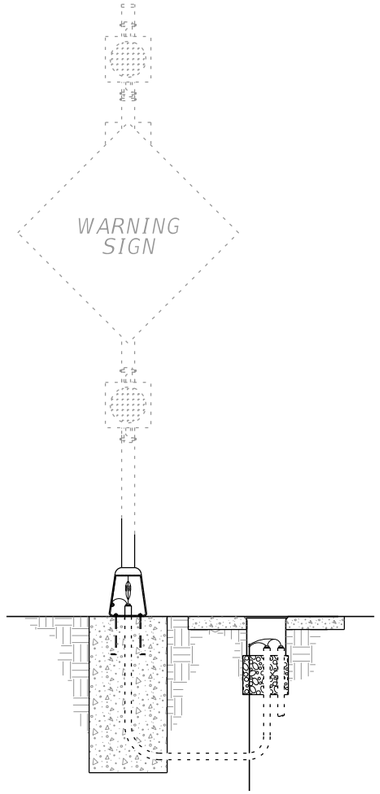
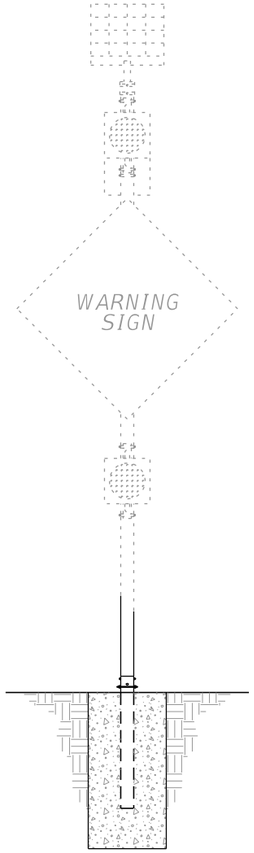
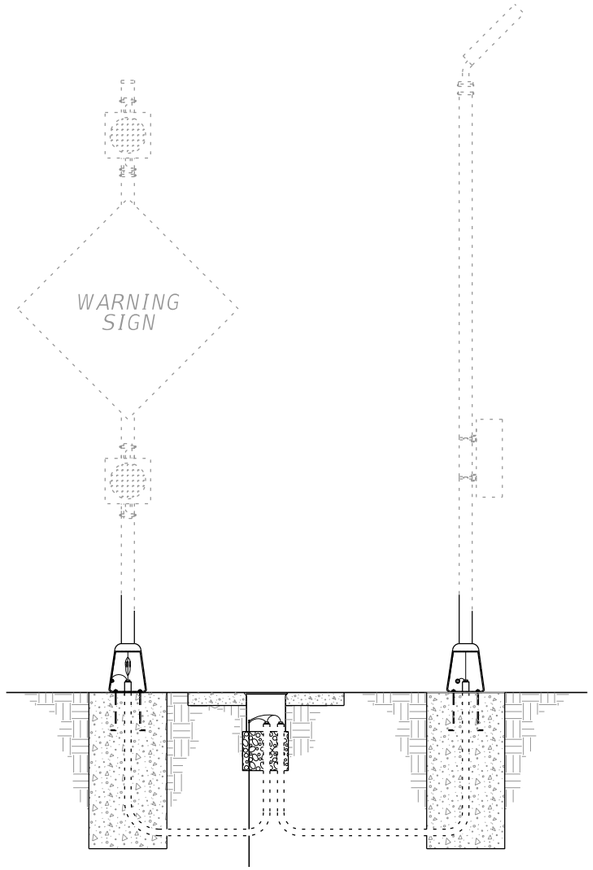


CONVENTIONAL POWERED BEACON
(With Transformer Base & Pull Box)



SOLAR POWERED BEACON
(With Slip Base)



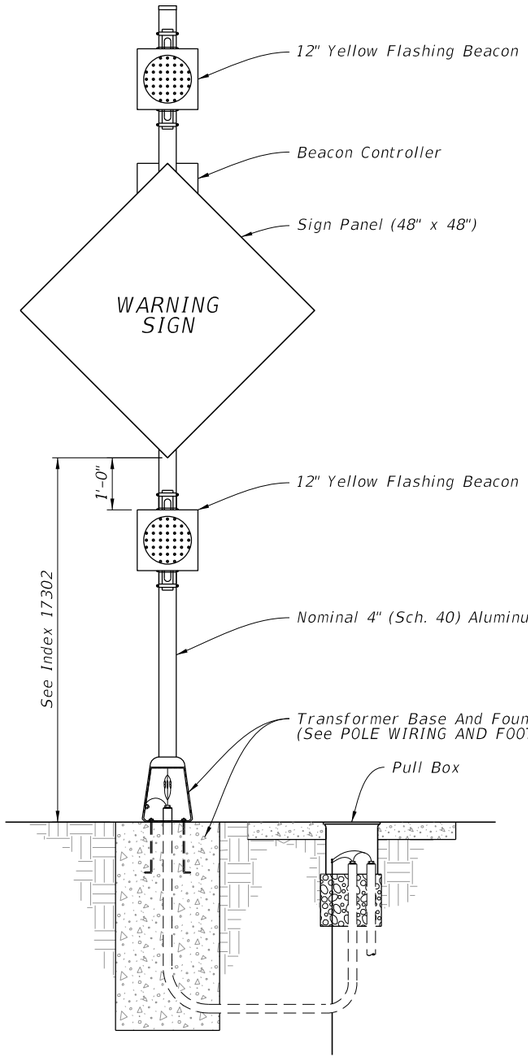
SOLAR POWERED BEACON WITH AUXILIARY POLE
(With Transformer Base & Pull Box)

