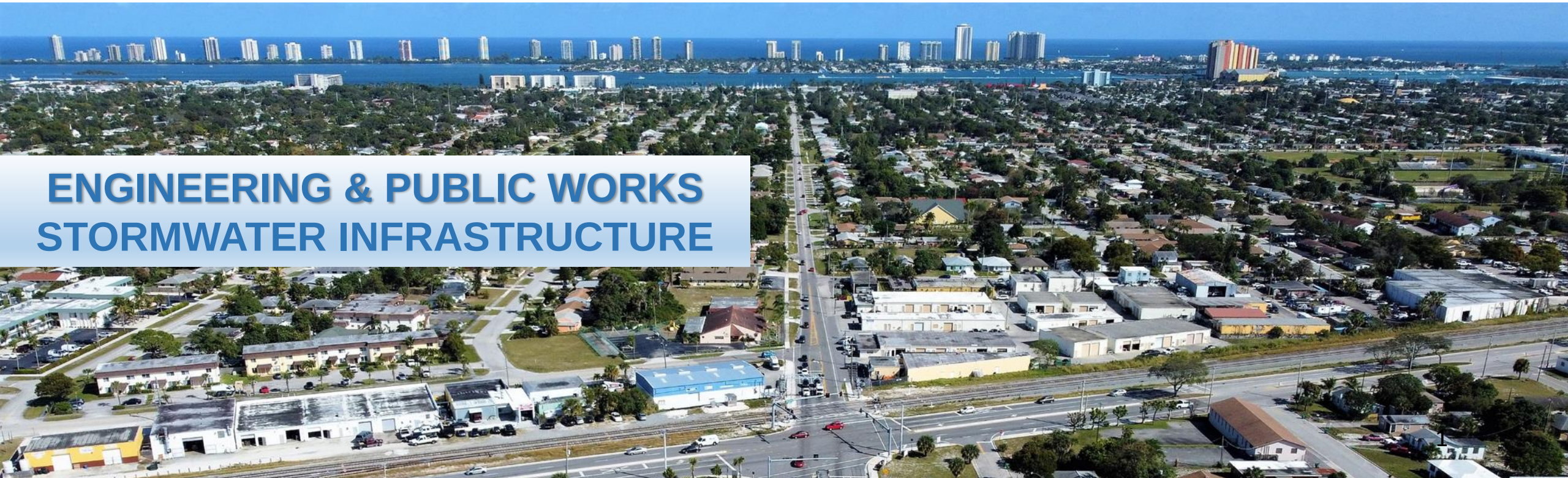
Palm Beach County
The Best of Everything.

Drainage (Pipe Replacements)

"Various other locations Countywide"

