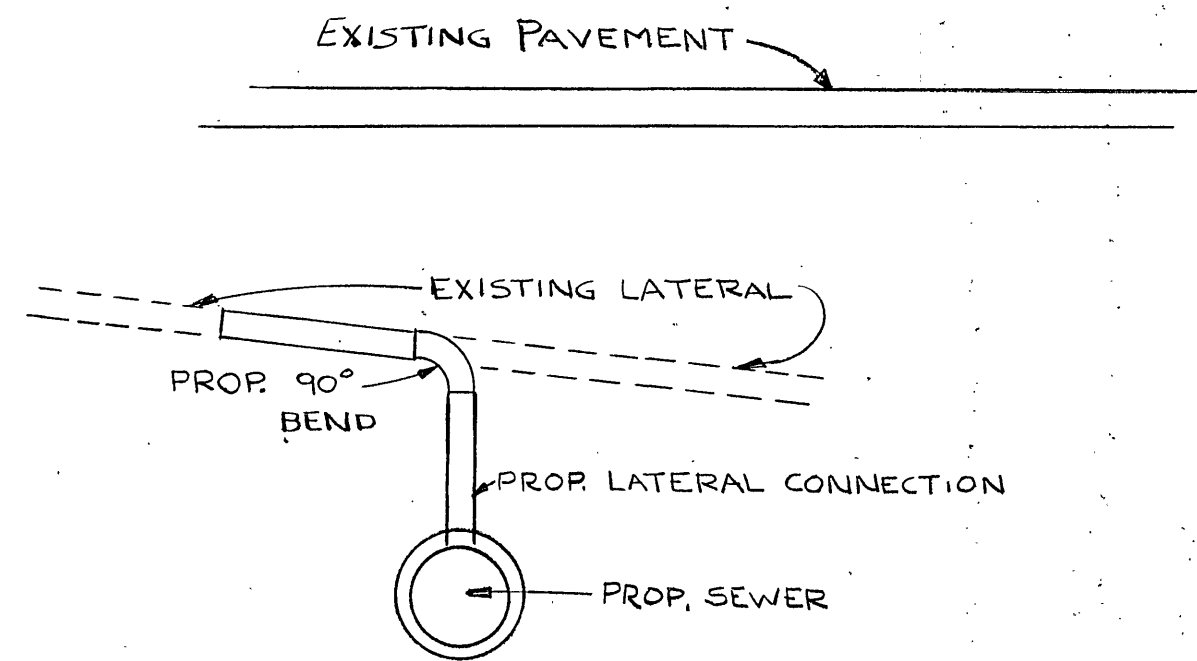


REVISED	FHWA REGION	STATE	FEDERAL AID PROJECT	ROUTE	STATE PROJECT	SHEET NO.
	3	VA.				

