Geo-Advantec Inc.

Geotechnical Engineering. Earthquake Engineering. Engineering Geology

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Subject: Limited Pavement Investigative work at:

South Marianna Avenue City of Commerce, CA

INTRODUCTION

This report presents the results of a limited filed investigation performed by Geo-Advantec, Inc. (GAI) along South Marianna Avenue. The project limit is along South Marianna Avenue, between Dunham Street on the south and City/County line on the north, City of Commerce, CA.

July 17, 2017

Project No.: 17-1090-D

As requested, this pavement evaluation is performed to provide information about the thickness of existing pavement and base layers only. This report includes our findings from the exploratory work. Our professional services have been performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional advice included in this report. This report has been prepared for the City of Commerce and their consultants for the subject project. The report has not been prepared for use by other parties, and may not contain sufficient information for the purposes of other parties or other uses.

FIELD EXPLORATORY WORKS AND EXISTING PAVEMENT

The field exploration program consisted of performing 4 small diameter cores and was performed on July 11, 2017. At each location, the asphalt and base materials were cored and the thicknesses of the asphalt and underlying base layer (if existed) were measured. The coring locations are depicted on attached Figure 1. The following table presents the results of our measurements on the existing pavement sections along with classification of subgrade material.

Table 1- Asphalt Concrete and Base Layer Thicknesses

| SAMPLE LOCATION ⁽¹⁾ | STREET | LANE POSITION | LAYER THICKNESSES (IN) | | MATERIAL CLASSIFICATION | |
|-----------------------------------|--------------|------------------|------------------------|------|----------------------------|-------------------------|
| | | | ASPHALT CONCRETE | BASE | BASE ⁽²⁾ | SUBGRADE ⁽³⁾ |
| C-1 | Marianna Ave | SB | 5 | 12 | SP | CL |
| C-2 | Marianna Ave | NB | 6 | - | - | CL |
| C-3 | Marianna Ave | SB | 5 | - | - | CL |
| C-4 | Marianna Ave | NB | 5 | - | - | CL |

Notes:

- (1) C- prefix indicates cored location.
- (2) Base classification was based on visual observation and was not tested for its conformity to specification defined the Standard Specifications for Public Works Construction ("Greenbook"). SP refers to Poorly Graded Sand
- (3) Subgrade classification was based on visual classification method. CL refers to Lean/fat Clay

SUBGRADE CONDITIONS

Based on the sampling conducted along the project, the subgrade material predominately consists of Clay and sandy Clay. The soil conditions described in this report are based on the soils observed in the sampling conducted for this investigation. It is possible that soil conditions could vary in areas other than the explored locations.

CLOSURE

The findings presented in this final report were based on the results of our field coring, combined with professional engineering experience and judgment. The report was prepared in accordance with generally accepted engineering principles and practice. We make no other warranty, either expressed or implied.

The soils encountered in the cores are believed to be representative of the total under consideration area for the subject proposed development; however, soil characteristics can vary throughout the site. GAI should be notified if subsurface conditions are encountered which differ from those described in this report.

Should you have any questions concerning this submittal, or the recommendations contained herewith, please do not hesitate to call our office.

Respectfully submitted, GEO-ADVANTEC, INC.

PROFESSIONAL PROFE

Matin Noorzay Senior Project Engineer Shawn Ariannia, Ph.D., P.E., G.E. Principal Geotechnical Engineer

Attachment:

1. Coring Locations Plan

Distribution:

- 1. Addressee (a pdf copy via email)
- 2. Mr. Ali Cayir, Transtech (a pdf copy via email)
- 3. File



 Geo-Advantec Inc.
 CORING LOCATIONS PLAN
 FIGURE

 PROJECT NO.
 17-1090-D
 Marianna Ave. City of Commerce
 A-2

LEGEND



CORING LOCATION (AC/Base thickness)