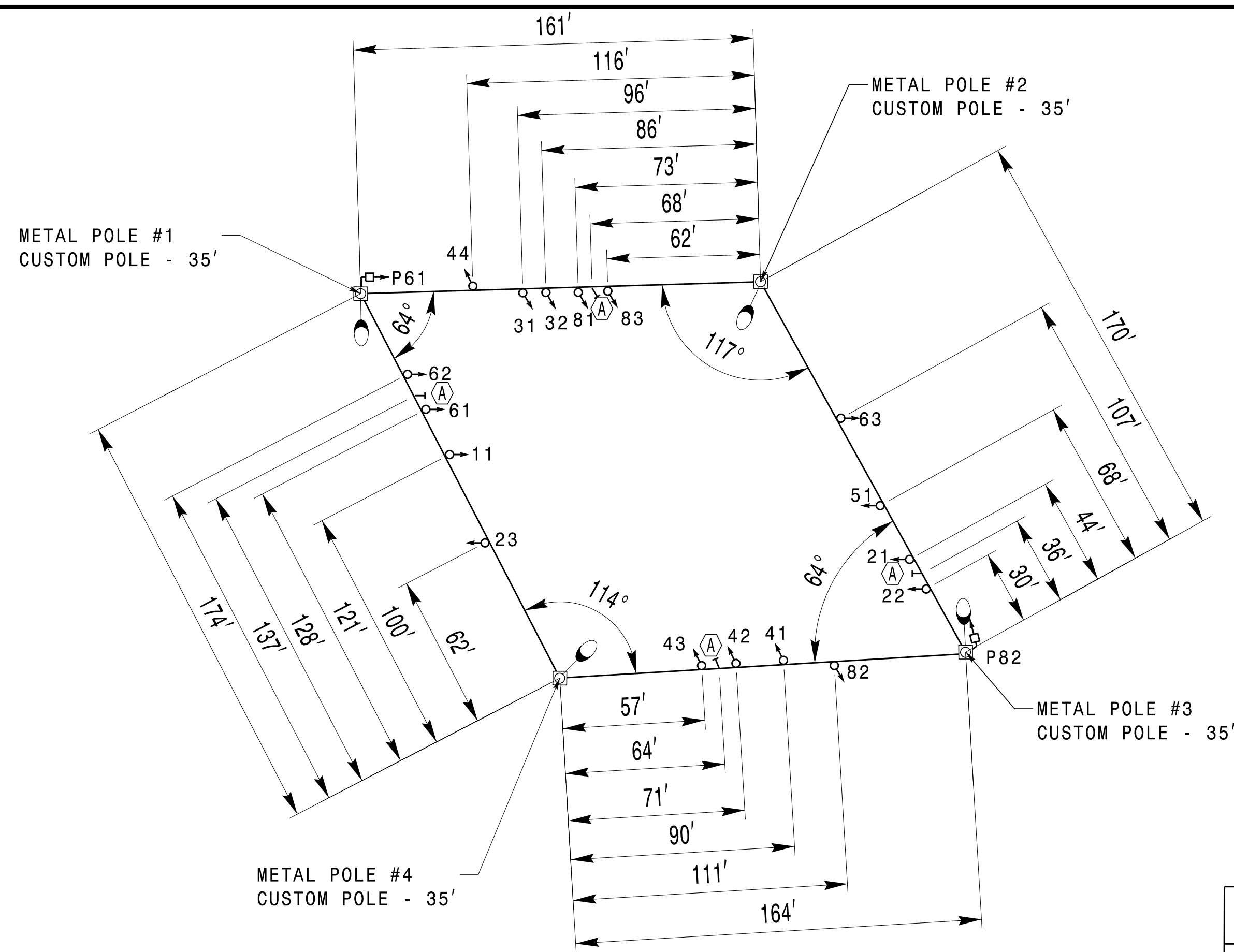


**Notes**

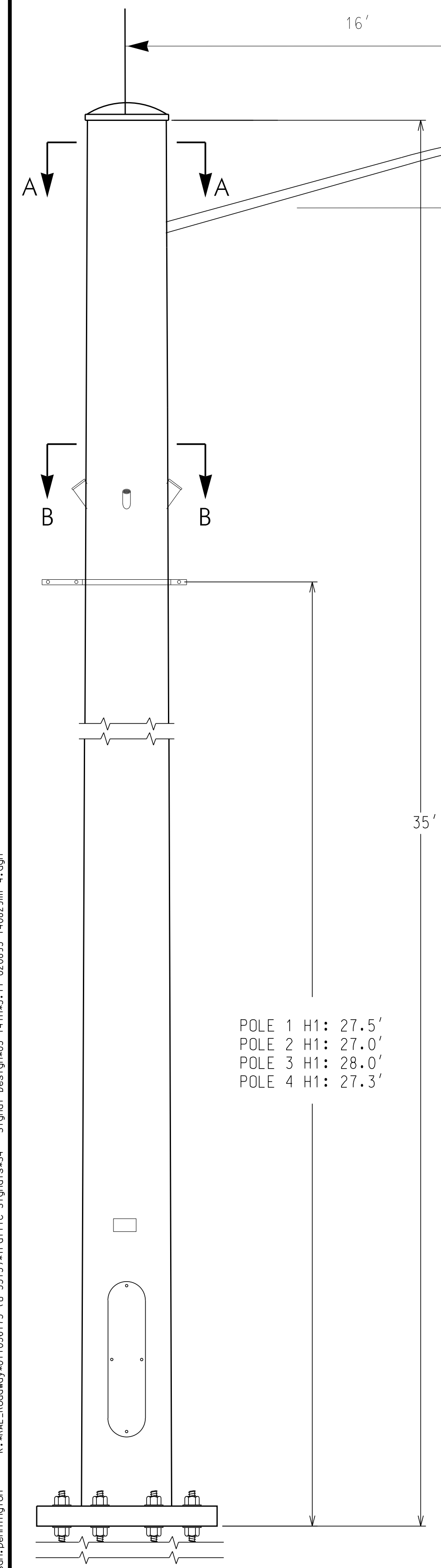
**DESIGN REFERENCE MATERIAL**

- Design the traffic signal structure and foundation in accordance with:
  - The 5th Edition 2009 AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, including all of the latest interim revisions.
  - The 2012 NCDOT "Standard Specifications for Roads and Structures." The latest addenda to the specifications can be found in the traffic signal project special provisions.
  - The 2012 NCDOT Roadway Standard Drawings.
  - The traffic signal project plans and special provisions.
  - The NCDOT "Metal Pole Standards" located at the following NCDOT website: <https://connect.ncdot.gov/resources/safety/Pages/ITS-Design-Resources.aspx>
- Fabricate Metal Pole #3 and #4 using design loadings shown. The contractor may revise attachment heights and radial orientations of wire entrances with approval from the Division Traffic Engineer. Any modifications to the original location of accessories must be reflected on the shop drawings when they are submitted for review and approval.
- Design a drilled pier foundation that conforms to the requirements of ITSS Project Special Provisions (Version 12.3) included with and as part of these plans.
- Comply with NEC code 230.2(E) concerning service equipment disconnect.
- Lighting fixture and luminaire arm represent a load condition to the pole and may not represent exactly how the fixtures will be mounted. The contractor is responsible for ensuring that any required factory preps for mounting fixtures to the pole are included on the shop drawings.
- Design the luminaire support arm using design dimensions as shown on elevations views. Refer to the Radial Orientation Detail for attachment to the signal pole. Design arm end for a nominal 2 inch slip fit socket connection for light assembly.



