

SHEET 1 OF 5 SHEETS
107 NUMBERED LOTS AND
LOTS A THROUGH M, INCLUSIVE
ACREAGE: 21.000 ACRES
(A PORTION OF TENTATIVE
TRACT No. 15962)

TRACT No. 15962

IN THE CITY OF LAGUNA NIGUEL, COUNTY OF ORANGE,
STATE OF CALIFORNIA

BEING A SUBDIVISION OF A PORTION OF TRACT NO. 13816, AS PER
MAP FILED IN BOOK 647, PAGES 8 THROUGH 13, INCLUSIVE, OF
MISCELLANEOUS MAPS, RECORDS OF ORANGE COUNTY, CALIFORNIA.

BLOCK: 5156
MODULE: 00, 01

HUNSAKER AND ASSOCIATES IRVINE, INC.
TOM R. McGANNON, R.C.E. 23956

DATE OF SURVEY: NOVEMBER, 1998

ACCEPTED AND FILED AT THE
REQUEST OF

FIRST AMENDMENT TITLE Co.

DATE: Jun 22, 2000

TIME: 4:02pm FEE: \$ 15.00

INSTRUMENT NO. 20000342823

BOOK 804 PAGE 5-9

GARY L. GRANVILLE
COUNTY CLERK-RECORDER

BY [Signature]
DEPUTY

OWNERSHIP CERTIFICATE:

WE, THE UNDERSIGNED, BEING ALL 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.

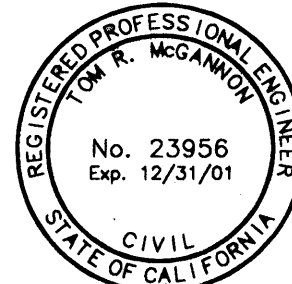
WE HEREBY DEDICATE TO THE CITY OF LAGUNA NIGUEL:
AN EASEMENT FOR EMERGENCY ACCESS PURPOSES AS SHOWN ON SAID MAP.

WE ALSO HEREBY DEDICATE TO MOULTON-NIGUEL WATER DISTRICT, THE EASEMENTS FOR
WATER, SEWER AND RECYCLED WATER PIPELINES AND ACCESS PURPOSES AS SHOWN ON
SAID MAP, SAID EASEMENTS SHALL BE SUBJECT TO THE SAME TERMS AND CONDITIONS
AS ARE SHOWN IN THAT CERTAIN EASEMENT RECORDED APRIL 7, 1998, AS INSTRUMENT
NO. 19980204048 OF OFFICIAL RECORDS OF THE COUNTY OF ORANGE.

ENGINEER'S STATEMENT:

I HEREBY STATE THAT THIS MAP, CONSISTING OF 5 SHEETS, CORRECTLY REPRESENTS A TRUE
AND COMPLETE SURVEY AS SHOWN MADE IN NOVEMBER 1998, WAS 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 THAT SAID MONUMENTS ARE (OR WILL BE) SUFFICIENT
TO ENABLE THE SURVEY TO BE RETRACED.

Tom R. McGannon
TOM R. McGANNON, R.C.E. NO. 23956
REGISTRATION EXPIRES: 12/31/01

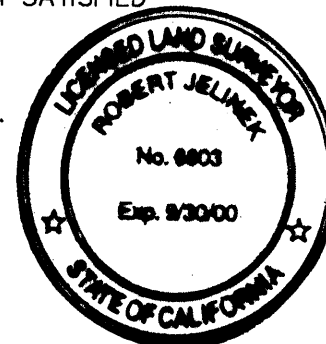


COUNTY SURVEYOR'S STATEMENT:

I HEREBY STATE THAT I HAVE EXAMINED THIS MAP AND HAVE FOUND THAT ALL MAPPING
PROVISIONS OF THE SUBDIVISION MAP ACT HAVE BEEN COMPLIED WITH AND I AM SATISFIED
SAID MAP IS TECHNICALLY CORRECT RELATIVE TO THE TRACT MAP BOUNDARY.

DATED THIS 22nd DAY OF June, 2000.

Robert Jelinek
JOHN CANAS, COUNTY SURVEYOR
ROBERT JELINEK, DEPUTY COUNTY SURVEYOR



CITY ENGINEER'S STATEMENT:

I HEREBY STATE THAT I HAVE EXAMINED THIS MAP AND HAVE FOUND IT TO BE
SUBSTANTIALLY IN CONFORMANCE WITH THE TENTATIVE MAP, IF REQUIRED, AS FILED WITH,
AMENDED, AND APPROVED BY THE CITY PLANNING COMMISSION; THAT ALL PROVISIONS OF THE
SUBDIVISION MAP ACT AND CITY SUBDIVISION REGULATIONS HAVE BEEN COMPLIED WITH AND
THE MAP IS TECHNICALLY CORRECT IN ALL RESPECTS NOT STATED TO BY THE COUNTY
SURVEYOR.

DATED THIS 7th DAY OF June, 2000.

Ken Montgomery
KEN MONTGOMERY, R.C.E. 21402
MY REGISTRATION EXPIRES: 9-30-2001
CITY ENGINEER/DIRECTOR OF PUBLIC WORKS, CITY OF LAGUNA NIGUEL



CITY CLERK'S CERTIFICATE:

STATE OF CALIFORNIA }
COUNTY OF ORANGE } SS
CITY OF LAGUNA NIGUEL }

I HEREBY CERTIFY THAT THIS MAP WAS PRESENTED FOR APPROVAL TO THE CITY COUNCIL OF
THE CITY OF LAGUNA NIGUEL AT A REGULAR MEETING THEREOF HELD ON THE 6th DAY
OF June, 2000, AND THAT THEREUPON SAID COUNCIL, DID, BY AN ORDER
DULY PASSED AND ENTERED, APPROVE SAID MAP.

AND DID ACCEPT ON BEHALF OF THE CITY OF LAGUNA NIGUEL:
THE EASEMENT FOR EMERGENCY ACCESS PURPOSES AS DEDICATED.

PURSUANT TO SECTION 66434(g) AND 66499.20-1/2 OF THE SUBDIVISION MAP ACT, THE FILING
OF THIS MAP SHALL CONSTITUTE ABANDONMENT OF THOSE EASEMENTS WITHIN THE BOUNDARY
OF THIS MAP WHICH WERE ACQUIRED BY THE CITY OF LAGUNA NIGUEL, SUCCESSOR IN INTEREST
TO THE COUNTY OF ORANGE, PER TRACT NO. 13816, M.M. 647/8-13, RECORDS OF ORANGE
COUNTY, CALIFORNIA, NOT SHOWN ON THIS MAP.

AND DID ALSO APPROVE SUBJECT MAP PURSUANT TO THE PROVISIONS OF SECTION 66436
(a)(3)(A) OF THE SUBDIVISION MAP ACT.

DATED THIS 7th DAY OF June, 2000.

Juanita Zarilla
JUANITA ZARILLA, CITY CLERK
CITY OF LAGUNA NIGUEL

COUNTY TREASURER-TAX COLLECTOR'S CERTIFICATE:

STATE OF CALIFORNIA }
COUNTY OF ORANGE } SS

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.

I ALSO 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 15 DAY OF JUNE, 2000.

John M.W. Moorlach
JOHN M.W. MOORLACH
COUNTY TREASURER-TAX COLLECTOR

BY: Kim Barnes
DEPUTY TREASURER-TAX COLLECTOR

SIGNATURE OMISSIONS:

PURSUANT TO THE PROVISIONS OF SECTION 66436 (a)(3)(A) OF THE SUBDIVISION
MAP ACT, THE FOLLOWING SIGNATURES HAVE BEEN OMITTED:

CITY OF LAGUNA NIGUEL, SUCCESSOR IN INTEREST TO THE COUNTY OF ORANGE, HOLDER OF
EASEMENTS FOR INGRESS, EGRESS OF EMERGENCY AND PUBLIC VEHICLE PURPOSES AS
DEDICATED PER TRACT NO. 13816, M.M. 647/8-13.

SHAPELL INDUSTRIES, INC., A DELAWARE CORPORATION, OWNER.

BY: Nathan Shapell
NATHAN SHAPELL
PRESIDENT

BY: Margaret Leong
MARGARET LEONG
SECRETARY

CERTIFICATE OF ACCEPTANCE - MOULTON NIGUEL WATER DISTRICT:

THE UNDERSIGNED, BEING THE DULY APPOINTED AGENT OF THE MOULTON-NIGUEL WATER DISTRICT, A PUBLIC
AGENCY IN ORANGE COUNTY, CALIFORNIA, PURSUANT TO ITS RESOLUTION NO. 81-29 DOES HEREBY ACCEPT
ON BEHALF OF SAID DISTRICT, THE PIPELINE EASEMENTS FOR WATER AND SEWER AND ACCESS PURPOSES, AS
DEDICATED AND SHOWN ON THIS TRACT MAP, BY AND BETWEEN THE MOULTON-NIGUEL WATER DISTRICT AND
SHAPELL INDUSTRIES, INC., THE OWNER, AND DOES HEREBY CERTIFY THAT THE GRANTEE CONSENTS TO THE
RECORDATION OF SAID TRACT.

Carlo H. Habash
CARLO H. HABASH
DIRECTOR OF ENGINEERING
MOULTON-NIGUEL WATER DISTRICT

NOTARY ACKNOWLEDGMENTS:

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES } SS

ON JANUARY 20, 2000, BEFORE ME, MARY ANN MAYER, 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 PERSON(S) WHOSE NAME(S) ~~IS/ARE~~
SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT ~~HE/SHE/they~~
EXECUTED THE SAME IN ~~HIS/HER/their~~ AUTHORIZED CAPACITY(IES), AND THAT BY ~~HIS/~~
~~HER/their~~ SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR ENTITY UPON BEHALF
OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

WITNESS MY HAND:

SIGNATURE Mary Ann Mayer
NOTARY PUBLIC IN AND FOR SAID STATE

MY PRINCIPAL PLACE OF BUSINESS IS
IN LOS ANGELES COUNTY.

MARY ANN MAYER
(NAME PRINTED)

MY COMMISSION EXPIRES: 3/13/02

STATE OF CALIFORNIA }
COUNTY OF ORANGE } SS

ON March 22, 2000, BEFORE ME, Valerie L. Gavin, A
NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED Carlo H. Habash
AND Valerie L. Gavin, PERSONALLY KNOWN TO ME (OR PROVED TO ME
ON THE BASIS OF SATISFACTORY EVIDENCE) TO BE THE PERSON(S) WHOSE NAME(S) ~~IS/ARE~~
SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT ~~HE/SHE/they~~
EXECUTED THE SAME IN ~~HIS/HER/their~~ AUTHORIZED CAPACITY(IES), AND THAT BY ~~HIS/~~
~~HER/their~~ SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR ENTITY UPON BEHALF
OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

WITNESS MY HAND:

SIGNATURE Valerie L. Gavin
NOTARY PUBLIC IN AND FOR SAID STATE

MY PRINCIPAL PLACE OF BUSINESS IS
IN Orange COUNTY.

