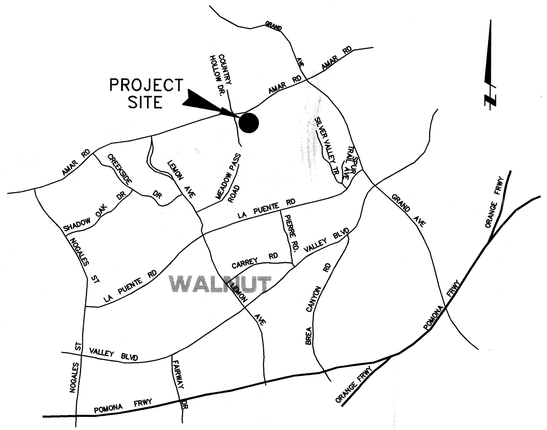
CITY OF WALNUT

PLANS FOR AMAR RETENTION BASIN AND MEADOW PASS RD. STORM DRAIN FACILITIES



VICINITY MAP

N.T.S.

GENERAL NOTES

1. General Notes

(a) Any modifications of or changes in approved grading plans must be approved by the Building Official.

(b) All grading and construction shall conform to Chapters 70 and 71 of the Los Angeles County Building Code unless specifically noted on these plans.

(c) All graded sites must have drainage swales, berms, and other drainage devices prior to approval of rough grading. (Section 7020.3.2 of the Building Code.)

(d) A copy of the grading permit and approved grading plans must be in the possession of a responsible person and available at the site at all times.

(e) The Field Engineer must set drainage stakes for all drainage devices.

(f) Final grading must be approved before occupancy of buildings will be allowed. (Section 7021 of the Building Code.)

(g) Separate plans for temporary drainage and erosion control measures to be used during the rainy season must be submitted prior to October 1. The erosion control devices shown on said plans must be installed by no later than November 1 and maintained in operable condition until April 15 of the following year, and before any anticipated rain.

(h) Every effort should be made to eliminate the discharge of non-stormwater from the project site at all times.

(i) Provisions shall be made for contributory drainage at all times.

(j) A preventive program to protect the slopes from potential damage from burrowing rodents is required. Owner to inspect slopes periodically for evidence of burrowing rodents and at first evidence of their existence shall employ an exterminator for their removal. (Section 7019.5 of the Building Code.)

(k) Roof drainage must be diverted from graded slopes. (Section 7018.6 of the Building Code.)

(l) All subdrain outlets are to be surveyed for line and elevation. This can be shown on an as built grading plan.

2. Fill Notes

(a) Fill shall be compacted throughout their full extent to a minimum of 90 percent of maximum dry density as determined by A.S.T.M. Soil Compaction Test D1557-91, method "D" where applicable. Where not applicable, a test acceptable to the building official shall be used. (Section 7016.1 of the Building Code.)

(b) Field density shall be determined by a method acceptable to the Building Official. (Section 7016.1 of the Building Code.) However, not less than 10% of the required density test, uniformly distributed, shall be obtained by the Sand Cone Method.

(c) Sufficient tests of the fill soils shall be made to determine the relative compaction of the fill in accordance with the following minimum guidelines:

(1) One test for each two foot vertical lift.

(2) One test for each 1000 cubic yards of material placed.

(3) One test at the location of the final fill slope for each building site (lot) in each four foot vertical lift or portion thereof.

(4) One test in the vicinity of each building pad for each four foot vertical lift or portion thereof.

(d) Sufficient tests of fill soils shall be made to verify that the soil properties comply with the design requirements, as determined by the geotechnical engineer including soil types, shear strengths parameters and corresponding unit weights in accordance with the following guidelines:

(1) Prior and subsequent to placement of the fill, shear tests shall be taken of each type of soil or soil mixture to be used for all fill slopes steeper than three horizontal to one vertical.

(2) Shear test results for the proposed fill must meet or exceed the design values used in the geotechnical report to determine slope stability requirements. Otherwise, the slope must be re-evaluated using the actual shear test value of the fill material that is in place.

(3) Fill soils shall be free of deleterious materials.

(4) The results of such testing shall be included in the reports required by Section 7016.B of the Building Code.

(e) Fill shall not be placed until stripping of vegetation, removal of unsuitable soils, and installation of subdrain (if any) have been inspected and approved by the Geotechnical Engineer. The Building Official may require a "Standard Test Method for Moisture, Ash, Organic Matter, Peat or other Organic Soils" (ASTM D-2974-87) on any suspect material. All materials that have a test value of 10 percent or greater will be rejected as unsuitable for support of or being structural fill.