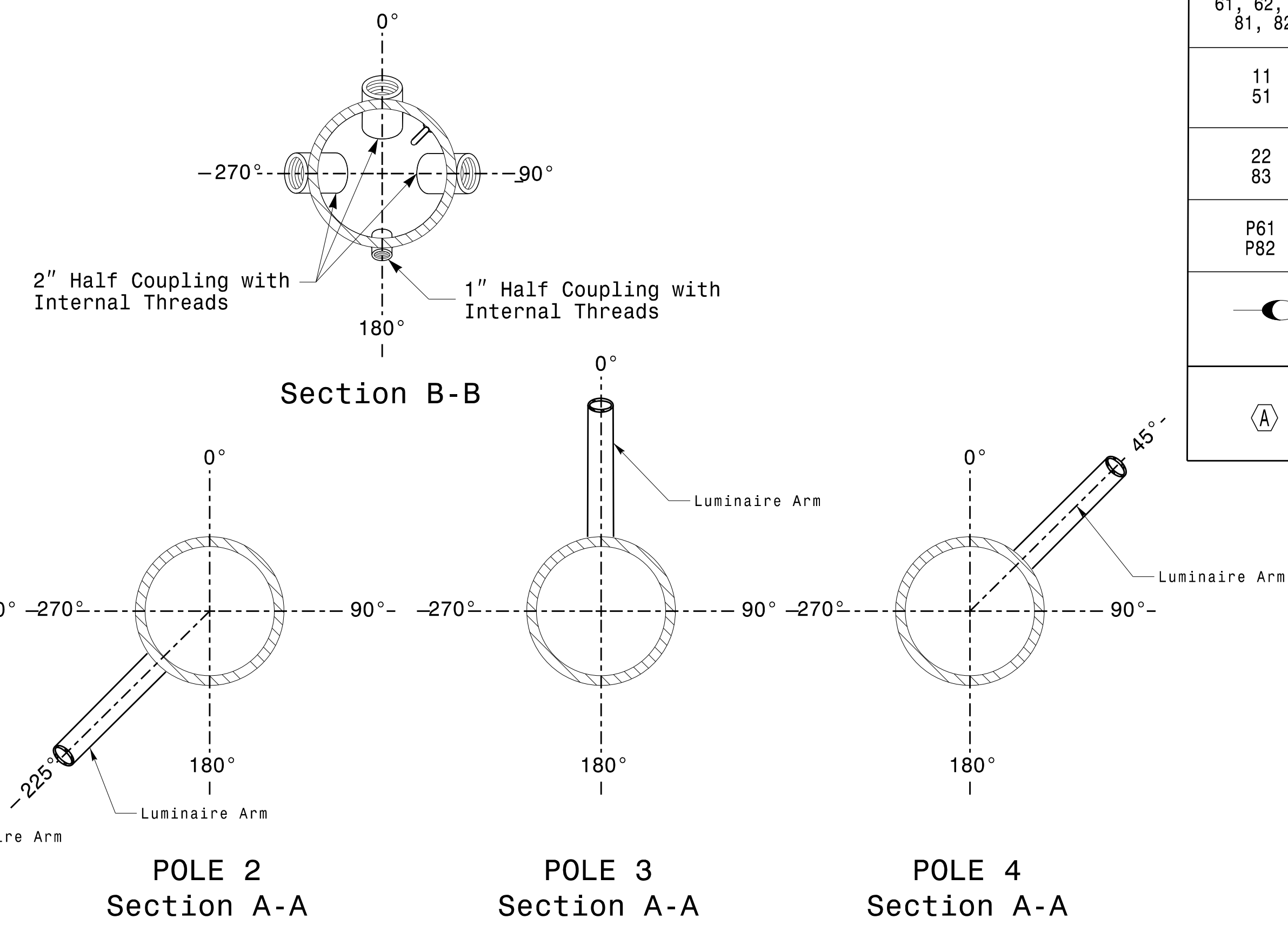
**Loading Diagram**

| LOADING SCHEDULE FOR STRAIN POLES                          |  |           |                         |        |
|--|--|-----------|-------------------------|--------|
| HEAD   | DESCRIPTION  | AREA      | SIZE                    | WEIGHT |
| 21, 23<br>31, 32<br>41, 42, 43, 44<br>61, 62, 63<br>81, 82 | SIGNAL HEAD<br>12"-3 SECTION-WITH BACKPLATE, HANGER, AND<br>BALANCE ADJUSTER | 9.2 S.F.  | 25.5" W<br>x<br>52.0" L | 56 LBS |
| 11<br>51   | SIGNAL HEAD<br>12"-4 SECTION-WITH BACKPLATE, HANGER, AND<br>BALANCE ADJUSTER | 11.6 S.F. | 25.5" W<br>x<br>65.5" L | 69 LBS |
| 22<br>83   | SIGNAL HEAD<br>12"-5 SECTION-WITH BACKPLATE, HANGER, AND<br>BALANCE ADJUSTER | 16.5 S.F. | 42.0" W<br>x<br>56.0" L | 89 LBS |
| P61<br>P82   | PEDESTRIAN SIGNAL HEAD<br>WITH MOUNTING HARDWARE                             | 2.2 S.F.  | 18.5" W<br>x<br>17.0" L | 21 LBS |
| ○  | LUMINAIRE  | 1.0 S.F.  | N/A                     | 25 LBS |
| △  | STREET NAME SIGN<br>WITH HANGER  | 12.0 S.F. | 18.0" W<br>x<br>96.0" L | 27 LBS |



**Pole Elevation**

POLE 1 H1: 27.5'  
POLE 2 H1: 27.0'  
POLE 3 H1: 28.0'  
POLE 4 H1: 27.3'



**Radial Orientation for Factory Installed Accessories**

**LOADING DIAGRAM: METAL POLES 1, 2, 3 AND 4**

|                       |   |                   |   |
|-----------------------|---|-------------------|---|
|                       | Prepared For:<br><b>10th STREET<br/>AT<br/>SR 1703 (14TH STREET)</b>  |                   | SEAL<br>  |
|                       | DIVISION 2 PITT COUNTY GREENVILLE<br>PLAN DATE: JUNE 2014 REVIEWED BY: SL PHILLIPS<br>PREPARED BY: SP PENNINGTON REVIEWED BY: |                   |   |
| SCALE<br>0 N/A<br>N/A | REVISIONS<br>INIT. DATE   | SIGNATURE<br>DATE | DocuSigned by:<br>Stacie Phillips<br>9/2/2014<br>SIG. INVENTORY NO. 02-0893 |

PLANS PREPARED IN THE OFFICE OF:  
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8/29/2014 10:56:49 AM susen.pennington K:\RAL\_Roadway\01036175 (U-3315)\Traffic\Signal\Signal.s4 - Signal Design\03-14\HW\3.11 020893-1\0829m-4.dgn