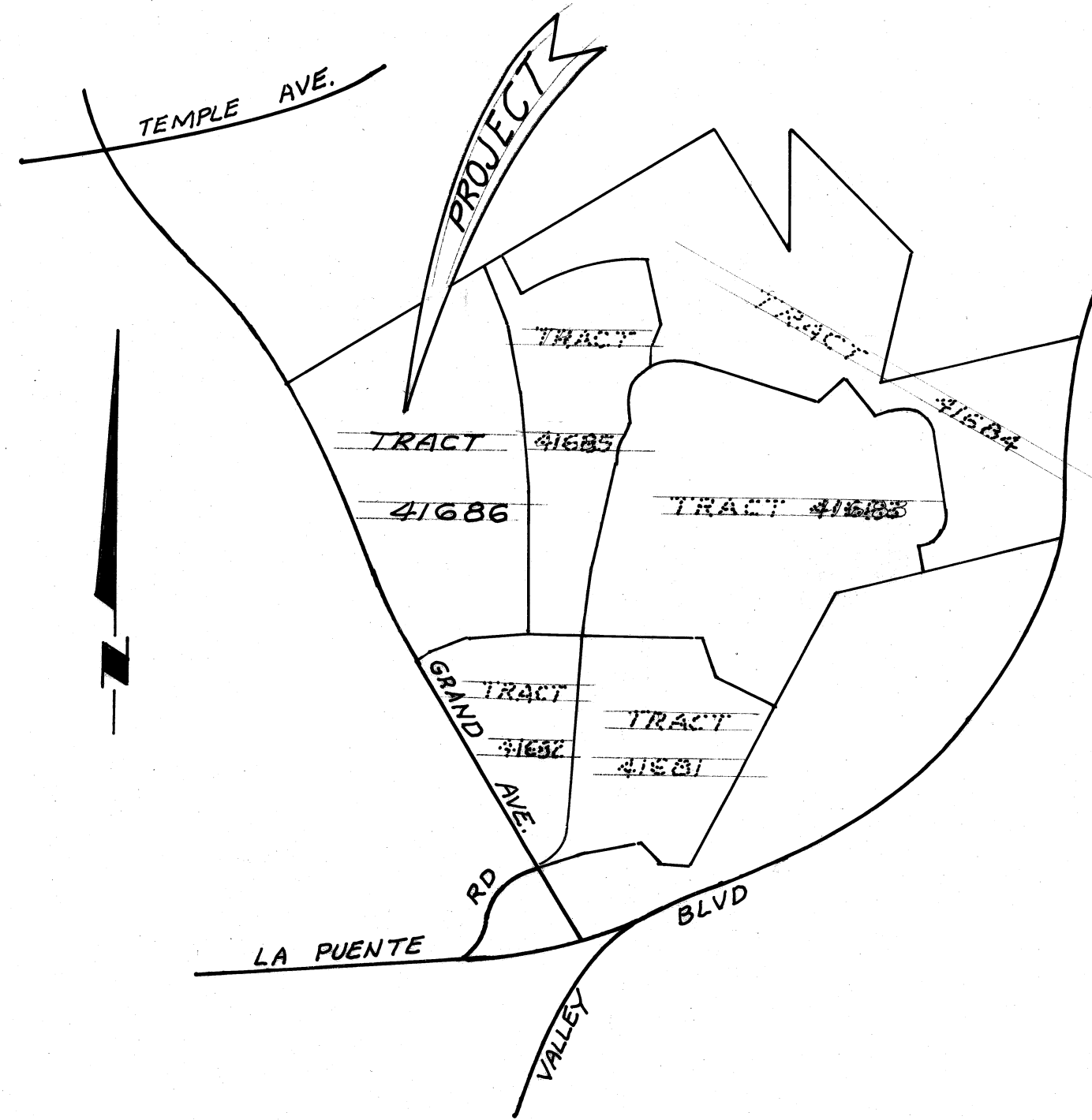


GENERAL NOTES FOR STORM DRAIN CONSTRUCTION

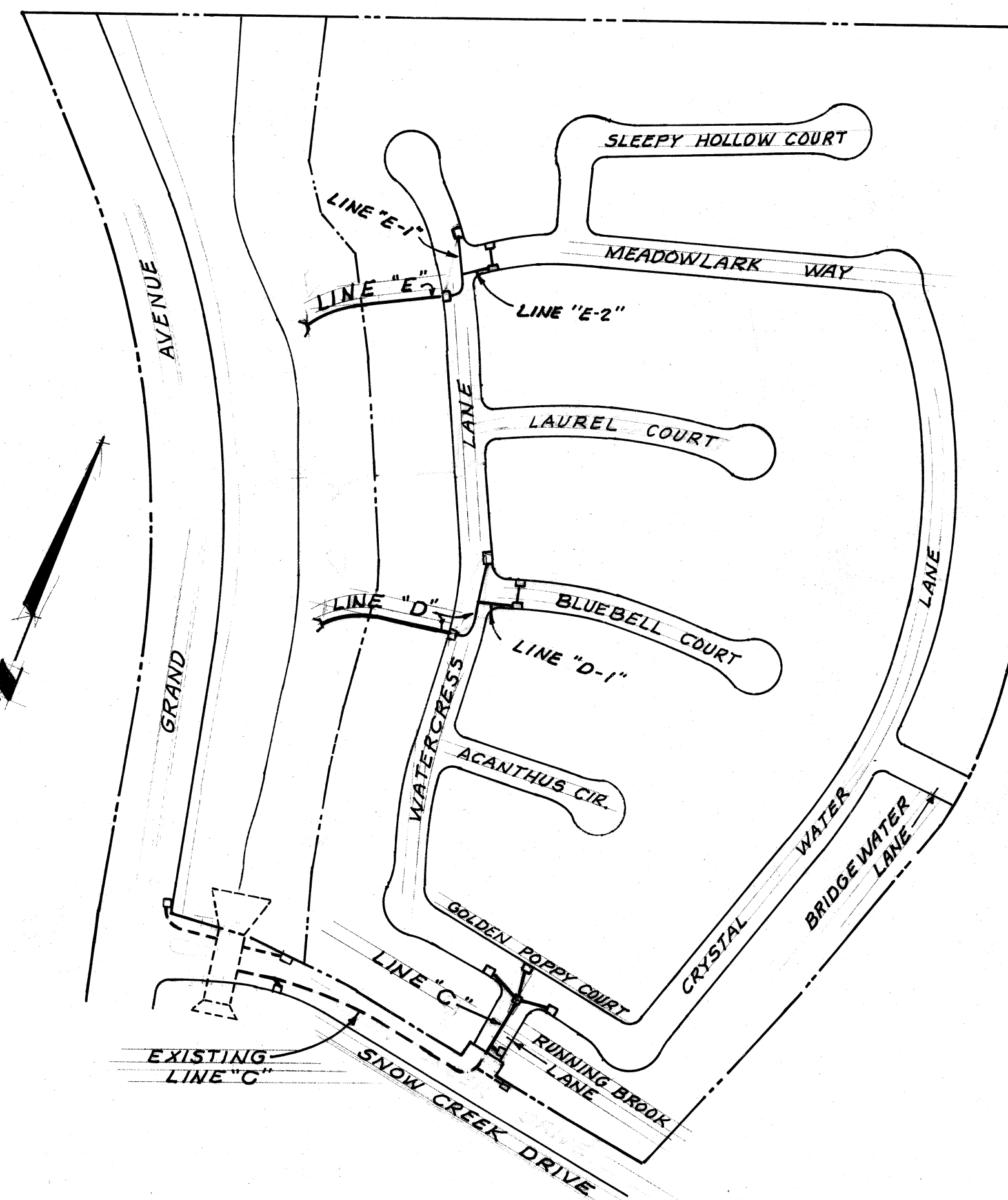
1. ALL PIPE LAID IN OPEN TRENCH SHALL BE BEDDED IN ACCORDANCE WITH LACFCD STD. No 2-D177
2. 4-8 HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER (714) 594-9702
3. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECS FOR PUBLIC WORKS CONSTRUCTION AND SUPPLEMENT, 1982 EDITION, WITH 1983 SUPPLEMENT.
4. ALL BACKFILL SHALL BE COMPACTED TO A RELATIVE DENSITY OF 90%.
5. ALL STATE AND LOCAL TRENCH SAFETY RULES WILL BE RIGIDLY ENFORCED.
6. THE CONTRACTOR MUST MAINTAIN ALL TRAFFIC SIGNS IN AN ERECT, READILY DISCERNABLE POSITION AND FREE FROM OBSTRUCTION TO MOTORISTS VISION, AND SHALL RESET SAME IN THE PROPER POSITION UPON COMPLETION OF CONSTRUCTION.
7. EXISTING UTILITIES CROSSING THE STORM DRAIN SHALL BE SUPPORTED PER LACFCD STD. 2-D173 AS DIRECTED BY THE CITY ENGINEER.
8. RCP SHALL BE MANUFACTURED AND INSPECTED IN ACCORDANCE WITH SECTION 207 - 2.6, 2.7, 2.8 AND 2.9 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (1982 EDITION), WITH 1983 SUPPLEMENT.
9. THE CONTRACTOR SHALL FURNISH A LETTER OF CERTIFICATION FROM THE PIPE MANUFACTURER AS TO TEST RESULTS OF THE PIPE INSTALLED.
