



Manhole Rehabilitation

FROM AN
INSPECTOR'S
POINT OF VIEW





Jerry Weimer

- NASSCO PACP/LACP/MACP Master Trainer
- ITCP Manhole Certified, CIPP Trainer
- NASSCO Technical Advisor
- 35 years Sewer Maintenance Experience



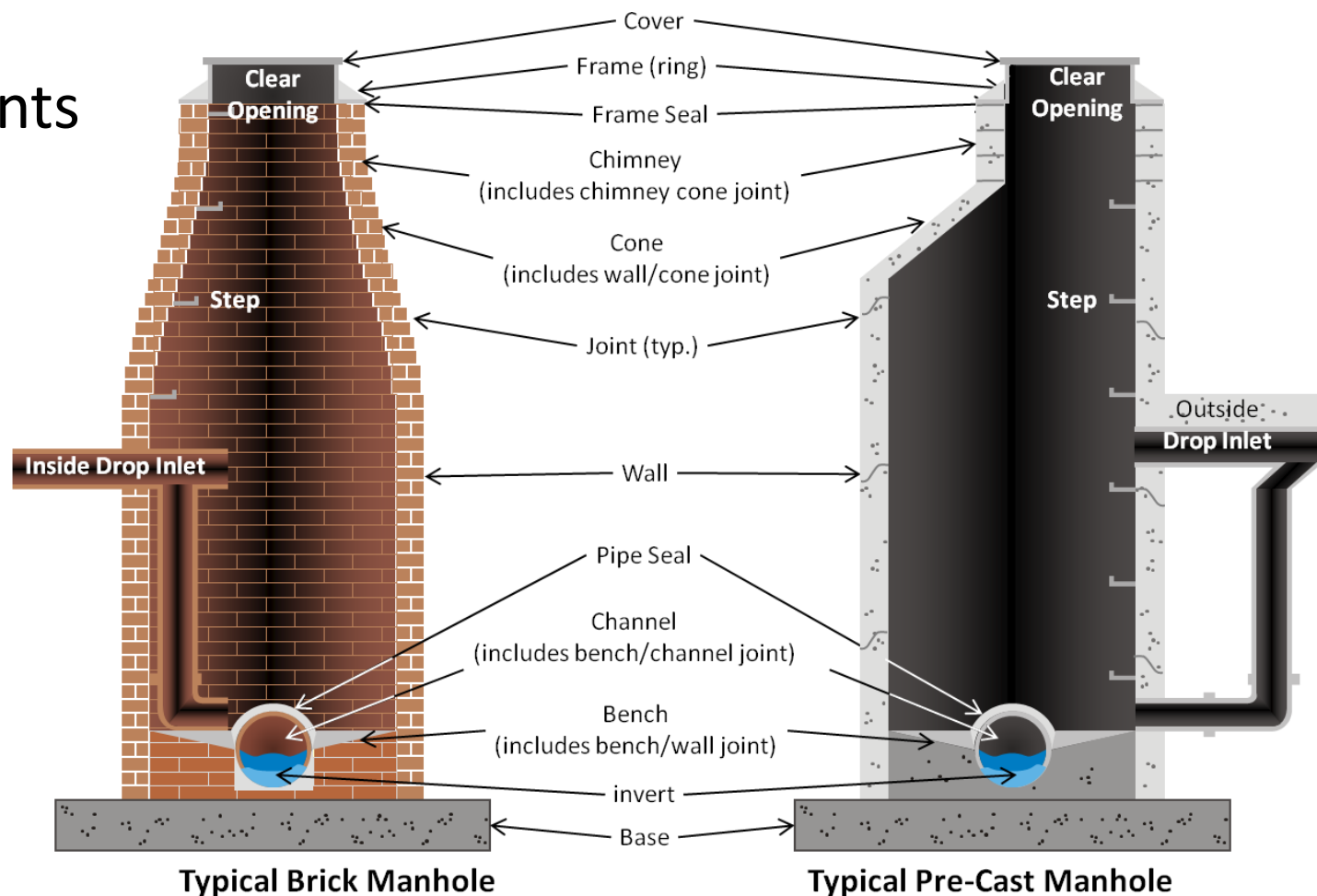
Jerry Weimer Consulting





Agenda

- Introduction and Documents
- Preparation
- Application/Installation
- Testing
- Acceptance
- Warranty Inspection





Introduction and Documents

- Hi, I am Jerry Weimer and I will be your ITCP Certified Inspector
- I am here to work with you to confirm that the rehabilitation products are installed or applied properly and tested in accordance with the contract requirements
- I would like to see a copy of the manufacturers specifications and the technical data sheets for the products you are using. I need to verify:
 - Product names
 - Physical properties
 - Mixing procedures
 - Application methods
 - Product limitations
 - Preparation requirements
 - I would also like to speak with you about your safety protocols, PPE and get a copy of your safety data sheets.



