



ARBOR

3RD ——— MILL

COMPREHENSIVE SIGN PLAN | ARBOR 310 S. MILL AVE. TEMPE, AZ 85281

UPDATED 01.06.2023



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# PROJECT INFORMATION

**PROJECT** ARBOR  
310 S. Mill Ave.,  
350 S. Mill Ave.,  
51 West 3rd St.,  
410 S. Mill Ave.  
Tempe, AZ 85281

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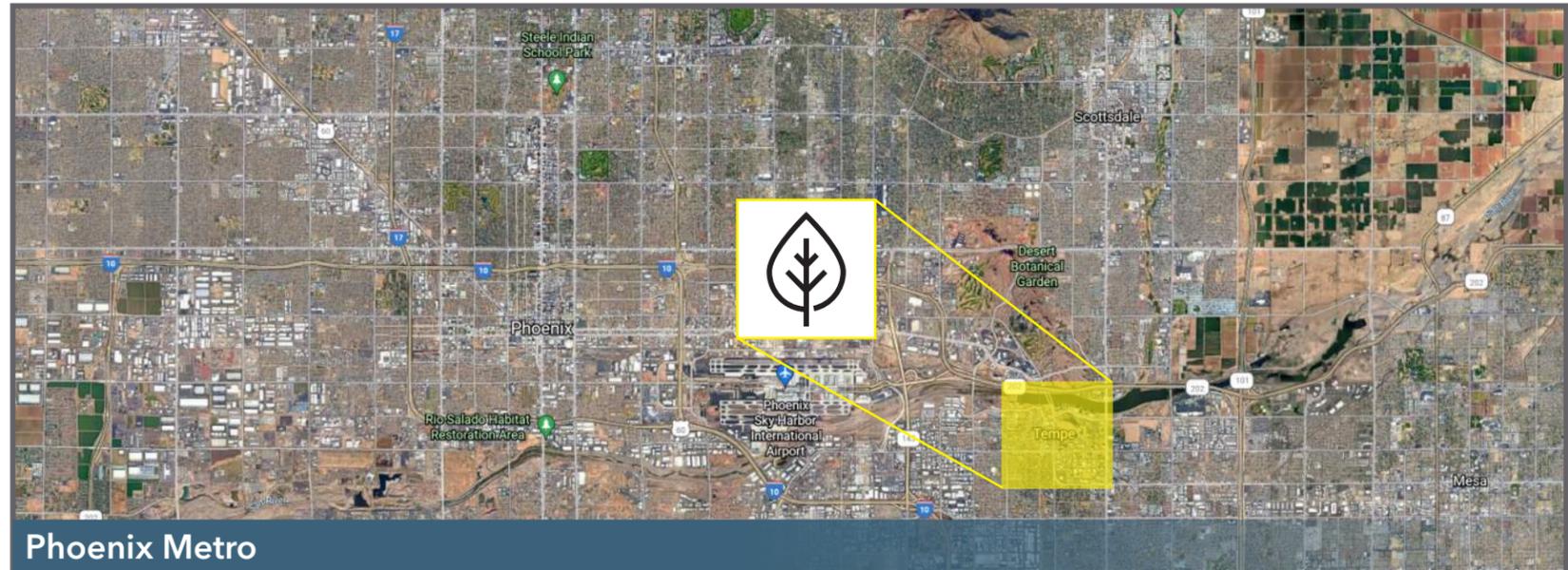
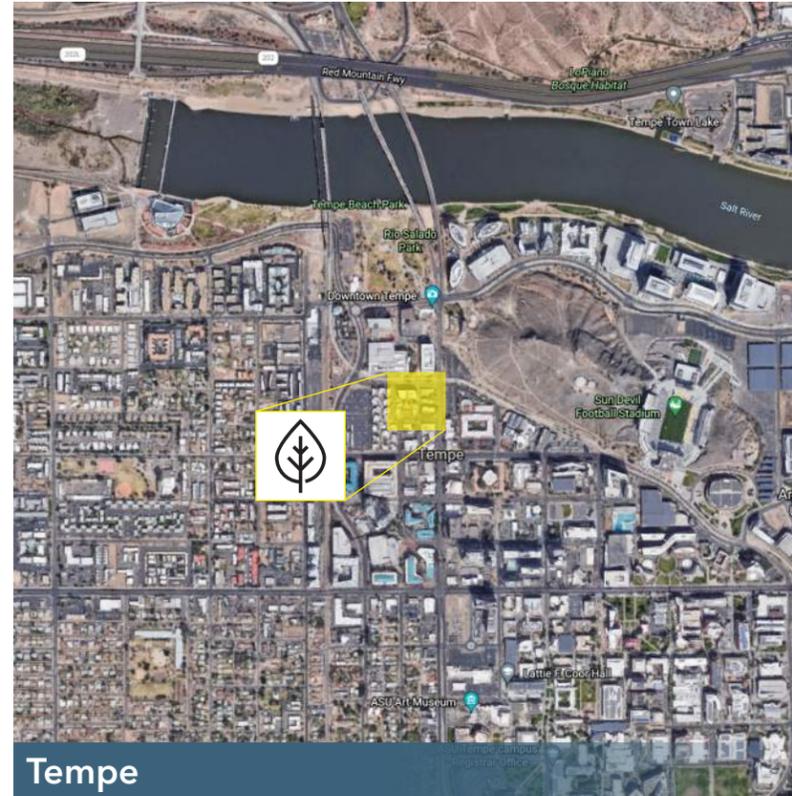
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# VICINITY MAP



# SPECIFICATIONS

## SIGNAGE

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 1 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

#### 1.3 SUSTAINABLE DESIGN REQUIREMENTS

- A. LEED CREDITS: CREDITS APPLICABLE TO THE WORK OF THIS SECTION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
  - 1. LEED NC 2.2 CREDIT ID 1.1 BUILDING AS AN EDUCATION TOOL.

#### 1.4 DEFINITIONS

- A. CBC: CALIFORNIA BUILDING CODE, 2007 EDITION.
- B. UBC - UNITED STATES UNIFORM BUILDING CODE
- C. NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM) "METAL FINISHES MANUAL."
- D. AMERICAN WELDING SOCIETY (AWS) - AWS D1.1 "STRUCTURAL WELDING CODE, STEEL," AND AWS D1.2 "STRUCTURAL WELDING CODE, ALUMINUM".
- E. UNDERWRITERS LABORATORIES INC. (UL) - STANDARDS FOR SAFETY, UL PUBLICATION 48 "ELECTRIC SIGNS."

#### 1.5 PERFORMANCE REQUIREMENTS

- A. WIND LOADS – STRUCTURAL DESIGN BASIS
  - 1. IMPORTANCE FACTOR
- B. SEISMIC DESIGN – STRUCTURAL DESIGN BASIS
  - 1. IMPORTANCE FACTOR
- C. LIVE LOADS – STRUCTURAL DESIGN BASIS
  - 1. IMPORTANCE FACTOR

#### 1.6 SUBMITTALS

- A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.
- B. SHOP DRAWINGS: SHOW FABRICATION AND INSTALLATION DETAILS FOR ALL SIGNS.
  - 1. PROVIDE LISTING OF EACH SIGN TYPES, SHOW SIGN MOUNTING HEIGHTS, DIMENSIONS, INTERNAL CONSTRUCTION, FINISHES, FASTENING, ANCHORAGE, JOINING, SEALING, BACKING, UTILITY REQUIREMENTS, AND ADJACENT CONDITIONS AT EACH SIGN. CROSS REFERENCE SHOP DRAWINGS TO CONTRACT DOCUMENTS DRAWINGS AND SPECIFICATIONS.
  - 2. STRUCTURAL DESIGN: DETAILS ON DRAWINGS INDICATE A DESIGN APPROACH FOR SIGN STRUCTURES, BUT DO NOT NECESSARILY INCLUDE ALL FABRICATION DETAILS REQUIRED FOR THE COMPLETE STRUCTURAL INTEGRITY OF THE SIGNS, INCLUDING CONSIDERATION FOR STATIC, DYNAMIC, AND ERECTION LOADS DURING HANDLING, ERECTING, AND SERVICE AT THE INSTALLED LOCATIONS. IT IS THE RESPONSIBILITY OF THE FABRICATOR TO PERFORM THE COMPLETE STRUCTURAL DESIGN OF THE SIGNS TO INCORPORATE ALL THE REASONABLE SAFETY FACTORS, CODE REQUIREMENTS AND SPECIFIC PROJECT PERFORMANCE REQUIREMENTS.
  - 3. SUBMIT STRUCTURAL CALCULATIONS FOR ALL INTERNAL STRUCTURAL COMPONENT DESIGN INCLUDING SUPPORTS TO BUILDING STRUCTURE SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE LOCAL STATE OR AS REQUIRED PER LOCAL CODES.
  - 4. DETAILS SHOWN ON THE DRAWINGS SHALL BE FOLLOWED FOR APPEARANCE. INTERNAL FABRICATION AND ASSEMBLY DETAILS MAY BE MODIFIED FROM THOSE SHOWN IN CONTRACT DOCUMENTS TO CONFIRM TO FABRICATORS SHOP PRACTICES, SUBJECT TO REVIEW AND APPROVAL OF OWNER AND ARCHITECT.
  - 5. PROVIDE MESSAGE LIST, TYPESTYLES, AND GRAPHIC ELEMENTS INCLUDING TACTILE CHARACTERS AND BRAILLE, AND LAYOUT FOR EACH SIGN TYPE.

MENTS INCLUDING TACTILE CHARACTERS AND BRAILLE, AND LAYOUT FOR EACH SIGN TYPE.

- 6. WIRING DIAGRAMS: POWER, SIGNAL, AND CONTROL WIRING.
- 7. SCHEDULES: SIGN FABRICATOR TO PROVIDE SCHEDULES OF SHOP DRAWINGS, SUBMITTAL DATES, AND INSTALLATION DATES TO MEET THE COMPLETION DEADLINE FOR EACH PROJECT. ALLOW THREE (3) WORKING DAYS FOR ARCHITECT AND CLIENT TO REVIEW AND APPROVE SHOP DRAWINGS AND SAMPLES.
- C. SAMPLES FOR INITIAL SELECTION: MANUFACTURER'S COLOR CHARTS CONSISTING OF ACTUAL UNITS OR SECTIONS OF UNITS SHOWING THE FULL RANGE OF COLORS AVAILABLE FOR THE FOLLOWING:
  - 1. ALUMINUM
  - 2. STAINLESS STEEL
  - 3. ACRYLIC SHEET
  - 4. DIE-CUT VINYL CHARACTERS, GRAPHIC SYMBOLS AND DIGITALLY PRINTED DECAL MATERIALS. INCLUDE REPRESENTATIVE SAMPLES OF SPECIFIED TYPESTYLES AND GRAPHIC
  - 5. DIGITALLY PRINTED SCRIM MATERIAL
- D. SAMPLES FOR VERIFICATION: PROVIDE EACH OF THE FOLLOWING PRODUCTS FOR THE FULL RANGE OF COLOR, TEXTURE, AND SIGN MATERIAL INDICATED, OF SIZES INDICATED:
  - 1. PLAQUE WITH RAISED BORDER/NUMERAL: 3 INCHES (76 MM) SQUARE INCLUDING BORDER.
  - 2. DIMENSIONAL CHARACTERS: FULL-SIZE SAMPLES OF EACH TYPE OF DIMENSIONAL CHARACTER (LETTER, NUMBER, AND GRAPHIC ELEMENT).
  - 3. ALUMINUM: FOR EACH FORM, FINISH, AND COLOR, ON 6-INCH- (150-MM-) LONG SECTIONS OF EXTRUSIONS AND SQUARES OF SHEET AT LEAST 4 BY 4 INCHES (100 BY 100 MM).
  - 4. STAINLESS STEEL SHEET: #4 VERTICAL BRUSHED, ON SQUARES OF SHEET AT LEAST 4 BY 4 INCHES (100MM).
  - 5. ACRYLIC SHEET: 8 BY 10 INCHES (200 BY 250 MM) FOR EACH COLOR REQUIRED.
  - 6. PANEL SIGNS: NOT LESS THAN 6 INCHES (105 MM) SQUARE SAMPLE SECTION
  - 7. TRIM/FRAME: 6-INCH- (152-MM-) LONG SECTIONS OF EACH PROFILE.
  - 8. EVACUATION MAPS INSERTS: FULL SIZE, FULL COLOR PRINTED SAMPLE GRAPHIC ON ACTUAL MATERIAL
  - 9. MITERED CORNER FINISH AND ATTACHMENT. TYPICAL OF WRAP CORNER SIGNS – 1 SAMPLE MINIMUM 12" LONG
  - 10. DIGITALLY PRINTED SCRIM MATERIAL 12 INCHES X 12 INCHES
- E. PROVIDE FULL SIZE PROTOTYPES FOR THE FOLLOWING SIGN TYPES:
  - 1. FABRICATOR WILL VERIFY ANY REQUIRED SIGN TYPE MOCK-UPS WITH CLIENT CONSTRUCTION MANAGER AND DESIGNER;
  - 2. UPON AWARD OF FABRICATION CONTRACT, FABRICATOR WILL PROVIDE THE FOLLOWING MOCK-UPS TO BE USED AS CONTROL SAMPLES FOR ALL SIGNAGE IN THIS PACKAGE.
- F. REFER TO SIGN LOCATION PLAN SHEETS, SIGN MESSAGE SCHEDULE AND SIGN TYPE KEY FOR PRECISE DEFINITION AND PROPOSED MESSAGE OF EACH SIGN. CONTRACTOR TO USE THE SAME SIGNAGE IDENTIFICATION NUMBER TAGS AS INDICATED ON THE CONSTRUCTION DOCUMENTS. FINAL SIGN MESSAGES SUBJECT TO OWNER/ARCHITECT REVIEW AND APPROVAL. SIGN FABRICATOR WILL NOTIFY OWNER/ARCHITECT OF DISCREPANCIES IN IDENTIFICATION, LANGUAGE OR TAGS OF SIGN TYPES AND MESSAGES IF THEY VARY FROM ONE PROJECT TO ANOTHER IN ORDER TO CONTROL CONSISTENCY OF MESSAGING AND PLACEMENT.
- G. QUALIFICATION DATA: FOR INSTALLER AND FABRICATOR.

H. MAINTENANCE DATA: FOR SIGNS TO INCLUDE IN MAINTENANCE MANUALS.

- I. FULL SIZE PATTERNS AND LETTERING: SUBMIT FOR APPROVAL. PROVIDE FULL-SIZE OR SCALED PATTERNS OF EACH SIGN WITH SOLID BLACK LETTER-FORMS AND GRAPHIC ELEMENTS ON A WHITE BACKGROUND WITH SIGN FACE OUTLINED. TYPOGRAPHY MUST BE REPRESENTED IN EXACT TYPEFACE AND LETTER SPACING SPECIFIED EITHER AS FILM POSITIVES TO PHOTOCOPIES PRODUCED FROM CAMERA-READY ARTWORK OR TYPESETTING OR AS PEN PLOTS WHEN COMPUTER-CUT LETTERING IS SPECIFIED. GRAPHIC ELEMENTS MUST BE REPRESENTED EITHER BY FILM POSITIVES OR PHOTOCOPIES PRODUCED FROM CAMERA-READY ARTWORK.
- 1.2 QUALITY ASSURANCE
  - A. INSTALLER QUALIFICATIONS: AN EMPLOYER OF WORKERS TRAINED AND APPROVED BY MANUFACTURER WHO HAS A RECORD OF SUCCESSFUL INSTALLATION OF SIGNS, ILLUMINATED SIGNS AND DYNAMIC SIGNS IN ARCHITECTURAL ENVIRONMENTS, AND RESPONSIBLE FOR COORDINATING SIGN INSTALLATION ACTIVITIES WITH SIGN FABRICATOR AND OTHER TRADES.
  - B. FABRICATOR QUALIFICATIONS: SHOP THAT EMPLOYS SKILLED WORKERS WHO CUSTOM-FABRICATE PRODUCTS SIMILAR TO THOSE REQUIRED FOR THIS PROJECT AND WHOSE PRODUCTS HAVE A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE.
  - C. SOURCE LIMITATIONS FOR SIGNS: OBTAIN EACH SIGN TYPE INDICATED FROM ONE SOURCE FROM A SINGLE MANUFACTURER.
  - D. REGULATORY REQUIREMENTS: COMPLY WITH APPLICABLE PROVISIONS IN ADA-ABA ACCESSIBILITY GUIDELINES AND ICC/ANSI A117.1. COMPLY WITH APPLICABLE REQUIREMENTS OF THE LAWS, CODES, ORDINANCES AND REGULATIONS OF FEDERAL, STATE AND MUNICIPAL AUTHORITIES HAVING JURISDICTION. OBTAIN NECESSARY APPROVALS AND PERMITS FROM ALL SUCH AUTHORITIES AS REQUIRED.
  - E. ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR INTENDED USE.
  - F. MARKINGS AND LABELS: LOCATE MARKINGS, LABELS, MANUFACTURER NAMES AND OTHER IDENTIFICATIONS ON SIGN UNITS SO AS TO BE CONCEALED FROM PUBLIC VIEW.
  - G. FINAL LOCATION OF SIGNS: THE LOCATION OF SIGNS AS SHOWN ON THE SIGN LOCATION PLANS IS FOR GENERAL REFERENCE ONLY AND IN SOME CASES IS NOT REPRESENTATIVE OF THE EXACT FINAL LOCATION. FINAL LOCATIONS OF SIGNS SHALL BE FIELD LOCATED AT THE SITE. SIGN FABRICATOR SHALL ARRANGE FOR MEETINGS AT THE SITE TO ACCOMMODATE DIRECTION OF FINAL LOCATIONS ACCORDING TO PROJECT SCHEDULE.
  - H. LETTERING:
    - 1. THE SIGN FABRICATOR SHALL BE RESPONSIBLE FOR THE QUALITY CONTROL OF ALL LETTERING. ALL LETTERFORMS SHALL BE CRISP, SHARP, FREE OF NICKS, RAGGED EDGES AND DISCONTINUOUS CURVES. ALL LETTERING SHALL CONFORM TO APPROVED TYPEFACE, WEIGHT AND LETTER SPACING.
    - 2. NO SUBSTITUTIONS OF TYPEFACE FOUNDRY, BRAND OR VERSION OR IMPLEMENTATION TECHNIQUE WILL BE ACCEPTED WITHOUT PRIOR APPROVAL.
    - 3. VINYL DIE CUT GRAPHICS: ALL CAMERA-READY ARTWORK SHALL BE VECTOR FORMAT, SUITABLE FOR CUTTING ON A GERBER SIGN MAKER II OR APPROVED EQUAL PLOTTER. ALL CUTTING AND ROUTING SHALL BE EXECUTED IN SUCH A MANNER THAT ALL EDGES AND CORNERS OF FINISHED LETTERFORMS ARE TRUE AND CLEAN. LETTERFORMS WITH ROUNDED POSITIVE OR NEGATIVE CORNERS, NICKED, CUT, OR RAGGED EDGES, ETC., WILL NOT BE ACCEPTED. ALL LETTERFORMS SHALL BE SO ALIGNED AS TO MAINTAIN A BASE LINE PARALLEL TO THE SIGN FORMAT. MARGINS MUST BE

MAINTAINED AS SPECIFIED IN DRAWINGS. ALL WORK UNDER THIS CONTRACT SHALL BE PERFORMED BY SKILLED CRAFTSMEN UNDER SUPERVISION OF TRAINED FOREMEN, EXPERIENCED IN THE TRADE OF CRAFT REQUIRED TO ACCOMPLISH THE WORK AND PRODUCE A PRODUCT OF HIGH QUALITY.

- 4. PRINTED GRAPHICS: ALL PRINTED GRAPHICS MUST BE TRUE AND PRECISE WITH SHARPLY DEFINED EDGES WITHOUT ANY BLURRING OR DISTORTION, STREAKING OR COLOR VARIATION. MINIMUM RESOLUTION TO BE 150 DPI.
- I. QUALITY OF WORKMANSHIP: THE SIGN FABRICATOR SHALL BE RESPONSIBLE FOR THE QUALITY OF ALL MATERIALS AND WORKMANSHIP REQUIRED FOR THE EXECUTION OF THIS CONTRACT INCLUDING MATERIALS AND WORKMANSHIP OF ANY FIRM OR INDIVIDUAL WHO ACT AS SIGN FABRICATOR'S SUBCONTRACTOR. SIGN CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING UP-TO-DATE DRAWINGS, SPECIFICATIONS, GRAPHIC SCHEDULE, ETC., TO ALL SUB-CONTRACTORS.
- J. DIMENSIONS: WRITTEN DIMENSIONS ON DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. SIGN FABRICATOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE APPROVED PRIOR TO FABRICATION.
- K. DISCREPANCIES: THE CONSTRUCTION MANAGER SHALL BE NOTIFIED BY SIGN FABRICATOR OF ANY DISCREPANCIES IN THE DRAWINGS OR GRAPHIC MESSAGE SCHEDULE, IN FIELD DIMENSIONS OR CONDITIONS AND/OR CHANGES REQUIRED IN CONSTRUCTION DETAILS.
- 1.3 PROJECT CONDITIONS
  - A. WEATHER LIMITATIONS: PROCEED WITH INSTALLATION ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT INSTALLATION OF SIGNS IN EXTERIOR LOCATIONS TO BE PERFORMED ACCORDING TO MANUFACTURERS' WRITTEN INSTRUCTIONS AND WARRANTY REQUIREMENTS.
  - B. FIELD MEASUREMENTS: VERIFY RECESS OPENINGS BY FIELD MEASUREMENTS BEFORE FABRICATION AND INDICATE MEASUREMENTS ON SHOP DRAWINGS. NOTIFY OWNER/ARCHITECT OF ANY MAJOR DISCREPANCIES BETWEEN SIGN LOCATION PLANS AND SHOP DRAWINGS WHEN SUBMITTING SHOP DRAWINGS.
- 1.3 PROJECT CONDITIONS
  - A. WEATHER LIMITATIONS: PROCEED WITH INSTALLATION ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT INSTALLATION OF SIGNS IN EXTERIOR LOCATIONS TO BE PERFORMED ACCORDING TO MANUFACTURERS' WRITTEN INSTRUCTIONS AND WARRANTY REQUIREMENTS.
  - B. FIELD MEASUREMENTS: VERIFY RECESS OPENINGS BY FIELD MEASUREMENTS BEFORE FABRICATION AND INDICATE MEASUREMENTS ON SHOP DRAWINGS. NOTIFY OWNER/ARCHITECT OF ANY MAJOR DISCREPANCIES BETWEEN SIGN LOCATION PLANS AND SHOP DRAWINGS WHEN SUBMITTING SHOP DRAWINGS.
- 1.4 COORDINATION
  - A. COORDINATE PLACEMENT OF ANCHORAGE DEVICES WITH TEMPLATES FOR INSTALLING SIGNS. COORDINATE INSTALLATION OF EMBEDDED ANCHORAGES, ELECTRICAL CONNECTION RECEPTACLES AND WALL BLOCKING OR BACKING WITH OTHER TRADES, AND INSTALL SUCH ANCHORAGE DEVICES, ELECTRICAL CONNECTION RECEPTACLES AND WALL BLOCKING OR BACKING IN ADVANCE OF COMPLETION OF FINISHED SURFACES.

# SPECIFICATIONS (Cont'd)

## 1.5 WARRANTY

- A. SPECIAL WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS OF SIGNS THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD OF 5 YEARS.
- FAILURES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
    - DETERIORATION OF METAL AND POLYMER FINISHES BEYOND NORMAL WEATHERING.
    - DETERIORATION OF EMBEDDED GRAPHIC IMAGE COLORS AND SIGN LAMINATION
    - LINEAR POLYURETHANE PAINT FACTORY FINISH WARRANTY: FURNISH 5 YEAR WRITTEN WARRANTY, WARRANTING THAT THE FACTORY-APPLIED LINEAR POLYURETHANE FINISHES WILL NOT DEVELOP EXCESSIVE FADING OR EXCESSIVE NON UNIFORMITY OF COLOR OR SHADE, AND WILL NOT CRACK, PEEL, PIT, CORRODE OR OTHERWISE FAIL AS A RESULT OF DEFECTS IN MATERIALS OR WORKMANSHIP WITHIN THE FOLLOWING DEFINED LIMITS. UPON NOTIFICATION OF SUCH DEFECTS, WITHIN THE WARRANTY PERIOD, MAKE NECESSARY REPAIRS OR REPLACEMENT.
      - "EXCESSIVE FADING": A CHANGE IN APPEARANCE WHICH IS PERCEPTIBLE AND DETERMINED AS OBJECTIONABLE WHEN VISUALLY COMPARED WITH THE ORIGINAL COLOR RANGE STANDARDS.
      - "EXCESSIVE NON-UNIFORMITY": NON-UNIFORM FADING TO THE EXTENT THAT ADJACENT PANELS HAVE A COLOR DIFFERENCE GREATER THAN THE ORIGINAL ACCEPTABLE RANGE OF COLOR.
      - "WILL NOT PIT OR OTHERWISE CORRODE": NO PITTING OR OTHER TYPE OF CORROSION, DISCERNIBLE FROM A DISTANCE OF 10 FEET (3M), RESULTING FROM THE NATURAL ELEMENTS IN THE ATMOSPHERE AT THE PROJECT SITE.
  - WARRANTY PERIOD: FIVE YEARS FROM DATE OF SUBSTANTIAL COMPLETION FOR ALL SIGN TYPES.
  - WARRANTY PERIOD FOR DIGITALLY PRINTED GRAPHICS: EIGHT YEARS AGAINST FADING, CRACKING, CHIPPING OR PEELING FOR INTERIOR APPLICATIONS.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. ALUMINUM SHEET AND PLATE: ASTM B 209 (ASTM B 209M), ALLOY AND TEMPER RECOMMENDED BY ALUMINUM PRODUCER AND FINISHER FOR TYPE OF USE AND FINISH INDICATED, AND WITH AT LEAST THE STRENGTH AND DURABILITY PROPERTIES OF ALLOY 5052-H32.
- B. ALUMINUM EXTRUSIONS: ASTM B 221 (ASTM B 221M), ALLOY AND TEMPER RECOMMENDED BY ALUMINUM PRODUCER AND FINISHER FOR TYPE OF USE AND FINISH INDICATED, AND WITH AT LEAST THE STRENGTH AND DURABILITY PROPERTIES OF ALLOY 6063-T5.
- C. STEEL:
- GALVANIZED STEEL SHEET: ASTM A 653/A 653M, G90 (Z275) COATING, EITHER COMMERCIAL OR FORMING STEEL.
  - STEEL SHEET: COLD-ROLLED OR ELECTROLYTIC ZINC-COATED, ASTM A 591/A 591M, WITH STEEL SHEET SUBSTRATE COMPLYING WITH ASTM A 1008/A 1008M, COMMERCIAL STEEL, EXPOSED.
  - STEEL MEMBERS FABRICATED FROM PLATE OR BAR STOCK: ASTM A 529/A 529M OR ASTM A 572/A 572M, 42,000-PSI (290-MPA) MINIMUM YIELD STRENGTH.
  - FOR STEEL EXPOSED TO VIEW ON COMPLETION, PROVIDE MATERIALS HAVING FLAT, SMOOTH SURFACES WITHOUT BLEMISHES. FINISHED IN SPECIFIED COLORS AS NOTED IN CONTRACT DOCUMENTS. DO NOT USE MATERIALS WHOSE SURFACES EXHIBIT PITTING, SEAM MARKS, ROLLER MARKS,

