

Project Summary for Proposed Facility

Mason East Municipal Solid Waste Landfill Mason, Texas

Introduction

The City of Mason is applying for TCEQ authorization for a new permit application for a proposed landfill that will provide long-term disposal capacity for authorized solid waste generated in Mason County. The objective of this summary is to provide an overview of the proposed landfill. The following subsections detail information regarding the owner and operator of the landfill, general site information, and a summary of the proposed landfill design.

Owner/Operator Information

The proposed Mason East MSW Landfill will be owned and operated by the City of Mason, Texas on land currently owned by the City of Mason.

Site Information

The following drawings and photographs are attached to this summary.

- Figure 1 - Site Location Map. This drawing shows the site location on a standard TxDOT county highway map.
- Figure 2 - General Topographic Map. This drawing shows the proposed permit boundary and landfill footprint on a USGS map.
- Figure 3 - Aerial Photograph. This figure shows the permit boundary and permitted landfill footprint on an aerial photograph.
- Figure 4 - Photograph ID Map. This figure shows the location and direction of each view with each number corresponding to the numbered label on all attached photographs.
- Attachment 1 - Photographs. Clear, high-resolution color photographs that illustrate the project area.

The Mason East MSW Landfill will be an approximately 50-acre Municipal Solid Waste (MSW) landfill located 1.2 miles east of the intersection of US Hwy 87 and TX Hwy 29, on the south side of TX 29 within the city limits of Mason on land immediately adjacent to the currently permitted City of Mason MSW landfill. The existing City of Mason Landfill (a Type I-AE MSW facility, TCEQ Permit No. MSW

195) is at the end of its useful life and will be closed when the proposed Mason East Landfill begins operation.

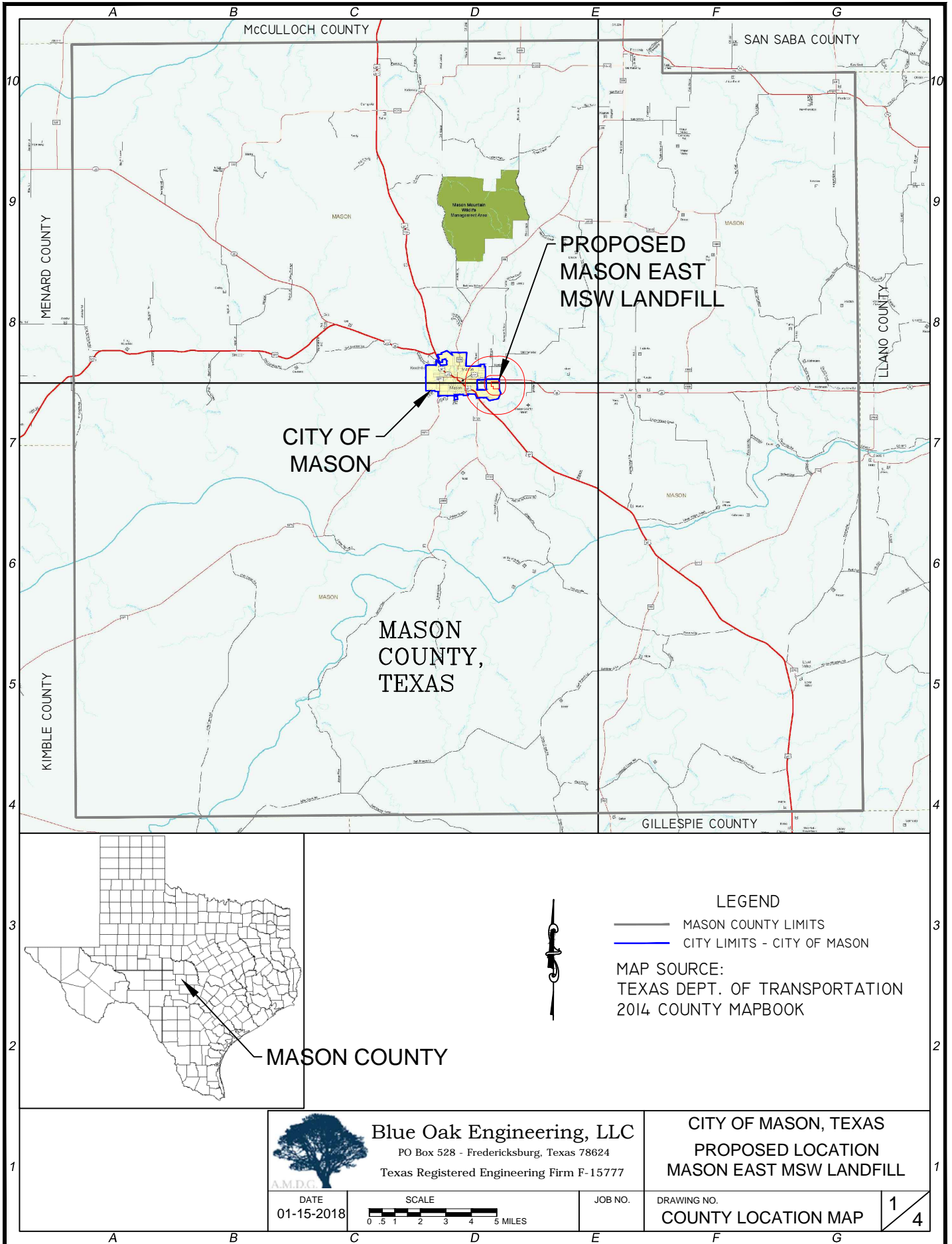
Approximately 22 acres of the of the permitted area will be developed as a Type I landfill with composite bottom liner and leachate collection system in 9 cells averaging approximately 2.5 acres each. The facility will also include a Type IV construction and demolition debris disposal unit to be developed in four cells averaging approximately 1.8 acres each. In both cases, cell development will take place on an as needed basis and excavation will reach a maximum depth of 20-feet below grade.

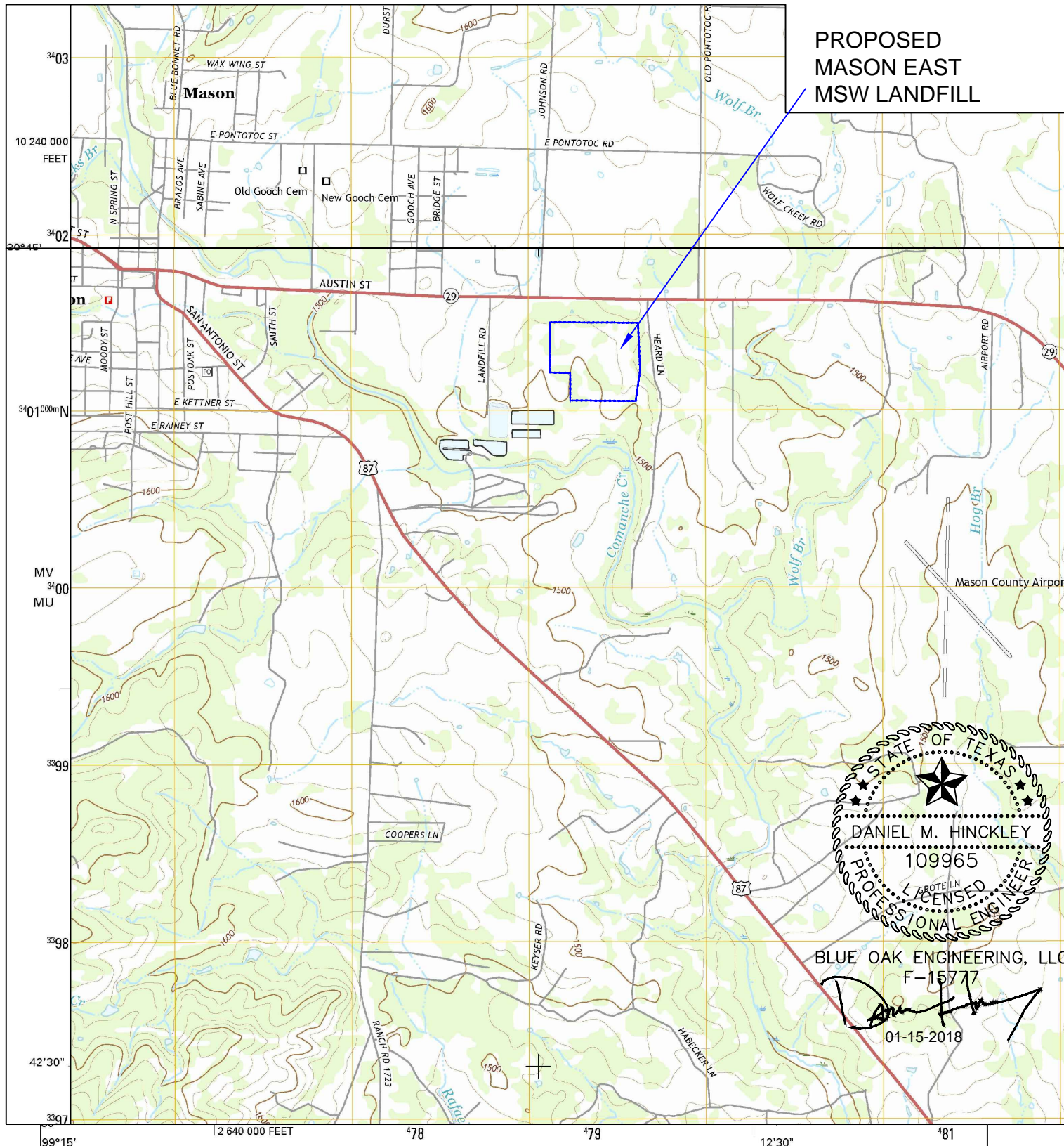
Design Summary

The following information presents a summary of the design and operations for the new proposed City of Mason Landfill:

- The City of Mason Landfill is in the process of developing a new permit application for a proposed landfill that will provide long-term disposal capacity for authorized solid waste generated in Mason County and surrounding counties. The proposed Mason East MSW Landfill will continue to serve the same area currently served by the existing City of Mason Landfill (MSW#195) and the current facility will be closed upon initial operation of the new facility.
- This proposed landfill will consist of a 50.33-acre permit boundary and 22.36-acre limits of Type I waste and 7.44-acre limit of Type IV waste. The development of Type I and Type IV cells is illustrated in Figure 4. The proposed complete plans are shown on Figure 5.
- Accepted wastes will remain consistent with TCEQ approved MSW landfill permit regulations. The facility will accept municipal solid waste resulting from or incidental to municipal, community, commercial, institutional and recreational activities; municipal solid waste as permitted by the TCEQ.
- Access to the landfill will be provided via a proposed site access road entrance off of SH 29. Based on travel patterns of existing landfill traffic located immediately adjacent to the proposed site, vehicles bound for the landfill will generally access the site using SH 29 and US Hwy 87.
- A bottom liner system and final cover system that all regulatory requirements will be used for constructing the solid waste containment system. The design objective of the containment system (liner, leachate management system, and final cover) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that collects on the liner system. Leachate that is removed from the landfill will be transported to an offsite, permitted treatment facility. The construction procedures of the liner system and final cover system will follow strict TCEQ-approved quality control and quality assurance procedures, which are verified by an independent testing firm, and approved by a professional engineer licensed in the State of Texas. Liner construction is divided into approximately 2.5 acre “cells” across the permitted bottom of the landfill. Each of the containment system components must be approved by the engineer, and thoroughly reviewed and approved by the TCEQ before solid waste is placed into each constructed cell.

