• I-16 and I-95 Main Corridors to the Port in Savannah & Brunswick
• Heavy Truck Traffic
• Major Tourist Route to the Golden Isles in the Summer
• New Distribution Centers Developing Along I-16 Corridor
10 Inch Plain Cement Concrete Pavement

1963 Plans
• Project was bid with RCC shoulders, APAC submitted a proposal to change to PCC.

• GADOT PCC Shoulder Specification used, which specifies GAB as the aggregate. Our proposal modified the specification to allow the use of recycled concrete for the GAB.
• Transverse contraction joints are un-doweled, but the construction joints are doweled.

• The RCC alternate specified un-sealed transverse joints every 30’ to match the existing inside lane. APAC proposed PCC shoulders be jointed every 15’.

• GADOT issued a change order to seal all of the shoulder joints.
• Adjoining Bleckley-Laurens Counties project completed prior to this project was 15 miles long.

• Used FDR and fabric interlayer for the first time on an Interstate.

• Shoulders were RCC.
• GADOT chose FDR with cement because they felt it would give them a good base, but they still wanted something to be a separator and slight cushion.

• GDOT used econocrete under concrete pavements in the 80’s but had some instances of cracking, so there was concern of the FDR base being too hard also.

• During Scanning Tour in Germany saw fabric used between cement treated base and slabs.
MAINLINE TYPICAL SECTION

STAGE 1 - INSIDE SHOULDER AND LANE # 1

ALTERNATE 1

NOT TO SCALE

9" PCCP (Recycled Aggregate)

NEW 10 FT INSIDE PAVED SHLD

LANE 1 12 FT

LANE 2 12 FT

EXISTING 10 FT OUTSIDE PAVED SHLD

2%

Slab Repair & Diamond Grinding

8" CEMENT TREATED BASE COURSE

8" ROLLER COMPACTED CONCRETE

GDOT SAFETY EDGE DETAIL P-7

PAVEMENT INTERLAYER FABRIC

4-Ft. ASPH SHLDR - REMOVE

EASTBOUND DIRECTION SHOWN
WESTBOUND DIRECTION SIMILAR

----- - EXISTING PAVEMENT

- - NEW CONSTRUCTION
Existing 9"-10" Jointed PCCP on 6" of soil cement.

GADOT increased pavement thickness to 11" to get 40 year life.

Old soil cement was already eroded some (based on faulting seen).
Maximum closure length of 3 miles
Crushing Operation at Dykes Construction Property
(Slabs from Previous Bleckley-Laurens Project)
168,000 tons of concrete will be crushed and used in the shoulders.
11” CJA with 1-1/2” x 18” Dowels @ 12” c.c.

15-Foot Joint Spacing
• Shoulder Mix Using Recycled Concrete Averaging 4,800 PSI @ 28 Days
• PCCP Mainline Mix Averaging 5,600 PSI @ 28 Days
2010 Georgia Concrete Pavement Conference

I-95 Glynn & McIntosh Counties, GA

apac
VEP-Lower Grades at Spur 25  Concrete Conveyor Bridge
Existing Pavement-Two 12’ Lanes of 9” CRCP with 4’ & 12’ Asphalt Shoulders
New Pavement-One 12’ Shoulder, Three 12’ Lanes, and One 13’ Lane of 12” CRCP with 11’ Asphalt Shoulder
Stage 2

Inside Shoulder  Lane 1  Lane 2
Concrete Conveyor Bridge