



CONSTRUCTION  
INSPECTION & MATERIALS  
TESTING LABORATORY

December 13, 2021

NATS Job No. 22-282G

Attention: Mr. Rodrick H. Hawkins  
**Hawkins & Associates Engineering**  
436 Mitchell Road  
Modesto, CA 95354  
E-Mail: rhawkins@hawkins-eng.com

Subject: Soil Suitability Evaluation  
Austin Road Mini Storage  
183 South Austin Road  
Manteca, California

Dear Mr. Hawkins:

North American Technical Services, Inc. (NATS) has completed a soil suitability evaluation for the proposed project at the proposed Austin Road Mini Storage in Manteca, California. The following report includes information regarding the proposed project, past and present use of the property, area septic tank performance, permitting, and general soil and groundwater conditions in the leach field area. In addition, our assessment procedures, site conditions encountered during the field exploration and results of percolation tests performed at the site are presented herein.

If you have any questions regarding our findings, please do not hesitate to contact this office. The opportunity to be of service is appreciated.

Respectfully submitted,

**NORTH AMERICAN TECHNICAL SERVICES, INC.**

A handwritten signature in blue ink that reads "Kirt Lamb".

Kirt Lamb  
Project Manager

A handwritten signature in blue ink that reads "T. Alan Krause".

T Alan Krause  
Staff Geologist

### 1.0 SITE AND PROJECT DESCRIPTION

The proposed mini storage project is located at 183 South Austin Road in Manteca California, a "Site Index Map" showing the project location is attached as Figure 1 and a County of San Joaquin APN map is attached as Figure 3. The proposed improvements are shown on "Improvement Plans" (Sheet C1) by Hawkins and Associates Engineering Inc. The leach field, which is the subject of this report, is shown on plans to be located approximately 60 feet west of South Austin Road.

### 2.0 PRESENT AND PAST USE

The proposed Austin Road Mini Storage Facility project is currently under construction. At the time our field work was performed (11/17/21 to 11/19/21) the site had been rough graded and underground utilities and mini storage buildings were under construction.

Based on historic aerial photography and USGS topographic mapping, it appears the site was vacant from present back to 2008, and, contained a single-family residence from 2006 back to at least 1985. No other previous structures are observed to have been present on the subject site between 1985 and present. As indicated above, existing commercial properties are located on adjacent parcels to the north, east, and west and an existing high school is located to the northeast of the subject site. Other improvements (existing wells and OWTS) are present on these properties. Based on

review of aerial photography and published mapping past primary use of the adjacent properties has been agricultural.

Existing ground in the vicinity of the proposed leach fields is relatively level with elevation on the order of 48 feet above msl. Information included within this report is provided for use in the design of the proposed leach field. An "Exploration Map", attached as Figures -2, shows the project configuration as well as percolation test-hole location.

### 3.0 SEPTIC PERMITS AND PERFORMANCE

Adjacent property on the south of the subject site is currently used for agricultural production and commercial properties are present on the north, east, and west. Calla High School is located on the northeast. Research (<https://www.sjgov.org/departments/envhealth/public-records>) of existing septic permits for the site and nearby properties indicates the property adjacent-north at 147 S. Austin Road had a filter bed repair in 2009, Calla High School northeast of the project site shows a leach line was added in 1997 and 231 S. Austin Road shows a sump repair/addition in 2020. The project site has no records shown for previous septic systems permits for construction or destruction for old onsite domestic wells in the San Joaquin County public archives. No existing wells were observed or are known to be present on the site, but, owing to the existence of an old residence onsite, the existence

of an old well cannot be precluded.

#### 4.0 FIELD INVESTIGATION

A preliminary field investigation, conducted on November 17th, 2021, which included site reconnaissance, mapping of surficial site deposits, and the excavation of a percolation test hole (designated "P-1") to a maximum depth 36 inches. Pre-saturation of the test hole was performed on November 18<sup>th</sup> to 19<sup>th</sup>, 2021 and percolation testing was performed on November 19<sup>th</sup>, 2021. The test hole was excavated using a hand operated post-hole shovel to 6-inch diameter. Soils were logged in the field by a NATS Field Geologist and were classified according to the Unified Soil Classification System (ASTM D2487) based on field testing, and visual observations.

#### 5.0 GROUNDWATER

No free groundwater was encountered in the percolation test hole to the maximum explored depth of 36-inches below ground surface (beg). Based on the California Department of Water Resources Sustainable Groundwater Management Act (SGMA) Data Viewer <https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels>), recent groundwater depth in the vicinity of the site is indicated to be on the order of 38± feet beg (spring 2021) with a 10 year high of 23± feet beg in 2012.

