Specifications

the other construction document

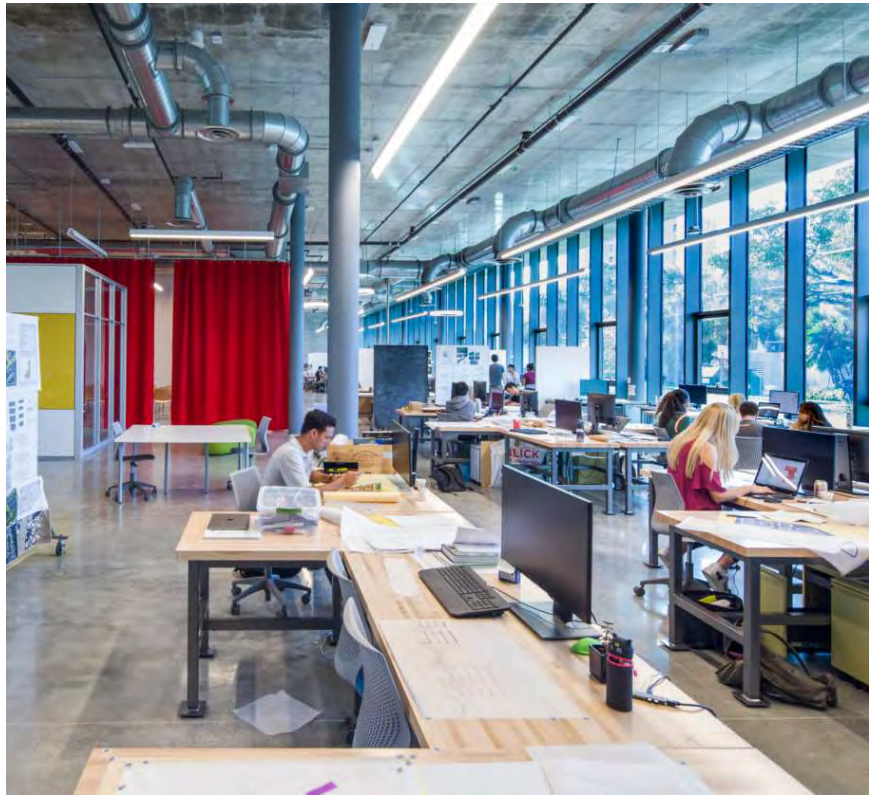
Overview

vision and intent

translating design

types and styles

Specifications



why the other construction document?

Vision

Vision

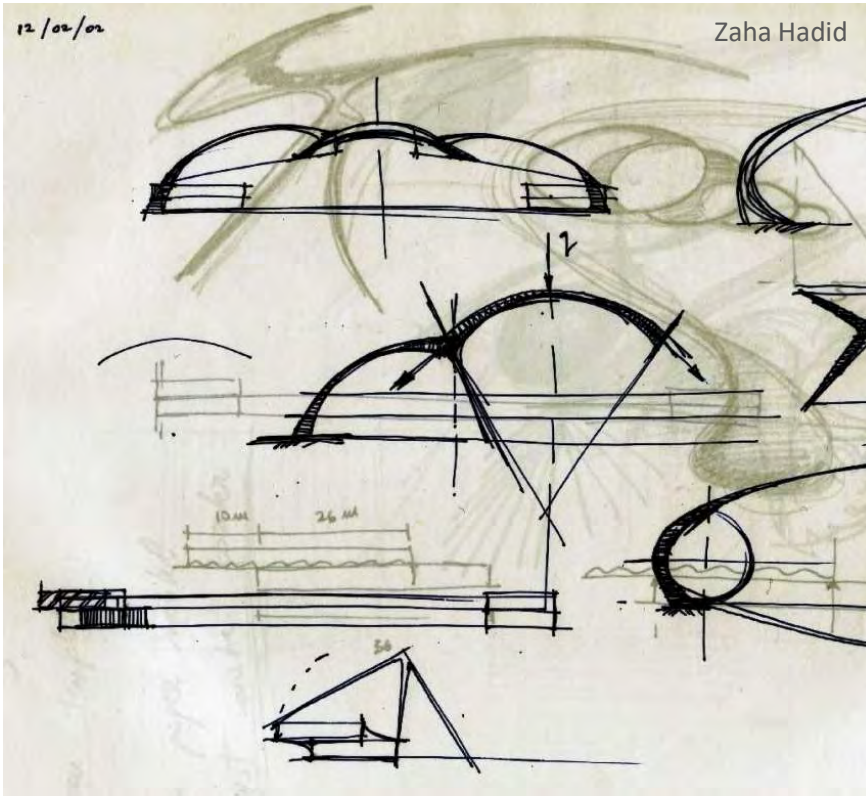
imaginative

conception

anticipation

Intent

Intent



the client's needs,

the architect's vision

Leonardo da Vinci

Direction

establish and communicate design intent

Architecture

elaborate a vision:

design

communicate

an intent:

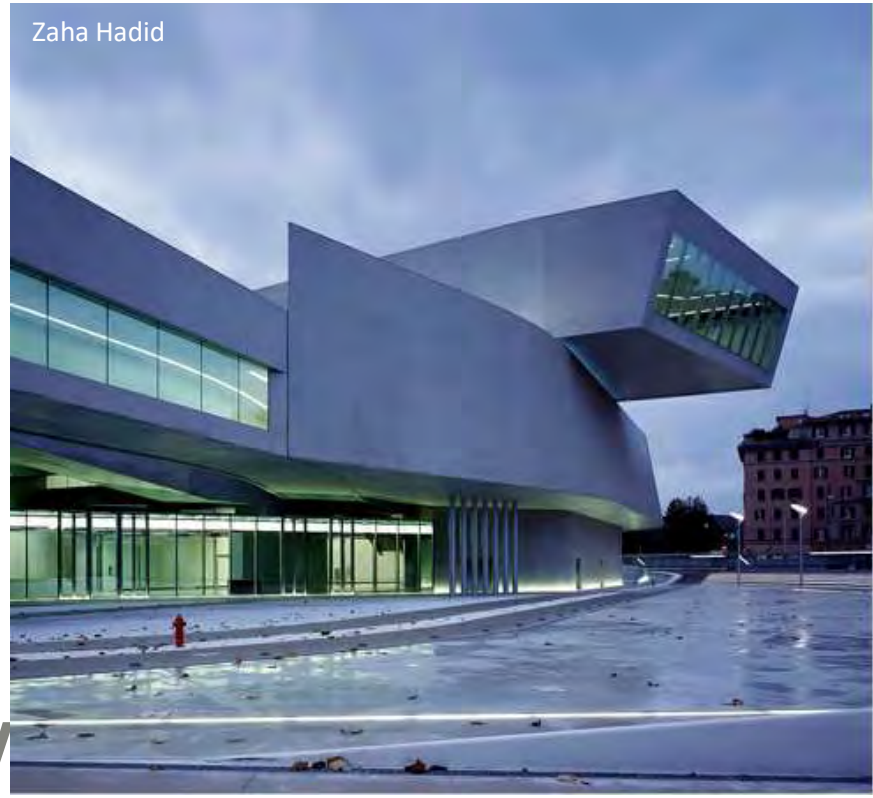
draw … and write

Communicate

clarity

completeness

coordination



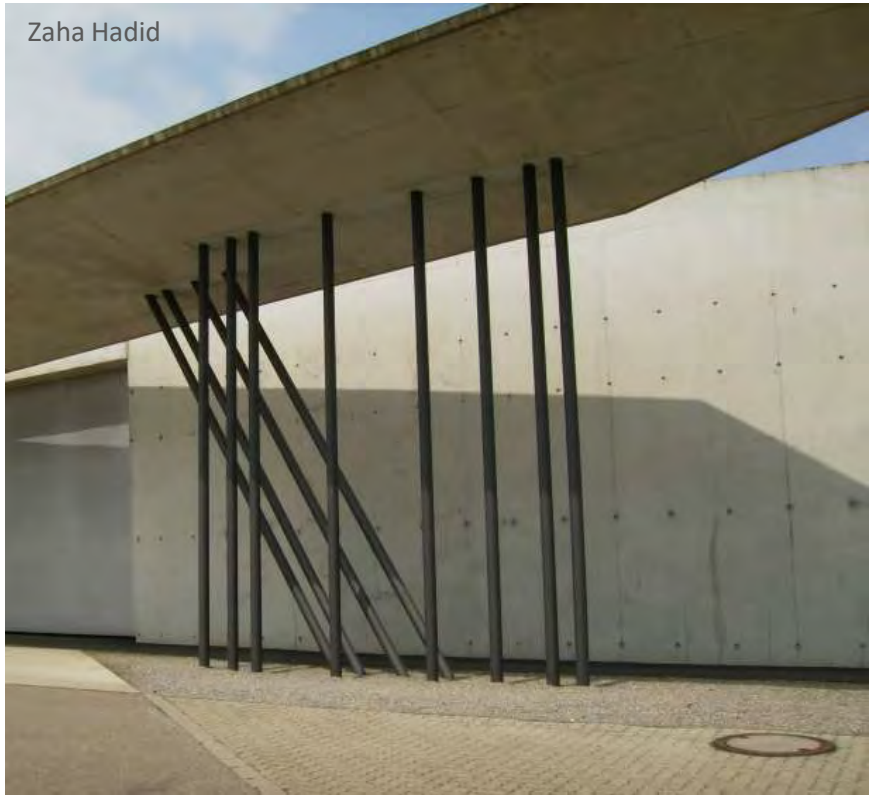
Clarity

clearness

of purpose and

understanding

Completeness



intent is apparent, without repetition or mistake

Coordination

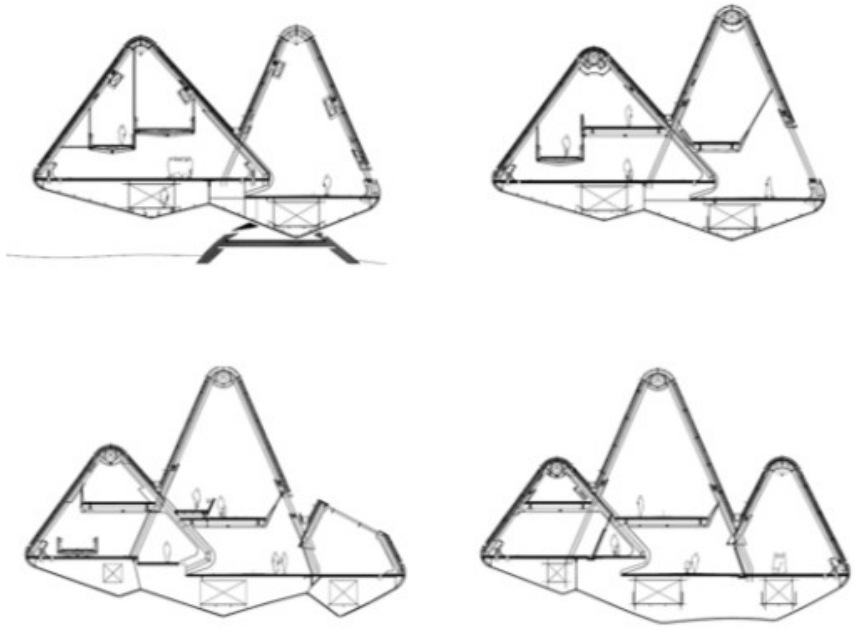
Zaha Hadid

inclusion

unique instruction

distinct separation

Zaha Hadid



Vision as intent

documents

express vision

as intent

...to reality

clarity and coordination allow intent to become reality

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SECTION 09 3000

TILING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Tile for wall applications.

1.02 RELATED REQUIREMENTS

A. Section 07 9005 - Joint Sealers.

B. Section 09 2116 - Gypsum Board Assemblies: Installation of tile backer board.

1.03 REFERENCE STANDARDS

A. ANSI A108 Series/A118 Series/A136.1 - American National Standard Specifications for the Installation of Ceramic Tile (Compendium); 2005.

1. ANSI A108.6 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile-Setting and -Grouting Epoxy; 1999 (R2005).
2. ANSI A108.9 - American National Standard Specifications for Installation of Ceramic Tile with Modified Epoxy Emulsion Mortar/Grout; 1999 (R2005).
3. ANSI A108.10 - American National Standard Specifications for Installation of Grout in Tilework; 1999 (R2005).
4. ANSI A118.3 - American National Standard Specifications for Chemical Resistant, Water Cleanable Tile Setting and -Grouting Epoxy and Water Cleanable Tile-Setting Epoxy Adhesive; 1999 (R2005).
5. ANSI A118.4 - American National Standard Specifications for Latex-Portland Cement Mortar; 1999 (R2005).
6. ANSI A118.7 - American National Standard Specifications for Polymer Modified Cement Grouts for Tile Installation; 1999 (R2005).
7. ANSI A137.1 - American National Standard Specifications for Ceramic Tile; 2008.

B. TCA (HB) - Handbook for Ceramic Tile Installation; Tile Council of North America, Inc.; 2007/2008 or latest edition.

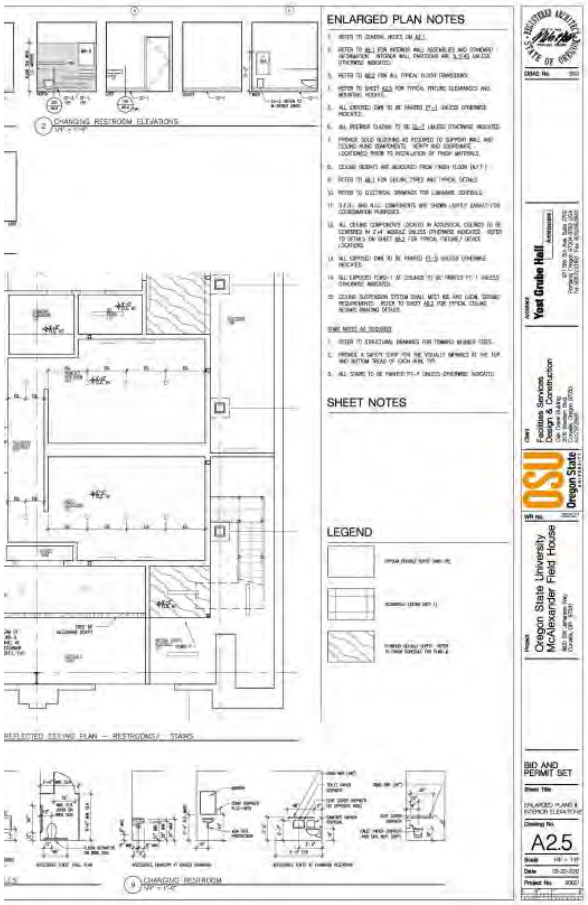
1.04 SUBMITTALS

A. See Section 01 3323 - Shop Drawings, Product Data, Sample Submittals, for submittal procedures.

B. Product Data: Provide manufacturers' data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.

C. Shop Drawings: Indicate tile layout, patterns, color arrangement, perimeter conditions, junctions with dissimilar materials, control and expansion joints, thresholds, and setting details.

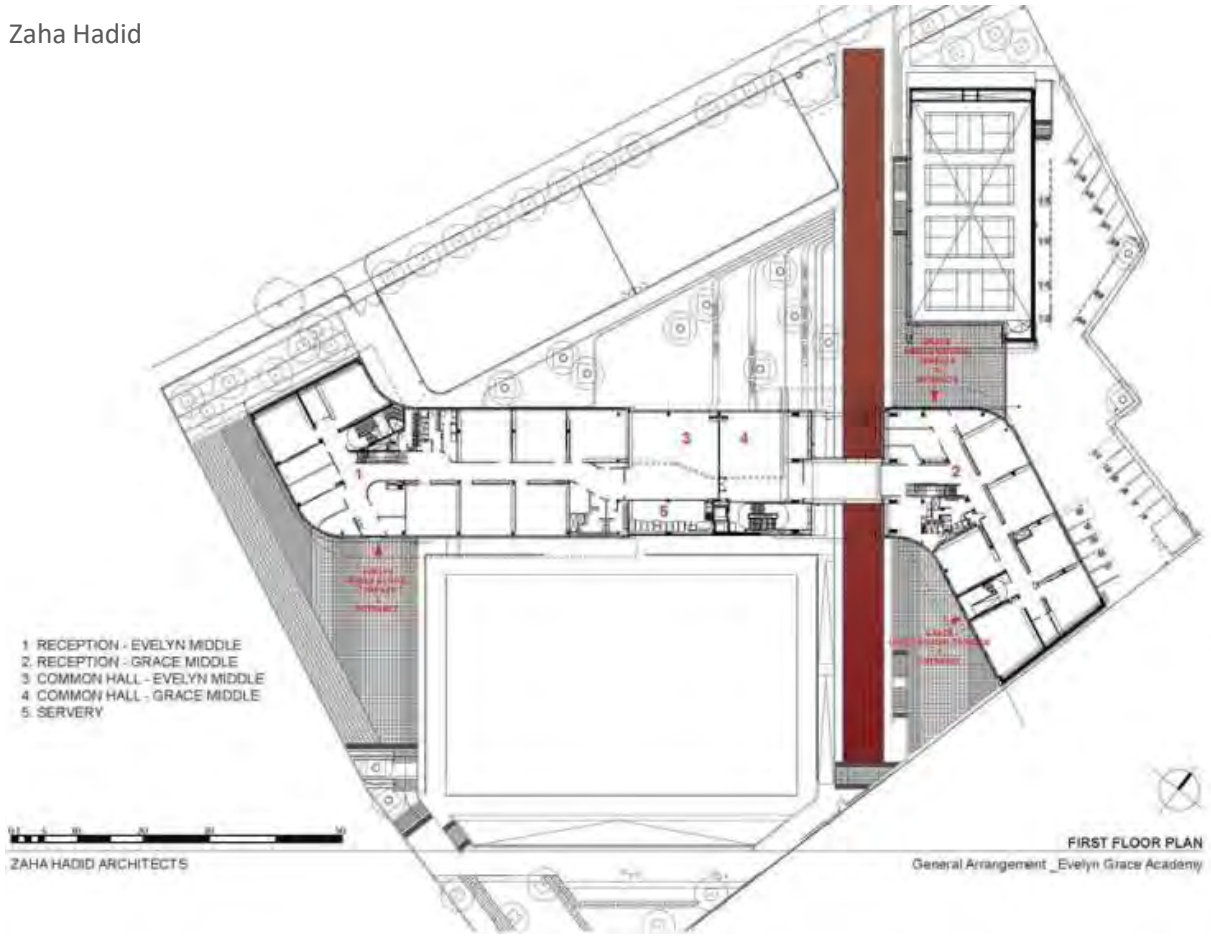
D. Samples: Mount tile and apply grout on one plywood panel, minimum 36 x 36 inches in size



Construction Documents

drawings

specifications



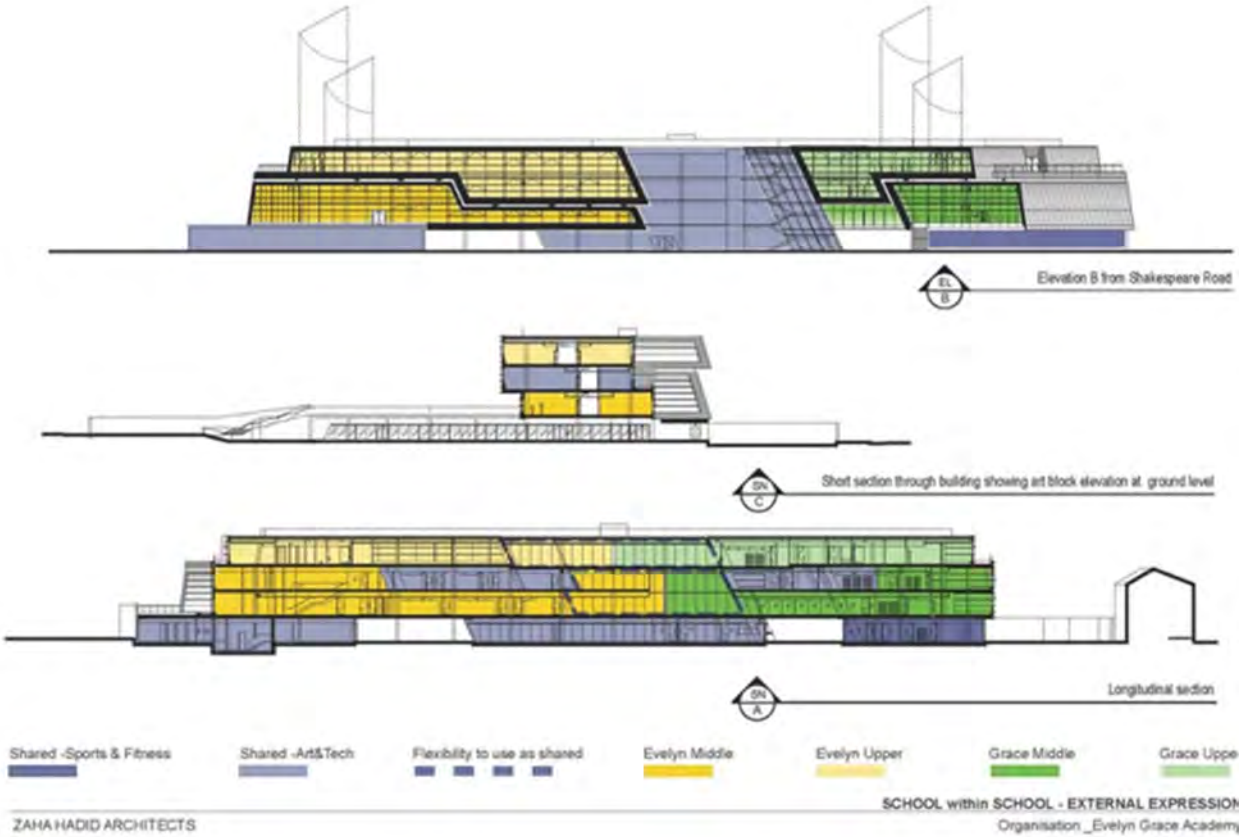
Drawings

establish

location and

quantity

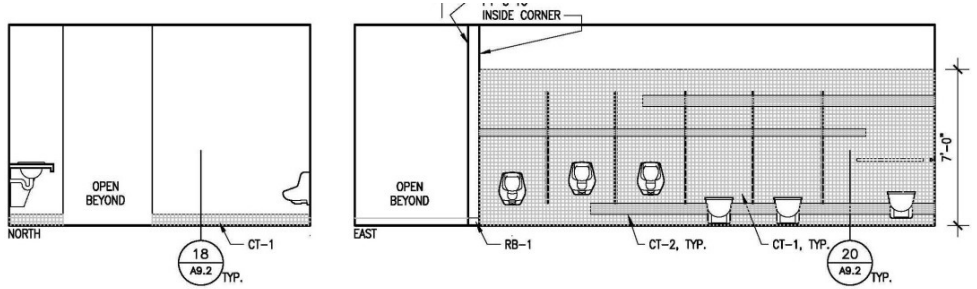
Zaha Hadid



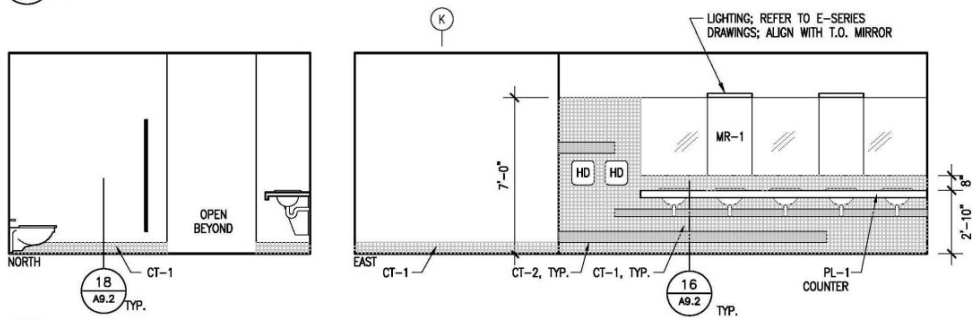
Location and quantity

where is it?

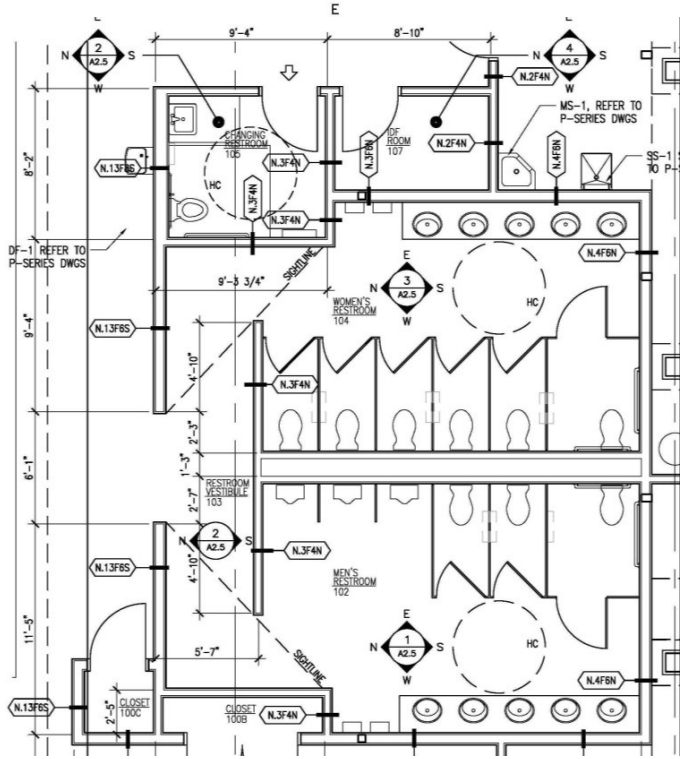
how much of it?



1 MEN'S RESTROOM ELEVATIONS
1/4" = 1'-0"



3 WOMEN'S RESTROOM ELEVATIONS
1/4" = 1'-0"



Location and quantity

Specifications

establish quality and procedure

Quality and procedure

what is it?

how is it installed?

Quality and procedure

2.02 TILE MATERIALS

A. Ceramic Tile: American Olean, or approved equal; products as follows:
   1. CT-1: Daltile; mosaic colorbody porcelain; size 2 inch square; color #D144 "Artisan Brown"
   2. CT-2: Daltile; mosaic colorbody porcelain; size 2 X 1 inches; color #D617 "Arctic White".

B. Ceramic Tile Base: American Olean, or approved equal; products as follows:
   1. CTB-1: To match CT-1.

C. Standard Grade conforming to ANSI A137.1. Provide trim units as indicated and specified, including special shapes as detailed or required. Tile patterns and colors shall be as indicated and specified.

D. Unglazed Ceramic Mosaic Tile: Colors as selected or scheduled, porcelain type unglazed ceramic mosaic tile, with cushion or all-purpose edges. Use factory-made half-size units where required for tile numbers, or make the half-size units by precision cutting on powered tile saw. Ease all cut tile edges prior to installation.

E. Trim Units: Manufacturer's standard Bullnose and Corner Bullnose at top of wall tile and tile base.

2.03 ADHESIVE MATERIALS

A. Manufacturers:
   1. Bonsal American, Inc: www.sakrete.com
   2. Bostik Inc: www.bostik-us.com.

Chart 3.4 Preliminary Project Description (PPD)[24]

B SHELL

B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

A. Floor System: Two-hour fire-rated, composite steel beam, steel deck, and concrete slab system in 20-foot by 25-foot bay dimensions capable of supporting 75 PSF live load.

OSU MARINE STUDIES INITIATIVE BUILDING
2030 SE MARINE SCIENCE DRIVE, NEWPORT

MAY 14, 2018
BUILDING PERMIT

SECTION 05 31 00 - STEEL DECKING

PART 1 - GENERAL

1.2 SUMMARY

A. Section Includes:

1. Standard roof deck.
2. Standard composite floor deck.
3. Cellular acoustical floor deck (AMD1, D-5).
4. Cellular acoustical roof deck (AMD2, D-6).

Specification styles

UniFormat

MasterFormat

Chart 3.4 Preliminary Project Description (PPD)[24]

B SHELL

B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

A. Floor System: Two-hour fire-rated, composite steel beam, steel deck, and concrete slab system in 20-foot by 25-foot bay dimensions capable of supporting 75 PSF live load.

B1020 ROOF CONSTRUCTION

A. Roof System: Two-hour fire-rated, composite steel beam, steel deck, and concrete slab system in 20-foot by 25-foot bay dimensions capable of supporting 30 PSF live load.

B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS

A. Masonry Cavity Wall Construction:

1. Modular face brick installed in running bond with tooled concave joints.

UniFormat

organized by order of construction, below grade to roof, outside to inside

SECTION 05 31 00 - STEEL DECKING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Standard roof deck.
2. Standard composite floor deck.
3. Cellular acoustical floor deck (AMD1, D-5).
4. Cellular acoustical roof deck (AMD2, D-6).

B. Related Requirements:

1. Section 03 30 00 "Cast-in-Place Concrete" for normal-weight and lightweight structural concrete fill over steel deck.

MasterFormat

organized by

construction trades,

e.g. masonry, woodwork,

finishes, equipment

Specification types

narrative

outline

three-part

Window Configuration

Building elevations incorporate a different fenestration strategy, based on solar orientation and relation to local environmental conditions. On the north, windows allow as much diffused northern light as possible into the office space. The south façade incorporates horizontal sunscreens to block glare and direct sun in the summer months and allow warming sunlight into the office during the winter. The sunscreen extends into the building as a light shelf, reflecting sunlight through an upper window and into the open office space. At the lobby, a 2-story, fully glazed curtainwall with aligning sunscreens on the south face, provides a clear indication of entry. The sunscreens disappear as the glazing wraps to the east beneath office uses above.

