STANDARD DRAWINGS

THE FOLLOWING STANDARD DRAWINGS TAKEN FROM THE LOS ANGELES COUNTY FLOOD CONTROL "DESIGN MANUAL" HAVE BEEN REFERENCED ON THIS PROJECT.

1. DWG. NO. 2-D178
   TYPICAL FENCE AND GATE DETAILS - FOR CHANNEL RIGHTS-OF-WAY.
2. DWG. NO. 2-D180
   TYPICAL FENCE, GATE & HEADWALL DETAILS FOR CHANNEL WALLS.
3. DWG. NO. 2-D189
   JUNCTION STRUCTURE NO. 1 PLAN AND SECTIONS.
4. DWG. NO. 2-D393
   CONCRETE COLLAR FOR PIPES 12 INCHES THROUGH 66 INCHES.
5. DWG. NO. 2-D194
   MANHOLE NO. 3
6. DWG. NO. 2-D171
   STANDARD A-615 REINFORCING BARS.
7. DWG. NO. 2-D177
   PIPE BEDDING IN TRENCHES.
8. DWG. NO. 2-D472
   24 INCH MANHOLE FRAME & COVER.
9. DWG. NO. 2-D107
   CONCRETE RINGS, REDUCER & PIPE FOR MANHOLE.
10. DWG. NO. 2-D56
    STANDARD DROP STEP.
11. DWG. NO. 2-D192
    AUTOMATIC FLAPGATE INLET

THE FOLLOWING STANDARD PLANS TAKEN FROM THE LOS ANGELES COUNTY ENGINEERS "PROCEDURAL MANUAL" HAVE BEEN REFERENCED ON THIS PROJECT.

STANDARD MANHOLE STEP	S-17
BEDDING FOR SEWER PIPE	S-21
CRADLING AND ENCASEMENT	S-23
ALLOWABLE TRENCH WIDTHS	S-33
LOCKING MANHOLE FRAME AND COVER	S-35
NON-REINFORCED PRECAST CONCRETE MANHOLE	S-36

BENCH MARK:
C.G. 1781 ELEV. 617.011
R.D.B.M. TAG NR CTR OF CONC. HEADWALL 24 FT. N. ℄ LA PUENTE RD. + 0.2 MI. W/O GRAND AVE.

BASIS OF BEARINGS

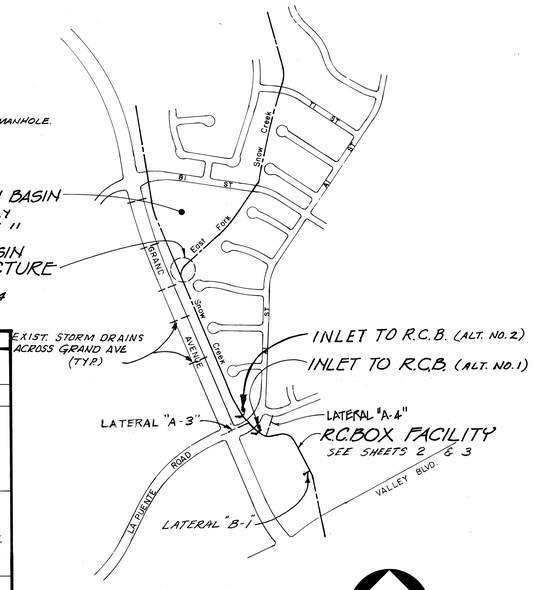
N22°58'05"W FOR THE CENTERLINE OF GRAND AVENUE AS SHOWN ON TRACT NO. 40715, M.B. 998/80-84 WAS USED AS BASIS OF BEARINGS FOR THIS TRACT.

REFERENCES

TOPOGRAPHY: DON READ CORP., AUG. 1978
SURVEY FIELD NOTES: VTN

ADDITIONAL CONSTRUCTION NOTES

⚠ 37 — CONST. 24" DIA. R.C.P. 2000-D
⚠ 38 — REMOVE EXIST. R.C. HEADWALL
⚠ 39 — GRADE TO DRAIN



KEY PLAN

Scale 1" = 600'

REVISION NO. ⚠
SHT. 1.) ADD REVISION BLOCK, DRAWING LIST ADDITION, ADDITIONAL CONST. NOTES
SHT. 2) ELIMINATE PROTECTION BARRIER
SHT. 3) ADD 11'H x 8'-2"W R.C.B., 20' DRAINAGE ESM'T. & GRADING, ADD M.H., FINISH GRADE, LATERALS, ELIMINATE TIMBER WINGWALLS, GROUTED RIP-RAP, C.L. FENCE & CHANNEL GRADING
SHT. 4) ADD 11'H x 8'-2"W R.C.B. 20' DRAINAGE ESM'T & GRADING, ADD M.H., FINISH GRADE, & LATERALS ELIMINATE OUTLET STRUCT. RIP-RAP, GROUTED RIP-RAP. C.L. FENCE CHANNEL GRADING.
SHT. 5) ELIMINATE C.L. FENCE
SHT. 7) ELIMINATE TIMBER WINGWALLS
SHT. 8) ELIMINATE DETAIL F/8
SHT. 10 ⚠ REVISE CROSS-SECTIONS (STA. 110+00 AND 111+00)
SHT. 11) ADD R.C.B. IN PLAN VIEW ELIMINATE OUTLET STRUCT. DETAILS
SHT. 12.) NEW SHEET.

DESIGN CRITERIA FOR CONCRETE STRUCTURES

1. Concrete
   (Working stress design per ACI 318-63)
   f'_c = 4,000 psi
   f_c = 1,800 psi
   v_c = 70 psi
   n^c = 8
2. Reinforcing Steel
   f_s = 60,000 psi (60 grade)
   f_s = 24,000 psi
3. Soils and Foundation
   See report by Leighton and Associates entitled "Design Parameters for Reinforced Concrete Box Culverts, Parent Tract 32158 Stearns Ranch, City of Walnut, California" dated July 6, 1981.
4. Live Load
   AASHTO HS 20-44

STRUCTURAL NOTES

1. ALL CONCRETE SHALL BE PORTLAND CEMENT CONCRETE WITH AN ULTIMATE 28 DAYS COMPRESSIVE STRENGTH OF 4000 P.S.I. CEMENT SHALL CONFORM TO ASTM C150, TYPE II.
2. CONCRETE DIMENSIONS SHALL BE MEASURED HORIZONTALLY OR VERTICALLY ON THE PROFILE, AND PARALLEL TO OR AT RIGHT ANGLES (OR RADIALLY) TO CENTERLINE OF CONDUIT ON THE PLAN EXCEPT AS OTHERWISE SHOWN.
3. NO CONCRETE SHALL BE PLACED UNTIL THE FORMS AND REINFORCING STEEL HAS BEEN PLACED AND INSPECTED BY THE CITY ENGINEER.
4. EXPOSED EDGES OF CONCRETE MEMBERS SHALL BE CHAMBERED 3/4".
5. DIMENSIONS FROM FACE OF CONCRETE TO STEEL ARE TO FACE OF BAR AND SHALL BE 2 1/2 INCHES UNLESS OTHERWISE SHOWN.
6. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED BARS.
7. ALL BAR BENDS AND HOOKS SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" CHAPTER 7 (ACI 318-77).
8. NO SPLICES IN TRANSVERSE STEEL REINFORCEMENT WILL BE PERMITTED OTHER THAN SHOWN ON THE DRAWINGS WITHOUT APPROVAL OF THE ENGINEER. NO MORE THAN TWO SPLICES WILL BE PERMITTED IN ANY LONGITUDINAL BAR BETWEEN TRANSVERSE JOINTS. SPLICES SHALL BE STAGGERED.
9. LONGITUDINAL STEEL SHALL BE LAPPED 40 BAR DIAMETERS AT SPLICES. TRANSVERSE STEEL SHALL BE LAPPED AS SHOWN ON DRAWINGS.
10. PLACING OF REINFORCEMENT SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" CHAPTER 7 (ACI 318-77).
11. UNLESS OTHERWISE SHOWN ON THE DETAILS, IN CURVED SECTIONS TRANSVERSE BARS SHALL BE PLACED RADIALLY. STRAIGHT TRANSVERSE BARS IN TOP AND BOTTOM SLABS SHALL BE SPACED AS SHOWN ON THE TYPICAL SECTIONS; SPACING SHALL BE AT THE CENTERLINE OF CONSTRUCTION FOR SINGLE-BARREL BOXES. STRAIGHT BARS AND L-BARS IN WALLS SHALL BE SPACED AS SHOWN ON THE TYPICAL SECTIONS, WITH THE SPACING MEASURED BETWEEN THE VERTICAL LEGS OF BARS.
12. THE TRANSVERSE REINFORCING STEEL SHALL TERMINATE ONE AND ONE-HALF INCHES FROM THE CONCRETE SURFACES UNLESS OTHERWISE SHOWN ON THE STRUCTURAL DETAILS.
13. LONGITUDINAL STEEL SHALL BE CONTINUOUS AND EXTEND THROUGH ALL CONSTRUCTION JOINTS, UNLESS OTHERWISE SHOWN.
14. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, TRANSVERSE JOINT KEYWAYS (IN BOTH SLABS AND WALLS), AS DETAILED ON THE DRAWINGS, SHALL BE PLACED AT THE END OF EACH POUR, BUT THE SPACING THEREOF SHALL NOT EXCEED 40 FEET OR BE LESS THAN 10 FEET. ALL CONSTRUCTION JOINTS IN BOTTOM SLAB, TOP SLAB, AND SIDE WALLS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED.
15. TRANSVERSE CONSTRUCTION JOINTS IN WALLS AND SLABS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED. TRANSVERSE CONSTRUCTION JOINTS SHALL BE NORMAL OR RADIAL TO THE CENTERLINE OF CONSTRUCTION.
16. TRANSVERSE JOINTS SHALL BE PLACED AT THE JUNCTION OF INLET AND OUTLET SECTIONS WITH CLOSED CONDUIT SECTIONS.
17. TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE PLACED WITHIN 30 INCHES OF MANHOLE OR JUNCTION STRUCTURE OPENINGS.
18. TRANSVERSE CONSTRUCTION JOINTS SHALL BE PLACED AT ALL LOCATIONS WHERE THERE IS A TRANSITION FROM CUT TO FILL AT THE SUBGRADE FOR THE STRUCTURE. THE LOCATIONS OF THE JOINTS SHALL BE DETERMINED IN THE FIELD BY THE SOILS ENGINEER DURING INSPECTION OF BOTTOM OF EXCAVATION FOR STRUCTURE.

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", 1982 EDITION.
2. 24 HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER, (714) 594-3702 ALL WORK SHALL BE PROSECUTED IN THE PRESENCE OF THE CITY ENGINEER
3. ELEVATIONS ARE IN FEET ABOVE U.S.C. AND G.S. MEAN SEA LEVEL DATUM OF 1929.
4. ALL STATE AND LOCAL TRENCH SAFETY RULES WILL BE RIGIDLY ENFORCED.
5. THE ENGINEER, VTN, 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 DAMAGED BY HIS OPERATIONS IN CONNECTION WITH THE PROSECUTION OF SAID WORK.
6. FOR CONSTRUCTION ITEMS RELATIVE TO GRADING, THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE GRADING GENERAL NOTES AND DETAILS ON SHEET NO. 9 OF THESE PLANS ENTITLED "TYPICAL EARTHWORK DETAILS".
7. THE CONTRACTOR MUST MAINTAIN ALL TRAFFIC SIGNS IN AN ERECT, READILY DISCERNIBLE POSITION AND FREE FROM OBSTRUCTIONS TO MOTORIST'S VISION, AND SHALL RESET SAME IN THE PROPER POSITION UPON COMPLETION OF CONSTRUCTION.
8. ALL FILLS AND BACKFILLS SHALL BE COMPACTED TO RELATIVE DENSITY OF 90% OR GREATER PER ASTM D1557, UNLESS OTHERWISE SPECIFIED BY THE SOILS ENGINEER AND APPROVED BY THE CITY ENGINEER DURING CONSTRUCTION. STRUCTURE EXCAVATION AND BACKFILL SHALL BE PER THE STANDARD SPECIFICATIONS.
9. THE SOILS ENGINEER, LEIGHTON & ASSOCIATES, SHALL CERTIFY THAT ALL FILLS AND BACKFILLS HAVE BEEN PROPERLY COMPACTED.
10. THE SOILS ENGINEER AND CITY ENGINEER SHALL INSPECT AND APPROVE THE BOTTOM OF ALL EXCAVATIONS PRIOR TO PLACING FILL MATERIAL OR CONCRETE, AS THE CASE MAY BE.
11. AT ALL STREET CROSSINGS, FILL AND BACKFILL SHALL BE A NON-EXPANSIVE MATERIAL HAVING A SAND EQUIVALENT GREATER THAN 20. STRUCTURAL BACKFILL SHALL BE PER THE STANDARD SPECIFICATIONS.
12. HEAVY COMPACTION EQUIPMENT SHALL NOT BE USED FOR BACKFILLING THE STRUCTURES IN ORDER TO PREVENT DAMAGE TO THE STRUCTURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STRUCTURES RESULTING FROM INAPPROPRIATE COMPACTING TECHNIQUES AND EQUIPMENT.
13. STRUCTURES SHALL NOT BE BACKFILLED UNTIL THEY HAVE BEEN INSPECTED AND APPROVED BY THE CITY ENGINEER, AND UNTIL THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF AT LEAST 4,000 PSI AS DETERMINED BY APPROPRIATE TESTS.
14. THE BACKFILL SHALL BE BROUGHT UP UNIFORMLY ON ALL SIDES OF THE STRUCTURE.
15. FOR SOIL PROPERTIES AND FOUNDATION DESIGN CRITERIA, REFER TO THE REPORT ENTITLED "DESIGN PARAMETERS FOR REINFORCED CONCRETE BOX CULVERTS, PARENT TRACT 32158, STEARNS RANCH, CITY OF WALNUT, CALIFORNIA" BY LEIGHTON AND ASSOCIATES, INC., DATED JULY 6, 1981, PROJECT NO. 2770113-18, AND SUPPLEMENTAL REPORTS DATED AUG. 19, 1981, AND FEB. 23, 1982.
16. ELEVATION OF THE TOP OF MANHOLES SHALL BE AT FINISHED GRADE ELEVATION, UNLESS OTHERWISE SHOWN.

DRAWING LIST

DWG. NO.	TITLE
1	TITLE SHEET, NOTES, VICINITY MAP & KEY PLAN.
2	SNOW CREEK — R.C. BOX FACILITY PLAN AND PROFILE.
3	SNOW CREEK — R.C. BOX FACILITY PLAN AND PROFILE.
4	SNOW CREEK — R.C. BOX FACILITY PLAN & PROFILE
5	SNOW CREEK — R.C. BOX FACILITY SINGLE BOX CULVERT AND INLET STRUCTURE DETAILS.
6	SNOW CREEK — R.C. BOX FACILITY TRANSITION STRUCTURE PLAN & DETAILS.
7	TYPICAL CONSTUCTION JOINT DETAILS.
8	MISCELLANEOUS DETAILS.
9	TYPICAL EARTHWORK DETAILS.
10	EARTHWORK CROSS SECTIONS. STA. 100+06.55 to STA. 111+00.00 ⚠
11	DETENTION BASIN GRADING
⚠12	EARTHWORK CROSS SECTIONS STA. 111+00.00 to STA. 125+70±. ⚠

ADDITIONAL NOTES

Approval of this plan by the City of Walnut does not constitute a representation as to the accuracy of the location, or existence or nonexistence of any underground utility, pipe or structure within the limits of this project.

All reinforced concrete pipe shall be bedded in accordance with Los Angeles County Flood Control District Std. Dwg. No. 2-D177.

All manhole covers not in street paving shall be provided with Allen Socket Set Screw Locking Devices. The Contractor shall drill and tap two holes to a depth of 1 inch at 90 degrees to pick hole and install 3/4 inch by 3/4 Allen Socket Set Screws.

No revisions shall be made in these plans without the approval of the City Engineer.

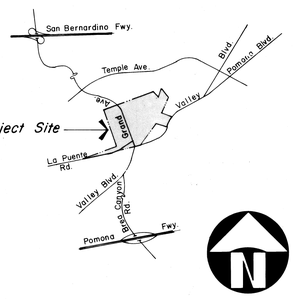
Before work can be started, the Contractor must obtain all necessary permits from the City of Walnut.

The Contractor's attention is directed to Section 7-10.4.1 of the Standard Specifications for Public Works Construction in regard to safety orders.

The Contractor shall conform to the "Minimum Public Safety Requirements" as shown on Los Angeles County Engineer Standard S-2.

All pipes shall be embedded a minimum of 5-inches into headwalls or other structures.

⚠ Quantities for Alt. ⚠ are not shown on these on these plans.



VICINITY MAP

CONSTRUCTION NOTES AND QUANTITIES

	DESCRIPTION	ALT. 1	ALT. 2		DESCRIPTION	ALT. 1	ALT. 2
1	REMOVE EXIST. TIMBER WING WALLS & CHAIN LINK FENCING.	L.S.	L.S.	19	CONST. 2' THICK UNGROUTED RIP-RAP PER DETAIL ON SHEET NO. 11.	—	67 T
2	CONST. 4 L.F. 30" RCP, 1750 D, STUB	1 EA.	1 EA.	20	CONST. 8" THICK BRICK & MORTAR SEAL	6 EA	6 EA
3	CONST. JUNCTION STRUCTURE NO. 1 PER L.A.C.F.C.D. STD. DWG. NO. 2-189 (C=2.0', UNLESS OTHERWISE NOTED)	6 EA	7 EA	21	CONST. 30" RCP, 1750 D	60 LF	73 LF
4	CONST. 4 L.F. 48" RCP, 1500 D, STUB	1 EA	1 EA	22	FILL AND COMPACT INVERT OF EXISTING WATERCOURSE TO FLOWLINE GRADE OF FUTURE RCB.	1,323 CY	1,060 CY
5	CONST. MANHOLE NO. 3 PER L.A.C.F.C.D. STD. DWG. NO. 2-D104.	3 EA	4 EA	23	CONST. REINF. CONC. INLET STRUCTURE, PER DETAILS SHEET 5	—	73 CY
6	CONST. 3'-2" W. X 11'-0"H RCB PER SECTION "A-A" ON SHEET NO. 5.	1,435 C.Y.	1,680 C.Y.	24	CONST. 8" VCP SEWER PER L.A. COUNTY ENGINEER STANDARD. S-21 & S-23.	—	58 LF
7	CONST. TRANSITION STRUCTURE PER DETAILS ON SHEET NO. 6.	77 CY	77 CY	25	CONST. SEWER MANHOLE PER L.A. COUNTY ENGINEER STANDARD. S-36	—	1 EA
8	CONST. PROTECTION BARRIER PER L.A.C.F.C.D. STD. DWG. NO. 2-D201.1-.3	1 EA	1 EA	26	CONST. SEWER ENCASEMENT PER L.A. COUNTY ENGINEER STD. S-23, CASE IX.	—	17 LF
9	REMOVE EXIST. OUTLET STRUCTURE AND 60 L.F. 30" RCP.	L.S.	L.S.	27	CONST. CONCRETE COLLAR PER L.A.C.F.C.D. STD. DWG. NO. 2-D393	2 EA	2 EA
10	CONST. TIMBER WINGWALLS PER DETAILS ON SHEET NO. 7.	L.S.	L.S.	28	CONST. WATERCOURSE WIDENING PER PLAN & PROFILE.	458 C.Y.	4,450 CY
11	CONST. 4 L.F. 18" RCP, 2000 D, STUB	5 EA	5 EA	29	CONST. DETENTION BASIN C.Y. CUT / C.Y. FILL	— / —	13,960 / 5,390
12	CONST. OUTLET STRUCTURE PER DETAILS ON SHEET NO. 11.	—	24 CY	30	EXCAVATION FOR R.C.B. (INCLUDES 2'-6" OVEREXCAVATION)	870 CY	9560 CY
13	CONST. 6' HIGH CHAIN LINK FENCE PER L.A.C.F.C.D. STD. DWG. NO. 2-D178 AND/OR 2-D180	100 LF	440 LF	31	CONST. AUTOMATIC FLAPGATE INLET PER L.A.C.F.C.D. STD. DWG. NO. 2-D192	1 EA.	1 EA.
14	CONST. REINF. CONCRETE PROTECTIVE COVER PER DETAILS ON SHEETS NO. 6 AND 8.	44 LF	44 LF	32	CONST. 18" CMP, 16 GA.	25 LF	25 LF
15	FILL AND COMPACT EXIST. GULLEY TO ADJACENT GROUND ELEVATION.	2973 CY	7,190 CY	33	FILL & COMPACT INVERT OF EXISTING WATERCOURSE TO GRADE SHOWN ON PLAN	1641 C.Y.	1641 C.Y.
16	CONST. 24" C.M.P., 16 GA.	45 LF	45 LF	34	FILL & COMPACT EXIST. WATERCOURSE STA. 99+95 TO 103+50 AND STA. 107+35 TO 108+92	4345 C.Y.	4345 C.Y.
17	CONST. CMP DROP INLET PER DETAIL ON SHEET NO. 2.	2 EA	2 EA	35	CONST. 6' HIGH x 14' CLR. OPENING DBL. DRIVE CHAIN LINK GATE PER L.A.C.F.C.D. STD. DWG. NO. 2-D178	—	1 EA.
18	CONST. GROUTED RIP-RAP PER DETAIL ON SHEET NO. 8.	70 T	913 T	36	CONST. TRAPEZOIDAL EARTH CHANNEL, 20' MIN. BOTTOM WIDTH, 2:1 SIDE SLOPES.	1180 C.Y.	1180 C.Y.

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

UTILITY COMPANIES

Rowland Heights Co. Water District
3021 S. Fullerton St.
Rowland Heights, CA
213-697-1726

So. Calif. Gas Co.
708 N. Vincent
Covina, CA 91722
714-981-5795

Walnut Valley Water District
271 S. Brea Canyon Rd
Walnut, CA 91789
714-595-7554

General Telephone Co.
235 W. Mission
Pomona, CA 91766
714-629-5105

Sewers-City of Walnut
21201 La Puente Rd
Walnut, CA 91789
714-595-7543

So. Calif Edison Co.
800 W. Cienega
San Dimas, CA 91773
714-592-3725

Metropolitan Water District
1111 Sunset Blvd.
Los Angeles, CA 90012
213-626-4282

"AS-BUILT"
REVISION NO. 1 WAS PREPARED SOLELY BY THE WALNUT IMPROVEMENT AGENCY.

REVISION NO. 1 APPROVED - AGENCY ENGINEER - WALNUT IMPROVEMENT AGENCY
Ronald L Kranzer 6-13-83
RONALD L KRANZER, RCE 18503 DATE

SOILS ENGINEER:
NAME: LEIGHTON AND ASSOCIATES
ADDRESS: 661 BREA CANYON RD, SUITE 31 WALNUT, CA 91789

I HEREBY CERTIFY THAT THESE PLANS ARE IN CONFORMANCE WITH CONCLUSIONS AND RECOMMENDATIONS PRESENTED IN SOILS REPORTS DATED JULY 6, 1981, AUG. 19, 1981, AND SUPPLEMENT DATED FEB. 23, 1983, PREPARED BY THIS OFFICE.

Chris Grandau 32214 3/8/83
NAME RCE DATE

APPROVED
CITY OF WALNUT
RONALD L. KRANZER, CITY ENGINEER
RCE NO. 18503
BY Ronald L Kranzer DATE 4-1-83

Prepared By:
VTN Consolidated, Inc.
ENGINEERS ARCHITECTS PLANNERS
2301 Campus Drive, Irvine, California 92715 (714) 851-5200
Signature RCE 28665 Date

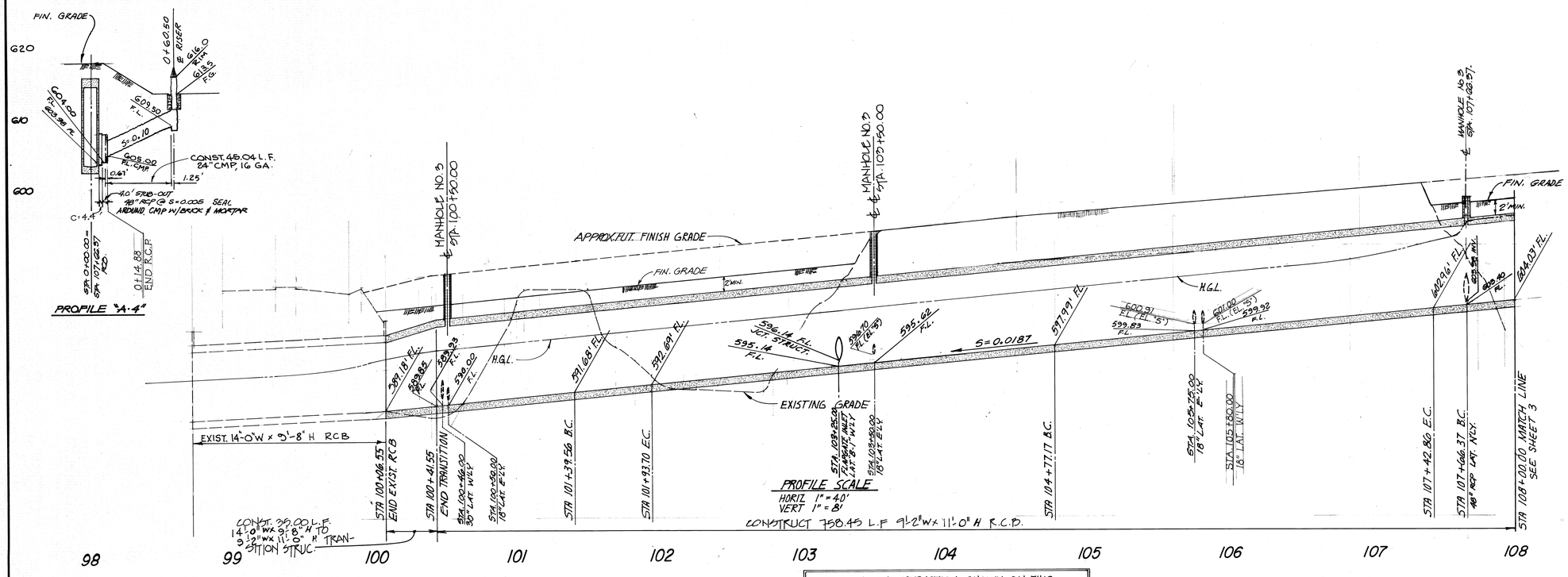
CITY OF WALNUT
WALNUT IMPROVEMENT AGENCY

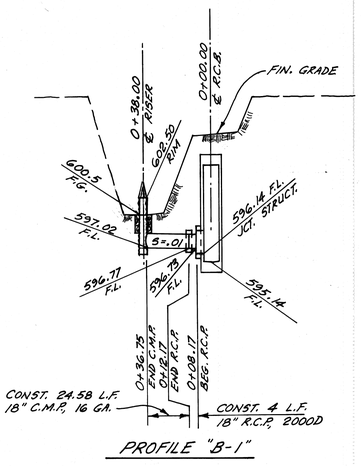
SNOW CREEK
TITLE SHEET, NOTES, VICINITY MAP & KEY PLAN
"AS - BUILTS" 10/7/83

14 | 1A
⚠ 12

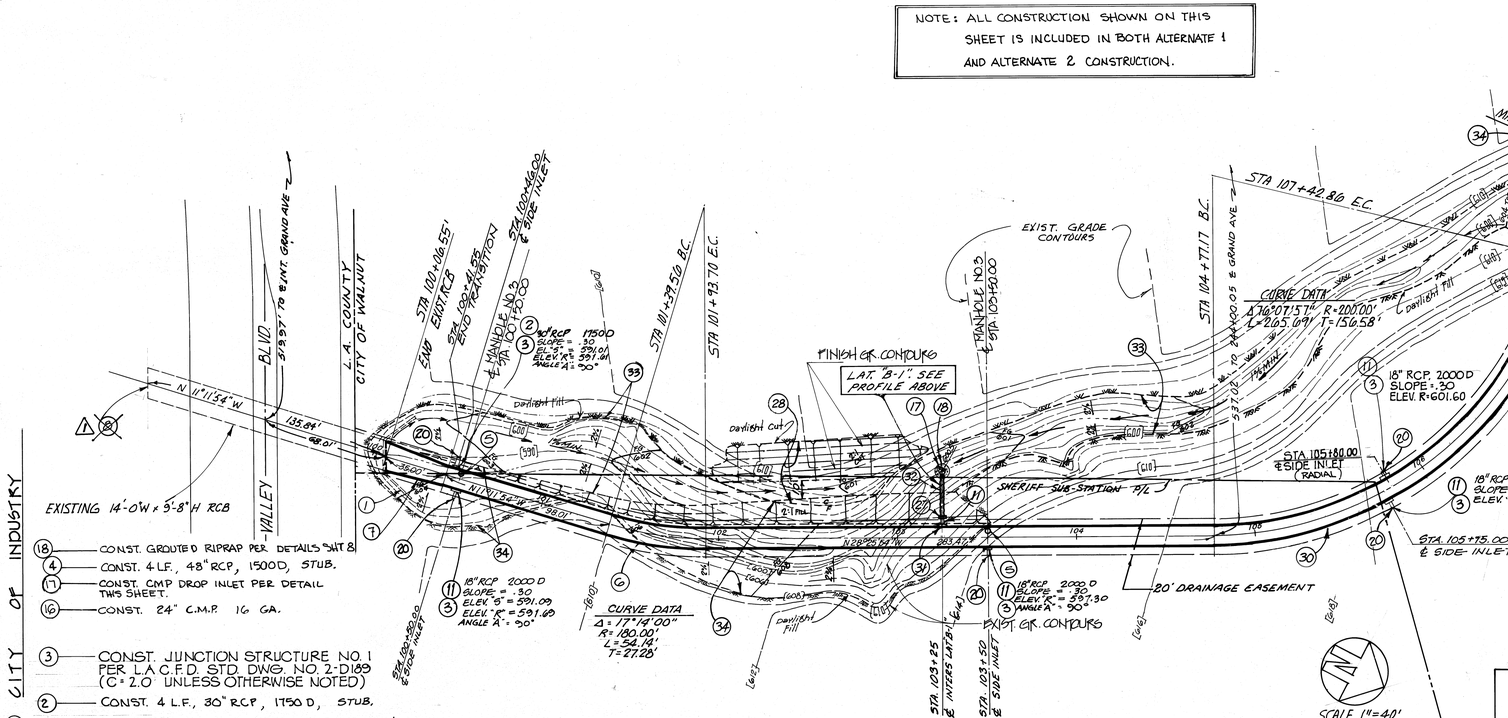
APPROVED:
WALNUT IMPROVEMENT AGENCY
RONALD L. KRANZER, AGENCY ENGINEER - R.C.E. 18503
BY: Ronald L Kranzer DATE 4-2-83

sheet no. 1 of 11





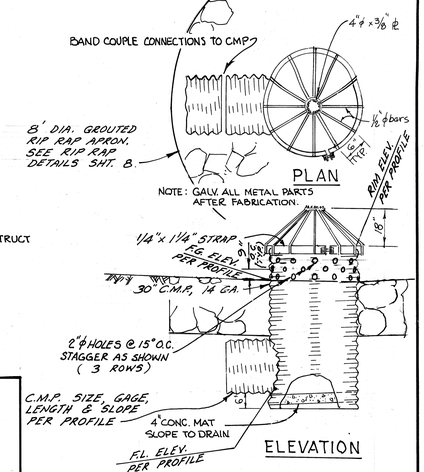
NOTE: ALL CONSTRUCTION SHOWN ON THIS SHEET IS INCLUDED IN BOTH ALTERNATE 1 AND ALTERNATE 2 CONSTRUCTION.



(18) CONST. GROUTED RIPRAP PER DETAILS SHT 8
(4) CONST. 4 L.F., 48" RCP, 1500D, STUB.
(17) CONST. CMP DROP INLET PER DETAIL THIS SHEET.
(16) CONST. 24" C.M.P. 16 GA.
(3) CONST. JUNCTION STRUCTURE NO. 1 PER L.A.C.F.C.D. STD. DWG. NO. 2-D189 (C = 2.0 UNLESS OTHERWISE NOTED)
(2) CONST. 4 L.F., 30" R.C.P., 1750 D, STUB.
(1) REMOVE EXISTING TIMBER WINGWALLS & CHAIN LINK FENCING.
(20) CONST. 8" THICK BRICK & MORTAR SEAL
(30) EXCAVATE FOR R.C.B (STA. 100+06 TO STA 107+90±)
(11) CONSTRUCT 4 L.F., 18" RCP, 2000 D, STUB.
(8) CONSTRUCT PROTECTION BARRIER PER L.A.C.F.C.D. STD. DWG. 2-D261.1 - .3
(7) CONSTRUCT TRANSITION STRUCTURE PER DETAILS ON SHEET NO. 6
(6) CONSTRUCT 9'-2"W x 11'-0"H R.C.B. PER SECTION "A-A" ON SHEET NO. 5
(5) CONSTRUCT MANHOLE NO. 3 PER L.A.C.F.C.D. STD. DRAWING 2-D104

CONSTRUCTION NOTES

(28) CONST. WATERCOURSE WIDENING PER PLAN.
(34) FILL & COMPACT EXIST. WATERCOURSE AS SHOWN ON PLAN STA. 99+95 TO 103+50 & STA. 107+35 TO 108+37.
(32) CONST. 18" C.M.P., 16 GA.
(31) CONST. AUTOMATIC FLAPGATE INLET PER L.A.C.F.C.D. STD. DWG. NO. 2-D192.
(27) CONST. CONC. COLLAR PER L.A.C.F.C.D. STD. DWG. NO. 2-D393.
(33) FILL & COMPACT INVERT OF EXIST. WATERCOURSE TO GRADE SHOWN.



REVISION No- ⚠ APPROVED- AGENCY ENGINEER - WALNUT IMPROVEMENT AGENCY
1) ELIMINATE PROTECTION BARRIER.

Ronald L Kranzer 6-13-83
RONALD L KRANZER, RCE 18503 DATE

Type of Structure	Station to Station	Q50	n	So	b	Vn	Vc	Dn	Dc
R.C. Box	100+41.55 to 107+66.37	2221	0.014	0.0187	9.17	29.0	22.0	8.07	FULL
R.C. Box	107+66.37 to 108+40.00	2139	0.014	0.0187	9.17	29.5	21.2	7.90	FULL

HYDRAULIC DATA

APPROVED
CITY OF WALNUT
RONALD L KRANZER, CITY ENGINEER
RCE NO. 18503
BY Ronald L Kranzer DATE 4-1-83

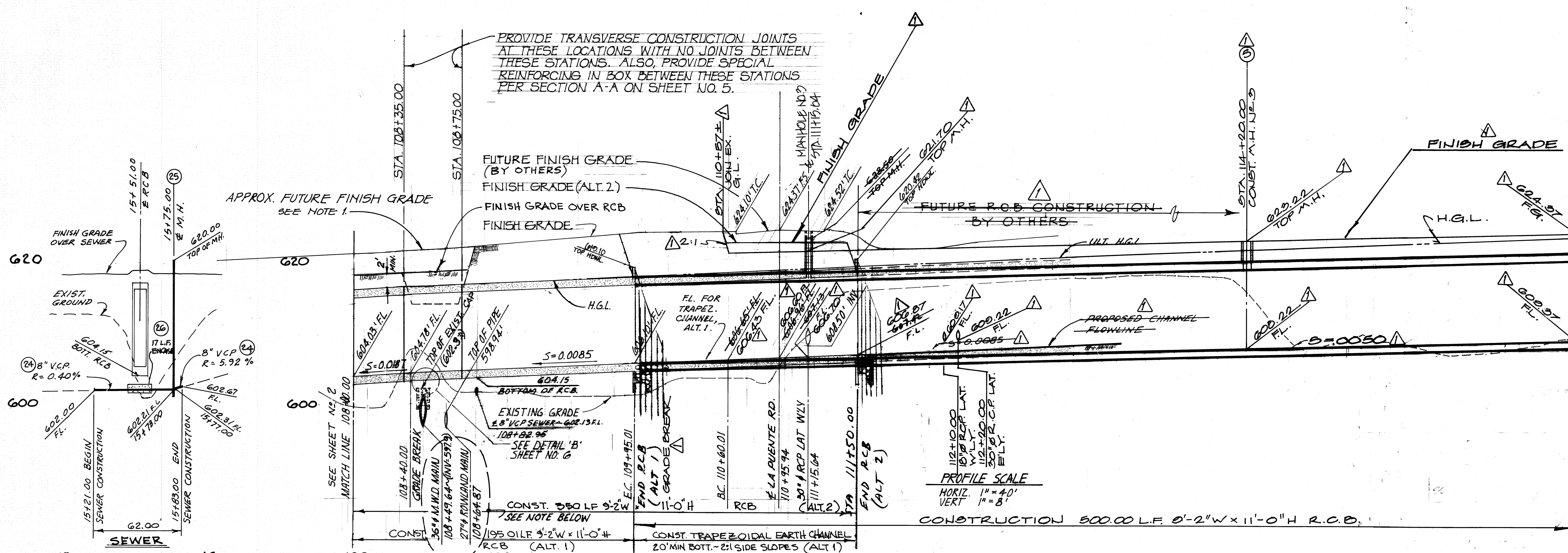
Prepared By:
vtn Consolidated, Inc.
ENGINEERS ARCHITECTS PLANNERS
2301 Campus Drive, Irvine, California 92713 (714) 851-5200
Signature [signature] RCE 28665 15 FEB '82 Date

CITY OF WALNUT
WALNUT IMPROVEMENT AGENCY
"AS-BUILTS" SNOW CREEK
R.C. BOX FACILITY
PLAN AND PROFILE
Sta 100+06.55 to Sta 108+00.00

141B

APPROVED
WALNUT IMPROVEMENT AGENCY
RONALD L KRANZER, AGENCY ENGINEER-RCE 18503
BY Ronald L Kranzer DATE 4-2-83

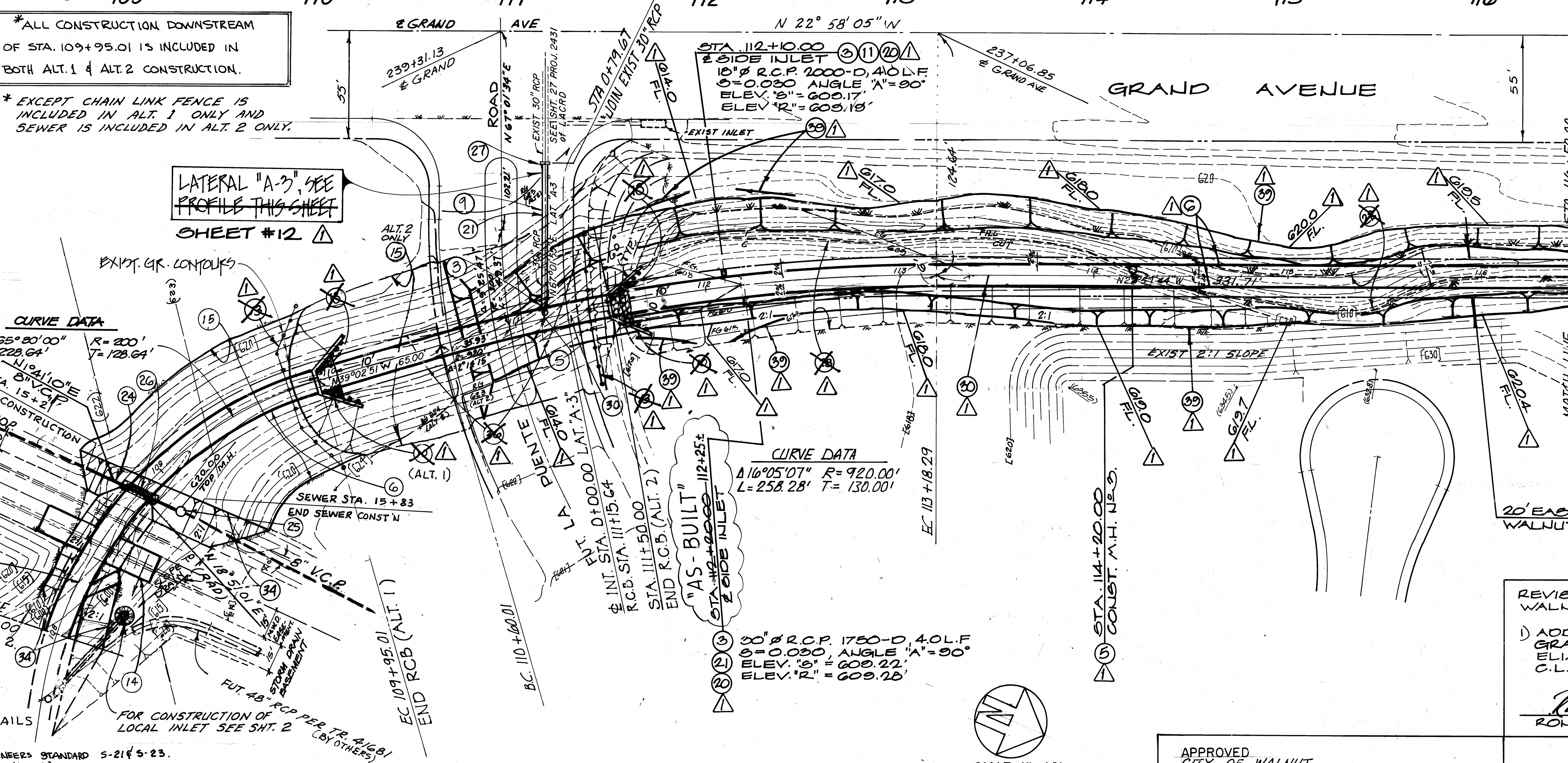
sheet no. 2 of 11 (⚠ 12)



NOTE: *ALL CONSTRUCTION DOWNSTREAM OF STA. 109+95.01 IS INCLUDED IN BOTH ALT. 1 & ALT. 2 CONSTRUCTION.

* EXCEPT CHAIN LINK FENCE IS INCLUDED IN ALT. 1 ONLY AND SEWER IS INCLUDED IN ALT. 2 ONLY.

NOTE:
1.) LATERAL "A-3" PROFILE HAS BEEN ERASED AND REDRAWN ON SHEET 12 IN KIND.
2.) INTERFERING PORTIONS OF THE PROFILE HAVE BEEN ERASED, FOR CLARITY.



(11) CONST. 4 L.F. 18" R.C.P., 2000-D, STUB (1)
(20) CONST. BRICK & MORTAR SEAL (1)
(39) GRADE TO DRAIN (1)
(30) EXCAVATE FOR R.C.B.
(34) FILL & COMPACT EXIST. WATERCOURSE PER PLAN, STA. 107+35 TO STA. 108+92.
(36) CONST. TRAP. EARTH CHANNEL, 20' MIN. BOTTOM WIDTH, 2:1 SIDE SLOPES.
(21) CONST. 30" R.C.P. 1750D
(28) CONST. WATERCOURSE WIDENING PER PLAN & PROFILE. (ALT 2 ONLY)
(22) FILL & COMPACT INVERT OF EXIST. WATERCOURSE TO FLOWLINE GRADE OF FUTURE RCB (BOTH ALTERNATES)

NOTE:
HEAVY EQUIPMENT SHALL NOT BE UTILIZED WITHIN THIS ZONE IN ORDER TO PREVENT DAMAGE TO EXISTING RCP WATER MAINS. CONTACT ART KNOOP (M.W.D.) (213)-250-6000, EXTENSION 432, TWO DAYS PRIOR TO ANY WORK WITH IN METROPOLITAN'S EASEMENT.

NOTES:
1. BEFORE THE FINISH GRADE IS INCREASED TO THE FUTURE FINISH GRADE, THE EXISTING 36" M.W.D. MAIN SHALL BE PROTECTED.

(25) CONST. SEWER M.H. PER LA. COUNTY ENGINEERS STD. S-36 (ALT. 2)
(18) CONSTRUCT GROUTED RIP-RAP PER DETAIL SHEET #8.
(15) FILL & COMPACT EXIST. GULLEY TO ADJACENT GROUND ELEVATION.
(14) CONSTRUCT R.C. PROTECTIVE COVER PER DETAILS ON SHEETS 6 & 8 (DETAILS F/6, K/8, L/8.)
(24) CONSTRUCT 8" V.C.P. SEWER PER LA. COUNTY ENGINEERS STANDARD S-21 & S-23. PLUG BOTH ENDS. SEE PROFILE THIS SHEET. (ALT. 2)
(10) CONSTRUCT TIMBER WING WALLS PER DETAILS ON SHEET No. 7.
(13) CONST. 6' HIGH CHAIN LINK FENCE PER LACFCD STD DWG 2-D178.
(26) CONST. SEWER ENCASEMENT PER LA COUNTY ENGINEER STD. S-23, CASE IV (ALT. 2)
(9) REMOVE EXISTING OUTLET STRUCT AND GOLF., 30" RCP.
(6) CONSTRUCT 9'-2"W. × 11'-0"H. R.C.B. PER SECTION "A-A" ON SHEET NO. 5.
(5) CONSTRUCT MANHOLE NO. 3 PER L.A.C.F.C.D. STD. DWG. NO. 2-D104 (ALT. 2)
(27) CONSTRUCT CONCRETE COLLAR PER L.A.C.F.C.D. STD. DWG. NO. 2-D393
(3) CONSTRUCT JUNCTION STRUCTURE NO. 1 PER L.A.C.F.C.D. STD. DWG. NO. 2-D189 (C=2.0') (ALT. 2 ONLY)

CONSTRUCTION NOTES

TYPE OF STRUCTURE	STATION TO STATION	Q_{50}	n	S_o	b	V_n	V_c	D_n	D_c
LATERAL "A-3"	0+00.00 - 0+79.67	39.9	0.013	0.0086	25'φ	8.8	9.0	2.17	2.12
LATERAL "A-4"	0+06.48 - 11+70.13	85.9	0.013	0.0050	4'φ	9.1	9.1	2.82	2.81
R.C. BOX	111+15.64 - 116+50.00	2114	0.014	0.0085	9.17	21.4	21.0	10.80	FULL
R.C. BOX	108+40.00 - 111+15.64	2139	0.014	0.0085	9.17	21.5	21.2	10.87	FULL

REVISION No. (1) APPROVED - AGENCY ENGINEER WALNUT IMPROVEMENT AGENCY

1) ADD 11'H × 9'-2"W R.C.B., 20' DRAINAGE ESM'T AND GRADING, ADD M.H., FINISH GRADE, AND LATERALS ELIMINATE TIMBER WINGWALLS, GROUTED RIP-RAP, C.L. FENCE & CHANNEL GRADING.

Ronald L. Kranzer — 6-13-83
RONALD L. KRANZER R.C.E. 18503 DATE

APPROVED
CITY OF WALNUT
RONALD L. KRANZER, CITY ENGINEER
RCE NO. 18503
BY Ronald L. Kranzer DATE 4-1-83

Prepared By:
vtn Consolidated, Inc.
ENGINEERS ARCHITECTS PLANNERS
2301 Campus Drive, Irvine, California 92713 (714) 851-5200

Signature [signature] RCE 28665 15 FEB '82 Date

CITY OF WALNUT

WALNUT IMPROVEMENT AGENCY

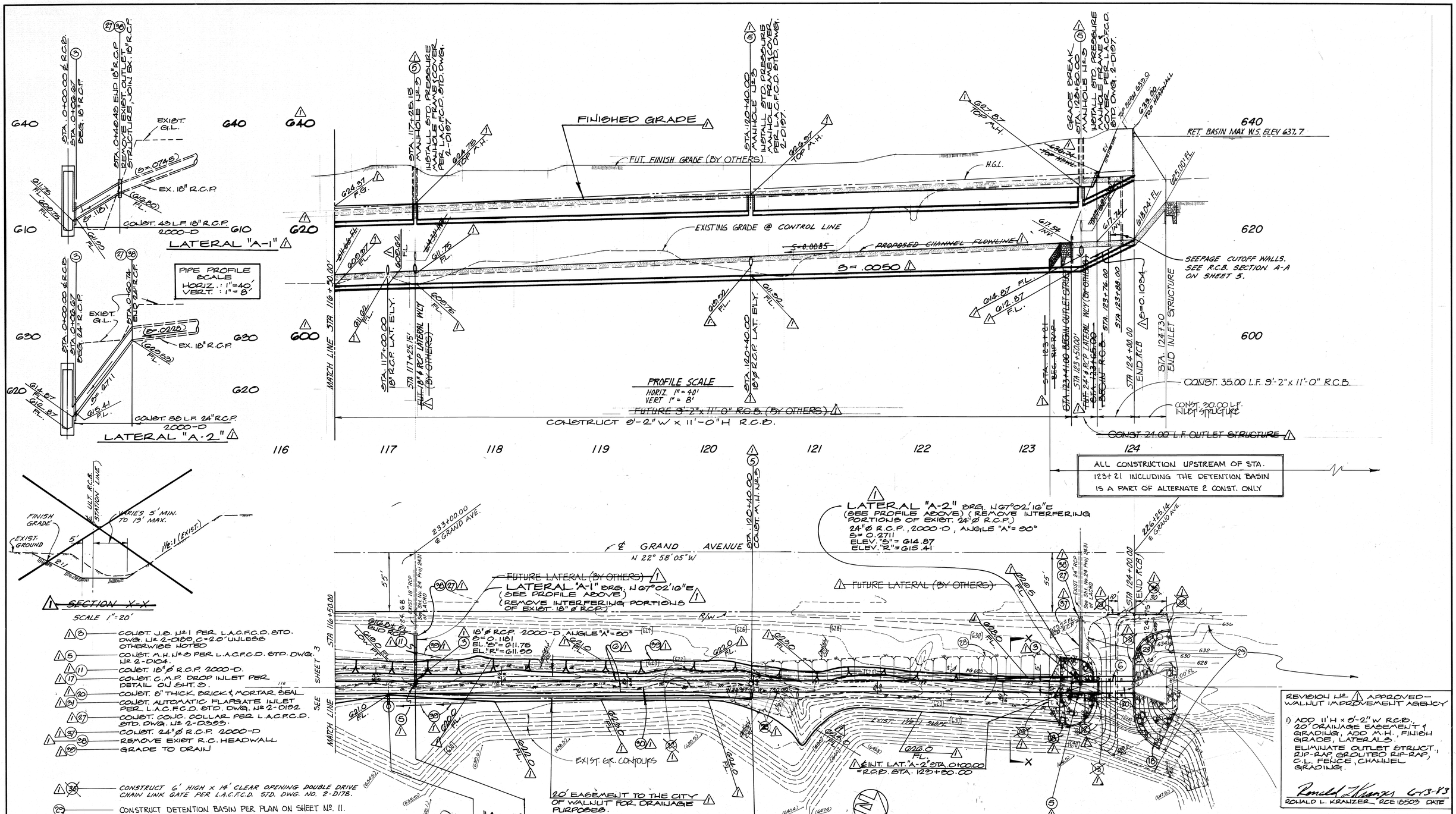
"AS - BUILTS" SNOW CREEK

R.C. BOX FACILITY
PLAN AND PROFILE
Sta 108+00.00 to Sta 116+50.00

14 IC

APPROVED
WALNUT IMPROVEMENT AGENCY
RONALD L. KRANZER, AGENCY ENGINEER - R.C.E. 18503
BY: Ronald L. Kranzer DATE 4-2-83

sheet no. 3 of 12 (1)



PIPE PROFILE SCALE
HORIZ. : 1"=40'
VERT. : 1"=8'

~~SECTION X-X~~

SCALE 1"=20'

STA. 120+40.00
℄ SIDE INLET
18" Ø R.C.P. 2000-D, 4 L.F.
S= 0.30 ANGLE "A" = 90°
ELEV. "S" = 613.32
ELEV. "R" = 613.92

"AS-BUILT"
C.M.P. RISER NOT CONSTRUCTED

STA. 117+00.00
℄ SIDE INLET
18" Ø R.C.P.-2000-D, 4.0 LF
S= 0.030 ANGLE "A" = 90°
ELEV. "S" = 611.62'
ELEV. "R" = 611.64'

℄ INT. LAT. "A-1" STA. 0+00.00 = R.C.D. STA. 117+25.15

- ③ — CONST. J.B. No. 1 PER L.A.C.F.C.D. STD. DWG. No. 2-D189, C=2.0' UNLESS OTHERWISE NOTED
- ⑤ — CONST. M.H. No. 5 PER L.A.C.F.C.D. STD. DWG. No. 2-D104.
- ⑪ — CONST. 18" Ø R.C.P. 2000-D.
- ⑰ — CONST. C.M.P. DROP INLET PER DETAIL ON SHT. 3.
- ⑳ — CONST. 8" THICK BRICK & MORTAR SEAL
- ㉛ — CONST. AUTOMATIC FLAPGATE INLET PER L.A.C.F.C.D. STD. DWG. No. 2-D192
- ㉗ — CONST. CONC. COLLAR PER L.A.C.F.C.D. STD. DWG. No. 2-D393.
- ㊲ — CONST. 24" Ø R.C.P. 2000-D
- ㊳ — REMOVE EXIST R.C. HEADWALL
- ㊴ — GRADE TO DRAIN
- ~~㉟~~ — CONSTRUCT 6' HIGH x 14' CLEAR OPENING DOUBLE DRIVE CHAIN LINK GATE PER L.A.C.F.C.D. STD. DWG. NO. 2-D178.
- ㉙ — CONSTRUCT DETENTION BASIN PER PLAN ON SHEET No. 11.
- ㉘ — CONSTRUCT WATERCOURSE WIDENING PER PLAN & PROFILE. (ALT. 2 ONLY).
- ㉒ — FILL AND COMPACT INVERT OF EXISTING WATERCOURSE TO FLOWLINE GRADE OF FUTURE RCB. (BOTH ALTERNATES).
- ~~⑬~~ — CONSTRUCT 6' HIGH CHAIN LINK FENCE PER LACFCD STD DWG No. 2-D178 & 2-D180
- ⑲ — CONSTRUCT 2' THICK UNGROUTED RIP-RAP PER DETAIL SHEET No. 11.
- ⑱ — CONSTRUCT GROUTED RIP-RAP PER DETAIL SHEET No. 8.
- ⑫ — CONSTRUCT OUTLET STRUCTURE PER DETAILS ON SHEET NO. 11
- ㉓ — CONSTRUCT INLET STRUCTURE PER DETAILS ON SHEET NO. 5
- ⑥ — CONSTRUCT 9'-2"W x 11'-0" H. R.C.B. PER SECTION "A-A" ON SHEET NO. 5
- ㉚ — EXCAVATE FOR R.C.B.

CONSTRUCTION NOTES

TYPE OF STRUCTURE	STATION TO STATION	Q_{50}	n	S_o	b	V_n	V_c	D_n	D_c
24" Ø RCP	0+00.00 - 0+60.74	13.6	0.013	0.1650	24" Ø	21.0	6.1	0.52	1.33
18" Ø R.C.P.	0+00.00 - 0+49.43	11.5	0.013	0.0559	18" Ø	13.8	7.1	0.72	1.29
R.C. BOX	123+50.00 - 124+00.00	2100	0.014	0.0085	9.17	21.2	20.8	10.78	FULL
R.C. BOX	117+25.15 - 123+50.00	2108	0.014	0.0085	9.17	21.3	20.9	10.79	FULL
R.C. BOX	116+50.00 - 117+25.15	2114	0.014	0.0085	9.17	21.4	21.0	10.80	FULL

REVISION No. 1 APPROVED—
WALNUT IMPROVEMENT AGENCY

1) ADD 11'H x 9'-2"W R.C.B., 20' DRAINAGE EASEMENT & GRADING, ADD M.H., FINISH GRADE, LATERALS.
ELIMINATE OUTLET STRUCT., RIP-RAP, GROUTED RIP-RAP, C.L. FENCE, CHANNEL GRADING.

Ronald L Kranzer 6-13-83
RONALD L. KRANZER RCE 18503 DATE

APPROVED:
CITY OF WALNUT
RONALD L. KRANZER, CITY ENGINEER
RCE No. 18503
BY Ronald L Kranzer DATE 4-1-83

Prepared By:
VTN Consolidated, Inc.
ENGINEERS ARCHITECTS PLANNERS
2301 Campus Drive, Irvine, California 92715 (714) 851-5200

Signature RCE 28665 15 FEB. 1982 Date

CITY OF WALNUT

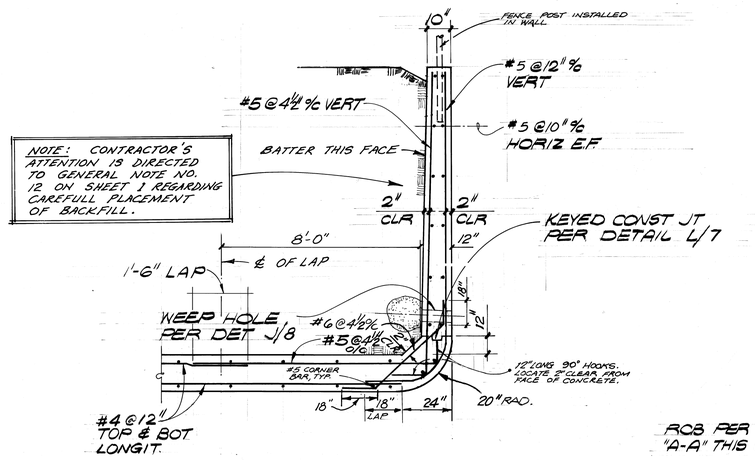
WALNUT IMPROVEMENT AGENCY

"AS-BUILTS" SNOW CREEK
R.C. BOX FACILITY
PLAN AND PROFILE
Sta 116+50.00 to Sta 124+00.00

14 ID

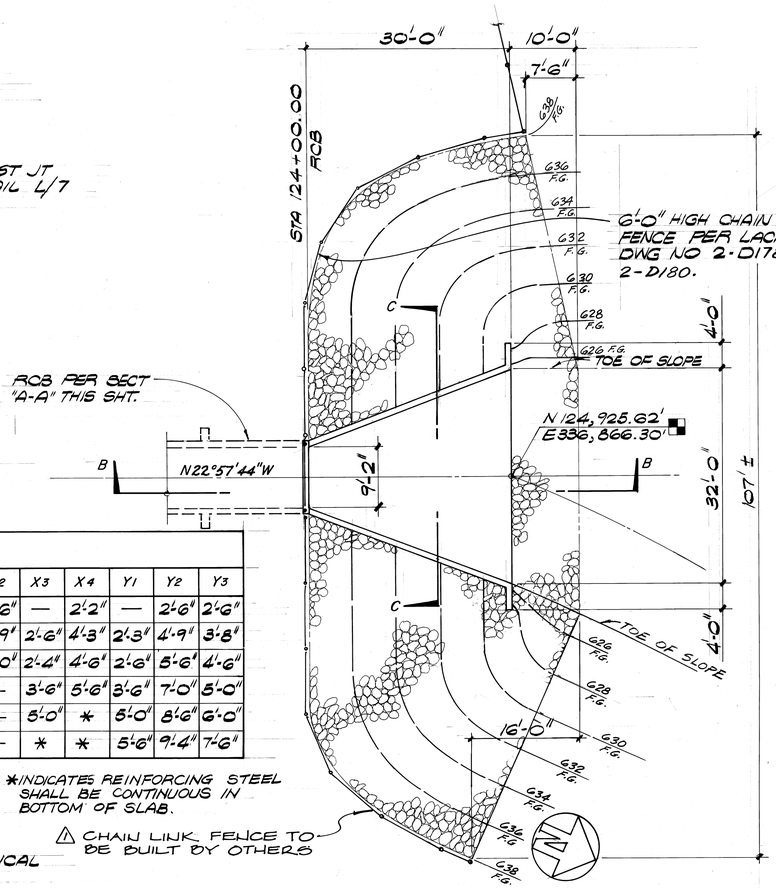
APPROVED:
WALNUT IMPROVEMENT AGENCY
RONALD L. KRANZER, AGENCY ENGINEER - R.C.E. 18503
BY Ronald L Kranzer DATE 4-2-83

sheet no. 4 of ~~11~~ 12



SECTION (A/5)
SCALE 1/2" = 1'-0"

SCHEDULE																	
H	T1	T2	B1	B2	B3	B4	B5	B6	B7	B8	X1	X2	X3	X4	Y1	Y2	Y3
4'-0" TO 8'-0"	11"	1'-2"	#5@16"	#5@16"	—	#4@16"	#4@16"	#4@16"	#4@16"	—	—	4'-6"	—	2'-2"	—	2'-6"	2'-6"
8'-1" TO 12'-0"	1'-0"	1'-2"	#7@18"	#7@18"	#7@18"	#7@15"	#7@15"	#6@18"	#6@18"	#6@18"	3'-0"	5'-9"	2'-6"	4'-3"	2'-3"	4'-9"	3'-8"
12'-1" TO 14'-0"	1'-2"	1'-2"	#8@18"	#8@18"	#8@18"	#7@16"	#7@16"	#7@15"	#7@15"	—	—	5'-0"	2'-4"	4'-6"	2'-6"	5'-6"	4'-6"
14'-1" TO 16'-0"	1'-6"	1'-8"	#8@18"	#8@18"	#8@18"	#8@18"	#8@18"	#8@18"	—	—	—	—	3'-6"	5'-6"	3'-6"	7'-0"	5'-0"
16'-1" TO 18'-0"	1'-11"	2'-0"	#8@16"	#8@16"	#8@16"	#7@12"	#7@12"	#7@8"	—	—	—	—	5'-0"	*	5'-0"	8'-6"	6'-0"
18'-1" TO 20'-0"	2'-4"	2'-8"	#9@18"	#9@18"	#9@18"	#7@12"	#7@12"	#7@6"	—	—	—	—	*	*	5'-6"	9'-4"	7'-6"



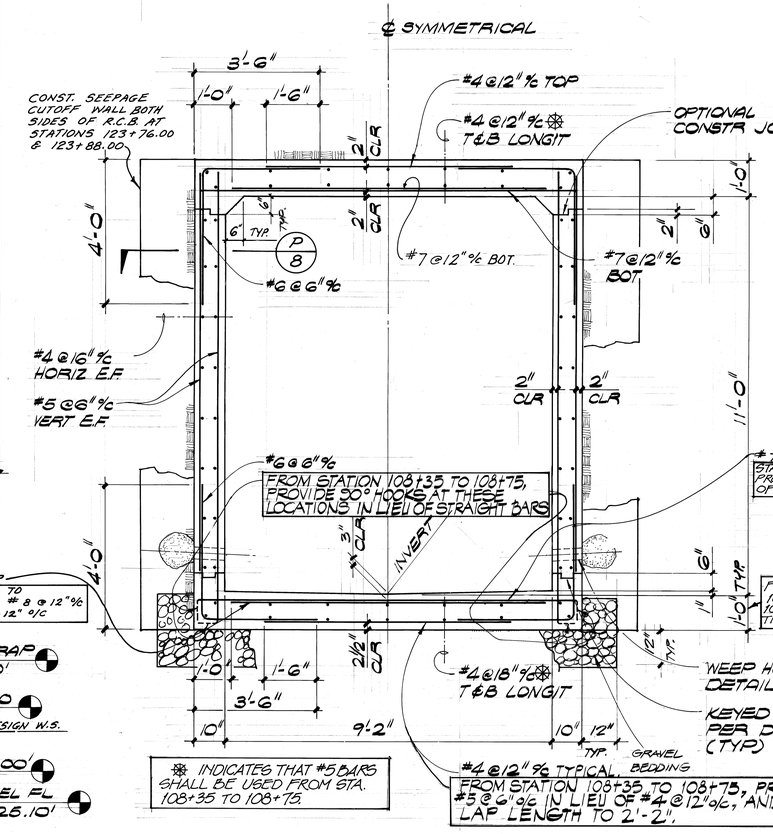
*INDICATES REINFORCING STEEL SHALL BE CONTINUOUS IN BOTTOM OF SLAB.

△ CHAIN LINK FENCE TO BE BUILT BY OTHERS

INLET STRUCTURE PLAN
SCALE 3/32" = 1'-0"

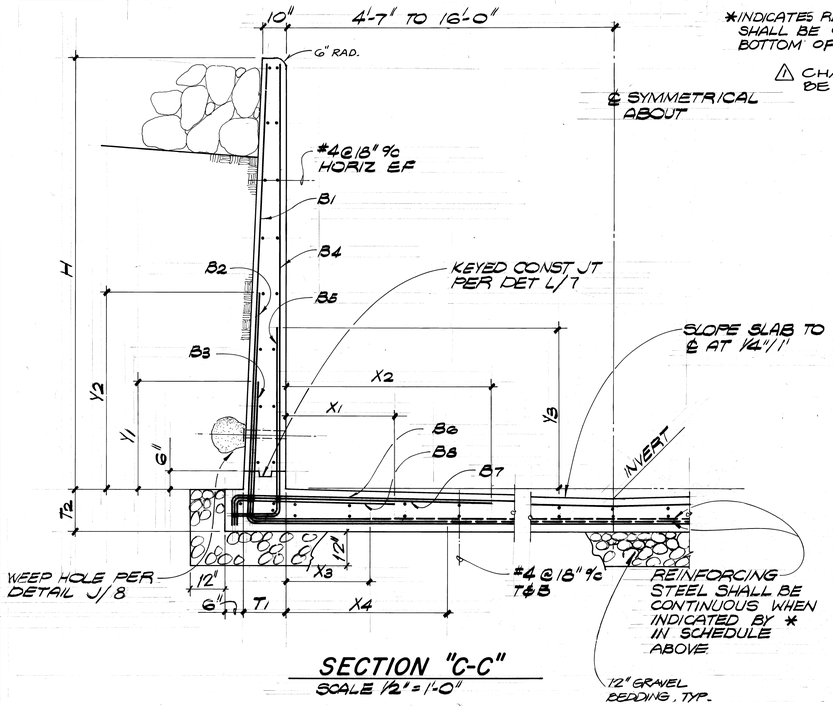
NOTES

1. SEE STRUCTURAL NOTES ON SHT. NO. 1 FOR INFORMATION REGARDING CONSTRUCTION JOINTS AND REINFORCING STEEL PLACEMENT.
2. FOR TRANSVERSE CONSTRUCTION JOINT DETAIL FOR WALLS AND SLABS, SEE DETAIL 'A' ON SHT NO 7.
3. DEVIATIONS FROM THE TYPICAL R.C.B. SECTION SHOWN BELOW OCCUR BETWEEN STA. 108+35 AND 108+75 (VICINITY OF M.W.D. CROSSING). THE DEVIATIONS OCCUR IN THE REINFORCING STEEL AND BOTTOM SLAB THICKNESS AND ARE INDICATED THUS : [ ]

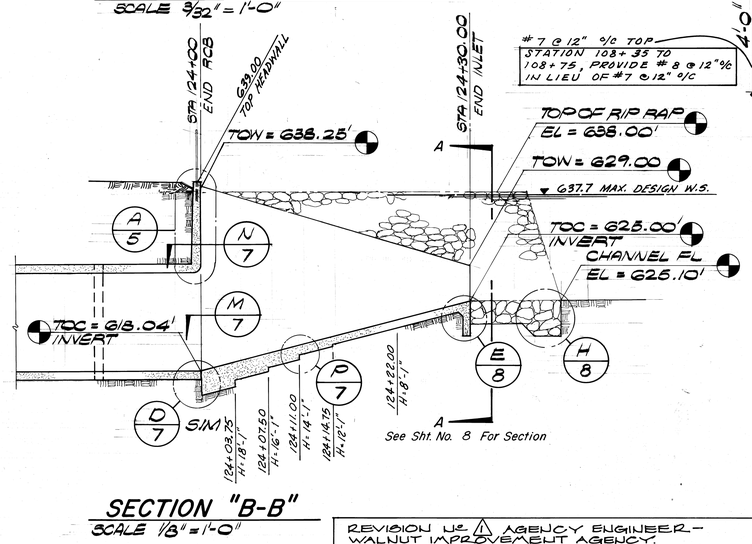


✻ INDICATES THAT #5 BARS SHALL BE USED FROM STA. 108+35 TO 108+75.

SINGLE BOX CULVERT SECTION "A-A"
SCALE 1/2" = 1'-0"



SECTION "C-C"
SCALE 1/2" = 1'-0"



See Sht. No. 8 For Section

SECTION "B-B"
SCALE 1/8" = 1'-0"

REVISION No. △ AGENCY ENGINEER - WALNUT IMPROVEMENT AGENCY.

1) ELIMINATE CHAIN LINK FENCE

Ronald L Kranzer 6-13-83
RONALD L KRANZER, RCE 18503 DATE

APPROVED
CITY OF WALNUT
RONALD L. KRANZER, CITY ENGINEER
RCE No. 18503
BY Ronald L Kranzer DATE 4-1-83

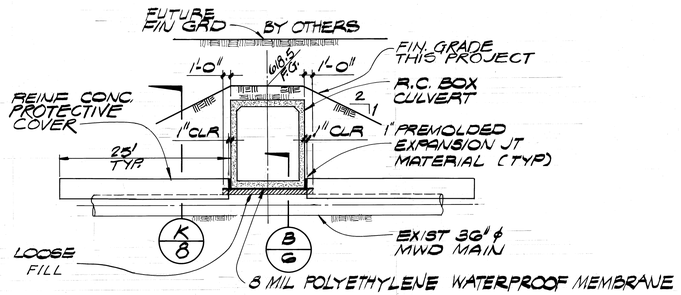
Prepared By:
vtm Consolidated, Inc.
ENGINEERS ARCHITECTS PLANNERS
2301 Campus Drive, Irvine, California 92713 (714) 851 5200
Signature RCE 28665 Date

CITY OF WALNUT
WALNUT IMPROVEMENT AGENCY
"AS-BUILTS" SNOW CREEK
R.C. BOX FACILITY
SINGLE BOX CULVERT AND INLET STRUCTURE DETAILS

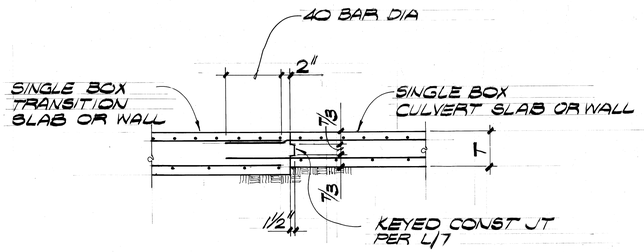
APPROVED:
WALNUT IMPROVEMENT AGENCY
RONALD L KRANZER, AGENCY ENGINEER-R.C.E. 18503
BY Ronald L Kranzer DATE 4-2-83

sheet no. 5 of △ 12

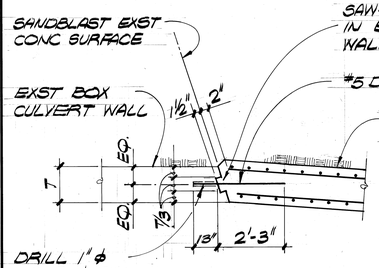
141E



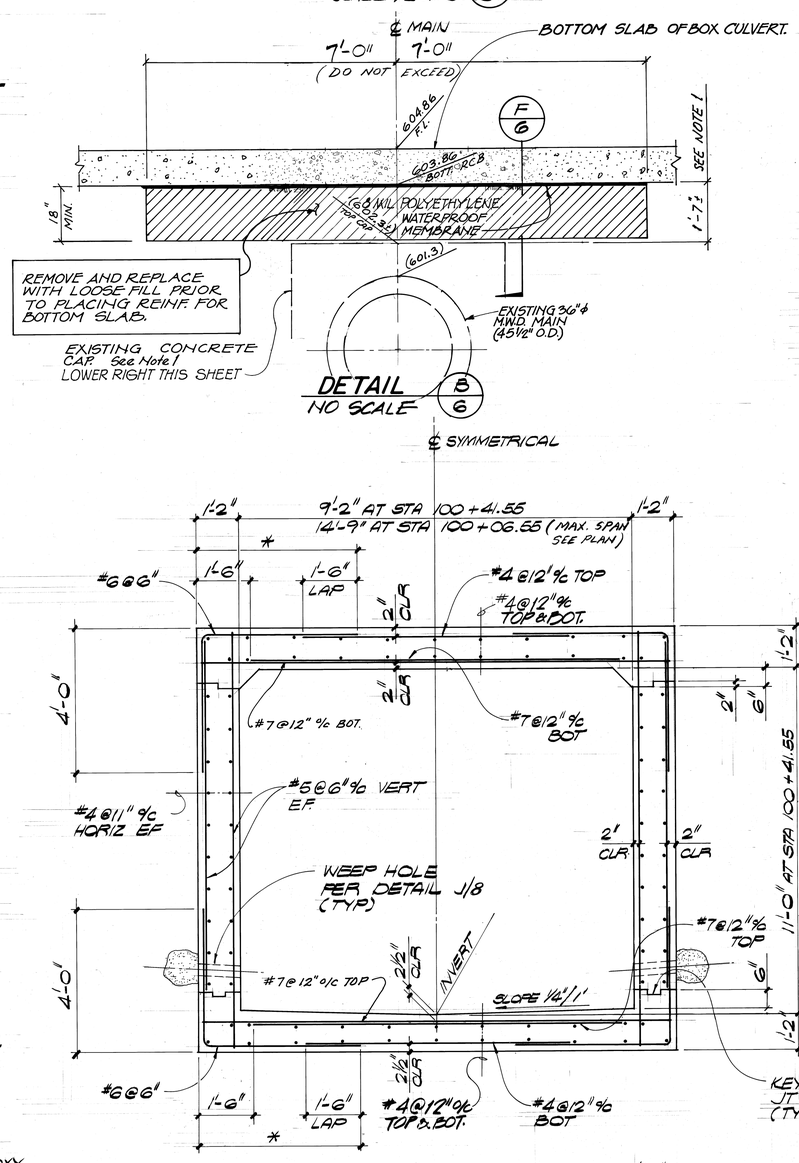
SECTION F/6
SCALE 3/32" = 1'-0"



DETAIL E/6
SCALE ½" = 1'-0"

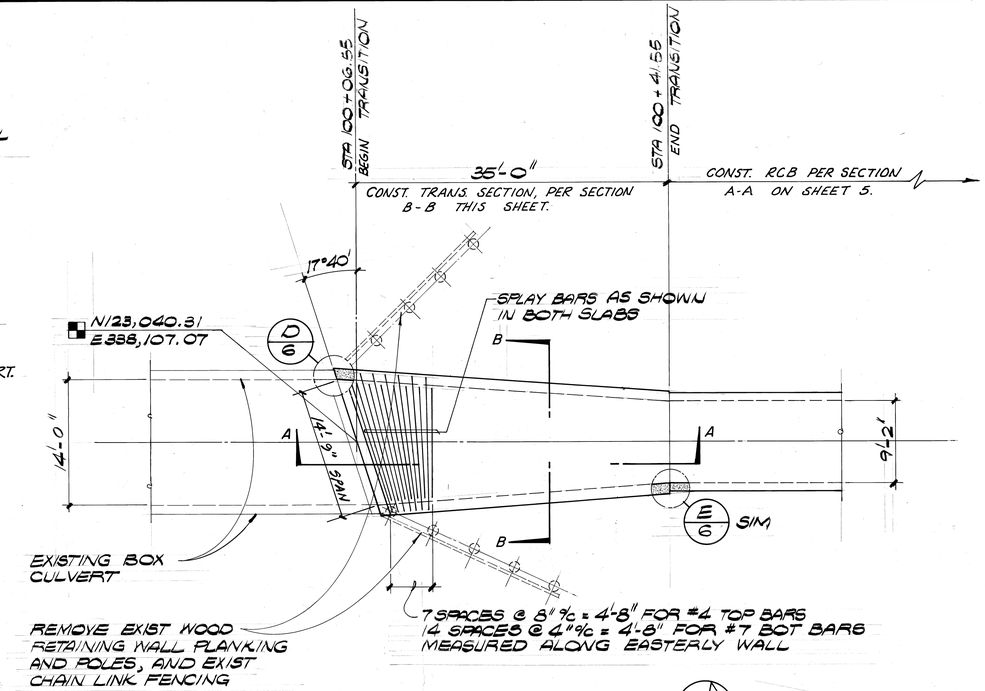


DETAIL D/6
SCALE ½" = 1'-0"

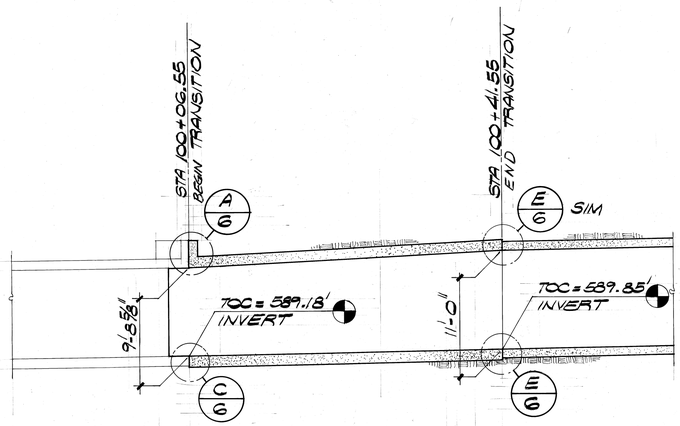


SECTION "B-B"
SCALE ½" = 1'-0"

* 5'-2" FOR CULVERT WIDTH BETW 12'-1 & 14'-9"
4'-6" FOR CULVERT WIDTH BETW 9'-2" & 12'-0"

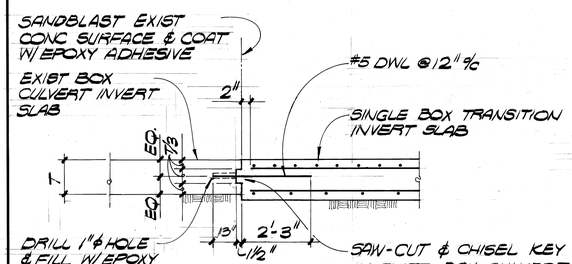


TRANSITION STRUCTURE PLAN
SCALE 1/8" = 1'-0"

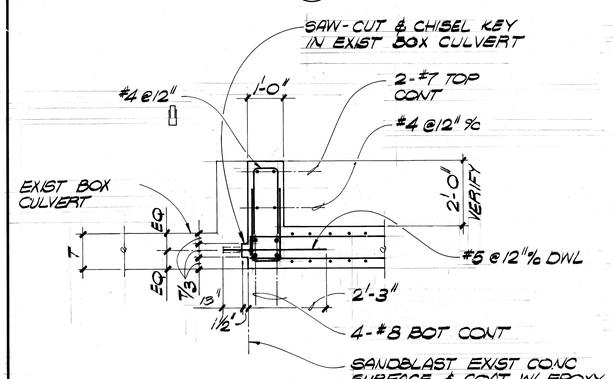


SECTION "A-A"
SCALE 1/8" = 1'-0"

NOTES:
1. IF THE EXISTING CONCRETE CAP EXTENDS UNDER THE PROPOSED BOX CULVERT AND IF THE CLEARANCE BETWEEN THE BOTTOM OF THE BOX CULVERT AND THE TOP OF THE CONCRETE CAP IS LESS THAN 18" NOTIFY M.W.D.



DETAIL C/6
SCALE ½" = 1'-0"

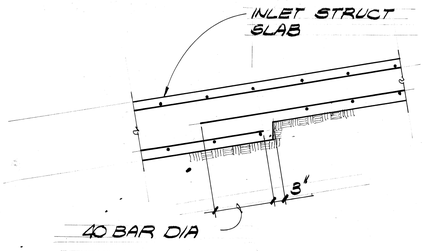


DETAIL A/6

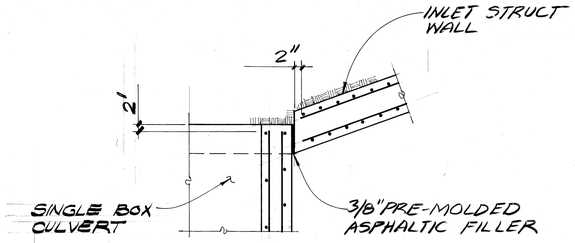
APPROVED CITY OF WALNUT RONALD L. KRANZER, CITY ENGINEER RCE NO. 18503 BY Ronald L Kranzer DATE 4-1-83	CITY OF WALNUT
	WALNUT IMPROVEMENT AGENCY
	"AS-BUILTS" SNOW CREEK
	R.C. BOX FACILITY
	TRANSITION STRUCTURE PLAN & DETAILS
Prepared By: VTN Consolidated, Inc. ENGINEERS ARCHITECTS PLANNERS 2301 Campus Drive, Irvine, California 92733 (714) 851-5200 Signature RCE 28665 24 MAY 1983 Date	APPROVED: WALNUT IMPROVEMENT AGENCY RONALD L KRANZER, AGENCY ENGINEER - R.C.E. 18503 BY: Ronald L Kranzer DATE 4-2-83

sheet no. 5 of 11 (△12)

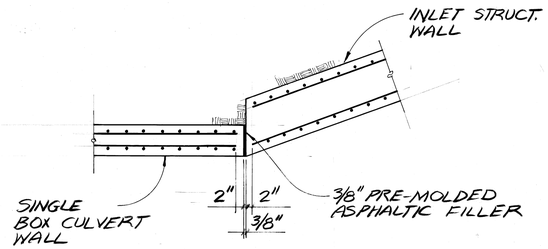
141F



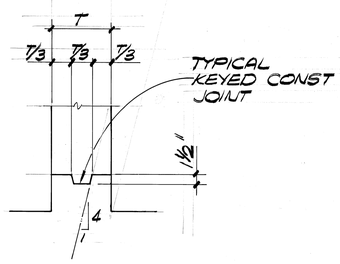
DETAIL (P/7)
SCALE 1/2"=1'-0"



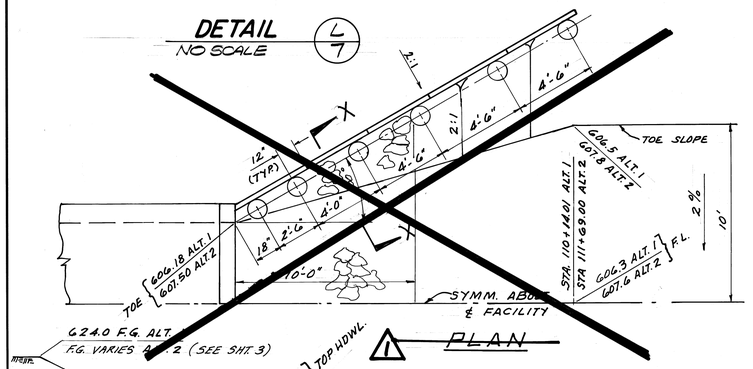
DETAIL (N/7)
SCALE 1/2"=1'-0"



DETAIL (M/7)
SCALE 1/2"=1'-0"



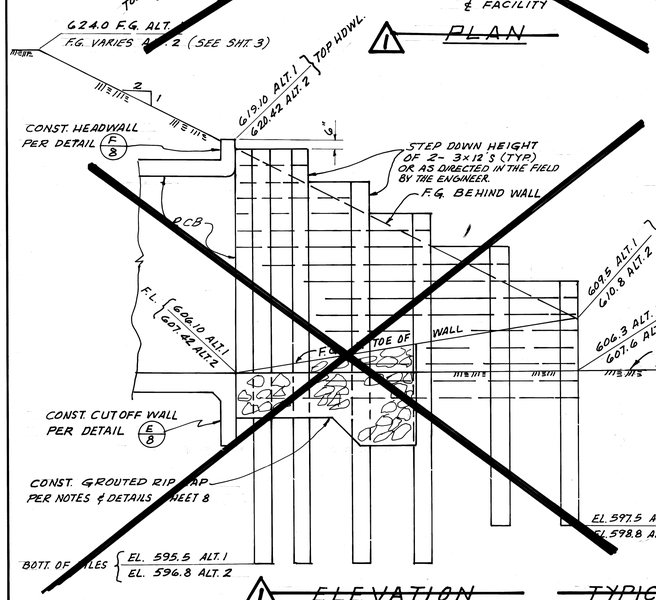
DETAIL (L/7)
NO SCALE



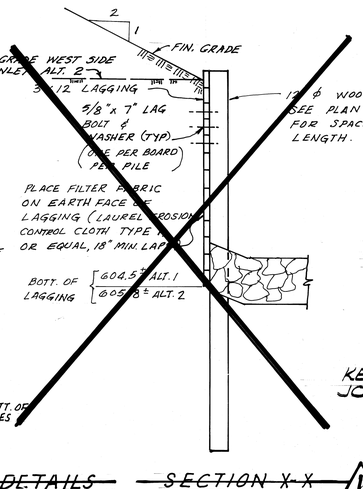
1 PLAN

TIMBER WINGWALL NOTES

1. ALL WOOD SHALL BE TREATED WITH A PRESERVATIVE SUITABLE FOR A GROUND OR FRESH WATER INSTALLATION AND IN ACCORDANCE WITH SECTION 204 OF THE STANDARD SPECIFICATIONS.
2. ALL METAL PARTS SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 210-3 OF THE STANDARD SPECIFICATIONS.
3. WOOD PILES SHALL CONFORM TO SECTION 255 OF THE STANDARD SPECIFICATIONS.
4. ALL LUMBER QUALITY, OTHER THAN THE PILES, SHALL NOT BE LESS THAN "NO. 1", AND SHALL CONFORM TO SECTION 204 OF THE STANDARD SPECIFICATIONS.
5. STANDARD SAWN LUMBER SHALL BE USED FOR WINGWALL CONSTRUCTION.
6. WINGWALLS SHALL BE BACKFILLED WITH COARSE-GRAINED, FREE-DRAINING BACKFILL MATERIAL.

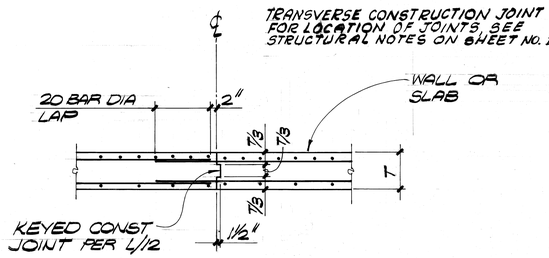


1 ELEVATION

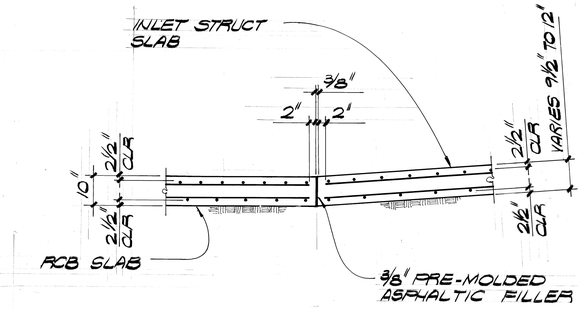


SECTION X-X 1

TYPICAL DETAILS
TIMBER WINGWALL 1
SCALE 1/4" = 1'-0"



DETAIL (A/7)
SCALE 1/2"=1'-0"



DETAIL (D/7)
SCALE 1/2"=1'-0"

REVISION NO. 1 APPROVED — AGENCY ENGINEER - WALNUT IMPROVEMENT AGENCY
1) ELIMINATE TIMBER WINGWALLS
Ronald L Kranzer 6-13-83
RONALD L. KRANZER, RCE 18503 DATE

APPROVED
CITY OF WALNUT
RONALD L. KRANZER, CITY ENGINEER
RCE NO. 18503
BY Ronald L Kranzer DATE 4-1-83

Prepared By:
VTN Consolidated, Inc.
ENGINEERS ARCHITECTS PLANNERS
2301 Campus Drive, Irvine, California 92713 (714) 851-5200
Signature RCE 28665 24 MAY 83 Date

CITY OF WALNUT
WALNUT IMPROVEMENT AGENCY
"AS-BUILTS" SNOW CREEK
TYPICAL CONSTRUCTION JOINT DETAILS
TIMBER WINGWALL DETAILS

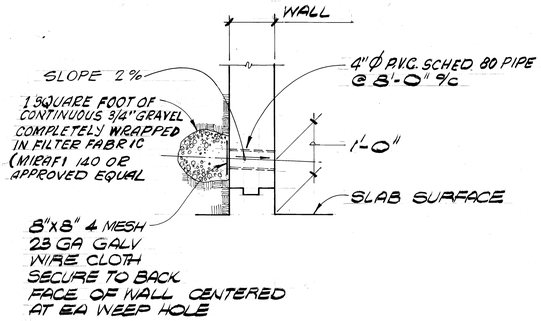
APPROVED:
WALNUT IMPROVEMENT AGENCY
RONALD L KRANZER, AGENCY ENGINEER - R.C.E. 18503
BY: Ronald L Kranzer DATE 4-2-83

sheet no. 7 of 12

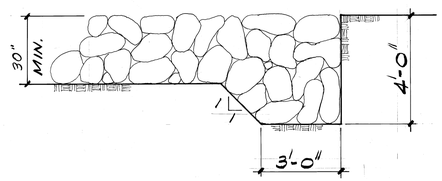
141G

RIPRAP NOTES

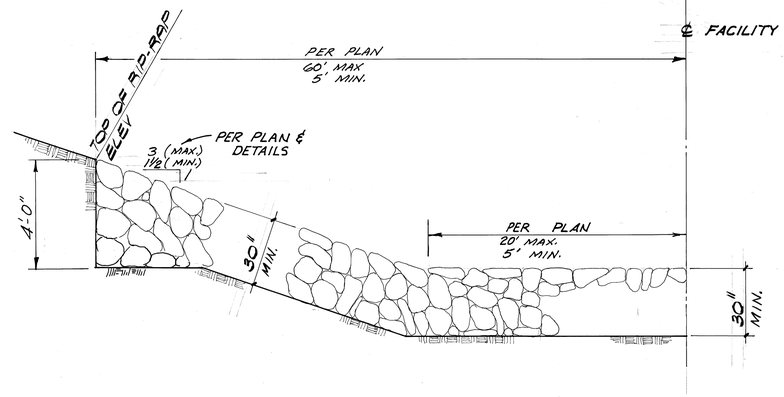
1. Rocks for grouted riprap shall be good quality broken concrete and/or river run rock. The smallest dimension shall exceed 6 inches and the largest dimension shall not exceed 36 inches. The largest dimension shall not exceed 4 times the smallest dimension.
2. There shall be a grout bed of at least 2 inches beneath the first layer of rock. All the voids between the rocks shall be filled with grout. Maximum spacing between rocks shall be 2 inches.
3. Surface rocks shall be imbedded from 1/2 to 2/3 of their maximum dimension.



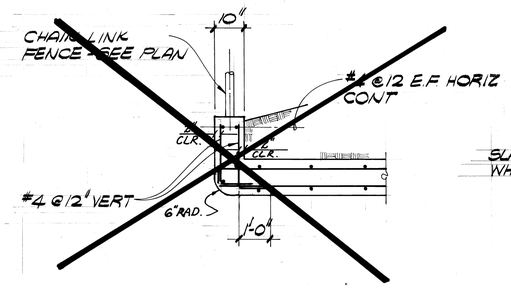
DETAIL J/8
NO SCALE



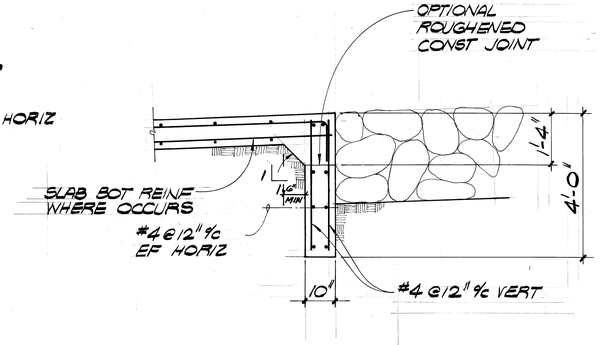
DETAIL H/8
SCALE 3/8" = 1'-0"



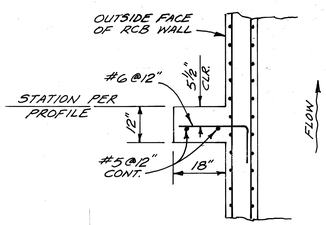
SECTION "A-A"
SCALE 3/8" = 1'-0"



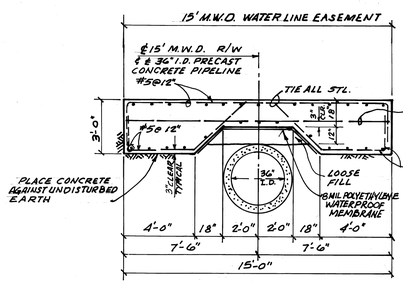
~~DETAIL~~ F/8
SCALE 1/2" = 1'-0"



DETAIL E/8
SCALE 1/2" = 1'-0"



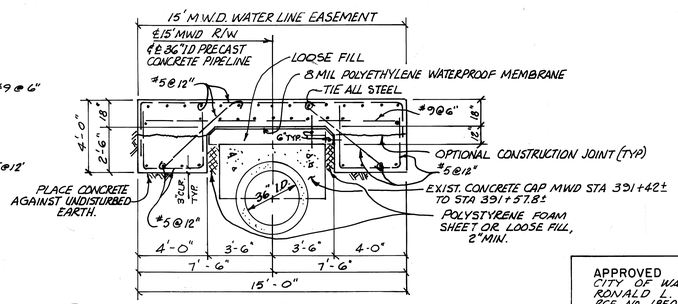
DETAIL P/8
SCALE 1/2" = 1'-0"



DETAIL K/8
SCALE 1/4" = 1'-0"

R.C. PROTECTIVE COVER

DESIGNED FOR AASHTO H20 LOADINGS. CONSTRUCTION TO BE SUPERVISED & APPROVED BY M.W.D. NOTE: THE LOCATION & ELEVATIONS INDICATED HEREIN FOR THE 36" M.W.D. PIPELINE ARE COMPILED FROM RECORD INFORMATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE LOCATIONS & ELEVATIONS AND PROTECT THE PIPELINE FROM ANY DAMAGE WHATSOEVER. THE CONTRACTOR SHALL NOTIFY M.W.D. IF ANY DISCREPANCIES ARE FOUND TO EXIST.



