

**SECTION 2**  
**DIVISION 10**  
**SPECIALTIES**

## **DIVISION10 - SPECIALTIES**

**Note: This is a guide for Designers only. Contents shall not be used in lieu of specifications as part of the Designer’s Contract Documents.**

### **SECTION 10 1100 – VISUAL DISPLAY SURFACES**

#### **PART 1 - GENERAL**

##### **1.1 SUMMARY**

- A. All classrooms should be provided with markerboards and / or chalkboards with required blocking.

### **SECTION 10 1400 – NON-ILLUMINATED EXTERIOR SIGNS**

#### **PART 1 - GENERAL**

##### **1.1 SUMMARY**

- A. The University of North Carolina at Charlotte supports the goal of making wayfinding along campus roadway and pedestrian ways understandable and accessible and has developed guidelines in an effort to promote mandatory design conformance and compliance. This information and guidelines are structured in accordance with the North Carolina department of transportation (NCDOT) and the federal manual on uniform traffic control devices (NCDOT adopted 2003).

All Exterior Signage for Roadways, Parking Lots, Loading Docks, Building Identification, Safety or any other exterior sign application, must be approved through Facilities Management Design Services which is governed by University Policy Statement #17 as related to all signage as applied to State Property and Facilities.

UNC Charlotte has adopted standard signage policies and design features for all exterior signs erected on campus. For visual reference; refer to the drawings in Annex D for typical campus exterior signs and sign groups. Permanent signs required by a project but not referenced here shall be submitted to Facilities Services for approval. New Sign products shall be equal or exceed in quality to the signs currently in place on campus.

- B. Refer to Section 02 4116 for the requirements on labeling insulation to indicate the presence or the absence of asbestos.  
Refer to Section 33 1150 for requirements relating to the identification of underground piping and utilities described in Division 2.  
Refer to Section 10 1401 for interior signs.  
Refer to Section 26 0100 for electrical identification.

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1.2 SIGN TYPES – DESCRIPTION

- A. Two sign types require additional feature boards across the top in keeping with Campus Logo identification on public road access. Please refer to Type A and B signage in the attached manual.
- B. This Section contains the identity and function of exterior signs types:
- TYPE A - LARGE ROAD DIRECTORIES -  
MAIN ENTRANCE ROADS AND PERIMETER HIGHWAY DIRECTIONAL
- TYPE B - MEDIUM ROAD DIRECTORIES -  
INTERIOR CAMPUS ROADWAYS AT INTERSECTIONS AND EXTENDED LENGTH ROADS
- TYPE C - SMALL ROAD DIRECTORIES -  
PARKING DECK AND SERVICE ROAD ENTRANCE SIGNS (SEE SIZE FOR E)
- TYPE D.1 – 2 - ATTACHED PARKING DECK ID
- TYPE E - DETACHED BUILDING ID
- TYPE F.1 - .3 - ATTACHED BUILDING ID (SIGNS, METAL LETTERS, VINYL GRAPHICS)
- TYPE G - ATTACHED OVERHEAD VEHICULAR DIRECTIONAL PARKING DECKS
- TYPE H – H.1 - PEDESTRIAN DIRECTIONAL
- TYPE I – OVERHEAD PARKING CLEARANCE BARS/SIGNAGE AT ALL DECK AND COVERED ENTRANCES AS WELL AS ANY CHANGES IN CLEARANCE (LIKE WHERE UPPER DECK LEVEL CLEARANCE IS LESS THAN THE ADA LEVEL).

1.3 GRAPHIC STANDARDS

This section provides graphic standards for all Exterior Sign configurations. Standards for exterior ADA directional signs (entrance signs) shall be approved by Facilities Management Design Services with regard to the specific placement, content or layout.

A. COLOR:

1. Full Crown – Stand Alone
  - a. Gold – 04 or equal metallic vinyl 7 year
  - b. Background – Black Green (see Annex D for paint codes by MPC).
  - c. Crown Gold option - Paint to match if that is specified
2. Half Crown and Text
  - a. Gold – 04 or equal metallic vinyl 7 year
  - b. Background – Black Green (see Annex D for paint codes by MPC).
  - c. Crown Gold option - Paint to match if that is specified
  - d. Text – White (see Annex D for paint codes by MPC).

The color of the sign face is to match Matthews Paint Co. MP21337 R91290 or approved equal with Satin Finish and Satin Clear Coat to seal. The color of the 'band' whether as an attached feature (TYPE A and B) or as accent band for vinyl decal crown feature is to be PMS 349 Campus Green.

B. LETTERING:

1. The University of North Carolina at Charlotte Crown and Text logo on the sign is registered as a legally protected trademark of the University and shall be produced from authorized originals without being modified.

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2. Go to this link for reference and logo access.  
<http://www.publicrelations.uncc.edu/logo/main-logo.html>
3. All copy shall be UTOPIA (True Type Version). A number of standard letter sizes have been established which should be appropriate for most signage needs (see Annex D for references). Lettering sizes will depend on distance readability and the surrounding area of placement. Speed and travel of vehicular and pedestrian traffic may also have influence on letter stroke and sizing. The final graphic and letter height selected shall be based on current sign placement content.

C. HEIGHT:

See Annex D for height descriptions. WBLAOCK CAD details may be provided upon request via FTP site.

1.4 FABRICATION:

Manufacturer will visit the University grounds to verify existing signage sizing and component structure; then provide working drawings for review prior to fabrication. Some environmental conditions may require alteration in order to provide maximum affect for the driver or pedestrian. These must be approved via drawing submittal prior to fabrication.

