

**UNIT COSTS FOR CONSTRUCTION OF GRAVITY SEWERS (a) (b) (f)**

Pipe Diameter (in)	Depth (ft)										
	8	10	12	14	16	18	20	22	24	26	28
6 (c)	\$35.99	\$38.94	\$41.34	\$44.28	\$47.76	\$52.91	\$59.15	\$67.27	\$78.02		
8	\$43.38	\$48.14	\$50.96	\$54.54	\$58.77	\$65.07	\$72.85	\$82.80	\$95.75		
10	\$52.36	\$59.55	\$63.00	\$67.31	\$72.50	\$80.36	\$89.97	\$102.42	\$118.52		
12		\$69.89	\$73.84	\$78.90	\$85.29	\$94.52	\$105.86	\$120.51	\$139.75	\$161.45	\$191.33
15		\$86.69	\$91.09	\$96.39	\$103.24	\$112.60	\$124.49	\$138.93	\$157.31	\$179.84	\$211.42
18		\$105.12	\$109.64	\$115.40	\$122.81	\$133.35	\$145.20	\$160.52	\$179.16	\$201.79	\$233.57
21 (e)		\$126.74	\$131.85	\$137.85	\$145.79	\$156.18	\$169.22	\$185.41	\$204.62	\$227.35	\$260.06
24 (e)		\$149.60	\$157.05	\$163.47	\$172.00	\$183.38	\$197.31	\$213.74	\$232.96	\$255.95	\$289.77
27 (d)		\$158.26	\$164.38	\$172.57	\$183.31	\$197.37	\$213.84	\$233.72	\$257.24	\$281.92	
30		\$177.47	\$184.16	\$192.92	\$204.22	\$218.30	\$234.98	\$256.09	\$280.63	\$306.35	
33		\$190.08	\$197.35	\$206.26	\$217.98	\$232.29	\$249.45	\$271.53	\$297.04	\$324.21	
36		\$194.44	\$201.82	\$211.27	\$223.16	\$237.59	\$255.62	\$277.87	\$303.92	\$332.74	
39		\$236.88	\$244.70	\$254.32	\$266.29	\$281.29	\$300.33	\$323.55	\$350.87	\$382.02	
42		\$258.21	\$267.81	\$279.58	\$294.24	\$312.22	\$336.34	\$365.42	\$399.13		
48		\$283.42	\$293.73	\$306.98	\$323.53	\$344.16	\$369.41	\$401.26	\$437.31		
54		\$328.45	\$339.87	\$353.81	\$370.64	\$391.51	\$417.43	\$450.76	\$489.92		
60		\$381.86	\$394.20	\$408.49	\$428.40	\$451.75	\$480.36	\$515.56	\$557.81		

- (a) Based on Sacramento Area Sewer District Standards and Specifications, Type II Bedding and Initial Backfill.
- (b) ENR 11446 - Average of 20 Cities and San Francisco, 2018
- (c) VCP (24-inch diameter and smaller)
- (d) RCP with calcareous aggregate
- (e) If for structural reasons, and with SASD approval, RCP with calcareous aggregate is required for 21" or 24" pipeline, the above unit costs shall be reduced \$5.50 or \$15.16 respectively.
- (f) \$4.39 per cu. yd. For mechanical compaction of intermediate backfill

ADDITIONAL COST ITEMS:

1. 22% for work outside of undeveloped areas.
2. Cost for pavement removal and replacement  
 Removal = \$4.86 /L.F.  
 Replacement= Asphaltic Concrete: \$195 /ton (1 ton = 160 S.F., 1 inch thick)  
 Aggregate Base: \$45 /ton (1 ton = 20 S.F., 8 inch thick)
3. Temporary pavement = \$127 /ton (1 ton = 160 S.F., 1 inch thick)
4. Flagpersons = \$522 /day/person
5. Utility Crossings (service lines):  
 Cross = \$216 ea.  
 Replace = \$645 to \$1,092 ea.
6. Cost for crossing a major utility to be determined on a case-by-case basis.
7. Manholes:  
 4 ft MH = \$2,600 for 7 ft depth plus \$216 /ft over 7 ft  
 5 ft MH type A or B = \$3,684 for 8 ft depth plus \$379 /ft over 8 ft.  
 Lining additional = \$2,165 for 8 ft depth plus \$216 /ft over 8 ft.
8. Dewatering trench with wells: \$44 to \$95
9. T-Lock lining for RCP: \$7.80 /S.F.