

**Table 7-7 Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants**

<b>Constituent</b>	<b>Analytical Method</b>	<b>Minimum Sample Volume</b>	<b>Sample Containers</b>	<b>Sample Preservation</b>	<b>Minimum Level</b>	<b>Method Detection Limit</b>	<b>Maximum Holding Time</b>
pH	Field Tested	500 ml	PE or glass		0.1 pH		15 minutes
OCPs	EPA 8081	1 liter	PE or glass	4 degrees C	3ppb		7 days
Pesticides/PCBs	EPA 8081A/8082	1 liter	PE or glass	4 degrees C	Per Lab		Per Lab
Phosphate	EPA 365.3	1 liter	PE or glass	4 degrees C	0.1 mg/L		2 days
Bacteria	SM 9221/SM9230 B	100 mL	PE	NaOH, 4 degrees C	18 MPN/100mL		8 Hours
Nitrite	EPA 300.0	1 liter	PE or glass	4 degrees C	1 mg/L		2 days
VOCs-Solvents	EPA 8260B	3x40 mL	VOA-glass	4 C, HCL to pH<2	5 mg/L		14 days
COD	EPA 410.4	1x250 mL	1x250 mL	Store at 4 C, HCL to pH<2	5 mL		28 days
SVOCs	EPA 8260B	3x40 mL	Glass-Amber	Store at 4 C	10 µg/L		7 days
Metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Na, Th, Va, Zn)	EPA 6010B/7470A	1 x 250 mL	Polypropylene	Store at 4 °C, HNO3 to pH<2	0.1 mg/L		6 months
<b>Notes: Analytical laboratories may use the term Reporting Level in lieu of Minimum Level</b> °C – Degrees Celsius µg/L – Micrograms per Liter BOD – Biochemical Oxygen Demand mL – Milliliter COD – Chemical Oxygen Demand PCB – Polychlorinated Biphenyl DO – Dissolved Oxygen SVOC – Semi-Volatile Organic Compound EPA – Environmental Protection Agency SM – Standard Method HCL – Hydrochloric Acid							

#### 7.7.1.6 *Sample Analysis*

Samples shall be analyzed using the analytical methods identified in the Table 7-7.

Samples will be analyzed by:

Laboratory Name: Positive Lab Services  
Street Address: 781 E. Washington Blvd  
City, State Zip: Los Angeles, CA 90021  
Telephone Number: 213-745-5312  
Point of Contact: John Schmidt  
ELAP Certification Number: 1131

Samples will be delivered to the laboratory by:

Driven by QSP/QSP Delegate/Contractor	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Picked up by Laboratory Courier	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Shipped	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

#### 7.7.1.7 *Data Evaluation and Reporting*

The QSP shall complete an evaluation of the water quality sample analytical results based on a comparison of the results to the unaffected sample and to the TMDL.

Runoff/downgradient results shall be compared with the associated upgradient/unaffected results and any associated run-on results. Should the runoff/downgradient sample show an increased level of the tested analyte relative to the unaffected background sample, which cannot be explained by run-on results, the BMPs, site conditions, and surrounding influences shall be assessed to determine the probable cause for the increase.

As determined by the site and data evaluation, appropriate BMPs shall be repaired or modified to mitigate discharges of non-visible pollutant concentrations. Any revisions to the BMPs shall be recorded as an amendment to the SWPPP.

Analytical results of non-visible pollutant monitoring shall be submitted to SMARTS within 30 days of obtaining the analytical results. *Results demonstrating an exceedance of an applicable TMDL-related NAL or NEL or Basin Plan parameter shall be submitted to SMARTS within 30 days of obtaining the analytical results.*

The 2022 CGP prohibits the storm water discharges that contain hazardous substances equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4. The results of any non-stormwater discharge results that indicate the presence of a hazardous substance in excess of established reportable quantities shall be immediately reported to the Regional Water Board and other agencies as required by 40 C.F.R. §§ 117.3 and 302.4.

The QSP shall compare the runoff sample results to the applicable TMDL to determine whether the TMDL has been exceeded, see Table 7-8.

**Table 7-8 TMDL NAL and NEL Exceedances**

<b>Standard</b>	<b>Exceedance Evaluation</b>
TMDL NAL	An exceedance occurs on the second, and each subsequent, analytical result for samples taken from any and all discharge location(s) within the same drainage area, during the same reporting year and taken in accordance with Attachment D Section III.D.3, that is above the concentration set forth in an applicable NAL.
TMDL NEL	An exceedance occurs on the second, and each subsequent, analytical result for samples taken from any and all discharge location(s) within the same drainage area, during the same reporting year and taken in accordance with Attachment D Section III.D.3, that is above the concentration set forth in an applicable NEL.

In the event that the TMDL discharge occurs, the QSP shall immediately notify Juan Hernandez of Turner Construction and investigate the cause of the exceedance and identify corrective actions.

The LRP or DAR shall electronically report all analytical results to the State Water Board by the through SMARTS within 30 days of receiving the results. TMDL discharges shall be electronically reported to the State Water Board by the LRP or DAR through SMARTS within 10 days of receiving the results.

If requested by the Regional Water Board in writing, a TMDL NAL Exceedance report will be submitted within 30 days of the request. The TMDL NAL Exceedance Report must contain the following information:

- Analytical method(s), method reporting unit(s), and Method Detection Limit(s) of each parameter;
- Date, place, time of sampling, visual observation, and/or measurements, including precipitation; and
- Description of the current BMPs associated with the sample that exceeded the TMDL NAL, a description of each corrective action taken including photographs, and date of implementation.

In the event of a TMDL NEL exceedance, by the end of each reporting year, project shall implement the following water quality based corrective actions:

- Conducting a site assessment to identify pollutant source(s) within the site that are associated with construction activity and whether the BMPs described in the SWPPP have been properly implemented;
- Evaluating the SWPPP and its implementation to determine whether additional BMPs or SWPPP implementation measures are necessary to reduce or prevent pollutants in all regulated discharges to comply applicable NELs, and
- Certifying and submitting through SMARTS a report of the above site assessment and SWPPP evaluation that:
  - Additional BMPs or SWPPP implementation measures have been identified and included in the SWPPP, or
  - No additional BMPs or SWPPP implementation measures are required to reduce or prevent pollutants in all regulated discharges to comply with applicable NELs.

### **7.7.2      *Sampling and Analysis Plan for pH and Turbidity in Stormwater Runoff Discharges***

Sampling and analysis of runoff for pH and turbidity is required for this project. This Sampling and Analysis Plan describes the strategy for monitoring turbidity and pH levels of stormwater runoff discharges from the project site and run-on that may contribute to an exceedance of a Numeric Action Level (NAL).

Samples for pH and turbidity will be collected at all discharge points where stormwater is discharged off-site.

#### **7.7.2.1      *Sampling Schedule***

Stormwater runoff samples shall be collected for pH and turbidity from each day of a qualifying precipitation event that results in a discharge from the project site. One sample from each discharge location will be collected each 24 hour period of active discharge during a qualifying precipitation event. Samples should be representative of the discharge flow and characteristics.

Run-on samples shall be collected whenever the QSP identifies that run-on has the potential to contribute to an exceedance of a NAL.

#### **7.7.2.2      *Sampling Locations***

Sampling locations are based on the site runoff discharge locations and locations where run-on enters the site, accessibility for sampling, and personnel safety. Planned pH and turbidity sampling locations are shown on the Site Maps in Appendix A and include the locations in Table 7-9.

Eight (8) sampling location(s) on the project site and the contractor's yard have been identified for the collection of runoff samples.

**Table 7-9    Turbidity and pH Runoff Sample Locations**

<b>Sample Location Identifier</b>	<b>Sample Location Description</b>	<b>Sample Location Latitude and Longitude (Decimal Degrees)</b>
1	Wilshire Blvd, West Inlet	34.06700, -118.41580
2	Wilshire Blvd, end of lane closure	34.06700, -118.41456
3	Santa Monica Blvd, west inlet	34.06443, -118.41437
4	Santa Monica Blvd, Area B east inlet	34.06508, -118.41344
5	Merv Griffin South	34.05620, -118.41329
6	Santa Monica Blvd, Area C east inlet	34.06552, -118.41281
7	Wilshire Blvd Area A end of lane closure	34.06698, -118.41300
8	Laydown Yard	34.06482, -118.41323

Two (2) sampling locations have been identified for the collection of run-on samples where the run-on has the potential to contribute to an exceedance of a NAL or a Receiving Water Monitoring Trigger. Table 7-10 identifies the run-on sample locations.

**Table 7-10 Turbidity and pH Run-On Sample Locations**

<b>Sample Location Identifier</b>	<b>Sample Location Description</b>	<b>Sample Location Latitude and Longitude (Decimal Degrees)</b>
RO-1	Santa Monica Blvd, east of Area C	34.06629, -118.41172
RO-2	Merv Griffin, above Area C	34.06578, -118.41394

#### 7.7.2.3 Monitoring Preparation

Turbidity and pH samples will be collected and analyzed by:

QSP                      Gaven Johnson    ☒    Yes                      ☐    No

QSD Delegate                                      ☐    Yes                      ☒    No

An adequate stock of monitoring supplies and equipment for monitoring turbidity and will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. The QSP or QSP Delegates will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project site will include, but are not limited to, field meters, extra batteries, clean powder-free nitrile gloves, sample collection equipment, appropriate sample containers, paper towels, personal rain gear, and *Effluent Sampling Field Log Sheets* and CoC forms provided in Appendix O.

The QSP or QSP Delegates will obtain and maintain the field-testing instruments, as identified in Section 7.7.2.6, for analyzing samples in the field. Field meter instructions are provided in Appendix P.

#### 7.7.2.4 Field Parameters

Samples shall be analyzed for the constituents indicated in the Table 7-11.

**Table 7-11 Sample Collection and Analysis for Monitoring Turbidity and pH**

<b>Parameter</b>	<b>Test Method</b>	<b>Minimum Sample Volume <sup>(1)</sup></b>	<b>Sample Collection Container Type</b>	<b>Detection Limit (minimum)</b>
Turbidity	Field meter/probe with calibrated portable instrument	500 mL	Polypropylene or glass (Do not collect in meter sample cells)	1 NTU
pH	Field meter/probe with calibrated portable instrument or calibrated pH test kit	100 mL	Polypropylene	0.2 pH units

**Table 7-11 Sample Collection and Analysis for Monitoring Turbidity and pH**

<b>Parameter</b>	<b>Test Method</b>	<b>Minimum Sample Volume <sup>(1)</sup></b>	<b>Sample Collection Container Type</b>	<b>Detection Limit (minimum)</b>
Notes: <sup>1</sup> Minimum sample volume recommended. Specific volume requirements will vary by instrument; check instrument manufacturer instructions. L – Liter mL – Milliliter NTU – Nephelometric Turbidity Unit				

#### **7.7.2.5 Sample Collection**

Samples of discharge shall be collected at the designated runoff and run-on sampling locations listed in Tables 7-9 and 7-10 shown on the Site Maps in Appendix A. Run-on samples shall be collected within close proximity of the point of run-on to the project.

Sample collection and handling requirements are described in Section 7.7.7.

#### **7.7.2.6 Field Measurements**

The collection and analysis of samples for field analysis, collection, analysis and the calibration of equipment shall be in accordance with the field instrument manufacturer's specifications.

Immediately following collection, samples for field analysis shall be tested in accordance with the field instrument manufacturer's instructions and results recorded on the *Effluent Sampling Field Log Sheet*.

The field instrument(s) listed in Table 7-12 will be used to analyze the following constituents:

**Table 7-12 Field Instruments**

<b>Field Instrument (Manufacturer and Model)</b>	<b>Constituent</b>
Oakton pH Testr	pH
Oakton T-100	Turbidity

The manufacturers' instructions are included in Appendix P. Field sampling staff shall review the instructions prior to each sampling event and follow the instructions in completing measurement of the samples.

- The instrument(s) shall be maintained in accordance with manufacturer's instructions.
- The instrument(s) shall be calibrated before each sampling and analysis event.
- Maintenance and calibration records shall be maintained with the SWPPP.

The QSP may authorize alternate equipment provided that the equipment meets the 2022 CGP's requirements and the manufacturers' instructions for calibration and use are added to Appendix P.

#### 7.7.2.7 Data Evaluation and Reporting

The LRP or DAR shall electronically report all stormwater pH and turbidity results to the State Water Board by the through SMARTS within 30 days of receiving the results. Exceedances of NALs shall be electronically reported to the State Water Board by the LRP or DAR through SMARTS within 10 days of receiving the results.

#### Numeric Action Levels

Compliance with the NALs for pH and turbidity is based on a single sample evaluation. A NAL exceedance occurs when any sample exceeds the turbidity NAL or is outside of the pH range shown in Table 7-13.

**Table 7-13 Numeric Action Levels**

Parameter	Unit	NAL
pH	pH units	Lower NAL < 6.5 Upper NAL > 8.5
Turbidity	NTU	>250

The QSP shall within two (2) days of the sample collection submit copies of the completed *Effluent Sampling Field Log Sheets* to Matthew Renaud, QSD.

In the event that the pH or turbidity NAL is exceeded, the QSP shall immediately notify Juan Hernandez and investigate the cause of the exceedance and identify corrective actions.

Exceedances of NALs shall be electronically reported to the State Water Board by the LRP or DAR through the SMARTS within 10 days of the conclusion of the storm event.

If requested by the Regional Water Board in writing, a NAL Exceedance report will be submitted within 30 days of the request. The NAL Exceedance Report must contain the following information:

- Analytical method(s), method reporting unit(s), and Method Detection Limit(s) of each parameter;
- Date, place, time of sampling, visual observation, and/or measurements, including precipitation; and
- An assessment of the existing BMPs associated with the sample that exceeded the NAL, a description of each corrective action taken including photographs, and date of implementation.

#### 7.7.3 Sampling and Analysis Plan for pH and Turbidity in Receiving Water

This project is not subject to Receiving Water Monitoring.

#### 7.7.4 Sampling and Analysis Plan for Dewatering Discharges

☐ No dewatering activities are planned for this project.

☒ Dewatering activities planned for this project will be conducted and monitored according to the requirements of the following NPDES Permit: General NPDES No. CAG994004, Order No. R4-2013-0095 CI-10292

☒ Dewatering activities planned for this project will be conducted and monitored according to the requirements of the 2022 CGP Attachment J.

This Sampling and Analysis Plan for dewatering discharges describes the sampling and analysis strategy and schedule for monitoring dewatering discharges in accordance with the requirements of the 2022 CGP.

#### 7.7.4.1 Sample Schedule

Sampling of dewatering discharges will be conducted within the first hour of the commencement of discharge and daily each day that the discharge continues.

#### 7.7.4.2 Sample Locations

Sampling locations are based on the planned dewatering locations. Planned dewatering sampling locations are listed in Table 7-16 and shown on the Site Maps in Appendix A.

Two (2) dewatering sampling location(s) on the project site and the contractor's yard have been identified for the collection of dewatering samples.

**Table 7-14 Turbidity and pH Dewatering Sample Locations**

<b>Sample Location Identifier</b>	<b>Sample Location Description</b>	<b>Sample Location Latitude and Longitude (Decimal Degrees)</b>
3	Santa Monica Blvd, west inlet	34.06443, -118.41437
4	Santa Monica Blvd, Area B east inlet	34.06508, -118.41344

In the event that dewatering is required at a location not listed in Table 7-15, and has not been identified on the Site Maps, sampling locations will be selected by the QSP using the same rationale as that used to identify planned locations. Dewatering sampling locations shall be documented by the QSP on the *Effluent Sampling Field Log Sheet*, which are provided in Appendix O.

