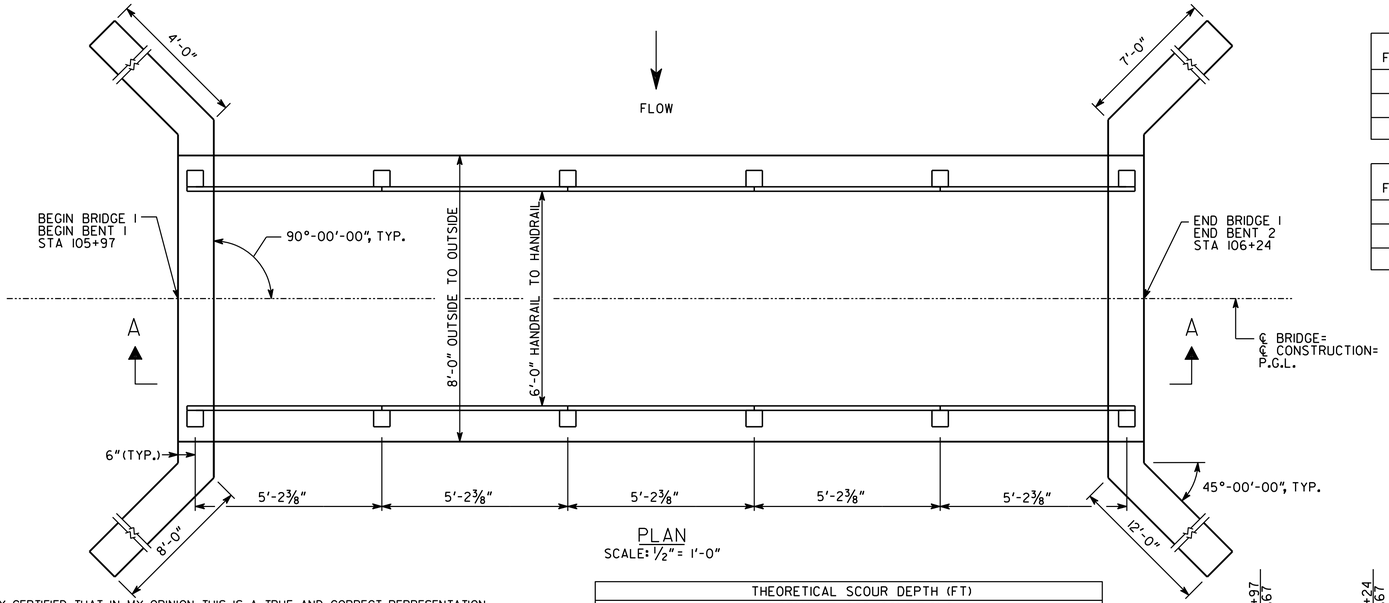


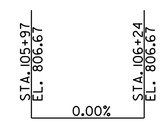

## PLAN
SCALE: ½" = 1'-0"

IT IS HERBY CERTIFIED THAT IN MY OPINION THIS IS A TRUE AND CORRECT REPRESENTATION OF THE CURRENT LOCATIONS AND HAS BEEN PREPARED IN CONFORMITY WITH THE MINIMUM STANDARDS AND REQUIREMENTS OF THE SECTION 999 DESIGN BUILD PROJECT NH000-0085-02(153) P.I. NO: 762380 FULTON COUNTY GA