L/8 **R.C. PROTECTIVE COVER**

ALTERNATE DESIGN. TO BE USED WHERE EXISTING CONCRETE CAP IS ON PIPE. MWD STA. 391+42± TO STA. 391+57.8±.

FOR ADDITIONAL INFORMATION SEE NOTE UNDER DETAIL K/8

REVISION No. 1 APPROVED – AGENCY ENGINEER – WALNUT IMPROVEMENT AGENCY
1) ELIMINATE DETAIL F/8
Ronald L. Kranzer 6-13-83
RONALD L. KRANZER, RCE. 18503 DATE

APPROVED
CITY OF WALNUT
RONALD L. KRANZER, CITY ENGINEER
RCE NO. 18503
BY Ronald L. Kranzer DATE 4-1-83

Prepared By:
vtn Consolidated, Inc.
ENGINEERS ARCHITECTS PLANNERS
2301 Campus Drive, Irvine, California 92713 (714) 851-5200
Signature RCE 28665 12/14/82 Date

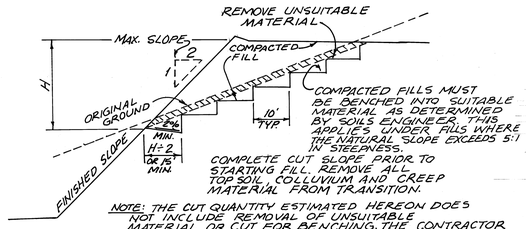
CITY OF WALNUT
WALNUT IMPROVEMENT AGENCY
SNOW CREEK
MISCELLANEOUS DETAILS
" AS-BUILTS"

APPROVED
WALNUT IMPROVEMENT AGENCY
RONALD L. KRANZER, AGENCY ENGINEER-R.C.E. 18503
BY: Ronald L. Kranzer DATE 4-2-83

sheet no. 8 of 12
141H

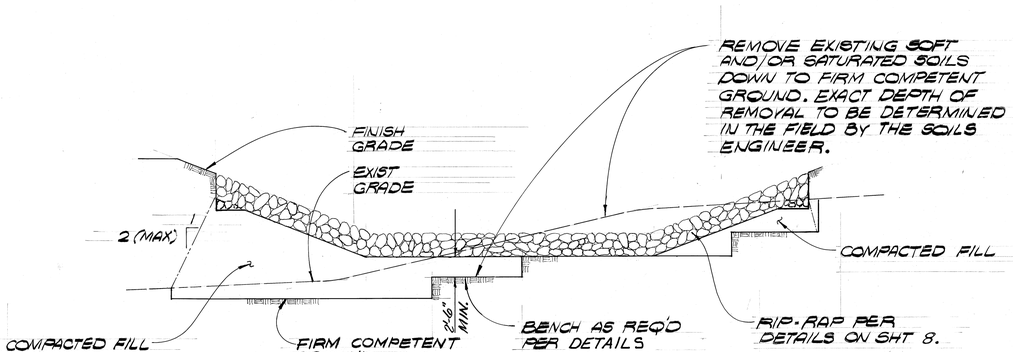
GRADING NOTES

1. WORK SHALL CONFORM TO CHAPTER 70 OF THE WALNUT BUILDING CODE AND THE APPROVED GRADING PERMIT, AND IN ACCORDANCE WITH THE CURRENT EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONST. 1982 EDITION.
2. ALL CUT SLOPES SHALL BE NO STEEPER THAN 2:1 UNLESS SPECIFICALLY AUTHORIZED BY CONSULTANTS.
3. ALL FILL SLOPES SHALL BE NO STEEPER THAN 2:1.
4. GRADING BOUNDARIES SHALL BE CLEARLY MARKED AND ALL WORK WILL BE CONFINED TO APPROVED PROJECT LIMITS.
5. THE CONTRACTOR AGREES TO PROTECT ADJACENT PROPERTY AND EXISTING IMPROVEMENTS INCLUDING POSITIVE CONTROL OF SILTATION, EARTH SPILLAGE, CONSTRUCTION WATER AND RUN-OFF WATERS.
6. IT IS THE CONTRACTORS RESPONSIBILITY TO CONTROL WIND EROSION AND DUST GENERATION TO PREVENT NUISANCE AND COMPLY WITH AIR POLLUTION CONTROL ORDINANCE.
7. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE PROVIDED TO PROTECT ADJOINING PROPERTIES DURING THE GRADING PROJECT. APPROVED EROSION PREVENTIVE DEVICES SHALL BE PROVIDED AND MAINTAINED DURING THE RAINY SEASON AND SHALL BE IN PLACE AT THE END OF EACH DAYS WORK.
8. THIS WORK IS DESIGNATED SUPERVISED GRADING AND ALL WORK SHALL BE PERFORMED UNDER THE SUPERVISION OF THE SUPERVISING GRADING ENGINEER.
9. PRIOR TO THE PLACEMENT OF ANY FILL ON THE SITE, AREAS TO RECEIVE FILL SHOULD BE SCARIFIED TO A DEPTH OF 12 INCHES MINIMUM, MOISTURE CONDITIONED AND PROPERLY PRECOMPACTED.
10. WATER CONTENT SHALL BE CONTROLLED TO +5% OF OPTIMUM AS SET BY THE SOILS ENGINEER.
11. NOT LESS THAN ONE FIELD DENSITY TEST WILL BE MADE FOR EACH TWO (2) FEET VERTICAL LIFT OF FILL NOR LESS THAN ONE SUCH TEST FOR EACH 1,000 CUBIC YARDS OF MATERIAL PLACED. AT LEAST ONE-HALF OF THE REQUIRED TESTS SHALL BE MADE AT THE LOCATION OF THE FINAL FILL SLOPE, EXCEPT THAT NOT MORE THAN ONE SUCH TEST NEED BE MADE FOR EACH 50 HORIZONTAL FEET OF SLOPE IN EACH 2-FOOT VERTICAL LIFT. ADDITIONAL TESTS SHALL BE PERFORMED WHERE DEEMED NECESSARY BY THE SOILS ENGINEER OR THE CITY ENGINEER. ALL SUCH DENSITY TESTS SHALL BE REASONABLY UNIFORMLY DISTRIBUTED WITHIN THE FILL OR FILL SLOPE SURFACE. RESULTS OF SUCH TESTING AND LOCATION OF TESTS SHALL BE PRESENTED IN THE SOIL ENGINEER'S REPORT.
12. ALL FILLS SHALL BE COMPACTED THROUGHOUT THEIR FULL EXTENT TO A MINIMUM OF 90% OF MAXIMUM DENSITY AS DETERMINED BY A.S.T.M. SOIL COMPACTION TEST D1557.70. FIELD DENSITY SHALL BE DETERMINED BY A METHOD ACCEPTABLE TO THE CITY ENGINEER. FILL SLOPES IN EXCESS OF A 2:1 STEEPNESS RATIO ARE TO BE CONSTRUCTED BY THE PLACEMENT OF SOIL A SUFFICIENT DISTANCE BEYOND THE PROPOSED FINISH SLOPE TO ALLOW COMPACTION EQUIPMENT TO OPERATE AT THE OUTER SURFACE LIMITS OF THE FINAL SLOPE SURFACE. THE EXCESS FILL IS TO BE REMOVED PRIOR TO COMPLETION OF ROUGH GRADING. OTHER CONSTRUCTION PROCEDURES MAY BE UTILIZED WHEN IT IS FIRST SHOWN TO THE SATISFACTION OF THE CITY ENGINEER THAT THE ANGLE OF SLOPE, CONSTRUCTION METHOD AND OTHER FACTORS WILL ACCOMPLISH THE INTENT OF THIS SECTION.
13. NO FILL SHALL BE PLACED UNTIL THE UNDERLYING SOIL OR BEDROCK HAS BEEN INSPECTED BY THE SOILS ENGINEER OR GEOLOGIST AND FOUND CAPABLE OF SAFELY SUPPORTING THE ADDITIONAL WEIGHT OF THE FILL. SUBDRAINS WILL BE REQUIRED IN ALL NATURAL DRAINAGE COURSES OR SEEPAGE AREAS TO BE COVERED BY THE FILL, EXCEPT WHERE RECOMMENDED BY THE SOILS ENGINEER OR GEOLOGIST AS NOT BEING NECESSARY. THE LOCATION OF SUB-DRAINS MUST BE RECORDED IN PLAN AND ELEVATION AND SHOWN ON "AS-BUILT" PLANS.
14. NO FILL IS TO BE PLACED UNTIL STRIPPING OF VEGETATION, REMOVAL OF UNSUITABLE SOILS AND INSTALLATION OF SUBDRAINS (IF ANY) HAS BEEN INSPECTED AND APPROVED BY THE SOILS ENGINEER.
15. PROVISIONS SHALL BE MADE FOR CONTRIBUTORY DRAINAGE AT ALL TIMES.
16. NO ROCK OR SIMILAR MATERIAL GREATER THAN 8" IN DIAMETER WILL BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH PLACEMENT HAVE BEEN SUBMITTED BY THE SOILS ENGINEER IN ADVANCE AND APPROVED BY THE BUILDING OFFICIAL.
17. THE RECOMMENDATIONS OF THE ENGINEERING GEOLOGIST AND SOILS ENGINEER AS SET FORTH IN THE GEOTECHNICAL AND SOILS REPORTS SHALL BECOME A PART OF THIS PLAN.
18. ANY ARCHEOLOGICAL OR PALEONTOLOGICAL ARTIFACTS WHICH ARE LOCATED ON THE SITE AND FOUND DURING CONSTRUCTION, SHALL BE PRESERVED TEMPORARILY. THE CONTRACTOR SHALL STOP WORK IN THE AREA OF SUCH ARTIFACTS AND CONTACT THE CITY OF WALNUT.
19. OBTAIN SEPARATE APPROVAL FROM COUNTY ROAD DEPARTMENT FOR CONSTRUCTION WITHIN THEIR RIGHT-OF-WAY.
20. CONTINUOUS INSPECTION BY THE SOILS ENGINEER OR HIS RESPONSIBLE REPRESENTATIVE SHALL BE PROVIDED DURING ALL FILL PLACEMENT AND COMPACTION OPERATIONS. (APPLIES WHERE FILLS HAVE A DEPTH GREATER THAN 30' OR A SLOPE SURFACE STEEPER THAN 2:1.

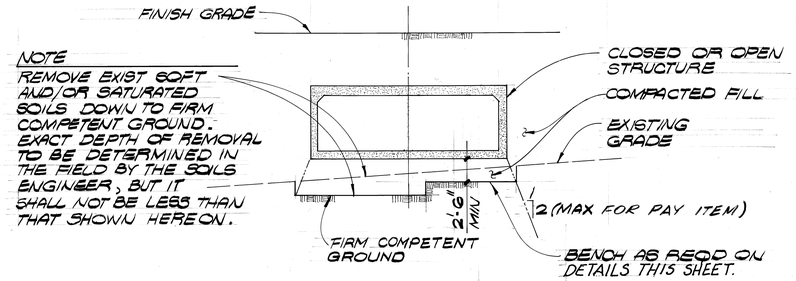


NOTE: THE CUT QUANTITY ESTIMATED HEREON DOES NOT INCLUDE REMOVAL OF UNSUITABLE MATERIAL OR CUT FOR BENCHING. THE CONTRACTOR SHALL ESTIMATE THESE ITEMS AND MAKE AN ALLOWANCE FOR THEM IN HIS BID.

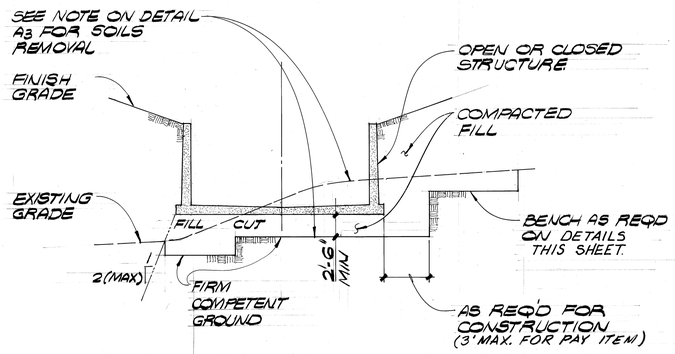
COMPACTED FILL OVER CUT SLOPE
& NATURAL GROUND STEEPER THAN 5:1



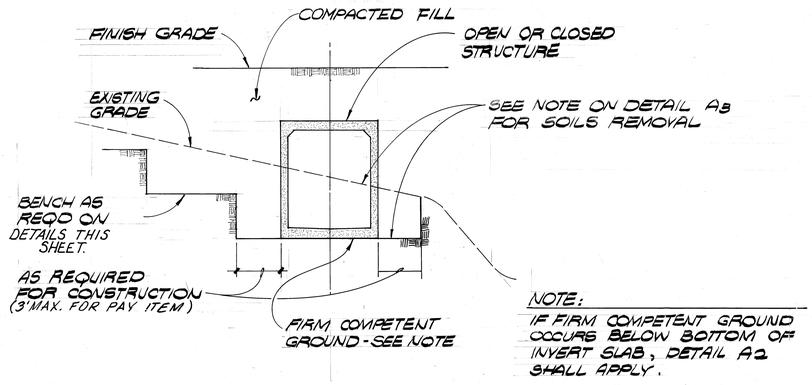
EARTHWORK REQUIREMENTS FOR RIP-RAP (B/9)
NO SCALE



DRAINAGE STRUCTURE IN FILL (A3)
NO SCALE



DRAINAGE STRUCTURE IN CUT & FILL (A2)
NO SCALE



DRAINAGE STRUCTURE IN CUT (A1)
NO SCALE

TYPICAL EARTHWORK REQUIREMENTS FOR DRAINAGE STRUCTURES (A/9)

NOTE:

FOR ADDITIONAL EARTHWORK REQUIREMENTS, INCLUDING INSPECTIONS, SEE NOTES ON SHT NO. 1 OF 11.

SOILS ENGINEER:

NAME: LEIGHTON AND ASSOCIATES
ADDRESS: 6677 AREA CANYON RD., SUITE 31 WALNUT, CA 91789

I HEREBY CERTIFY THAT THESE PLANS ARE IN CONFORMANCE WITH CONCLUSIONS AND RECOMMENDATIONS PRESENTED IN SOILS REPORTS DATED JULY 6, 1981, AUG. 19, 1981, AND SUPPLEMENT DATED FEB. 23, 1983, PREPARED BY THIS OFFICE.

