COUNTY REVIEW SUBMITTAL
LANDSCAPE PLANS:

211 EMERALD BAY
LAGUNA BEACH, CA 92651

PLAN CHECK No. OCxx - xxxxx
Landscape Permit No. LNDxx-00xx

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.

2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE HELD LIABLE FOR ALL DAMAGE INCURRED DURING CONSTRUCTION.

3. CONTRACTOR SHALL OBTAIN A CURRENT STRUCTURAL SOILS REPORT. THIS SOILS REPORT SHALL SUPERSEDE THE RECOMMENDATIONS AND DETAILS SHOWN ON THESE PLANS AND SPECIFICATIONS.

4. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL SLEEVES AS INDICATED ON THE IRRIGATION PLANS WITH PAVING CONTRACTOR.

5. REFER TO SPECIFICATIONS FOR ACCEPTED STANDARDS OF MATERIALS AND WORKMANSHIP.

6. ALL FORMS AND ALIGNMENT OF HARDSCAPE ITEMS SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO POURING. (CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT A MINIMUM OF 48 HOURS PRIOR TO THE INSPECTION.)

7. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AND/OR GRADE DIFFERENCES WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATIONS.

8. THE LOCATION OF FEATURES TO BE CONSTRUCTED, NOT SPECIFICALLY DIMENSIONED, MAY BE DETERMINED BY SCALE. VERIFY ALL SUCH CONDITIONS WITH OWNER'S NOTIFICATION.

9. ALL CURVE-TO-CURVE AND CURVE-TO-TANGENT LINES SHALL BE NEAT, TRIM, SMOOTH, AND UNIFORM.

10. ALL CONSTRUCTION AND INSTALLATION OF LANDSCAPE ITEMS SHALL BE PER LOCAL CODES AND ORDINANCES.

11. CONTRACTOR SHALL FULLY GUARANTEE ALL WORK FOR A ONE-YEAR PERIOD FROM OWNER'S ACCEPTANCE OF WORK.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR WEED ABATEMENT AS RECOMMENDED BY A LICENSED PEST CONTROL OPERATORDURING THE CONTRACTOR'S MAINTENANCE PERIOD.

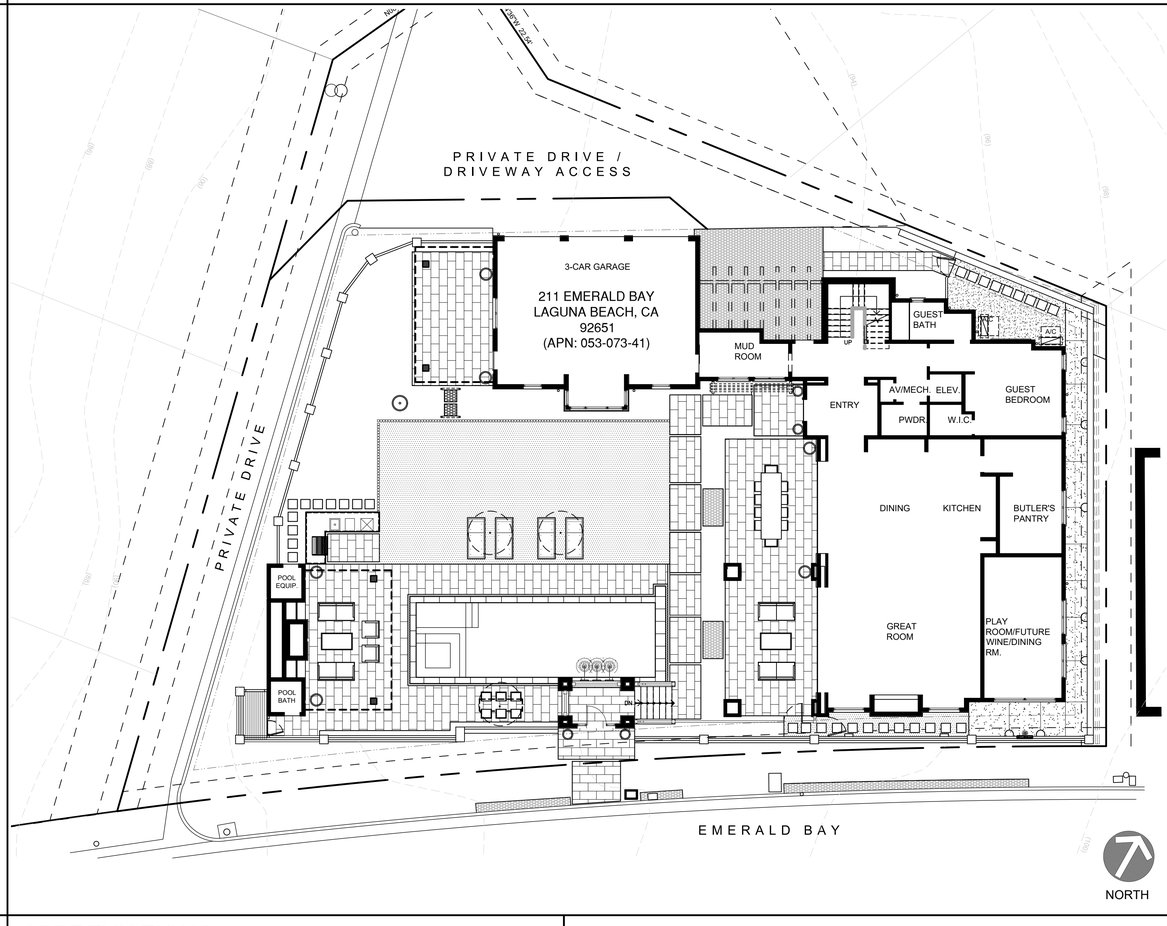
13. CONTRACTOR SHALL OBTAIN A CURRENT AGRONOMIC SOILS REPORT. THIS SOILS REPORT SHALL SUPERSEDE THE RECOMMENDATIONS AND DETAILS SHOWN ON THESE PLANS.

14. THE LANDSCAPE CONTRACTOR IS TO ENSURE THAT IRRIGATION AND DRAIN LINES ARE LOCATED AND INSTALLED SO THAT THE MATERIALS SHOWN ON THE PLANTING PLANS CAN BE ACCOMMODATED.

15. IF ANY CONCRETE WORK SHOWN ON THESE PLANS ABUTS WOOD SIDING ON BUILDINGS, INSTALL GALVANIZED METAL FLASHING TO PROTECT WOOD SIDING.

16. THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION REFERENCED IN THE PLANS AND SPECIFICATIONS. ANY CONSTRUCTION NOT MEETING THE APPROVAL OF THE OWNER OR THE LANDSCAPE ARCHITECT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE WITH ACCEPTABLE CONSTRUCTION.

SITE PLAN



SHEET INDEX

DESIGN CONFIRMATION NOTE:

The design of this project complies with the requirements of the County's Water Efficient Landscape Ordinance.

BENJAMIN MONTRELLA RLA #5819 — DATE: December 6, 2022

CERTIFICATE OF LANDSCAPE DESIGN

Appendix B: Certification of Landscape Design

CERTIFICATION OF LANDSCAPE DESIGN

I hereby certify that:

(1) I am a professional appropriately licensed in the State of California to provide professional landscape design services.

(2) The landscape design and water use calculations for the property located at 211 Emerald Bay, Laguna Beach, CA 92651 (provide street address or parcel number(s)) were prepared by me or under my supervision.

(3) The landscape design and water use calculations for the identified property comply with the requirements of the County of ORANGE Water Efficient Landscape Ordinance (Municipal Code Sections County Reg's for W.E.L.O.) and the County of ORANGE Guidelines for Implementation of the County of ORANGE Water Efficient Landscape Ordinance.

(4) The information I have provided in this Certificate of Landscape Design is true and correct and is hereby submitted in compliance with the County of ORANGE Guidelines for Implementation of the County of ORANGE Water Efficient Landscape Ordinance.

Benjamin Montrella — Print Name
December 6, 2022 — Date
Signature
Landscape Architect 5819 — License Number
120 Tustin Avenue, Suite C #227 — Newport Beach, CA 92663 — Address
714.917.7990 — Telephone
benjaminmontrella@hotmail.com — E-mail Address
Landscape Design Professional's Stamp (If applicable)

1

DIG ALERT

UNDERGROUND SERVICE ALERT

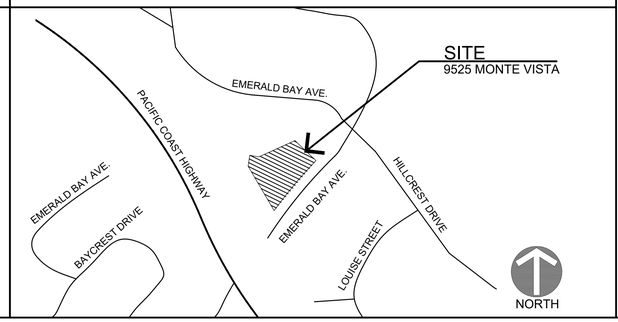
CALL: TOLL FREE
1-800-227-2600

TWO WORKING DAYS
BEFORE YOU DIG

ABBREVIATIONS

ARCH.	ARCHITECT (ARCHITECTURAL)	ID	INSIDE DIAMETER
B.S.	BOTTOM OF STEPS	INV.	INVERT (ELEVATION)
C.B.	CATCH BASIN	L.A.	LANDSCAPE ARCHITECT
C.F.	CURB FACE	LP	LOW POINT
C.J.	COLD JOINT	MAX.	MAXIMUM
℄	CENTERLINE	MIN.	MINIMUM
CMU	CONCRETE MASONRY UNIT	N.I.C.	NOT IN CONTRACT
C.O.	CLEAN OUT	N.T.S.	NOT TO SCALE
COMP.	COMPACTED	O.C.	ON CENTER
CONC.	CONCRETE	P.A.	PLANTING AREA
CONT.	CONTINUOUS	PERF.	PERFORATED
DIA.	DIAMETER	POC	POINT OF CONNECTION
EA.	EACH	R	RADIUS
EJ	EXPANSION JOINT	REBAR	REINFORCING BAR
F.F.E.	FINISH FLOOR ELEVATION	SIM.	SIMILAR
F.G.	FINISH GRADE	S.L.	SCORE LINE
F.O.S	FACE OF STRUCTURE	SQ.	SQUARE
℄	FLOW LINE	T.C.	TOP OF CURB
F.S.	FINISH SURFACE	T.G.	TOP OF GRATE
FTG.	FOOTING	T.S.	TOP OF STEPS
G.C.	GROUND COVER	TYP.	TYPICAL
HORIZ.	HORIZONTAL	VERT.	VERTICAL
HP	HIGH POINT	W/	WITH
		W/O	WITHOUT
		W.W.M.	WELDED WIRE MESH

VICINITY MAP NOT TO SCALE



CHELSEA CORINNE STUDIO

Address: 120 Tustin Ave, Ste C #227, Newport Beach, CA 92663

LICENSED LANDSCAPE ARCHITECT — BENJAMIN MONTRELLA — 5819 — STATE OF CALIFORNIA
5.31.24 — Revision Date
December 6, 2022 — Date

SLAVIK RESIDENCE
211 EMERALD BAY
LAGUNA BEACH, CA 92651

Contractor to Field Verify All Measurements and Confirm Details to Provide Accurate Bid

Date: 10.24.2022

Revisions:
client rev.12.06.2022

Drawn By:

TITLE SHEET

Sheet

LT-1

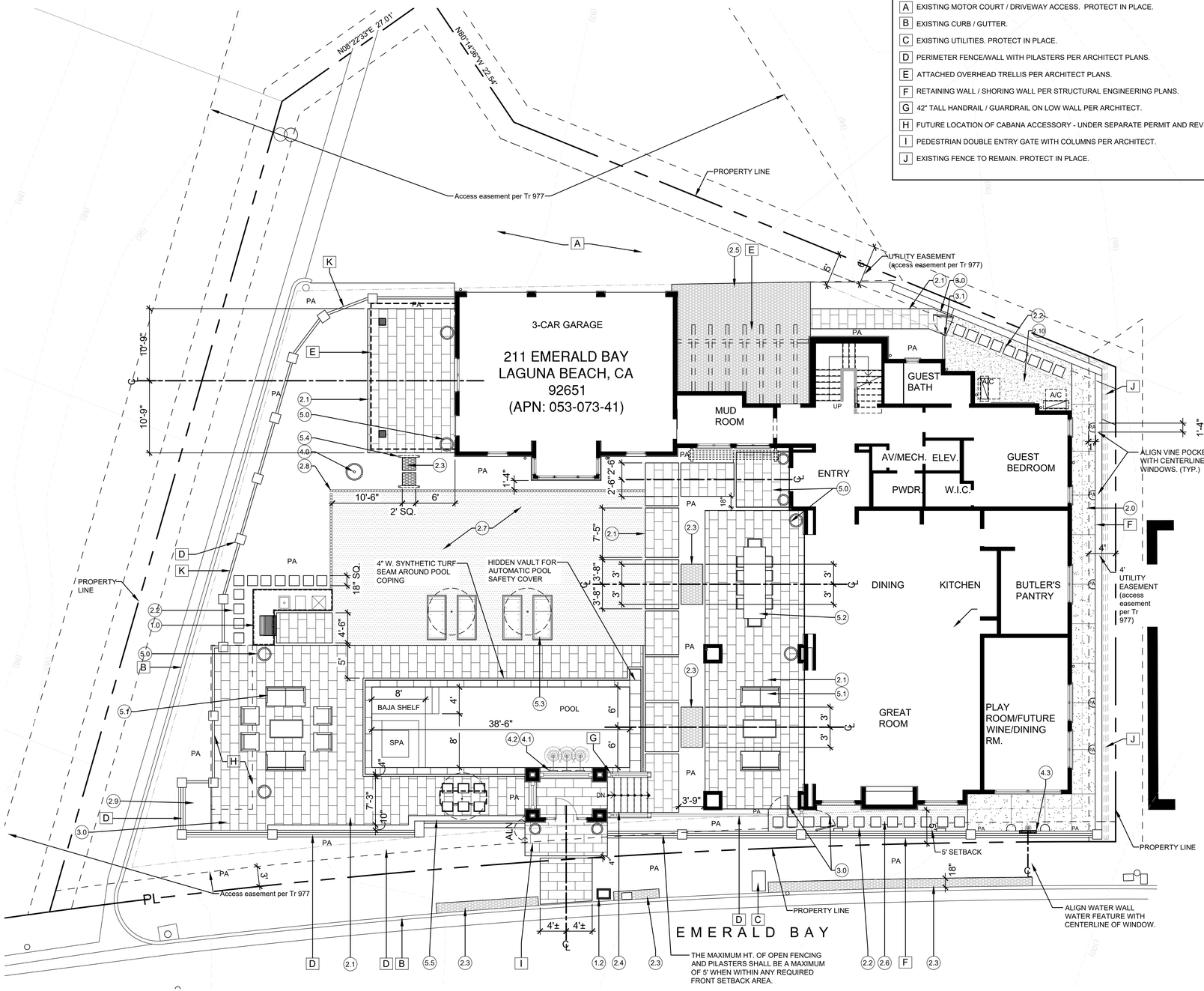
Job No. 22-021

COUNTY APPROVAL STAMP

LND22-0083

GENERAL SITE FEATURES:

- A EXISTING MOTOR COURT / DRIVEWAY ACCESS. PROTECT IN PLACE.
- B EXISTING CURB / GUTTER.
- C EXISTING UTILITIES. PROTECT IN PLACE.
- D PERIMETER FENCE/WALL WITH PILASTERS PER ARCHITECT PLANS.
- E ATTACHED OVERHEAD TRELLIS PER ARCHITECT PLANS.
- F RETAINING WALL / SHORING WALL PER STRUCTURAL ENGINEERING PLANS.
- G 42" TALL HANDRAIL / GUARDRAIL ON LOW WALL PER ARCHITECT.
- H FUTURE LOCATION OF CABANA ACCESSORY - UNDER SEPARATE PERMIT AND REVIEW.
- I PEDESTRIAN DOUBLE ENTRY GATE WITH COLUMNS PER ARCHITECT.
- J EXISTING FENCE TO REMAIN. PROTECT IN PLACE.



CONSTRUCTION CALLOUTS:

	MASONRY:	PERMIT REQ. A/S	G/C	E/C	DETAIL/ SHEET
1.0	36" Tall outdoor countertop with gas grill and sink.	*	*	*	A, LC-2
1.1	15" Tall C.M.U. Built-in bench with composite wood veneer.				
1.2	42" Tall Mailbox w/ Stone Veneer and 2.5" think Rustic Limestone Cap and House address numbers.				B, LC-2

	FLATWORK:	
2.0	Poured in Place Concrete Sideyard, Sand Finish Colored Davis 'Miami Buff'.	
2.1	19 ¾" Wide x Random Length x ¾" Thick ***Exquisite Surfaces*** Atlas Gray Rustic Limestone in a Running Bond Pattern with 4" Green Seams where occurs.	
2.2	Concrete Stepper Pads, Smooth Sand Finish, Colored Davis 'Miami Buff'. Spacing per Plan.	
2.3	Cobble paver steppers. (sizes vary - see construction plan) ***Modern Builders Supply:*** 5" x 5" Tumbled Sterling Silver Cobbles in a Running Bond Pattern with Recessed Grout, Grout: Orco 'Soft White' (Contractor to Provide a Sample/Obtain Client's Approval Prior to Install). With 4" Green seams.	
2.4	Steps with Stone tone risers / tread. 2" Thick ***Exquisite Surfaces***: Atlas Gray Rustic Limestone Treads.	
2.5	Vehicular Pavers: ***Modern Builders Supply:*** 5" x 5" Tumbled Sterling Silver Cobbles in a Running Bond Pattern with Recessed Grout, Grout: Orco 'Soft White' (Contractor to Provide a Sample/Obtain Client's Approval Prior to Install). and Apply a Sealant as Directed.	
2.6	Synthetic Turf at Dog Run: ***Tiger Turf*** American Pet Turf.	
2.7	Synthetic Turf at main lawn area: ***Tiger Turf*** Diamond Supreme Spring.	
2.8	Cobble pavers as landscape header/edging. ***Exquisite Surfaces:*** 4" x 4" Atlas Gray Rustic Limestone.	
2.9	Decking: ***Azek*** 'Coastline' Composite Wood Decking	
2.10	⅜" Rolled pea gravel mulch.	

	WOOD / METAL / GLASS:	A/S			
3.0	5' Tall Pedestrian Sideyard Gates. Self closing/self-latching per pool safety bode. Color/Finish to match Garage doors.				C, LC-2
3.1	5' Tall Wood perimeter fence to meet pool code. Color/Finish to match Architecture.				

	POOL / WATER FEATURES:		
4.0	30" Round Salvaged Limestone bubbler fountain water feature.		
4.1	30" Tall Water Wall w/ Stone Veneer wrapped and (3) 16" Wide Water Weirs. Stone Veneer to be: Tumbled Sterling Silver Limestone Veneer.		B, LC-3
4.2	Pool/Spa Per separate permit. Pool contractor to permit and design build. Pool coping to match adjacent paving. Automatic Pool Safety cover with hidden track and hidden vault for cover.	SEPARATE PERMIT REQUIRED	PER POOL ENGINEER / CONTRACTOR
	Pool with an Integrated Spa, Baja Shelf with sleeve for an Umbrella Sleeve and Automatic Pool Safety Cover, Color: Light Gray Pool/Spa Color: ***PebbleFina*** 'Grigio' Pool/Spa Waterline Tile: 2" x 8.5" ***Sonoma Tile Makers*** Dakota 'Elevation' (Gloss) in a Horizontal Running Bond Pattern		
4.3	Prefabricated Water Feature to be selected. Install fastened to the perimeter wall, 24" wide x Not to exceed height of adjacent perimeter wall. Contractor to provide cut sheet to client for approval prior to installation.		WATER FEATURE CONTRACTOR

	SITE FURNISHINGS:	A/S	G/C	E/C
5.0	Pottery - see Planting Plan.			
5.1	Deep Seat Furniture Arrangement			
5.2	10' Long Dining Table and (10x) Dining Chairs			
5.3	(4x) Chaise Lounges and (2x) Umbrella Sleeves in the Synthetic Turf			
5.4	(2x) Pre-Fabricated Freestanding Matte Bronze Iron Garden Arbors.			
5.5	8' Long Dining Table, (5x) Dining Chairs and (1x) Umbrella			
5.6	3' W x 18" HT. x 5' L. Fire Table. Veneer: ***Modern Builder Supply:*** Tumbled Sterling Silver Veneer with a Possible White Cement Slurry (Contractor to Provide a Slurry Sample/Obtain the Client's Approval Prior to Install). CAP: to 2.5" Thick Pour in Place Smooth Sand Finish Colored Concrete, Davis 'Light Gray'. with 1-2" tumbled lava rock. Install recessed downlight (1) per side: ***TOP-SL-602-MBR-HS-LED-4W, Bronze.***			

KEY:

ALN	ALIGN	MAX.	MAXIMUM
CLR	CLEAR	P.A.	PLANTING AREA
℄	CENTERLINE	R=	RADIUS EQUALS
EQ.	EQUAL	TYP.	TYPICAL
F.O.C.	FACE OF CURB	(18)	CONSTRUCTION CALLOUT
F.O.W.	FACE OF WALL		CAULKED EXPANSION JOINT (TO MATCH PAVING)
MIN.	MINIMUM		

WALL/FENCE/STRUCTURES PERMIT NOTE:

ALL FREE STANDING STRUCTURES WALLS AND FENCES OVER 6' IN HEIGHT REQUIRE SEPARATE BUILDING PERMIT.

EXISTING LANDSCAPE NOTE:

THERE IS NO PROTECTED OR UNIQUE TREE OR PLANT SPECIES.
ALL EXISTING PLANT MATERIAL REMOVED AND TO BE DEMO. IN COMPLETE.

MASTER ASSOCIATION PROPERTY NOTE:

ALL EXISTING MASTER ASSOCIATION PROPERTY LANDSCAPE SHALL BE PROTECTED IN PLACE DURING ALL PHASES OF CONSTRUCTION.

LIMIT OF WORK / DAMAGED PROPERTY NOTE:

ANY PROPERTY OUTSIDE LIMIT OF WORK SHALL BE PROTECTED IN PLACE DURING ALL PHASES OF CONSTRUCTION. ANY PROPERTY DAMAGED DURING DEMOLITION AND/OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR TO THE PREVIOUS EXISTING CONDITION.

SITE PLAN AND DIMENSION NOTES:

THIS SITE PLAN IS BASED ON A SITE PLAN SUPPLIED BY A SEPARATE CONSULTANT. EXISTING CONDITIONS MAY VARY FROM SITE PLAN. THE CONTRACTOR MUST FIELD VERIFY ACTUAL DIMENSIONS PRIOR TO ANY CONSTRUCTION, TRENCHING AND/OR FABRICATION. IF THE EXISTING DIMENSIONS ARE DIFFERENT THAN THOSE ON THIS SITE PLAN THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY ON HOW TO PROCEED. FAILURE TO DO SO SHALL PLACE ALL DAMAGES INCURRED ON THE CONTRACTOR.

SCALE: 1/8"=1'-0"

0 4' 8' 16'

NORTH

CHELSEA CORINNE STUDIO

Address: 120 Tustin Ave, Ste C #227, Newport Beach, CA 92663

Landscape Architect:

LICENSED LANDSCAPE ARCHITECT BENJAMIN MONTRELLA 6819 Signature 5.31.24 Renewal Date 01/08/2024 Date STATE OF CALIFORNIA

Owner:

Brennan J Slavik Trust
4450 Macarthur Blvd FL 2nd
Newport Beach, CA 92660
Ph :805.798.4330

SLAVIK RESIDENCE
211 EMERALD BAY
LAGUNA BEACH, CA 92651

Date: 01/08/2024

Revisions:

County Rev. 07/15/2023

Drawn By:

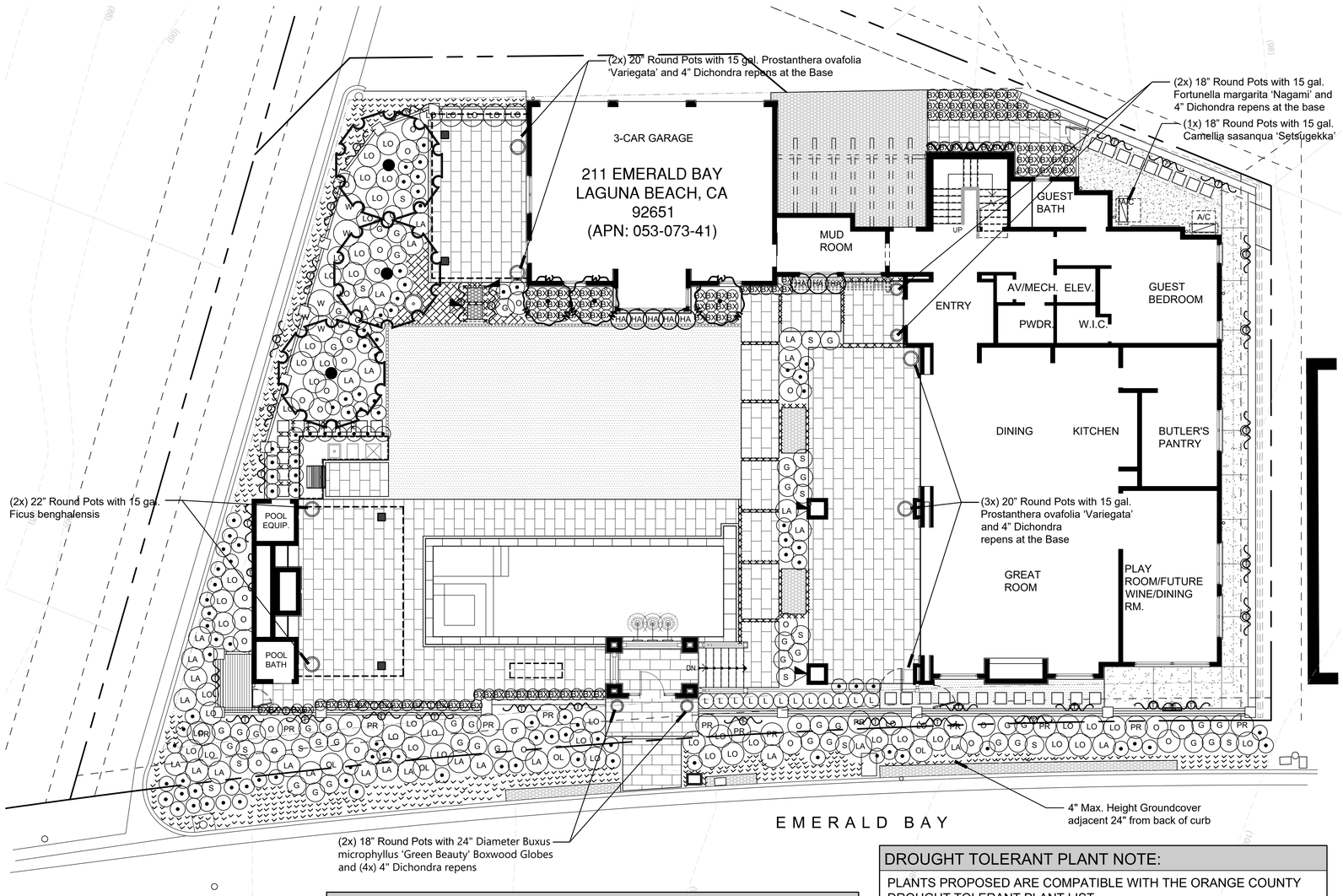
LANDSCAPE PLAN

Sheet

LC.1

Job No. 22-021

LANDSCAPE PERMIT# LND22-0083



SCALE: 1/8"=1'-0"

0 4' 8' 16' NORTH

MULCH NOTE:

A MINIMUM 3-INCH LAYER OF MULCH SHALL BE APPLIED ON ALL EXPOSED SOIL SURFACES OF PLANTING AREAS EXCEPT TURF AREAS.

ORGANIC SOILS NOTE:

FOR SOILS LESS THAN 6% MATTER IN THE TOP 6 INCHES OF SOIL, COMPOST AT A RATE OF A MINIMUM OF FOUR CUBIC YARDS PER 1,000 SQUARE FEET OF PERMEABLE AREA SHALL BE INCORPORATED TO A DEPTH OF SIX INCHES INTO THE SOIL.

SOILS AGRONOMY TESTING NOTE:

SOIL TESTING SHALL BE PERFORMED AFTER MASS GRADING, BUT PRIORTO LANDSCAPE INSTALLATION TO ENSURE THE SELECTION OF APPROPRIATE PLANT MATERIAL THAT IS SUITABLE FOR THE SITE, AND REPORTED IN A SOIL MANAGEMENT PLAN.
THE SOIL MANAGEMENT PLAN SHALL INCLUDE:

1. DETERMINATION OF SOIL TEXTURE, INDICATING THE AVAILABLE WATER HOLDING CAPACITY;
2. AN APPROXIMATE SOIL INFILTRATION RATE AS MEASURED OR DERIVED FROM A SOIL TEXTURE/INFILTRATION RATE TABLE. A RANGE OF INFILTRATION RATES SHALL BE NOTED WHERE APPROPRIATE;
3. MEASURE OF PH AND TOTAL SOLUBLE SALTS; AND,
4. RECOMMENDED SOIL AMENDMENTS.

E.B.C.A. PROPERTY NOTE:

TREES SHALL NOT BE LOCATED ON EMERALD BAY COMMUNITY ASSOCIATION PROPERTY.

DROUGHT TOLERANT PLANT NOTE:

PLANTS PROPOSED ARE COMPATIBLE WITH THE ORANGE COUNTY DROUGHT TOLERANT PLANT LIST.

BENJAMIN MONTRELLA RLA #5819 — DATE: December 6, 2022

GROUNDCOVER:

SYMBOL	NAME	SIZE	QTY.	W.U.C.O.L.S.	HEIGHT x WIDTH GROWTH
	SALVIA SONOMENSIS CREEPING SAGE	1 GAL. (3' On Center)	100± SQ.FT = 13	LOW	1-3' x 8' MEDIUM
	MYOPORUM P. 'WHITE' ('PROSTRATUM') CREEPING MYOPORUM	1 GAL. (3' On Center)	500± SQ.FT. = 60	LOW	4" x 8' MEDIUM
	ERODIUM REICHARDII 'ALBUM' WHITE HERON'S BILL	FLATS	3	LOW	3" x 6" MEDIUM
	SAXIFRAGA X ARENDSII 4" POTS TOURAN PINK SAXIFRAGE	FLATS	3	LOW	4" x 6" MEDIUM
	SILENE U. 'DRUETT'S VARIEGATED' SEA CAMPION	FLATS	3	LOW	18" x 1-2' MEDIUM
	VIOLA HEDERACEA AUSTRALIAN VIOLET	FLATS	3	MEDIUM	8" x 6' MEDIUM

TREE LEGEND:

SYMBOL	NAME	SIZE	QTY.	W.U.C.O.L.S.	HEIGHT x WIDTH GROWTH
	CITRUS AURANTIFOLIA 'MEXICAN THORNLESS LIME' MEXICAN LIME (SEMI-DWARF)	24" BOX	1	MEDIUM	8' x 8' MEDIUM
	CITRUS LIMON 'IMPROVED MEYER LEMON' IMPROVED MEYER LEMON (SEMI-DWARF)	24" BOX	1	MEDIUM	10' x 8' MEDIUM
	CITRUS SINENSIS 'DWARF CAMPBELL ORANGE' DWARF CAMPBELL VALENCIA ORANGE	24" BOX	1	MEDIUM	8' x 8' MEDIUM
	OLEA EUROPA 'SPECIMEN' FIELD GROWN SPECIMEN OLIVE	FIELD GROWN	3	LOW	14' x 14' SLOW (MAINTAINED AT 14' HT.)

SHRUB LEGEND:

SYMBOL	NAME	SIZE	QTY.	W.U.C.O.L.S.	HEIGHT x WIDTH GROWTH
HA	HYDRANGEA ARBORESCEN 'WHITE' WHITE BIGLEAF HYDRANGEA	5 GAL.	8	MEDIUM	3' x 4' MEDIUM
LO	LOMANDRA LONGIFOLIA 'ARTIC FROST' ARCTIC FROST MAT RUSH	5 GAL.	62	LOW	2' x 3' MEDIUM
O	OLEA EUROPAEA 'MONTRA' LITTLE OLLIE® DWARF OLIVE	15 GAL.	31	LOW	6' x 6' MEDIUM
OL	OENOTHERA LINDHEIMERI WHITE GAURA	1 GAL.	5	MEDIUM	8" x 6' MEDIUM
G	PITTOSPORUM T. 'GOLF BALL' DWARF KARO	5 GAL.	46	MEDIUM	2' x 3'
PR	PROSTANTHERA OVAFOLIA 'VARIEGATA' AUSTRALIAN MINT BUSH	5 GAL.	11	MEDIUM	4-6' x 3-5'
	SESLERIA AUTUMNALIS AUTUMN MOOR GRASS	1 GAL	113	LOW	1-2' x 1' SLOW
W	WESTRINGIA FR. 'GREY BOX' DWARF COAST ROSEMARY	5 GAL.	6	LOW	2' x 3' MEDIUM
S	WESTRINGIA 'SMOKEY' COAST ROSEMARY	5 GAL.	16	LOW	4' x 6' MEDIUM AS HEDGE
LA	LANTANA SELLOWIANA 'MONSWEE' LAVENDER SWIRL TRAILING LANTANA	1 GAL.	29	LOW	8" x 6' MEDIUM

HEDGES:

SYMBOL	NAME	SIZE	QTY.	W.U.C.O.L.S.	HEIGHT x WIDTH GROWTH
BX	BUXUS JAPONICA JAPANESE BOXWOOD HEDGE	1 GAL.	131	MEDIUM	4' x 4' (INSTALL AT 12" ON CENTER)
L	LIGUSTRUM JAPONICUM 'TEXANUM' WAXLEAF PRIVET	24" BOX	12	LOW	6' x 4' MAINTAIN AT 6' MAX. HEIGHT

VINES:

SYMBOL	NAME	SIZE	QTY.	W.U.C.O.L.S.	HEIGHT x WIDTH GROWTH
G	MAGNOLIA GRANDIFLORA 'LITTLE GEM' LITTLE GEM DWARF SOUTHERN MAGNOLIA	15 GAL. STAKED	1	MEDIUM	CLIMBING 15' SLOW INSTALLED AS ESPALIER
	ROSA 'AUSDRAWN' THE GENEROUS GARDENER 'CLIMBING' ENGLISH CLIMBING ROSE (BY DAVID AUSTIN)	15 GAL.	2	MEDIUM	CLIMBING 5-8' STAKED AND ATTACHED TO ARBOR POSTS
	SOLANUM JASMINOIDES POTATO VINE	15 GAL.	4	LOW	CLIMBING 5-8' STAKED AND ATTACHED TO ARBOR POSTS
	TRACHELOSPERMUM JASMINOIDES STAR JASMINE	5 GAL.	39	MEDIUM	WIRED IN 'X' PATTERN WITH CABLE WIRE ON THE RETAINING WALL

CHELSEA CORINNE STUDIO

Address: 120 Tustin Ave, Ste C #227, Newport Beach, CA 92663

LICENSED LANDSCAPE ARCHITECT — BENJAMIN MONTRELLA — 5819 — 5.31.24 — December 6, 2022 — STATE OF CALIFORNIA

SLAVIK RESIDENCE
211 EMERALD BAY
LAGUNA BEACH, CA 92651

Contractor to Field Verify All Measurements and Confirm Details to Provide Accurate Bid

Date: 10.24.2022

Revisions:
client rev. 12.06.2022

Drawn By:

PLANTING PLAN

Sheet

LP.1

Job No. 22-021

plant palette

Citrus aurantifolia
Mexican Thornless Lime

Citrus limon 'Improved Meyer'
Improved Meyer Lemon

Citrus sinensis 'Dwarf Campbell'
Dwarf Valencia Campbell Orange

Ficus benghalensis
Ficus Audrey'

Olea europaea 'Specimen'
Field Grown Olive

Olea europaea 'Wilsonii'
Standard Fruitless Olive

Buxus japonica
Boxwood Hedge

Ligustrum japonicum 'Texanum'
Wax Leaf Privet

plant palette

Camellia sasanqua 'Setsugekka'
Setsugekka Camellia

Hydrangea macrophylla 'White'
White Bigleaf Hydrangea

Lomandra longifolia 'Artic Frost'
Artic Frost Mat Rush

Olea europaea 'Little Ollie'
Dwarf Fruitless Olive Shrub

Pittosporum tenufolium 'Golf Ball'
Golf Ball Kohuhu

Prostanthera ovafolia 'Variegata'
Variegated Australian Mint

Sesleria autumnalis
Autumn Moor Grass

Westringia fruticosa 'Grey Box'
Dwarf Coast Rosemary

plant palette

Saxifraga x arendsii
Touran Pink Saxifrage

Silene uniflora 'Druett's Variegata'
Sea Campion

Viola hederacea
Australian Violet

Magnolia grandiflora 'Little Gem'
Dwarf Souther Magnolia Expalier

Myoporum parvifolium 'White'
Creeping Myoporum

Rosa 'Ausdrawn' The Generous
Gardener English Climbing Rose

Solanum jasminoides
Potato Vine

Trachelospermum jasminoides
Star Jasmine

plant palette

Westringia fruticosa 'Smokey'
Coast Rosemary

Armeria maritima 'Cotton Tail'
Cotton Tail Thrift

Dichondra repens
Green Dichondra

Dymondia margaratae
Silver Carpet

Erodium reichardii 'Album'
White Heron's Bill

Lantana sellowiana 'Monswee'
Lavender Swirl Trailing Rosemary

Oenothera lindheimeri
White Gaura

Salvia sonomensis
Creeping Sage

CHELSEA CORINNE STUDIO

Address: 120 Tustin Ave, Ste C #227, Newport Beach, CA 92663

LICENSED LANDSCAPE ARCHITECT
BENJAMIN MONTRELLA
#5819
5.31.24
Renewal Date
December 6, 2022
Date
STATE OF CALIFORNIA

SLAVIK RESIDENCE
211 EMERALD BAY
LAGUNA BEACH, CA 92651

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client rev. 12.06.2022

Drawn By:
PLANTING MAGERY

Sheet
LP.4

Job No. 22-021

CITY OF LAGUNA BEACH
GRADING PLAN
FOR
SLAVIK RETREAT
211 EMERALD BAY
LAGUNA BEACH, CA 92651

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 OC GRADING CODE AND OC GRADING MANUAL SHALL BE RETAINED ON THE JOB SITE WHILE WORK IS IN PROGRESS. WHEN REFERENCED ON THE GRADING PLANS, A COPY OF OC PUBLIC WORKS STANDARD PLANS SHALL ALSO BE RETAINED ON THE SITE.
2. GRADING SHALL NOT BE STARTED WITHOUT FIRST NOTIFYING THE ASSIGNED OC GRADING INSPECTOR. A PREGRADING MEETING ON THE SITE IS REQUIRED BEFORE START OF GRADING WITH THE FOLLOWING PEOPLE PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOIL ENGINEER, ENGINEERING GEOLOGIST, OC GRADING INSPECTOR, AND WHEN REQUIRED, THE ARCHAEOLOGIST, PALEONTOLOGIST, AND SURVEYOR. THE REQUIRED INSPECTIONS FOR GRADING WILL BE EXPLAINED AT THE MEETING.
3. ISSUANCE OF A GRADING PERMIT DOES NOT ELIMINATE THE NEED FOR PERMITS FROM OTHER AGENCIES WITH REGULATORY RESPONSIBILITIES FOR CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE WORK AUTHORIZED ON THIS PLAN.
4. THE GRADING PERMIT AND AN APPROVED COPY OF THE APPROVED GRADING PLAN SHALL BE ON THE PERMITTED SITE WHILE GRADING WORK IS IN PROGRESS.
5. PRELIMINARY SOIL AND GEOLOGY REPORTS, AND ALL SUBSEQUENT REPORTS AS APPROVED BY OC DEVELOPMENT SERVICES, ARE CONSIDERED A PART OF THE APPROVED GRADING PLAN.
6. THE SOIL ENGINEER AND ENGINEERING GEOLOGIST SHALL PERFORM SUFFICIENT INSPECTIONS AND BE AVAILABLE DURING GRADING AND CONSTRUCTION TO VERIFY COMPLIANCE WITH THE PLANS, SPECIFICATIONS AND THE OC GRADING CODE WITHIN THEIR PURVIEW.
7. THE CIVIL ENGINEER SHALL BE AVAILABLE DURING GRADING TO VERIFY COMPLIANCE WITH THE PLANS, SPECIFICATIONS, OC GRADING CODE, AND ANY SPECIAL CONDITIONS OF THE PERMIT WITHIN THEIR PURVIEW.
8. THE SOIL ENGINEER AND ENGINEERING GEOLOGIST SHALL, AFTER CLEARING AND PRIOR TO 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 PRIOR TO THE PLACEMENT OF FILL IN EACH RESPECTIVE CANYON.
9. SUBDRAIN OUTLETS SHALL BE COMPLETED AT THE BEGINNING OF THE SUBDRAIN CONSTRUCTION.
10. THE EXACT LOCATION OF THE SUBDRAINS SHALL BE SURVEYED IN THE FIELD FOR LINE/GRADE AND SHOWN ON ASGRADED OR REVISED PLANS.
11. AREAS TO RECEIVE FILL SHALL BE PROPERLY PREPARED AND APPROVED IN WRITING BY THE SOIL ENGINEER AND THE OC BUILDING OFFICIAL PRIOR TO PLACING FILL.
12. FILLS SHALL BE BENCHED INTO COMPETENT MATERIAL PER OC PUBLIC WORKS STANDARD PLAN NO 1322.
13. ALL EXISTING FILLS SHALL BE APPROVED BY THE OC BUILDING OFFICIAL OR REMOVED PRIOR TO PLACING ADDITIONAL FILLS.
14. 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 ASTM D1557 OR APPROVED EQUIVALENT AND FIELD DENSITY BY ASTM D1556 (SAND-CONE) AND ASTM D6938 (NUCLEAR GAUGE METHOD) OR AN APPROVED EQUIVALENT.
15. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN 2-FEET HORIZONTAL TO 1-FOOT VERTICAL (2:1) EXCEPT WHERE SPECIFICALLY APPROVED BY THE OC BUILDING OFFICIAL.
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 DISCLOSE ANY GEOLOGICAL HAZARDS OR POTENTIAL GEOLOGICAL HAZARDS, THE ENGINEERING GEOLOGIST SHALL SUBMIT RECOMMENDED TREATMENT TO THE OC BUILDING OFFICIAL FOR APPROVAL.
17. WHERE SUPPORT OR BUTTRESSING OF CUT AND NATURAL SLOPES IS DETERMINED NECESSARY BY THE ENGINEERING GEOLOGIST AND SOIL ENGINEER, THE SOIL ENGINEER SHALL SUBMIT DESIGN, LOCATIONS AND CALCULATIONS TO THE OC BUILDING OFFICIAL PRIOR TO CONSTRUCTION. THE ENGINEERING GEOLOGIST AND SOIL ENGINEER SHALL INSPECT AND CONTROL 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. ALL TRENCH BACKFILL SHALL BE TESTED AND APPROVED BY THE SOIL ENGINEER PER THE OC GRADING CODE.
20. ANY EXISTING IRRIGATION LINES AND CISTERNS SHALL BE REMOVED OR CRUSHED IN PLACE AND APPROVED BY THE OC BUILDING OFFICIAL AND THE SOIL ENGINEER.
21. ANY EXISTING WATER WELLS SHALL BE ABANDONED IN COMPLIANCE WITH THE SPECIFICATIONS APPROVED BY ORANGE COUNTY HEALTH CARE AGENCY AND DIVISION OF ENVIRONMENTAL HEALTH.
22. ANY EXISTING CESSPOOLS AND SEPTIC TANKS SHALL BE ABANDONED IN COMPLIANCE WITH THE CALIFORNIA PLUMBING CODE TO THE APPROVAL OF OC BUILDING OFFICIAL.
23. THE STOCKPILING OF EXCESS MATERIAL SHALL BE APPROVED BY THE OC BUILDING OFFICIAL PRIOR TO EXCAVATION.
24. EXPORT SOIL MUST BE TRANSPORTED TO A LEGAL DUMP OR TO A PERMITTED SITE APPROVED BY THE OC BUILDING OFFICIAL OR HIS/ HER DESIGNEE.
25. THE PERMITTEE SHALL COMPLY WITH THE OC GRADING CODE REQUIREMENTS FOR HAUL ROUTES WHEN AN EXCESS OF 5,000 CUBIC YARDS OF EARTH IS TRANSPORTED TO OR FROM A PERMITTED SITE ON PUBLIC ROADWAYS.
26. THE PERMITTEE IS RESPONSIBLE FOR DUST CONTROL MEASURES.
27. THE PERMITTEE SHALL GIVE REASONABLE NOTICE TO THE OWNER OF ADJOINING LANDS AND BUILDING PRIOR TO BEGINNING EXCAVATIONS WHICH MAY AFFECT THE LATERAL AND SUBJACENT SUPPORT OF THE ADJOINING PROPERTY. THE NOTICE SHALL STATE THE INTENDED DEPTH OF THE 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 DESIRES, UNLESS OTHERWISE PROTECTED BY LAW.
28. ALL CONCRETE STRUCTURES THAT ARE EXPOSED TO THE ON-SITE SOILS SHALL BE CONSTRUCTED WITH TYPE V CEMENT, UNLESS DEEMED UNNECESSARY BY SOLUBLE SULFATE-CONTENT TESTS CONDUCTED BY THE SOIL ENGINEER.
29. SLOPES EXCEEDING 5 FEET IN HEIGHT SHALL BE PLANTED WITH AN APPROVED PLANT MATERIAL. IN ADDITION, SLOPES EXCEEDING 15 FEET IN HEIGHT SHALL BE PROVIDED WITH AN APPROVED IRRIGATION SYSTEM, UNLESS OTHERWISE APPROVED BY THE OC BUILDING OFFICIAL.
30. 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.
31. SANITARY FACILITIES SHALL BE MAINTAINED ON SITE.
32. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE PERMITTEE.
33. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED TO PROTECT ADJOINING PROPERTIES DURING GRADING.

GRADING NOTES (CONTD.)

34. GRADING OPERATIONS INCLUDING MAINTENANCE OF EQUIPMENT WITHIN ONE-MILE OF A HUMAN OCCUPANCY SHALL NOT BE CONDUCTED BETWEEN THE HOURS OF 8:00 P.M. AND 7:00 A.M. DAILY, ON SUNDAYS, OR ON A FEDERAL HOLIDAY.
    - 34.1. ALL CONSTRUCTION VEHICLES OR EQUIPMENT, FIXED OR MOBILE, OPERATED WITHIN 1000 FEET OF A DWELLING SHALL BE EQUIPPED WITH PROPERLY OPERATIONAL AND MAINTAINED MUFFLERS.
    - 34.2. ALL OPERATIONS SHALL COMPLY WITH ORANGE COUNTY CODIFIED ORDINANCE DIVISION 6 (NOISE CONTROL).
    - 34.3. STOCKPILING AND/OR VEHICLE STAGING AREAS SHALL BE LOCATED AS FAR AS PRACTICAL FROM DWELLINGS AND WITHIN THE LIMITS OF THE GRADING PERMIT.
35. GRADING AND EXCAVATION SHALL BE HALTED DURING PERIODS OF HIGH WINDS. ACCORDING TO AQMD RULE 403, HIGH WIND CONDITIONS MEANS INSTANTANEOUS WIND SPEEDS EXCEED 25 MPH. THIS LEVEL OCCURS ONLY UNDER EXTREME CONDITIONS SUCH AS SANTA ANA WIND CONDITIONS.
36. ASPHALT SECTIONS MUST BE PER OC GRADING CODE: PARKING STALL – 3" A/C OVER 6" A/B, DRIVES 3" A/C OVER 10" (COMMERCIAL), AND 12" (INDUSTRIAL). OR: PRIOR TO ROUGH GRADE RELEASE FOR BUILDING PERMITS BY THE ASSIGNED GRADING INSPECTOR; THE SOIL ENGINEER SHALL SUBMIT FOR APPROVAL PAVEMENT SECTION RECOMMENDATIONS, BASED ON "R" VALUE ANALYSIS OF THE SUB-GRADE SOILS, AND EXPECTED TRAFFIC INDICES.
37. ASPHALT CONCRETE SHALL BE CONSTRUCTED PER THE REQUIREMENTS OF OC PUBLIC WORKS STANDARD PLAN NO.1805.
38. AGGREGATE BASE SECTION SHALL BE CONSTRUCTED PER THE REQUIREMENTS OF OC PUBLIC WORKS STANDARD PLAN NO. 1804.
39. ROOF GUTTERS SHALL BE INSTALLED TO PREVENT ROOF DRAINAGE FROM FALLING ON MANUFACTURED SLOPES, WITH APPROPRIATE DOWN SPOUTS AND OUTLETS.
40. THE CIVIL 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 REFLECTING THE HIGH POINT ELEVATION FOR PRELIMINARY PERMITS.
41. PRIOR TO FINAL APPROVAL, THE CIVIL ENGINEER SHALL CERTIFY TO THE OC BUILDING OFFICIAL THE AMOUNT OF EARTH MOVED DURING THE GRADING OPERATION.
42. THE ENGINEERING GEOLOGIST SHALL PERFORM PERIODIC INSPECTIONS AND SUBMIT A COMPLETE REPORT AND MAP UPON COMPLETION OF THE ROUGH GRADING.
43. THE GRADING CONTRACTOR SHALL SUBMIT A STATEMENT OF COMPLIANCE TO THE ASSIGNED GRADING INSPECTOR THAT THE GRADING IS IN ACCORDANCE WITH THE APPROVED GRADING PLAN PRIOR TO FINAL APPROVAL.
44. THE COMPACTION REPORT AND APPROVAL FROM THE SOIL ENGINEER SHALL INDICATE THE TYPE OF FIELD TESTING PERFORMED, THE METHOD OF OBTAINING THE IN-PLACE DENSITY SHALL BE IDENTIFIED WHETHER SAND CONE, DRIVE RING OR NUCLEAR, AND SHALL BE NOTED FOR EACH TEST. SUFFICIENT MAXIMUM DENSITY DETERMINATIONS SHALL BE PERFORMED TO VERIFY ACCURACY OF THE MAXIMUM DENSITY CURVES USED BY THE FIELD TECHNICIAN.
45. IN THE EVENT THAT SOIL CONTAMINATION IS DISCOVERED DURING EXCAVATION AND REMOVAL OF AN EXISTING TANK, WORK SHALL BE STOPPED UNTIL A SITE ASSESSMENT AND MITIGATION PLAN HAS BEEN PREPARED, SUBMITTED AND APPROVED BY THE OC HEALTH CARE AGENCY/ENVIRONMENTAL HEALTH AND OC DEVELOPMENT SERVICES.

EROSION CONTROL NOTES

46. IN THE CASE OF EMERGENCY, CALL: WILL ROLPH AT 949-464-8115
47. 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.
48. EROSION, SEDIMENT AND CHEMICAL CONTROL DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE OC BUILDING OFFICIAL.
49. 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%,
50. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM STREETS, CHECK BERMS AND BASINS.
51. GRADED AREAS OF THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARDS DESILTING FACILITIES.
52. THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
53. THE PERMITTEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLAN.

ENVIRONMENTAL NOTES

54. THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES AND PROPERTY OWNERS THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.
55. PERMITTEE SHALL MAINTAIN CONSTRUCTION SITE IN A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS, WASTES FROM PAINT, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPER CHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
56. PERMITTEE MAY DISCHARGE MATERIAL OTHER THAN STORM WATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATION 40 CFR, PARTS 117 AND 302.
57. DEWATERING OF CONTAMINATED GROUNDWATER OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.

SPECIAL NOTE

SURVEY MONUMENTS SHALL BE PREPARED AND REFERENCED BEFORE CONSTRUCTION PURSUANT TO SECTION 8771 OF THE BUSINESS AND PROFESSIONAL CODE.

OSHA NOTE

THERE SHALL BE NO TRENCHES OR EXCAVATION 5 FEET OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND, OR OBTAIN PERMIT FROM STATE OF CALIFORNIA, DIVISION OF OCCUPATIONAL SAFETY, AND HEALTH (CAL/OSHA). THIS PERMIT AND ANY OTHER SAFETY PERMIT SHALL BE OBTAINED PRIOR TO COMMENCEMENT OF ANY WORK. CONTACT CAL/OSHA AT 714.558.4451 FOR ADDITIONAL INFORMATION

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A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

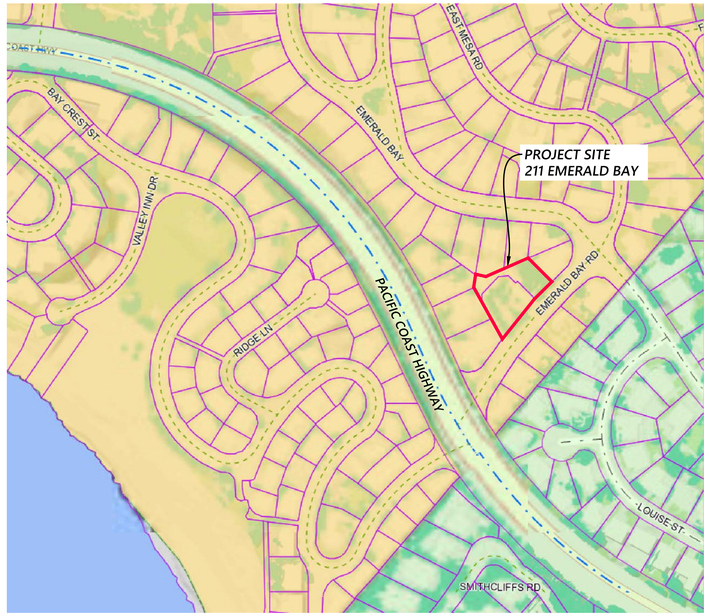
NDPES NOTES

1. IN THE CASE OF EMERGENCY, CALL: WILL ROLPH AT WORK PHONE # 949.464.8115
2. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
3. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TACKING, OR WIND.
4. APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.
5. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES UNLESS TREATED TO REDUCE OR REMOVE SEDIMENT AND OTHER POLLUTANTS.
6. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OR THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
7. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
8. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORM WATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.
9. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING.

COUNTY OF ORANGE | OC PUBLIC WORKS | OC PLANNING

DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.

10. DEWATERING OF CONTAMINATED GROUNDWATER OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
11. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.
12. THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
13. THE PERMITTEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.
14. THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES, AND PROPERTY OWNERS; THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.
15. 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.
16. 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%.
17. SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE, AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
18. APPROPRIATE BMPS FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.



VICINITY MAP
NO SCALE

NOTES TO OWNER, CONTRACTOR, & ARCHITECT

1. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT IS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
2. ALL EXISTING TOPOGRAPHY AND PROPOSED GRADES SHALL BE FIELD VERIFIED.
3. NO UTILITY SEARCH WAS CONDUCTED. A UTILITY SEARCH BY THE CONTRACTOR SHALL BE CONDUCTED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES FOUND ON THE SITE AND TO NOTIFY THE OWNERS OF THE UTILITIES IMMEDIATELY UPON THEIR DISCOVERY.
4. EARTHWORK AND OTHER CONSTRUCTION ITEM QUANTITIES SHOWN ON THESE PLANS ARE ESTIMATES FOR PERMITTING PURPOSES ONLY AND SHALL NOT USED FOR CONSTRUCTION COST ESTIMATES OR FOR BIDDING PURPOSES. THE CONTRACTOR SHALL DEVELOP OWN QUANTITIES FOR BIDDING PURPOSES.
5. A SOILS INVESTIGATION MUST BE MADE BY A QUALIFIED SOILS ENGINEER AND/OR GEOLOGIST. SOIL AND EARTH ACCEPTABILITY ARE NOT UNDER PURVIEW OR THE RESPONSIBILITY OF THE DESIGN ENGINEER FOR THIS PLAN. CIVILSCAPES ENGINEERING DOES NOT TEST OR OBSERVE SOIL CONDITIONS PRIOR TO, DURING OR AFTER CONSTRUCTION AND HAS NO RESPONSIBILITY FOR SOILS (EARTH) STRUCTURES.
6. ALL STRUCTURAL DESIGNS ARE TO BE BUILT PER STRUCTURAL ENGINEER'S PLAN AND PER SEPARATE PLAN AND PERMIT.

SHEET INDEX

LEGAL DESCRIPTION

LOTS 6, 7, & 8 OF TRACT NO. 977, SUBDIVISION 'G' OF EMERALD BAY IN THE UNINCORPORATED TERRITORY OF ORANGE COUNTY, STATE OF CALIFORNIA

APN: 053-073-41

OWNER

BRENNAN & KIRSTEN SLAVIK
211 EMERALD BAY
LAGUNA BEACH, CA 92651
805.798.4330

CIVIL ENGINEER

CIVILSCAPES ENGINEERING, INC
CONTACT: WILL ROLPH
28052 CAMINO CAPISTRANO, STE 213
LAGUNA NIGUEL, CA 92677
949.464.8115
EMAIL: will@civilscapes.com

ARCHITECT

BRANDON ARCHITECTS, INC.
151 KALMUS DRIVE, SUITE G-1
COSTA MESA, CA 92626
714.454.4040

SOILS ENGINEER

COAST GEOTECHNICAL, INC.
1200 WEST COMMONWEALTH
FULLERTON, CA 92833
714.870.1211
REPORT NO.: 621021-01

SURVEYOR

APEX LAND SURVEYING, INC.
HUNTINGTON BEACH, CA 92646
714.488.5006

BASIS OF BEARINGS

THE BASIS OF BEARINGS ARE BASED ON THE SOUTHWEST PROPERTY LINE OF LOT 6 HAVING A BEARING OF N30°20'00"W PER TRACT NO. 977, M.M. 31/34-35.

BENCHMARK

BENCHMARK NO: NB3-17-77

DESCRIBED BY OCS 2002 - FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "NB3-1777", SET IN THE TOP OF A CONCRETE BRIDGE ABUTMENT. MONUMENT IS LOCATED IN THE SOUTHEAST CORNER OF THE INTERSECTION OF VIA LIDO AND THE WEST LIDO CHANNEL, 22.3 FT. SOUTHERLY OF THE CENTERLINE OF VIA LIDO AND 0.35 MILES SOUTHEASTERLY OF NEWPORT BOULEVARD. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

ELEVATION: 24.503 FEET (NAVD88), YEAR LEVELED 2015

THE ELEVATIONS SHOWN HEREON WERE OBTAINED FROM A MAP TITLED "CITY OF LAGUNA BEACH, CALIFORNIA DEPARTMENT OF PUBLIC WORKS - ENGINEERING DIVISION TOPOGRAPHICAL MAP OF THE CITY OF LAGUNA BEACH" PREPARED BY PACIFIC AIR INDUSTRIES, DATED 10/03/1960.

SAID ELEVATIONS ARE 1.34 FEET HIGHER THAN OCS VERTICAL CONTROL BENCHMARK NO. NB3-17-77.

EARTHWORK QUANTITIES

RAW CUT	1,075	CUBIC YARDS
RAW FILL	130	CUBIC YARDS
NET	945	CUBIC YARDS (EXPORT)

IMPERVIOUS AREAS

TOTAL SITE AREA:	0.33	ACRES	
EXISTING PERVIOUS AREA:	0.11	ACRES	33%OF TOTAL
EXISTING IMPERVIOUS AREA:	0.22	ACRES	67% OF TOTAL
PROPOSED PERVIOUS AREA:	0.08	ACRES	24% OF TOTAL
PROPOSED IMPERVIOUS AREA:	0.25	ACRES	76% OF TOTAL

PERMIT NO. GRD23-0010
WQ23-0006

CIVILSCAPES ENGINEERING
28052 CAMINO CAPISTRANO, STE 213
LAGUNA NIGUEL, CA 92677
949.464.8115 info@civilscapes.com

GRADING PLAN
FOR SLAVIK RETREAT
TITLE SHEET
211 EMERALD BAY
LAGUNA BEACH, CA 92651

REVISIONS

NO.	REVISION	DATE

REGISTERED PROFESSIONAL ENGINEER
WILLIAM D. ROLPH
C 76698
CIVIL
STATE OF CALIFORNIA

JOB NO. 22027

DATE 12/15/2023

SHEET NO. C1

SHEET NO. 1 OF 7

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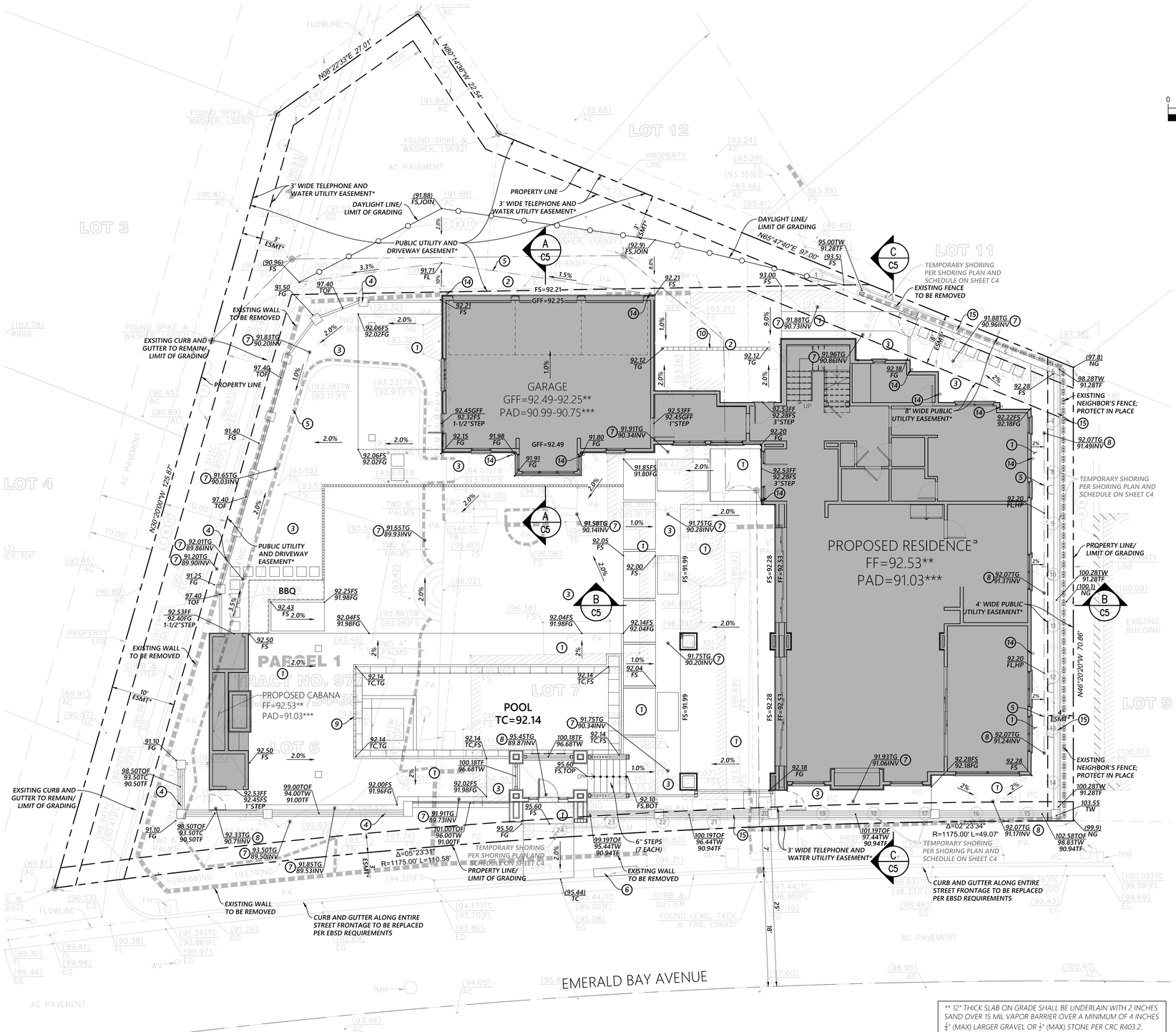
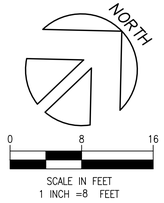




CONSTRUCTION NOTES

1. HARDSCAPE PER ARCHITECT'S PLAN AND PER DETAIL ON SHEET C5.
2. DRIVEWAY PER ARCHITECT'S PLAN AND PER DETAIL ON SHEET C5.
3. PLANTER AREA PER ARCHITECT'S PLAN.
4. POOL ENCLOSURE/ PROPERTY LINE FENCE, ON CURB WHERE APPLICABLE, WITH PILASTERS PER LANDSCAPE ARCHITECT'S PLAN.
5. CONSTRUCT FLOWLINE PER DETAIL HEREON.
6. EXISTING WATER METER TO REMAIN; PROTECT IN PLACE.
7. FURNISH & INSTALL 6" NDS SPEE-D BASIN W/6" GREEN ATRIUM GRATE PER DETAIL HEREON.
8. FURNISH & INSTALL 6" NDS SPEE-D BASIN W/6" BRASS SQUARE GRATE PER DETAIL HEREON.
9. 4-INCH WIDE NDS TRENCH DRAIN W/ LIGHT GRAY GRATE PER DETAIL ON SHEET C5.
10. 6-INCH WIDE NDS TRENCH DRAIN W/ TRAFFIC RATED GRATE PER DETAIL ON SHEET C5.
14. CONNECT DOWNSPOUT TO ONSITE STORM DRAIN SYSTEM PER DETAIL HEREON. OTHERWISE OUTLET TO HARDSCAPE SURFACE IN DIRECTION OF FLOW.
15. RETAINING WALL PER STRUCTURAL PLAN DETAIL 27/D-1.1. RETAINING WALLS TO BE COSNTRUCTED UNDER SEPARATE PERMIT # RWP23-0012.

LEGEND

CATV	CABLE PULLBOX
CONC	EDGE OF CONCRETE
DECK	TOP OF DECKING
EAVE	EAVE OF ROOF
EDISON	EDISON UTILITY BOX
EM	ELECTRIC METER
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOWLINE
FS	FINISHED SURFACE
GB	GRADEBREAK
GFF	GARAGE FINISHED FLOOR
GM	GAS METER
INV	INVERT
NG	NATURAL GRADE
RIDGE	RIDGE OF ROOF
SCO	SEWER CLEANOUT
SMH	SEWER MANHOLE
STEP	EDGE OF STEP
TC	TOP OF CURB
TG	TOP OF GRATE
THRESH	EDGE OF THRESHOLD
TW	TOP OF WALL
WM	WATER METER
WV	WATER VALVE

- AREA OF PROPOSED BUILDING
- PROPERTY LINE AND LIMIT-OF-WORK
- PROPOSED WALL
- EXISTING WALL
- BUILDING STEMWALL
- (102.6) OR 102.6 — EXISTING ELEVATION; CONTRACTOR SHALL FIELD VERIFY ELEVATIONS PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO CIVILSCAPES ENGINEERING

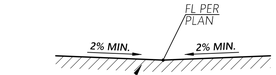
* EASEMENT NOTE:

CONTRACTOR SHALL NOT PERFORM ANY WORK WITHIN ANY EASEMENTS WITHOUT THE WRITTEN PERMISSION OF THE EASEMENT HOLDER.

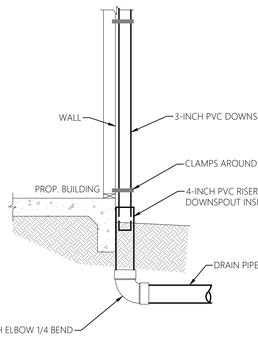
CONTRACTOR SHALL LOCATE ANY EXISTING UTILITIES AND REPORT FINDINGS TO THE ENGINEER PRIOR TO DOING ANY WORK IN THE EASEMENT AREAS.

WALL NOTE:

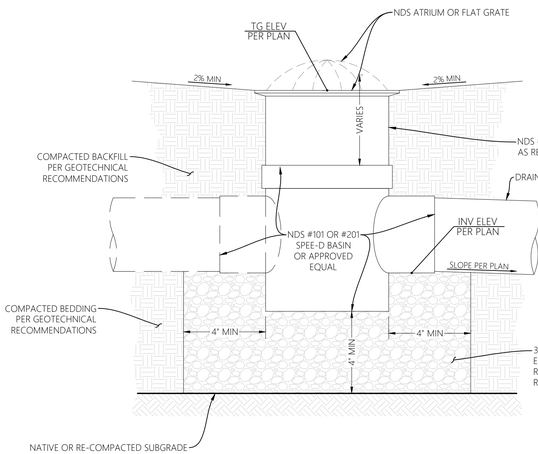
RETAINING WALLS TO BE CONSTRUCTED UNDER SEPARATE PERMIT NO. RWP23-0012.



5 FLOWLINE DETAIL
NO SCALE



14 DOWNSPOUT CONNECTION DETAIL
NO SCALE



7 8 NDS SPEE-D BASIN DETAIL
NO SCALE

** 12" THICK SLAB ON GRADE SHALL BE UNDERLAIN WITH 2 INCHES SAND OVER 15 MIL VAPOR BARRIER OVER A MINIMUM OF 4 INCHES ¾" (MAX) LARGER GRAVEL OR ¾" (MAX) STONE PER CRC R403.2. CONTRACTOR SHALL REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO CONFIRM DEPTH, THICKNESS, AND ELEVATION OF FLOOR.

*** CONTRACTOR SHALL VERIFY SLAB THICKNESS AND SECTION PRIOR TO CONSTRUCTION W/FOUNDATION PLANS, AND SOILS REPORT PRIOR TO CONSTRUCTION.

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CIVILSCAPES ENGINEERING
28052 CAMINO CAPISTRANO, STE 213
LAGUNA NIGUEL, CA 92677
949.464.8115 info@civilscapes.com

GRADING PLAN FOR SLAVIK RETREAT GRADING PLAN

211 EMERALD BAY
LAGUNA BEACH, CA 92651

REVISIONS

NO.	REVISION	DATE

REGISTERED PROFESSIONAL ENGINEER WILLIAM D. ROSE C 76698 CIVIL CA

JOB NO. 22027

DATE 12/15/2023

SHEET NO. C2

PERMIT NO. GRD23-0010 WQ23-0006

SHEET NO. 2 OF 7

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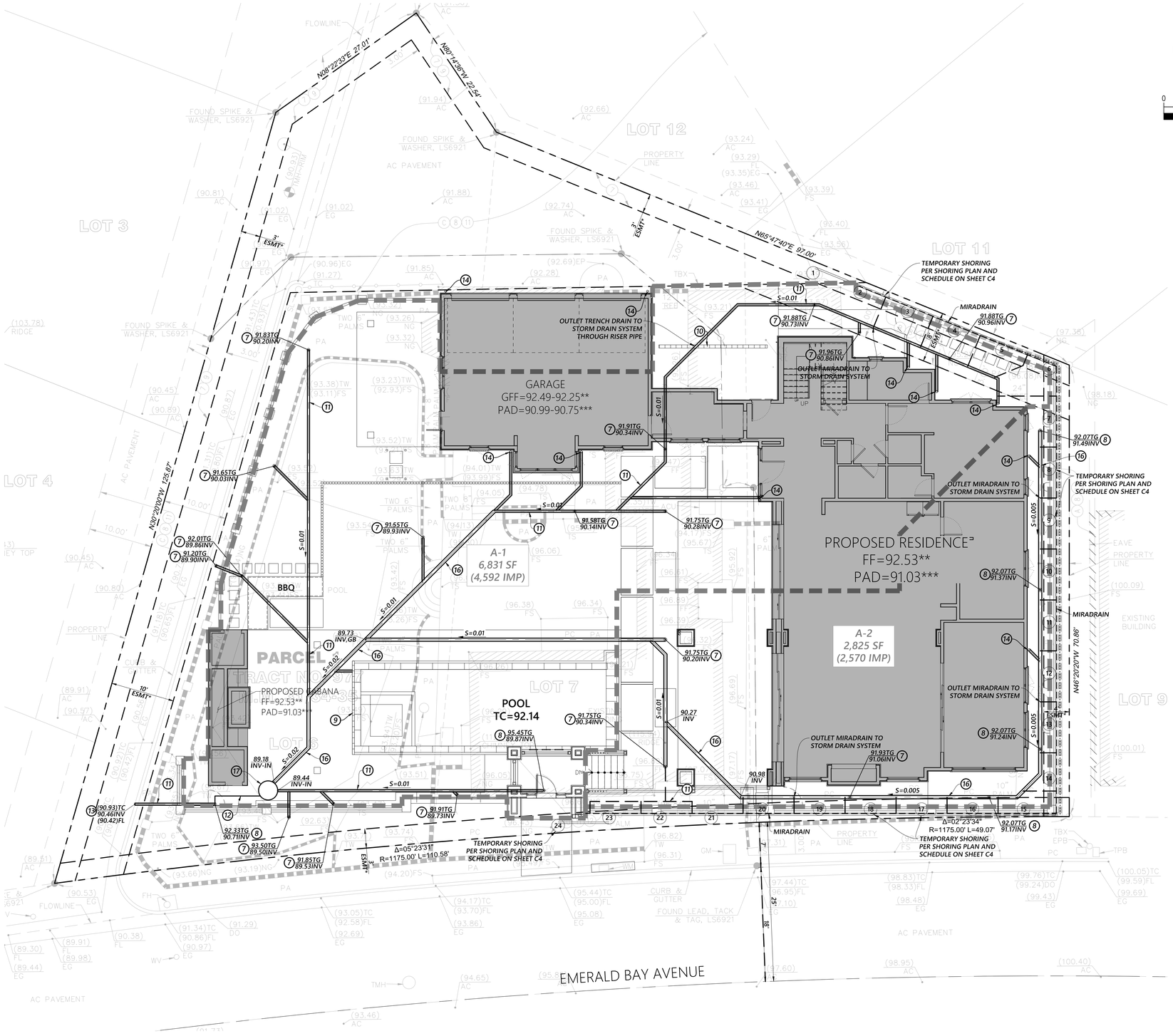

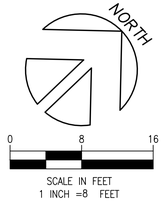

CONSTRUCTION NOTES

7. FURNISH & INSTALL 6" NDS SPEE-D BASIN W/6" GREEN ATRIUM GRATE PER DETAIL ON SHEET C2.
8. FURNISH & INSTALL 6" NDS SPEE-D BASIN W/6" BRASS SQUARE GRATE PER DETAIL ON SHEET C2.
9. 4-INCH WIDE NDS SPEE-D CHANNEL DRAIN W/ LIGHT GRAY GRATE PER DETAIL ON SHEET C5.
10. 6-INCH WIDE NDS DURA SLOPE TRENCH DRAIN W/ TRAFFIC RATED GRATE PER DETAIL ON SHEET C5.
11. FURNISH & INSTALL 4-INCH SDR-35 PVC STORM DRAIN (OR APPROVED EQUAL) PER CPC. INCLUDE REQUIRED JOINTS AND FITTINGS PER CPC. CONSTRUCT TRENCH, BEDDING, AND BACKFILL PER ASTM D 2321 AND SOILS REPORT.
12. 1-1/2" DIA. PVC FORCEMAIN; CONNECT TO PUMP DISCHARGE.
13. CONSTRUCT PRIVATE DRAIN THROUGH CURB PER OCPW STANDARD PLAN 1309, TYPE 'C'.
14. CONNECT DOWNSPOUT TO ONSITE STORM DRAIN SYSTEM PER DETAIL ON SHEET C2. OTHERWISE OUTLET TO HARDSCAPE SURFACE IN DIRECTION OF FLOW.
16. FURNISH & INSTALL 6-INCH SDR-35 PVC STORM DRAIN (OR APPROVED EQUAL) PER CPC. INCLUDE REQUIRED JOINTS AND FITTINGS PER CPC. CONSTRUCT TRENCH, BEDDING, AND BACKFILL PER ASTM D 2321 AND SOILS REPORT.
17. SUMP PUMP FOR REFERENCE ONLY. SUMP PUMP TO BE CONSTRUCTED UNDER SEPARATE PERMIT PER MANUFACTURER'S GUIDELINES AND PER DETAILS ON SHEET LSD-1.

LEGEND

CATV	CABLE PULLBOX
CONC	EDGE OF CONCRETE
DECK	TOP OF DECKING
EAVE	EAVE OF ROOF
EDISON	EDISON UTILITY BOX
EM	ELECTRIC METER
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOWLINE
FS	FINISHED SURFACE
GB	GRADEBREAK
GFF	GARAGE FINISHED FLOOR
GM	GAS METER
INV	INVERT
NG	NATURAL GRADE
RIDGE	RIDGE OF ROOF
SCO	SEWER CLEANOUT
SMH	SEWER MANHOLE
STEP	EDGE OF STEP
TC	TOP OF CURB
TG	TOP OF GRATE
THRESH	EDGE OF THRESHOLD
TW	TOP OF WALL
WM	WATER METER
WV	WATER VALVE

AREA OF PROPOSED BUILDING

PROPERTY LINE AND LIMIT-OF-WORK

PROPOSED WALL

EXISTING WALL

BUILDING STEMWALL

(102.6) OR 102.6 — EXISTING ELEVATION; CONTRACTOR SHALL FIELD VERIFY ELEVATIONS PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO CIVILSCAPES ENGINEERING

HYDROLOGY CALCULATIONS

AREA, A = 9,656 SF = 0.222 ACRES
TOTAL IMPERVIOUS AREA = 7,162 SF
TOTAL PERVIOUS AREA = 2,494 SF

SUB-AREA A-1, A = 6,831 SF = 0.157 ACRES
IMPERVIOUS AREA = 4,592 SF
67.2% IMPERVIOUS
HYDROLOGIC SOIL GROUP 'D'
Fm = ApFp
Ap = RATIO OF PERVIOUS AREA TO TOTAL AREA = 0.328
Fp = INFILTRATION RATE FOR PERVIOUS AREA = 0.05 IN/HR FOR TYPE 'D' SOIL
Fm = 0.328*0.05 = 0.016
NONMOUNTAINOUS AREA
INTENSITY (IN/HR), I = at^b; t = TRAVEL TIME (ASSUME 5 MINUTES)
10-YEAR: a = 10.209, b = -0.573, I = 4.0595

Q = 0.90(I-Fm)A
Q10 = 0.571 CFS

CAPACITY OF 6" PVC AT 1% FLOWING FULL = 0.65 CFS, THEREFORE OKAY

SUB-AREA A-2, A = 2,825 SF = 0.065 ACRES
IMPERVIOUS AREA = 2,570 SF
91.0% IMPERVIOUS
HYDROLOGIC SOIL GROUP 'D'
Fm = ApFp
Ap = RATIO OF PERVIOUS AREA TO TOTAL AREA = 0.090
Fp = INFILTRATION RATE FOR PERVIOUS AREA = 0.05 IN/HR FOR TYPE 'D' SOIL
Fm = 0.090*0.05 = 0.005
NONMOUNTAINOUS AREA
INTENSITY (IN/HR), I = at^b; t = TRAVEL TIME (ASSUME 5 MINUTES)
10-YEAR: a = 10.209, b = -0.573, I = 4.0595

Q = 0.90(I-Fm)A
Q10 = 0.237 CFS

CAPACITY OF 6" PVC AT 1% FLOWING FULL = 0.65 CFS, THEREFORE OKAY

CAPACITY OF 6" PVC AT 2% FLOWING FULL = 0.92 CFS, THEREFORE OKAY

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PERMIT NO. GRD23-0010 WQ23-0006

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28052 CAMINO CAPISTRANO, STE 213
LAGUNA NIGUEL, CA 92677
949.464.8115 info@civilscapes.com

GRADING PLAN FOR SLAVIK RETREAT STORM DRAIN PLAN

211 EMERALD BAY
LAGUNA BEACH, CA 92651

REVISIONS

NO.	REVISION	DATE

REGISTERED PROFESSIONAL ENGINEER
WILLIAM D. ROSPH
C 76698
CIVIL
STATE OF CALIFORNIA

JOB NO. 22027

DATE 12/15/2023

SHEET NO. C3

SHEET NO. 3 OF 7

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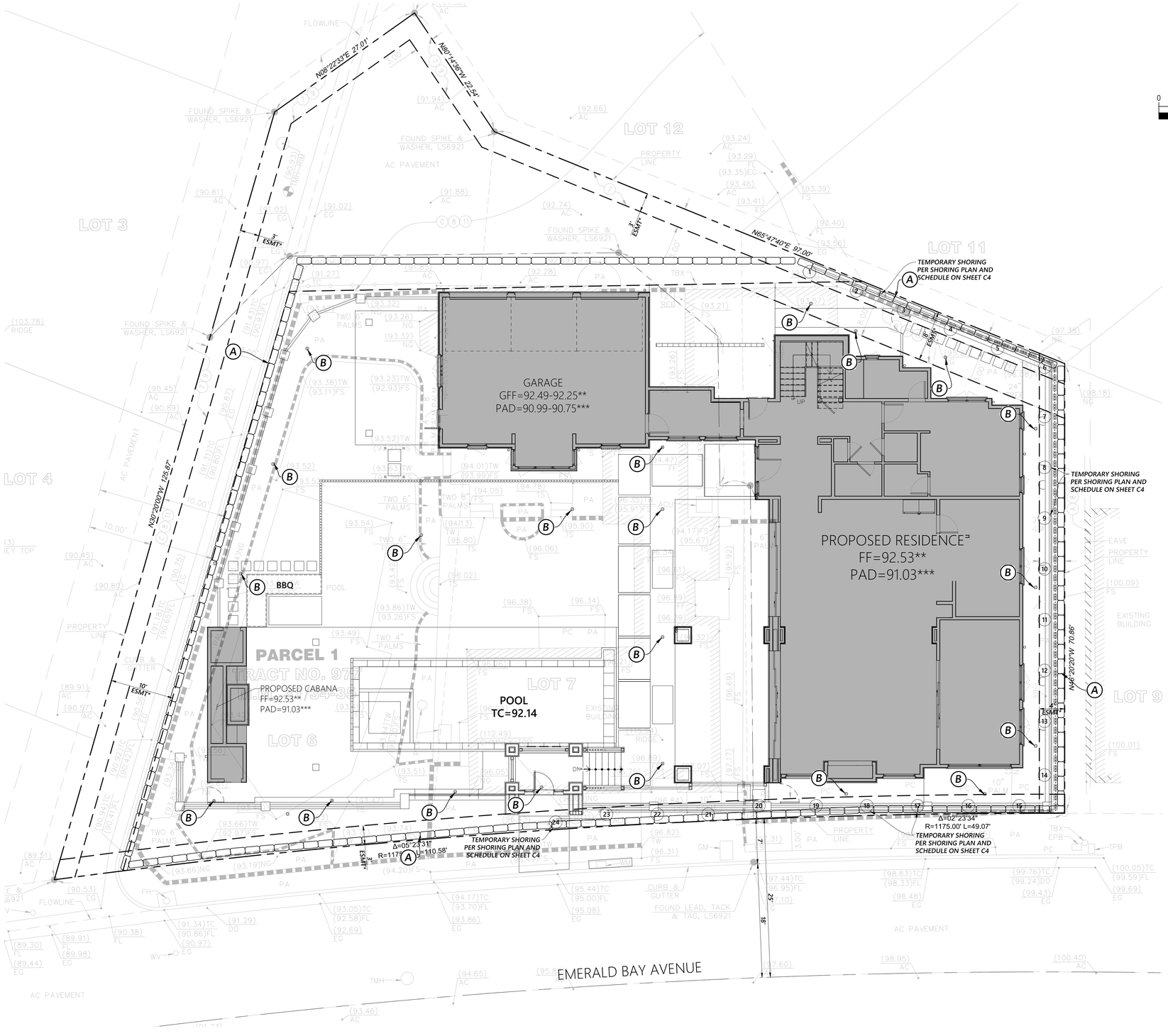
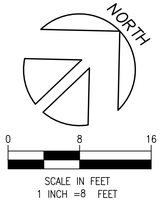




EROSION CONTROL CONSTRUCTION NOTES

(A) INSTALL GRAVEL BAG BARRIER PER CASQA SE-8 AND SE-6

(B) INLET PROTECTION PER DETAIL HEREON

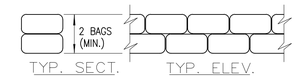
NOTES:

1. CONTRACTOR SHALL PROVIDE ONSITE CONCRETE WASHOUT FACILITY AND COMPLY WITH CASQA BMP WM-8.

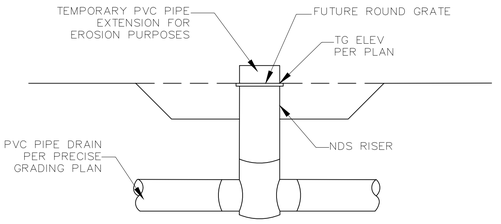
2. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.

3. SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE, AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OF ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.

3. APPROPRIATE BMPS FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.



(A) GRAVEL BAG DETAIL
NO SCALE



(B) AREA DRAIN INLET PROJECTION
NO SCALE

From Beam	To Beam	Beam Qty	Beam Section	Max Shored Height	Toe Depth	Total Drill Depth	Toe Diameter
				H	D	H+D	Dshaft
				ft	ft	ft	in
1	1	1	W 12 x 26	6.0	12.0	18.0	24
2	2	1	W 14 x 30	6.0	12.0	18.0	24
3	3	1	W 14 x 30	7.0	13.0	20.0	24
4	4	1	W 14 x 30	8.0	14.0	22.0	24
5	5	1	W 16 x 40	9.0	15.0	24.0	24
6	6	1	W 18 x 50	9.0	16.0	25.0	24
7	10	4	W 18 x 50	7.0	15.0	22.0	24
11	13	3	W 18 x 50	8.0	16.0	24.0	24
14	16	3	W 18 x 50	11.0	17.0	28.0	24
17	18	2	W 16 x 40	10.0	16.0	26.0	24
19	21	3	W 16 x 36	9.0	14.0	23.0	24
22	23	2	W 14 x 30	8.0	14.0	22.0	24
24	24	1	W 14 x 30	7.0	13.0	20.0	24

SOLDIER BEAM SCHEDULE

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PERMIT NO. GRD23-0010
WQ23-0006

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LAGUNA NIGUEL, CA 92677
949.464.8115 info@civilscapes.com

GRADING PLAN
FOR SLAVIK RETREAT
EROSION CONTROL PLAN

211 EMERALD BAY
LAGUNA BEACH, CA 92651

REVISIONS

NO.	REVISION	DATE

REGISTERED PROFESSIONAL ENGINEER
WILLIAM D. ROSTPH
C 76698
CIVIL
STATE OF CALIFORNIA

JOB NO. 22027

DATE 12/15/2023

SHEET NO. **C4**

SHEET NO. 4 OF 7

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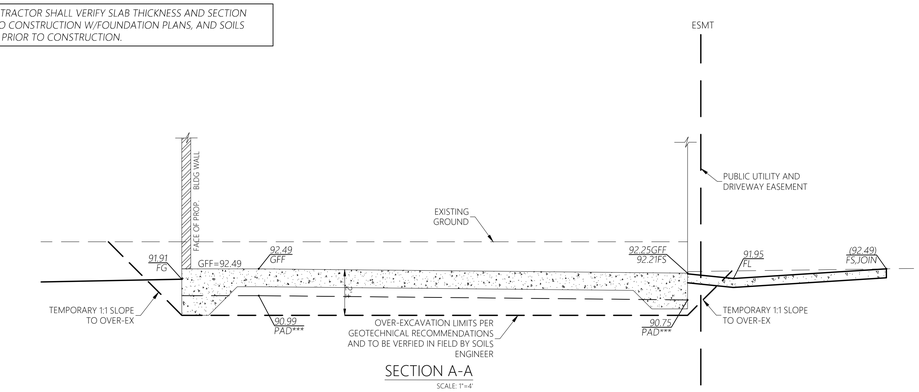
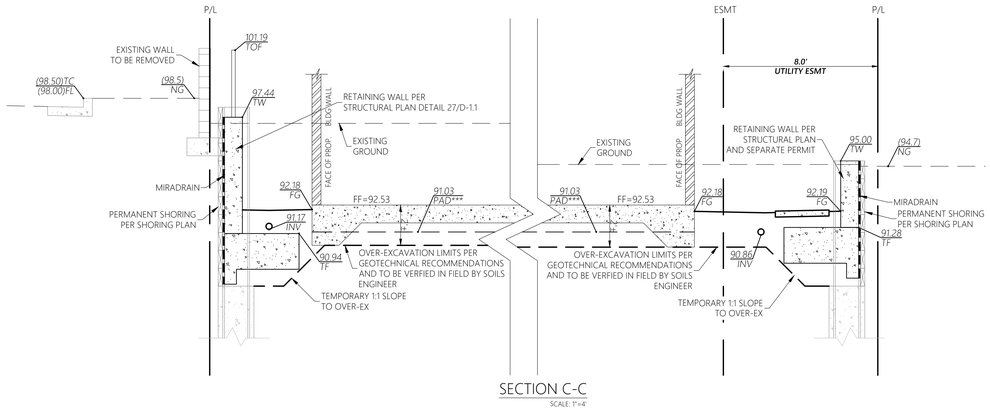
*** CONTRACTOR SHALL VERIFY SLAB THICKNESS AND SECTION PRIOR TO CONSTRUCTION W/FOUNDATION PLANS, AND SOILS REPORT PRIOR TO CONSTRUCTION.



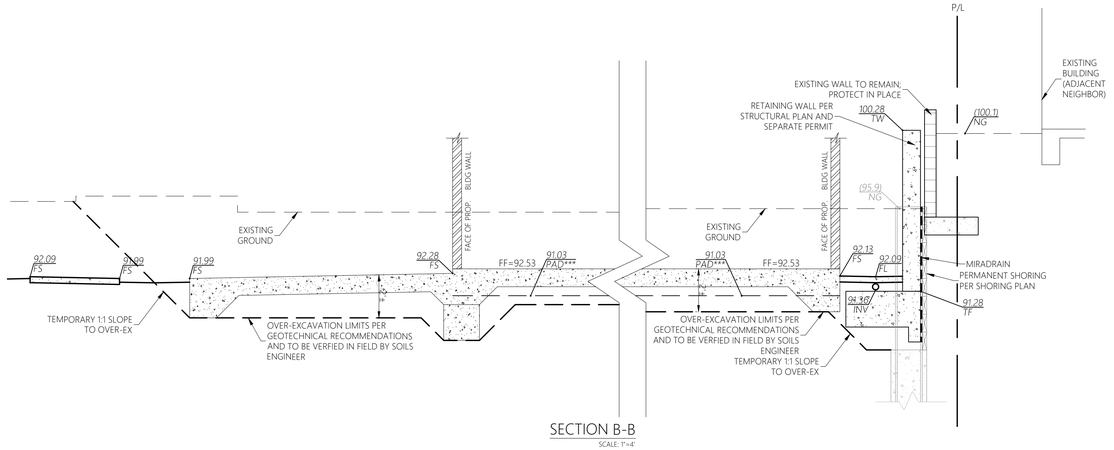
SECTION A-A

SCALE: 1"=4'



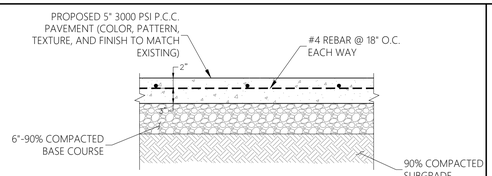
SECTION C-C

SCALE: 1"=4'



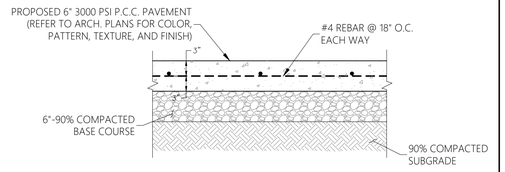
SECTION B-B

SCALE: 1"=4'



1 PATIO CONCRETE PAVING DETAIL

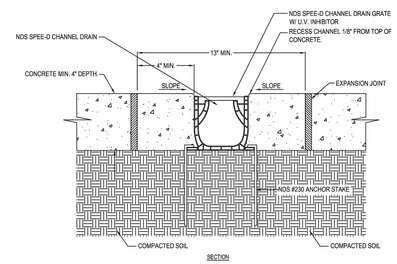
NO SCALE



2 DRIVEWAY CONCRETE PAVING DETAIL

NO SCALE

NDS, INC.
851 NORTH HARVARD AVE.
LINDSAY, CA 93247
TOLL FREE: 1-800-726-1994
PHONE: (559) 562-9888
FAX: (559) 562-4488
www.ndspro.com



SECTION

NOTES:
1. EXISTING SOILS SHOULD BE EVALUATED TO ENSURE PROPER STRUCTURAL AND PERMEABILITY PROPERTIES.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
5. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

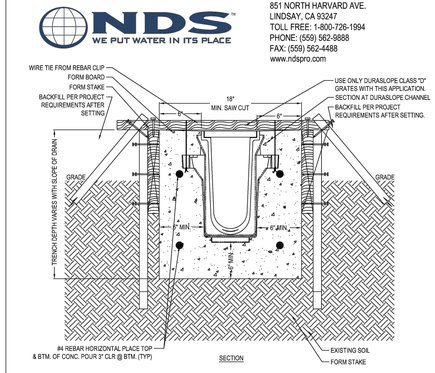
9 SPEE-D CHANNEL DRAIN

TYPICAL PEDESTRIAN TRAFFIC INSTALLATION

KEY COMPONENT www.ndspro.com/kit

REVISION DATE 8-24-2015

NDS, INC.
851 NORTH HARVARD AVE.
LINDSAY, CA 93247
TOLL FREE: 1-800-726-1994
PHONE: (559) 562-9888
FAX: (559) 562-4488
www.ndspro.com



SECTION

NOTES:
1. CHANNELS TO BE INSTALLED WITH BLANK GRATE. GRATE TO BE PROTECTED FROM CONCRETE POUR (COVER HOLES WITH TAPE).
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
5. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

10 DURA SLOPE TRENCH DRAIN SYSTEM

DURA SLOPE INSTALLATION DETAIL - CLASS "C" 6' ENCASEMENT, FORM BOARD SUSPENSION METHOD

REVISION DATE 3-5-2015

PERMIT NO. GRD23-0010
WQ23-0006

CIVILSCAPES ENGINEERING
28052 CAMINO CAPISTRANO, STE 213
LAGUNA NIGUEL, CA 92677
949.464.8115 info@civilscapes.com

GRADING PLAN FOR SLAVIK RETREAT SECTIONS AND DETAILS

211 EMERALD BAY
LAGUNA BEACH, CA 92651

REVISIONS

NO.	REVISION	DATE

REGISTERED PROFESSIONAL ENGINEER WILLIAM D. ROOTH C 76698 CIVIL STATE OF CALIFORNIA

JOB NO. 22027

DATE 12/15/2023

SHEET NO. C5

SHEET NO. 5 OF 7

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The area has cohesive underlying soils, subsurface bedrock, and does not exhibit characteristics common to areas subject to seismic induced lateral spread. Our opinion is that the site is not subject to seismic induced lateral spread.

Earthquake-induced Settlements

Strong ground shaking can cause settlement by allowing sediment particles to become more tightly packed, thereby reducing pore space. Unconsolidated, loosely packed alluvium, beach/lake deposits are especially susceptible to this phenomenon. Poorly compacted artificial fills may also experience seismically induced settlement.

Proposed improvements will be supported by compacted cohesive fills over terrace material or bedrock. Seismic settlement is anticipated to be normal.

Earthquake-Induced Flooding

The failure of dams or other water-retaining structures as a result of earthquakes and strong ground shaking could result in the inundation of adjacent areas. Due to the lack of a major dam or water-retaining structure located near the site, the potential of earthquake-induced flooding affecting the site is considered not to be present.

Seiches

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Based on the lack of nearby enclosed bodies of water the risk from a seiche event is not present.

Tsunamis

Tsunamis are waves generated in large bodies of water as a result of change of seafloor topography caused by tectonic displacement. Based on the elevation of the site the project has no potential to be affected by a tsunami.

GEOTECHNICAL DISCUSSION

Development of the site as proposed is considered feasible from a geotechnical engineering standpoint, provided that the recommendations stated herein are incorporated in the design and implemented in the field.

General comments are as follows, and are subject to change based on review of final development plans and review of a future grading plan:

- Exploration found the parcel to be mantled with undocumented fill to varying depths, with Boring 3 exposing deeper undocumented fill than found in other site explorations. Based on air photos it is postulated that these fills were placed in a former ravine. The vertical and horizontal extent of the postulated ravine will not be known until grading is performed.

- Grading plans were not available at the time this report was prepared; although, it is understood earthwork will be required to provide support for proposed foundations, interior slabs, hardscape, and where determined needed by the geotechnical engineer based on review of future plans and or field observations during construction.
- Existing undocumented fills will be removed as needed for support of new fills and or proposed improvements, and replaced as compacted fill under the observation and testing of the geotechnical engineer.
- Grading limits shall be determined based on final site development plans, but for planning they shall encompass all areas proposed for development and fill placement.
- Where structures are planned grading shall extend beneath the entire building and extend at least five feet outside the perimeter foundations. Depth of removal shall be adequate to remove required undocumented fill or unacceptable native earth materials, provide a minimum of two feet of compacted fill beneath the foundation bottoms, or to limit fill differences across the building pad to five feet over a horizontal distance of forty feet, whichever is deeper. We estimate four feet of removal from existing grade for most areas, but deeper in areas where a former ravine may be present.
- Where hardscape and driveway areas are proposed depth of removal shall be adequate to remove all existing fill or unacceptable native materials, or to provide a minimum of two feet of compacted fill beneath the finish subgrade elevation, whichever is deeper. We estimate two to three feet of removal from existing grade.
- Grading along property lines shall be in general accordance with the detail depicted on Figure 5. Based on field observations during grading modifications to this recommendation could be required.
- The proposed development is not anticipated to have an adverse affect, from a geotechnical perspective, on adjacent sites and vice versa provided our guidelines, building codes and construction standards are followed.

PROPOSED GRADING

Grading plans were not available at the time this report was prepared; however, we anticipate that grading will be required to create designed pad elevations for the proposed residential structures, and hardscape and softscape areas. All recommendations within this report are subject to change based on review of final grading plans.

The following are general grading recommendations, which shall be incorporated into the project where applicable.

GRADING RECOMMENDATIONS

Removal and recompaction of existing earth materials will be required to provide adequate support for foundations and site improvements. Earthwork for foundation support shall include the entire building pad and shall extend a minimum of five feet outside exterior footing lines.

All unacceptable native and undocumented fill earth materials shall be excavated down to competent native earth materials. Based on exploration our opinion is that native earth materials generally found at four feet below existing grade and deeper have adequate capability of supporting proposed fills and foundation loads; however, exploration did encounter an area where alternate removals will be needed due to a postulated former ravine.

The extent of the removals for this condition will not be known until grading is performed. Field recommendations will be provided during grading addressing lateral and vertical removal limits. Wet conditions could require rock stabilization of excavation bottoms and moisture mitigation of removed soils.

Exposed excavation bottoms shall be observed and approved by COAST GEOTECHNICAL, Inc. and the City Grading Inspector prior to processing. Dependent on field observations, removals may be adjusted up or down. Subsequent to approval of the excavation bottom, the area shall be scarified six inches, moisture conditioned as needed, and compacted to a minimum of 90% relative compaction.

Fill soils shall be placed in six to eight inch loose lifts, moisture conditioned as needed, and compacted to a minimum of 90% relative compaction. This process shall be utilized to finish grade. During earthwork operations, a representative of COAST GEOTECHNICAL, Inc. shall be present to verify compliance with these recommendations.

Grading for hardscape areas shall consist of removal and recompaction of soft surficial soils. Removal depths are estimated at two feet. Earthwork shall be performed in accordance with previously specified methods. The geotechnical engineer shall review grading and/or foundation plans. All recommendations are subject to modification upon review of such plans.

The contractor is advised that subsurface conditions vary significantly across the property and that areas are present where existing earth materials are well over optimum moisture content which could yield pumping conditions and or earth materials that cannot be reused as fill without first lowering the moisture content of the soil. Moisture contents can generally be lowered though air drying, mixing with dry soils, and or mixing in of cement. Stabilization of a pumping bottom generally requires an additional removal of one foot of earth material, followed by placement of a stabilization geogrid, a minimum of one foot of crushed 3/4 gravels, then a geofabric. Light track equipment is generally best used for this process and compaction of soils.

POOL ABANDONMENT

If the existing pool is abandoned it shall be backfilled with earth materials compacted to a minimum of 90% relative compaction in accordance with fill placement guidelines within this report.

Prior to fill placement the pool shell shall be demolished and the debris removed from the site. The exposed bottom shall be observed by COAST GEOTECHNICAL, Inc. and the County inspector.

After approval the exposed bottom shall be processed as field directed by COAST GEOTECHNICAL, Inc., followed by fill placement in accordance with this report.

SHRINKAGE AND SUBSIDENCE

Subsidence is expected to be minimal. Shrinkage is anticipated to range from five to ten percent.

GENERAL GRADING NOTES

Areas to be graded shall be cleared of vegetation, debris, foundation structures, and underground systems prior to grading. Excavations shall be backfilled according to the soil engineering recommendations. Generally unsuitable material shall be removed to competent earth material and the void backfilled with soils compacted to a minimum of 90% or better.

The entire grading operation shall be done in accordance with the attached "Specifications for Grading".

Any import fill materials to the site shall not have an expansion index greater than 40, and shall be tested and approved by our laboratory.

The geotechnical engineer shall review grading and/or foundation plans. All recommendations are subject to modification upon review of such plans.

FOUNDATIONS

The proposed residence will be supported by a foundation bearing in compacted fill. Due to anticipated variable subsurface conditions and the potential that some undocumented fills may not be able to be removed it is recommended that the residence be supported with a mat foundation.

Secondary structures may be supported by compacted fill or competent native soil.

FOUNDATIONS IN COMPACTED FILL - RESIDENCE

The residence shall be supported by a mat foundation bearing into approved compacted fill.

The mat foundation design may utilize a coefficient of subgrade reaction of 100 lb per cubic inch. The mat slab shall be a minimum of twelve inches thick and shall incorporate a thickened edge. The thickened edge shall be a minimum of 24-inches in depth as measured from lowest adjacent grade. Reinforcement of the mat slab shall be per structural design.

Foundation excavations shall be observed by a representative of COAST GEOTECHNICAL, Inc. prior to placement of steel or concrete to verify competent soil conditions.

FOUNDATIONS IN COMPACTED FILL/NATVE SOIL

Secondary structures may be supported by compacted fill or competent native soil.

Continuous footings and isolated pads placed a minimum of 24 inches below lowest adjacent grade and bearing in compacted fill or competent native soil may utilize an allowable bearing value of 2,000 psf. This value is for dead plus live load and may be increased by 1/3 for total including seismic and wind loads where allowed by code. Bearing calculations are provided on Plate K.

Isolated pads shall be tied into adjacent foundations with designed grade beams in at least two directions.

Minimum geotechnical reinforcement of foundations shall be four #5 bars, two top and two bottom. Structural design may require additional reinforcement.

Foundation excavations shall be observed by the geotechnical engineer to verify embedment requirements into competent earth material. Dependent on conditions exposed the project soils engineer may require the foundation excavations to be extended deeper and or the footing bottom mitigated.

LATERAL DESIGN

Lateral restraint at the base of footings and on slabs may be assumed to be the product of the dead load and a coefficient of friction of .30. Passive pressure on the face of footings may also be used to resist lateral forces. A passive pressure of zero increasing at the rate of 300 pounds per square foot of depth to a maximum value of 3,000 pounds per square foot may be used for compacted fill or native earth material at this site. If passive pressure and friction are combined when evaluating the lateral resistance the value of the passive pressure should be limited to 2/3 of the values given above. Calculations are given on Plate L.

SEISMIC DESIGN CATEGORY

Based on the current CBC the site is assigned to Seismic Design Category D.

SEISMIC DESIGN

Based on the current CBC and ASCE7-16, latitude 33.5516376 and longitude - 117.8048335 for the property, the following seismic design parameters values were determined utilizing the SEAOC/OSHPD Seismic Tool Application from the USGS website. The data output is attached in Appendix B.

- Site Class = D- Default
- Mapped 0.2 Second Spectral Response Acceleration, S_S = 1.343g
- Mapped One Second Spectral Response Acceleration S_1 = 0.475g
- Site Coefficient from Table 1613A.3.3(1), Fa = 1.2
- Site Coefficient from Table 1613A.3.3(2), Fv = 1.825
- Maximum Design Spectral Response Acceleration for short period, S_{MS} = 1.611g
- Maximum Design Spectral Response Acceleration for one-second period, S_{M1} = 0.867g
- 5% Design Spectral Response Acceleration for short period, S_{DS} = 1.074g
- 5% Design Spectral Response Acceleration for one-second period, S_{D1} = 0.578g

The Fv, S_{MS}, and S_{D1} are calculated based on Table 11.4-2 of ASCE7-16 as shown on Plate X. Since S_1 is more than 0.2, the project structural engineer shall perform required calculations to make sure that a site response analysis is not required according to 11.4.8 of ASCE7-16.

SETTLEMENT

The maximum total post-construction settlement is anticipated to be on the order of 3/4- inch. Differential settlements are expected to be less than 3/4-inch, measured between adjacent structural elements over a distance of forty feet.

EXPANSIVE SOILS

Results of expansion tests indicate that the near surface soils have a low to high expansion potential. The high recommendations on the accompanying Expansive Soil Recommendations Chart, Plate A, may be utilized in design of foundations and concrete slabs.

The foundation recommendations within this report are geotechnical minimums typically utilized in the industry to mitigate expansive soils. The foundation system design by the structural engineer shall comply with Section 1808.6 of the 2019 CBC and referenced guidelines.

Geotechnically moisture conditioning of earth material during grading and presaturation of earth materials will be utilized for compliance with Section 1808.6.

SOLUBLE SULFATES

An on-site soil sample showed a soluble sulfate content of 248, which is considered moderate. Based on the current CBC and in accordance with ASTM D-516, Type II cement, with a maximum ratio of 0.50 and a minimum 4,000 psi of compressive strength shall be utilized. The structural engineers design criteria may be more stringent. Concrete shall be placed in accordance with appropriate codes

TEMPORARY CUTS

Temporary construction cuts are anticipated for grading and construction of the project. The following recommendations are for unsurcharged conditions, and are subject to modification based on field observations.

Temporary cuts in bedrock materials may be made four foot vertical then sloped no steeper than 1:1 (H:V).

Temporary cuts in other onsite earth materials shall sloped no steeper than 1:1 (H:V).

These designed cuts may remain open for twenty days upon observation and approval of the geotechnical engineer and or geologist. In wet seasons the cuts shall be protected from moisture intrusion by covering with plastic and sandbagging. The geotechnical engineer based on field

observation has the option of requiring more conservative cuts, infilling of the excavation, or use of shoring.

No cuts shall be allowed which would remove lateral support from adjacent properties, structures, or public right of ways creating an unsafe condition.

OSHA guidelines shall be followed where workers are to enter confined spaces, trench work, or excavations.

RETAINING WALLS

Free standing unrestrained retaining walls shall be founded in compacted fill or native soils utilizing previously stated bearing values. Walls retaining drained earth under static loading may be designed for the following:

Surface Slope of Retained Material Horizontal to Vertical	Equivalent Fluid Pressure Pounds per Cubic Foot
Level	41.4
5 to 1	49.4
4 to 1	52.3
3 to 1	58.7
2 to 1	103.2
1.5 to 1	103.2

Calculations for the stated equivalent fluid pressures are based on the Coulomb theory and are provided on Plate M. The point of resultant force under static loading is at H/3 above the base of the retaining wall.

All retaining structures should include appropriate allowances for anticipated surcharge loading, where applicable. Retaining walls with an ascending slope condition shall include a minimum two foot free board and concrete swale in their design.

The design values provided are based on the use of select very low expansive soils as backfill and justify the use of lower design values than that provided in the CBC. The select soils shall consist of processed onsite materials exhibiting a very low expansive potential, or import materials approved by the soils engineer. The structural engineer shall designate on the plans the use of select backfill materials.

Foundations excavations require observation and approval by COAST GEOTECHNICAL, Inc. and the County grading inspector.

PERMIT NO. GRD23-0010
WQ23-0006

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GRADING PLAN FOR SLAVIK RETREAT GEOTECHNICAL NOTES

211 EMERALD BAY
LAGUNA BEACH, CA 92651

REVISIONS

NO.	REVISION	DATE

REGISTERED PROFESSIONAL ENGINEER
WILLIAM D. ROSTI
C 76698
CIVIL
STATE OF CALIFORNIA

JOB NO. 22027

DATE 12/15/2023

SHEET NO. C6

SHEET NO. 6 OF 7

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SEISMIC DESIGN LOAD

Code requires that retaining walls with more than six feet of backfill be designed for seismic loads. For a retaining wall under earthquake loading the designed equivalent fluid pressure is sensitive to the ground motion value applied to analysis.

Some regulating agencies recognize that the calculated ground motion value and the seismic coefficient utilized in analysis of seismic loads are not equivalent and allow the use of a seismic coefficient that is less than the ground motion value. Our understanding is that the City of Los Angeles allows the use of a seismic coefficient value calculated based on 1/3 of PGAm. Based on the appended printout of seismic data obtained from the USGS seismic tool application and the use PGAm = 0.708, a value of 0.236 shall be utilized as the seismic coefficient Kh.

Utilizing a simplified approach for determination of seismic design loads of $\Delta P_{AE} = 3/4 \gamma Kh$, a value of $\Delta P_{AE} = 21.2$ pcf was determined. This seismic design load value shall be added to the static design loads. The client is advised that if through review it becomes evident that the County requires an alternate seismic design analysis that differing design values could be required.

SUBDRAINS

Subdrain systems shall be installed behind retaining walls and at a minimum they shall consist of four-inch diameter SCH 40 or SDR 35 perforated pipe surrounded with one cubic foot, per lineal pipe foot, of 3/4-inch gravel. The gravel shall be wrapped in filter fabric. Outlet pipes shall be solid pipe of similar material. Typical subdrain details are shown on Plate N.

All subdrain systems shall be separate from any roof, surface or landscape water drainage system.

Subdrain placement requires observation and approval by COAST GEOTECHNICAL, Inc. and the County grading inspector.

WATERPROOFING

Moisture affecting slabs and or below grade walls is one of the most common post-construction complaints. Poorly applied or omitted waterproofing can lead to efflorescence, dampness, and or standing water. Particular care should be taken in the design and installation of waterproofing to avoid moisture problems, or actual water seepage, which may develop in the concrete walls, floor slab, foundations, construction joints, etc. The design, inspection, or performance of the waterproofing system is not the responsibility of the geotechnical engineer. A waterproofing consultant shall be retained, by the client, to provide recommendations for a product or method, which would provide protection to subterranean walls, interior or exterior slabs, foundations, or areas assessed by him to be needed, and to verify that the waterproofing system designed is installed correctly during construction, and intact until fully protected.

RETAINING WALL BACKFILL

Retaining wall backfills shall consist of import granular import earth materials, gravels, or where allowed and or designed for onsite earth materials.

The project soils engineer shall be consulted prior to the import of any select backfill to verify that the import material complies with our recommendations for select material. At a minimum the material shall have an expansion index of zero and a minimum phi angle of 30 degrees. Materials typically utilized are pea gravels, 3/4-inch gravels, and clean sand. Where gravel is utilized, the gravel shall be separated from soil by filter cloth.

The upper two to three feet of backfill shall be with a cohesive onsite or import soil to reduce infiltration of surface water.

Prior to placement of any backfills the area shall be cleaned of loose soils and construction debris. COAST GEOTECHNICAL, Inc. shall observe and approve the area as acceptable prior to any backfill placement.

Retaining wall backfill shall be placed in six to eight inch loose; moisture conditioned lifts and mechanically compacted to a minimum of 90% relative compaction. Backfills require testing at two-foot vertical intervals during placement.

Compaction of backfills requires observation and approval by COAST GEOTECHNICAL, Inc. during the backfill operation.

SLABS ON GRADE

Slabs on grades shall be supported by fill compacted to a minimum of 90% relative compaction and moisture conditioned to 3-4% over optimum moisture content. Per the current CBC, for slab on grade foundations, a value of 0.9 for C_O and 1.0 for C_S is recommended.

The computed effective plasticity index is 18 (Plate O), which shall be utilized in design of slabs on grade.

Minimum geotechnical recommendations for slab design are five inches actual thickness with #4 bars at twelve inches on center each way.

Structural design may require additional reinforcement and slab thickness or use of alternate foundation and slab systems.

Subgrade soil should be kept moist prior to casting the slab. However, if the soils at grade become disturbed during construction, they should be brought to over optimum moisture content and rolled to a firm, unyielding condition prior to placing concrete.

Slab subgrade soils shall be presaturated to the satisfaction of the soil engineer prior to placement of the vapor barrier. This shall be verified by COAST GEOTECHNICAL, Inc.

The capillary break material shall comply with the requirements of the local jurisdiction and shall be a minimum of four inches in thickness. Geotechnically, coarse clean sand is acceptable; however, some localities require the use of four inches of gravel (1/2-inch or larger clean aggregate). If gravels are used, a heavy filter fabric must be placed over the gravels prior to placement of the recommended vapor barrier to minimize puncturing of the vapor barrier. Additionally, a vibratory plate should be used over the gravels prior to placement of the recommended filter fabric to smooth out any sharp protuberances and consolidate the gravels.

A vapor barrier consisting of a plastic film (15 mil thickness minimum and complying with appropriate ASTM standards) shall be used beneath all slab-on-grade areas and shall be underlain by the required capillary break material. The vapor barrier should be properly lapped and sealed, and in contact with the slab bottom.

HARDSCAPE SLABS

Hardscape slabs may be supported by compacted fills a minimum of two feet in thickness. Hardscape slab subgrade areas shall exhibit a minimum of 90% relative compaction and a moisture content of 3-4% over optimum. These areas require testing just prior to placing concrete.

Exterior hardscape slabs will be subject to stress from volume changes in expansive subgrade soils, which may lead to cracking, heaving, and horizontal separation from heavy rigid structures. The following recommendations will minimize cracking, heaving and offsets, but will not eliminate them. As an alternative to rigid hardscape or brickwork, flexible pavers or softscape may be utilized

Minimum geotechnical recommendations for exterior concrete slabs are five inches actual thickness with #4 bars at 12-inches on center each way. The proposed driveway shall be six inches actual thickness with #4 bars at 12-inches on center each way. Both shall be underlain by four inches of base material compacted to a minimum of 90% relative compaction.

Doweling slabs to perimeter footings can mitigate movement of slabs adjacent to structures. Doweling should consist of No. 4 bars bent around exterior slabs. Doweling should be spaced no farther than 36 inches on centers. As an option to doweling, an architectural separation could be provided between the main structure and abutting appurtenance improvements. Presaturation of exterior slab areas is also desirable. At exterior edges of patios and other flatwork, a cut-off wall to the same depth and containing the same reinforcement as exterior footings is highly recommended. If no significant load is associated with the edge of the slab, the width of the cut-off wall may be limited to eight inches. Reinforcement adopted for the main structure may be applied to the appurtenances. Proper control joints, jointing, expansion joints, saw cutting and other measures shall be utilized to control cracking of hardscape.

UTILITY LINE BACKFILLS

All utility line, area drains, and other trench backfills, both interior and exterior, shall be compacted to a minimum of 90% relative compaction and shall require testing at a minimum of two-foot vertical intervals.

Utility lines placed within expansive soils shall be shaded with clean sand. Where the utility lines enter the structure a plug of three sack slurry shall be placed to minimize the potential of water intrusion into the structure, along the sand shading.

Utility lines shall be located outside a 45° degree line projected downward from a foundation's bottom edge.

Where utility lines enter a building footprint, a significant section of the trench shall contain a compacted cohesive fill or slurry backfill plug to mitigate the migration of waters through permeable backfill soils into interior building areas.

DRAINAGE

Positive drainage should be planned for the site. Drainage should be directed away from structures via non-erodible conduits to suitable disposal areas. The structure should utilize roof gutters and down spouts tied directly to yard drainage.

Unlined flowerbeds, planters, and lawns should not be constructed against the perimeter of the structure. If such landscaping (against the perimeter of a structure) is planned, it should be properly drained and lined or provided with an underground moisture barrier. Irrigation should be kept to a minimum. The current CBC recommends 5% slope away from structures for landscape areas and 2% slope away for hardscape areas, within ten feet of a residence. Minimum drainage shall be one percent for hardscape areas and two percent for landscape areas for all other areas.

We do not recommend the use of infiltration best management practice (BMP) such as infiltration trenches, bottomless trench drains, infiltration basins, dry wells, permeable pavements or similar systems designed primarily to percolate water into the subsurface soils within ten feet of foundations. We recommend that site waters be passed through an approved filtration system and discharged to an approved drainage system. The WQMP requirement shall be addressed by the Civil Engineer.

ENGINEERING CONSULTATION, TESTING & OBSERVATION

We will be pleased to provide additional input with respect to foundation design once methods of construction and/or nature of imported soil has been determined.

Grading and foundation plans should be reviewed by this office prior to commencement of grading so that appropriate recommendations, if needed, can be made.

Areas to receive fill should be observed by COAST GEOTECHNICAL, Inc. when unsuitable materials have been removed and prior to placement of fill, and fill should be observed and tested for compaction as it is placed.

POOL/SPA DESIGN

The client will need to evaluate along with his pool engineer the type of pool proposed, associated risks, and economics of construction. The following is presented for the client and his design team to consider.

The pool/spa will be subject to the same magnitude of settlement/movement as that presented for other site improvements; as such, we recommend that at a minimum, a conventional pool/spa be supported with a mat type foundation system capable of accommodating the anticipated movements.

Where the anticipated movement and or associated risk is unacceptable to the client or pool type, support of the pool with drilled caissons placed into bedrock is typically utilized. This method of support would minimize differential settlements to less than 1/8-inch over forty feet.

Areas disturbed during pool/spa excavation shall be compacted to a minimum of 90% relative compaction. The pool and spa shall be designed as free standing. Pool walls shall be designed to support the water, having a density of 62.4 pounds per cubic foot without bearing from adjacent soil. The walls should be able to support the adjacent soil when the pool is empty. The earth pressure may be calculated as an equivalent fluid pressure of 125 pcf, plus the lateral pressure due to any superimposed surcharge when the pool is empty.

Minimum embedment of the pool shell below lowest adjacent grade shall be thirty inches.

All pool utility lines shall be backfilled with soils compacted to a minimum of 90% relative compaction. Where pool lines are sensitive to the use of compaction equipment the trenches shall be backfilled with one sack slurry. COAST GEOTECHNICAL, Inc. shall verify the backfill of all trenches.

Pool decking shall be cast free of the swimming pool structure and access openings. The free space shall be filled with flexible water stop materials. The client is advised that due to the expansive nature of site soils that some horizontal and vertical movement between the pool and pool decking will occur over time. Use of an architectural separation to minimize the visual effects of movement should be considered.

The pool excavation and/or pool foundation shall be observed and approved by COAST GEOTECHNICAL, Inc. prior to the placement of reinforcement. These recommendations are subject to change based on the review of future pool plans.

AGENCY REVIEW

All soil, geologic and structural aspects of the proposed development are subject to the review and approval of the governing agency(s). It should be recognized that the governing agency(s) can dictate the manner in which the project proceeds. They could approve or deny any aspect of the proposed improvements and/or could dictate which foundation and grading options are acceptable.

Supplemental geotechnical consulting in response to agency requests for additional information could be required and will be charged on a time and materials basis.

LIMITATIONS

This report presents recommendations pertaining to the subject site based on the assumption that the subsurface conditions do not deviate appreciably from those disclosed by our exploratory excavations. Our recommendations are based on the technical information, our understanding of the proposed construction, and our experience in the geotechnical field. We do not guarantee the performance of the project, only that our engineering work and judgments meet the standard of care of our profession at this time.

In view of the general conditions in the area, the possibility of different local soil conditions may exist. Any deviation or unexpected condition observed during construction should be brought to the attention of the Geotechnical Engineer. In this way, any supplemental recommendations can be made with a minimum of delay necessary to the project.

If the proposed construction will differ from our present understanding of the project, the existing information and possibly new factors may have to be evaluated. Any design changes and the finished plans should be reviewed by the Geotechnical Consultant. Of particular importance would be extending development to new areas, changes in structural loading conditions, postponed development for more than a year, or changes in ownership.

This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are called to the attention of the Architects and Engineers for the project, and incorporated into the plans and that the necessary steps are taken to see that the Contractors and Subcontractors carry out such recommendations in the field.

This report is subject to review by the controlling authorities for this project.

We appreciate this opportunity to be of service to you.

Respectfully submitted:
COAST GEOTECHNICAL, INC.

Ming-Tang Chen
RCE 54011

REGISTERED PROFESSIONAL ENGINEER
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Todd D. Houseal
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August 31, 2023 W.O. 621021-02

Brennan and Kirsten Slavik
314 Emerald Bay
Laguna Beach, CA 92651

Subject: Update of Geotechnical Report for Proposed Residence at 211 Emerald Bay, Laguna Beach Area, California

Reference:

1. Geotechnical Engineering Investigation of Proposed Residential Development at 211 Emerald Bay, Laguna Beach Area, County of Orange, California; by COAST GEOTECHNICAL, INC., W.O. 621021-01, dated September 7, 2021.

Dear Mr. and Mrs. Slavik:

Pursuant to the request of Brandon Architects this geotechnical update letter has been prepared due to the referenced report being over a year old and issued under the outdated 2019 CBC.

Geotechnical recommendations in the referenced report are updated to the 2022 CBC as of the date on this letter. The findings of the referenced report remain accurate and germane to the project as understood.

We appreciate this opportunity to be of service to you.

Respectfully submitted:
COAST GEOTECHNICAL, INC.

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WQ23-0006

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GRADING PLAN FOR SLAVIK RETREAT GEOTECHNICAL NOTES (CONTD.)

211 EMERALD BAY
LAGUNA BEACH, CA 92651

REVISIONS

NO.	REVISION	DATE

REGISTERED PROFESSIONAL ENGINEER
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STATE OF CALIFORNIA

JOB NO. 22027

DATE 12/15/2023

SHEET NO. C7

SHEET NO. 7 OF 7

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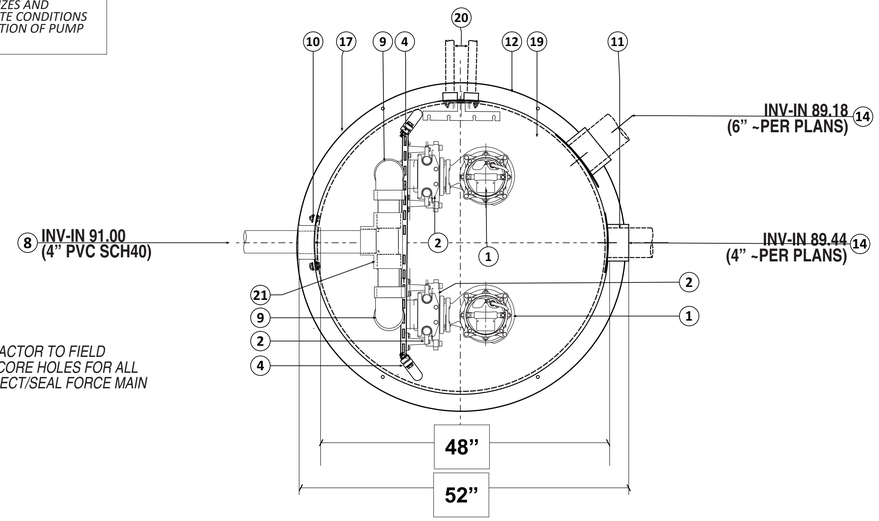
NOTE TO CONTRACTOR OR OTHERS:

CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ALL INLET/OUTLETSIZES AND ORIENTATIONS ACCORDING TO SITE CONDITIONS PRIOR TO APPROVAL OR FABRICATION OF PUMP LIFT STATION

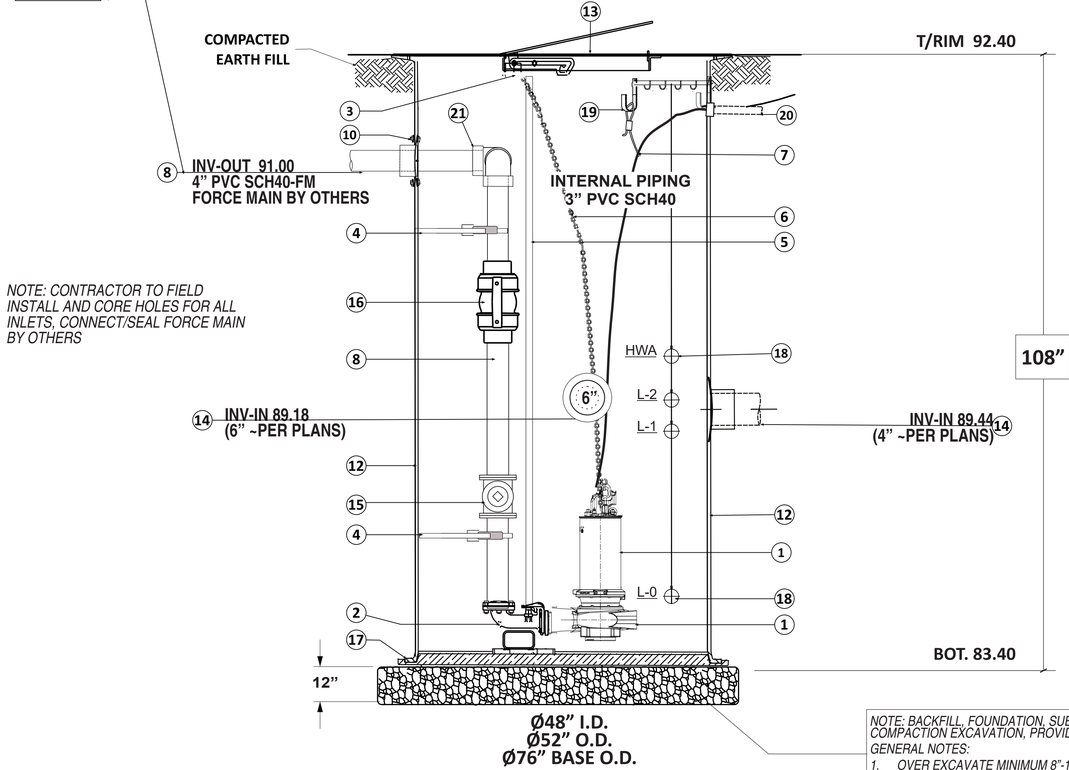
PUMP LIFT STATION
-NTS



NOTE: CONTRACTOR TO FIELD INSTALL AND CORE HOLES FOR ALL INLETS, CONNECT/SEAL FORCE MAIN BY OTHERS

WET WELL
TOP VIEW -NTS

NOTE: TOP SLAB/HATCH TO BE NON-TRAFFIC RATED/PEDESTRIAN



NOTE: CONTRACTOR TO FIELD INSTALL AND CORE HOLES FOR ALL INLETS, CONNECT/SEAL FORCE MAIN BY OTHERS

NOTE: BACKFILL, FOUNDATION, SUBGRADE, COMPACTION EXCAVATION, PROVIDED BY OTHERS

GENERAL NOTES:

1. *OVER EXCAVATE MINIMUM 8"-12"*
2. *COMPACT-3/4" MINUS BASE (CRUSHED ROCK, PEA GRAVEL, OR EQUAL)*

WET WELL
ELEVATION VIEW -NTS

SYSTEM CALCULATION

PUMPS BY DESIGN INC PBD PRACTICAL PUMP SOLUTIONS

Project:	211 EMERALD BAY
Date:	9/7/2023
Calculation By:	CBASSO

SYSTEM CALCULATION

LIFT STATION PROFILE & CALCULATIONS

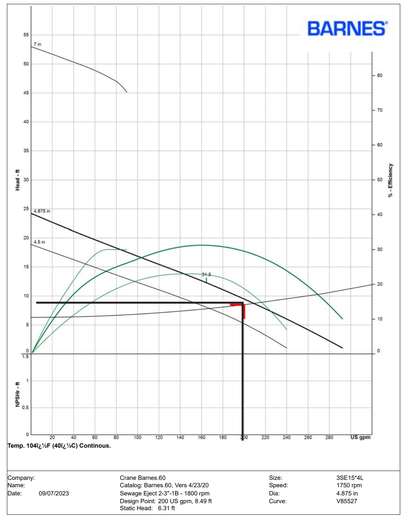
4" SCH 40		3.998		INCH I.D.	
4" PIPE	(QTY)	10	x	1 FT	10 FT
4" 90 ELBOW	(QTY)	3	x	11 FT	33 FT
4" 45 BEND	(QTY)	0	x	5 FT	0 FT
4" TEE	(QTY)	1	x	22 FT	22 FT
4" SHUTOFF VALVE	(QTY)	1	x	2.3 FT	2.3 FT
4" CHECK VALVE	(QTY)	1	x	22 FT	22 FT
TOTAL EQUIVALENT LENGTH					89.3 FT
FRICTION LOSS PER 100 FT 4" PVC		208 GPM @ 2.62		FT PER 100 FT	
FRICTION LOSS 4"	89.3	/ 100	x	2.62 FT	2.34 FT
TOTAL DYNAMIC HEAD					
4" FRICTION LOSS					2.34 FT
STATIC HEAD					6.31 FT
PERFORMANCE	**208 GPM**	**8.65 FT TDH THROUGH 4 INCH PVC LINE**			

HAZEN-WILLIAMS EQUATION/HEAD LOSS IN WATER PIPE

$(f) = 0.2083\ (100 / c)^{1.852}\ q^{1.852} / dh^{4.8655}$

l = length of pipe (ft)	100 ft
c = Hazen-Williams roughness constant	140
q = volume flow (gal/min)	208
dh = inside or hydraulic diameter (inches)	3.998
f = friction head loss in feet of water ft H20 /100 ft	2.62
Velocity (ft/s) =	5.32

PUMP CURVE



Company:	Crane Barnes.60	Size:	3SE15*4L
Name:	Catalog: Barnes.60, Vers 4/23/20	Speed:	1750 rpm
Date:	09/07/2023 Sewage Eject 2-3"-1B - 1800 rpm	Dia:	4.875 in
	Design Point: 200 US gpm, 8.49 ft	Curve:	V65527
	Static Head: 6.31 ft		

SCHEDULE OF MATERIALS

ID	DESCRIPTION	TYPE	QTY
①	SUBMERSIBLE PUMP	STORMWATER	2
②	DISCHARGE ELBOW	BERS-0430V	2
③	UPPER GUIDE BRACKET	304SST	2
④	PIPE BRACE/STRUT	304SST	2
⑤	SS GUIDE RAIL	304SST	4
⑥	LIFTING CHAIN	~9 FT LF	2
⑦	PUMP CABLE	30 FT	2
⑧	DISCHARGE PIPING	3" PVC SCH40	2
⑨	BEND 90° ELBOW FITTING	3" PVC SCH40	2
⑩	ENTRY BOOT	FEH-400	1
⑪	UNISEAL PIPE SEAL OR EQUAL	G-600/G-400	1
⑫	FIBERGLASS WET WELL	FB048" X 108"	1
⑬	ACCESS COVER	C48HSA-NON-TRAFFIC	1
⑭	IN-FLUENT PIPE	6" & 4" PER PLANS	2
⑮	SWING CHECK VALVE	3" C.I. FLG.	2
⑯	DOUBLE UNION BV	3" PVC SCH40	2
⑰	ANTI-FLOTATION COLLAR	FIBERGLASS	1
⑱	FLOAT SWITCH	30 FT CORD	4
⑲	FLOAT BRACKET	SS/4 HOOKS	1
⑳	Ø2" ELECTRICAL CONDUIT	BY OTHERS	2
㉑	TEE FITTING	3" -4" PVC SCH40	1
㉒	DUPLEX CONTROL PANEL (NOT SHOWN-SHIPPED LOOSE)	WD1P-4-1022	1

SYSTEM CONFIGURATION

PUMP(S) MODEL:	3SE1524L
MOTOR OUTPUT:	0.5 HP
VOLTAGE:	208V
PHASE:	1PH/SINGLE
FLA:	6.3 AMPS

DESIGN PARAMETERS

REQUIRED FLOW / Q:	200 GPM
FLOW RATE (EACH PUMP)	208 GPM EACH PUMP
TOTAL DYNAMIC HEAD:	8.65 FT TDH
STATIC HEAD:	6.31 FT
WET WELL DIAMETER:	48"
WET WELL DEPTH:	108"

FLOAT LEVELS

HIGH WATER ALARM	HWA	87.94
LAG PUMP ON	L-2	87.44
LEAD LUMP ON	L-1	86.94
PUMP(S) OFF	L-0	84.40

GENERAL NOTES/DISCLAIMERS, BUT NOT LIMITED TO:

;CONTRACTOR TO CONFIRM FINAL ALIGNMENT, PLACEMENT, AND FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO INSTALLING. ALL ELEVATIONS AND DIMENSIONS ARE NOMINAL AND HAVE BEEN PROVIDED BY OTHERS.

IT IS THE CONTRACTORS OR OTHERS RESPONSIBILITY TO PROVIDE COMPONENTS FOR COMPLETE AND OPERATING SYSTEM. ***THIS SHALL INCLUDE BUT NOT LIMITED TO:***

PUMPS BY DESIGN INC. IS NOT RESPONSIBLE FOR ANY OF THE FOLLOWING:

- *(1) ANY FASTENERS NOT ASSOCIATED WITH THE PRE-ASSEMBLED SYSTEMS*
- *(2) ANY GENERATOR FUEL OF ANY KIND*
- *(3) UNLOADING TRUCKS, TRAFFIC CONTROL, SITE SAFETY*
- *(4) SECURING MATERIALS DELIVERED TO PROJECT SITE: DUNNAGE, FENCING, STORAGE*
- *(5) EXCAVATION, SHORING, DEWATERING, SUB-BASE ROCK, BACKFILL MATERIAL*
- *(6) INSTALLATION OF SUPPLIED PUMP STATION SYSTEMS AND COMPONENTS*
- *(7) PIPING TO AND FROM PUMP STATION*
- *(8) ELECTRICAL CONDUIT AND WIRING (EXCEPT WIRES ATTACHED TO SUPPLIED COMPONENTS)*
- *(9) SITE ELECTRICAL SERVICE/METER EQUIPMENT*
- *(10) CORING OF THE HOLES FOR THE ELECTRICAL CONDUITS IN ANY STRUCTURES*
- *(11) CONCRETE POURED IN PLACE, CRUSHED ROCK, ASPHALT PAVING*
- *(12) SITE LIGHTING, SIGNAGE, FENCING, BOLLARDS AND DRAINAGE CONTROL*

THESE LAYOUT DRAWINGS ARE INTENDED TO SHOW OVERALL REFERENCE OF THE SYSTEM. DO NOT SCALE DRAWING. PLACEMENT AND ORIENTATION OF INSTALLATIONS ARE AT THE DISCRETION OF THE INSTALLING CONTRACTOR. ALL ITEMS LISTED BY OTHERS WILL NOT BE SUPPLIED BY PUMPS BY DESIGN INC. AND MUST BE PROVIDED BY OTHERS

SYSTEM BY:

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PUMPS BY DESIGN INC PBD PRACTICAL PUMP SOLUTIONS

(909) 673-9945

STORM WATER LIFT STATION DETAIL

CITY OF LAGUNA BEACH

PROJECT:

211 EMERALD BAY
SUMP PUMP

DWG: PBD-CIV-EME090723

JOB NUMBER	22027
DATE:	09/07/23
DRAWN:	C.B.
CHECKED:	D.T.
SCALE:	NTS
SHEET	LSD-1