#### 7.7.4.3 Monitoring Preparation

Dewatering samples will be collected by:

QSP	Gaven Johnson	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
QSD Delegate		<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

An adequate stock of monitoring supplies and equipment for monitoring turbidity and will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. The QSP or QSP Delegates will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project site will include, but are not limited to, field meters, extra batteries, clean powder-free nitrile gloves, sample collection equipment,

appropriate sample containers, paper towels, personal rain gear, and *Effluent Sampling Field Log Sheets* and CoC forms provided in Appendix O.

The QSP or QSP Delegates will obtain and maintain the field-testing instruments, as identified in Section 7.7.2.6, for analyzing samples in the field.

#### **7.7.4.4 Sample Collection and Field Analysis**

Dewatering samples shall be collected at the designated sampling locations listed in Table 7-14 and shown on the Site Maps in Appendix A.

Samples for field parameters shall be analyzed for the constituents indicated in Table 7-11 “Sample Collection, and Analysis for Monitoring Turbidity and pH.” Turbidity and pH samples shall be analyzed immediately.

Sample collection and handling requirements are described in Section 7.7.7.

#### **7.7.4.5 Data Evaluation and Reporting**

At least 24 hours prior to the beginning of a dewatering discharge, the QSP or DAR shall notify the Regional Water Board via email of the anticipated dewatering discharge. Copy the following project staff on the notifications QSP, QSD, and DAR.

The QSP shall within two (2) days of the sample collection submit copies of the completed *Effluent Sampling Field Log Sheets* to David Nelson.

Compliance with the NALs for pH and turbidity in dewatering discharges is based on a single sample evaluation. A NAL exceedance occurs when any sample exceeds the turbidity NAL or is outside of the pH range shown in Table 7-13.

In the event that the pH or turbidity NAL is exceeded, the QSP shall immediately notify Juan Hernandez and investigate the cause of the exceedance and identify corrective actions.

The QSP shall immediately cease dewatering discharges if the NALs are exceeded. If the discharge is necessary to protect human life and health or prevent severe property damage and cannot be ceased, the QSP shall notify the Regional Water Board and the Local Stormwater Agency within 24 hours.

**Table 7-15 Dewatering Notification Contacts**

<b>Agency</b>	<b>Name</b>	<b>Email</b>
Regional Water Board	Staff	r4_stormwater@waterboards.ca.gov
Local Stormwater Agency	Ara Retchian	aretechian@beverlyhills.org

Exceedances of NALs shall be electronically reported to the State Water Board by the LRP or DAR through SMARTS within 10 days of receiving the results.

Following a NAL exceedance, the QSD shall revise the SWPPP to incorporate corrective actions to prevent further exceedances within 10 days of the measurement.

#### **7.7.5 Sampling and Analysis Plan for Other Pollutants Required by the Regional Water Board**

The Regional Water Board has not specified monitoring for additional pollutants.

### **7.7.6 Training of Sampling Personnel**

QSP Delegates assigned to conduct sampling shall be trained by the QSP to collect, maintain, and ship samples in accordance with the 2022 CGP Sample Collection and Handling Instructions and supplemental information as needed. Training records of QSP Delegates assigned to sample are provided in Appendix I.

The QSP and QSP Delegates have received the following stormwater sampling training:

<b>Name</b>	<b>Training</b>
Gaven Johnson	CISEC, QSP, CALTRANS WPCM
Inez Bretado	CESSWI, QSP

The QSP and QSP Delegates have the following stormwater sampling experience:

<b>Name</b>	<b>Experience</b>
Gaven Johnson	3 years of field inspection and sampling
Inez Bretado	2 years of field inspection and sampling

### **7.7.7 Sample Collection and Handling**

#### **7.7.7.1 Sample Collection**

Samples shall be collected at the designated sampling locations shown on the Site Maps and listed in the preceding sections. Samples shall be collected, maintained and shipped in accordance with the 2022 CGP Sample Collection and Handling Instructions.

Grab samples shall be collected and preserved in accordance with the methods identified in preceding sections.

To maintain sample integrity and prevent cross-contamination, sample collection personnel shall follow the protocols below.

- Collect samples (for laboratory analysis) in analytical laboratory-provided or specified sample containers;
  - Use of any other type of containers could cause sample contamination and may result in NAL or NEL exceedances.
- Wear clean, powder-free nitrile gloves when collecting samples;
- Change gloves whenever something not known to be clean has been touched;
- Change gloves between sampling locations;
- Decontaminate all equipment (e.g., bucket, tubing) prior to sample collection;
  - using a trisodium phosphate water wash, distilled water rinse, and final rinse with distilled water..
  - Dispose of wash and rinse water appropriately (i.e., do not discharge to storm drain or receiving water).
  - Do not decontaminate laboratory provided sample containers;
- Do not smoke during sampling events;
- Never sample near a running vehicle;
- Do not park vehicles in the immediate sample collection area (even non-running vehicles);

- Do not eat or drink during sample collection; and
- Do not breathe, sneeze, or cough in the direction of an open sample container.

The most important aspect of grab sampling is to collect a sample that represents the entire runoff stream. Typically, samples are collected by dipping the collection container in the runoff flow paths and streams as noted below.

- For small streams and flow paths, simply dip the bottle facing upstream until full.
- For larger stream that can be safely accessed, collect a sample in the middle of the flow stream by directly dipping the mouth of the bottle. Once again making sure that the opening of the bottle is facing upstream as to avoid any contamination by the sampler.
- For larger streams that cannot be safely waded, pole-samplers may be needed to safely access the representative flow.
- Avoid collecting samples from ponded, sluggish or stagnant water.
- Avoid collecting samples directly downstream from a bridge as the samples can be affected by the bridge structure or runoff from the road surface.

Note, that depending upon the specific analytical test, some containers may contain preservatives. These containers should **never** be dipped into the stream but filled indirectly from the collection container.

#### 7.7.7.2 *Sample Handling*

Turbidity and pH measurements must be conducted immediately. Do not store turbidity or pH samples for later measurement.

Samples for laboratory analysis must be handled as follows. Immediately following sample collection:

- Cap sample containers;
- Complete sample container labels;
- Place sealed containers in a re-sealable storage bag;
- Place sample containers into an ice-chilled cooler;
- Document sample information on the *Effluent Sampling Field Log Sheet* (Appendix O); and
- Complete the CoC.

All samples for laboratory analysis must be maintained between 0-6 degrees Celsius during delivery to the laboratory. Samples must be kept on ice, or refrigerated, from sample collection through delivery to the laboratory. Place samples to be shipped inside coolers with ice. Make sure the sample bottles are well packaged to prevent breakage and secure cooler lids with packaging tape.

Ship samples that will be laboratory analyzed to the analytical laboratory right away. Hold times are measured from the time the sample is collected to the time the sample is analyzed. The 2022 CGP requires that samples be received by the analytical laboratory within 48 hours of the physical sampling (unless required sooner by the analytical laboratory to meet all hold times).

Laboratory Name: Positive Lab Services  
 Address: 781 E. Washington Blvd  
 City, State Zip: Los Angeles, CA 90021  
 Telephone Number: 213-745-5312

Point of Contact: John Schmidt

### 7.7.7.3 Sample Documentation Procedures

All original data documented on sample container identification labels, *Effluent Sampling Field Log Sheet* (Appendix O), and CoCs shall be recorded using waterproof ink. These shall be considered accountable documents. If an error is made on an accountable document, the individual shall make corrections by lining through the error and entering the correct information. The erroneous information shall not be obliterated. All corrections shall be initialed and dated.

Duplicate samples shall be identified consistent with the numbering system for other samples to prevent the laboratory from identifying duplicate samples. Duplicate samples shall be identified in the Effluent Sampling Field Log Sheet.

Sample documentation procedures include the following:

Sample Bottle Identification Labels: Sampling personnel shall attach an identification label to each sample bottle. Sample identification shall uniquely identify each sample location. (These location identifiers should be listed in the tables in the SWPPP.)

Field Log Sheets: Sampling personnel shall complete the *Effluent Sampling Field Log Sheet* and *Receiving Water Sampling Field Log Sheet* (Appendix O) for each sampling event, as appropriate.

Chain of Custody: Sampling personnel shall complete the CoC for each sampling event for which samples are collected for laboratory analysis. The sampler will sign the CoC (Appendix O) when the sample(s) is turned over to the testing laboratory or courier.

## 7.8 Active Treatment System Monitoring

Will an Active Treatment System (ATS) be deployed on the site?

☐ Yes ☒ No

This project does not require a project specific Sampling and Analysis Plan for an ATS because deployment of an ATS is not planned.

## 7.9 Passive Treatment Monitoring

Will passive treatment technologies be deployed on the site?

☒ Yes ☐ No

The project specific Passive Treatment Plan includes a Sampling and Analysis Plan. The Passive Treatment Plan is provided in Appendix R.

## 7.10 Watershed Monitoring Option

This project is not participating in a watershed monitoring option.

## 7.11 Quality Assurance and Quality Control

An effective Quality Assurance and Quality Control (QA/QC) plan shall be implemented as part of the CSMP to ensure that analytical data can be used with confidence. QA/QC procedures to be initiated include the following:

- Field logs;

- Clean sampling techniques;
- CoCs;
- QA/QC Samples; and
- Data verification.

Each of these procedures is discussed in more detail in the following sections.

#### **7.11.1 Field Logs**

The purpose of field logs is to record sampling information and field observations during monitoring that may explain any uncharacteristic analytical results. Sampling information to be included in the field log include the date and time of water quality sample collection, sampling personnel, sample container identification numbers, and types of samples that were collected. Field observations should be noted in the field log for any abnormalities at the sampling location (color, odor, BMPs, etc.). Field measurements for pH and turbidity should also be recorded in the field log. A Visual Inspection Field Log and an Effluent Sampling Field Log Sheet are included in Appendix O.

#### **7.11.2 Clean Sampling Techniques**

Clean sampling techniques involve the use of certified clean containers for sample collection and clean powder-free nitrile gloves during sample collection and handling. As discussed in Section 7.7.7, adoption of a clean sampling approach will minimize the chance of field contamination and questionable data results.

#### **7.11.3 Chain of Custody**

The sample CoC is an important documentation step that tracks samples from collection through analysis to ensure the validity of the sample. Sample CoC procedures include the following:

- Proper labeling of samples;
- Use of CoC forms for all samples; and
- Prompt sample delivery to the analytical laboratory.

Analytical laboratories usually provide CoC forms to be filled out for sample containers. An example CoC is included in Appendix O.

#### **7.11.4 QA/QC Samples**

QA/QC samples provide an indication of the accuracy and precision of the sample collection; sample handling; field measurements; and analytical laboratory methods. The following types of QA/QC will be conducted for this project:

- ☒ Field Duplicates at a frequency of 1 duplicate minimum per sampling event. (Required for all sampling plans with field measurements or laboratory analysis)
- ☐ Equipment Blanks at a frequency of  
(Only needed if the equipment used to collect samples could add the pollutants to sample)
- ☐ Field Blanks at a frequency of  
(Only required if sampling method calls for field blanks)
- ☒ Travel Blanks at a frequency of one per sampling event.  
(Required for sampling plans that include VOC laboratory analysis)

#### **7.11.4.1      *Field Duplicates***

Field duplicates provide verification of laboratory or field analysis and sample collection. Duplicate samples shall be collected, handled, and analyzed using the same protocols as primary samples. The sample location where field duplicates are collected shall be randomly selected from the discharge locations. Duplicate samples shall be collected immediately after the primary sample has been collected. Duplicate samples must be collected in the same manner and as close in time as possible to the original sample. Duplicate samples shall not influence any evaluations or conclusion.

#### **7.11.4.2      *Equipment Blanks***

Equipment blanks provide verification that equipment has not introduced a pollutant into the sample. Equipment blanks are typically collected when:

- New equipment is used;
- Equipment that has been cleaned after use at a contaminated site;
- Equipment that is not dedicated for surface water sampling is used; or
- Whenever a new lot of filters is used when sampling metals.

#### **7.11.4.3      *Field Blanks***

Field blanks assess potential sample contamination levels that occur during field sampling activities. De-ionized water field blanks are taken to the field, transferred to the appropriate container, and treated the same as the corresponding sample type during the course of a sampling event.

#### **7.11.4.4      *Travel Blanks***

Travel blanks assess the potential for cross-contamination of volatile constituents between sample containers during shipment from the field to the laboratory. De-ionized water blanks are taken along for the trip and held unopened in the same cooler with the VOC samples.

#### **7.11.5          *Data Verification***

After results are received from the analytical laboratory, the QSP or QSP Delegates shall verify the data to ensure that it is complete, accurate, and the appropriate QA/QC requirements were met. Data must be verified as soon as the data reports are received. Data verification shall include:

- Check the CoC and laboratory reports.  
*Make sure all requested analyses were performed and all samples are accounted for in the reports.*
- Check laboratory reports to make sure hold times were met and that the reporting levels meet or are lower than the reporting levels agreed to in the contract.
- Check data for outlier values and follow up with the laboratory.  
*Occasionally typographical errors, unit reporting errors, or incomplete results are reported and should be easily detected. These errors need to be identified, clarified, and corrected quickly by the laboratory. The QSP or QSP Delegates should especially note data that is an order of magnitude or more different than similar locations or is inconsistent with previous data from the same location.*
- Check laboratory QA/QC results.  
*EPA establishes QA/QC checks and acceptable criteria for laboratory analyses. These data are typically reported along with the sample results. The QSP or QSP Delegates shall evaluate the reported QA/QC data to check for contamination (method, field, and*

*equipment blanks), precision (laboratory matrix spike duplicates), and accuracy (matrix spikes and laboratory control samples). When QA/QC checks are outside acceptable ranges, the laboratory must flag the data, and usually provides an explanation of the potential impact to the sample results.*

- Check the data set for outlier values and, accordingly, confirm results and re-analyze samples where appropriate.  
*Sample re-analysis should only be undertaken when it appears that some part of the QA/QC resulted in a value out of the accepted range. Sample results may not be discounted unless the analytical laboratory identifies the required QA/QC criteria were not met and confirms this in writing.*

Field data including inspections and observations must be verified as soon as the field logs are received, typically at the end of the sampling event. Field data verification shall include:

- Check field logs to make sure all required measurements were completed and appropriately documented;
- Check reported values that appear out of the typical range or inconsistent; Follow-up immediately to identify potential reporting or equipment problems, if appropriate, recalibrate equipment after sampling;
- Verify equipment calibrations;
- Review observations noted on the field logs; and
- Review notations of any errors and actions taken to correct the equipment or recording errors.

## **7.12 Records Retention**

All records of stormwater monitoring information and copies of reports (including Annual Reports) must be retained for a period of at least three years from date of submittal or longer if required by the Regional Water Board.

Results of visual monitoring, field measurements, and laboratory analyses must be kept in the SWPPP along with CoCs, and other documentation related to the monitoring.

