APPENDICES

RFID Tag Parameters for use on Metal Pipe

Dimensions: Must be a minimum size of 2.875"x 1.375"x .085", with the option of being larger.

Material: .002" thick Polyester label adhered to a non-proprietary inlay wrapped around 1/16" foam.

Label Copy: The label copy will include block type lettering, company name & state plant ID and your company logo. The entire Label Copy including, block type lettering, company name & state plant ID, your company's logo, and bar code are to be subsurface printed. This unique process provides excellent resistance to solvents, caustics, acids, and moderate abrasion.

Colors: Color of ink must be black on white background. This is due to the required contrast needed for the bar code scanner to properly read the tags information.

Serialization: The bar code and human-readable equivalent shall also be subsurface printed. Code 128 in 24-character hexadecimal format shall be utilized. A QR Code linking to the NCDOT vendor apps web lookup shall be subsurface printed on the label.

Numbering Scheme: 24 character numbering scheme will be utilized as follows.
AC00xx000000002000000000
The first six digits identify the material and state assigned plant id (insert plant id here xx)
AD will identify concrete pipe
Numbering will start with a 2 in the billions position to prevent duplication of numbers across products.

RFID inlay: The inlay shall be Alien Higgs 3 or a comparable UHF passive inlay.

Frequency Range: 860-960 MHz

Adhesion: Adhesives shall be non-proprietary and have a minimum of a 2 year above ground life span while being subjected to the various natural elements. Including but not limited to UV exposure, wind, rain, snow, heat.

Read Range: Tag shall have a minimum read range of 18-36ft. with a reader at 30 dbm

Tag Proof: (M&T) must approve the tag design and type prior to producer placing an order for the tags from any vendor. This will include an image of the tag and a copy of the tag specifications.

Tag Example: