

# Evaluation of Static Resistance Through FB-DEEP

**FDOT Contract No.: BDV-31-977-05**

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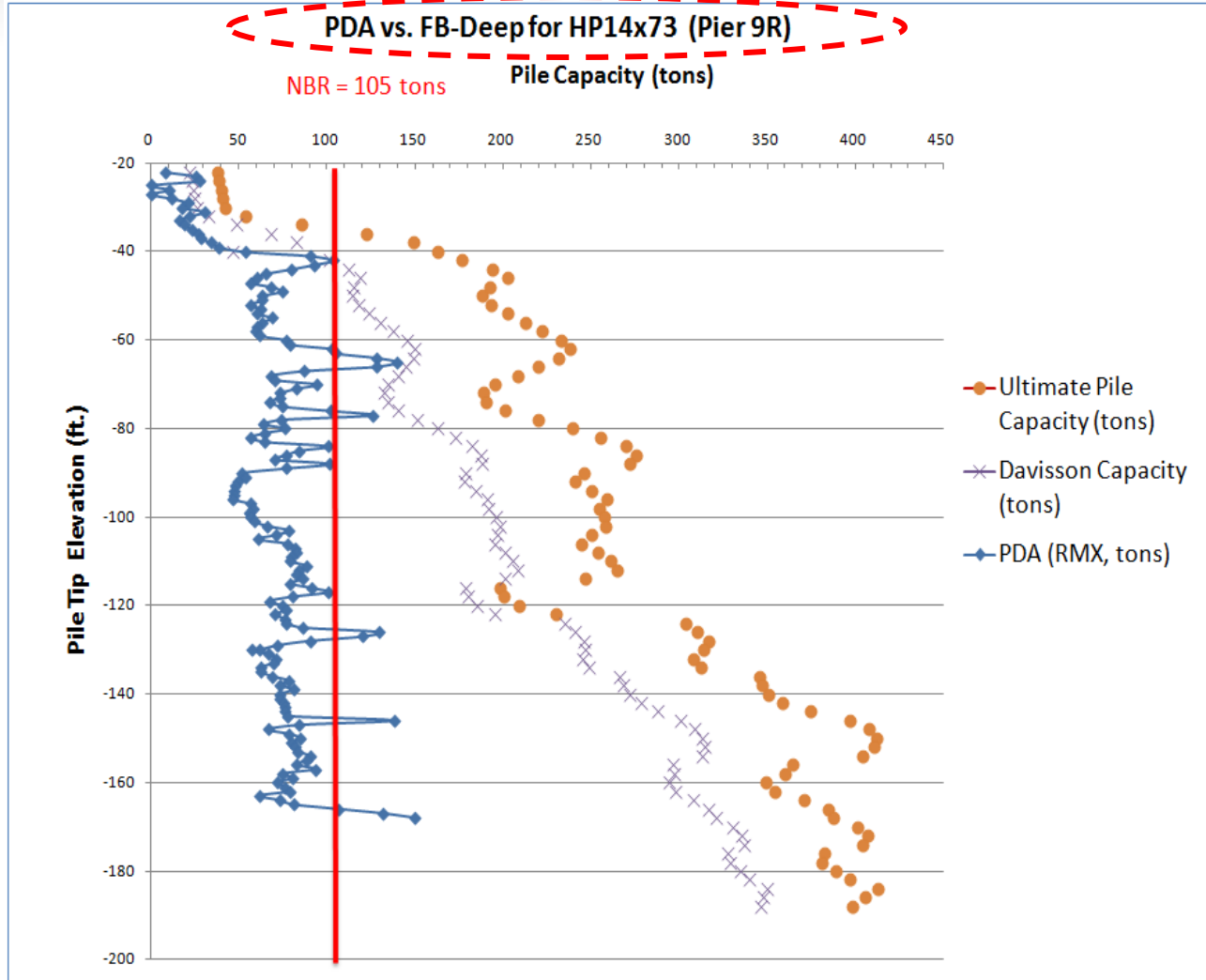