Records are to be kept onsite while construction is ongoing. Records to be retained include:

- The date, place, and time of inspections, sampling, visual observations, and/or measurements, including precipitation;
- The individual(s) who performed the inspections, sampling, visual observation, and/or field measurements;
- The date and approximate time of field measurements and laboratory analyses;
- The individual(s) who performed the laboratory analyses;
- A summary of all analytical results, the method detection limits and reporting limits, and the analytical techniques or methods used;
- Rain gauge readings from site inspections;
- QA/QC records and results;
- Calibration records;
- Visual observation and sample collection exception records;
- The records of any corrective actions and follow-up activities that resulted from analytical results, visual observations, or inspections;
- Dewatering notifications to the Regional Water Board;
- Dewatering exception notifications to the Regional Water Board and local stormwater agency;
- NAL Exceedance Report;

## Section 8     References

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SWRCB (State Water Resources Control Board). (2022). Order 2022-0057-DWQ, NPDES General Permit No. CAS000002: Stormwater Discharges Associated with Construction and Land Disturbing Activities. Available online at: [https://www.waterboards.ca.gov/water\\_issues/programs/stormwater/construction/general\\_permit\\_reissuance.html](https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/general_permit_reissuance.html).

CASQA 2023. *Stormwater BMP Handbook: Construction*. Available online at: [www.casqa.org](http://www.casqa.org)

Los Angeles Regional Water Quality Control Board (Region 4) General NPDES No. CAG994004, Order No. R4-2013-0095 CI-10292

SWRCB (State Water Resources Control Board). (2009). Order 2009-0009-DWQ, NPDES General Permit No. CAS000002: Stormwater Discharges Associated with Construction and Land Disturbing Activities. WDID 4 19C386093 SWPPP (2019 as amended).

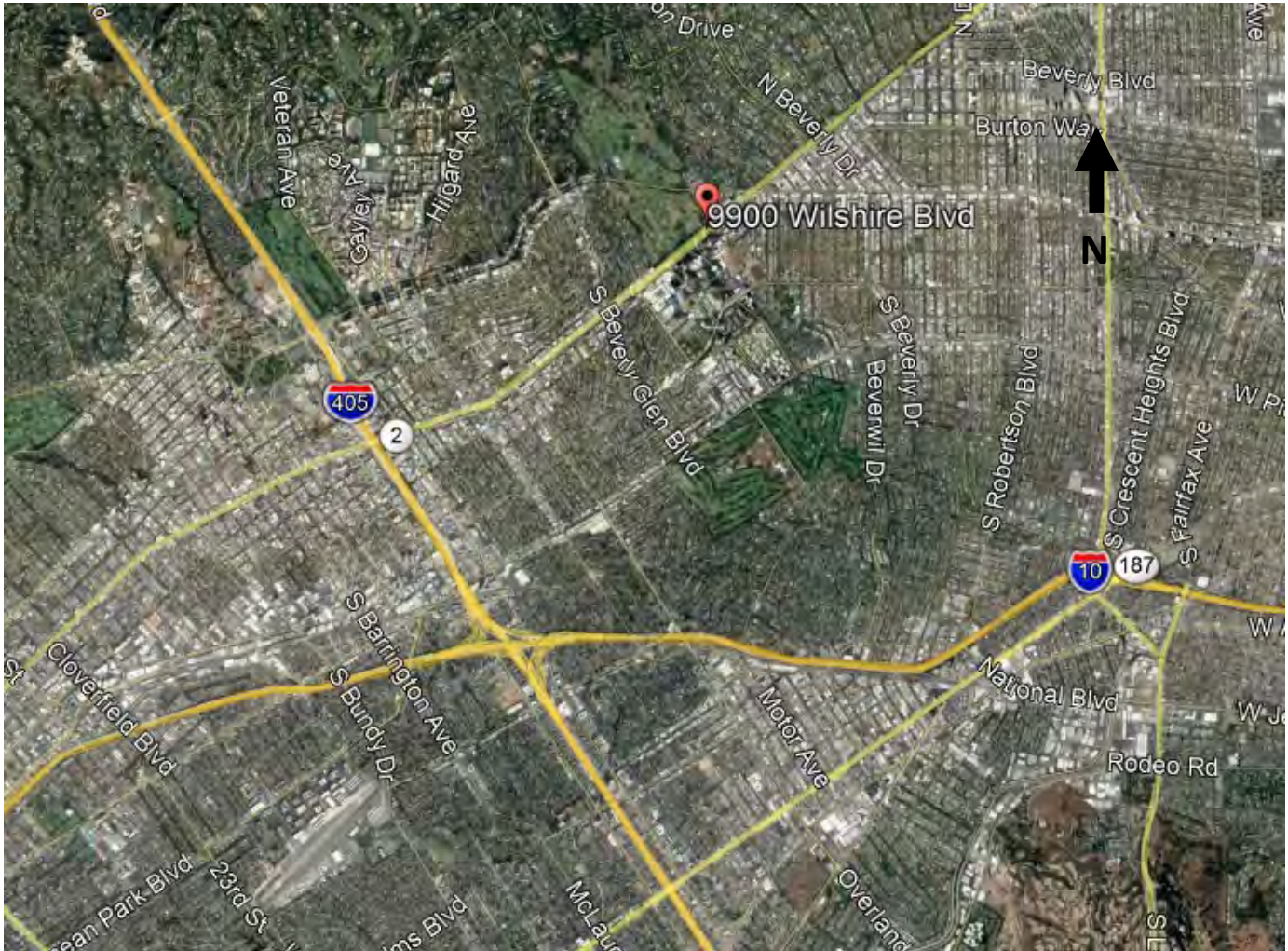


## Appendix A: Site Maps and Drawings

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## VICINITY MAP



One Beverly Hills  
BH Luxury Residences, LLC  
9900 Wilshire Blvd  
Beverly Hills, CA 90210



## LEGEND

AREA OF DISTURBANCE

TRAILERS/PARKING

AREA DESIGNATIONS



### NOTES:

1. AREAS A, B AND C ARE DEMOLITION AND SOIL DISTURBANCE AREAS.
2. THE TRAILER AND PARKING AREA IS LAYDOWN, PARKING, OFFICE ADMINISTRATION.

PROJECT: ONE BEVERLY HILLS

ADDRESS: 9900 WILSHIRE BLVD

BEVERLY HILLS, CA 90210

DEVELOPER: CAIN DEVELOPMENT

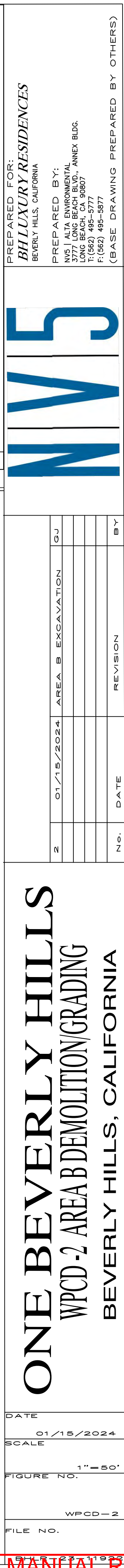
PREPARED BY: MATTHEW RENAUD, QSD

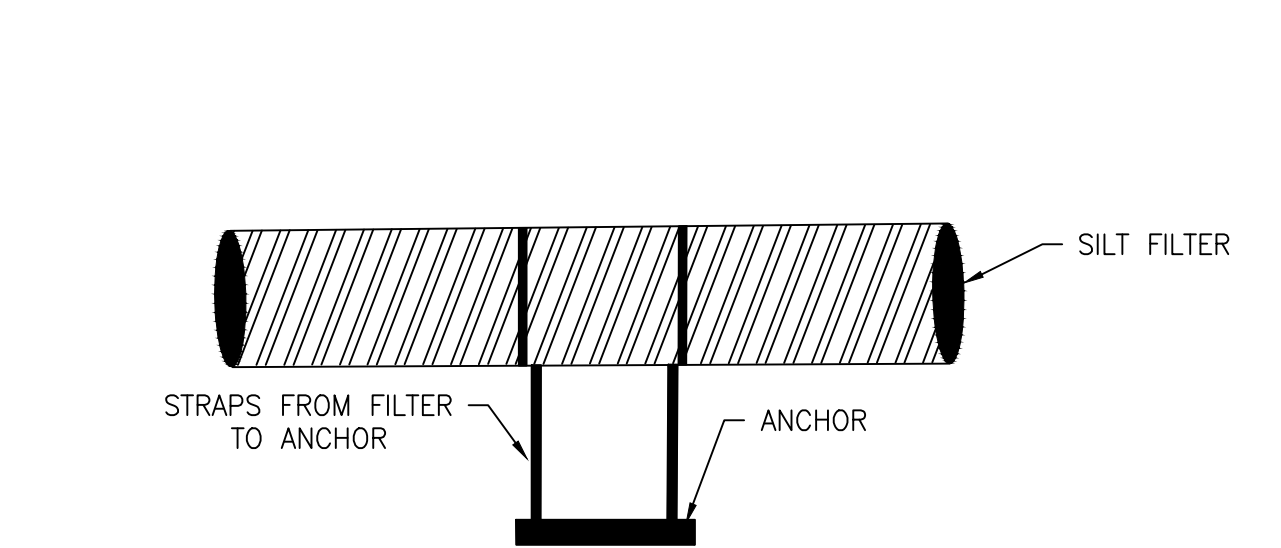
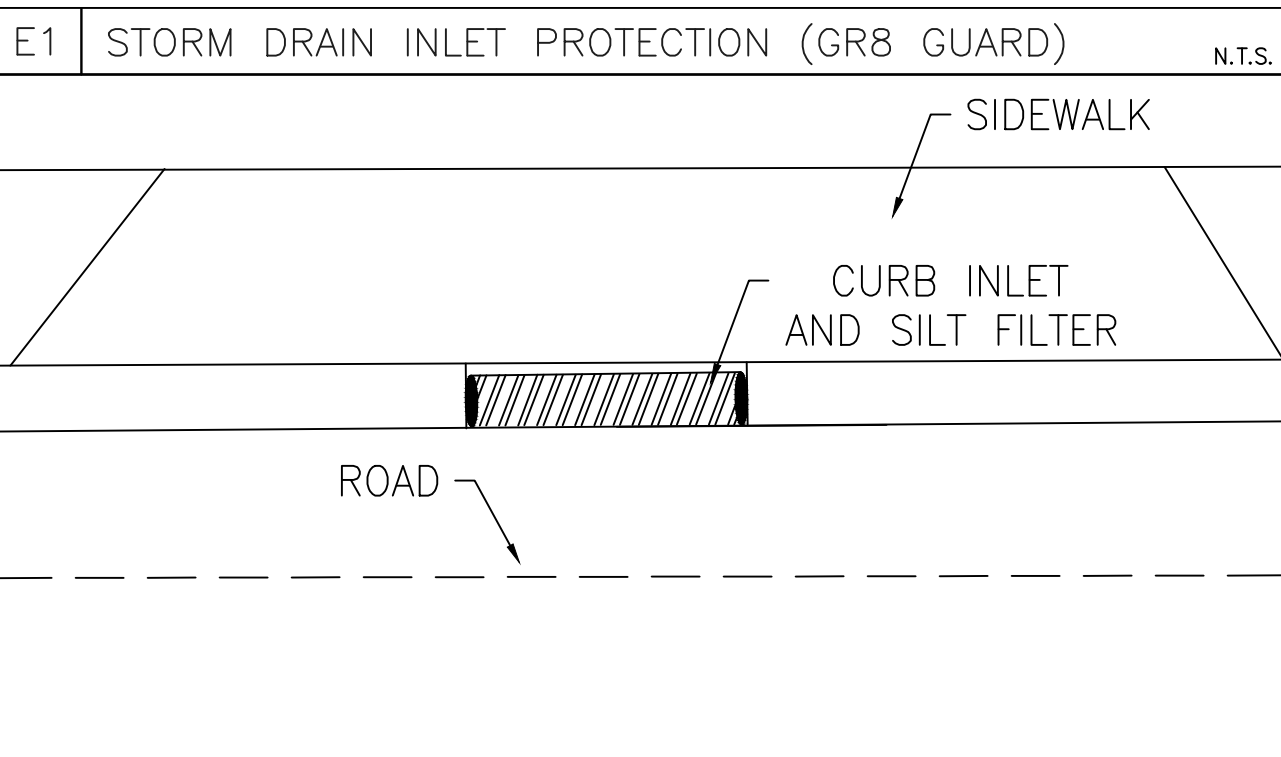
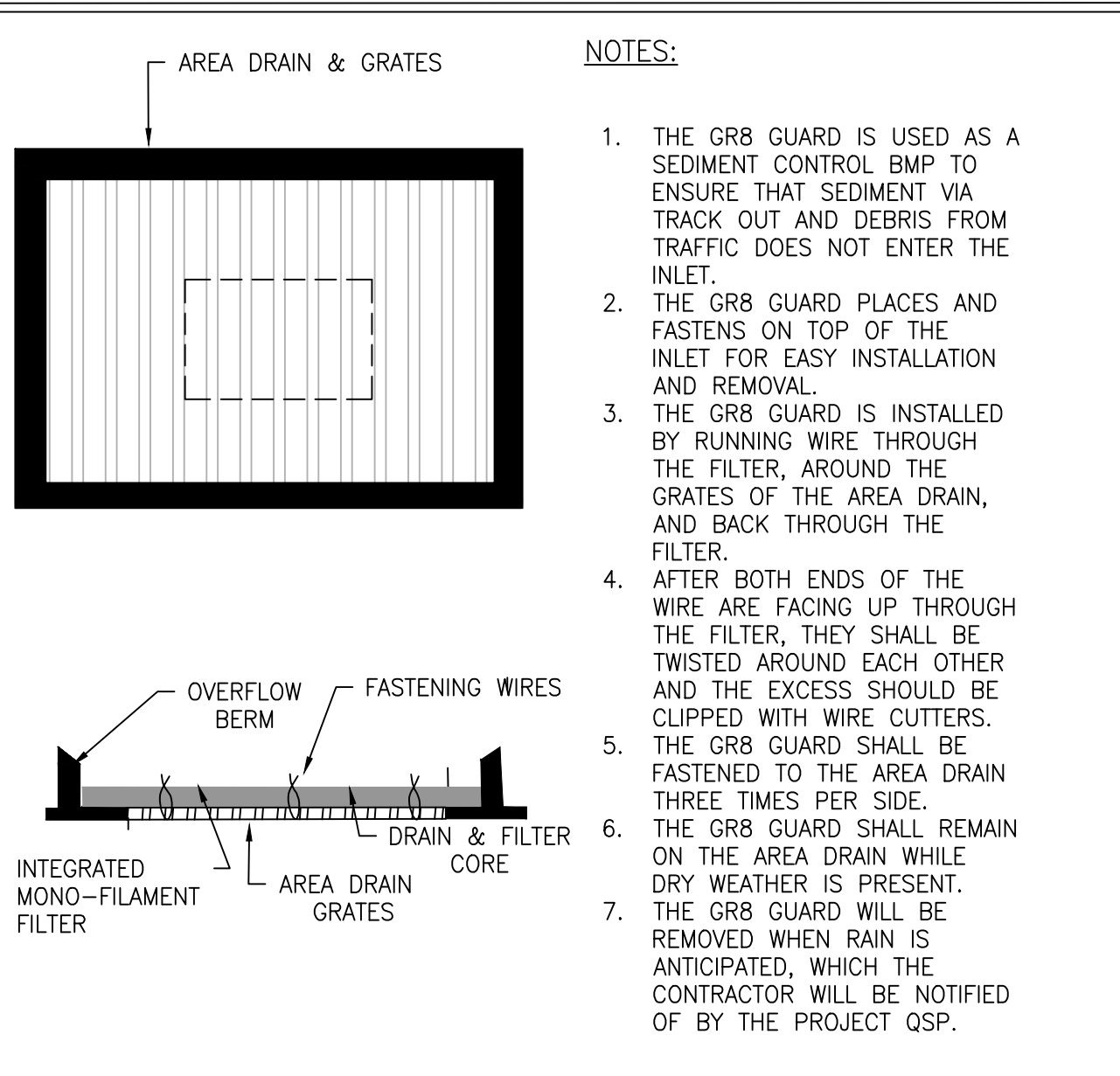
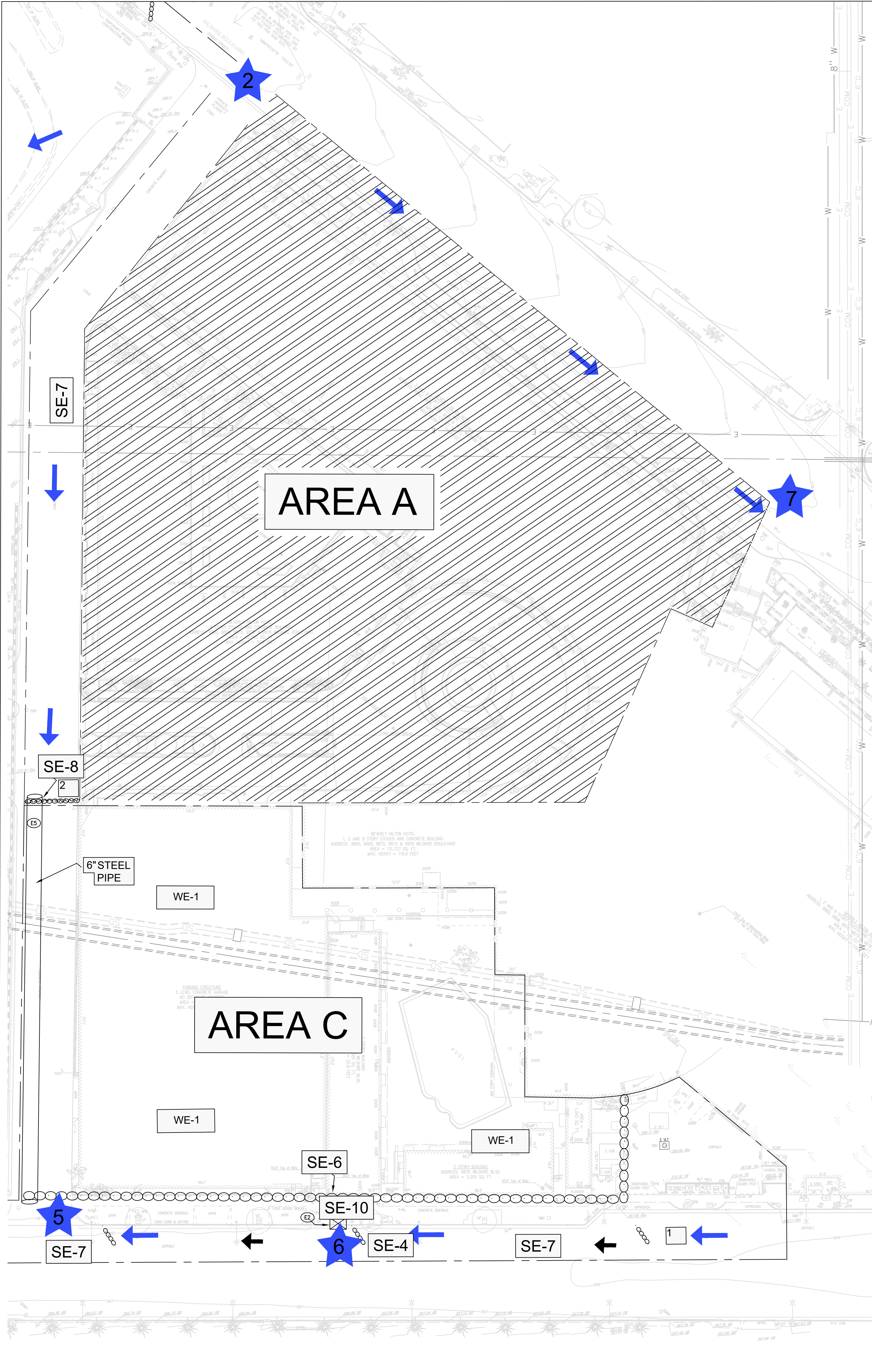
PROJECT NUMBER: 4447-11922