Valerie L. Gavin
(NAME PRINTED)

MY COMMISSION EXPIRES: 6-16-00

NOTE:

THE PRIVATE STREETS WITHIN THIS SUBDIVISION SHALL BE OWNED, OPERATED AND
MAINTAINED BY THE SUBDIVIDER, SUCCESSORS, ASSIGNS OR HOMEOWNERS' ASSOCIATION
AND THE CITY OF LAGUNA NIGUEL SHALL HAVE NO RESPONSIBILITY THEREFOR.

SHEET 2 OF 5 SHEETS
SCALE 1" = 160'
107 NUMBERED LOTS AND
LOTS A THROUGH M, INCLUSIVE
ACREAGE: 21.699 ACRES
(A PORTION OF TENTATIVE
TRACT No. 15928)

TRACT NO. 15962

IN THE CITY OF LAGUNA NIGUEL, COUNTY OF ORANGE,
STATE OF CALIFORNIA.

HUNSAKER AND ASSOCIATES IRVINE, INC.
TOM R. McGANNON, R.C.E. 23956
DATE OF SURVEY: NOVEMBER, 1998

BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN O.C.S. HORIZONTAL CONTROL STATION GPS NO. 7622 AND STATION GPS NO. 7625 BEING NORTH 88°30'36" EAST PER RECORDS ON FILE IN THE OFFICE OF THE ORANGE COUNTY SURVEYOR.

DATUM STATEMENT:

COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, 1983 NAD, (1991.35 EPOCH OCS GPS ADJUSTMENT).

ALL DISTANCES SHOWN ARE GROUND, UNLESS OTHERWISE NOTED. TO OBTAIN GRID DISTANCE MULTIPLY GROUND DISTANCE BY 0.99995740.

NOTES:

LOTS A THROUGH G, INCLUSIVE, ARE LANDSCAPE LOTS AND ARE NOT SEPARATE BUILDING SITES.

LOTS H THROUGH M, INCLUSIVE, ARE PRIVATE STREETS.

EASEMENT NOTES:

- (A) INDICATES AN EASEMENT FOR WATER AND SEWER PIPELINE AND ACCESS PURPOSES DEDICATED TO MOULTON NIGUEL WATER DISTRICT AND AN EASEMENT FOR EMERGENCY ACCESS PURPOSES DEDICATED TO THE CITY OF LAGUNA NIGUEL HEREON.
- (B) INDICATES AN EASEMENT FOR WATERLINE AND ACCESS PURPOSES DEDICATED TO MOULTON NIGUEL WATER DISTRICT HEREON.
- (C) INDICATES AN EASEMENT FOR PRIVATE STORM DRAIN PURPOSES RESERVED HEREON.
- (D) INDICATES A 3' WIDE EASEMENT FOR DRAINAGE PURPOSES RESERVED HEREON.

MONUMENT NOTES:

2" I.P. TAGGED "R.C.E. 23956" OR LEAD & TAG "R.C.E. 23956" IN CONCRETE OR NAIL & TAG "R.C.E. 23956" IN CONCRETE OR 8" S&W STAMPED "R.C.E. 23956" IN ASPHALT TO BE SET AT ALL TRACT CORNERS, EXCEPT B.C.s & E.C.s WHICH ABUT A STREET AND ARE NOT LOT CORNERS MARKING SIDE LOT LINES, UNLESS OTHERWISE NOTED, WITHIN 90 DAYS AFTER ACCEPTANCE OF IMPROVEMENTS.

1" I.P. TAGGED "R.C.E. 23956" OR LEAD & TAG "R.C.E. 23956" IN CONCRETE OR NAIL & TAG "R.C.E. 23956" IN CONCRETE OR 8" S&W STAMPED "R.C.E. 23956" IN ASPHALT TO BE SET AT ALL LOT CORNERS EXCEPT B.C.s, E.C.s AND P.C.C.s WHICH ABUT A STREET AND ARE NOT LOT CORNERS MARKING SIDE LOT LINES, UNLESS OTHERWISE NOTED, WITHIN 90 DAYS AFTER ACCEPTANCE OF IMPROVEMENTS.

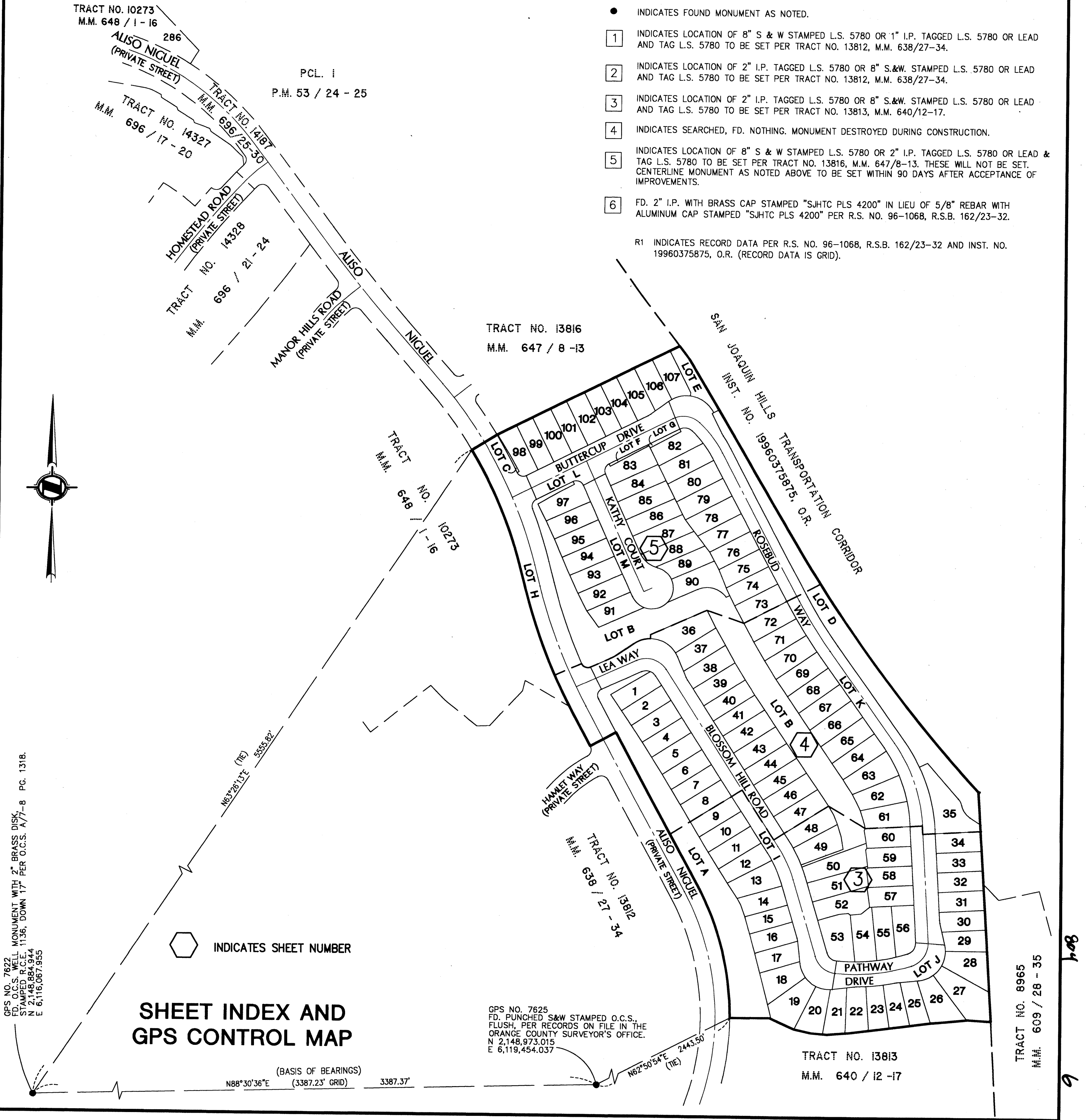
8" S&W STAMPED "R.C.E. 23956" IN ASPHALT OR LEAD & TAG "R.C.E. 23956" IN CONCRETE OR 1" I.P. TAGGED "R.C.E. 23956" IN MEDIAN TO BE SET AT ALL STREET CENTERLINE POINTS OF CONTROL, UNLESS OTHERWISE NOTED, WITHIN 90 DAYS AFTER ACCEPTANCE OF IMPROVEMENTS.

LEAD, TACK & TAG R.C.E. 23956 TO BE SET IN TOP OF CURB ON ALL SIDE LOT LINES PRODUCED OR CONTINUED, AT A 9.75' OFFSET FROM INTERSECTION WITH STREET RIGHT OF WAY ON LOT LINES THAT ARE PERPENDICULAR OR RADIAL TO STREET RIGHT OF WAY, WITHIN 90 DAYS AFTER ACCEPTANCE OF IMPROVEMENTS, UNLESS OTHERWISE NOTED. BEARING AND DISTANCE OF PRODUCTION IS AS NOTED HEREON FOR LOT LINES THAT ARE NOT RADIAL OR PERPENDICULAR.

P# INDICATES BEARING AND DISTANCE OF LOT LINE PRODUCTION FROM LOT CORNER TO MONUMENT.

- INDICATES NOTHING TO BE SET.
- INDICATES FOUND MONUMENT AS NOTED.
- [1] INDICATES LOCATION OF 8" S & W STAMPED L.S. 5780 OR 1" I.P. TAGGED L.S. 5780 OR LEAD AND TAG L.S. 5780 TO BE SET PER TRACT NO. 13812, M.M. 638/27-34.
- [2] INDICATES LOCATION OF 2" I.P. TAGGED L.S. 5780 OR 8" S&W. STAMPED L.S. 5780 OR LEAD AND TAG L.S. 5780 TO BE SET PER TRACT NO. 13812, M.M. 638/27-34.
- [3] INDICATES LOCATION OF 2" I.P. TAGGED L.S. 5780 OR 8" S&W. STAMPED L.S. 5780 OR LEAD AND TAG L.S. 5780 TO BE SET PER TRACT NO. 13813, M.M. 640/12-17.
- [4] INDICATES SEARCHED, FD. NOTHING. MONUMENT DESTROYED DURING CONSTRUCTION.
- [5] INDICATES LOCATION OF 8" S & W STAMPED L.S. 5780 OR 2" I.P. TAGGED L.S. 5780 OR LEAD & TAG L.S. 5780 TO BE SET PER TRACT NO. 13816, M.M. 647/8-13. THESE WILL NOT BE SET. CENTERLINE MONUMENT AS NOTED ABOVE TO BE SET WITHIN 90 DAYS AFTER ACCEPTANCE OF IMPROVEMENTS.
- [6] FD. 2" I.P. WITH BRASS CAP STAMPED "SJHTC PLS 4200" IN LIEU OF 5/8" REBAR WITH ALUMINUM CAP STAMPED "SJHTC PLS 4200" PER R.S. NO. 96-106B, R.S.B. 162/23-32.

R1 INDICATES RECORD DATA PER R.S. NO. 96-106B, R.S.B. 162/23-32 AND INST. NO. 19960375875, O.R. (RECORD DATA IS GRID).



SHEET 3 OF 5 SHEETS
SCALE 1" = 40'
107 NUMBERED LOTS AND
LOTS A THROUGH M, INCLUSIVE
ACREAGE: 21,699 ACRES
(A PORTION OF TENTATIVE
TRACT NO. 15928)

TRACT NO. 15962

IN THE CITY OF LAGUNA NIGUEL, COUNTY OF ORANGE,
STATE OF CALIFORNIA

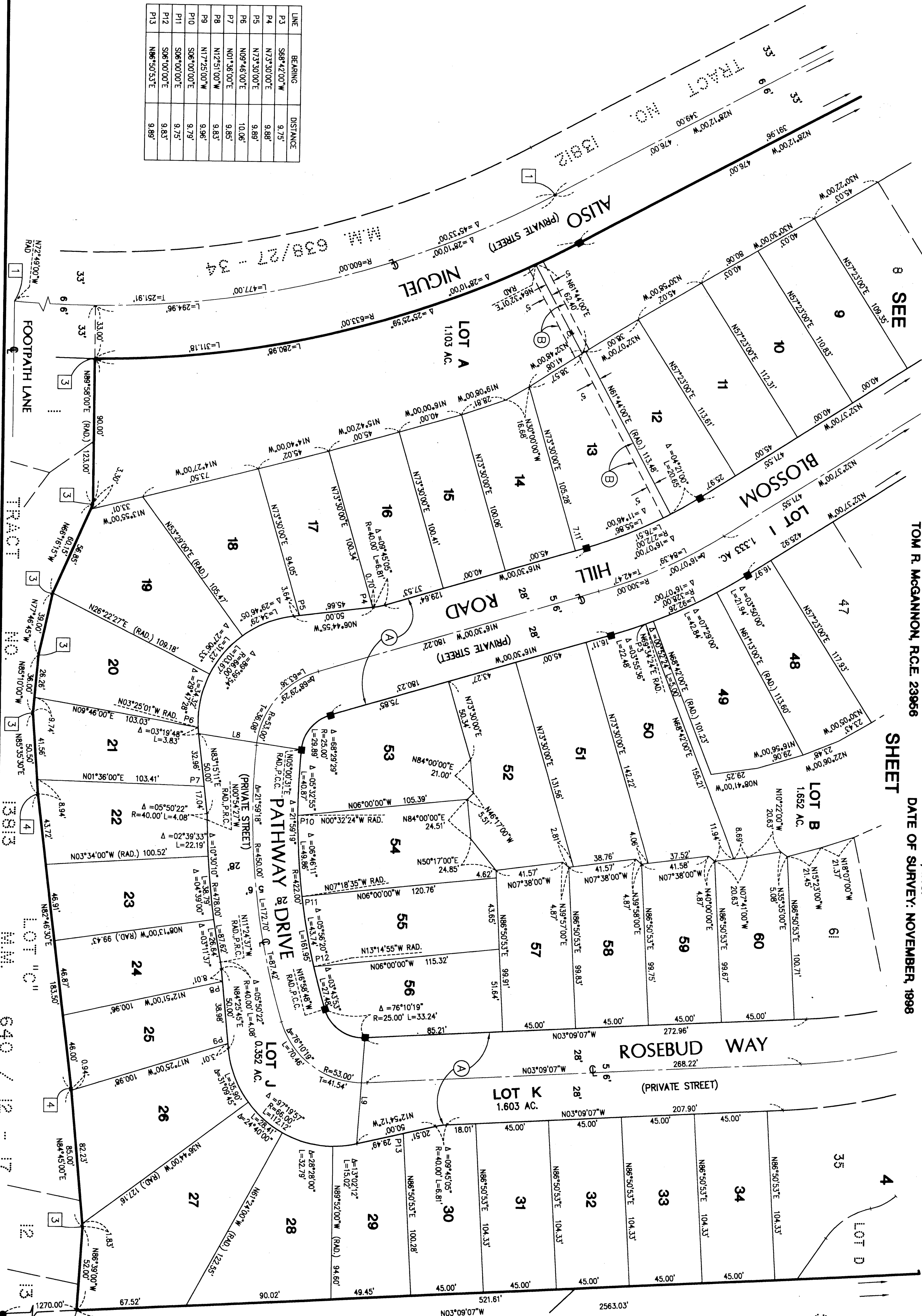
HUNSAKER AND ASSOCIATES IRVINE, INC.
TOM R. MCGANNON, R.C.E. 23966
DATE OF SURVEY: NOVEMBER, 1998

SHEET

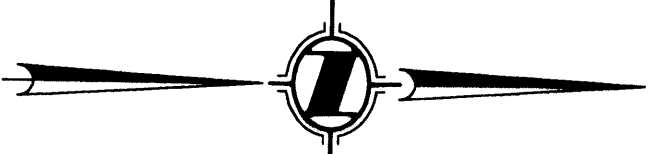
SEE SHEET 2 FOR BASIS OF BEARINGS, DATUM
STATEMENT, MONUMENT NOTES, SHEET INDEX AND
GPS CONTROL MAP, EASEMENT NOTES AND NOTES.

LINE TABLE		
LINE	BEARING	LENGTH
L8	N08°16'45"E	64.37'
L9	N08°11'33"W	65.53'

LINE	BEARING	DISTANCE
P3	S88°42'00"W	9.75'
P4	N73°30'00"E	9.88'
P5	N73°30'00"E	9.89'
P6	N09°46'00"E	10.06'
P7	N01°36'00"E	9.85'
P8	N12°51'00"W	9.83'
P9	N17°25'00"W	9.96'
P10	S06°00'00"E	9.79'
P11	S06°00'00"E	9.75'
P12	S06°00'00"E	9.83'
P13	N08°50'53"E	9.89'



TRACT NO. 15962
M.M. 000 / 000



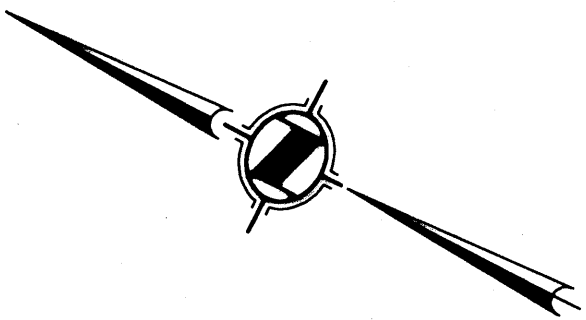
PD 27 LP WITH TAG STAMPED R.C.E. 23966
PER TR. NO. 15816, M.M. 647/8-13

SHEET 5 OF 5 SHEETS
SCALE 1" = 40'
107 NUMBERED LOTS AND
LOTS A THROUGH M, INCLUSIVE
ACREAGE: 21.000 ACRES
(A PORTION OF TENTATIVE
TRACT No. 15928)

TRACT NO. 15962

IN THE CITY OF LAGUNA NIGUEL, COUNTY OF ORANGE,
STATE OF CALIFORNIA

HUNSAKER AND ASSOCIATES IRVINE, INC.
TOM R. MCGANNON, R.C.E. 23956 DATE OF SURVEY: NOVEMBER, 1998



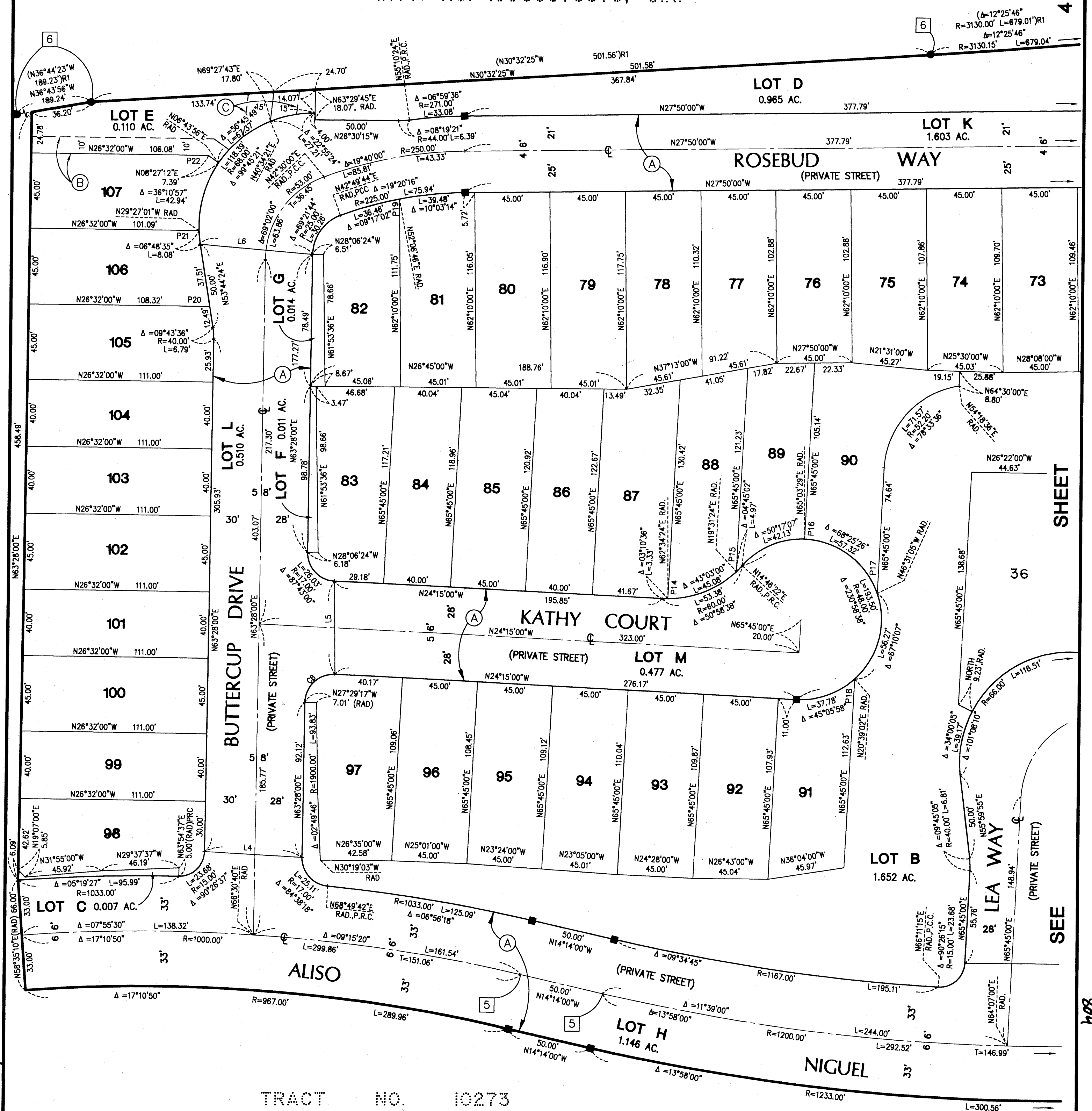
SEE SHEET 2 FOR BASIS OF BEARINGS, DATUM
STATEMENT, MONUMENT NOTES, SHEET INDEX AND
GPS CONTROL MAP, EASEMENT NOTES AND NOTES.

LINE TABLE		
LINE	BEARING	LENGTH
L4	N24°00'13"W	58.06'
L5	N62°05'00"E	56.11'
L6	N22°12'05"W	67.21'

CURVE TABLE			
CURVE	DELTA	RADIUS	LENGTH
C6	92°17'00"	17.00'	27.38'

LINE	BEARING	DISTANCE
P14	S65°45'00"W	9.76'
P15	S65°45'00"W	13.15'
P16	S65°45'00"W	9.75'
P17	N46°31'05"W	9.75'
P18	N65°45'00"E	16.36'
P19	N62°10'00"E	9.90'
P20	S26°32'00"E	10.15'
P21	S26°32'00"E	10.02'
P22	S06°27'12"W	9.76'

SAN JOAQUIN HILLS
TRANSPORTATION CORRIDOR
INST. NO. 19960375875, O.R.



TRACT NO. 10273
M.M. 648 / H-16

GRADING NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE GRADING CODE OF THE CITY OF LAGUNA NIGUEL 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 ENGINEER, SOIL 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 TWO FOOT HORIZONTAL TO ONE FOOT VERTICAL (2:1) UNLESS OTHERWISE SPECIFIED.
5. FILLS SHALL BE COMPACTED THROUGHOUT TO A MINIMUM OF 90% RELATIVE COMPACTION, AGGREGATE BASE FOR ASPHALTIC AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION. MAXIMUM DENSITY SHALL BE DETERMINED BY UNIFORM BUILDING CODE STANDARD NO. 70-1 OR APPROVED EQUIVALENT, AND FIELD DENSITY BY UNIFORM BUILDING CODE STANDARD 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. THE FILL SHALL BE BENCHED INTO COMPETENT MATERIAL PER EMA STANDARD PLAN NO. 1322.
7. ALL EXISTING FILLS SHALL BE APPROVED BY THE BUILDING OFFICIAL OR REMOVED PRIOR TO PLACING ADDITIONAL FILLS.
8. ANY EXISTING IRIGATION LINES AND CISTERNS SHALL BE REMOVED, OR CRUSHED IN PLACE, AND APPROVED BY THE BUILDING OFFICIAL AND SOILS ENGINEER.
9. STOCK PILING OF EXCESS MATERIAL SHALL BE APPROVED BY THE BUILDING OFFICIAL.
10. THE DESIGNING 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.
11. ALL TRENCH BACKFILLS SHALL BE TESTED AND APPROVED BY THE SOILS ENGINEER PER THE GRADING CODE.
12. THE ENGINEERING GEOLOGIST AND SOIL ENGINEER SHALL, AFTER CLEARING AND REMOVAL OF FILL IN CANYONS, DETERMINE THE PRESENCE OR ABSENCE OF SUBSURFACE WATER OR SPRING FLOW. IF NEEDED, SUBDRAINS WILL BE DESIGNED AND CONSTRUCTED PRIOR TO THE PLACEMENT OF FILL IN EACH RESPECTIVE CANYON.
13. SUBDRAIN OUTLETS SHALL BE COMPLETED AT THE BEGINNING OF THE SUBDRAIN CONSTRUCTION.
14. THE EXACT LOCATION OF THE SUBDRAINS SHALL BE SURVEYED IN THE FIELD FOR LINE/GRADE AND REFLECTED ON AS-GRADED PLANS. BEFORE AND AFTER GRADING, ALL CUT SLOPES SHALL BE INVESTIGATED BOTH VISUALLY AND BY OTHER MEANS TO DETERMINE THE PRESENCE OF SUBSURFACE WATER OR SPRING FLOW. IF ANY SLOPE STABILITY PROBLEMS ARE DETECTED, THE ENGINEERING GEOLOGIST AND SOIL ENGINEER SHALL SUBMIT RECOMMENDED TREATMENT TO THE BUILDING OFFICIAL FOR APPROVAL.
15. 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 DESIGN, LOCATIONS AND CALCULATIONS TO THE BUILDING OFFICIAL PRIOR TO CONSTRUCTION. THE ENGINEERING GEOLOGIST AND SOIL ENGINEER SHALL INSPECT AND CONTROL THE CONSTRUCTION OF ALL STRUCTURES UPON COMPLETION.
16. WHEN CUT PADS ARE BROUGHT TO NEAR GRADE, THE ENGINEERING GEOLOGIST AND SOIL ENGINEER 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.
17. THE ENGINEERING GEOLOGIST AND SOIL ENGINEER SHALL PERFORM PERIODIC INSPECTIONS AND SUBMIT A COMPLETE REPORT AND MAP UPON COMPLETION OF THE CONSTRUCTION. THE REPORT SHALL BE REVIEWED BY THE ENGINEERING GEOLOGIST AND SOIL ENGINEER. 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.
18. THE ENGINEERING GEOLOGIST SHALL PERFORM SUFFICIENT INSPECTIONS TO BE AVAILABLE DURING GRADING AND CONSTRUCTION TO VERIFY COMPLIANCE WITH THE PLANS, SPECIFICATIONS AND THE CODE WITHIN THEIR PURVIEW.
19. 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.
20. THE PERMITTEE IS RESPONSIBLE FOR DUST CONTROL MEASURES.
21. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE.
22. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE PERMITTEE.
23. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED TO PROTECT ADJOINING PROPERTIES DURING GRADING.
24. ANY EXISTING WATER WELLS SHALL BE ABANDONED IN COMPLIANCE WITH THE SPECIFICATIONS APPROVED BY ORANGE COUNTY, HUMAN SERVICES AGENCY, DIVISION OF ENVIRONMENTAL HEALTH.
25. ANY EXISTING OIL WELLS SHALL BE ABANDONED IN COMPLIANCE WITH THE ORANGE COUNTY OIL CODE TO THE APPROVAL OF EMA/REGULATION, SPECIAL SERVICES SECTION.
26. 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.
27. PRIOR TO FINAL APPROVAL, THE CIVIL ENGINEER SHALL CERTIFY TO THE BUILDING OFFICIAL THE AMOUNT OF EARTH MOVED DURING THE GRADING OPERATION.
28. 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.
29. ASPHALT CONCRETE SHALL BE CONSTRUCTED PER THE REQUIREMENTS OF EMA STANDARD PLAN 1804.
30. AGGREGATE BASE SECTION SHALL BE CONSTRUCTED PER EMA STANDARD PLAN 1804.

EROSION CONTROL NOTES

44. IN CASE OF EMERGENCY CALL: JOHN COVANN, WORK TELE NO. (949) 253-7680, HOME TELE NO. (949) 425-1282.
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 BASINS AND BASINS.
49. GRADED AREAS AT THE COMPLETED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE TO BE DIRECTED TOWARD DESLTING FACILITIES.
50. THE PERMITTEE SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION. ONLY AREAS WHICH ARE TO REMAIN UNDEVELOPED AND WHICH WILL BE RESTORED TO NATURAL CONDITIONS AND GRADED WITH NATIVE GRASSES UPON THE COMPLETION OF GRADING.
51. ALL CONSTRUCTION VEHICLES OR EQUIPMENT, FIXED OR MOBILE OPERATED WITHIN 1000' 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 PRACTICABLE FROM DWELLINGS.
54. PROGRESS, AND PLANS OF THESE CHANGES SUBMITTED FOR PLAN CHECK AS REQUIRED.
55. THE PLACEMENT OF ADDITIONAL DEVICES TO REDUCE EROSION DAMAGE WITHIN THE SITE IS LEFT TO THE DISCRETION OF THE FIELD ENGINEER.
56. A GUARD WILL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY DEVICE EXCEEDS TWO (2) FEET.
57. THE UNDERSIGNED CIVIL ENGINEER WILL OBSERVE EROSION CONTROL WORK AND WILL INFORM THE COUNTY ENGINEER DEVELOPER IF THE WORK IS NOT IN ACCORDANCE WITH THE APPROVED PLAN.

TYPICAL SIDYARD DRAINAGE

NOTE: TOTAL DRAINAGE DETAIL PRECISE GRADING PLANS

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

SIDEYARD DRAINAGE AT TOP OF SLOPE

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

BUILDING TYPES

THESE PLOT PLANS HAVE BEEN PREPARED BASED ON THE INFORMATION PROVIDED BY THE SUBMITTER. THE SUBMITTER IS RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED. THESE FOR COMPLETE FOUNDATION PLANS AND DETAILS.

ARCHITECT: BASSENAN/LAGONI ASSOCIATES/S & S CONST. CO.
PLAN DATE: _____
REVISION: _____

TYPICAL REARYARD BERM AT TOP OF SLOPE

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

PLAN 1804

BENCH MARK

O.C.S. B.M. 3X-22-69
IN THE SOUTHWEST PART OF THE INTERSECTION OF LA PAZ ROAD AND DOLORES ROAD, 93 FT. WEST OF THE CENTERLINE OF DOLORES, SET IN THE TOP OF N/E CORNER OF A 5X5 FT. CONC. CATCH BASIN, 0.8 OF A FOOT HIGHER THAN THE GUTTER. ELEV. 164.95 (1976)

BASIS OF BEARINGS

THE BEARING OF N89° 16' 18"W AS SHOWN FOR THE SLY BOUNDARY OF TRACT NO. 10292, AS FILED IN BOOK 566, PAGES 19-23 INCLUSIVE, OF MISCELLANEOUS MAPS, RECORDS OF THE COUNTY OF ORANGE.

