A Florida Department of Transportation Project
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I-4/MAITLAND BOULEVARD INTERCHANGE STABILIZATION

What is the Maitland Stabilization Project?

Starting December 2008, the Florida Department of Transportation (FDOT) will begin work to prepare the Maitland Boulevard interchange on Interstate 4 for future improvements as part of the Ultimate I-4 project.

- The stabilization will take place just east of the eastbound I-4 lanes at an existing retention pond within the interchange.
- The stabilization process will take 18 to 24 months to complete.
- The cost of the project is estimated to be $8.9 million.

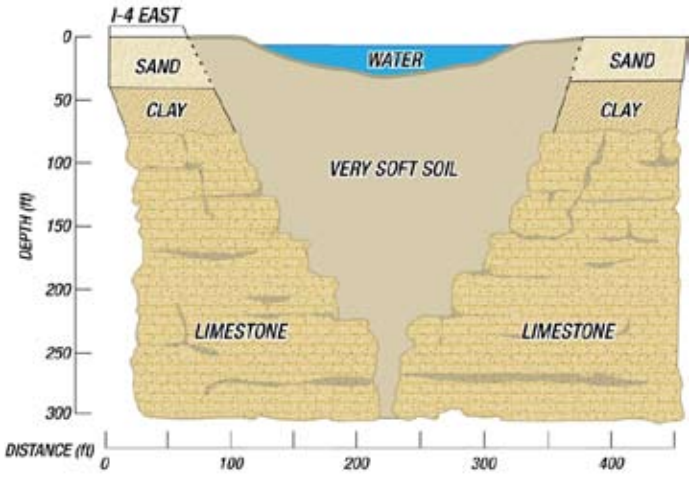
Why is stabilization necessary?

- FDOT will widen I-4 and reconfigure the interchange in the future to improve traffic flow.
- Though the pond poses no danger as it is, stabilization is necessary to make sure the widened I-4, including a new exit ramp, is on solid ground.
- Stabilization will also prevent future reoccurrence of the sinkhole.

What will be stabilized?

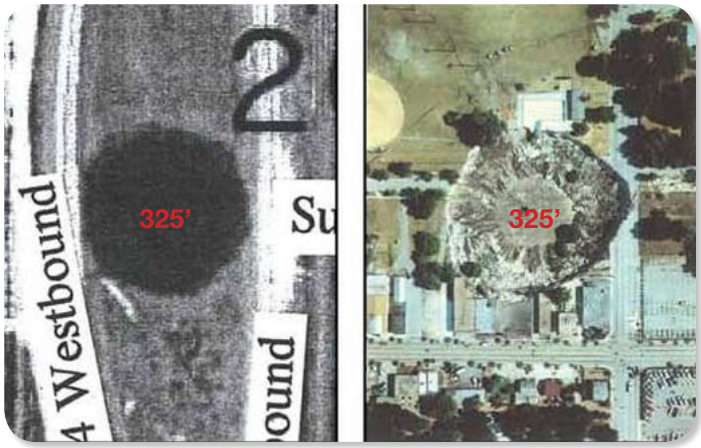
- Central Florida geology contains a high amount of limestone under the ground's surface, which is often filled with holes, caves and caverns due to thousands of years of water erosion.

The Maitland interchange as it exists today



A cross section of the Maitland Depression, currently a pond

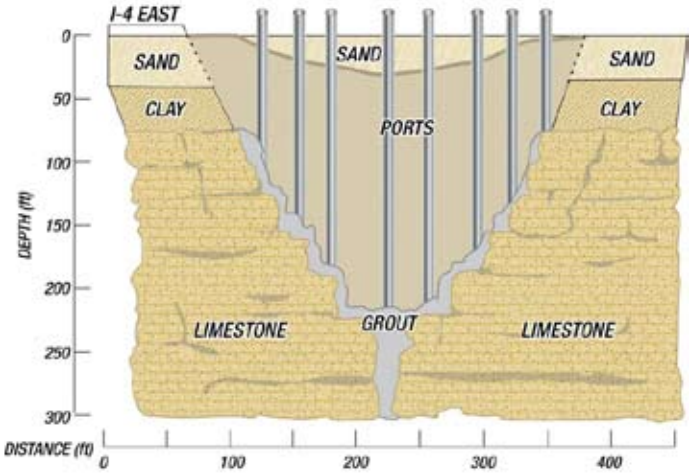
- When sand and clay resting on top of the limestone starts to flow down to fill in these holes and crevices, it creates a depression on the surface.
- Like many such areas in Central Florida, the depression at the Maitland interchange has filled with water over the years creating a pond. It wasn't until geologists surveyed the pond during initial I-4 construction in the 1960's that they learned how it was formed.
- With a diameter of 325 feet, the depression at the Maitland interchange is about the same size as a similar depression which occurred in Winter Park in 1981.



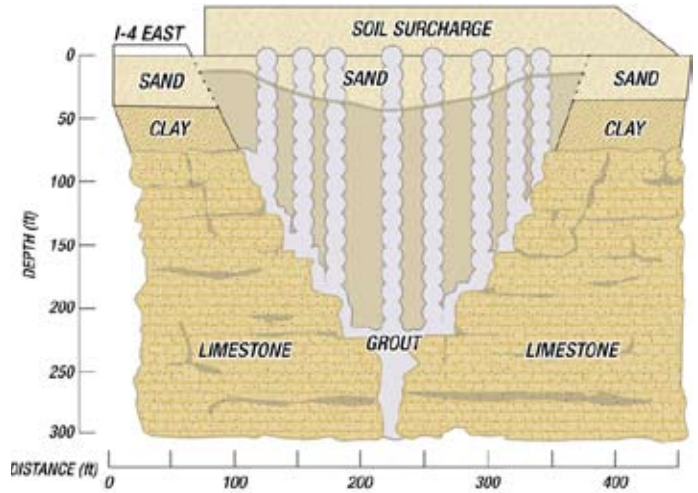
A comparison between the Maitland Depression in 1971 and the Winter Park Depression, which occurred in 1981

What will be the stabilization process?

1. Construction crews will completely drain the pond.
2. Workers will drill pipes—called "ports"—75 to 300 feet into the limestone layer. Next, they will pump a water, sand and cement mixture—called "grout"—through the ports to fill in the cracks and crevices.
3. Crews will slowly raise the ports while pumping grout to strengthen the soft soil. All told, this project will use nearly seven million gallons of grout, enough to fill 10 Olympic-sized swimming pools, and should take six to nine months to complete.
4. FDOT will place a surcharge, a mound soil approximately 28 feet high, over the stabilized ground. The surcharge will compress the underlying soil, making the ground strong enough to support a ramp which will be part of the future interchange. It will take about two months to complete the surcharge placement.
5. Crews will monitor the surcharge for several years until the area has been adequately compressed. Then, any remaining soil will be removed.



Crews will drill ports 75 to 300 feet into the depression to pump grout into cracks and crevices in the soil



As grout ports are slowly extracted, crews will pump more grout in order to strengthen any surrounding loose soil

How will the stabilization project affect traffic along I-4?

Roadwork to prepare for the stabilization project will involve I-4 lane shifts and some periodic night time lane closures.

- FDOT will temporarily shift the eastbound I-4 lanes along this section of roadway to the west to make room for the surcharge.
- Single I-4 lane closures may occur nightly between 11:30 p.m. and 6:00 a.m. Double I-4 lane closures may occur between 1:00 a.m. and 5:00 a.m.
- FDOT anticipates all ramps will remain open at all times.

A 28-foot high soil surcharge, similar to this one from a project on another highway will compact the soil within the stabilized depression for several years.