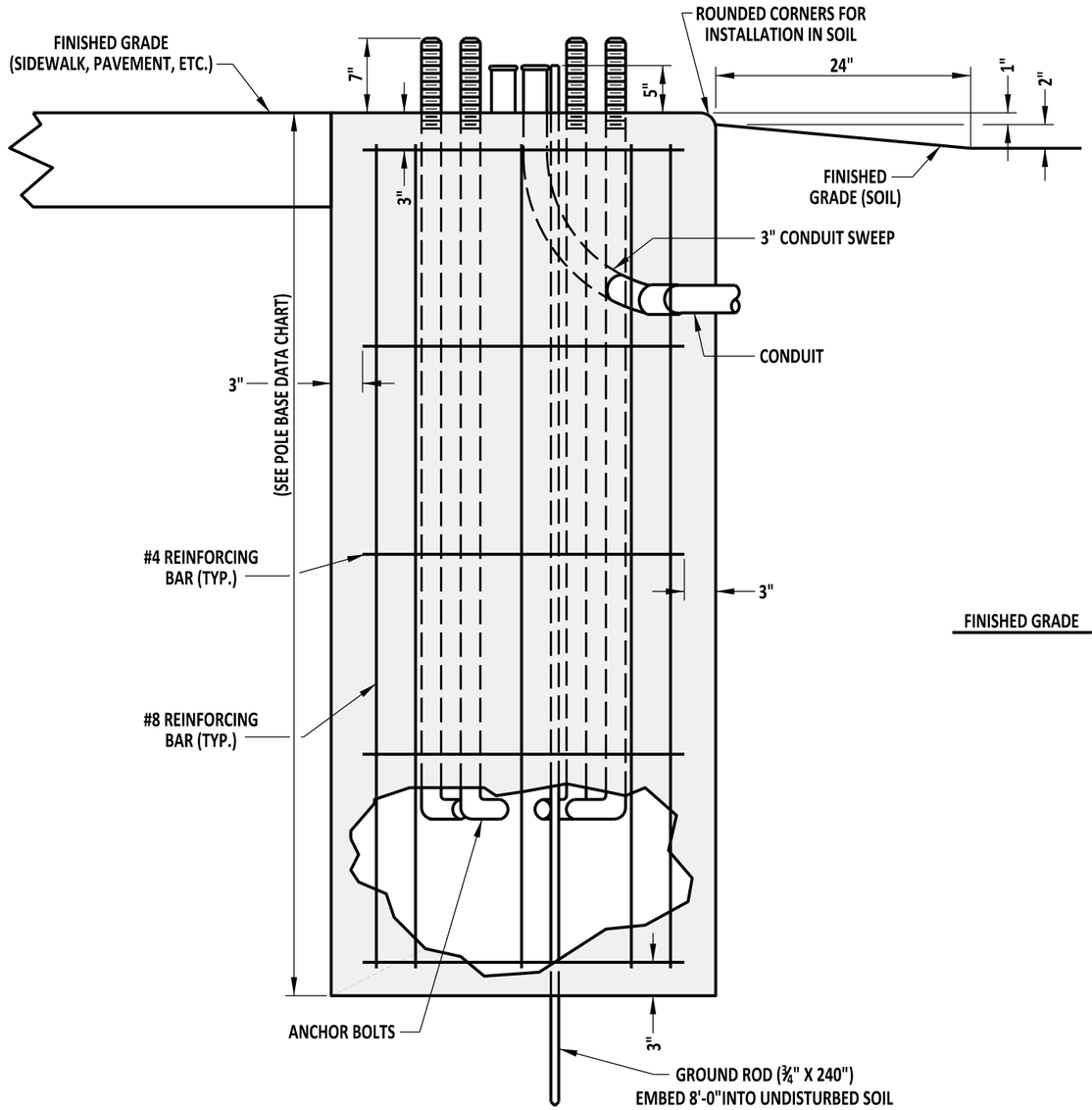


SQUARE BASE

DELAWARE DEPARTMENT OF TRANSPORTATION	POLE BASES		APPROVED	SIGNATURE ON FILE (CHIEF ENGINEER)	12/22/2011 (DATE)
	STANDARD NO. T-5 (2011)	SHT. 1 OF 4	RECOMMENDED	SIGNATURE ON FILE (DESIGN ENGINEER)	12/21/2011 (DATE)

