

My Pueblo County Parcel Map

-  Building Footprints
-  Parcels
-  Streams & Rivers
-  Railroads



0 185 370 Feet

0 30 60 120 Meters

1 inch = 417 feet

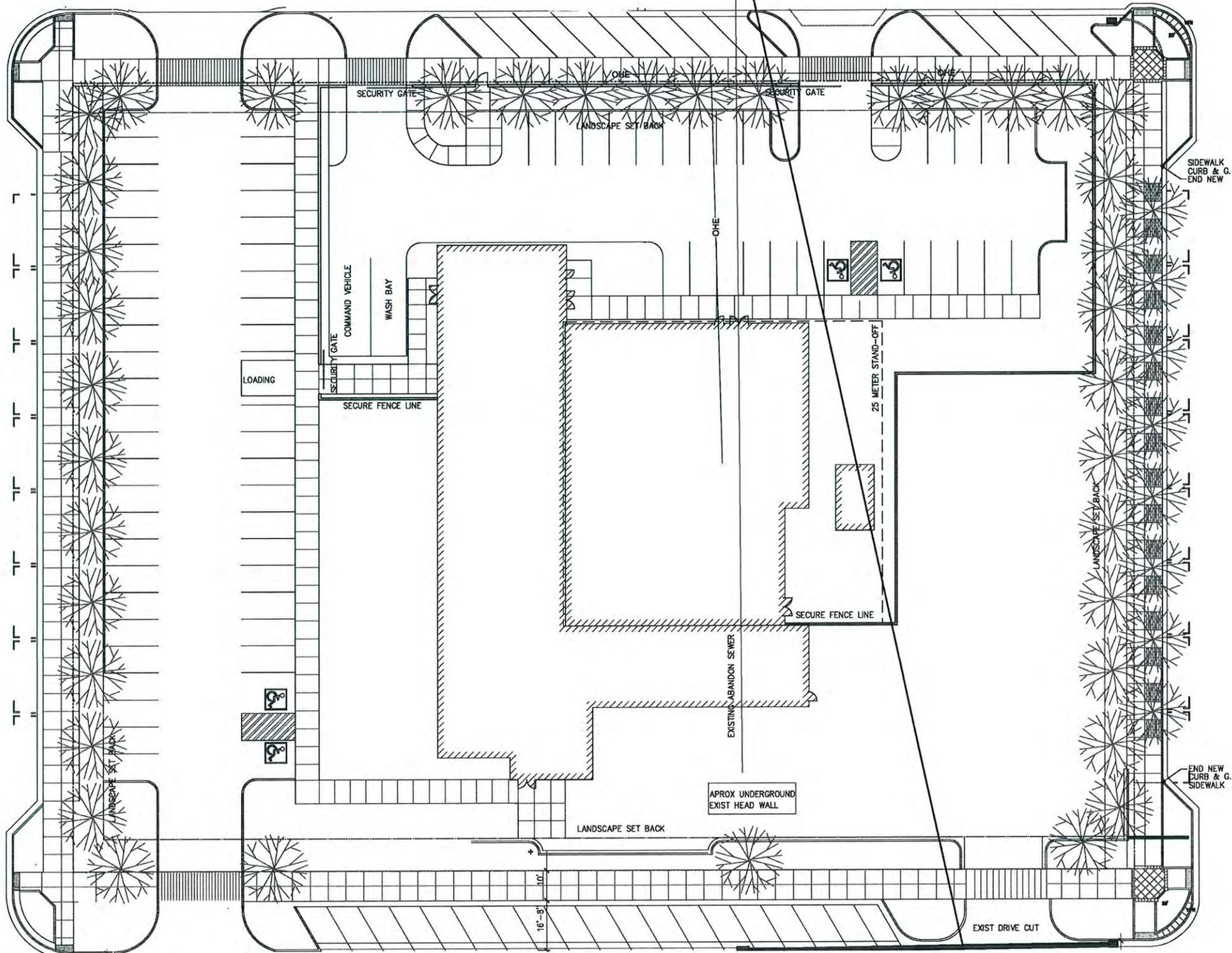
Map Generated 6/22/2011 1:11:04 PM

Unauthorized reproduction or duplication of this document is strictly prohibited without written consent by the Pueblo County GIS Center. The Pueblo County GIS Center makes no claims as to the accuracy of the information portrayed in this document.

For further information, please contact the Pueblo County GIS Center.