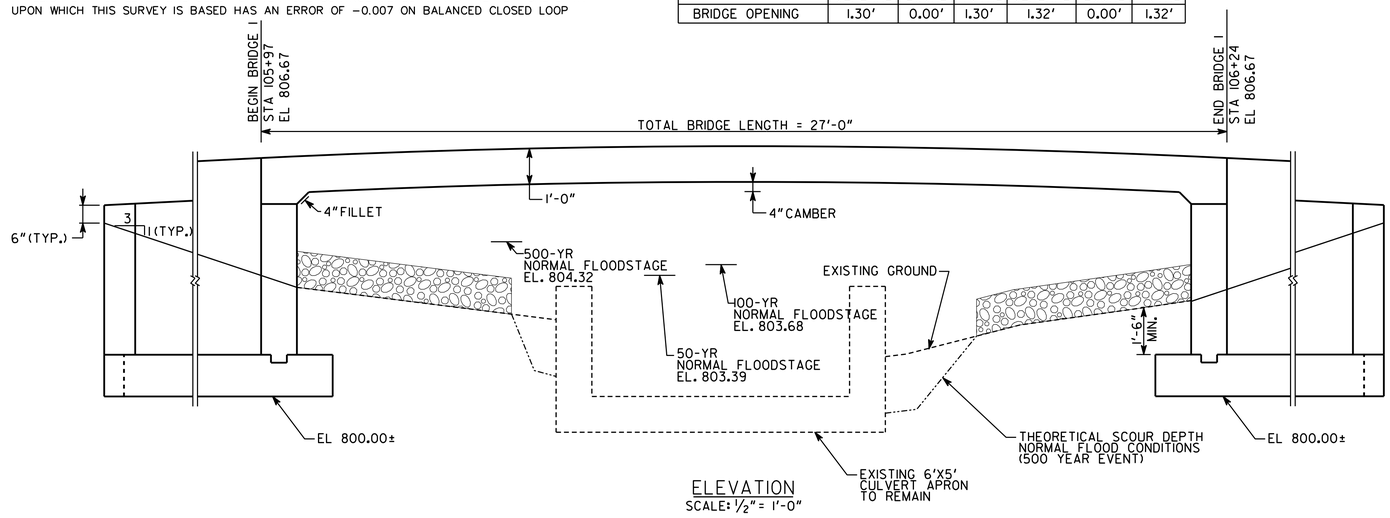
A LEICA 1201 TOTAL STATION WAS USED FOR HORIZONTAL & VERTICAL MEASURMENTS THE FIELD DATA UPON WHICH THIS SURVEY IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN +68,000 FEET AND AN ANGULAR ERROR OF 2" SECONDS PER ANGLE POINT

A LEICA DNA-03 LEVEL WAS USED FOR VERTICAL CONTROL MEASURMENTS THE VERTICAL DATA UPON WHICH THIS SURVEY IS BASED HAS AN ERROR OF -0.007 ON BALANCED CLOSED LOOP

| THEORETICAL SCOUR DEPTH (FT) | | | | | | |
|---|---|---|---|---|---|---|
| NORMAL FLOOD CONDITIONS | | | | | | |
| | 100-YR STORM | | | 500-YR STORM | | |
| | GENERAL | LOCAL | TOTAL | GENERAL | LOCAL | TOTAL |
| BRIDGE OPENING | 0.02' | 0.00' | 0.02' | 1.57' | 0.00' | 1.57' |
| ABNORMAL FLOOD CONDITIONS | | | | | | |
| | 100-YR STORM | | | 500-YR STORM | | |
| | GENERAL | LOCAL | TOTAL | GENERAL | LOCAL | TOTAL |
| BRIDGE OPENING | 1.30' | 0.00' | 1.30' | 1.32' | 0.00' | 1.32' |




## PROFILE GRADE DATA
ALONG ℄ BRIDGE




## ELEVATION
SCALE: ½" = 1'-0"

## DRAINAGE DATA

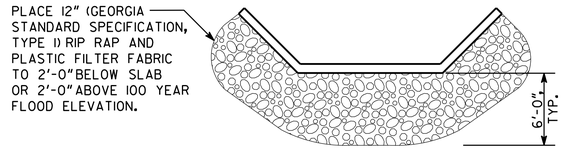
DRAINAGE AREA ---------- 0.25 SQ MI

NORMAL CONDITIONS

| FLOOD FREQUENCY | TOTAL DISCHARGE | MEAN VELOCITY | AREA OF OPENING UNDER FLOODSTAGE | BACKWATER |
|---|---|---|---|---|
| 50-YR | 425 CFS | 7.40 FPS | 57.43 SQ FT | 0.00 FT |
| 100-YR | 498 CFS | 7.70 FPS | 64.68 SQ FT | 0.00 FT |
| 500-YR | 687 CFS | 8.51 FPS | 80.73 SQ FT | 1.03 FT |