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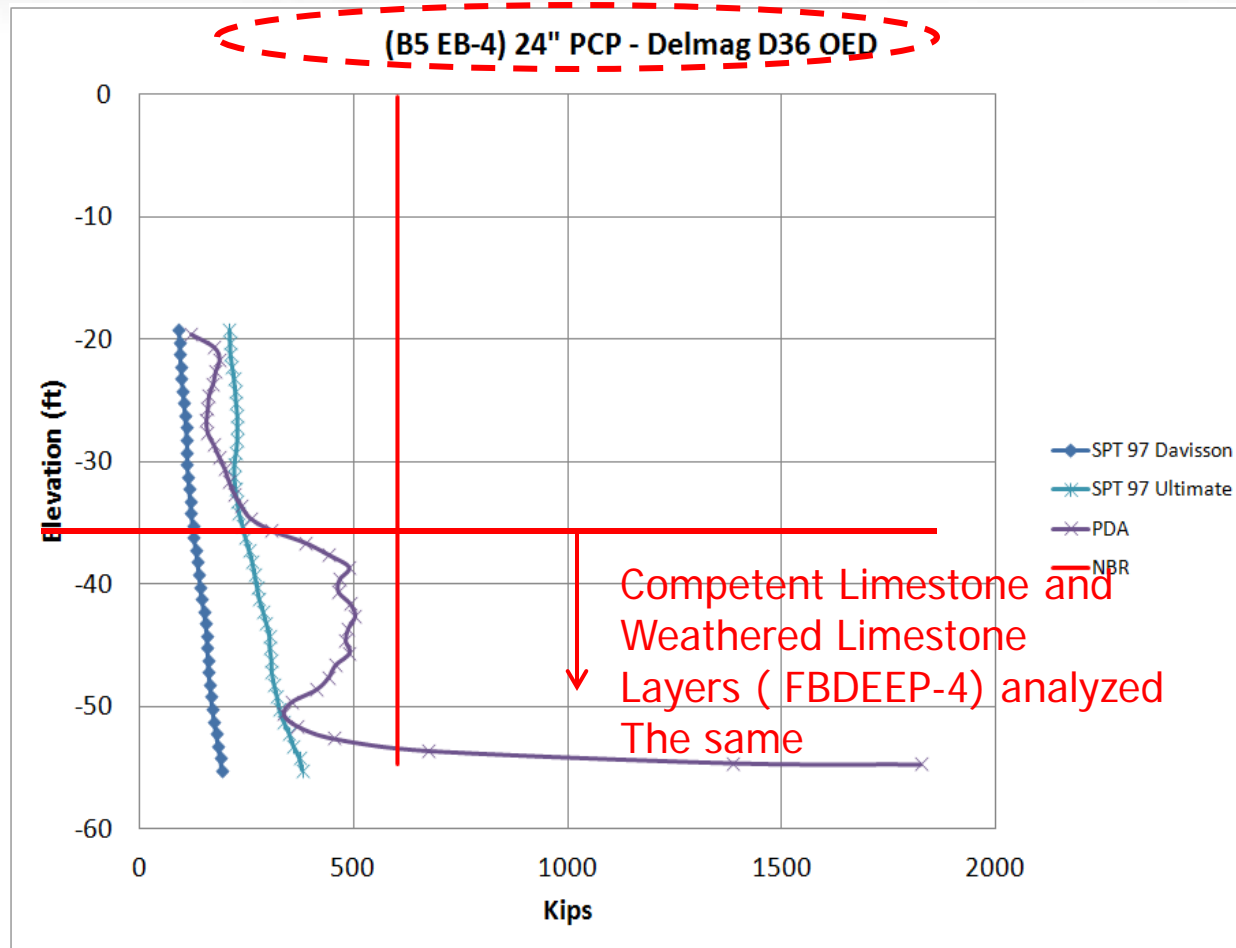
# Reevaluate and Improve FB-DEEP for Other Pile Types and Soil/Rock



