

SECTION 00413 - GRP CURED-IN-PLACE PIPE LINING UV CURE

(Follow all instructions and make all edits with "Track Changes" turned on. If there are no instructions [purple text] above a subsection, paragraph, sentence, or bullet, then include it in the project. Delete all purple text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)

Comply with Section 00413 of the Standard Specifications modified as follows:

00413.01 Submittals - Replace the bullet that begins "Verify Pipe length, rise and span ..." with the following bullet:

- Verify Pipe length, rise and span, for each installation according to Section 00415 and include the corresponding tube size for each installation according to 00413.10. Do not order Material(s) until approval has been received.

(Use the following subsection .02 to list the GRP CIPP design parameters. Obtain the parameter information from the Designer.)

00413.02 Design Parameters - Add the following to the end of this subsection:

Minimum Height of fill*
Groundwater Elevation above Invert.....

* Measured vertically from pipe invert to the top of paved surface, directly beneath the pavement section.

(Use the following line when chemical resistance parameters are required)

Chemical Resistance ASTM D5813

00413.10 Tube - Replace the paragraph that begins "Furnish tubing that consists ..." with the following paragraph:

Furnish tubing that consists of at least two separate tubes made of corrosion resistant (E-CR or equivalent) glass fibers according to ASTM D578 and ASTM F2019. Verify pipe lengths and pipe inside diameters before ordering tubing. Furnish flexible tubing that exhibits the following characteristics:

00413.43(d) UV Curing Method - Replace the paragraph that begins "A camera must ..." with the following paragraph:

Locate a camera on the ultraviolet light assembly to view that the liner is properly inflated and identify any liner problems before curing begins.

00413.72 Material Sampling and Testing - Replace the paragraph that begins "Flexural properties must ..." with the following paragraph:

Meet or exceed flexural properties values according to 00413.12.

Replace the paragraph that begins "If core sample method ..." with the following paragraph:

If core sample method was used, repair core hole samples using the same tube that was used in the installed liner, and an epoxy or resin mixture compatible with the GRP CIPP liner system used. Fill the cores completely with repair patches. Apply a second oversized 1.5mm thickness patch over the repaired hole to ensure a watertight seal.

(Use the following subsection .80 when SP00410 is used and Section 00413 is listed as an option in Table 00410-1.)

00413.80 Measurement - Replace this subsection, except for the subsection number and title, with the following:

CIPP Liner will be measured according to 00410.80.

(Choose one of the following Options) ~~(Use the following subsection .90 when SP00410 is used and Section 00413 is listed as an option in Table 00410-1.)~~

00413.90 Payment -

[Option 1]

Replace the paragraph that begins "In item (a), the ..." with the following paragraph:

In item (a), the nominal size of the host pipe is inserted in the blank.

Replace the paragraph that begins "Payment will be payment ..." with the following paragraph:

Payment will be payment in full for furnishing and placing all Materials, and for providing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

(Option 2 - Use the following when SP00410 is used and Section 00413 is listed as an option in Table 00410-1.)

Replace this subsection, except for the subsection number and title, with the following:

CIPP Liner will be paid for according to 00410.90.