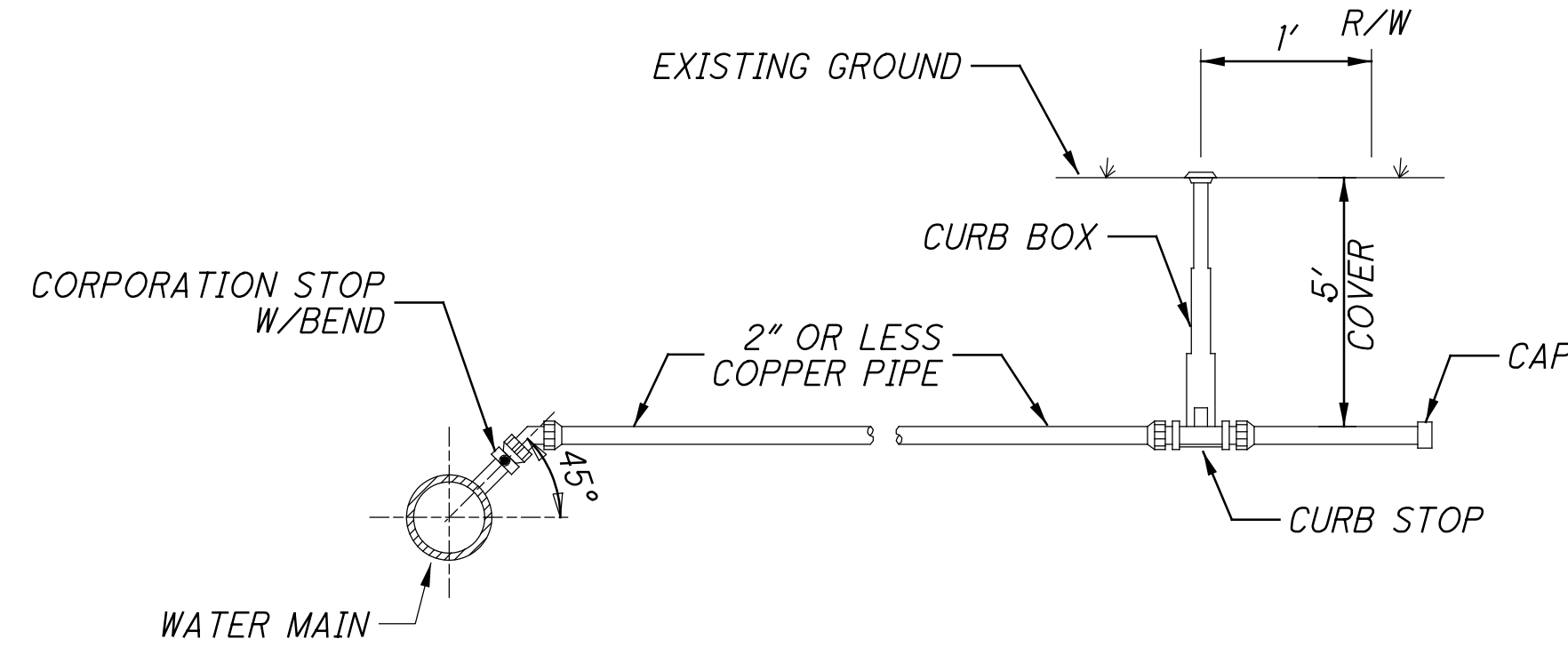