GENERAL NOTES:

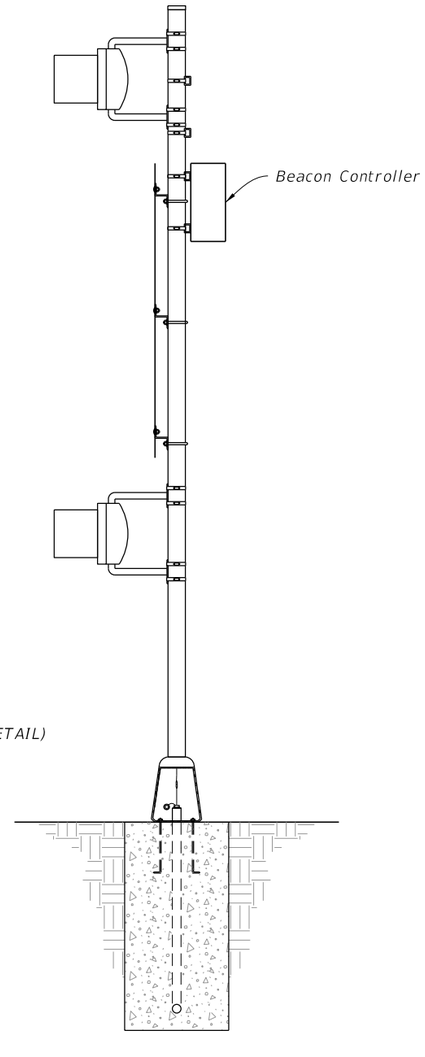
1. Use aluminum materials that meets the requirements of Aluminum Association Alloy 6061-T6 (ASTM B209, B221, B308 or B429), except as noted in the Plans.
2. Install sign panel, wind beam and columns in accordance with Index 11860 and Specifications 700.
3. Install sign column so that the height and offset are in accordance with Index 17302.
4. When aluminum column (post) are installed with a frangible transformer bases, engage all threads on the transformer base and post unless the aluminum post is fully seated into base.
5. Meet the requirements of Specifications 646 for aluminum poles and transformer bases.
6. Install a concrete slab around all flashing beacon assemblies on slopes 6:1 or greater. The minimum slab dimension is 4'-0" by 5'-0".
7. Install a concrete slab around all pull boxes. The minimum slab dimension is 4'-0" by 4'-0". In urban areas where space is limited slab dimensions may be adjusted as shown in the plans.
8. For beacon assemblies connected to conventional power, provide single pole non-fused watertight breakaway electrical connectors in the frangible transformer base.
9. Install the connection of controller cabinet and solar panel to the column in accordance with manufacturer's recommendations.
10. When wire entry holes are drilled in the sign column, use a bushing or rubber grommet to protect conductors.
11. Orient solar panel to face South for optimal exposure to sunlight.

10/14/2016 8:04:10 AM

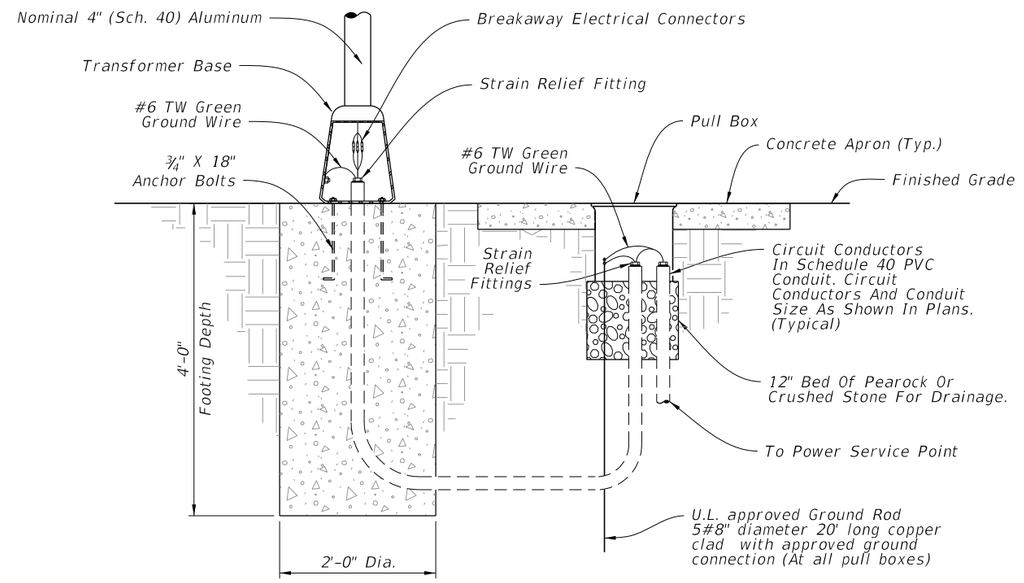
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	ROADSIDE FLASHING BEACON ASSEMBLY	11862	1 of 8



