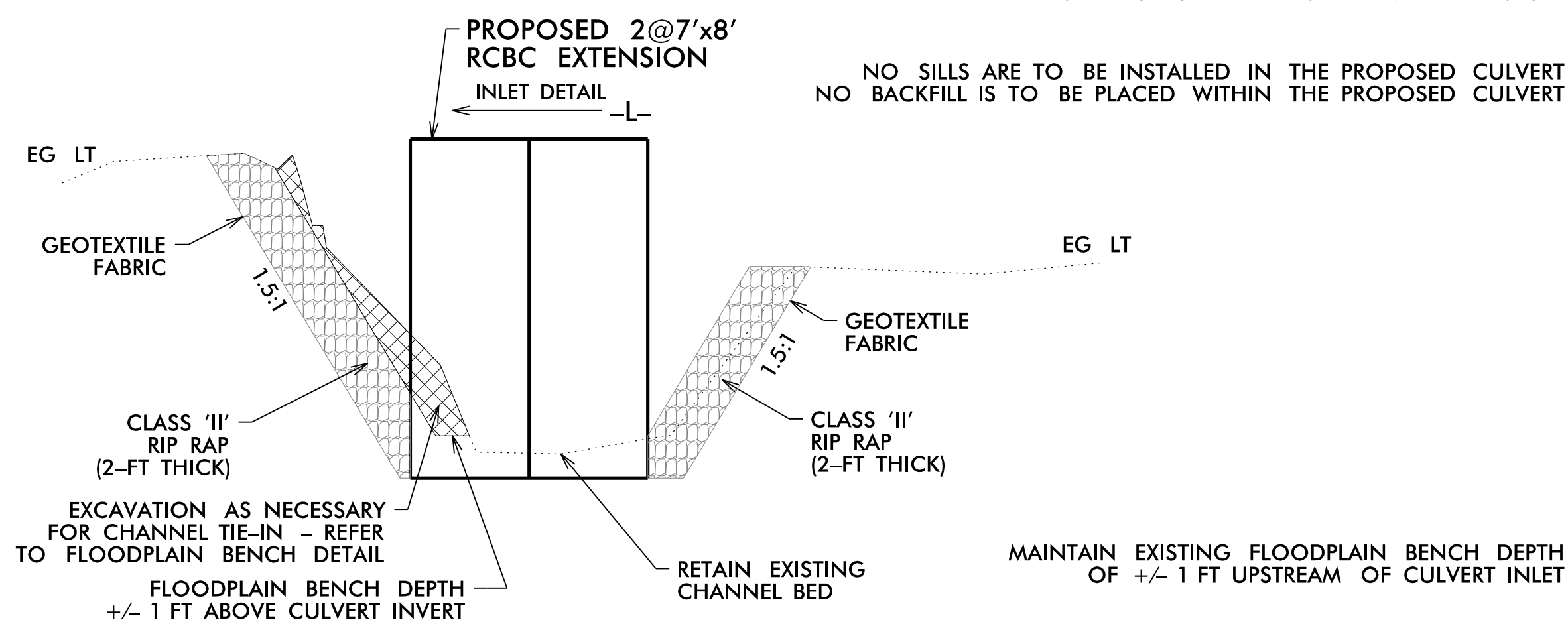


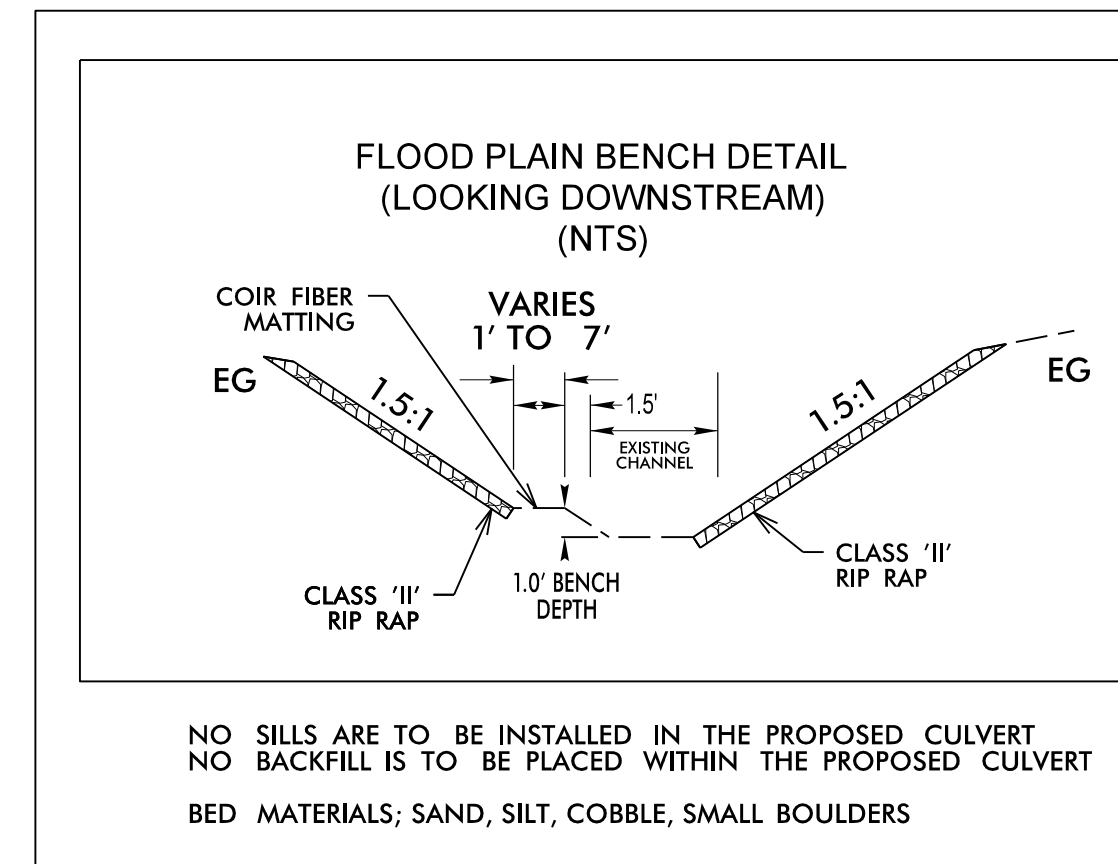