#### 6.0 SOIL PROFILE

Regional geologic mapping by Wagner, et al. (1981) indicates the near surface geologic unit that generally comprises the subsurface of the site consists of Holocene dune sand.

Soils encountered in the percolation test hole (P-1) are considered consistent with those described on published mapping. Soils encountered in P-1 from ground surface to the maximum depth explored (36 inches) are described as light brown, dry, silty, fine sand (SM). A log of the test hole is included in Appendix-A. The location of the percolation test is shown on the attached "Exploration Map" (Figure-2). All test holes were backfilled upon completion of testing.

## 7.0 PERCOLATION TESTING

Our subsurface investigation included conducting a leach field soil suitability evaluation via percolation testing. The evaluation included the digging and testing of one percolation test hole at the location shown on Figure-2. The percolation test (P-1) was conducted at the proposed leach field location at a depth of 36-inches.

### 7.1 Percolation Testing Procedure

Upon completion of digging the percolation test hole, any remaining loose material was removed, a 2-inch layer of fine gravel was placed at the bottom of each hole, and a 4-inch diameter open-ended slotted drain pipe was installed to control potential sidewall caving. Pre-saturation of the soils to be tested was accomplished by adding water to 36-inches above the gravel in the test hole 24 hours preceding the test. After 24 hours the 36-inch column of water had "dissipated" from the test hole (P-1).

Percolation testing was performed by adding water to a level of 6± inches above the top

of the 2 inches of gravel placed at the base of the test hole. Recordings were made of the change (drop) in water level at regular time intervals and water level was refilled to 6.0 inches after each recording. Specific details are included on the attached "Percolation Test Data Sheets" located in Appendix-B. The last several intervals of testing were observed and certified by a San Joaquin County Environmental Health Department Inspector; the certified percolation test rate sheets are included in Appendix C.

#### 7.2 Percolation and Infiltration Rates

The soil percolation rate is defined by the average time in minutes for a 1-inch column of water to "seep" into the soil. Percolation rate was calculated in minutes per inch (MPI) by dividing the time (in minutes) by the change (drop) in water level (in inches) for the last test interval (last reading). No correction factor was used in the calculation for the 6-inch test hole diameter.

Percolation test "P-1" achieved a steady percolation rate of 13.3 MPI at 36-inches bgs. In general, the percolation rates are considered representative of soil types encountered at the site/vicinity. Infiltration rates were calculated using the percolation data at the last test interval using the "Porchet" method and converted to gallons/cubic-foot/day. Based on these calculations the infiltration rate for P-1 is 14.17 gal/cf/day. Infiltration rate calculations are included in Appendix B.

### 8.0 CONCLUSIONS

A suitable soil condition for leach fields in San Joaquin County is defined as a stratum capable of percolating water between 1 and 60 MPI at a depth of up to 42 inches below existing site grade. NAT's percolation test result at the proposed leach field was 13.3 MPI for test "P-1 at a depth of 36 inches. In addition, high groundwater level over the last 10 years is indicated to be on the order of 23 feet (approximately 20 feet below proposed base of leach field). Based on these results, it is our professional opinion that soil conditions at these locations are adequate for use of a conventional septic tank/leach field sewage disposal system. It should be noted that if any old existing domestic water wells are observed or encountered at the site, they should be destructed per San Joaquin County Environmental Health Department requirements.

### 9.0 LIMITATIONS OF INVESTIGATION

The field evaluation, laboratory testing and geotechnical analysis presented in this report have been conducted according to current engineering practice and the standard of care exercised by reputable geotechnical consultants performing similar tasks in this area. No other warranty, expressed or implied, is made regarding the conclusions, recommendations and opinions expressed in this report. Variations may exist and conditions not observed or described in this report may be encountered during construction. This report is prepared for the project as described. It is not prepared for any other property or party.

The recommendations provided herein have been developed in order to reduce the post-construction movement of site improvements related to soil settlement. However, even with the design and construction recommendations presented herein, some post-construction movement and associated distress may occur.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside NATS's involvement. Therefore, this report is subject to review and should not be relied on after a period of three years.

NATS's conclusions and recommendations are based on an analysis of the observed conditions. If conditions different from those described in this report are encountered, NATS should be notified and additional recommendations, if required, will be provided subject to NATS remaining as authorized geotechnical consultant of record. This report is for use of the project as described. It should not be utilized for any other project.

NATS appreciates this opportunity to be of service on this project. If you have any



questions regarding this report, please do not hesitate to contact the undersigned.