FRONT VIEW



SIDE VIEW

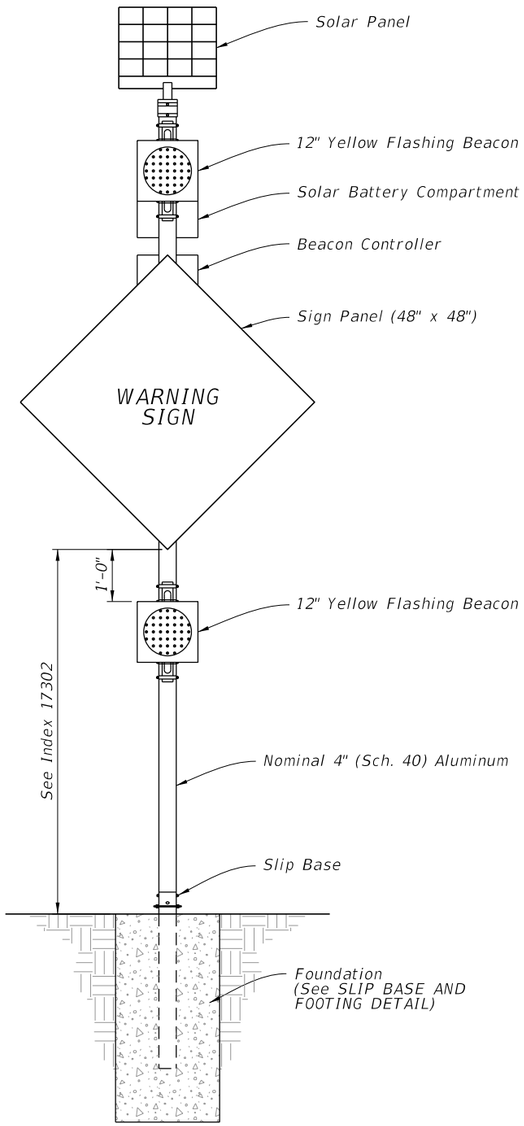


POLE WIRING AND FOOTING DETAIL

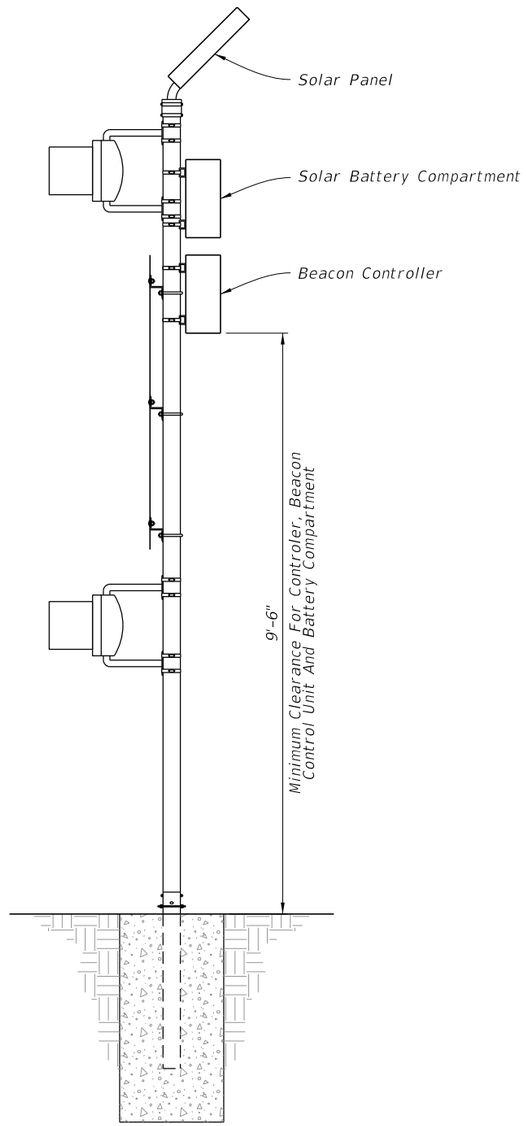
10/14/2016 8:04:13 AM

CONVENTIONAL POWERED WARNING SIGN DETAILS

LAST REVISION	REVISION	DESCRIPTION:	FDOT			INDEX NO.	SHEET NO.
11/01/16			FY 2017-18 DESIGN STANDARDS	ROADSIDE FLASHING BEACON ASSEMBLY		11862	2 of 8



FRONT VIEW

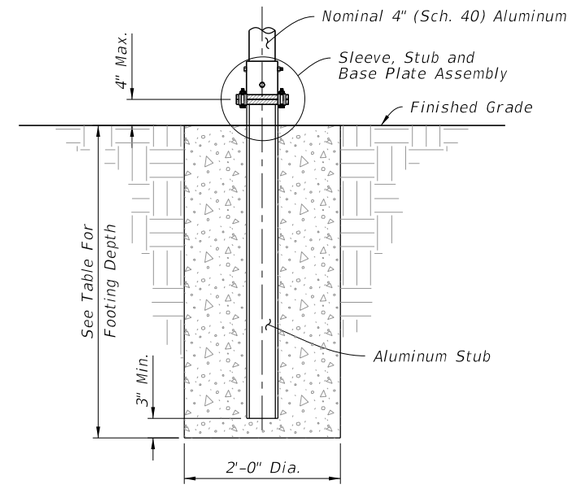


SIDE VIEW

TABLE 1			
STANDARD WARNING SIGN COLUMN SIZE			
Wind Speed	Sign Height	Column Size	Footing Depth
110	7'	4"	4'
130	7'	4.5"	4'
150	7'	5"	4.5'
110	8.5'	4.5"	4'
130	8.5'	5"	4.5'
150	8.5'	6"	5'

NOTES:

1. Install the sign column slip base in accordance with Index 11860.
2. Use beacon and beacon controllers that are listed on the Approved Products List (APL).
3. Details show a typical warning sign with two flashing beacon heads. When only one beacon is required, install upper beacon.

