



DANA M. SHAUT, EI

Structural Engineering Intern



Education: BS, 2020, Civil Engineering, North Carolina State University

Registration: Engineering Intern: North Carolina Certificate No. A-29998

Professional Summary: Dana started at A&O in May 2019 as a structures intern and has garnered accomplishments in bridge inspections, structural analysis, pedestrian bridge design, and NCDOT load ratings in the past three years. Her software proficiencies include AutoCAD, RISA 3D, ENERCALC, LEAP, Mathcad, and MicroStation.

Experience:

Structures:

Rowland's Grant Sewer Line Supports, Fuquay-Varina, 2021

Structural design of cast-in-place reinforced concrete piers for the support of a 12-inch DIP aerial sewer line encased in a 20-inch DIP sleeve to serve the private subdivision.

Reams Grove Sewer Line Supports, Apex, NC, 2021

Structural design of cast-in-place reinforced concrete piers for the support of an eight-inch diameter DIP aerial sewer line encased in a 16-inch diameter steel pipe to serve the private subdivision.

Edge of Auburn Headwalls, Garner, NC, 2021

Structural design of cast-in-place reinforced concrete headwalls and wingwalls for three pipe culverts and on 12x10-foot precast concrete box culvert in private subdivision.

Olive Branch Headwalls and Wings, Durham, NC, 2021

Structural design of two cast-in-place reinforced concrete headwalls and four wingwalls for one bottomless structural plate arch (SPA) aluminum culvert along with the footings in the Sweetbrier Subdivision.

Georgia's Landing Headwalls, Garner, NC, 2021

Structural design of four cast-in-place reinforced concrete headwalls and wingwalls for two bottomless structural plate pipe arch aluminum culverts for private subdivision.

BP4.R014 Bridge 410119 Replacement, Halifax County, NC, 2021

Bridge design for a ...

Carolina Springs Headwalls Supplement 2, Holly Springs, NC, 2021

Designed four cast-in-place headwalls and wing walls for two sixty inch diameter reinforced concrete pipes.

Whole Foods Dumpster Screen, Cary, NC

Completed a structural design check for an 8-foot masonry wall with modular brick veneer and its associated shallow footing.

Barlow Subdivision Headwall, Raleigh, NC

Designed two (2) cast-in-place reinforced concrete headwalls with modular block portions for Barlow subdivision.

Weddington Bridge Analysis, Concord, NC

Completed a feasibility study on the Weddington Road Bridge over Rocky River and performed structural analysis on the three alternate approaches to provide a 10-foot wide pedestrian walkway adjacent to the existing bridge.

Lake Crabtree Dock Repairs, Raleigh, NC

Construction administration for the replacement and repairs of the floating fishing pier and boat dock. Duties included attending bi-weekly progress meetings and site inspections.

Winston Salem Bridge Repair, Winston Salem, NC, 2020

Performed fatigue analysis on proposed repairs to determine adequacy.

Municipal Bridge Load Ratings, Clemmons, Kernersville, and Winston Salem, NC, 2020

Performed load rating analysis on NCDOT bridges.

Merck Mezzanine Analysis, Wilson, NC, 2020

Performed structural analysis of the existing framing components and deck of the mezzanine level to determine adequacy for the applied live loads.

Jacksonville Rails to Trails Pedestrian Bridge Analysis, Jacksonville, NC, 2020

Performed load rating on a premanufactured truss to determine if it could adequately carry its current posting or if a new posting was necessary.

Carolina Pines Boardwalk, Raleigh, NC, 2020

Designed substructure and steel approach spans for pre-fabricated pedestrian bridge over Carolina Pines Pond as part of a larger road widening project.

Carolina Springs, Holly Springs, NC, 2020

Design of top-down construction timber pedestrian bridge and boardwalk for Carolina Springs subdivision.

Crabtree Greenway Tunnel, Cary, NC, 2019

Designed permanent retaining walls and assisted in choice of temporary shoring for a pedestrian tunnel connecting the greenway on either side of Weston Parkway in Cary, North Carolina.

Inspections:

Bridge Inspections for Town of Hillsborough Greenway, Hillsborough, NC, 2021

Assisted in a routine in-service field inspection for 2 pedestrian bridges and documented necessary maintenance.

Tessentee Woods Bridge Inspection and Rating, Franklin, NC, 2021

Inspection of a 50 foot long private bridge and subsequent load rating to determine structural adequacy.

Underwood Avenue Culvert Inspection, Winston Salem, NC, 2021

Assisted with the inspection and documentation of major defects to an existing culvert that was showing signs of failure.

Camelot Village Bridge Inspection, Chapel Hill, NC, 2021

Assisted with the routine inspection of a private bridge.

Wilson Building Investigation, Wilson, NC, 2021

Assisted in the inspection of a municipal building that had a concrete façade spalling off of the exterior wall. Determined extent of defects and estimated repair quantities necessary to correct the current defects and prevent new ones from forming.

St. Mark's Roof Inspection & Structural Condition Assessment, Cary, NC, 2021

Aided in an inspection of a church roof that had shown signs of water damage and drafted a report on current deficiencies and recommendations for repairs.

South St. Building Structural Condition Assessment, Albemarle, NC, 2021

Performed a structural condition assessment on a historic building as part of a real estate transaction and drafted a condition report for the structural PE to review.

City of Greensboro Culvert Inspections, Greensboro, NC, 2021

Inspection of 1,100 culverts in Greensboro to determine condition state and report any necessary repairs.

St. Michael's Episcopal Church SCM Inspection, Raleigh, NC, 2020

Assisted on routine inspection of the SCM to ensure proper function.

CFPUA Sanitary Aerial Assessment, Wilmington, NC, 2019

Assisted on inspection of aerial sanitary sewer timber support system to observe the structural integrity of the existing timber support system.

RCP Culvert Inspection, Fuquay-Varina, NC, 2019

Assisted on routine inspection of one 42-inch diameter RCP and one 72-inch diameter RCP to ensure proper function.

NCDOT Bridge Inspections

Inspection assistant for NCDOT bridge and culvert inspections where responsibilities include noting maintenance items and other defects, taking structure measurements, creating sketches, and generating field reports using NCDOT's WIGINS software.