

MH2 ENGINEERING, LLC

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Education:

Bachelor of Science, Civil
Engineering
Florida State University, 2005

Professional Certification:

Florida P.E. #72295

Meredith R. Hurd, P.E.

Mrs. Hurd has over 15 years of experience in Bridge Hydraulics analysis and recommendations that include hydraulic evaluation of existing bridges, comparison of proposed bridge configurations, and scour evaluations within FEMA floodplains or floodways in Florida, Georgia, Mississippi, and Missouri. Mrs. Hurd's experience is on riverine systems with varying soil types and bridge foundations.

Project Experience

SR 263 (Capital Circle) Add Lanes and Reconstruct from SR 61 (Crawfordville Rd) to CR 2203 (Springhill Rd) (2025)

FDOT – District 3: Leon County, Florida

Mrs. Hurd served as the Drainage **EOR** on this 2.2 mile two-lane rural to six-lane divided urban roadway widening project. Mrs. Hurd was responsible for stormwater design, storm sewer design, and the proposed bridge hydraulic analysis.

Twelve Parks Residential Development (Phase E, Hydraulic Evaluation over Reach 4 of Keg Creek) (2022) ***Sub to Day Design Group: Coweta County, Georgia***

Mrs. Hurd was **EOR** responsible for the hydraulic evaluation of the proposed culvert crossing on Long Branch Trail over Reach 4 of Keg Creek in the Zone A FEMA floodplain for the Twelve Parks Residential Development in Coweta County, GA. The proposed culvert consists of an 8x4 box culvert with two 6x3 overflow culverts to accommodate larger flows. This project was evaluated in HEC-RAS and involved community coordination for floodplain alterations.

Palatka to Lake Butler Trail from SR 100 to SE 36th Avenue - Pedestrian Bridge over Double Run Creek (2021) ***FDOT – District 2: Bradford County, Florida***

Mrs. Hurd served as Hydraulics **EOR** for the pedestrian bridge over Double Run Creek associated with the multi-use trail segment from SR 100 to SE 36th Avenue. Mrs. Hurd analyzed the existing railroad bridge and developed proposed pedestrian bridge alternatives in HEC-RAS. This project is associated with the Rails to Trails Program that converts abandoned railroad corridors into multi-use trails.

Rome-Cartersville Development Corridor (RCDC) ***GDOT: Bartow County, Georgia***

Mrs. Hurd was **EOR** responsible for the bridge hydraulic and hydrologic report and recommendation of two hydraulic crossings and completed the QA/QC of two additional hydraulic crossings for GDOT.

US 411 Ramp Over SR 293 (Cassville Rd.), CSX Railroad, and Unnamed Tributary of Nancy Creek (2021)

Served as **EOR** for Bridge Hydraulics evaluation of the existing condition and a recommendation of a 250 ft long three span (75ft-100ft-75ft) bridge. The proposed structure will accommodate four 12 ft wide travel lanes, 4 ft median, 2 ft inside shoulder, and 8 ft outside shoulder widths.

US 411 Over Pettit Creek Tributary 6.1 (2021)

Served as **EOR** for Bridge Hydraulics evaluation of the existing parallel bridges over SR 293 (Cassville Rd SW) and proposed condition. Hydraulic evaluation included the widening of the 320 ft long parallel bridges and the addition of a five span (82'-92'-120'-120'-92') 506 ft long x 30 ft wide proposed ramp to meet GDOT design standards.

US 411 North and Southbound over Nancy Creek Tributary 2 (2020)

Responsible for **QA/QC** for the Bridge Hydraulics evaluation of the existing condition and a recommendation of a three-barrel 10 ft x 5 ft concrete box with a length of 263 ft for the new crossing.

State Route 411 Over Nancy Creek Tributary (2021)

Responsible for **QA/QC** for the Bridge Hydraulics evaluation of the existing condition and a recommendation of parallel five span bridges, 625 ft long by 51 ft wide that maintained FEMA published water surface elevations and floodplain widths at the new crossing.