1.5 PLACEMENT:

Placement and location of all signs shall be approved by Associate Vice Chancellor for Facilities Management via a Design Services Project Manager.

Contractor or Vendor is responsible for all public utility locate requests and will provide schedule of utility locates that coincide with University Department utility locations. If placement falls within the 'no dig' area as stipulated by North Carolina One Call (NCOCC), then installer is required to hand dig without up-charge for installation of the sign.

For Utility Locate information: <http://www2.ncocc.org/ncocc/default.htm>

1.6 BUILDING NAMES:

Names will be provided by Facilities Management prior to fabrication. Submittal of Color elevation drawing approval required prior to finishes being applied to signage.

1.7 RESPONSIBILITIES:

- A. Capital construction projects shall provide funding to pay for all signs associated with each project.
- B. In Capital Construction projects, the General Contractor shall be responsible for contracting manufacture of and for placement of the signs on campus in compliance with the policies and specifications outlined in this document under the direction of Design Services.
- C. The Contractor shall be responsible for full replacement for defects in materials or workmanship for five years.
- D. Budget entities and auxiliaries shall be responsible for paying for the costs of requested signs for existing buildings. A Project request must be entered via Archibus for any fixed signage needed.

1.8 UPDATES:

If required, vendor will provide submittal drawing or outlined process to update graphics or failed sign features prior to a Purchase Order being released. If a sign requires removal, the Vendor

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must put in place a sign readable for the location that will continue to direct traffic and pedestrians without undue stress.

**PART 2 - PRODUCTS**

**2.1 EXTERIOR:**

All should be handled in accordance with the University's "Campus Signage Standards" Room Number Assignments:

- A. All spaces including custodial, mechanical, and closet spaces shall have assigned numbers. It is desirable that the construction numbering system be retained throughout the life of the facility. Numbering systems will be coordinated with University CAFM requirements. Please Refer to the Space Manual on: <http://cafм. facilities. uncc. edu/CAFM/data.htm> Following are general guidelines for space numbering in all buildings:
1. The Construction Documents for all design disciplines shall display the approved, permanent room number assignments.
  2. The numbering system shall use three-digit numbers with alpha suffixes, if necessary; four-digit numbers are not acceptable. Suites can be numbered with nested letters such as 243 A, 243 B, 243 C . . . etc.
  3. Number sequence shall progress continuously in a corridor. Using odd or even numbers on either side of the corridor is neither required nor desired. Where corridor configurations make it impossible for a continuous numerical progression, the Designer shall strive to achieve a logical numerical progression. Consult with the UPM.
  4. The numbering system shall provide spare numbers in the sequencing, especially in areas where there are large rooms or open spaces where future renovations could sub-divide the space.
  5. All spaces are to be assigned room numbers (closets, elevators, janitorial rooms, lobbies, rest rooms, stair landings, vestibules, etc.). Lobbies will not have signage.
  6. The lowest floor with a primary entrance shall be assigned "100" series numbers. All other floors located below grade shall be assigned numbers with a "B" prefix, (B02, B03, etc.).
  7. Basement room numbers shall be three digits and begin with the letter "B".

**2.2 FABRICATION:**

- A. 1. Sign Types B.1, D, E, and F2 also have a photopolymer plaque with integral raised graphics applied to the backer.
2. Sign Type G - provide surface silk-screened header and surface silk-screened graphics.
- B. Exterior ADA signs, type A.EXT, for example, shall be "chemically etched zinc" it is for use in exterior applications as the photopolymer will biodegrade over time if subjected to the elements.

**SECTION 10 1401 – NON-ILLUMINATED INTERIOR SIGNS**

**PART 1 - GENERAL**

**1.1 SUMMARY**

The University of North Carolina at Charlotte supports the goal of making facilities accessible and has developed guidelines in an effort to promote mandatory compliance. This information and

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guidelines are structured on the Americans with Disabilities Act (ADA). The University has used extreme care and high standards to assure accuracy in interpretation of the law.

It is not the intent to convert entire buildings to the new Design Manual specification unless funding department is doing so to bring building into compliance with ADA and other governing bodies. There will be instances where the Manufacturer will be asked to match existing room and space identification in order to conserve funding for more critical safety projects. But for all project signage, a review is required by Facilities Management Design Services designate in accordance with University of North Carolina at Charlotte Policy Statement 17.2.c. that instructs us in Code Compliant actions required regarding State facilities that includes the correct action regarding *“addition, removal, or movement of signs”*.

Signage Guidelines are taken from the Department of Justice's final rules implementing Title III of the Americans with Disabilities Act, printed in the Federal Register, 28 CFR, Part 36, 26-July-2010.

- A. Section includes: Interior non-illuminated directional, control, and information surface mounted signage as complete assembled and fixed system.
- B. Related sections:
  - 1. Section 08 1113: Steel Doors and Frames.
  - 2. Section 08 1416: Wood Doors.
  - 3. Section 09 2900: Gypsum Board Systems.
  - 4. Section 09 5113: Acoustical Ceilings.
  - 5. Section 09 9100: Painting.
  - 6. Section 09 7200: Vinyl Wall Covering.
- C. Unit prices: Provide installed unit price for each type unit in designed system for extra possible required signage.
- D. Large projects will require Manufacturer to fabricate a minimum of two each of each small size for submittal review, and renderings of Wayfinding Map and Direction signage.

