SHEET 1 OF 2 SHEETS
ACREAGE: 3.478 ACRES
21 LOTS AND LOTS A & B

[TENTATIVE TRACT 13522]

BLOCK: 5055
MODULE: 33

TRACT NO. 13522

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF ORANGE, STATE OF CALIFORNIA

BEING A SUBDIVISION OF LOT 45 OF TRACT 13061 AS FILED IN BOOK 593, PAGES 39 THROUGH 44 OF MISCELLANEOUS MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

HUNSAKER & ASSOCIATES SAN DIEGO, INC.
JOHN W. HILL JR. L.S. 5669 DATE OF SURVEY JUNE, 1988

ACCEPTED AND FILED AT THE REQUEST OF
FIRST AMERICAN TITLE INS CO.
DATE DEC. 16, 1988
TIME 12:50 P.M. FEE $8.00
INSTRUMENT #88-656292
BOOK 618 PAGE 49 O.M.
LEE A. BRANCH
COUNTY RECORDER
BY Jana Green

WE, THE UNDERSIGNED, BEING ALL THE PARTIES HAVING ANY RECORD TITLE INTEREST IN THE LAND COVERED BY THIS MAP, DO HEREBY CONSENT TO THE PREPARATION AND RECORDATION OF SAID MAP AS SHOWN WITHIN THE DISTINCTIVE BORDER LINE. WE HEREBY DEDICATE TO THE PUBLIC FOR STREET PURPOSES: HIGHLANDS AVENUE.

WE ALSO HEREBY RELEASE AND RELINQUISH TO THE COUNTY OF ORANGE, ALL VEHICULAR ACCESS RIGHTS TO HIGHLANDS AVENUE AND ALICIA PARKWAY, EXCEPT AT STREET INTERSECTION.

WE ALSO HEREBY DEDICATE TO MOULTON NIGUEL WATER DISTRICT, THE EASEMENTS FOR WATER AND SEWER PIPELINE AND ACCESS PURPOSES AS SHOWN HEREIN, WHICH EASEMENTS SHALL BE SUBJECT TO THE SAME TERMS AND CONDITIONS AS ARE SHOWN IN THAT CERTAIN EASEMENT RECORDED MAY 2, 1980, IN BOOK 13597, PAGES 195 THROUGH 197, INCLUSIVE, OF OFFICIAL RECORDS OF THE COUNTY OF ORANGE.

SHAPELL INDUSTRIES, INC., A DELAWARE CORPORATION

BY: Nathan Shapell
NATHAN SHAPELL
PRESIDENT

BY: Margaret Leong
MARGARET LEONG
SECRETARY

STATE OF CALIFORNIA)
Los Angeles) SS
COUNTY OF ~~ORANGE~~)

ON THIS 16TH DAY OF September, 1988, BEFORE ME Bette Jo Howlett, A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED Nathan Shapell AND Margaret Leong, PERSONALLY KNOWN TO ME (OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE) TO BE THE — PRESIDENT AND — SECRETARY, RESPECTIVELY, OF SHAPELL INDUSTRIES, INC., THE CORPORATION THAT EXECUTED THE WITHIN INSTRUMENT AND KNOWN TO ME (OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE) TO BE THE PERSONS WHO EXECUTED THE WITHIN INSTRUMENT ON BEHALF OF SAID CORPORATION AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE SAME.

WITNESS MY HAND:

Bette Jo Howlett
NOTARY PUBLIC IN AND FOR SAID STATE

Bette Jo Howlett
NAME (PRINTED)
MY PRINCIPAL PLACE OF BUSINESS IS IN Los Angeles COUNTY.

MY COMMISSION EXPIRES: March 26, 1989

CERTIFICATE OF ACCEPTANCE:

THE UNDERSIGNED, BEING THE DULY APPOINTED AGENT OF THE MOULTON NIGUEL WATER DISTRICT, A PUBLIC AGENCY, ORANGE COUNTY, CALIFORNIA, PURSUANT TO ITS RESOLUTION NO. 81-29 DOES HEREBY ACCEPT ON BEHALF OF SAID DISTRICT THE GRANT OF ALL INTERESTS IN REAL ESTATE FOR PUBLIC PURPOSES AS SHOWN ON THIS TRACT MAP BY AND BETWEEN MOULTON NIGUEL WATER DISTRICT AND S. & S. CONSTRUCTION CO., AND DOES HEREBY CERTIFY THAT THE GRANTEE CONSENTS TO THE RECORDATION OF SAID TRACT.

Carlo H. Habash
CARLO H. HABASH
DIRECTOR OF ENGINEERING

STATE OF CALIFORNIA)
) SS
COUNTY OF ORANGE)

ON THIS 12 DAY OF October, 1988, BEFORE ME A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED CARLO H. HABASH, PERSONALLY KNOWN TO ME TO BE THE DIRECTOR OF ENGINEERING OF MOULTON NIGUEL WATER DISTRICT, A PUBLIC AGENCY, AND KNOWN TO ME TO BE THE PERSON WHO EXECUTED THE WITHIN INSTRUMENT ON BEHALF OF SAID PUBLIC AGENCY AND ACKNOWLEDGED TO ME THAT SUCH PUBLIC AGENCY EXECUTED THE SAME.

WITNESS MY HAND:

Valerie L. Gavin
NOTARY PUBLIC IN AND FOR SAID STATE

Valerie L. Gavin
NAME
MY PRINCIPAL PLACE OF BUSINESS IS IN ORANGE COUNTY.

MY COMMISSION EXPIRES: 5-1-92

I HEREBY CERTIFY THAT I AM A LICENSED LAND SURVEYOR OF THE STATE OF CALIFORNIA; THAT THIS MAP CONSISTING OF 2 SHEETS AND THE TRUE AND COMPLETE SURVEY MADE IN JUNE, 1988, WHICH IT CORRECTLY REPRESENTS WERE BOTH MADE BY ME OR UNDER MY DIRECTION; THAT THE MONUMENTS ARE OF THE CHARACTER AND OCCUPY, OR WILL OCCUPY, THE POSITIONS INDICATED BY SAID MAP AND MONUMENT NOTES THEREON; AND THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

LICENSED LAND SURVEYOR
JOHN W. HILL JR.
L.S. 5669
STATE OF CALIFORNIA

John W. Hill Jr. 7-19-88
JOHN W. HILL JR., L.S. 5669
REGISTRATION EXPIRES 9-30-91

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP AND HAVE FOUND IT TO BE SUBSTANTIALLY IN CONFORMANCE WITH THE TENTATIVE MAP AS FILED WITH, AMENDED AND APPROVED BY THE ORANGE COUNTY SUBDIVISION COMMITTEE; THAT ALL PROVISIONS OF THE SUBDIVISION MAP ACT AND COUNTY SUBDIVISION REGULATIONS HAVE BEEN COMPLIED WITH AND I AM SATISFIED SAID MAP IS TECHNICALLY CORRECT.

DATED THIS 30th DAY OF November, 1988.

C. R. NELSON
COUNTY SURVEYOR

BY: Paul A Cuerno LS4136
DEPUTY EXP 6/30/92

STATE OF CALIFORNIA)
) SS
COUNTY OF ORANGE)

I HEREBY CERTIFY TO THE RECORDER OF ORANGE COUNTY THAT THE PROVISIONS OF THE SUBDIVISION MAP ACT HAVE BEEN COMPLIED WITH REGARDING DEPOSITS TO SECURE THE PAYMENT OF TAXES OR SPECIAL ASSESSMENTS COLLECTED AS TAXES ON THE LAND COVERED BY THIS MAP.

DATED THIS ____ DAY OF _____, 1988.

LINDA D. ROBERTS
CLERK OF THE BOARD OF SUPERVISORS

STATE OF CALIFORNIA)
) SS
COUNTY OF ORANGE)

I HEREBY CERTIFY THAT ACCORDING TO THE RECORDS OF MY OFFICE THERE ARE NO LIENS AGAINST THE LAND COVERED BY THIS MAP OR ANY PART THEREOF FOR UNPAID STATE, COUNTY, MUNICIPAL OR LOCAL TAXES OR SPECIAL ASSESSMENTS COLLECTED AS TAXES, ~~EXCEPT TAXES OR SPECIAL ASSESSMENTS COLLECTED AS TAXES NOT YET PAYABLE~~.

DATED THIS 18 DAY OF October, 1988.

ROBERT L. CITRON
COUNTY TREASURER-TAX COLLECTOR

BY: David Sabrong
DEPUTY TREASURER-TAX COLLECTOR

STATE OF CALIFORNIA)
) SS
COUNTY OF ORANGE)

I HEREBY CERTIFY THAT THIS MAP WAS PRESENTED FOR APPROVAL TO THE BOARD OF SUPERVISORS OF ORANGE COUNTY AT A REGULAR MEETING THEREOF HELD ON THE 13TH DAY OF DECEMBER, 1988, AND THAT THEREUPON SAID BOARD DID, BY AN ORDER DULY PASSED AND ENTERED, APPROVE SAID MAP AND DID ACCEPT ON BEHALF OF THE PUBLIC, SUBJECT TO IMPROVEMENTS, THE DEDICATION FOR STREET PURPOSES OF: HIGHLANDS AVENUE.

AND DID ALSO ACCEPT ON BEHALF OF THE COUNTY OF ORANGE:

THE VEHICULAR ACCESS RIGHTS TO HIGHLANDS AVENUE AND ALICIA PARKWAY AS RELEASED AND RELINQUISHED.

DATED THIS 13TH DAY OF December, 1988.

Linda D. Roberts
LINDA D. ROBERTS
CLERK OF THE BOARD OF SUPERVISORS

SHEET 2 OF 2 SHEETS
ACREAGE: 3.478 ACRES
21 LOTS AND LOTS A & B

[TENTATIVE TRACT 13522]

TRACT NO. 13522

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF ORANGE, STATE OF CALIFORNIA

HUNSAKER & ASSOCIATES SAN DIEGO, INC.
JOHN W. HILL JR. L.S. 5669 DATE OF SURVEY JUNE, 1988

MONUMENT NOTES:

2" I.P. TAGGED L.S. 5669 OR 8" S. & W. STAMPED L.S. 5669 IN ASPHALT HAVING A THICKNESS OF 2" OR MORE OR LEAD AND TAG L.S. 5669 IN CONCRETE TO BE SET AT ALL TRACT CORNERS, EXCEPT B.C.'S, E.C.'S, P.R.C.'S AND P.C.C.'S WHICH ABUT A STREET AND ARE NOT TRACT CORNERS MARKING SIDE LOT LINES, WITHIN 90 DAYS AFTER ACCEPTANCE OF IMPROVEMENTS, UNLESS OTHERWISE NOTED.

1" I.P. TAGGED L.S. 5669 OR 8" S. & W. STAMPED L.S. 5669 IN ASPHALT HAVING A THICKNESS OF 2" OR MORE OR LEAD AND TAG L.S. 5669 IN CONCRETE TO BE SET AT ALL LOT CORNERS, EXCEPT B.C.'S, E.C.'S, P.R.C.'S AND P.C.C.'S WHICH ABUT A STREET AND ARE NOT LOT CORNERS MARKING SIDE LOT LINES, WITHIN 90 DAYS AFTER ACCEPTANCE OF IMPROVEMENTS, UNLESS OTHERWISE NOTED.

8" S. & W. STAMPED L.S. 5669 IN ASPHALT HAVING A THICKNESS OF 2" OR MORE OR A LEAD AND TAG L.S. 5669 IN CONCRETE OR 2" I.P. TAGGED L.S. 5669 IN MEDIAN STRIP TO BE SET AT ALL CENTERLINE INTERSECTIONS, B.C.'S, E.C.'S, P.R.C.'S, P.C.C.'S AND ALL OTHER CENTERLINE POINTS OF CONTROL WITHIN 90 DAYS AFTER ACCEPTANCE OF IMPROVEMENTS, UNLESS OTHERWISE NOTED.

- ⊙ INDICATES 1" IRON PIPE TAGGED R.C.E. 23956 TO BE SET PER TRACT NO. 13061, M.M. 593/39-44
- ○ INDICATES 8" S. & W. STAMPED R.C.E. 23956 TO BE SET PER TRACT NO. 13061, M.M. 593/39-44.
- ● INDICATES FOUND MONUMENT AS NOTED.
- ◪ INDICATES FOUND O.C.S. TYPE "B" WELL MONUMENT WITH HEX BAR PER O.C.S. A/7-8, PG. 1324 AND/OR 1325 AS SHOWN ON P.M.B. 92/43-46 AND TRACT NO 13061, M.M. 593/39-44.

BASIS OF BEARINGS:

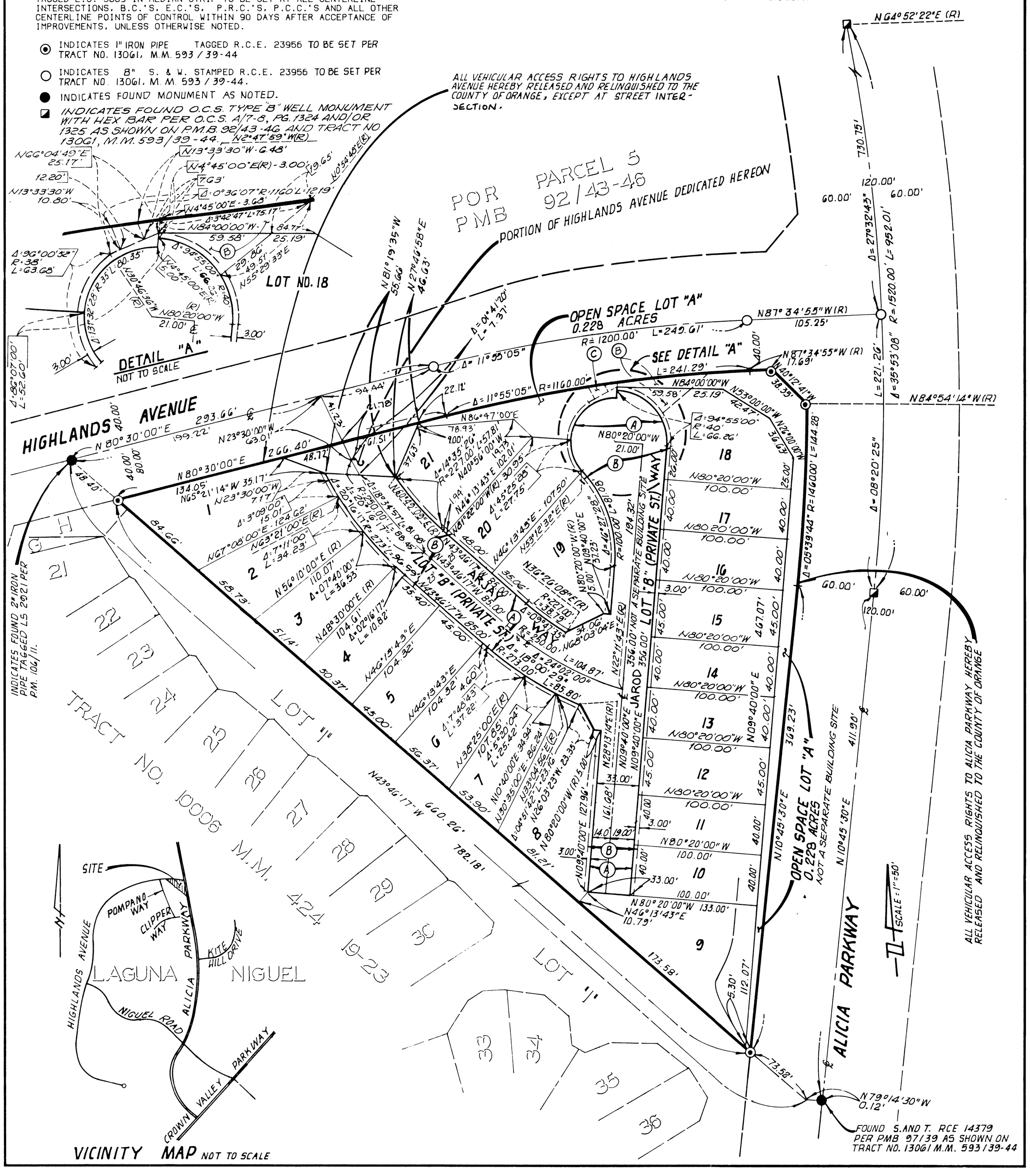
THE BEARING OF N. 10° 45' 30" E. AS SHOWN FOR THE CENTERLINE OF ALICIA PARKWAY ON TRACT NO. 13061, M.M. 593/39-44 WAS USED AS THE BASIS OF BEARINGS FOR THIS MAP.

EASEMENT NOTES:

(A) INDICATES NON-EXCLUSIVE EASEMENT FOR INGRESS/EGRESS FOR THE BENEFIT OF LOTS 1 THROUGH 21

(B) INDICATES EASEMENT FOR SEWER AND WATER PURPOSES TO MOULTON NIGUEL WATER DISTRICT.

(C) INDICATES 12' WIDE EASEMENT FOR PRIVATE STORM DRAIN PURPOSES AS RESERVED HEREON.

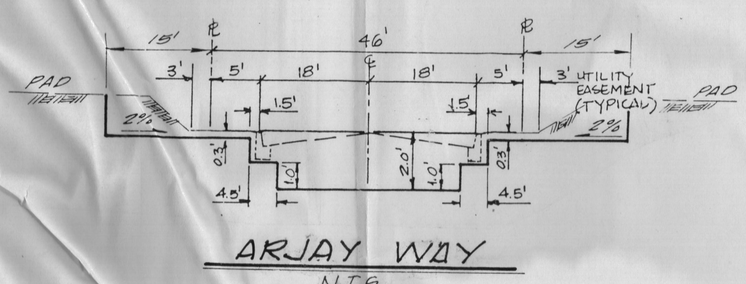


PRECISE GRADING PLAN
TRACT NO. 13522

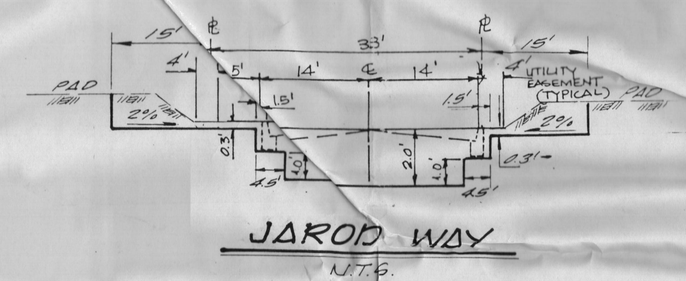
PRECISE GRADING NOTES :

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE GRADING CODE OF THE COUNTY OF ORANGE AND ANY SPECIAL REQUIREMENTS OF THE PERMIT. A COPY OF THE GRADING CODE AND MANUAL SHALL BE RETAINED ON THE JOB SITE WHILE WORK IS IN PROGRESS, WHEN REFERENCED ON THE PLANS. A COPY OF EMA STANDARD PLANS SHALL ALSO BE RETAINED ON THE SITE.
2. GRADING SHALL NOT BE STARTED WITHOUT FIRST NOTIFYING THE DISTRICT GRADING INSPECTOR. A PRE-GRADING MEETING ON THE SITE IS REQUIRED BEFORE START OF GRADING WITH THE FOLLOWING PEOPLE PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOIL ENGINEER, GEOLOGIST, DISTRICT GRADING INSPECTOR AND WHEN REQUIRED THE ARCHAEOLOGIST AND PALEONTOLOGIST. THE REQUIRED INSPECTIONS FOR GRADING WILL BE EXPLAINED AT THIS MEETING.
3. AN APPROVED COPY OF THE GRADING PLAN SHALL BE ON THE PERMITTED SITE WHILE WORK IS IN PROGRESS.
4. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN 2 FOOT HORIZONTAL TO 1 FOOT VERTICAL (2:1) EXCEPT WHERE SPECIFICALLY APPROVED OTHERWISE.
5. FILLS SHALL BE COMPACTED THROUGHOUT TO A MINIMUM OF 90% RELATIVE DENSITY. AGGREGATE BASE FOR ASPHALTIC AREAS SHALL BE COMPACTED TO MINIMUM 95% RELATIVE COMPACTION. MAXIMUM DENSITY SHALL BE DETERMINED BY UNIFORM BUILDING CODE STD. NO. 70-1 (MODIFIED TO USE 5 LAYERS), OR APPROVED EQUIVALENT AND FIELD DENSITY BY UNIFORM BUILDING CODE STD. NO. 70-2 OR APPROVED EQUIVALENT.
6. AREAS TO RECEIVE FILL SHALL BE PROPERLY PREPARED AND APPROVED IN WRITING BY THE SOIL ENGINEER AND THE BUILDING OFFICIAL PRIOR TO PLACING FILL.
7. FILLS SHALL BE BENCHED INTO COMPETENT MATERIAL PER EMA STANDARD PLAN NO. 1322 AND/OR AS RECOMMENDED BY THE SOIL ENGINEER AND APPROVED BY EMA.
8. ALL EXISTING FILLS SHALL BE APPROVED BY THE BUILDING OFFICIAL OR REMOVED PRIOR TO PLACING ADDITIONAL FILLS.
9. EXISTING IRRIGATION LINES AND CISTERNS SHALL BE REMOVED, OR CRUSHED IN PLACE, AND APPROVED BY THE BUILDING OFFICIAL AND SOIL ENGINEER.
10. STOCK PILING OF EXCESS MATERIAL SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO EXCAVATION.
11. THE DESIGN ENGINEER, AS A CONDITION OF ROUGH GRADE APPROVAL, SHALL PROVIDE A BLUE TOP WITH ACCOMPANYING WITNESS STAKE, SET AT THE CENTER OF EACH PAD REFLECTING THE PAD ELEVATION FOR PRECISE PERMITS AND A BLUE TOP WITH WITNESS STAKE SET AT THE DRAINAGE SWALE HIGH POINT ELEVATION FOR PRELIMINARY PERMITS.
12. ALL TRENCH BACKFILLS SHALL BE TESTED AND APPROVED BY THE SOIL ENGINEER PER THE GRADING CODE.
13. THE ENGINEERING GEOLOGIST AND SOIL ENGINEER SHALL, AFTER CLEARING AND PRIOR TO THE PLACEMENT OF FILL IN CANYONS, INSPECT EACH CANYON FOR AREAS OF ADVERSE STABILITY AND TO DETERMINE THE PRESENCE OR ABSENCE OF SUBSURFACE WATER OR SPRING FLOW. IF NEEDED, SUBDRAINS WILL BE DESIGNED AND CONSTRUCTED
16. ALL CUT SLOPES SHALL BE INVESTIGATED BOTH DURING AND AFTER GRADING BY THE
14. SUBDRAIN OUTLETS SHALL BE COMPLETED AT THE BEGINNING OF THE SUBDRAIN CONSTRUCTION.
15. THE EXACT LOCATION OF THE SUBDRAINS SHALL BE SURVEYED IN THE FIELD FOR LINE/GRADE AND REFLECTED ON AS-GRADED PLANS.
16. ALL CUT SLOPES SHALL BE INVESTIGATED BOTH DURING AND AFTER GRADING BY THE ENGINEERING GEOLOGIST TO DETERMINE IF ANY SLOPE STABILITY PROBLEMS EXIST. SHOULD EXCAVATION GEOLOGIC ANY GEOLOGICAL HAZARDS OR POTENTIAL GEOLOGICAL HAZARDS, THE ENGINEERING GEOLOGIST SHALL SUBMIT RECOMMENDED TREATMENT OF THE BUILDING OFFICIAL FOR APPROVAL.
17. WHERE SUPPORT OR BUTTRESSING OF CUT AND NATURAL SLOPES IS DETERMINED TO BE NECESSARY BY THE ENGINEERING GEOLOGIST AND SOIL ENGINEER, THE SOIL ENGINEER SHALL SUBMIT OPTIONS, LOCATIONS AND CALCULATIONS TO THE BUILDING OFFICIAL PRIOR TO CONSTRUCTION. THE ENGINEERING GEOLOGIST AND SOIL ENGINEER SHALL OBSERVE AND TEST THE CONSTRUCTION OF THE BUTTRESSING AND CERTIFY TO THE STABILITY OF THE SLOPE AND ADJACENT STRUCTURES UPON COMPLETION.
18. WHEN CUT PADS ARE BROUGHT TO NEAR GRADE, THE ENGINEERING GEOLOGIST SHALL DETERMINE IF THE BEDROCK IS EXTENSIVELY FRACTURED OR FAULTED AND WILL READILY TRANSMIT WATER. IF CONSIDERED NECESSARY BY THE ENGINEERING GEOLOGIST AND SOIL ENGINEER, A COMPACTED FILL BLANKET WILL BE PLACED.
19. THE ENGINEERING GEOLOGIST SHALL PERFORM PERIODIC OBSERVATIONS AND SUBMIT A COMPLETE REPORT AND MAP UPON COMPLETION OF THE ROUGH GRADING.
20. THE COMPACTION INSPECTOR AND APPROVAL FROM THE SOIL ENGINEER SHALL INDICATE THE TYPE OF FIELD TESTING PERFORMED. EACH TEST SHALL BE IDENTIFIED WITH THE METHOD OF OBTAINING THE IN-PLACE DENSITY, WHETHER SAND CONE OR DRIVE RING OR NUCLEAR DEVICE AND SHALL BE SO NOTED FOR EACH TEST. SUFFICIENT MAXIMUM DENSITY DETERMINATIONS SHALL BE PERFORMED TO VERIFY THE ACCURACY OF THE MAXIMUM DENSITY CURVES USED BY THE FIELD TECHNICIAN.
21. THE SOILS ENGINEER AND ENGINEERING GEOLOGIST SHALL PERFORM SUFFICIENT OBSERVATIONS AND BE AVAILABLE DURING GRADING AND CONSTRUCTION TO VERIFY COMPLIANCE WITH THE PLANS, SPECIFICATIONS AND THE CODE WITHIN THEIR PURVIEW.
22. THE CIVIL ENGINEER SHALL BE AVAILABLE DURING GRADING TO VERIFY COMPLIANCE WITH THE PLANS, SPECIFICATIONS, CODE AND ANY SPECIAL CONDITIONS OF THE PERMIT WITHIN THEIR PURVIEW.
23. THE PERMITTEE IS RESPONSIBLE FOR DUST CONTROL MEASURES.
24. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE.
25. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE PERMITTEE.
26. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED TO PROTECT ADJOINING PROPERTIES DURING GRADING.
27. ANY EXISTING WATER WELLS SHALL BE ABANDONED IN COMPLIANCE WITH THE SPECIFICATIONS APPROVED BY ORANGE COUNTY, HUMAN SERVICES AGENCY, DIVISION OF ENVIRONMENTAL HEALTH.
28. ANY EXISTING OIL WELLS SHALL BE ABANDONED IN COMPLIANCE WITH THE ORANGE COUNTY OIL CODE TO THE APPROVAL OF EMA/REGULATION, SPECIAL SERVICES SECTION.
29. ANY EXISTING CESSPOOLS AND SEPTIC TANKS SHALL BE ABANDONED IN COMPLIANCE WITH THE UNIFORM PLUMBING CODE TO THE APPROVAL OF EMA/REGULATION, SPECIAL SERVICES SECTION AND/OR AS RECOMMENDED BY THE SOILS ENGINEER.
30. PRIOR TO FINAL APPROVAL, THE CIVIL ENGINEER SHALL CERTIFY TO THE BUILDING OFFICIAL THE AMOUNT OF EARTH MOVED DURING THE GRADING OPERATION.
31. THE PERMITTEE SHALL COMPLY WITH THE GRADING CODE REQUIREMENTS WHEN AN EXCESS OF 5,000 CUBIC YARDS OF EARTH IS TRANSPORTED TO OR FROM A PERMITTED SITE ON PUBLIC ROADWAYS.
32. ASPHALT CONCRETE SHALL BE CONSTRUCTED PER THE REQUIREMENTS OF EMA STANDARD PLAN 1805.
33. AGGREGATE BASE SECTION SHALL BE CONSTRUCTED PER EMA STANDARD PLAN 1804.
34. ALL CONCRETE STRUCTURES THAT COME IN CONTACT WITH THE ON-SITE SOILS SHALL BE CONSTRUCTED WITH TYPE II CEMENT, UNLESS DEEMED UNNECESSARY BY SOLUBLE SULPHATE-CONTENT TESTS CONDUCTED BY THE SOILS ENGINEER.
35. EXPORT SOIL MUST BE TRANSPORTED TO A LEGAL DUMP OR TO A PERMITTED SITE APPROVED BY THE DISTRICT GRADING INSPECTOR.
36. SLOPES EXCEEDING 5 FEET IN HEIGHT SHALL BE PLANTED WITH AN APPROVED PLANT MATERIAL. IN ADDITION, SLOPES EXCEEDING 10 FEET IN HEIGHT SHALL BE PROVIDED WITH AN APPROVED IRRIGATION SYSTEM, UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICIAL.
37. THE GRADING CONTRACTOR SHALL SUBMIT A STATEMENT OF COMPLIANCE TO THE APPROVED GRADING PLAN PRIOR TO FINAL APPROVAL.
38. ASPHALT SECTIONS MUST BE PER CODE; PARKING STALLS = 3" A/C OVER 6" A/B, DRIVES = 3" A/C OVER 10" (COMM.) 12" (INDUSTRIAL). OR: PRIOR TO ROUGH GRADE RELEASE FOR BUILDING PERMITS BY THE DISTRICT GRADING INSPECTOR, THE SOILS ENGINEER SHALL SUBMIT FOR APPROVAL, PAVEMENT SECTION RECOMMENDATIONS BASED ON "R" VALUE ANALYSIS OF THE SUBGRADE SOILS AND EXPECTED TRAFFIC INDICES.
39. PRELIMINARY SOIL AND GEOLOGY REPORTS AND ALL SUBSEQUENT REPORTS AS APPROVED BY EMA/REGULATION, GRADING SECTION ARE CONSIDERED A PART OF THE APPROVED GRADING PLAN.
40. ALL EXISTING DRAINAGE COURSES THROUGH THIS SITE SHALL REMAIN OPEN UNTIL FACILITIES TO HANDLE STORM WATER ARE APPROVED AND FUNCTIONAL; HOWEVER, IN ANY CASE, THE PERMITTEE SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO OBSTRUCTING NATURAL DRAINAGE PATTERNS.
41. GRADING OPERATIONS INCLUDING MAINTENANCE OF EQUIPMENT WITHIN ONE-HALF MILE OF A HUMAN OCCUPANCY SHALL NOT BE CONDUCTED BETWEEN THE HOURS OF 8:00 P.M. AND 7:00 A.M. DAILY, ON SUNDAY OR ON A FEDERAL HOLIDAY.
42. ROOF GUTTERS SHALL BE INSTALLED TO PREVENT ROOF DRAINAGE FROM FALLING ON MANUFACTURED SLOPES.
43. THE PERMITTEE SHALL GIVE REASONABLE NOTICE TO THE OWNER OF ADJOINING LANDS AND BUILDINGS PRIOR TO BEGINNING EXCAVATIONS WHICH MAY AFFECT THE LATERAL AND SUBJACENT SUPPORT OF THE ADJOINING PROPERTY. THE NOTICE SHALL STATE THE INTENDED DEPTH OF EXCAVATION AND WHEN THE EXCAVATION WILL COMMENCE. THE ADJOINING OWNER SHALL BE ALLOWED AT LEAST 30 DAYS AND REASONABLE ACCESS ON THE PERMITTED PROPERTY TO PROTECT HIS STRUCTURE, IF HE SO DESIRED, UNLESS OTHERWISE PROTECTED BY LAW.
44. IN CASE OF EMERGENCY CALL: WORK: (714) 898-3341
NAME: ALFREDO HOME: (714) 979-0760
45. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
46. EROSION CONTROL DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL.
47. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.
48. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM STREETS. CHECK BERMS AND BASINS.
49. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE TO BE DIRECTED TOWARD DESILTING FACILITIES.
50. THE PERMITTEE SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS INTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION. THIS NOTE ALSO APPLIES TO THE CONTRACTOR.
51. ALL CONSTRUCTION VEHICLES OR EQUIPMENT, FIXED OR MOBILE, OPERATED WITHIN 1000 FEET OF A DWELLING, SHALL BE EQUIPPED WITH PROPERLY OPERATING AND MAINTAINED MUFFLERS.
52. ALL OPERATIONS SHALL COMPLY WITH ORANGE COUNTY CODIFIED ORDINANCE DIVISION 6 (NOISE CONTROL).
53. STOCKPILING AND/OR VEHICLE STAGING AREAS SHALL BE LOCATED AS FAR AS PRACTICAL FROM DWELLINGS.
54. RETAINING WALLS BY SEPARATE PERMITS.

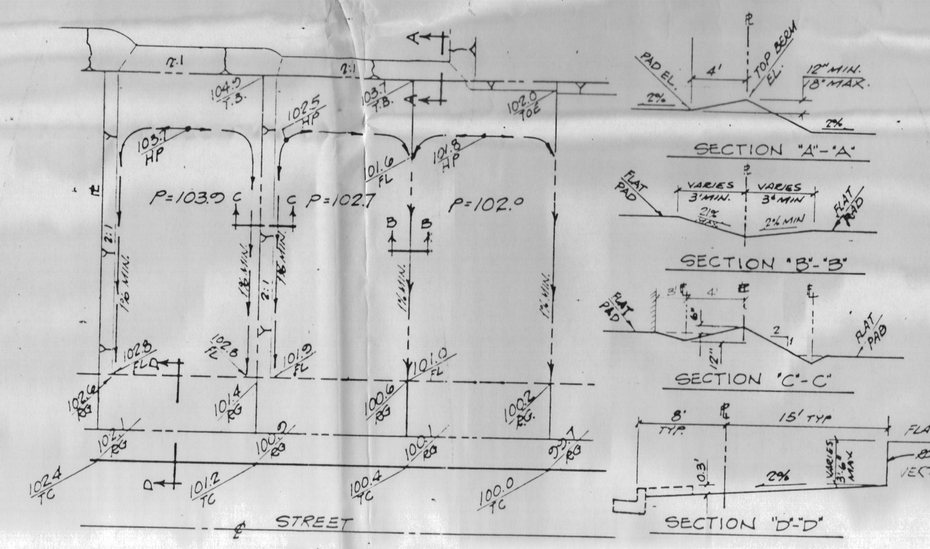
TYPICAL SECTIONS



ARJAY WAY
N.T.S.

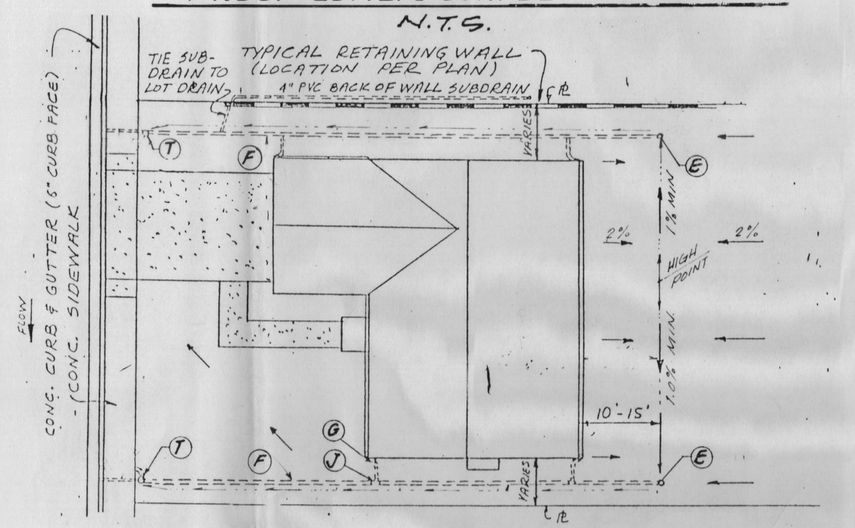


JAROD WAY
N.T.S.



TYPICAL ROUGH GRADE LOTS
REFER TO O.C.E.M.A. STD. PLAN 1320 AND DETAILS ON SHEET NO. 2 OF THIS PLAN.

TYPICAL LOT AREA DRAINS & ROOF GUTTER CONNECTION DETAIL
N.T.S.

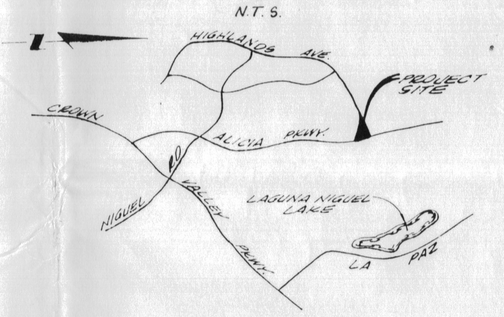


T 13522
Acoustical Information Only
Cond. 21 C. -

EARTHWORK QUANTITIES

CUT	FILL
735 C.Y.	735 C.Y.

VICINITY MAP
N.T.S.



BASIS OF BEARINGS:

THE BEARING OF N.04° 24'00"E FOR THAT CERTAIN COURSE IN THE WESTERLY BOUNDARY, OF PARCEL 2 SHOWN AS N.04°24'00"E. 380.64' ON MAP FILED IN BOOK 113 PAGE 29 OF PARCEL MAP RECORDS OF ORANGE COUNTY, CALIFORNIA.

BENCHMARK:

O.C.S. 3X-25-70 ELEV = 319.453
IN THE S.W. PART OF THE INT. OF NIGUEL RD. & ALICIA PKWY. 45.5' S.W. OF THE CENTER OF THE MEDIAN OF THE ROAD, 93' N.W. OF THE CENTER OF THE PROLONGATION OF THE MEDIAN OF THE PARKWAY TO THE S.W. SET IN THE TOP OF A 4'x 15' CONCRETE CATCH BASIN 1' HIGHER THAN THE GUTTER.

PERMIT NO.	
94-0003	
JOB ADDRESS	ROUGH GRADE PERMIT NO.
23688 ARJAY WAY	88-214,414

Designed by:	Date
Drafted by:	Date
Checked by:	11/16/89 Date

INSTRUCTION NOTES / QUANTITIES

NO	ITEM DESCRIPTION	QUANTITY	UNIT
E	CONST. NDS 1824 CATCH BASIN W/ FRAME & GRATE		
F	CONST. 4' (A, B, S) DRAIN BASIN PER EMA STD.		
G	CONST. DOWN SPOUT ADAPTER		
J	CONST. DRAIN INLET		EA.
U	CONST. DRAIN PER DETAIL ON SHT. 2		
T	CONST. UNDERSIDEWALK DRAIN PER DETAIL ON SHT. 2		
B	CONST. INTERCEPTOR DRAIN PER DETAIL ON SHT. 2		
K	CONST. 18" R.C.P. DRAIN LINE (2000 D)		
	EROSION CONTROL		
	SANDBAGS		

LEGEND:

B.W. BACK OF WALK
T.C. TOP OF CURB
F.L. FLOWLINE
TOP TOP OF SLOPE
TOE TOE OF SLOPE
INL. INLET OF DRAIN
G.B. GRADE BREAK
F.G. FINISH GRADE
R.G. ROUGH GRADE
F.S. FINISH SURFACE
INV. INVERT OF DRAIN
GRADED SWALE
SWALE HIGH POINT
PROPERTY LINE
CENTERLINE
FLOWLINE
E.P. EDGE OF PAVEMENT

820 EX. CONTOUR
820 FG PROP. CONTOUR
P.L. PROPERTY LINE
C.L. CENTERLINE
℄ DAYLIGHT LINE
EX HATCH FLOW
P.E. PAD ELEVATION
F.F. FINISH FLOOR ELEVATION
G.F.F. GARAGE FINISH FLOOR
B.V.C. BEGIN VERTICAL CURVE
E.V.C. END VERTICAL CURVE
P.I. POINT OF INTERSECTION
TOP OF SLOPE
TOE OF SLOPE
SUBDRAIN
CATCH BASIN
DEEPENED FOOTING

NOTE TO CONTRACTOR:

EXISTING UNDERGROUND UTILITIES ARE AS PER AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION AND ELEVATION IN THE FIELD.

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 THE ENGINEER AND THE COUNTY OF ORANGE, 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, THE ENGINEER OR THE COUNTY OF ORANGE.

REGISTERED PROFESSIONAL ENGINEER JAMES H. PARDUE No. 42798 Exp. 3-31-91 CIVIL STATE OF CALIFORNIA

NO	DESCRIPTION	SHT.	APP'D	DATE
5	ADDED SOUND WALL PER ACCOUSTICAL REPORT	SHT. 2		
4	REPLOT HOUSE ON LOT 8 (SHT. 2) DELETE RET. WALL DETAIL ON SHT. 2	2	(12-15-94)	
3	REPLOT HOUSES ON LOTS 1-8 & 19-21, REGRADE LOTS 19-21. REDRAW FOR CLARITY LOTS 1-8 & 19-21	2	(12-7-94)	
2	REVISE DRIVEWAY LOT 9 - RELOCATE LOT LINE, CHANGE LOT 8 & 9. ADD DRAINAGE EASMT. LOT 9. ADD TURN OUTS JAROD WY.	2		
1	REPLOT HOUSE, LOT #1 REVISE WALL LOCATION	2		

SOILS ENGINEER
LEIGHTON & ASSOCIATES
1151 DURYEA AVENUE
IRVINE, CALIFORNIA 92714
(714) 250 - 1421

GEOLOGIST
LEIGHTON & ASSOCIATES
1155 DURYEA AVENUE
IRVINE, CALIFORNIA 92714
(714) 250 - 1421

PREPARED BY
HUNSAKER & ASSOCIATES INC.
10179 HUENNEKENS ST., SUITE 200 SAN DIEGO, CA 92121
(619) 535-2150
JAMES H. PARDUE R.C.E. 42798 EXP. 3-31-91 DATE 11-15-89

PREPARED FOR
S&S CONSTRUCTION CO.
15330 GOLDEN WEST ST. • WESTMINSTER • CALIFORNIA
(714) 898 - 3341 • 92683

COUNTY OF ORANGE
PRECISE GRADING PLAN
TRACT NO. 13522
LOT 1 - 21 & LOT "A"

DATE:
SCALE:
DRAWN BY: J.L.
DESIGN BY: J.M.A.

SHEETS 1 OF 4 SHEETS

MAY 10 1994

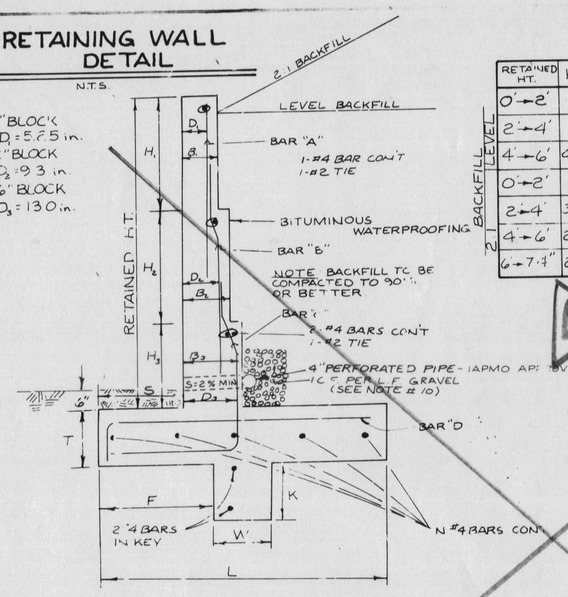
APPROVED FOR CLASS REC # 2, LOTS 1-8, 19-21 EXCEPT LOT 9 A 542 X 11 X 11 PER 220 # 1 M

DATE IDENTIFIER 5-10-94
DATE OF LATEST CHANGE:

T 13522 TITLE SHT. 24X36 - 5950.1101BF; Oct20 1204 26-Feb-89

RETAINING WALL DETAIL

N.T.S.



WALL SCHEDULE

RETAINED HT.	H_1	H_2	H_3	B_1	B_2	B_3	BAR "A"	BAR "B"	BAR "C"	BAR "D"	K	W	L	N	S	F	T
0'-2'	2'	—	—	8"	—	—	#4 @32"	—	—	#4 @16"	—	—	18'	2	6"	6"	12"
2'-4'	4'	—	—	8"	—	—	#4 @16"	—	—	#4 @16"	8'	8'	22'	3	1'	1'	12"
4'-6'	4'8"	1'4"	—	8"	12"	—	#5 @16"	#5 @16"	—	#4 @16"	18'	12'	3'	3	1'6"	1'6"	12"
0'-2'	2'	—	—	8"	—	—	#4 @32"	—	—	#4 @16"	4'	8'	18'	2	6"	6"	12"
2'-4'	3'4"	8"	—	8"	12"	—	#5 @16"	#5 @16"	—	#4 @16"	18'	12'	28'	3	1'6"	1'6"	12"
4'-6'	2'8"	3'4"	—	8"	12"	—	#5 @16"	#5 @8"	—	#4 @16"	36'	12'	50'	4	2'0"	2'0"	12"
6'-7'4"	2'8"	3'4"	1'4"	8"	12"	1'6"	#5 @16"	#5 @8"	#5 @8"	#5 @16"	48'	12'	60'	5	2'0"	2'0"	12"

BACKFILL LEVEL

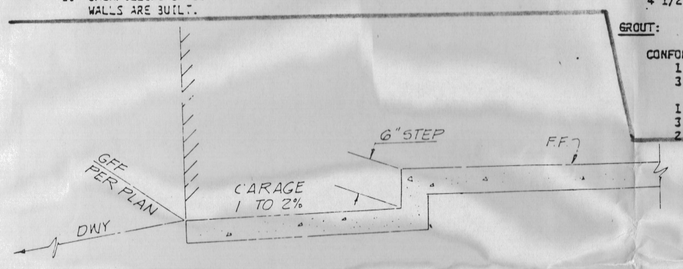
N.A.P.

NOTES:

1. GROUT SOLID ALL CELLS.
2. ALL FOOTINGS SHALL BE POURED ON UNDISTURBED GROUND OR UNDISTURBED ENGINEERED COMPACTED FILL.
3. WALL SHALL BE LAID TRUE AND PLUMB.
4. PROVISIONS SHALL BE MADE FOR ADJOINING CONSTRUCTION.
5. ALL SPLICES SHALL BE 48 BAR DIAMETERS.
6. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH APPLICABLE SECTIONS OF 1985 UNIFORM BUILDING CODE AND A.C.I. STANDARD 318-83.
7. ALL BARS SHALL BE BENT COLD.
8. CONTRACTOR SHALL VERIFY COMPATIBILITY OF DESIGN WITH EXISTING CONDITIONS PRIOR TO PLACEMENT OF FOOTING STEEL.
9. BACKFILL SHALL BE PER SOILS ENGINEER'S RECOMMENDATION.
10. SUBDRAIN SHALL BE 4" PERFORATED SCHEDULE 40 PVC PIPE WITH 3" PVC OUTLET PIPE AT 16'-0" MAXIMUM (THRU CELL NOT CONTAINING STEEL) PLACE 3 CF/LF OF GRAVEL AROUND PIPE, WITH FILTER FABRIC.

BACKFILLING:

1. BACKFILLING SHALL NOT BE PERMITTED UNTIL AT LEAST 7 DAYS AFTER THE WALLS ARE BUILT.



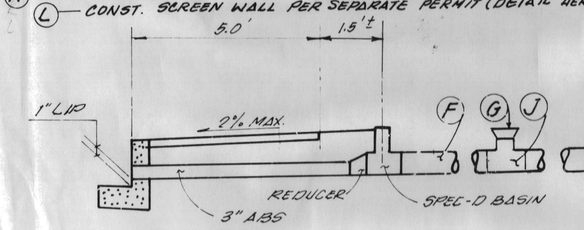
* DROPPED GARAGE FLOOR

N.T.S.

LOTS 5 & 19-21

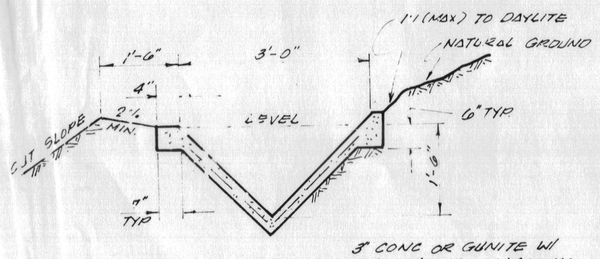
CONSTRUCTION NOTES:

- (J) — CONST. DRAIN FITTING
- (G) — CONST. DOWN SPOUT ADAPTER
- (E) — CONST. NDS 1223 CATCH BASIN & NDS 1212 GRATE
- (F) — CONST. 4" ABS, ASTM D2751, SDR 35 OR APPD. EQUAL
- (T) — CONST. UNDERWALK DRAIN PER DETAIL BELOW
- (H) — CONST. SIDE YARD DRAIN & WALK
- (K) — CONST. 18" R.C.P. DRAIN LINE
- (L) — CONST. SCREEN WALL PER SEPARATE PERMIT (DETAIL HEREON)



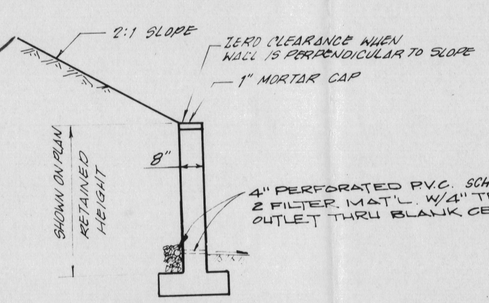
(T) UNDERWALK DRAIN

SCALE: N.T.S.



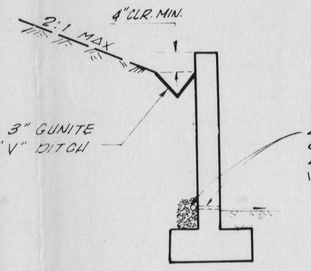
(B) STRUCTURE "B"

INTERCEPTOR DRAIN AT TOP OF CUT SLOPES



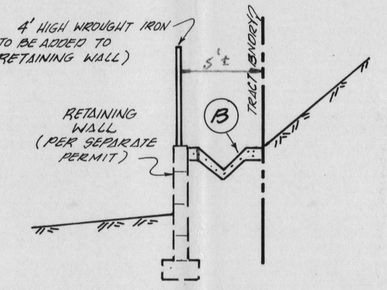
SECTION E-E

SCALE: N.T.S.



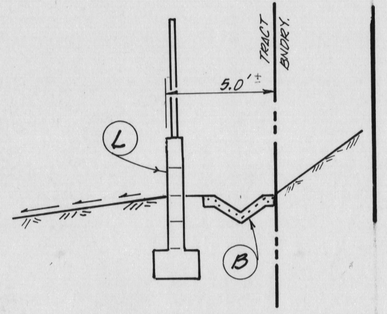
SECTION F-F

SCALE: N.T.S.



SECTION "X-X"

N.T.S.



SECTION Y-Y

N.T.S.

(L) SCREEN WALL

PER SEPARATE PERMIT

* "V" DITCH DETAIL

SCALE: N.T.S.

REINFORCE W/ 6"x6" W1.4 x W1.4 WELDED WIRE MESH

SPECIFICATIONS:

CONCRETE:

PORTLAND CEMENT PER ASTM C-150
f'c = 2000 PSI @ 28 DAYS "NO SPECIAL INSPECTION"
CEMENT TYPE PER SOILS ENGINEER'S RECOMMENDATION
ALL CONCRETE THAT COMES INTO CONTACT WITH THE ONSITE SOIL SHALL BE TYPE 5 "SULFATE RESISTANT CEMENT"

REINFORCED STEEL:

DEFORMED BILLET STEEL BARS; GRADE 40 PER ASTM A-615

CONCRETE BLOCK:

GRADE "N" HOLLOW UNIT BLOCK PER ASTM C-90, BLOCK TYPE, COLOR AND/OR ARCHITECTURAL FINISH PER LANDSCAPE PLANS
"NO SPECIAL INSPECTION"

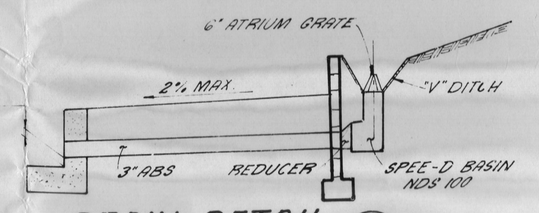
MORTAR:

TYPE "S" PER ASTM C-270
1 PART CEMENT
1/2 PART LIME PUTTY
4 1/2 PARTS SAND

GROUT:

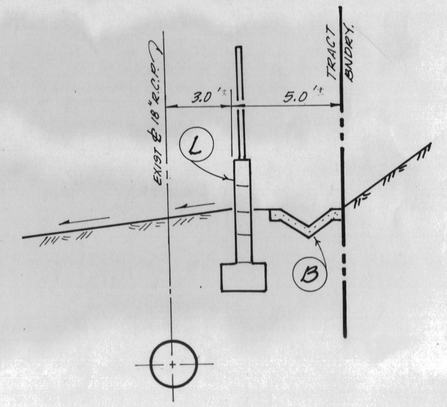
CONFORMING TO ASTM C-476
1 PART CEMENT
3 PARTS SAND
OR
1 PART CEMENT
3 PARTS SAND
2 PARTS PEA GRAVEL
GROUT SHALL BE OF FLUID CONSISTENCY

CONSTRUCT RETAINING WALLS PER SEPARATE PERMIT



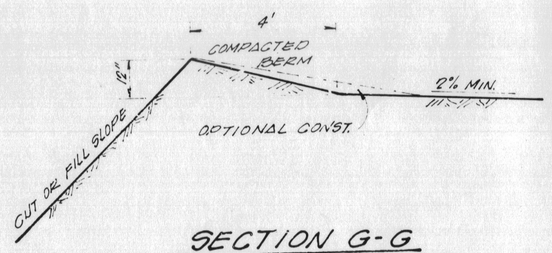
DRAIN DETAIL (U)

SCALE: N.T.S.



SECTION Z-Z

N.T.S.



SECTION G-G

TYP. FINISHED BERM

SCALE: N.T.S.

CURBS FROZEN

CONSULTING ENGINEER	DATE
S & S ENGINEERING DEPT.	DATE
S & S ARCHITECTURAL DEPT.	DATE 9/1/93

APPROVED FOR CONSTRUCTION
RELEASE # 2
LOTS 1-8, 19-21 TR 13522
S & S ENGINEER 3-7-94 DATE
S & S ARCHITECT 3-14-94 DATE
REVISED LOT 20 3-21-94
REVISED LOT 8 3-25-94

COUNTY OF ORANGE

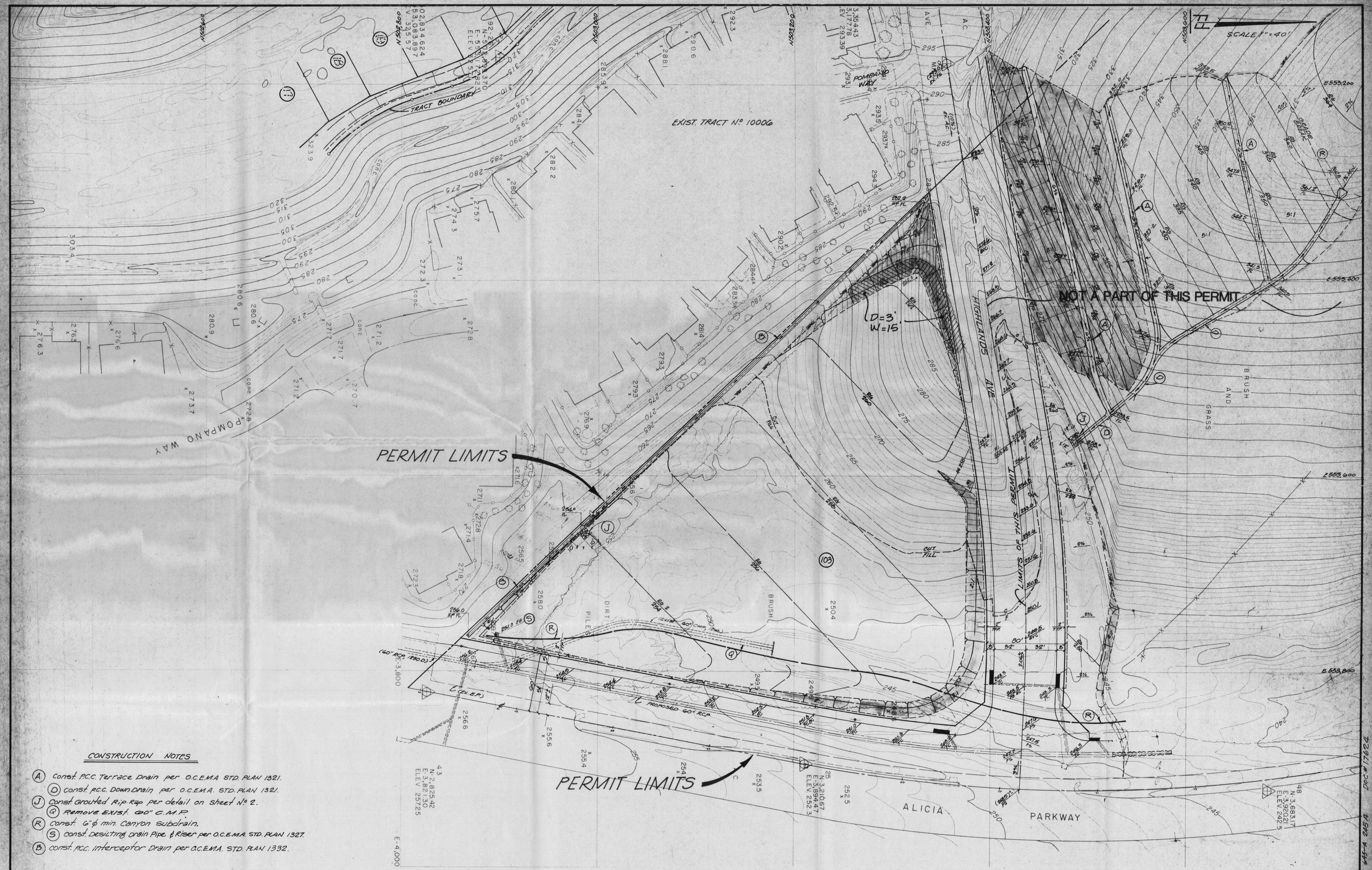
PRECISE GRADING PLAN
TRACT NO. 13522
LOTS 1-21 & LOT A

SHEET 2 OF 4 SHEETS

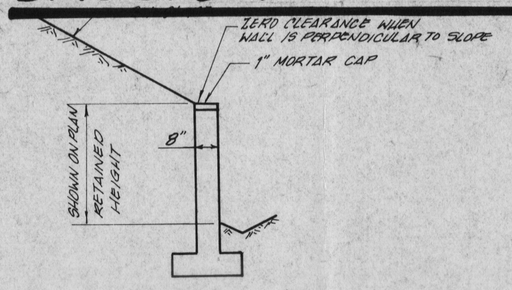
DATE IDENTIFIER 4/8/94

DOC 17224

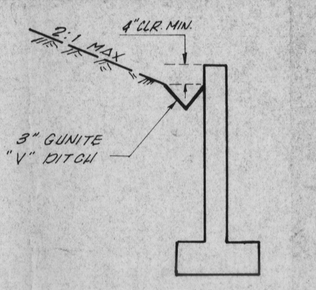
W.O. # 022-124 PAN # 295 A.


SCALE 1" = 40'
EXIST. TRACT Nº 10006
TRACT BOUNDARY
POMPANO WAY
HIGHLANDS AVE
NOT A PART OF THIS PERMIT
LIMITS OF THIS PERMIT
D=3'
W=15'
PERMIT LIMITS
PERMIT LIMITS
BRUSH AND GRASS
DIRT PILE
BRUSH
ALICIA PARKWAY
PROPOSED 60" RCP
(60" RCP, 1800.0')
CONSTRUCTION NOTES
(A) Const. P.C.C. Terrace Drain per O.C.E.M.A. STD. PLAN 1321.
(D) Const. P.C.C. Down Drain per O.C.E.M.A. STD. PLAN 1321.
(J) Const. Grouted Rip-Rap per detail on Sheet Nº 2.
(Q) Remove EXIST. 60" C.M.P.
(R) Const. 6" ϕ min. Canyon Subdrain.
(S) Const. Desilting Drain Pipe & Riser per O.C.E.M.A. STD. PLAN 1327.
(B) Const. P.C.C. Interceptor Drain per O.C.E.M.A. STD. PLAN 1332.
MAY 10 1994
SHEET 3 OF 4
BN 445-A 2454
DOC # 17624

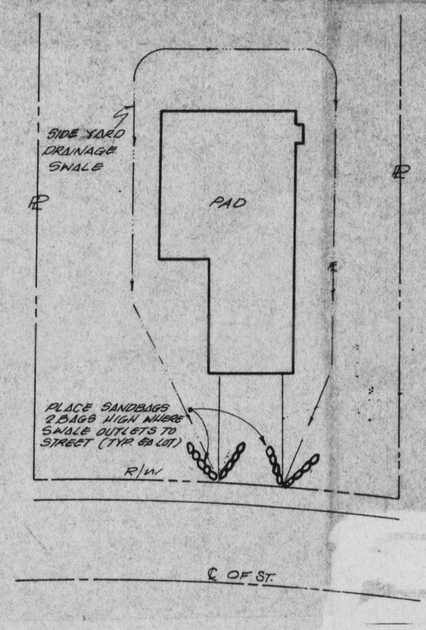
EROSION CONTROL PLAN



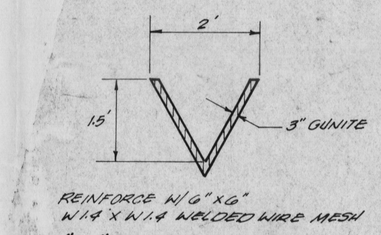
SECTION E-E
SCALE: N.T.S.



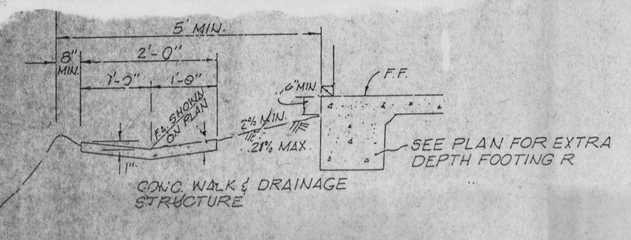
SECTION F-F
SCALE: N.T.S.



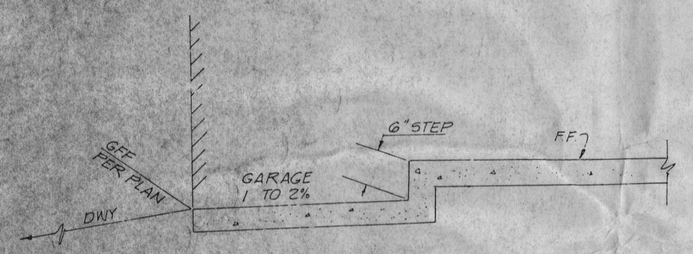
SWALE SANDBAG DETAIL "B"
N.T.S.



"V" DITCH DETAIL
SCALE: N.T.S.

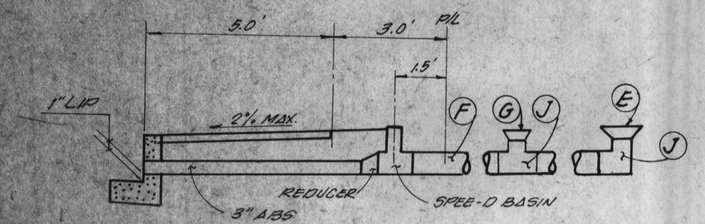


(H) STRUCTURE "H" N.T.S.
SIDEYARD DRAIN & WALK

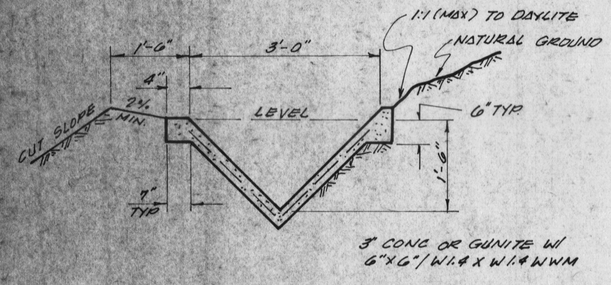


*DROPPED GARAGE FLOOR
N.T.S.
LOTS 5 & 19.

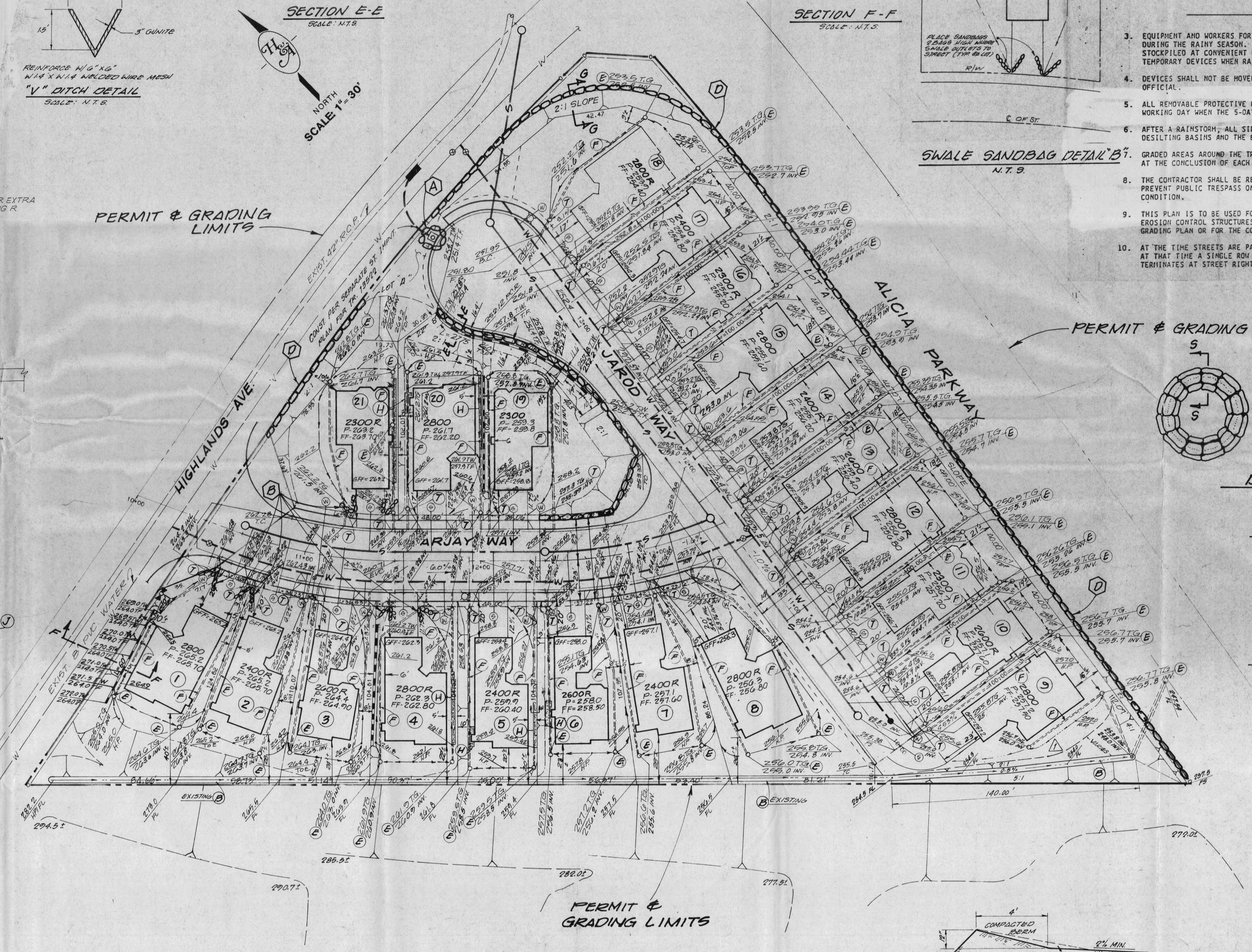
CONSTRUCTION NOTES:
(J) — CONST. DRAIN FITTING
(G) — CONST. DOWN SPOUT ADAPTOR
(E) — CONST. NDS 1223 CATCH BASIN & NDS 1212 GRATE
(F) — CONST. 4" ABS, ASTM D2751, SDR 35 OR APPD EQUAL
(T) — CONST. UNDERWALK DRAIN PER DETAIL BELOW
(H) — CONST. SIDE YARD DRAIN & WALK

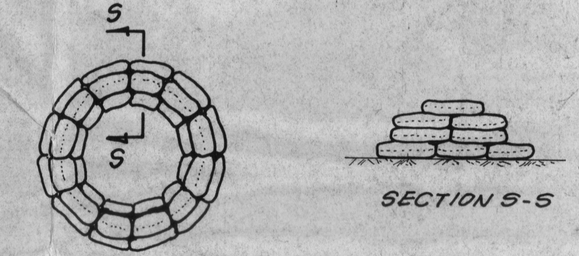


(T) UNDERWALK DRAIN
SCALE: N.T.S.



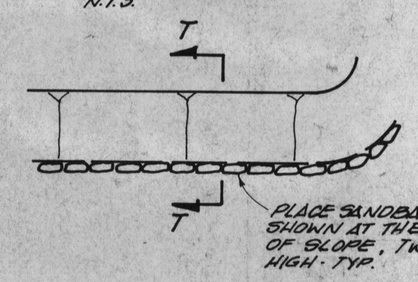
(B) STRUCTURE "B"
INTERCEPTOR DRAIN
AT TOP OF CUT SLOPES

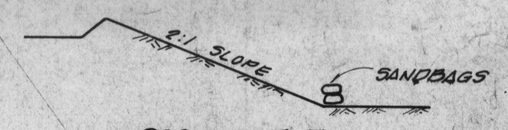




SECTION S-S

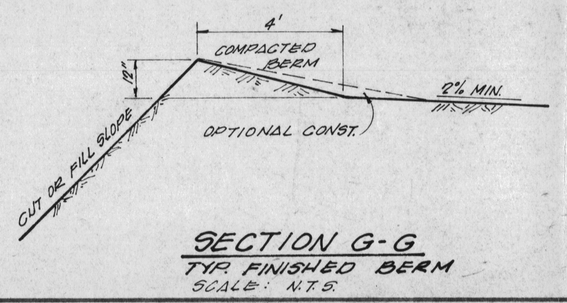
DETAIL "A"
N.T.S.





SECTION T-T

SLOPE SANDBAG DETAIL "D"
N.T.S.



SECTION G-G
TYP FINISHED BERM
SCALE: N.T.S.

SPECIAL NOTES FOR EROSION CONTROL

1. IN CASE OF EMERGENCY, CALL _____ AT WORK TELEPHONE NUMBER _____ AND AT HOME TELEPHONE NUMBER _____
2. THE UNDERSIGNED CIVIL ENGINEER WILL SUPERVISE EROSION CONTROL WORK AND INSURE THAT WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.

_____ DATE _____

3. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
4. DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL.
5. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.
6. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS AND DESILTING BASINS AND THE BASINS PUMPED DRY.
7. GRADED AREAS AROUND THE TRACT PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
8. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
9. THIS PLAN IS TO BE USED FOR THE LOCATION AND CONSTRUCTION OF THE TEMPORARY EROSION CONTROL STRUCTURES AND DEVICES ONLY. DO NOT USE THIS PLAN AS A SITE GRADING PLAN OR FOR THE CONSTRUCTION OF ANY PERMANENT IMPROVEMENTS.
10. AT THE TIME STREETS ARE PAVED NO BAGS ARE TO BE PLACED IN STREET RIGHT OF WAY. AT THAT TIME A SINGLE ROW OF SANDBAGS 2 BAGS HIGH AT EACH SWALE WHERE IT TERMINATES AT STREET RIGHT OF WAY.

COUNTY OF ORANGE

EROSION CONTROL PLAN
TRACT NO. 13522
LOTS 1-21
& LOT "A"

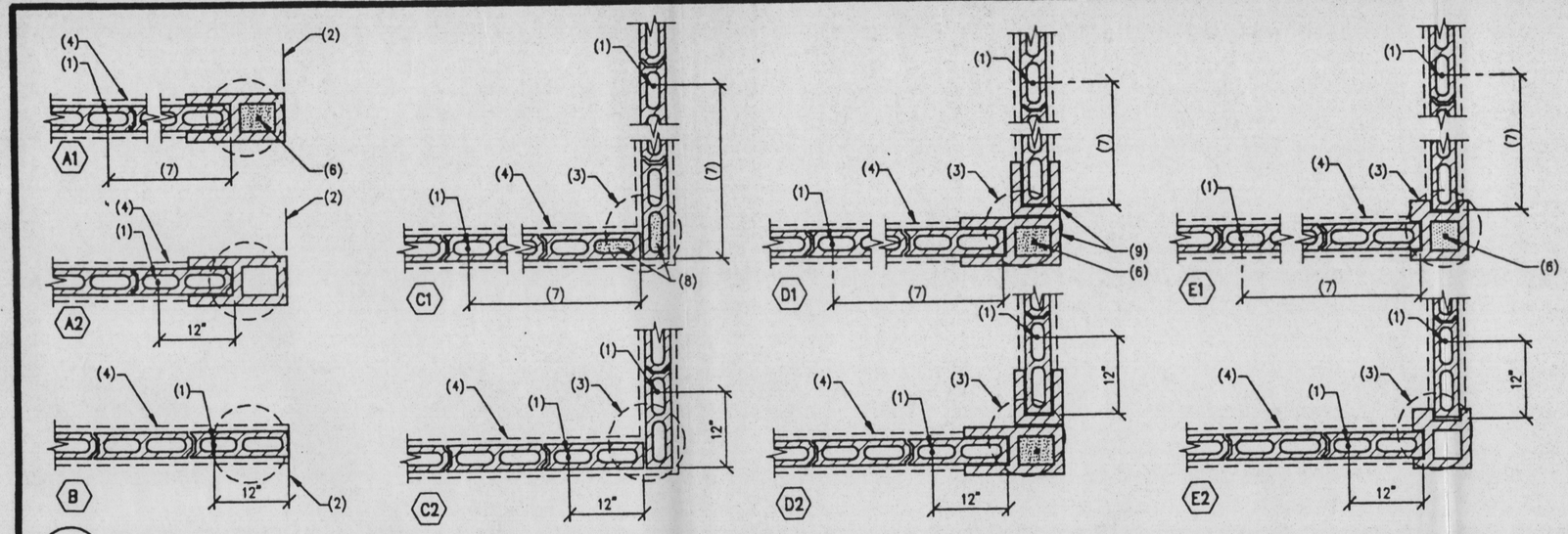
SHEET 4 OF 4 SHEETS

MAY 0 1994

DOC. 170224

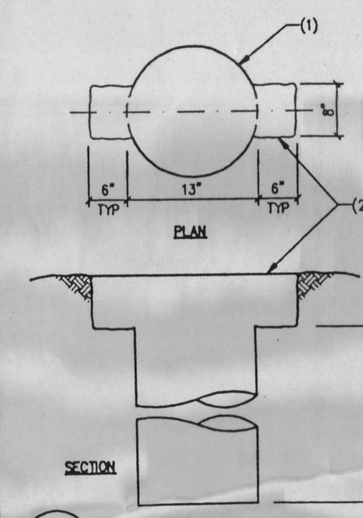
WO #022-124 PIN #245A

T 13522 30 SCALE PLOT - 568(0.15)PF: 022124 1251 01-Mar-89 03:12 PM / 193-3-650



NOTES:
1. POST TENSIONED ROD.
2. END OF WALL.
3. CENTERLINE OF PIER FOOTING BELOW LINES UP WITH INSIDE CORNER OF 6" THICK TENSION BEAM AT BOTTOM OF WALL.
4. DASHED LINE INDICATES LINE OF 6" SOLID GROUTED TENSION BEAM BELOW (ASSUMING 4" PROTO II WALL ABOVE).
5. NOT USED.
6. #4 REINFORCING WITH 6" HOOK INTO PIER FOOTING BELOW. (20" MINIMUM EMBEDMENT INTO PIER FOOTING). FILL WITH GROUT OR 8" HIGH LIFTS OF MORTAR.
7. POST TENSIONED ROD SPACING PER SCHEDULE.
8. FILL CORNER CELL WITH MORTAR (8" HIGH LIFTS) AND LAP HORIZONTAL JOINT REINFORCING.
9. ALTERNATE BLOCK TYPE.

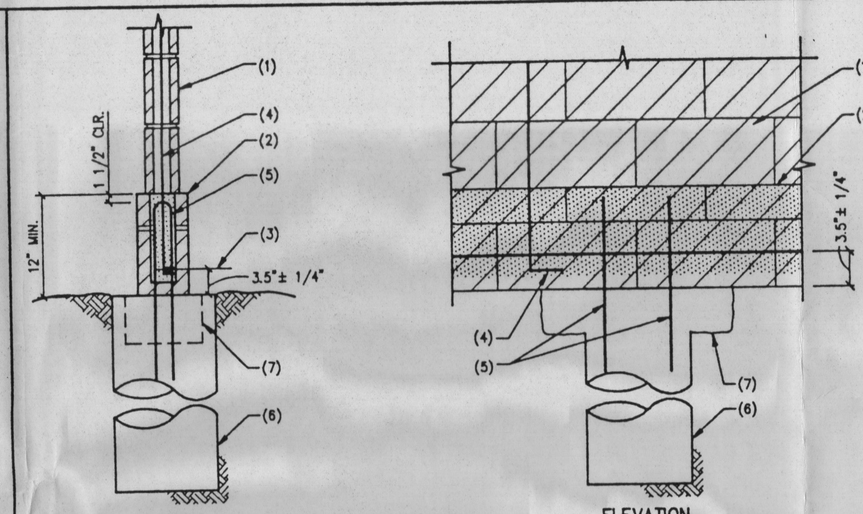
1 SPECIAL WALL CONDITIONS — NO SCALE



NOTES:
1. PIER FOOTING - SEE SCHEDULE.
2. ADDITIONAL SOIL EXCAVATION ADJACENT TO PIER FOOTING.

NOTE: FENCE WALL NOT SHOWN FOR CLARITY - SEE OTHER DETAILS.

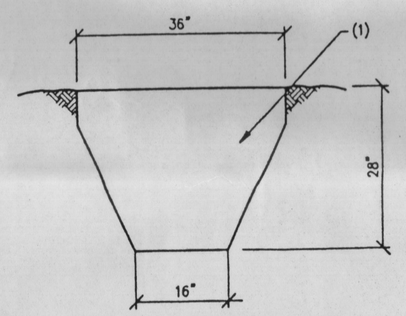
8 TYPICAL PIER FOOTING — NO SCALE



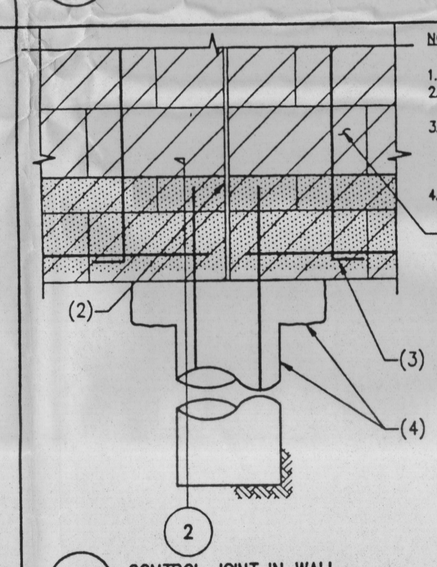
NOTES:
1. PROTO II FENCE WALL. 4" PROTO II SHOWN BUT 6" PROTO II ACCEPTABLE ALSO.
2. 6" MASONRY SOLID GROUTED - RUNNING BOND. NOTE: MORTAR MAY BE USED AS GROUT. ALL UNITS TO BE OPEN END UNITS OR DEEP CUT BOND BEAM BLOCK EXCEPT UNITS @ END OF FENCE. HEAD JOINTS SHALL BE FULLY MORTARED AT ALL JOINTS.
3. #5 CONTINUOUS - LAP AS OCCURS EQUALS 25".
4. POST TENSIONED ROD - FOR SPACING, SEE SCHEDULE. SKEW 3" HOOK BENEATH CONTINUOUS REINFORCING BAR AS SHOWN. SPACING OF POST TENSIONED ROD AND FOOTING ARE INDEPENDENT OF EACH OTHER.
5. #4 x 4" — 28" — SKEW AS NECESSARY TO PROVIDE 1/4" CLR. AT MASONRY FACE SHELLS.
6. CIRCULAR PIER FOOTING - SEE PLAN FOR SIZE.
7. FLANGE AT PIER FOOTING - SEE DETAIL 8.

2 TYPICAL WALL SECTION AND ELEVATION — NO SCALE

NOTES:
1. 8" THICK

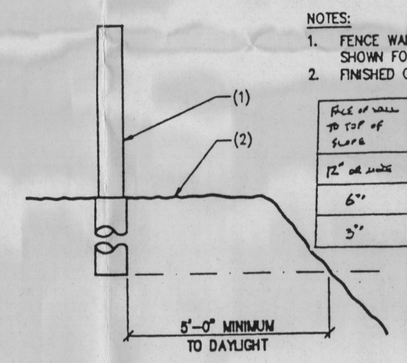


9 TRENCH FOOTING - ALTERNATE TO PIER FOOTING — NO SCALE



NOTES:
1. PROTO II WALL.
2. 3/4"± GAP - FILL AS SPECIFIED IN ARCH'L SPEC'S.
3. PLACE FIRST POST TENSIONED ROD 12" FROM CONTROL JOINT - TYPICAL EACH SIDE OF CONTROL JOINTS.
4. PIER FOOTING - SEE DETAIL 8.

7 CONTROL JOINT IN WALL — NO SCALE

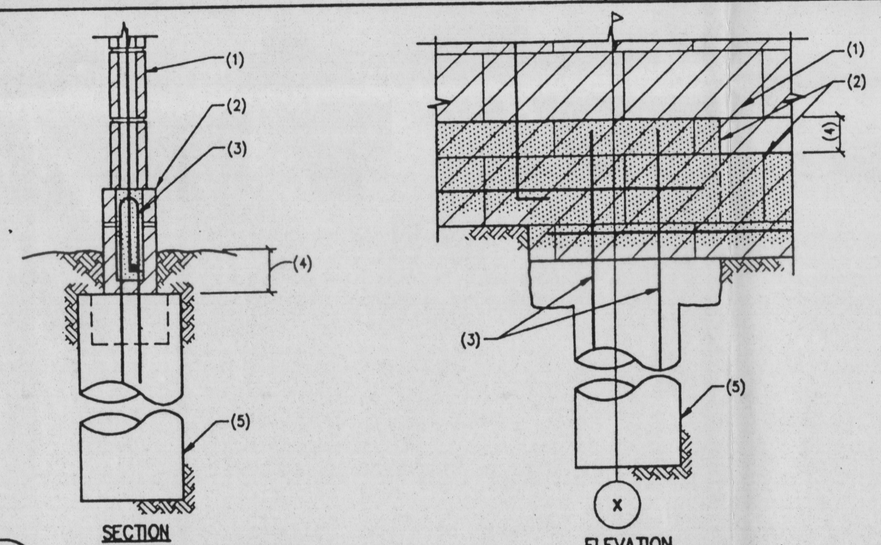


NOTES:
1. FENCE WALL - DETAIL NOT SHOWN FOR CLARITY.
2. FINISHED GRADE.

Face of wall to top of slope	Depth of hip footing or pier
12" or more	2'-4"
6"	2'-7"
3"	2'-9"

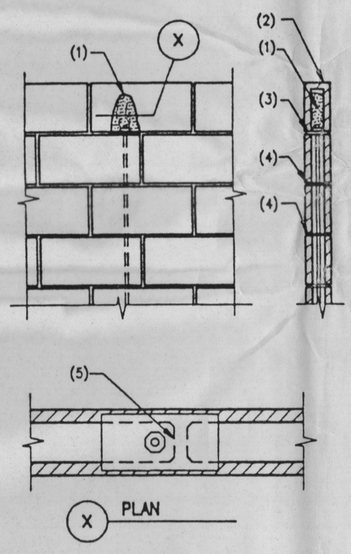
NOTE:
THIS DETAIL DESCRIBES THE MINIMUM DISTANCE REQUIREMENTS FOR THE LOWEST FOOTING EDGE TO FINISHED GRADE.

5 5'-0" TO DAYLIGHT DETAIL — 2 TO 1 SLOPE — NO SCALE



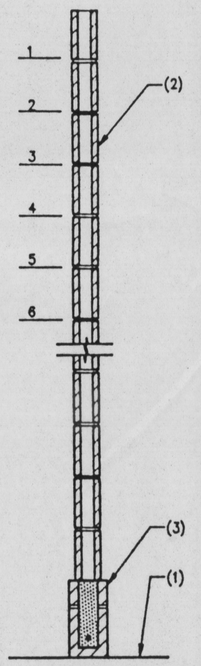
NOTES:
1. PROTO II FENCE WALL.
2. TENSION BEAM - FOR ADD'L. INFORMATION SEE DETAIL.
3. HAIRPIN REINFORCEMENT PER DETAIL 2 - LENGTHEN THE HEIGHT OF THE STEP. THE DESIGN INTENT IS TO MAINTAIN THE SAME EMBEDMEDIT DEPTH OF THE HAIRPIN REINFORMENT INTO THE TENSION BEAM AND PIER FOOTING.
4. HEIGHT OF STEP VARIES 4", 8", OR 12".
5. PIER FOOTING.

6 STEP IN WALL AND FOOTING — NO SCALE



NOTES:
1. FILL CAP BLOCK WITH MORTAR. IMMEDIATELY "FLIP" ONTO ROD.
2. CAP BLOCK OF SUFFICIENT SIZE TO COVER PLATE AND ROD.
3. STEEL PLATE 1/4" X 3" X 6" FOR 4" PROTO II. STEEL PLATE 1/4" x 4 1/2" x 6" FOR 6" PROTO II - PRECISION AND SPLIT FACE UNITS. 1/4" x 4" x 6" FOR SLUMP BLOCK. STEEL PLATES TO BE PLACED AT THE EDGE OF THE CELL SO THAT THE PLATE BEARS FULLY ON THREE SIDES.
4. CONTINUOUS HORIZONTAL JOINT REINFORCING PER NOTE #14.
5. CENTER WEB BELOW.

3 TOP OF FENCE DETAIL — NO SCALE



NOTES:
1. TOP OF FOOTING.
2. PROTO II WALL - VERTICAL POST TENSIONED ROD NOT SHOWN FOR CLARITY.
3. TENSION BEAM.

HORIZONTAL JOINT REINFORCING (REF. GENERAL NOTE #14).
A. PLACE HORIZONTAL JOINT REINFORCING IN JOINTS 2, 3 AND EVERY THIRD JOINT UNTIL THE TOP OF THE TENSION BEAM IS REACHED.

4 HORIZONTAL JOINT REINFORCING — NO SCALE

GENERAL NOTES

1. WALL IS DESIGNED FOR WIND FORCES AS REQUIRED BY THE LOCAL JURISDICTION BUILDING OFFICIALS SEE SCHEDULE FOR WIND FORCE, POST TENSIONED ROD SPACING, FOOTING SIZE ETC.
2. THESE DESIGNS ARE NOT TO BE USED FOR RETAINING EARTH ABOVE 1'-4" FOR 4" PROTO II, AND 2'-0" FOR 6" PROTO II AND 2'-8" FOR 8" PROTO II AS MEASURED FROM LOW SOIL TO HIGH SOIL.
3. FOOTINGS SHOULD BE LEVEL, OF IF GROUND SLOPES, USE STEP FOOTINGS. EACH STEP SHOULD BE A HEIGHT TO FIT MASONRY SYSTEM. ALL EXCAVATIONS SHOULD BE CLEAN AND CONTAIN NO LOOSE EARTH OR FOREIGN MATTER.
4. SOIL SHALL BE COMPACTED AND HAVE A MINIMUM BEARING CAPACITY OF 1,000 POUNDS PER SQUARE FOOT AND A LATERAL CAPACITY OF 200 POUNDS PER SQUARE FOOT PER FOOT OF DEPTH.
5. SOIL SHALL BE WELL DRAINED FOR FOOTINGS AND FOUNDATIONS. USE CONCRETE WITH A MINIMUM STRENGTH OF 2,000 PSI - TYPE II MINIMUM OF 48 HOURS OLD PRIOR TO TENSIONING.
6. LAP REINFORCING STEEL 40 BARS DIAMETERS (LAP = 20" FOR #4 BARS.)
7. CONCRETE MASONRY UNITS SHALL BE 2,000 PSI MINIMUM AND 7 DAYS OLD PRIOR TO TENSIONING.
8. MORTAR SHALL BE TYPE S, 2000 PSI MINIMUM. MORTAR MAY BE USED AS GROUT IN 8" HIGH LIFTS. GROUT - 2,000 MINIMUM. MORTAR (AND GROUT) 12 HOURS OLD PRIOR TO TENSIONING.
9. FIRST COURSE MAY BE SET IN FRESH CONCRETE FOOTING.
10. HEAD JOINTS MAY BE OMITTED IN FIRST COURSE FOR WEEP HOLES.
11. REINFORCING RODS SHALL CONFORM TO ASTM A615 Fy = 40,000 PSI.
12. POST TENSIONING RODS AND ANCHORS SHALL BE 7/16" DIAMATER WITH 1/2" DIAMETER ROLL THREADS OR 1/2" DIAMETER WITH 1/2" DIAMETER CUT THREADS. RODS SHALL CONFORM TO AISI C1008, Fy = 60,000 PSI AREA EQUALS .1503 SQUARE INCHES.
13. LAP HORIZONTAL JOINT REINFORCING 6" OR ONE CROSS WIRE PLUS AN INCH.
14. HORIZONTAL JOINT REINFORCING SHALL BE PLACED PER DETAIL 4. HORIZONTAL JOINT REINFORCING SHALL BE 9 GAGE DIAMETER, LADDER OR TRUSS TYPE, AND CONFORM TO ASTM A82. LAP JOINT REINFORCING ONE FULL SQUARE.
15. FULL HEIGHT RODS MAY BE USED AT CONTRACTORS OPTION IN LIEU OF ANCHOR BOLTS AND COUPLERS. 3" HOOK REQUIRED AT END IN FOOTING.
16. POST TENSIONED RODS SHALL BE TENSIONED TO 6,000 POUNDS USING A CALIBRATED TORQUE WRENCH OR OTHER APPROPIATE MEANS.
17. VERTICAL CONTROL JOINTS SHALL BE PROVIDED AT 36'-0" MAXIMUM. CONTROL JOINTS SHALL BE PLACED BETWEEN POST TENSIONED RODS SUCH THAT RODS ARE WITHIN 4'-6" MAXIMUM OF CONTROL JOINT. MASONRY BLOCKS MAY INTERLOCK AT JOINT (MORTAR MAY BE OMITTED). HORIZONTAL JOINT REINFORCING MAY BE INTERRUPTED AT CONTROL JOINTS.
18. ALL STEEL THREADS AND NUTS SHALL BE APPROPRIATELY LUBRICATED AND FREE OF RUST.
19. RODS AND/OR ANCHOR BOLTS MAY BE STABBED INTO WET CONCRETE OR TIED IN PLACE AT CONTRACTORS OPTION.
20. THE FENCE WALL MAY SLOPE WITH THE GRADE AT THE CONTRACTOR'S OPTION (i.e. THE TOP OF WALL IS NOT LEVEL - BUT INSTEAD FOLLOWS THE GRADE SLOPE). MAXIMUM SLOPE EQUALS 5%. CONFIRM ACCEPTABILITY OF DESIGN WITH OWNER.

PROTO II TENSION BEAM FENCE WALL SCHEDULE - CALIFORNIA

EXPLANATION OF WIND LOAD DESIGNATIONS:

WIND LOADS ARE CALCULATED AS FOLLOWS:

p = Ce x Cq x qs x I

p = WIND FORCE IN POUNDS PER SQUARE FOOT (PSF)
Ce = EXPOSURE FACTOR, SEE U.B.C. TABLE 23G
Cq = PRESSURE COEFFICIENT FOR STRUCTURE - SEE U.B.C. TABCE 23H (FOR WALL ELEMENTS Cq = 1.2)
qs = WIND STAGNATION PRESSURE, SEE U.B.C. TABLE 23F AND U.B.C. SECTION 2320
I = IMPORTANCE FACTOR PER U.B.C. TABLE 2406 (FOR FENCES I = 1.0)

EXAMPLE: EXP. C @ 70 MPH REFERS TO EXPOSURE C WITH qs = 70 MPH

p = 1.06 x 1.3 x (.75 x 13) x 1.0 = 13.8 PSF (10 PSF MIN.)

PER 1991 UBC

WIND FORCE	WALL HEIGHT	4" PROTO II POST TENSION ROD SPACING	6" PROTO II POST TENSION ROD SPACING	TENSION BEAM PIER FOOTING SPACING			
8.1 PSF 70 MPH EXP B	3'-4"	12'-0"	12'-0"	12'-0"			
	4'-0"	12'-0"	12'-0"	12'-0"			
	4'-8"	9'-4"	12'-0"	12'-0"			
	5'-4"	7'-4"	10'-0"	12'-0"			
	6'-0"	6'-0"	8'-0"	9'-8"			
	6'-8"	4'-8"	6'-8"	7'-8"			
	7'-4"	-	5'-4"	6'-6"			
	8'-0"	-	4'-0"	5'-6"			
13.8 PSF 70 MPH EXP C	3'-4"	8'-0"	9'-4"	12'-0"			
	4'-0"	8'-0"	9'-4"	12'-0"			
	4'-8"	6'-0"	6'-8"	9'-6"			
	5'-4"	4'-8"	5'-4"	7'-2"			
	6'-0"	3'-4"	4'-0"	5'-8"			
	6'-8"	2'-8"	3'-4"	4'-8"			
	7'-4"	-	3'-4"	3'-10"			
	8'-0"	-	3'-4"	3'-2"			
16.9 PSF 80 MPH EXP C	3'-4"	10'-8"	12'-0"	12'-0"			
	4'-0"	7'-4"	11'-4"	10'-8"			
	4'-8"	5'-4"	8'-8"	7'-8"			
	5'-4"	3'-4"	6'-8"	5'-10"			
	6'-0"	2'-8"	4'-8"	4'-8"			
	6'-8"	2'-0"	4'-0"	3'-8"			
	7'-4"	-	3'-4"	3'-0"			
	8'-0"	-	2'-8"	2'-8"			
21.5 PSF 90 MPH EXP C	3'-4"	8'-0"	12'-0"	12'-0"			
	4'-0"	5'-4"	9'-4"	8'-4"			
	4'-8"	4'-0"	6'-8"	6'-0"			
	5'-4"	2'-8"	4'-8"	4'-8"			
	6'-0"	2'-0"	3'-4"	3'-8"			
	6'-8"	1'-4"	2'-8"	3'-0"			
	7'-4"	-	2'-0"	2'-8"			
	8'-0"	-	2'-0"	2'-0"			

NOTES:
1. FOOTING DESIGN ALLOWABLES: 1000 PSF BEARING, 200 PSF/FT LATERAL.
2. MAXIMUM HEIGHT FOR 4" PROTO II = 8'-8": MAX. HEIGHT FOR 6" PROTO II = 9'-8".
3. MAXIMUM PIER FOOTING SPACING = 12'-0": MINIMUM SPACING = 3'-4". TOLERANCE IS 12"± BUT THE NUMBER OF PIER FOOTINGS MUST REMAIN THE SAME FOR A GIVEN LENGTH OF WALL.
4. POST TENSION ROD SPACING IS INDEPENDENT OF PIER FOOTING SPACING.
5. POST TENSION ROD SPACING TOLERANCE IS ±8" BUT THE NUMBER OF RODS FOR A GIVEN LENGTH OF WALL MUST REMAIN THE SAME.

CARUSO TURLEY SCOTT INC.
consulting structural engineers
2500 North 24th Street
Suite 300
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(602) 392-0949 (FAX)

REGISTERED PROFESSIONAL ENGINEER — PAUL G. SCOTT — S 3325 — EXP. 12/95 — STRUCTURAL — STATE OF CALIFORNIA

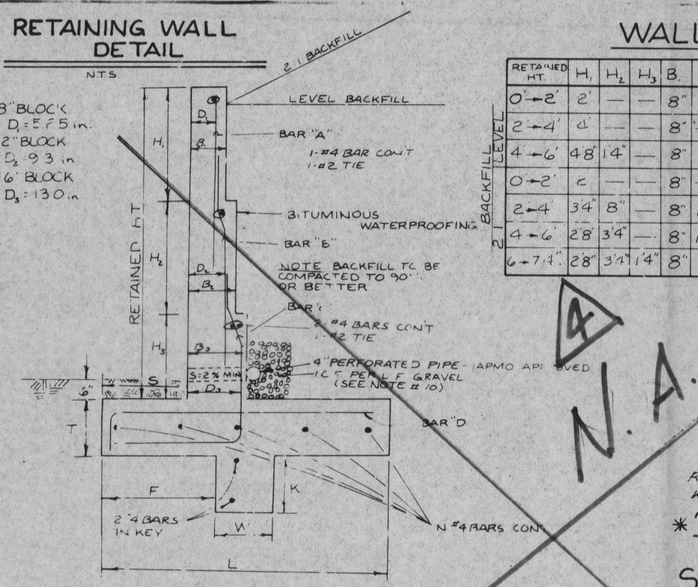
PROTO II - TENSION BEAM FENCE WALL
TENSION BEAM DESIGN

*PROTO-II™
4" & 6" THICK
POST-TENSIONED MASONRY WALLS
* PATENTED TRADE

JOB NUMBER:	86-286
DRAWN:	MSW
CHECKED:	PGS
SCALE:	AS NOTED
DATE:	6-1-93
SHEET:	1 OF 1

RETAINING WALL DETAIL

N.T.S.



RETAINED HT.	H_1	H_2	H_3	B_1	B_2	B_3	BAR A	BAR B	BAR C	BAR D	K	W	L	N	S	F	T
0'-2'	2'	—	—	8"	—	—	#4 @32"	—	—	#4 @32"	—	—	18"	2"	6"	6"	12"
2'-4'	0'	—	—	8"	—	—	#4 @16"	—	—	#4 @16"	8"	8"	22"	3"	1"	1"	12"
4'-6'	4.8'	1.4'	—	8"	12"	—	#5 @16"	#5 @16"	—	#4 @16"	18"	12"	3"	3"	1.6"	1.6"	12"
0'-2'	0'	—	—	8"	—	—	#4 @32"	—	—	#4 @16"	4"	8"	18"	2"	6"	6"	12"
2'-4'	3.4'	1.8'	—	8"	12"	—	#5 @16"	#5 @16"	—	#4 @16"	18"	12"	2"	3"	1.6"	1.6"	12"
4'-6'	2.8'	3.4'	—	8"	12"	—	#5 @16"	#5 @8"	—	#4 @16"	36"	18"	50"	4"	2.0"	2.0"	12"
6'-7.1'	2.8'	3.4'	1.4'	8"	12"	16"	#5 @16"	#5 @8"	#5 @8"	#5 @16"	48"	12"	60"	5"	2.0"	2.0"	12"

N.A.P.

REINFORCE W/ 6"x6" W1.4xW1.4 WELDED WIRE MESH.

* "V" DITCH DETAIL

SCALE: N.T.S.

SPECIFICATIONS:

CONCRETE:

PORTLAND CEMENT PER ASTM C-150
f'c = 2000 PSI @ 28 DAYS "NO SPECIAL INSPECTION"
CEMENT TYPE PER SOILS ENGINEER'S RECOMMENDATION
ALL CONCRETE THAT COMES INTO CONTACT WITH THE ONSITE SOIL SHALL BE TYPE 5 "SULFATE RESISTANT CEMENT"

REINFORCED STEEL:

DEFORMED BILLET STEEL BARS; GRADE 40 PER ASTM A-615

CONCRETE BLOCK:

GRADE "N" HOLLOW UNIT BLOCK PER ASTM C-90, BLOCK TYPE, COLOR AND/OR ARCHITECTURAL FINISH PER LANDSCAPE PLANS
"NO SPECIAL INSPECTION"

MORTAR:

TYPE "S" PER ASTM C-270
1 PART CEMENT
1/2 PART LIME PUTTY
4 1/2 PARTS SAND

GROUT:

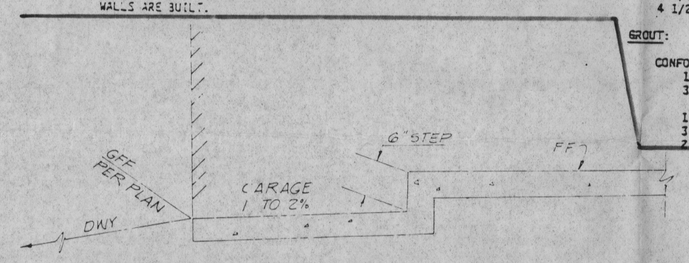
CONFORMING TO ASTM C-476
1 PART CEMENT
3 PARTS SAND
OR
1 PART CEMENT
2 PARTS SAND
2 PARTS PEA GRAVEL
GROUT SHALL BE OF FLUID CONSISTENCY

NOTES:

1. GROUT SOLID ALL CELLS.
2. ALL FOOTINGS SHALL BE POURED ON UNDISTURBED GROUND OR UNDISTURBED ENGINEERED COMPACTED FILL.
3. WALL SHALL BE LAID TRUE AND PLUMB.
4. PROVISIONS SHALL BE MADE FOR ADJOINING CONSTRUCTION.
5. ALL SPLICES SHALL BE 48 BAR DIAMETERS.
6. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH APPLICABLE SECTIONS OF 1985 UNIFORM BUILDING CODE AND A.C.I. STANDARD 318-83.
7. ALL BARS SHALL BE VERT CONT.
8. CONTRACTOR SHALL VERIFY COMPATIBILITY OF DESIGN WITH EXISTING CONDITIONS PRIOR TO PLACEMENT OF FOOTING STEEL.
9. BACKFILL SHALL BE PER SOILS ENGINEER'S RECOMMENDATION.
10. SUBDRAIN SHALL BE 4" PERFORATED SCHEDULE 40 PVC PIPE WITH 3" PVC OUTLET PIPE AT 16'-0" MAXIMUM (THRU CELL NOT CONTAINING STEEL). PLACE 1 CF/LF OF GRAVEL AROUND PIPE, WITH FILTER FABRIC.

BACKFILLING:

1. BACKFILLING SHALL NOT BE PERMITTED UNTIL AT LEAST 7 DAYS AFTER THE WALLS ARE BUILT.

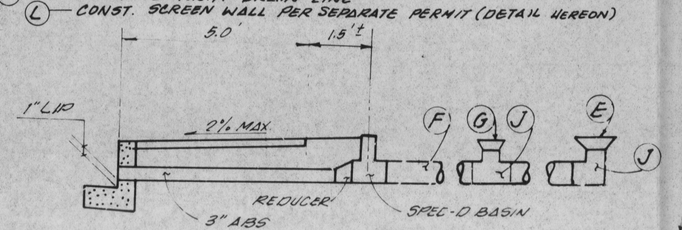


* DROPPED GARAGE FLOOR

LOTS 5 & 19-21 N.T.S.

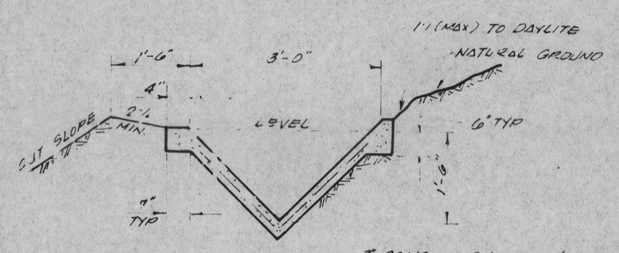
CONSTRUCTION NOTES:

- (J) CONST. DRAIN FITTING
- (G) CONST. DOWN SPOUT ADAPTER
- (E) CONST. NDS 1223 CATCH BASIN & NDS 1212 GRATE
- (F) CONST. 4" ABS, ASTM D2751, SCH 35 OR APPD EQUAL
- (T) CONST. UNDERWALK DRAIN PER DETAIL BELOW
- (H) CONST. SIDE YARD DRAIN & WALK
- (K) CONST. 18" R.C.P. DRAIN LINE
- (L) CONST. SCREEN WALL PER SEPARATE PERMIT (DETAIL HEREON)



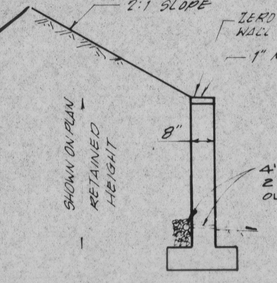
(T) UNDERWALK DRAIN

SCALE: N.T.S.



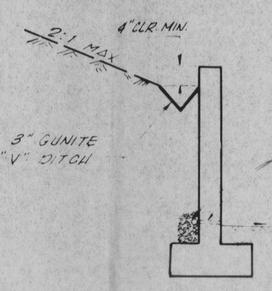
(B) STRUCTURE "B"

INTERCEPTOR DRAIN AT TOP OF CUT SLOPES



SECTION E-E

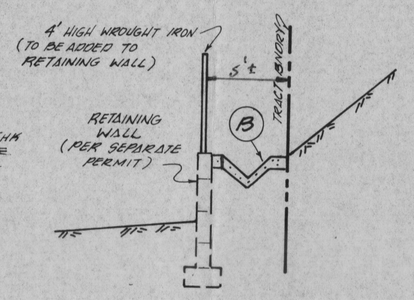
SCALE: N.T.S.



SECTION F-F

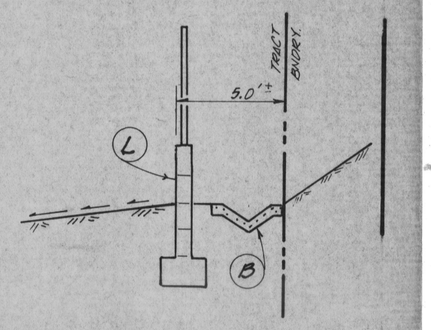
SCALE: N.T.S.

(L) SCREEN WALL PER SEPARATE PERMIT



SECTION "X-X"

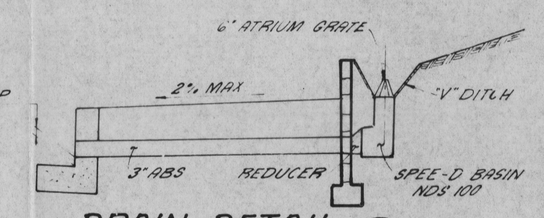
N.T.S.



SECTION Y-Y

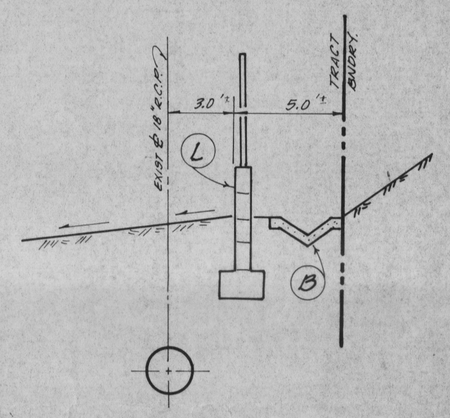
N.T.S.

PERMIT & GRADING LIMITS



DRAIN DETAIL

(U) SCALE: N.T.S.



SECTION Z-Z

N.T.S.

REVISED LOT 21 FROM A 60-RA TO A 60-RB 4-8-94

REUSE HT OF SOUNDWALL WC 5-26-94

APPROVED FOR CONSTRUCTION RELEASE # 2	
LOTS 1-8, 19-21 TR 13522	
S & S ENGINEER	DATE 3-7-94
S & S ARCHITECT	DATE 3-14-94

REVISED LOT 20 3-21-94
REVISED LOT 8 3-25-94

~~CURBS FROZEN~~	
CONSULTING ENGINEER	DATE
S & S ENGINEERING DEPT.	DATE
S & S ARCHITECTURAL DEPT.	DATE

APPROVED FOR CONSTRUCTION RELEASE # 3	
LOTS 9-18 TR 13522	
S & S ENGINEER	DATE 5-26-94
S & S ARCHITECT	DATE 5-31-94

ADDED GARAGE F.F. ELEVS WC 7-8-94
AS BUILT BLOCKWALL LOT 9 WC 8-15-94

PERMIT & GRADING LIMITS

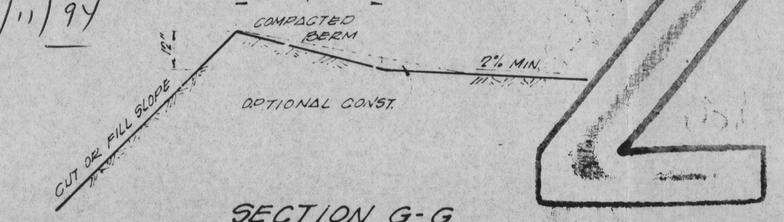
PLANNING & ZONING CLEARANCE
This plan was inspected on 10/12/94 and found to comply with applicable Laguna Niguel regulations.
This clearance is only valid for the life of the building permit.
The occupancy of this building shall not be changed from the use stated in the permit application except by issuance of a new Certificate of use and occupancy. Deviation from the approved plan shall be cause for stopping construction.
WARNING: This stamp indicates partial review only and does not constitute a building permit.
The City of Laguna Niguel

See → Sht. 5-5

CONSTRUCT RETAINING WALLS PER SEPARATE PERMIT

(6) ** BACK FLOW PREVENTOR REQUIRED SEE SEPARATE PLAN

Current permits for Lots 9 thru 18 #13522 10/11/94



SECTION G-G

TYP. FINISHED BERM

SCALE: N.T.S.

COUNTY OF ORANGE

PRECISE GRADING PLAN
TRACT NO. 13522
LOTS ~~9-18~~ & LOT A

SHEET 2 OF 4 SHEETS

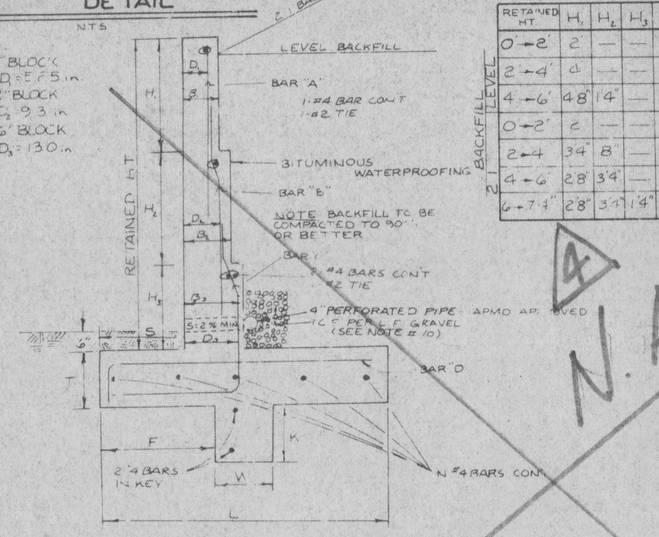
DATE IDENTIFIER 5/26/94
DATE OF LATEST CHANGE.

DOC 17224

22-124 PIN # 295 A.

Planning

RETAINING WALL DETAIL

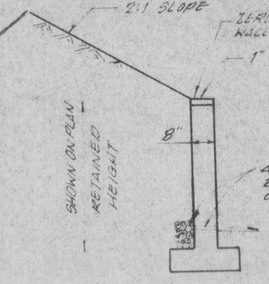


WALL SCHEDULE

RETAINED HT	H1	H2	H3	B1	B2	B3	BAR 'A'	BAR 'B'	BAR 'C'	BAR 'D'	K	W	L	N	S	F	T
0-2	2	—	—	8"	—	—	#4 @32"	—	—	#4 @16"	—	—	18"	2	6"	6"	12"
2-4	4	—	—	8"	—	—	#4 @16"	—	—	#4 @16"	8"	8"	22"	3	1"	—	12"
4-6	4.8	1.4	—	8"	12"	—	#5 @16"	#5 @16"	—	#4 @16"	18"	12"	3	3	16"	16"	12"
0-2	2	—	—	8"	—	—	#4 @32"	—	—	#4 @16"	4"	8"	18"	2	6"	6"	12"
2-4	3.4	1.8	—	8"	12"	—	#5 @16"	#5 @16"	—	#4 @16"	18"	12"	22"	3	16"	16"	12"
4-6	2.8	3.4	—	8"	12"	—	#5 @16"	#5 @16"	—	#4 @16"	36"	12"	50"	4	20"	20"	12"
6-7.4	2.8	3.4	1.4"	8"	12"	16"	#5 @16"	#5 @8"	#5 @8"	#5 @16"	48"	12"	60"	5	20"	20"	12"

BACKFILL LEVEL

4 N.A.P.



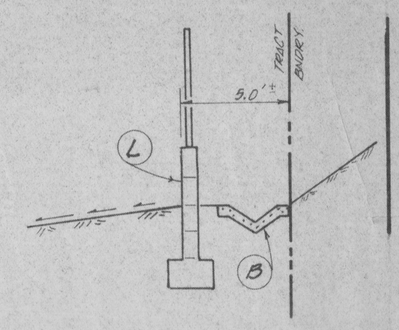
SECTION E-E
SCALE N.T.S.

4" CLR MIN.
3" GUNITE
4" PERFORATED PVC SCH 40 ON 1" THK CLASS 2 FILTER MAT'L W/ 4" TEE and OUTLET THRU BLANK CELL @ 16" O.C.

SECTION F-F
SCALE N.T.S.

4" HIGH WROUGHT IRON (TO BE ADDED TO RETAINING WALL)
RETAINING WALL (PER SEPARATE PERMIT)

SECTION "X-X"
N.T.S.



SECTION Y-Y
N.T.S.

7'-0" Sound WALL per Acoustical Report

MPB 5/27/94

REINFORCE W/ 6"x6" W1.4 x W1.4 WELDED WIRE MESH

"V" DITCH DETAIL
SCALE N.T.S.

4' WROUGHT IRON
2' BLOCK

SCREEN WALL PER SEPARATE PERMIT

SPECIFICATIONS

CONCRETE:

PORTLAND CEMENT PER ASTM C-150
f'c = 2000 PSI @ 28 DAYS "NO SPECIAL INSPECTION"
CEMENT TYPE PER SOILS ENGINEER'S RECOMMENDATION
ALL CONCRETE THAT COMES INTO CONTACT WITH THE ONSITE SOIL SHALL BE TYPE 5 "SULFATE RESISTANT CEMENT"

REINFORCED STEEL:

DEFORMED BILLET STEEL BARS; GRADE 40 PER ASTM A-615

CONCRETE BLOCK:

GRADE "N" HOLLOW UNIT BLOCK PER ASTM C-90, BLOCK TYPE, COLOR AND/OR ARCHITECTURAL FINISH PER LANDSCAPE PLANS
"NO SPECIAL INSPECTION"

MORTAR:

TYPE "S" PER ASTM C-270
1 PART CEMENT
1/2 PART LIME PUTTY
4 1/2 PARTS SAND

GROUT:

CONFORMING TO ASTM C-476
1 PART CEMENT
3 PARTS SAND
OR
1 PART CEMENT
3 PARTS SAND
2 PARTS PEA GRAVEL

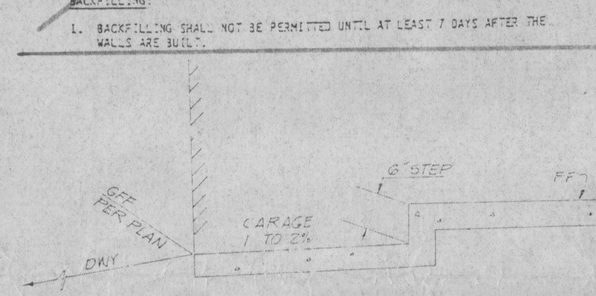
GROUT SHALL BE OF FLUID CONSISTENCY

NOTES:

1. GROUT SOLID ALL CELLS.
2. ALL FOOTINGS SHALL BE POURED ON UNDISTURBED GROUND OR UNDISTURBED ENGINEERED COMPACTED FILL.
3. WALL SHALL BE LAID TRUE AND PLUMB.
4. PROVISIONS SHALL BE MADE FOR ADJOINING CONSTRUCTION.
5. ALL SPLICES SHALL BE 48 BAR DIAMETERS.
6. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH APPLICABLE SECTIONS OF 1988 UNIFORM BUILDING CODE AND A.C.I. STANDARD 318-83.
7. ALL BARS SHALL BE DENT COLD.
8. CONTRACTOR SHALL VERIFY COMPATIBILITY OF DESIGN WITH EXISTING CONDITIONS PRIOR TO PLACEMENT OF FOOTING STEEL.
9. BACKFILL SHALL BE PER SOILS ENGINEER'S RECOMMENDATION.
10. SUBDRAIN SHALL BE 4" PERFORATED SCHEDULE 40 PVC PIPE WITH 3" PVC OUTLET PIPE AT 16'-0" MAXIMUM (THRU CELL NOT CONTAINING STEEL). PLACE 1 CF/LF OF GRAVEL AROUND PIPE, WITH FILTER FABRIC.

BACKFILLING:

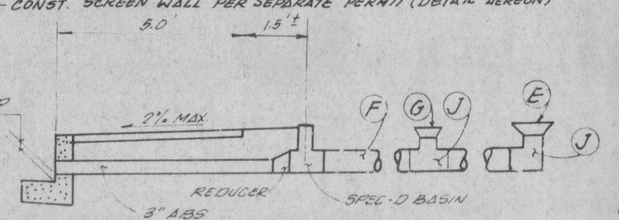
1. BACKFILLING SHALL NOT BE PERMITTED UNTIL AT LEAST 7 DAYS AFTER THE WALLS ARE BUILT.



DROPPED GARAGE FLOOR
LOTS 5 & 10-21
N.T.S.

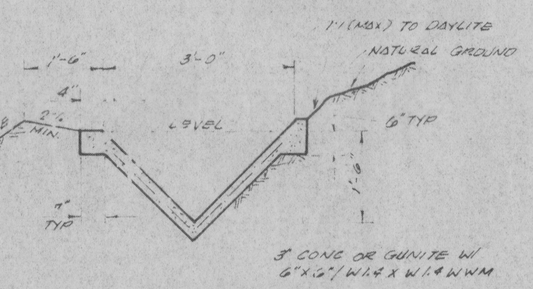
CONSTRUCTION NOTES:

- (J) CONST. DRAIN FITTING
- (G) CONST. DOWN SPOUT ADAPTER
- (E) CONST. NDS 1223 CATCH BASIN & NDS 1212 GRATE
- (F) CONST. 4" ABS, ASTM D2751, SDR 35 OR APPD EQUAL
- (T) CONST. UNDERWALK DRAIN PER DETAIL BELOW
- (H) CONST. SIDE YARD DRAIN & WALK
- (K) CONST. 18" R.C.P. DRAIN LINE
- (L) CONST. SCREEN WALL PER SEPARATE PERMIT (DETAIL HEREON)

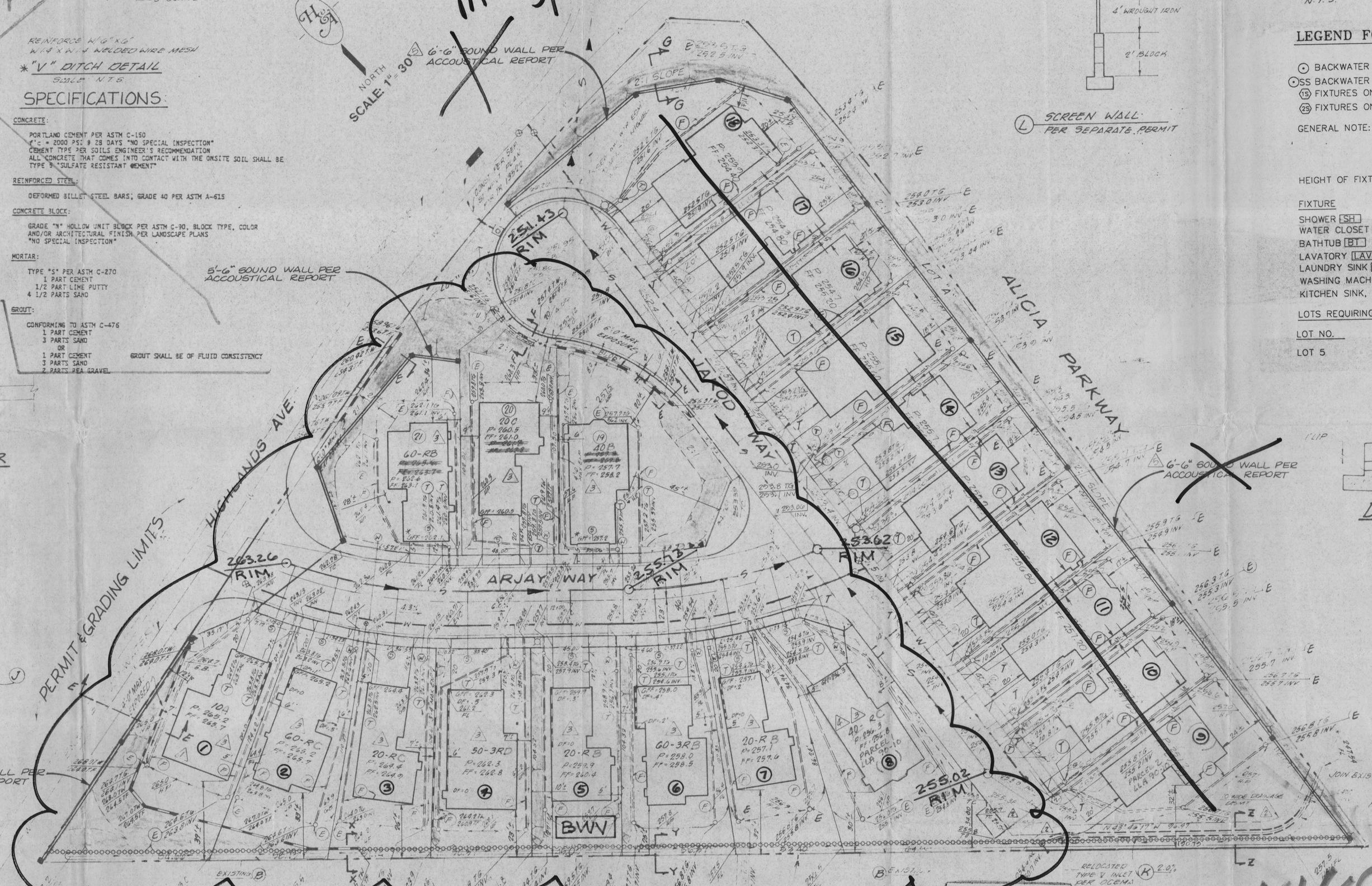


(T) UNDERWALK DRAIN
SCALE N.T.S.

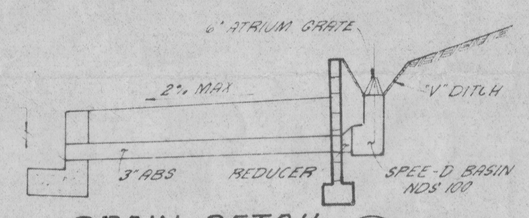
5'-6" SOUND WALL PER ACOUSTICAL REPORT



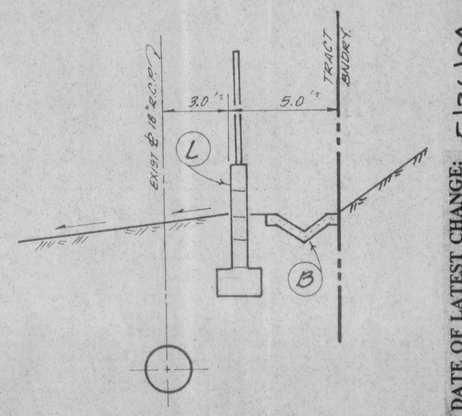
(B) STRUCTURE "B"
INTERCEPTOR DRAIN
AT TOP OF CUT SLOPES



6'-6" SOUND WALL PER ACOUSTICAL REPORT



DRAIN DETAIL (U)
SCALE N.T.S.



SECTION Z-Z
N.T.S.

REVISED LOT 21 FROM A 60-RA TO A 60-RB 4-8-94

LEGEND FOR PLUMBING NOTES

- (⊙) BACKWATER VALVE SINGLE SYSTEM PER SECTION 409 OF THE U.P.C.
- (⊙SS) BACKWATER VALVE SPLIT SYSTEM PER SECTION 409 OF THE U.P.C.
- (1S) FIXTURES ON THE FIRST FLOOR CONNECTING TO THE BACKWATER VALVE
- (2S) FIXTURES ON THE SECOND FLOOR CONNECTING TO THE BACKWATER VALVE

GENERAL NOTE: ONLY FIXTURES BELOW ELEVATION OF UPSTREAM MANHOLE TO BE ON BACKWATER VALVE SYSTEM AS PER U.P.C. SECTION 409

HEIGHT OF FIXTURES ABOVE FINISHED FLOOR GRADE

FIXTURE	HEIGHT
SHOWER [SH]	0.5 FEET
WATER CLOSET [WC]	1.1 FEET
BATHTUB [BT]	1.1 FEET
LAVATORY [LAV]	2.6 FEET
LAUNDRY SINK [LS]	3.0 FEET
WASHING MACHINE [WM]	3.0 FEET
KITCHEN SINK, BAR SINK [KS]	3.0 FEET

LOTS REQUIRING BACKWATER VALVES

LOT NO.	SYSTEM	FIXTURES
LOT 5	⊙SS	(1S) [WC] [LAV]

PERMIT & GRADING LIMITS

Lots 1-8, 19-21

PLANNING

PLANNING & ZONING CLEARANCE

This plan was inspected on 6/3/94 and found to comply with applicable Laguna Niguel regulations.

This clearance is only valid for the life of the building permit.

The occupancy of this building shall not be changed from the use stated in the permit application except by issuance of a new Certificate of use and occupancy. Deviation from the approved plan shall be cause for stopping construction.

WARNING: This stamp indicates partial review only and does not constitute a building permit.

The City of Laguna Niguel

CONSTRUCT RETAINING WALLS PER SEPARATE PERMIT

SEWER BACKFLOW PREVENTOR EXHIBIT FOR TR. 13522

SECTION G-G
TYP FINISHED BERM
SCALE N.T.S.

Hunsaker & Associates Irvine, Inc.
Planning • Engineering • Surveying
Three Hughes • Irvine, California 92718 • (714) 583-1010

APPROVED FOR CONSTRUCTION
RELEASE # 2
LOTS 1-8, 19-21 TR 13522
S & S ENGINEER — DATE 3-7-94
S & S ARCHITECT — DATE 3-14-94
REVISED LOT 20 3-21-94
REVISED LOT 8 3-25-94

COUNTY OF ORANGE

~~PRECISE GRADING PLAN~~

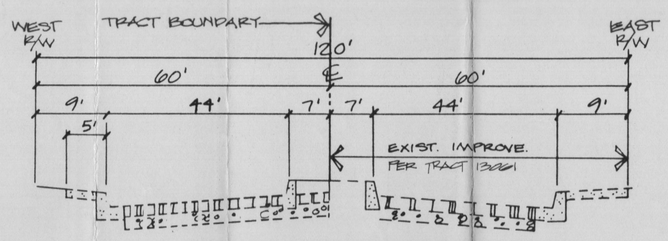
TRACT NO. 13522
LOTS 1-21 & LOT A

SHEET 1 OF 1 SHEETS

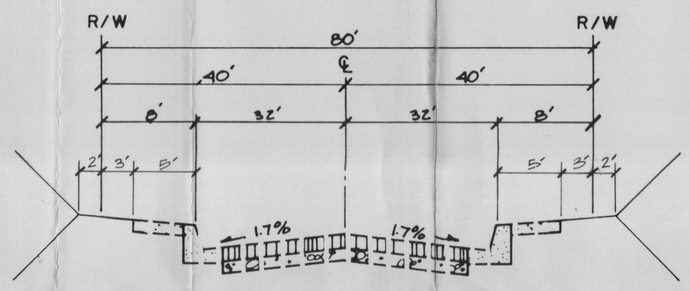
DATE OF LATEST CHANGE: 5/26/94
DATE IDENTIFIER

DOC 77224

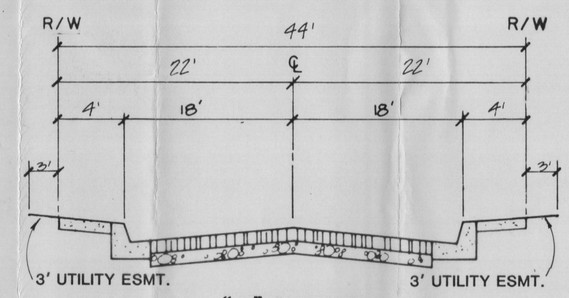
MAY 26 1994



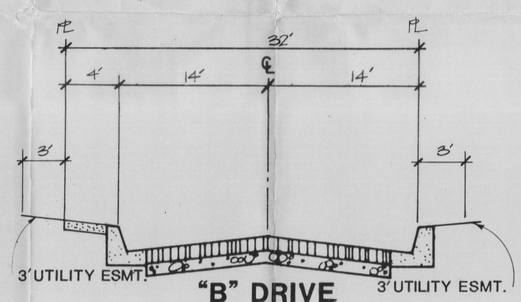
ALICIA PARKWAY
(PUBLIC-EXISTING)



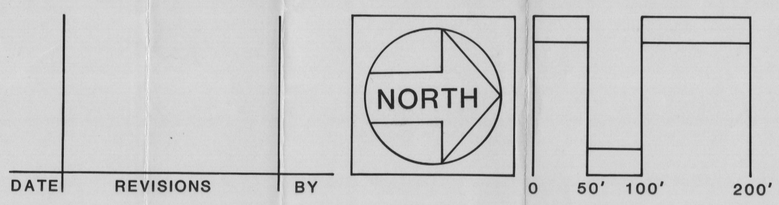
HIGHLANDS AVENUE
(PUBLIC-EXISTING)



"A" DRIVE
(PRIVATE)



"B" DRIVE
(PRIVATE)



DATE	REVISIONS	BY

NOTES

1. EXISTING LAND USE: VACANT
2. PROPOSED LAND USE: SINGLE FAMILY RESIDENTIAL
3. EXISTING ZONING: PLANNING UNIT A-5 COUNTRY VILLAGE PLANNED COMMUNITY.
4. WATER AND SEWER SERVICE BY: MOULTON-NIGUEL WATER DISTRICT
5. ELECTRIC SERVICE BY: SOUTHERN CALIFORNIA EDISON CO.
6. GAS SERVICE BY: SOUTHERN CALIFORNIA GAS CO.
7. TELEPHONE SERVICE BY: PACIFIC TELEPHONE CO.
8. UTILITIES TO BE UNDERGROUND.
9. STREET IMPROVEMENTS PER COUNTY STANDARDS AND MODIFIED PER SECTION SHOWN.
10. DRAINAGE TO COMPLY WITH MASTER PLAN OF DRAINAGE
11. ALL SLOPES TO BE 2:1, EXCEPT SIDE SLOPES OF 5' OR LESS, WHICH MAY BE 1.5:1, PENDING APPROVAL OF SOILS ENGINEER.
12. IN THE DESIGN OF THIS SUBDIVISION THE SOLAR ACCESS GUIDELINES AS ADOPTED BY THE BOARD OF SUPERVISORS WERE CONSIDERED.
13. THE LOCAL PARK REQUIREMENTS FOR THIS MAP WILL BE MET THROUGH THE PARK IMPLEMENTATION PLAN INCORPORATED WITHIN THE COUNTRY VILLAGE AREA PLAN (AP 87-4P).
14. THIS IS AN APPLICATION FOR A DEVELOPMENT PERMIT.

RECEIVED
APR 12 1988
ORANGE COUNTY EMA
SUBDIVISION DIVISION
TENTATIVE MAP SECTION

LEGAL DESCRIPTION

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF ORANGE, STATE OF CALIFORNIA, BEING ALL OF LOT 45 OF TRACT 13061 AS FILLED IN BOOK 593, PAGES 40 THROUGH 44 OF MISCELLANEOUS MAPS, RECORDS OF SAID COUNTY.

LOT SUMMARY

LOT #	USE
LOTS 1-21	SINGLE FAMILY RESIDENTIAL
LOT A	OPEN SPACE LOT
LOT B	PRIVATE DRIVE

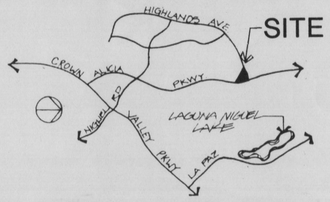
STATEMENT OF OWNERSHIP

I HEREBY CERTIFY THAT THE OWNER OF RECORD HAS KNOWLEDGE OF AND CONSENTS TO THE FILING OF THIS MAP.

Pete Major — 4-12-88
AGENT, HUNSAKER & ASSOCIATES — DATE

SCALE 1" - 100'
DATE 3-14-88
W.O. # 22-115
GROSS AREA 4.9 AC.
CONTOUR INTERVAL 1'
TOTAL LOTS 21

VICINITY MAP



PREPARED FOR:

S & S CONSTRUCTION
8383 WILSHIRE BLVD.
BEVERLY HILLS, CA.
(213) 655-7330

PREPARED BY:

Hunsaker & Associates inc.
PLANNING • ENGINEERING • SURVEYING
Three Hughes • Irvine, CA 92718
Offices: Irvine • Ontario • San Diego
(714) 583-1010

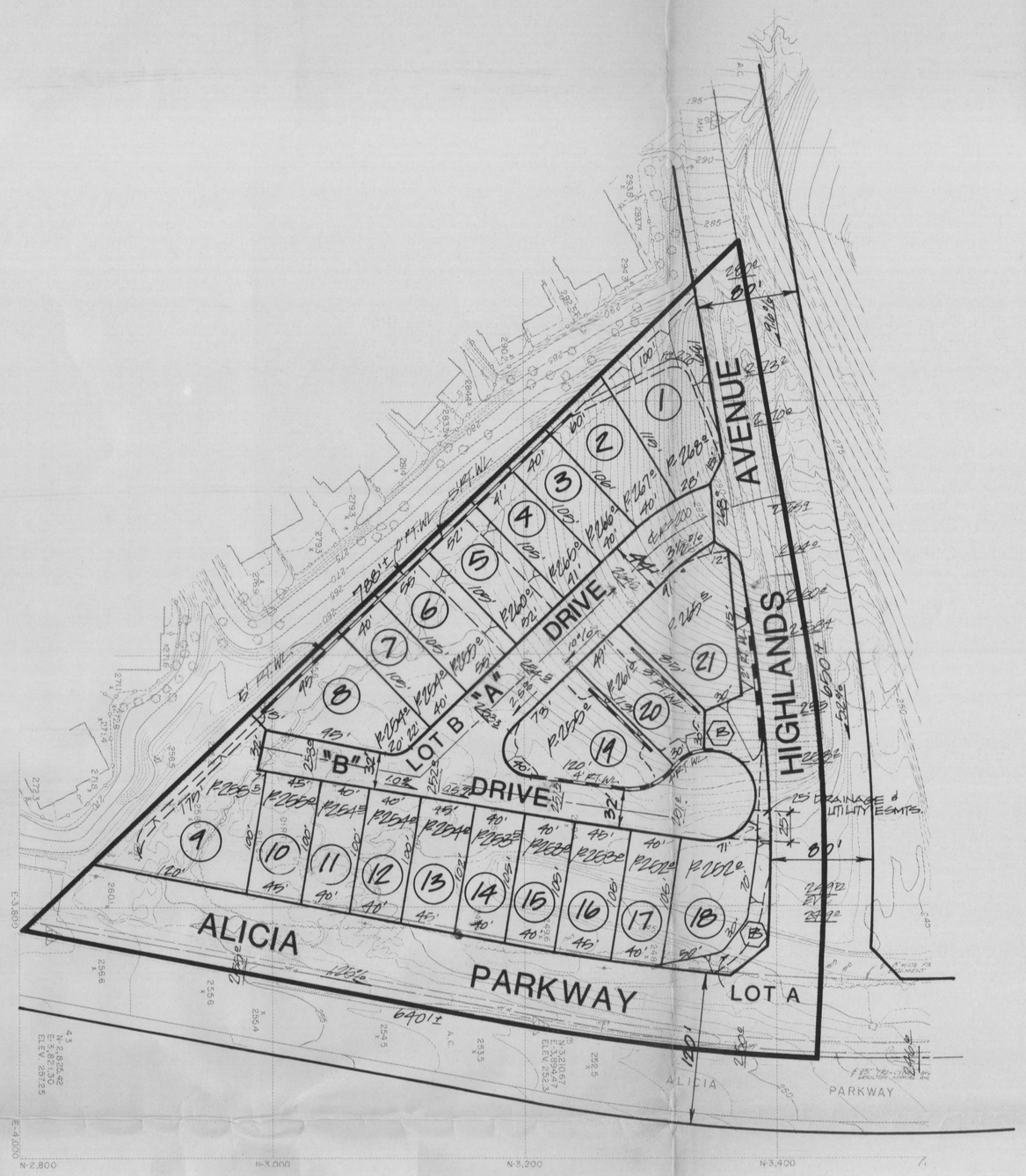
TENTATIVE TRACT NO. 13522

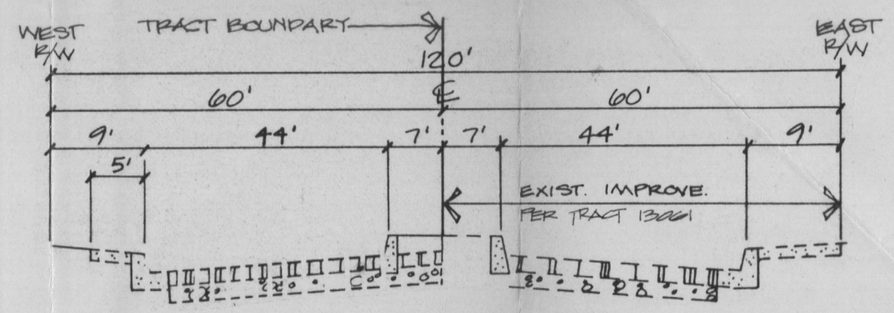
A VESTING MAP

RECEIVED
MAY 20 1988

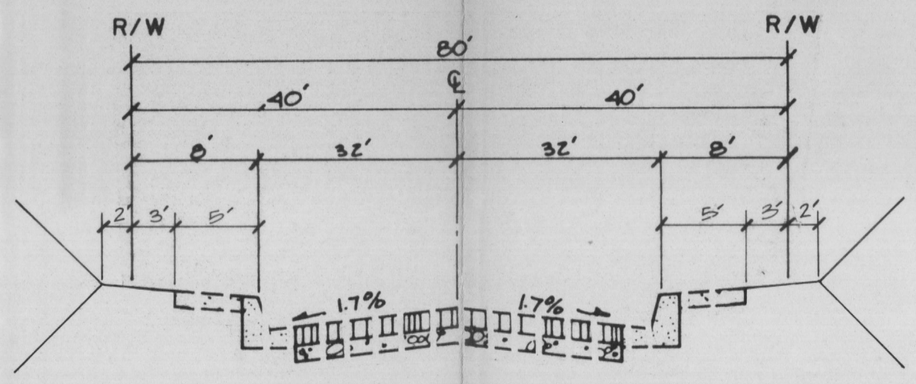
4 1288

W.O. # 22-115 BiN # 317 A TENTATIVE TRACT 13522





ALICIA PARKWAY
(PUBLIC-EXISTING)



