Ground Truth Soil Consulting, PLLC
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PRELIMINARY SOIL & SITE EVALUATION

Coppage Tract
Creek Place Road
Pamlico County
PIN: 647651580300
GT Job# 24-189

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INTRODUCTION

Ground Truth Soil Consulting, PLLC (Ground Truth) was employed to complete a Preliminary Soil & Site Evaluation on the majority of the above referenced tract. The focus of the work was to evaluate the current soil conditions in regard to supporting subsurface wastewater systems for a proposed RV campground.

The Study Area encompassed approximately ~12-acres and consisted of an agricultural field currently in soybean production and woods. The property corners and property lines were not visibly marked on the day of the evaluation.

INVESTIGATION METHODOLOGY

The field survey was conducted in July 2025 by John C. Roberts, LSS, and Charles Karpa. Subsurface septic suitability was determined in accordance with the working copy of North Carolina statutes for waste disposal 15A NCAC 18E – Wastewater Treatment and Dispersal Systems, Version 2.1, September 30, 2024.

FINDINGS

Soils

Soil areas rated as "Provisionally Suitable for Pretreated Subsurface Drip Systems" were identified within the Study Area (shown as orange in Figure 1). Soil borings typically exhibited a friable sandy loam textured surface with weak, medium, subangular blocky that ranged in depth from 4 to 10 inches. Upper subsurface horizons exhibited a firm sandy clay loam or clay loam texture with weak, medium, subangular blocky structure that ranged in depth from 15 to 18 inches. Lower subsurface horizons exhibited unsuitable soil characteristics such as soil wetness, coarse or massive structure, and/or >50% parent material.

The soil areas rated as "Unsuitable" were dominated by soils with usable soil depths of <15 inches (shown as red-hatching in Figure 1). The main limitation of these areas was depth to soil wetness indicators, coarse or massive structure, and >50% parent material. Unsuitable Landscapes were identified within the tract and include concave landscapes and drainageways. A potential jurisdictional 404 wetland was observed in the Study Area (shown as green in Figure 1). A jurisdictional feature delineation and subsequent site visit with the US Army Corps of Engineers (USACE) and NC Division of Water Resources (NCDWR) would be needed to confirm the jurisdictional status and limits of these areas.

Potential Subdivision Development

The exact square footage of usable soils needed to obtain a septic permit cannot be given at this time due to soil variability and topographic features. Based on soil characteristics observed on-site, a long-term acceptance rate (LTAR) of 0.1 GPD/sq-ft is anticipated for soils rated as "Provisionally Suitable for Pretreated Subsurface Drip Systems". To substantiate the LTAR for a pretreated subsurface drip system, a Hydraulic Assessment of the identified usable soil area must be performed. Further work would include conducting saturated

hydraulic conductivity (K_{SAT}) tests and performing additional soil borings to fine tune the usable soil area.

In order to maximize the identified usable soil areas, individual septic drainfields with a daily design flow (DDF) of 1,500 gallons per day (GPD) or less should be utilized. Systems will likely need to be sited >25-ft apart and may need shallow surface swells or open ditches in order to not be considered hydraulically connected. Wastewater regulations require adequate Available Space to provide installation of the primary system and provide repair area. If an LTAR of 0.1 GPD/sq-ft is determined to suffice, it is expected ~15,000 sq-ft to 16,000 sq-ft of usable soil would be needed for the primary system and repair area utilizing subsurface drip with pretreatment for a DDF of 1,500 GPD. The estimated square footage for the two usable soil areas is shown in Figure 1. The septic system components and distribution would need to be prepared by a Professional Engineer (PE).

General Considerations

No other site features can be sited within the proposed septic system areas (RVs, outbuildings, wells, driveways, patios, utilities (both overhead and buried)), nor can excavation or filling activities, etc. be done in these areas. Water supply wells, if needed, will need to be sited the maximum distance away from the septic system but no closer than 100 feet. Septic drainfield layouts would also be required to ensure adequate usable soil exists to obtain a septic permit.

Care should be taken when planning and constructing access roads, utilities, road ditches, and stormwater control measures (SCMs). Cut/fill activities needed for the road need to be contained within the road limits. Utilities cannot be installed overtop of septic systems, including the initial and repair area. Ditching should be no deeper than 2-ft when possible, to negate the required 25-ft setbacks for septic systems. SCMs require setbacks to septic systems and need to be located outside of usable soil areas whenever possible. Spoil should also be stockpiled out of designated septic system drainfields. If clearing is needed for proposed lots, surface vegetation clearing should be completed with minimal disturbance of the soil surface and subsurface. Clearing activities within septic areas should be conducted during dry conditions only. Failure to heed the above precautions could result in loss of usable soil area.

