Construction Plans
For
Francis Marion University
Def. Maint: Roads, Parking Lots, Sidewalks, Walkways - Sidewalks and Lot A
State Project No: H18-9584-MJ-B3

Contact: Taylor McMillian
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Prepared by:
Chao & Associates, Inc.
Consulting Engineers
C & A #: 392912-22

Please note that all work must be completed within 90 days of the Date of Commencement in the Notice to Proceed.

Drawing Index

- C0.0 - Key Plan
- C1.0 - Existing Conditions & Repair Plan for Lot A
- C1.1 - Pavement Stripping Plan for Lot A
- C2.0 - Sidewalk & Ramp Condition Plan for Area 'A'
- C2.1 - Sidewalk & Ramp Condition Plan for Area 'B'
- C2.2 - Sidewalk & Ramp Condition Plan for Area 'C'
- C3.0 - Construction Details

TABLE 1 - FLOOD HAZARD INFORMATION & FLOOD LOADS

<table>
<thead>
<tr>
<th>Flood Hazard Area</th>
<th>Flood Map Information</th>
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<tbody>
<tr>
<td>Flood Zone: X</td>
<td>Community Number: 450076 Panel Number: 45041C0167E</td>
</tr>
</tbody>
</table>

Is the Project Site in a 100-Year Floodplain? Yes No
Base Flood Elevation (NGVD or FIRM) N/A
Design Flood Elevation (IBC 1612.3 and ASCE 24)  N/A

EROSION AND SEDIMENT REDUCTION/STORMWATER MANAGEMENT

Designer's Certification:
I hereby certify that the measures in this plan are designed to control erosion, retain sediment on the site, and manage the drainage in a manner that neither any on-site nor off-site damage or problems is caused, that all structural measures are designed to the minimum standards for health and safety, and that all the provisions of the plan with conditions with the Regulations contained in Chapter 72, Article 2, SC Code & Regulations of the Erosion and Sediment Control and Stormwater Management Regulations

Engineer: 
Date: 04-16-24

ZONING CERTIFICATION
I hereby certify, to the best of my knowledge, these plans are consistent with all applicable zoning ordinances, and that plans have been submitted to appropriate authorities for their review and approval.

Engineer: 
Date: 04-16-24

Chao & Associates, Inc.
Civil - Structural - Survey
7 Clusters Court
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Email: consult@chaoinc.com

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Mill and Repave Procedure:

1. Rotomill selected area to 1.5" depth.
2. Clean milled surface, haul away debris, square all corners and edges.
3. Apply SCDOT approved asphalt emulsion tack coat to provide a bond between milled surface and new pavement.
4. Place SCDOT 1.5" compacted depth of Type C HMA Surface Course or approved equal.
5. Seal all joints and edges with hot liquid asphalt.
6. Restore driveway and parking striping and markings as required.

Contractor shall verify existing asphalt section prior to pavement rehabilitation process.

Construction:

1. Not to Scale
2. Contractor to mill and repave 1" asphalt.
3. Contractor to repair and/or replace pavement markings in accordance with the school pavement marking standards of materials, location and installation.
4. Contractor to verify existence and depth of existing underground utility lines such as but not limited to electric, water, gas and sewer prior to excavation.
5. Contractor shall restore parking striping, handicapped signs, visitor parking signs, stop signs, traffic arrows, traffic lines, curbs, medians, painted island and wheel stops, etc to original pieces after asphalt pavement rehabilitation is completed.
6. Contractor shall provide traffic control while contracts are working.

Note:

Contractor is responsible for traffic control.

Reference:

1. Appendix A of Project Manual for geotechnical report
2. Topographic Map by Back Forty Aerial Systems dated 12-26-2022

C1.0

PROJECT: DEF. MAINT: ROADS, PARKING LOTS, SIDEWALKS, WALKWAYS - SIDEWALKS AND LOT A
STATE PROJECT NO.: H18-9584-MJ-B3

Prepared for: Francis Marion University
Florence County, South Carolina

Def. Maint: Roader, Parking Lots, Sidewalks, Walkways - Sidewalks and Lot A
Checked:
04-16-24

Civil - Structural - Survey

Revised:
Fax: (803) 772-9120

CIAO & Associates, Inc.

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1. Use alkyd base traffic lane marking paint, factory mixed, quick drying and non-bleeding.