Additional Funding Request

Infrastructure Sales Tax Oversight Committee November 16, 2023

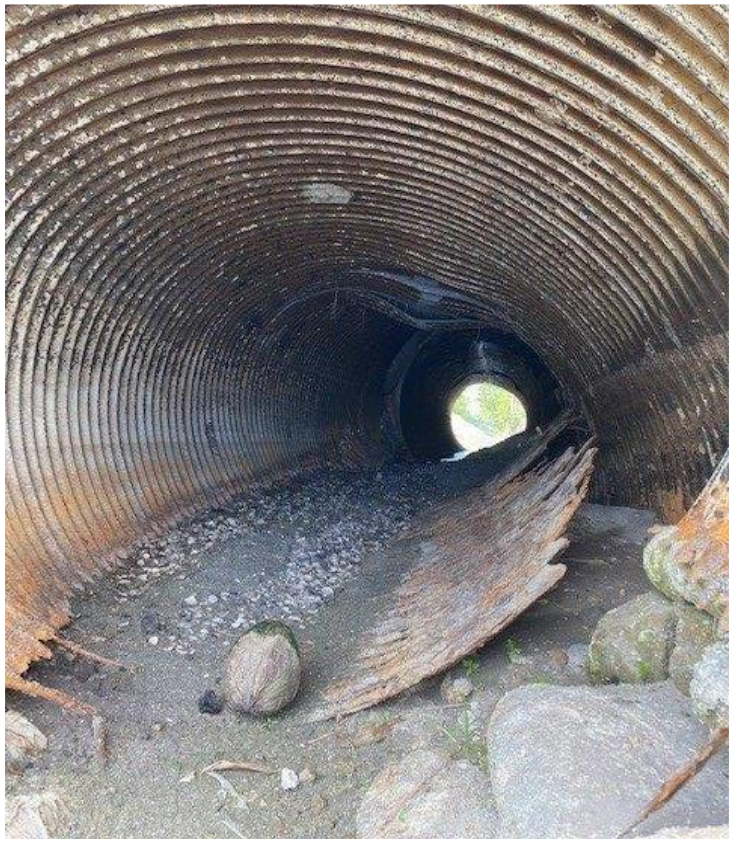


PBC STORMWATER INFRASTRUCTURE

- Engineering is experiencing increased stormwater infrastructure failures

New Corrugated Metal Pipe (CMP)

CMP spring line failing weakening pipe structural integrity



CMP spring line failing weakening pipe structural integrity

PBC STORMWATER INFRASTRUCTURE

Historically, pipe deficiencies result in ground or pavement failures commonly seen as potholes, cave-ins, and sinkholes. Also, more pipe deficiencies are being identified as we (Stormwater Section) increase and improve our maintenance and inspection services (e.g. CCTV). Failures also cause flooding upstream. Any failing pipes need to be replaced or repaired (e.g. cured-in-place pipe lining) in order to properly drain and maintain our roads in a safe operating condition.

CMP sinkhole

Collapsed CMP sinkhole

PBC STORMWATER INFRASTRUCTURE

- Most prevailing failure is caused by aged and failing countywide CMP

CMP spring line section loss

Corroded CMP sinkhole

PBC STORMWATER INFRASTRUCTURE

- Corrugated Metal Pipe (CMP) was commonly specified and installed (especially in the 1970s and 1980s) as part of Palm Beach County's stormwater conveyance system.
- Unfortunately we have found that CMP only has an average service life of about 30 – 50 years.