## Improve FB-DEEP H Pile Design

- Collect Data from FDOT projects Using H Piles (e.g. I-95)
  - SPT borings
  - PDA records (e.g. certification Letters for Bridge Piers)
  - Upload into Online Database, evaluate skin and tip resistance based on soil type, and SPT blow count

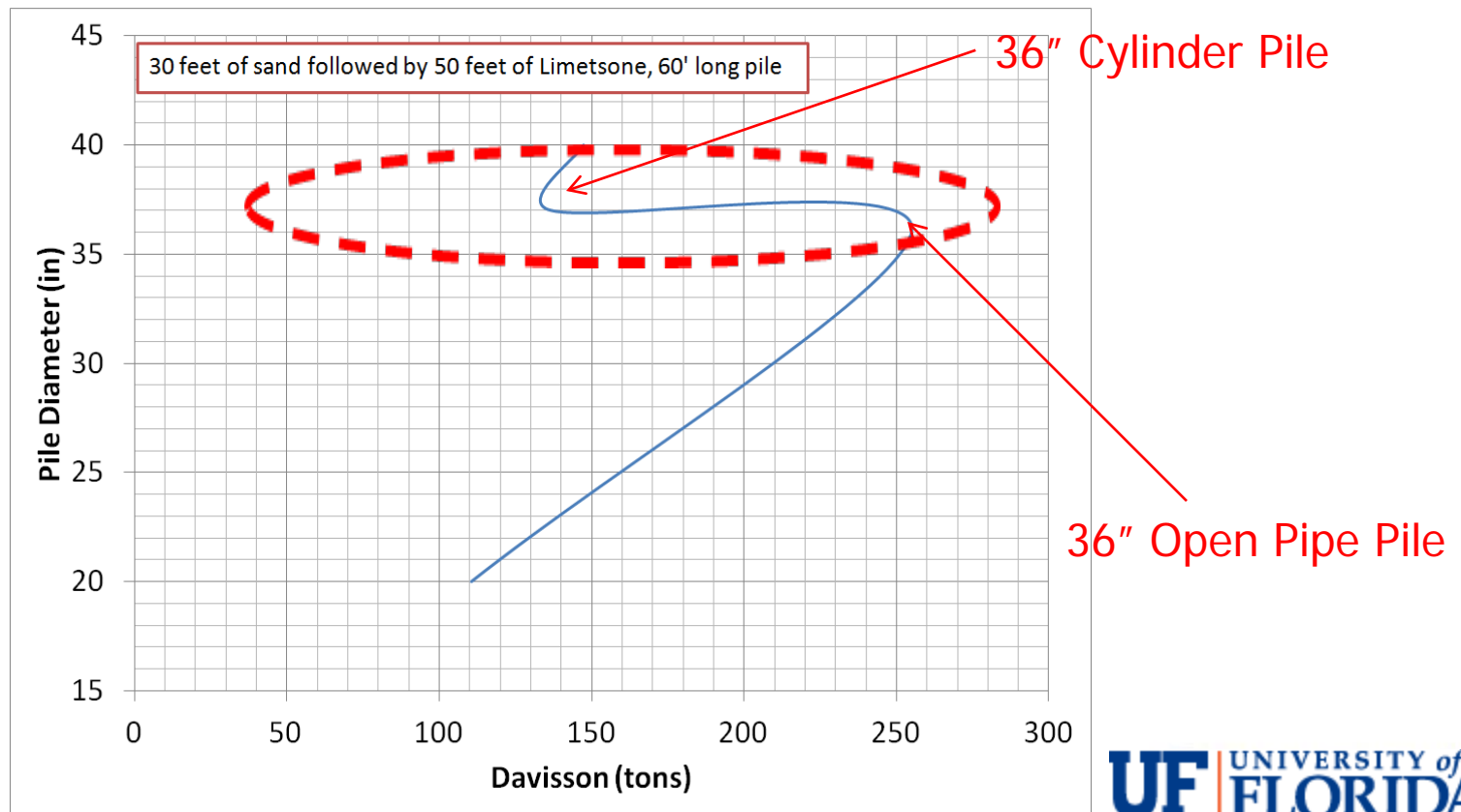
# Reevaluate and Improve FB-DEEP for Other Pile Types and Soil/Rock