PRECISE GRADING
Knolls - Phase 1

Lots 8-15 & 44-52 of Tract 15962

AREA DRAIN SYSTEM DETAIL

- AREA DRAIN NOTES
1. AREA DRAIN PIPE SHALL BE:
A. A.B.S. SOLID WALL PIPE PER A.S.T.M. D2751, SD335.
B. P.V.C. PIPE PER A.S.T.M. D1585 SCH 40 OR SCH 35.
 2. ALL N.D.S. FITTINGS MUST BE A.B.S. (NO STYRENE PLASTIC).
A. ACCEPTABLE SOLVENT CEMENTS: (PLASTIC PIPE)
B. WELD-ON 794 (GREEN LABEL) GREEN MEDIUM BODIED FAST SET A.B.S.
C. A.B.S./P.V.C. TRANSITION PLASTIC PIPE CEMENT (TAN LABEL).
 3. APPROVED EQUAL.
 4. AREA DRAIN SYSTEMS ARE A PART OF THE PLOT PLAN AND MUST BE INSTALLED AND OPERATIONAL PRIOR TO FINAL PRECISE GRADING CERTIFICATION.
 5. USE NOS NO. 1212 GRATE AND NOS NO. 1221 BOX OR EQUAL (12" X 12").

USE NOS NO. 1212 GRATE AND NOS NO. 1221 BOX OR EQUAL (12" X 12").

AREA DRAIN DETAIL

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

AREA DRAIN SYSTEM DETAIL

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

AREA DRAIN SYSTEM DETAIL

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

AREA DRAIN SYSTEM DETAIL

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

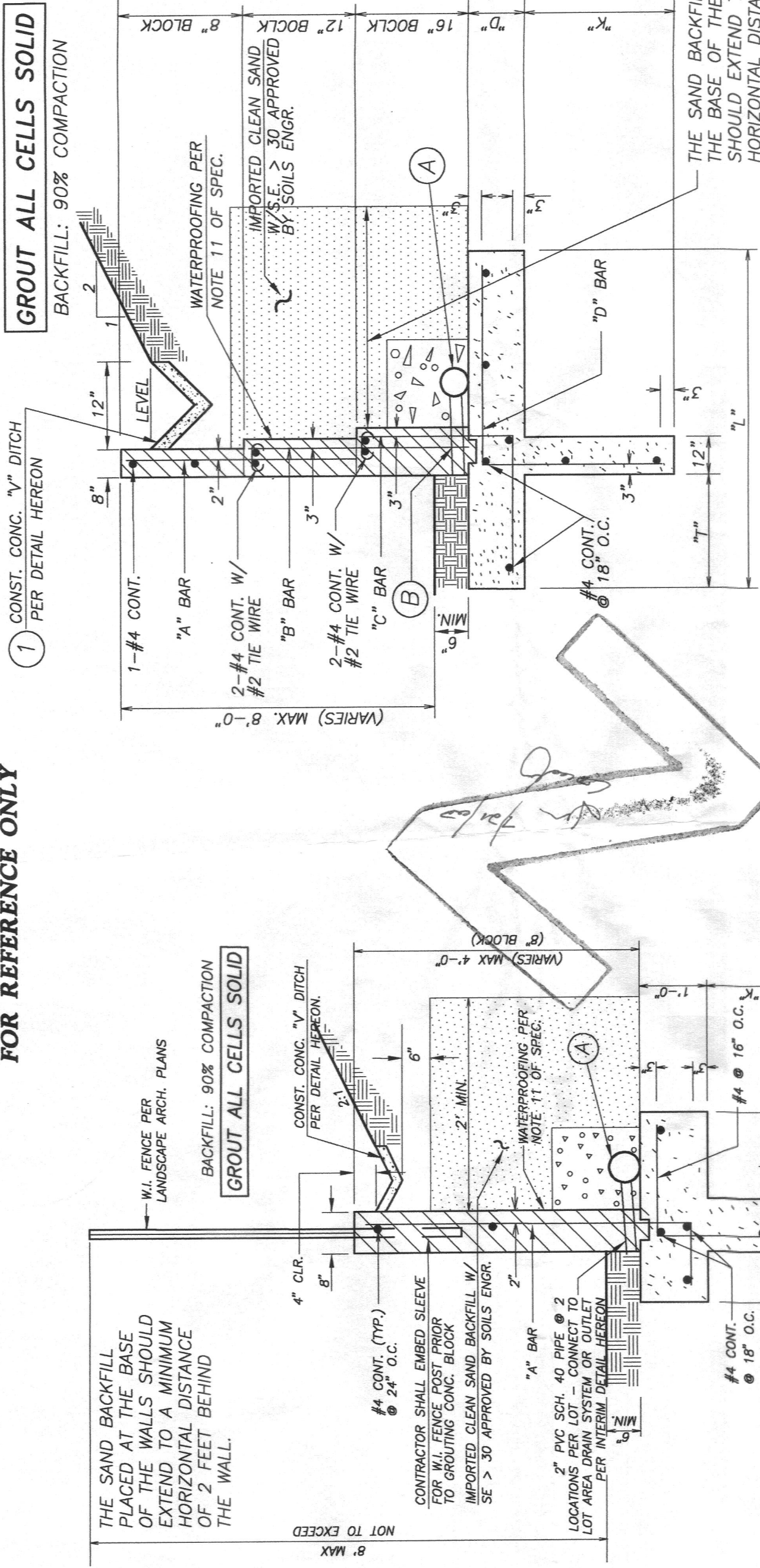
NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

RETAINING WALLS, V-DITCH AND DRAINAGE PER SEPARATE PLAN & PERMIT
FOR REFERENCE ONLY

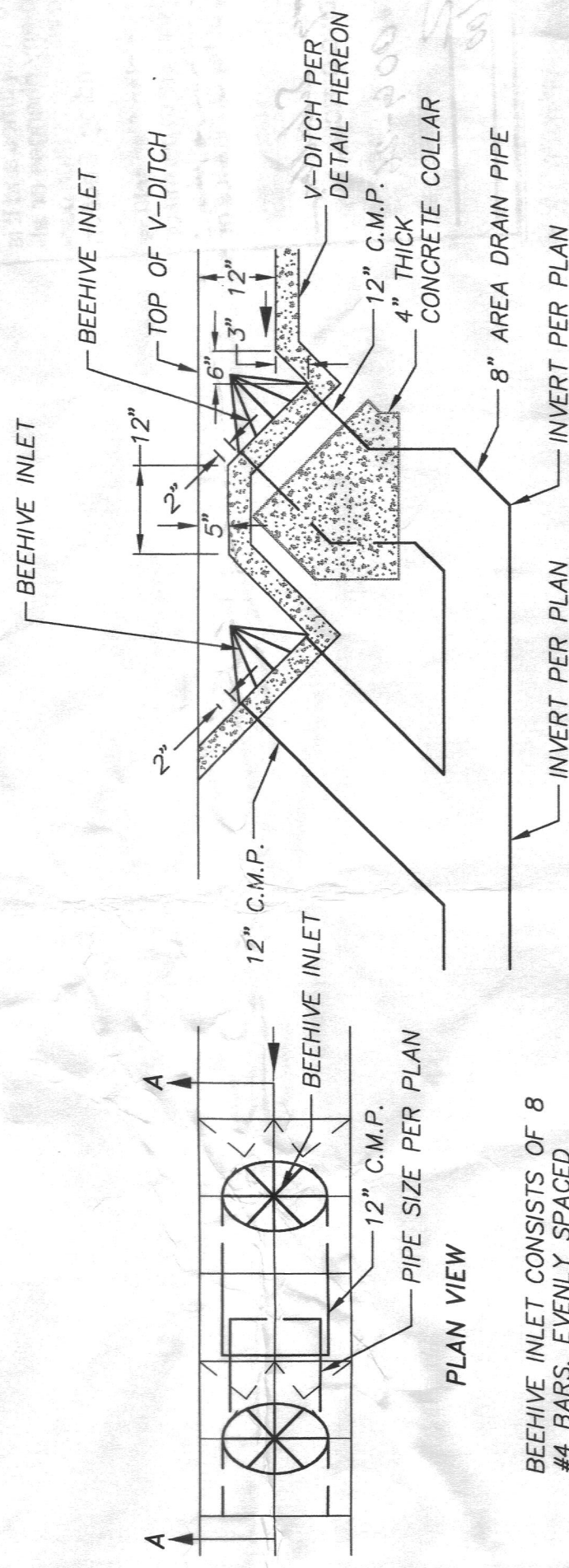


RETAINING WALL TYPE "A"

- W/2:1 BACKFILL
- 4" PERFORATED PVC SCH. 40 PIPE W/ MIN. 1 CF/LF OF OPEN GRADED GRAVEL WRAPPED IN MIRAFI 140N, OR EQUIVALENT FILTER FABRIC.
- 2" PVC SCH. 40 PIPE @ 3' LOCATIONS PER LOT - CONNECT TO LOT AREA DRAIN SYSTEM OR OUTLET PER INTERIM DETAIL HEREON

RETAINING WALL TYPE "B"

- 2:1 BACKFILL
- 4" PERFORATED PVC SCH. 40 PIPE W/ 1 CF/LF OF OPEN GRADED GRAVEL WRAPPED IN MIRAFI 140N, OR EQUIVALENT FILTER FABRIC.



PAVED DRAIN INLET

N.T.S.

CONSTRUCTION NOTES FOR PAVED DRAINAGE DEVICES

- APPROVED MATERIAL FOR CONSTRUCTION OF DRAINAGE DEVICES IS EITHER 3" CONC. W/ NO. 4 BARS LONGITUDINAL 24" O.C. WITH NO. 4 TIE BARS 48" O.C. OR 3" GUNITE W/ 5"x6" - W 1.4 X W 1.4 W.W.F. (WELDED WIRE FABRIC) OR APP'D. EQUAL.
- INSPECTION OF GRADED SWALE IS REQUIRED PRIOR TO INSTALLATION OF PAVING.
- GRADED SWALE SHALL BE PRE-WET PRIOR TO PAVING.
- PAVED DEVICES SHALL BE CURED WITH A MOISTURE LOSS RETARDANT.
- PUMPCRETE IS AN ACCEPTABLE SUBSTITUTE FOR GUNITE & MAY BE INSTALLED WITH 6"x6" W 1.4 X W 1.4 W.W.F.

CONSTRUCTION NOTES

- INSTALL AREA DRAIN SYSTEM PER DETAIL ON SHEET NO. 1
- CONNECT 4" PIPE TO AREA DRAIN OUTLET CONSTRUCTED ON TRACT 13812 IMPROVEMENT PLANS.
- DROP GARAGE FOOTINGS ACCORDINGLY AT DROPPED GARAGE CONDITION.
- RETAINING WALL, V-DITCH AND DRAINAGE PER SEPARATE PERMIT & PLAN. (SEE DETAILS HEREON - FOR REFERENCE ONLY)

NOTES:

- ALL SPLIT SEWER FLOW SYSTEMS ARE REQUIRED ON LOTS 13 & 48
- ALL ROOF DRAINS SHALL BE CONNECTED TO TARDRAINS
- THE MINIMUM DISTANCE BETWEEN THE DRAINAGE AND THE PROPERTY LINE SHALL BE 5 FEET.
- THE MINIMUM DISTANCE BETWEEN THE HOUSE PROJECTION AND THE PROPERTY LINE SHALL BE 3 FEET.
- THE MINIMUM DISTANCE BETWEEN ANY COVERED ENTRY/PORCH AND THE PROPERTY LINE SHALL BE 5 FEET.
- EROSION CONTROL: SANDRAGS REQUIRED ALONG PROPERTY FRONTAGE DURING RAINY SEASON. (OCT. 15TH - APR. 15TH)
- ALL GARAGES WILL BE SETBACK AT LEAST 20 FEET FROM THE BACK OF SIDEWALK OR WILL BE FRONT YARD SETBACK. AUTOMATIC GARAGE DOOR OPENERS.
- BUILDING SITE COVERAGE 60% MAXIMUM.
- ACCESS ROADS SHALL BE DESIGNED AND CONSTRUCTED TO WITHSTAND TRUCK LOADS OF 60,000 LBS. AND SHALL BE PROVIDED WITH AN ALL-WEATHER DRIVING SURFACE.