1.2 REFERENCES:

- A. Standards of the following as referenced:
  - 1. American National Standards Institute (ANSI).
- B. Industry standards:
  - 1. Department of Justice, Office of the Attorney General, "Americans with Disabilities Act", Public Law 101-336, (ADA).
  - 2. ANSI A117.1: Providing Accessibility and Usability for Physically Handicap People, 1986 edition.
  - 3. Federal Register Part III, Department of Justice, Office of the Attorney General, 28 CFR Part 36: Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities, Final Rule, July 26, 1991.
  - 4. Federal Register Part II, Architectural and Transportation Barriers Compliance Board, 36 CFR Part 1191: Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Amendment to Final Guidelines, July 23, 2010.

1.3 DEFINITIONS:

- A. Terms:
  - 1. Braille: Grade 2 Braille including 189 part-word or whole word contractions in addition to Grade 1 Braille 63 characters. Tactile is required whenever Braille is required; see SYSTEM DESCRIPTION Article below.

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2. Non-tactile: Letters and numbers on signs with width-to-height ratio between 3:5 and 1:1 and stroke width ratio between 1:5 and 1:10 using upper case "X" to calculate ratios. Use typestyles with medium weight; upper and lower case lettering is permitted; NO serif typestyles are permitted. See SYSTEM DESCRIPTION Article below.
3. Symbols: Symbol is required to be tactile AND equivalent verbal description is required\ both in tactile letters and Braille.
4. Tactile: 1/32" raised capital letters without serifs at least 5/8" height and not more than 2" height based on upper case "X". Braille is required whenever tactile is required; see SYSTEM DESCRIPTION Article below.

1.4 SYSTEM DESCRIPTION:

- A. Signage under this section is intended to include items for identification, direction, control, and information where installed from single manufacturer.
- B. ADA design requirements:
  1. Signage requiring tactile graphics:
    - a. Wall mounted signs designating permanent rooms and spaces such as, room numbers and restroom, department, office, accessibility designated space, and fire exit identifications.
    - b. **Individually applied characters are prohibited** for either tactile letters or pictograms.
  2. Signage not requiring tactile graphics but require compliance to other ADA requirements: All other signs providing direction to or information about function of space such as, directional signs (signs with arrow), informational signs (operating hours, policies, etc.), regulatory signs (no smoking, do not enter), and ceiling and projected wall mount signs.
  3. Excluded signage:
    - a. Exterior signs.
    - b. Building directories.
    - c. Menus.
    - d. Temporary signs include personnel signs and tenant identification; suite numbers are not considered temporary.
- C. ADA performance requirements:
  1. Tactile graphics signs mounting requirements:
    - a. Single doors: Mount 60" to sign centerline above finish floor and on wall adjacent to latch side of door.
    - b. Openings: Mount 60" to sign centerline above finish floor adjacent opening.
    - c. No wall space adjacent latch side of door, opening, or double doors: Mount 60" to sign centerline above finish floor on nearest adjacent wall.
    - d. **ADA Signs Type A, B, C, E.1, F, and J:** Signs constructed from a clear Photopolymer Sheet, graphics are integral to the sign, no etched or separately applied characters are permitted. Plaques are surface painted with automotive grade polyurethane and then the raised graphics are tipped in second color, do not tip Braille.

1.5 SUBMITTALS:

- A. Product data:
  1. Manufacturer's signed statement regarding compliance with QUALITY ASSURANCE Article.
  2. Manufacturer's product literature indicating units and designs selected.
  3. Manufacturer's signed statement regarding compliance with ADA Statutes and requirements.
- B. Shop drawings:

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1. Indicate materials, sizes, configurations, assembly diagram, installation details for mounting, and applicable substrate mountings.
2. Typography sample for copy and approval.
3. Signage schedule complete with location of each sign and required copy; include floor plans, if required.
4. Artwork for special graphics.

C. Samples and/or Submittals:

1. Full size samples for Sign, insert, and copy in colors specified.
2. Furnish samples in small size sign.

Note: Samples will not be returned for use in Project but will remain with the University as reference for future sign projects and demonstration of product requirements.

D. Contract closeout:

1. Furnish appropriate checklist for aiding in reordering after Date of Substantial Completion. Maintain computer schedule program for **FIVE** years for ordering new signage required by Owner.
2. Maintenance data and cleaning requirements for exterior surfaces.
3. Proper steps to remove signs for repairs or updated installation replacement.
4. Furnish accurate templates in PowerPoint or other Microsoft based application useful for creating replacement insertable information cards.

1.6 QUALITY ASSURANCE:

A. Qualifications:

1. Manufacturer:
  - a. Work required under this section from manufacturers regularly engaged in work of this magnitude and scope for minimum of five years.
  - b. Third party vendor must provide manufacturer information including Name, Contact, Location, and manufacturer must provide all within this Division outline as if they were the direct supplier and installer for the sign package.
  - c. Maintain computer link between schedule input and computerized typography production.

1.7 DELIVERY, STORAGE, AND HANDLING:

\*\* USE EITHER A or B \*\*

- A. Please refer to ANNEX D.1 indicated for Delivery, Storage, and Handling Section.
- B. Acceptance at site: Coordinate delivery of work to Project site under this section for immediate installation.

1.8 SEQUENCING AND SCHEDULING:

- A. Schedule system installation after related finishes have been completed.
- B. Provide timeline of installation.

PART 2 – PRODUCTS

2.1 MANUFACTURED UNITS:

A. Acceptable product:

1. APCO; 388 Grant Street SE, Atlanta, Georgia, 30312, USA. Phone; (404) 688-9000. Telex; 752098. Fax; (404) 577-3847.
2. Other manufacturer's products are acceptable if submitted in accord with Product Options and Substitutions section and are in strict compliance with these specified requirements.



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2.2 COMPONENTS:

COMPONENTS LISTED BELOW GIVE ONLY GENERAL INFORMATION. SCHEDULES ARTICLE REQUIRES COMPLETE SIGNAGE SCHEDULE DEVELOPED BY MANUFACTURER'S REPRESENTATIVE.