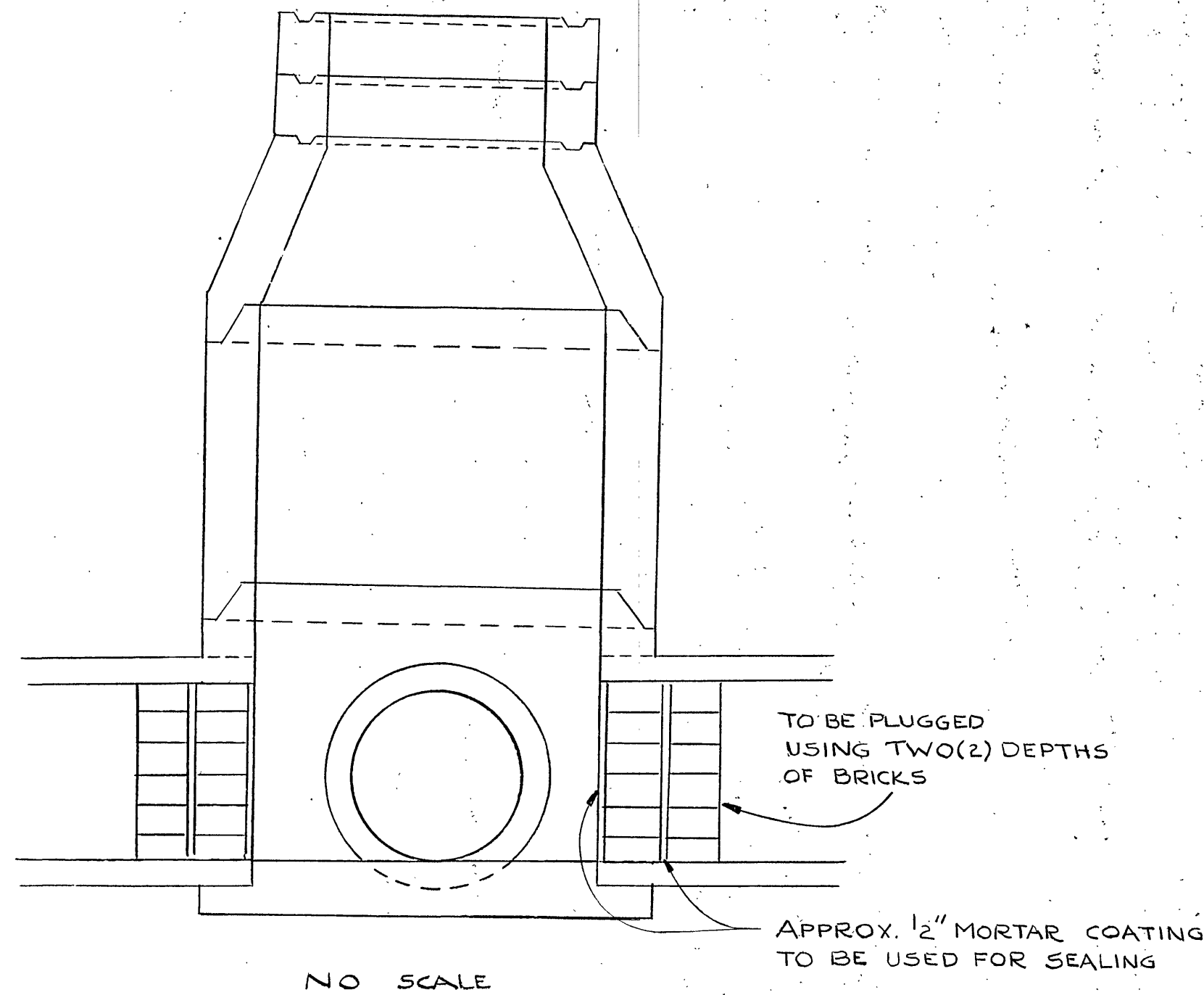
TYPICAL SECTION PROPOSED LATERAL CONNECTIONS



NOTE: LATERAL CONNECTION TO BE MADE BY CUTTING HOLE IN SEWER PIPE BY SWEWER TAP METHOD OR EQUAL. SWEWER TAPS WITH EPOXY JOINT OR EQUAL WILL BE REQUIRED.