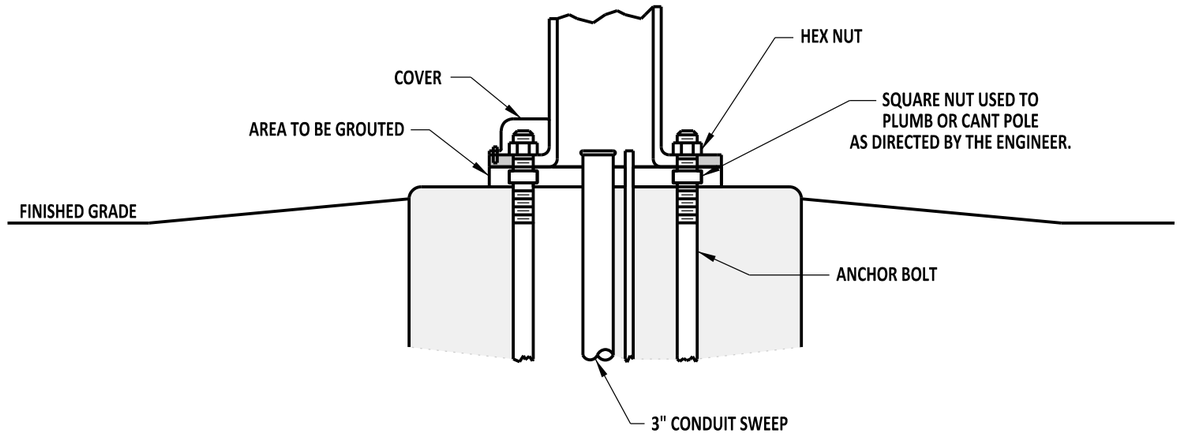
11/15/2011

SCALE : NTS



TYPICAL SECTION (BASES 1,2,2A,2B,3,3A,3B, AND 7)

NOTES:
1.) ANCHOR BOLTS AND BOLT PATTERN TO BE PROVIDED BY DELDOT'S SIGNAL CONSTRUCTION INSPECTOR UNLESS OTHERWISE DENOTED.
2). ANCHOR BOLTS AND BOLT PATTERN FOR TYPE 7 POLE BASES TO BE PROVIDED BY THE MANUFACTURE.