215 W 10th St, Pueblo CO 81003
719.583.6240 (v) 719.583.6249 (f)





SECURITY GATE

LANDSCAPE SET BACK

SECURITY GATE

SIDEWALK CURB & G. END NEW

SECURITY GATE
COMMAND VEHICLE

WASH BAY

LOADING

SECURE FENCE LINE

25 METER STAND-OFF

SECURE FENCE LINE

LANDSCAPE SET BACK

END NEW CURB & G. SIDEWALK

EXISTING ABANDON SEWER

APROX UNDERGROUND EXIST HEAD WALL

LANDSCAPE SET BACK

16'-8"
10'-0"

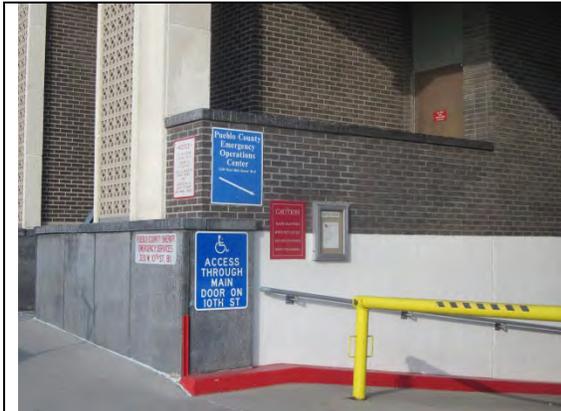
EXIST DRIVE CUT

APPENDIX B

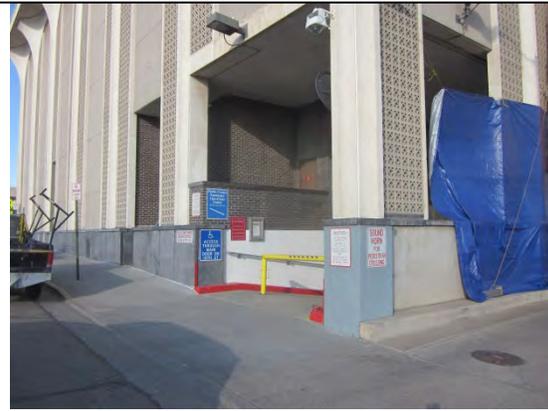
SUPPORTING DOCUMENTATION

EXHIBIT 1: PHOTOGRAPHS

Alternative 1: Current EOC



View of current access to the EOC off of Grand Ave.



Pueblo Courthouse building basement access to current EOC location

Alternative 2: Santa Fe Drive/Main Street and 10th/11th Streets



View of proposed location with existing infrastructure



Pueblo County Courthouse to the west and existing power lines



View of adjacent businesses to the north and northeast along Santa Fe Drive



Pueblo County storage building located on the proposed site



View looking south on Santa Fe Drive



View of new sidewalk and landscaping on the south side of the proposed site

Alternative 2: Santa Fe Drive/Main Street and 10th/11th Streets



Existing Pueblo County conference room located on proposed site



View looking west on 10th Street



View of new Pueblo City/County Health Department just south of the proposed site



View of businesses just east of the proposed site

Alternative 3: Pueblo West Location



View of former Ferguson Plumbing building just west of the site



View looking north from the access point off of Industrial Blvd.



View looking west towards Parkview Hospital ER



View of excavated dirt and northern residential area



Shale soils and prairie dog habitat



View looking south towards Industrial Blvd. and industrial business establishments

Alternative 3: Pueblo West Location



View looking northeast



View looking north/northwest

EXHIBIT 2: SOILS INFORMATION



CTL | THOMPSON

I N C O R P O R A T E D

**GEOTECHNICAL INVESTIGATION
PUEBLO COUNTY
EMERGENCY SERVICES CENTER
N. SANTA FE AVENUE AND W. 10TH STREET
PUEBLO, COLORADO**

Prepared for:

**PUEBLO COUNTY
215 W. 10th Street
Pueblo, Colorado 81003**

Attention: Mr. Mike Harriman

Project No. SC02821-125

June 9, 2011

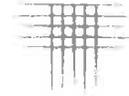


TABLE OF CONTENTS

SCOPE.....	1
SUMMARY.....	1
SITE CONDITIONS.....	2
PROPOSED CONSTRUCTION.....	3
GEOLOGY.....	3
SUBSURFACE CONDITIONS.....	3
Fill.....	4
Sand and Clay.....	4
Bedrock.....	4
Ground Water.....	5
Seismicity.....	5
SITE PREPERATION & UTILITIES.....	5
FOUNDATION SYSTEMS.....	6
Drilled Piers.....	7
Micropiles.....	8
Laterally Loaded Piers or Piles.....	9
Closely Spaced Pier or Piles Reduction Factors.....	10
BELOW-GRADE CONSTRUCTION.....	11
SLABS-ON-GRADE.....	12
PAVEMENTS.....	14
CONCRETE.....	15
SURFACE DRAINAGE/IRRIGATION.....	16
CONSTRUCTION OBSERVATIONS.....	16
GEOTECHNICAL RISK.....	16
LIMITATIONS.....	17
FIG. 1 - LOCATION OF EXPLORATORY BORINGS	
FIG. 2 - SUMMARY LOGS OF EXPLORATORY BORINGS	
FIGS. 3 – 6 - SWELL CONSOLIDATION RESULTS	
FIGS. 7 – 8 - GRADATION TEST RESULTS	
TABLE 1 - SUMMARY OF LABORATORY TESTING	



SCOPE

This report presents the results of our Geotechnical Investigation for the Pueblo County Emergency Services Center in Pueblo, Colorado. The purpose of our investigation was to evaluate subsurface conditions at the site and develop geotechnical design criteria for the proposed structure. This report summarizes the results of our field and laboratory investigations, and presents our design and construction recommendations for building foundations, floor slabs, and pavements. We believe this investigation was completed in general conformance with our proposal (SC-11-0039) dated April 26, 2011. Evaluation of the property for the possible presence of potentially hazardous materials (environmental site assessment) was beyond the scope of this investigation.