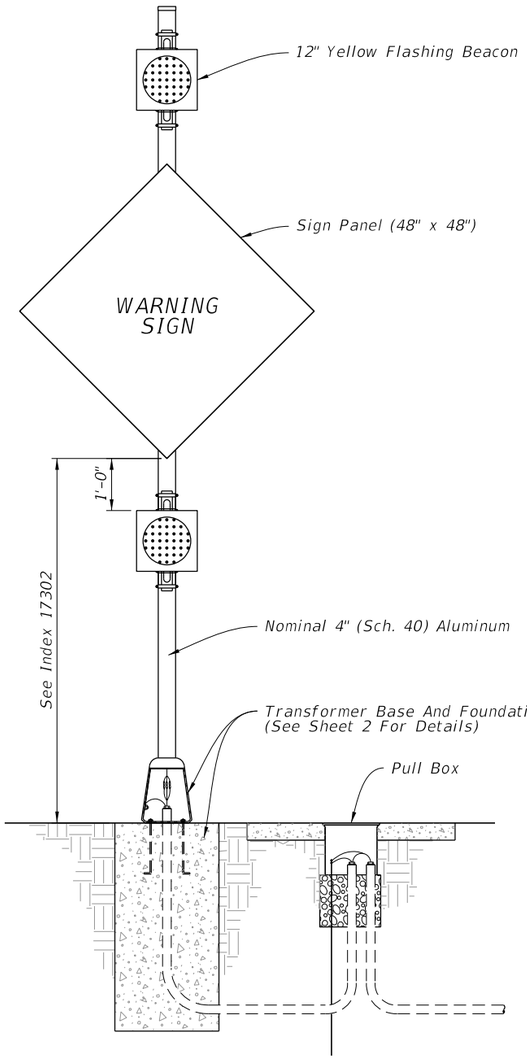


SLIP BASE AND FOOTING DETAIL

SOLAR POWERED WARNING SIGN DETAILS

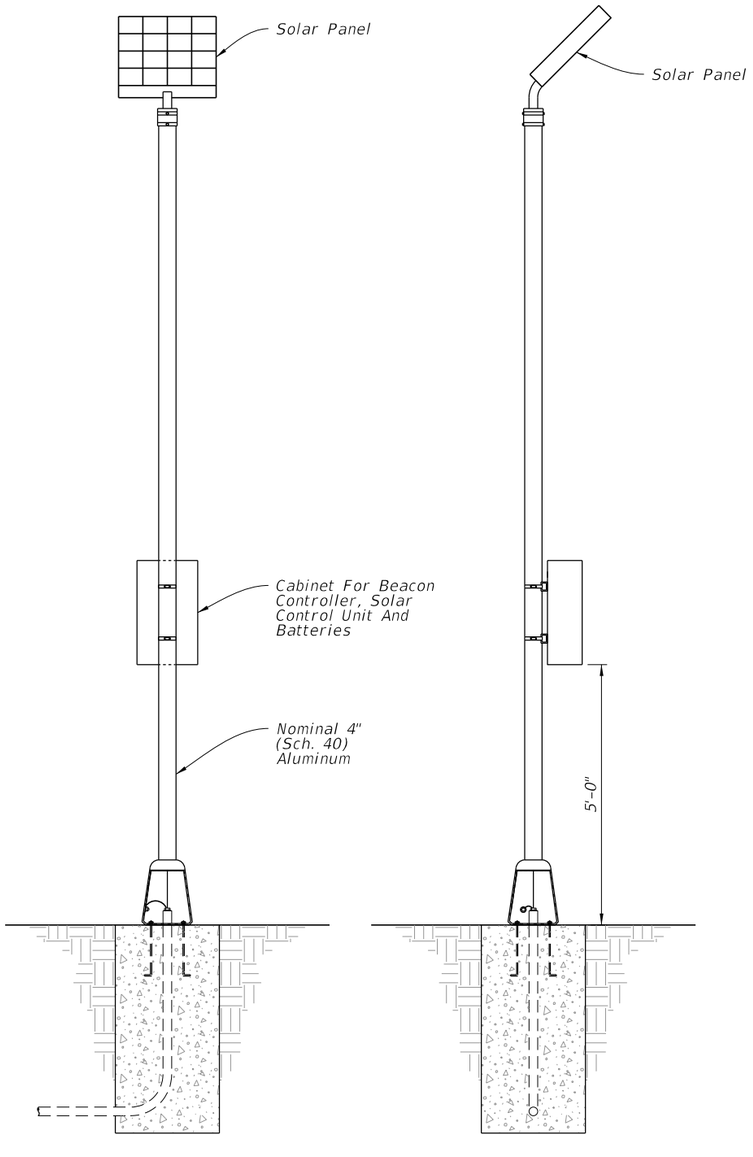
LAST REVISION	REVISION	DESCRIPTION:				
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	ROADSIDE FLASHING BEACON ASSEMBLY	INDEX NO. 11862	SHEET NO. 3 of 8