CMP failure – collapse / blockage

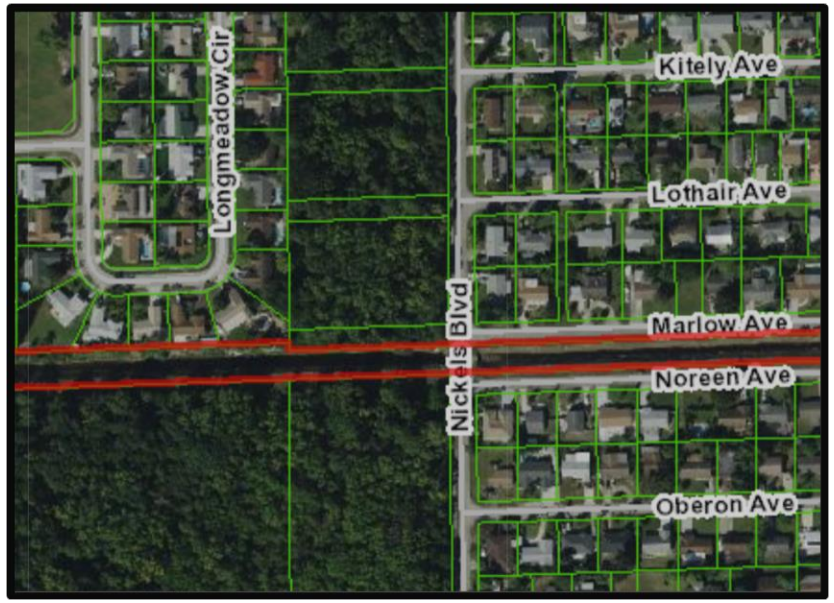
CMP failure - sinkhole

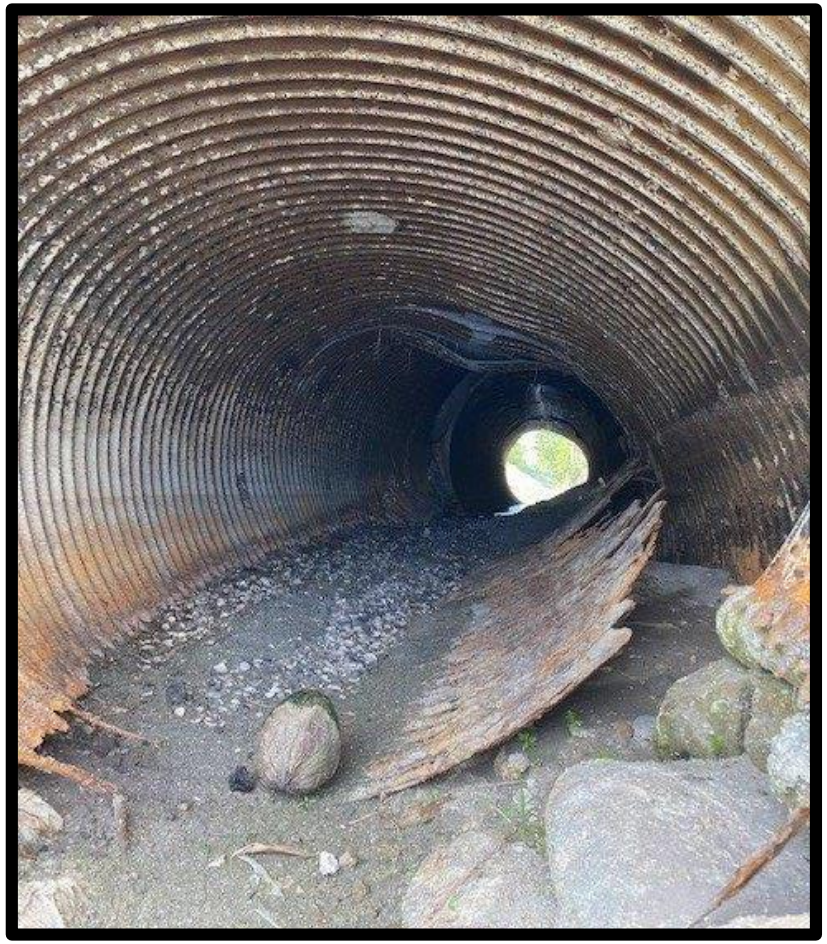
- Unlike most other pipe materials, CMP failures involve flow-line or spring-line corrosion that affect its load carrying capacity. When this occurs, the CMP collapses on itself, creating a sinkhole and flow line blockage that also reduces stormwater flow.