- ROLLED TRADE NAMES, OR ROUGHNESS.
- D. STAINLESS STEEL:
- STAINLESS-STEEL SHEET: ASTM A 240/A 240M OR ASTM A 666, TYPE 304, 316 (EXTERIOR APPLICATIONS ONLY), STRETCHER-LEVELLED STANDARD OF FLATNESS.
- E. ACRYLIC SHEET: ASTM D 4802, CATEGORY A-1 (CELL-CAST SHEET), TYPE UVA (UV ABSORBING).
- F. POLYCARBONATE SHEET: OF THICKNESS INDICATED, MANUFACTURED BY EXTRUSION PROCESS, COATED ON BOTH SURFACES WITH ABRASION-RESISTANT COATING:
- IMPACT RESISTANCE: 16 FT-LBF/IN. (854 J/M) PER ASTM D 256, METHOD A.
  - TENSILE STRENGTH: 9000 LBF/SQ. IN. (62 MPA) PER ASTM D 638.
  - FLEXURAL MODULUS OF ELASTICITY: 340,000 LBF/SQ. IN. (2345 MPA) PER ASTM D 790.
  - HEAT DEFLECTION: 265 DEG F (129 DEG C) AT 264 LBF/SQ. IN. (1.82 MPA) PER ASTM D 648.
  - ABRASION RESISTANCE: 1.5 PERCENT MAXIMUM HAZE INCREASE FOR 100 REVOLUTIONS OF A TABER ABRASER WITH A LOAD OF 500 G PER ASTM D 1044.
- G. APPLIED VINYL: DIE-CUT CHARACTERS FROM VINYL FILM OF NOMINAL THICKNESS OF 3 MIL (0.076 MM) WITH PRESSURE-SENSITIVE ADHESIVE BACKING, SUITABLE FOR INTERIOR APPLICATIONS; GERBER QUANTUM REMOVABLE. GERBER QUANTUM PERMANENT, AS INDICATED IN CONTRACT DOCUMENTS.
- H. DIGITAL PRINTING: ALL DIGITALLY PRINTED PICTORIALS TO BE PRINTED ON THE SEIKO COLOR PAINTER 645 PIEZO INK JET PRINTER OR APPROVED EQUAL. ALL DIGITAL PICTORIALS TO BE OUTPUT AT 6 COLOR CMYK + LT. MAGENTA + LT. CYAN FOR MAXIMUM COLOR GAMUT. ALL PICTORIALS TO BE OUTPUT AT A TRUE 720 X 720 DPI RESOLUTION. ALL PICTORIALS TO BE PRINTED WITH SOLVENT BASED SEIKO INK SYSTEM. SUBSTRATE TO BE PREMIUM WHITE CAST ADHESIVE VINYL OR SCRIM MATERIAL. LAMINATE VINYL WITH PREMIUM MATTE VINYL. LAMINATION TO BE PERFORMED ON THE SEAL IMAGE 600 LAMINATOR WITH PROPER HEAT, SPEED AND PRESSURE TO ENSURE MAXIMUM ADHESION OF MATTE VINYL. VINYL GRAPHICS TO BE INSTALLED TO PAINTED DRYWALL. WALL SURFACE TO BE LATEX, SEMI-GLOSS PAINT WITH NO TEXTURE. GRAPHICS TO BE INSTALLED BY A 3M OR AVERY CERTIFIED INSTALLER TO PRESERVE WARRANTY. DIGITAL GRAPHICS FILES TO CONTAIN A MINIMUM OF 100 PIXELS PER INCH AT FINAL SIZE. FABRICATOR TO PROVIDE DIGITALLY PRINTED SCRIM SPECIFICATIONS THAT MEET OR EXCEED PRINTED GRAPHIC REQUIREMENTS.
- I. PHOTOPOLYMER RAISED TACTILE TEXT, SYMBOLS AND BRAILLE TEXT: MANUFACTURER'S STANDARD PROCESS FOR PRODUCING COPY COMPLYING WITH ADA/CALDAG/ADAG REGULATIONS - APPLICABLE SECTIONS CBC1117B5, ADAAG 2004, ADA SECTION 4.30 SIGNAGE. TEXT SHALL BE ACCOMPANIED BY GRADE 2 BRAILLE (USE CALIFORNIA GRADE 2 BRAILLE FOR SIGNS TO BE INSTALLED IN CALIFORNIA ONLY). PRODUCE PRECISELY FORMED CHARACTERS WITH SLIGHTLY EASED, SQUARE CUT EDGES FREE FROM BURRS AND CUT MARKS. BEAD BRAILLE DOTS WITH DOMED OR ROUNDED SHAPE.
- PANEL BACKER MATERIAL: OPAQUE ACRYLIC SHEET.
  - RAISED-COPY THICKNESS: NOT LESS THAN 1/32 INCH (0.8 MM).
- J. ADHESIVES: ADHESIVE USED FOR INSTALLING SIGNS SHALL BE LOW VOC CONSTRUCTION ADHESIVE MANUFACTURED BY BUILDER'S CHOICE, BC-729 OR EQUAL. POLYFOAM OR "ISOTAC" VHB CONTACT ADHESIVE TAPE MANUFACTURED BY 3M, SHALL BE USED IN CONJUNCTION WITH ADHESIVE FOR INSTALLATION OF WALL SIGNS, IN MINIMUM THICKNESSES AVAILABLE. LORDS ADHESIVE OR EQUAL TO BE USED FOR ALL PERMANENT ATTACHMENTS WHERE NOTED EITHER IN FABRICATION OR INSTALLATION.
- K. LINEAR POLYURETHANE COATINGS: PROVIDE THE FOLLOWING,

OR OTHER PRODUCTS AS ACCEPTABLE. ACRYLIC LINEAR POLYURETHANE ENAMEL IN TWO COMPONENTS, ACRYLIC ALIPHATIC ISOCYANATE/ACRYLIC POLYURETHANE HAVING ULTRAVIOLET (UV) INHIBITORS AND ENGINEERED FOR INTERIOR APPLICATION BY MATTHEWS PAINT COMPANY OR APPROVED EQUAL.

## 2.2 ELECTRICAL COMPONENTS

- A. ELECTRICAL WIRING AND EQUIPMENT: PROVIDE AND INSTALL ELECTRICAL MATERIALS SUCH AS BALLASTS, TRANSFORMERS, LAMPS, SOCKETS, LIGHT EMITTING DIODE (LED) UNITS, CONNECTORS, AND ALL OTHER EQUIPMENT WHICH SHALL BE NEW AND SHALL BE APPROVED BY UNDERWRITERS LABORATORIES, INC. THE ASSEMBLY OF ALL COMPONENTS WITHIN THE ILLUMINATED SIGNS SHALL CONFORM TO ALL STANDARDS OF UNDERWRITERS LABORATORIES, INC. AS PUBLISHED IN THE LATEST EDITION OF "STANDARDS FOR SIGN SAFETY" AND ALL ILLUMINATED SIGNS SHALL BEAR THE U.L. LABEL. ALL WIRING AND EQUIPMENT SHALL BE CONCEALED WITHIN THE SIGN STRUCTURE.
- B. CONDUIT AND DEVICES: PROVIDE RIGID STEEL CONDUIT, JUNCTION BOXES AND ASSOCIATED DEVICES IN ACCORDANCE WITH APPLICABLE CODES AS REQUIRED.
- C. WIRING: MINIMUM #12 AWG COPPER. HIGH TENSION WIRING SHALL NOT BE LESS THAN GTO 15 WIRE AS MANUFACTURED BY CAROL CABLE COMPANY OR APPROVED EQUAL. ALL WIRING SHALL BE AWM 90 0 CENTIGRADE 1000 VOLT TW/MTW U.L. FILE NO. 18971. WIRING CONNECTORS FOR WIRE SPLICING SHALL BE U.L. APPROVED 1000 VOLT CAPACITY. THEY SHALL BE SCOTCH LOCK TYPE Y OR R OR EQUAL. ALL SPLICES SHALL BE PLACED AS TO BE EASILY ACCESSED FOR INSPECTION.
- D. BALLASTS: AS REQUIRED FOR INTERNALLY ILLUMINATED CABINET SIGNS, IN QUANTITY AND ARRANGEMENT AS RECOMMENDED BY BALLAST MANUFACTURER; ACCESSIBLE FOR MAINTENANCE.
- E. DISCONNECT SWITCH: ALL SIGNS OR SIGN COMPONENTS WITH ELECTRICAL SERVICE SHALL BE EQUIPPED WITH AN APPROVED EXTERNAL DISCONNECT SWITCH, FLUSH MOUNTED ON THE CABINET/SIGN AND FINISHED TO MATCH CABINET COLORS, WITH CIRCUITS AND CAPACITY TO CONTROL ALL PRIMARY WIRING WITHIN THE SIGN. LOCATION OF SWITCH MUST BE SHOWN ON SHOP DRAWINGS AND IS SUBJECT TO APPROVAL.
- F. ILLUMINATION: ALL LAMPS AND BALLASTS SHALL BE PROVIDED BY OR PLACED ON SIDES AWAY FROM PRIMARY VIEW BY SIGN FABRICATOR. PROVIDE WATERPROOF FLUSH ACCESS PANEL(S) ON EXTERIOR UNITS, CONCEALED WHEREVER POSSIBLE. CONDUIT, WIRING AND ELECTRICAL EQUIPMENT FROM THE FIELD ELECTRICAL CONNECTION TO ANY PART OF THE SIGN AND WITHIN THE SIGN SHALL BE PROVIDED BY THE SIGN FABRICATOR.
- G. VENTILATION: WHILE MAINTAINING A PROPER WEATHER SEAL, PROVIDE FOR SUFFICIENT VENTILATION OF SIGN COMPONENTS TO PREVENT OVERHEATING OR WARPING; ALLOWING FOR COLOR OF SIGN, MOUNTING SURFACE, CLIMATE CONDITIONS, ETC. IN PROVIDING FOR VENTILATION, PROTECT SIGN FROM ELEMENTS (RAIN, WIND, DEBRIS, ETC.) THAT MIGHT CAUSE OPERATIONAL OR CLEANING PROBLEMS. SIGNS/CABINETS WITH LIGHT LEAKS WILL NOT BE ACCEPTED. WHERE INDICATED IN CONTRACT DOCUMENTS, PROVIDE ELECTRICAL VENTILATION FANS.
- H. LIGHT EMITTING DIODE (LED) ILLUMINATION: ALL SIGNS WITH LED FIXTURES SHALL UTILIZE SLOAN V-SERIES 7200K BRIGHT WHITE OR GE TETRA-SERIES 7100K WHITE LED STRIP LIGHTING UNITS AT THE LENGTH AND PLACEMENT NECESSARY TO PROVIDE EVEN ILLUMINATION WITHOUT LIGHT LEAKS OR HOT SPOTS, INSTALLED AS REQUIRED FOR INTERNALLY ILLUMINATED CABINET SIGNS AND DIMENSIONAL LETTERS IN QUANTITY AND ARRANGEMENT AS RECOMMENDED BY LED MANUFACTURER,

INCLUDING REQUIRED SLOAN LED 12VCD OR GE GEPS12 POWER SUPPLIES, RESPECTIVELY. ALL LED FIXTURES AND TRANSFORMERS SHALL BE PROVIDED BY THE SIGN FABRICATOR. PROVIDE REMOVABLE SIGN FACES, WITH CONCEALED HARDWARE WHEREVER POSSIBLE. FABRICATOR TO ENSURE SUFFICIENT ACCESS/CLEARANCE TO ALL LEDS FOR MAINTENANCE, IN WEATHER TIGHT ENCLOSURES. CONDUIT WIRING AND ELECTRICAL EQUIPMENT FROM THE FIELD ELECTRICAL CONNECTION TO ANY PART OF THE SIGN AND WITHIN THE SIGN SHALL BE PROVIDED BY THE SIGN FABRICATOR

## 2.3 SIGN TYPES AND ACCESSORIES

- A. PLAQUE SIGNS
- RAISED TACTILE MESSAGE PLAQUES: MANUFACTURER'S STANDARD PROCESS FOR PRODUCING RAISED TEXT AND SYMBOLS AS FOLLOWS,
    - PANEL MATERIAL: ACRYLIC MESSAGE FACE, PAINTED AS INDICATED (EXTERIOR GRADE WHERE APPLICABLE) OR STAINLESS STEEL MESSAGE FACE AS INDICATED IN CONTRACT DOCUMENTS.
    - RAISED-COPY AND BRAILLE: NOT LESS THAN 1/32 INCH (0.8 MM) ADHESIVE BACKED, MACHINE CUT ROMARK (OR EQUAL) LETTERS AND SYMBOLS WITH INTEGRAL COLOR. GRADE 2 CLEAR BRAILLE BEADS.
    - EDGE/CORNER CONDITION: SQUARE CUT, POLISHED, SLIGHTLY EASED.
    - PANEL THICKNESS: AS INDICATED.
    - COLOR: AS INDICATED.
    - MOUNTING: VHB ADHESIVE TAPE AND SILICONE CONSTRUCTION ADHESIVE.
  - VINYL MESSAGE PLAQUES, FIRST-SURFACE APPLIED VINYL GRAPHICS AS FOLLOWS:
    - PANEL MATERIAL: PRESSURE SENSITIVE, ADHESIVE 3.5 MIL (0.09 MM) THICK.
    - EDGE/CORNER CONDITION: SQUARE CUT.
    - COLORS: AS INDICATED.
    - MESSAGE: DIGITALLY PRINTED GRAPHIC IN COLOR AS INDICATED IN CONSTRUCTION GRAPHIC.
    - MOUNTING: PERMANENT SELF ADHESIVE APPLIED DIRECT TO MOUNTING SURFACE.
  - SILK SCREENING MATERIALS
    - PANEL MATERIAL: AS INDICATED.
    - PROVIDE PHOTO PROCESSED SCREENING FROM DIGITAL ARTWORK FILES, ARRANGED TO FURNISH SHARP AND SOLID IMAGES WITHOUT EDGE BUILD UP OR BLEEDING OF THE COATING. COMPLY WITH COATING MANUFACTURER'S APPLICATION INSTRUCTIONS.
    - PATTERN-CUT SCREENS MAY BE USED FOR NON-REPEAT COPY, PROVIDED THAT FINAL IMAGE COPY IS EQUAL TO PHOTOSCREEN QUALITY.
    - PROVIDE PROPER TYPE OF PRIMER TO SUIT EACH SUBSTRATE AND OBTAIN A PERMANENT BOND.
    - VERIFY COMPATIBILITY OF EACH SUBSTRATE WITH THE COATINGS TO BE USED IN THE WORK.
    - PROVIDE ONLY WEATHER-RESISTANT COATING MATERIALS, SUCH AS EPOXY ENAMEL INK SPECIFICALLY FORMULATED FOR SILKSCREEN APPLICATION AND COMPATIBLE WITH THE INTENDED SUBSTRATES.
    - APPLY THE MARKINGS WITH NEAT EDGES, MINIMUM 3 MILS (0.075 MM) DRY FILM THICKNESS AND AS REQUIRED TO OBTAIN SOLID MARKINGS WITHOUT VOIDS.
    - FINAL SCREENED CHARACTERS AND GRAPHICS SHALL BE UNIFORM IN COLOR AND COMPLETELY OPAQUE, FREE OF PINHOLES, STREAKS OR THIN SPOTS.
    - COLOR: AS NOTED IN CONTRACT DOCUMENTS.

# SPECIFICATIONS (Cont'd)

- B. DIMENSIONAL AND NON-DIMENSIONAL CHARACTERS- ILLUMINATED/NON-ILLUMINATED
- FABRICATED CHANNEL CHARACTERS, ILLUMINATED: FORM EXPOSED FACES AND SIDES OF CHARACTERS TO PRODUCE SURFACES FREE FROM WARP AND DISTORTION. INCLUDE INTERNAL BRACING FOR STABILITY AND ATTACHMENT OF MOUNTING ACCESSORIES AS REQUIRED. COMPLY WITH THE FOLLOWING REQUIREMENTS:
    - ILLUMINATED PUSH-THROUGH CHARACTERS: MANUFACTURER'S STANDARD LED BACK LIGHTING INCLUDING TRANSFORMERS, INSULATORS, AND OTHER COMPONENTS. MAKE PROVISIONS FOR SERVICING AND CONCEALING CONNECTIONS TO BUILDING ELECTRICAL SYSTEM.
    - ILLUMINATED HALO-LIT CHARACTERS: MANUFACTURER'S STANDARD LED LIGHTING INCLUDING TRANSFORMERS, INSULATORS, AND OTHER COMPONENTS. MAKE PROVISIONS FOR SERVICING AND CONCEALING CONNECTIONS TO BUILDING ELECTRICAL SYSTEM.
    - ALUMINUM SHEET: NOT LESS THAN 0.05 INCH (1.27 MM) THICK FOR FACE AND 0.031 INCH (0.79 MM) THICK FOR RETURNS, OR THICKNESS AS REQUIRED TO PREVENT BOWING, "OIL-CANNING" OR DISTORTION.
    - FINISH: NO. 4 VERTICAL BRUSHED
    - STAINLESS STEEL SHEET: NOT LESS THAN 0.05 INCH (1.27 MM) THICK FOR FACE AND 0.031 INCH (0.79 MM) THICK FOR RETURNS, OR THICKNESS AS REQUIRED TO PREVENT BOWING, "OIL-CANNING" OR DISTORTION.
    - FINISH: NO. 4 VERTICAL BRUSHED
    - PROVIDE MANUFACTURER'S HARDWARE FOR PROJECTION MOUNTING AND WEATHER-TIGHT PENETRATIONS OF BACK-LIGHTED CHANNEL CHARACTERS AT DISTANCE FROM WALL SURFACE AS INDICATED IN CONTRACT DOCUMENTS.
  - FABRICATED CHANNEL CHARACTERS, NON-ILLUMINATED: FORM EXPOSED FACES AND SIDES OF CHARACTERS TO PRODUCE SURFACES FREE FROM WARP AND DISTORTION. INCLUDE INTERNAL BRACING FOR STABILITY AND ATTACHMENT OF MOUNTING ACCESSORIES AS REQUIRED. COMPLY WITH THE FOLLOWING REQUIREMENTS:
    - ALUMINUM SHEET: NOT LESS THAN 0.05 INCH (1.27 MM) THICK FOR FACE AND 0.031 INCH (0.79 MM) THICK FOR RETURNS, OR THICKNESS AS REQUIRED TO PREVENT BOWING, "OIL-CANNING" OR DISTORTION.
    - FINISH: NO. 4 VERTICAL BRUSHED
    - STAINLESS STEEL SHEET: NOT LESS THAN 0.05 INCH (1.27 MM) THICK FOR FACE AND 0.031 INCH (0.79 MM) THICK FOR RETURNS, OR THICKNESS AS REQUIRED TO PREVENT BOWING, "OIL-CANNING" OR DISTORTION.
    - FINISH: NO. 4 VERTICAL BRUSHED SEALED WITH POLYURETHANE ENAMEL CLEAR COAT.
    - PROVIDE MANUFACTURER'S HARDWARE FOR PROJECTION MOUNTING AND WEATHER-TIGHT PENETRATIONS OF CHANNEL CHARACTERS AT DISTANCE FROM WALL SURFACE AS INDICATED IN CONTRACT DOCUMENTS.
  - CUTOUT CHARACTERS, NON-ILLUMINATED: PROVIDE CHARACTERS WITH SQUARE-CUT, SMOOTH, EASED EDGES. COMPLY WITH THE FOLLOWING REQUIREMENTS:
    - ACRYLIC: THICKNESS AS INDICATED IN CONTRACT DOCUMENTS.
      - COLOR: AS INDICATED IN CONTRACT DOCUMENTS.
    - ALUMINUM SHEET THICKNESS AS INDICATED IN CONTRACT DOCUMENTS.
      - COLOR: AS INDICATED IN CONTRACT DOCUMENTS.

- STAINLESS STEEL SHEET THICKNESS AS INDICATED IN CONTRACT DOCUMENTS.
    - FINISH: AS INDICATED IN CONTRACT DOCUMENTS.
  - VINYL: PRESSURE SENSITIVE, SELF ADHESIVE 3.5 MIL (0.09 MM) THICK.
    - COLOR: AS INDICATED IN CONTRACT DOCUMENTS.
  - MOUNTING: ADHESIVE WITH CONCEALED NON-CORRODING STUDS FOR SUBSTRATES ENCOUNTERED, FINISH MOUNTING STUDS TO MATCH COLOR OF MOUNTING SURFACE TO WHICH CHARACTERS WILL BE ATTACHED. PRESSURE SENSITIVE VINYL APPLICATION DIRECTLY TO MOUNTING SURFACE, AS INDICATED IN CONTRACT DOCUMENTS.
- C. ETCHED GRAPHICS
- ETCHED MESSAGES AND GRAPHICS: CHEMICAL ETCHED TO MINIMUM OF 1/32" DEEP. PAINT FILLED AS INDICATED IN CONTRACT DOCUMENTS.
  - MESSAGE AND GRAPHICS COLOR: EPOXY ENAMEL INFILL PAINT AS INDICATED IN CONTRACT DOCUMENTS.
- D. BLADE SIGNS: PROVIDE SMOOTH SIGN SURFACES CONSTRUCTED WITH EXTERNAL STAINLESS STEEL MOUNTING BRACKET COMPLYING WITH THE FOLLOWING REQUIREMENTS:
- STAINLESS STEEL: AS INDICATED IN CONTRACT DOCUMENTS.
  - ALUMINUM: AS INDICATED IN CONTRACT DOCUMENTS.
  - EDGE/CORNER CONDITION: SQUARE CUT, SLIGHTLY EASED.
  - SILKSCREENED MESSAGE PANEL: MESSAGE COLOR TO BE SILKSCREENED, PAINT COLOR AS INDICATED IN CONTRACT DOCUMENTS.
  - MOUNTING: AS INDICATED IN CONTRACT DOCUMENTS.
    - WALL MOUNTED INTO STRUCTURAL PLATE CONCEALED IN MOUNTING SURFACE. COORDINATE WITH GENERAL CONTRACTOR.
    - MANUFACTURER'S STANDARD ANCHORS FOR SUBSTRATES ENCOUNTERED.
- E. BRACKETS: FABRICATE BRACKETS AND FITTINGS FOR BRACKET-MOUNTED SIGNS AND LETTERING FROM STAINLESS STEEL TO SUIT MOUNTING CONDITIONS INDICATED. FACTORY FINISH METAL TO MATCH ARCHITECT'S SAMPLE.
- F. ANCHORS AND INSERTS: NONFERROUS METAL OR ZINC-COATED ANCHORS AND INSERTS. STAINLESS STEEL HARDWARE, CONCEALED EXCEPT WHERE SPECIFICALLY NOTED AS EXPOSED IN CONTRACT DOCUMENTS.
- 2.4 CABINET SIGNS
- A. FREESTANDING CABINET SIGN, ILLUMINATED: PROVIDE SMOOTH SIGN SURFACES CONSTRUCTED WITH INTERNAL ALUMINUM FRAMING AND STIFFENERS TO REMAIN FLAT UNDER INSTALLED CONDITIONS WITH A TOLERANCE OF PLUS OR MINUS 1/16 INCH (1.59 MM) MEASURED DIAGONALLY FROM CORNER TO CORNER.
- STAINLESS STEEL SHEET: OF SUFFICIENT THICKNESS AS REQUIRED TO PREVENT BOWING, "OIL-CANNING" OR DISTORTION.
  - ALUMINUM SHEET: OF SUFFICIENT THICKNESS AS REQUIRED TO PREVENT BOWING, "OIL-CANNING" OR DISTORTION.
  - EDGE/CORNER CONDITION: SQUARE CUT, SLIGHTLY EASED.
  - FRAME/SUPPORT INTERNAL STRUCTURES: ALUMINUM INTERNAL TUBE FRAME WITH PERFORATED VENT IN APPROVED LOCATION, EXTERNAL STAINLESS STEEL END PLATES, ASSEMBLED WITH CONCEALED FASTENERS.
  - ILLUMINATION: MANUFACTURER'S STANDARD WHITE LED LIGHTING INCLUDING TRANSFORMERS, INSULATORS, AND OTHER COMPONENTS. MAKE PROVISIONS FOR SERVICING

- AND CONCEALING CONNECTIONS TO ELECTRICAL SYSTEM.
- COLORS: AS INDICATED IN CONTRACT DOCUMENTS.
- B. FREESTANDING CABINET SIGN, NON-ILLUMINATED: PROVIDE SMOOTH SIGN SURFACES CONSTRUCTED WITH INTERNAL ALUMINUM FRAMING AND STIFFENERS TO REMAIN FLAT UNDER INSTALLED CONDITIONS WITH A TOLERANCE OF PLUS OR MINUS 1/16 INCH (1.59 MM) MEASURED DIAGONALLY FROM CORNER TO CORNER.
- STAINLESS STEEL SHEET: OF SUFFICIENT THICKNESS AS REQUIRED TO PREVENT BOWING, "OIL-CANNING" OR DISTORTION.
  - ALUMINUM SHEET: OF SUFFICIENT THICKNESS AS REQUIRED TO PREVENT BOWING, "OIL-CANNING" OR DISTORTION.
  - EDGE/CORNER CONDITION: SQUARE CUT, SLIGHTLY EASED.
  - FRAME/SUPPORT INTERNAL STRUCTURES: ALUMINUM INTERNAL TUBE FRAME WITH PERFORATED VENT IN APPROVED LOCATION, EXTERNAL STAINLESS STEEL END PLATES, ASSEMBLED WITH CONCEALED FASTENERS OR FLUSH MOUNT.
  - COLORS: AS INDICATED IN CONTRACT DOCUMENTS.
- C. SUSPENDED CABINET: PROVIDE SMOOTH SIGN PANEL SURFACES CONSTRUCTED WITH INTERNAL ALUMINUM FRAMING AND STIFFENERS TO REMAIN FLAT UNDER INSTALLED CONDITIONS WITHIN A TOLERANCE OF PLUS OR MINUS 1/16 INCH (1.59 MM) MEASURED DIAGONALLY FROM CORNER TO CORNER, COMPLYING WITH THE FOLLOWING REQUIREMENTS:
- ALUMINUM SHEET: 0.080 INCH (2.03 MM) THICK OR THICKNESS AS REQUIRED TO PREVENT BOWING, "OIL-CANNING" OR DISTORTION.
  - STAINLESS STEEL: 0.080 INCH (2.03 MM) THICK AND AS INDICATED IN CONTRACT DOCUMENTS.
  - EDGE/CORNER CONDITION: SQUARE CUT, SLIGHTLY EASED.
  - VINYL MESSAGES: PRESSURE SENSITIVE, SELF ADHESIVE VINYL GRAPHICS AS INDICATED IN CONTRACT DOCUMENTS APPLIED FIRST SURFACE.
  - COLORS: AS INDICATED IN CONTRACT DOCUMENTS.
  - MOUNTING: AS INDICATED.
    - SUSPEND FROM EXISTING CEILING THROUGH PENETRATIONS TO EXISTING STRUCTURE ABOVE AT ALL SIGN LOCATIONS. COORDINATE WITH GENERAL CONTRACTOR.
    - MANUFACTURER'S STANDARD ANCHORS FOR SUBSTRATES ENCOUNTERED.
- D. WALL-MOUNTED CABINET: PROVIDE SMOOTH SIGN PANEL SURFACES CONSTRUCTED WITH INTERNAL ALUMINUM FRAMING AND STIFFENERS TO REMAIN FLAT UNDER INSTALLED CONDITIONS WITHIN A TOLERANCE OF PLUS OR MINUS 1/16 INCH (1.59 MM) MEASURED DIAGONALLY FROM CORNER TO CORNER, COMPLYING WITH THE FOLLOWING REQUIREMENTS:
- ALUMINUM SHEET: 0.08 INCH (2.03 MM) THICK OR THICKNESS AS REQUIRED TO PREVENT BOWING, "OIL-CANNING" OR DISTORTION.
  - EDGE/CORNER CONDITION: SQUARE CUT, SLIGHTLY EASED.
  - ILLUMINATION: MANUFACTURER'S STANDARD WHITE LED LIGHTING INCLUDING TRANSFORMERS, INSULATORS, AND OTHER COMPONENTS. MAKE PROVISIONS FOR SERVICING AND CONCEALING CONNECTIONS TO BUILDING ELECTRICAL SYSTEM.
  - COLORS: AS INDICATED IN CONTRACT DOCUMENTS.
  - VINYL MESSAGES: PRESSURE SENSITIVE, SELF ADHESIVE VINYL GRAPHICS APPLIED FIRST SURFACE.
  - MOUNTING: AS INDICATED.
    - WALL AND DOOR HEADER MOUNTED WITH CONCEALING CONNECTIONS TO ELECTRICAL SYSTEM.

- CEALED ANCHORS.
- B. MANUFACTURER'S STANDARD ANCHORS FOR SUBSTRATES ENCOUNTERED.

- 2.5 PANEL SIGNS
- A. EXTERIOR PANEL SIGNS: PROVIDE SMOOTH SIGN PANEL SURFACES CONSTRUCTED TO REMAIN FLAT UNDER INSTALLED CONDITIONS WITHIN A TOLERANCE OF PLUS OR MINUS 1/16 INCH (1.59 MM) MEASURED DIAGONALLY FROM CORNER TO CORNER, COMPLYING WITH THE FOLLOWING REQUIREMENTS:
- WALL MOUNTED PANEL SIGNS: PROVIDE SMOOTH SIGN PANEL SURFACES CONSTRUCTED TO REMAIN FLAT UNDER INSTALLED CONDITIONS WITHIN A TOLERANCE OF PLUS OR MINUS 1/16 INCH (1.59 MM) MEASURED DIAGONALLY FROM CORNER TO CORNER, COMPLYING WITH THE FOLLOWING REQUIREMENTS:
    - PANEL MATERIAL: PAINTED ACRYLIC (OR APPROVED EQUIVALENT) AND STAINLESS STEEL, THICKNESSES AS INDICATED IN CONTRACT DOCUMENTS.
    - EDGE/CORNER CONDITION: SQUARE CUT, SLIGHTLY EASED.
    - COLORS: AS INDICATED IN CONTRACT DOCUMENTS.
    - VINYL MESSAGES: PRESSURE SENSITIVE, SELF-ADHESIVE VINYL GRAPHICS APPLIED TO FIRST SURFACE.
    - MOUNTING: AS INDICATED IN CONTRACT DOCUMENTS.
- B. INTERIOR PANEL SIGNS: PROVIDE SMOOTH SIGN PANEL SURFACES CONSTRUCTED TO REMAIN FLAT UNDER INSTALLED CONDITIONS WITHIN A TOLERANCE OF PLUS OR MINUS 1/16 INCH (1.59 MM) MEASURED DIAGONALLY FROM CORNER TO CORNER, COMPLYING WITH THE FOLLOWING REQUIREMENTS:
- WALL MOUNTED PANEL SIGNS: PROVIDE SMOOTH SIGN PANEL SURFACES CONSTRUCTED TO REMAIN FLAT UNDER INSTALLED CONDITIONS WITHIN A TOLERANCE OF PLUS OR MINUS 1/16 INCH (1.59 MM) MEASURED DIAGONALLY FROM CORNER TO CORNER, COMPLYING WITH THE FOLLOWING REQUIREMENTS:
    - PANEL MATERIAL: PAINTED ACRYLIC (OR APPROVED EQUIVALENT) AND STAINLESS STEEL, THICKNESSES AS INDICATED IN CONTRACT DOCUMENTS.
    - EDGE/CORNER CONDITION: SQUARE CUT, SLIGHTLY EASED.
    - COLORS: AS INDICATED IN CONTRACT DOCUMENTS.
    - VINYL MESSAGES: PRESSURE SENSITIVE, SELF-ADHESIVE VINYL GRAPHICS APPLIED TO FIRST SURFACE.
    - MOUNTING: AS INDICATED IN CONTRACT DOCUMENTS.
  - CHANGEABLE MESSAGE INSERTS: FABRICATE SIGNS TO ALLOW INSERTION OF CHANGEABLE MESSAGES IN THE FORM OF SLIDE-IN PAPER INSERTS PRINTED BY OWNER AND CHANGEABLE PANEL INSERTS FOR USE IN FIXED FRAMES.
    - FURNISH INSERT MATERIAL AND SOFTWARE FOR CREATING TEXT AND SYMBOLS FOR PC-WINDOWS AND MACINTOSH COMPUTERS FOR OWNER PRODUCTION OF PAPER INSERTS.
    - FURNISH INSERT MATERIAL CUT-TO-SIZE FOR CHANGEABLE MESSAGE INSERT FOR INITIAL INSTALLATION.
- 2.6 ILLUMINATED LETTERS
- A. ILLUMINATED LETTERS: PROVIDE INTERNALLY ILLUMINATED REVERSE CHANNEL LETTERS TO COMPLY WITH THE FOLLOWING REQUIREMENTS:
- ACRYLIC: TRANSLUCENT FACES WITH SOLVENT WELDED, POLISHED CORNERS AND EDGES. THICKNESS AS NOTED IN CONTRACT DOCUMENTS.
  - EDGE/CORNER CONDITION: SQUARE CUT.
  - ILLUMINATION: MANUFACTURER'S STANDARD WHITE LED LIGHTING INCLUDING TRANSFORMERS, INSULATORS, AND OTHER COMPONENTS. MAKE PROVISIONS FOR SERVICING AND CONCEALING CONNECTIONS TO BUILDING ELECTRICAL

# SPECIFICATIONS (Cont'd)

## 2.7 DIRECTORIES

- A. DIRECTORY SIGN ASSEMBLIES: PROVIDE SMOOTH SIGN PANEL SURFACES CONSTRUCTED TO REMAIN FLAT UNDER INSTALLED CONDITIONS WITHIN A TOLERANCE OF PLUS OR MINUS 1/16 INCH (1.59 MM) MEASURED DIAGONALLY FROM CORNER TO CORNER, COMPLYING WITH THE FOLLOWING REQUIREMENTS:
1. STAINLESS STEEL: 0.125 INCH (3.18 MM) THICK FRAME ASSEMBLY.
  2. ALUMINUM SHEET: 0.125 INCH (3.18 MM) THICK FRAME ASSEMBLY OR THICKNESS AS REQUIRED TO PREVENT BOWING, "OIL-CANNING" OR DISTORTION.
  3. ACRYLIC SHEET: 0.25 INCH (6.35 MM) MESSAGE STRIPS, NON-GLARE.
  4. VINYL MESSAGES: SUBSURFACE APPLIED PRESSURE SENSITIVE, SELF-ADHESIVE VINYL LETTERING.
  5. MESSAGE INSERT: PAPER DIRECTORY MESSAGE INSERT BY OWNER.
  6. ETCHED MESSAGE/SYMBOL: CHEMICALLY ETCHED AND FILLED GRAPHICS MINIMUM 1/32" DEEP INTO STAINLESS STEEL MESSAGE PLATE, EPOXY ENAMEL INFILL COLOR AS INDICATED IN CONTRACT DOCUMENTS.
  7. EDGE/CORNER CONDITION: SQUARE CUT, SLIGHTLY EASED.
  8. MOUNTING: AS INDICATED.
    - 1) WALL MOUNTED WITH CONCEALED ANCHORS.
    - 2) MANUFACTURER'S STANDARD ANCHORS FOR SUBSTRATES ENCOUNTERED.

## 2.8 PROJECTING BLADE TYPE SIGNS – NON-ILLUMINATED

- A. INTERIOR BLADE SIGNS: PROVIDE SMOOTH SIGN PANEL SURFACES CONSTRUCTED TO REMAIN FLAT UNDER INSTALLED CONDITIONS WITHIN A TOLERANCE OF PLUS OR MINUS 1/16 INCH (1.59 MM) MEASURED DIAGONALLY FROM CORNER TO CORNER, COMPLYING WITH THE FOLLOWING REQUIREMENTS:
1. ALUMINUM SHEET: 0.08 INCH (2.03 MM) THICK OR THICKNESS AS REQUIRED TO PREVENT BOWING, "OIL-CANNING" OR DISTORTION.
  2. SIGN THICKNESS: AS NOTED IN CONTRACT DOCUMENTS
  3. EDGE/CORNER CONDITION: SQUARE CUT, SLIGHTLY EASED.
  4. COLORS: AS INDICATED IN CONTRACT DOCUMENTS.
  5. VINYL MESSAGE: PRESSURE SENSITIVE, SELF ADHESIVE VINYL GRAPHICS APPLIED FIRST SURFACE, BOTH SIDES.
  6. BRACKETS/SUPPORTS: FABRICATE BRACKETS AND FITTINGS FOR BLADE-MOUNTED SIGNS FROM ALUMINUM TO SUIT PANEL SIGN CONSTRUCTION AND MOUNTING CONDITIONS INDICATED. FACTORY FINISH BRACKETS NO. 4 VERTICAL SATIN BRUSHED.
  7. MOUNTING: AS INDICATED.
    - A. WALL MOUNTED INTO CONCEALED STRUCTURAL MOUNTING PLATE EMBEDDED IN WALL SURFACE. COORDINATE WITH GENERAL CONTRACTOR.
    - B. MANUFACTURER'S STANDARD ANCHORS FOR SUBSTRATES ENCOUNTERED.
- 2.13 DIGITALLY PRINTED DECALS AND VINYL WALL GRAPHICS
- A. DIGITALLY PRINTED DECALS: DYE SUBLIMATION DIGITAL PRINT GRAPHICS APPLIED SECOND SURFACE TO PRESSURE SENSITIVE, SELF-ADHESIVE VINYL DECAL, COMPLYING WITH THE FOLLOWING REQUIREMENTS:
1. VINYL DECAL: CLEAR VINYL OR WHITE VINYL OF NOMINAL MINIMUM THICKNESS OF 3 MIL (0.076 MM) WITH PRESSURE SENSITIVE ADHESIVE BACKING, SUITABLE FOR INTERIOR APPLICATIONS.
- B. DIGITALLY PRINTED VINYL WALL GRAPHICS: DIGITALLY PRINTED GRAPHIC APPLIED FIRST SURFACE TO PRESSURE SENSITIVE, SELF-ADHESIVE VINYL, COMPLYING WITH THE FOLLOWING REQUIREMENTS:
1. GLASS-MOUNTED GRAPHIC: DIGITALLY PRINTED 3M

SCOTCHCAL DUSTED CRYSTAL VINYL APPLIED TO SECOND SURFACE OF GLASS, FREE FROM PITS, BUBBLES OR IMPERFECTIONS. BUTT MATERIAL SEAMS FLUSH.

2. WALL-MOUNTED GRAPHIC: DIGITALLY PRINTED PREMIUM CAST VINYL APPLIED TO WALL SURFACE, FREE FROM PITS, BUBBLES OR IMPERFECTIONS, WITH PROTECTIVE OVER-LAMINATE. OVERLAP MATERIAL SEAMS MIN. 0.25 INCH (6.35 MM).

## 2.15 POST AND PANEL SIGNS

- A. POST AND PANEL SIGNS: ~~REFLECTIVE VINYL~~ GRAPHIC SIGN FACES MOUNTED TO ALUMINUM SIGN POLES, COMPLYING WITH CURRENT MUTCD STANDARDS FOR TRAFFIC CONTROL SIGNS, AND THE FOLLOWING REQUIREMENTS:
1. SIGN PANELS: .125 INCH (3.175MM) ALUMINUM FACED WITH 3M DIAMOND GRADE REFLECTIVE VINYL, WITH FINISHED BACKS AS INDICATED IN CONTRACT DOCUMENTS. PROVIDE DOUBLE-SIDED SIGN PANELS OR BACK TO BACK DOUBLE PANELS AS INDICATED IN CONTRACT DOCUMENTS.
  2. SIGN POSTS: 3.0 INCH (5.08MM) 14 GAUGE (.083) SQUARE ALUMINUM POSTS WITH KNOCKOUTS AND WELDED TOPS, POWDER COATED FINISH TO MATCH COLOR INDICATED IN CONTRACT DOCUMENTS.
  3. SIGN POSTS: 3.0 INCH (5.08MM) TREATED WATER AND ROT RESISTANT WOOD POSTS PAINTED FINISH TO MATCH COLOR INDICATED IN CONTRACT DOCUMENTS.
  4. MOUNTING:
    - A. SIGN PANELS TO BE INSTALLED TO POLES WITH CONCEALED, TAMPER-RESISTANT AND CORROSION RESISTANT MECHANICAL FASTENERS AND PANEL STIFFENERS WHERE REQUIRED. CONCEALED FASTENERS NOT TO BE VISIBLE FROM SIGN FACE.
    - B. ALUMINUM POLES TO BE INSTALLED IN A MODIFIED "TELESPAR SIGN SUPPORT SYSTEM". USE VARIATION FROM THE STANDARD "TELESPAR SIGN SUPPORT SYSTEM," WITH BREAKAWAY ANCHORS ONLY 6 INCHES HIGH, WITH 4" BELOW THE SURFACE OF THE SIDEWALK AND TWO INCHES EXPOSED.
    - C. SIGN POSTS ARE TO BE CONNECTED TO BREAKAWAY ANCHOR BASES USING "TELESPAR" CORNER BOLTS TO PREVENT EXCESS SLACK / ROCKING IN BASE.
    - D. POLE BASES ARE TO BE INSTALLED USING "THORITE" BRAND CEMENT PRODUCT. COORDINATE WITH GENERAL CONTRACTOR.

## PART 3 - EXECUTION

### 3.1 FABRICATION

- A. GENERAL: PROVIDE MANUFACTURER'S STANDARD SIGNS OF CONFIGURATIONS INDICATED.
1. WELDED CONNECTIONS: COMPLY WITH AWS STANDARDS FOR RECOMMENDED PRACTICES IN SHOP WELDING. PROVIDE WELDS BEHIND FINISHED SURFACES WITHOUT DISTORTION OR DISCOLORATION OF EXPOSED SIDE. CLEAN EXPOSED WELDED SURFACES OF WELDING FLUX AND DRESS EXPOSED AND CONTACT SURFACES.
  2. MILL JOINTS TO TIGHT, HAIRLINE FIT. FORM JOINTS EXPOSED TO WEATHER TO EXCLUDE WATER PENETRATION.
  3. PREASSEMBLE SIGNS IN THE SHOP TO GREATEST EXTENT POSSIBLE. DISASSEMBLE SIGNS ONLY AS NECESSARY FOR SHIPPING AND HANDLING LIMITATIONS. CLEARLY MARK UNITS FOR REASSEMBLY AND INSTALLATION, IN LOCATION NOT EXPOSED TO VIEW AFTER FINAL ASSEMBLY.
  4. CONCEAL FASTENERS IF POSSIBLE; OTHERWISE, LOCATE FASTENERS WHERE THEY WILL BE INCONSPICUOUS.

### 3.2 FINISHES, GENERAL

- A. COMPLY WITH NAAMM'S "METAL FINISHES MANUAL FOR ARCHITECTURAL AND METAL PRODUCTS" FOR RECOMMENDATIONS FOR APPLYING AND DESIGNATING FINISHES.

- B. PROTECT MECHANICAL FINISHES ON EXPOSED SURFACES FROM DAMAGE BY APPLYING A STRIPPABLE, TEMPORARY PROTECTIVE COVERING BEFORE SHIPPING.
- C. APPEARANCE OF FINISHED WORK: VARIATIONS IN APPEARANCE OF ABUTTING OR ADJACENT PIECES ARE ACCEPTABLE IF THEY ARE WITHIN ONE-HALF OF THE RANGE OF APPROVED SAMPLES. NOTICEABLE VARIATIONS IN THE SAME PIECE ARE NOT ACCEPTABLE. VARIATIONS IN APPEARANCE OF OTHER COMPONENTS ARE ACCEPTABLE IF THEY ARE WITHIN THE RANGE OF APPROVED SAMPLES AND ARE ASSEMBLED OR INSTALLED TO MINIMIZE CONTRAST.

### 3.3 ALUMINUM FINISHES

- A. ORGANIC COATING: THERMOSETTING, MODIFIED-ACRYLIC ENAMEL PRIMER/TOPCOAT SYSTEM COMPLYING WITH AAMA 2603 EXCEPT WITH A MINIMUM DRY FILM THICKNESS OF 1.5 MILS (0.04 MM), MEDIUM GLOSS.

### 3.4 STEEL FINISHES

- A. SURFACE PREPARATION: REMOVE MILL SCALE AND RUST, IF PRESENT, FROM UNCOATED STEEL, COMPLYING WITH SSPC-SP 5/NACE NO. 1, "WHITE METAL BLAST CLEANING," OR SSPC-SP 8, "PICKLING."
- B. FACTORY PRIMING FOR PAINTED FINISH: APPLY SHOP PRIMER SPECIFIED BELOW IMMEDIATELY AFTER SURFACE PREPARATION AND PRETREATMENT.
1. SHOP PRIMER: MANUFACTURER'S OR FABRICATOR'S STANDARD, FAST-CURING, LEAD- AND CHROMATE-FREE, UNIVERSAL PRIMER, SELECTED FOR RESISTANCE TO NORMAL ATMOSPHERIC CORROSION, FOR COMPATIBILITY WITH SUBSTRATE AND FIELD-APPLIED FINISH PAINT SYSTEM INDICATED, AND FOR CAPABILITY TO PROVIDE A SOUND FOUNDATION FOR FIELD-APPLIED TOPCOATS DESPITE PROLONGED EXPOSURE.

### 3.5 STAINLESS-STEEL FINISHES

- A. REMOVE TOOL AND DIE MARKS AND STRETCH LINES OR BLEND INTO FINISH. GRIND AND POLISH SURFACES TO PRODUCE UNIFORM, DIRECTIONALLY TEXTURED, #4 VERTICAL BRUSHED SATIN FINISH INDICATED, FREE OF CROSS SCRATCHES. RUN GRAIN WITH LONG DIMENSION OF EACH PIECE.
- B. DIRECTIONAL BRUSHED FINISH: NO. 4 VERTICAL BRUSH SATIN FINISH.
- C. WHEN POLISHING IS COMPLETED, PASSIVATE AND RINSE SURFACES. REMOVE EMBEDDED FOREIGN MATTER AND LEAVE SURFACES CHEMICALLY CLEAN.

### 3.6 ACRYLIC SHEET FINISHES

- A. COLORED COATINGS FOR ACRYLIC SHEET: FOR COPY AND BACK GROUND COLORS, PROVIDE COLORED COATINGS, INCLUDING PAINTS, THAT ARE RECOMMENDED BY ACRYLIC MANUFACTURERS FOR OPTIMUM ADHERENCE TO ACRYLIC SURFACE AND THAT ARE UV AND WATER RESISTANT FOR FIVE YEARS FOR APPLICATION INTENDED.

### 3.7 EXAMINATION

- A. EXAMINE SUBSTRATES, AREAS, AND CONDITIONS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE OF WORK.
- B. VERIFY THAT ITEM, INCLUDING ANCHOR INSERTS, AND ELECTRICAL POWER ARE SIZED AND LOCATED TO ACCOMMODATE SIGNS.
- C. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

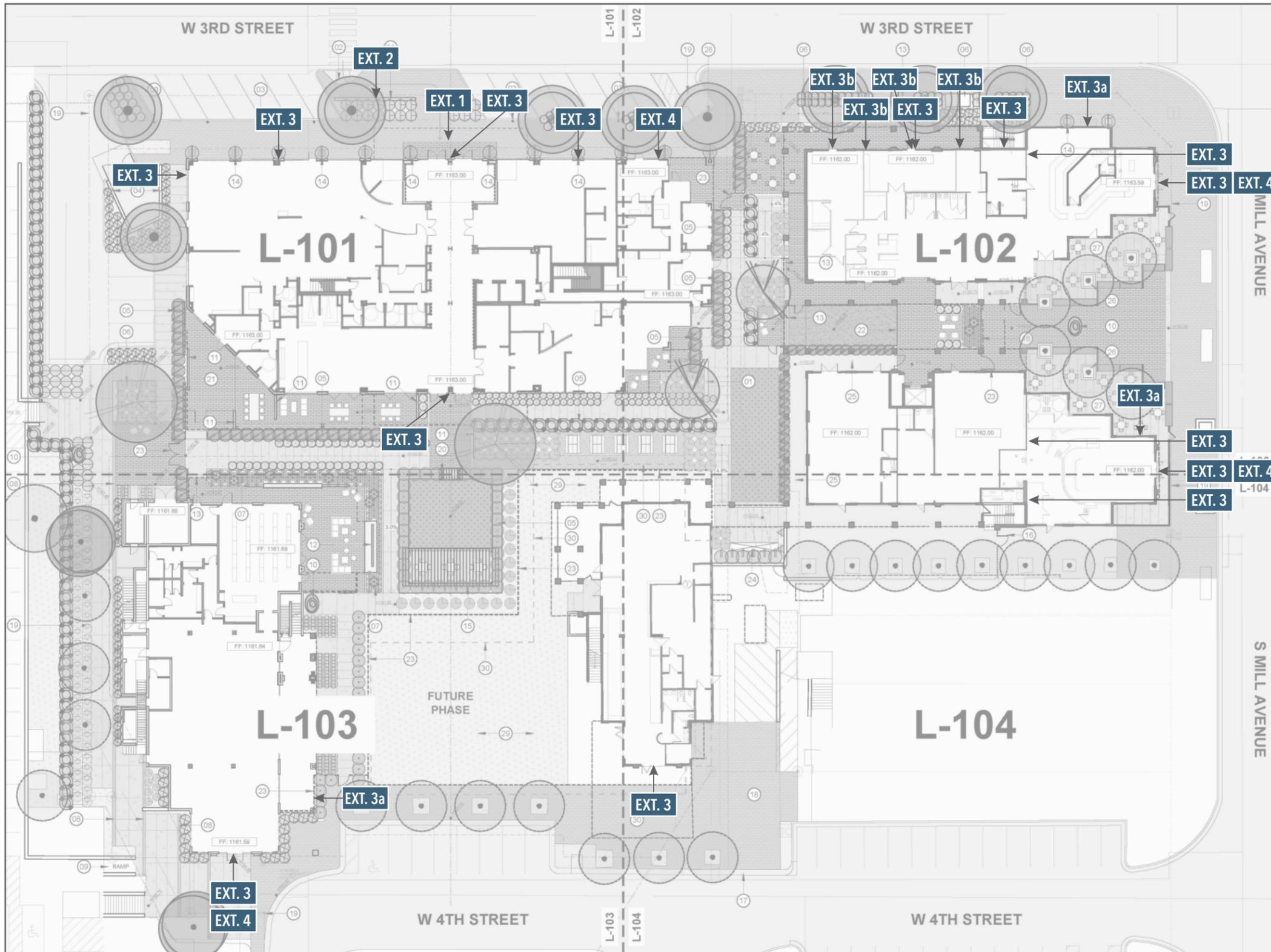
### 3.8 INSTALLATION

- A. LOCATE SIGNS AND ACCESSORIES WHERE INDICATED, USING MOUNTING METHODS OF TYPES DESCRIBED AND COMPLYING

WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

1. INSTALL SIGNS LEVEL, PLUMB, AND AT HEIGHTS INDICATED, WITH SIGN SURFACES FREE OF DISTORTION AND OTHER DEFECTS IN APPEARANCE.
  2. INTERIOR WALL SIGNS: INSTALL SIGNS ON WALLS ADJACENT TO LATCH SIDE OF DOOR WHERE APPLICABLE. WHERE NOT INDICATED OR POSSIBLE, SUCH AS DOUBLE DOORS, INSTALL SIGNS ON NEAREST ADJACENT WALLS. LOCATE TO ALLOW APPROACH WITHIN 3 INCHES (75 MM) OF SIGN WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN SWING OF DOOR. COORDINATE SIGN INSTALLATIONS WITH ADJACENT ENTRY ACCESS/SECURITY EQUIPMENT (CARD READERS, ETC.) COORDINATE WITH CONTRACTOR AND DO NOT PROCEED WITH SITE INSTALLATION IN THE CASE OF MOUNTING CONFLICTS, EXCEPT UNDER CONTRACTOR REVIEW/APPROVAL.
- B. WALL-MOUNTED SIGNS: COMPLY WITH SIGN MANUFACTURER'S WRITTEN INSTRUCTIONS EXCEPT WHERE MORE STRINGENT REQUIREMENTS APPLY.
1. TWO-FACE TAPE: MOUNT SIGNS TO SMOOTH, NONPOROUS SURFACES. DO NOT USE THIS METHOD FOR VINYL-COVERED OR ROUGH SURFACES.
  2. MAGNETIC TAPE: MOUNT SIGNS TO SMOOTH, NONPOROUS SURFACES.
  3. ADHESIVE MOUNTING: ATTACH SIGNS TO IRREGULAR, POROUS, OR VINYL-COVERED SURFACES.
  4. MECHANICAL FASTENERS: USE NON-REMOVABLE MECHANICAL FASTENERS PLACED THROUGH PREDRILLED HOLES. ATTACH SIGNS WITH FASTENERS AND ANCHORS SUITABLE FOR SECURE ATTACHMENT TO SUBSTRATE AS RECOMMENDED IN WRITING BY SIGN MANUFACTURER.
  5. SIGNS MOUNTED ON GLASS: PROVIDE MATCHING COLOR OPAQUE VINYL ON OPPOSITE SIDE OF GLASS TO CONCEAL MOUNTING MATERIALS UNLESS OTHERWISE NOTED, SIZED TO MATCH OUTSIDE DIMENSIONS OF SIGN.
- C. CEILING-MOUNTED SIGNS: COMPLY WITH SIGN MANUFACTURER'S WRITTEN INSTRUCTIONS EXCEPT WHERE MORE STRINGENT REQUIREMENTS APPLY.
1. MECHANICAL FASTENERS: USE NON-REMOVABLE MECHANICAL FASTENERS PLACED THROUGH PREDRILLED HOLES. ATTACH SIGNS WITH FASTENERS AND ANCHORS SUITABLE FOR SECURE ATTACHMENT TO SUBSTRATE AS RECOMMENDED IN WRITING BY SIGN MANUFACTURER.
- D. BRACKET-MOUNTED SIGNS: PROVIDE MANUFACTURER'S STANDARD BRACKETS, FITTINGS, AND HARDWARE FOR MOUNTING SIGNS THAT PROJECT AT RIGHT ANGLES FROM WALLS AND CEILINGS. ATTACH BRACKETS AND FITTINGS SECURELY TO WALLS AND CEILINGS WITH CONCEALED FASTENERS AND ANCHORING DEVICES TO COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AS DICTATED BY ARCHITECTURAL CONDITIONS.
- E. DIMENSIONAL CHARACTERS: MOUNT CHARACTERS USING STANDARD FASTENING METHODS TO COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS FOR CHARACTER FORM, TYPE OF MOUNTING, WALL CONSTRUCTION, AND CONDITION OF EXPOSURE INDICATED. PROVIDE HEAVY PAPER TEMPLATE TO ESTABLISH CHARACTER SPACING AND TO LOCATE HOLES FOR FASTENERS, AND POSITION AT INSTALLATION LOCATION FOR REVIEW AND APPROVAL BY OWNER/CONTRACTOR PRIOR TO INSTALLATION.
1. FLUSH MOUNTING: MOUNT CHARACTERS WITH BACKS IN CONTACT WITH WALL SURFACE.
  2. PROJECTED MOUNTING: MOUNT CHARACTERS AT PROJECTION DISTANCE FROM WALL SURFACE INDICATED.
  3. CONCEALED MOUNTING: MOUNT PLAQUES BY INSERTING THREADED STUDS INTO TAPPED LUGS ON BACK OF PLAQUE. SET IN PREDRILLED HOLES FILLED WITH SILICONE ADHESIVE.
- 3.9 CLEANING AND PROTECTION
- A. AFTER INSTALLATION, CLEAN SOILED SIGN SURFACES ACCORDING

# SITE MAP



LEGEND		
TYPE	DESCRIPTION	QTY.
EXT. 1	PRIMARY PROJECT ID	1
EXT. 2	SECONDARY PROJECT ID	1
EXT. 3	TENANT ID	13 or 22
EXT. 4	ADDRESS ID	4

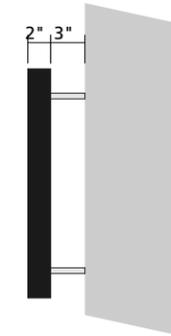
# SIGN MATRIX

LEGEND					
TYPE	DESCRIPTION	QTY.	SIZE	COMMENTS	MATERIAL
EXT. 1	PRIMARY PROJECT ID	1	16.3 SQ. FT.		Pan Channel Letters with Metal Construction, with White LED Illumination.
EXT. 2	SECONDARY PROJECT ID	1	6.0 SQ. FT.		Water Jet Cut Aluminum Letters
EXT. 3	TENANT ID	10 or 12	SEE PAGES 12-17		Pan Channel/Reverse Pan Channel Letters & Logo with Metal Construction. Face or Halo LED Illumination, Colors Permitted with Landlord Approval.
EXT. 3a	TENANT ID RESTAURANT BLADE SIGNS	7	SEE PAGES 12-17	Restaurants given Creative Leeway for Logo Display	Fabricated Aluminum Blade Signs, Internally Illuminated with Exposed Neon or LED Substitute, Colors Permitted with Landlord Approval.
EXT. 3b	TENANT ID HANGING BLADE SIGNS	4	SEE PAGES 12-18		Fabricated Aluminum Hanging Blade Signs, Internally Illuminated with Routed Aluminum Faces and White Acrylic Push Thru Copy/Logo, Colors Permitted with Landlord Approval.

