

PRECISE GRADING AND DRAINAGE PLAN

12561 BAJA PANORAMA, SANTA ANA, CA 92705

LOT 9 TRACT 904

GRADING NOTES:

- ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF SANTA ANA AND THE LATEST STATE CODES AS MANDATED TO BE ENFORCED BY THE CITY.
- AN APPROVED SET OF PLANS SHALL BE ON THE JOB AT ALL TIMES.
- NO WORK SHALL BE STARTED WITHOUT FIRST NOTIFYING THE PLANNING AND BUILDING DEPARTMENT AT (714) 647-5800.
- EXISTING CITY STREETS SHALL BE KEPT CLEAN OF ALL MATERIALS RESULTING FROM THE GRADING OPERATIONS. THE STREET RIGHT-OF-WAY SHALL BE CLEANED UP DAILY AND AS NECESSARY TO MAINTAIN PEDESTRIAN AND VEHICULAR PASSAGE OVER THE PUBLIC RIGHT-OF-WAY AT ALL TIMES.
- THE PERMITEE OR HIS AGENT SHALL NOTIFY THE BUILDING OFFICIAL AT LEAST 24 HOURS BEFORE THE GRADING OPERATION IS READY FOR EACH OF THE FOLLOWING:
 - PRE-GRADE MEETING: WHEN THE PERMITTED IS READY TO BEGIN WORK AND BEFORE ANY GRADING OR BRUSHING IS STARTED, THE FOLLOWING PEOPLE MUST BE PRESENT - OWNER, GRADING CONTRACTOR, BUILDING OFFICIAL OR THEIR REPRESENTATIVE.
 - TOE INSPECTION: AFTER THE NATURAL GROUND IS EXPOSED AND PREPARED TO RECEIVE FILL AND BEFORE ANY FILL IS PLACED.
 - EXCAVATION INSPECTION: AFTER THE EXCAVATION IS STARTED AND BEFORE THE DEPTH OF EXCAVATION EXCEEDS 10 FEET.
 - FILL INSPECTION: AFTER THE AREA TO RECEIVE FILL HAS BEEN PREPARED AND INSPECTED BY THE SOILS ENGINEER.
 - DRAINAGE DEVICE INSPECTION: AFTER FORMS, STEEL AND PIPE ARE IN PLACE, AND BEFORE ANY CONCRETE IS POURED.
 - ROUGH GRADING: WHEN ALL ROUGH GRADING HAS BEEN COMPLETED.
 - FINAL INSPECTION: WHEN ALL WORK, INCLUDING INSTALLATION OF ALL DRAINAGE STRUCTURES, AND OTHER PROTECTIVE DEVICES HAS BEEN COMPLETED AND THE "AS-GRADED" PLAN AND REQUIRED REPORTS HAVE BEEN SUBMITTED AND APPROVED.
- THE PERMITEE SHALL WAIT FOR APPROVAL BY THE INSPECTOR BEFORE PROCEEDING WITH THE WORK.
- SUFFICIENT TESTS OF SOIL PROPERTIES, INCLUDING SOIL TYPES AND SHEAR STRENGTH SHALL BE MADE DURING THE GRADING OPERATIONS TO VERIFY COMPLIANCE WITH DESIGN CRITERIA. THE RESULTS OF SUCH TESTING SHALL BE FURNISHED TO THE BUILDING OFFICIAL UPON COMPLETION OF GRADING OPERATIONS OR WHEN NECESSITATED BY FIELD CONDITIONS UPON REQUEST OF THE BUILDING OFFICIAL.
- THE GRADING CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT VERIFYING THAT WORK DONE UNDER HIS DIRECTION WAS PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS AND REQUIREMENTS OF CHAPTER 33 OF THE UNIFORM BUILDING CODE OR DESCRIBING ALL VARIANCES FROM THE APPROVED PLANS AND REQUIREMENTS OF THE CODE.
- THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE PERMITEE.
- DUST SHALL BE CONTROLLED BY WATERING.
- SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE FROM THE BEGINNING TO COMPLETION OF GRADING OPERATIONS.
- ALL GRADING SHALL CONFORM TO THE RECOMMENDATIONS IN THE APPROVED GEOTECHNICAL REPORT.
- THE CONTRACTOR SHALL INCORPORATE EROSION CONTROL MEASURES WHEN DEEMED NECESSARY BY THE BUILDING OFFICIAL.
- THE SOIL'S ENGINEER SHALL INSPECT AND APPROVE ALL CUT SLOPES.
- PRIOR TO ISSUANCE OF THE BUILDING PERMITS, A SOIL EXPANSION TEST PERFORMED IN ACCORDANCE WITH THE PROCEDURES OF UNIFORM BUILDING CODE STANDARD NO. 18-2 IS REQUIRED.
- PRIOR TO PLACING COMPACTED FILL, THE SURFACE SHALL BE STRIPPED OF VEGETATION AND THE SURFACE SCARIFIED TO A DEPTH OF 12 INCHES OR AS SPECIFIED BY THE SOILS ENGINEER AND APPROVED BY THE BUILDING OFFICIAL, BROUGHT TO OPTIMUM MOISTURE CONTENT, RECOMPACTED TO 90% MAXIMUM DENSITY AND INSPECTED BY THE GRADING INSPECTOR AND THE SOIL TESTING AGENCY.
- CUT SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL.
- FILLS SHALL BE COMPACTED THROUGHOUT TO 90% OF MAXIMUM DENSITY AS DETERMINED AND CERTIFIED BY THE SOILS ENGINEER, NOT LESS THAN ONE FIELD DENSITY TEST WILL BE MADE FOR EACH 2 FEET OF VERTICAL LIFT OF FILL NOR LESS THAN ONE SUCH TEST FOR EACH 1,000 CUBIC YARDS OF MATERIAL PLACED. AT LEAST ONE-HALF OF THE REQUIRED TESTS SHALL BE MADE AT THE LOCATION OF THE FINAL FILL SLOPE.
- FILL SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL AND SHALL BE COMPACTED TO NO LESS THAN 90% OF MAXIMUM DENSITY OUT TO THE FINISHED SURFACE. ALL FILL SLOPES GREATER THAN 5 FEET IN VERTICAL HEIGHT SHALL BE GRID ROLLED TO COMPACT THE OUTER 6' TO 8' TO AT LEAST 90% OF MAXIMUM DENSITY.
- NO ROCK OR SIMILAR MATERIAL GREATER THAN 12 INCHES IN DIMENSION WILL BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH PLACEMENT HAVE BEEN SUBMITTED BY THE SOILS ENGINEER IN ADVANCE AND APPROVED BY THE BUILDING OFFICIAL.
- NO FILL SHALL BE PLACED UNTIL STRIPPING OF VEGETATION, REMOVAL OF UNSUITABLE SOILS AND INSTALLATION OF SUBDRAINS (IF REQUIRED) HAVE BEEN INSPECTED AND APPROVED BY THE SOILS ENGINEER AND THE CITY GRADING INSPECTOR.
- CONTINUOUS INSPECTION BY THE SOILS ENGINEER OR HIS RESPONSIBLE REPRESENTATIVE WILL BE PROVIDED DURING ALL FILL PLACEMENT AND COMPACTION OPERATIONS.
- ALL EXISTING FILLS SHALL BE APPROVED BY THE SOILS ENGINEER AND THE BUILDING OFFICIAL OR HIS REPRESENTATIVE BEFORE ANY ADDITIONAL FILLS ARE ADDED.