NO.	DATE	INITIAL	DESCRIPTION

ENGINEER:
HUNSAKER ASSOCIATES
PLANNING • ENGINEERING • SURVEYING
P.O. BOX 587090 • LOS ANGELES, CA 90058

PREPARED FOR:
S & S Construction Co.
4940 Campus Drive
Newport Beach, CA 92660
(949) 253-7680

PRECISE GRADING PLAN
Knolls - Blosson Hill Road
Lots 8-15 & 44-52 of Tract 15962
CITY OF LAGUNA NIGUEL

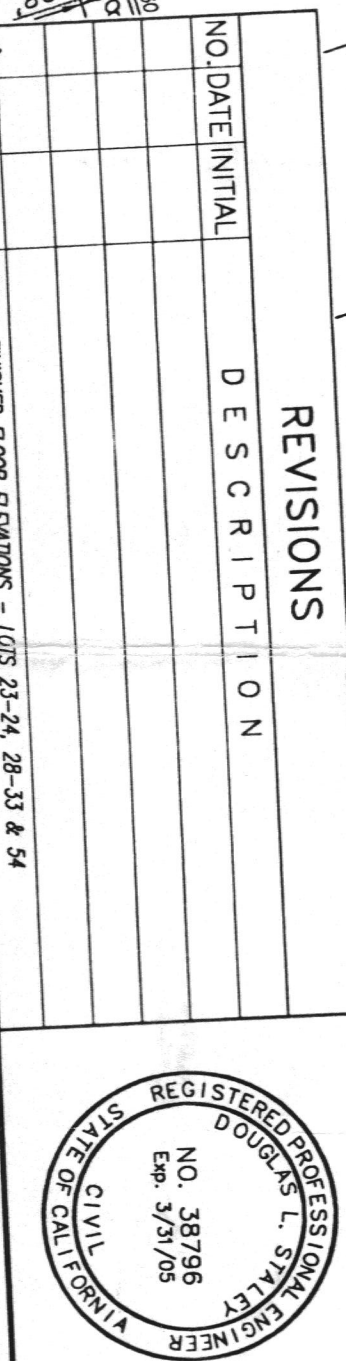
SHEET 2 OF 2

Tr. 15962

07/18/2000

L:\SAN JOAQUIN HILLS\15325\GRADING\PG\TR-15962\PH1-PG-02.DWG

1. **Emergency access roads** will be designed and maintained to support an imposed load of 68,000 pounds and will have a surface which provides all-weather driving capabilities (UFC 902.2.2.2).
2. The grade of fire department access roads will not exceed 10% (UFC 902.2.2.6)
3. Unless otherwise noted on plan, homes will not be protected by automatic fire sprinkler systems.
4. Home construction will be type V non-rated. Maximum home size is 2,719 square feet.
5. Approved numbers shall be placed on all new buildings in such a position that is plainly visible and legible from the road fronting the property.

[illegible]

RETAINING WALL TYPE "A" SCHEDULE

W/2:1 BACKFILL

N/1:5

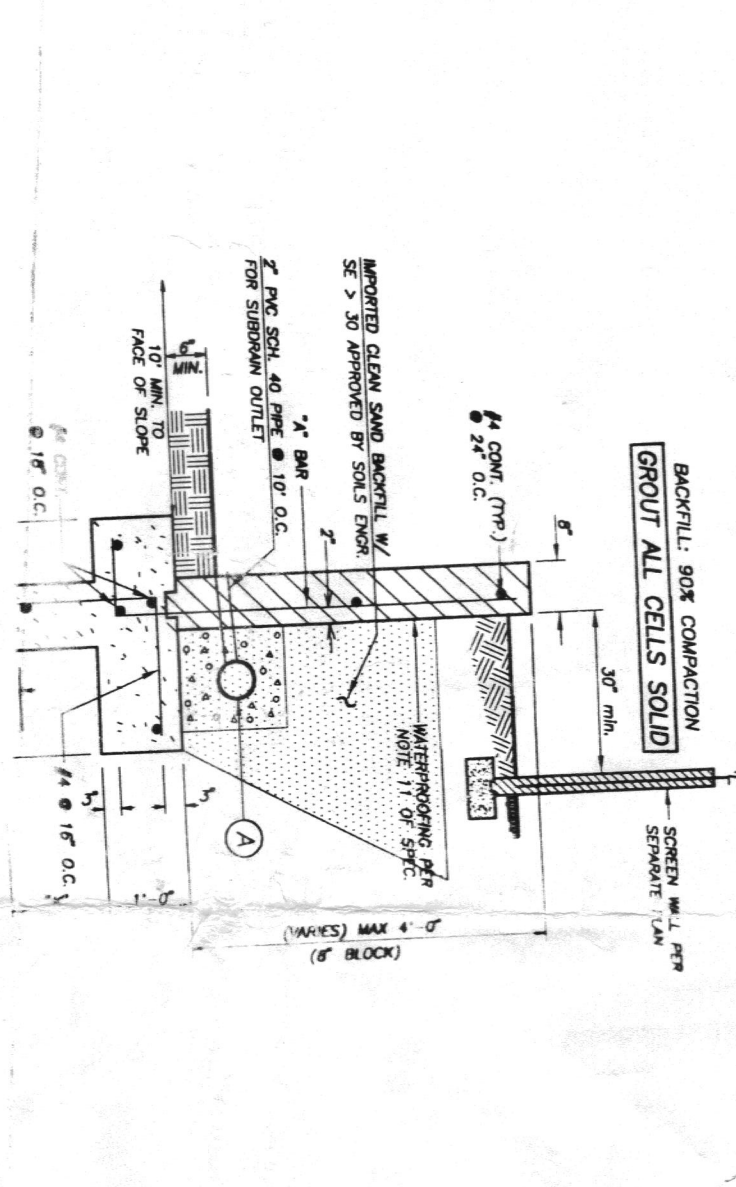
A

4" PERFORATED DRP SCH. 40 PIPE W/IN. 1' C/SPL OF OPEN GRAVEL CRAWL
 WASHED 1/2" DRP 140N.
 2" LOT AREA @ 2 LOCATIONS PER LOT - CONNECT
 TO LOT AREA DRAIN SYSTEM OR OUTLET PER INTERIOR DETAIL
 HEREON

B

RETAINING WALL TYPE "A" SCHEDULE

WALL HT	BACKFILL	DRP	BACKFILL	BACKFILL	1" C/SPL	DRP	BACKFILL	DRP	BACKFILL
2'-0"	2'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	2'-0"	4" SCH. 40	2'-0"
4'-0"	4'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	4'-0"	4" SCH. 40	4'-0"
6'-0"	6'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	6'-0"	4" SCH. 40	6'-0"
8'-0"	8'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	8'-0"	4" SCH. 40	8'-0"
10'-0"	10'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	10'-0"	4" SCH. 40	10'-0"
12'-0"	12'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	12'-0"	4" SCH. 40	12'-0"
14'-0"	14'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	14'-0"	4" SCH. 40	14'-0"
16'-0"	16'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	16'-0"	4" SCH. 40	16'-0"
18'-0"	18'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	18'-0"	4" SCH. 40	18'-0"
20'-0"	20'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	20'-0"	4" SCH. 40	20'-0"
22'-0"	22'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	22'-0"	4" SCH. 40	22'-0"
24'-0"	24'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	24'-0"	4" SCH. 40	24'-0"
26'-0"	26'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	26'-0"	4" SCH. 40	26'-0"
28'-0"	28'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	28'-0"	4" SCH. 40	28'-0"
30'-0"	30'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	30'-0"	4" SCH. 40	30'-0"
32'-0"	32'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	32'-0"	4" SCH. 40	32'-0"
34'-0"	34'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	34'-0"	4" SCH. 40	34'-0"
36'-0"	36'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	36'-0"	4" SCH. 40	36'-0"
38'-0"	38'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	38'-0"	4" SCH. 40	38'-0"
40'-0"	40'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	40'-0"	4" SCH. 40	40'-0"
42'-0"	42'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	42'-0"	4" SCH. 40	42'-0"
44'-0"	44'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	44'-0"	4" SCH. 40	44'-0"
46'-0"	46'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	46'-0"	4" SCH. 40	46'-0"
48'-0"	48'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	48'-0"	4" SCH. 40	48'-0"
50'-0"	50'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	50'-0"	4" SCH. 40	50'-0"
52'-0"	52'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	52'-0"	4" SCH. 40	52'-0"
54'-0"	54'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	54'-0"	4" SCH. 40	54'-0"
56'-0"	56'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	56'-0"	4" SCH. 40	56'-0"
58'-0"	58'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	58'-0"	4" SCH. 40	58'-0"
60'-0"	60'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	60'-0"	4" SCH. 40	60'-0"
62'-0"	62'-0"	-	4" SCH. 40	-	2" C/SPL	4" SCH. 40	62'-0"	4" SCH. 40	62'-0"



RETAINING WALL TYPE "C"
LEVEL BENCHMARK (CASE 2)
W.S.

THE MASS SHALL BE EXTENDED TO A MINIMUM HORIZONTAL DISTANCE OF 2 FEET BEHIND THE RETAINING WALL. THE MASS SHALL BE FULLY TO THE REAR OF THE FOOTING, WHICH TYPE IS GREATER.

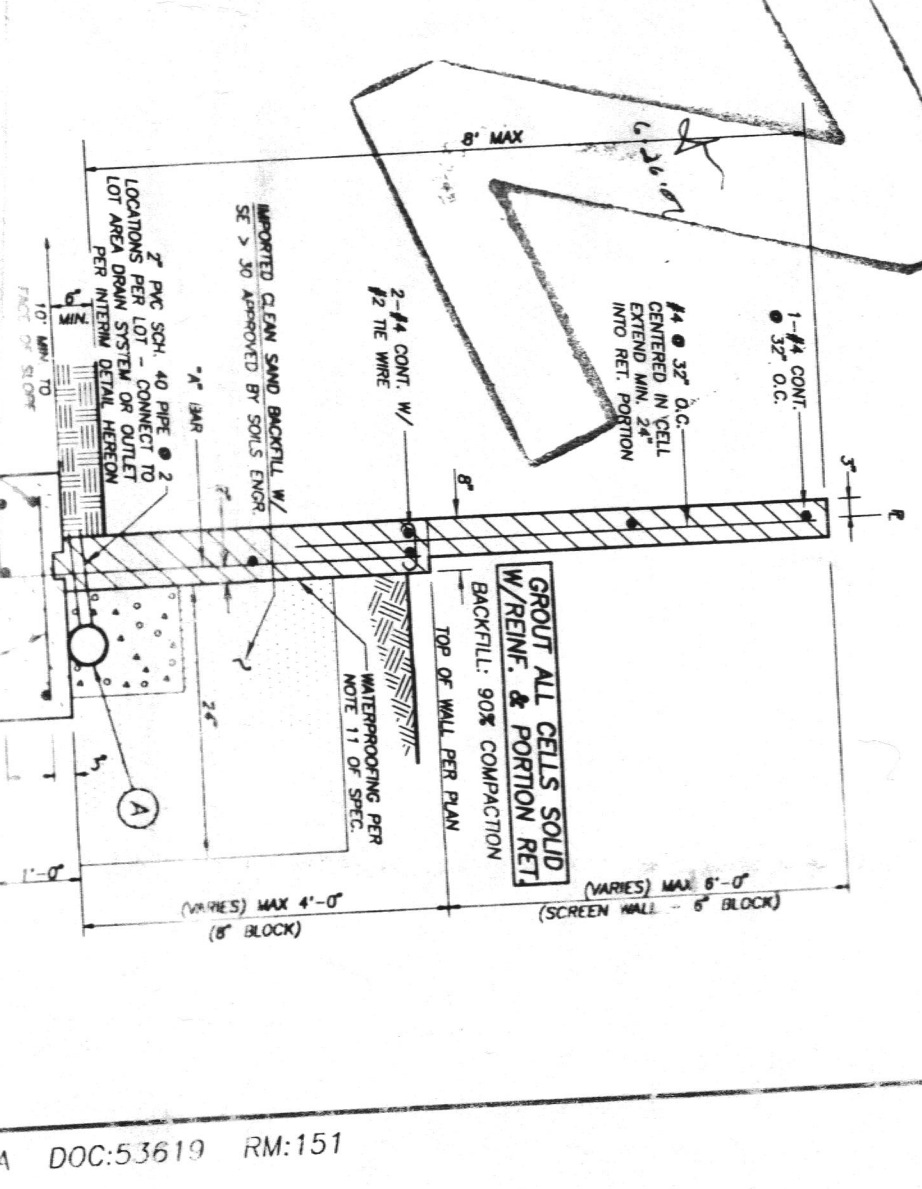
(A) ϕ REPRESENTING PERCENTAGE OF FILLING BY WEIGHT OF GRAVEL, SAND, OR OTHER MATERIALS IN SANDY SOILS OF GRAVEL, SAND, OR OTHER MATERIALS.

RETAINING WALL TYPE C SCHEDULE			
ϕ	1	2	3
WALL HT.	8' BLK.	5' BLK.	12'
WALL WT.	2'-0"	1'-6"	6"
WALL ST.	1'-0"	1'-0"	1'-0"
WALL ST.	2'-0"	2'-0"	2'-0"

- ▲ SPLIT SEWER LOTS 2024, 2833, 53-54 & 57-59, REQUIRED ON PLATS
- ALL ROOF DRAINS SHALL BE CONNECTED TO LAND DRAINS.
- THE MINIMUM DISTANCE BETWEEN THE HOUSE AND THE PROPERTY LINE SHALL BE 5 FEET.
- THE MINIMUM DISTANCE BETWEEN ANY HOUSE FOUNDATION AND THE PROPERTY LINE SHALL BE 3 FEET.
- THE MINIMUM DISTANCE BETWEEN ANY COVERED DECK, PORCH AND THE PROPERTY LINE SHALL BE 5 FEET.
- THE MINIMUM DISTANCE BETWEEN EROSION CONTROL, SANDBARS DURING ALONG PROPERTY FRONTAGE DURING RAINY SEASON, (OCT. 15TH - APR. 5TH) MUST BE 5 FEET.
- ALL GARAGES WILL BE SETBACK 7' LEAST 10' FEET FROM THE BACK OF SIDE WALK OR WILL BE PROVIDED WITH AUTOMATIC GARAGE DOOR OPENERS.
- BUILDING SITE COVERAGE: 60% MINIMUM.
- ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE WEIGHT LOADS OF 60,000 LBS. AN ASPHALT SURFACE WITH AN ALL-WEATHER DRIVING SURFACE.

HUNSAKER & ASSOCIATES
ENGINEERING • ARCHITECTURE • PLANNING
LIVING, INC.

S & S Construction Co.
4940 Campus Drive
Newport Beach, CA 92660
(949) 253-7080

[illegible][illegible]

1. RETAINING WALL TYPE "C"
 LEVEL DACTYL (CASE 1)
 * APPROXIMATE PERCENTAGE OF TYPE "A", "B" OR "C" OPEN GRADED COMBINATION OF TYPE "C" RETAINING WALL TYPE "C" SCHEDULE
 REMAINING WALL TYPE C SCHEDULE
 WALL HT. 6" BLK. X, BAY "L"
 2'-0" 2'-0" 3'-0" 3'-5"
 4'-0" 4'-0" 4'-0" 4'-0"

CONSTRUCTION NOTES

INSTALL AREA DRAIN SYSTEM PER DETAIL ON SHEET NO. 1
CONNECT 4" PIPE TO AREA DRAIN OUTLET CONSTRUCTED
ON TRACT 15962 IMPROVEMENT PLANS.
DROP GARAGE FOOTINGS ACCORDANTLY AT DROPPED
GARAGE CONDITION.
RETAINING WALL, V-DITCH AND DRAINAGE PER SEPARATE PERMIT & PLAN.
(SEE DETAILS HEREON AND ON SHEET 3 - FOR REFERENCE ONLY)

RETAINING WALLS PER SEPARATE PERMIT

APPROVAL OF THIS GRADING PLAN DOES NOT
CONSTITUTE APPROVAL OF THE STRUCTURAL
INTEGRITY OF RETAINING WALLS.

(SEE SEPARATE RETAINING WALL PLANS FOR DETAILS)

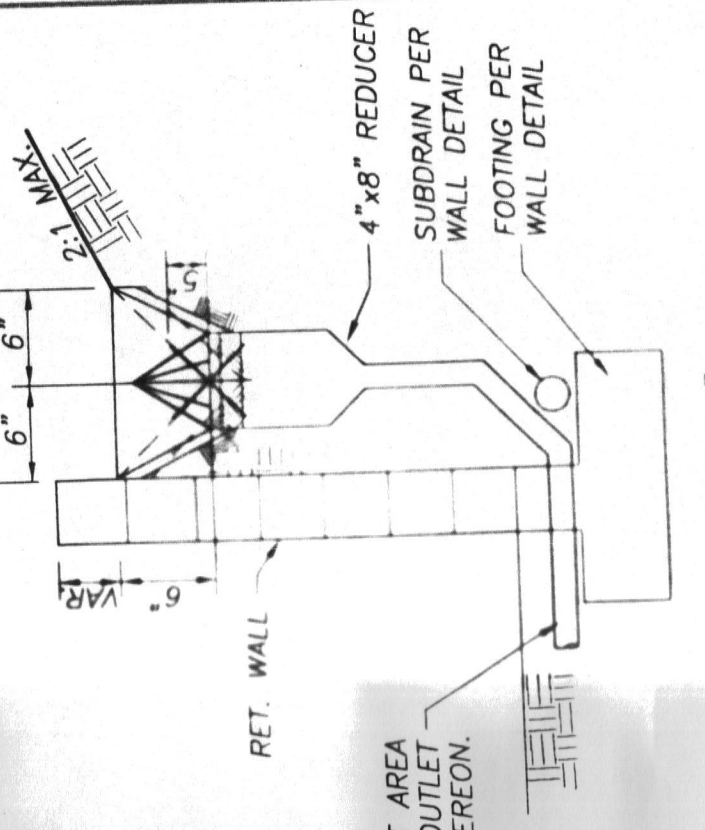
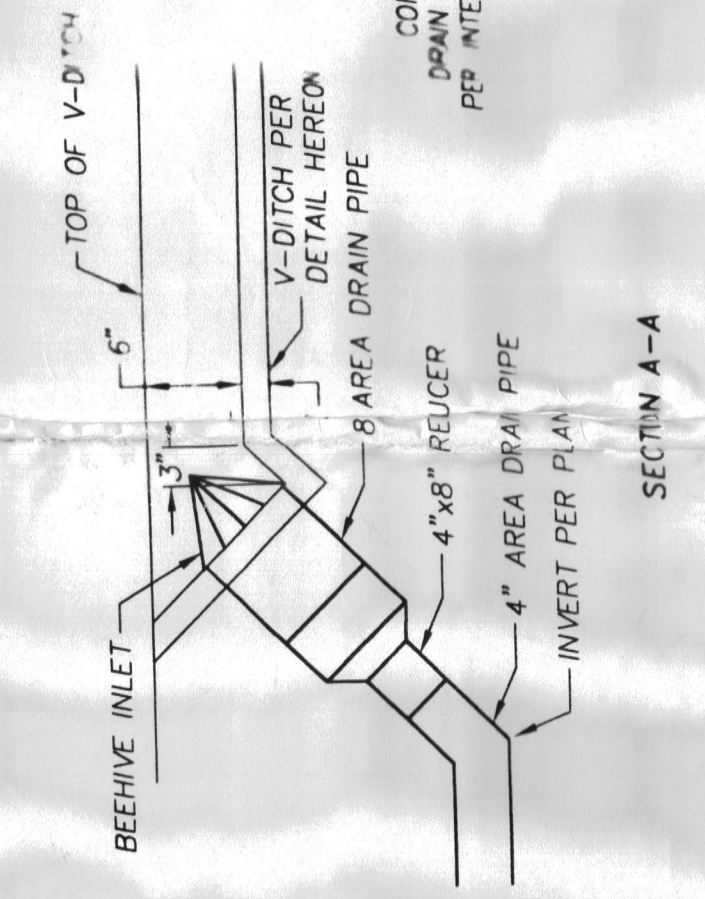
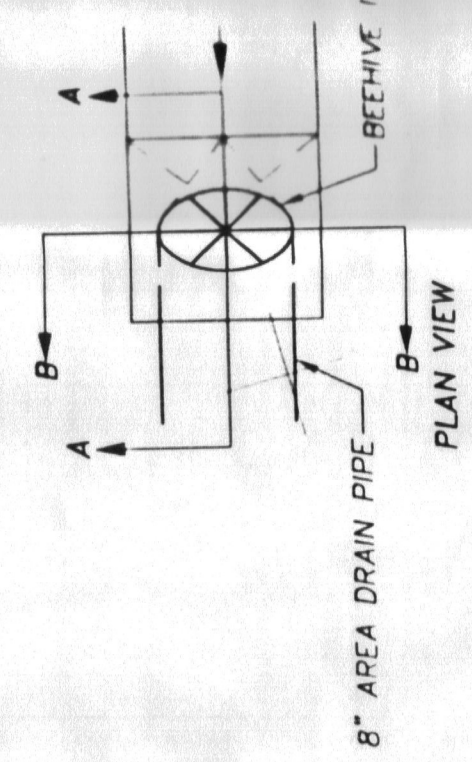
SHEET 2 OF 3