Narrative

general description

of design intent

for proposals

Section 08 4413 - Glazed Aluminum Curtain Walls

Provide: SEI/ASCE 7, ASTM E 330, ASTM E 783, AAMA 501.1, ASTM E 90, and ASTM E 1332 compliant aluminum glazed curtainwall system for multi-story or tall height applications; optional operable sash

AAMA-standard; bidder-designed, aluminum framed storefront system; High-energy performance IGU glazing.

Manufacturer standard hardware; louvers / sun shades at various locations, coordinated with building management system.

Exterior sunscreens for manufacturers other than Efco.

Manufacturer-standard fluoropolymer finish to AAMA standards, with 20-year finish warranty; finish to match existing.

Locations: Exterior envelope and clerestory, coordinated with aluminum storefronts; operable units and louvers where indicated.

Outline

prescriptive and product information added, for pricing purposes or schematic design

2.4 GLAZED ALUMINUM CURTAIN WALL SYSTEMS

A. Basis-of-Design Glazed Aluminum Curtain Wall Systems: System 5600 by Efco.

1. Face Width: 2-1/2 inches.

2. System Depth: 6 inches, for 1 inch (25.4 mm) thickness insulating glazing units (IGUs).

a. Exception: At Innovation Lab as indicated, provide 8 inches system depth for 1 inch (25.4 mm) thickness insulating glazing units (IGUs).

B. Basis-of-Design Glazed Aluminum Curtain Wall Punched Opening Windows: 5600 by Efco.

1. Face Width: 2-1/2 inches.

2. System Depth: 6 inches, for 1 inch (25.4 mm) thickness insulating glazing units (IGUs).

2.5 ENTRANCES

A. Entrances: Comply with Section 08 41 13 "Aluminum-Framed Entrances and Storefronts."

2.6 VENTING WINDOWS

A. Basis-of-Design Products: Provide capless window with structural sealant glazed lite, meeting warranty requirements; refer to warranty articles above.

1. System 875X Wall Vent by Efco; or approved equal; capless at glass-to-window interface.

Three-Part Construction document:

Part 1 General

Part 2 Products

Part 3 Execution

Recall

specifications

establish quality

and procedure

Part 1 General is procedural

summary

related requirements

references

submittals

quality control

warranty

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Aluminum skylight framing system.

B. Skylight glazing.

C. Fasteners, anchors, reinforcement, and flashings.

1.02 RELATED REQUIREMENTS

A. Section 01 3519 - Sustainability Requirements.

B. Section 05 1200 - Structural Steel Framing: Structural support framing for system.

C. Section 05 5000 - Metal Fabrications: Fabricated steel attachment devices.

D. Section 07 6200 - Sheet Metal Flashing and Trim: Skylight counterflashing.

E. Section 07 9005 - Joint Sealers.

F. Section 08 8000 - Glazing: For specification of skylight glazing.

1.03 REFERENCE STANDARDS

A. AAMA 501.2 - Field Check of Metal Storefronts, Curtain Walls, and Sloped Glazing Systems for Water Leakage; American Architectural Manufacturers Association.

B. ASTM A 36/A 36M - Standard Specification for Carbon Structural Steel.

C. ASTM A 123/A 123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

Part 2 Products is qualitative

manufacturers

products

materials

accessories

fabrication

finishes

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Metal Framed Skylights, Basis-of-Design:

1. DeaMor Assoc: www.deamor.com, 1-888-284-6799

2. Other Acceptable Manufacturers:

a. Super Sky Products, Inc: www.supersky.com.

2.02 METAL-FRAMED SKYLIGHTS

A. Metal Framed Skylights: Factory-fabricated, glazed.

1. Frame: Extruded aluminum structural members with integral condensation collection and cascading guttering system thermally separated from exterior pressure bar.

2. Glazing System: Pressure glazing bar system for sloped joints and structural adhesive glazing for flush glazed horizontal joints, including eave.

3. Glazing: Insulating glass.

B. Performance Requirements:

1. Design and size components to withstand the following load requirements without damage or permanent set:

a. Roof live load: 100 lbf/sq ft.

b. Positive wind load: 12 lbf/sq ft.

c. Negative wind load: 12 lbf/sq ft.

Part 3 Execution is procedural

examination

preparation

installation

tolerances

field quality control

cleaning and protection

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that structural curb is ready to receive skylight system. Coordinate installation of roofing and other adjacent work to ensure weathertight construction.

3.02 PREPARATION

A. Apply 1 coat of protective coating to concealed aluminum and steel surfaces in contact with dissimilar materials.

3.03 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Set skylight structure plumb, level, and true to line, without warp or rack of frames or glazing panels. Anchor securely in place in accordance with approved shop drawings.

C. Maintain assembly dimensional tolerances, aligning with adjacent work.

D. Install sill flashings.

E. Pack fibrous insulation in shim spaces at perimeter of assembly to ensure continuity of thermal barrier.

F. Mask adjacent surfaces, clean joint surfaces, and install backing and field-applied sealants in accordance with requirements of Section 07 9005.

G. Touch up damaged finishes so repair is imperceptible from 6 feet. Remove and replace components that cannot be satisfactorily touched up.

Specifications

prescriptive

performance

Prescriptive Specification

defines materials, products and workmanship

Prescriptive Specification

A. Metal Framed Skylights: Factory-fabricated, glazed.

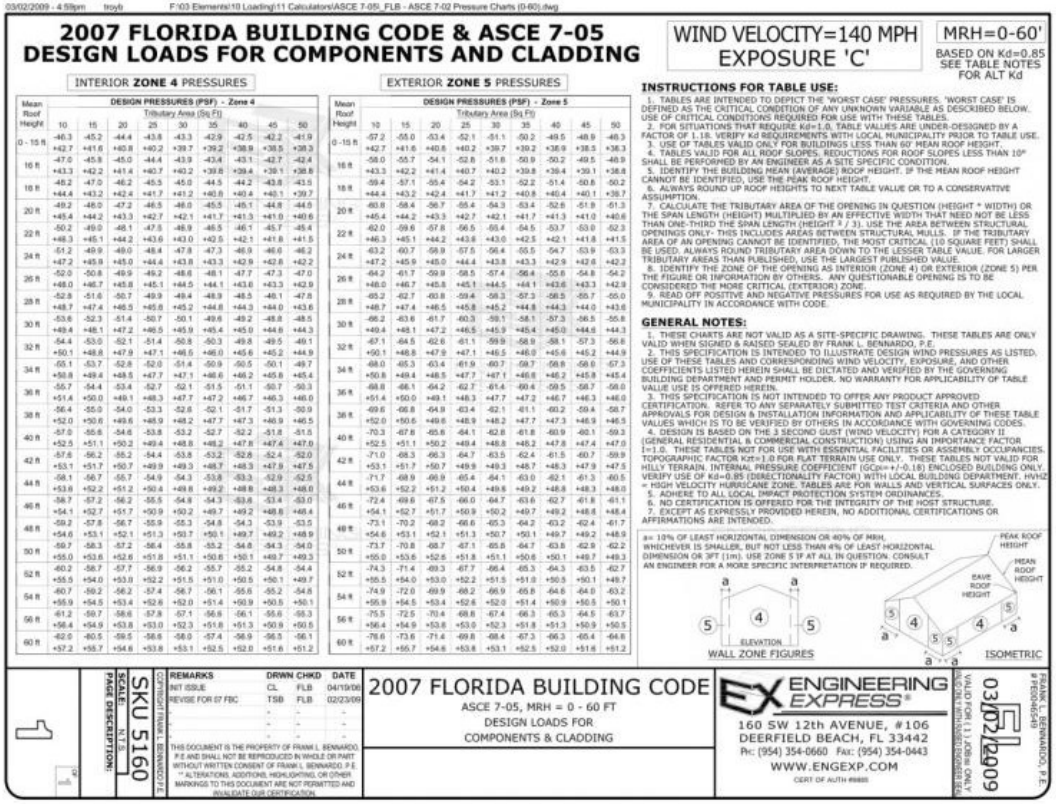
1. Frame: Extruded aluminum structural members with integral condensation collection and cascading guttering system thermally separated from exterior pressure bar.
2. Glazing System: Pressure glazing bar system for sloped joints and structural adhesive glazing for flush glazed horizontal joints, including eave.
3. Glazing: Insulating glass.

Performance Specification

defines the end result

by establishing

design criteria



2007 FLORIDA BUILDING CODE & ASCE 7-05
DESIGN LOADS FOR COMPONENTS AND CLADDING

WIND VELOCITY=140 MPH
EXPOSURE 'C'

MRH=0-60'
BASED ON Kd=0.85
SEE TABLE NOTES FOR ALT Kd

INTERIOR **ZONE 4** PRESSURES

DESIGN PRESSURES (PSF) - Zone 4

Mean Roof Height	Tributary Area (Sq Ft) 10	15	20	25	30	35	40	45	50
0 - 15 ft	-46.3	-45.2	-44.4	-43.8	-43.3	-42.9	-42.5	-42.2	-41.9
	+42.7	+41.6	+40.8	+40.2	+39.7	+39.2	+38.9	+38.5	+38.3
16 ft	-47.0	-45.8	-45.0	-44.4	-43.9	-43.4	-43.1	-42.7	-42.4
	+43.3	+42.2	+41.4	+40.7	+40.2	+39.8	+39.4	+39.1	+38.8
18 ft	-46.2	-47.0	-46.2	-45.5	-45.0	-44.5	-44.2	-43.8	-43.5
	+44.4	+43.2	+42.4	+41.7	+41.2	+40.8	+40.4	+40.1	+39.7
20 ft	-49.2	-48.0	-47.2	-46.5	-46.0	-45.5	-45.1	-44.8	-44.5
	+45.4	+44.2	+43.3	+42.7	+42.1	+41.7	+41.3	+41.0	+40.6
22 ft	-50.2	-49.0	-48.1	-47.5	-46.9	-46.5	-46.1	-45.7	-45.4
	+46.3	+45.1	+44.2	+43.6	+43.0	+42.5	+42.1	+41.8	+41.5
24 ft	-51.2	-49.9	-49.0	-48.4	-47.8	-47.3	-46.9	-46.6	-46.2
	+47.2	+45.9	+45.0	+44.4	+43.8	+43.3	+42.9	+42.6	+42.2
26 ft	-52.0	-50.8	-49.9	-49.2	-48.6	-48.1	-47.7	-47.3	-47.0
	+48.0	+46.7	+45.8	+45.1	+44.5	+44.1	+43.6	+43.3	+42.9
28 ft	-52.8	-51.6	-50.7	-49.9	-49.4	-48.9	-48.5	-48.1	-47.8
	+48.7	+47.4	+46.5	+45.8	+45.2	+44.8	+44.3	+44.0	+43.6
30 ft	-53.6	-52.3	-51.4	-50.7	-50.1	-49.6	-49.2	-48.8	-48.5
	+49.4	+48.1	+47.2	+46.5	+45.9	+45.4	+45.0	+44.6	+44.3
32 ft	-54.4	-53.0	-52.1	-51.4	-50.8	-50.3	-49.8	-49.5	-49.1
	+50.1	+48.8	+47.9	+47.1	+46.5	+46.0	+45.6	+45.2	+44.9
34 ft	-55.1	-53.7	-52.8	-52.0	-51.4	-50.9	-50.5	-50.1	-49.7
	+50.8	+49.4	+48.5	+47.7	+47.1	+46.6	+46.2	+45.8	+45.4
36 ft	-55.7	-54.4	-53.4	-52.7	-52.1	-51.5	-51.1	-50.7	-50.3
	+51.4	+50.0	+49.1	+48.3	+47.7	+47.2	+46.7	+46.3	+46.0
38 ft	-56.4	-55.0	-54.0	-53.3	-52.8	-52.1	-51.7	-51.3	-50.9
	+52.0	+50.6	+49.6	+48.9	+48.2	+47.7	+47.3	+46.9	+46.5
40 ft	-57.0	-55.6	-54.6	-53.8	-53.2	-52.7	-52.2	-51.8	-51.5
	+52.5	+51.1	+50.2	+49.4	+48.8	+48.2	+47.8	+47.4	+47.0
42 ft	-57.6	-56.2	-55.2	-54.4	-53.8	-53.2	-52.8	-52.4	-52.0
	+53.1	+51.7	+50.7	+49.9	+49.3	+48.7	+48.3	+47.9	+47.5
44 ft	-58.1	-56.7	-55.7	-54.9	-54.3	-53.8	-53.3	-52.9	-52.5
	+53.6	+52.2	+51.2	+50.4	+49.8	+49.2	+48.8	+48.3	+48.0
46 ft	-58.7	-57.2	-56.2	-55.5	-54.8	-54.3	-53.8	-53.4	-53.0
	+54.1	+52.7	+51.7	+50.9	+50.2	+49.7	+49.2	+48.8	+48.4
48 ft	-59.2	-57.8	-56.7	-55.9	-55.3	-54.8	-54.3	-53.9	-53.5
	+54.6	+53.1	+52.1	+51.3	+50.7	+50.1	+49.7	+49.2	+48.9
50 ft	-59.7	-58.3	-57.2	-56.4	-55.8	-55.2	-54.8	-54.3	-54.0
	+55.0	+53.6	+52.6	+51.8	+51.1	+50.6	+50.1	+49.7	+49.3
52 ft	-60.2	-58.7	-57.7	-56.9	-56.2	-55.7	-55.2	-54.8	-54.4
	+55.5	+54.0	+53.0	+52.2	+51.5	+51.0	+50.5	+50.1	+49.7
54 ft	-60.7	-59.2	-58.2	-57.4	-56.7	-56.1	-55.6	-55.2	-54.8
	+55.9	+54.5	+53.4	+52.6	+52.0	+51.4	+50.9	+50.5	+50.1
56 ft	-61.2	-59.7	-58.6	-57.8	-57.1	-56.6	-56.1	-55.6	-55.3
	+56.4	+54.9	+53.8	+53.0	+52.3	+51.8	+51.3	+50.9	+50.5
60 ft	-62.0	-60.5	-59.5	-58.6	-58.0	-57.4	-56.9	-56.5	-56.1
	+57.2	+55.7	+54.6	+53.8	+53.1	+52.5	+52.0	+51.6	+51.2

EXTERIOR **ZONE 5** PRESSURES

DESIGN PRESSURES (PSF) - Zone 5

Mean Roof Height	Tributary Area (Sq Ft) 10	15	20	25	30	35	40	45	50
0 - 15 ft	-57.2	-55.0	-53.4	-52.1	-51.1	-50.2	-49.5	-48.9	-48.3
	+42.7	+41.6	+40.8	+40.2	+39.7	+39.2	+38.9	+38.5	+38.3
16 ft	-58.0	-55.7	-54.1	-52.8	-51.8	-50.9	-50.2	-49.5	-48.9
	+43.3	+42.2	+41.4	+40.7	+40.2	+39.8	+39.4	+39.1	+38.8
18 ft	-59.4	-57.1	-55.4	-54.2	-53.1	-52.2	-51.4	-50.8	-50.2
	+44.4	+43.2	+42.4	+41.7	+41.2	+40.8	+40.4	+40.1	+39.7
20 ft	-60.8	-58.4	-56.7	-55.4	-54.3	-53.4	-52.6	-51.9	-51.3
	+45.4	+44.2	+43.3	+42.7	+42.1	+41.7	+41.3	+41.0	+40.6
22 ft	-62.0	-59.6	-57.8	-56.5	-55.4	-54.5	-53.7	-53.0	-52.3
	+46.3	+45.1	+44.2	+43.6	+43.0	+42.5	+42.1	+41.8	+41.5
24 ft	-63.2	-60.7	-58.9	-57.5	-56.4	-55.5	-54.7	-53.9	-53.3
	+47.2	+45.9	+45.0	+44.4	+43.8	+43.3	+42.9	+42.6	+42.2
26 ft	-64.2	-61.7	-59.9	-58.5	-57.4	-56.4	-55.6	-54.8	-54.2
	+48.0	+46.7	+45.8	+45.1	+44.5	+44.1	+43.6	+43.3	+42.9
28 ft	-65.2	-62.7	-60.8	-59.4	-58.3	-57.3	-56.5	-55.7	-55.0
	+48.7	+47.4	+46.5	+45.8	+45.2	+44.8	+44.3	+44.0	+43.6
30 ft	-66.2	-63.6	-61.7	-60.3	-59.1	-58.1	-57.3	-56.5	-55.8
	+49.4	+48.1	+47.2	+46.5	+45.9	+45.4	+45.0	+44.6	+44.3
32 ft	-67.1	-64.5	-62.6	-61.1	-59.9	-58.9	-58.1	-57.3	-56.6
	+50.1	+48.8	+47.9	+47.1	+46.5	+46.0	+45.6	+45.2	+44.9
34 ft	-68.0	-65.3	-63.4	-61.9	-60.7	-59.7	-58.9	-58.2	-57.3
	+50.8	+49.4	+48.5	+47.7	+47.1	+46.6	+46.2	+45.8	+45.4
36 ft	-68.8	-66.1	-64.2	-62.7	-61.4	-60.4	-59.5	-58.7	-58.0
	+51.4	+50.0	+49.1	+48.3	+47.7	+47.2	+46.7	+46.3	+46.0
38 ft	-69.6	-66.8	-64.9	-63.4	-62.1	-61.1	-60.2	-59.4	-58.7
	+52.0	+50.6	+49.6	+48.9	+48.2	+47.7	+47.3	+46.9	+46.5
40 ft	-70.3	-67.6	-65.6	-64.1	-62.8	-61.8	-60.9	-60.1	-59.3
	+52.5	+51.1	+50.2	+49.4	+48.8	+48.2	+47.8	+47.4	+47.0
42 ft	-71.0	-68.3	-66.3	-64.7	-63.5	-62.4	-61.5	-60.7	-59.9
	+53.1	+51.7	+50.7	+49.9	+49.3	+48.7	+48.3	+47.9	+47.5
44 ft	-71.7	-68.9	-66.9	-65.4	-64.1	-63.0	-62.1	-61.3	-60.5
	+53.6	+52.2	+51.2	+50.4	+49.8	+49.2	+48.8	+48.3	+48.0
46 ft	-72.4	-69.6	-67.5	-66.0	-64.7	-63.6	-62.7	-61.8	-61.1
	+54.1	+52.7	+51.7	+50.9	+50.2	+49.7	+49.2	+48.8	+48.4
48 ft	-73.1	-70.2	-68.2	-66.6	-65.3	-64.2	-63.2	-62.4	-61.7
	+54.6	+53.1	+52.1	+51.3	+50.7	+50.1	+49.7	+49.2	+48.9
50 ft	-73.7	-70.8	-68.7	-67.1	-65.8	-64.7	-63.8	-62.9	-62.2
	+55.0	+53.6	+52.6	+51.8	+51.1	+50.6	+50.1	+49.7	+49.3
52 ft	-74.3	-71.4	-69.3	-67.7	-66.4	-65.3	-64.3	-63.5	-62.7
	+55.5	+54.0	+53.0	+52.2	+51.5	+51.0	+50.5	+50.1	+49.7
54 ft	-74.9	-72.0	-69.9	-68.2	-66.9	-65.8	-64.8	-64.0	-63.2
	+55.9	+54.5	+53.4	+52.6	+52.0	+51.4	+50.9	+50.5	+50.1
56 ft	-75.5	-72.5	-70.4	-68.8	-67.4	-66.2	-65.2	-64.5	-63.7
	+56.4	+54.9	+53.8	+53.0	+52.3	+51.8	+51.3	+50.9	+50.5
60 ft	-76.6	-73.6	-71.4	-69.8	-68.4	-67.3	-66.3	-65.4	-64.6
	+57.2	+55.7	+54.6	+53.8	+53.1	+52.5	+52.0	+51.6	+51.2

INSTRUCTIONS FOR TABLE USE:

1. TABLES ARE INTENDED TO DEPICT THE 'WORST CASE' PRESSURES. 'WORST CASE' IS DEFINED AS THE CRITICAL CONDITION OF ANY UNKNOWN VARIABLE AS DESCRIBED BELOW. USE OF CRITICAL CONDITIONS REQUIRED FOR USE WITH THESE TABLES.
2. FOR SITUATIONS THAT REQUIRE Kd=1.0, TABLE VALUES ARE UNDER-DESIGNED BY A FACTOR OF 1.18. VERIFY Kd REQUIREMENTS WITH LOCAL MUNICIPALITY PRIOR TO TABLE USE.
3. USE OF TABLES VALID ONLY FOR BUILDINGS LESS THAN 60' MEAN ROOF HEIGHT.
4. TABLES VALID FOR ALL ROOF SLOPES. REDUCTIONS FOR ROOF SLOPES LESS THAN 10° SHALL BE PERFORMED BY AN ENGINEER AS A SITE SPECIFIC CONDITION.
5. IDENTIFY THE BUILDING MEAN (AVERAGE) ROOF HEIGHT. IF THE MEAN ROOF HEIGHT CANNOT BE IDENTIFIED, USE THE PEAK ROOF HEIGHT.
6. ALWAYS ROUND UP ROOF HEIGHTS TO NEXT TABLE VALUE OR TO A CONSERVATIVE ASSUMPTION.
7. CALCULATE THE TRIBUTARY AREA OF THE OPENING IN QUESTION (HEIGHT * WIDTH) OR THE SPAN LENGTH (HEIGHT) MULTIPLIED BY AN EFFECTIVE WIDTH THAT NEED NOT BE LESS THAN ONE-THIRD THE SPAN LENGTH (HEIGHT / 3). USE THE AREA BETWEEN STRUCTURAL OPENINGS ONLY- THIS INCLUDES AREAS BETWEEN STRUCTURAL MULLS. IF THE TRIBUTARY AREA OF AN OPENING CANNOT BE IDENTIFIED, THE MOST CRITICAL (10 SQUARE FEET) SHALL BE USED. ALWAYS ROUND TRIBUTARY AREA DOWN TO THE LESSER TABLE VALUE. FOR LARGER TRIBUTARY AREAS THAN PUBLISHED, USE THE LARGEST PUBLISHED VALUE.
8. IDENTIFY THE ZONE OF THE OPENING AS INTERIOR (ZONE 4) OR EXTERIOR (ZONE 5) PER THE FIGURE OR INFORMATION BY OTHERS. ANY QUESTIONABLE OPENING IS TO BE CONSIDERED THE MORE CRITICAL (EXTERIOR) ZONE.
9. READ OFF POSITIVE AND NEGATIVE PRESSURES FOR USE AS REQUIRED BY THE LOCAL MUNICIPALITY IN ACCORDANCE WITH CODE.