10. ALL PIPE LENGTH SHOWN ARE HORIZONTAL PROJECTIONS, UNLESS OTHERWISE NOTED.
11. ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 P.S.I.
12. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615 - GRADE 60.
13. THE ENGINEER, V.T.N., HAS INVESTIGATED ALL AVAILABLE RECORDS OF THE CITY AND OF THE UTILITY COMPANIES INVOLVED AND ALL KNOWN SUBSTRUCTURES ARE SHOWN HEREON. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL SUBSTRUCTURES, WHETHER OR NOT SHOWN HEREON AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR THE TOTAL EXPENSE OF REPAIR OR REPLACEMENT OF SAID SUBSTRUCTURES DAMAGE BY HIS OPERATION IN CONNECTION WITH THE PROSECUTION OF SAID WORK.
14. THIS STORM DRAIN WILL NOT BE ACCEPTED FOR MAINTENANCE UNTIL THE STREETS HAVE BEEN PAVED, MANHOLES BROUGHT UP TO GRADE AND THE SYSTEM IS CLEANED TO THE SATISFACTION OF THE CITY ENGINEER.
15. ELEVATIONS ARE IN FEET ABOVE U.S.C.G.S. MEAN SEA LEVEL DATUM OF 1929.
16. FINISH ALL EXPOSED EDGES WITH 3/4" CHAMFER.
17. ALL STEEL THAT IS TO BE CONTINUOUS SHALL HAVE A MINIMUM LAP AT SPLICES OF 30 BAR DIAMETERS.
18. ALL PIPE TO BE IMBEDDED A MINIMUM OF 5 INCHES INTO HEADWALLS OR STRUCTURES.



VICINITY MAP
NO SCALE

CONSTRUCTION NOTES

- 1 CONST. CATCH BASIN No. 2 PER LACFCD STD. No. 2-D162 ("W" & "V" AS SHOWN ON PLAN)
- 2 CONST. CATCH BASIN No. 1 PER LACFCD STD. No. 2-D160 ("W" & "V" AS SHOWN ON PLAN)
- 3 CONST. JCT. STRUCTURE No. 2 PER LACFCD STD. No. 2-D112 (DATA AS SHOWN ON PLAN)
- 4 CONST. CATCH BASIN No. 3 PER LACFCD STD. No. 2-D163 ("W" & "V" AS SHOWN ON PLAN)
- 5 REMOVE BRICK & MORTA SEAL AND 24" CMP & ITS UPSTREAM RISER
- 6 CONST. CONCRETE COLLAR PER LACFCD STD. No. 2-D393
- 7 CONST. CONCRETE PIPE ANCHOR PER LACE STD. No. D-72
- 8 CONST. OUTLET STRUCTURE PER DETAIL ON SHT. 3
- 9 CONST. M.H. No. 1 PER L.A.C.F.C.D. STD. No. 2-D102
- 10 CONST. 18" RCP, "D" LOAD PER PLAN
- 11 CONST. 24" RCP, "D" LOAD PER PLAN
- 12 CONST. 33" RCP, "D" LOAD PER PLAN
- 13 CONST. TRANSITION STRUCTURE No. 3 PER LACFCD STD. 2-D188 (DATA AS SHOWN ON PLAN)



INDEX MAP
SCALE: 1"=200'

NOTICE TO CONTRACTOR

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

IF CONSTRUCTION OF IMPROVEMENTS AS SHOWN HEREON ARE NOT COMMENCED WITHIN 18 MONTHS OF APPROVAL DATE, THESE PLANS ARE SUBJECT TO REVIEW BY THE CITY.

QUANTITY ESTIMATE			
N ^o	ITEM	QUANTITY	UNIT
(2)	33" R.C.P. 1200 D	91.50	L.F.
(1)	24" R.C.P. 1400 D	208.47	L.F.
(10)	18" R.C.P. 1600 D	592.90	L.F.
(1)	24" R.C.P. 1800 D	133.10	L.F.
(1)	24" R.C.P. 1400 D	35.50	L.F.
(2)	C.B. No. 1 PER LACFCD STD. No. 2-D160	2	EA.
(1)	C.B. No. 2 PER LACFCD STD. No. 2-D162	8	EA.
(4)	C.B. No. 3 PER LACFCD STD. No. 2-D163	2	EA.
(3)	JCT. STRUCTURE No. 2 PER LACFCD STD. No. 2-D112	1	EA.
(6)	CONCRETE COLLAR PER LACFCD STD. No. 2-D393	2	EA.
(7)	CONCRETE PIPE ANCHOR PER LACE STD No. D-72	7	EA.
(9)	MANHOLE No. 1 PER LACFCD STD. No. 2-D102	1	EA.
(8)	DRAINAGE OUTLET STRUCTURE PER DETAIL ON SHT. 3	2	EA.
(13)	TRANSITION STRUCTURE No. 3, PER LACFCD STD. No. 2-D188	2	EA.