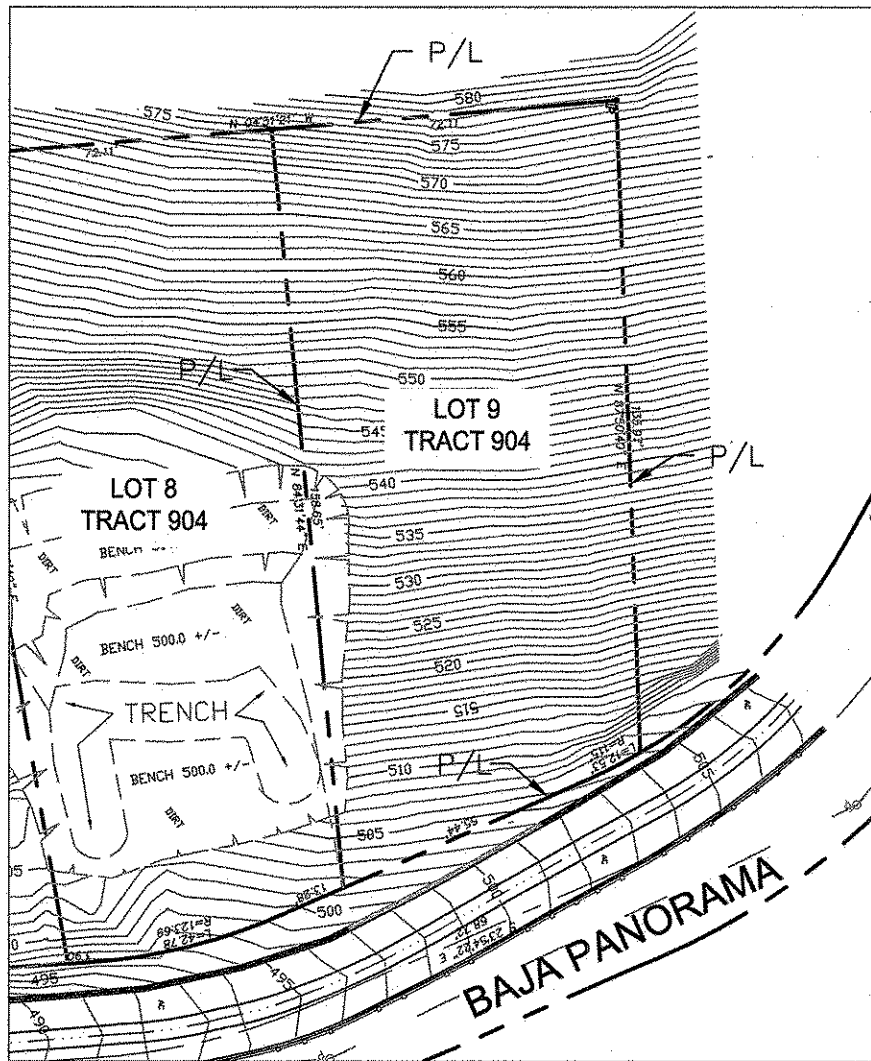
- ALL TRENCH BACKFILLS SHALL BE TESTED AND CERTIFIED BY THE SOILS ENGINEER.
- ALL CONCRETE STRUCTURES THAT COME IN CONTACT WITH THE ONSITE SOILS SHALL BE CONSTRUCTED WITH TYPE 5 SIX (6) SACK CEMENT UNLESS SULFATE-CONTENT TESTS CONDUCTED BY THE SOILS ENGINEER SHOW IT TO BE UNNECESSARY.
- THE SOILS ENGINEER SHALL PROVIDE SUFFICIENT INSPECTION DURING THE PREPARATION OF NATURAL GROUND AND PLACEMENT OF COMPACTION TO VERIFY THAT SUCH WORK IS BEING PERFORMED IN ACCORDANCE WITH THE CONDITIONS OF THE APPROVED PLAN. REVISED RECOMMENDATIONS RELATING TO CONDITIONS DIFFERING FROM THE APPROVED SOILS ENGINEERING REPORT SHALL BE SUBMITTED TO THE PERMITEE, THE BUILDING OFFICIAL, AND THE CIVIL ENGINEER.
- THE SOILS ENGINEER SHALL PROVIDE A PROFESSIONAL INSPECTION OF THE BEDROCK EXCAVATION TO DETERMINE IF CONDITIONS ENCOUNTERED ARE IN ACCORDANCE WITH THE APPROVED REPORTS, THE PLANS, SPECIFICATIONS AND CODE WITHIN THEIR PURVIEW.
- THE PERMITEE SHALL BE RESPONSIBLE FOR THE WORK TO BE PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. THE PERMITEE SHALL ENGAGE CONSULTANTS, IF REQUIRED, TO PROVIDE PROFESSIONAL INSPECTIONS ON A TIMELY BASIS. THE PERMITEE SHALL ACT AS A COORDINATOR BETWEEN THE CONSULTANTS, THE CONTRACTOR AND THE BUILDING OFFICIAL IN THE EVENT OF CHANGED CONDITIONS. THE PERMITEE SHALL BE RESPONSIBLE FOR INFORMING THE BUILDING OFFICIAL OF SUCH CHANGE AND SHALL PROVIDE REVISED PLANS FOR APPROVAL.
- ANY REVISION MADE IN THE APPROVED GRADING AS SHOWN ON THE GRADING MUST BE SPECIFICALLY APPROVED BY THE BUILDING OFFICIAL OR HIS DESIGNATED REPRESENTATIVE.
- FINISH GRADING WILL BE COMPLETED AND APPROVED AND SLOPE PLANTING AND IRRIGATION SYSTEM INSTALLED BEFORE OCCUPANCY OF ANY BUILDING AND BEFORE RELEASE OF ANY GRADING BONDS.
- ALL CUT AND FILL SLOPES OVER 5 FEET IN VERTICAL HEIGHT SHALL BE PLANTED AND PROVIDED WITH AN IRRIGATION SYSTEM IN ACCORDANCE WITH AN APPROVED LANDSCAPE PLAN.

