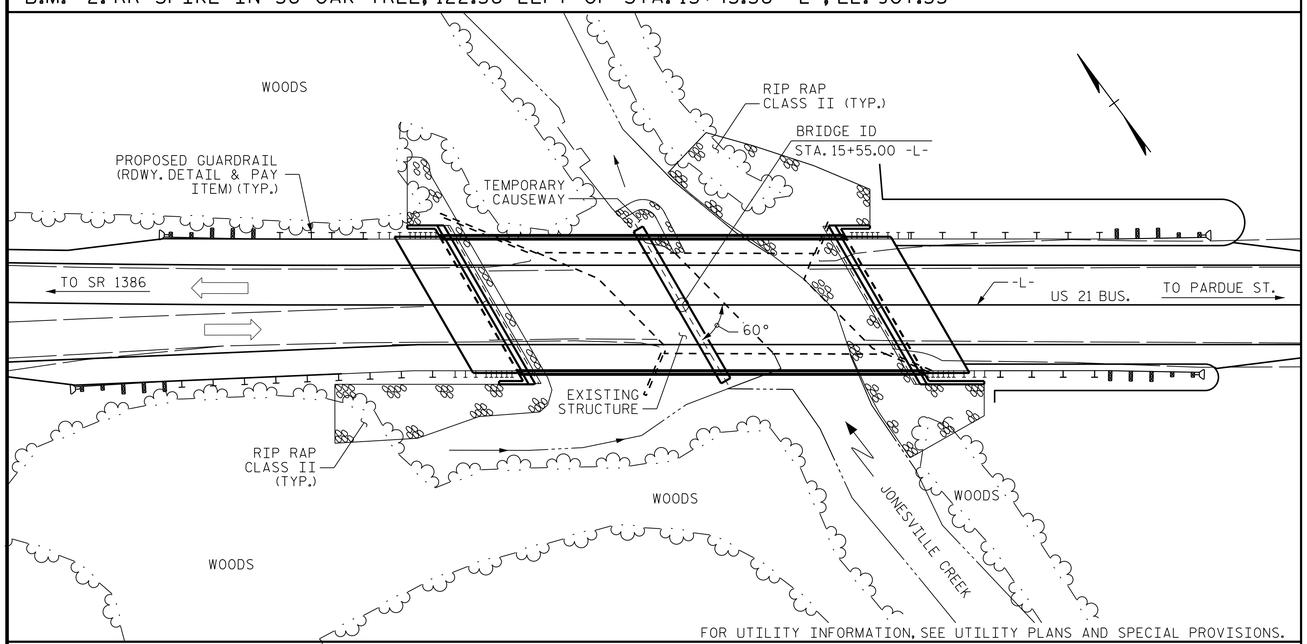
## TOTAL BILL OF MATERIAL

| | CONST. MAINT. & REMOVAL OF TEMP. ACCESS | REMOVAL OF EXISTING STRUCTURE | ASBESTOS ASSESSMENT | 3'-6"Ø DRILLED PIERS IN SOIL | 3'-6"Ø DRILLED PIERS NOT IN SOIL | PERMANENT STEEL CASING FOR 3'-6"Ø DRILLED PIER | SPT TESTING | CSL TESTING | UNCLASSIFIED STRUCTURE EXCAVATION | CONCRETE WEARING SURFACE | GROOVING BRIDGE FLOORS | CLASS A CONCRETE | BRIDGE APPROACH SLABS | REINFORCING STEEL | SPIRAL COLUMN REINFORCING STEEL | PILE DRIVING EQUIPMENT SETUP FOR HP 12X53 STEEL PILES | HP 12 X 53 STEEL PILES | | STEEL PILE POINTS | TWO BAR METAL RAIL | 1'-2" X 2'-11 3/16" CONCRETE PARAPET | RIP RAP CLASS II (2'-0" THICK) | GEOTEXTILE FOR DRAINAGE | ELASTOMERIC BEARINGS | 3'-0' X 2'-0" PRESTRESSED CONCRETE CORED SLABS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LUMP SUM | LUMP SUM | LUMP SUM | LIN. FT. | LIN. FT. | LIN. FT. | EA. | EA. | LUMP SUM | SQ. FT. | SQ. FT. | CU. YDS. | LUMP SUM | LBS. | LBS. | EA. | NO. | LIN. FT. | EA. | LIN. FT. | LIN. FT. | TON | SQ. YD. | LUMP SUM | NO. | LIN. FT. |
| SUPERSTRUCTURE | | | | | | | | | | 4,746 | 5,395 | | LUMP SUM | | | | | | | 223.94 | 240.29 | | | LUMP SUM | 28 | 1680 |
| END BENT 1 | | | | | | | | | | | | 30.1 | | 3,834 | | 8 | 8 | 160 | 8 | | | 180 | 200 | | | |
| BENT 1 | | | | 27.0 | 33.0 | 27.0 | | | | | | 38.3 | | 10,340 | 1,708 | | | | | | | | | | | |
| END BENT 2 | | | | | | | | | | | | 70.6 | | 5,969 | | 8 | 8 | 140 | 8 | | | 255 | 280 | | | |
| TOTAL | LUMP SUM | LUMP SUM | LUMP SUM | 27.0 | 33.0 | 27.0 | 6 | 1 | LUMP SUM | 4,746 | 5,395 | 139.0 | LUMP SUM | 20,143 | 1,708 | 16 | 16 | 300 | 16 | 223.94 | 240.29 | 435 | 480 | LUMP SUM | 28 | 1680 |

B.M. #2: RR SPIKE IN 36" OAK TREE, 122.56' LEFT OF STA. 15+43.36 -L-, EL. 907.55




LOCATION SKETCH

## NOTES:

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

THIS BRIDGE IS LOCATED IN SEISMIC PERFORMANCE ZONE 1.