BASIS OF BEARINGS
N 22°58'05" W FOR THE CENTERLINE OF GRAND AVE. AS SHOWN ON TRACT No. 40715 RECORDED IN BOOK 998, PAGES 80 THROUGH 84 INCLUSIVE OF MAPS, RECORDS OF LOS ANGELES COUNTY.

BENCHMARK:
B.M. C.G. 1781 ELEV. 617.011
R.D.B.M. TAG NR CTR OF CONC. HDWL 24 FT. N. & LA PUENTE RD. + 0.2 MI. W/O GRAND AVE.
COVINA QUAD. 1975

APPROVED BY:
CITY OF WALNUT
CITY ENGINEER

Ronald L. Kranzer 5-16-84
RONALD L. KRANZER, RCE, 18503 DATE

PLANS PREPARED BY:
V.T.N. CONSOLIDATED INC.
2301 CAMPUS DRIVE
IRVINE, CA. 92713 (714) 851-5200

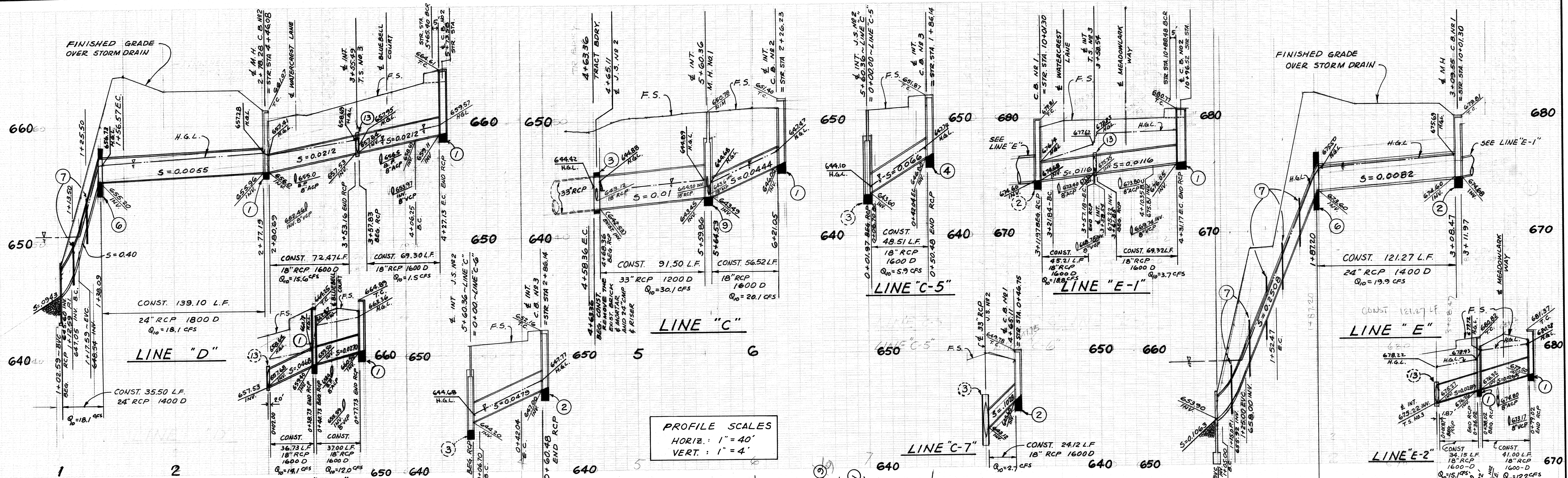
James J. McCarthy 3-21-84
JAMES J. MCCARTHY RCE, 1069 DATE

CITY OF WALNUT

TRACT NO. 41686
STORM DRAIN
LINE "C", "D" & "E"