ENGINEER'S NOTICE TO CONTRACTOR:

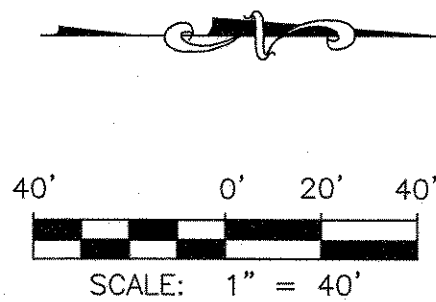
- CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON CONTINUOUSLY AND THIS PROJECT EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- ALL UNDERGROUND UTILITIES OR STRUCTURES, REPORTED OR FOUND ON PUBLIC RECORDS, ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE OWNER, BY ACCEPTING THESE PLANS OR PROCEEDING WITH THE IMPROVEMENTS HEREON, AGREES TO ASSUME LIABILITY AND TO HOLD THE ENGINEER HARMLESS FROM ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED OR INDICATED ON PUBLIC RECORDS, OR THOSE CONSTRUCTED AT VARIANCE WITH REPORTED OR RECORDED LOCATIONS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHERS FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF ALL UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK.
- THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
- THE ENGINEER DOES NOT RECOMMEND OR ENDORSE THE USE OF ASBESTOS-CEMENT WATER PIPE OR ANY PRODUCTS CONTAINING ASBESTOS DUE TO THE HEALTH HAZARD CONNECTED WITH SUCH PRODUCTS. SPECIFICATION HEREON OF ANY SUCH PRODUCT IS AT THE DIRECTION OF THE JURISDICTIONAL AGENCY. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL CONSTRUCTION, CONNECTION AND REMOVAL OF ASBESTOS PRODUCTS AND SHALL FOLLOW ALL OSHA & EPA GUIDELINES TO MINIMIZE HEALTH HAZARDS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL ELEVATIONS, DIMENSIONS AND CONDITIONS SHOWN HEREON AT THE JOB SITE PRIOR TO ANY CONSTRUCTION. DESIGN EVEREST, INC. SHALL BE NOTIFIED OF ANY DISCREPANCIES. REVISIONS TO THE PLAN SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO IMPLEMENTATION.

UNDERGROUND UTILITIES & STRUCTURES:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN IN THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT THOSE SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN, AND IS RESPONSIBLE FOR THE PROTECTION OF, AND ANY DAMAGE TO THESE LINES OF STRUCTURES.



SITEPLAN



EARTHWORK QUANTITIES:

THE FOLLOWING ARE THE ENGINEER'S EARTHWORK QUANTITY ESTIMATE:

CUT	=	995.0 CY
FILL	=	64.0 CY
NET (CUT)	=	931.0 CY

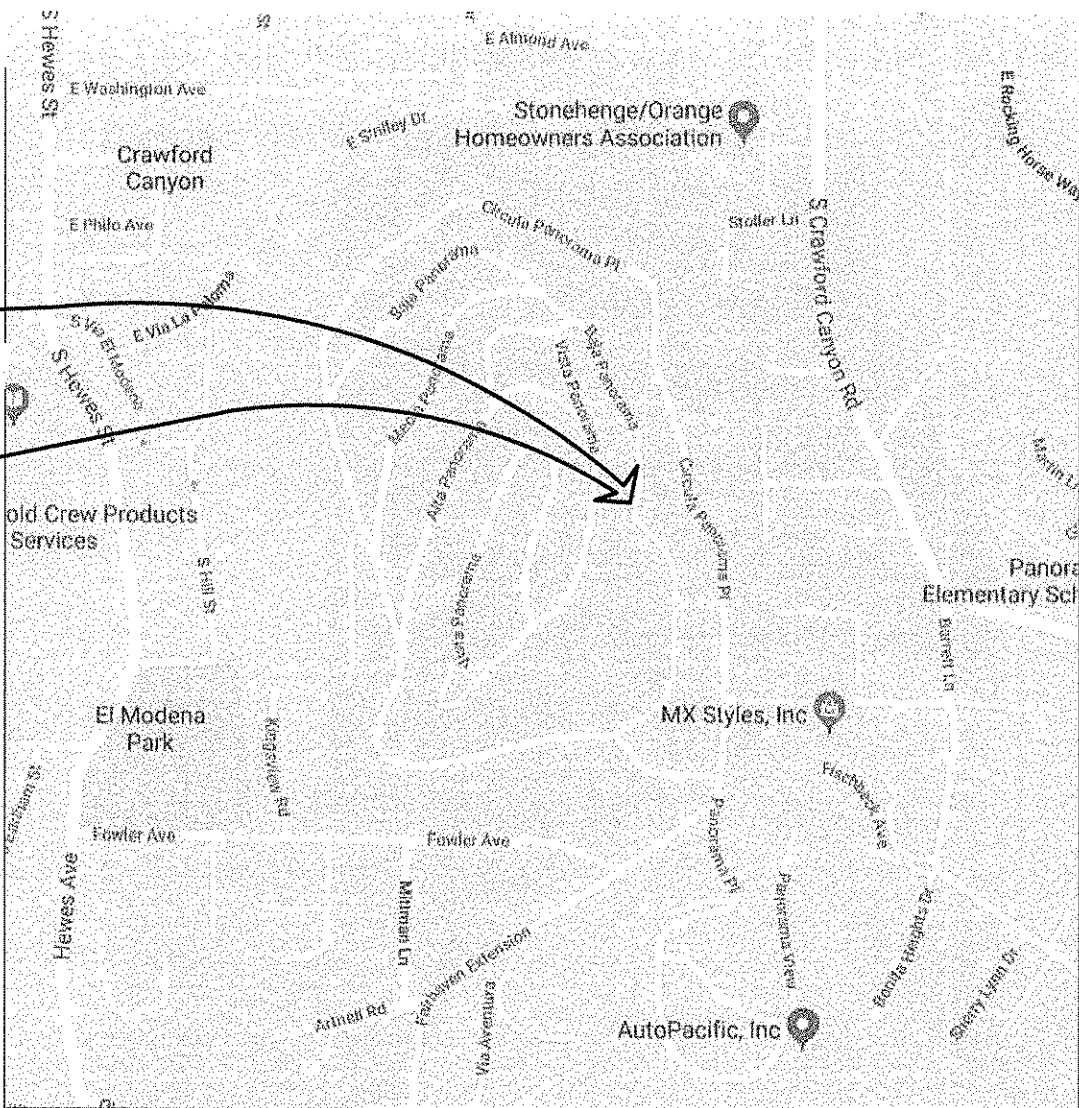
THE ABOVE QUANTITIES ARE NOT FOR CONTRACTOR'S USE. THIS IS FOR PLAN CHECKING PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFYING HIS OWN EARTHWORK QUANTITIES.

SLOPE OF SITE PLAN = 30° SLOPE

LEGEND AND ABBREVIATION

---	200	---	EXISTING CONTOUR LINE
---	200	---	NATURAL GRADE CONTOUR LINE
⊙			FOUND CITY MONUMENT BOX, OR AS NOTED
---			BOUNDARY OF PROPERTY SURVEYED
()			RECORD INFORMATION
---			CENTERLINE
△			CURB INLET
---			CURB LINE
---			DRIVEWAY APRON
⊙			ELECTROLIER
---	X	X	FENCE
⋄			FIRE HYDRANT
⊞			FLAT GRATE INLET
---	O.H. PWR	---	OVERHEAD POWER LINE
---	O.H. TEL	---	OVERHEAD TELEPHONE LINE
---	SS	---	SANITARY SEWER LINE
⊙			SANITARY SEWER MANHOLE
⊙			SANITARY SEWER CLEANOUT
---			SIGN
---	SD	---	STORM DRAIN LINE
⊙			STORM DRAIN MANHOLE
□			UTILITY BOX
⋄			UTILITY POLE
---	W	---	WATER LINE
⊞			WATER METER
⋄			WATER VALVE
⊞			ELECTRIC METER
⊞			WATER HEATER
⊞			GAS
APN			ASSESSOR'S PARCEL NUMBER
AC			ASPHALT
BOT			BOTTOM ELEVATION
BM			BENCH MARK
BVC			BEGINNING OF VERTICAL CURVE
BW			BACK OF WALK
CATV			CABLE TELEVISION OVERHEAD
D			CURVE DELTA
DG			DECOMPOSED GRANITE
DRWY			DRIVEWAY
DS			DOWNSPOUT
EOP			EDGE OF PAVEMENT
EVC			END OF VERTICAL CURVE
FF			FINISH FLOOR
FG			FINISH GRADE
FL			FLOW LINE ELEVATION
FL-HP			FLOW LINE ELEVATION-HIGH POINT
FS			FINISH SURFACE
GF			GARAGE FLOOR ELEVATION
GL			GARAGE LIP ELEVATION
IP			IRON PIPE
INV			INVERT ELEVATION
H			HEIGHT OF WALL
HP			HIGH POINT
L			CURVE LENGTH
R			RADIUS
R#			REFERENCE DOCUMENT
M-M			MONUMENT TO MONUMENT
O.H. PWR			OVERHEAD POWER LINE
O.H. TEL			OVERHEAD TELEPHONE LINE
P			PROTECT-IN-PLACE
PCL			PARCEL
PL			PROPERTY LINE
P.M.			PARCEL MAP
PTN			PORTION
R			RADIUS
SD			STORM DRAIN
SS			SANITARY SEWER
T			TANGENT
THRSOLD			THRESHOLD
TOP			TOP ELEVATION
TC			TOP OF CURB ELEVATION
TG			TOP OF GUTTER
TW			TOP OF WALL
TEMP.			TEMPORARY
PUE			PUBLIC UTILITY EASEMENT
VC			POINT OF VERTICAL INTERSECTION
WLE			WATER LINE EASEMENT
SDMH			STORM DRAIN MANHOLE
SSMH			SANITARY SEWER MANHOLE

