GDM

E & D Cost Estimate

(A0007134) 4/9/84

Orleans Ave. Outfall Canal

ne[illegible] To [illegible] GDM - 10 t[illegible]

Parallel Protection

Index & Vic Map	1	dwg
Plan & Profile	4	dwgs (Scale: 1" = 100')
Typical Sections	5	dwgs
Typical Wall Joints	1	dwg
Utility Plan	2	dwgs
Utility Crossing Details	1	dwg
Bridge Seal Details (3 bridges.)	6	dwgs
Details of floodwall Crossing under I-610	1	dwg
Miscellaneous Details	2	dwgs
Plan Closure across Pumping Station	1	dwg
Details " " " "	2	dwgs
Sluice Gate & Valve Closure Details at Pump. Sta	3	dwgs.
	29	dwgs

GDM

(to complete 1 Oct 86 thru Dec (3 months))

Control Structure

Index & Vic Map	1 dwg ✓
Plan & Profile	2 dwgs ✓
Structure Plan	1 dwg ✓
Structure Detail Sections	~~2~~ 1 dwgs
Butterfly Valve Plan & Elev.	~~1~~ 2 dwg ✓
" " Details	~~6 dwgs~~
" " Mech. Details	~~3 dwgs~~
Levee / Floodwall Details	~~3~~ 1 dwgs
Cofferdam Plan	~~2~~ 1 dwgs
" Details	~~3 dwgs~~
Bypass Channel Details	~~3~~ 1 dwgs
Miscellaneous Details	~~2 dwgs~~
Typical Wall Joints	1 dwg
	~~30~~ 10 dwgs

Assume Recommended Alternative dwgs total 135 plots
(selected plan + alternative)

135 dwgs @ 40 hrs/dwg × 1 wk/40 hrs × 1 month/4 wks = 8.75 months

say 8 months total (accounting for typical dwgs)

Assume 2 draftmen × 4 months

Design Time in Schedule = 9 months (includes drafting)

1 GS-12 Supv. Struc Engr (1/3 × 9 mos.) = 2.0 months

1 GS-12 Struc Engr (1/3 × 9 mos.) = 3 months

2 GS-11 Struc Engrs (2 × 4 1/2 mos.) = 9 months

1 GS-12 Mech. Engr 1 3 months

Start drafting 4 1/2 months after start of design work

1	GS-12/7	Supv. Struc Engr	~~3~~ 2/12 x $	37,943	= $	~~9,486~~ 6,324
~~1~~	~~GS-12/5~~	~~Struc Engr~~	~~3/12 x $~~	~~35,835~~	=	~~8,959~~
2	GS-11/4	Struc Engrs	~~9~~ 6/12 x $	31,568	=	~~23,676~~ 15,784
1	GS-12/2	Mech Engr	~~3~~ 5/12 x $	32,673	=	~~8,168~~ 12,[illegible]
1	GS-11/2	Civ Engr Tech	~~4~~ 7/12 x $	27,260		~~9,087~~ 16,[illegible]
1	GS-9/4	Civ Engr Tech	~~4~~ 7/12 x $	23,985	=	~~7,995~~ 1[illegible]

BASE COST	$	67,371
Leave Burden (27%)		~~18,190~~ 10,143
Gov't Contributions (8%)		~~5,390~~ 3,001
Tools & Equipment (2%)		~~1,347~~ 1,753
SUBTOTAL	$	~~92,298~~ 57,567
Engr Div Spread (30%)		~~27,690~~ 15,[illegible]
District Overhead (~~24~~ 28%)		~~22,152~~ 14,440
SUBTOTAL	$	~~142,140~~ 81,480
+ Levees Section		10,000
+ Gov't Est		6,000
TOTAL	$	~~158,140~~ 97,480
use	$	~~158,000~~ 97,000

Needed to complete GDM (thru [illegible]) From 1 Oct 86 (3 mos)

E&D involves: 1) Design of Parallel Protection & Structure Alternatives to GDM level
2) Drafting Selected Alternative (approx ~~35~~ 15 plates)