A. Plaque:

1. Face material:  
Wall or vertical surface:
  - a. \*1/4" - 5/16" thickness (\*single etch versus assembly signage) clear non-glare, optically corrected, cast virgin acrylic sheet with second surface (backside) applied perimeter line and border graphics application leaving center see-through area for insert.
  - b. ADA tactile signs: Individual 1/32" high letter characters chemically etched into surface material; Braille portion chemically etched into surface material.Ceiling:

1/4" thickness expanded PVC with first surface applied perimeter line and background color; 20 mm applied die-cut vinyl graphics.
2. Thickness: 1/16".
3. Back: Black acrylic sheet; 1/8" thickness plastic. (N/A for Ceiling Mount Modules).
4. Insert: Die-cut vinyl; 20 mm thickness. (N/A for Ceiling Mound Modules).
5. Corners: Square. (see Annex D.1 Interior Signage)
6. Mounting:
  - a. MOUNTING PLAQUES TO SURFACE; SELECT TYPE OR TYPES:
    - 1) WALL MOUNTING:
      - a) VT; Double sided vinyl tape mounting.
      - b) SA; Silastic adhesive for mounting to irregular surfaces, vinyl tape is used in conjunction for holding sign in position during adhesive curing time.
      - c) "2-way close cell VHB foam tape" The FullView signs, type L.1, should indicate that they are also to be mounted with Mechanical Fasteners, they are too heavy to be securely mounted with tape only.
    - 2) CEILING MOUNT:
      - a) CM; grid track and clip system or cable and clip.
      - b) **Projection mounted signs or Ceiling mounted signs:** Projection mounting bracket to be constructed using two mating aluminum extrusions, whereby one extrusion can be mechanically mounted to the wall or ceiling and the corresponding extrusion can be mechanically fastened to the sign face or holder and the entire assembly can be joined to the mounting bracket by engaging the mating tracks from either the top or bottom and sliding the sign into position. Assembly to be secured via discreet locking set screws.
  - b. Wall or vertical surface: VT or SA as indicated in schedule.
  - c. Ceiling grid: Furnish manufacturer's standard track and clip system, or cable tie and hardware for suspension installation direct to ceiling grid as required.
7. Colors:
  - a. Perimeter line color: PMS 349 "Campus Green".
  - b. Border and insert colors:

PMS 349 "Campus Green is default standard (all other colors must receive approval from Facilities Management Design Services. A submittal drawing must be provided that will be approved by Design Services, or if required, the Associate Vice Chancellor for Facilities Management.
  - c. Other Colors currently used in the Campus Sign Package to date (11-01-10).

Putty – all backgrounds.

    - 1) PMS Green –  
Kennedy, ROTC, Colvard,
    - 2) PMS Green Border with Black text –  
King Building.

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- 3) Matte Black –  
Fretwell, Cone Center (Academic Spaces), Reese 4<sup>th</sup> Floor.

(Colors Cont.)

- 4) Satin Silver –  
Cameron Applied Research, Bioinformatics.
- 5) Wine –  
Rowe Arts
- 6) Olive Green –  
Denny Complex
- 7) Windsor Blue –  
Cone Center Main Color, Winningham
- 8) Jade Blue –  
Student Health Center
- 9) Malaga Black Green –  
Student Union
- 10) Bronze Metallic –  
Duke Centennial Hall

8. Interior Sign Group (may be expanded – check with Project Manager for current list):

a. Wall Mounted:

- 1) 7-1/4" by 7-1/4" -Type A
- 2) 9" by 7-1/4" - Type B
- 3) 9" by 7-1/4" - Type B
- 4) 9" by 7-1/4" - Type B.1 - Insertable
- 5) 9" by 7-1/4" - Type B.2
- 6) 9" by 7-1/4" - Type B.3
- 7) 9" by 7-1/4" - Type B.4
- 8) 9" by 7-1/4" - Type B.5
- 9) 7-1/2" by 7-1/2" - Type C - Insertable
- 10) 7-1/2" by 7-1/2" - Type C.1
- 11) 7-1/2" by 7-1/2" - Type C.2
- 12) 9" by 9" - Type C.3
- 13) 9" by 1-3/8" - Type D - Insertable
- 14) 5-7/8" by 5-1/4" - Type E - Insertable
- 15) 2-1/2" by 5-1/4" - Type E.1
- 16) 3-1/2" by 7-1/4" - Type F
- 17) 4-1/2" by 8-1/2" - Type F.1
- 18) 15-1/2" by 8-1/2" - Type F.2 - Insertable
- 19) 12" by 12" - Type G - Insertable
- 20) 11-3/4" by 17-3/4" - Type H - Insertable
- 21) 9-3/4" by 11-3/4" - Type I - Insertable
- 22) 5-7/8" by 5-1/4" - Type J
- 23) 4" by 4" – 4" by 3" - Type J.1 - Insertable
- 24) 11-3/4" by 11-3/4" - Type K - Insertable
- 25) 36-3/16" by 18-7/16"- Type L.1 - Insertable
- 26) 8" by 24" (varied) - Type L.2 - Insertable - CM
- 27) 12" by 36" - Type L.3 - Insertable - CM
- 28) 6" by 6" - PM - Type PM.01
- 29) 6" by 6" - PM - Type PM.02
- 30) 6" by 6" - PM - Type PM.03
- 31) 6" by 6" - PM - Type PM.04
- 32) 6" by 6" - PM - Type PM.05
- 33) 6" by 6" - PM - Type PM.06
- 34) 8" by 8" - SM - Type SM.01
- 35) 8" by 8" - SM - Type SM.02
- 36) 8" by 8" - SM - Type SM.03

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Or - Indicated in SCHEDULES Article from manufacturer's standard sizes.

- b. Suspended Ceiling Wayfinding Directories:
    - 1) 8" by 24".
    - 2) 12" by 36".
    - 3) Or as Indicated in Drawings referencing manufacturer's standard sizes.
  - c. Wall suspended Wayfinding Directories:
    - 1) 36-3/16" by 18-7/16"
- B. GRAPHICS:
- 1. Type: Factory printing OR Manual.
  - 2. Factory printing:
    - a. Type style: **UTOPIA - Bold**. (may not always apply)  
(Not to be used for Tactile Lettering applications.)
    - b. Type style: **INTERSTATE - Bold**. (may not always apply)  
REMINDER: ADA REQUIRES ALL UPPERCASE FOR TACTILE;  
UPPER/LOWER CASE FOR NON-TACTILE.
    - c. Type code: Uppercase. Initial caps. Combination.  
Indicated in SCHEDULES Article.
    - d. Type size:
      - 1) HM: \*\* 3/16". \*\* 7/32". \*\* 1/4". \*\* 5/16". \*\* 3/8". \*\* 7/16". \*\*
      - 2) CB: \*\* 1/2". \*\* 5/8". \*\* 3/4". \*\* 15/16". \*\* 1". \*\* 1-1/4". \*\*
    - e. Color: \*\* PMS 349 Green \*\* Black \*\* White \*\* (alternate to be approved)
  - 3. Furnish Grade 2 Braille characters for tactile signs; same text as letter designations and symbol translation indicated in DEFINITIONS Article.
  - 4. Insertable signage – Manufacturer to provide Microsoft based templates (.docx; pptx) with dotted border trim line to meet all signage package templates for insertable room signs. Manufacturer to keep on hand, Large Wayfinding directory content for updates for a period minimum of 5 years. (see 1.5, c)

2.3 FABRICATION:

- A. Shop assembly: (check with Design Services for available submittals for reference)
  - 1. Fabricate units to configurations indicated on reviewed shop drawings.
    - a. Wall or vertical surface units:
      - 1) Apply border colors to second surface of face material using photographic screen printing process.
      - 2) Apply color to insert material matching face color.
      - 3) Laminate back to face material using manufacturer's standard procedure leaving space for insertable message unit.
    - b. Ceiling-mount units:
      - 1) Apply perimeter line color to plaque surface using photographic screen printing process.
      - 2) Apply background color to plaque material; both surfaces.
      - 3) Attach plaque to ceiling mount grid track and clip system.
  - 2. Furnish required copy indicated on reviewed shop drawings.
  - 3. Wrap each individual unit with polyethylene.
  - 4. Provide card stock for insertable message printing.
- B. **FullView Signs (Ceiling & Type L.1):** Low Profile Sign Frame/Holder assemblies shall be comprised of extruded aluminum and/or aluminum composite materials and shall feature an overall depth of 7/16" (12mm) or less. Inserts are clear matte acrylic constructed using a continuous extruded sheet acrylic with a consistent non-glare (matte) surface finish. Digital Print Inserts are Full Color printed on HP premium instant dry gloss photo paper.
- C. **Type SM Signs:** These are not chemically etched or photopolymer, it is a 1/8" thick continuous extruded sheet acrylic with surface silk-screened graphics.
- D. **Signs that accept paper inserts:** Sign consists of 1/8" thick continuous extruded sheet

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acrylic solid color backer with a clear 1/8" thick continuous extruded sheet acrylic with surface silk-screened rule line (borders) applied to the face of the backer with 2-way close cell VHB foam tape.

**PART 3 – EXECUTION**

**3.1 EXAMINATION:**

- A. Verification of conditions: \*\* Indicated in Coordination Section. \*\* OR \*\*
  1. Examine areas to receive signage; notify Architect in writing of unacceptable substrate.
  2. Beginning work indicates acceptance of substrate.
  3. Subsequent modifications to substrate or signage becomes this section's complete responsibility.

**3.2 INSTALLATION:**

- A. Install holders in locations with mounting types indicated in accord with reviewed shop drawings; square, plumb, and level units.

**3.3 CLEANING:**

- A. Clean exposed surfaces not more than 48 hours prior to Date of Substantial Completion in accord with manufacturer's written cleaning instructions.

**3.4 SCHEDULES:**

- A. See attached sheet for Schedule.

**3.5 REMOVAL AND REPAIRS:**

- A. Verification of conditions: \*\* Indicated in Coordination Section. \*\* OR \*\*
  1. Examine areas to remove existing signage; notify Architect in writing of areas that will be damaged and repaired.
  2. Beginning work indicates acceptance to repair wall conditions up to paint (to be provided by Facilities Management Zone group).

**SECTION 10 2113 – TOILET PARTITIONS**

**PART 1 - PRODUCTS**

**1.1 TOILET COMPARTMENTS:**

- A. All toilets, urinals and their respective partitions shall be wall hung.
- B. Solid (homogenous color, not coated or laminated) phenolic toilet and shower partitions are preferred over other materials such as steel or laminates.
- C. Provide stainless steel trim and hardware with self closing door hinges.
- D. Latches that do not depend on precision alignment of door and wall to operate are preferred.
- E. Provide coat hooks in toilet partitions.

**SECTION 10 2800 – TOILET AND BATH ACCESSORIES**

**PART 1 - PRODUCTS** *(TO BE VERIFIED WITH UNIVERSITY PROJECT MANAGER)*

**1.1 TOILET PAPER DISPENSER**

Will be supplied by the Owner and installed by the contractor.