PROJECT LOCATION



VICINITY MAP

NOT TO SCALE

OWNER

MR AND MRS PAUL PHANGSAVANH
3030 MARY COMMON
SANTA ANA, CA 92703

CIVIL ENGINEER

DESIGN EVEREST
365 FLOWER LANE,
MOUNTAIN VIEW, CA 94043
RAY ERILLO
(909) 569-5270

LEGAL DESCRIPTION

LOT 9, TRACT NO. 904
APN: 094-233-15

INDEX TO DRAWINGS

SHEET 1	TITLE SHEET
SHEET 2	PRECISE GRADING AND DRAINAGE PLAN
SHEET 3	DETAILS

BENCHMARK

OCS 3A-128-09 ELEV. = 561.823 NAVD88
ALUM. OC BM DISK NEAR FH NW OF CL
INTERSECTION BAJA PANORAMA & VISTA PANORAMA

BASIS OF BEARING

BEARING BASED ON RS 239/44

CURRENT ZONING

R1-10,000

CONSTRUCTION NOTES:

CN	DESCRIPTION
①	CONSTRUCT 3" ASPHALT PAVEMENT OVER 6" THICK CLASS II AGGREGATE BASE COURSE.
②	CONSTRUCT 4" CONCRETE PAVEMENT WITH #4 REBAR AT 18" O.C.
③	CONSTRUCT 2' WIDE TERRACE DRAIN PER DETAIL 1/3 SHOWN ON SHEET 3.
④	CONSTRUCT RETAINING WALL PER SEPARATE PERMIT.
⑤	INSTALL 4" PVC SDR35 STORM DRAIN LINE OR APPROVED EQUAL
⑥	INSTALL 12"x12" BROOKS BOX WITH GRATED INLET OR APPROVED EQUAL.
⑦	INSTALL 6" PVC SDR35 STORM DRAIN LINE OR APPROVED EQUAL
⑧	INSTALL 6" GRATED DRAIN INLET PER DETAIL 2/3 SHOWN ON SHEET 3.
⑨	INSTALL STORM DRAIN CLEANOUT PER DETAIL 3/3 SHOWN ON SHEET 3.
⑩	INSTALL 6" DRAIN OUTLET PER DETAIL 4/3 SHOWN ON SHEET 3.
⑪	REMOVE EXISTING K-RAIL.
⑫	PROTECT-IN-PLACE

GRADING QUANTITIES SHOWN ABOVE ARE FOR BONDING PURPOSES ONLY. SITE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES PRIOR TO BIDDING AND CONSTRUCTION.

NOTE:
IT SHALL BE RESPONSIBILITY OF THE PROPERTY OWNER AND OWNER'S CONTRACTOR TO REPAIR ANY DAMAGE TO THE EXISTING PUBLIC IMPROVEMENTS AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES. ADDITIONALLY, ALL NECESSARY REPAIRS, AS REQUESTED BY PUBLIC WORKS INSPECTOR, SHALL BE PERFORMED, BASED ON THE INSPECTOR'S REVIEW OF THE CURRENT CONDITIONS OF THE PUBLIC IMPROVEMENTS.

UNDERGROUND SERVICE ALERT
CALL TOLL FREE
8-1-1
TWO WORKING DAYS
BEFORE YOU DIG

DESIGN EVEREST, INC.