SHEET
1
OF
3

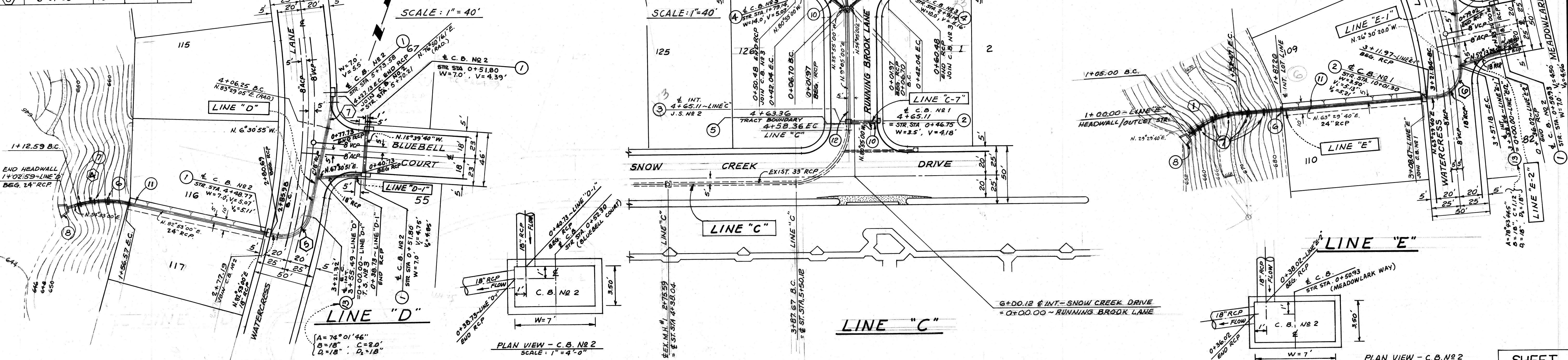
140A



PROFILE SCALES
 HORIZ. : 1" = 40'
 VERT. : 1" = 4'

STORM DRAIN CURVE DATA

No	Δ	R	L	T
1	34° 00' 00"	80.00	47.47	24.46
2	45° 00' 00"	45.00	35.34	18.64
3	45° 00' 00"	45.00	35.34	18.64
4	28° 00' 00"	90.00	43.98	22.44
5	90° 00' 00"	22.50	35.34	22.50
6	90° 00' 00"	22.50	35.34	22.50
7	6° 36' 48.9"	180.00	20.88	10.45
8	6° 37' 38"	180.00	20.82	10.42

