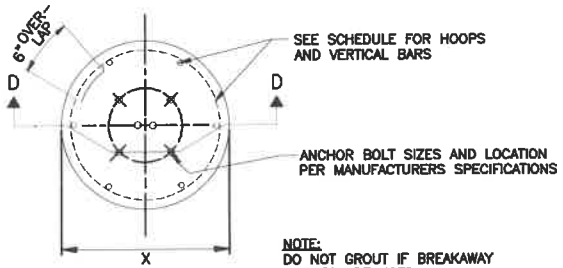
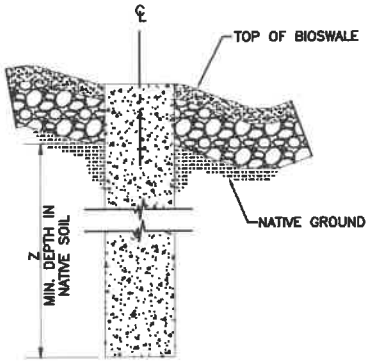
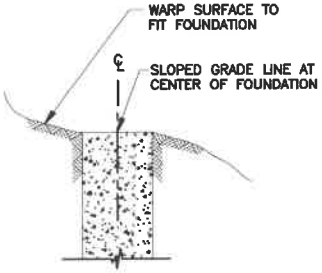


NOTE:
DO NOT GROUT IF BREAKAWAY DEVICES ARE USED.

SECTION K-K



BIOSWALE SECTION



ALTERNATE SLOPED GRADE SECTION

NOTES:

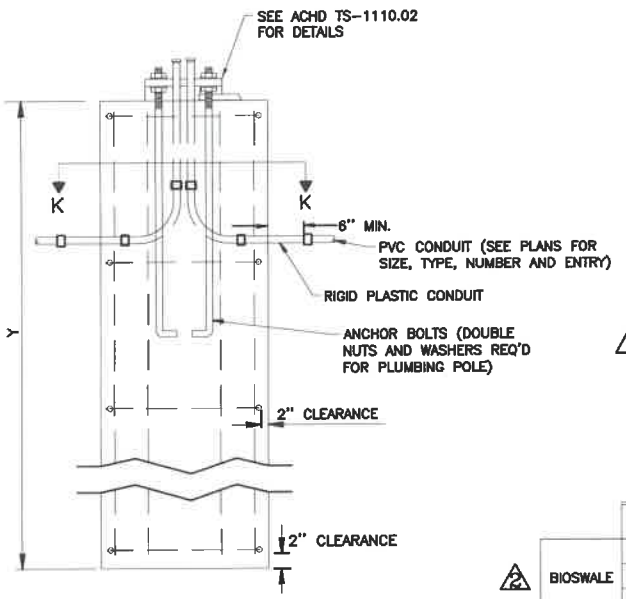
1. THE FOUNDATIONS SHALL BE LOCATED AS INDICATED ON THE PROJECT PLAN SHEETS. FOUNDATION LOCATIONS SHALL BE FIELD VERIFIED BY ACHD PRIOR TO FOUNDATION INSTALLATION.
2. ALL CONDUIT ELBOWS USED IN CONCRETE BASES SHALL BE RPC.
3. SPARE STUBOUTS SHALL BE TERMINATED WITH A COUPLING AND PLASTIC PUSH PLUG AT BOTH ENDS.
4. A TYPE X SIGNAL POLE CAN CARRY UP TO:
   1. DUAL 45' MAST ARMS
   2. A 50' MAST ARM AND UP TO A 40' MAST ARM
   3. A 55' MAST ARM AND UP TO A 30' MAST ARM

   A TYPE XI SIGNAL POLE CAN CARRY UP TO:

   1. A 60' MAST ARM AND UP TO A 55' MAST ARM
   2. A 65' MAST ARM AND UP TO A 40' MAST ARM
5. UNIT STRESSES:

   ⚠2 CONCRETE: f'c = 4000 PSI; fc = 1600 PSI
   METAL REINFORCEMENT: AASHTO M31, GRADE 60; fy = 60,000 PSI
6. NATIVE SOIL PARAMETERS:

   ALLOWABLE BEARING PRESSURE = 2000 PSF
   ALLOWABLE LATERAL BEARING PRESSURE = 300 PSF
   FRICTION ANGLE = 30°



TYPICAL POLE FOUNDATION SECTION D-D

⚠1

POLE TYPE	MT.HT.	MASTARM LENGTH	FOUNDATION TYPE	X	Y	HOOPS NO.	HOOPS SIZE	HOOPS LIN.FT.	VERTICAL RODS NO.	VERTICAL RODS SIZE	VERTICAL RODS LIN.FT.	CU. YDS. CONCRETE
PEDESTRIAN SIGNAL POLE	12'	–	A	2'–0"	5'–0"	4	#4	23'–0"	6	#4	28'–0"	0.6
LIGHT/DETECTOR POLE	30'	ALL	A	2'–0"	5'–0"	4	#4	23'–0"	6	#4	28'–0"	0.6
LIGHT POLE	35'	ALL	B	2'–6"	7'–0"	4	#4	29'–4"	6	#6	40'–0"	1.3
LIGHT POLE	40'–50'	ALL	C	3'–0"	8'–0"	5	#4	44'–2"	8	#6	61'–4"	2.1
SIGNAL POLE	–	20' – 45'	D	3'–0"	9'–0"	5	#4	44'–2"	8	#6	69'–4"	2.4
PED. PUSHBUTTON POLE	4' 10"	–	E	2'–0"	2'–6"	–	–	–	–	–	–	0.3
DUAL MASTARM SIGNAL POLE	–	SEE NOTE 4	F/G	–	–	–	–	–	–	–	–	–
TYPE X SIGNAL POLE	–	50' – 55'	F	3'–0"	12'–0"	8	#5	70'–8"	12	#6	140'	3.1
TYPE XI SIGNAL POLE	–	60' – 65'	G	3'–6"	14'–0"	9	#5	78'–10"	12	#6	166'	5.0
CCTV POLE	50'	–	F	3'–0"	12'–0"	8	#5	70'–8"	12	#6	140'	3.1
CCTV POLE	55'	–	F	3'–0"	12'–0"	8	#5	70'–8"	12	#6	140'	3.1

⚠2

	POLE TYPE	MT.HT.	MASTARM LENGTH	FOUNDATION TYPE	X	Y	Z	HOOPS NO.	HOOPS SIZE	HOOPS LIN.FT.	VERTICAL RODS NO.	VERTICAL RODS SIZE	VERTICAL RODS LIN.FT.	CU. YDS. CONCRETE
BIOSWALE	LIGHT/DETECTOR POLE	30'	ALL	H	2'–0"	7'–6"	5'–6"	7	#4	40'–3"	6	#4	43'–0"	1.6
BIOSWALE	LIGHT POLE	35'	ALL	J	2'–6"	7'–3"	5'–3"	7	#4	51'–4"	6	#6	41'–6"	1.3
BIOSWALE	LIGHT POLE	40'–50'	ALL	K	3'–0"	9'–4"	7'–4"	9	#4	79'–6"	8	#6	72'–0"	2.4

10/1/2018

PROFESSIONAL ENGINEER REGISTERED 12842 STATE OF IDAHO JOSHUA E. SAAK

NO.	DATE	BY	DESCRIPTION
⚠1	10/18	JES	Added foundation details for bioswale placement.
⚠2	11/11	JES	Changed chart. Added note.

· REVISIONS ·

Ada County Highway District

ACHD Traffic Engineering Division
3775 Adams Street Boise, ID 83714
www.achdidaho.org

· SIGNATURES ·

Scale: NTS
Date: 4/18/07
File: TS-1110.01.DWG
Drawn By: Joshua Saak
Design By: Joshua Saak
Approved By: Jim Larsen

· SHEET TITLE ·

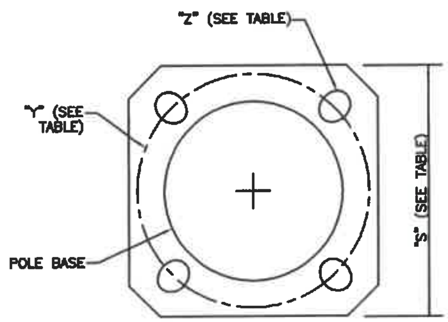
Standard Signal and CCTV Pole Foundation Detail