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1.2 PAPER TOWEL DISPENSER

- A. Will be supplied by the Owner and installed by the contractor.
- B. Paper towel dispensers are generally preferred over electric hand dryers and should be designed for roll-type paper towels. Integral trash cans may be used for recessed or semi-recessed locations. Dispensers will have stainless steel finish and locking covers.
- C. Paper towel dispensers in academic/administrative building restrooms will be changed to VonDrehle Hands-Free Mechanical Roll Towel Dispenser (For 7 7/8" Towels), Model Number 886.

1.3 SANITARY PRODUCTS DISPENSER

Will be supplied by the Owner and installed by the contractor

1.4 SOAP DISPENSERS

Will be supplied by the Owner and installed by the contractor.

1.5 SOAP DISH

A built-in ceramic tile soap dish shall be installed with each shower or tub.

1.6 METAL SHELF

At lavatories, a metal shelf finished to match adjacent trim shall be provided.

1.7 WASTE RECEPTACLE

At minimum of one owner provided freestanding Rubbermaid type waste receptacle with a minimum 18 gallon capacity shall be provided for every two lavatories. Women's restroom stalls shall include sanitary napkin receptacles.

**SECTION 10 4300 – EMERGENCY AID SPECIALTIES**

PART 1 - GENERAL

1.1 OWNER PROVIDED, CONTRACTOR INSTALLED EQUIPMENT.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Automated External Defibrillator Basis of Design: Philip Heartstart FR2+ series
  - 1. Indoor cabinets: 19.25" height, 13" width, and 6" depth.

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PART 3 - EXECUTION

3.1 PLACEMENT

- A. Work with Project Manager in designing appropriate locations for Automated External Defibrillators.
  - 1. The American College of Occupational and Environmental Medicine (ACOEM), recommended that when practical, AEDs be placed in locations throughout a workplace that will allow initiation of resuscitation and use of the AEDs (the “drop-to-shock” interval) within 5 minutes of recognized cardiac arrest. Estimating time needed for transport and set up the AED for various work areas can help determine if a proposed location for AED placement is appropriate.

**SECTION 10 4400 – FIRE PROTECTION SPECIALTIES**

PART 1 - GENERAL

1.1 DESIGNERS

- A. Shall clearly identify locations for Fire Extinguishers and cabinets on the plans. Locations shall be planned with the intent to provide appropriate coverage, while having the least interference with the interior design concept.
- B. Shall specify in-wall Fire Extinguisher Cabinets and Fire Extinguishers according to the guidance of the University Safety Officer. The General Contractor shall install the specified extinguishers new, unused, and certified on the date of Beneficial Occupancy.

1.2 FINAL LAYOUT

Will be provided to the UPM and forwarded on to the University Safety Officer for review and approval.

1.3 FIRE EXTINGUISHERS

Shall be provided according to NFPA – 10 and shall be UL approved. All fire extinguisher cabinets shall comply with ADA height and sign criteria.

1.4 PROVIDE

Automated External Defibrillator as per information contained in Appendix A.

PART 2 - KNOX BOX

2.1 LOCATION

- A. The Knox box shall be externally mounted in a location where first responders will service the building in an emergency. Preferably in close proximity to the main fire alarm panel.

2.2 INSTALLATION

- A. The Knox box will be tied to the campus security system which is monitored by the campus police department.

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- B. The Knox box will have a 2 taper switches to which will be tied to the door if it is opened and the wall if the Knox box is removed.
- C. The Knox box will be through bolted and securely attached to an external wall. See manufactured for proper mounting instructions.
- D. The Knox box will contain a minimum 2 sets of keys to fire pumps, elevators, and rooms. If the building is over 5 stories the Knox box will require 5 sets of keys.

2.3 REQUIREMENTS

- A. The campus standard Knox box is 1300 series Knox box which is only surface mountable. For smaller buildings a 4100 series recess-able Knox box may be used.
- B. The Knox box must be dual keyed and the second key shall be keyed to the campus police department standard.

**SECTION 10 5113 – METAL LOCKERS**

PART 1 - GENERAL

1.1 SUSTAINABILITY

- A. Recycled Content of Steel Products: Provide products with an average recycled content of steel products so postconsumer recycled content plus one-half of preconsumer recycled content is not less than 60 percent

PART 2 - PRODUCTS

2.1 MATERIALS

- A. All similarly specified materials shall have matching finish and colors.
- B. All materials shall be new and shall be manufactured for the intended use. No manufacturer's or installer's logos or other decals or signs will be attached without authorization of the Owner.
- C. All materials shall meet N.C. State Building Codes, and should there be any discrepancies between design and code, the more stringent requirement shall apply.

2.2 LOCKERS

- A. The lockers shall have the following features unless specific changes are requested and approved by the University through the UPM. The Designer is responsible for ensuring that modifications to the following general requirements are not needed by the University:
  - 1. Height: 72" minimum
  - 2. Width: 15" on center
  - 3. Depth: 18"
  - 4. Sloped tops
  - 5. Colors:
    - a. Doors, dark green
    - b. All other parts, black
  - 6. Base: Approx. 4" height with 2" minimum horizontal "kick set back" under the front face.
  - 7. Interior
    - a. 3 hooks with one single hook on each side and one double hook on the back wall.
    - b. 2 shelves; one at top and one at bottom approximately 8 inches above the bottom.