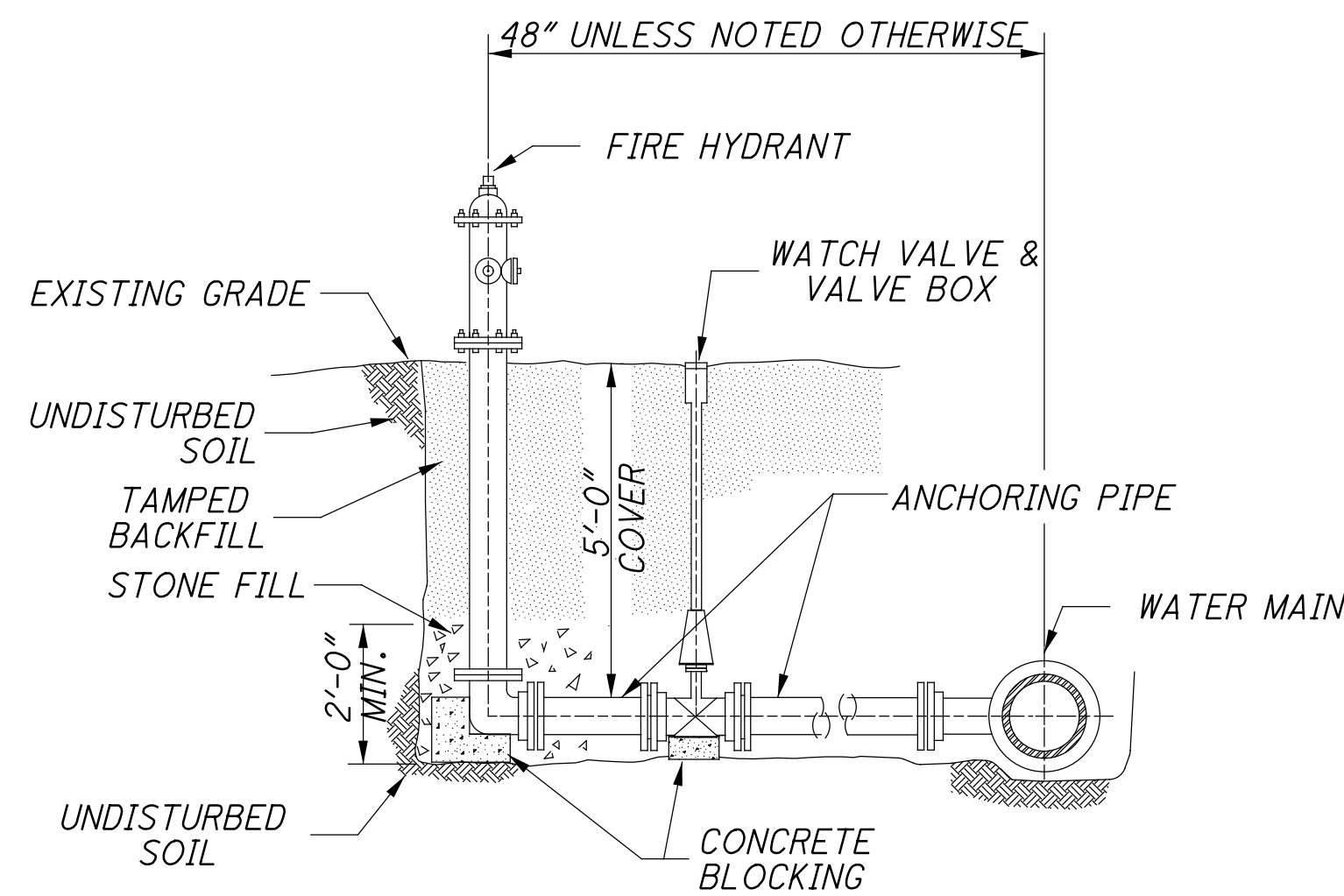