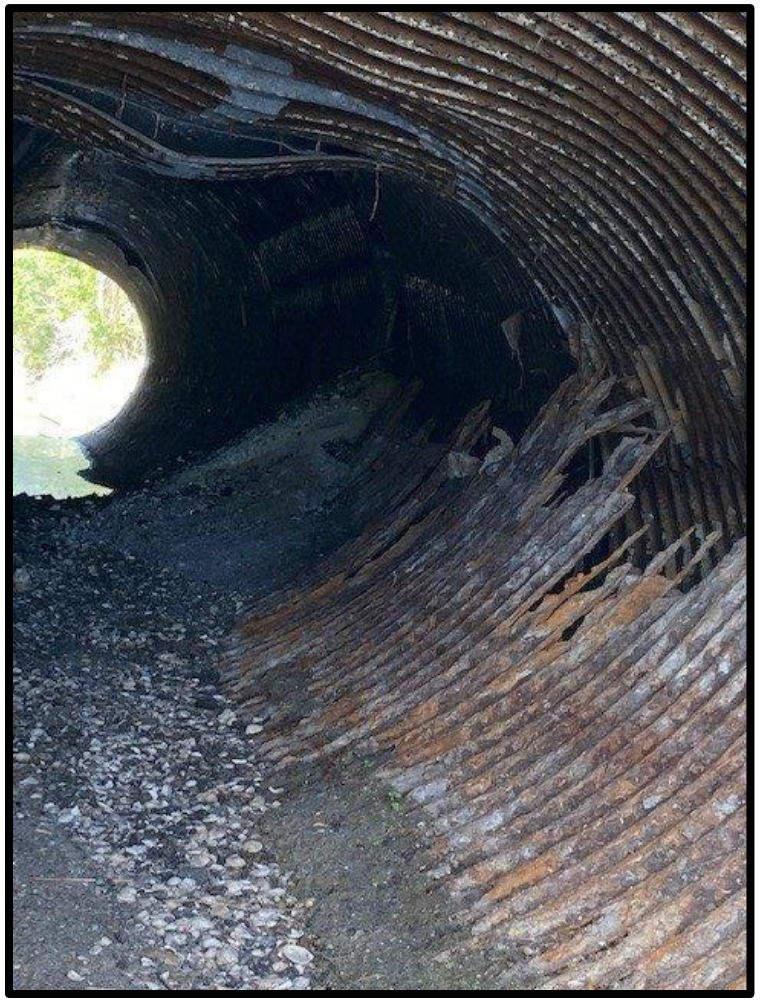
PBC STORMWATER INFRASTRUCTURE

Nickels / L-23– Aged / Failing CMP

- 74 Linear Feet of CMP replaced with 72” RCP
- Cost of $575K (completed)







PBC STORMWATER INFRASTRUCTURE

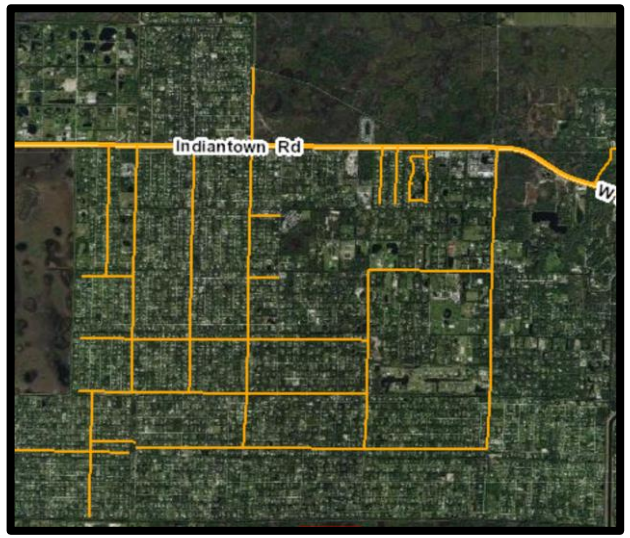
Royal Palm Beach Boulevard - Aged / Failing CMP

- 67th Place N - 24” CMP
- Approximately (20) additional 24” CMP culverts in similar condition.

PBC STORMWATER INFRASTRUCTURE

Jupiter Farms – Aged / Failing CMP

- 130th Ave N & 125th @ Canal 4 - 24” CMP
- Jupiter Farms Community wide CMP evaluation / estimate to be attained