Respectfully submitted,

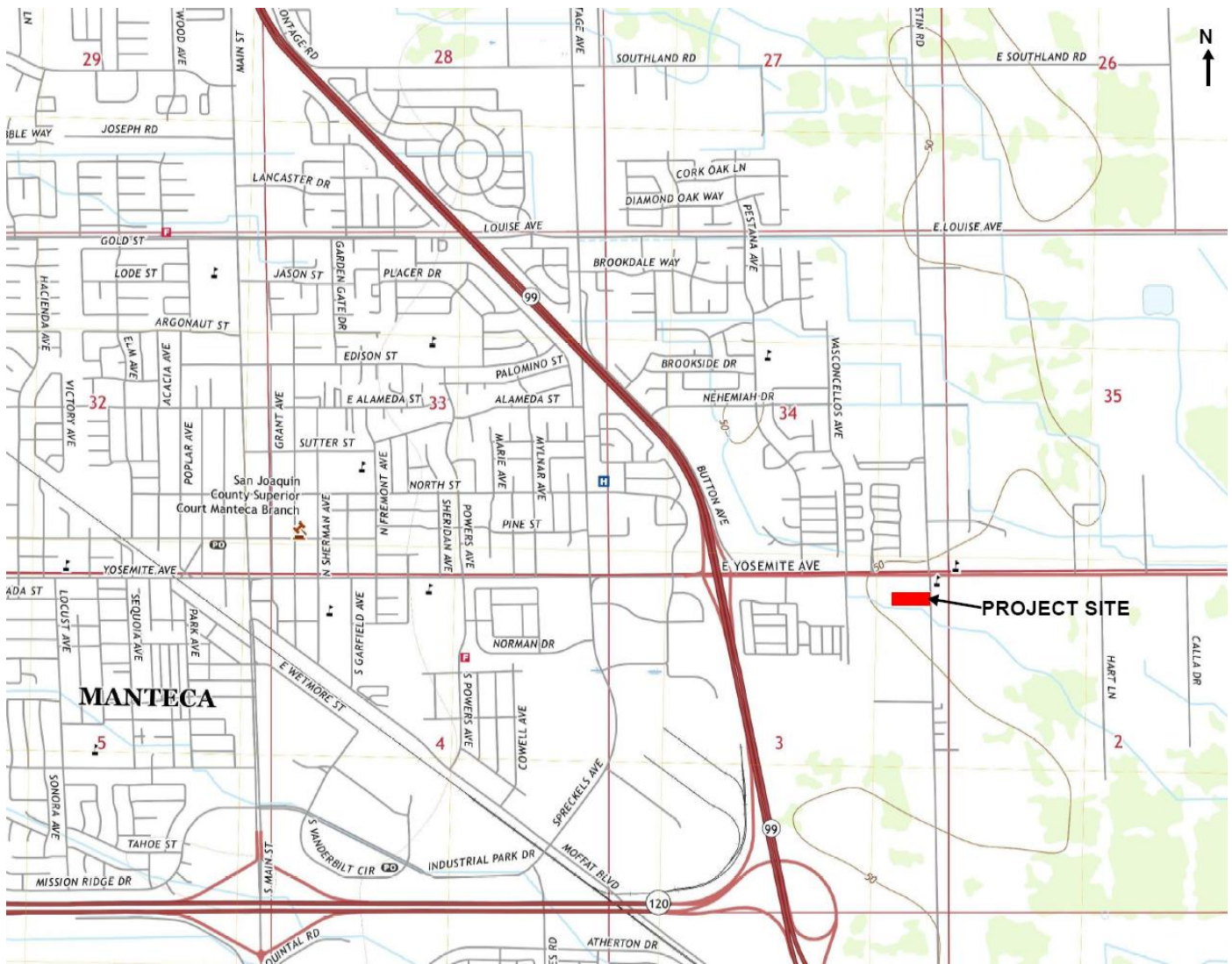
**NORTH AMERICAN TECHNICAL SERVICES, INC.**

Project Engineer

**ATTACHMENTS:**

|            |  |
|------------|--|
| Figure-1   | "Site Index Map"                                   |
| Figure-2   | "Exploration Map"                                  |
| Figure-3   | "County of San Joaquin Assessors Map"              |
| Appendix-A | "Boring Logs & Legend"                             |
| Appendix-B | "Percolation Test Data & Infiltration Calculation" |
| Appendix-C | "San Joaquin County Certified Percolation Test"    |

APPENDIX-A  
"BORING LOGS & LEGEND"



# NATS

**SITE INDEX MAP**  
**AUSTIN ROAD MINI STORAGE**  
 183 S. Austin Road  
 Manteca, California

**NATS JOB NO.**  
 22-282G

**SCALE**  
 NTS

**DATE**  
 12/13/21

**FIGURE**  
 1



A - P. M. Bk. 08 Pg. 079  
B - P. M. Bk. 09 Pg. 093  
C - P. M. Bk. 12 Pg. 180  
E - P. M. Bk. 19 Pg. 021