CR 18 Trail at Santa Fe River Tributary (2021)

FDOT – District 2: Bradford County, Florida

Mrs. Hurd was responsible for the **QA/QC** of the Bridge Hydraulics analysis and design for the replacement of an existing railroad bridge with a Bridge-Culvert that will carry the realignment of SE 49th Avenue and intersecting pedestrian trail near the City of Hampton. Analysis included basin delineation, discharge calculations using USGS Regional Regression equations, and bridge sizing using HECRAS to comply with FDOT and local design standards.

State Route 3 Over Peavine Creek (2021)

GDOT: Catoosa County, Georgia

Mrs. Hurd was **EOR** responsible for the bridge hydraulic and hydrologic analysis to replace the existing 33 ft wide by 264 ft existing bridge with a 43 ft wide by 276 ft lone replacement structure over Peavine Creek in Athens, GA.

County Road 30 (Airport Rd) over Mossy Creek Tributary 5 (2020)

GDOT: White County, Georgia

Mrs. Hurd was responsible for **QA/QC** on the bridge hydraulic and hydrologic report for GDOT. The BHR includes a single span recommendation structure to replace the existing bridge structure crossing Mossy Creek Tributary 5 in White County along CR 30 within the city limits of Cleveland, Georgia.

FY18 Bridge Replacement - CR 9 (Hobbs Road) (2019)

GDOT: Taylor County, Georgia

Mrs. Hurd performed the **QA/QC** of the hydraulic study for the proposed bridge replacement crossing Whitewater Creek including a hydraulic analysis in HEC-RAS, hydraulic report, scour calculations per HEC-18, and preliminary bridge plans. This project replaced the existing 128 ft long eight span bridge with a 128 ft long two span bridge to meet GDOT Bridge and Structures Policy Manual criteria for off system bridges. The hydraulic opening was designed to minimize increases in water surface elevations (WSE). Proposed WSE increases were kept within one foot of the Natural Condition and reduced from the Existing Condition. The crossing is in a FEMA Zone A.

Phase A Services for the Reconstruction of SR 2 from Existing SR 15 to the SR 15 Bypass (2018)

MDOT: Tippah County, Mississippi

Mrs. Hurd was **EOR** responsible for Bridge Hydraulics and scour analysis and design of a new bridge crossing over Brougner Creek in Tippah County to determine the required right-of-way limits for the reconstruction of SR 2 from existing SR 15 to the SR 15 Bypass near Blue Mountain, MS.

US 51 Bridge Replacement over Tillatoba Creek Tributary (2018)

MDOT: Yalobusha County, Mississippi

Mrs. Hurd performed oversight and **QA/QC** on the hydraulic design which included hydraulic recommendation forms, a hydraulic report, and phase A bridge plans. The study included hydraulic analysis and scour calculations per HEC-18. The project consisted of replacing the existing two-lane 90 ft long three span bridge along US 51 over Tillatoba Creek Tributary with a 165 ft long single span bridge. Coordination with Mississippi DOT was conducted throughout the design of this bridge to ensure that all design goals were met.

Groups 09-04, Group 12-03, & Group 14-06 (Holmes County Bridge Replacements) (2009, 2012, 2014)

FDOT – District 3: Holmes County, Florida

Mrs. Hurd was the Drainage **EOR** on three and Designer on four of seven existing timber bridge replacements in Holmes County, Florida. Mrs. Hurd was responsible for drainage design, hydraulic modelling, and scour elevation for these bridge replacements. In addition, she was responsible for evaluating existing contributing drainage systems and design of proposed drainage improvements.

Safe and Sound Bridge Improvement Project Design-Build (2012)

MoDOT – Missouri (Statewide)

Mrs. Hurd was the Drainage Designer responsible for bridge hydraulics analysis and QA/QC for more than 20 bridges modeled in HEC-RAS for this Design-Build project to replace deficient bridges for MoDOT. The accelerated schedule for this Design-Build project required team coordination across multiple offices and a streamlined process to determine the most cost-effective and safe bridge design for each site.