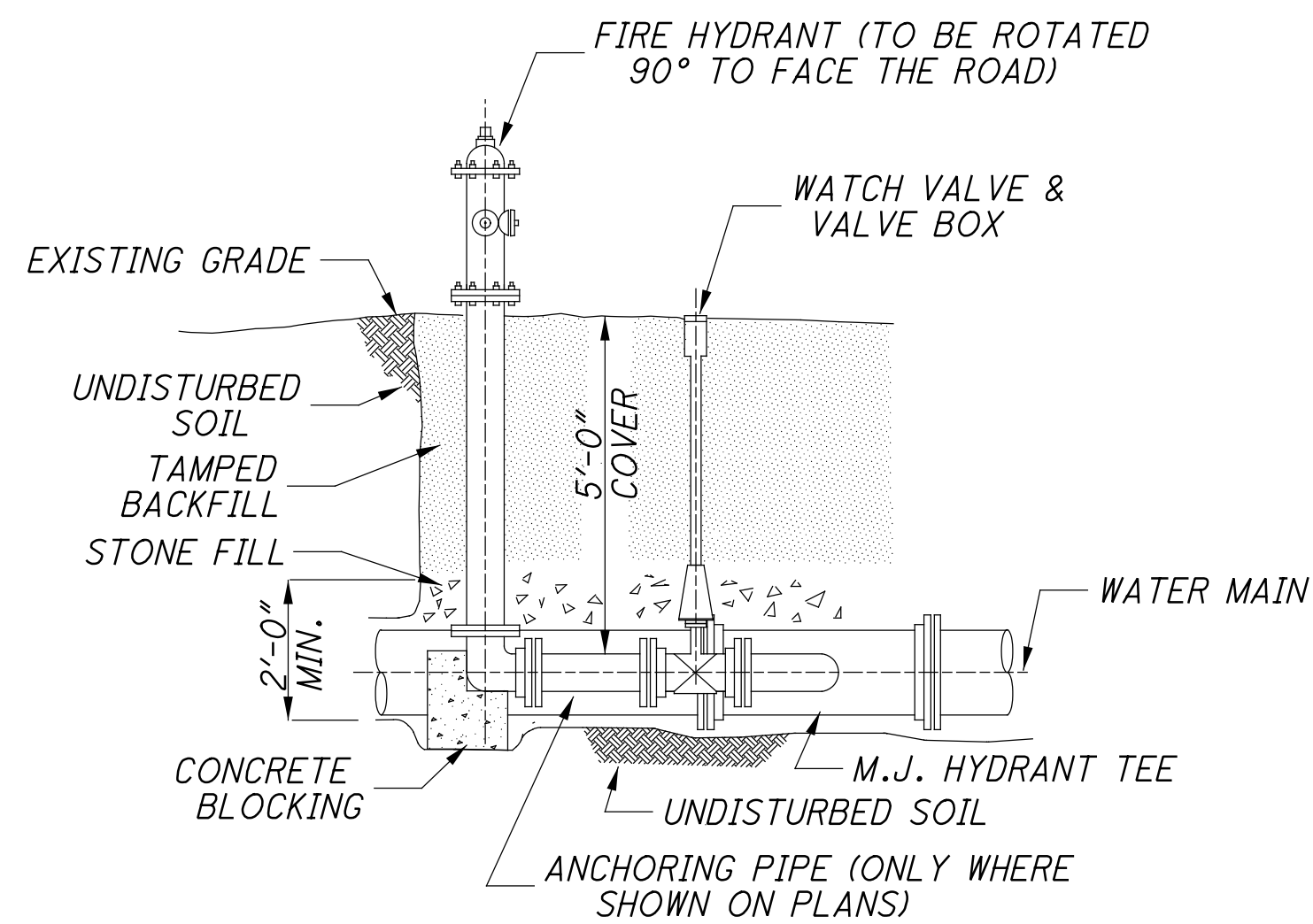
**DETAIL "A"**  
 EXISTING WATER MAIN RELOCATION  
 UNDER PROPOSED UTILITY LINE  
 (ELEVATION)