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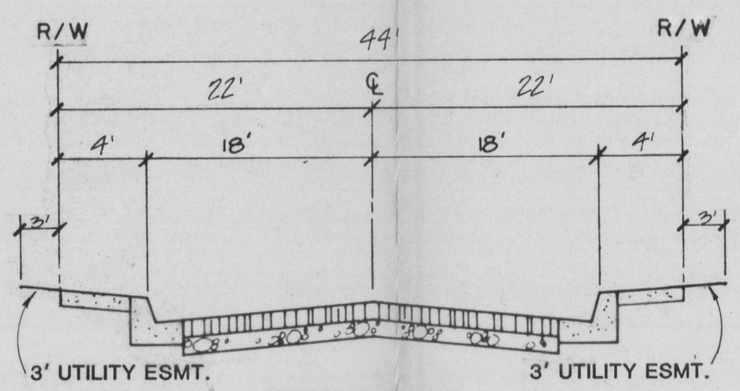
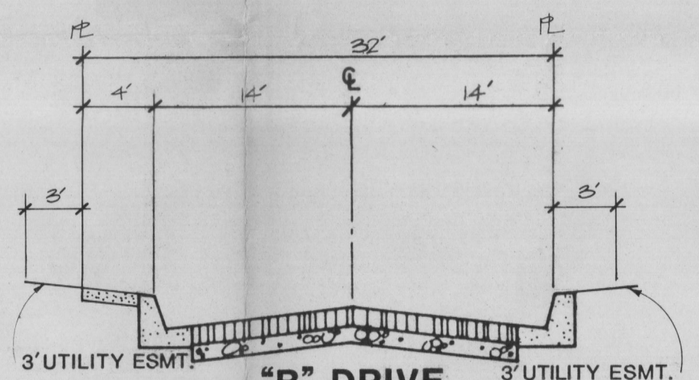
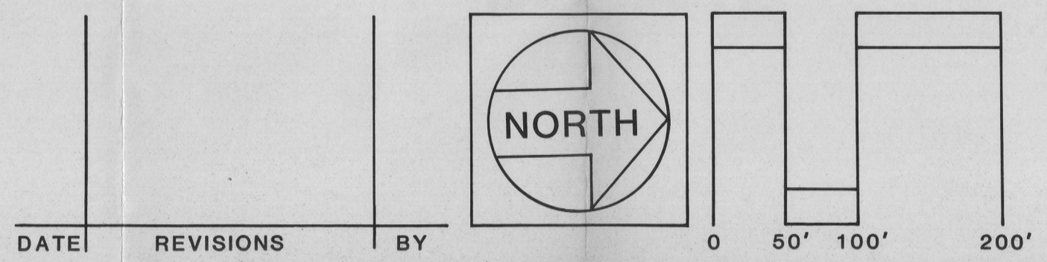


"A" DRIVE
(PRIVATE)



"B" DRIVE
(PRIVATE)



DATE	REVISIONS	BY

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12. IN THE DESIGN OF THIS SUBDIVISION THE SOLAR ACCESS GUIDELINES AS ADOPTED BY THE BOARD OF SUPERVISORS WERE CONSIDERED.
13. THE LOCAL PARK REQUIREMENTS FOR THIS MAP WILL BE MET THROUGH THE PARK IMPLEMENTATION PLAN INCORPORATED WITHIN THE COUNTRY VILLAGE AREA PLAN (AP 87-4P).

SCREEN CHECK MAP
Reports due in Tentative Map Section by
MAR 31 1988

LEGAL DESCRIPTION

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF ORANGE, STATE OF CALIFORNIA, BEING ALL OF LOT 45 OF TRACT 13061 AS FILLED IN BOOK 593, PAGES 40 THROUGH 44 OF MISCELLANEOUS MAPS, RECORDS OF SAID COUNTY.

RECEIVED
MAR 16 1988
ORANGE COUNTY EMA
SUBDIVISION DIVISION
TENTATIVE MAP SECTION

LOT SUMMARY

LOT #	USE
LOTS 1-21	SINGLE FAMILY RESIDENTIAL
LOT A	OPEN SPACE LOT
LOT B	PRIVATE DRIVE

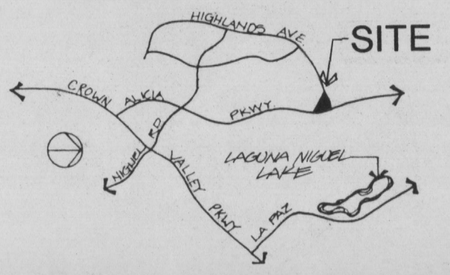
STATEMENT OF OWNERSHIP

I HEREBY CERTIFY THAT THE OWNER OF RECORD HAS KNOWLEDGE OF AND CONSENTS TO THE FILING OF THIS MAP.

AGENT, HUNSAKER & ASSOCIATES — DATE

SCALE 1" - 100'
DATE 3-14-88
W.O. # 22-115
GROSS AREA 4.9 AC.
CONTOUR INTERVAL 1'
TOTAL LOTS 21

VICINITY MAP



PREPARED FOR:

S & S CONSTRUCTION
8383 WILSHIRE BLVD.
BEVERLY HILLS, CA.
(213) 655-7330

PREPARED BY:

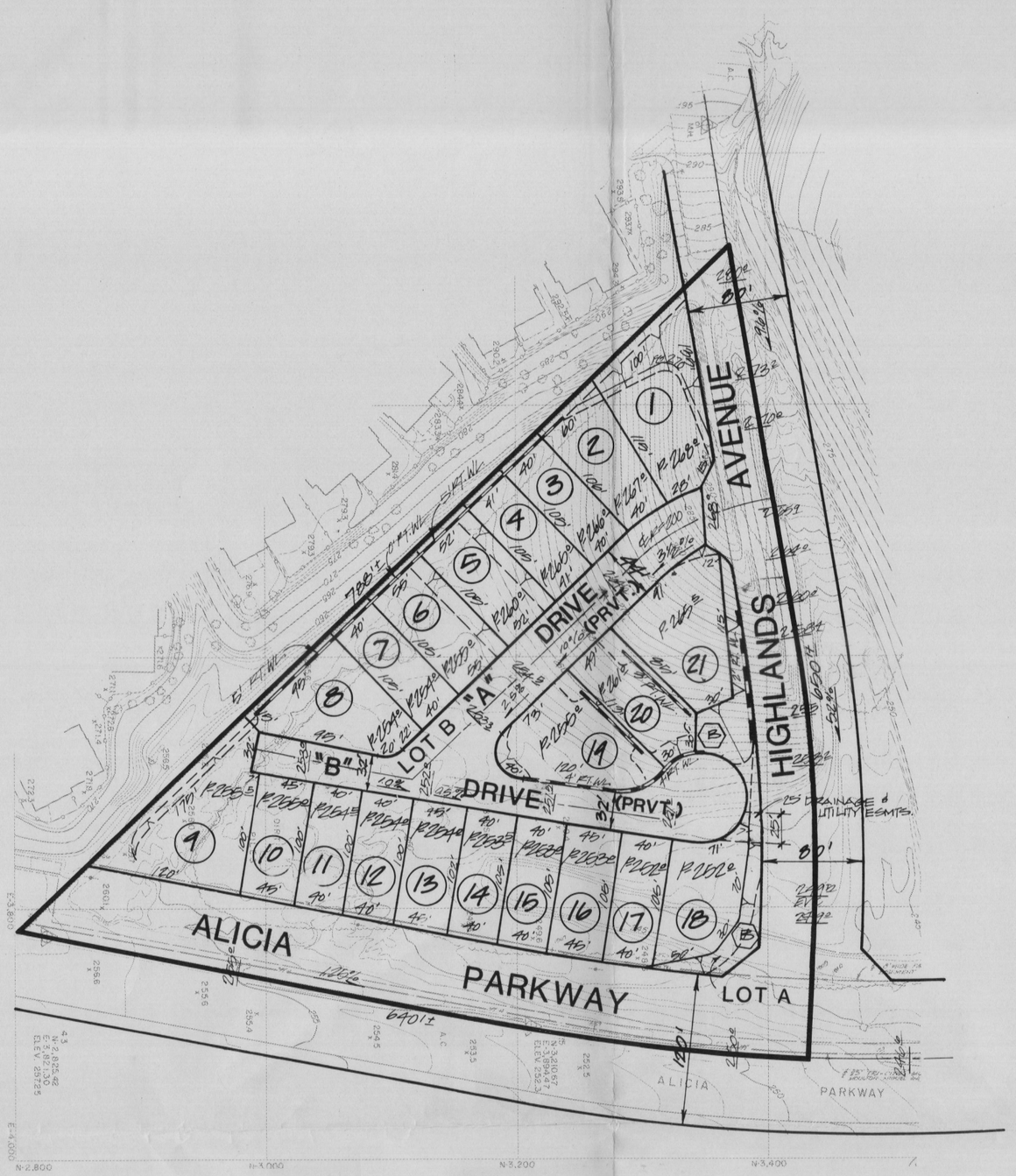
Hunsaker & Associates inc.
PLANNING • ENGINEERING • SURVEYING
Three Hughes • Irvine, CA 92718
Offices: Irvine • Ontario • San Diego
(714) 583-1010

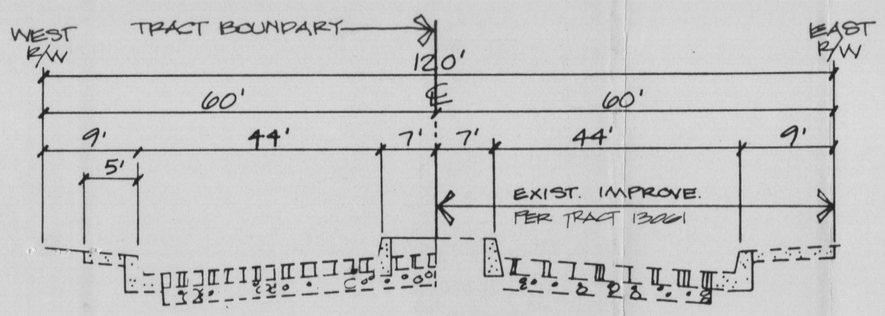
TENTATIVE TRACT NO. 13522

A VESTING MAP.

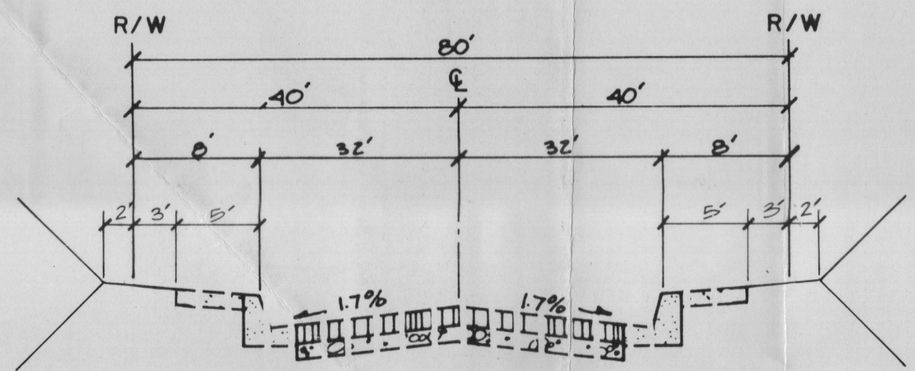
MAR 15 1988

W.O. # 22-115 BIN # 317 A TENTATIVE TRACT 13522

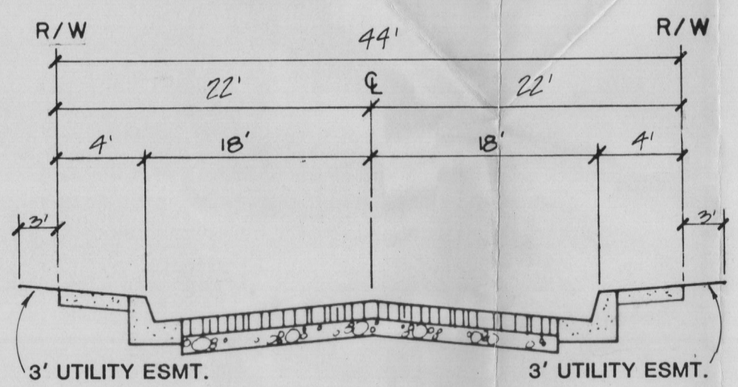




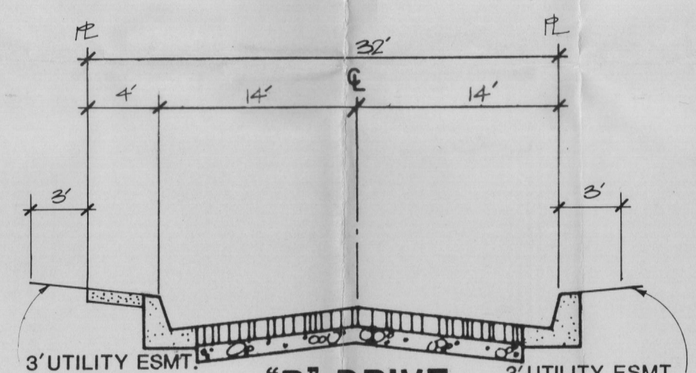
ALICIA PARKWAY
(PUBLIC-EXISTING)



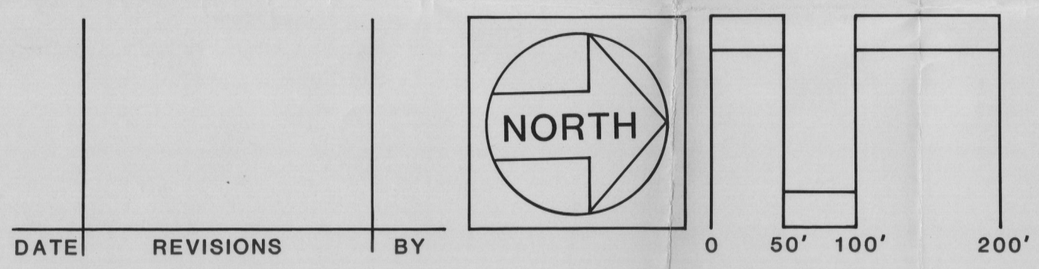
HIGHLANDS AVENUE
(PUBLIC-EXISTING)



"A" DRIVE
(PRIVATE)



"B" DRIVE
(PRIVATE)



DATE	REVISIONS	BY

NOTES

1. EXISTING LAND USE: VACANT
2. PROPOSED LAND USE : SINGLE FAMILY RESIDENTIAL
3. EXISTING ZONING : PLANNING UNIT A-5 COUNTRY VILLAGE PLANNED COMMUNITY.
4. WATER AND SEWER SERVICE BY: MOULTON-NIGUEL WATER DISTRICT
5. ELECTRIC SERVICE BY : SOUTHERN CALIFORNIA EDISON CO.
6. GAS SERVICE BY : SOUTHERN CALIFORNIA GAS CO.
7. TELEPHONE SERVICE BY: PACIFIC TELEPHONE CO.
8. UTILITIES TO BE UNDERGROUND.
9. STREET IMPROVEMENTS PER COUNTY STANDARDS AND MODIFIED PER SECTION SHOWN.
10. DRAINAGE TO COMPLY WITH MASTER PLAN OF DRAINAGE
11. ALL SLOPES TO BE 2:1, EXCEPT SIDE SLOPES OF 5' OR LESS, WHICH MAY BE 1.5:1, PENDING APPROVAL OF SOILS ENGINEER.
12. IN THE DESIGN OF THIS SUBDIVISION THE SOLAR ACCESS GUIDELINES AS ADOPTED BY THE BOARD OF SUPERVISORS WERE CONSIDERED.
13. THE LOCAL PARK REQUIREMENTS FOR THIS MAP WILL BE MET THROUGH THE PARK IMPLEMENTATION PLAN INCORPORATED WITHIN THE COUNTRY VILLAGE AREA PLAN (AP 87-4P).
14. THIS IS AN APPLICATION FOR A DEVELOPMENT PERMIT.

RECEIVED
APR 12 1988
ORANGE COUNTY EMA
SUBDIVISION DIVISION
TENTATIVE MAP SECTION

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I HEREBY CERTIFY THAT THE OWNER OF RECORD HAS KNOWLEDGE OF AND CONSENTS TO THE FILING OF THIS MAP.

Pete Major — 4-12-88
AGENT, HUNSAKER & ASSOCIATES — DATE

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W.O. # 22-115
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CONTOUR INTERVAL 1'
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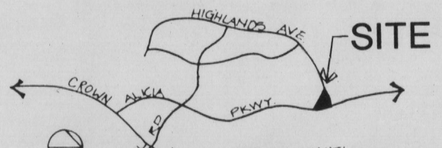
VICINITY MAP



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TENTATIVE TRACT NO. 13522

A VESTING MAP

4 1288

W.O. # 22-115 BIN # 317 A TENTATIVE TRACT 13522