10/14/2016 8:04:15 AM



FRONT VIEW

BEACON



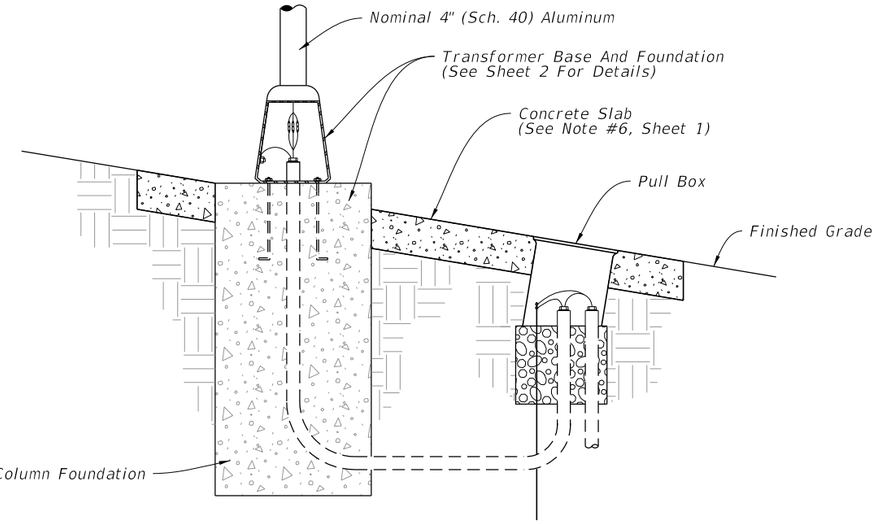
FRONT VIEW

SIDE VIEW

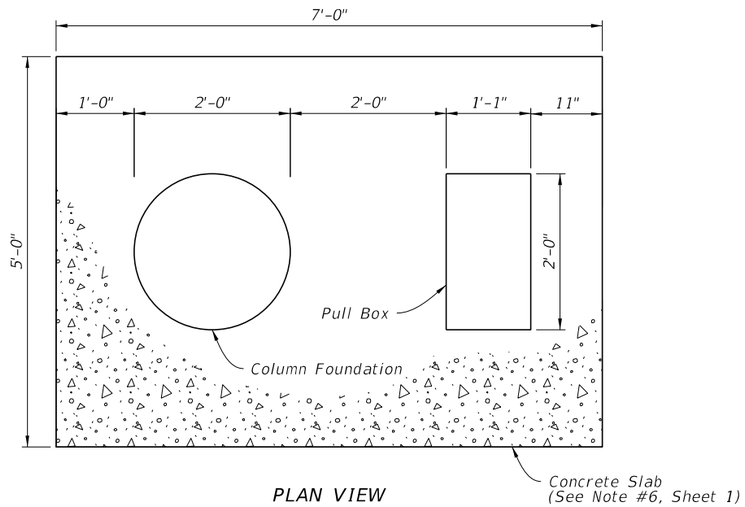
AUXILIARY POLE

NOTES:

1. *Install a separate pole for mounting the solar panel, controller and batteries for all flashing beacon assemblies with solar panels, controllers and batteries weighing more than 170 lbs.*
2. *Install the auxiliary pole as close to the right of way as possible.*
3. *Install the auxiliary pole so that the height is the same as the column for the beacon assembly.*
4. *Payment for the separate pole, foundation, conduit and wiring are included in the cost of the electronic warning sign with flashing beacon.*