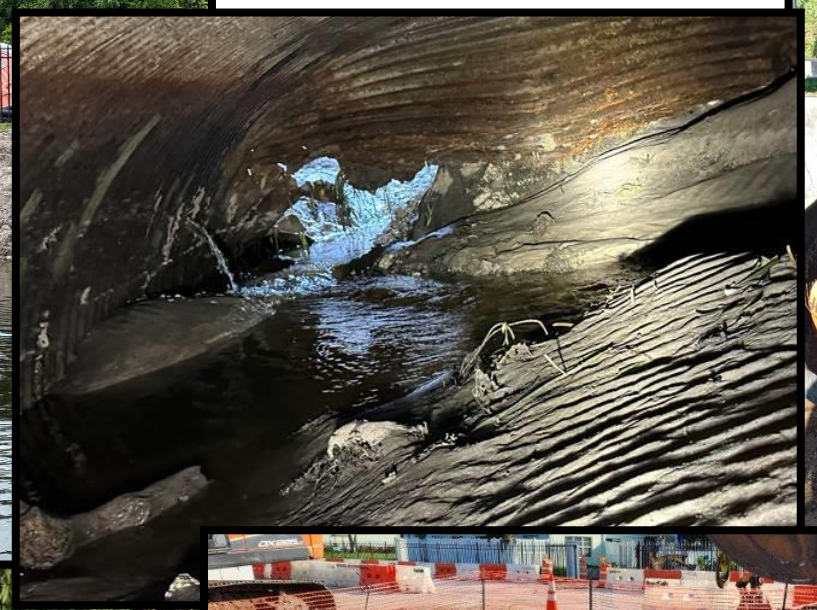


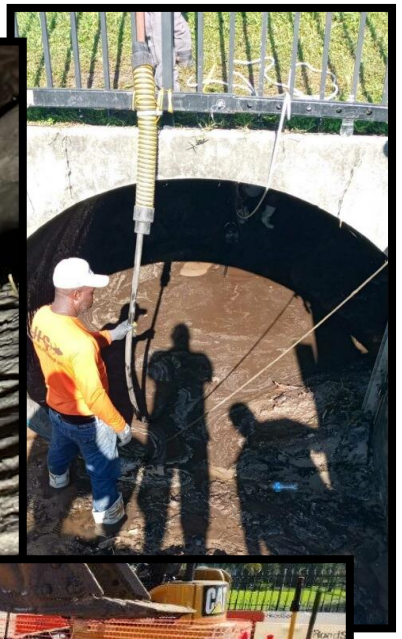
Engineering & Public Works Department

PBC STORMWATER INFRASTRUCTURE

Foxwood Estates / Lakeside Green - Subdivision Wide Aged / Failing CMP

- Foxwood Lane 123” X 81” CMP Arch pipe repair / lining *Note required multiple stormwater transfer pumps due to rainy season and Northern Water District discharge.





PBC STORMWATER INFRASTRUCTURE

Wynnewood Acres - Subdivision Wide Aged / Failing CMP

- 5632 Lafayette Street – Approximate 48” CMP near Upland Way and Woodcrest Road – Active-Failure extends from swale area - into easement / residential backyard. Currently investigating via a diver.

- Lafayette Street and Woodcrest Road
- Orchard Way and Wynnedale Road

PBC STORMWATER INFRASTRUCTURE

Lake Charleston Subdivision – Subdivision Wide Aged / Failing CMP

- 7153 Catalina Isle Drive 15” & 24” CMP
- 6383, 6663, 6706, 6754, & 6808 Hatteras Drive – 18” & 24” CMP
- Subdivision wide CMP evaluation / estimate to be attained

PBC STORMWATER INFRASTRUCTURE

Current CMP Identified Failure Sites

- 2199 Radnor Court – $348K
- Boca Rio Road - $132K
- 2097 West Palma Drive - $42K
- 4167 Mockingbird Drive- $124K
- Crest Drive & Lake Placid - $178K
- Belvedere Road & Benoist Farms Road - $204K
- Canal 4 @130th & 125th - $100K
- Roan Lane - $73K
- Kirk @ L-11 Canal - $898K
- SW22nd & Sable Pine Ditch - $86K
- Seminole Manor Subdivision - $632K
- Cannongate Subdivision - $590K
- 17967 Bridle Court -$228K
- Sioux Lane - $180K
- Seminole Drive - $72K
- Lake Charleston Subdivision (Catalina Isle Drive / Hatteras Drive) - $5.2M
- Whispering Trails Subdivision - $4.6M
- Haverhill at L-11 Canal- $1.2M
- Wynnewood Acres Subdivision (Woodcrest Road, Upland Way and Lafayette Street) - $750K
- Royal Palm Culverts - $2.5M
- Foxwood Estates (Foxwood Lane) - $1.2M
- Lantana Road, Hagen to I-95 - $2M
- Military Trail - PGA to Donald Ross- $2M

Total : $24M

*Costs shown are approximate

THE
END
QUESTIONS?
COMMENTS?