NV5

DRAWING NAME:  
WPCD-1 PROJECT  
BOUNDARIES

DATE: 01/15/24

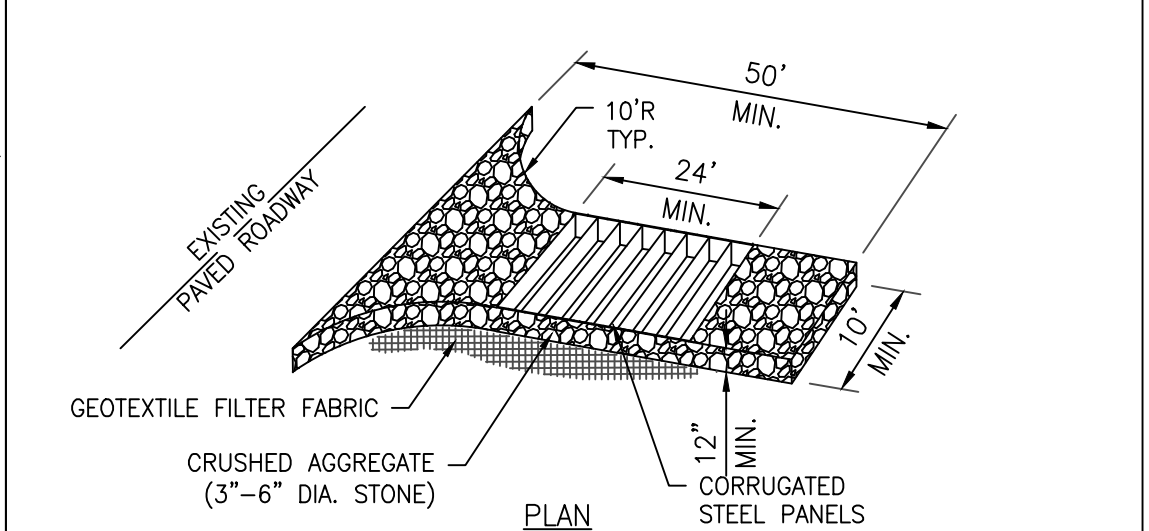
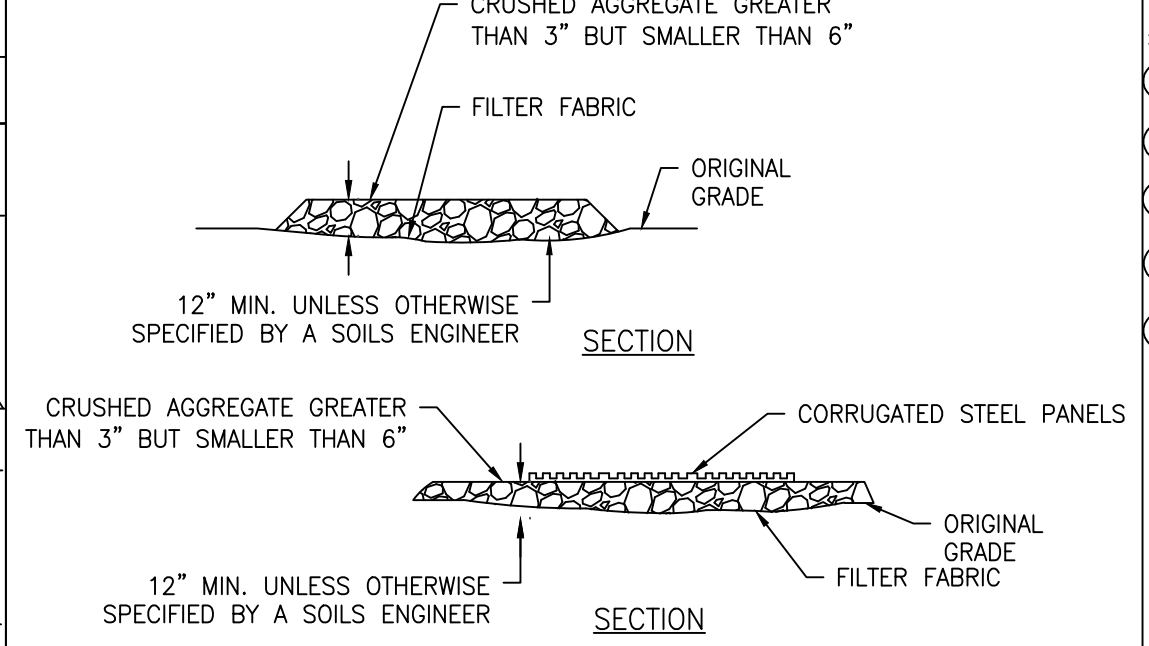
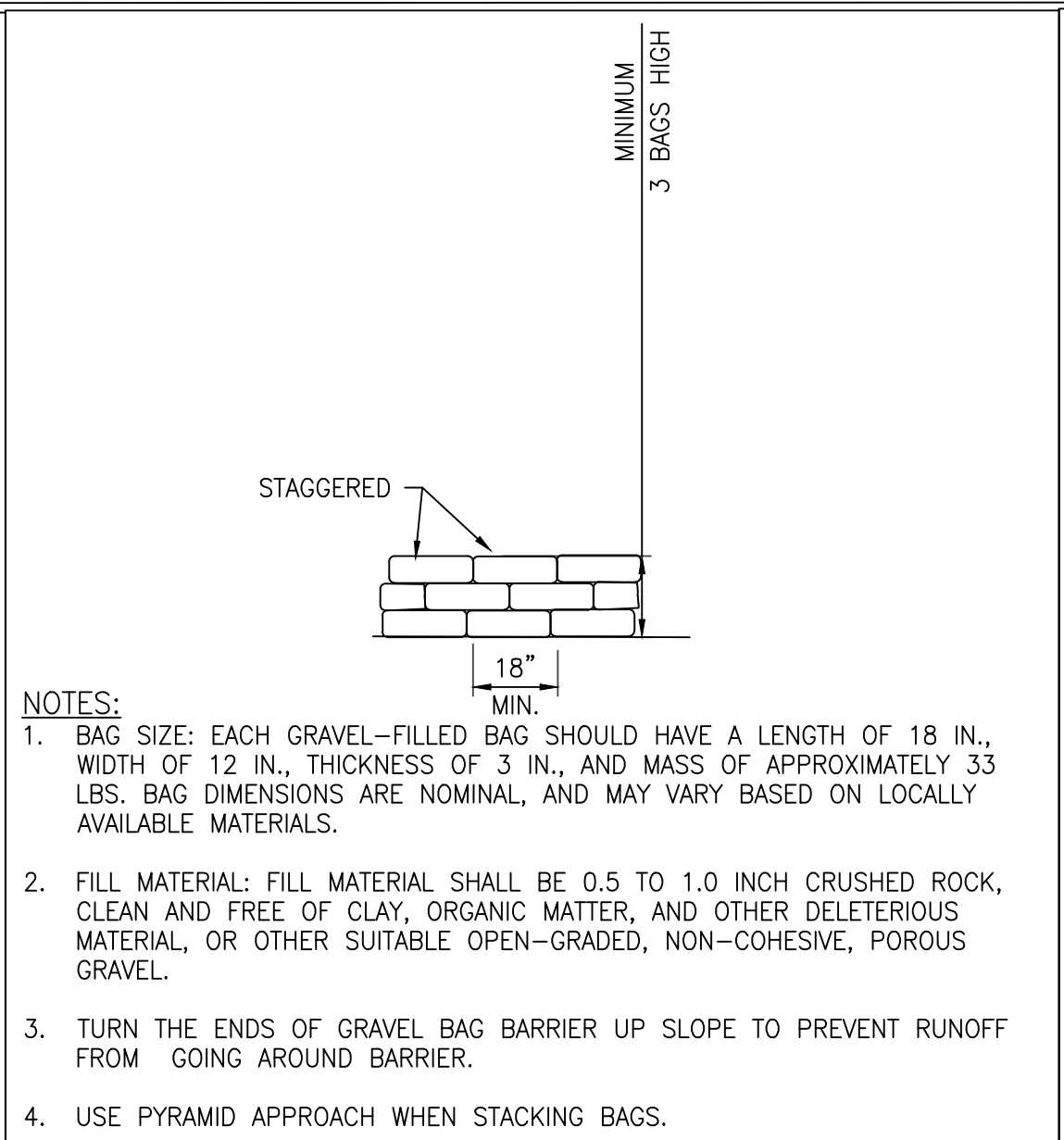




- NOTES:
1. THE CURB INLET SILT FILTER IS A SEDIMENT CONTROL BMP USED FOR STORM DRAIN INLET PROTECTION.
  2. THE SILT FILTER LIES FLUSH WITH THE CURB DRAIN INLET SO THAT IT DOES NOT ENCR OACH INTO THE HIGHWAY.
  3. ATTACHED TO THE SILT FILTER IS AN ANCHOR THAT IS TO BE PLACED INSIDE OF THE INLET WHICH WILL SECURE THE FILTER.
  4. THE SILT FILTER WILL BE UTILIZED ON CURB CUT TYPE INLETS ON WILSHIRE AND SANTA MONICA BLVD.