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

FOR EROSION CONTROL MEASURES SEE EROSION CONTROL PLANS.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC-18 EVALUATING SCOUR AT BRIDGES".

REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER. THE CONTRACTOR SHALL REMOVE THE BRIDGE AND SUBMIT PLANS FOR DEMOLITION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

THE SUBSTRUCTURE OF THE EXISTING BRIDGE INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE. SINCE THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT, MAINTAIN AND AFTERWARDS REMOVE A TEMPORARY STRUCTURE AT STATION 15+55.00 -L- FOR USE DURING CONSTRUCTION OF THE PROPOSED STRUCTURE. FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY STRUCTURE, SEE SPECIAL PROVISIONS.

A 1'-0" FINAL LAYER OF CLASS A RIP RAP SHALL BE INCLUDED WITHIN THE CLASS II RIP RAP USED FOR THE TEMPORARY CAUSEWAY. THE COST OF CLASS A RIP RAP SHALL BE INCLUDED IN THE PRICE BID FOR "CONSTRUCTION, MAINTENANCE & REMOVAL OF TEMPORARY ACCESS".

AT THE CONTRACTOR'S OPTION, AND UPON REMOVAL OF THE CAUSEWAY, THE CLASS II RIP RAP USED IN THE CAUSEWAY MAY BE PLACED AS RIP RAP SLOPE PROTECTION. SEE SPECIAL PROVISIONS FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS AT STATION 15+55.00 -L-.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 50 FT. LEFT SIDE, 35 FT. RIGHT SIDE OF CENTERLINE OF ROADWAY AT END BENT 1, AND 50 FT. LEFT SIDE, 30 FT. RIGHT SIDE OF CENTERLINE OF ROADWAY AT END BENT 2 AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. SEE SECTION 412 OF THE STANDARD SPECIFICATIONS.

THE EXISTING STRUCTURE CONSISTING OF 2 SPANS: 1 @ 31'-10 1/2" AND 1 @ 31'-10 1/2" WITH A 4" AWS CLEAR ROADWAY WIDTH OF 26'-3" AND REINFORCED CONCRETE DECK GIRDERS; SUBSTRUCTURE CONSISTING OF REINFORCED CONCRETE ABUTMENTS AND A RN POST AND WEB WIDENED INTERIOR BENT LOCATED AT THE SITE OF THE PROPOSED BRIDGE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT POSTED FOR LOAD. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETERIORATE DURING CONSTRUCTION OF THE PROPOSED BRIDGE, A LOAD LIMIT MAY BE POSTED AND MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT. FOR REMOVAL OF EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR ASBESTOS ASSESSMENT FOR BRIDGE DEMOLITION AND RENOVATION ACTIVITIES, SEE SPECIAL PROVISIONS.

ALL PAVEMENT MARKING WILL BE IN ACCORDANCE WITH THE PAVEMENT MARKING PLANS AND SHALL PROVIDE FOR BICYCLES.

PROJECT NO. B-4979
YADKIN COUNTY
STATION: 15+55.00 -L-

SHEET 3 OF 3

### HYDRAULIC DATA

| | |
|---|---|
| DESIGN DISCHARGE | = 2205 CFS |
| FREQUENCY OF DESIGN FLOOD | = 50 YR. |
| DESIGN HIGH WATER ELEVATION | = 905.1 FT. |
| DRAINAGE AREA | = 4.39 SQ. MI. |
| BASE DISCHARGE (Q100) | = 2684 CFS |
| BASE HIGH WATER ELEVATION | = 906.3 FT. |

### OVERTOPPING FLOOD DATA

| | |
|---|---|
| OVERTOPPING DISCHARGE | = 3800 CFS |
| FREQUENCY OF OVERTOPPING FLOOD | = 500- YRS. |
| OVERTOPPING FLOOD ELEVATION | = 909.1 FT. * |

* ELEVATION IS TAKEN AT STA. 14+56.0 -L- SAG POINT.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED


CDM Smith
CDM SMITH
5400 Glenwood Avenue, Suite 400
Raleigh, NC 27612-3228
NC COA No. F-1255


DRAWN BY : VDK DATE : 4/18
CHECKED BY : THF DATE : 4/18
DESIGN ENGINEER : VDK DATE : 4/18

DWG. No.

NORTH CAROLINA PROFESSIONAL SEAL 16301 ENGINEER TING-HSIUNG FANG
DocuSigned by: Ting Fang
1/15/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

# GENERAL DRAWING

FOR BRIDGE OVER JONESVILLE CREEK ON US 21 BUS. BETWEEN SR 1386 AND PARDUE ST.

| REVISIONS | | | | | | | | SHEET NO. |
|---|---|---|---|---|---|---|---|---|
| NO. | BY: | DATE: | NO. | BY: | DATE: | | | S-03 |
| 1 | | | 3 | | | | | TOTAL SHEETS |
| 2 | | | 4 | | | | | 23 |

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DATE: 1/15/2019 8:33:28 PM