ABNORMAL CONDITIONS

| FLOOD FREQUENCY | TOTAL DISCHARGE | MEAN VELOCITY | AREA OF OPENING UNDER FLOODSTAGE | BACKWATER |
|---|---|---|---|---|
| 50-YR | 189 CFS | 1.77 FPS | 106.47 SQ FT | 0.01 FT |
| 100-YR | 146 CFS | 1.37 FPS | 106.47 SQ FT | 0.00 FT |
| 500-YR | 149 CFS | 1.40 FPS | 106.47 SQ FT | 0.00 FT |




## RIP RAP PLAN
SCALE: ⅛" = 1'-0"

NOTES:

1. MAINTAIN 2" CL. ON REINFORCEMENT UNLESS OTHERWISE NOTED.
2. BOTTOM OF ABUTMENT SHALL BE LEVEL.
3. STRUCTURE STEEL SHALL BE ASTM A-36, HOT DIPPED GALVANIZED PER A361-67.
4. TIMBER SHALL BE PRESSURE TREATED SOUTHERN PINE GRADE NO. 2 WITH MINIMUM ALLOWABLE $F_b$:
   RAIL TIMBER: 1250 PSI
   POST TIMBER: 850 PSI
5. BOLTS SHALL BE ANSI/ASME B18.2.1, GRADE 2, HOT DIP GALVANIZED.
6. COMPACT ALL BASE AND BACKFILL TO 95% STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D 0698.
7. ASSUMED FOUNDATION BACKFILL BEARING CAPACITY PROPERTIES:
   40 PCF EQUIVALENT FLUID PRESSURE
   300 PCF PASSIVE PRESSURE
   0.35 SLIDING COEFFICIENT PRESSURE
   2000 PSF ALLOWABLE BEARING CAPACITY
   FOOTING SHALL BEAR ON UNDISTURBED SOIL.
   FOUNDATION BEARING CAPACITY SHALL BE VERIFIED BY A REGISTERED ENGINEER.
8. ALL BENTS ARE PARALLEL.
9. THE PROPOSED BRIDGE WILL HAVE A FLAT CROSS SLOPE.
10. DEWATERING OF FOOTING EXCAVATION MAY BE REQUIRED.

## BRIDGE CONSISTS OF

1 - 27'-0" X 6'-0" CONCRETE CAST-IN-PLACE SPAN ---- SPECIAL DESIGN

2 - CAST-IN-PLACE CONCRETE END BENTS ---------- SPECIAL DESIGN

## DESIGN DATA

SPECIFICATIONS - AASHTO 17TH EDITION 2002
(DESIGNED FOR SEISMIC PERFORMANCE CATEGORY A)

PEDESTRIAN LOADING ---------- 85 PSF

VEHICLE LOADING ---------- H-5 (TRUCK, W/O IMPACT)

CONCRETE ---------- CLASS A, $f'_c$ = 3500 PSI

REINFORCEMENT STEEL ------ GRADE 60, $f_y$ = 60,000 PSI

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

Archer Western Contractors

Heath & Lineback Engineers INCORPORATED
2390 CANTON ROAD, BUILDING 200
MARIETTA, GEORGIA 30066-5393
(770)424-1668

SCALE IN FEET
0 2 4 8

AS-BUILT

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: Innovative Program Delivery

**PEDESTRIAN BRIDGE 1**
**PLAN & ELEVATION**

S.R. 400/ I-85
CONNECTOR RAMPS

DRAWING No. 29-030

3/1/2007 GPLN