LEGEND	
	PROJECT EXTENT
	PROPERTY LINE
	GRAVEL BAGS (SE-6)
	SAND BAGS (SE-8)
	DIRECTION OF TRAFFIC
	STORM DRAIN INLET PROTECTION (SE-10)
	CURB DRAIN INLET PROTECTION (SE-10)
	ADDITIONAL PHASES
	SAMPLING LOCATION
	6" STEEL PIPE
	DIRECTION OF FLOW
	CHECK DAM (SE-4)
	RUN-ON SAMPLE
TEMPORARY SEDIMENT CONTROL	
	SE-4 CHECK DAM
	SE-6 GRAVEL BAG BERM
	SE-7 STREET SWEEPING AND VACUUMING
	SE-8 SAND BAGS
	SE-10 STORM DRAIN INLET PROTECTION
EQUIPMENT TRACKING CONTROL	
	TC-1 STABILIZED CONSTRUCTION EXIT/ENTRANCE
WIND EROSION CONTROL	
	WE-1 WIND EROSION CONTROL
NON-STORMWATER MANAGEMENT	
	NS-2 DEWATERING OPERATIONS

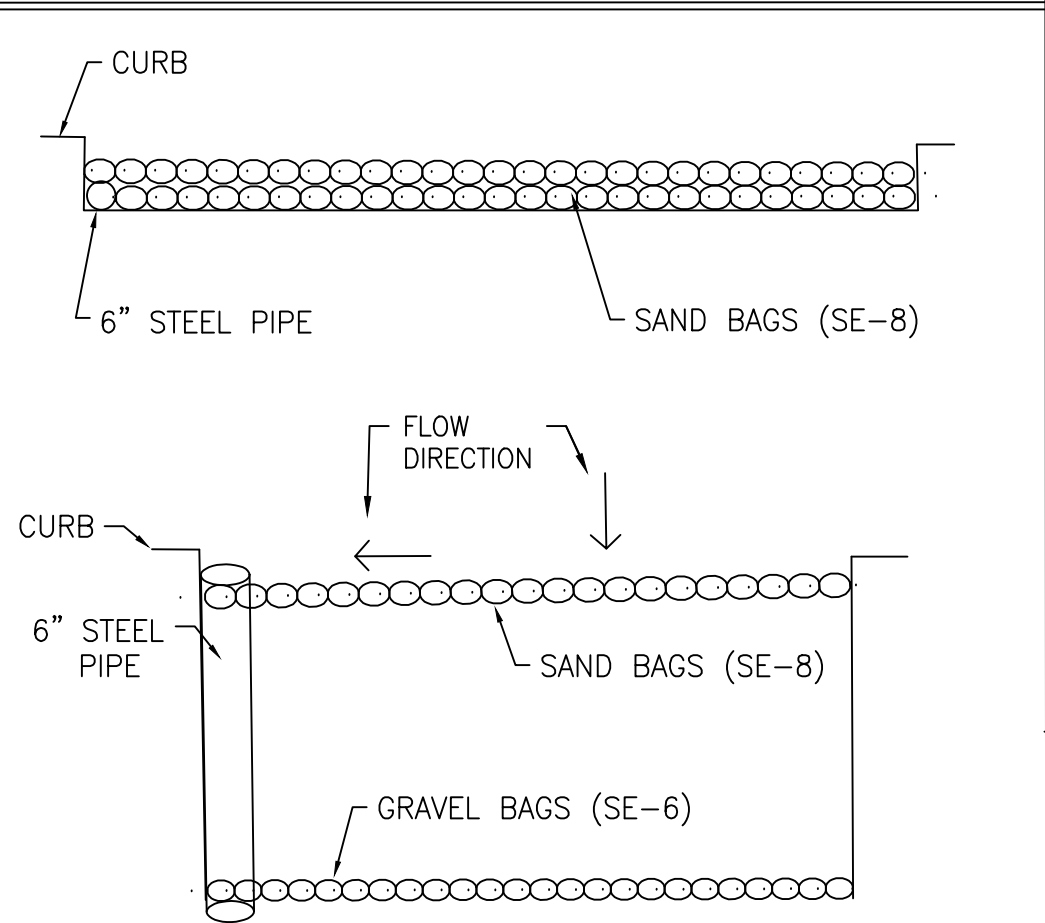


- NOTES:
1. THE CONSTRUCTION EXIT ROADWAYS SHALL BE STABILIZED SO AS TO PREVENT SEDIMENT FROM BEING DEPOSITED INTO THE PUBLIC ROADS. SEDIMENT MUST BE SWEEPED UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS INTO THE STORM DRAIN SYSTEM.
  2. STABILIZED CONSTRUCTION EXITS SHALL BE LOCATED AT ANY POINT WHERE TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE OR FROM A PUBLIC RIGHT OF WAY, STREET, ALLEY, AND SIDEWALK OR PARKING AREA.
  3. IF A WASH RACK IS INCLUDED, A SEDIMENT TRAP OF SOME KIND MUST ALSO BE PROVIDED TO COLLECT WASH WATER RUNOFF.
  4. ALL VEHICLES ACCESSING THE CONSTRUCTION SITE SHALL UTILIZE THE STABILIZED CONSTRUCTION EXITS.

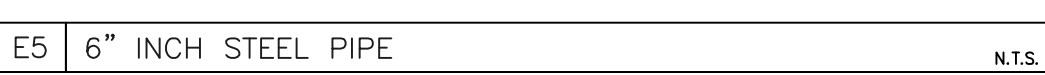
- STREET MAINTENANCE NOTES
1. REMOVE ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS IMMEDIATELY.
  2. SWEEP PAVED AREAS THAT RECEIVE CONSTRUCTION TRAFFIC WHENEVER SEDIMENT BECOMES VISIBLE.
  3. PAVEMENT WASHING WITH WATER IS PROHIBITED IF IT RESULTS IN A DISCHARGE TO THE STORM DRAIN SYSTEM



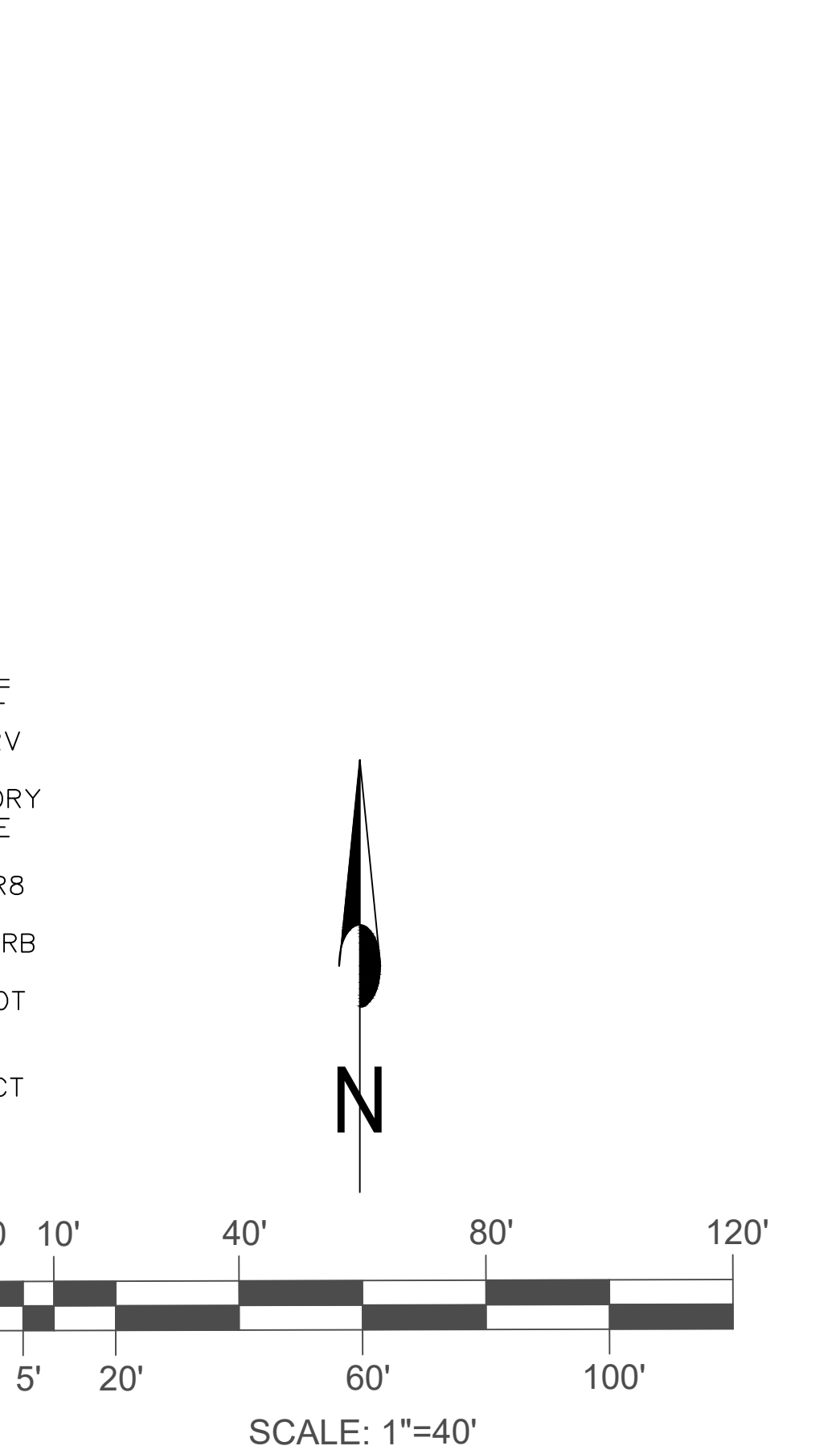
- BMP NOTES:
1. MAINTAIN CURB AND GUTTER AS ELEVATION CONTROL AGAINST RUN-ON FROM WILSHIRE BLVD, SANTA MONICA BLVD AND MERV GRIFFIN WAY.
  2. STORM DRAIN INLET PROTECTION SHALL BE UTILIZED DURING DRY TIMES TO PREVENT DEBRIS AND SEDIMENT FROM ENTERING THE INLET FROM VEHICLE AND EQUIPMENT TRAFFIC.
  3. THE SUGGESTED BMP FOR AREA DRAIN PROTECTION IS THE GR8 GUARD.
  4. THE SUGGESTED BMP FOR CURB INLET PROTECTION IS THE CURB INLET SILT FILTER.
  5. LIMIT EGRESS TO ONE, OR TWO LOCATIONS. ENTRANCES DO NOT REQUIRE TC-1.
  6. CHECK DAMS SHALL BE IMPLEMENTED PRIOR TO RAIN EVENTS, WHICH THE CONTRACTOR WILL BE NOTIFIED OF BY THE PROJECT QSP.
  7. WM-1, WM-5, AND WM-9 TO BE SITED AS NECESSARY PER AREAS OF WORK

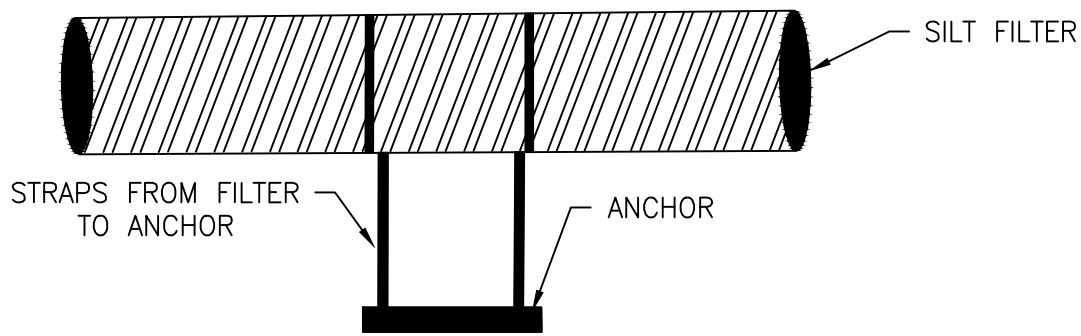
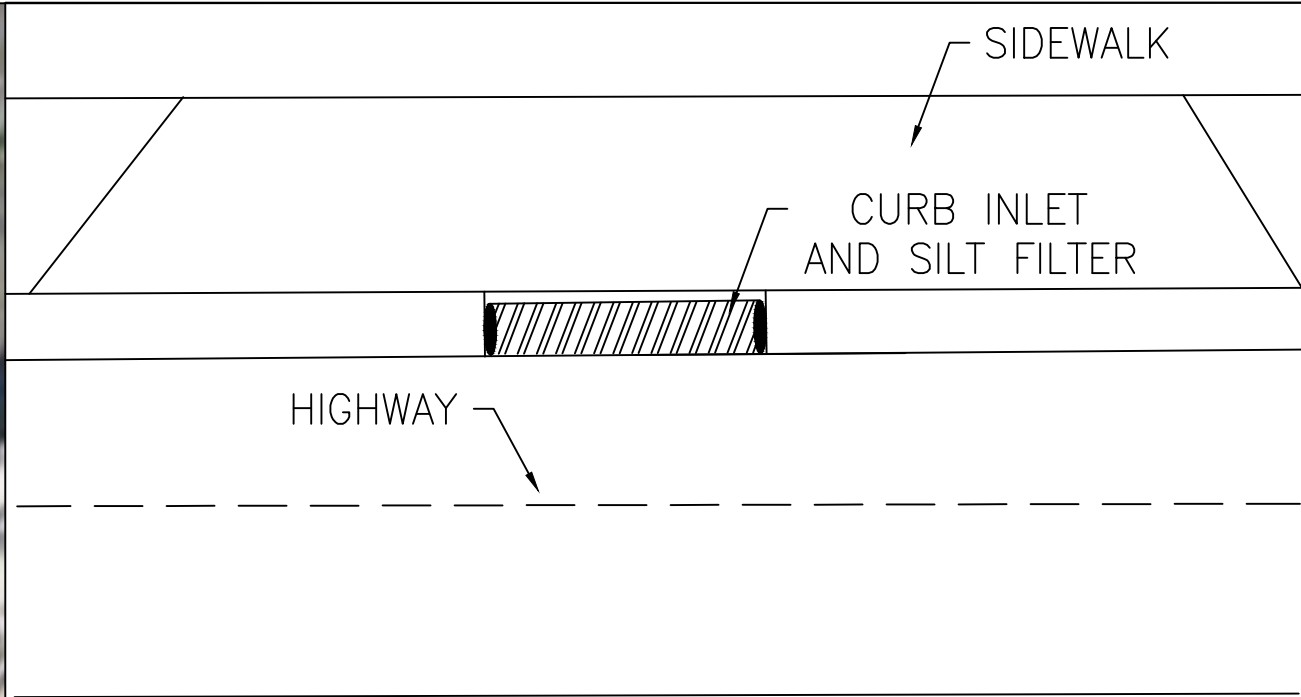
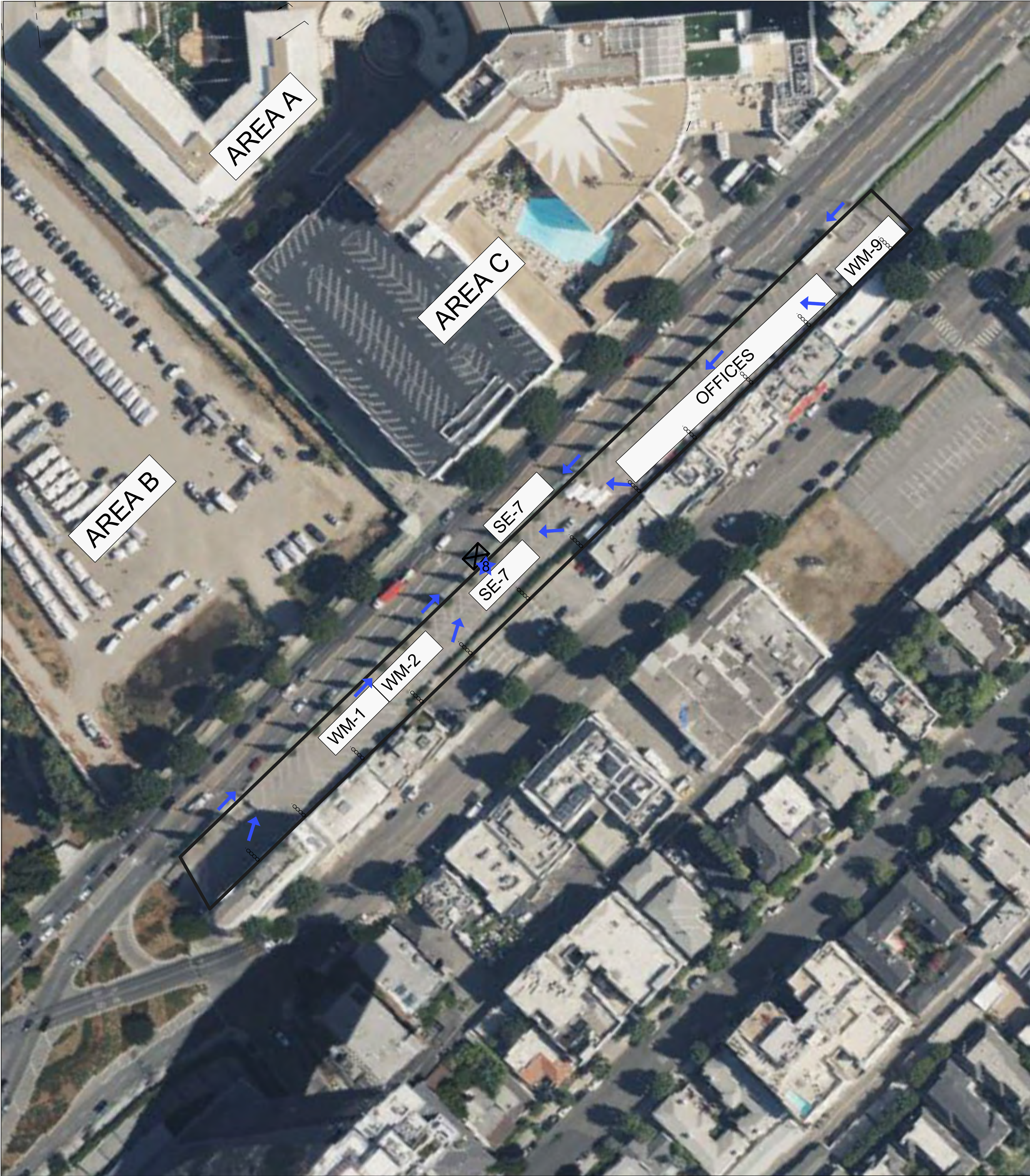