2. Apply two (2) coats of paint at manufacturers' recommended rates.

3. Use white for striping and blue for ADA related striping.

4. Contractor to repair and/or replace pavement markings in accordance with the school pavement marking standards of materials, location and installation.

5. Curb must be verified location and depth of existing underground utility lines such as but not limited to electricity, water, gas and sewer prior to excavation.

6. Contractor shall restore parking striping, handicapped signs, visor warning signs, stop bars, traffic arrows, traffic lines, crosswalks, painted lines and wheel stops to original places after asphalt pavement rehabilitation is completed.

7. Contractor to repair any damage done to curbs, utilities, etc. due to construction or their expense.

8. Contractor to mill and repave 10' typ.

9. Contractor to repair any damage done to traffic paint, factory mixed, quick drying and non-bleeding.

10. Use alkyd base traffic lane marking paint, factory mixed, quick drying and non-bleeding.

11. Apply two (2) coats of paint at manufacturers' recommended rates.

12. Use white for striping and blue for ADA related striping.
Crosswalk markings striped in Phase 2 roadway work.

Control point, see C0.0

Remove and reconstruct curb, sidewalk. Grade to drain to eliminate ponding, see details.

Total Estimated Concrete Repair Quantities

- Repour: 723 Sq. Yards
- Sidewalk Repair

Notes:
1. Contractor to see Appendix A of project manual for detail of each deficiency
2. Contractor to field verify location of deficiencies

PROJECT: DEF. MAINT: ROADS, PARKING LOTS, SIDEWALKS, WALKWAYS - SIDEWALKS AND LOT A
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THESE DOCUMENTS AND THE INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF CHAO & ASSOCIATES, INC. AND MAY NOT BE USED FOR ANY PURPOSE WITHOUT THE WRITTEN PERMISSION OF CHAO & ASSOCIATES, INC.
Notes:
1. Contractor to see Appendix A of project manual for detail of each deficiency.
2. Contractor to field verify location of deficiencies.
**Handicap Access Ramp**

- 7'-0" min.
- 1:12 slope max.
- Adjacent sidewalk

**Concrete Washout (Straw Bale or Above Ground)**

- Width to match existing, field verify
- To cut 6" min. from end of broken section unless section ends at slab joint, in which case contractor is to cut at slab.
- Provide expansion joint between new and existing concrete.

**Sidewalk Ramp Detail**

- Width to match existing, contractor to field verify
- Edge

**Concrete Repour**

- Concrete cut section, typ.
- Contractor shall cut out 6" of slab depth to nearest concrete slab

**Repour Notes:**
1. If tree root is uprooting existing sidewalk, contractor to cut required depth (4" min.) needed to prepare subgrade and subgrade as required to create level base for new concrete.
2. Contractor to reference Typical Concrete Sidewalk Section A-A for repour.
3. Provide contraction joints where necessary to keep new pour section at 1.5:1.0 max W:H ratio.

**Typical Concrete Sidewalk Section A-A**

- 4" thick (min.), 3000 psi concrete slab

**Construction Details**

- **Asphalt:**
- Slip resistant broom finished concrete
- Section B-B
- Handicap ramp
- Slip resistant broom finished concrete
- Top of curb
- 12

- **Concrete Washout Sign Detail**
- Place sealant in saw cut
- Section views

- **Detectable Warning Surface**
- Provide 10 score joints (4") C.C. along parallel to and beginning at edge of curb

- **Concrete Cut Section**
- 6" 6" 4" 6" 7'-6"

- **Concrete Slab**
- 4" thick (min.), 3000 psi

- **Handicap Access Ramp**
- 10' min.

- **Concrete Washout (Straw Bale or Above Ground)**
- 10' min.

- **Concrete Repour**
- To be cut 6" min from end of broken section unless section ends at slab joint. Provide expansion joint at slab.

**Notes:**
1. Actual layout determined in field.
2. Install correct washout sign (6" dia., flush to concrete) within 30' of the temporary concrete washout facility.
3. Temporary washout area must be at least 30' from storm drain, creek bank or perimeter control.
4. Clean out concrete washout area when 50% full.
5. The key to functional concrete washouts is weekly inspections, routine maintenance, and regular clean out of the washout to provide vehicle access.
6. Sidewalk should be installed around perimeter of concrete washout area except for the side utilized for accessing the washout.
7. A rock construction may be necessary along one side of the washout to provide vehicle access.
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