ELEVATION VIEW



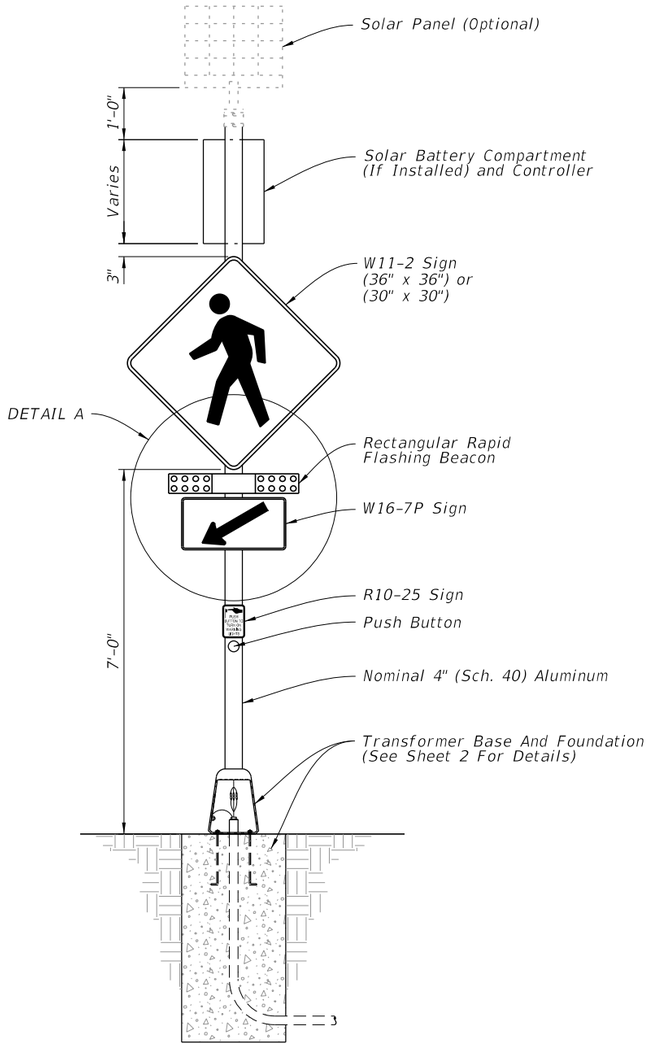
PLAN VIEW

CONCRETE SLAB DETAIL
FOR POLES ON SLOPES

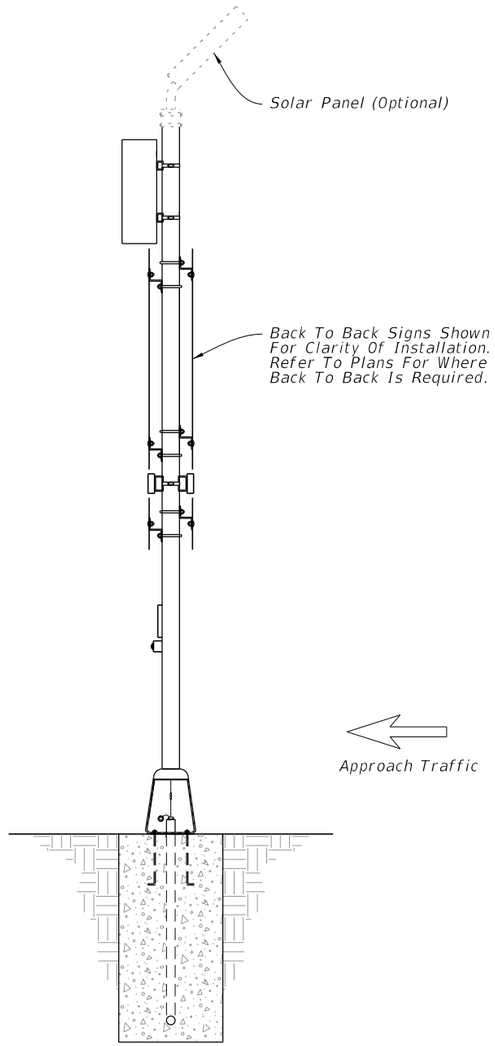
SOLAR POWERED BEACON WITH AUXILIARY POLE AND CONCRETE SLAB DETAIL

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FY 2017-18 DESIGN STANDARDS	ROADSIDE FLASHING BEACON ASSEMBLY	11862	4 of 8

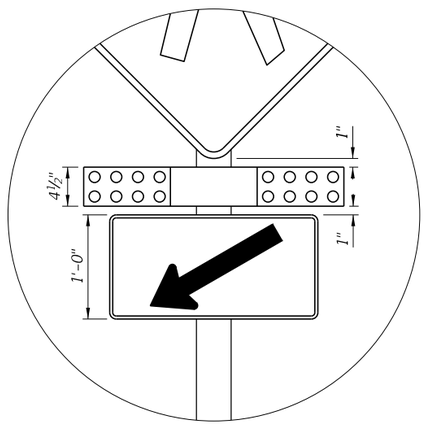
10/14/2016 8:04:17 AM



FRONT VIEW



SIDE VIEW



DETAIL A

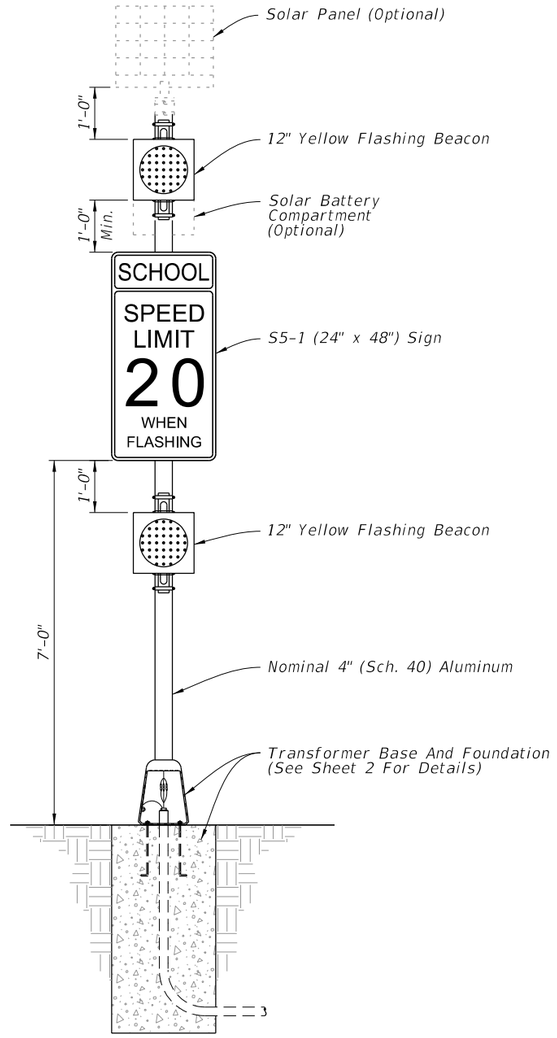
NOTES:

1. A transformer base is required for both conventional powered and solar powered applications. (Conventional Power Shown)
2. Use Rectangular Rapid Flashing Beacon (RRFB) equipment and hardware that are listed on the Approved Products List (APL).
3. Install the RRFB in pairs, one on either side of approach traffic.
4. Install controller on the backside of post from approach traffic.
5. Install a 30" X 30" W11-2 sign on single lane facilities and a 36" X 36" W11-2 sign for multi-lane facilities.
6. Install push button and R10-25 sign in accordance with Index 17784.