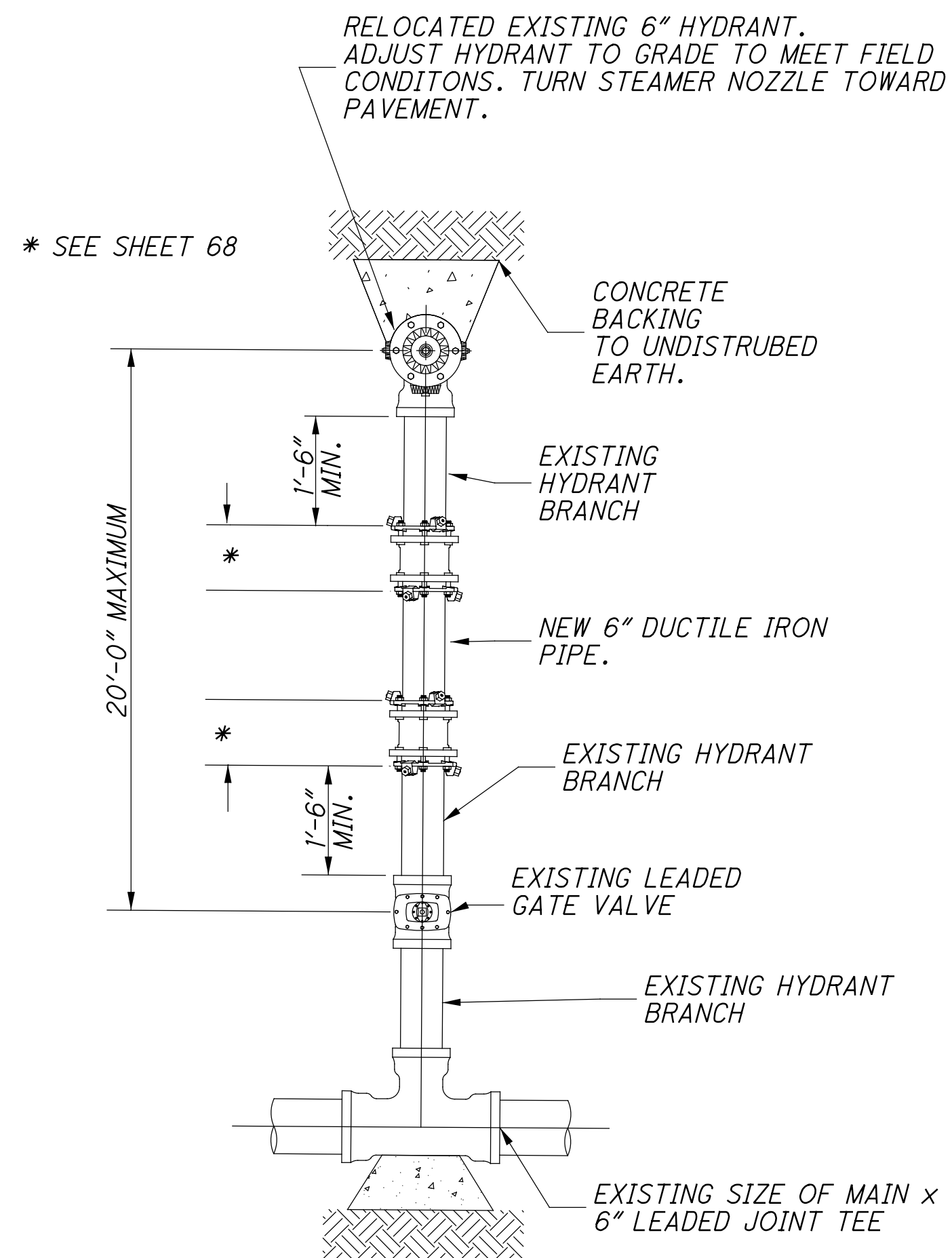
**DETAIL "B"**  
 TYPICAL 2" OR LESS SERVICE CONNECTION  
 (ELEVATION)