- NOTES:
1. THE INSTALLATION OF THIS SEDIMENT CONTROL PLAN SHALL BE IMPLEMENTED SUBSEQUENT TO THE DEMOLITION OF THE ROAD ON MERV GRIFFIN WAY.
  2. A 6" INCH STEEL PIPE SHALL RUN ADJACENT TO THE CURB ON MERV GRIFFIN WAY.
  3. SAND BAGS SHALL BE PLACED PERPENDICULAR TO THE TOP OF THE STEEL PIPE SO THAT RUN OFF CAN BE DIRECTED TO THE OPENING OF THE PIPE.
  4. SAND BAGS SHALL BE PLACED ON TOP OF THE STEEL PIPE TO ANCHOR THE PIPE AND TO ENSURE THAT RUN OFF DOES NOT FLOW OVER THE TOP OF THE PIPE.
  5. THE GRAVEL BAG BERM SHALL BE PLACED OVER THE END OF STEEL PIPE TO ENSURE THAT IT IS SECURED IN PLACE.



- SEDIMENT CONTROL NOTES:
- E1 STORM DRAIN INLET PROTECTION PER DETAIL 1, HEREON
  - E2 ADD CURB DRAIN INLET PROTECTION PER DETAIL 2, HEREON.
  - E3 PLACE GRAVEL BAGS TRIPLE ROW PER DETAIL 3, HEREON.
  - E4 STABILIZED CONSTRUCTION ENTRANCE PER DETAIL 4, HEREON.
  - E5 IMPLEMENT 6" INCH STEEL PIPE PER DETAIL 5, HEREON





- NOTES:
- 1. THE CURB INLET SILT FILTER IS A SEDIMENT CONTROL BMP USED FOR STORM DRAIN INLET PROTECTION.
  - 2. THE SILT FILTER LIES FLUSH WITH THE CURB DRAIN INLET SO THAT IT DOES NOT ENCR OACH INTO THE HIGHWAY.
  - 3. ATTACHED TO THE SILT FILTER IS AN ANCHOR THAT IS TO BE PLACED INSIDE OF THE INLET WHICH WILL SECURE THE FILTER.
  - 4. THE SILT FILTER WILL BE UTILIZED ON CURB CUT TYPE INLETS ON WILSHIRE AND SANTA MONICA BLVD.

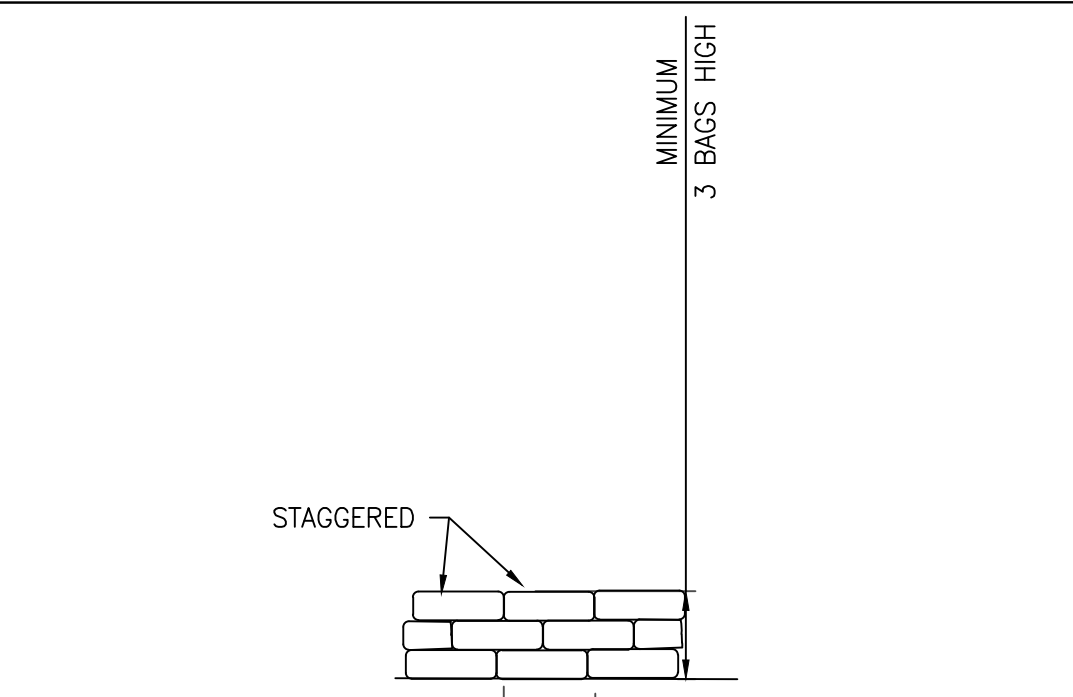
E2 PSI 9" x 6' CURB INLET SILT FILTER N.T.S.

BMP NOTES:

- 1. MAINTAIN CURB AND GUTTER AS RUN-ON PREVENTION.
- 2. STORM DRAIN INLET PROTECTION SHALL BE UTILIZED DURING DRY TIMES TO PREVENT DEBRIS AND SEDIMENT FROM ENTERING THE INLET FROM VEHICLE AND EQUIPMENT TRAFFIC.
- 3. THE SUGGESTED BMP FOR CURB INLET PROTECTION IS THE CURB INLET SILT FILTER.
- 4. MAINTAIN EXISTING ASPHALT IN GOOD CONDITION.
- 5. CHECK DAMS SHALL BE IMPLEMENTED PRIOR TO RAIN EVENTS, WHICH THE CONTRACTOR WILL BE NOTIFIED OF BY THE PROJECT QSP.
- 6. WM-1, WM-5, AND WM-9 TO BE SITED AS NECESSARY PER AREAS OF WORK.

SEDIMENT CONTROL NOTES:

- E1 STORM DRAIN INLET PROTECTION PER DETAIL 1, HEREON
- E2 ADD CURB DRAIN INLET PROTECTION PER DETAIL 2, HEREON.
- E3 PLACE GRAVEL BAGS TRIPLE ROW PER DETAIL 3, HEREON.

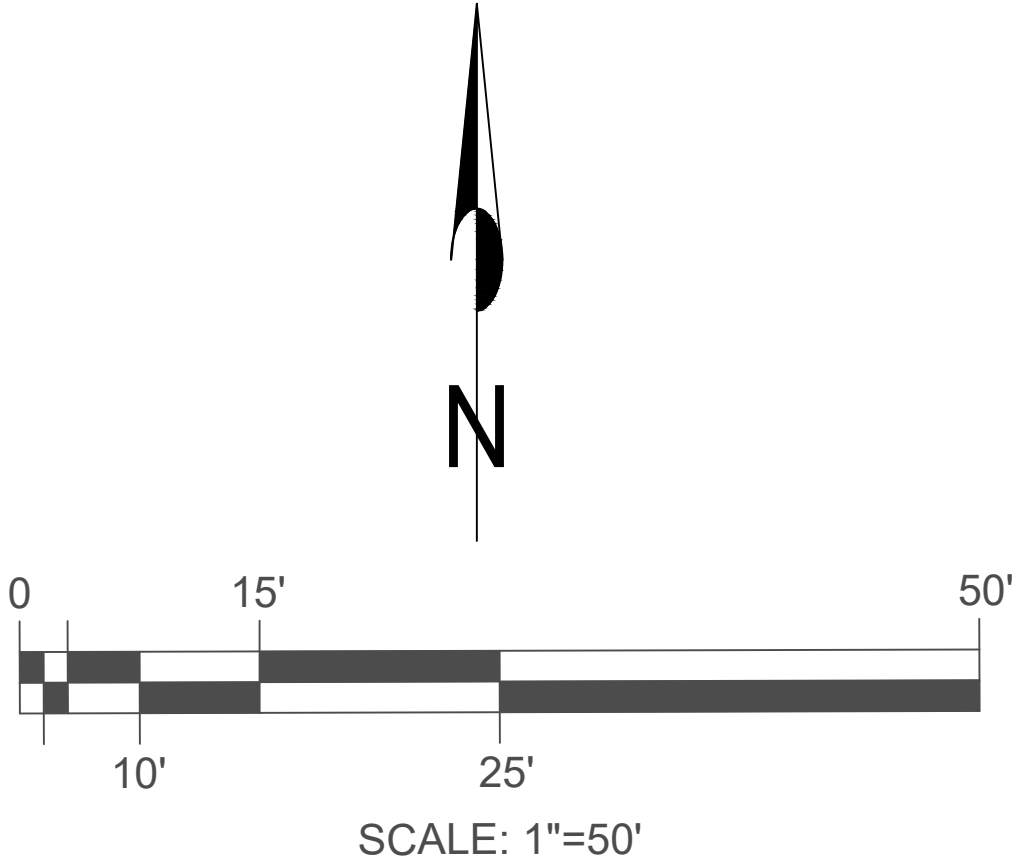


- NOTES:
- 1. BAG SIZE: EACH GRAVEL-FILLED BAG SHOULD HAVE A LENGTH OF 18 IN., WIDTH OF 12 IN., THICKNESS OF 3 IN., AND MASS OF APPROXIMATELY 33 LBS. BAG DIMENSIONS ARE NOMINAL, AND MAY VARY BASED ON LOCALLY AVAILABLE MATERIALS.
  - 2. FILL MATERIAL: FILL MATERIAL SHALL BE 0.5 TO 1.0 INCH CRUSHED ROCK, CLEAN AND FREE OF CLAY, ORGANIC MATTER, AND OTHER DELETERIOUS MATERIAL, OR OTHER SUITABLE OPEN-GRADED, NON-COHESIVE, POROUS GRAVEL.
  - 3. TURN THE ENDS OF GRAVEL BAG BARRIER UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND BARRIER.
  - 4. USE PYRAMID APPROACH WHEN STACKING BAGS.

E3 GRAVEL BAG BARRIER N.T.S.

LEGEND

	PROJECT EXTENT	TEMPORARY SEDIMENT CONTROL
---	PROJECT EXTENT	SE-4 CHECK DAM
----	PROPERTY LINE	SE-6 GRAVEL BAG BERM
.....	GRAVEL BAGS (SE-6)	SE-7 STREET SWEEPING AND VACUUMING
.....	SAND BAGS (SE-8)	SE-8 SAND BAGS
.....	DIRECTION OF TRAFFIC	SE-10 STORM DRAIN INLET PROTECTION
.....	STORM DRAIN INLET PROTECTION (SE-10)	EQUIPMENT TRACKING CONTROL
.....	CURB DRAIN INLET PROTECTION (SE-10)	TC-1 STABILIZED CONSTRUCTION EXIT/ENTRANCE
.....	ADDITIONAL PHASES	WIND EROSION CONTROL
.....	SAMPLING LOCATION	WE-1 WIND EROSION CONTROL
.....	6" STEEL PIPE	NON-STORMWATER MANAGEMENT
.....	DIRECTION OF FLOW	NS-2 DEWATERING OPERATIONS
.....	CHECK DAM (SE-4)	



PREPARED FOR:  
**BEVERLY HILLS, CALIFORNIA**  
PREPARED BY:  
NVS LONG BEACH BLDG. ANNEX BLDG.  
LONG BEACH, CA 90807  
TEL: (562) 495-5977  
FAX: (562) 495-5977  
(BASE DRAWING PREPARED BY OTHERS)

**NVS**

NO.	DATE	REVISION	BY
3	01/15/2024	SMB LAYDOWN YARD	HS

ONE BEVERLY HILLS  
WPCD-4 SANTA MONICA BLVD LAYDOWN YARD  
BEVERLY HILLS, CALIFORNIA

DATE: 01/15/2024  
SCALE: 1" = 50'  
FIGURE NO.: WPCD-4  
FILE NO.: 19-001-13-1-1922

## Appendix B: Permit Registration Documents

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Permit Registration Documents included in this Appendix:

<b>Location in SWPPP</b>	<b>Permit Registration Document</b> (in addition to a copy of the SWPPP)
	Notice of Intent
App B	Risk Level Determination
	Certification
App L	Post-Construction Requirements, if applicable
N/A	Post-Construction Water Balance Calculator, if applicable
	Copy of Annual Fee Receipt
N/A	ATS Design Documents, if applicable
App R	Passive Treatment Design Documents, if applicable
	Site Maps and Drawings, see Appendix A



## Rainfall Erosivity Factor Calculator for Small Construction Sites

EPA's stormwater regulations allow NPDES permitting authorities to waive NPDES permitting requirements for stormwater discharges from small construction sites if:

- the construction site disturbs less than five acres, and
- the rainfall erosivity factor ("R" in the revised universal soil loss equation, or RUSLE) value is less than five during the period of construction activity.

If your small construction project is located in an area where EPA is the permitting authority and your R factor is less than five, you qualify for a low erosivity waiver (LEW) from NPDES stormwater permitting. If your small construction project does not qualify for a waiver, then NPDES stormwater permit coverage is required. Follow the steps below to calculate your R-Factor.

LEW certifications are submitted through the NPDES eReporting Tool or "CGP-NeT". Several states that are authorized to implement the NPDES permitting program also accept LEWs. Check with your state NPDES permitting authority for more information.

- [Submit your LEW through EPA's eReporting Tool](#)
- [List of states, Indian country, and territories where EPA is the permitting authority\\_\(pdf\)](#)
- [Construction Rainfall Erosivity Waiver Fact Sheet](#)
- [Small Construction Waivers and Instructions\\_\(pdf\)](#)

The R-factor calculation can also be integrated directly into custom applications using the [R-Factor web service](#).


For questions or comments, email EPA's CGP staff at [cgp@epa.gov](mailto:cgp@epa.gov).

 Select the estimated start and end dates of construction by clicking the boxes and using the dropdown calendar.

The period of construction activity begins at initial earth disturbance and ends with final stabilization.