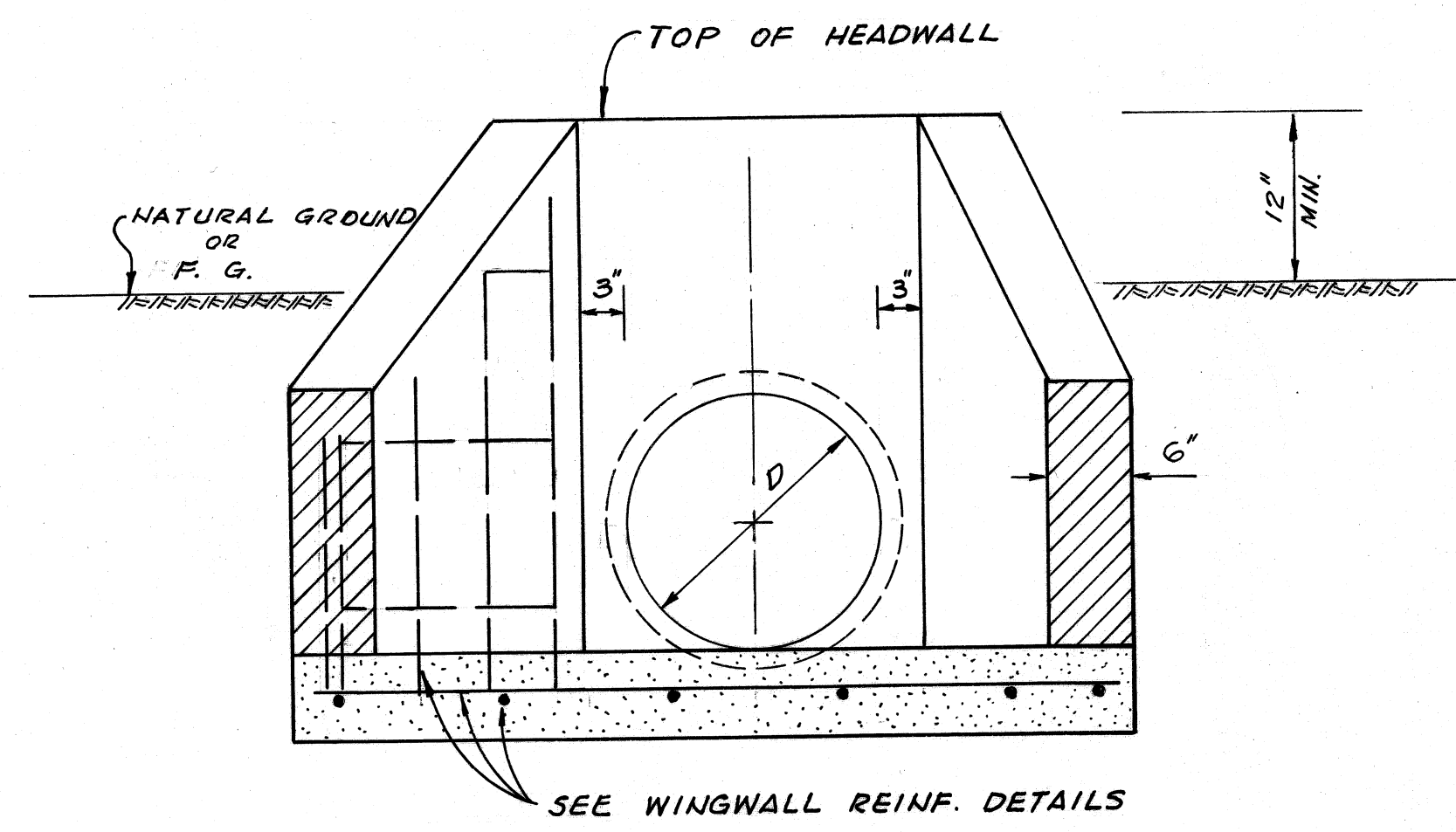


CONSTRUCTION NOTES

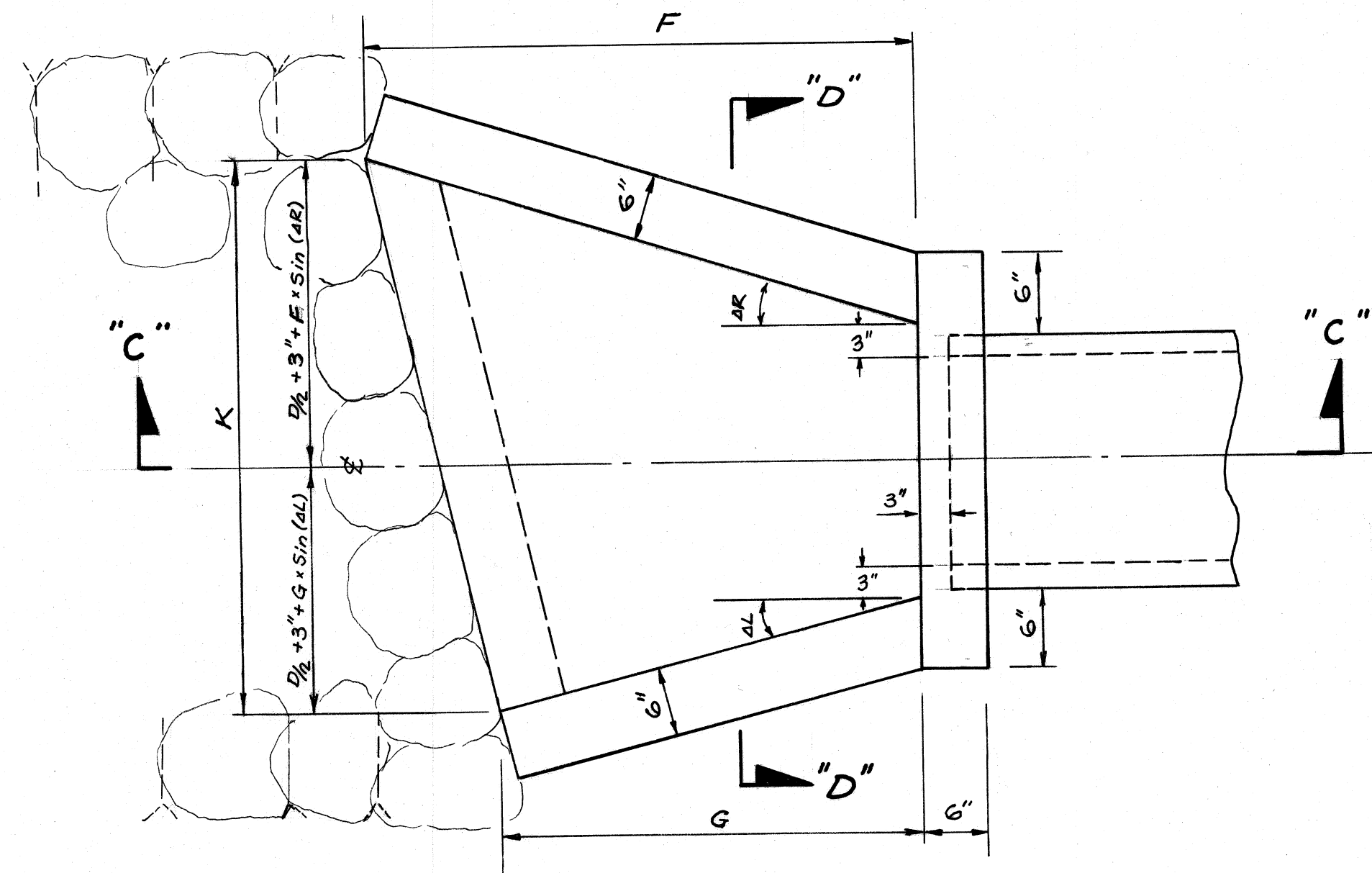
- ① — CONST. CATCH BASIN NO 2 PER L.A.C.F.C.D. STD. NO 2-D162 (W & V AS SHOWN ON PLAN)
- ② — CONST. CATCH BASIN NO 1 PER L.A.C.F.C.D. STD. NO 2-D160 (W & V AS SHOWN ON PLAN)
- ③ — CONST. JUNCTION STRUCTURE NO.2 PER L.A.C.F.C.D. STD. NO 2-D112 (A.B.C.D. EL.'S, EL.'R AS SHOWN ON PLAN)
- ④ — CONST. CATCH BASIN NO 3 PER L.A.C.F.C.D. STD. NO 2-D163 (W & V AS SHOWN ON PLAN)
- ⑤ — REMOVE BRICK & MORTAR AND 24" CMP & ITS UPSTREAM RISER
- ⑥ — CONST. CONCRETE COLLAR PER L.A.C.F.C.D. STD. NO 2-D393
- ⑦ — CONST. CONCRETE PIPE ANCHOR PER L.A.C.E. STD. NO D-72
- ⑧ — CONST. OUTLET STRUCTURE PER DETAIL ON SH. NO 3
- ⑨ — CONST. M.H. NO 1 PER L.A.C.F.C.D. STD. NO 2-D102
- ⑩ — CONST. 18" RCP "D" LOAD PER PLAN
- ⑪ — CONST. 24" RCP "D" LOAD PER PLAN
- ⑫ — CONST. 33" RCP "D" LOAD PER PLAN
- ⑬ — CONST. T.S. NO 3 PER LACFCD STD. NO 2-D188 (DETAILS AS SHOWN ON PLAN)