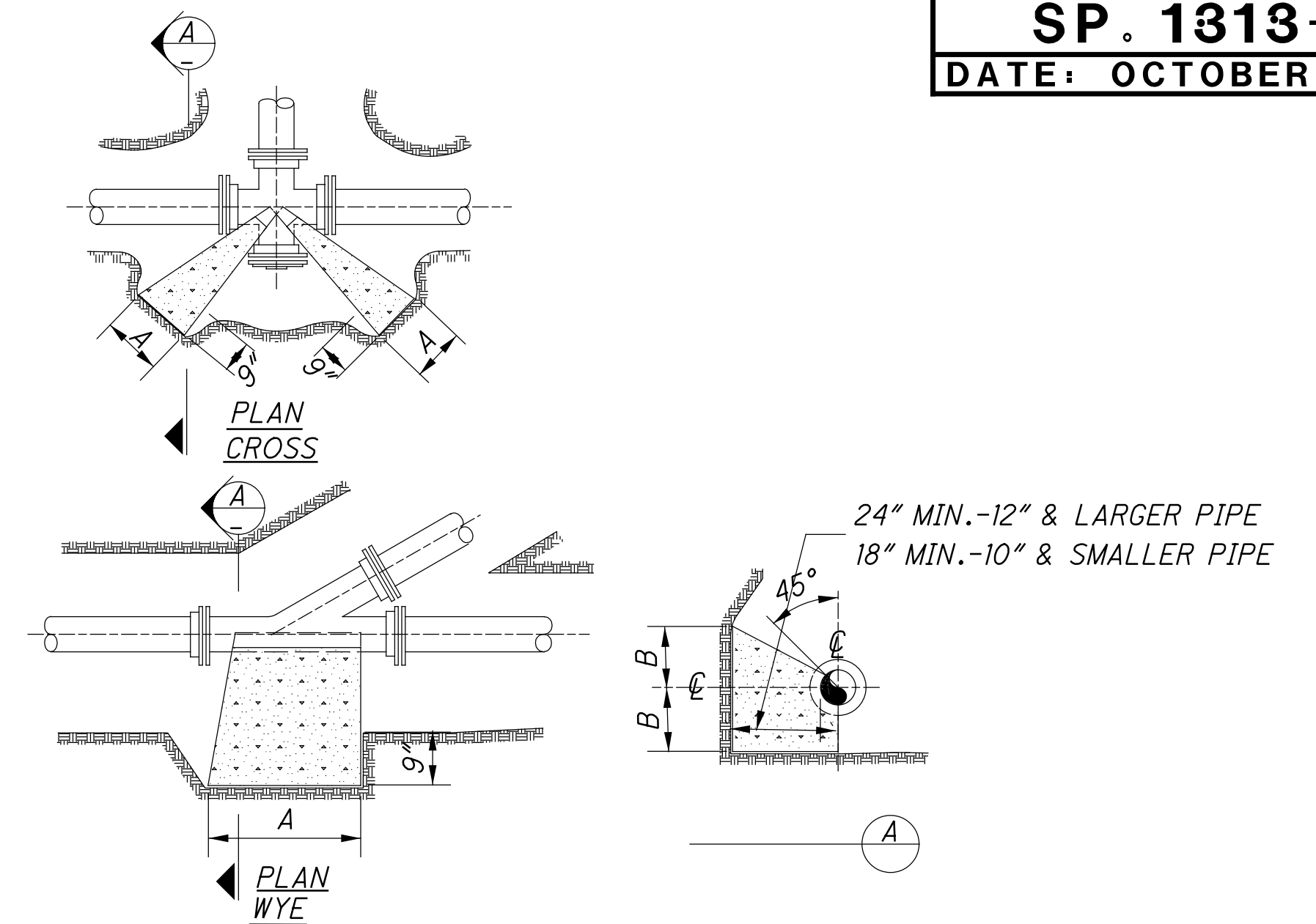
**DETAIL "C"**  
 HYDRANT ASSEMBLY  
 PERPENDICULAR TO WATER  
 (ELEVATION)