(f) Rock or similar material greater than 12 inches in diameter shall not be placed in the fill unless recommendations for such placement have been submitted by the Geotechnical Engineer and approved in advance by the Building Official.

(g) Continuous inspection by the Geotechnical Engineer or his responsible representative shall be provided during all fill placement and compaction operations where fills have a depth greater than 30 feet or slope surface steeper than 2:1.

(h) Continuous inspection by the Geotechnical Engineer or his responsible representative shall be provided during all subdrain installations.

(i) Fill slopes in excess of 2:1 steepness ratio are to be constructed by the placement of soil at sufficient distance beyond the proposed finish slope to allow compaction equipment to be operated at the outer limits of the final slope surface. The excess fill is to be removed prior to completion of rough grading.Other construction procedures may be used when it is demonstrated to the satisfaction of the Building Official that the angle of slope, construction method and other factors will have equivalent effect. (Section 7016.1 of the Building Code.)

(j) The Geotechnical Engineer shall provide sufficient inspections during the preparation of the natural ground and the placement and compaction of the fill to be satisfied that the work is being performed in accordance with the plan and applicable Code requirements.

(k) The grading contractor shall submit the statement required by Section 7021 of the Building Code at the completion of rough grading.

3. Inspection Notes

(a) The permittee or his agent shall notify the Building Official at least one working day in advance of required inspections at following stages of the work (Section 7020 of the Building Code.)

(1) Initial: When the site has been cleared of vegetation and unapproved fill has been scarified, benched or otherwise prepared for fill. Fill shall not have been placed prior to this inspection.

(2) Rough: When approximate final elevations have been established; drainage terraces, swales and berms installed at the top of the slope and the statements required in this Section have been received.

(3) Final: When grading has been completed; all drainage devices installed; slope planting established, irrigation systems installed, and the As-Built plans, required statements, and reports have been submitted.

(b) In addition to the inspection required of the Building Official for regular grading, reports and statements shall be submitted to the Building Official in accordance with Sections 7020 and 7021 of the Building Code.

4. Geotechnical Notes

(a) All recommendations included in the consultant's geotechnical report(s) must be complied with and are a part of the grading plans and specifications.

(b) Grading operations must be conducted under periodic geologic inspections with monthly inspection reports to be submitted to the Geology and Soils Section.

(c) The Consulting Geologist and Geotechnical Engineer must state in a final report, prior to the approval of rough grading by the City of Walnut, that geotechnical hazards have been removed, mitigated or designated as "Restricted Use Areas". The final report must be submitted to the City of Walnut for their review and approval and must include an As-Built Geotechnical Map.

(d) Foundation, wall and pool excavations must be inspected and approved by the onsulting Geologist and Geotechnical Engineer, prior to the placing of steel or concrete.

(e) Building pads located in cut/fill transition areas shall be overexcavated a minimum of three feet below the proposed bottom of footing.

5. Planting and Irrigation Notes

(a) The plans of a designed irrigation system for full coverage of all portions of the slopes shall be submitted and approved prior to rough grading approval by the County Inspector. (Section 7019.1 of the Building Code)

(b) All cut slopes over five (5) feet and fill slopes over three (3) feet shall be planted with an approved ground cover and provided with an irrigation system as soon as practical after rough grading. (Section 7019.2 of the Building Code.)

(c) Planting and irrigation plans for slopes greater than 20 feet in height must be prepared and signed by a Licensed Landscape Architect or Registered Civil Engineer.

Additional Geotechnical Notes:

1. Precautions should be taken during the performance of all work and at all times, to protect the work site, particularly excavated areas, from flooding, ponding and inundation due to poor or improper temporary surface drainage. During periods of impending inclement weather, temporary provisions should be made to adequately direct surface drainage from all sources away from and off the work site and to provide adequate pumps and sumps to handle any flows into the excavations.

2. All site preparation as indicated below should be performed under the periodic observation of the project Geotechnical Engineer.

3. Prior to the start of the required earthwork and grading, all excess vegetation, surface trash, debris, and other deleterious materials should be removed and wasted off-site.

4. Existing on-site pipelines to remain should be protected in-place. Pipelines to be abandoned should be located and removed along with attendant trench backfill materials. Non-reinforced concrete or clay pipes may be crushed in-place and incorporated into the fill.