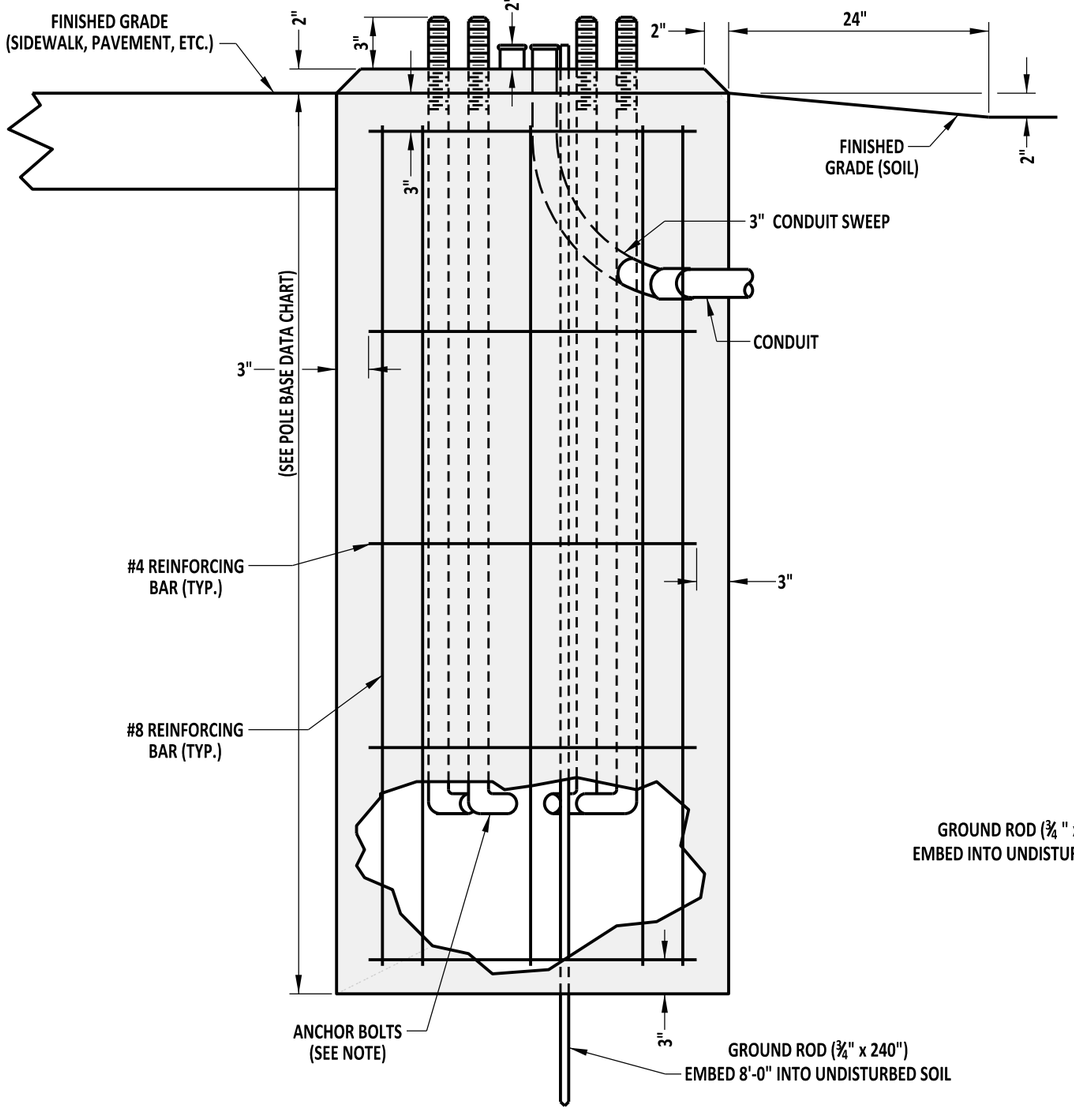
TYPICAL INSTALLATION (BASES 1,2,2A,2B,3,3A,3B, AND 7)

NOTES:
1). PLACE 2 EACH 6" LONG x ½" DIA. P.V.C., SCHEDULE 40 (TYP) VENTS IN THE GROUT AS DIRECTED IN THE FIELD BY ENGINEER.
2). SEE POLE BASE DATA CHART FOR POLE BASE DIMENSIONS.

DELAWARE DEPARTMENT OF TRANSPORTATION	POLE BASES		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. T-5 (2011)	SHT. 2 OF 4	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