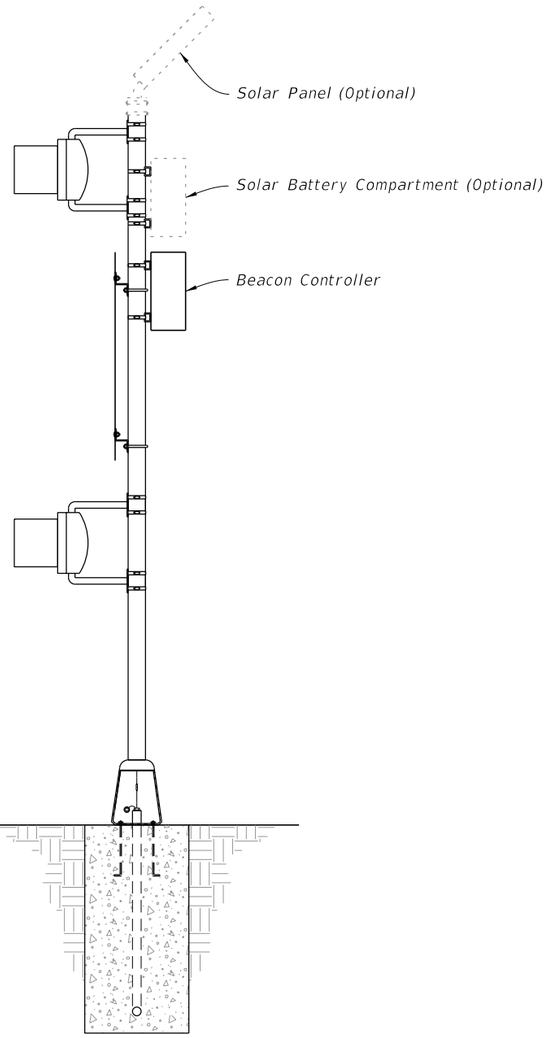
10/14/2016 8:04:19 AM

RECTANGULAR RAPID FLASHING BEACON (RRFB) DETAILS

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	ROADSIDE FLASHING BEACON ASSEMBLY	INDEX NO.	SHEET NO.
11/01/16					11862	5 of 8



FRONT VIEW



SIDE VIEW

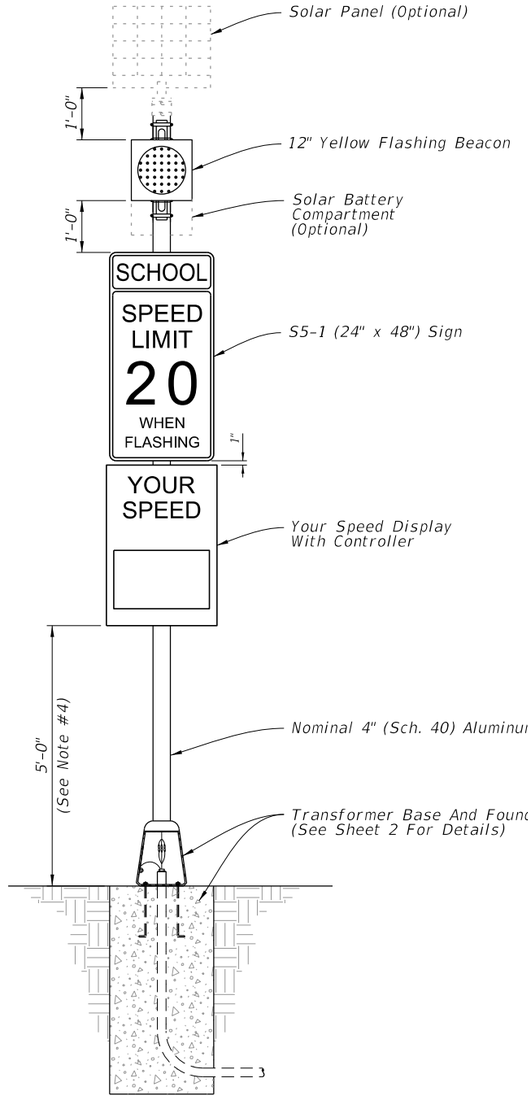
NOTES:

1. A transformer base is required for both conventional powered and solar powered applications. (Conventional Power Shown)
2. Use beacons and beacon controllers that are on the Approved Products List (APL).
3. Details show a typical school zone sign with two flashing beacon heads. When only one beacon is required, install upper beacon.

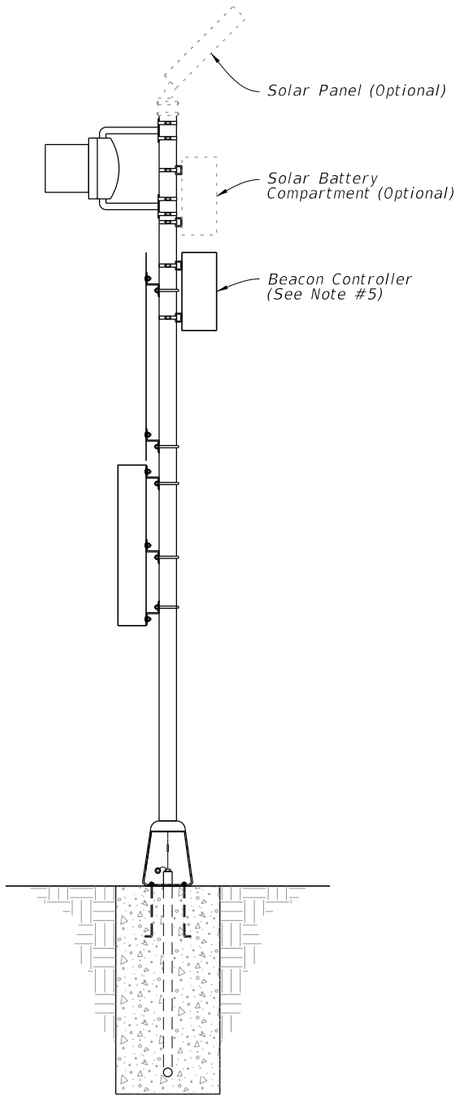
10/14/2016 8:04:21 AM

SCHOOL REGULATORY SIGN DETAILS

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	ROADSIDE FLASHING BEACON ASSEMBLY	INDEX NO.	SHEET NO.
11/01/16					11862	6 of 8