5. After approval of the site clearing and removals, loose surficial soils including artificial fill and soft natural soils should be overexcavated to expose relatively firm, undisturbed native soils. For the most part, excavation removals are anticipated to extend a minimum of thirty (30) inches below the proposed finish grade of the building area with the overexcavation extending approximately five (5) feet outside the building limits.

Deeper removals may be required in local areas depending on conditions encountered in the field.

6. After approval of the overexcavation and prior to placement of any compacted fill materials, the exposed stripped ground surface and the bottoms of all excavated areas which are to receive fill should be thoroughly scarified to a minimum depth of six (6) inches, moisture conditioned to slightly above the optimum moisture content, and then be rolled and compacted to a minimum of 90 percent of the laboratory maximum dry density as determined in accordance with ASTM:D-1557-91.

7. Approved stockpiled on-site or imported soils should then be spread in thin lifts (not to exceed six(6) inches in thickness), large cobbles and boulders excluded, be moisture conditioned to slightly above the optimum moisture content, and each lift rolled and compacted to a minimum of 90 percent of the applicable laboratory maximum dry density, determined as indicated above, until the desired grades are achieved.

8. Import soils, if needed, should consist of clean compactible materials possessing expansion characteristics similar to or better than the upper on-site soils. Import soils should be free of trash, debris or other objectionable materials.

PLANS AND SPECIFICATIONS SHOULD INDICATE THAT THE GRADING CONTRACTOR SHALL NOTIFY THE PROJECT GEOTECHNICAL ENGINEER NOT LESS THAN 72 HOURS IN ADVANCE OF THE LOCATION OF ANY SOILS PROPOSED FOR IMPORT. EACH PROPOSED IMPORT SOURCE SHALL BE SAMPLED, TESTED AND APPROVED PRIOR TO DELIVERY OF SOILS FOR USE ON THE SITE.

9. All of the above site preparation, overexcavation and earthwork should be performed under the observation and testing of the project geotechnical engineer. All fill should be tested at the time of placement to ascertain that the required compaction is achieved. The minimum basis of testing should be one (1) test per two (2) feet of fill depth or per each 500 cubic yards of fill placed.

ATTACHMENT A NOTES

a. Eroded sediments and other pollutants must be retained on site and may not be transported from the site via sheetflow, swales, area drains, natural drainage courses, or wind.

b. Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water.

c. Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and do not contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.

d. Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on site until they can be disposed of as solid waste.

e. Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.

f. Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.

g. Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.

NOTICE TO CONTRACTORS:

THE CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR AND WITH THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDERS".

THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR CONTRACTORS AND SUBCONTRACTORS COMPLIANCE WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR OR WITH THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDERS."

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS.

CONTRACTOR AGREES THAT HE SHALL ASSUME 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 CITY OF WALNUT, 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 ENGINEER.

THIS PLAN BASED ON AN TOPOGRAPHY SURVEY PREPARED BY RKA CIVIL ENGINEERS, INC. OCTOBER 1997.

CONSTRUCTION NOTES & QUANTITY ESTIMATE

A. GRADING IMPROVEMENT NOTES:

(1)	CONSTRUCT (6" THICK) DRIVE APPROACH TYPE "B", X=4' PER A.P.W.A. STD. NO. 110-1.	115 S.F.
(2)	CONSTRUCT 4" A.C. OVER 6" C.A.B.	23 S.F.
(3)	CONSTRUCT (6" THICK) CONC. SPILLWAY PER DETAIL 3, SHEET NO.4.	2,139 S.F.
(4)	CONSTRUCT RIP-RAP PER DETAIL 4, SHEET NO.4.	1,245 S.F.
(5)	INSTALL 2"X6" REDWOOD HEADER.	464 L.F.
(6)	SAWCUT EXISTING PAVEMENT.	25 L.F.
(7)	SAWCUT EXISTING SIDEWALK.	10 L.F.
(8)	REMOVE EXISTING PAVEMENT.	23 S.F.
(9)	REMOVE EXISTING SIDEWALK.	115 S.F.
(10)	PROTECT-IN-PLACE	L.S.
(11)	GENERAL GRADING	L.S.
(12)	INSTALL CHAIN-LINK GATE PER A.P.W.A. STD. PLAN 600-1.	15 L.F.
(13)	INSTALL CHAIN-LINK FENCE PER A.P.W.A. STD. PLAN 600-1.	280 L.F. ⚠
(14)	REPLACE EXISTING CHAIN-LINK FENCE AND GATE PER A.P.W.A. STD. PLAN 600-1.	80 L.F.
(15)	CONSTRUCT 4" A.C. OVER 6" C.A.B. VEHICULAR ACCESS RAMP PER DETAIL 15, SHEET NO.4.	3,355 S.F.
(16)	CONSTRUCT 6' HIGH WROUGHT IRON FENCE.	800 L.F. ⚠
(17)	CONSTRUCT REMOVABLE PIPE BOLLARDS.	2 EA.

D. STORM DRAIN IMPROVEMENT NOTES:

(20)	CONSTRUCT INLET HEADWALL "A" PER DETAIL 20, SHEET NO. 4.	1 EA.
~~(21)~~	~~CONSTRUCT OUTLET HEADWALL "B" PER DETAIL 21, SHEET NO. 4.~~	~~1 EA.~~
~~(22)~~	~~CONSTRUCT OUTLET HEADWALL "C" PER DETAIL 22, SHEET NO. 4.~~	~~1 EA.~~
(23)	CONSTRUCT TRASH RACK (INCLINED) PER A.P.W.A. STD. NO. 361-0.	1 EA.
(24)	INSTALL 60" R.C.P. (D-LOAD PER PROFILE)	254 L.F.
(25)	INSTALL 54" R.C.P. (D-LOAD PER PROFILE)	248 L.F.
(26)	INSTALL 24" R.C.P. (D-LOAD PER PROFILE)	97 L.F.
(27)	CONSTRUCT JUNCTION STRUCTURE PER A.P.W.A. STD. PLAN 331-2.	1 EA.
(28)	REMOVE EXISTING RIP-RAP.	25 S.F.
(29)	JOIN EXISTING 24" R.C.P. WITH CONC. COLLAR PER A.P.W.A. STD. NO. 380-2.	1 EA.

AS-BUILT PLAN

JULY 26, 1999

IMPORTANT NOTICE
Section 4216/4217 of the Government Code requires a Dig Alert Identification Number be issued before a "Permit to Excavate" will be valid. For your Dig Alert I.D. Number call Underground Service Alert TOLL FREE 1-800-422-4133 Two working days before you dig.

BENCH MARK: CG 3733

RDBM TAG IN WESTERLY CURB 5 FEET SOUTH OF BCR 78 FEET NORTH AND 42 FEET WEST OF C/L INT. VALLEY BOULEVARD AND LEMON AVENUE.

ELEV.=519.40

REVISIONS

NO.	DATE	BY	DESCRIPTION	APP'D	DATE
⚠	7/26/99	CEV	ADDED BOLLARDS AND WROUGHT IRON FENCE		7/26/99

REGISTERED PROFESSIONAL ENGINEER — DAVID G. GILBERTSON — NO. 46624 EXP. 6/30/03 — CIVIL — STATE OF CALIFORNIA

RKA CIVIL ENGINEERS INC.
398 S. LEMON CREEK DRIVE • SUITE E • WALNUT • CA • 91789
(909) °702•(626) 331-8323 • FAX (909) 594-2658
WWW.RKACIVIL.COM

DAVID G. GILBERTSON RCE 46624 — 8/5/98 DATE

PLAN APPROVED BY:
CITY OF WALNUT

RONALD L. KRANZER
CITY ENGINEER — 8/6/98 DATE

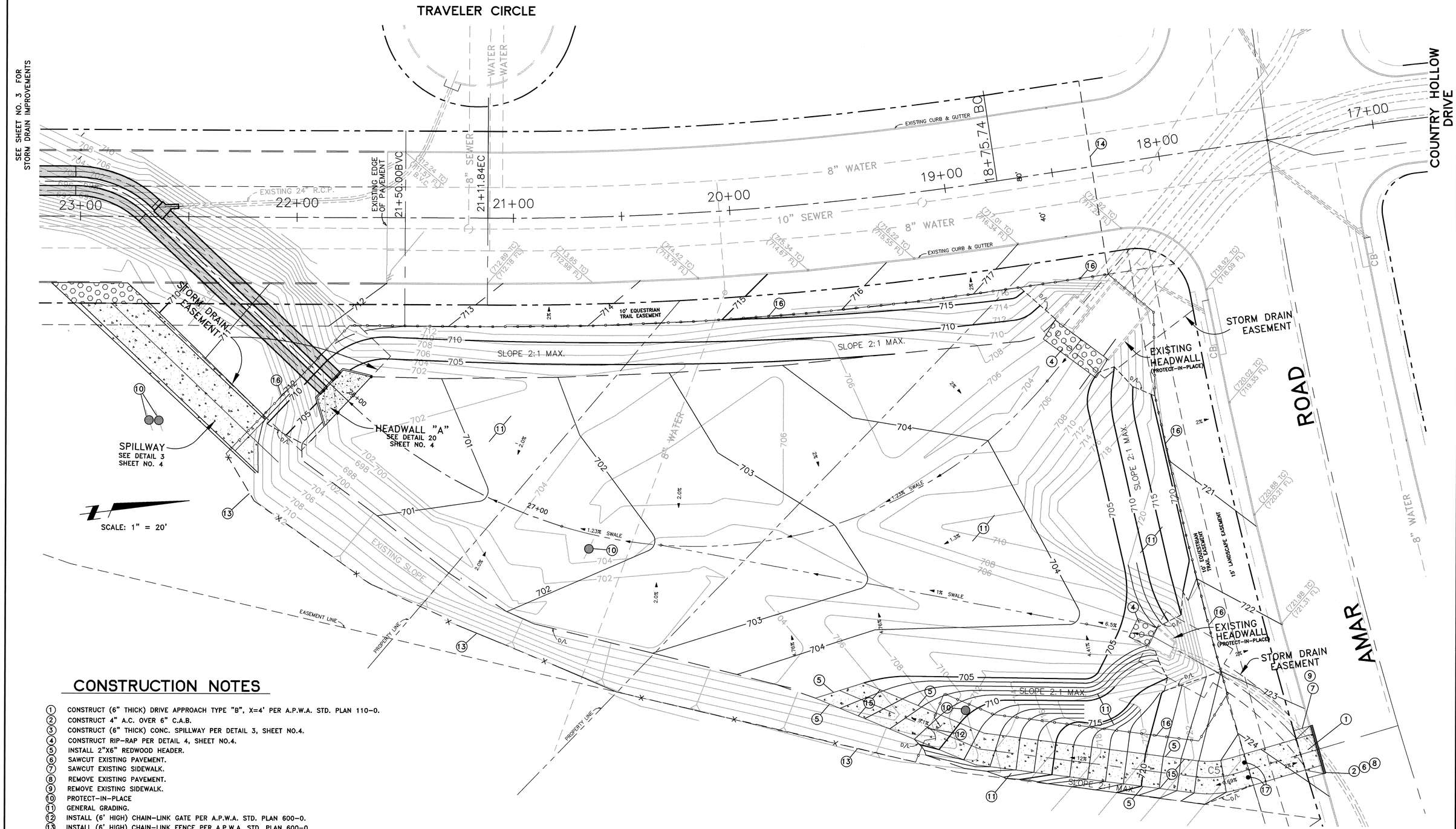
CITY OF WALNUT

IMPROVEMENT PLAN
AMAR RETENTION BASIN &
MEADOWPASS ROAD STORM DRAIN

SHEET 1 OF 4 SHEETS

07/22/99 FILE: AMAR-AB1.DWG J.N. 178620

191 A



CONSTRUCTION NOTES

(1) CONSTRUCT (6" THICK) DRIVE APPROACH TYPE "B", X=4' PER A.P.W.A. STD. PLAN 110-0.
(2) CONSTRUCT 4" A.C. OVER 6" C.A.B.
(3) CONSTRUCT (6" THICK) CONC. SPILLWAY PER DETAIL 3, SHEET NO.4.
(4) CONSTRUCT RIP-RAP PER DETAIL 4, SHEET NO.4.
(5) INSTALL 2"X6" REDWOOD HEADER.
(6) SAWCUT EXISTING PAVEMENT.
(7) SAWCUT EXISTING SIDEWALK.
(8) REMOVE EXISTING PAVEMENT.
(9) REMOVE EXISTING SIDEWALK.
(10) PROTECT-IN-PLACE
(11) GENERAL GRADING.
(12) INSTALL (6' HIGH) CHAIN-LINK GATE PER A.P.W.A. STD. PLAN 600-0.
(13) INSTALL (6' HIGH) CHAIN-LINK FENCE PER A.P.W.A. STD. PLAN 600-0.
(14) REPLACE EXISTING CHAIN-LINK FENCE AND GATE PER A.P.W.A. STD. PLAN 600-0.
(15) CONSTRUCT 4" A.C. OVER 6" C.A.B. VEHICULAR ACCESS RAMP PER DETAIL 15 ON SHEET NO.4
(16) CONSTRUCT 6' HIGH WROUGHT IRON FENCE.
(17) CONSTRUCT REMOVABLE PIPE BOLLARDS.

AS-BUILT PLAN

JULY 26, 1999

REVISIONS					
NO.	DATE	BY	DESCRIPTION	APP'D	DATE
1	7/21/99	CEV	REVISED ENTIRE SHEET		7/26/99

REGISTERED PROFESSIONAL ENGINEER
DAVID G. GILBERTSON
NO. 46624
EXP. 6/30/03
CIVIL
STATE OF CALIFORNIA

RKA CIVIL ENGINEERS INC.
398 S. LEMON CREEK DRIVE-SUITE E-WALNUT-CA-91789
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8/5/98
DAVID G. GILBERTSON RCE 46624 DATE

PLAN APPROVED BY:
CITY OF WALNUT

8/6/98
RONALD L. KRANZER DATE
CITY ENGINEER

CITY OF WALNUT
GRADING PLAN
AMAR ROAD RETENTION BASIN

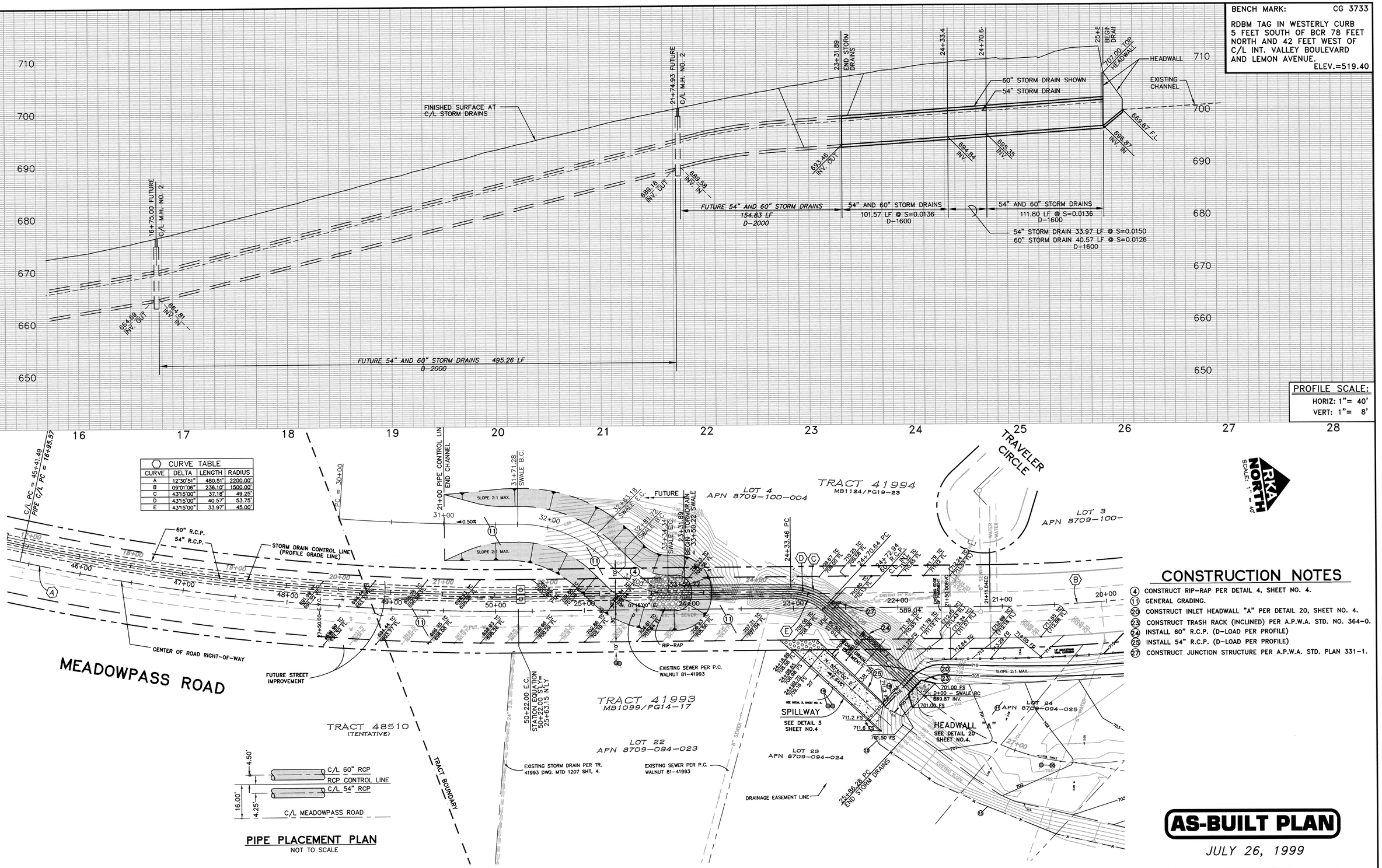
SHEET 2 OF 4 SHEETS

07/22/99 FILE: 178620/AMAR-AB2.DWG J.N. 178-620

191 B

BENCH MARK: CG 3733

RDBM TAG IN WESTERLY CURB 5 FEET SOUTH OF BCR 78 FEET NORTH AND 42 FEET WEST OF C/L INT. VALLEY BOULEVARD AND LEMON AVENUE.
ELEV.=519.40