TITLE SHEET

PAUL PHANGSAVANH RESIDENCE

12561 BAJA PANORAMA
SANTA ANA, CA 92705

DATE

DESCRIPTION

REV

DATE

DESCRIPTION

DATE

DESCRIPTION

DATE

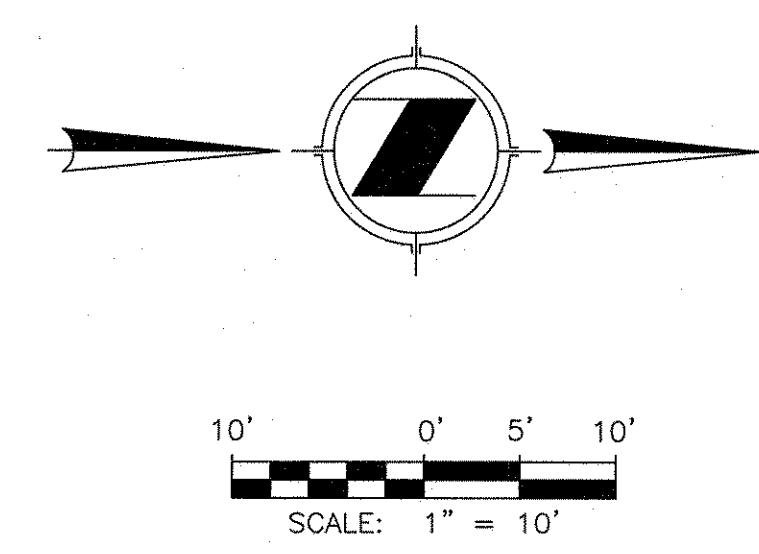
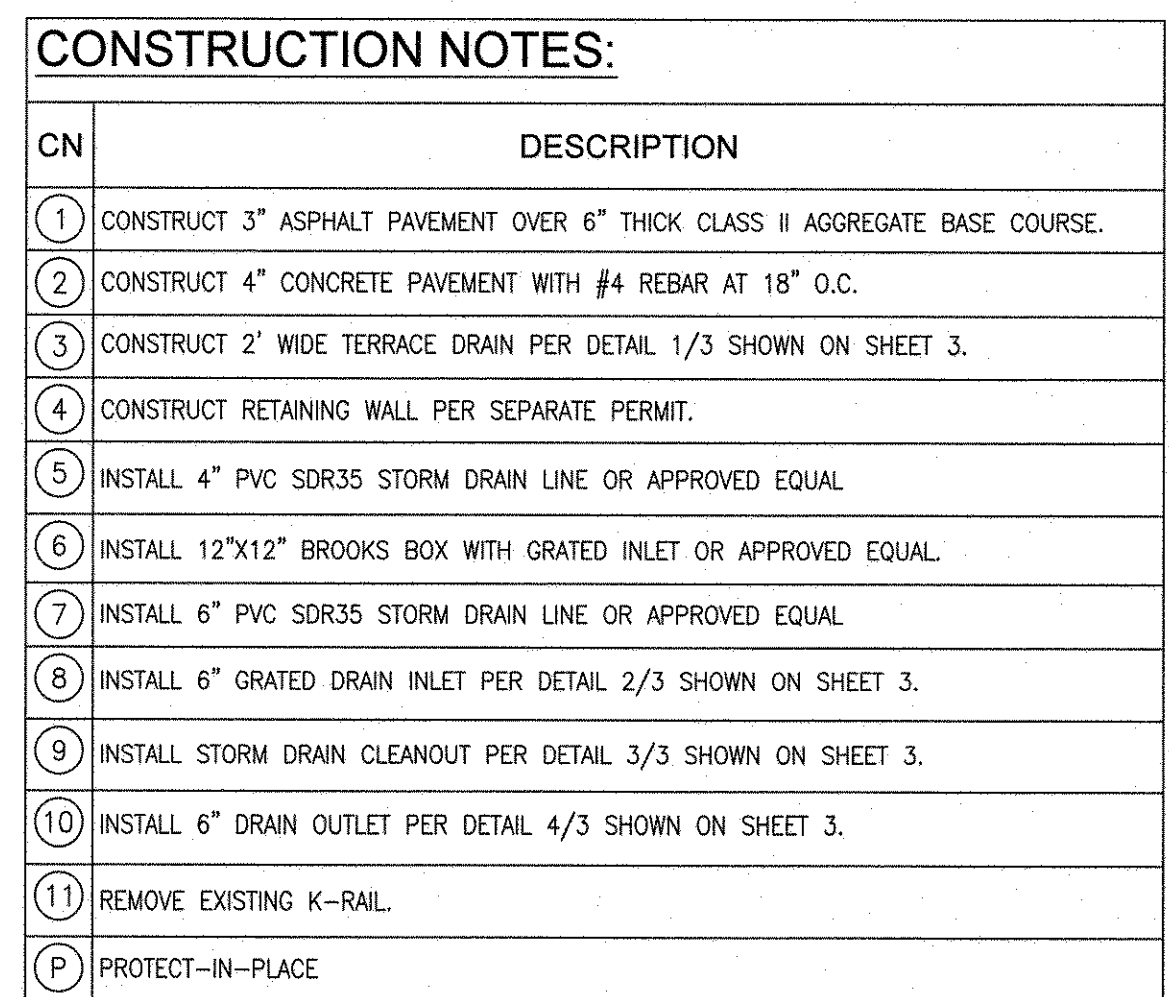
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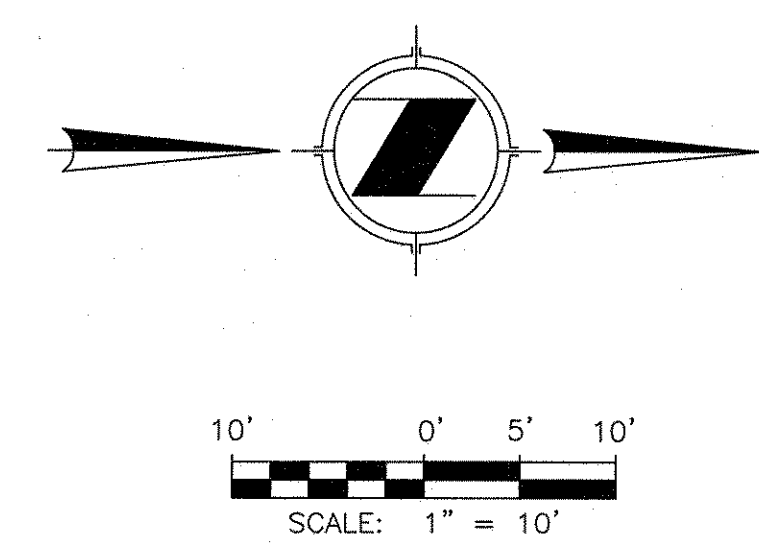
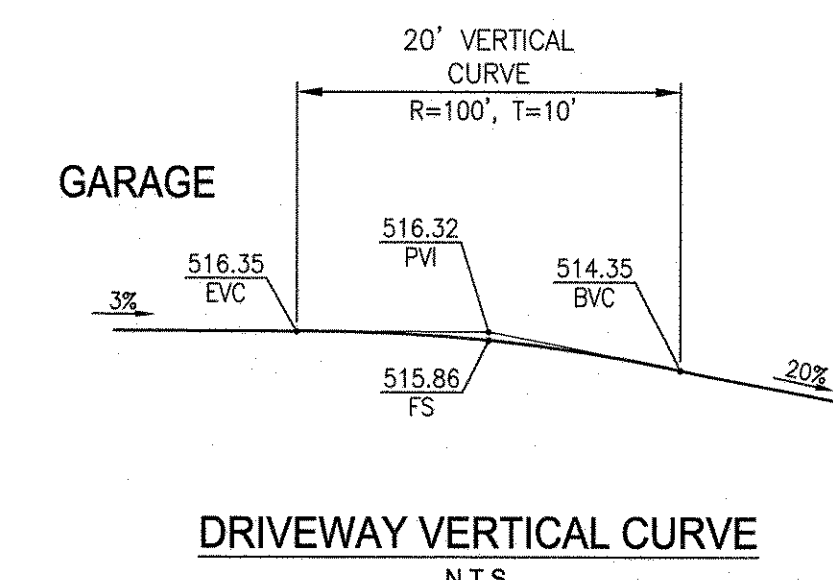
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AC

