

CONTRACTOR'S NOTES

- 1. THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. NOTICE OF PROPOSED WORK SHALL BE GIVEN TO UNDERGROUND SERVICE ALERT AT 1-800-227-2600. THE CONTRACTOR SHALL REMOVE ALL MARKOUTS UPON COMPLETION OF WORK.
2. ALL OPERATIONS CONDUCTED ON THE PREMISES, INCLUDING THE WARMING UP, REPAIR, ARRIVAL, DEPARTURE, OR RUNNING OF TRUCKS, EARTHMOVING EQUIPMENT, CONSTRUCTION EQUIPMENT, AND ANY OTHER ASSOCIATED EQUIPMENT SHALL BE LIMITED TO THE PERIOD BETWEEN 7:00 A.M. AND 5:00 P.M. EACH DAY, MONDAY THROUGH FRIDAY. NO EARTHMOVING OR GRADING OPERATIONS SHALL BE CONDUCTED ON THE PREMISES ON SATURDAYS, SUNDAYS, OR CITY OF POWAY HOLIDAYS. THERE SHALL BE NO WORK ON THE ALTERNATING FRIDAY ON WHICH CITY HALL IS CLOSED. ANY REQUESTS FOR WORK ON SATURDAYS, SUNDAYS, OR CITY OF POWAY HOLIDAYS MUST BE SUBMITTED IN WRITING 72 HOURS PRIOR TO WORK. ADDITIONAL INSPECTION FEES SHALL BE PAID IN ADVANCE OF PERFORMING THE WORK.
3. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
4. NOTWITHSTANDING THE MINIMUM STANDARDS SET FORTH IN THE MUNICIPAL CODE AND NOTWITHSTANDING THE APPROVAL OF THESE GRADING PLANS, THE PERMITTEE IS RESPONSIBLE FOR THE PREVENTION OF DAMAGE TO ADJACENT PROPERTY. NO PERSON SHALL EXCAVATE ON LAND SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PUBLIC STREET, SIDEWALK, ALLEY, FUNCTION OF ANY SEWAGE DISPOSAL SYSTEM, OR ANY OTHER PUBLIC OR PRIVATE PROPERTY WITHOUT SUPPORTING AND PROTECTING SUCH PROPERTY FROM SETTLING, CRACKING, EROSION, SILTING, SCOUR, OR OTHER DAMAGE WHICH MIGHT RESULT FROM THE GRADING DESCRIBED ON THIS PLAN. THE CITY WILL HOLD THE PERMITTEE RESPONSIBLE FOR CORRECTION OF IMPROVEMENTS WHICH DAMAGE ADJACENT PROPERTY.
5. IF ANY ARCHAEOLOGICAL RESOURCES ARE DISCOVERED ON THE SITE DURING GRADING OPERATIONS, SUCH OPERATIONS WILL CEASE IMMEDIATELY, AND THE PERMITTEE WILL NOTIFY THE CITY ENGINEER OF THE DISCOVERY. GRADING OPERATIONS WILL NOT RECOMMENCE UNTIL THE PERMITTEE HAS RECEIVED WRITTEN AUTHORITY FROM THE CITY ENGINEER TO DO SO. THE DEVELOPER MUST PAY ANY MITIGATION MONITORING FEES TO COVER DIRECT AND INDIRECT COSTS OF AN ON-SITE ARCHAEOLOGIST TO MONITOR GRADING PROJECTS IN ARCHAEOLOGICALLY SENSITIVE AREAS.
6. THE PERMITTEE AGREES TO INDEMNIFY AND HOLD THE CITY AND ITS AGENTS AND EMPLOYEES HARMLESS FROM ANY AND ALL LIABILITY, CLAIMS, DAMAGES OR INJURIES TO ANY PERSON, OR PROPERTY.
7. CUT SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL UNLESS SPECIFIED IN THE APPROVED SOILS REPORT PRIOR TO CONSTRUCTION. FILL SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL AND SHALL HAVE NOT LESS THAN 90% COMPACTION OUT TO THE FINISHED SURFACE.
8. ANY SLOPE AND/OR PAD DEVIATION GREATER THAN 0.4 FOOT FROM THAT SHOWN ON THESE PLANS SHALL BE REPORTED TO THE CITY ENGINEER FOR APPROVAL BEFORE CONTINUATION OF THE GRADING OPERATIONS.
9. CUT AND FILL SLOPES SHALL BE TRIMMED TO THE FINISH GRADE (ROUNDED INTO EXISTING TERRAIN) TO PRODUCE A SMOOTH AND UNIFORM SURFACE. THE SLOPES OF EXCAVATIONS OR EMBANKMENTS SHALL BE SHAPED AND TRIMMED AS DIRECTED BY THE ENGINEER OF WORK AND AS APPROVED BY THE CITY. FINISH SLOPES SHALL BE LEFT IN A NEAT AND ORDERLY CONDITION. ALL STONES, ROCKS, ROOTS, OR OTHER WASTE MATERIAL SHALL BE PROPERLY DISPOSED. OVERSIZE ROCK DISPOSAL SHALL BE DISCUSSED AND APPROVED BY THE CITY ENGINEER PRIOR TO COMMENCEMENT OF WORK. NO ROCKS SHALL BE NESTED OR PLACED IN ANY DRAINAGE COURSE WITHOUT PRIOR APPROVAL OF THE CITY ENGINEER. EXCESS ROCKS SHALL BE REMOVED TO AN APPROVED DISPOSAL SITE.
10. ALL CUT SLOPES SHALL BE INSPECTED BOTH DURING AND AFTER GRADING BY AN ENGINEERING GEOLOGIST TO DETERMINE IF ANY SLOPE STABILITY PROBLEM EXISTS. SHOULD EXCAVATION DISCLOSE ANY GEOLOGICAL HAZARDS OR POTENTIAL GEOLOGICAL HAZARDS, THE ENGINEERING GEOLOGIST SHALL RECOMMEND NECESSARY TREATMENT TO THE CITY ENGINEER FOR APPROVAL. ALL FILL SLOPES SHALL BE INSPECTED AND APPROVED BY A SOILS ENGINEER AND/OR ENGINEERING GEOLOGIST.
11. WHERE SUPPORT OR BUTTRESSING OF CUT AND NATURAL SLOPES IS DETERMINED TO BE NECESSARY BY THE ENGINEERING GEOLOGIST OR SOILS ENGINEER, THE SOILS ENGINEER WILL SUBMIT DESIGN, LOCATION AND CALCULATIONS TO THE CITY ENGINEER PRIOR TO CONSTRUCTION. THE ENGINEERING GEOLOGIST OR SOILS ENGINEER WILL INSPECT AND CONTROL THE CONSTRUCTION OF THE BUTTRESSING AND WILL PROVIDE WRITTEN CERTIFICATION FOR THE STABILITY OF THE SLOPE AND ADJACENT STRUCTURE UPON COMPLETION. ALL CUT/FILL TRANSITIONS THROUGH BUILDING PADS WILL REQUIRE A MINIMUM OF THREE FOOT REMOVAL AND RECOMPACTION OF THE CUT PORTION OF THE PAD.
12. WHEN CUT PADS ARE BROUGHT TO OR 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, A COMPACTED FILL BLANKET WILL BE PLACED. THE NEED FOR CONSTRUCTION OF SUBDRAINS AND BACKDRAINS SHOULD BE ASSESSED DURING DESIGN AND CONSTRUCTION.
13. WHEN IMPORT OR EXPORT OF EARTH MATERIALS ARE REQUIRED, HAUL ROUTES TO AND FROM THE SITE AND THE DISPOSAL SITE SHALL BE APPROVED BY THE CITY ENGINEER.
14. IMPORT MATERIAL SHALL BE OBTAINED FROM A LEGAL SITE (NOTE: A SEPARATE VALID GRADING PERMIT MUST EXIST FOR EITHER STOCKPILE, FILL, OR IMPORT AREAS WITHIN THE CITY.) IMPORT MATERIAL MUST BE APPROVED BY THE SOILS ENGINEER PRIOR TO IMPORT.

CONTRACTOR'S NOTES CONT.

- 15. NO BRUSHING OR CLEARING SHALL BE PERFORMED IN ANY AREA NOT SHOWN TO BE GRADED ON THE PLAN. OPEN SPACE EASEMENTS OR NATURAL AREAS SHALL BE STAKED DURING GRADING AND CONSTRUCTION ACTIVITIES TO INSURE THAT SUCH AREAS REMAIN UNDISTURBED. HEAVY EQUIPMENT SHALL NOT BE OPERATED IN AREAS THAT ARE TO REMAIN AS OPEN SPACE OR NATURAL WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
16. DUST CREATED BY THE GRADING OPERATION, AND/OR IMPORT/EXPORT TRUCKING SHALL BE CONTROLLED BY WATERING. SOIL, MUD, ROCKS OR OTHER DEBRIS TRACKED ONTO ADJACENT ROADS SHALL BE IMMEDIATELY REMOVED.
17. SANITARY FACILITIES SHALL BE MAINTAINED ON SITE.
18. A BLASTING PERMIT IS REQUIRED FOR ANY BLASTING ON THE SITE. NO ROCK BLASTING SHALL BE PERMITTED UNTIL A PRE-BLAST SURVEY OF THE SURROUNDING PROPERTY IS CONDUCTED TO THE SATISFACTION OF THE CITY ENGINEER. DURING ROCK BLASTING, SEISMIC RECORDINGS SHALL BE TAKEN AS REQUIRED, FOR ALL BLASTS AT LOCATIONS AND LEVELS REQUIRED BY THE CITY ENGINEER.
19. IT IS THE RESPONSIBILITY OF THE PERMITTEE TO OBTAIN AN EXCAVATION PERMIT AND COMPLY WITH ALL PERMIT CONDITIONS FROM THE DIVISION OF INDUSTRIAL SAFETY AND TO ADHERE TO ALL PROVISIONS OF THE STATE CONSTRUCTION SAFETY ORDERS PRIOR TO COMMENCING EXCAVATION. PERMITS CAN BE OBTAINED FROM THE STATE OF CALIFORNIA, DEPARTMENT OF INDUSTRIAL RELATIONS, DIVISION OF OCCUPATIONAL SAFETY AND HEALTH AT 7575 METROPOLITAN DRIVE, SUITE 207, SAN DIEGO CA. 92108, PHONE (619) 767-2280; FAX (619) 767-2299.

GRADING NOTES

- 1. GRADING AND DRAINAGE IMPROVEMENTS SHALL BE COMPLETED IN ACCORDANCE WITH CITY OF POWAY MUNICIPAL CODE, TITLE 16, DIVISION III (GRADING ORDINANCE), THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION, THE MOST CURRENT EDITION, WITH THE SAN DIEGO SUPPLEMENTS; THE MOST CURRENT SAN DIEGO AREA REGIONAL STANDARD DRAWINGS WITH SUPPLEMENTS; AND THE CITY OF POWAY AMENDMENTS TO EACH, SPECIAL REQUIREMENTS OF THE PERMIT AND ANY EARTHWORK SPECIFICATIONS AS OUTLINED IN THE APPROVED SOILS REPORTS.
2. NO GRADING SHALL BE PERFORMED UNTIL A VALID GRADING PERMIT HAS BEEN ISSUED BY THE CITY OF POWAY AND ALL AFFECTED PROPERTY OWNER'S PERMISSION HAS BEEN OBTAINED. A PRE-GRADING MEETING IS REQUIRED BEFORE START OF GRADING WITH THE FOLLOWING PEOPLE PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOILS ENGINEER OR GEOLOGIST, CITY ENGINEERING INSPECTOR.
3. THE PERMITTEE OR HIS AGENT SHALL NOTIFY THE CITY ENGINEERING DIVISION INSPECTOR WHEN THE GRADING OPERATION IS READY FOR EACH OF THE FOLLOWING INSPECTIONS:
A. INITIAL INSPECTION - AFTER THE GRADING/BRUSHING LIMITS HAVE BEEN STAKED, AND BEFORE GRADING/BRUSHING STARTS, CALL CITY OF POWAY (858) 668-4668 TO ARRANGE FOR INSPECTION.
B. KEYWAY INSPECTION - AFTER THE NATURAL GROUND OR BEDROCK IS EXPOSED AND PREPARED TO RECEIVE FILL, BUT BEFORE FILL IS PLACED.
C. EXCAVATION INSPECTION - AFTER THE EXCAVATION IS STARTED, BUT BEFORE THE VERTICAL DEPTH OF THE EXCAVATION EXCEEDS 10 FEET.
D. FILL INSPECTION - AFTER THE FILL PLACEMENT IS STARTED, BUT BEFORE THE VERTICAL HEIGHT OF THE FILL EXCEEDS 10 FEET.
E. RETAINING WALLS - AFTER EXCAVATION, FORMING, AND STEEL PLACEMENT AND PRIOR TO CONCRETE PLACEMENT.
F. DRAINAGE DEVICE INSPECTION - AFTER FORMING OF TERRACE DRAINS, DOWNDRAIN, OR AFTER PLACEMENT OF PIPE IN SUBDRAINS, BUT BEFORE ANY CONCRETE OR FILTER MATERIAL IS PLACED.
G. ROUGH GRADING - WHEN ALL ROUGH GRADING HAS BEEN COMPLETED. CERTIFICATION OF LINE AND GRADE AND SUBMITTAL OF ALL COMPACTION REPORTS ARE REQUIRED PRIOR TO GRANTING ROUGH GRADE APPROVAL. ALL BROW DITCHES AND SWALES MUST BE EXCAVATED AND RETAINING WALL FOOTINGS EXCAVATED AND FORMED PRIOR TO ROUGH GRADE APPROVAL.
H. FINE GRADING - WHEN ALL WORK, INCLUDING INSTALLATION OF ALL DRAINAGE STRUCTURES AND OTHER PROTECTIVE DEVICES HAVE BEEN COMPLETED, THE RECORD PLAN APPROVED, AND THE REQUIRED REPORTS HAVE BEEN SUBMITTED AND APPROVED.
4. FILLS SHALL BE COMPACTED THROUGHOUT TO 90% RELATIVE COMPACTION AS DETERMINED BY THE FOLLOWING COMBINATION OF ASTM STANDARDS: D1557, D1556, AND D2922. AREAS TO RECEIVE FILL SHALL BE PROPERLY PREPARED AND APPROVED BY THE ENGINEERING GEOLOGIST AND SOILS ENGINEER PRIOR TO THE PLACING OF FILL. FILL SHALL BE BENCHED INTO COMPETENT MATERIAL IN ACCORDANCE WITH THE APPROVED SOILS REPORT AND THE CITY OF POWAY GRADING ORDINANCE. ALL EXISTING FILLS SHALL BE APPROVED BY THE CITY ENGINEER OR REMOVED BEFORE ANY ADDITIONAL FILLS ARE ADDED.
5. FINISHED GRADING SHALL SLOPE AWAY FROM THE PERIMETER OF THE BUILDING TOWARD THE PAD SWALE THAT GOES AROUND THE BUILDING AT A SLOPE OF TWO PERCENT FOR A MINIMUM OF FIVE FEET. THIS REQUIREMENTS SHALL ALSO APPLY TO ALL FLATWORK AND LANDSCAPED AREAS ADJACENT TO THE STRUCTURE.

GRADING NOTES CONT.

- 6. THE FINAL COMPACTION REPORT AND APPROVAL FROM THE SOILS ENGINEER SHALL CONTAIN THE TYPE OF FIELD TESTING PERFORMED. EACH TEST SHALL BE IDENTIFIED WITH THE METHOD OF OBTAINING THE IN-PLACE DENSITY, WHETHER SAND CONE OR DRIVE-RING OR OTHER METHOD, AND SHALL BE SO NOTED FOR EACH TEST. SUFFICIENT MAXIMUM DENSITY DETERMINATIONS SHALL BE PERFORMED TO VERIFY THE ACCURACY OF THE MAXIMUM DENSITY CURVES USED BY THE FIELD TECHNICIAN. EXPANSION TESTS SHALL BE PERFORMED ON FINISH GRADE MATERIALS.
7. CERTIFICATION SHALL BE PROVIDED BY THE SOILS ENGINEER AT THE PERMITTEE'S EXPENSE WHENEVER FILL SOILS OR TRENCH BACKFILL ARE BEING PLACED. TESTING REPORTS SHALL BE PREPARED BY THE SOILS ENGINEER AND/OR ENGINEERING GEOLOGIST AND THOSE REPORTS SHALL BE IMMEDIATELY AVAILABLE TO THE CITY ENGINEERING INSPECTOR ON REQUEST.
8. THE CITY ENGINEER MAY REQUIRE A SECOND SOILS ENGINEER TO VERIFY TESTS PREPARED BY THE PROJECT SOILS ENGINEER AT THE PERMITTEE'S EXPENSE WHERE IT IS DEEMED NECESSARY.
9. A REPRESENTATIVE FOR THE CITY MAY ISSUE A STOP/CORRECT WORK NOTICE IF WORK IS NOT PROCEEDING IN ACCORDANCE WITH THE PLANS OR IF ANY VIOLATION OF POWAY MUNICIPAL CODE IS NOTED. CONTINUATION OF GRADING WORK AFTER A STOP NOTICE HAS BEEN ISSUED IS A VIOLATION OF TITLE 16 (GRADING ORDINANCE) OF THE POWAY MUNICIPAL CODE.
10. ALL GRADING AND CLEARING IS TO BE PERFORMED ONLY WITHIN THE AREAS SHOWN ON THE APPROVED GRADING PLAN. GRADING OR CLEARING OUTSIDE OF THOSE AREAS AND TO OPEN SPACE AREAS IS A VIOLATION OF THE POWAY MUNICIPAL CODE, TITLE 16.40 (GRADING ORDINANCE).
11. ALL CANYONS SHALL BE PROVIDED WITH SUBDRAINS, THE CONSTRUCTION OF WHICH SHALL BE INSPECTED AND APPROVED BY THE ENGINEERING GEOLOGIST AND/OR SOILS ENGINEER.
12. THE EXACT LOCATION OF THE SUBDRAINS SHALL BE SURVEYED BY THE CIVIL ENGINEER IN THE FIELD FOR LINE AND GRADE AND SHOWN ON THE RECORD DRAWINGS.
13. STABILIZATION OF ALL DISTURBED AREAS, BY MEANS OF COMPLETED LANDSCAPING, MULCHING, OR OTHER CITY APPROVED METHOD, IS REQUIRED PRIOR TO GRANT OF OCCUPANCY.

EARTHWORK:

EXCAVATION _____
FILL _____
EXPORT _____
IMPORT _____

DISTURBED AREA:

TOTAL SF _____

SITE ADDRESS:

ADDRESS
POWAY, CA 92064
A.P.N. NUMBER

OWNER/PERMITTEE:

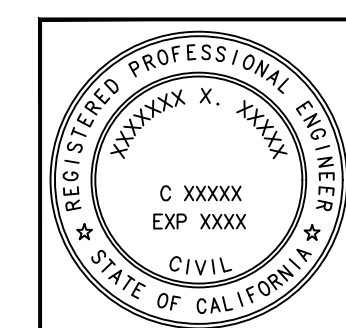
I HEREBY AGREE THAT FIELD CONDITIONS MAY REQUIRE CHANGES TO THESE PLANS.

I FURTHER AGREE THAT I SHALL HAVE A REGISTERED CIVIL ENGINEER MAKE SUCH CHANGES, ALTERATIONS, OR ADDITIONS TO THESE PLANS WHICH THE DIRECTOR OF DEVELOPMENT SERVICES DETERMINES ARE NECESSARY AND DESIRABLE FOR THE PROPER COMPLETIONS OF THE IMPROVEMENTS.

ADDRESS

PHONE

INSERT NAME DATE



RECORD PLAN

NAME DATE
P.E. #

GENERAL NOTES

- 1. ALL ABBREVIATIONS SHALL BE PER THE MOST CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "GREENBOOK".
2. ALL LEGENDS SHALL BE PER THE MOST CURRENT EDITIONS OF THE SAN DIEGO AREA REGIONAL STANDARD DRAWINGS OR CALTRANS STANDARD PLANS.
3. ANY MODIFICATIONS TO ANY SAN DIEGO AREA REGIONAL STANDARD DRAWING OR CALTRANS STANDARD DRAWING SHALL BE INDICATED BY A SPECIFIC DETAIL DRAWING LOCATED ON THE PLANS.
4. CITY OF POWAY SUPPLEMENTAL AMENDMENTS FOR WATER AND SEWER FACILITIES SUPERSEDE THE REGIONAL STANDARDS WHERE CONFLICTS ARISE.
5. TRUNCATED DOMES ARE TO BE YELLOW UNLESS OTHERWISE SPECIFIED.
6. THE CITY OF POWAY APPROVED MATERIAL LIST CAN BE DOWNLOADED FROM THE CITY OF POWAY WEBSITE.

FIRE DEPARTMENT NOTES

- 1. SIZE OF FIRE SERVICE UNDERGROUND IS FOR REFERENCE ONLY, AND SHALL BE SIZED BY PERMITTEE FOR FIRE SPRINKLER SYSTEM.
2. WHERE A RESIDENTIAL FIRE SPRINKLER SYSTEM IS REQUIRED, A ONE-INCH WATER METER AND A ONE-INCH WATER LATERAL SHALL BE INSTALLED.
3. PRIVATE FIRE SERVICE LINES ARE NOT A PART OF THESE PLANS. FIRE SERVICE LINES SHALL BE INSTALLED PER PLANS APPROVED BY THE CITY OF POWAY FIRE MARSHAL.
4. LATERAL SIZES FOR R.P.D.A.'S ARE ONLY ESTIMATES. FINAL SIZES WILL BE PER THE APPROVED FIRE SERVICE PLANS.
5. ALL FIRE HYDRANTS INSTALLED IN THE CITY OF POWAY SHALL BE PER THE CITY OF POWAY APPROVED MATERIAL LIST.

SOILS ENGINEER'S CERTIFICATE:

WE HEREBY CERTIFY THAT WE HAVE PROVIDED PROFESSIONAL TESTING AND APPROVAL CONCERNING THE PREPARATION OF GROUND TO RECEIVE FILLS, DESIGN OF BUTTRESS FILLS WHERE REQUIRED, THE ADEQUACY OF THE NATURAL GROUND FOR RECEIVING FILL, THE STABILITY OF CUT SLOPES WITH RESPECT TO GEOLOGICAL MATTERS AND THE NEED FOR SUBDRAINS AND OTHER GROUNDWATER DRAINAGE DEVICES, AND THAT THESE GRADING PLANS ACCURATELY REFLECT ALL CONDITIONS AND CONSTRUCTION RECOMMENDATIONS PREPARED FOR THIS PROJECT AS DATED:

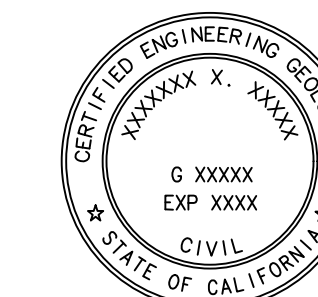
SOILS ENGINEER OF RECORD:

INSERT NAME SEAL



ENGINEERING GEOLOGIST OF RECORD:

INSERT NAME SEAL



DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF POWAY IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

INSERT NAME RCE# DATE

LEGEND

LINETYPE/SYMBOL STD. DWG. DESCRIPTION QNTY--UNIT

LOW IMPACT DESIGN REQUIREMENTS

I CERTIFY THAT THESE PLANS HAVE ADDRESSED AND/OR IMPLEMENTED LOW IMPACT DESIGN IN ACCORDANCE WITH THE CITY OF POWAY BMP DESIGN MANUAL.

ENGINEER:

INSERT NAME RCE# DATE

TOPOGRAPHY SOURCE:

REFERENCE DOCUMENTS:

(LIST ALL ASSOCIATED DRAINAGE STUDY, STORM WATER QUALITY MANAGEMENT PLAN, IMPROVEMENT PLANS, TRACT MAP, FINAL MAP, ETC.)

LEGAL DESCRIPTION:

WDD NUMBER
CITY OF POWAY JRMP PRIORITY
DR/MDRA NUMBER

Table with project information including Sheet 1, City of Poway Department of Development Services, GRADING & EROSION CONTROL PLAN FOR California Coordinate Index, City Engineer Tracy Beach, P.E. 73756, and other details.

Table for CITY APPROVED CHANGES with columns for No., Description, Approved By, Approved Date, and BENCH MARK.

Table for RECORD PLAN with columns for No., Description, Approved By, Approved Date, and BENCH MARK.

EROSION CONTROL NOTES

1. EROSION CONTROL DEVICES SHALL BE INSTALLED AS SHOWN ON THE APPROVED EROSION CONTROL PLAN.
2. THE RESPONSIBLE PERSON TO CONTACT FOR EROSION CONTROL IS LISTED BELOW.
NAME: _____
PHONE: _____
3. FAILURE TO HAVE EROSION CONTROL MEASURES INSTALLED AT THE REQUIRED TIMES WILL RESULT IN A STOP WORK ORDER AND MAY RESULT IN THE CITY INSTALLING APPROPRIATE EROSION CONTROL FUNDED BY THE PERMITTEE'S GRADING DEPOSIT. WORK SHALL NOT CONTINUE UNTIL THE GRADING DEPOSIT FUNDS ARE REPLACED AND EROSION CONTROL MEASURES ARE INSTALLED.
4. ALL MATERIALS FOR EROSION CONTROL INSTALLATION SHALL BE ON THE JOB SITE AT ALL TIMES. EROSION CONTROL MEASURES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHENEVER THERE IS A 50% CHANCE OF RAIN WITHIN 48 HOURS. EROSION PROTECTION SHALL INCLUDE EFFECTIVE PLANTING OR COVERAGE OF ALL DISTURBED AREAS UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
5. EROSION PROTECTION SHALL INCLUDE EFFECTIVE PLANTING OF ALL SLOPES UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. PLANTING OF THE SLOPES SHALL BE DONE AS SOON AS PRACTICABLE, AND PRIOR TO ROUGH GRADE APPROVAL. IF THIS IS NOT ACCOMPLISHED, THE SLOPE SHALL BE TREATED WITH PUNCHED CEREAL STRAW, BROADCAST ON THE SOIL SURFACE AT FOUR THOUSAND POUNDS PER ACRE AND HELD WITH A TACKIFIER, FIBER OR NET, OR AN EQUAL SYSTEM APPROVED BY THE CITY ENGINEER OR CITY LANDSCAPE ARCHITECT. PLANTING SHALL BE INSTALLED, FULLY GERMINATED, AND EFFECTIVELY COVER THE REQUIRED SLOPES PRIOR TO FINISHED GRADE APPROVAL.
6. EARTH BERMS OR LINED BROW DITCHES SHALL BE USED TO PREVENT RUNOFF DRAINAGE FROM FLOWING OVER THE TOP OF SLOPES. A SIX-INCH-HIGH BY TWELVE-INCH-WIDE BERM (COMPACTED TO 90%) SHALL BE CONSTRUCTED ALONG THE TOPS OF SLOPES.
7. ALL RIP RAP ENERGY DISSIPATORS SHALL BE PER SDSRD D-40 (TYPE I WITH CONCRETE SILL, OR TYPE II WITHOUT CONCRETE SILL.) ROCK SHALL BE PER SECTION 200-1.6 OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
8. ALL LOT PADS SHALL BE DESIGNED TO DRAIN TO AN ACCEPTABLE LOCATION AT A MINIMUM OF 1.5%.
9. TEMPORARY EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN WHICH INTERFERE WITH THE WORK SHALL BE RELOCATED OR MODIFIED AS THE WORK PROGRESSES, WITH PRIOR APPROVAL FROM THE CITY ENGINEER.
10. ALL LOOSE SOIL AND DEBRIS GENERATED AS A RESULT OF ANY WORK ON THE PROJECT SHALL BE REMOVED FROM THE STREET AREAS DAILY.
11. VELOCITY CHECK DAMS SHALL BE INSTALLED ACROSS THE OUTLETS OF ALL LOTS DRAINING INTO THE STREET, ALL UNPAVED GRADED CHANNELS, AND ALL UNPAVED STREET AREAS.
12. STAND-BY CREWS SHALL BE ALERTED BY THE PERMITTEE OR CONTRACTOR FOR EMERGENCY WORK DURING RAINSTORMS.
13. SEWER, STORM DRAIN, AND UTILITY TRENCHES SHALL BE PROTECTED TO PREVENT SILTATION, WHICH MAY CAUSE DAMAGE OR BECOME A NUISANCE ON PUBLIC RIGHT-OF-WAY, PUBLIC DRAINAGE COURSES, OR DOWNSTREAM PRIVATE PROPERTIES.
14. GRAVEL BAG SILT BASINS OR TRAPS SHALL BE INSTALLED AT EVERY STORM DRAIN INLET TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. IN THE EVENT SILT DOES ENTER THE EXISTING STORM DRAIN SYSTEM, REMOVAL OF THE SILT FROM THE SYSTEM WILL BE AT THE PERMITTEE'S EXPENSE.
15. ANY PROPOSED CHANGES AND ALTERNATE EROSION CONTROL MEASURES MUST BE APPROVED IN ADVANCE BY THE CITY ENGINEER.
16. EROSION CONTROL DEVICES ARE TO BE MAINTAINED AND REPAIRED DAILY.
17. SILTATION RETENTION DEVICES ARE TO BE CLEANED OF SILT AFTER EACH RAIN EVENT AND/OR WHEN RETAINED SILT HEIGHT IS 75% OF TOTAL AVAILABLE CAPACITY OF THE RETENTION DEVICE.
18. PERMITTEE SHALL BE RESPONSIBLE FOR ALL FINES ASSESSED BY ANY OUTSIDE AGENCIES.

PAVEMENT NOTES

1. PAVEMENT SECTIONS INDICATED ON THESE PLANS ARE TO BE CONFIRMED BY "R" VALUE TESTING AND A PAVEMENT DESIGN REPORT. THE "R" VALUE TEST RESULTS AND PAVEMENT DESIGN REPORT ARE TO BE SUBMITTED TO THE CITY ENGINEER BY THE PROJECT SOILS ENGINEER AFTER ROUGH GRADE APPROVAL. PAVING SHALL NOT COMMENCE UNTIL THE CITY ENGINEER HAS APPROVED THE PAVEMENT DESIGN REPORT.
2. THE CITY ENGINEERING INSPECTOR WILL CONDUCT A PRE-PAVING MEETING BEFORE THE START OF ANY PAVING OPERATIONS. THE DEVELOPER AND/OR HIS FIELD REPRESENTATIVE AND THE PAVING CONTRACTOR ARE REQUIRED TO ATTEND THIS MEETING.
3. THE TRENCH BACKFILL COMPACTION TEST RESULTS FOR ALL TRENCHES IN THE PROPOSED PAVING AREA ARE TO BE SUBMITTED, IN WRITING, TO THE CITY ENGINEERING INSPECTOR BEFORE ANY BASE MATERIAL IS PLACED ON SUBGRADE.
4. SUBGRADE
 - A. THE CITY ENGINEERING INSPECTOR WILL INSPECT THE SUBGRADE AFTER THE SUBGRADE HAS BEEN ESTABLISHED, TESTED, AND APPROVED BY THE SOILS ENGINEER OR HIS QUALIFIED REPRESENTATIVE. THE SOILS ENGINEER MUST LEAVE A FIELD MEMO OR COMPACTION TEST RESULTS ON SITE. PRIOR TO PLACEMENT OF BASE MATERIALS, THE ENGINEER OF WORK SHALL PROVIDE WRITTEN CERTIFICATION INDICATING CONFORMANCE TO LINE AND GRADE.
 - B. SUBGRADE COMPACTION SHALL BE IN COMPLIANCE WITH SECTION 301-1.3 RELATIVE COMPACTION AS AMENDED IN THE LATEST ADOPTED EDITION OF THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION REGIONAL STANDARD AMENDMENTS.
5. BASE
 - A. BASE MATERIAL SHALL BE PLACED AND COMPACTED IN COMPLIANCE WITH SECTION 301-2.1 OF THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, THE MOST RECENT EDITION ADOPTED BY THE CITY ENGINEER.
 - B. BASE MATERIAL FOR PUBLIC IMPROVEMENTS SHALL BE CRUSHED AGGREGATE BASE IN COMPLIANCE WITH SECTION 200-2.2 OF THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION MOST RECENT EDITION ADOPTED BY THE CITY ENGINEER.
 - C. BASE MATERIAL FOR PRIVATE IMPROVEMENTS SHALL BE CRUSHED AGGREGATE OR CRUSHED MISCELLANEOUS BASE MATERIAL CONFORMING TO SECTION 200-2.4 CRUSHED MISCELLANEOUS BASE OF THE "GREENBOOK" STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION, MOST RECENT EDITION ADOPTED; OR CLASS II BASE CONFORMING TO CALTRANS STANDARD SPECIFICATIONS, SECTION 26. FINAL SELECTION OF THE BASE MATERIAL FOR PRIVATE IMPROVEMENTS WILL BE MADE BY THE ENGINEER OF WORK AND APPROVED BY THE CITY PROJECT ENGINEER.
 - D. AFTER THE BASE COURSE HAS BEEN PLACED, TESTED, AND APPROVED BY THE SOILS ENGINEER OR HIS QUALIFIED REPRESENTATIVE, THE SOILS ENGINEER MUST LEAVE A FIELD MEMO ON SITE PROVIDING COMPACTION TEST RESULTS FOR THE CITY ENGINEERING INSPECTOR. ASPHALT CONCRETE PLACEMENT SHALL NOT PROCEED UNTIL THE BASE MATERIAL IS INSPECTED BY THE CITY INSPECTOR AND BASE COMPACTION TEST RESULTS ARE RECEIVED FROM THE SOILS ENGINEER AND APPROVED BY THE CITY'S PROJECT ENGINEER.
6. ASPHALTIC CONCRETE
 - A. ASPHALTIC CONCRETE SHALL CONFORM TO SECTION 203-6.5, TYPE III CLASS B2, B3, C2, OR C3 OF THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, MOST RECENT EDITION ADOPTED, OR PG-64-10.
 - B. PLACEMENT OF ASPHALTIC CONCRETE SHALL BE INSPECTED AND APPROVED BY THE CITY ENGINEERING INSPECTOR. PLACEMENT OF ASPHALTIC CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 302-5, ASPHALT CONCRETE PAVEMENT, OF THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (MOST RECENT EDITION ADOPTED), THE REGIONAL SUPPLEMENTAL AMENDMENTS (MOST RECENT EDITION ADOPTED) TO THE "GREENBOOK", AND THE CITY OF POWAY'S CRITERIA FOR ASPHALTIC CONCRETE PLACEMENT.
 - C. THE COMPACTION AFTER ROLLING SHALL BE 95 PERCENT OF THE DENSITY OBTAINED BY ASTM TEST NO. D-1560 OR ASSHTO T-246 "RESISTANCE TO DEFORMATION OF BITUMINOUS MIXTURE BY MEANS OF HVEEM APPARATUS".
 - D. COMPACTION OF THE ASPHALTIC CONCRETE USED FOR PRIVATE IMPROVEMENTS SHALL BE DONE IN ACCORDANCE WITH SECTION 302-5.6.2 OF THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (MOST RECENT EDITION ADOPTED) AND AS PROPOSED BY THE ENGINEER OF WORK.
 - E. TESTING AND FIELD SAMPLING OF ASPHALTIC CONCRETE SHALL BE BY A PERSON TRAINED TO PERFORM ASPHALTIC CONCRETE COMPACTION TESTING AND FIELD SAMPLING.

PAVEMENT NOTES CONT.

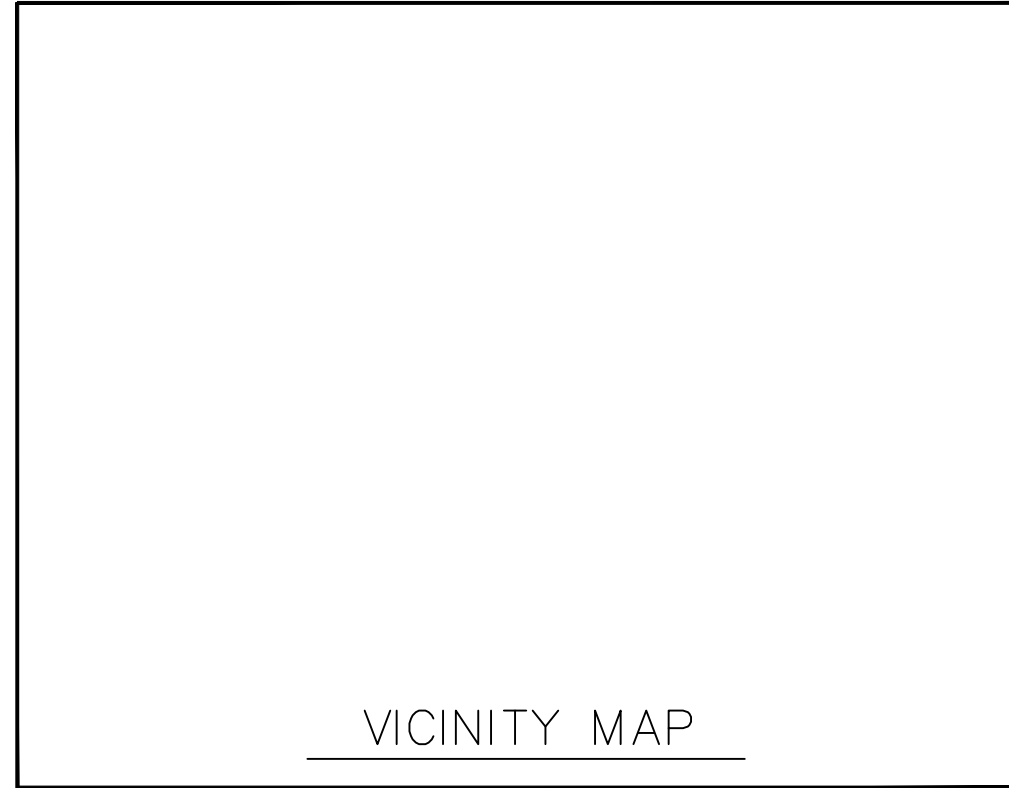
7. PRIOR TO PROJECT APPROVAL OR ACCEPTANCE BY THE CITY OF POWAY:
 - A. THE ENGINEER OF WORK SHALL PROVIDE CERTIFICATION OF LINE AND GRADE OF THE FINISH SURFACE.
 - B. THE LABORATORY COMPLIANCE TEST RESULTS AND ASPHALTIC CONCRETE COMPACTION TEST RESULTS ARE TO BE SUBMITTED TO THE CITY'S PROJECT ENGINEER AND INSPECTOR FOR REVIEW AND ACCEPTANCE.
 - C. STRIPING FOR PUBLIC IMPROVEMENTS SHALL BE COMPLETED TO THE APPROVAL OF THE CITY OF POWAY TRAFFIC ENGINEER.
 - D. THE PAVEMENT SHALL BE WATER TESTED FOR PROPER DRAINAGE AND APPROVED BY THE CITY ENGINEERING INSPECTOR.

STORM DRAIN PIPE BACKFILL NOTES

THE REQUIREMENTS FOR STORM DRAIN BACKFILL VARY RELATIVE TO THE SIZE OF THE STORM DRAIN PIPE INSTALLED. THE SPECIFIC REQUIREMENTS ARE AS FOLLOWS:

- A. PIPE DIAMETER 30" AND LESS: ¾" CRUSHED ROCK BEDDING MATERIAL SHALL BE PLACED FROM 4 TO 6 INCHES BELOW THE PIPE AND, ONCE THE PIPE IS PLACED, ¾" CRUSHED ROCK SHALL BE USED AS BACKFILL TO 12 INCHES OVER THE TOP OF THE PIPE. A GEOTEXTILE FABRIC SHALL BE PLACED OVER THE CRUSHED ROCK PRIOR TO PLACEMENT OF SOIL BACKFILL. THE GEOTEXTILE FABRIC SHALL CONFORM TO SECTION 213-2 GEOSYNTHETICS, OF THE MOST CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "GREENBOOK".
- B. PIPE DIAMETER GREATER THAN 30": ¾" CRUSHED ROCK BEDDING MATERIAL SHALL BE PLACED FROM 4 TO 6 INCHES BELOW THE PIPE AND, ONCE THE PIPE IS PLACED, ¾" CRUSHED ROCK SHALL BE USED AS BACKFILL UP TO THE SPRINGLINE OF THE PIPE. BACKFILL FROM THE SPRINGLINE OF THE PIPE TO 12 INCHES OVER THE TOP OF THE PIPE SHALL BE GRANULAR SOIL WITH A SAND EQUIVALENT OF 30 OR GREATER. THE GRANULAR SOIL SHALL BE COMPACTED TO 90% MINIMUM RELATIVE COMPACTION. GEOTEXTILE FABRIC IS NOT REQUIRED.

ALL ¾" CRUSHED ROCK SHALL CONFORM TO SECTION 200-1.2 CRUSHED ROCK AND ROCK DUST, OF THE MOST CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "GREENBOOK". COMPACTION REQUIREMENTS FOR BACKFILL OVER THE PIPE (OUTSIDE THE PARAMETERS SET FORTH IN A. AND B. ABOVE) SHALL COMPLY WITH THE MOST CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "GREENBOOK".



POST-CONSTRUCTION TREATMENT/HYDROMODIFICATION BMPS (REFER TO STORM WATER FACILITIES MAINTENANCE AGREEMENT, RECORDED DOCUMENT No. _____)

| BMP DESCRIPTION | BMP LOCATION | SHEET NUMBER | ACCESS/INSPECTION METHOD | INSPECTION FEATURES | MANUFACTURER & PART NUMBER | MAINTENANCE THRESHOLDS | MAINTENANCE ACTIVITY | RECOMMENDED EQUIPMENT | SPECIAL TRAINING REQUIREMENTS |
|--|------------------|--------------|---|---------------------|----------------------------|--------------------------------------|--|-----------------------|-------------------------------|
| <i>Example:</i> BIORETENTION BASIN #1 | SE CORNER OF LOT | X,X | EASEMENT SHOWN ON SHEET X OR BLANKET EASEMENT | CLEANOUT AT OUTLET | N/A | DEAD PLANT LIFE, TRASH, 3" OF DEBRIS | CLEAN OUT DEBRIS REPLACE PLANTS AS NEEDED | N/A | N/A |
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RECORD PLAN
NAME _____ DATE _____
P.E. # _____

| CITY APPROVED CHANGES | | | |
|-----------------------|-------------|-------------|---------------|
| No. | Description | Approved By | Approved Date |
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| BENCH MARK | |
|----------------|--------------|
| DESCRIPTION: | _____ |
| LOCATION: | _____ |
| RECORDED FROM: | _____ |
| ELEVATION: | DATUM: _____ |

WDID NUMBER _____
CITY OF POWAY JRMP PRIORITY _____
DR/MDRA NUMBER _____

| | | |
|------------------------------------|---|-------------|
| Sheet 2 | CITY OF POWAY Department of Development Services | # Sheets |
| GRADING & EROSION CONTROL PLAN FOR | | |
| California Coordinate Index | | |
| City Engineer | | |
| Tracy Beach | P.E. 73756 | DATE |
| Engineer of Work | Checked By | |
| Name | P.E. # | Drawing No. |