GENERAL NOTES:

1. THESE CHARTS ARE NOT VALID AS A SITE-SPECIFIC DRAWING. THESE TABLES ARE ONLY VALID WHEN SIGNED & RAISED SEALED BY FRANK L. BENNARDO, P.E.
2. THIS SPECIFICATION IS INTENDED TO ILLUSTRATE DESIGN WIND PRESSURES AS LISTED. USE OF THESE TABLES AND CORRESPONDING WIND VELOCITY, EXPOSURE, AND OTHER COEFFICIENTS LISTED HEREIN SHALL BE DICTATED AND VERIFIED BY THE GOVERNING BUILDING DEPARTMENT AND PERMIT HOLDER. NO WARRANTY FOR APPLICABILITY OF TABLE VALUE USE IS OFFERED HEREIN.
3. THIS SPECIFICATION IS NOT INTENDED TO OFFER ANY PRODUCT APPROVED CERTIFICATION. REFER TO ANY SEPARATELY SUBMITTED TEST CRITERIA AND OTHER APPROVALS FOR DESIGN & INSTALLATION INFORMATION AND APPLICABILITY OF THESE TABLE VALUES WHICH IS TO BE VERIFIED BY OTHERS IN ACCORDANCE WITH GOVERNING CODES.
4. DESIGN IS BASED ON THE 3 SECOND GUST (WIND VELOCITY) FOR A CATEGORY II (GENERAL RESIDENTIAL & COMMERCIAL CONSTRUCTION) USING AN IMPORTANCE FACTOR I=1.0. THESE TABLES NOT FOR USE WITH ESSENTIAL FACILITIES OR ASSEMBLY OCCUPANCIES. TOPOGRAPHIC FACTOR Kzt=1.0 FOR FLAT TERRAIN USE ONLY. THESE TABLES NOT VALID FOR HILLY TERRAIN. INTERNAL PRESSURE COEFFICIENT (GCpi= +/-0.18) ENCLOSED BUILDING ONLY. VERIFY USE OF Kd=0.85 (DIRECTIONALITY FACTOR) WITH LOCAL BUILDING DEPARTMENT. HVHZ = HIGH VELOCITY HURRICANE ZONE. TABLES ARE FOR WALLS AND VERTICAL SURFACES ONLY.
5. ADHERE TO ALL LOCAL IMPACT PROTECTION SYSTEM ORDINANCES.
6. NO CERTIFICATION IS OFFERED FOR THE INTEGRITY OF THE HOST STRUCTURE.
7. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

a= 10% OF LEAST HORIZONTAL DIMENSION OR 40% OF MRH, WHICHEVER IS SMALLER, BUT NOT LESS THAN 4% OF LEAST HORIZONTAL DIMENSION OR 3FT (1m). USE ZONE 5 IF AT ALL IN QUESTION. CONSULT AN ENGINEER FOR A MORE SPECIFIC INTERPRETATION IF REQUIRED.

1

SKU 5160

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CL	FLB	04/19/06
REVISE FOR 07 FBC	TSB	FLB	02/23/09
-	-	-	-
-	-	-	-
-	-	-	-

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2007 FLORIDA BUILDING CODE
ASCE 7-05, MRH = 0 - 60 FT
DESIGN LOADS FOR
COMPONENTS & CLADDING

ENGINEERING EXPRESS®
160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
PH: (954) 354-0660 FAX: (954) 354-0443
WWW.ENGEXP.COM
CERT OF AUTH #8665

03/02/2009

VALID FOR 1 LOAD ONLY
ALTERATIONS VOID CERTIFICATION

FRANK L. BENNARDO, P.E.
62364 STATE OF FLORIDA

Performance Specification

B. Performance Requirements:

1. Design and size components to withstand the following load requirements without damage or permanent set:
   a. Roof live load: 100 lbf/sq ft.
   b. Positive wind load: 12 lbf/sq ft.
   c. Negative wind load: 12 lbf/sq ft.

SECTION 09 3000

TILING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Tile for wall applications.

1.02 RELATED REQUIREMENTS

A. Section 07 9005 - Joint Sealers.

B. Section 09 2116 - Gypsum Board Assemblies: Installation of tile backer board.

1.03 REFERENCE STANDARDS

A. ANSI A108 Series/A118 Series/A136.1 - American National Standard Specifications for the Installation of Ceramic Tile (Compendium); 2005.

1. ANSI A108.6 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile-Setting and -Grouting Epoxy; 1999 (R2005).
2. ANSI A108.9 - American National Standard Specifications for Installation of Ceramic Tile with Modified Epoxy Emulsion Mortar/Grout; 1999 (R2005).
3. ANSI A108.10 - American National Standard Specifications for Installation of Grout in Tilework; 1999 (R2005).
4. ANSI A118.3 - American National Standard Specifications for Chemical Resistant, Water Cleanable Tile Setting and -Grouting Epoxy and Water Cleanable Tile-Setting Epoxy Adhesive; 1999 (R2005).
5. ANSI A118.4 - American National Standard Specifications for Latex-Portland Cement Mortar; 1999 (R2005).
6. ANSI A118.7 - American National Standard Specifications for Polymer Modified Cement Grouts for Tile Installation; 1999 (R2005).
7. ANSI A137.1 - American National Standard Specifications for Ceramic Tile; 2008.

B. TCA (HB) - Handbook for Ceramic Tile Installation; Tile Council of North America, Inc.; 2007/2008 or latest edition.

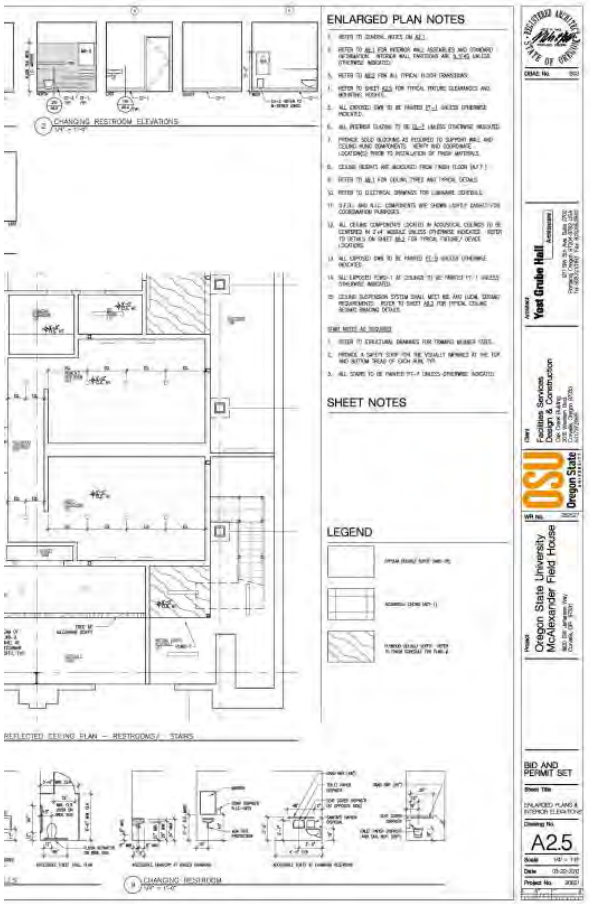
1.04 SUBMITTALS

A. See Section 01 3323 - Shop Drawings, Product Data, Sample Submittals, for submittal procedures.

B. Product Data: Provide manufacturers' data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.

C. Shop Drawings: Indicate tile layout, patterns, color arrangement, perimeter conditions, junctions with dissimilar materials, control and expansion joints, thresholds, and setting details.

D. Samples: Mount tile and apply grout on one plywood panel, minimum 36 x 36 inches in size



Specifications

the other construction document