**Start Date:**  

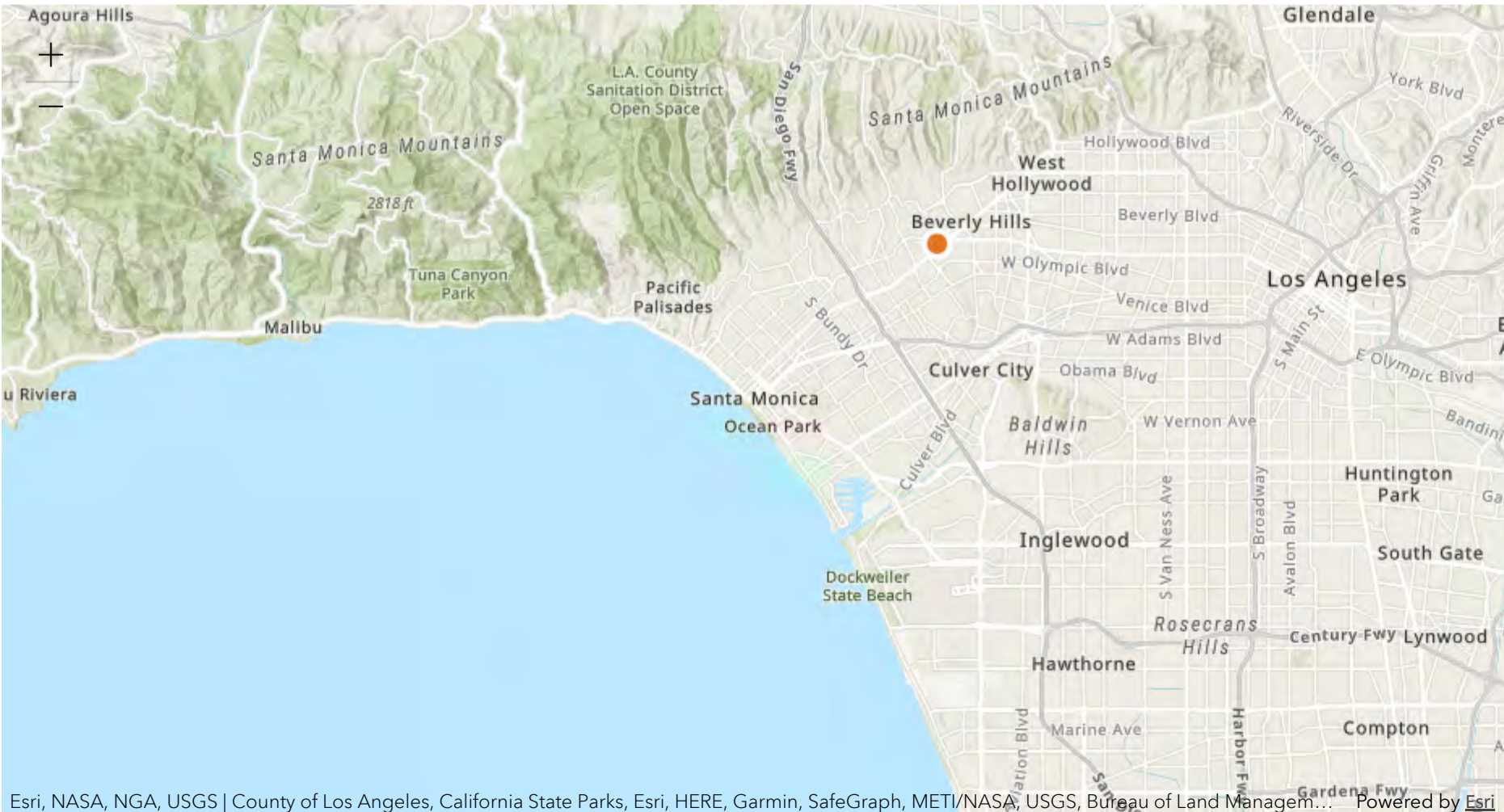
**End Date:**  

 Locate your small construction project using the search box below or by clicking on the map.

**Location:**

**Search**

OBH CAIN#144 - 240604 OBH PROJECT PROCEDURES MANUAL REV. 1



Calculate R Factor

Facility Information

Start Date: 01/10/2019	Latitude: 34.0658
End Date: 01/09/2020	Longitude: -118.4147

Calculation Results

Rainfall erosivity factor (R Factor) = **48.75**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

**You do NOT qualify for a waiver from NPDES permitting requirements and must seek Construction General Permit (CGP) coverage.** If you are located in an [area where EPA is the permitting authority\\_\(pdf\)](#), you must submit a Notice of Intent (NOI) through the [NPDES eReporting Tool \(NeI\)](#).Otherwise, you must seek coverage under your state’s CGP.

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 Select the estimated start and end dates of construction by clicking the boxes and using the dropdown calendar.

The period of construction activity begins at initial earth disturbance and ends with final stabilization.

**Start Date:** 01/10/2020 

**End Date:** 01/09/2021 

 Locate your small construction project using the search box below or by clicking on the map.

**Location:** 34.06580, -118.41470

**Search**

OBH CAIN#144 - 240604 OBH PROJECT PROCEDURES MANUAL REV. 1



Calculate R Factor

Facility Information

Start Date: 01/10/2020	Latitude: 34.0658
End Date: 01/09/2021	Longitude: -118.4147

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The period of construction activity begins at initial earth disturbance and ends with final stabilization.

**Start Date:** 01/10/2021 

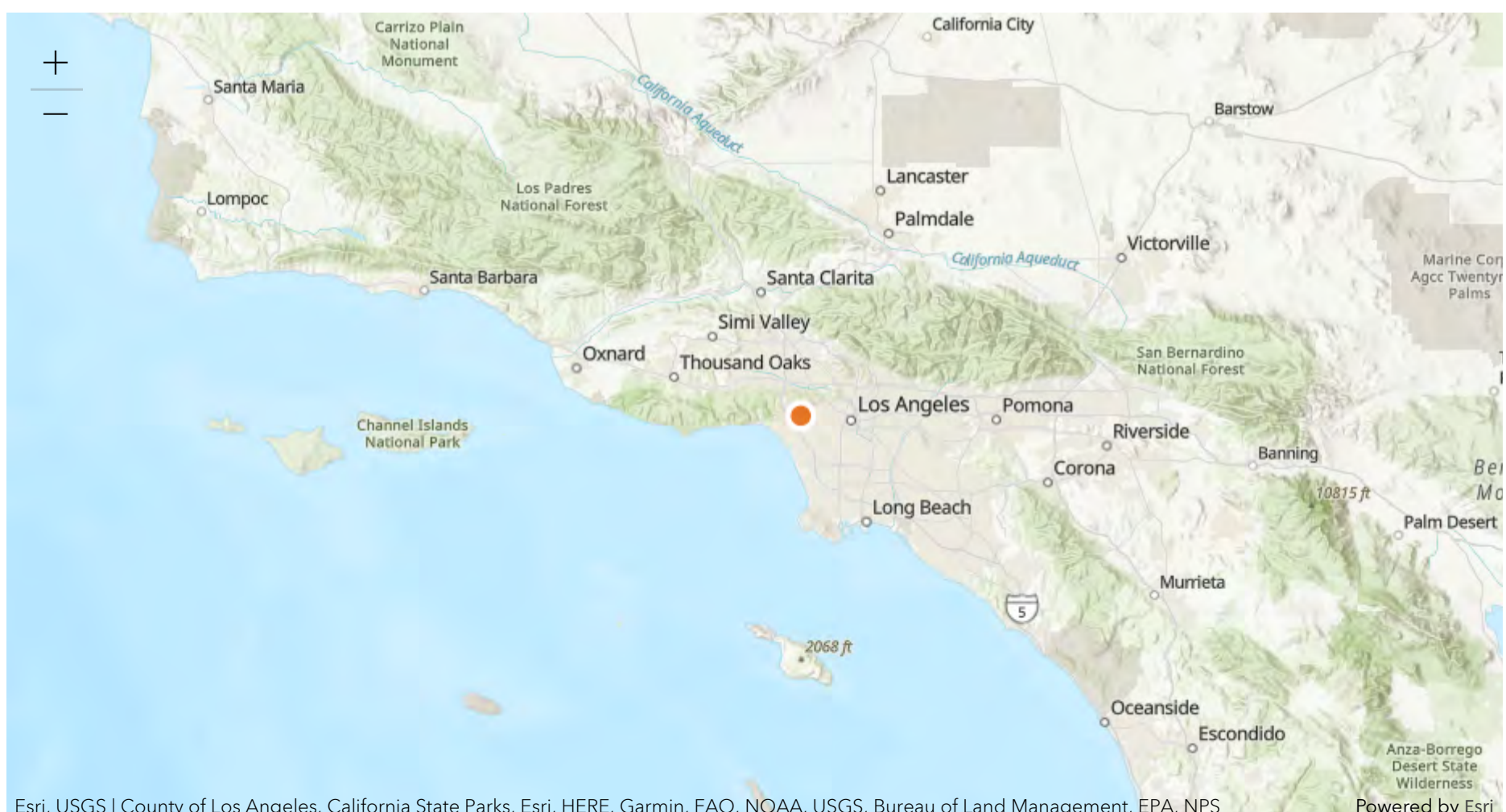
**End Date:** 01/09/2022 

 Locate your small construction project using the search box below or by clicking on the map.

**Location:** 34.06580, -118.41470

**Search**

OBH CAIN#144 - 240604 OBH PROJECT PROCEDURES MANUAL REV. 1



Calculate R Factor

Facility Information

Start Date: 01/10/2021	Latitude: 34.0658
End Date: 01/09/2022	Longitude: -118.4147

Calculation Results

Rainfall erosivity factor (R Factor) = **48.75**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

**You do NOT qualify for a waiver from NPDES permitting requirements and must seek Construction General Permit (CGP) coverage.** If you are located in an [area where EPA is the permitting authority\\_\(pdf\)](#), you must submit a Notice of Intent (NOI) through the [NPDES eReporting Tool \(NeI\)](#). Otherwise, you must seek coverage under your state’s CGP.

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The period of construction activity begins at initial earth disturbance and ends with final stabilization.

**Start Date:** 01/10/2022 

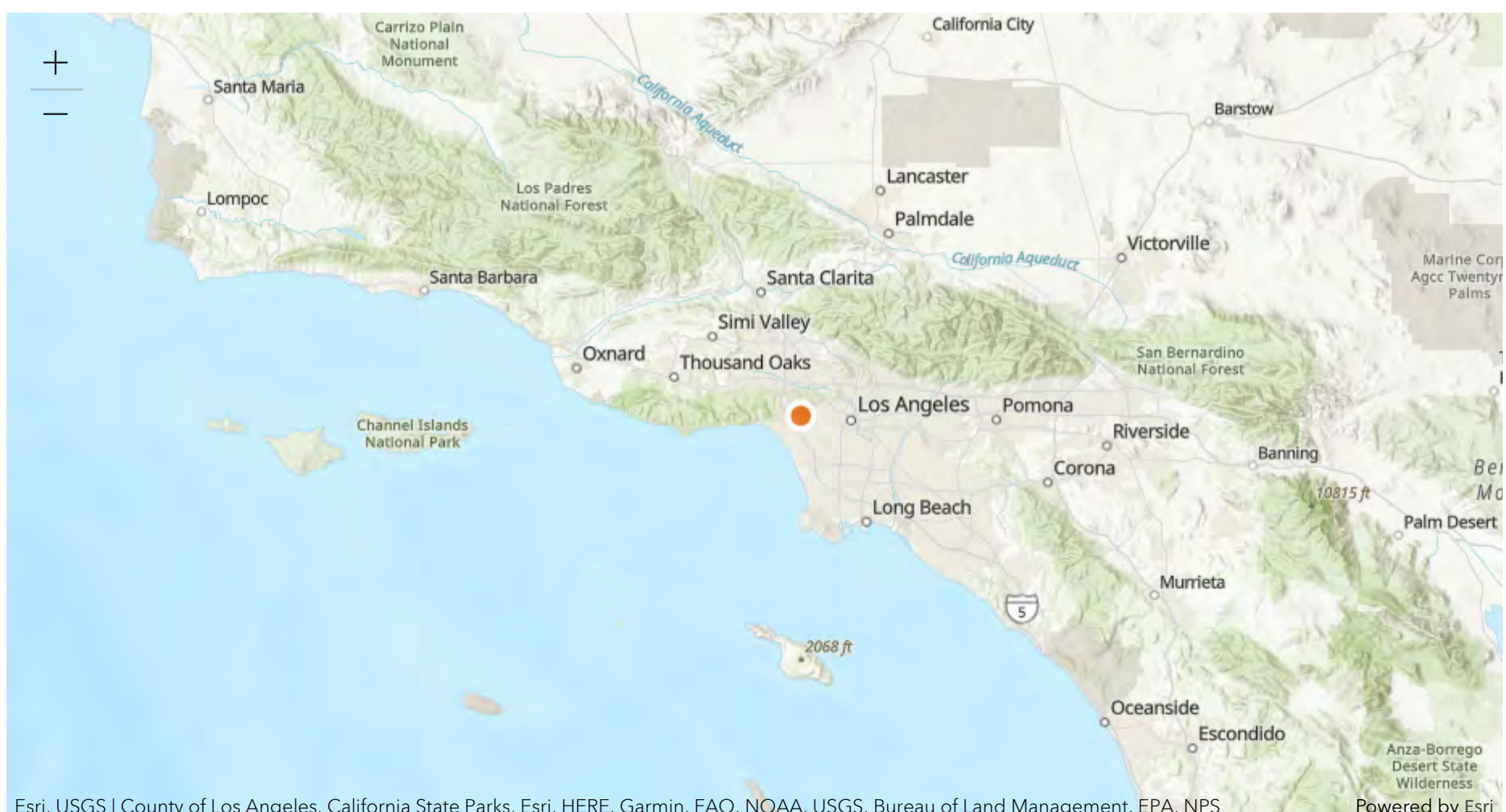
**End Date:** 01/09/2023 

 Locate your small construction project using the search box below or by clicking on the map.

**Location:** 34.06580, -118.41470

**Search**

OBH CAIN#144 - 240604 OBH PROJECT PROCEDURES MANUAL REV. 1



Calculate R Factor

Facility Information

Start Date: 01/10/2022	Latitude: 34.0658
End Date: 01/09/2023	Longitude: -118.4147

Calculation Results

Rainfall erosivity factor (R Factor) = **48.75**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

**You do NOT qualify for a waiver from NPDES permitting requirements and must seek Construction General Permit (CGP) coverage.** If you are located in an [area where EPA is the permitting authority\\_\(pdf\)](#), you must submit a Notice of Intent (NOI) through the [NPDES eReporting Tool \(NeI\)](#). Otherwise, you must seek coverage under your state’s CGP.

## Rainfall Erosivity Factor Calculator for Small Construction Sites

EPA's stormwater regulations allow NPDES permitting authorities to waive NPDES permitting requirements for stormwater discharges from small construction sites if:

- the construction site disturbs less than five acres, and
- the rainfall erosivity factor ("R" in the revised universal soil loss equation, or RUSLE) value is less than five during the period of construction activity.

If your small construction project is located in an area where EPA is the permitting authority and your R factor is less than five, you qualify for a low erosivity waiver (LEW) from NPDES stormwater permitting. If your small construction project does not qualify for a waiver, then NPDES stormwater permit coverage is required. Follow the steps below to calculate your R-Factor.