## Improve FB-DEEP for Prestressed Concrete in Weathered and Competent Limestone

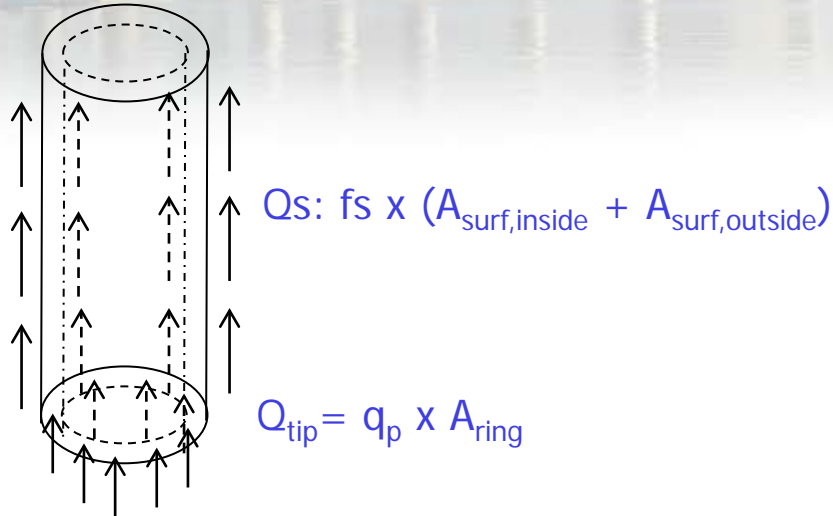
- Collect Data from FDOT projects Using PSCP Piles (e.g. I-595, etc.)
  - SPT borings
  - PDA records (e.g. certification Letters for Bridge Piers)
  - Upload into Online Database, evaluate skin and tip resistance based on soil type, and SPT blow count (consider differentiating competent from weathered limestone)

# Reevaluate and Improve FB-DEEP for Other Pile Types and Soil/Rock

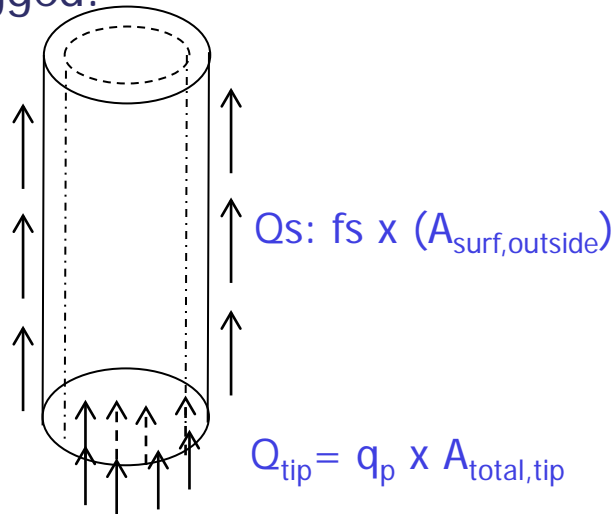


## Pipe Pile – Smaller of A or B

A) Unplugged:

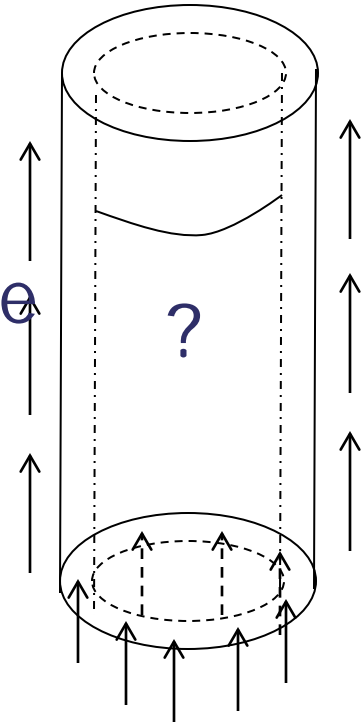


B) Plugged:



### Cylinder Pile

Outside Area



Ring Area

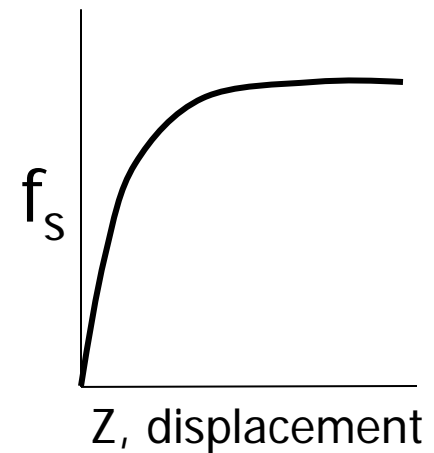
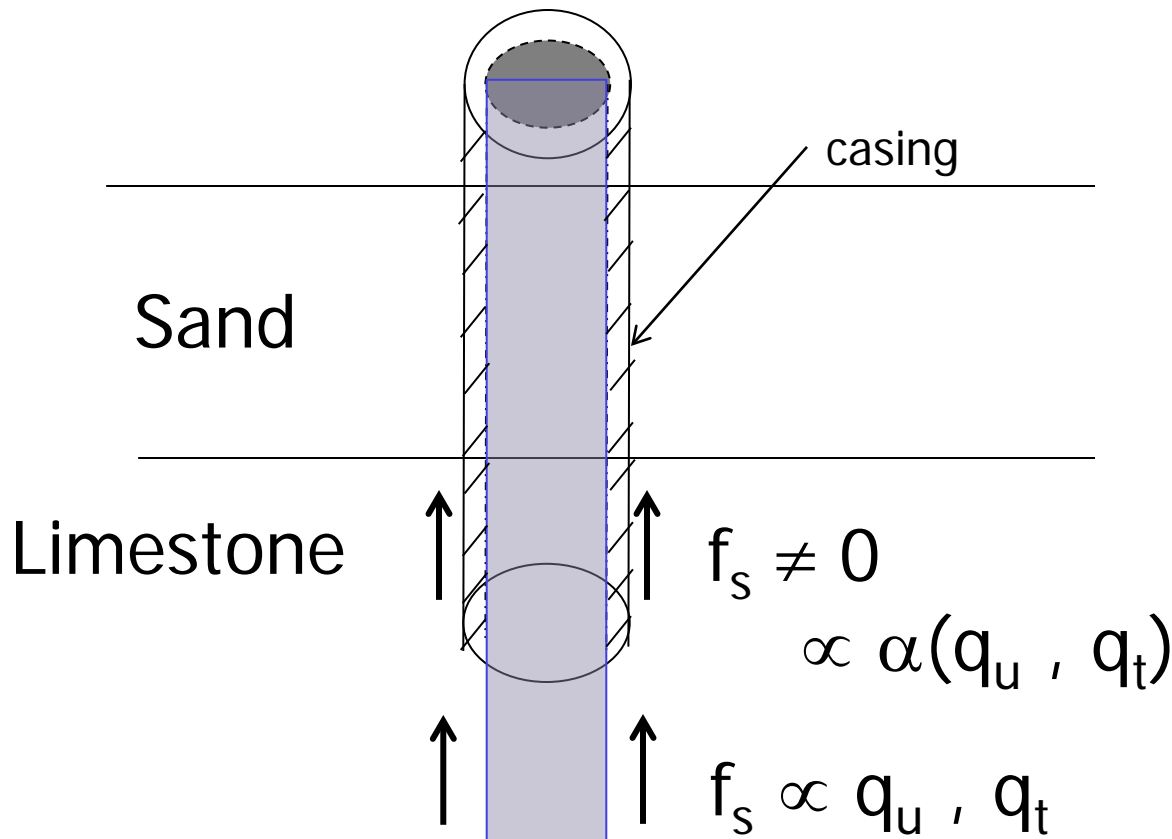


## Update FB-DEEP Design for Steel Pipe Piles

- Collect Data from FDOT projects Using steel Pipe Piles (e.g. SR-79, SR-46)
  - SPT borings
  - PDA records (e.g. certification Letters for Bridge Piers)
  - Upload into Online Database, evaluate skin and tip resistance based on soil type, and SPT blow count, (consider API approach and others)



# FB-DEEP Analysis of Cased Drilled Shafts Installed in Florida Limestone



## Improve FB-DEEP Design for Cased Drilled Shafts into Florida Limestone

- Collect new Data (lab and load tests) from FDOT projects Using cased shafts into limestone(e.g. Leroy Selmon widening)
- Search old databases (FDOT access database), contact other southern DOTs for data
- Develop unit skin friction vs. deformation (T-Z curve) for cased section of drilled shafts in Limestone

**Thank You**  
**Questions?**