**EXT. 1 - PRIMARY PROJECT ID**



2" DEEP, FACE ILLUMINATED, "THIN TRIM" PAN CHANNEL LETTERING. RETURNS, FINISHED BACKS & THIN TRIM RETAINER PAINTED TO MATCH DEA 187 'BLACK'. WHITE ACRYLIC FACES. INTERNALLY ILLUMINATED WITH WHITE LED. MOUNTED 3" OFF CANOPY WITH SPACERS WITH ON/OFF TIMER/PHOTO CELL



SIDE VIEW

ILLUMINATED CHANNEL LETTERS

16.3 SQ. FT.

SCALE: 3/4" = 1'-0"

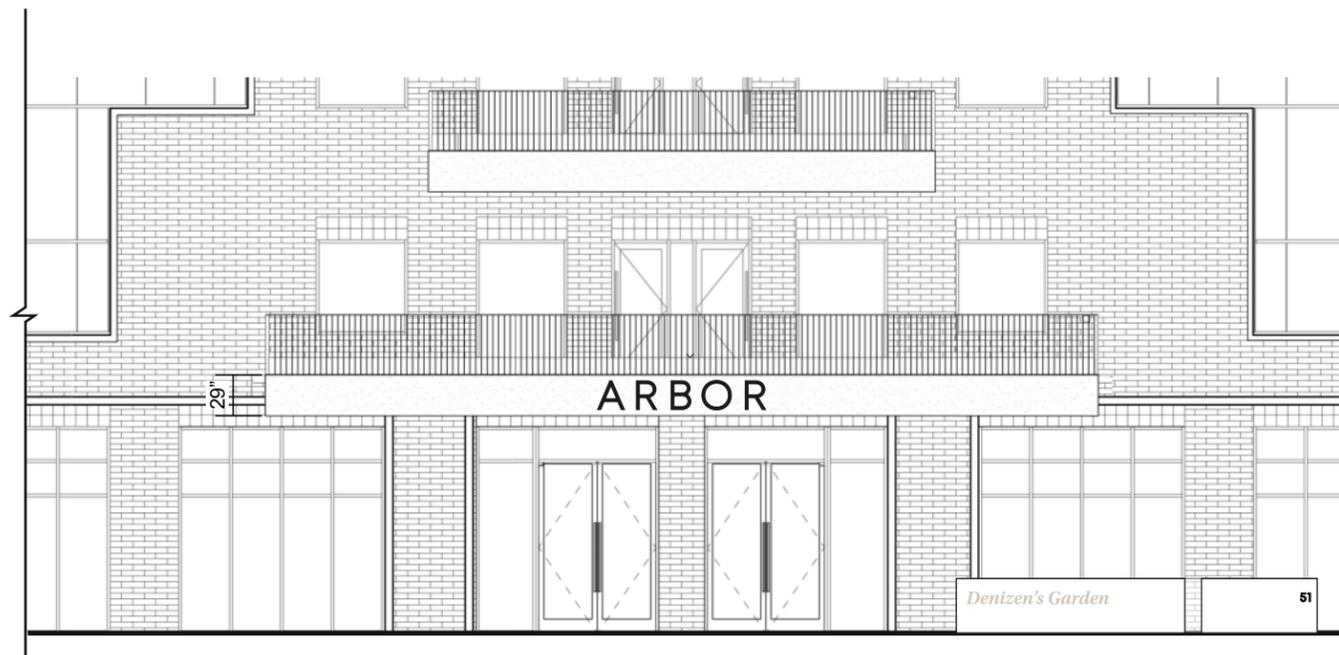


REFERENCE IMAGES

SCALE: N.T.S.



ILLUMINATED NIGHT VIEW



PARTIAL NORTH ELEVATION

SCALE: 3/32" = 1'-0"

100.125"  
8.625"  
*Denizen's Garden*

1/4" Water Jet Cut Aluminum Letters  
Powder Coated BM OC-45 Swiss Coffee  
Stud Mounted Flush to Planter  
with On/Off Photo Cell

HALO ILLUMINATED CHANNEL LETTERS

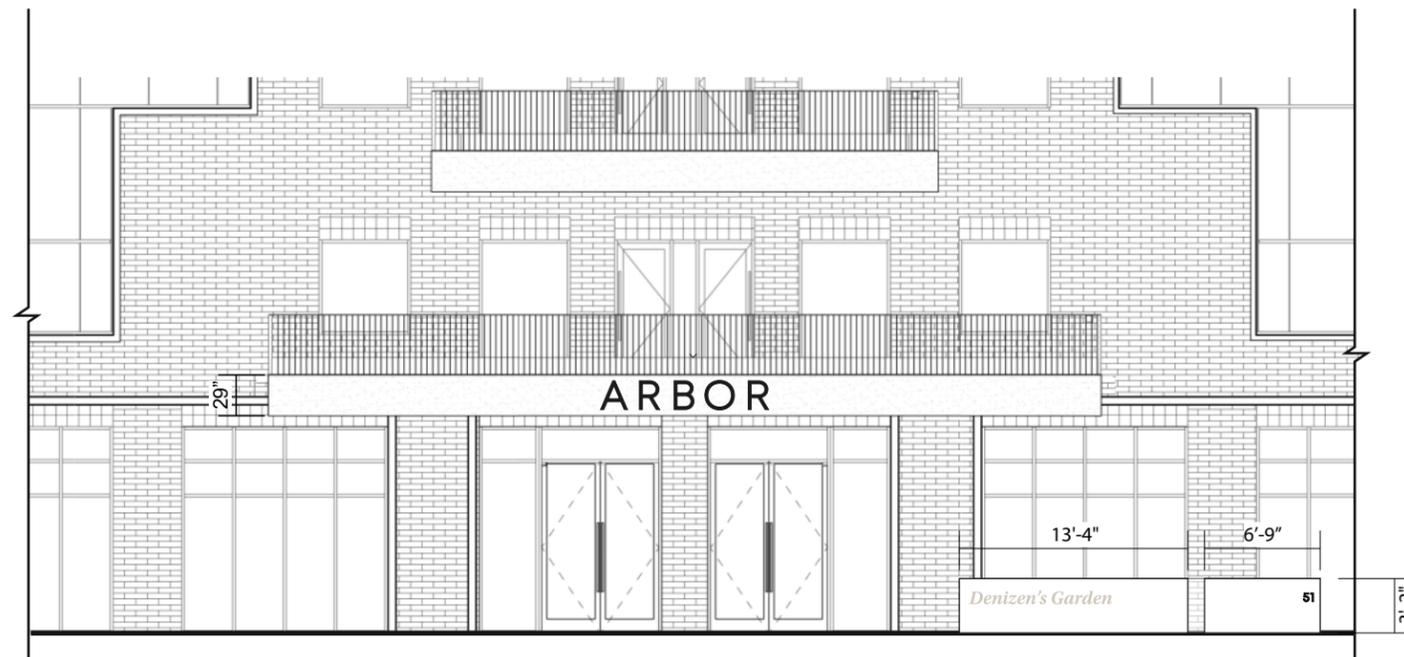
6.0 SQ. FT.

SCALE: 1" = 1'-0"



REFERENCE IMAGES

SCALE: N.T.S.



PARTIAL NORTH ELEVATION

SCALE: 3/32" = 1'-0"

## EXT. 3 - TENANT ID

### TENANT ID SIGN STANDARDS

All Tenant ID Signs shall be fabricated individual Reverse Pan Channel or Pan Channel Letters & Logos. Internally illuminated with LED. Mounted with the designated Sign Bands, Sign Band assignments are to be determined by the Landlord. All designs, layouts and locations will need Landlord approval.

Restaurant Tenants have the option of an Illuminated Blade Sign (See Sign Type EXT.3a).

### SIGN SQUARE FOOTAGE CALCULATION

When Tenant ID consist of only individual Letters or Symbols, the total square footage shall be calculated by a rectangle that encompasses each individual component as shown below.



AIRPARK

# EXT. 3 - TENANT ID

## REVERSE PAN CHANNEL LETTERS/LOGOS

### Criteria

All Tenant ID Signs shall be approved by the Landlord & the City of Tempe.

Existing Signs that do not meet New Criteria will be Grandfathered in.

### Construction

Reverse Pan Channel Letters/Logos shall be constructed of 2.5" Metal Returns and Faces with Polycarbonate backs. Signs must be mounted 1 1/2" off of fascia with appropriate spacers & anchors.

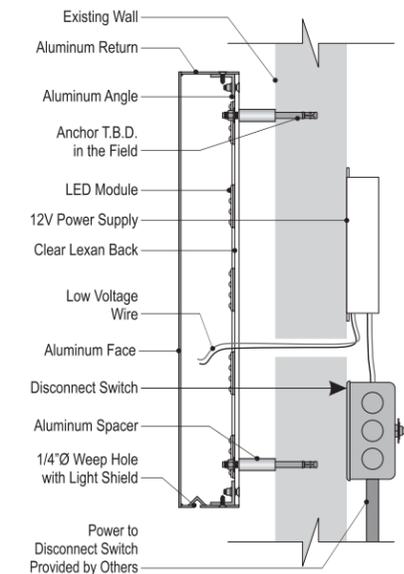
### Colors & Finishes

Corporate Colors & Finishes are permitted with Landlord approval.

### Illumination

Internal LED illumination, LED module quantities must provide proper illumination.

## SAMPLES OF FACE ILLUMINATED PAN CHANNEL LETTERS/LOGOS



This sign is intended to be installed in accordance with the requirements of article 600 of the national electrical code and/or other applicable local codes. This includes proper grounding and bonding of the sign. All signs fabricated as per 2008 N.E.C. Standards

TYPICAL SIDE SECTION

SCALE: N.T.S.

# EXT. 3 - TENANT ID

## FACE ILLUMINATED CHANNEL LETTERS/LOGOS

### Criteria

All Tenant ID Signs shall be approved by the Landlord & the City of Tempe.

### Construction

Pan Channel Letters/Logos shall be constructed of 5" Metal Returns and Faces.

Faces with translucent acrylic or polycarbonate.

Signs must be mounted flush to fascia with appropriate anchors.

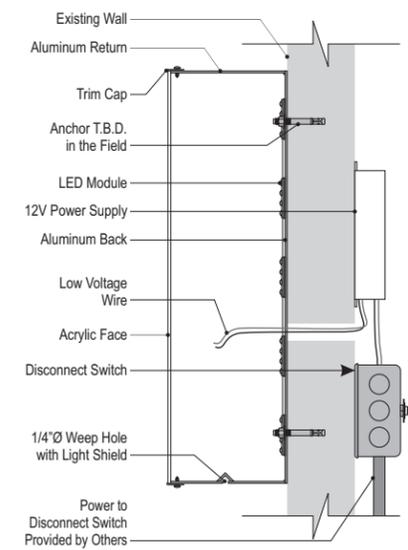
### Colors & Finishes

Corporate Colors & Finishes are permitted with Landlord approval.

### Illumination

Internal LED illumination, LED module quantities must provide proper illumination.

### SAMPLES OF FACE ILLUMINATED PAN CHANNEL LETTERS/LOGOS



TYPICAL SIDE SECTION

SCALE: N.T.S.

# EXT. 3 - TENANT ID

## DUAL ILLUMINATED CHANNEL LETTERS/LOGOS

### Criteria

All Tenant ID Signs shall be approved by the Landlord & the City of Tempe.

### Construction

Pan Channel Letters/Logos shall be constructed of 3" Metal Returns and Faces with Polycarbonate backs. Faces can have routed out areas backed with translucent acrylic or polycarbonate. Signs must be mounted 1 1/2" off of fascia with appropriate spacers & anchors.

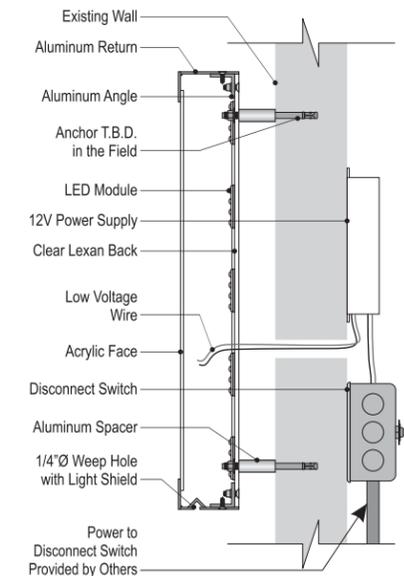
### Colors & Finishes

Corporate Colors & Finishes are permitted with Landlord approval.

### Illumination

Internal LED illumination, LED module quantities must provide proper illumination.

### SAMPLES OF DUAL ILLUMINATED REVERSE PAN CHANNEL LETTERS/LOGOS



This sign is intended to be installed in accordance with the requirements of article 600 of the national electrical code and/or other applicable local codes. This includes proper grounding and bonding of the sign. All signs fabricated as per 2008 N.E.C. Standards

### TYPICAL SIDE SECTION

SCALE: N.T.S.

# EXT. 3a - TENANT ID BLADE SIGNS - 2nd STORY/RESTAURANTS

## BLADE SIGNS

### Criteria

All Tenant ID Signs shall be approved by the Landlord & the City of Tempe.

### Construction

Fabricated Metal, Internally Illuminated Faces. Exposed Neon or LED substitute is permitted with Landlord Approval.

### Colors & Finishes

Corporate Colors & Finishes are permitted with Landlord approval.