CONCLUSIONS

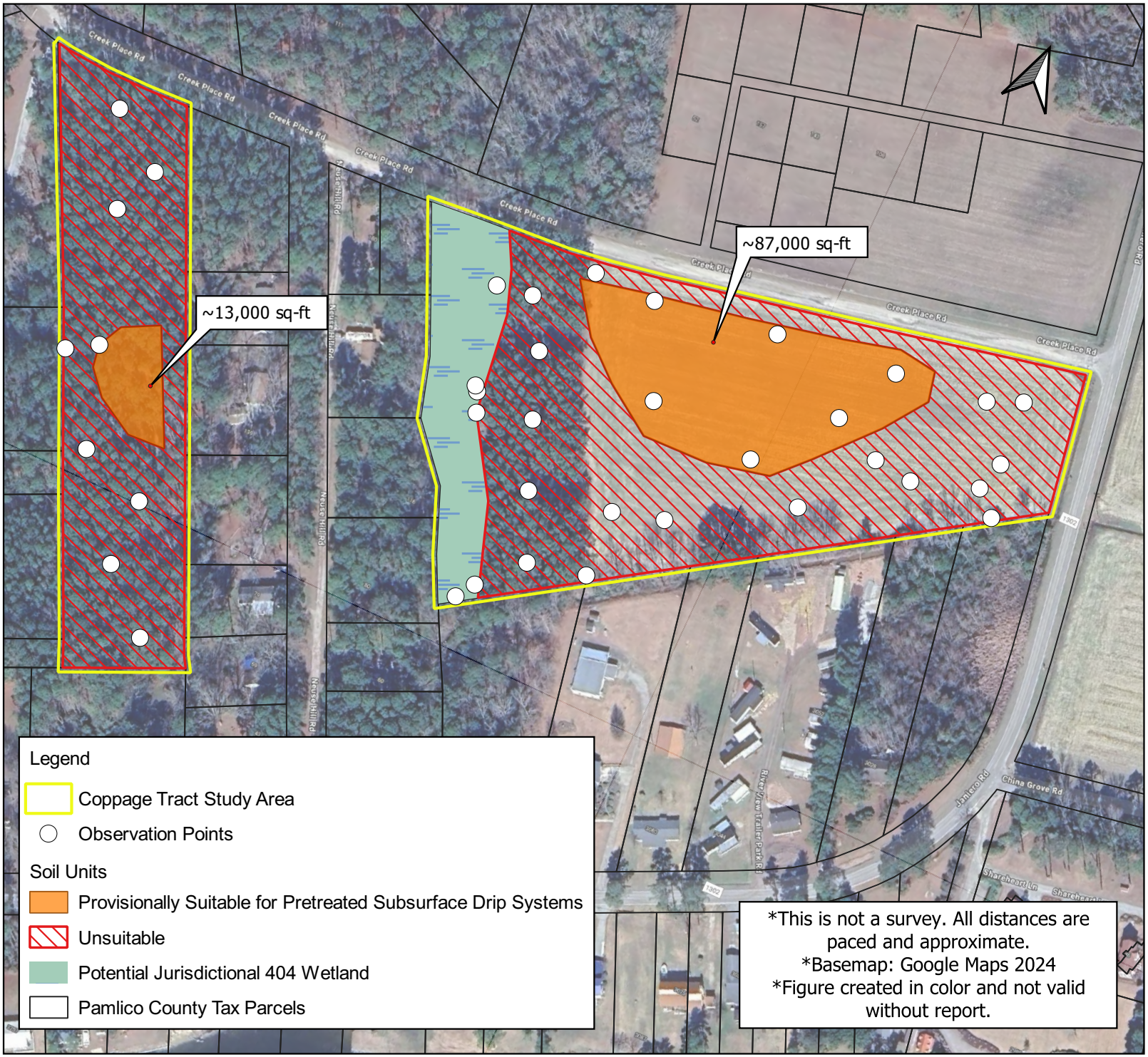
The findings presented herein represent Ground Truth's professional opinion based on our Preliminary Soil & Site Evaluation and knowledge of the current laws and rules governing on-

site wastewater systems in North Carolina. This report attempts to show usable soils for subsurface wastewater disposal systems and is submitted for general information and planning purposes only. No RV sites or lots were staked or proposed at the time of this investigation. The final number of RV spots the Study Area will support will be based on the soil LTAR as determined by the Hydraulic Assessment and the amount of usable soil incorporated into each potential septic drainfield.

Soils naturally change across a landscape and contain many inclusions. As such, attempts to quantify them are not always precise and exact. Due to this inherent variability of soils and the subjectivity when determining limiting factors, there is no guarantee that a regulating authority will agree with the findings of this report. This report does not suggest or guarantee a septic permit can be obtained for this property. This report does not meet the requirements for Session Law (A2), AOWE, or EOP permits.

Sincerely,

John C Roberts, LSS



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Preliminary Soil and Site Evaluation

Pamlico County

Scale:
0 100 200 ft

Figure 1

Date: July 30, 2025

GT Job No. 25-189

LICENSED SOIL SCIENTIST
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STATE OF NORTH CAROLINA