- To verify that the highest level of environmental protection is maintained, the following landfill monitoring systems will be provided:
 - ♦ Groundwater Monitoring System. The purpose of the groundwater monitoring system is to verify the integrity of the containment system and demonstrate that the area groundwater is not adversely impacted by the landfill. This is accomplished by obtaining water samples from the monitor wells, located on the perimeter of the landfill, which are screened to monitor wells, located on the perimeter of the landfill, which are screened to monitor groundwater quality. The water samples are tested at an offsite laboratory.
 - ♦ Gas Monitoring System. The purpose of the landfill gas monitoring system is to verify that landfill gas does not migrate beyond the permit boundary. Landfill gas probes are placed along the perimeter of the permit boundary.
 - ♦ These monitoring systems will be sampled and tested periodically per the TCEQ-approved monitoring plans. The results are filed with the TCEQ and are public record.
- Site Operations. The site will be operated by properly trained personnel. A detailed Site Operating Plan will be included in the permit application. The plan will detail the required equipment, personnel, and safety procedures required to operate the site in accordance with TCEQ regulations. The City of Mason Landfill will be inspected by the TCEQ on a regular basis to ensure the site is in compliance with State regulations and developed as permitted.

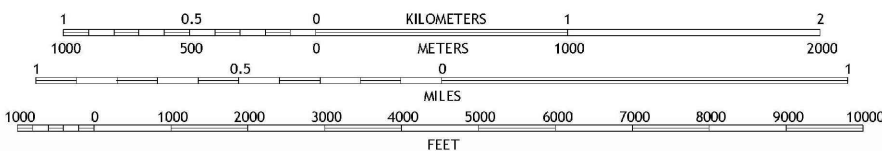




PROPOSED
MASON EAST
MSW LANDFILL

STATE OF TEXAS
DANIEL M. HINCKLEY
109965
PROFESSIONAL ENGINEER
BLUE OAK ENGINEERING, LLO
F-15777
01-15-2018

SCALE 1:24 000

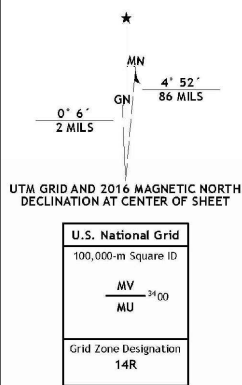


CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.19

FIGURE 2 - USGS MAP

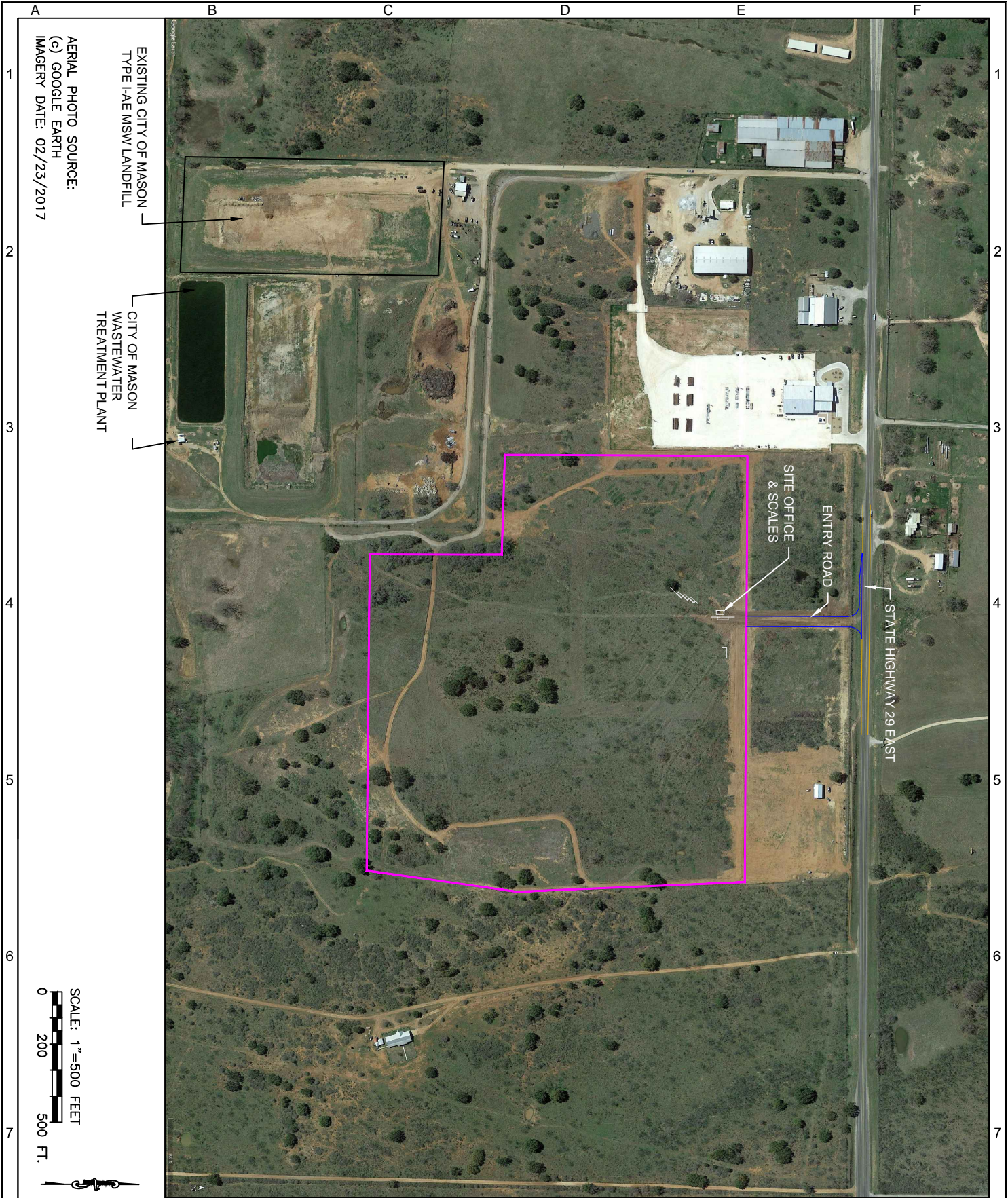
"MASON" USGS 7.5' QUADRANGLE MAP &
PORTION OF "PURDY HILL" QUAD.



1	2	3
4	5	6
7	8	9

ADJOINING QUADRANGLES

- 1 Grit
- 2 Purdy Hill
- 3 Fly Gap
- 4 Turtle Creek
- 5 Art
- 6 Monument Mountain SE
- 7 Panther Creek
- 8 Loyal Valley



NO.	REVISIONS	BY	CHK.	DATE	APPR.

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 PO Box 528 - Fredericksburg, TX 78624
 Texas Registered Engineering Firm F-15777

FOR PERMITTING PURPOSES ONLY

Project Engineer: Daniel Hinkley, P.E.
 daniel@blueoakeng.com (830) 220-2988

DATE: 01/15/2018

SCALE: 0 100 200 500 FT.