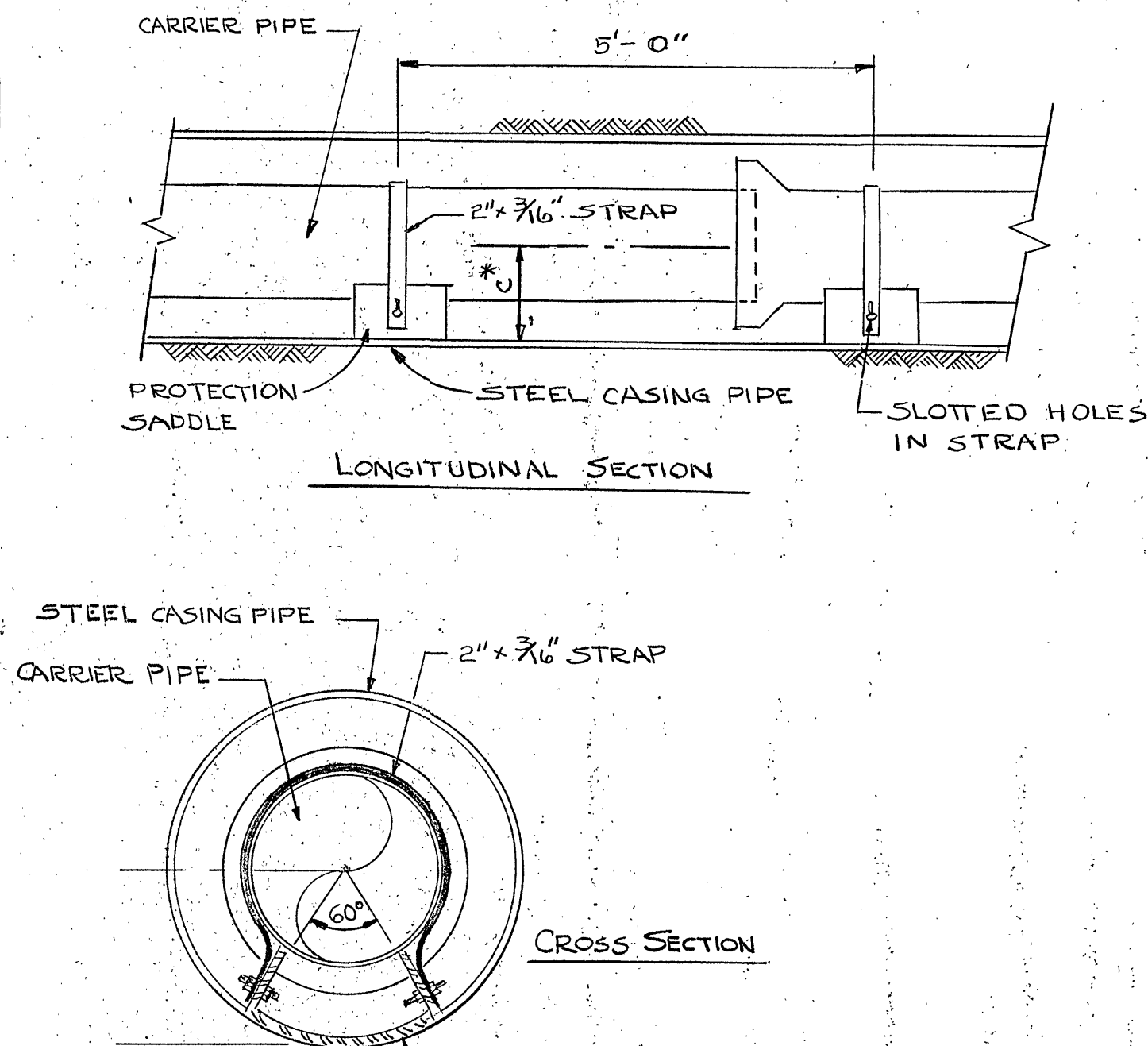
NO SCALE

TYPICAL SECTION METHOD OF PLUGGING LINES



NO SCALE

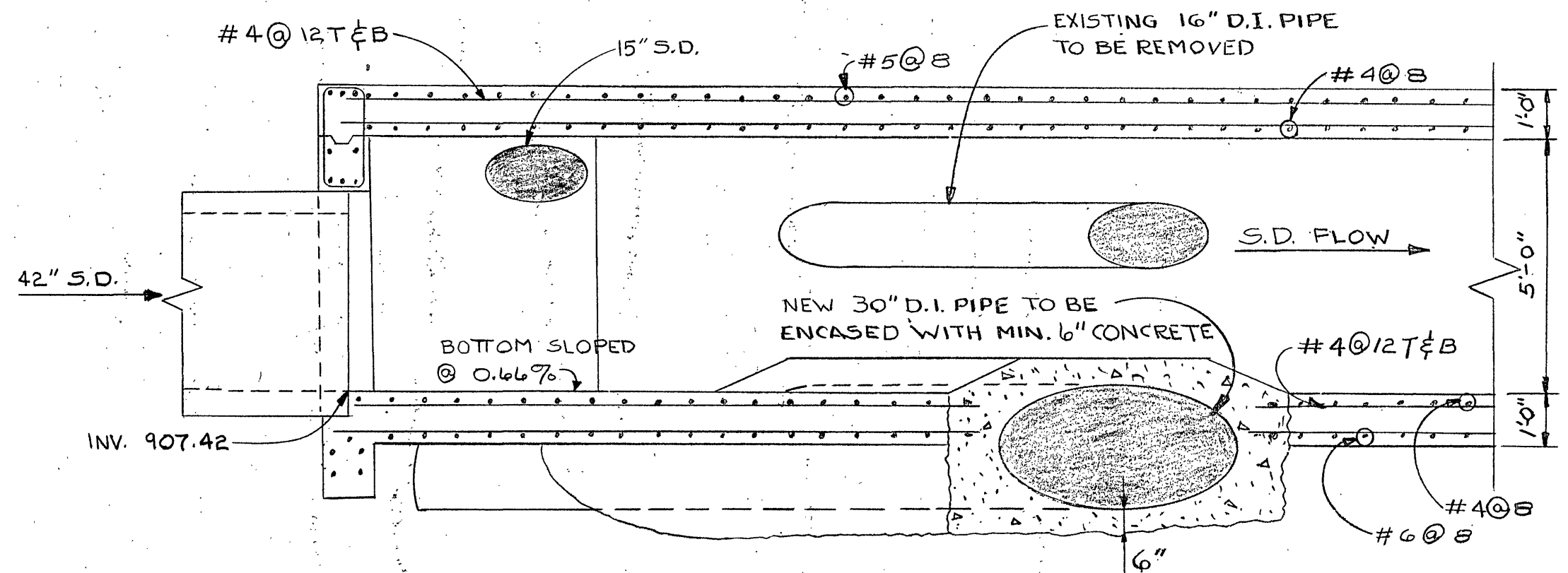
DIMENSIONS CARRIER PIPE VS. CASING PIPE			
DIA CARRIER PIPE	DIA CASING PIPE	WALL THICKNESS CASING PIPE	C * (APPROX.)
8"	18"	0.250"	8 1/2"
10"	18"	0.250"	8 1/2"
12"	24"	0.344"	11"
14"	24"	0.344"	11 1/2"
15"	24"	0.344"	11 1/2"
16"	30"	0.406"	13 1/2"
18"	30"	0.406"	14 1/2"
20"	30"	0.406"	14 1/2"
21"	36"	0.469"	16"
24"	36"	0.469"	18"
30"	48"	0.625"	22 1/2"
36"	54"	0.625"	26"
42"	63"	0.750"	30"
48"	72"	0.875"	33"



PROTECTION SADDLE (GRINNEL PIPE COVERING PROTECTION SADDLES MAY BE USED FOR CARRIER PIPE, SIZES TO 24")