## SAMPLES OF FACE ILLUMINATED



# EXT. 3b - TENANT ID HANGING BLADE SIGNS - 1st TENANTS

## HANGING BLADE SIGNS

### Criteria

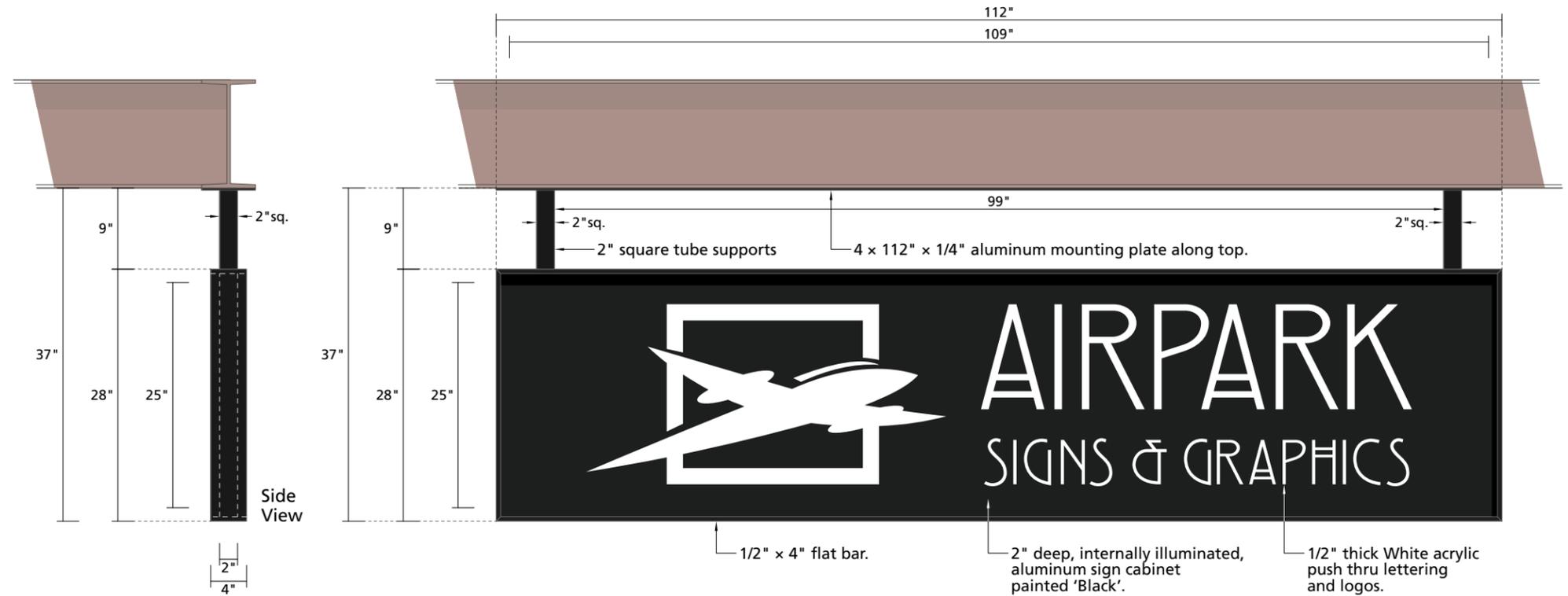
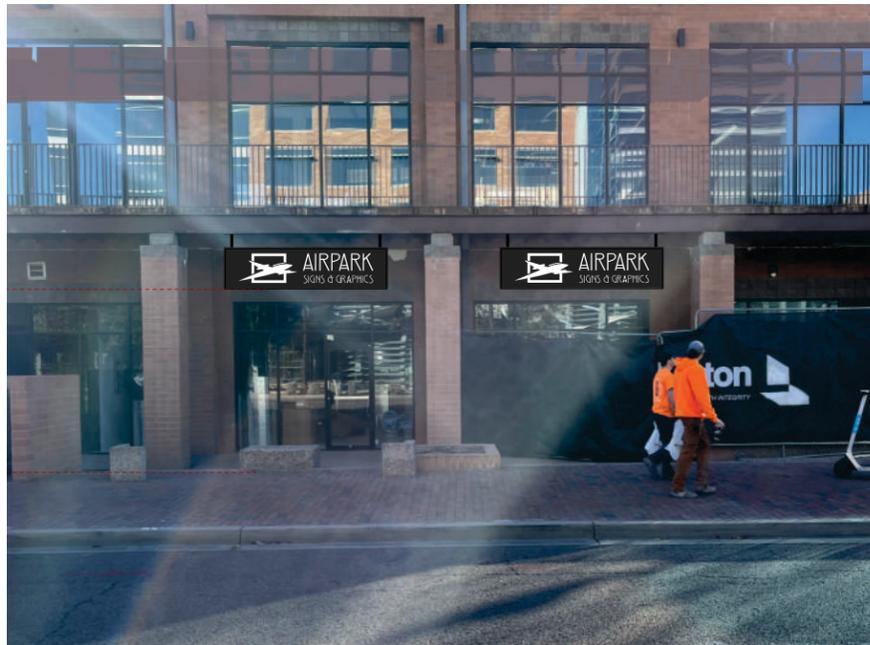
All Tenant ID Signs shall be approved by the Landlord & the City of Tempe.

### Construction

Fabricated Metal, Internally Illuminated Faces. Routed Copy/Logo with White Push Thru Acrylic.

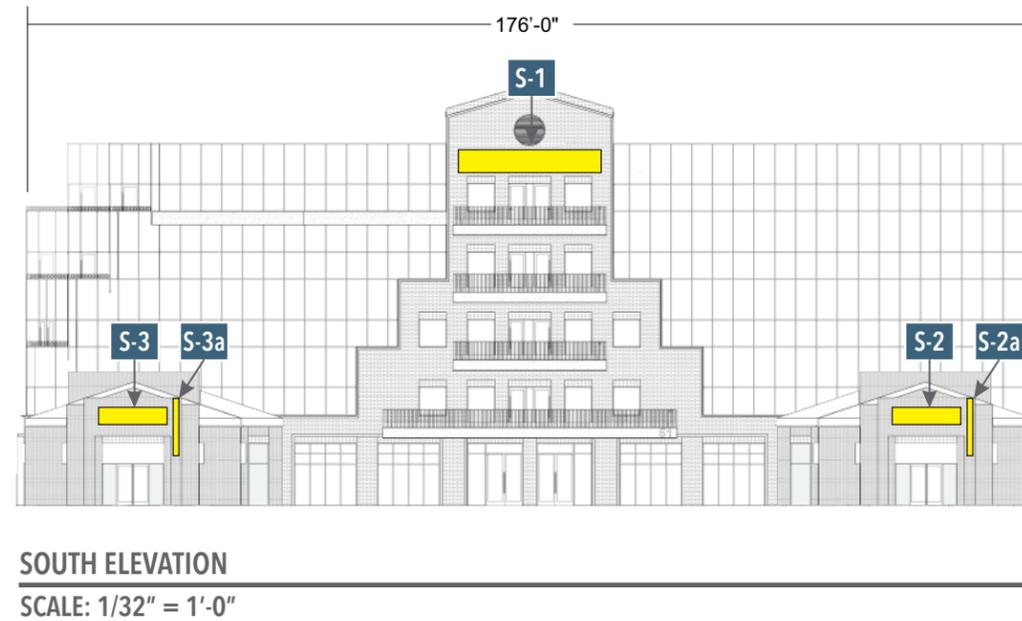
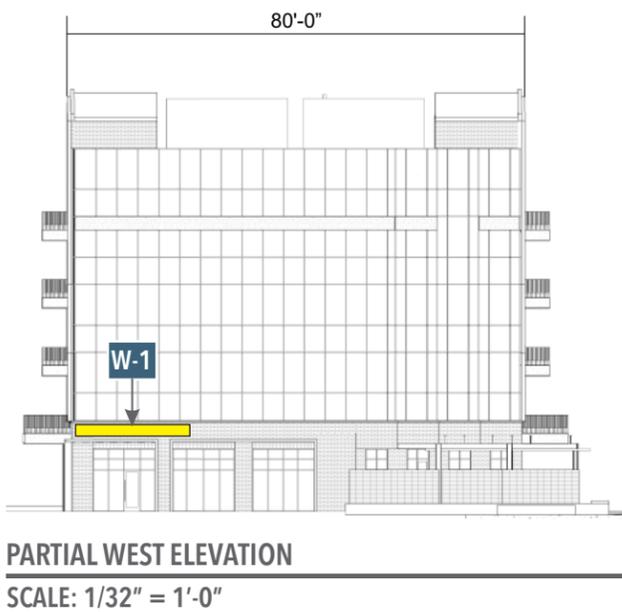
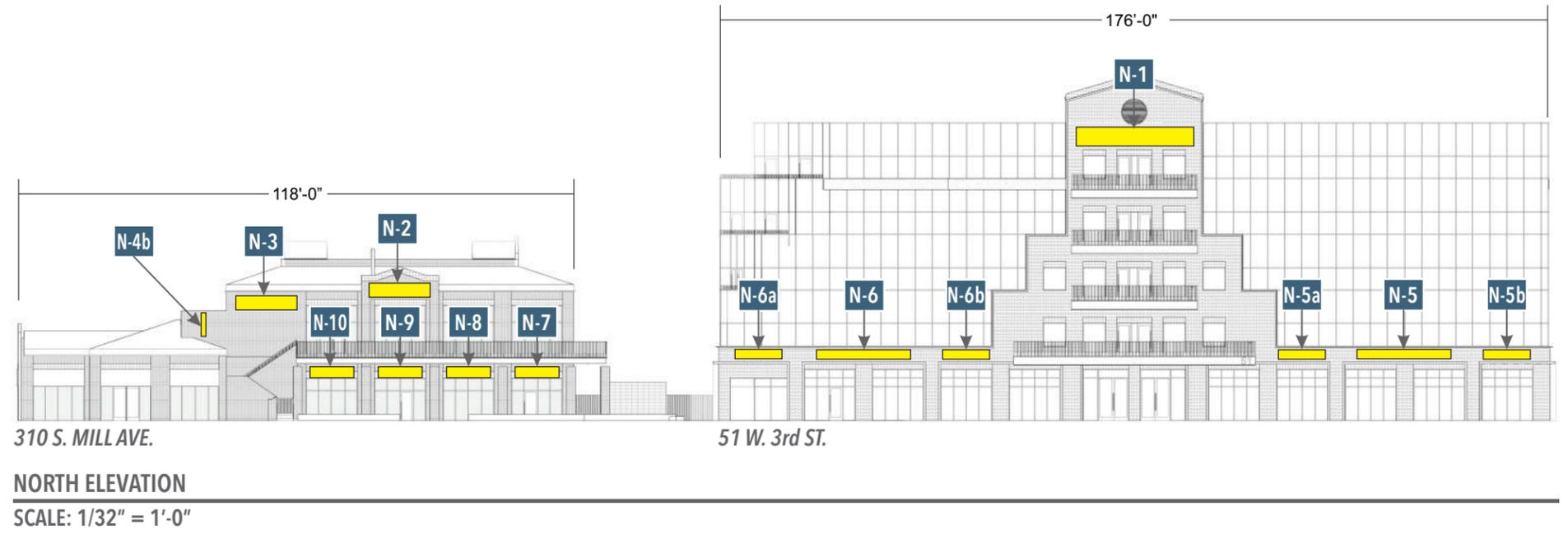
### Colors & Finishes

Corporate Colors & Finishes are permitted with Landlord approval.



# EXT. 3 - TENANT ID

SIGN BANDS			
N-1	4' x 25' = 100.0 SQ. FT.	E-1	3' x 12' = 36.0 SQ. FT.
N-2	3' x 13' = 39.0 SQ. FT.	E-1b	36.0 SQ. FT. (Only if Option E-1 is NOT used)
N-3	3' x 13' = 39.0 SQ. FT.	E-2	3' x 12' = 36.0 SQ. FT.
N-4b	18.0 SQ. FT.	E-2b	36.0 SQ. FT. (Only if Option E-2 is NOT used)
N-5	2' x 20' = 40.0 SQ. FT.	E-3	3' x 12' = 36.0 SQ. FT.
N-5a	2' x 10' = 20.0 SQ. FT. (Only if Option N-4 is NOT used)	E-4	3' x 12' = 36.0 SQ. FT.
N-5b	2' x 10' = 20.0 SQ. FT. (Only if Option N-4 is NOT used)	E-5	3' x 12' = 36.0 SQ. FT.
N-6	2' x 20' = 40.0 SQ. FT.	S-1	4' x 25' = 100.0 SQ. FT.
N-6a	2' x 10' = 20.0 SQ. FT. (Only if Option N-5 is NOT used)	S-2	3' x 12' = 36.0 SQ. FT.
N-6b	2' x 10' = 20.0 SQ. FT. (Only if Option N-5 is NOT used)	S-2a	36.0 SQ. FT. (Only if Option S-2 is NOT used)
N-7	2'-4" x 9'-4" = 21.8 SQ. FT.	S-3	3' x 12' = 36.0 SQ. FT.
N-8	2'-4" x 9'-4" = 21.8 SQ. FT.	S-3a	36.0 SQ. FT. (Only if Option S-3 is NOT used)
N-9	2'-4" x 9'-4" = 21.8 SQ. FT.		
N-10	2'-4" x 9'-4" = 21.8 SQ. FT.		



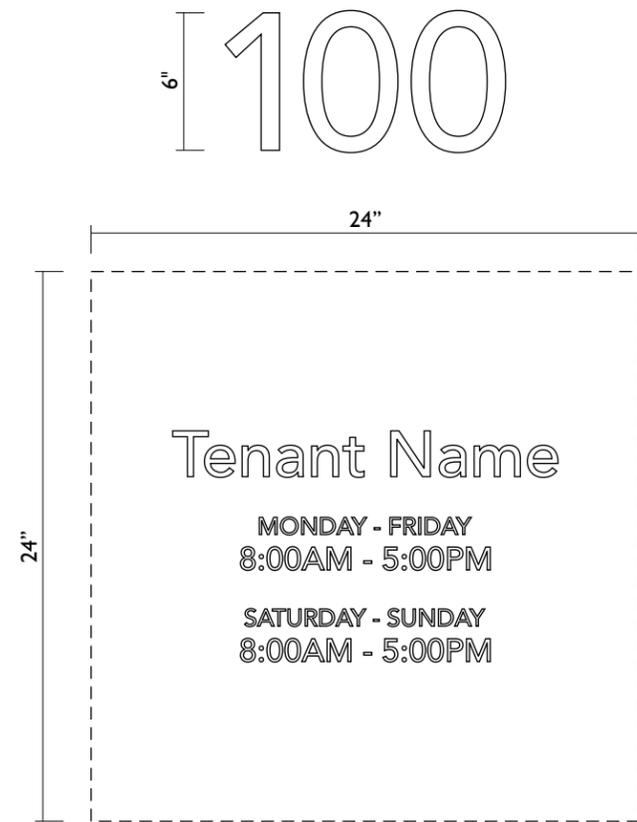
# SUITE NUMBERS / ENTRY GRAPHICS

## Entry Graphics

Recommended designs should be subtle and sophisticated. White vinyl is to be used and fit into 2' x 2' area in side light of entry (as shown on this page).

Services Information shall consist of Business Name, Hours of Operation and displayed in Avenir 65 Medium.

Tenant vinyl suite number is to be provided by Landlord. Suite numbers shall be located at top of side light next to door. Number to 6" tall and displayed in Avenir 65 Medium.



TYPICAL ELEVATION  
SCALE: 1/2" = 1'-0"