140B

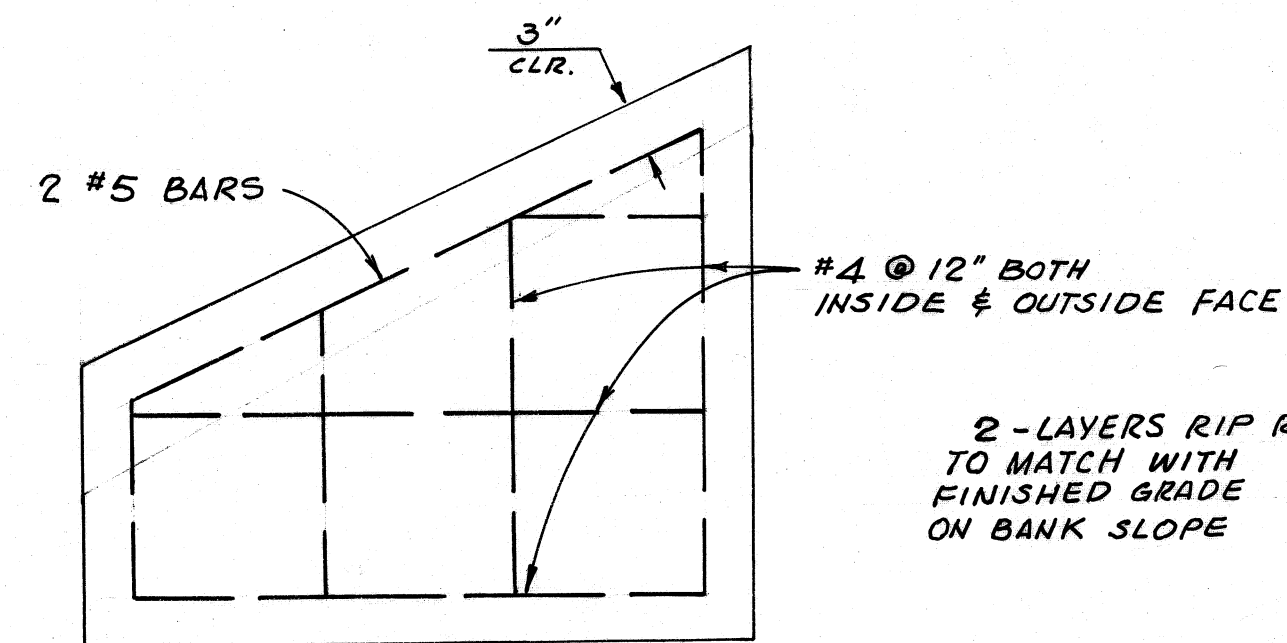
SHEET
 2
 OF
 3



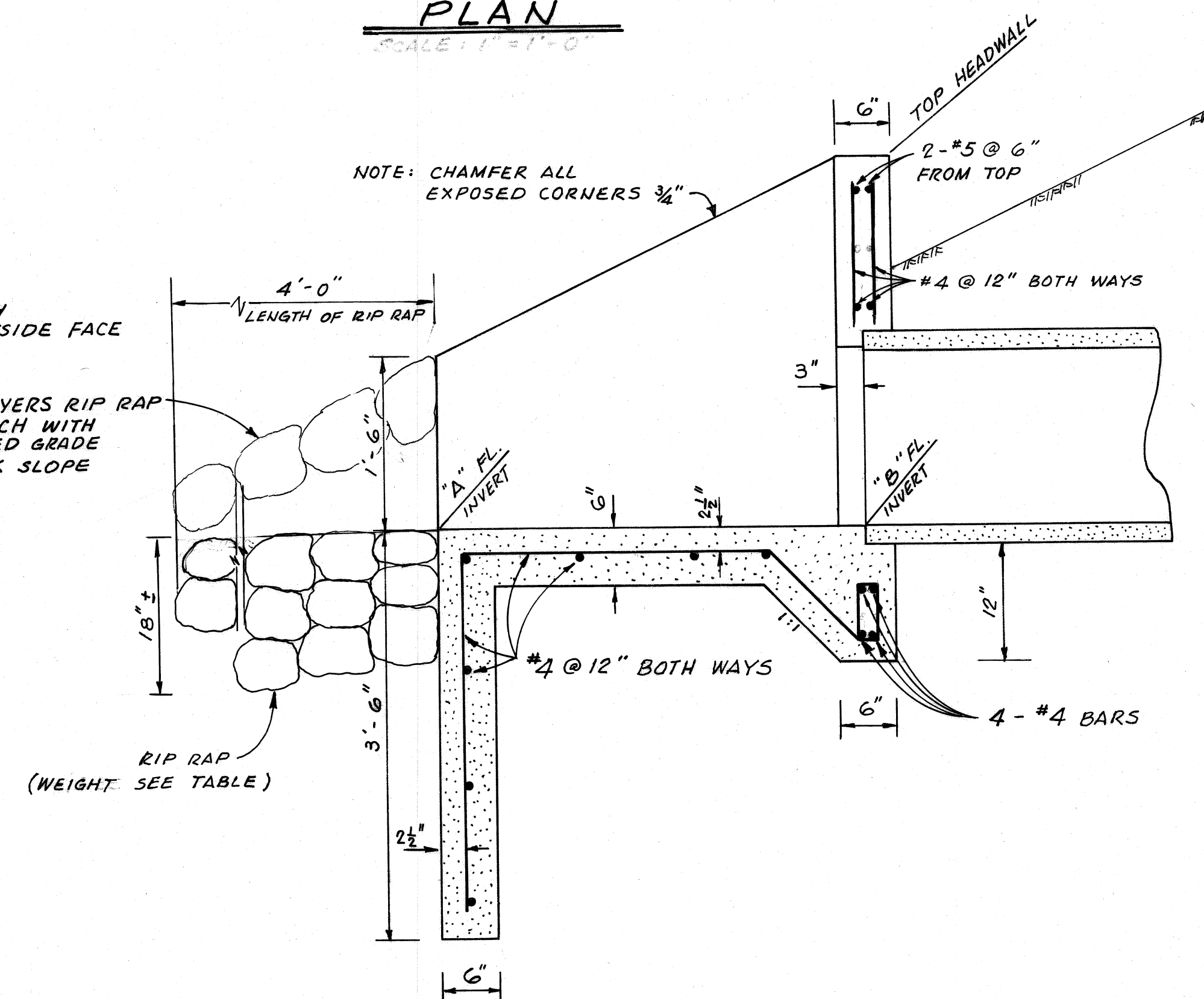
SECTION "D-D"



PLAN



WINGWALL REINFORCING



SECTION "C-C"
SCALE: 1" = 1'-0"

LINE	END STRUCTURE	PIPE DIA.	K	ΔR	ΔL	F	G	FL "A" INVERT	FL "B" INVERT	TOP HOWL	WEIGHT RIP RAP
D	OUTLET	24"	3.96'	15°	18°	4'	3'	645.50	645.60	648.05	40'-60"
E	OUTLET	24"	4.97'	18°	18°	4'	4'	653.80	653.90	657.40	40'-60"