Chris Jamdan RCE 32214 3/8/83
NAME RCE OR REG. DATE

APPROVED
CITY OF WALNUT
RONALD L. KRANZER, CITY ENGINEER
RCE NO. 18503
BY Ronald L Kranzer DATE 4-1-83

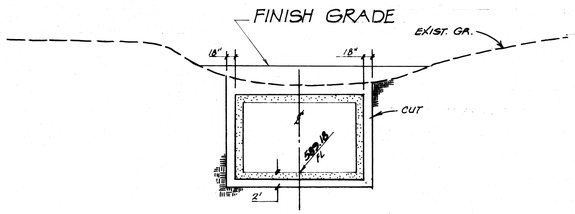
Prepared By:
VTN Consolidated, Inc.
ENGINEERS ARCHITECTS PLANNERS
2301 Campus Drive, Irvine, California 92713 (714) 851-5200
Signature [signature] RCE 28665 24 MAY 1983 Date

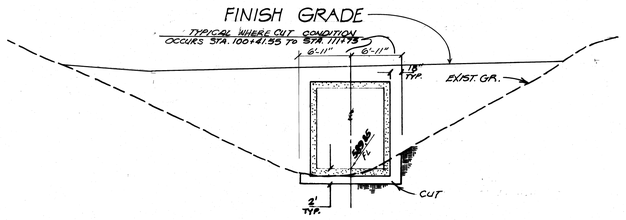
CITY OF WALNUT
WALNUT IMPROVEMENT AGENCY
SNOW CREEK
TYPICAL EARTHWORK DETAILS
"AS-BUILTS"

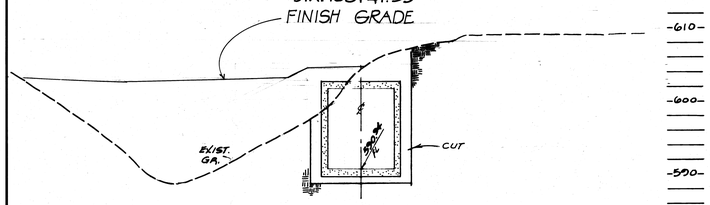
APPROVED
WALNUT IMPROVEMENT AGENCY
RONALD L. KRANZER, AGENCY ENGINEER - R.C.E. 18503
BY: Ronald L Kranzer DATE 4-2-83

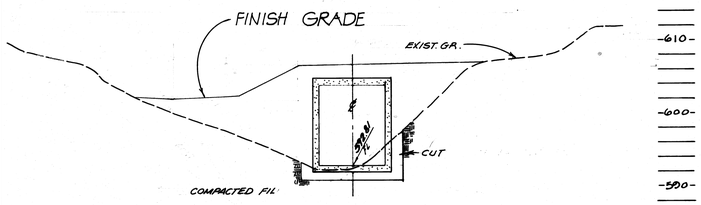
sheet no. 9 of 11 (12)

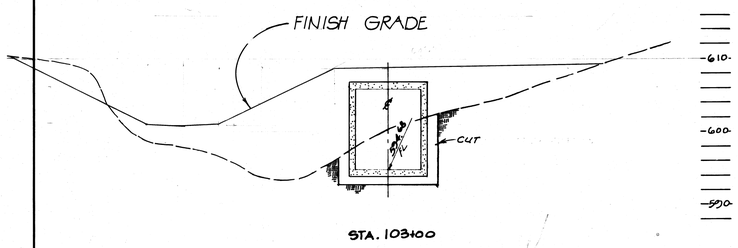
141J

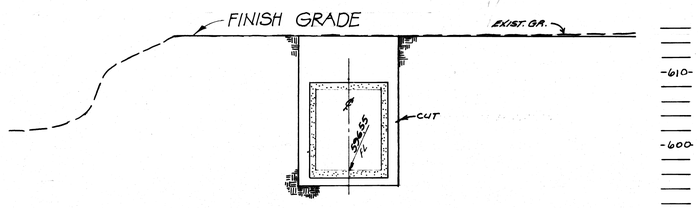


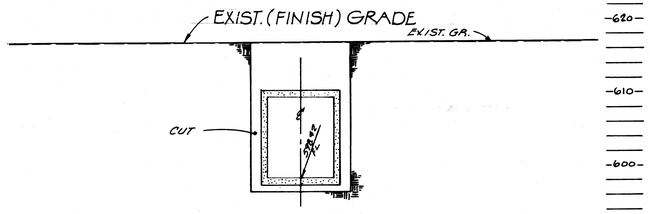


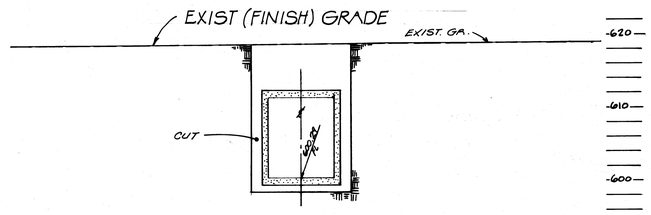


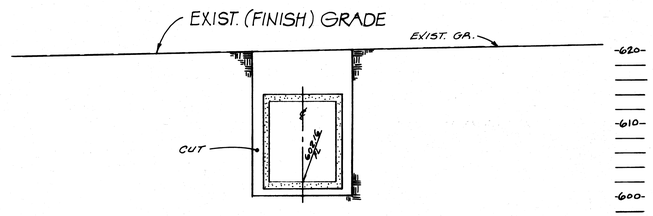


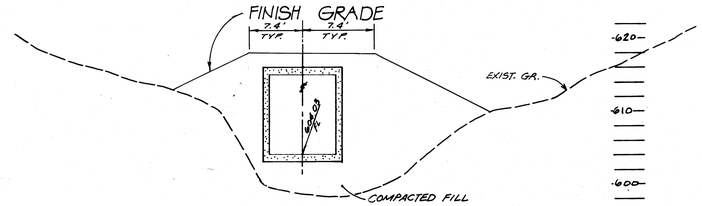


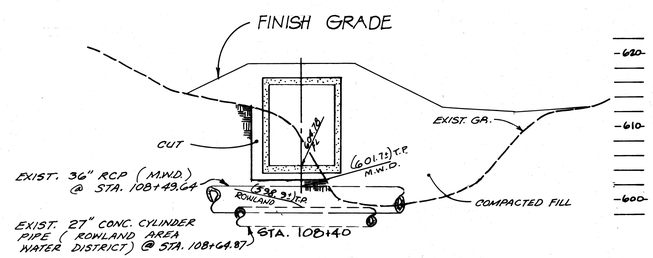


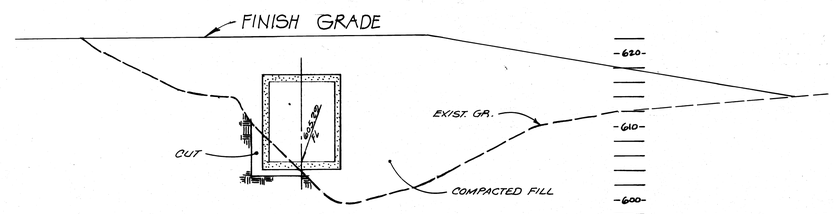


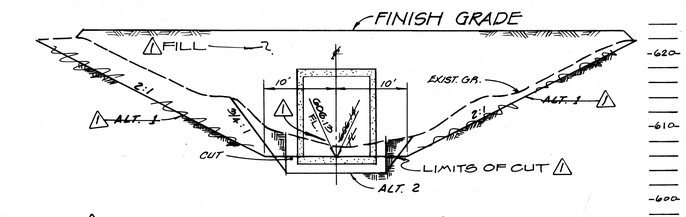


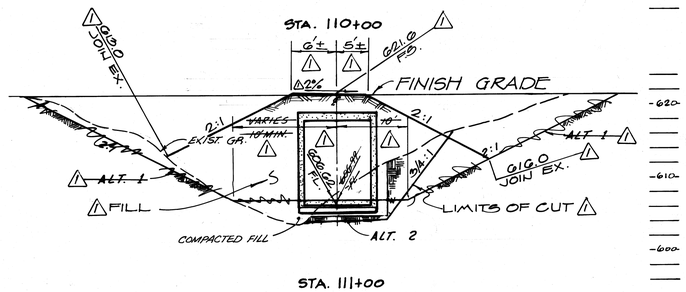












NOTE:
SEE PLAN SHEETS Nos. 2 & 3 FOR ALIGNMENT OF EXISTING GULLEY TO BE FILLED AND COMPACTED.

NOTE:
CUT & FILL LINES SHOWN ON THIS SHEET ARE FOR PURPOSE OF ILLUSTRATING EXISTING CONDITIONS AT THE VARIOUS SECTIONS, AND FOR ESTIMATING OF EARTHWORK QUANTITIES. ACTUAL CUT AND FILLS SHALL BE AS SHOWN ON SHEET No. 9 AND PER THE SOILS ENGINEERS RECOMMENDATIONS.

PLAN SCALE:
1" Horiz. = 10'
1" Vert. = 10'

REVISION No. 1 APPROVED – AGENCY ENGINEER – WALNUT IMPROVEMENT AGENCY
1) REVISE CROSS-SECTIONS (STA 110+00 AND 111+00)

Ronald L Kranzer 6-13-83
RONALD L KRANZER RCE 18503 DATE

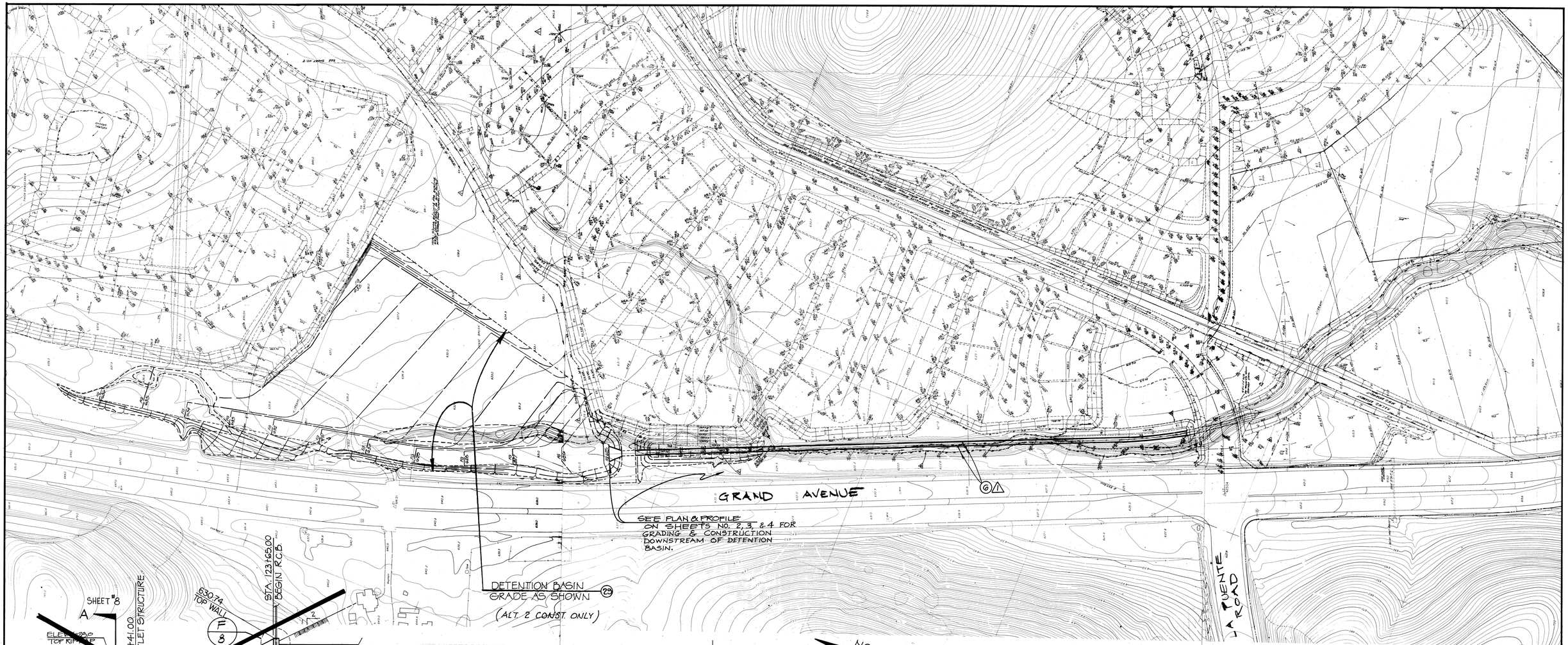
APPROVED
CITY OF WALNUT
RONALD L. KRANZER, CITY ENGINEER
RCE NO. 18503
BY Ronald L Kranzer DATE 4-1-83

Prepared By:
VTN Consolidated, Inc.
ENGINEERS ARCHITECTS PLANNERS
2301 Campus Drive, Irvine, California 92713 (714) 851-5200
Signature [signature] RCE 28665 7-12-82 Date

CITY OF WALNUT
WALNUT IMPROVEMENT AGENCY
EARTHWORK CROSS SECTIONS SNOW CREEK R.C. BOX FACILITY
Sta. 100+06.55 to Sta. 111+00.00 "AS-BUILTS"
141K

APPROVED:
WALNUT IMPROVEMENT AGENCY
RONALD L. KRANZER, AGENCY ENGINEER-R.C.E. 18503
BY: Ronald L Kranzer DATE 4-2-83

sheet no. 10 of 12



SCHEDULE

H	T1	T2	B1	B2	B3	B4	B5	B6	B7	B8	Y1	X3	X4	Y1	Y2	Y3
1'-0" TO 4'-0"	11"	1'-0"	#5@16"	#5@16"	—	#4@16"	#4@16"	#4@16"	#4@16"	—	—	—	2'-2"	—	2'-6"	2'-6"
4'-1" TO 8'-0"	11"	1'-0"	#5@16"	#5@16"	—	#4@16"	#4@16"	#4@16"	#4@16"	—	—	—	2'-2"	—	2'-6"	2'-6"
8'-1" TO 12'-0"	1'-0"	1'-0"	#7@18"	#7@18"	#7@18"	#7@15"	#7@15"	#6@15"	#6@18"	3'-0"		2'-6"	*	2'-3"	4'-9"	3'-8"
12'-1" TO 14'-0"	1'-2"	1'-2"	#8@18"	#8@18"	#8@18"	#7@16"	#7@16"	#7@15"	#7@15"	—	—	2'-4"	*	2'-6"	5'-0"	4'-6"

CONSTRUCTION NOTES

(29) CONSTRUCT DETENTION BASIN TO LIMITS SHOWN (ALT 2 ONLY)

REVISION NO. 1 APPROVED - AGENCY ENGINEER - WALNUT IMPROVEMENT AGENCY

1) ADD R.C.B. IN PLAN VIEW. ELIMINATE OUTLET STRUCT. DETAILS

Ronald L Kranzer 6-03-83
RONALD L KRANZER RCE. 18503 DATE

SOILS ENGINEER:

NAME: LEIGHTON AND ASSOCIATES
ADDRESS: 6677 BREA CANYON RD, SUITE 31 WALNUT, CA 91789

I HEREBY CERTIFY THAT THESE PLANS ARE IN CONFORMANCE WITH CONCLUSIONS AND RECOMMENDATIONS PRESENTED IN SOILS REPORTS DATED JULY 6, 1981, AUG. 19, 1981, AND SUPPLEMENT DATED FEB. 23, 1983, PREPARED BY THIS OFFICE.

Chris Jamden 32214 3/8/83
NAME RCE DATE

APPROVED
CITY OF WALNUT
RONALD L. KRANZER, CITY ENGINEER
RCE NO. 18503
BY Ronald L Kranzer DATE 4-1-83

Prepared By:
VTN CONSOLIDATED, INC.
ENGINEERS ARCHITECTS PLANNERS
2301 CAMPUS DRIVE, IRVINE, CA. 92715 (714) 851-5200

Signature Daniel Ingram 1-7-83
RCE 25295 Date

CITY OF WALNUT

WALNUT IMPROVEMENT AGENCY

DETENTION BASIN GRADING

SNOW CREEK "AS- BUILTS"

APPROVED:
WALNUT IMPROVEMENT AGENCY
RONALD L. KRANZER AGENCY ENGINEER-R.C.E. 18503
BY: Ronald L Kranzer DATE 4-2-83

sheet no. 11 of 11 (12)

141L