Introduction and Documents

Will you be doing any bypass pumping?

Safety

I would also like to speak with you about your safety protocols, traffic control plan, confined space entry permit, PPE and get a copy of your safety data sheets.





Preparation

- What preparation is needed for this product?
 - Infiltration Control
 - Cleaning
 - Profile and Compatibility





Preparation



Do we have infiltration to stop? If so, how will you be stopping the water.



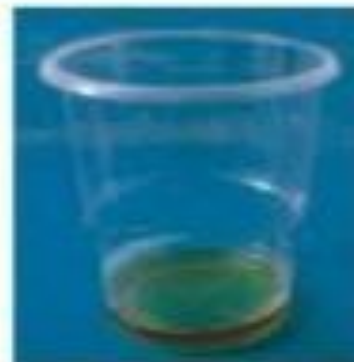
Will you be using chemical



What type of Grout?



What is the Gel Time?





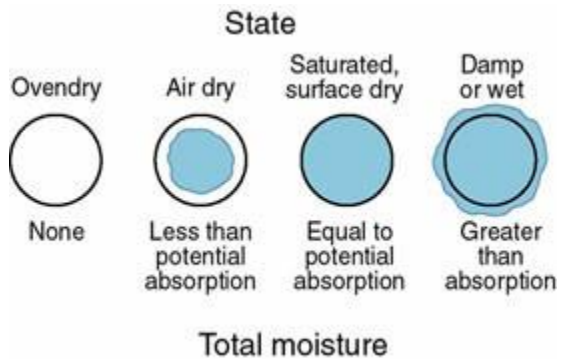
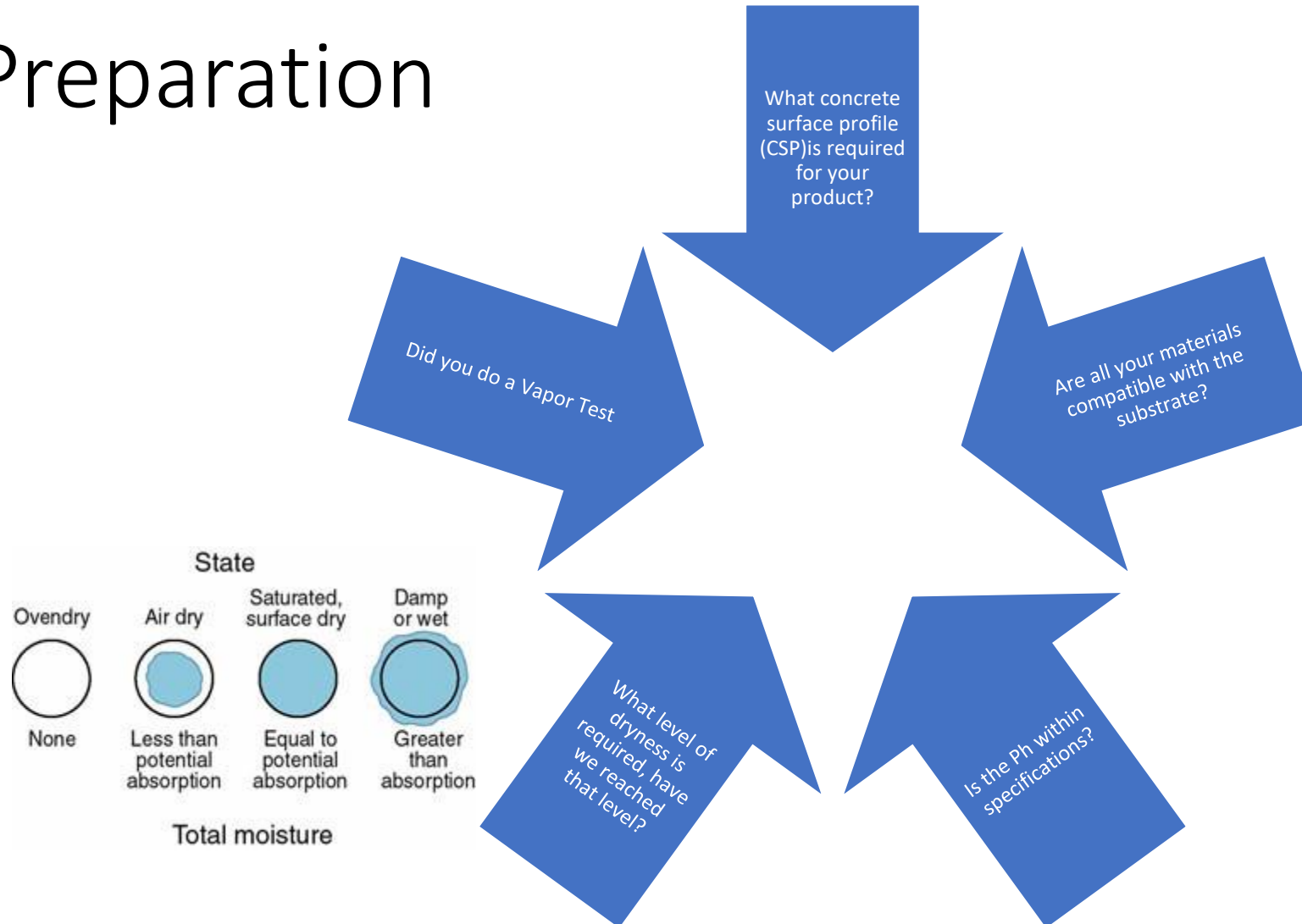
Preparation