[illegible]

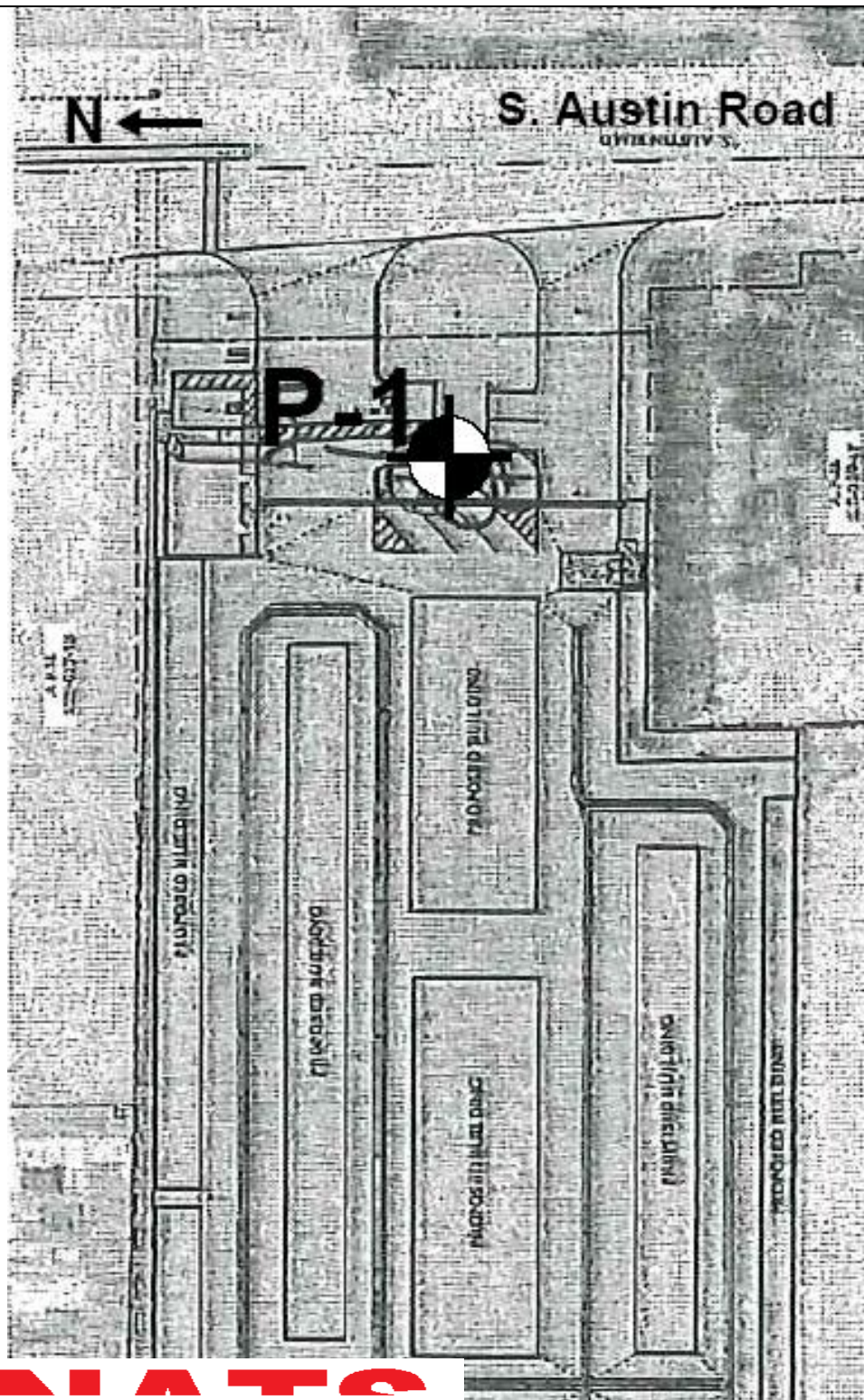
CITY OF MANTECA  
Assessor's Map Bk.228 Pg.02  
County of San Joaquin, Calif.

02-03

The NATS logo, featuring the letters 'NATS' in a bold, sans-serif font. The letters are colored red and blue, with the 'N' and 'A' in red and the 'T' and 'S' in blue.