· STANDARD DETAIL NO. ·

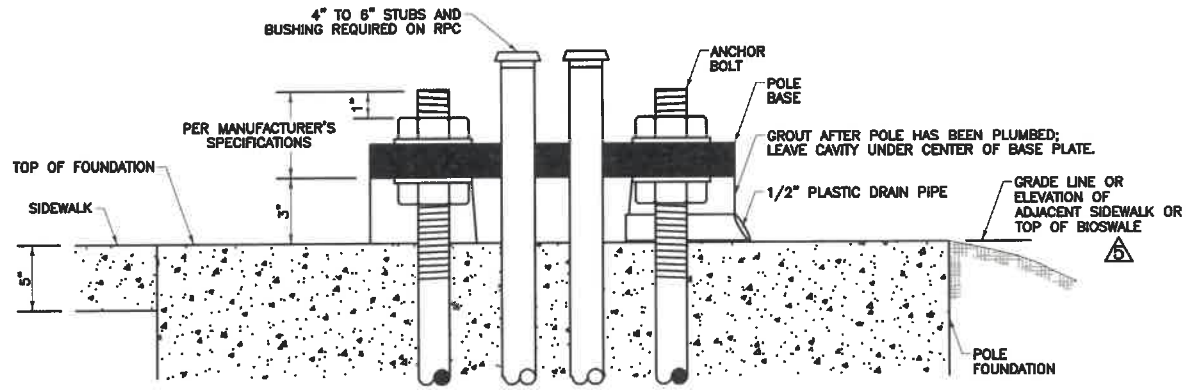
TS-1110.01

Sheet 1 of 2

S:\Traffic Specifications\2014 Standard Plans\TS-1110.01.DWG



2 TYPICAL SIGNAL POLE BASE AND FOUNDATION BOLT DETAIL - PLAN VIEW

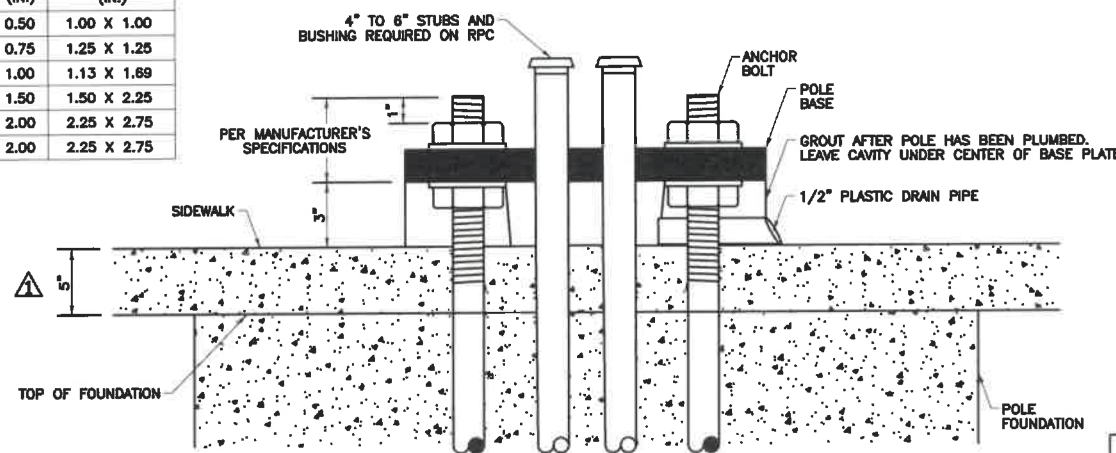


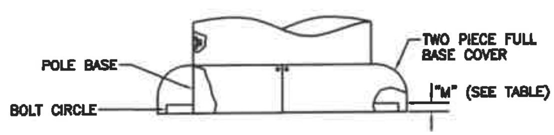
TYPICAL SIGNAL POLE BASE AND FOUNDATION BOLT DETAIL

(USED FOR SIGNAL FOUNDATIONS NOT PLACED IN SIDEWALK OR ADJACENT TO SIDEWALK)

3

POLE DATA					
		POLE BASE			
POLE TYPE	MASTARM LENGTH	SQUARE "S" (IN.)	BOLT CIRCLE "Y" (IN.)	THK. "M" (IN.)	HOLE / SLOT "Z" (IN.)
PED PUSHBUTTON POLE	–	12.00	8.50	0.50	1.00 X 1.00
PEDESTRIAN SIGNAL POLE	–	13.88	12.75	0.75	1.25 X 1.25
LUMINAIRE POLE, STANDARD	ALL	13.88	12.75	1.00	1.13 X 1.69
LUMINAIRE POLE, DAVIT STYLE	ALL	13.50	12.50	1.50	1.50 X 2.25
TYPE X SIGNAL POLE	20' – 55'	19.00	18.00	2.00	2.25 X 2.75
TYPE XI SIGNAL POLE	60' – 65'	22.00	21.00	2.00	2.25 X 2.75





2 TYPICAL SIGNAL POLE BASE AND FOUNDATION BOLT DETAIL - PROFILE VIEW

TYPICAL SIGNAL POLE BASE AND FOUNDATION BOLT DETAIL

(USED FOR SIGNAL FOUNDATIONS PLACED IN SIDEWALK)

NO.	DATE	BY	DESCRIPTION
5	10/18	JEB	Added bioswale note
4	05/17	JEB	Modified signal pole base detail
3	08/14	JEB	Modified pole data table
2	07/11	JEB	Added pole base detail and schedule
1	04/10	JEB	Increased sidewalk thickness

· REVISIONS ·

Ada County Highway District

ACHD Traffic Engineering Division
3775 Adams Street Boise, ID 83714
www.achdidaho.org

Scale: NTS
Date: 1/15/09
File: TS-1110.02.DWG

· SIGNATURES ·
Drawn By: Joshua Baak
Design By: Joshua Baak
Approved By: Jim Larson

· SHEET TITLE ·
Standard Signal Pole Foundation Detail

· STANDARD DETAIL NO. ·
TS-1110.02