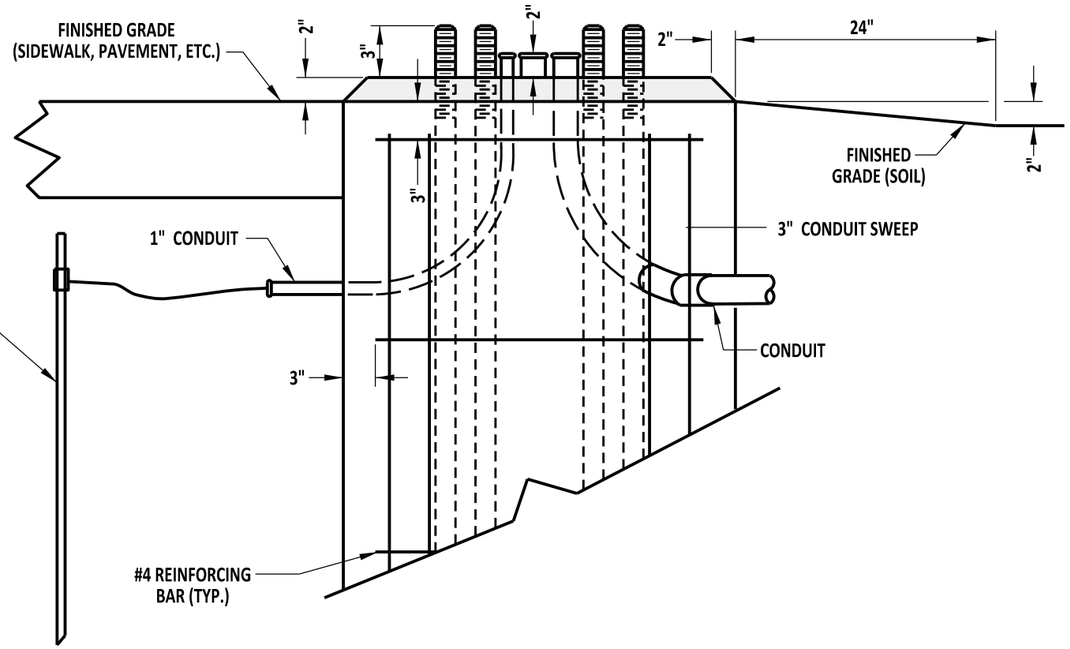
11/15/2011

SCALE : NTS



TYPICAL SECTION (BASES 5 AND 6)

POLE BASE DATA CHART					
POLE BASE TYPE #	DIAMETER	DEPTH	#4 HORIZONTAL REINFORCING BARS	#8 VERTICAL REINFORCING BARS	CONDUITS
1	36"	7'-0"	5	8	2 - 3"
2	36"	10'-0"	6	8	2 - 3"
2A	48"	8'-0"	5	8	2 - 3"
2B	60"	7'-0"	5	8	2 - 3"
3	48"	10'-0"	6	8	2 - 3"
3A	60"	9'-0"	6	8	2 - 3"
3B	72"	7'-0"	5	8	2 - 3"
4	24"	2'-4"	NONE	NONE	2 - 2.5"
5	36"	4'-0"	NONE	NONE	2 - 3"
6	24"	6'-0"	4	8	2 - 3"
*7	48"	13'-4"	7	8	1 - 1", 2 - 3"



TYPE 7 GROUND ROD TYPICAL

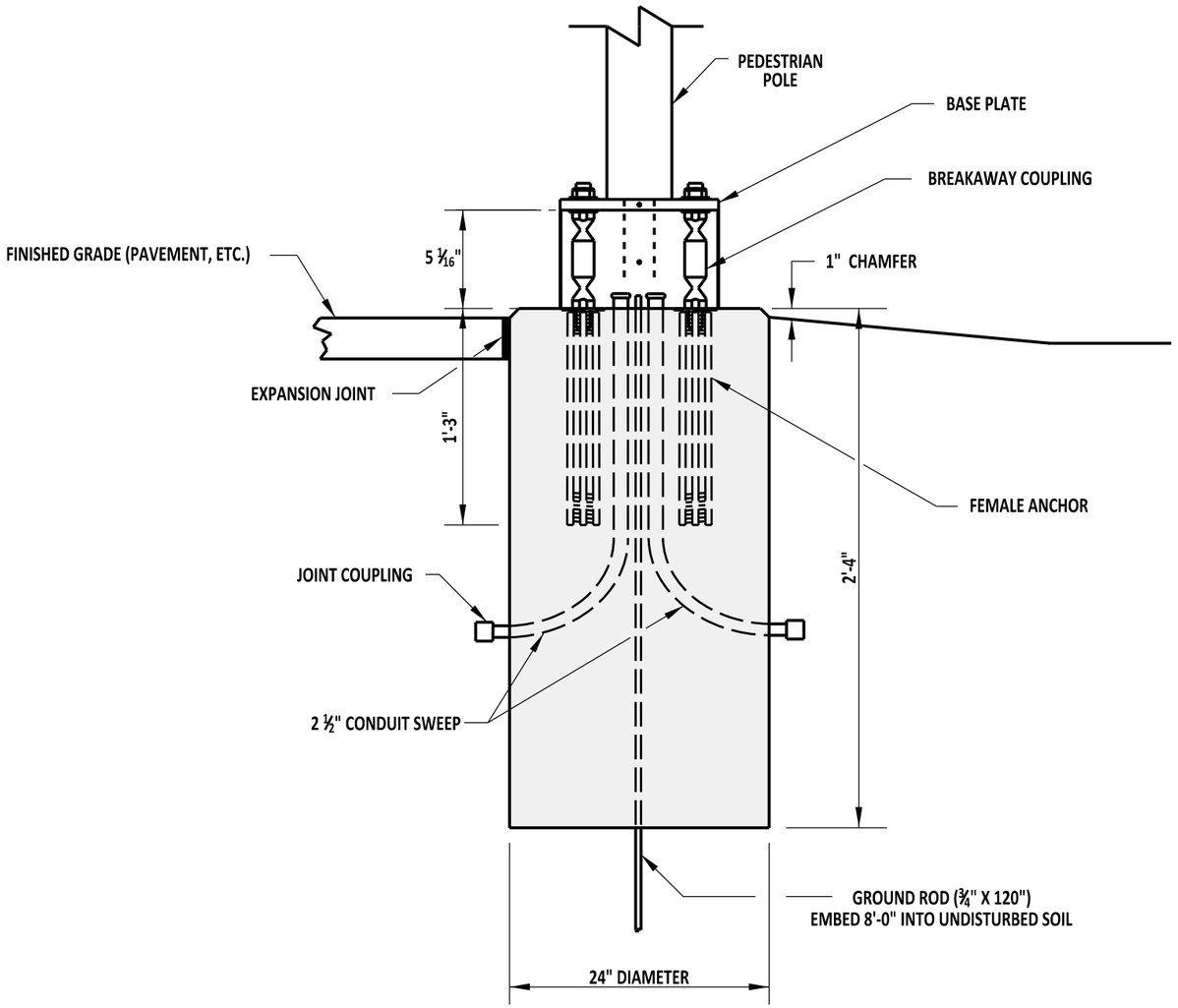
NOTE:
ANCHOR BOLTS AND BOLT PATTERN FOR TYPE 5 & 6 POLE BASES TO BE PROVIDED BY THE MANUFACTURE.