**DETAIL "D"**  
 HYDRANT ASSEMBLY  
 PARALLEL TO WATER MAIN  
 (ELEVATION)



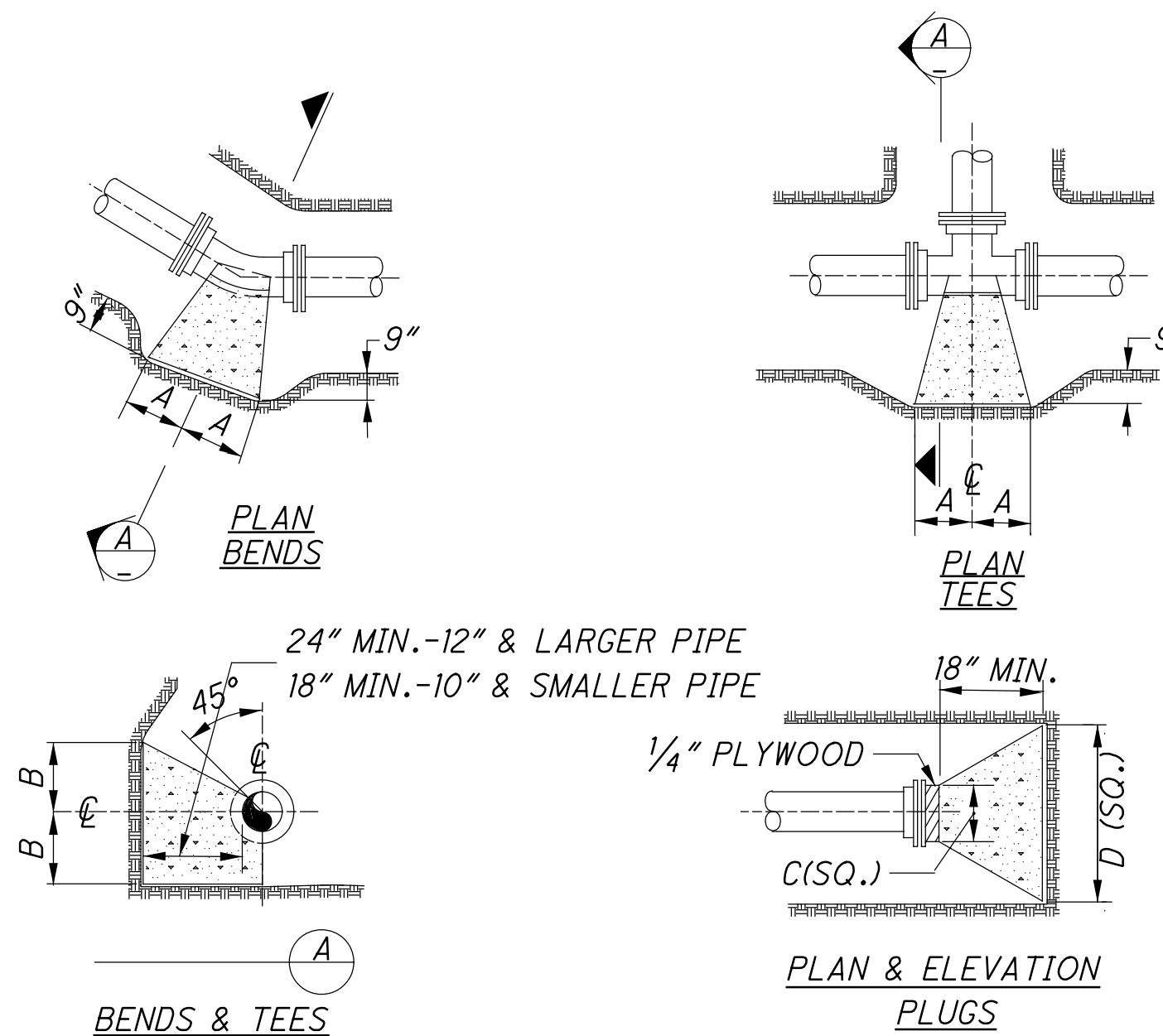
**DETAIL "E"**  
 FIRE HYDRANT EXTENDED AND ADJUSTED TO GRADE  
 (PLAN)



TYPE	SIZE	CROSS		WYE	
		A	B	A	B
2000 P.S.F. SOIL	6"	11"	13"	10"	12"
	8"	15"	17"	14"	14"
	10"	18"	22"	15"	20"
	12"	21"	26"	18"	23"
	14"	24"	30"	21"	27"
	16"	28"	33"	24"	30"
	20"	33"	42"	27"	43"
	24"	40"	49"	32"	50"

\* 6" OR LESS

**NOTE:** BASED ON 150 P.S.I. STATIC PRESSURE PLUS A.W.W.A. WATER HAMMER.  
 ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.



**BENDS & TEES**

**PLAN & ELEVATION PLUGS**

TYPE	SIZE	90° BENDS		45° BENDS		22-1/2° & 11-1/4° BENDS		TEES		PLUGS	
		A	B	A	B	A	B	A	B	C	D
2000 P.S.F. SOIL	6"	18"	11"	10"	11"	6"	9"	11"	13"	10"	24"
	8"	25"	14"	14"	14"	9"	11"	15"	17"	12"	32"
	10"	27"	20"	16"	19"	10"	15"	18"	22"	14"	40"
	12"	33"	23"	18"	23"	12"	18"	21"	26"	16"	47"
	14"	39"	26"	22"	26"	13"	22"	24"	30"	18"	54"
	16"	43"	30"	24"	30"	14"	26"	28"	33"	20"	61"
	20"	50"	39"	27"	39"	17"	32"	33"	42"	24"	74"
	24"	60"	45"	33"	45"	20"	38"	40"	49"	28"	88"

\* 6" OR LESS

**NOTE:** BASED ON 150 P.S.I. STATIC PRESSURE PLUS A.W.W.A. WATER HAMMER.  
 ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.