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

CURVE TABLE			
CURVE	DELTA	LENGTH	RADIUS
A	12°30'51"	480.51'	2200.00'
B	09°01'06"	236.10'	1500.00'
C	4°31'5'00"	37.18'	49.25'
D	4°31'5'00"	40.57'	53.75'
E	4°31'5'00"	33.97'	45.00'

PIPE PLACEMENT PLAN
NOT TO SCALE

CONSTRUCTION NOTES

(4) CONSTRUCT RIP-RAP PER DETAIL 4, SHEET NO. 4.
(11) GENERAL GRADING.
(20) CONSTRUCT INLET HEADWALL "A" PER DETAIL 20, SHEET NO. 4.
(23) CONSTRUCT TRASH RACK (INCLINED) PER A.P.W.A. STD. NO. 364-0.
(24) INSTALL 60" R.C.P. (D-LOAD PER PROFILE)
(25) INSTALL 54" R.C.P. (D-LOAD PER PROFILE)
(27) CONSTRUCT JUNCTION STRUCTURE PER A.P.W.A. STD. PLAN 331-1.

AS-BUILT PLAN

JULY 26, 1999

REVISIONS

NO.	DATE	BY	DESCRIPTION	APP'D	DATE
1	7/26/99	CEV	REVISED ENTIRE SHEET		7/26/99

REGISTERED PROFESSIONAL ENGINEER
DAVID G. GILBERTSON
NO. 46624
EXP. 6/30/03
CIVIL
STATE OF CALIFORNIA

RKA CIVIL ENGINEERS INC.
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DAVID G. GILBERTSON RCE 46624 — 8/5/98 DATE

PLAN APPROVED BY:
CITY OF WALNUT

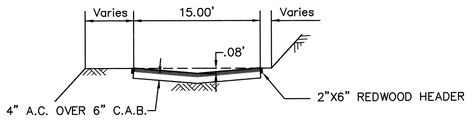
RONALD L. KRANZER — 8/6/98 DATE
CITY ENGINEER

CITY OF WALNUT
STORM DRAIN FACILITIES
MEADOWPASS ROAD
APPROX. 500' SOUTH OF AMAR ROAD

SHEET 3 OF 4 SHEETS

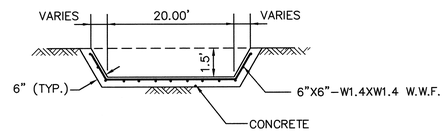
7/22/99 FILE: AMAR-AB3.DWG J.N. 178620

191 C



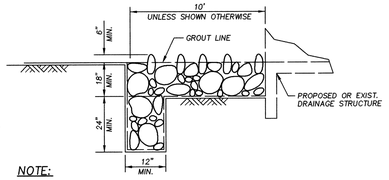
VEHICULAR ACCESS RAMP DETAIL 15

N.T.S.



CONCRETE SPILLWAY DETAIL 3

N.T.S.



NOTE:

RIP-RAP SHALL CONSIST OF ROCK HAVING A DRY WEIGHT NOT LESS THAN 160 LBS. PER CU.FT. ALL RIP-RAP SHALL BE PLACED TO FORM A ROUGH UNEVEN SURFACE WITH PORTIONS EXTENDING 6"± ABOVE FINISH SURFACE & WITH FULL P.C.C. GROUT PENETRATION FOR THE LOWER 18". THE MIX OF RIP-RAP ROCK SHALL BE AS FOLLOWS:

STONE GRADATION

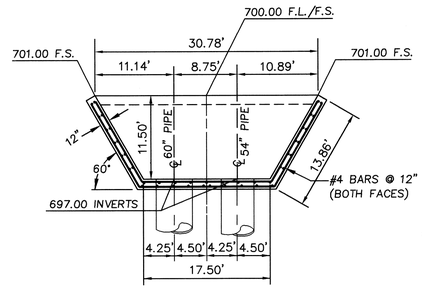
WT. LBS.	% LIGHTER BY WT.
400-500 #	0 - 5
175-300 #	50 - 100
50-125 #	95 - 100

GROUT:

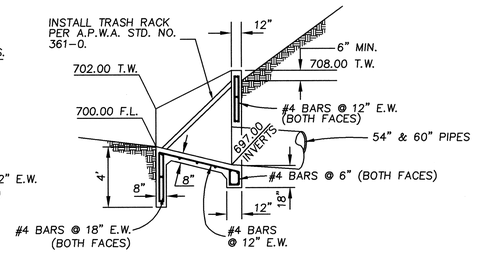
GROUT SHALL CONSIST OF 5 1/2 SACK TYPE II PORTLAND CEMENT FINE AND COARSE AGGREGATE (3/4" MAX.), WATER AND AN AIR INTRAINING AGENT.

RIP-RAP DETAIL 4

N.T.S.



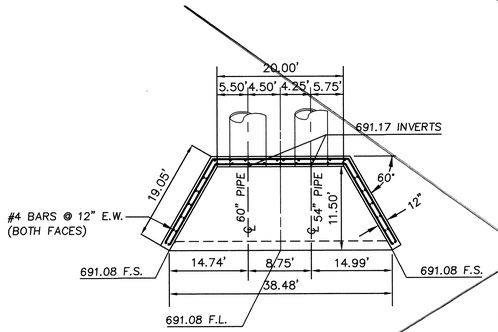
PLAN VIEW
NO SCALE



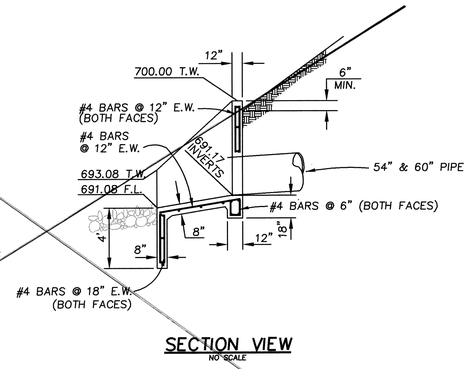
SECTION VIEW
NO SCALE

INLET HEADWALL "A" DETAIL 20

N.T.S.



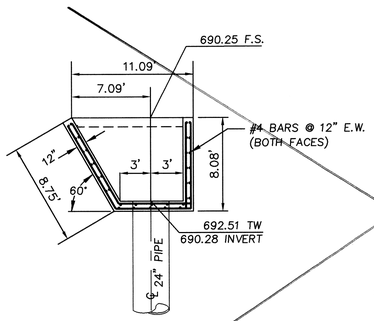
PLAN VIEW
NO SCALE



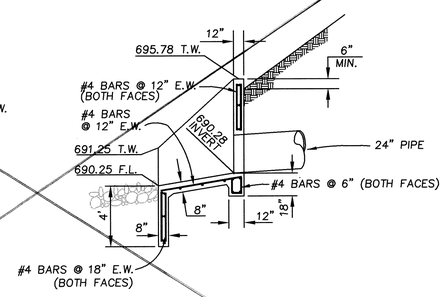
SECTION VIEW
NO SCALE

OUTLET HEADWALL "B" DETAIL 21

N.T.S.



PLAN VIEW
NO SCALE



SECTION VIEW
NO SCALE

OUTLET HEADWALL "C" DETAIL 22

N.T.S.

AS-BUILT PLAN

JULY 26, 1999

NO.	DATE	BY	DESCRIPTION	APP'D	DATE
1	7/26/99	CEV	REVISED ENTIRE SHEET	RJK	7/26/99

REGISTERED PROFESSIONAL ENGINEER
DAVID G. GILBERTSON
NO. 46624
EXP. 6/30/99
CIVIL
STATE OF CALIFORNIA

PLAN PREPARED BY:
RKA Civil Engineers Inc.
398 S. Lemon Creek Drive, Suite E Walnut, California 91789
(909) 594-9702 (818) 331-8323 Fax (909) 594-2658

8/5/98
DAVID G. GILBERTSON RCE 46624 DATE

CITY OF WALNUT

8/6/98
RONALD L. KRANZER DATE
CITY ENGINEER

CITY OF WALNUT

AMAR RETENTION BASIN
DETAILS

SHEET 4 OF 4 SHEETS

07/21/99 FILE: 178620/AMAR-AB4.DWG JN 178-620

191D