NOTE:
ANCHOR BOLTS AND BOLT PATTERN FOR TYPE 7 POLE BASES TO BE PROVIDED BY THE MANUFACTURE.

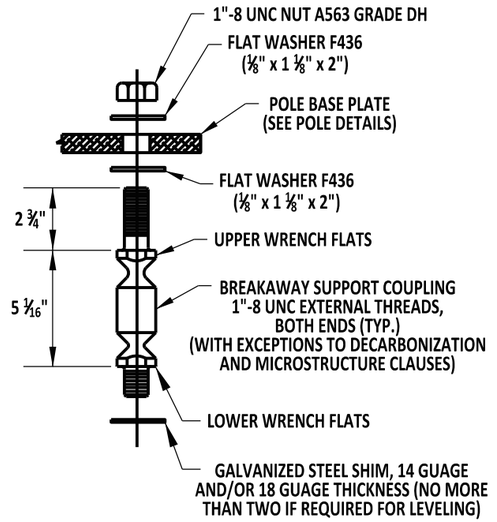
DELAWARE DEPARTMENT OF TRANSPORTATION	POLE BASES		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 01/17/2012 (DATE)
	STANDARD NO. T-5 (2011)	SHT. 3 OF 4	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 01/17/2012 (DATE)

09/06/2011

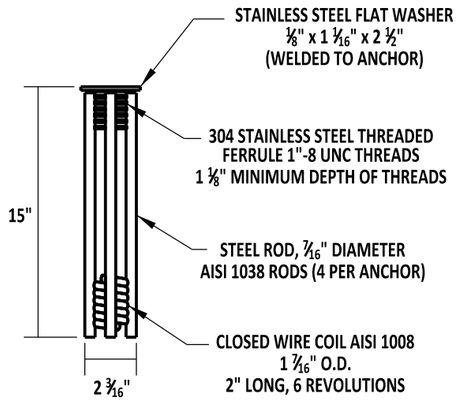
SCALE : NTS



TYPICAL SECTION (BASE 4)