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8. End face plates where a row of lockers do not abut a wall, face plates shall be equal, at each end of each row to center the lockers on the wall. Color will match other framework.
- B. Doors:
  1. 2 sections of louvers for air circulation, one at top and one at bottom. Louvers shall prevent visibility into locker
- C. Hardware:
  1. Numerical plates with first plate being numbered 49-1 followed by 49-2, 49-3, 49-4, etc. Each room shall have the first plate being 49-1.
  2. Name card holders to accommodate slide-in cards. (Minimum card size 1 inch height, 4 inch length)
  3. Hasp for standard pad lock.

**PART 3 - EXECUTION**

**3.1 GENERAL REQUIREMENTS**

- A. The specified materials shall be provided and installed by the Contractor in accordance with the "best quality" industry standards. The installed materials shall be complete and operate safely and efficiently for the intended use.
- B. The Contractor will make final clean-up. All adjustments necessary to provide proper operation will be performed by the Contractor prior to leaving the site.
- C. The Contractor's installation shall include, but not be limited to, all parts, fasteners, finishes and whatever other materials and equipment are needed for a complete operating system. Prior to starting work, the Contractor shall have all needed materials at the site, so that installation will progress efficiently.
- D. The lockers shall be firmly attached to the adjacent walls and floor with non-corrosive fasteners.
- E. If the concrete floor is un-even, the Locker Contractor shall apply leveling grout.
- F. Locker doors shall be installed in a flat place with a tolerance of 1/8 inch.

**SECTION 10 5500 – POSTAL SPECIALTIES**

**PART 1 - GENERAL**

- 1.1 PROVIDE 1 MAILBOX PER LEASE, VERIFY WITH PROJECT MANAGER.

**SECTION 10 7313 – AWNINGS**

**PART 1 - PRODUCTS**

**1.1 AWNING FABRICS**

- A. Use a mildew resistant fabric with a solution dyed modacrylic.
- B. Woven fabric made of 100% self-extinguishing fibers. These are modacrylic solution-dyed fibers with a fluorocarbon finish.
- C. Fabric shall be approximately 9.25 oz. per square yard. The fibers shall be flame resistant to pass or exceed Test Procedure #801, Title 19, California State Fire Marshal's Test (Registration #F-368.01), National Fire Protection Association Test #701, and ASTM E-84-84 (flame spread



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and smoke density is Class A or Class 1). Conforms to virtually all local building codes. Fabric does not melt drip.

- D. Fabric shall be highly resistant to ultraviolet rays and color degradation.
- E. Fabric underside shall be same as top surface-both sides alike.
- F. Fabric shall be plain weave and have excellent breathability. Also, fabric shall be chemical resistant that is highly resistant to acids, alkalies and solvents. It shall also be water repellent.
- G. The sew ability shall be of soft draping properties; mean all measures to prevent excessive puckering and uneven.
- H. Fabric can be heat sealed using equipment in accordance with manufacturer's specifications.

1.2 AWNING FRAMING

- A. All aluminum frame tubing shall be painted to match the material color.
- B. Framing shall be designed and installed to be structurally sound, and meet all North Carolina construction codes and regulations. This includes material connections to framing.
- C. Front of awning shall have a 6" fascia overhang. Sides of awning shall be fully open.

**SECTION 10 – BUILT-IN RECYCLING/TRASH CABINETS**

PART 1 – GENERAL

1.1 SUMMARY

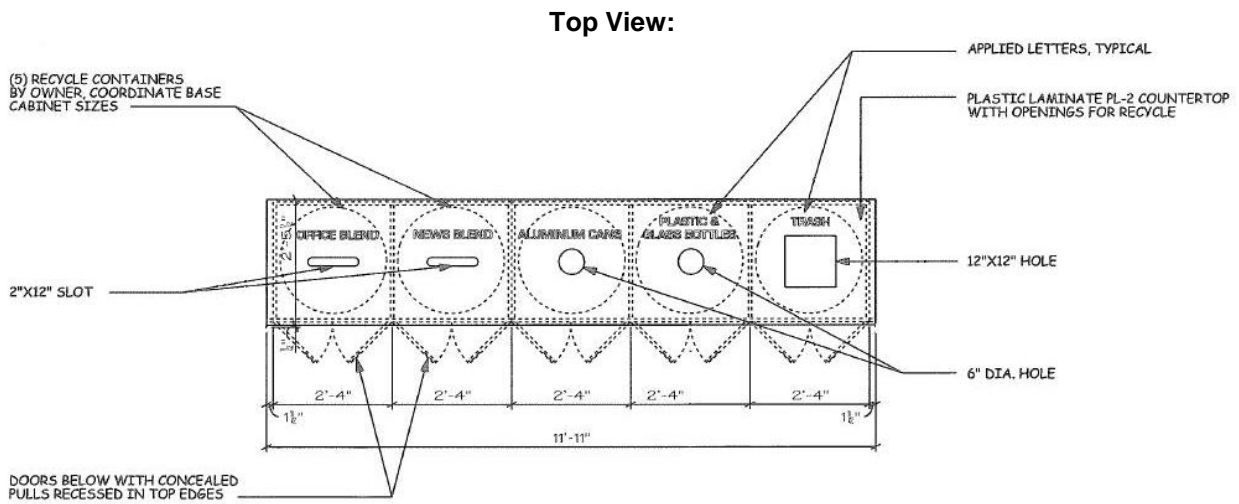
- A. As a State-funded institution, UNC Charlotte is required by NC General Statutes to provide recycling containers in all buildings. All new construction is to include built-in recycling/trash cabinets for use by the public. Built-in cabinets have the following advantages:
  - 1. Incorporated into building design, and can be built to match so that aesthetics do not become an issue.
  - 2. Allows recycling to be placed in easily accessible locations without blocking egress or creating Safety/Fire hazards.
  - 3. Ensure that recycling and trash containers are fixed in place, and cannot be moved around the building to other locations.
- B. Built-ins are to be located near vending areas and lobbies/entrances. Students should pass by at least one set of recycling bins between any given entrance and their classroom.