FIGURE  
3





**NATS**

EXPLORATION MAP  
183 S. AUSTIN ROAD  
MANTECA, CALIFORNIA































NATS JOB NO.  
21-282G

SCALE  
NTS

DATE  
11/21/21

FIGURE  
2

## DEFINITION OF TERMS

| PRIMARY DIVISIONS  |  |                                | SYMBOLS   |    | SECONDARY DIVISIONS   |  |
|--|--|--------------------------------|---|----|---|--|
| COARSE GRAINED SOILS<br>MORE THAN HALF OF<br>MATERIAL IS LARGER THAN<br>NO. 200 SIEVE SIZE | GRAVELS<br>MORE THAN<br>HALF OF<br>COARSE<br>FRACTION IS<br>LARGER THAN<br>NO. 4 SIEVE | CLEAN<br>GRAVELS<br>< 5% FINES |    | GW |    | WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES<br>LITTLE OR NO FINES  |
|  |  |                                |    | GP |    | POORLY GRADED GRAVELS OR GRAVEL SAND MIXTURES,<br>LITTLE OF NO FINES                                       |
|  |  | GRAVELS<br>WITH FINES          |    | GM |    | SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES,<br>NON-PLASTIC FINES   |
|  |  |                                |    | GC |    | CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES,<br>PLASTIC FINES  |
|  | SANDS<br>MORE THAN<br>HALF OF<br>COARSE<br>FRACTION IS<br>SMALLER THAN<br>NO. 4 SIEVE  | CLEAN<br>SANDS<br>< 5% FINES   |    | SW |    | WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO<br>FINES   |
|  |  |                                |    | SP |    | POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR<br>NO FINES   |
|  |  | SANDS<br>WITH FINES            |    | SM |    | SILTY SANDS, SAND-SILT MIXTURES, NON-PLASTIC FINES   |
|  |  |                                |    | SC |    | CLAYEY SANDS, SAND-CLAY MIXTURES, PLASTIC FINES  |
| FINE GRAINED SOILS<br>MORE THAN HALF OF<br>MATERIAL IS SMALLER<br>THAN NO. 200 SIEVE SIZE  | SILTS AND CLAYS<br>LIQUID LIMIT IS<br>LESS THAN 50                                     |                                |    | ML |    | INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY<br>OR CLAYEY FINE SANDS, SLIGHTLY PLASTIC CLAYEY SILTS |
|  |  |                                |    | CL |    | INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY,<br>GRAVELLY, SANDY, SILTS OR LEAN CLAYS                       |
|  |  |                                |    | OL |    | ORGANIC SILTS AND ORGANIC CLAYS OF LOW PLASTICITY  |
|  | SILTS AND CLAYS<br>LIQUID LIMIT IS<br>GREATER THAN 50                                  |                                |    | MH |    | INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE<br>SANDY OR SILTY SOILS, ELASTIC SILTS                     |
|  |  |                                |    | CH |    | INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS  |
|  |  |                                |   | OH |   | ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY,<br>ORGANIC SILTY CLAYS   |
|  |  |                                |  | PT |  | PEAT AND OTHER HIGHLY ORGANIC SOILS  |
|  | HIGHLY ORGANIC SOILS   |                                |   |    |   |  |

## GRAIN SIZES

| BOULDERS                   | COBBLES | GRAVEL |      | SAND                     |        |      | SILTS AND CLAYS |
|----------------------------|---------|--------|------|--------------------------|--------|------|-----------------|
|                            |         | COARSE | FINE | COARSE                   | MEDIUM | FINE |                 |
| 12"                        | 3"      | 3/4"   | 4    | 10                       | 40     | 200  |                 |
| CLEAR SQUARE SIEVE OPENING |         |        |      | U.S. STANDARD SIEVE SIZE |        |      |                 |

## ADDITIONAL TESTS

(OTHER THAN TEST PIT AND BORING LOG COLUMN HEADINGS)

MAX- Maximum Dry Density  
GS- Grain Size Distribution  
SE- Sand Equivalent  
EI- Expansion Index  
CHM- Sulfate and Chloride  
Content, pH, Resistivity  
COR - Corrosivity  
SD- Sample Disturbed

PM- Permeability  
SG- Specific Gravity  
HA- Hydrometer Analysis  
AL- Atterberg Limits  
RV- R-Value  
CN- Consolidation  
CP- Collapse Potential  
HC- Hydrocollapse  
REM- Remolded

PP- Pocket Penetrometer  
WA- Wash Analysis  
DS- Direct Shear  
UC- Unconfined Compression  
MD- Moisture/Density  
M- Moisture  
SC- Swell Compression  
OI- Organic Impurities



PROJECT:  
NATS JOB NO:  
LOGGED BY:

DRILLER:  
DRILL METHOD:  
SAMPLE METHOD:

SHEET:            of  
DRILLING DATE:  
ELEVATION:

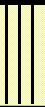
| Depth (feet) | Bulk Sample Type | Blows/foot | Dry Density (pcf) | Moisture (%) | U.S.C.S. Symbol | Graphic Log | BORING LEGEND  | Laboratory Tests |
|--------------|------------------|------------|-------------------|--------------|-----------------|-------------|--|------------------|
|              |                  |            |                   |              |                 |             | DESCRIPTION  |                  |
| 0            |                  |            |                   |              |                 |             | Block or Chunk Sample  |                  |
|              |                  |            |                   |              |                 |             | Bulk Sample  |                  |
| 5            |                  |            |                   |              |                 |             |  |                  |
|              |                  |            |                   |              |                 |             | Standard Penetration Test  |                  |
| 10           |                  |            |                   |              |                 |             | Modified Split-Barrel Drive Sampler (Cal Sampler)                                      |                  |
|              |                  |            |                   |              |                 |             | Thin Walled Army Corp. of Engineers Sample   |                  |
| 15           |                  |            |                   |              |                 |             | Groundwater Table  |                  |
|              |                  |            |                   |              |                 |             |  |                  |
| 20           |                  |            |                   |              |                 |             | Soil Type or Classification Change   |                  |
|              |                  |            |                   |              |                 |             | ? — ? — ? — ? — ? — ? — ? —<br>Formation Change [(Approximate boundaries queried (?))] |                  |
| 25           |                  |            |                   |              | "SM"            |             | Quotes are placed around classifications where the soils exist in situ as bedrock      |                  |



PROJECT: 183 S Autin Road, Manteca  
NATS JOB NO: 22-282G  
LOGGED BY: A. Krause

EXCAVATOR: NATS  
DIG METHOD: 6" diam. Post Hole Shovel  
SAMPLE METHOD: SPT

SHEET: 1 of 1  
DIG DATE: 11/17/2021  
ELEVATION: EGS

| Depth (Feet) | Bulk Sample Driven Type | Blows/6 Inches | Dry Density (pcf) | Moisture (%) | U.S.C.S. Symbol | Graphic Log   | BORING: P-1  | Laboratory Tests |
|--------------|-------------------------|----------------|-------------------|--------------|-----------------|---|--|------------------|
|              |                         |                |                   |              |                 |   | DESCRIPTION  |                  |
| 0            |                         |                |                   |              | SM              |  | HOLOCENE DUNE SAND<br>Light brown, dry, silty fine SAND                                  |                  |
| 5            |                         |                |                   |              |                 |   | Total depth = 3.0 feet<br>No free ground water encountered<br>Boring Backfilled 11/17/21 |                  |
| 10           |                         |                |                   |              |                 |   |  |                  |
| 15           |                         |                |                   |              |                 |   |  |                  |
| 20           |                         |                |                   |              |                 |   |  |                  |
| 25           |                         |                |                   |              |                 |   |  |                  |



APPENDIX-B  
PERCOLATION TEST DATA & INFILTRATION CALCULATION



**NORTH AMERICAN TECHNICAL SERVICES, INC**

**PERCOLATION TEST DATA SHEET**

|                              |                          |                 |   |             |            |
|------------------------------|--------------------------|-----------------|---|-------------|------------|
| PROJECT:                     | 183 S Austin Rd, Manteca | PROJECT No:     | 22-282G                                       | DRILL DATE: | 11/17/2021 |
| TEST HOLE NO.:               | P-1                      | TESTED BY:      | A. Krause                                     | TEST DATE:  | 11/19/2021 |
| DEPTH OF TEST HOLE (ft), Dt: | 3.0                      | CLASSIFICATION: | Light brown, dry, silty fine sand (SM); NFGWE |             |            |
| DIAMETER (inches)=           | 6.0                      | (USCS)          |   |             |            |

**PRE-SATURATION 11/18/21**

| Date          | Start Time | Stop Time | Time Interval (min) | Initial Depth of Water (in) | Final Depth of Water (in) | Change in Water Level (in) | Comments:  |
|---------------|------------|-----------|---------------------|-----------------------------|---------------------------|----------------------------|--|
| 11/18/2021    | 12:00      | 12:20     | 20                  | 12.0                        | 6.0                       | 6.0                        | 11/18/21 at 12:20 added 36" water, no water remained after |
| 11/18-19/2021 | 12:20      | 12:20     | 24 hrs              | 36.0                        | 0.0                       | 36.0                       |  |

