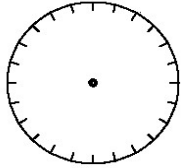


IOWA FLAMMABLE PIPELINE CROSSING

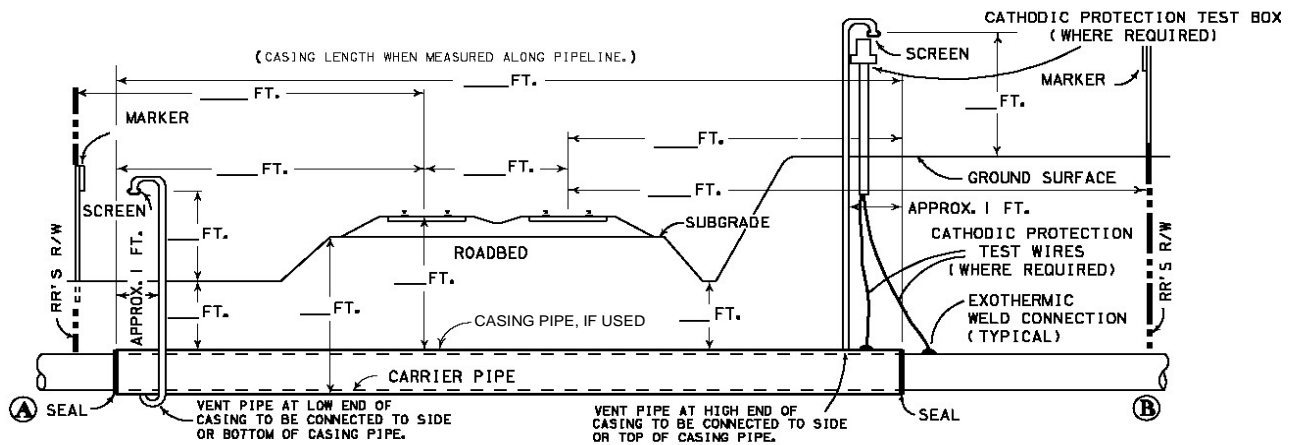
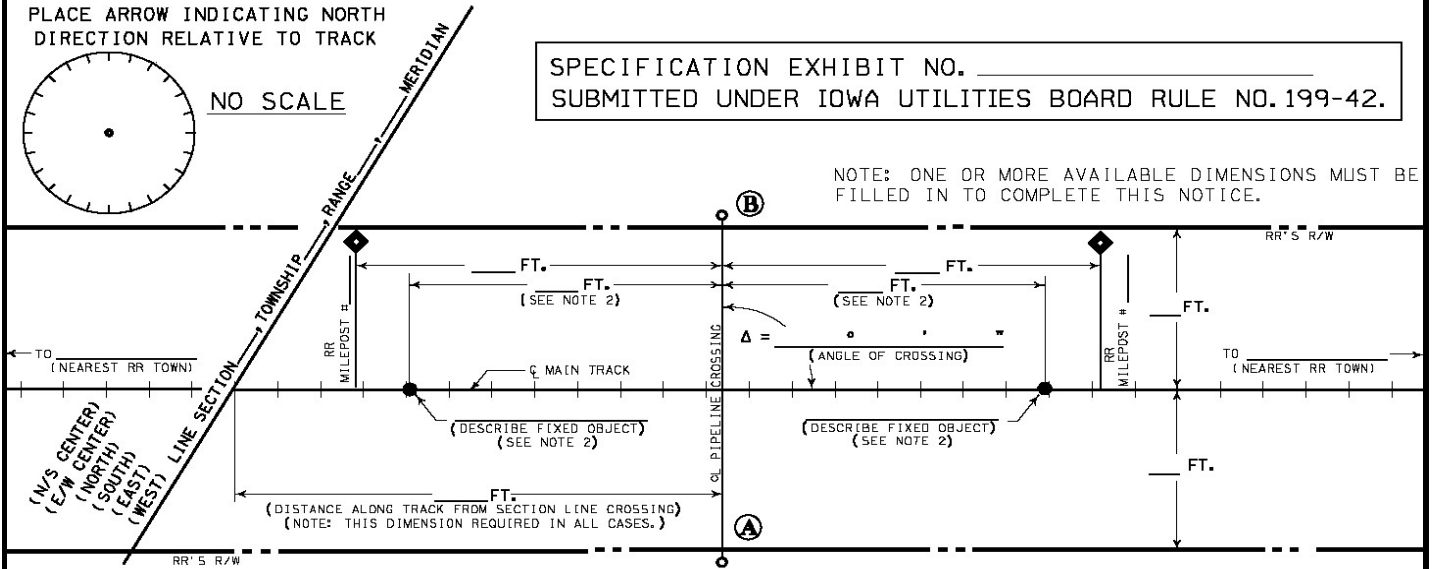
PLACE ARROW INDICATING NORTH DIRECTION RELATIVE TO TRACK



NO SCALE

SPECIFICATION EXHIBIT NO. _____
SUBMITTED UNDER IOWA UTILITIES BOARD RULE NO. 199-42.