The report was prepared based on conditions encountered in our exploratory borings, results of laboratory tests, engineering analysis, and our experience. The criteria presented are for the construction as described. Revision in the scope of the project could influence our recommendations. If changes occur, we should review the plans and their effect on our recommended design criteria. The following section summarizes the report. A more complete description of conditions found and our recommendations are included in the report.

SUMMARY

1. Existing fill was found in the eastern part of the site in two borings (TH-1 and TH-2) and extended to depths of 5 and 13 feet. The fill contained brick debris and is judged to be of suspect quality. Natural sandy clay and clayey sand were encountered in all of our borings either at the existing ground surface (below the asphalt pavement) or below the fill and extended to depths of 4 to 22 feet. Claystone and/or shale bedrock was found in all six of our borings beneath the natural soils and extended to the maximum depths explored.
2. Ground water was encountered in three of our borings during drilling at depths of 7 to 21 feet. The borings were backfilled after drilling due to safety concerns. We understand a ground water discharge pump was installed in the southern part of the site and the well is likely drawing the water level down in this area. Groundwater will likely be encountered perched on the bedrock surface as well as in the bedrock formation.



3. **Subsurface conditions are extremely variable across the site with existing undocumented fill present in the eastern end of the property and relatively shallow, expansive bedrock in the western part of the parcel. Siting the proposed structure as far west as possible should reduce problems during construction associated with removal of existing fill in the building areas and installation of drilled piers.**
4. **Considering the highly variable subsurface conditions encountered, we believe a deep foundation system such as drilled piers or micropiles is more reliable for the proposed construction. The presence of granular soils and ground water will likely require the use of temporary casing during pier installation for some piers, especially in the eastern part of the property.**
5. **We believe there is a moderate risk of movement and cracking of slabs constructed near existing grades. All existing fill should be completely removed beneath slabs and replaced with densely compacted granular fill.**
6. **Paved parking areas and drive lanes can be paved with full-depth asphalt or composite asphalt and base course sections. Existing fill will likely be encountered in pavement areas on the east side of the site. Removing at least 2 feet of the fill and replacing it as densely compacted fill or replacing it with densely compacted, imported granular fill should improve long-term performance of pavements, to some extent.**
7. **Site grading plans should provide for the rapid removal of surface water away from the structure and off of pavements.**

SITE CONDITIONS

The subject property is located north of downtown Pueblo, Colorado. The subject site is bounded on the north and south by West 11th Street and West 10th Street, respectively, and on the east and west by North Santa Fe Avenue and North Main Street, respectively. The Pueblo County Courthouse is west of the site and various commercial properties are present to the north, south, and east.

The site currently contains two existing, single-story structures (the Pueblo County Conference Room and the Election Warehouse). Asphalt parking areas and drive lanes occupy the remaining space. The ground surface is relatively flat. Overall topography in the area slopes down to the south and east. The general vicinity of the site is shown on Fig. 1.



PROPOSED CONSTRUCTION

Based on the information provided, we understand the new Emergency Services Center will be a two-story, steel-frame structure about 27,000 square feet in size. The exterior will likely consist of a masonry brick veneer over light-gauge steel studs. No below-grade areas such as a basement are currently planned. New parking areas and drive lines will be built around the structure. The location of the building had not been finalized at the time of this investigation.

GEOLOGY

The area was mapped in 1964 by Scott (Geology of the Northwest and Northeast Pueblo Quadrangles). The site is mapped as colluvium (Qc) and the transition member of the Pierre Shale (Kpt). Our borings generally correlate with this mapping.

SUBSURFACE CONDITIONS

Subsurface conditions for the building were investigated by drilling six exploratory borings at the approximate locations shown on Fig. 1. The borings were drilled to depths of 20 to 35 feet using a 4-inch diameter, continuous-flight auger and a truck-mounted drill rig. A representative of our firm observed drilling operations, obtained samples, and logged the subsurface conditions. Graphical logs of the conditions encountered and the results of field penetration resistance tests are presented on Fig. 2. Laboratory test results are shown on the Summary Logs of Exploratory Borings (Fig. 2) and are summarized in Table 1.

Existing fill was found in two borings extending to depths of 5 and 13 feet. Clayey sand and sandy clay were found in all six borings at the ground surface (beneath the existing pavement) or beneath the fill. Claystone and/or shale bedrock was encountered in all six borings beneath the natural soils and extended to the maximum depths explored. A more detailed description of the subsurface conditions is presented below.