

Client Contact:
Mr. Chris Bremner
Brookfield Residential
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Services Provided:

- **Materials Testing Services**
- **Pavement Thickness Design**
- **Geotechnical Engineering Consultation**

Project Summary:

Cesare, Inc. (Cesare) provided materials testing services, pavement thickness design, and geotechnical engineering consultation at the Tallyn's Reach subdivision. Tallyn's Reach is an approximate 960 acre subdivision developed by Brookfield Residential near E-470 and Smoky Hill Road that includes parks, schools, and recreational facilities. Cesare's responsibilities for the project included:

- Performing subsurface investigations and providing geotechnical recommendations for the on-site community center that includes a swimming facility with an olympic size pool and tennis courts.
- Conducting pavement thickness design and swelling subgrade mitigation for on-site roadways. Subgrade mitigation included overexcavation and replacement with non-swelling, higher

strength on-site materials.

- Performing engineering consultation on various aspects of the project including retaining walls, cut-to-fill shrink/bulk estimations, nature and extent of swelling materials, trench stability, soil corrosivity, and creek edge stability.
- Conducting construction materials testing of overlot fill, roadway fill, utility trench backfill, sidewalks, curb and gutter, and asphalt and concrete pavements.
- Inspecting and observations for drainage way improvements including sheet pile, riprap, box culverts and a small earthen dam.

Cesare worked closely with the client, contractors and other design engineers to make sure the overall quality of the design and materials that were placed for the duration of the project.