BREAKAWAY COUPLING DETAIL



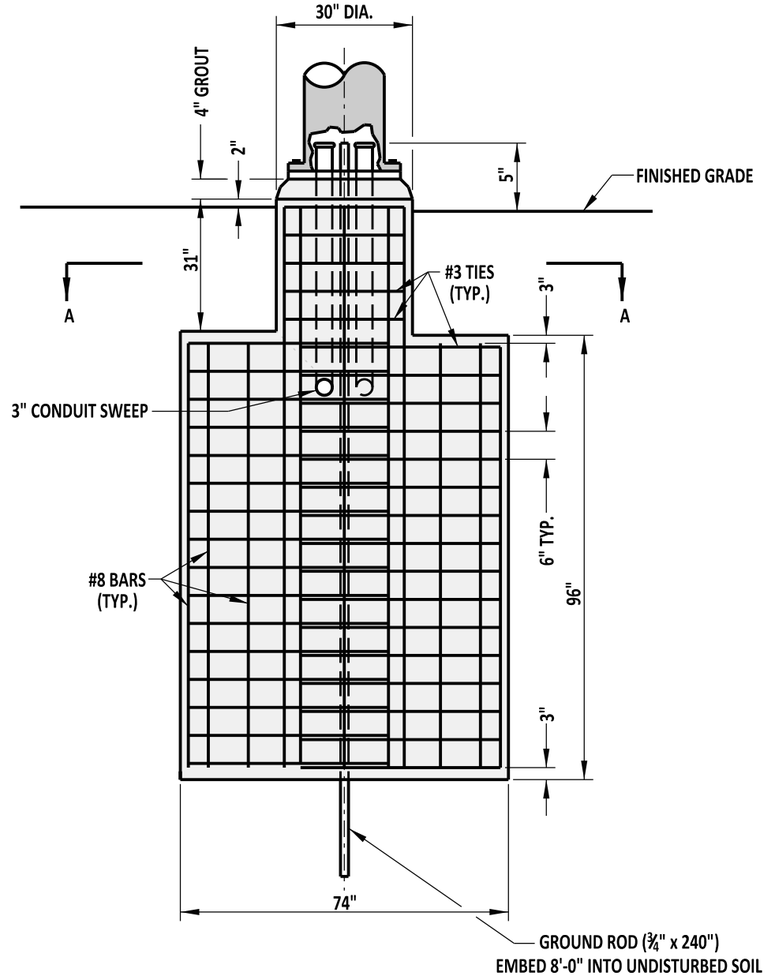
ANCHOR DETAIL

NOTES:
ANCHOR BOLTS AND BOLT PATTERN TO BE PROVIDED BY DELDOT'S SIGNAL CONSTRUCTION INSPECTOR.

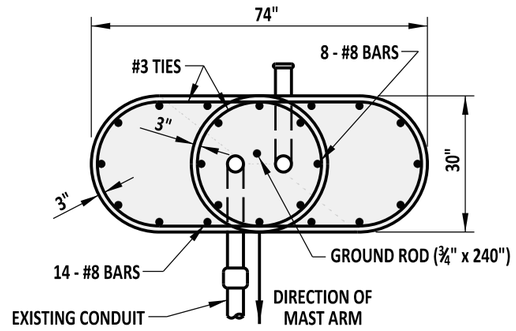
DELAWARE DEPARTMENT OF TRANSPORTATION	POLE BASES		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. T-5 (2011)	SHT. 4 OF 4	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

11/15/2011

SCALE : NTS



FOUNDATION DETAILS



SECTION A-A

NOTES:

1). UNDERGROUND CONDUIT ENDS SHALL BE CAPPED WITH A GALVANIZED THREADED CONDUIT PLUG UNLESS CONNECTED TO AN EXISTING CONDUIT.

2). PLACE 2 EACH 6" x ½" P.V.C., SCHEDULE 40 (TYP) VENTS IN THE GROUT AS DIRECTED IN THE FIELD BY THE ENGINEER.

DELAWARE DEPARTMENT OF TRANSPORTATION	SPECIAL POLE BASE		APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/22/2011 (DATE)
	STANDARD NO. T-6 (2011)	SHT. 1 OF 1	RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/21/2011 (DATE)

11/15/2011