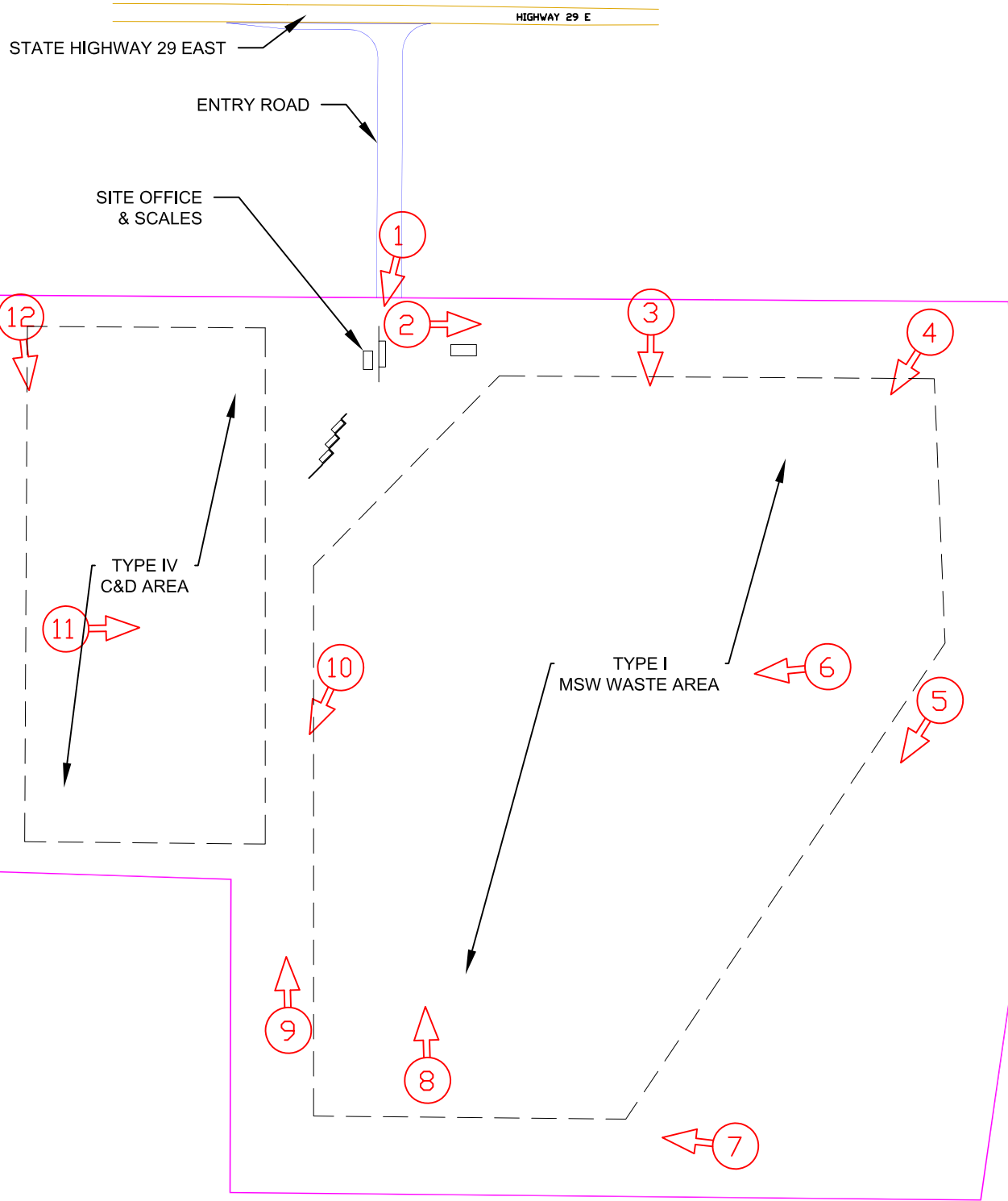
CITY OF MASON, TEXAS
MASON EAST MSW LANDFILL

DRAWING 3 - AERIAL IMAGE OF SITE

DRAWING NO. **FIGURE 3 - AERIAL IMAGE**


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PHOTO LOCATION MAP MASON EAST MSW LANDFILL



SCALE: 1"=250 FEET
0 100 250 FT.

NO.	REVISIONS	BY	CHK.	DATE	APPR.



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SCALE

0 100 200 250 FT.

CITY OF MASON, TEXAS
MASON EAST MSW LANDFILL

DRAWING 1 - PHOTOGRAPH IDENTIFICATION MAP

DRAWING NO. AGENCY COORDINATION - PHOTO ID MAP

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Attachment 1 - Mason East MSW Landfill Site Photos



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12