1.2 STANDARD DESIGN

- A. The standards for built-in recycling/trash cabinets are:
  - 1. 5-sections ("Office Blend", "News Blend", "Aluminum Cans", "Glass & Plastic Bottles", "Trash").
  - 2. Slant top with appropriately shaped/sized cut-outs for each section.
  - 3. Service doors on front of cabinets to be opened with concealed finger-holds rather than door pulls.
  - 4. Appropriately sized to fit rectangular 23-gallon container (20"W x 10"D x 30"H) or round 32-gallon container (24"Dia. x 28"H) (University will supply).
  - 5. A minimum of 8" should be left between one end of the built-in cabinet and continuing wall space to allow for collection of flattened cardboard boxes for recycling.
  - 6. Cabinet finish should be matched to interior building design. Laminate or paint finish may be used dependent on the other finishes in the area.
  - 7. Durable, engraved plastic or metal signage should be included on each section. Appropriate wording will be provided by the Office of Waste Reduction and Recycling.
  - 8. Design will incorporate ADA accessibility requirements.

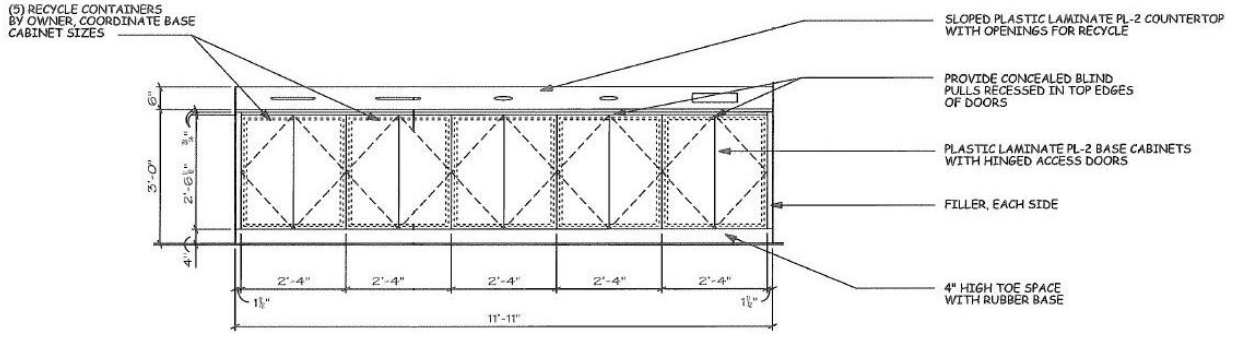
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B. Sample plan for built-in recycling cabinets for 32-gallon containers:

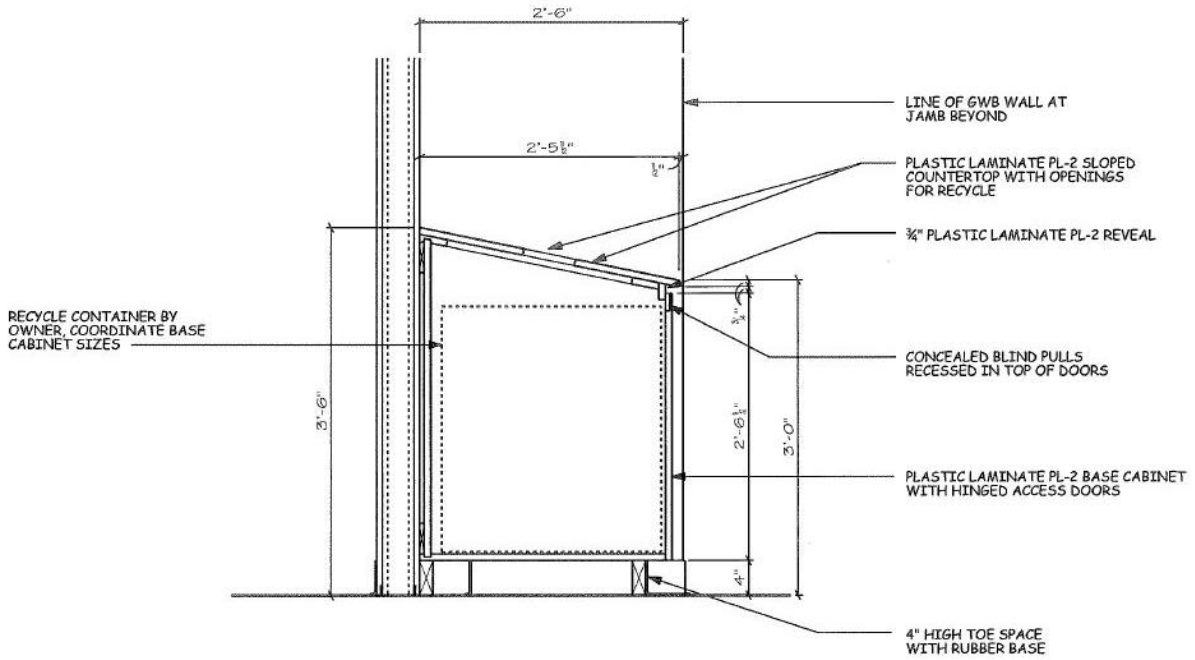


**Front View:**

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**Side View:**



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ANY DEVIATIONS FROM THE STANDARDS LISTED ABOVE MUST BE APPROVED BY OFFICE OF WASTE REDUCTION AND RECYCLING STAFF.