FRONT VIEW



SIDE VIEW

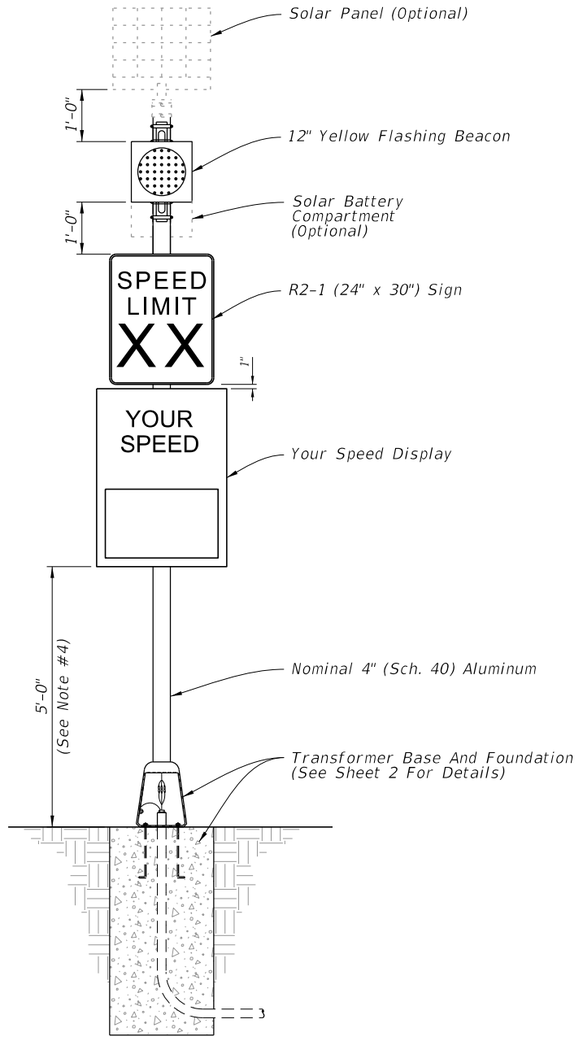
NOTES:

1. A transformer base is required for both conventional powered and solar powered applications. (Conventional Power Shown)
2. Use speed feedback display, beacons, beacon controllers and installation hardware that are on the Approved Products List (APL).
3. For posted speeds less than 45 mph, install a speed feedback display with numeral heights of 15" and for posted speeds 45 mph or greater, install a speed feedback display with numeral heights of 18"
4. Only speed display units weighing 62 lbs. or less may be mounted with a 5'-0" clearance. Mount speed display units that weigh more than 62 lbs. with a 7'-0" clearance.
5. The beacon controller and solar batteries may be in the same compartment.

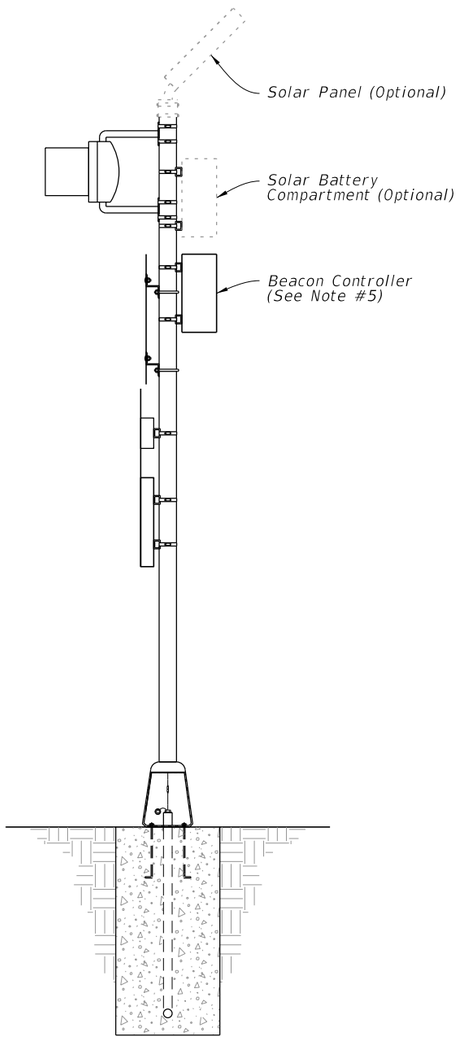
10/14/2016 8:04:23 AM

SCHOOL REGULATORY WITH SPEED FEEDBACK DETAILS

LAST REVISION	REVISION	DESCRIPTION:	FY 2017-18 DESIGN STANDARDS	ROADSIDE FLASHING BEACON ASSEMBLY	INDEX NO.	SHEET NO.
11/01/16			FDOT		11862	7 of 8



FRONT VIEW



SIDE VIEW

NOTES:

1. A transformer base is required for both conventional powered and solar powered applications. (Conventional Power Shown)
2. Use speed feedback display, beacons, beacon controllers and installation hardware that are on the Approved Products List (APL).
3. For posted speeds less than 45 mph, install a speed feedback display with numeral heights of 15" and for posted speeds 45 mph or greater, install a speed feedback display with numeral heights of 18"
4. Only speed display units weighing 62 lbs. or less may be mounted with a 5'-0" clearance. Mount speed display units that weigh more than 62 lbs. with a 7'-0" clearance.
5. The beacon controller and solar batteries may be in the same compartment.

10/14/2016 8:04:26 AM

REGULATORY SIGN WITH SPEED FEEDBACK DETAILS

LAST REVISION	REVISION	DESCRIPTION:	FY 2017-18 DESIGN STANDARDS	ROADSIDE FLASHING BEACON ASSEMBLY	INDEX NO.	SHEET NO.
11/01/16			FDOT		11862	8 of 8