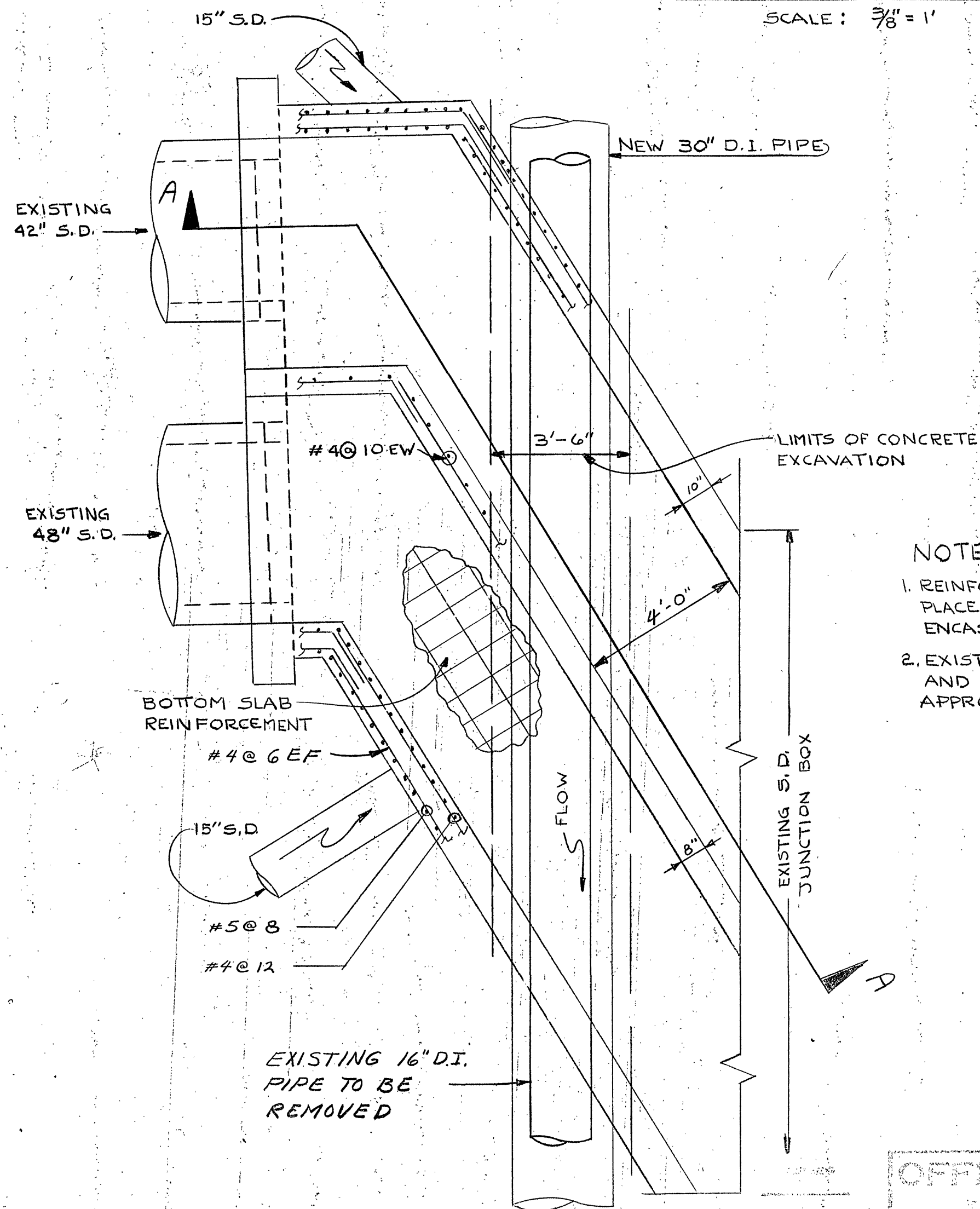
CARRIER PIPE INSTALLATION

NO SCALE



SECTION A-A

SCALE: 3/8" = 1'



NOTE:
1. REINFORCING BARS TO BE LEFT IN PLACE TO TIE INTO NEW CONCRETE ENCASING A MIN. OF 3"
2. EXISTING 16\"/>

MODIFICATION OF EXISTING S.D. JUNCTION BOX

SCALE: 3/8" = 1'

OFFICE OF CITY ENGINEER
ROANOKE, VIRGINIA

DETAILS

SCALE: AS NOTED

PLAN NO. 5450

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
A			15