**TEST MEASUREMENTS 11/19/21**

| Trial No. | Start Time | Stop Time | Time Interval (Δt) (min) | Initial Depth of Water (H <sub>i</sub> ) (in) | Final Depth of Water (H <sub>f</sub> ) (in) | Change in Water Level (ΔH) (in) | Percolation Rate (minute/inch) |
|-----------|------------|-----------|--------------------------|---|---|---------------------------------|--------------------------------|
| 1         | 1:35       | 1:45      | 10.0                     | 6.0   | 5.00  | 1.00                            | 10.00                          |
| 2         | 1:45       | 1:55      | 10.0                     | 6.0   | 4.75  | 1.25                            | 8.00                           |
| 3         | 1:55       | 2:05      | 10.0                     | 6.0   | 4.75  | 1.25                            | 8.00                           |
| 4         | 2:05       | 2:15      | 10.0                     | 6.0   | 5.00  | 1.00                            | 10.00                          |
| 5         | 2:15       | 2:25      | 10.0                     | 6.0   | 5.00  | 1.00                            | 10.00                          |
| 6         | 2:25       | 2:35      | 10.0                     | 6.0   | 5.00  | 1.00                            | 10.00                          |
| 7         | 2:35       | 2:45      | 10.0                     | 6.0   | 5.375                                       | 0.625                           | 16.00                          |
| 8         | 2:47       | 2:57      | 10.0                     | 6.0   | 5.25  | 0.75                            | 13.33                          |
| 9         |            |           |                          |   |   |                                 |                                |
| 10        |            |           |                          |   |   |                                 |                                |
| 11        |            |           |                          |   |   |                                 |                                |
| 12        |            |           |                          |   |   |                                 |                                |
| 13        |            |           |                          |   |   |                                 |                                |
| 14        |            |           |                          |   |   |                                 |                                |
| 15        |            |           |                          |   |   |                                 |                                |
| 16        |            |           |                          |   |   |                                 |                                |
| 17        |            |           |                          |   |   |                                 |                                |
| 18        |            |           |                          |   |   |                                 |                                |
| 19        |            |           |                          |   |   |                                 |                                |
| 20        |            |           |                          |   |   |                                 |                                |
|           |            |           |                          |   |   |                                 |                                |
|           |            |           |                          |   |   |                                 |                                |
|           |            |           |                          |   |   |                                 |                                |

Comments: Final Steady Percolation Rate = 13.3 MPI; Test Hole Backfilled 11/19/21  
See attachment for conversion to gal/sf per day

Project Site: 183 South Austin Road, Manteca

Job# 22-282G

## INFILTRATION RATE PER PORCHET METHOD

(Reference: "Riverside County-Low Impact Development BMP Design Handbook" ; Page 20)

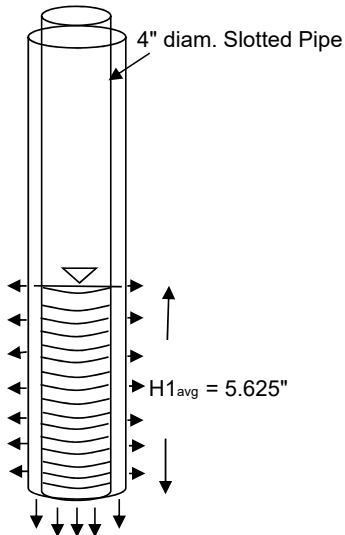
| Percolation Data at the Final Interval |                                  |                                   |   |  |   |   |
|--|----------------------------------|-----------------------------------|---|--|---|---|
| Test No.                               | Test Hole Radius (r)<br>(inches) | Time Interval<br>$\Delta t$ (min) | Initial Depth Water (H <sub>i</sub> )<br>(inches) | Final Depth of Water (H <sub>f</sub> )<br>(inches) | Change in Water Height ( $\Delta H$ )<br>(Inches) | Average Head Over Time Interval (H <sub>avg</sub> )<br>(Inches) |
| P1:                                    | 3                                | 10                                | 6.00  | 5.250  | 0.750   | 5.625   |

### Infiltration Rate (in/hr)

$$\text{Infiltration Rate } I_t = ((\Delta H)(60)(r)) / (\Delta t(r + 2H_{avg}))$$

$$P1: I_t (\text{in/hr}) = ((0.750 \text{ in})(60 \text{ min/hr})(3 \text{ in})) / ((10 \text{ min})(3 \text{ in} + 2(5.625))) = 0.95$$

Hole diam= 6"  
radius (r)= 3"