Knolls - Phase 2 Lots 16-23, 27-33, 53 & 57-59 of Tract 15962 Parcel 24-26 & 54-56 of LLA 00-05	CITY OF LAGUNA NIGUEL
---	-------------------------------------

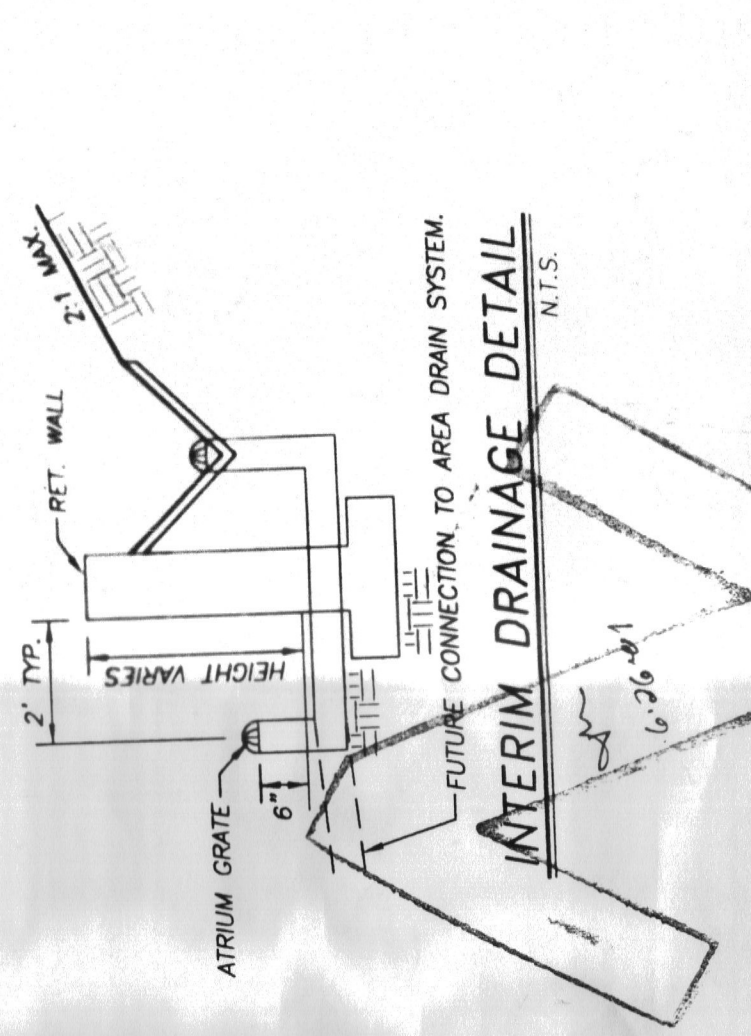
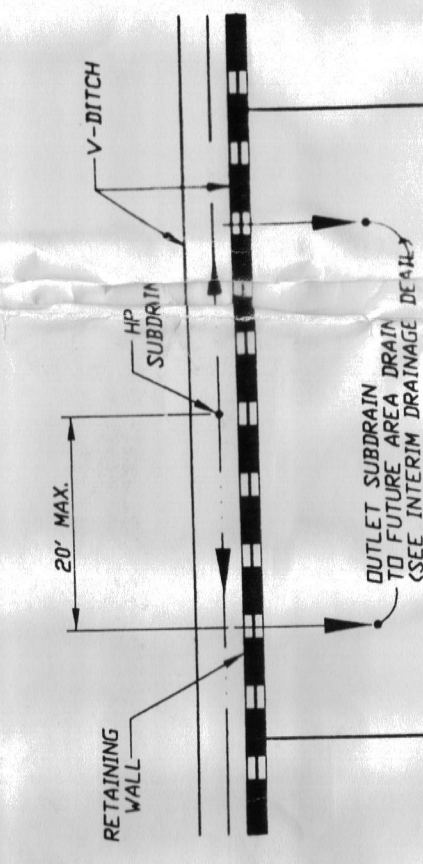
RETAINING WALLS, V-DITCH AND DRAINAGE PER SEPARATE PLAN & PERMIT
FOR REFERENCE ONLY

BEEHIVE INLET CONSISTS OF 8
#4 BARS SPACED 12" O.C.
AND PERIMETER OF PIPE
AND WELDED TOP & BOTTOM

SCALE 1" = 30'



PAVED DRAIN 8" INLET
N.T.S.

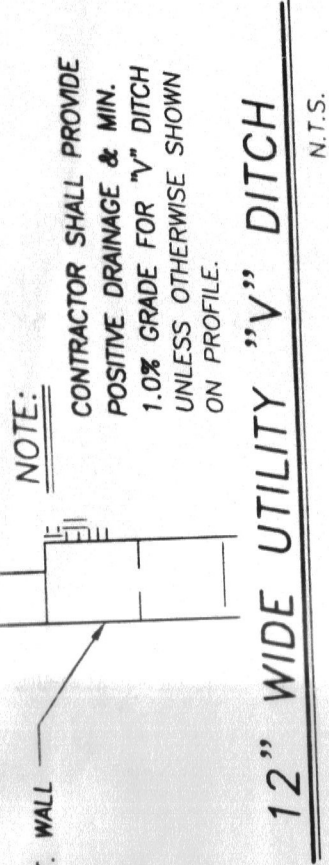


SUBDRAIN OUTLET DETAIL
N.T.S.



CONSTRUCTION NOTES FOR PAVED
DRAINAGE DEVICES

- APPROVED MATERIAL FOR CONSTRUCTION OF DEVICE IS EITHER 3" CONC. OR GUNITE. SEE CONST. NOTES FOR PAVED DRAINAGE DEVICES.
- INSPECTION OF GRADED SWALE IS REQUIRED PRIOR TO INSTALLATION OF PAVING.
- GRADED SWALE SHALL BE PRE-WET PRIOR TO PAVING.
- PAVED DEVIANT SHALL BE CURED WITH A MOISTURE LOSS RETARDANT.
- PIPE/PIPE IS AN ACCEPTABLE SUBSTITUTE FOR GUNITE & MAY BE INSTALLED WITH 6" X 6" W 1/4 X W 1/4 W.W.F.



CONSTRUCTION NOTES

- INSTALL AREA DRAIN SYSTEM PER DETAIL ON SHEET NO. 1
- CONNECT 4" PIPE TO AREA DRAIN OUTLET CONSTRUCTED ON TRACT 15962 IMPROVEMENT PLANS.
- DROP GARAGE FOOTINGS ACCORDINGLY AT DROPPED RETAINING WALL, V-DITCH AND DRAINAGE PER SEPARATE PERMIT & PLAN. (SEE DETAILS ON SHEET 2 AND HEREON - FOR REFERENCE ONLY)

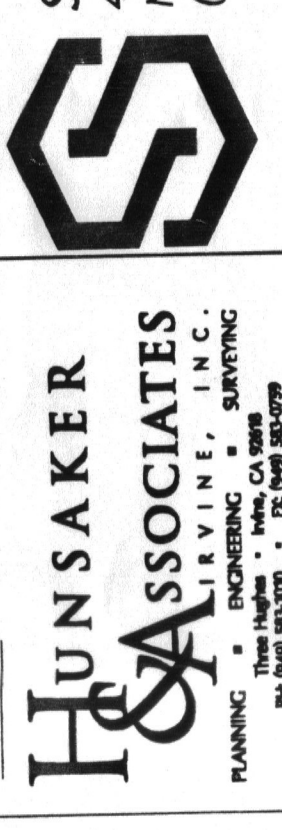
RETAINING WALLS PER SEPARATE PERMIT

APPROVAL OF THIS GRADING PLAN DOES NOT
CONSTITUTE APPROVAL OF THE STRUCTURAL
INTEGRITY OF RETAINING WALLS.

(SEE SEPARATE RETAINING WALL PLANS FOR DETAILS).

NO.	DATE/INITIAL	REVISIONS	DESCRIPTION
1	5/22/01	SLS	REMOVED DEPICTED FOOTINGS FROM LOTS 34-35 & 60-73
2	1/26/01	CMT	REVISED FINISHED FLOORS FOR LOTS 34-35 & 60-73

ENGINEER:



HUNSAKER ASSOCIATES, INC.
PLANNING ENGINEERING ARCHITECTURE
15325 GRADINA PG TR-15962 (pt2) pg-03.dwg
05/23/2001

PREPARED FOR:

S & S Construction Co.
4940 Campus Drive
Newport Beach, CA 92660
(949) 253-6800

PRECISE GRADING PLAN

Knolls - Phase 2
Lots 34-35 & 60-73 of Tract 15962

CITY OF LAGUNA NGJEL

- NOTES:
- ▲ SPLIT SEWER FLOW SYSTEMS ARE REQUIRED ON LOT 60.
 - ALL ROOF DRAINS SHALL BE CONNECTED TO YARD DRAINS.
 - THE MINIMUM DISTANCE BETWEEN THE HOUSE AND THE PROPERTY LINE SHALL BE 5 FEET.
 - THE MINIMUM DISTANCE BETWEEN ANY HOUSE PROJECTION AND THE PROPERTY LINE SHALL BE 3 FEET.
 - THE MINIMUM DISTANCE BETWEEN ANY COVERED ENTRY/PORCH AND THE PROPERTY LINE SHALL BE 5 FEET.
 - EROSION CONTROL: SANDBAGS REQUIRED ALONG PROPERTY FRONTAGE DURING RAINY SEASON. (OCT. 15TH - APR. 15TH)
 - ALL GARAGES WILL BE SETBACK AT LEAST 20 FEET FROM THE BACK OF SIDEWALK OR WILL BE PROVIDED WITH AUTOMATIC GARAGE DOOR OPENERS.
 - BUILDING SITE COVERAGE: 60% MAXIMUM.
 - ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF 60,000 LBS. AND SHALL BE PROVIDED WITH AN ALL-WEATHER DRIVING SURFACE.