- How are you cleaning the surface of dirt and loose debris?
- What equipment do you have for preparing the surface?
- Are you using detergents and hot water for grease?
- Do you need to etch the surface or just water blast?





Preparation





Application/Installation

How are you installing the coating, spraying, spinning or trowel application?

How thick of a coating is needed?

Will you be doing multiple coats or one coat?

Will you check the thickness with the Wet Film Thickness Gauge or should I check the thickness myself?





Testing

- Let me test the application, do you have a Spark Tester?
- I will be circling all of the pinholes for you to repair.
- Do you have the equipment for the testing?
- I will be documenting the results of the tests.





Testing

For the Cement, I will be testing the compressive strength. Will you be providing a cube or cylinder sample?



I will be documenting the results of the tests.



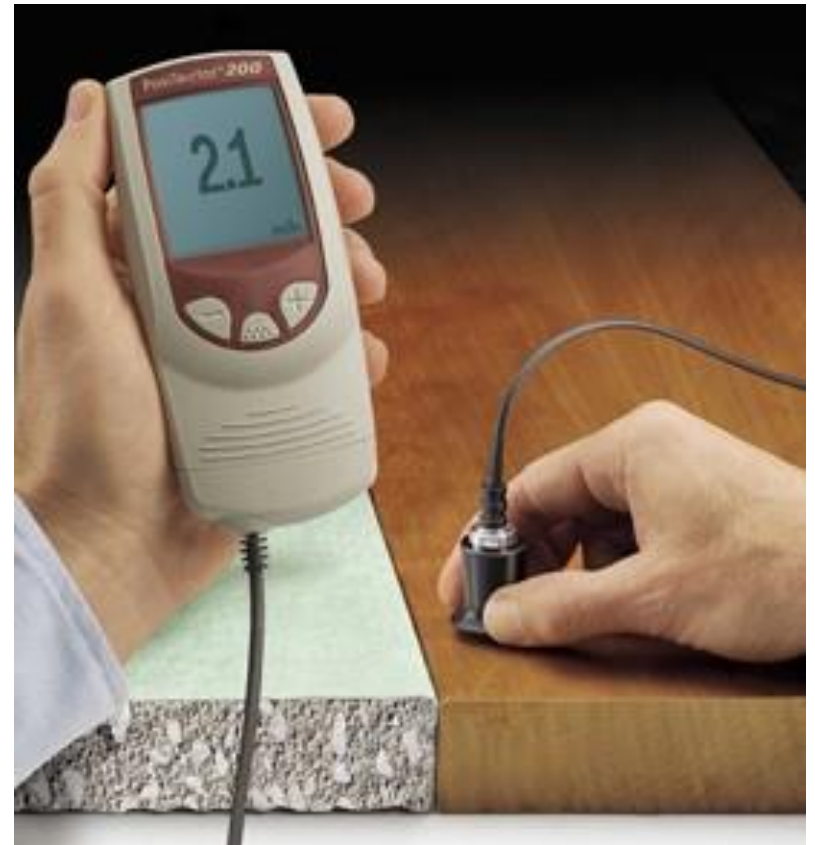


Testing

I will be doing some core testing and ultrasonic testing to check for thickness.

