
APPENDIX A

PARKING LOT PLANS

GENERAL NOTES

1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THESE PLANS AND ACCOMPANYING SPECIFICATIONS. IN ADDITION ALL WORK SHALL ALSO CONFORM WITH THE FOLLOWING:
 - THE 2013 EDITIONS OF THE CALIFORNIA BUILDING CODE (CBC), CALIFORNIA PLUMBING CODE (CPC), CALIFORNIA MECHANICAL CODE (CMC), CALIFORNIA ENERGY CODE (CEC), CALIFORNIA ELECTRICAL CODE (CEC).
 SOILS RECOMMENDATIONS PREPARED BY SALEM ENGINEERING GROUP (AUGUST 19, 2016)

2. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE PLANS, DETAILS, AND SPECIFICATIONS AND SITE CONDITIONS PRIOR TO THE START OF CONSTRUCTION. IN THE EVENT THAT THE CONTRACTOR FINDS ANY DISCREPANCIES, OMISSIONS, OR DEFICIENCIES IN THE PLANS, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER AND THE OWNER'S REPRESENTATIVE IMMEDIATELY.

3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL REQUIRED PERMITS PRIOR TO THE START OF CONSTRUCTION.

4. THE TOPOGRAPHY, LOCATIONS AND SIZE OF UNDERGROUND UTILITIES AND OR OTHER STRUCTURES SHOWN HEREON WERE OBTAINED FROM A FIELD SURVEY (BY OTHERS) AND OR FROM RECORD INFORMATION. NEITHER THE ENGINEER NOR THE OWNER MAKES ANY REPRESENTATION TO THE ACCURACY OF TOPOGRAPHY, SIZE AND OR LOCATION OF ANY OF THE UTILITIES OR STRUCTURES SHOWN ON THESE PLANS NOR FOR THE EXISTENCE OF ANY OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED THAT ARE NOT SHOWN ON THIS PLAN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE SIZE AND LOCATION OF EXISTING UNDERGROUND UTILITIES, SURFACE IMPROVEMENTS, AND OTHER STRUCTURES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THEM FROM DAMAGE DURING CONSTRUCTION.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING APPROPRIATE UTILITY COMPANIES AND REQUESTING VERIFICATION OF SERVICE POINTS, FIELD VERIFICATION OF LOCATION, SIZE, DEPTH, ETC. FOR ALL THEIR UTILITIES AND TO COORDINATE WORK SCHEDULES.

6. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AT (800) 227-2600 AT LEAST 48 HOURS PRIOR TO EXCAVATION TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

7. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ANY CURRENTLY APPLICABLE SAFETY LAW OF ANY JURISDICTIONAL BODY. FOR INFORMATION REGARDING THIS PROVISION, THE CONTRACTOR IS DIRECTED TO CONTACT THE STATE OF CALIFORNIA, DIVISION OF OCCUPATIONAL SAFETY AND HEALTH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BARRICADES, SAFETY DEVICES, AND THE CONTROL OF TRAFFIC WITHIN THE CONSTRUCTION AREA. FOR ALL TRENCH EXCAVATION FIVE (5) FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE DIVISION OF OCCUPATIONAL SAFETY AND HEALTH PRIOR TO BEGINNING ANY EXCAVATION. A COPY OF THIS PERMIT SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.

8. EXISTING CURB, GUTTER, SIDEWALK, SURVEY MONUMENTS, AND OTHER IMPROVEMENTS WITHIN PROJECT SITE THAT ARE DAMAGED OR DISPLACED AS A RESULT OF THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED BY THE CONTRACTOR.

9. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS AND SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. THE CONTRACTOR AGREES TO HOLD HARMLESS, INDEMNIFY AND DEFEND THE OWNER, THE ENGINEER, AND ALL DESIGN CONSULTANTS FROM ANY AND ALL LIABILITY, CLAIMS, LOSSES OR DAMAGES ARISING FROM THE PERFORMANCE OF THE WORK DESCRIBED HEREIN EXCEPT THOSE ARISING FROM THE SOLE NEGLIGENCE OF ANY OF THE PREVIOUSLY MENTIONED PEOPLE OR ENTITIES. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL LEAVE A 24-HOUR EMERGENCY TELEPHONE NUMBER WITH THE POLICE, FIRE DEPARTMENTS AND PRIVATE SECURITY COMPANY (IF APPLICABLE), AND KEEP THEM INFORMED DAILY REGARDING ANY CONSTRUCTION RELATED ACTIVITY IN THE PUBLIC RIGHT OF WAY.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL, OFF-HAUL, AND PROPER DISPOSAL OF ALL ITEMS TO BE REMOVED INCLUDING: BUT NOT LIMITED TO: CONCRETE, ASPHALT CONCRETE, STRIPPING, ANY AND ALL OTHER DEBRIS FROM THE SITE, EXCESS MATERIAL FROM TRENCHING AND PAVEMENT CONSTRUCTION, TREES AND ROOT BALLS, FENCING AND SPOILS FROM EXCAVATION AT THE CONTRACTOR'S EXPENSE.

11. IF ARCHAEOLOGICAL RESOURCES OR HUMAN REMAINS ARE DISCOVERED DURING CONSTRUCTION, WORK SHALL BE HALTED WITHIN 150 FEET OF THE FIND UNTIL IT CAN BE EVALUATED BY A QUALIFIED PROFESSIONAL ARCHAEOLOGIST. IF THE FIND IS DETERMINED TO BE SIGNIFICANT, APPROPRIATE MITIGATION MEASURES SHALL BE FORMULATED AND IMPLEMENTED.

12. ALL REVISIONS TO THESE PLANS MUST BE APPROVED BY THE ENGINEER AS WELL AS THE OWNER PRIOR TO THEIR CONSTRUCTION AND SHALL BE ACCURATELY SHOWN ON RECORD DRAWINGS PRIOR TO THE ACCEPTANCE OF THE WORK AS COMPLETE. ANY CHANGES OR DEVIATIONS FROM THE PLANS MADE WITHOUT AUTHORIZATION SHALL BE AT THE CONTRACTOR'S SOLE RISK AND SHALL ABSOLVE THE ENGINEER OF ANY AND ALL RESPONSIBILITY ASSOCIATED WITH THE CHANGE OR DEVIATION.

13. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO KEEP THE SITE AND ADJACENT AREAS FREE FROM DIRT AND DEBRIS. SHOULD ANY DIRT OR DEBRIS BE DEPOSITED IN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL REMOVE IT IMMEDIATELY.

14. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT AIRBORNE DUST FROM BECOMING A NUISANCE. DUST CONTROL MEASURES TO BE IMPLEMENTED INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:
 A) PROVIDE EQUIPMENT AND MANPOWER REQUIRED FOR WATERING ALL EXPOSED OR DISTURBED EARTH
 B) COVER STOCKPILES OF DEBRIS, SOIL, OR OTHER MATERIALS WHICH MAY CONTRIBUTE TO AIRBORNE DUST.
 C) KEEP CONSTRUCTION AREAS AND ADJACENT STREET FREE OF MUD AND DUST.
 D) LANDSCAPE, SEED, OR COVER PORTIONS OF THE SITE AS SOON AS CONSTRUCTION IS COMPLETE.

GRADING AND DRAINAGE

1. THE SOILS ENGINEER SHALL BE NOTIFIED AT LEAST TWO (2) DAYS IN ADVANCE OF COMMENCING WORK, INCLUDING SITE STRIPPING AND GRADING OPERATIONS. THIS WORK SHALL BE OBSERVED AND TESTED BY THE SOILS ENGINEER.

2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE REQUIRED PERMITS PRIOR TO THE COMMENCEMENT OF GRADING, RIGHT-OF-ENTRY, PERMISSION TO GRADE, AND ENCROACHMENT PERMITS MAY BE REQUIRED PRIOR TO GRADING.

3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREPARE THE GROUND SURFACE TO RECEIVE THE FILLS AND TO PLACE, SPREAD, MIX, WATER, AND COMPACT THE FILL. THE CONTRACTOR SHALL ALSO REMOVE ALL MATERIAL CONSIDERED UNSATISFACTORY.

4. WHERE UNSTABLE OR UNSUITABLE MATERIALS ARE ENCOUNTERED DURING SUBGRADE PREPARATION, THE AREA IN QUESTION SHALL BE OVER EXCAVATED AND BACKFILLED WITH SELECT MATERIAL.

5. MAXIMUM CUT AND FILL SLOPE SHALL BE 2 HORIZONTAL TO 1 VERTICAL.

6. ALL CUT SLOPES SHALL BE ROUNDED TO MEET EXISTING GRADES AND BLEND WITH SURROUNDING TOPOGRAPHY. ALL GRADED SLOPES SHALL BE PLANTED WITH SUITABLE GROUND COVER.

7. ALL FILL SLOPES SHALL BE COMPACTED IN ACCORDANCE WITH THE SOILS REPORT. THE TOE OF ALL SLOPES SHOULD BE SUPPORTED BY A KEY CUT A MINIMUM OF 3 FEET INTO UNDISTURBED SOILS TO THE INSIDE OF THE FILL TOE. THIS KEY SHOULD BE A MINIMUM OF 8 FEET IN WIDTH AND SLOPE AT NO LESS THAN 10% INTO THE SLOPE. IN ADDITION AS THE FILL ADVANCES UP THE SLOPE BENCHES 3 FEET ACROSS SHOULD BE SCARIFIED INTO THE FILL/UNDISTURBED SOIL INTERFACE. (SEE SOILS REPORT)

8. TREE REMOVAL SHALL INCLUDE REMOVAL OF TRUNKS, STUMPS, AND ROOTBALLS. THE REMAINING CAVITY SHALL BE CLEARED OF ALL ROOTS LARGER THAN 1 1/2" TO A DEPTH OF NOT LESS THAN 18" AND BACKFILLED WITH SUITABLE MATERIAL THEN COMPACTED TO CONFORM WITH THE EXISTING GROUND.

9. CONTRACTOR SHALL USE CAUTION WHEN GRADING AROUND AND/OR OVER EXISTING UNDERGROUND UTILITIES.

SOILS REPORT RECOMMENDATIONS

PER THE SOILS RECOMMENDATIONS:
 The grading of Caltrans Class 2 Aggregate Base should follow Section 26 of the current Caltrans Standard Specifications. The recommended grading of the crushed stone/sand fines mixture to be utilized is provided in the following table:

Sieve U.S. [in]	Percent Passing [%]
3/4	100
#4	50-78
#8	37-67
#40	10-35
#200	4-15

All earthwork should be performed in accordance with the applicable items of Section 19 of Caltrans Standard Specifications, or the General Earthwork and Pavement Specifications attachment provided at the end of this report, whichever is more stringent. The aggregate base and upper 12 inches of subgrade should be compacted to a minimum of 95 percent relative compaction as determined by the Caltrans Test Method No. 216 (dry weight comparison) or ASTM D1557 test procedures. If open graded gravel is used, the material shall be compacted to a non-yielding condition with a smooth drum roller.

It is recommended that all pavement areas conform to the following criteria:
 -All trench backfill including utility and sprinkler lines, should be properly placed and adequately compacted to provide a stable subgrade.
 -Adequate backfill should be provided to prevent surface water from ponding and saturating the subgrade soil.
 -A periodic maintenance program should be incorporated.

In the event unstable (pumping) subgrades are encountered within planned pavement areas, we recommend a heavy, rubber-tired vehicle (typically a loaded water truck) be used to test the load/deflection characteristics of the finished subgrade material. It is recommended this vehicle have a minimum rear axle load (at the time of testing) of 16,000 pounds with tires inflated to at least 85 psi pressure. If the tested surface shows a visible deflection extending more than 5 inches from the wheel track at the time of loading, or a visible crack remains after loading, corrective measures should be implemented. Such measures could include disk tamping, aerate, chemical treatment, replacement with drier material, or other methods. It is recommended SALEM be retained to assist in developing which method (or methods) would be applicable for this project.

SCOPE OF WORK

INSTALL NEW CONCRETE CURB RAMP NEAR FRONT ENTRANCE OF SCHOOL BUILDING FOR ACCESSIBLE ROUTE FROM THE TWO NEW STRIPED ACCESSIBLE PARKING STALLS. PARKING STALLS ARE REQUIRED BY RATIO RESULTING FROM THE ADDITIONAL NON-ACCESSIBLE GRAVEL PARKING AREA CREATED ON SCHOOL OWNED PROPERTY TO THE SOUTHEAST. DEVELOP THE EXISTING DIRT LOT INTO A NEW NON-ACCESSIBLE GRAVEL PARKING AREA WITH 69 PARKING STALLS AND GRAVEL ACCESS ROAD APPROACH TO OFFSITE NEIGHBORING FARMS.



ABBREVIATIONS

FG	FINISH GRADE	FL	FLOW LINE
FP	FINISH PAVEMENT	UP	UTILITY POLE
(E)	EXISTING	GW	GUY WIRE
(N)	NEW	LP	LIGHT POLE
M.E.	MATCH EXISTING	NTS	NOT TO SCALE

SHEET INDEX

C1	TITLE SHEET
C2	GRADING PLAN 'A'
C3	GRADING PLAN 'B'
C3	EROSION CONTROL PLAN

LEGEND

	BOUNDARY LINE		PROPOSED
	EASEMENT (ESMT)		DRAINAGE FLOW LINE
	MAJOR CONTOUR		50
	MINOR CONTOUR		49
	SPOT ELEVATION		TC 49.99
	DRAINAGE FLOW		SIGN
	TREE		

GRADING QUANTITIES

EARTHWORK QUANTITIES:

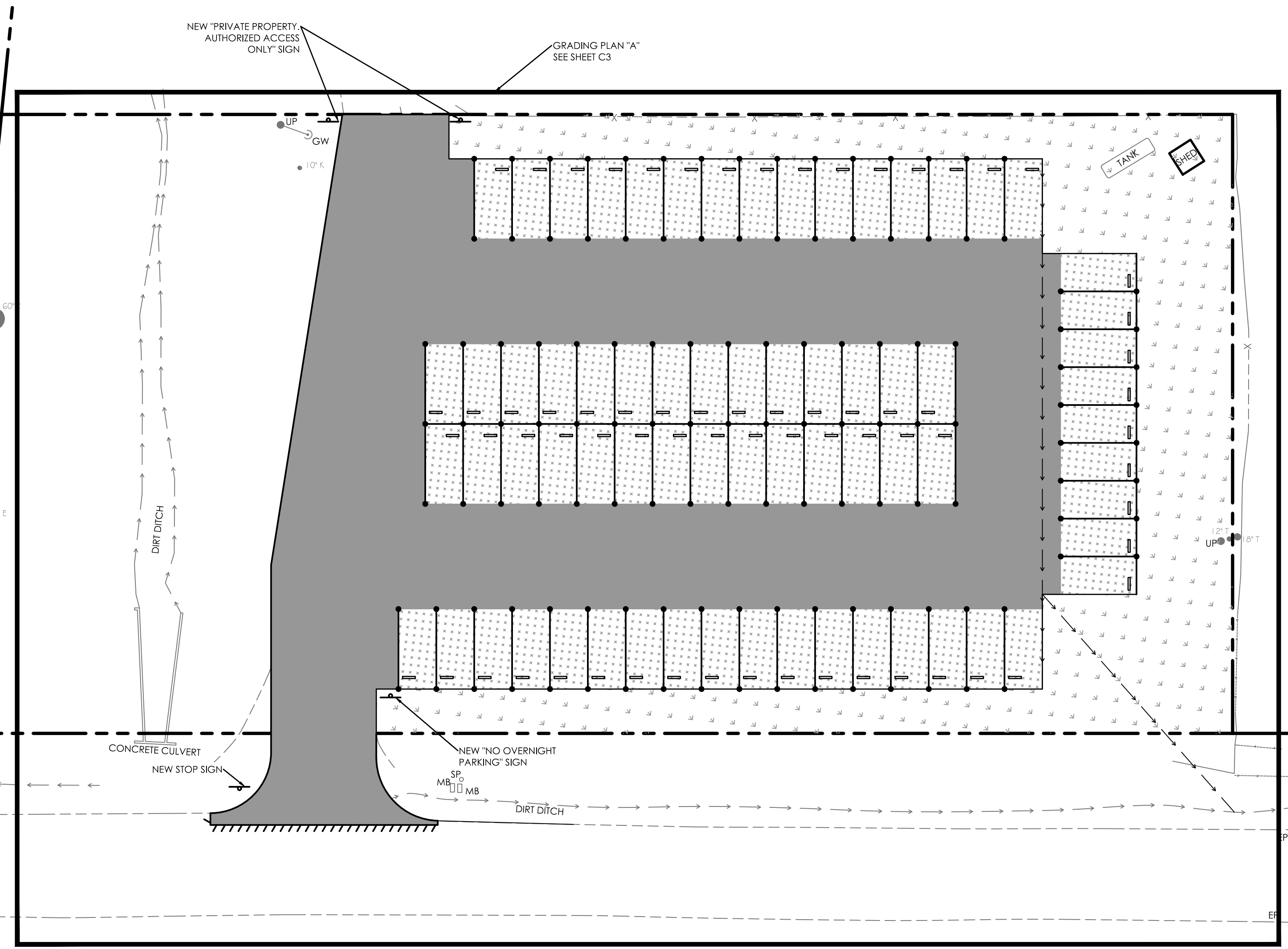
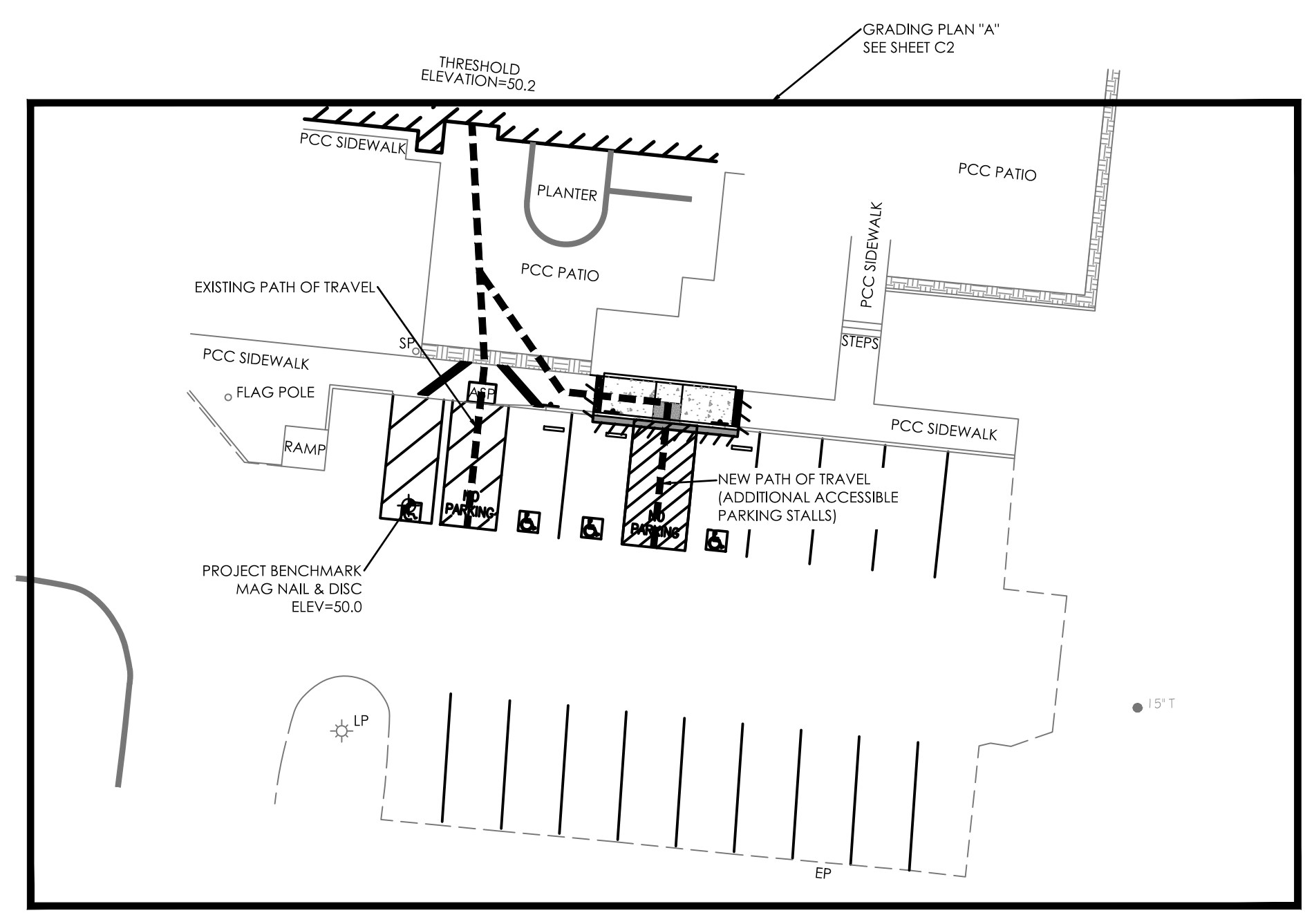
CUT = 332 CY
 FILL = 665 CY
 NET = 333 CY FILL

EARTHWORK QUANTITIES ARE ESTIMATES TO FINISH GRADE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACTUAL EARTHWORK QUANTITIES. NO ALLOWANCE HAS BEEN MADE TO ACCOUNT FOR QUANTITIES FROM PAVEMENT OR TRENCHING FOR FOUNDATION, FOOTINGS, PIERS AND/OR UTILITIES TRENCHES.

DISTURBED AREA

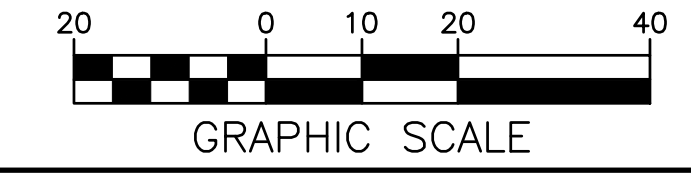
DISTURBED AREA=30,050 SF

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 Drawing file: Z:\Projects\116109 Beebe-Foothill Road\Draw\116109 Grading Plan.dwg
 Plotted: Oct 19, 2016 10:10am



A
C1

OVERALL SITE PLAN
 SCALE: 1"=20'



NO.	DATE	REVISION	DESCRIPTION

C3 ENGINEERING INCORPORATED

128 Bonanza Park, Suite 100, Soledad, CA 95074
 (408) 427-1152 (408) 427-1154 FAX

REGISTERED PROFESSIONAL ENGINEER
 JENNIFER P. RUDOLPH
 No. 87025
 EXP. 06-30-17
 CIVIL
 STATE OF CALIFORNIA

TITLE SHEET

MISSION UNION ELEMENTARY SCHOOL
 36825 FOOTHILL ROAD
 SOLEDAD, CA

SCALE: AS NOTED
 DATE: 10-18-2016
 DESIGN BY: JPR
 DRAWN BY: JPR
 CHECKED BY:
 SHEET NUMBER:
C1
 OF 4 SHEETS
 PROJECT# 116109

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TYPICAL DIAGRAM

SPACE REQUIREMENTS AT VARIOUS PARKING ANGLES**										
A	B	C	D	E	F	G	H	I	J	K
30	16'11"	11'0"	17'0"	44'10"	17'6"	13'5"	9'0"	17'4"	11'0"	18'0"
45	17'3"	11'0"	18'0"	45'8"	18'0"	13'5"	9'0"	17'3"	11'0"	18'0"
60	18'2"	11'0"	20'0"	47'4"	18'6"	13'10"	9'0"	19'0"	11'0"	19'0"
90	19'10"	13'0"	22'0"	52'8"	18'4"	18'0"	9'0"	20'0"	13'0"	20'0"

LEGEND

A PARKING ANGLE
B STALL WIDTH
C STALL PROJECTION
D STALL PROJECTION
E CURB LENGTH PER STALL
F BAY WIDTH - CURB TO CURB
G BAY WIDTH - OVERLAP EDGES TO CENTER
H WHEEL STOP ON CURB (MIN. 4" WHEEL)

NOTES

- PAVEMENT MARKINGS AND STRIPING SHALL BE THERMOPLASTIC.
- REFLECTORIZED (GLASS SPHERES) SHALL BE APPLIED TO THERMOPLASTIC STRIPING & MARKINGS.
- LOCATION AND PLACEMENT OF CONTROL POINTS AND PRELIMINARY MARKINGS ARE SUBJECT TO APPROVAL OF THE ENGINEER.
- SIGNS SHALL BE IN ACCORDANCE WITH SECTION 36-2 OF THE STANDARD SPECIFICATIONS AND PLANS.
- PARKING STALLS SHALL HAVE A MINIMUM SEE CLEARANCE OF 1' FROM COLUMNS, WALLS AND OTHER STRUCTURES.
- ALTERNATE PARKING ANGLES AND/OR LAYOUTS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR REVIEW AND APPROVAL.
- PARKING OVERHAND ALLOWANCE IS 1'-11" FOR 30°, 2'-0" FOR 45°, 2'-0" FOR 60°, AND 3'-0" FOR 90° PARKING ANGLES.
- IF ADA REQUIREMENTS ARE AMENDED, ADA STANDARDS SHALL GOVERN IF THESE STANDARDS DO NOT MEET OR EXCEED ADA STANDARDS.
- COMPACT PARKING STALLS MAY BE NO SMALLER THAN EIGHT AND ONE HALF FEET BY SEVENTEEN AND ONE HALF FEET PROVIDED THE NUMBER OF COMPACT SPACES DOES NOT EXCEED 10% OF THE TOTAL NUMBER OF SPACES. COMPACT STALLS SHALL BE MARKED.

DEPARTMENT OF PUBLIC WORKS
CITY OF SOLEDAD

TITLE: PARKING STANDARDS

DESIGNED BY: WAG
DRAWN BY: CR/AB
CHECKED BY: WAG

APPROVED: *[Signature]* No. 42120
DATE: 10/19/07

STANDARD PLAN **41**

ACCESSIBILITY NOTE:
 (3) NEW ACCESSIBLE PARKING SPACES ARE REQUIRED DUE TO THE 69 NON-ACCESSIBLE PARKING SPACES ADDED BY THIS PROJECT. TO MINIMIZE IMPACT TO (3) EXISTING PARKING SPACES WILL BE CONVERTED TO ACCESSIBLE SPACES AND ACCESS RAMPS.

GRADING PLAN "A"
SCALE: 1"=10'

GRAPHIC SCALE

C3 ENGINEERING INCORPORATED

REGISTERED PROFESSIONAL ENGINEER
 JENNIFER P. RUDOPH
 No. 87025
 EXP. 06-30-17
 CIVIL
 STATE OF CALIFORNIA

B
C2

GRAVEL PAVEMENT (PARKING SPACE)

NTS

C
C2

GRAVEL PAVEMENT (DRIVEWAY)

NTS

DETAIL A
TYPICAL TWO-RAMP CORNER INSTALLATION
See Note 1

DETAIL B
TYPICAL ONE-RAMP CORNER INSTALLATION
See Notes 1 and 3

RAISED TRUNCATED DOME

RAISED TRUNCATED DOME PATTERN (IN-LINE)
DETECTABLE WARNING SURFACE
See Note 9

RAISED TRUNCATED DOME
DETECTABLE WARNING SURFACE
See Note 9

REVISOR STANDARD PLAN RSP A88A

CURB RAMP DETAILS

NO SCALE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

RSP A88A DATED JULY 3, 2015 SUPERSEDES RSP A88A DATED MARCH 21, 2014 AND RSP A88A DATED JULY 19, 2013 AND STANDARD PLAN A88A DATED MAY 20, 2011 - PAGE 121 OF THE STANDARD PLANS BOOK DATED 2010.

GRADING PLAN "A"

MISSION UNION ELEMENTARY SCHOOL
36825 FOOTHILL ROAD
SOLEDAD, CA

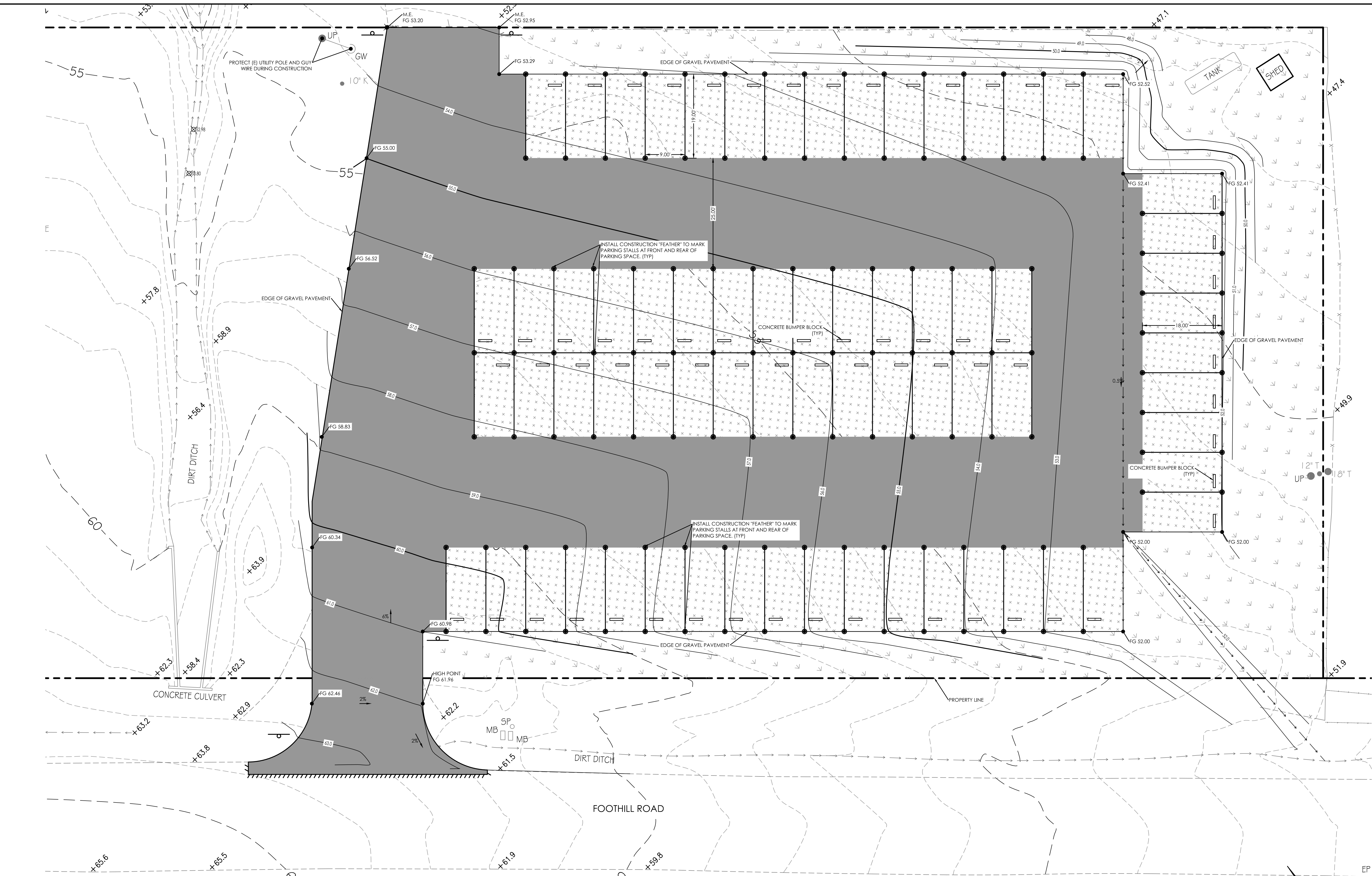
SCALE: AS NOTED
DATE: 10-18-2016
DESIGN BY: JPR
DRAWN BY: JPR
CHECKED BY:
SHEET NUMBER:

C2

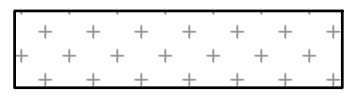

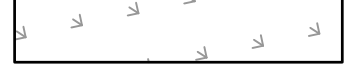
OF 4 SHEETS
PROJECT# 116109

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Drawing file: Z:\Projects\116109_Beebe-Foothill_Road\Draw\116109_Grading_Plan.dwg
Plotted: Oct 19, 2016 10:16am

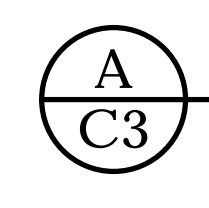


LEGEND

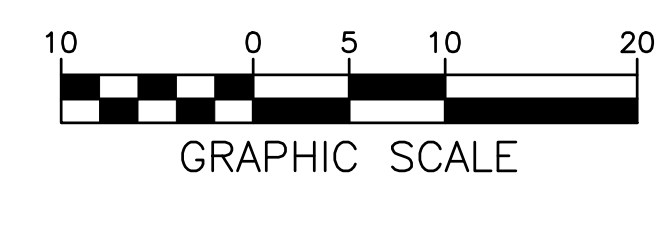
-  GRAVEL PAVEMENT (PARKING SPACE) SEE B/C2
-  GRAVEL PAVEMENT (DRIVEWAY) SEE C/C2
-  VEGETATION (HYDROSEED)

NOTES

1. SEE OVERALL SITE PLAN A/C1 FOR ACCESSIBLE PATH OF TRAVEL.
2. LIMITED TOPOGRAPHIC INFORMATION PROVIDED FOR DESIGN. CONTRACTOR SHALL CHECK ALL CONFORM POINTS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. SOBS REPORT ALLOWS FOR DIFFERENT PAVEMENT SECTION IN PARKING AREAS VERSUS DRIVE AREAS. OWNER MAY CHOOSE THE MORE CONSERVATIVE DRIVEWAY SECTION FOR THE ENTIRE PROJECT. CONTRACTOR SHALL VERIFY PRIOR TO ORDERING MATERIALS.



GRADING PLAN "B"
SCALE: 1"=10'



REV.	DATE	DESCRIPTION

C3 ENGINEERING INCORPORATED
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Tel: 831.472.1114 Fax: 831.472.1114

REGISTERED PROFESSIONAL ENGINEER
JENNIFER P. RUDRUP
No. 87025
EXP. 06-30-17
CIVIL
STATE OF CALIFORNIA

GRADING PLAN "B"
MISSION UNION ELEMENTARY SCHOOL
36825 FOOTHILL ROAD
SOLEDAD, CA

SCALE: AS NOTED
DATE: 10-18-2016
DESIGN BY: JPR
DRAWN BY: JPR
CHECKED BY:
SHEET NUMBER:

GENERAL NOTES

- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT AIRBORNE DUST FROM BECOMING A NUISANCE TO NEIGHBORING PROPERTIES. THE CONTRACTOR SHALL CONFORM TO THE STANDARDS FOR DUST CONTROL AS ESTABLISHED BY THE AIR QUALITY MAINTENANCE DISTRICT. DUST CONTROL MEASURES TO BE IMPLEMENTED INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:
 - PROVIDE EQUIPMENT AND MANPOWER REQUIRED FOR WATERING ALL EXPOSED OR DISTURBED EARTH. SUFFICIENT WATERING TO CONTROL DUST IS REQUIRED AT ALL TIMES.
 - COVER STOCKPILES OF DEBRIS, SOIL, OR OTHER MATERIALS WHICH MAY CONTRIBUTE TO AIRBORNE DUST.
 - KEEP CONSTRUCTION AREAS AND ADJACENT STREET FREE OF MUD AND DUST.
 - LANDSCAPE, SEED, OR COVER PORTIONS OF THE SITE AS SOON AS CONSTRUCTION IS COMPLETE.
 THE CONTRACTOR SHALL ASSUME LIABILITY FOR CLAIMS RELATED TO WIND BLOWN MATERIAL. IF THE DUST CONTROL IS INADEQUATE AS DETERMINED BY THE CITY, THE CONSTRUCTION WORK SHALL BE TERMINATED UNTIL CORRECTIVE MEASURES ARE TAKEN.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO KEEP STREETS AND ROADS FREE FROM DIRT AND DEBRIS. SHOULD ANY DIRT OR DEBRIS BE DEPOSITED IN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL REMOVE IT IMMEDIATELY.
- ALL CUT AND FILL SLOPES EXPOSED DURING CONSTRUCTION SHALL BE COVERED, SEED, OR OTHERWISE TREATED TO CONTROL EROSION WITHIN 48 HOURS AFTER GRADING. CONTRACTOR SHALL REVEGETATE SLOPES AND ALL DISTURBED AREAS THROUGH AN APPROVED PROCESS AS DETERMINED BY THE CITY. THIS MAY CONSIST OF EFFECTIVE PLANTING OF RYE GRASS, BARLEY OR SOME OTHER FAST GERMINATING SEED.
- DURING WINTER OPERATIONS (BETWEEN OCTOBER 15 AND APRIL 15), THE FOLLOWING MEASURES MUST BE TAKEN:
 - VEGETATION REMOVAL SHALL NOT PRECEDE SUBSEQUENT GRADING OR CONSTRUCTION ACTIVITIES BY MORE THAN 15 DAYS. DURING THIS PERIOD, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE. DISTURBED AREAS SHALL BE PROTECTED BY MULCHING AND/OR OTHER EFFECTIVE MEANS OF SOIL PROTECTION.
 - ALL ROADS AND DRIVEWAYS SHALL HAVE DRAINAGE FACILITIES SUFFICIENT TO PREVENT EROSION ON OR ADJACENT TO THE ROADWAY OR THE DOWNHILL PROPERTIES.
 - RUN-OFF FROM THE SITE SHALL BE DETAINED OR FILTERED BY BERMS, VEGETATED FILTER STRIPS AND/OR CATCH BASINS TO PREVENT THE ESCAPE OF SEDIMENT FROM THE DISTURBED AREA OR SITE. THESE DRAINAGE CONTROL MEASURES MUST BE MAINTAINED BY THE CONTRACTOR AS NECESSARY TO ACHIEVE THEIR PURPOSE THROUGHOUT THE LIFE OF THE PROJECT.
 - EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND IN PLACE AT THE END OF EACH DAY AND CONTINUOUSLY CHECKED THROUGHOUT THE LIFE OF THE PROJECT DURING WINTER OPERATIONS.

- (GONZALES GRADING/EROSION ORD. 2806-16.12.090)
- E) THE GRADING INSPECTOR MAY STOP OPERATIONS DURING PERIODS OF INCLEMENT WEATHER IF EROSION PROBLEMS ARE NOT BEING CONTROLLED ADEQUATELY.
- F) VEGETATION REMOVAL SHALL PLACE PRIOR TO A GRADING OPERATION AND THE ACTUAL GRADING DOES NOT BEGIN WITHIN 30 DAYS FROM THE DATE OF REMOVAL, THEN THAT AREA SHALL BE PLANTED UNDER THE PROVISION OF SECTION 16.08.340 TO CONTROL EROSION. NO VEGETATION REMOVAL OR GRADING WILL BE ALLOWED WHICH WILL RESULT IN SILTATION OF WATER COURSES OR UNCONTROLLABLE EROSION.
6. ALL POLLUTANTS AND THEIR SOURCES, INCLUDING SOURCES OF SEDIMENT ASSOCIATED WITH CONSTRUCTION, CONSTRUCTION SITE EROSION AND ALL OTHER ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITY ARE CONTROLLED.
7. ALL NON-STORM WATER DISCHARGES ARE IDENTIFIED AND EITHER ELIMINATED, CONTROLLED, OR TREATED.
8. SITE BMPs ARE TO BE EFFECTIVE AND RESULT IN THE REDUCTION OR ELIMINATION OF POLLUTANTS IN STORM WATER DISCHARGES AND AUTHORIZED NON-STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITY.
9. STABILIZATION BMPs INSTALLED TO REDUCE OR ELIMINATE POLLUTANTS AFTER CONSTRUCTION IS COMPLETED.
10. BEST MANAGEMENT PRACTICES (BMPs) TO BE IMPLEMENTED BY THE PROJECT ARE LISTED BY CATEGORY, FACT SHEETS, AND DETAILS FOR THE BMPs SELECTED FOR THIS PROJECT, CAN BE FOUND IN THE CASQA STORMWATER BEST MANAGEMENT PRACTICE HANDBOOK.

GOOD SITE MANAGEMENT "HOUSEKEEPING"

- POLLUTANTS IN STORM WATER DISCHARGES FROM THE PROJECT DURING CONSTRUCTION MAY ORIGINATE FROM THE DAILY OPERATION OF EQUIPMENT, GRADING OPERATIONS, AND STOCKPILING OF MATERIALS.
 - DISCHARGERS SHALL IMPLEMENT GOOD HOUSEKEEPING MEASURES ON THE CONSTRUCTION SITE TO CONTROL THE AIR DEPOSITION OF SITE MATERIALS AND FROM SITE OPERATIONS. SUCH PARTICULATES CAN INCLUDE, BUT ARE NOT LIMITED TO, SEDIMENT, NUTRIENTS, TRASH, METALS, BACTERIA, OIL AND GREASE AND ORGANICS.
- WASTE MANAGEMENT POLLUTION CONTROL**
 - THE DISCHARGER SHALL PREVENT DISPOSAL OF ANY RUN-OR WASH WATERS OR MATERIALS ON IMPERVIOUS OR PERVIOUS SURFACES OR INTO THE STORM DRAIN SYSTEM.
 - THE DISCHARGER SHALL ENSURE THE CONTAINMENT OF SANITATION FACILITIES (E.G., PORTABLE TOILETS) TO PREVENT DISCHARGES OF POLLUTANTS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER. THE SANITATION FACILITIES SHALL BE CLEANED, REPLACED, AND INSPECTED REGULARLY FOR LEAKS AND SPILLS.
 - WASTE DISPOSAL CONTAINERS SHALL BE COVERED AT THE END OF EVERY BUSINESS DAY AND DURING A RAIN EVENT. NO DISCHARGES FROM WASTE DISPOSAL CONTAINERS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER SHALL BE ALLOWED.
 - STOCKPILED MATERIAL SHALL BE CONTAINED AND SECURELY PROTECTED FROM WIND AND RAIN AT ALL TIMES UNLESS ACTIVELY BEING USED.
 - PROCEDURES SHALL BE DEVELOPED THAT EFFECTIVELY ADDRESS HAZARDOUS AND NONHAZARDOUS SPILLS. EQUIPMENT AND MATERIALS FOR CLEANUP OF SPILLS SHALL BE AVAILABLE ON SITE. SPILLS AND LEAKS SHALL BE CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY.
 - CONCRETE WASHOUT AREAS SHALL BE CONTAINED SO THERE IS NO DISCHARGE INTO THE UNDERLYING SOIL AND ONTO THE SURROUNDING AREAS.
 - DISCHARGER SHALL MAINTAIN VEHICLES TO PREVENT OIL, GREASE, OR FUEL TO LEAK IN TO THE GROUND, STORM DRAINS OR SURFACE WATERS. ALL EQUIPMENT OR VEHICLES SHALL BE FUELED, MAINTAINED AND STORED IN A DESIGNATED AREA FITTED WITH APPROPRIATE BMPs. LEAKS SHALL BE CLEANED IMMEDIATELY AND DISPOSED OF PROPERLY.
 - IN ADDITION TO THE ABOVE, THE PROJECT WILL IMPLEMENT THE FOLLOWING PRACTICES FOR EFFECTIVE WASTE MANAGEMENT POLLUTION CONTROL WHERE APPLICABLE:
 - WM-1. MATERIAL DELIVERY AND STORAGE
 - WM-2. MATERIAL USE
 - WM-3. STOCKPILE MANAGEMENT
 - WM-4. SPILL PREVENTION AND CONTROL
 - WM-5. SOLID WASTE MANAGEMENT
 - WM-6. HAZARDOUS WASTE MANAGEMENT
 - WM-7. CONTAMINATED SOIL MANAGEMENT
 - WM-8. CONCRETE WASTE MANAGEMENT
 - WM-9. SANITARY/SEPTIC WASTE MANAGEMENT
 - WM-10. LIQUID WASTE MANAGEMENT (SOURCE: STORMWATER BEST MANAGEMENT HANDBOOK)
 - THE CONTRACTOR SHALL REVIEW CONSTRUCTION ACTIVITIES TO IDENTIFY AND QUANTIFY LIKELY CONSTRUCTION MATERIALS AND WASTES. SPECIAL NOTICE SHALL BE MADE OF MATERIALS AND WASTES WITH SPECIAL HANDLING OR DISPOSAL REQUIREMENTS, SUCH AS LEAD CONTAMINATED SOILS, CONCRETE SAW-CUTTING LIQUIDS, WASTE CHEMICALS AND EMPTY CHEMICAL CONTAINERS. THE CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S STORAGE AND HANDLING RECOMMENDATIONS AND FOLLOW ALL FEDERAL, STATE, AND LOCAL REGULATIONS, WHERE POSSIBLE. CONTRACTOR SHALL USE SAFER AND LESS POLLUTING PRODUCTS.

EROSION CONTROL (SOIL STABILIZATION)

- SUFFICIENT EROSION CONTROL MATERIALS WILL BE MAINTAINED ON-SITE TO ALLOW FOR IMMEDIATE DEPLOYMENT BEFORE THE ONSET OF RAIN.
- DISCHARGERS SHALL PROVIDE EFFECTIVE SOIL COVERS FOR INACTIVE AREAS (MORE THAN 14 DAYS UN-DISTURBED) AND ALL FINISHED SLOPES, OPEN SPACE, UTILITY BACKFILL, AND COMPLETED LOTS.
- DISCHARGERS SHALL LIMIT THE USE OF PLASTIC MATERIALS WHEN MORE SUSTAINABLE, ENVIRONMENTALLY FRIENDLY ALTERNATIVES EXIST. WHERE PLASTIC MATERIALS ARE DEEMED NECESSARY, THE DISCHARGER SHALL CONSIDER THE USE OF PLASTIC MATERIALS RESISTANT TO SOLAR DEGRADATION.
- IN ADDITION TO THE ABOVE, THE PROJECT WILL IMPLEMENT THE FOLLOWING PRACTICES FOR EFFECTIVE TEMPORARY AND FINAL EROSION CONTROL DURING CONSTRUCTION WHERE APPLICABLE:
 - EC-1. SCHEDULING
 - EC-2. PRESERVATION OF EXISTING VEGETATION
 - EC-3. HYDRAULIC MULCH
 - EC-4. HYDROSEEDING
 - EC-5. SOIL BINDERS
 - EC-6. STRAW MULCH
 - EC-7. GEOTEXTILES AND MATS
 - EC-8. WOOD MULCHING
 - EC-9. EARTH BARRIERS AND DRAINAGE SWALES
 - EC-10. VELOCITY DISSIPATION DEVICES
 - EC-11. SLOPE DRAINS
 - EC-12. STREAMBANK STABILIZATION
 - EC-13. POLYMER GELAMIDE (SOURCE: STORMWATER BEST MANAGEMENT HANDBOOK)
- SPECIAL CARE SHALL BE TAKEN SO THAT NO FILL MATERIALS SHALL BE PLACED, SPREAD, OR ROLLED DURING UNFAVORABLE WEATHER CONDITIONS.

SEDIMENT CONTROL

- SUFFICIENT QUANTITIES OF TEMPORARY SEDIMENT CONTROL MATERIALS WILL BE MAINTAINED ON-SITE THROUGHOUT THE DURATION OF THE PROJECT, TO ALLOW IMPLEMENTATION OF TEMPORARY SEDIMENT CONTROLS IN THE EVENT OF PREDICTED RAIN AND FOR RAPID RESPONSE TO FAILURES OR EMERGENCIES.
- DISCHARGERS SHALL ESTABLISH AND MAINTAIN EFFECTIVE PERIMETER CONTROLS AND STABILIZE ALL CONSTRUCTION ENTRANCES AND EXITS TO SUFFICIENTLY CONTROL EROSION AND SEDIMENT DISCHARGES FROM THE SITE.
- DISCHARGERS SHALL EFFECTIVELY MANAGE ALL RUN-ON, ALL RUNOFF WITHIN THE SITE AND ALL RUNOFF THAT DISCHARGES OFF THE SITE. RUN-ON FROM OFF-SITE SHALL BE DIRECTED AWAY FROM ALL DISTURBED AREAS OR SHALL COLLECTIVELY BE IN COMPLIANCE WITH THE EFFLUENT LIMITATION OF THIS PERMIT.
- DISCHARGERS SHALL APPLY LINEAR SEDIMENT CONTROLS ALONG THE TOP OF THE SLOPE, FACE OF THE SLOPE, AND AT THE GRADE BREAKS OF EXPOSED SLOPES.
- DISCHARGERS SHALL ENSURE THAT CONSTRUCTION ACTIVITY TRAFFIC TO AND FROM THE PROJECT IS LIMITED TO ENTRANCES AND EXITS THAT EMPLOY EFFECTIVE CONTROLS TO PREVENT OFFSITE TRACKING OF SEDIMENT.
- DISCHARGERS SHALL ENSURE THAT ALL STORM DRAIN INLETS AND PERIMETER CONTROLS, RUNOFF CONTROL BMPs, AND POLLUTANT CONTROLS AT ENTRANCES AND EXITS (E.G. TIRE WASHOFF LOCATIONS) ARE MAINTAINED AND PROTECTED FROM ACTIVITIES THAT REDUCE THEIR EFFECTIVENESS.
- DISCHARGERS SHALL INSPECT ON A DAILY BASIS ALL IMMEDIATE ACCESS ROADS DAILY.
- AT A MINIMUM DAILY (WHEN NECESSARY) AND PRIOR TO ANY RAIN EVENT, THE DISCHARGER SHALL REMOVE ANY SEDIMENT OR OTHER CONSTRUCTION ACTIVITY RELATED MATERIALS THAT ARE DEPOSITED ON THE ROADS BY VACUUMING OR SWEEPING.
- IN ADDITION TO THE ABOVE, THE PROJECT WILL IMPLEMENT THE FOLLOWING PRACTICES FOR EFFECTIVE TEMPORARY AND FINAL SEDIMENT CONTROL DURING CONSTRUCTION WHERE APPLICABLE:
 - SE-1. SILT FENCE
 - SE-2. SEDIMENT BASIN
 - SE-3. SEDIMENT TRAP
 - SE-4. CHECK DAMS
 - SE-5. FIBER ROLLS
 - SE-6. GRAVEL BAG BERM
 - SE-7. STREET SWEEPING AND VACUUMING
 - SE-8. SANDBAG BARRIER
 - SE-9. STRAW BALE BARRIER
 - SE-10. STORM DRAIN INLET PROTECTION
 - SE-11. CHEMICAL TREATMENT (SOURCE: STORMWATER BEST MANAGEMENT HANDBOOK)

TRACKING CONTROL

- TRACKING CONTROLS SHALL BE IMPLEMENTED AND MAINTAINED YEAR-ROUND AND THROUGHOUT THE DURATION OF THE PROJECT, AT ALL ACCESS (INGRESS/EGRESS) POINTS TO THE PROJECT SITE WHERE VEHICLES AND/OR EQUIPMENT MAY TRACK SEDIMENT FROM THE CONSTRUCTION SITE ONTO PUBLIC OR PRIVATE ROADWAYS.
- IN GENERAL, THE PROJECT WILL IMPLEMENT THE FOLLOWING PRACTICES FOR EFFECTIVE TRACKING CONTROL DURING CONSTRUCTION WHERE APPLICABLE:
 - TC-1. STABILIZED CONSTRUCTION ENTRANCE/EXIT
 - TC-2. STABILIZED CONSTRUCTION ROADWAY
 - TC-3. ENTRANCE/OUTLET TIRE WASH (SOURCE: STORMWATER BEST MANAGEMENT HANDBOOK)

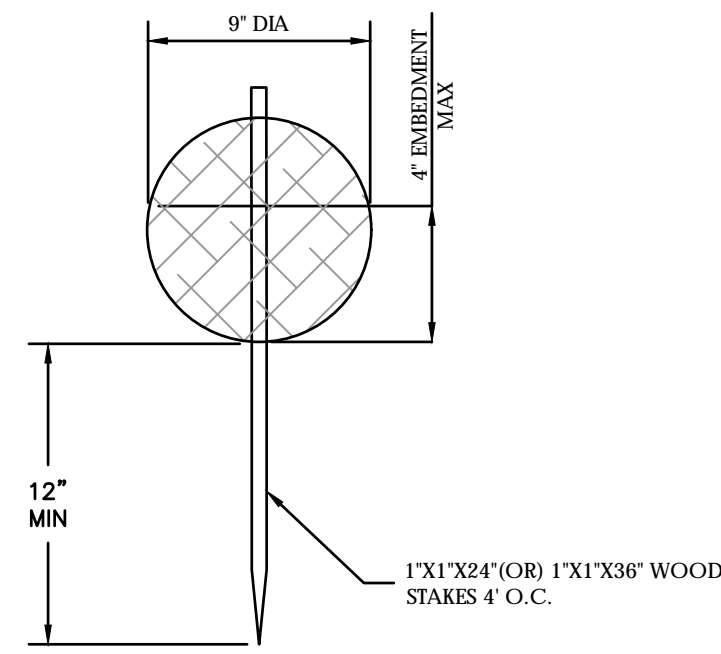
WIND EROSION CONTROL

- WIND EROSION CONTROL BMPs SHALL BE IMPLEMENTED AND MAINTAINED YEAR-ROUND AND THROUGHOUT THE DURATION OF THE PROJECT ON ALL DISTURBED SOILS ON THE PROJECT SITE THAT ARE SUBJECT TO WIND EROSION, AND WHEN SIGNIFICANT WIND AND DRY CONDITIONS ARE ANTICIPATED DURING PROJECT CONSTRUCTION. THE OBJECTIVE OF WIND CONTROLS IS TO PREVENT THE TRANSPORT OF SOIL FROM DISTURBED AREAS OF THE PROJECT SITE BY WIND.
- IN GENERAL, THE PROJECT WILL IMPLEMENT THE FOLLOWING PRACTICES FOR EFFECTIVE WIND EROSION CONTROL DURING CONSTRUCTION WHERE APPLICABLE:
 - WE-1. WIND EROSION CONTROL (SOURCE: STORMWATER BEST MANAGEMENT HANDBOOK)

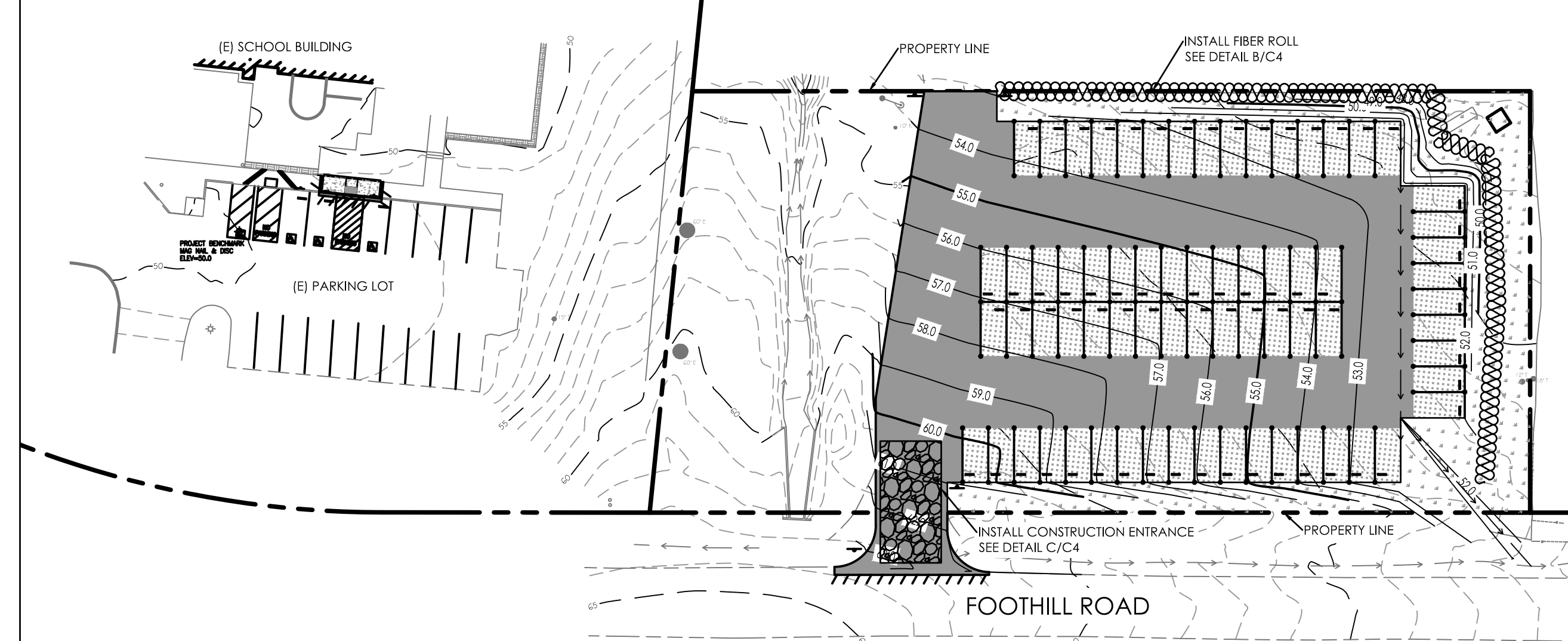
NON-STORMWATER MANAGEMENT POLLUTION CONTROL

- NON-STORM WATER DISCHARGES CONSIST OF ALL DISCHARGES TO/FROM A MUNICIPAL STORM WATER CONVEYANCE, WHICH DO NOT ORIGINATE FROM PRECIPITATION EVENTS (I.E., ALL DISCHARGES FROM A CONVEYANCE SYSTEM OTHER THAN STORM WATER).
- DISCHARGERS SHALL IMPLEMENT MEASURES TO CONTROL ALL NON-STORM WATER DISCHARGES DURING CONSTRUCTION.
- DISCHARGERS SHALL WASH VEHICLES IN SUCH A MANNER AS TO PREVENT NON-STORM WATER DISCHARGES.
- DISCHARGERS SHALL CLEAN STREETS IN SUCH A MANNER AS TO PREVENT UNAUTHORIZED NON-STORM WATER DISCHARGES.
- IN ADDITION TO THE ABOVE, THE PROJECT WILL IMPLEMENT THE FOLLOWING PRACTICES FOR EFFECTIVE NON-STORMWATER MANAGEMENT POLLUTION CONTROL WHERE APPLICABLE:
 - NS-1. WATER CONSERVATION PRACTICES
 - NS-2. DEWATERING OPERATIONS
 - NS-3. PAVING AND GRINDING OPERATIONS
 - NS-4. TEMPORARY STREAM CROSSING
 - NS-5. CLEAR WATER DIVERSION
 - NS-6. MLECIT CONSTRUCTION/ILLEGAL DISCHARGE DETECTION AND REPORTING
 - NS-7. POTABLE WATER / IRRIGATION
 - NS-8. VEHICLE AND EQUIPMENT CLEANING
 - NS-9. VEHICLE AND EQUIPMENT FUELING
 - NS-10. VEHICLE AND EQUIPMENT MAINTENANCE
 - NS-11. PILE DRIVING OPERATIONS
 - NS-12. CONCRETE CURING
 - NS-13. MATERIALS AND EQUIPMENT USE OVER WATER
 - NS-14. CONCRETE FINISHING
 - NS-15. STRUCTURE DEMOLITION/REMOVAL
 - NS-16. TEMPORARY BATCH PLANTS (SOURCE: STORMWATER BEST MANAGEMENT HANDBOOK)

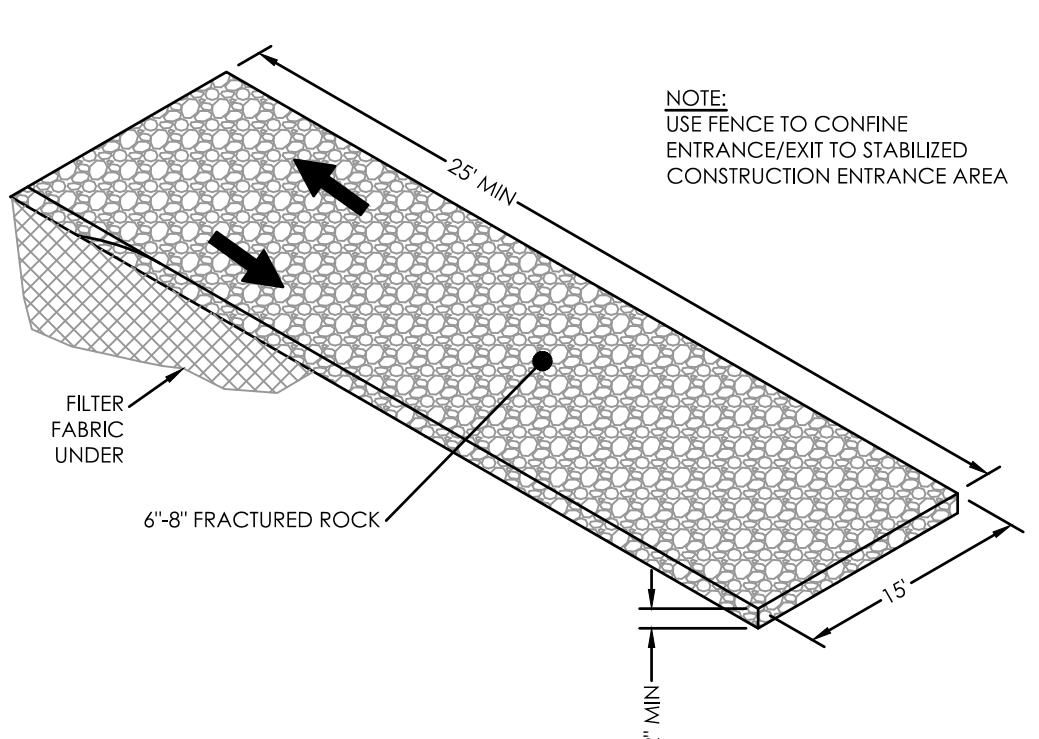
- INSTALLATION**
- USE 1"X12" OR 1"X13" WOOD STAKES, DEPENDING ON THE SOIL AND SLOPE CONDITIONS. USE LONGER STAKES IN LOOSE SOIL, SHORTER STAKES IN DENSER SOILS.
 - CASQA RECOMMENDS IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE ROLLS SHOULD BE OVERLAPPED, NOT ABUTTED. IF CONTRACTOR DESIRES TO POSITION FIBER ROLLS END-TO-END, THEY SHALL TIE THE BUTTED ENDS TOGETHER WITH STRONG TWINE TO ENSURE A GOOD CONNECTION.
 - PLACE FIBER ROLLS SECURELY IN THE TRENCH SO THAT SILT LADEN RUN-OFF PASSES OVER OR THROUGH, NOT UNDER THE FIBER ROLL.
 - CONTRACTOR SHALL REVIEW CASQA MANUAL FOR INSTALLATION GUIDANCE (SE-5)
 - CASQA RECOMMENDS THE ENDS OF THE FIBER ROLL BE TURNED UP-SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE ROLL.



B C4 FIBER ROLL NTS



A C2 EROSION CONTROL PLAN SCALE: 1"=20'



C C4 CONSTRUCTION ENTRANCE NTS



D C4 CONSTRUCTION HAUL ROUTE NTS

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 Drawing file: Z:\Projects\116109_Beebe-Foothill Road\Drawg\116109_Grading_Plan.dwg
 Plotted: Oct 19, 2016 10:10am

NO.	REV.	DATE	DESCRIPTION

G3 ENGINEERING INCORPORATED
 128 Bonanza Blvd., Suite 300, Soledad, CA 95068
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REGISTERED PROFESSIONAL ENGINEER
TENNIFER P. RIDGWAY
 No. 87025
 EXP. 06-30-17
CIVIL
 STATE OF CALIFORNIA

EROSION CONTROL PLAN

MISSION UNION ELEMENTARY SCHOOL
36825 FOOTHILL ROAD
SOLEDAD, CA

SCALE: AS NOTED
 DATE: 10-18-2016
 DESIGN BY: JPR
 DRAWN BY: JPR
 CHECKED BY:
 SHEET NUMBER:

C4

OF 4 SHEETS
 PROJECT# 116109

APPENDIX B

MISSION UNION ELEMENTARY SCHOOL PARKING LOT BIOLOGICAL RESOURCES EVALUATION



Planning for Success.

December 20, 2018

Dr. Jinane Annous
Superintendent/Principal
Mission Union School District
36825 Foothill Road
Soledad, CA 93960

**Re: Mission Union Elementary School Parking Lot Project Biological Resources
Evaluation, Monterey County, California**

Dear Dr. Annous,

EMC Planning Group biologists Andrea Edwards and Gail Bellenger conducted a site visit and biological assessment of the project site located southeast of the Mission Union Elementary School at 36825 Foothill Road near Soledad, California. The proposed project includes construction of a new parking lot and possibly a bridge across a drainage channel that runs between the school and the vacant lot where the parking lot is proposed. According to the project architect, no trees will be removed for construction of the parking lot or the bridge. Construction is anticipated to take about a month and would likely occur during the summer.

This report includes a discussion of existing plant communities, nearby waterways, wildlife habitats observed, and whether there is a reasonable possibility for special-status biological resources to occur on the site. A location map is attached as Figure 1, an aerial showing the project site is included as Figure 2, and representative site photographs are contained in Figure 3. The site is located in an area surrounded by agricultural properties and residences.

EMC PLANNING GROUP INC.
A LAND USE PLANNING & DESIGN FIRM

301 Lighthouse Avenue Suite C Monterey California 93940 Tel 831-649-1799 Fax 831-649-8399
www.emcplanning.com

Methods

Prior to the field survey, the project plans, aerial photographs, natural resource database accounts, and other relevant scientific literature were reviewed. This included searching the USFWS Endangered Species Program (USFWS 2018), California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CDFW 2018), and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2018) to identify special-status plants, wildlife, and habitats known to occur in the vicinity of the project site. The nine U.S. Geological Survey (USGS) quadrangles searched include: Gonzales, Mount Johnson, Bickmore Canyon, Palo Escrito Peak, Soledad, North Chalone Peak, Sycamore Flat, Paraiso Springs, and Greenfield. The National Wetlands Inventory database was also reviewed for identification of possible wetlands and waterways on and near the site (USFWS 2018).

Qualitative observations of plant cover, structure, and species composition were used to determine plant communities and wildlife habitats. Plant species were identified in the field and an assessment of potentially suitable habitat areas for special-status species on the site was completed. Birds were identified by visual and/or auditory recognition; mammals were identified by diagnostic signs (including scat and tracks).

Existing Conditions

The approximately 0.65-acre site is positioned on the Soledad USGS 7.5-minute quadrangle map. The project site is relatively flat, with an elevation ranging between approximately 250-260 feet above sea level. This site is disturbed from periodic mowing or disking, with a drainage channel between the school and the vacant lot. Agricultural fields and residences surround the property on all sides, with the Mission Union Elementary School located to the northwest.

Vegetation

The on-site non-native grassland plant community is dominated by plant species including wild oat (*Avena* sp.), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), foxtail barley (*Hordeum murinum*), telegraph weed (*Heterotheca grandiflora*), cheeseweed (*Malva parviflora*), annual bursage (*Ambrosia acanthicarpa*), and horehound (*Marrubium vulgare*). Ornamental shrubs are located along the front part of the property parallel to Foothill Road, and also in a line along the back of the property. A few coyote brush (*Baccharis pilularis*) shrubs are also present. There is one mature coast live oak

(*Quercus agrifolia*) which is regulated by the County of Monterey (County of Monterey 2018), adjacent to the drainage channel; located about 15-20 feet north of the property next to a utility pole. However, no trees would be removed associated with the project.

The drainage channel contains non-native grasses and no wetland or riparian vegetation. There is soil, a pipe, and broken concrete and brick dumped in and around the channel. No water was present at the time of the survey.

Wildlife Habitat

The habitat is classified as annual non-native grassland, which can provide foraging for numerous avian species and small mammals such as California ground squirrel (*Otospermophilus beecheyi*), raccoon (*Procyon lotor*), or skunk (*Mephitis mephitis*). Evidence of brush rabbit (*Sylvilagus bachmani*) and raccoon was found on the site. Numerous animal burrows (greater than 30) were observed throughout the site, ranging in diameter from one inch to four inches. Several areas adjacent to Foothill Road contained gopher mounds.

Special-Status Species

Special-status species identified by potential habitat and proximity to the project site based on data obtained from the USFWS, CNPS, and CDFW's California Natural Diversity Database are listed in Table 1 and Table 2, which include recorded sighting distances from the project site and whether or not the species has a reasonable possibility to occur at the site. In addition, non-native grassland on the site, as well as several saplings and shrubs, could provide nesting and foraging habitat for raptors and migratory birds. California lies within the Pacific Flyway, the migratory bird route extending north to south from Alaska to South America.

Table 1 Special Status Wildlife with the Potential to Occur on the Project Site

Species	Status (Federal/State)	Habitat Description	Reasonable Possibility to Occur at Site
Burrowing owl (<i>Athene cunicularia</i>)	California Species of Special Concern	Open, dry, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation; dependent on mammal burrows	Not expected to occur. Low quality habitat present. Surrounded by development on three sides. Record of nearest known occurrence is five miles to the northeast.

San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	Federally listed endangered and state-listed threatened species	Loose-textured soils, annual grassland (California Prairie), scrub and subshrub communities. Can occupy small portions of native habitat interspersed with development provided there is minimal disturbance, dispersal corridors, and sufficient prey-base.	Not expected to occur. No suitable habitat present. Record of nearest known occurrence is four miles to the east.
Western mastiff bat (<i>Eumops perotis californicus</i>)	California Species of Special Concern	Extensive open areas with abundant roost locations provided by crevices in rock outcrops and buildings. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting. Nursery roosts described as tight rock crevices at least 90 cm (35 in) deep and 5 cm (2 in) wide, or crevices in buildings.	Not expected to occur. No suitable habitat present. Record of nearest known occurrence is four miles to the north.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	California Species of Special Concern	Inhabits a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Not expected to occur. No suitable habitat present and human presence on three sides of the site. Record of nearest known occurrence is three miles to the northeast.
San Joaquin coachwhip (<i>Masticophis flagellum ruddocki</i>)	California Species of Special Concern	Open, dry, treeless areas with little or no cover, including valley grassland and saltbush scrub. Avoids dense vegetation where it cannot move quickly, including mixed oak chaparral woodland. Takes refuge in rodent burrows, under shaded vegetation, and under surface objects.	Not expected to occur. Low quality habitat present. Record of nearest known occurrence is five miles to the south.
Salinas pocket mouse (<i>Perognathus inornatus psammophilus</i>)	California Species of Special Concern	Open grassland, savanna, and desert shrub communities. Most abundant in uncultivated areas and often live in areas with sandy washes and finely textures soils.	Not expected to occur. No suitable habitat present due to mowing/discing of site. Record of nearest known occurrence is two miles to the east.
American badger (<i>Taxidea taxus</i>)	California Species of Special Concern	Dry, open grasslands, fields, shrub, forest, and pastures.	Not expected to occur. Low quality habitat present. Record of nearest known occurrence is two miles to the east.

SOURCE: CNDDDB 2018

Table 2 Special Status Plants with the Potential to Occur on the Project Site

Species	Status (Federal/State)	Habitat Description	Reasonable Possibility to Occur at Site
Congdon's tarplant (<i>Centromadia parryi</i> ssp. <i>congonii</i>)	Rare Plant Rank 1B species	Alkaline valley and foothill grassland; elevation 1-230m. Also occurs in disturbed areas and ruderal habitats.	Potential to occur throughout project area due to presence of suitable habitat. Nearest known occurrence is five miles to the north.
Monterey spineflower (<i>Chorizanthe pungens</i> var. <i>pungens</i>)	Federally threatened. Rare Plant Rank 1B.2 species	Sandy soils in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland; can tolerate disturbance; elevation 3-450m.	Not expected to occur in project area due to lack of sandy substrates in the project area. Nearest known occurrence is two miles to the northeast.

SOURCE: CNDDDB 2018.

Congdon's Tarplant. The California Native Plant Society (CNPS) Rare Plant Rank 1B Congdon's tarplant is found on a range of substrates, and is tolerant of disturbed and ruderal (weedy) areas. It occurs in patches of non-native grassland. The species is known from the East San Francisco Bay Area, Salinas Valley, and Los Osos Valley. This low-growing annual herb is most observable during its peak blooming period, from late summer to early fall.

CNPS Rare Plant Rank 1B species are considered rare, threatened, or endangered in California and elsewhere. Impacts to such species require mitigation under the California Environmental Quality Act, because all CNPS 1B species meet the definitions of Sections 2062 and 2067 of the California Fish and Game Code pertaining to the California Endangered Species Act, and are considered eligible for state listing.

Congdon's tarplant has the potential to occur within the disturbed areas of the property. A known reference population of Congdon's tarplant located in the City of Salinas was checked just prior to the site visit; it was past the peak blooming season and the plants only had a few flowers remaining, but the annual species was still recognizable in open areas. Since the species was still in bloom and identifiable at the reference population, conditions were sufficient to conduct a focused survey for this species at the project site. Though it could be introduced to the site in the future, Congdon's tarplant was not observed during the focused survey.

Waterways. There are no wetlands or jurisdictional waterways on the project site. The drainage channel between the school and the vacant lot was dry, with no evidence of wetland or riparian vegetation. Most natural drainage channels and wetlands are considered Waters of the U.S., and the USACE regulates the filling or grading of such jurisdictional waters by authority of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. However, this channel does not appear to have connectivity to the Salinas River or other jurisdictional waters (Figure 4), nor does it have riparian vegetation that would qualify it as jurisdictional by the CDFW. Therefore, disturbance to the channel would not be regulated.

Recommendations

If project construction extends beyond five years from this survey date, it is recommended that the focused plant survey for Congdon's tarplant be repeated.

From a review of the project plans, it appears as though the oak tree located between the drainage channel and the project site would not be removed. However, if project implementation requires it to be removed, a permit from the County will be required prior to removal of the tree. Conditions for obtaining the permit can be found in the Monterey County Code, Title 21-Zoning, Chapter 21.64-Special Regulations, 21.64.260 Preservation of oaks and other protected trees (County of Monterey 2018).

There is low potential that the mature eucalyptus trees along the drainage channel will provide roosting areas for special-status bat species that occur in the project vicinity. Therefore, proposed project development has a low potential to directly affect individual bats should they be roosting on or near the project site during construction activities.

Migratory birds are protected under the Migratory Bird Treaty Act. California lies within the Pacific Flyway, the migratory bird route that extends about 4,000 miles north to south from Alaska to South America. To avoid impacts to nesting birds during their nesting season (January through September), construction activities that include grading, grubbing, or demolition shall be conducted outside of the bird nesting season (October through December) to the greatest extent feasible. If this type of construction occurs during the bird nesting season, then a qualified biologist should conduct a pre-construction survey for nesting birds to ensure that no nests would be disturbed during project construction. The following mitigation measure is recommended.

Mitigation Measure

If project-related work is scheduled during the nesting season (February 15 to August 30 for small bird species such as passerines; January 15 to September 15 for owls; and February 15 to September 15 for other raptors), a qualified biologist shall conduct nesting bird surveys. Two surveys for active nests of such birds shall occur within 14 days prior to start of construction, with the second survey conducted with 48 hours prior to start of construction. Appropriate minimum survey radius surrounding each work area is typically 250 feet for passerines, 500 feet for smaller raptors, and 1,000 feet for larger raptors. Surveys shall be conducted at the appropriate times of day to observe nesting activities.

If the qualified biologist documents active nests within the project site or in nearby surrounding areas, an appropriate buffer between each nest and active construction shall be established. The buffer shall be clearly marked and maintained until the young have fledged and are foraging independently.

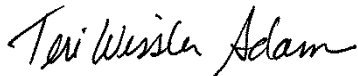
Prior to construction, the qualified biologist shall conduct baseline monitoring of each nest to characterize “normal” bird behavior and establish a buffer distance, which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and increase the buffer if birds show signs of unusual or distressed behavior (e.g. defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest).

If buffer establishment is not possible, the qualified biologist or construction foreman shall have the authority to cease all construction work in the area until the young have fledged and the nest is no longer active. If pre-construction nesting bird surveys are necessary, based upon the requirements of this mitigation measure, then a survey report shall be prepared prior to commencement of construction activities.

With implementation of these recommendations, potential project impacts to special-status biological resources would be avoided or minimized.

Please contact us with any questions at (831) 649-1799 ext. 221. Thank you for the opportunity to assist with this project.

Sincerely,



Teri Wissler Adam
Senior Principal



Gail Bellenger. M.A., RPA
Senior Biologist
Registered Professional Archaeologist

Encs:

- Figure 1 Location Map
- Figure 2 Aerial Photograph
- Figure 3 Site Photographs
- Figure 4 National Wetlands Inventory

References

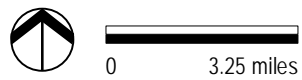
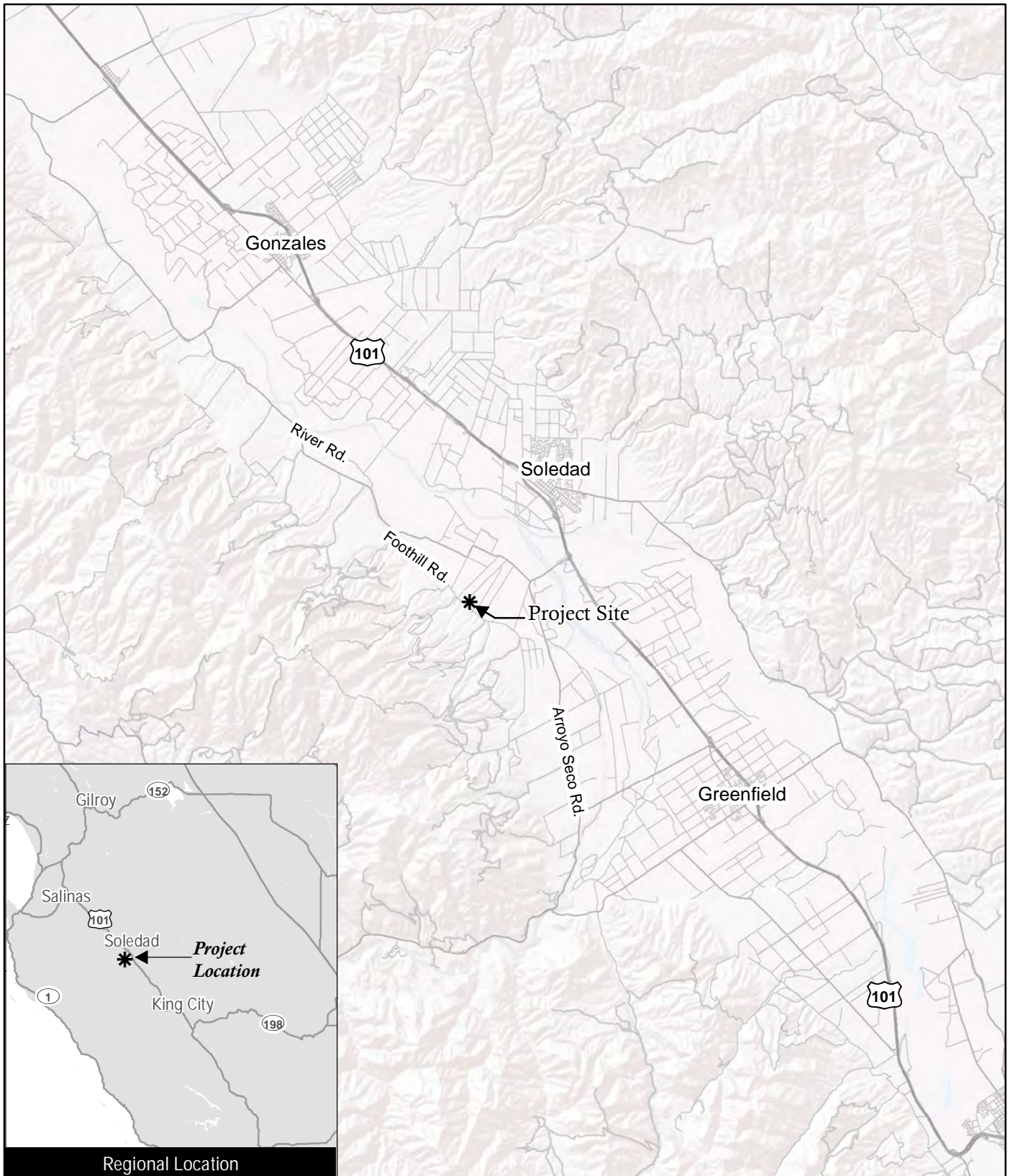
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Source: ESRI 2018

Figure 1
Location Map





0 175 feet



Project Site

Source: ESRI 2018




Figure 2
Aerial Photograph



① Looking northeast



 Project Site

Source: ESRI 2018

Photographs: EMC Planning Group 2018



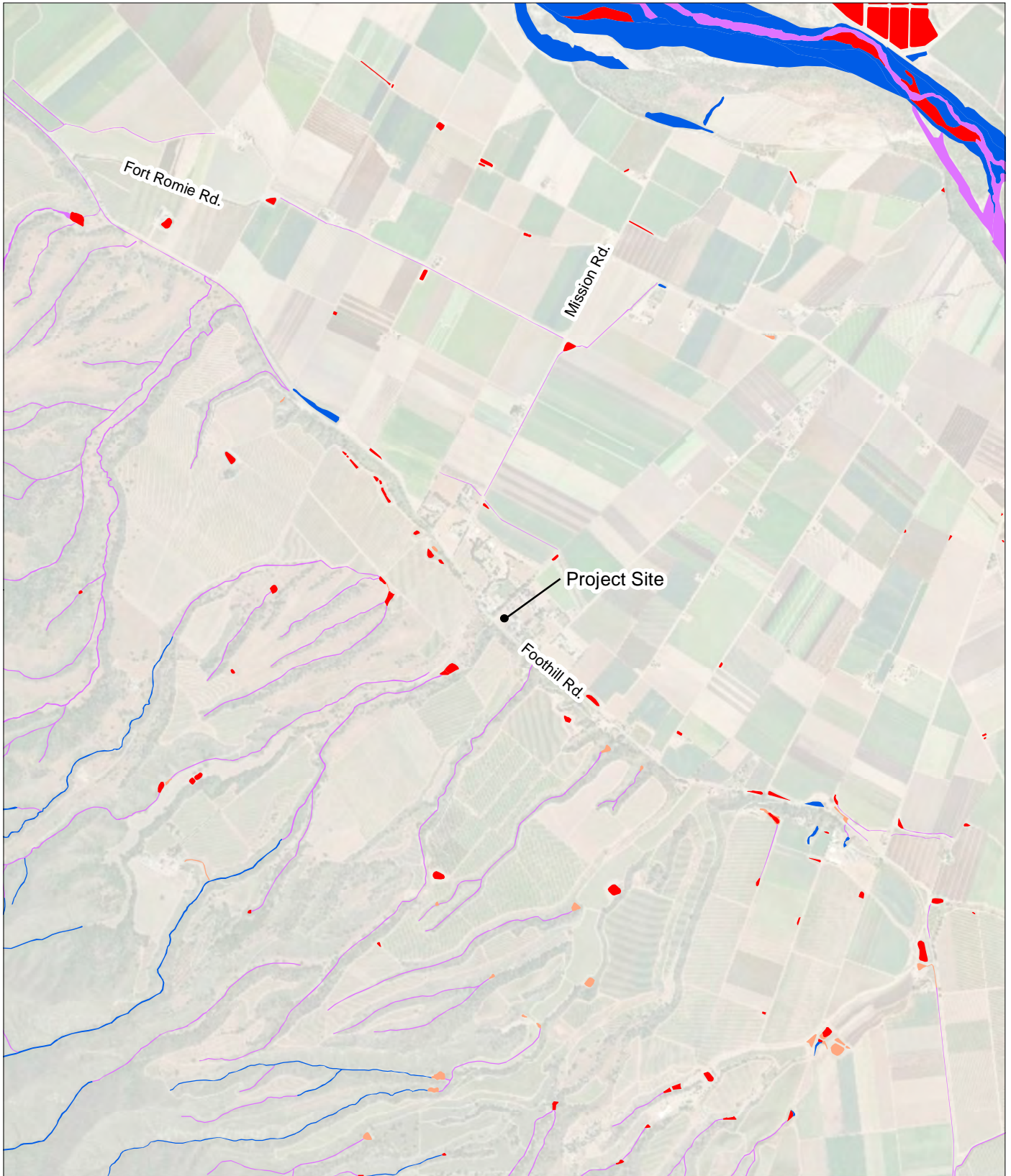
③ Drainage channel looking northeast



② Oak tree between project site and drainage channel



④ Drainage channel, looking southwest



National Wetlands Inventory Type

- Riverine
- Freshwater Pond
- Freshwater Forested/
Shrub Wetland
- Freshwater Emergent Wetland

Source: ESRI 2018, USFWS 2016

Figure 4

National Wetlands Inventory



APPENDIX C

LIMITED GEOTECHNICAL ENGINEERING INVESTIGATION,
SUBGRADE EVALUATION AND PAVEMENT RECOMMENDATIONS,
PROPOSED GRAVEL PAVED PARKING & ACCESS ROAD

August 19, 2016

Job No. 1-216-0874

Mr. Tim Ryan
Mission Union Elementary School
36825 Foothill Rd.
Soledad, CA 93960

(831) 678-3524 Phone
(831) 678-0491 Fax
tryan@missionusd.org Email

**Subject: Limited Geotechnical Engineering Investigation
Subgrade Evaluation and Pavement Recommendations
Proposed Gravel Paved Parking & Access Road
Mission Union Elementary School
36825 Foothill Road
Soledad, California**

Dear Mr. Ryan:

At your request, SALEM Engineering Group, Inc. (SALEM) has prepared these recommendations for recommended gravel pavement section thicknesses for an overflow parking lot and adjacent access roadway. The scope of services was outlined in proposal prepared by SALEM and with your authorization, (reference SEG P2-216-1281, dated August 9, 2016).

Project Description

The subject project site is proposed to be located near the existing Mission Union Elementary School Campus at the southeast corner, at which currently consists as a vacant field with approximate dimensions of 210 feet by 130 feet. Our understanding of the subject project comes from email correspondence originating from Ms. Jennifer Rudolph, of C3 Engineering Incorporated, from Monterey, CA. We understand the project involves using a permeable surface to pave the existing vacant field into automobile parking. An access roadway located along the western edge will be accessed by truck traffic during agricultural harvesting periods. Gravel paving was chosen for the cost effectiveness and highly permeable characteristics, not allowing storm runoff to accumulate. Based on email correspondence, we will collect two (2) R-values within the central area proposed for the parking lot.

Field Exploration

Our field exploration consisted of site surface reconnaissance and subsurface exploration. The exploratory test borings (B-1 & B-2) were hand augered on August 4, 2015, to depths of 5 feet and 3 feet, respectively, below existing grade, within the areas shown and provided in the vicinity map and site plan, attached at the conclusion of this letter.

The subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the near surface soil and subgrade predominately consisted of a surficial layer of silty sand with gravel, to depths of 3 to 5 feet with decreased gravel at depths of 2 to 3 feet, below surrounding grade surface.

The materials encountered in the test borings were visually classified in the field, and logs were recorded by a field engineer and stratification lines were approximated on the basis of observations made at the time of drilling. Visual classification of the materials encountered in the test borings were generally made in accordance with the Unified Soil Classification System (ASTM D2487).

A soil classification chart and key to sampling is presented on the Unified Soil Classification Chart, in Appendix A. The logs of the test borings are attached at the conclusion of this report. The Boring Logs include the soil type, color, moisture content, dry density, and the applicable Unified Soil Classification System symbol.

The location of the test borings were determined by measuring from features shown on the Site Plan, provided to us. Hence, accuracy can be implied only to the degree that this method warrants. The actual boundaries between different soil types may be gradual and soil conditions may vary. For a more detailed description of the materials encountered, the Boring Logs, attached, should be consulted.

No significant fill materials were encountered in our test borings. However fill materials may be present onsite between our boring locations. Undocumented and uncompacted fill materials are not suitable to support any future structures and should be replaced with Engineered Fill. The extent and consistency of the fills should be verified during site construction. Prior to fill placement, Salem Engineering Group, Inc. should inspect the bottom of excavation to verify the fill condition.

Gravel Pavement Design

Two (2) Resistance Value (R-Value) tests, RV-1 and RV-2, were performed at the location as indicated on the attached Site Plan, corresponding to areas proposed for pavements. RV-1 and RV-2 had test results of 50. An R-value of 50 was utilized for design of project pavements.

Design analysis of the aggregate surface thickness was based on the US Department of Transportation, FHWA, Gravel Roads: Maintenance and Design Manual. Based on the analysis, the subgrade should be covered with a minimum section as illustrated below, consisting of Caltrans Class 2 aggregate base or a crushed stone/sand/fines mixture.

**TABLE 1
GRAVEL PAVEMENT THICKNESSES**

Area	Class II Aggregate Base*	Compacted Subgrade*
Parking (auto)	6.0"	12.0"
Access Roadway / High Traffic	10.0"	12.0"

**95% compaction based on ASTM D1557-07 Test Method*

The subgrade of the pavement area should be scarified to a depth of approximately 12 inches; moisture conditioned to near the optimum moisture content and recompact to at least 95 percent of the maximum dry density per ASTM D1557.

The grading of Caltrans Class 2 Aggregate Base should follow Section 26 of the current Caltrans Standard Specifications. The recommended grading of the crushed stone/sand/fines mixture to be utilized is provided in the following table.

Sieve U.S. (in)	Percent Passing (%)
3/4	100
# 4	50-78
# 8	37-67
# 40	10-35
# 200	4-15

All earthwork should be performed in accordance with the applicable items of Section 19 of Caltrans Standard Specifications, or the General Earthwork and Pavement Specifications attachment provided at the end of this report, whichever is more stringent. The aggregate base and upper 12 inches of subgrade should be compacted to a minimum of 95 percent relative compaction as determined by the Caltrans Test Method No. 216 (dry weight comparison) or ASTM D1557 test procedures. If open graded gravel is used, the material shall be compacted to a non-yielding condition with a smooth drum roller.

It is recommended that all pavement areas conform to the following criteria:

- All trench backfill, including utility and sprinkler lines, should be properly placed and adequately compacted to provide a stable subgrade.
- Adequate drainage should be provided to prevent surface water from ponding and saturating the subgrade soil.
- A periodic maintenance program should be incorporated.

In the event unstable (pumping) subgrades are encountered within planned pavement areas, we recommend a heavy, rubber-tired vehicle (typically a loaded water truck) be used to test the load/deflection characteristics of the finished subgrade materials. It is recommended this vehicle have a minimum rear axle load (at the time of testing) of 16,000 pounds with tires inflated to at least 65 psi pressure. If the tested surface shows a visible deflection extending more than 6 inches from the wheel track at the time of loading, or a visible crack remains after loading, corrective measures should be implemented. Such measures could include disking to aerate, chemical treatment, replacement with drier material, or other methods. It is recommended **SALEM** be retained to assist in developing which method (or methods) would be applicable for this project.

Construction Observations and Testing

SALEM should be present at the site during site preparation to observe site clearing, preparation of exposed surfaces after clearing, and placement, treatment and compaction of fill and aggregate base materials. SALEM's observations should be supplemented with periodic compaction tests to establish substantial conformance with these recommendations. SALEM should observe subgrade prior to placement of aggregate base to assess whether the actual subgrade conditions are compatible with the conditions anticipated during the preparation of this report.