(E)K-RAIL(P)

BAJA PANORAMA

CONSTRUCTION NOTES:	
CN	DESCRIPTION
1	CONSTRUCT 3" ASPHALT PAVEMENT OVER 6" THICK CLASS II AGGREGATE BASE COURSE.
2	CONSTRUCT 4" CONCRETE PAVEMENT WITH #4 REBAR AT 18" O.C.
3	CONSTRUCT 2' WIDE TERRACE DRAIN PER DETAIL 1/3 SHOWN ON SHEET 3.
4	CONSTRUCT RETAINING WALL PER SEPARATE PERMIT.
5	INSTALL 4" PVC SDR35 STORM DRAIN LINE OR APPROVED EQUAL
6	INSTALL 12"x12" BROOKS BOX WITH GRATED INLET OR APPROVED EQUAL.
7	INSTALL 6" PVC SDR35 STORM DRAIN LINE OR APPROVED EQUAL
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9	INSTALL STORM DRAIN CLEANOUT PER DETAIL 3/3 SHOWN ON SHEET 3.
10	INSTALL 6" DRAIN OUTLET PER DETAIL 4/3 SHOWN ON SHEET 3.
11	REMOVE EXISTING K-RAIL.
P	PROTECT-IN-PLACE



[illegible]



Project		New 3-story Hillside Residence	
For		Mr. & Mrs. Paul Phangsavaph 714 326-3030 Mary Common Santa Ana, Ca 92703	
Date		6-15-10	
Scale		1/4" = 1'-0"	
Drawn		P.B.	
Job		2018-14	
Sheet		9	
Of		Sheets	