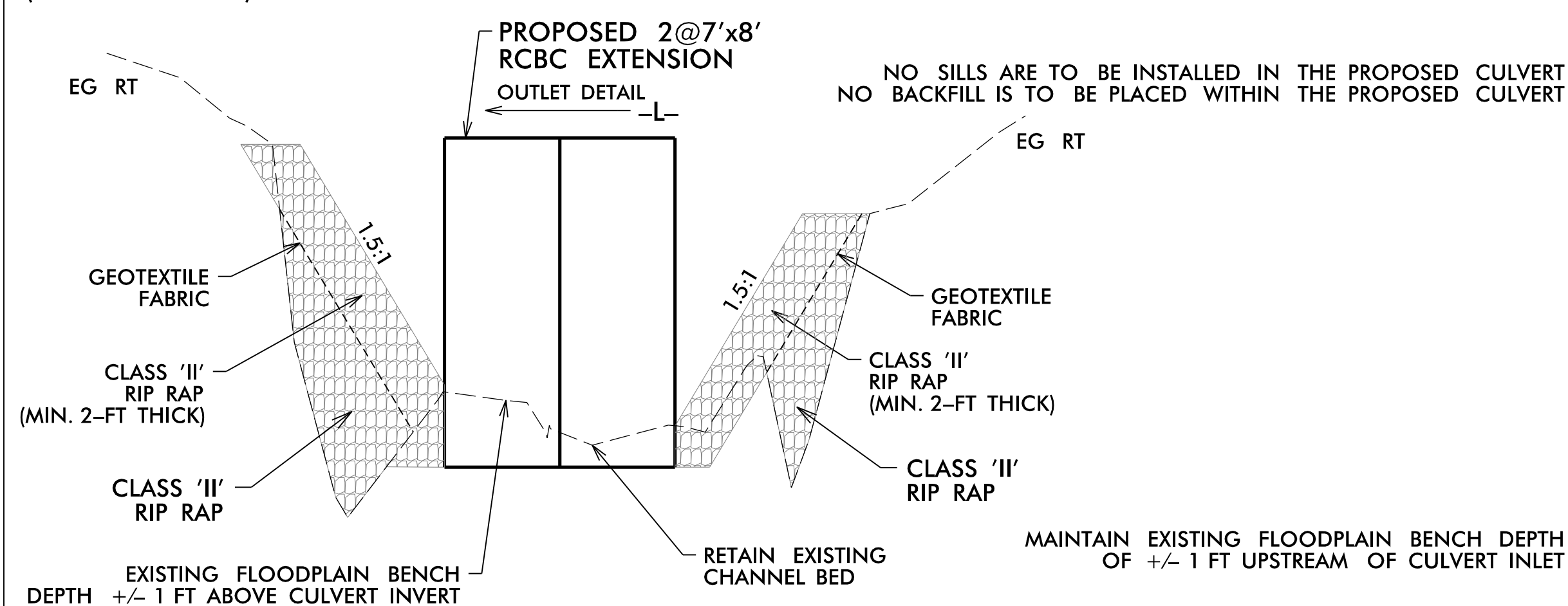
STREAM CROSS SECTION
LT TO RT FACING DOWNSTREAM
(NOT TO SCALE)