Changed Conditions


The analyses and recommendations submitted in this report are based upon the data obtained from the limited geotechnical investigation and provided by representatives of the client. The report does not reflect variations which may occur between borings. The nature and extent of such variations may not become evident until construction is initiated. If variations then appear, a re-evaluation of the recommendations of this report will be necessary after performing on-site observations during the excavation period and noting the characteristics of such variations. The findings and recommendations presented in this report are valid as of the present and for the proposed construction. If site conditions change due to natural processes or human intervention on the property or adjacent to the site, or changes occur in the nature or design of the project, or if there is a substantial time lapse between the submission of this report and the start of the work at the site, the conclusions and recommendations contained in our report will not be considered valid unless the changes are reviewed by SALEM and the conclusions of our report are modified or verified in writing.

The validity of the recommendations contained in this report is also dependent upon an adequate testing and observations program during the construction phase. Our firm assumes no responsibility for construction compliance with the design concepts or recommendations unless we have been retained to perform the on-site testing and review during construction. SALEM has prepared this report for the exclusive use of the owner and project design consultants. The report has been prepared in accordance with generally accepted geotechnical engineering practices in the area. No other warranties, either expressed or implied, are made as to the professional advice provided under the terms of our agreement and included in this report.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (559) 271-9700.

Respectfully submitted,

SALEM Engineering Group, Inc.



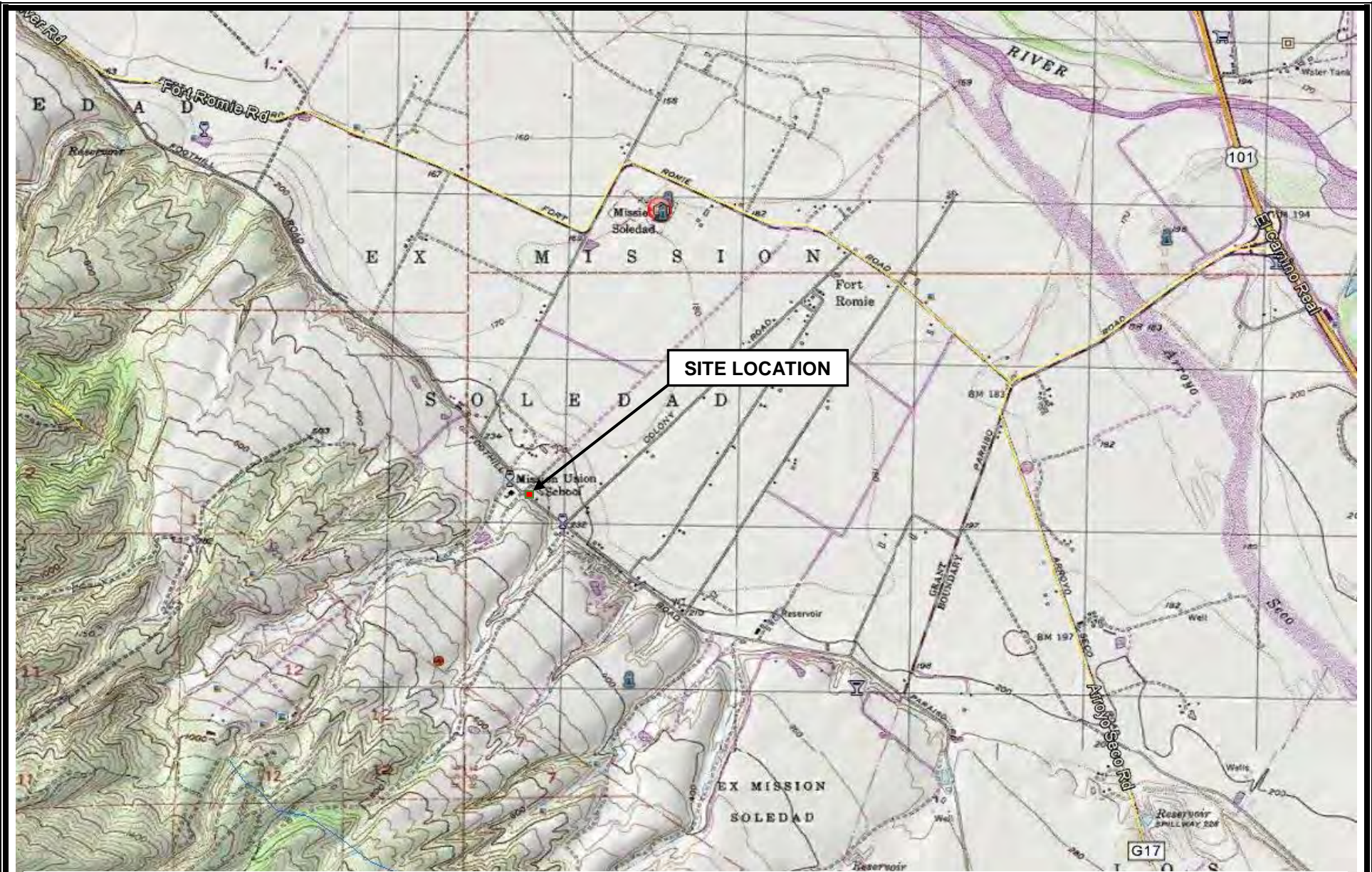
Shaun Reich, EIT
Geotechnical Project Engineer
Northern / Central California



R. Sammy Salem, MS, PE, GE, REA
Principal Managing Engineer
RCE 52762 / RGE 2549



Attachments: Vicinity Map
Site Plan
Log of Borings; B-1 & B-2
Laboratory Test Results
General Earthwork and Pavement Specifications



Source Image: U.S. Geological Survey, Soledad, Calif. 7.5' Quadrangle, 1955 (Photo-revised 1984)

VICINITY MAP

LIMITED GEOTECHNICAL ENGINEERING INVESTIGATION
Gravel Paved Parking Lot & Access Road
Mission Union Elementary School; 36825 Foothill Road
Soledad, California

SCALE:
 NOT TO SCALE

DRAWN BY:
 SR

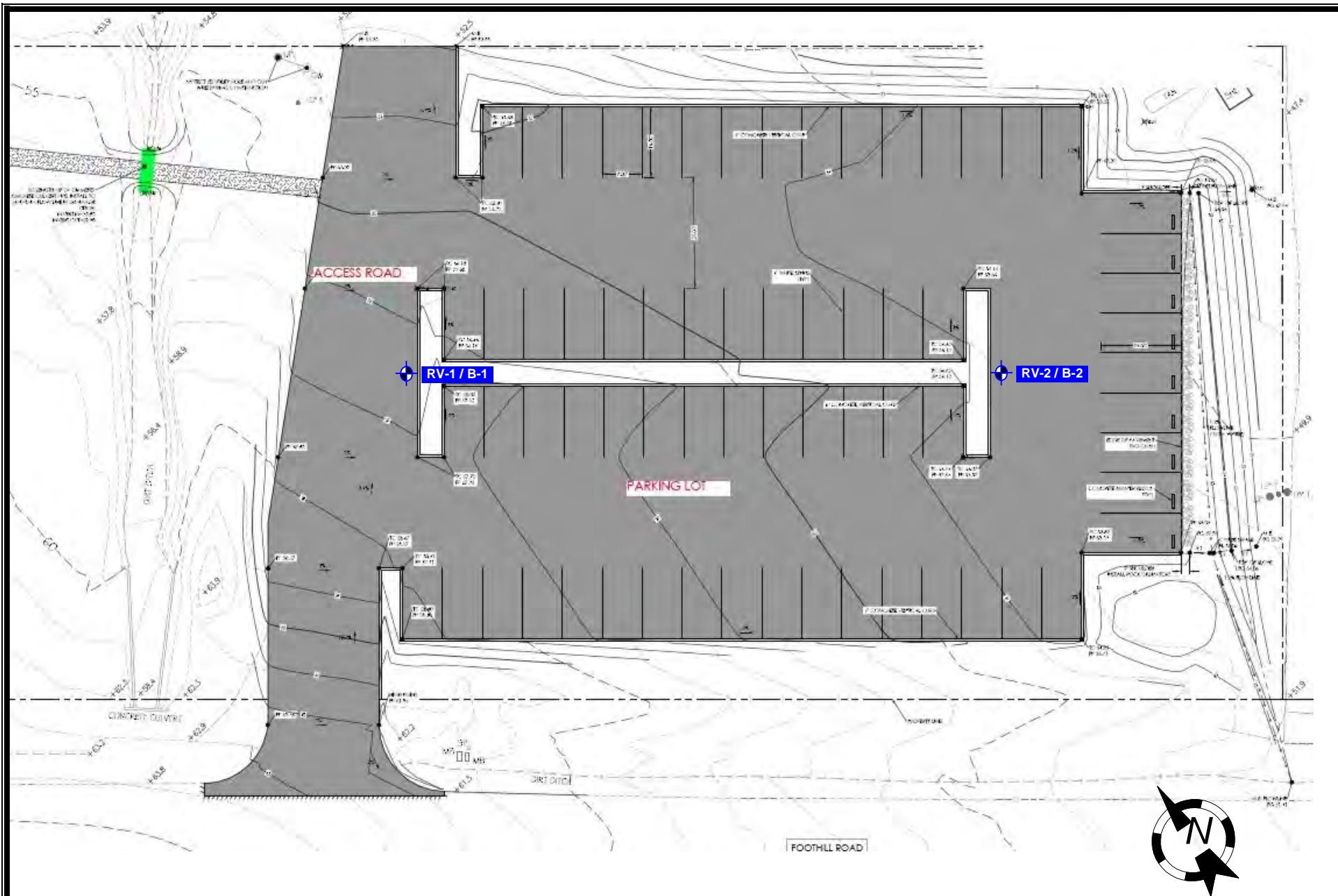
PROJECT NO.
 1-216-0874

DATE:
 08/2016

APPROVED BY:
 SR

FIGURE NO.
 1






SITE PLAN

LIMITED GEOTECHNICAL ENGINEERING INVESTIGATION
Gravel Paved Parking Lot & Access Road
Mission Union Elementary School; 36825 Foothill Road
Soledad, California
















SCALE:
 NOT TO SCALE
 DRAWN BY:
 SR
 PROJECT NO.
 1-216-0874

DATE:
 08/2016
 APPROVED BY:
 SR
 FIGURE NO.
 2

LEGEND:
 **RV-1 / B-1** R-Value / Boring Location
 All Locations Approximate



Unified Soil Classification System

Major Divisions		Letter	Symbol	Description		
Coarse-grained Soils More than 1/2 retained on the No. 200 Sieve	Gravels More than 1/2 coarse fraction retained on the No. 4 sieve	Clean Gravels	GW		Well-graded gravels and gravel-sand mixtures, little or no fines.	
		Gravels	GP		Poorly-graded gravels and gravel-sand mixtures, little or no fines.	
		Gravels With Fines	GM		Silty gravels, gravel-sand-silt mixtures.	
			GC		Clayey gravels, gravel-sand-clay mixtures.	
	Sands More than 1/2 passing through the No. 4 sieve	Clean Sands	SW		Well-graded sands and gravelly sands, little or no fines.	
			SP		Poorly-graded sands and gravelly sands, little or no fines.	
		Sands With Fines	SM		Silty sands, sand-silt mixtures	
			SC		Clayey sands, sandy-clay mixtures.	
	Fine-grained Soils More than 1/2 passing through the No. 200 Sieve	Silts and Clays Liquid Limit less than 50%		ML		Inorganic silts, very fine sands, rock flour, silty or clayey fine sands.
				CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
		OL		Organic clays of medium to high plasticity.		
Silts and Clays Liquid Limit greater than 50%		MH		Inorganic silts, micaceous or diatomaceous fines sands or silts, elastic silts.		
		CH		Inorganic clays of high plasticity, fat clays.		
		OH		Organic clays of medium to high plasticity.		
Highly Organic Soils		PT		Peat, muck, and other highly organic soils.		
Consistency Classification						
<i>Granular Soils</i>			<i>Cohesive Soils</i>			
Description - Blows Per Foot (Corrected)			Description - Blows Per Foot (Corrected)			
	<u>MCS</u>	<u>SPT</u>		<u>MCS</u>	<u>SPT</u>	
Very loose	<5	<4	Very soft	<3	<2	
Loose	5 - 15	4 - 10	Soft	3 - 5	2 - 4	
Medium dense	16 - 40	11 - 30	Firm	6 - 10	5 - 8	
Dense	41 - 65	31 - 50	Stiff	11 - 20	9 - 15	
Very dense	>65	>50	Very Stiff	21 - 40	16 - 30	
			Hard	>40	>30	
MCS = Modified California Sampler			SPT = Standard Penetration Test Sampler			

Boring No. B-1

Project: Proposed Gravel Paved Parking & Access Road
Client: Mission Union Elementary School
Location: 36825 Foothill Rd., Soledad, CA
Grnd. Surf. Elev. (Ft. MSL) 0

Project No.: 1-216-0874
Figure No.: A-1
Logged By: Z.R.
Initial: --
Depth to Water > --
At Completion: --

SUBSURFACE PROFILE			SAMPLE									Water Level	
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count	Penetration Test					
								20	40	60	80		
0		Ground Surface											
		<p>Silty SAND (SM) Brown; moist; fine to coarse grained sands with fine to medium gravel.</p> <p>Without gravel.</p>											
5		End of Borehole											
10													

Drill Method: Hand Auger
Drill Equipment:
Driller: ZR

Drill Date: 8/11/2016
Borehole Size: 4" Diameter
Sheet: 1 of 1

Boring No. B-2

Project: Proposed Gravel Paved Parking & Access Road
Client: Mission Union Elementary School
Location: 36825 Foothill Rd., Soledad, CA
Grnd. Surf. Elev. (Ft. MSL) 0

Project No.: 1-216-0874
Figure No.: A-2
Logged By: Z.R.
Initial: --
Depth to Water > --
At Completion: --

SUBSURFACE PROFILE			SAMPLE					Penetration Test				Water Level	
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count						
0		Ground Surface											
		<p>Silty SAND (SM) Brown; moist; fine to coarse grained sands with fine to medium gravel.</p>											
		Hand Auger Refusal Due to Gravel / Cobble											
5													
10													

Drill Method: Hand Auger
Drill Equipment:
Driller: ZR

Drill Date: 8/11/2016
Borehole Size: 4" Diameter
Sheet: 1 of 1

Resistance R - Value and Expansion Pressure of Compacted Soils

ASTM D2844-94, Cal 301

Prop. Mission_Union_ES_Soledad_CA

Project Number: 1-216-0874

Sample Date:

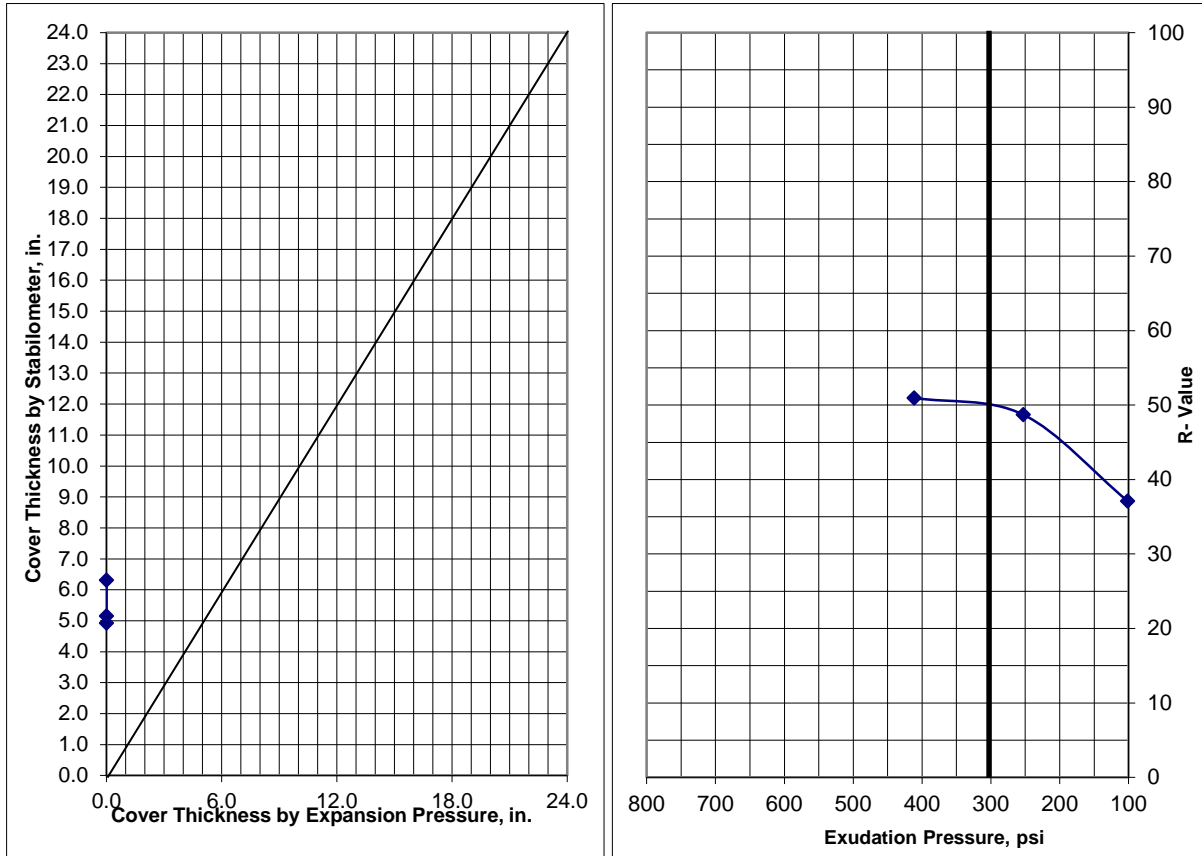
Date Tested: 8/16/16

Sampled By:

Tested By: VT \ NL

Sample Location: B-1 @ 0' - 3'

Material Description:



Specimen	1	2	3
Exudation Pressure, psi	411.4	253.1	101.6
Moisture at Test, %	9.0	9.5	9.9
Dry Density, pcf	124.5	124.4	126.3
Expansion Pressure, psf	0	0	0.0
Thickness by Stabilometer, in.	4.9	5.2	6.3
Thickness by Expansion Pressure, in	0.0	0.0	0.0
R-Value by Stabilometer	51	49	37
R-Value by Expansion Pressure	NA		
R-Value at 300 psi Exudation Pressure	50		

Controlling R-Value	50
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Resistance R - Value and Expansion Pressure of Compacted Soils

ASTM D2844-94, Cal 301

Prop. Mission_Union_ES_Soledad_CA

Project Number: 1-216-0874

Sample Date:

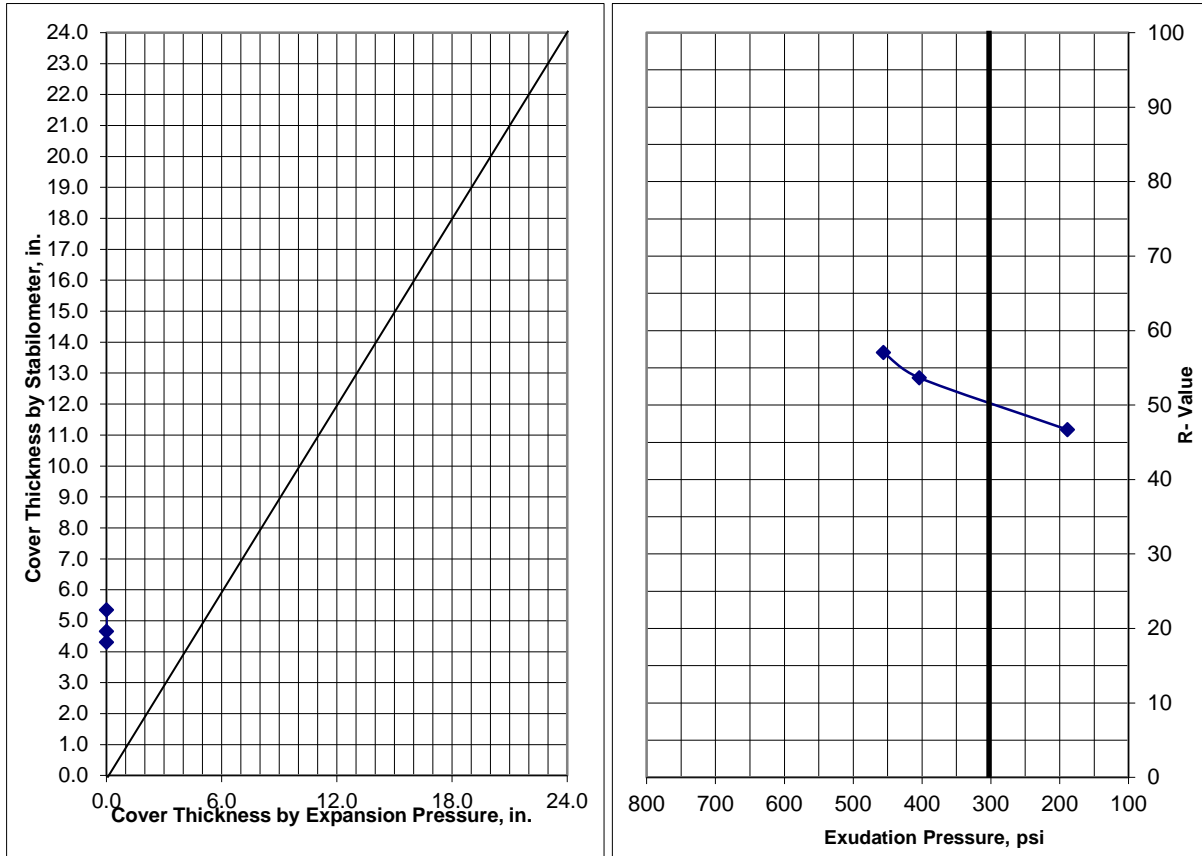
Date Tested: 8/16/16

Sampled By:

Tested By: VT \ NL

Sample Location: B-2 @ 0' - 3'

Material Description:



Specimen	1	2	3
Exudation Pressure, psi	456.2	403.9	189
Moisture at Test, %	8.8	9.3	9.8
Dry Density, pcf	125.5	125.1	124.3
Expansion Pressure, psf	0	0	0.0
Thickness by Stabilometer, in.	4.3	4.7	5.4
Thickness by Expansion Pressure, in	0.0	0.0	0.0
R-Value by Stabilometer	57	54	47
R-Value by Expansion Pressure	NA		
R-Value at 300 psi Exudation Pressure	50		

Controlling R-Value	50
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GENERAL EARTHWORK AND PAVEMENT SPECIFICATIONS

When the text of the report conflicts with the general specifications in this appendix, the recommendations in the report have precedence.

1.0 SCOPE OF WORK: These specifications and applicable plans pertain to and include all earthwork associated with the site rough grading, including, but not limited to, the furnishing of all labor, tools and equipment necessary for site clearing and grubbing, stripping, preparation of foundation materials for receiving fill, excavation, processing, placement and compaction of fill and backfill materials to the lines and grades shown on the project grading plans and disposal of excess materials.

2.0 PERFORMANCE: The Contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications. This work shall be inspected and tested by a representative of SALEM Engineering Group, Incorporated, hereinafter referred to as the Soils Engineer and/or Testing Agency. Attainment of design grades, when achieved, shall be certified by the project Civil Engineer. Both the Soils Engineer and the Civil Engineer are the Owner's representatives. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, he shall make the necessary adjustments until all work is deemed satisfactory as determined by both the Soils Engineer and the Civil Engineer. No deviation from these specifications shall be made except upon written approval of the Soils Engineer, Civil Engineer, or project Architect.

No earthwork shall be performed without the physical presence or approval of the Soils Engineer. The Contractor shall notify the Soils Engineer at least 2 working days prior to the commencement of any aspect of the site earthwork.

The Contractor shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineers harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the sole negligence of the Owner or the Engineers.

3.0 TECHNICAL REQUIREMENTS: All compacted materials shall be densified to no less than 95 percent of relative compaction (90 percent for cohesive soils) based on ASTM D1557 Test Method (latest edition), UBC or CAL-216, or as specified in the technical portion of the Soil Engineer's report. The location and frequency of field density tests shall be determined by the Soils Engineer. The results of these tests and compliance with these specifications shall be the basis upon which satisfactory completion of work will be judged by the Soils Engineer.

4.0 SOILS AND FOUNDATION CONDITIONS: The Contractor is presumed to have visited the site and to have familiarized himself with existing site conditions and the contents of the data presented in the Geotechnical Engineering Report. The Contractor shall make his own interpretation of the data contained in the Geotechnical Engineering Report and the Contractor shall not be relieved of liability for any loss sustained as a result of any variance between conditions indicated by or deduced from said report and the actual conditions encountered during the progress of the work.

5.0 DUST CONTROL: The work includes dust control as required for the alleviation or prevention of any dust nuisance on or about the site or the borrow area, or off-site if caused by the Contractor's operation either during the performance of the earthwork or resulting from the conditions in which the Contractor

leaves the site. The Contractor shall assume all liability, including court costs of codefendants, for all claims related to dust or wind-blown materials attributable to his work. Site preparation shall consist of site clearing and grubbing and preparation of foundation materials for receiving fill.

6.0 CLEARING AND GRUBBING: The Contractor shall accept the site in this present condition and shall demolish and/or remove from the area of designated project earthwork all structures, both surface and subsurface, trees, brush, roots, debris, organic matter and all other matter determined by the Soils Engineer to be deleterious. Such materials shall become the property of the Contractor and shall be removed from the site.

Tree root systems in proposed improvement areas should be removed to a minimum depth of 3 feet and to such an extent which would permit removal of all roots greater than 1 inch in diameter. Tree roots removed in parking areas may be limited to the upper 1½ feet of the ground surface. Backfill of tree root excavations is not permitted until all exposed surfaces have been inspected and the Soils Engineer is present for the proper control of backfill placement and compaction. Burning in areas which are to receive fill materials shall not be permitted.

7.0 SUBGRADE PREPARATION: Surfaces to receive Engineered Fill and/or building or slab loads shall be prepared as outlined above, scarified to a minimum of 12 inches, moisture-conditioned as necessary, and recompacted to 95 percent relative compaction (90 percent for cohesive soils).

Loose soil areas and/or areas of disturbed soil shall be moisture-conditioned as necessary and recompacted to 95 percent relative compaction (90 percent for cohesive soils). All ruts, hummocks, or other uneven surface features shall be removed by surface grading prior to placement of any fill materials. All areas which are to receive fill materials shall be approved by the Soils Engineer prior to the placement of any fill material.

8.0 EXCAVATION: All excavation shall be accomplished to the tolerance normally defined by the Civil Engineer as shown on the project grading plans. All over-excavation below the grades specified shall be backfilled at the Contractor's expense and shall be compacted in accordance with the applicable technical requirements.

9.0 FILL AND BACKFILL MATERIAL: No material shall be moved or compacted without the presence or approval of the Soils Engineer. Material from the required site excavation may be utilized for construction site fills, provided prior approval is given by the Soils Engineer. All materials utilized for constructing site fills shall be free from vegetation or other deleterious matter as determined by the Soils Engineer.

10.0 PLACEMENT, SPREADING AND COMPACTION: The placement and spreading of approved fill materials and the processing and compaction of approved fill and native materials shall be the responsibility of the Contractor. Compaction of fill materials by flooding, ponding, or jetting shall not be permitted unless specifically approved by local code, as well as the Soils Engineer. Both cut and fill shall be surface-compacted to the satisfaction of the Soils Engineer prior to final acceptance.

11.0 SEASONAL LIMITS: No fill material shall be placed, spread, or rolled while it is frozen or thawing, or during unfavorable wet weather conditions. When the work is interrupted by heavy rains, fill operations shall not be resumed until the Soils Engineer indicates that the moisture content and density of previously placed fill is as specified.

12.0 DEFINITIONS - The term "pavement" shall include asphaltic concrete surfacing, untreated aggregate base, and aggregate subbase. The term "subgrade" is that portion of the area on which surfacing, base, or subbase is to be placed.

The term "Standard Specifications": hereinafter referred to, is the most recent edition of the Standard Specifications of the State of California, Department of Transportation. The term "relative compaction" refers to the field density expressed as a percentage of the maximum laboratory density as determined by ASTM D1557 Test Method (latest edition) or California Test Method 216 (CAL-216), as applicable.

13.0 PREPARATION OF THE SUBGRADE - The Contractor shall prepare the surface of the various subgrades receiving subsequent pavement courses to the lines, grades, and dimensions given on the plans. The upper 12 inches of the soil subgrade beneath the pavement section shall be compacted to a minimum relative compaction of 95 percent based upon ASTM D1557. The finished subgrades shall be tested and approved by the Soils Engineer prior to the placement of additional pavement courses.

14.0 AGGREGATE BASE - The aggregate base material shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate base material shall conform to the requirements of Section 26 of the Standard Specifications for Class II material, ¾-inch or 1½-inches maximum size. The aggregate base material shall be compacted to a minimum relative compaction of 95 percent based upon CAL-216. The aggregate base material shall be spread in layers not exceeding 6 inches and each layer of aggregate material course shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

15.0 AGGREGATE SUBBASE - The aggregate subbase shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate subbase material shall conform to the requirements of Section 25 of the Standard Specifications for Class II Subbase material. The aggregate subbase material shall be compacted to a minimum relative compaction of 95 percent based upon CAL-216, and it shall be spread and compacted in accordance with the Standard Specifications. Each layer of aggregate subbase shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

16.0 ASPHALTIC CONCRETE SURFACING - Asphaltic concrete surfacing shall consist of a mixture of mineral aggregate and paving grade asphalt, mixed at a central mixing plant and spread and compacted on a prepared base in conformity with the lines, grades, and dimensions shown on the plans. The viscosity grade of the asphalt shall be PG 64-10, unless otherwise stipulated or local conditions warrant more stringent grade. The mineral aggregate shall be Type A or B, ½ inch maximum size, medium grading, and shall conform to the requirements set forth in Section 39 of the Standard Specifications. The drying, proportioning, and mixing of the materials shall conform to Section 39. The prime coat, spreading and compacting equipment, and spreading and compacting the mixture shall conform to the applicable chapters of Section 39, with the exception that no surface course shall be placed when the atmospheric temperature is below 50 degrees F. The surfacing shall be rolled with a combination steel-wheel and pneumatic rollers, as described in the Standard Specifications. The surface course shall be placed with an approved self-propelled mechanical spreading and finishing machine.