NOTE: ONE OR MORE AVAILABLE DIMENSIONS MUST BE FILLED IN TO COMPLETE THIS NOTICE.



CROSS SECTION AB

- A) IS PIPELINE CROSSING WITHIN PUBLIC ROAD? YES; NO;
- B) IF YES, NAME OF STREET _____
- C) CARRIER PIPE:
 COMMODITY TO BE CONVEYED _____
 OPERATING PRESSURE _____ PSIG
 MAXIMUM OPERATING PRESSURE _____ PSIG
 WALL THICKNESS _____; DIAMETER _____; MATERIAL _____;
- D) CASING PIPE, IF USED:
 WALL THICKNESS _____; DIAMETER _____; MATERIAL _____;
- E) METHOD OF INSTALLATION:
 HORIZONTAL DIRECTIONAL DRILLING;
 DRY BORE AND JACK (WET BORE NOT PERMITTED);
 TUNNEL; OTHER _____
- F) WILL CONSTRUCTION BE BY AN OUTSIDE CONTRACTOR? YES; NO;
- G) DISTANCE FROM CENTER LINE OF TRACK TO NEAR FACE OF BORING AND JACKING PITS WHEN MEASURED AT RIGHT ANGLES TO THE TRACK _____ (30' MIN.)

FOR RAILROAD REPRESENTATIVE USE

RAILROAD _____ MP _____
 SUBDIVISION _____ E.S. _____
 _____, IOWA
 (NEAREST STATION) (COUNTY) (STATE)
 PHONE: _____ RR FILE NO. _____
 E-MAIL _____

FOR UTILITY REPRESENTATIVE USE

UTILITY _____ DATE: _____
 ADDRESS _____
 BY _____ PHONE _____
 E-MAIL _____

TO BE COMPLETED BY **SMALL UTILITY** AS DEFINED IN THE IUB RULES
 I CERTIFY THAT THIS UTILITY QUALIFIES AS A SMALL UTILITY UNDER
 IOWA UTILITIES BOARD RULE 199 IAC 42.1.
 SIGNED _____ DATE _____

GUIDELINES TO IOWA FLAMMABLE PIPELINE CROSSING

1. Horizontal distances, in cross section AB on the Specification Exhibit, to be measured at right angles from centerline of track, except as noted.
2. Allowable fixed objects include: back walls of bridges, centerline of road crossings and overhead viaducts (give road name), or centerline of culverts.
3. Installation shall be in accordance with Iowa Utilities Board Rule 199 IAC 42.7.
4. Steel Casing Wall Thickness Chart:

<u>Minimum Thickness</u>		<u>Diameter of Casing Pipe</u>
0.2500"	1/4"	12" or less
0.3125"	5/16"	Over 12" – 18"
0.3750"	3/8"	Over 18" – 22"
0.4375"	7/16"	Over 22" – 28"
0.5000"	1/2"	Over 28" – 34"
0.5625"	9/16"	Over 34" – 42"
0.6250"	5/8"	Over 42" – 48"

or American Railway Engineering and Maintenance Right-of-Way Association (AREMA) Manual for Railway Engineering, Chapter 1, Part 5, Table 1-5-5.

5. The form specifies that one or more available dimensions are requested, but providing additional dimensions will help the Railroad process the application more quickly.
6. It is recommended that the Railroad be contacted in advance for fiber optic cable and railroad signal locations.
7. For unusually large pipeline crossings that do not involve special circumstances, or for crossings where geotechnical study has identified potentially destabilizing soil conditions, the railroad company may require that a railroad representative be present during installation, and may also require the presence of a survey crew to monitor the tracks for any change in alignment.
8. Nearest Railroad Town means nearest town on the railroad in each direction. If not known, reference Iowa DOT Rail map at <http://www.iowadot.gov/iowarail/railroads/maps/maphome.htm>.