TOTAL EST. EXCAVATION AT INLET = 10 C.Y.
TOTAL EST. CL 'II' RIP RAP AT INLET = 75 TONS
TOTAL EST. GEOTEXTILE AT INLET = 85 S.Y.
TOTAL EST. C.F. MATTING AT INLET = 40 S.Y.



STREAM CROSS SECTION
LT TO RT FACING DOWNSTREAM
(NOT TO SCALE)

TOTAL EST. CL 'II' RIP RAP AT OUTLET = 100 TONS
TOTAL EST. GEOTEXTILE AT OUTLET = 85 S.Y.
TOTAL EST. C.F. MATTING AT INLET = 40 C.Y.



NO SILLS EXIST WITHIN THE EXISTING CULVERT BARRELS. THE INCLUSION OF SILLS IN THE EXTENDED CULVERT BARRELS WOULD REDUCE THE EFFECTIVE OPENING OF THE CROSSING. IN ORDER TO COMPLY WITH THE FEMA REQUIREMENT TO CAUSE NO INCREASE IN BASE FLOOD ELEVATIONS ON EXISTING INSURABLE STRUCTURES WITHIN THE FLOODPLAIN, THE EXISTING EFFECTIVE CULVERT OPEN AREA MUST BE MAINTAINED.

FOR THE PURPOSE OF DETERMINING BASE FLOOD ELEVATIONS ALONG THE IMPACTED REACH, EXISTING CONDITIONS WERE MODELED CONSISTENT WITH THE INTENT OF THE DESIGN OF THE EXISTING CULVERT. HISTORICAL CULVERT PLANS INDICATE TWO CLEAR 7-FT WIDE BY 8-FT DEEP CONCRETE BARRELS. OVER TIME, SEDIMENT HAS ACCUMULATED IN ONE BARREL, CREATING A FLOODPLAIN BENCH. HOWEVER, IT IS ASSUMED THAT DURING HIGH FLOW EVENTS SUCH AS A 100-YR DISCHARGE, THE BARRELS ARE FLUSHED OUT AND PROVIDE THE FULL OPEN AREA.

THE CULVERT EXTENSIONS HAVE BEEN DESIGNED CONSISTENT WITH THE ORIGINAL CULVERT DESIGN. NO BACKFILL HAS BEEN CALLED FOR. HOWEVER, IT IS ASSUMED THAT SEDIMENT WILL ACCUMULATE AND FLOODPLAIN BENCHES WILL DEVELOP CONSISTENT WITH WHAT HAS BEEN OBSERVED AT THE SITE.