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The R-factor calculation can also be integrated directly into custom applications using the [R-Factor web service](#).


For questions or comments, email EPA's CGP staff at [cgp@epa.gov](mailto:cgp@epa.gov).

 Select the estimated start and end dates of construction by clicking the boxes and using the dropdown calendar.

The period of construction activity begins at initial earth disturbance and ends with final stabilization.

**Start Date:** 01/10/2023 

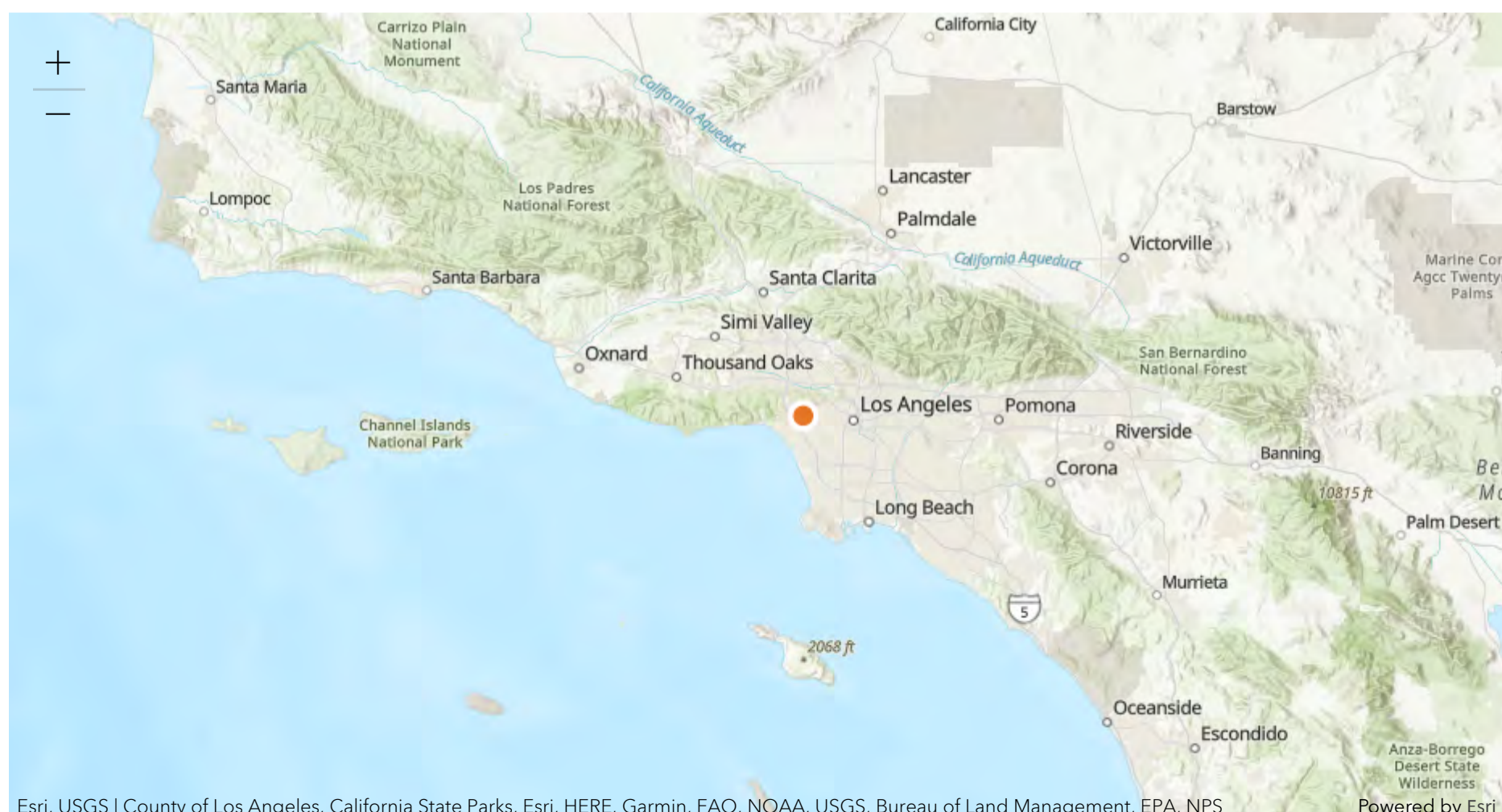
**End Date:** 01/09/2024 

 Locate your small construction project using the search box below or by clicking on the map.

**Location:** 34.06580, -118.41470

**Search**

OBH CAIN#144 - 240604 OBH PROJECT PROCEDURES MANUAL REV. 1



Calculate R Factor

Facility Information

Start Date: 01/10/2023	Latitude: 34.0658
End Date: 01/09/2024	Longitude: -118.4147

Calculation Results

Rainfall erosivity factor (R Factor) = **48.75**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

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 Select the estimated start and end dates of construction by clicking the boxes and using the dropdown calendar.

The period of construction activity begins at initial earth disturbance and ends with final stabilization.

**Start Date:**  

**End Date:**  

 Locate your small construction project using the search box below or by clicking on the map.

**Location:**

**Search**



Calculate R Factor

Facility Information

Start Date: 01/10/2024	Latitude: 34.0658
End Date: 01/09/2025	Longitude: -118.4147

Calculation Results

Rainfall erosivity factor (R Factor) = **48.75**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

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 Select the estimated start and end dates of construction by clicking the boxes and using the dropdown calendar.

The period of construction activity begins at initial earth disturbance and ends with final stabilization.

**Start Date:**  

**End Date:**  

 Locate your small construction project using the search box below or by clicking on the map.

**Location:**

**Search**



Calculate R Factor

Facility Information

Start Date: 01/10/2025	Latitude: 34.0658
End Date: 01/09/2026	Longitude: -118.4147

Calculation Results

Rainfall erosivity factor (R Factor) = **48.75**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

**You do NOT qualify for a waiver from NPDES permitting requirements and must seek Construction General Permit (CGP) coverage.** If you are located in an [area where EPA is the permitting authority\\_\(pdf\)](#), you must submit a Notice of Intent (NOI) through the [NPDES eReporting Tool \(NeI\)](#). Otherwise, you must seek coverage under your state’s CGP.

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 Select the estimated start and end dates of construction by clicking the boxes and using the dropdown calendar.

The period of construction activity begins at initial earth disturbance and ends with final stabilization.

**Start Date:**  

**End Date:**  

 Locate your small construction project using the search box below or by clicking on the map.

**Location:**

**Search**



Calculate R Factor

Facility Information

Start Date: 01/10/2026	Latitude: 34.0658
End Date: 01/09/2027	Longitude: -118.4147

Calculation Results

Rainfall erosivity factor (R Factor) = **48.75**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

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The period of construction activity begins at initial earth disturbance and ends with final stabilization.

Start Date: 01/10/2027 

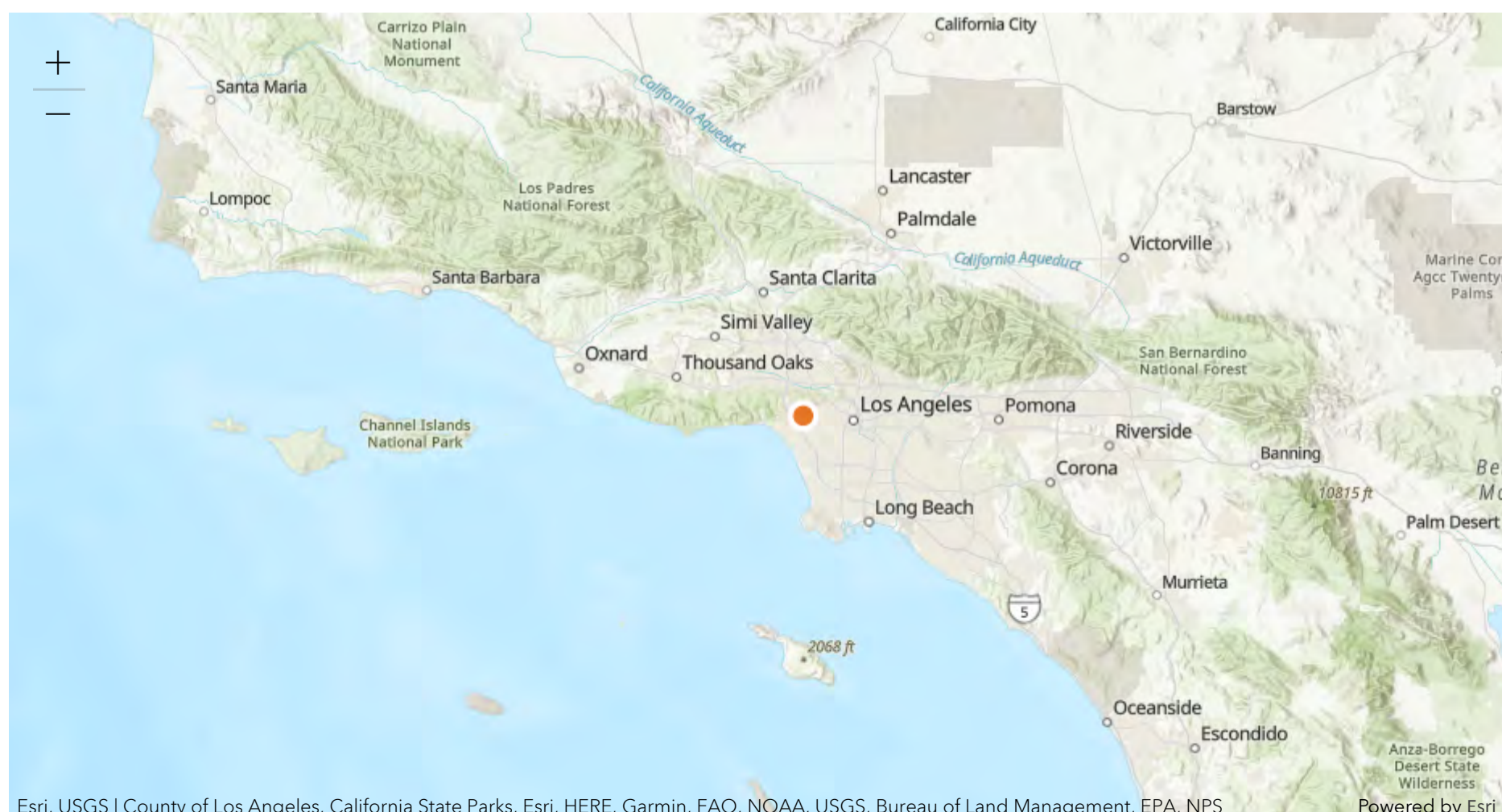
End Date: 01/09/2028 

 Locate your small construction project using the search box below or by clicking on the map.

Location: 34.06580, -118.41470

Search

OBH CAIN#144 - 240604 OBH PROJECT PROCEDURES MANUAL REV. 1



Calculate R Factor

Facility Information

Start Date: 01/10/2027	Latitude: 34.0658
End Date: 01/09/2028	Longitude: -118.4147

Calculation Results

Rainfall erosivity factor (R Factor) = **48.75**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

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 Select the estimated start and end dates of construction by clicking the boxes and using the dropdown calendar.

The period of construction activity begins at initial earth disturbance and ends with final stabilization.

**Start Date:**  

**End Date:**  

 Locate your small construction project using the search box below or by clicking on the map.

**Location:**

**Search**



Calculate R Factor

Facility Information

Start Date: 01/10/2028	Latitude: 34.0658
End Date: 01/09/2029	Longitude: -118.4147

Calculation Results

Rainfall erosivity factor (R Factor) = **48.75**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

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	A	B	C
1	<b>Sediment Risk Factor Worksheet</b>		<b>Entry</b>
2	<b>A) R Factor</b>		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	<a href="http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm">http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm</a>		
5	<b>R Factor Value</b>		487.5
6	<b>B) K Factor (weighted average, by area, for all site soils)</b>		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	<a href="#">Site-specific K factor guidance</a>		
9	<b>K Factor Value</b>		0.37
10	<b>C) LS Factor (weighted average, by area, for all slopes)</b>		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	<a href="#">LS Table</a>		
13	<b>LS Factor Value</b>		0.8
14			
15	<b>Watershed Erosion Estimate (=RxKxLS) in tons/acre</b>		144.3
16	<b>Site Sediment Risk Factor</b>		<b>High</b>
17	Low Sediment Risk: < 15 tons/acre		
18	Medium Sediment Risk: >=15 and <75 tons/acre		
19	High Sediment Risk: >= 75 tons/acre		
20			

Receiving Water (RW) Risk Factor Worksheet		Entry	Score
A. Watershed Characteristics		yes/no	
A.1. Does the disturbed area discharge (either directly or indirectly) to a <b>303(d)-listed waterbody impaired by sediment</b> (For help with impaired waterbodies please visit the link below) or has a <b>USEPA approved TMDL implementation plan for sediment</b> ?: <a href="http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml">http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml</a> <b>OR</b>		no	Low
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? (For help please review the appropriate Regional Board Basin Plan) <a href="http://www.waterboards.ca.gov/waterboards_map.shtml">http://www.waterboards.ca.gov/waterboards_map.shtml</a>			
<a href="#">Region 1 Basin Plan</a> <a href="#">Region 2 Basin Plan</a> <a href="#">Region 3 Basin Plan</a> <a href="#">Region 4 Basin Plan</a> <a href="#">LS Factor Value</a> <a href="#">Region 6 Basin Plan</a> <a href="#">Region 7 Basin Plan</a> <a href="#">Region 8 Basin Plan</a> <a href="#">Region 9 Basin Plan</a>			

Combined Risk Level Matrix			
<u>Receiving Water Risk</u>	<u>Sediment Risk</u>		
	Low	Medium	High
	Low	Level 2	
High	Level 2		Level 3

Project Sediment Risk: **High**

Receiving Water Risk: **Low**

Project Combined Risk: **Level 2**



## Appendix C: SWPPP Amendment QSD Certifications

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# **CERTIFICATE OF TRAINING**

**CALIFORNIA CONSTRUCTION GENERAL PERMIT**

## **QUALIFIED SWPPP DEVELOPER (QSD) AND QUALIFIED SWPPP PRACTITIONER (QSP)**

**Matt Renaud**

**Mar 23, 2023 - May 23, 2025**

*Certificate # 00740*



**California Stormwater Quality Association and  
California Construction General Permit Training Team**



The CPESC® Application Review Committee  
certifies that

**Matthew M. Renaud**

Subscribes to the Code of Conduct and Ethics and has met the requirements  
established by the CPESC Council as a

**Certified Professional in Erosion  
and Sediment Control™**

*An EnviroCert International, Inc. Program*

Certification Number: **6156**

Certification Date: **December 14, 2010**

*Donald W. Lake Jr.*  
Chair, CPESC Council

*Lina Burleson*  
CPESC Program Manager



*The CPESC Program was established in 1982.*



The CESSWI™ Application Review Committee  
certifies that

**Matthew Marc Renaud**


Subscribes to the Code of Conduct and Ethics and has met the requirements  
established by the CESSWI Council as a

**Certified Erosion, Sediment and  
Storm Water Inspector™**

*An EnviroCert International, Inc. Program*

Certification Number: 2487

Certification Date: December 19, 2011

  
Chair, CESSWI Council

  
CESSWI Program Manager



*The CESSWI Program was established in 2007.*