### Infiltration Rate Conversion to gal/sf/day

$$\text{Infiltration Rate in gal/sf/day} = I_t (\text{in/hr})(24 \text{ hr/day})(7.48 \text{ gal/cf})(\text{ft}/12 \text{ in})$$

$$P1 = 14.17 \text{ gal/sf/day}$$

APPENDIX-C

SAN JOAQUIN COUNTY PERMIT & CERTIFIED PERCOLATION TEST

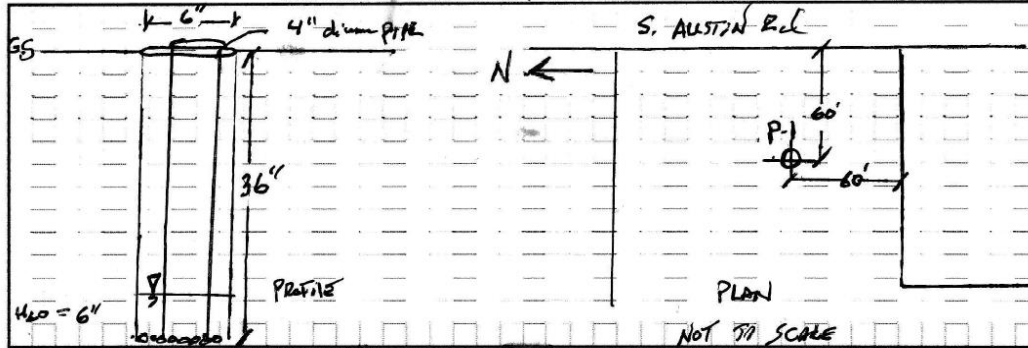


**SAN JOAQUIN COUNTY**  
**ENVIRONMENTAL HEALTH DEPARTMENT**  
600 East Main Street, Stockton, CA 95202-3029  
Telephone: (209) 468-3420 Fax: (209) 464-0138 Web: www.sjgov.org/ehd

**PERCOLATION TEST RATE**

ADDRESS OR LOCATION: 183 S. AUSTIN RD, MANTECA CITY: MANTECA  
OWNER NAME: P & P INVESTMENTS DATE: 11/19/21  
APN: 228-020-046 APPLICATION #: SR0084486 DEPTH TO FIRST WATER: \_\_\_\_\_ Ft  
SOIL TYPE: SILTY FINE SAND (SM)  
REMARKS: PRESATURATED BY FILLING HOLE TO TOP (36") AT 1:30 11/18/21, NO WATER  
REMAINED AT TIME OF TESTING 1:30 PM 11/19/21

**LOCATION OF TEST HOLES (SHOW WELLS AND STRUCTURES)**



**SOIL PROFILE (IF REQUIRED)**

| Depth | Soil Type | Depth | Soil Type | Depth | Soil Type | Depth | Soil Type | Depth | Soil Type |
|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|
| 0-3'  | SM        |       |           |       |           |       |           |       |           |
|       |           |       |           |       |           |       |           |       |           |
|       |           |       |           |       |           |       |           |       |           |

**Test Hole # 1**

Parcel: \_\_\_\_\_ Diameter: 6.0 in Depth: 36 in

| TIME | READING | WATER DROP | REFILLED   |
|------|---------|------------|------------|
| 1:35 | 6.0"    | 0.0 "      | START TEST |
| 1:45 | 5.0     | 1.0 "      | ✓          |
| 1:55 | 5.0     | 1.0 "      | ✓          |
| 2:05 | 5.25    | 0.75 "     | ✓          |
| 2:15 | 5.25    | 0.75 "     | ✓          |
| 2:25 | 5.0     | 1.0 "      | ✓          |
| 2:35 | 5.0     | 1.0 "      | ✓          |
| 2:45 | 5 1/8   | 5/8 0.625" | ✓          |
| 2:57 | 5.25    | 0.75       |            |

PERCOLATION RATE: 16.0 min/in

**RECOMMENDED SEPTIC AREA:**

TEST PERFORMED BY: Alan Krawe (Alan Krawe)

TEST CERTIFIED BY: \_\_\_\_\_

OBSERVED BY (REHS): [Signature]

EHD 42-03  
7/9/04

**Test Hole # 2**

Parcel: \_\_\_\_\_ Diameter: \_\_\_\_\_ in Depth: \_\_\_\_\_ in

| TIME | READING | WATER DROP | REFILLED |
|------|---------|------------|----------|
|      |         |            |          |
|      |         |            |          |
|      |         |            |          |
|      |         |            |          |
|      |         |            |          |
|      |         |            |          |
|      |         |            |          |
|      |         |            |          |
|      |         |            |          |

PERCOLATION RATE: \_\_\_\_\_ min/in

**RECOMMENDED SEPTIC AREA:**

Phone: 916 519/4244 Date: 11/19/21

Phone: \_\_\_\_\_ Date: \_\_\_\_\_

Phone: 616 3044 Date: 11/19/21

PERC TEST RATE FORM

**NATS**

**CERTIFIED PERCOLATION TEST**  
183 S. AUSTIN ROAD  
MANTECA, CALIFORNIA

**NATS JOB NO.**  
21-282G

**SCALE**  
NTS

**DATE**  
12/13/21

**APPENDIX-C**