Do you have the equipment for the testing?

I will be documenting the results of the tests.





Testing

- I will be testing your first two manholes for adhesion using a pull off tester.?
- Do you have the equipment for the testing?
- I will be documenting the results of the tests



AT-M Manual

[illegible]



Warranty Inspection

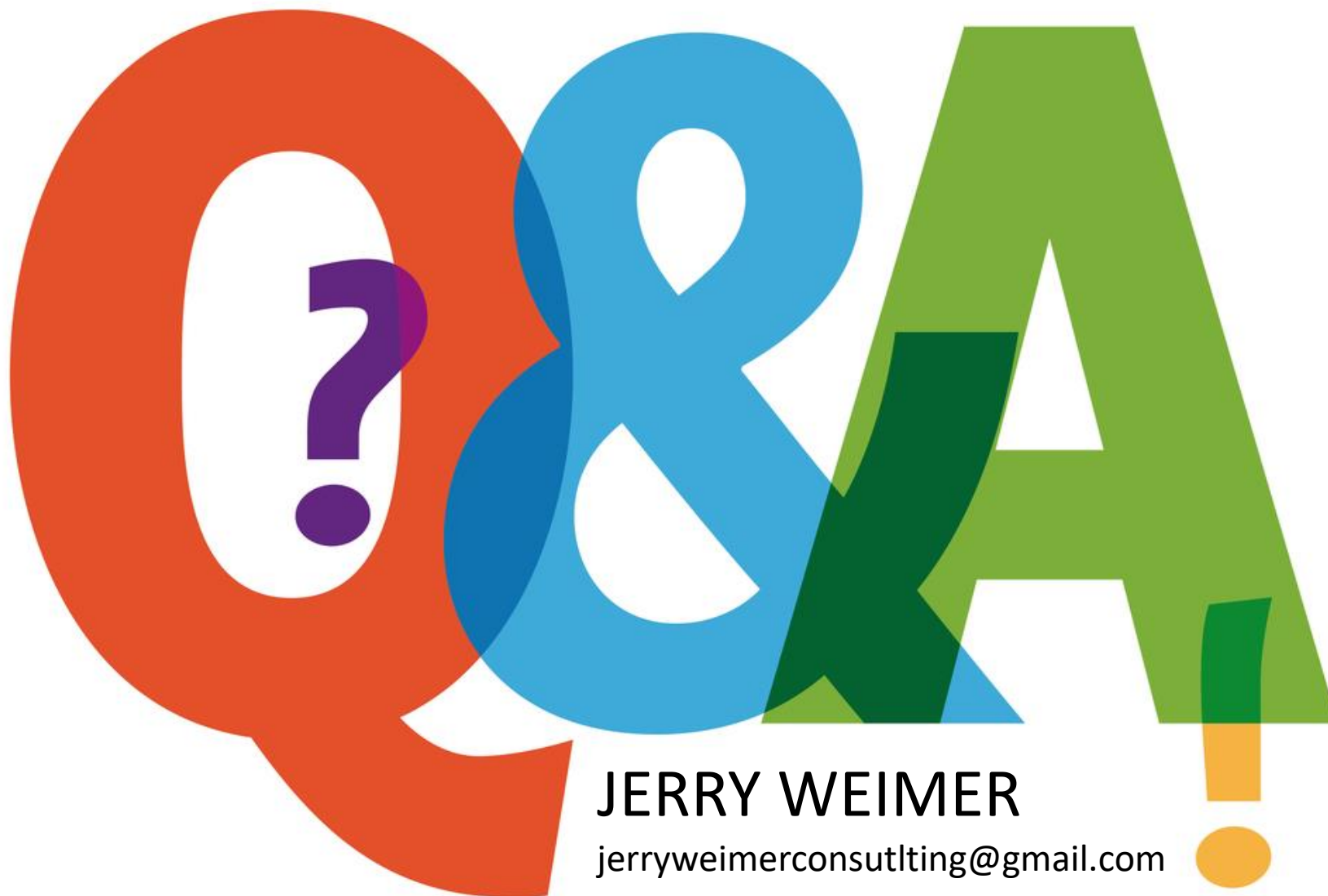
You have provided me a warranty certificate. I will be inspecting the manhole 6 months before the warranty expiration.

We will be using the agreed upon repair methods outlined in the specifications.



UNDERGROUND CONSTRUCTION TECHNOLOGY

The Underground Utilities Event | July 13-15, 2021 | Music City Center | Nashville, TN



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