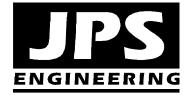
# STORMWATER MANAGEMENT PLAN (SWMP) for NOR'WOOD BIBLE CHURCH LOT 38, SADDLEHORN RANCH FILING NO. 3

**Prepared for:** 

ROI Property Group, LLC 2495 Rigdon Street Napa, CA 94558

January, 2024

**Prepared by:** 



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JPS Project No. 042303 PCD Project No. PPR2346

QUALIFIED STORMWATER MANAGER:	
Name:	
Company:	
Address:	

#### **CONTRACTOR:**

Name:	
Company:	
Address:	

# NOR'WOOD BIBLE CHURCH LOT 38, SADDLEHORN RANCH FILING NO. 3 STORMWATER MANAGEMENT PLAN (SWMP) <u>TABLE OF CONTENTS</u>

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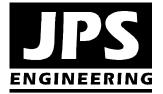
#### APPENDIX

Appendix A Grading & Erosion Control (GE	C) Plans (incorporated by reference)
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Appendix B Inspection Forms

#### General SWMP Notes:

- 1. There are no existing streams, wetlands, or other surface waters within 50 feet of the construction limits.
- 2. There are no dedicated asphalt / concrete batch plants proposed.
- 3. Potential allowable non-stormwater discharges from this site may include groundwater if encountered during construction or dewatering operations (project geotechnical report identifies shallow groundwater conditions at this site). There are no other anticipated allowable non-stormwater discharges from this site (no springs, irrigation, discharge covered by CDPHE Low Risk Guidance, etc.).



# NOR'WOOD BIBLE CHURCH LOT 38, SADDLEHORN RANCH FILING NO. 3 STORMWATER MANAGEMENT PLAN (SWMP)

## I. QUALIFIED STORMWATER MANAGER

#### A. Qualified Stormwater Manager

Name:	
Company:	
Address:	

#### B. Applicant / Contact Information

- Developer: ROI Property Group, LLC 2495 Rigdon Street Napa, CA 94558 (707)-365-6891
- Engineer: JPS Engineering, Inc. 19 E. Willamette Avenue Colorado Springs, CO 80903 Attn: John P. Schwab, P.E. (719)-477-9429 john@jpsengr.com

## II. SPILL PREVENTION AND RESPONSE PLAN

- A. Spill Prevention and Response Procedures:
  - The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize their migration into storm water runoff and conveyance systems. If the release has impacted on-site storm water, it is critical to contain the released materials on site and prevent their release into receiving waters.

- Spill Response Procedures:
  - Notify site superintendent immediately when a spill, or the threat of a spill, is observed. The superintendent shall assess the situation and determine the appropriate response.
  - If spills represent an imminent threat of escaping on-site facilities and entering the receiving waters, site personnel shall respond immediately to contain the release and notify the superintendent after the situation has stabilized.
  - The site superintendent, or his designee, shall be responsible for completing a spill reporting form and for reporting the spill to the appropriate agency.
  - Spill response equipment shall be inspected and maintained as necessary to replace any materials used in spill response activities.
- Spill kits shall be on-hand at all fueling sites. Spill kit location(s) shall be reported to the SWMP Administrator.
- Absorbent materials shall be on-hand at all fueling areas for use in containing inadvertent spills. Containers shall be on-hand at all fueling sites for disposal of used absorbents.
- Recommended components of spill kits include the following:
  - Oil absorbent pads (one bale)
  - Oil absorbent booms (40 feet)
  - 55-gallon drums (2)
  - 9-mil plastic bags (10)
  - Personal protective equipment including gloves and goggles
- B. Notification Procedures:
  - In the event of an accident or spill, the SWMP Administrator shall be notified as a minimum.
  - Depending on the nature of the spill material involved, the Colorado Department of Public Health and Environment (24-hour spill reporting line: 877-518-5608), downstream water users, or other agencies may also need to be notified.
  - Any spill of oil which 1) violates water quality standards, 2) produces a "sheen" on a surface water, or 3) causes a sludge or emulsion, or any hazardous substance release, or hazardous waste release which exceeds the reportable quantity, must be reported immediately by telephone to the National Response Center Hotline at (800)-424-8802.

## III. MATERIALS HANDLING

- A. General Materials Handling Practices:
  - Potential pollutants shall be stored and used in a manner consistent with the manufacturer's instructions in a secure location. To the extent practical, material storage areas should not be located near storm drain inlets and should be equipped with covers, roofs, or secondary containment as required to prevent storm water from contacting stored materials.

- Chemicals that are not compatible shall be stored and segregated areas so that spilled materials cannot combine and react.
- Disposal of materials shall be in accordance with the manufacturer's instructions and applicable local, state, and federal regulations.
- Materials no longer required for construction shall be removed from the site as soon as possible.
- B. Adequate garbage, construction waste, and sanitary waste handling and disposal facilities shall be provided as necessary to keep the site clear of obstruction and Stormwater Control Measures (SCMs) clear and functional.
- C. Specific Materials Handling Practices:
  - All pollutants, including waste materials and demolition debris, that occur onsite during construction shall be handled in a way that does not contaminate storm water.
  - All chemicals including liquid products, petroleum products, water treatment chemicals, and wastes stored on site shall be covered and contained and protected from vandalism.
  - Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, de-greasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants, shall be conducted under cover during wet weather and on an impervious surface to prevent release of contaminants onto the ground. Materials spilled during maintenance operations shall be cleaned up immediately and properly disposed of.
  - Wheel wash water shall be settled and discharged on site by infiltration. Wheel wash water shall not be discharged to the storm water system.
  - Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and ad application rates that will not result in loss of chemical to storm water runoff. Follow manufacturer's recommendations for application rates and procedures.
  - pH-modifying sources shall be managed to prevent contamination of runoff and storm water collected on site. The most common sources of pH-modifying materials are bulk cement, cement kiln dust (CKD), fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer washout waters.
- D. Equipment maintenance and fueling: Contractor shall implement appropriate spill prevention and response procedures
- E. Concrete Wash Water: Unless confined in a pre-defined, bermed containment area, the cleaning of concrete truck delivery chutes is prohibited at the job site. The discharge of water containing waste cement to the storm drainage system is prohibited.

# IV. POTENTIAL SOURCES OF POLLUTION

Potential pollutant sources will be addressed as follows:

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# POTENTIAL POLLUTION SOURCES

 $C: \label{eq:constraint} C: \label{eq:constraint} Owner \label{eq:constraint} Owner$ 

Potential Pollution	Possible Site Contributions of Pollutants to Stormwater	
Sources	Discharges	Location
	No dedicated asphalt or	N/A
Dedicated asphalt and	concrete batch plants are	
concrete batch plants	planned on-site.	
	Worker trash will be removed	TBD*
	from the site as soon as	
	possible. Portable toilets will	
	be utilized and maintained as	
	required based on construction	
	phasing.	
	Portable toilets will be located a	
	minimum of 10 feet from	
	stormwater inlets and 50 feet	
	from state waters. They will be	
	secured at all four corners to	
Non-industrial waste	prevent overturning and cleaned	
sources such as worker	on a weekly basis. They will be	
trash and portable toilets	inspected daily for spills.	
Other areas or		TBD*
procedures where		
potential spills can	Petroleum releases from	
occur	equipment are possible.	

\* Contractor to add locations of any items not specified at this time\*

## V. IMPLEMENTATION OF CONTROL MEASURES

#### Narrative Description of Appropriate Stormwater Controls and Measures

#### **Construction Phasing**

#### Phase 1 – Mobilization, Clearing & Grubbing Operations

Clearing and grubbing will be completed prior to initial overlot grading activities for this site. Perimeter control measures will be installed prior to the start of construction operations. These perimeter controls will include silt fencing and a vehicle tracking control pad.

## Phase 2 – Earthwork, Road Grading, and Utility Installation

Major earthwork activities will include overlot grading, foundation over-excavation, backfill, and compaction, utility construction, and rough and final grading for site improvements.

# Phase 3 – Building Construction and Final Grading Activities

This phase will include final grading of building sites and landscape areas. Appropriate temporary SCM's will be maintained until vegetation is re-established throughout the site.

#### Phase 4 – Stabilization

All disturbed areas within the project will be revegetated. The specific revegetation requirements will include the following:

- Landscape plantings per approved landscape plans
- Native seeding all other disturbed areas

#### Phase 5 – Removal of Temporary Control Measures

Temporary sediment control measures shall remain in place until vegetation has been adequately established to prevent erosion from storm runoff. Once adequate vegetation has been established, the temporary erosion control measures will be removed and disposed of off-site.

#### SCM's for Stormwater Pollution Prevention (See GEC Plans):

Phase	<u>SCM</u>
Clearing and Grubbing necessary for perimeter controls	VTC's
Initiation of perimeter controls	Silt Fence
Remaining clearing and grubbing	
Site Grading	IP / SCL
Stabilization	SM
Removal of erosion control measures	

#### Proposed Sequence of Major Activities / Timing Schedule

The anticipated start and completion time period of the construction activities is from March, 2024 through December, 2024. The estimated schedule for erosion control activities is as follows:

- Install Initial SCM's: March, 2024
- Site Grading: March, 2024
- Seeding & Mulching: September, 2024
- Final Stabilization: September, 2025

#### **Erosion and Sediment Controls:**

- 1) Structural Practices / Control Measures (all structural Control Measures shall conform to ECM / DCM and MHFD standards and details):
  - a. Silt fence at toe of slope along downstream limits of disturbed areas
  - b. Inlet protection (IP) at storm inlets
  - c. Sediment Traps at selected locations (see GEC Plans)
  - d. Concrete Washout Area (CWA)
  - e. Erosion Control Blankets (ECB); Turf Reinforcement Mats (TRM)

- 2) Non-Structural Practices:
  - Preserve existing vegetation beyond limits of work
  - Temporary seeding of areas to remain disturbed for significant periods of time
  - Permanent seeding/mulching (SM) upon completion of rough grading

# **Other Controls:**

- Contractor shall dispose of all waste materials at a permitted off-site disposal site.
- Vehicle tracking pads will be installed at all access points to limit off-site soil tracking.
- Street Sweeping: Contractor shall perform street sweeping following storm events and as required to keep adjoining public streets clean.

# **Control Measure / SCM Details:**

- Refer to Standard SCM Details in GEC Plans.
- Refer to additional Standard Details in MHFD Volume 3 where applicable.

# VI. SITE DESCRIPTION

- A. Nature of Construction Activity
  - Nor'Wood Bible Church is planning to construct a new church on a vacant 5-acre property in the Saddlehorn Ranch Subdivision southeast of the intersection of Judge Orr Road and Curtis Road in eastern El Paso County, Colorado. The property is currently being platted as Lot 38, Saddlehorn Ranch Filing No. 3 (currently a part of the tract identified as El Paso County Assessor's Parcel Number 43000-00-635). The site is located along the east side of Barrosito Trail.
  - The project consists of a new 12,000 square-foot, single-story Church Building with associated parking and site improvements. Access to the site will be provided by two private driveway connections to Barrosito Trail along the west boundary of the property.
  - Site development activities will include site grading, utilities, building construction, parking, and associated site improvements.
- B. Proposed sequence of major activities:
  - Mobilization / implementation of SCM's
  - Clearing and grubbing
  - Rough grading
  - Utility improvements
  - Final grading
  - Building construction and related site improvements
- C. Total site area = 5.0-acres; Projected disturbed area = 3.7-acres (approx.)
- D. Soil erosion potential and potential impacts upon discharge:
  - On-site soils are comprised of "Type 19, Columbine gravelly sandy loam" soils. These soils have high infiltration rates, rapid permeability, and low runoff potential. These soils are classified as hydrologic soils group "A". These soils have low soil erosion potential.

- Potential impacts upon discharge would include sedimentation adversely affecting downstream waterways and habitat.
- E. Existing vegetation on site:
  - Native meadow grasses (approx. 70% coverage, based on site inspection)
- F. Allowable non-stormwater components of discharge: none anticipated
- G. Receiving water: Surface drainage from this site flows southeasterly to Saddlehorn Ranch Detention Pond D, which discharges into the Haegler Ranch Drainage Basin, and ultimately flows to Black Squirrel Creek (ultimate receiving water).
- H. Stream Crossings: There are no stream crossings located within the construction site boundary.

# VII. SITE MAP

- SWMP Maps are provided on the attached GEC Plans
- Qualified Stormwater Manager shall update SWMP Maps as required based on field conditions throughout the project.
- Contractor shall update and annotate the SWMP Maps to show the location of the construction trailer, stabilized staging area, CWA, and other items as these locations are determined on site.

## VIII. FINAL STABILIZATION AND LONG-TERM STORMWATER MANAGEMENT

- A. Permanent seeding will be provided to achieve long-term stabilization of the site.
- B. Seed Mix: "Foothills Mix" or approved equal (refer to landscape plans)
- C. Seeding Application Rate: Drill seed 0.25" to 0.5" into the soil. In small areas not accessible to a drill, hand broadcast at double the rate and rake 0.25" to 0.5" into the soil. Apply seed at the following rates:
  - o Dryland: 20-25 lbs/acre
  - Irrigated: 40 lbs/acre
- D. Soil Stabilization Practices:
  - Mulching Application: Apply 1-1/2 tons of certified weed free hay per acre mechanically crimped into the soil in combination with an organic mulch tackifier. On slopes and ditches requiring a blanket, the blanket shall be placed in lieu of much and mulch tackifier.
- E. Soil Conditioning and Fertilizer Requirements:
  - Soil conditioner, organic amendment shall be applied to all seeded areas at 3 CY / 1000 SF.
  - Fertilizer shall consist of 90% fungal biomass (mycelium) and 10% potassiummagnesia with a grade of 6-1-3 or approved equal. Fertilizer shall be applied as recommended by seed supplier.
- F. Final stabilization is reached when all soil-disturbing activities at the site have been completed, and uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.

- G. Structural Control Measures:
  - Re-Seeding and Landscaping for site stabilization
- H. Non-Structural Control Measures:
  - Proper Housekeeping Procedures
  - Proper Spill Containment Procedures
- I. Long-Term Stormwater Management:
  - Saddlehorn Ranch Subdivision Detention Pond D will provide long-term stormwater detention and water quality treatment for this site.
  - Detention Pond D is a control measure owned and operated by the Saddlehorn Metropolitan District, as documented in the Final Drainage Report, O&M Manual, Detention Maintenance Agreement and related documents under Saddlehorn Ranch Subdivision Filing No. 3 (EDARP Project No. SF234).

## IX. INSPECTION REPORTS

- A. Qualified Stormwater Manager: Designated Inspector shall be a Qualified Stormwater Manager per CDPHE criteria.
- B. Inspection Frequency:
  - Contractor shall inspect SCMs bi-weekly as a minimum, and immediately (within 24 hours) after any precipitation or snowmelt event that causes surface erosion (i.e. that results in stormwater running across the ground), to ensure that SCMs are maintained in effective operating condition.
- C. Inspection Procedures:

Site Inspection / Observation Items:

- Construction site perimeter and discharge points (including discharges into a storm sewer system)
- All disturbed areas
- Areas used for material / waste storage that are exposed to precipitation
- Other areas having a significant potential for stormwater pollution, such as demolition areas or concrete washout locations, or locations where vehicles enter or leave the site
- o Erosion and sediment control measures identified in the SWMP
- Any other structural SCMs that may require maintenance, such as secondary containment around fuel tanks, or the condition of spill response kits.
- D. Inspection Requirements:
  - Determine if there is any evidence of, or potential for, pollutants entering the drainage system.
  - Review SCMs to determine if they still meet design and operational criteria in the SWMP, and if they continue to adequately control pollutants at the site.
  - Upgrade and/or revise any SCMs not operating in accordance with the SWMP and update the SWMP to reflect any revisions.

#### SCM Maintenance / Replacement and Failed SCMs:

- Contractor shall remove sediment that has been collected by perimeter controls, such as silt fence and inlet protection, on a regular basis to prevent failure of SCMs, and remove potential of sediment from being discharged from the site in the event of SCM failure.
- Removed sediment must be moved to an appropriate location where it will not become an additional pollutant source, and should never be placed in ditches or streams.
- Contractor shall update Erosion Control Plans / SWMP Maps and SWMP Plan as required with any new SCMs added during the construction period.
- Contractor shall address SCMs that have <u>failed</u> or have the potential to fail without maintenance or modifications, as soon as possible, <u>immediately</u> in most cases, to prevent discharge of pollutants.
- E. Inspection Reports:
  - Contractor shall maintain records of all inspection reports, including signed inspection logs, at the project site. SWMP records shall be located in the project trailer.
  - Inspection logs shall be signed by the Qualified Stormwater Manager.
  - Permittee shall document inspection results and maintain a record of the results for a period of 3 years following expiration or inactivation of permit coverage.
  - Site inspection records shall include the following:
    - Inspection date
    - Name and title of personnel making the inspection, along with Inspector's signature
    - Location of discharges of sediment or other pollutants from the site
    - Location(s) of SCMs that need to be maintained
    - Location(s) of SCMs that failed to operate as designed or proved inadequate for a particular location
    - Location(s) where additional SCMs are needed that were not in place at the time of inspection
    - Deviations from the minimum inspection schedule
    - Notations regarding updates and revisions to SWMP Maps based on field conditions
- F. Inspection Form:
  - Inspection Form to be provide by Contractor / QSM. CO State Inspection Form may be used directly or used as a template for Self-Monitoring Inspections. Selected Inspection Form shall be added to SWMP at a later date when available.

#### General SWMP Notes:

- Saddlehorn Ranch Subdivision Detention Pond D will provide long-term stormwater detention and water quality treatment for this site.
- Detention Pond D is a control measure owned and operated by the Saddlehorn Metropolitan District, as documented in the Final Drainage Report, O&M Manual, Detention Maintenance Agreement and related documents under Saddlehorn Ranch Subdivision Filing No. 3 (EDARP Project No. SF234).
- The SWMP should be viewed as a "living document" that is continuously being reviewed and modified as part of the overall process of evaluating and managing stormwater (SW) quality issues at the site. The QSM shall amend the SWMP when there is a change in design, construction, or O&M of the site which would require the implementation of new or revised control measures or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in SW discharges associated with construction activity or when control measures are no longer necessary and are removed.

# **APPENDIX A**

GRADING & EROSION CONTROL PLANS (INCORPORATED BY REFERENCE; PROJECT GEC PLANS FILED UNDER EDARP PROJECT NO. PPR2346)

# **APPENDIX B**

# **INSPECTION REPORTS**